



RECEIVED

3:12 pm, Nov 01, 2011

Alameda County
Environmental Health

October 28, 2011

Paresh Khatri
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Dear Mr. Khatri:

**Subject: Perjury Statement
Case Closure Request Report**

**Reference: Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606**

PSC Industrial Outsourcing LP, has submitted this report on behalf of Earthgrains Baking Companies, Inc.

I declare to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Respectfully,

PSC INDUSTRIAL OUTSOURCING, LP

A handwritten signature in blue ink that reads "John R. Carrow".

John R. Carrow, P.G.
Senior Geologist

A handwritten signature in black ink that reads "Gary McKinney".

Gary McKinney
Plant Manager
Earthgrains Baking Companies, Inc.



October 31, 2011

Paresh Khatri
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Dear Mr. Khatri:

Subject: Case Closure Request Report

**Reference: Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606
RO #0002569**

On behalf of Earthgrains Baking Companies, Inc., PSC Industrial Outsourcing, LP is submitting this *Case Closure Request Report* for the above-referenced site. This document presents a summary of site history, Site Conceptual Model, a summary of soil and groundwater removal observations, and a revised request for *No Further Action*.

If you have any questions concerning this document, please contact me at (618) 792-2468.

Respectfully,

PSC INDUSTRIAL OUTSOURCING, LP

A handwritten signature in blue ink that reads "John R. Carrow".

John R. Carrow, PG
Senior Project Manager

cc: Gary McKinney - Earthgrains Baking Companies, Inc.

PSC INDUSTRIAL OUTSOURCING, LP

210 West Sand Bank Road
Columbia, Illinois 62236

CASE CLOSURE REQUEST REPORT

**EARTHGRAINS BAKING COMPANIES, INC.
955 Kennedy Street
Oakland, California 94606
RO #0002569**

October 28, 2011

Prepared By:

**PSC INDUSTRIAL OUTSOURCING, LP
210 West Sand Bank Road
Columbia, Illinois 62236-1044**

Project 624-0908-0043



CASE CLOSURE REQUEST REPORT

EARTHGRAINS BAKING COMPANIES, INC.
955 Kennedy Street
Oakland, California 94606

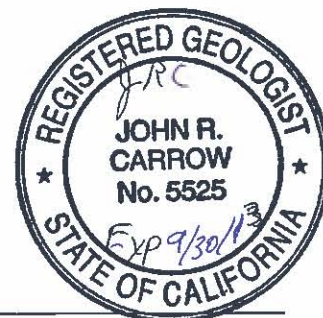
RO #0002569

October 28, 2011

Prepared By:

PSC INDUSTRIAL OUTSOURCING, LP

210 West Sand Bank Road
Columbia, Illinois 62236-1044



John R. Carrow

10/28/11

John R. Carrow, P.G. #5525
Senior Geologist

Date

(Stamp)

TABLE OF CONTENTS

1.0	Introduction and Background	1
1.1	LUFT Case Background.....	2
1.2	Current Activities	2
2.0	Case Closure Justification	3
2.1	Extent and Stability of Contaminants of Concern.....	3
2.2	Effectiveness of Remedial Actions	4
2.3	Impact of Residual COCs on Public Health/Environment	5
2.4	Rationale for Case Closure.....	6

ATTACHMENTS:

TABLES

TABLE 1A	SOURCE AREA SOIL AND GROUNDWATER REMOVAL CONFIRMATION SOIL SAMPLE – ANALYTICAL RESULTS
TABLE 1B	HISTORICAL ANALYTICAL DATA – RESIDUAL CONCENTRATION IN SHALLOW SOIL (<3 METERS) REMAINING AFTER SOURCE AREA REMOVAL
TABLE 1C	REMAINING HISTORICAL ANALYTICAL DATA – RESIDUAL SATURATED DEEP SOIL (>3 METERS) REMAINING AFTER SOURCE AREA REMOVAL
TABLE 2A	HISTORICAL MONITORING WELL CONSTRUCTION DATA
TABLE 2B	HISTORICAL GROUNDWATER ELEVATION DATA
TABLE 2C	HISTORICAL ANALYTICAL DATA - GROUNDWATER WELL SAMPLES
TABLE 2D	GROUNDWATER ANALYTICAL DATA – POLY-NUCLEAR AROMATIC HYDROCARBONS
TABLE 3A	REVISED ESTIMATE OF RESIDUAL TPH-D IN SOIL – PRE SOURCE REMOVAL
TABLE 3B	ESTIMATE OF TPH-D IN SOIL REMOVED
TABLE 3C	REVISED ESTIMATE OF RESIDUAL TPH-D IN SOIL – POST SOURCE AREA REMOVAL
TABLE 4	ESTIMATE OF RESIDUAL TPH-D IN GROUNDWATER – POST SOURCE AREA REMOVAL

TABLE 5 INPUT DATA FOR ESTIMATES OF CONTAMINANT MASS IN SOIL AND GROUNDWATER BASED ON SOIL SAMPLES COLLECTED FROM 2006 THROUGH 2010

FIGURES

SITE LOCATION MAP, FIGURE 1

SITE MAP SHOWING SUBSURFACE UTILITIES – PRIOR TO SOURCE AREA REMOVAL, FIGURE 2 FROM THE 2011 CACR

HISTORICAL SOIL SAMPLING LOCATION MAP, FIGURE 3 FROM THE 2011 CACR

SOURCE AREA REMOVAL – VERIFICATION AND CONFIRMATION SOIL SAMPLE LOCATIONS FROM THE 2011 CACR, FIGURE 4 FROM THE 2011 CACR

SOURCE AREA REMOVAL CROSS-SECTION AA-AA', FIGURE 5 FROM THE 2011 CACR

SOURCE AREA REMOVAL CROSS-SECTION BB – BB', FIGURE 6 FROM THE 2011 CACR

SOURCE AREA REMOVAL CROSS-SECTION CC - CC', FIGURE 7 FROM THE 2011 CACR

SOURCE AREA REMOVAL – AS-BUILT DRAWING, FIGURE 8 FROM THE 2011 CACR

RESIDUAL TPH-D IN SOIL – AFTER SOURCE AREA REMOVAL, FIGURE 9 FROM THE 2011 CACR

GROUNDWATER ELEVATION CONTOUR MAP – AUGUST 24, 2010, FIGURE 10A FROM THE 2011 CACR

GROUNDWATER ELEVATION CONTOUR MAP – DECEMBER 10, 2010, FIGURE 10B FROM THE 2011 CACR

GROUNDWATER ELEVATION CONTOUR MAP – FEBRUARY 02, 2011, FIGURE 10C FROM THE 2011 CACR

GROUNDWATER ELEVATION CONTOUR MAP – JULY 26, 2011, FIGURE 3 FROM THE SECOND 2011 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

TPH-D IN GROUNDWATER CONCENTRATION MAP – PRE AND POST SOURCE AREA REMOVAL, FIGURE 11 NEW DRAWING

SITE MAP SHOWING TPH-D IN SOIL, FIGURE 7 FROM THE 2007 REMEDIAL INVESTIGATION REPORT / SOURCE REMOVAL WORK PLAN

SITE MAP SHOWING TPH-D IN GROUNDWATER, FIGURE 8 FROM THE 2007 REMEDIAL INVESTIGATION REPORT / SOURCE REMOVAL WORK PLAN (GROUNDWATER GRAB SAMPLES)

APPENDICES

APPENDIX A SITE BACKGROUND AND UPDATED CONCEPTUAL SITE MODEL

APPENDIX B PSC July 22, 2011 DIRECTIVE APPEAL LETTER

Site Location

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606
Alameda County
Township 2 South, Range 3 West, Section 7 of the Mount Diablo Baseline and Meridian

Responsible Party

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606
Gary McKinney
Plant Manager
(510) 436-5350
gary.mckinney@saralee.com

Environmental Consultant

PSC Industrial Outsourcing, LP
210 West Sand Bank Road
Columbia, Illinois 62236
John Carrow, P.G. #5525
Senior Geologist
(618) 281-1450
jcarrow@pscnow.com

Regulatory Agency

Alameda County Department of Environmental Health (ACDEH)
Local Oversight Program
1131 Harbor Bay Parkway
Alameda, California 94502-6577
Paresh Khatri
Hazardous Materials Specialist
(510) 337-9335
paresh.khatri@acgov.org

1.0 INTRODUCTION AND BACKGROUND

On behalf of Earthgrains Baking Companies, Inc. (Earthgrains), PSC Industrial Outsourcing, LP (PSC) has prepared this *Case Closure Request Report* for the Earthgrains Leaking Underground Fuel Tank (LUFT) site located at 955 Kennedy Street in Oakland, California (Site). The Site location is shown on Figure 1. This report has been prepared in accordance with guidance from the California State Water Resources Control Board (SWRCB).

PSC submitted the *Corrective Action Completion Report, Source Area Soil and Groundwater Removal* (CACR) to Alameda County Environmental Health Department (ACEH) on April 19, 2011. PSC requested case closure based on the results of the source removal activities. After review of the report, ACEH requested that additional wells be installed for post source area removal monitoring. This directive was presented to Earthgrains in a June 2, 2011 letter summarizing their review. ACEH's rationale for the request was that the existing four groundwater monitoring wells had screen intervals that were installed below a shallow permeable layer observed in the source area excavation. ACEH required a due date of July 23, 2011 for a plan to install additional groundwater monitoring wells.

PSC and Earthgrains accepted the ACEH directive for post source-area removal groundwater-monitoring and is continuing to collect groundwater samples from the four existing wells. However, PSC and Earthgrains disagree that the installation of additional wells are warranted. In accordance with San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) policy and guidance for dispute resolution, PSC and Earthgrains appealed this directive in a letter to ACEH and SFBRWQCB on July 20, 2011. PSC's rationale for this dispute and appeal was based on the following observations:

- The permeable zone observed in the excavation is not laterally continuous across the site.
- Free phased petroleum product has not been observed in any of the monitoring wells currently installed or in the de-watering well installed for the source area excavation.
- Groundwater in the shallow permeable zone is hydraulically connected to the permeable zone encountered in the screened interval of the surrounding monitoring wells and is representative of shallow groundwater quality beneath the site.

A conference call/meeting between ACEH, Earthgrains, and PSC took place on September 1, 2011. During that meeting, ACEH requested that two additional wells with screen intervals above the 10-foot bgs depth be installed north and south of MW-102 on the western or down gradient side of the source-area excavation. PSC and Earthgrains discussed this requested scope of work and decided to continue with the dispute resolution process.

PSC consulted with George Lockwood of the State Water Resources Control Board (SWRCB). In accordance with their SWRCB policy on petitions for case closure, Earthgrains must request and be denied case closure from ACEH and SFBRWQCB. PSC had made this request in two reports submitted prior to source-area soil and groundwater removal. PSC made the request again in the CACR. Thus, in accordance with

recommendations from SWRCB that the case closure request be submitted in a separate report, PSC is submitting this *Case Closure Request Report*. This case closure request is being written in lieu of a work plan requested in the directive from the ACEH staff.

1.1 LUFT Case Background

Earthgrains installed and operated eight UST systems at the Site from 1967 to 2005 for fleet operations and back-up oven fuel storage. Historic subsurface investigations and corrective actions were performed from 1989 through 1996 for an unauthorized diesel UST system release at the Site. Earthgrains obtained case closure in April 1996 after performing a Tier 1 Risk Assessment in accordance with the American Society of Testing and Materials (ASTM), Emergency Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites ES 38-94.

Earthgrains reported an additional unauthorized diesel UST system release at the Site in 2003 following the discovery of petroleum hydrocarbons during product piping modifications at a diesel pump island. Since the Tier 1 Risk Assessment report indicated that residual petroleum hydrocarbons remained in soil near the 2003 diesel UST system release area, corrective action for the additional unauthorized release of diesel fuel was conducted under the original California UST Fund application and letter of commitment.

Investigation and corrective action since 2005 has been conducted under RO#0002569. PSC and subcontractors have performed numerous investigations and a source area removal corrective action at the Site during this period. The investigations have included over 55 soil borings, 275 soil samples, and 52 groundwater grab samples. Four additional groundwater monitoring wells and one groundwater de-watering well were installed and numerous groundwater-sampling events have been completed. PSC also prepared and submitted a *Tier 1 Risk Assessment and No Further Action Request Report* on September 17, 2009. A more detailed description of the Site background, as well as an updated Site Conceptual Model is presented in Appendix A. Site figures generated during previous site investigations and corrective actions are presented with this report. Historical soil and groundwater data from previous investigations and corrective actions are presented in Tables 1 through 5. All previously submitted reports are available for review on GeoTracker and from the ACEH ftp website.

1.2 Current Activities

PSC collected post source-area removal groundwater samples from the four groundwater monitoring wells, MW-101 through MW-104, that surround the excavation. Post source removal concentrations of TPH-d in groundwater have been only slightly lower than pre-source removal samples. These levels are below the Commercial ESL of 210 µg/L. PSC and Earthgrains appeal of the ACEH June 2, 2011 directive, including the letter from ACEH is included as Appendix B.

2.0 CASE CLOSURE JUSTIFICATION

As previously mentioned, PSC and their subcontractors have drilled over 55 soil borings, collected 275 soil samples, and 52 grab groundwater samples. Four additional groundwater monitoring wells and one groundwater de-watering well have been installed and numerous groundwater-sampling events have been completed. Investigations performed indicate that subsurface soils at the Site consist of silt and clay to a depth of approximately 20 feet bgs, where a sand and gravel layer is encountered. Layers of sand, gravel, and silty sand are encountered at approximately 10 feet bgs in some borings on Site. Based on the numerous soil borings and excavations drilled across the Site, this layer does not appear to be laterally continuous. Groundwater in the more laterally continuous permeable layers encountered at 20 feet bgs appear to be under semi-confined conditions. Water encountered in the gravel backfill material of the former shared diesel UST excavation and the shallower permeable zone near the source area appears to recharge groundwater in permeable layers encountered below 20 feet.

2.1 Extent and Stability of Contaminants of Concern

The extent of petroleum hydrocarbon concentrations in soil and groundwater beneath the Site was presented in the *Tier 1 Risk Assessment and No Further Action Request Report*, dated September 17, 2009. This report was prepared in accordance with *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, SFBRWQCB, revised May 2008. Based upon comparisons of the 275 soil samples collected, an area of approximately 7,950 ft² may be impacted with residual petroleum hydrocarbons above the residential ESL.

Approximately 800 ft² of this area exceeded the commercial gross contamination ESL and defined the primary source area around the dispenser island with an additional 150 ft² located beneath King Street. This area around E-49 was later revised to 50 ft². Soil concentrations beneath King Street appear to be isolated and may be the result of contamination migrating off site via subsurface utilities. Historical soil sample locations are shown on Figure 3 from the CACR (attached). Analytical results for historical soil samples are summarized on Tables 1C, 1D, and 1E from the CACR.

Approximately 7,950-ft² area exceeded the final ESL for soil leaching to groundwater at the Site. However, a comparison of groundwater grab samples and previous groundwater investigations with the levels exceeding the ESL for leaching indicate the contaminated soil is not leaching to groundwater at a significant rate. Groundwater is encountered in semi-confined conditions at a depth of approximately 10 feet bgs in the source area and 20 feet bgs over most of the Site. The rise in water levels after encountering the permeable zone at the Site indicates an upward vertical gradient on groundwater. A total thickness of 20 feet for groundwater was used for the mass estimates.

Figure 7 from the 2007 *Remedial Investigation Report, Source Area Removal Work Plan* (attached) shows historical soil TPH-d concentrations.

TPH-d groundwater contamination was delineated based on the results of 52 groundwater grab samples. Groundwater grab samples were collected from open boreholes during historic Site investigations are not representative of groundwater quality and could have residual petroleum hydrocarbons in suspended sediments. Based on this opinion, concentrations of TPH-d in groundwater grab samples were not included in the ESL comparisons. However, these groundwater grab samples were used to estimate the area where residual hydrocarbons are found. The results of this delineation was presented on Figure 8 (attached), of the *Remedial Investigation Report and Source Removal Work Plan*, dated May 17, 2007 prepared by PSC's subcontractor, ETIC Engineering, Inc.

2.2 Effectiveness of Remedial Actions

PSC removed soil and groundwater in the source area around the dispenser island in October and November 2010. This work was completed at the request by ACEH and in accordance with the ACEH approved *Remedial Investigation Report and Source Removal Work Plan* (Work Plan). The Work Plan included an expanded source area of approximately 1,800-ft² to account for areas where previous soil sampling was limited. The Work Plan source area removal also included dewatering activities, the removal of the former Truck Wash Building, the settling tank, and the utilities supplying the building. The approved post closure groundwater monitoring presented in the plan consisted of collecting and analyzing samples from the existing groundwater monitoring wells MW-101 through MW-104.

PSC removed source area soil and groundwater from August through November 2010. The source area removal included excavating diesel-contaminated soil in an approximate 1,800-ft² area around the former dispenser island to a depth of 12 to 16 feet bgs. Observations in the field expanded the excavation slightly. A total of 1,224 tons of contaminated soil and 13,000 gallons of contaminated water were removed from the excavation. The 1,224 tons were excavated with a volume of 20,500 cubic feet or 755 cubic yards. This results in a bulk density of 120 pounds per cubic foot. PSC used this bulk density and the average concentration of samples collected within the source area to estimate the mass of TPH-d removed during source removal at 1,552 Kg. PSC also used this estimated bulk density in calculating revised estimates of residual mass presented in Section 2.3.

As previously mentioned, a shallow permeable zone was encountered at approximately 10 feet bgs. Confirmation soil samples were collected around the perimeter of the excavation at the depth near the shallow permeable zone. Only three of the 17 confirmation soil samples had detectable concentrations of TPH-d. These three samples had concentrations below the SFBRWQCB leaching to groundwater Environmental Screening Levels (ESL)s. The excavation was backfilled and resurfaced with reinforced concrete pavement. Source removal verification and confirmation sample locations are shown on Figure 4 from the CACR (attached). Cross sections of the source removal area are presented on Figures 5, 6, and 7 from the CACR (attached). Verification and confirmation soil sample analytical results are summarized on Tables 1A, 1B, and 1C. Larger cross sections of the entire Site were included in the appeal letter and are included in Appendix B

PSC has collected post source-removal groundwater samples during three separate events. TPH-d concentrations in groundwater samples from MW-101 through MW-104 have not exceeded the ESL of 210 µg/L. Based on groundwater samples collected since source area removal, contaminant concentrations in wells surrounding the area are stable ranging from 50 to 160 µg/L. PSC anticipates that these groundwater concentrations will continue to decrease considering the contaminant mass removed from the source area. Groundwater level measurements and elevations for recent groundwater monitoring events are presented on Figures 10A, 10B, and 10C from the CACR and Figure 3 (amended) from the *Second Semi-Annual Groundwater Monitoring Report*, August 31, 2011. Analytical results from pre and post source-area-removal groundwater monitoring events, including the most recent July 26, 2011 results are presented on new Figure 11 attached.

PSC submitted the *Corrective Action Completion Report, Source Area Soil and Groundwater Removal* on April 19, 2011. The conclusions of this report were that Earthgrains had complied with ACEH directives and the contamination in the source area soil and groundwater were removed in accordance with the approved Work Plan and Feasibility Study / Corrective Action Plan (FS/CAP). Based on the estimated mass of contamination in soil removed, the source area removal was effective as a corrective action. Based on the pre-source-removal groundwater contaminant concentrations compared to post-source-removal concentrations, source removal was only marginally effective. However, PSC stated in numerous documents that pre-source removal concentrations were stable and pose a low threat to human health or the environment.

2.3 Impact of Residual COCs on Public Health/Environment

PSC compared historic shallow and deep soil sample analytical data to the ESLs for shallow and deep soil for residential and commercial/industrial properties where groundwater is not a current or potential drinking water resource. PSC originally estimated the extent of residual petroleum hydrocarbons in soil (pre-source removal) above residential ESLs to be an area of approximately 7,600 ft² near the former diesel pump island and shared diesel UST excavation. This area extends west into King Street. PSC estimated a second area of approximately 600 ft² near the former 350-gallon waste oil UST excavation located near the southwest corner of the former Truck Maintenance Garage. Using a thickness of 17 feet and average concentrations of samples exceeding the ESLs, PSC estimated approximately 5,782 Kg of TPH-d in soil. Summaries of these comparisons are presented in the *Tier 1 Risk Assessment and Request for Closure*, dated September 17, 2009.

PSC revised the (pre-source area removal) estimates of residual diesel fuel based on bulk densities calculated after removal, observations made during removal, and by including non-detectable concentrations in the areas of residual impact. The revised pre-source removal estimate of 3,382 Kg was based on all samples collected in three areas including a small area (50 ft²) around boring E-49, a medium sized area around the former Truck Maintenance Garage (1,500 ft²), and a large area around the diesel fuel dispenser island stretching out into King Street (6,400 ft²). This revised mass estimate is presented in Table 3A.

The source area soil was removed and the PSC calculated the mass of TPH-d removed during the source area removal using the unit weight of soil calculated by weigh tickets and the dimensions of the excavation together with the concentrations of all soil samples collected in the mass removed. This resulted in approximately 1,552 Kg of TPH-d removed. This mass estimate is presented in Table 3B of the CACR (attached).

The area of residual hydrocarbons in the three areas (post-source area removal) was then calculated using the three areas and subtracting the volume of source area soil removed. This resulted in an estimate of only 748 Kg of TPH-d. These three estimates do not balance out due to the significant reduction in the average concentrations used. PSC believes a good estimate of residual TPH-d is a range of between 748 kg and 1,800 kg of TPH-d. The post source removal mass estimate is presented on Table 3C of the CACR. Input parameters for estimates of residual TPH-d are presented in Table 5 of the CACR (attached).

PSC originally used groundwater samples from a single groundwater-monitoring event. Based on the opinion that residual hydrocarbons may be remaining near areas where grab samples were collected, the area of impact was estimated in a larger area. Groundwater is encountered in semi-confined conditions at a depth of approximately 10 feet bgs in the source area and 20 feet bgs over most of the Site. A total thickness of 20 feet for groundwater was used for the mass estimates. Average concentrations in the wells in these areas were used. This resulted in an estimate of 0.55 Kg of residual TPH-d in groundwater.

The groundwater analytical data from the post source-area removal indicates that TPH-d concentrations in groundwater samples from the monitoring wells were below the ESL of 210 µg/L for sites where groundwater is not a current or potential drinking water resource. Concentrations of BTEX or PAHs were not detected in any groundwater samples analyzed from the semi-annual groundwater-monitoring events.

2.4 Rationale for Case Closure

Based upon data obtained from the source area removal, soil and groundwater data obtained from subsurface investigations performed at the Site, and the assessment of risk to potential sensitive receptors, both PSC and Earthgrains believe that no further corrective action is necessary for the unauthorized release of petroleum hydrocarbons at the Site. Therefore, PSC and Earthgrains request final case closure for the unauthorized release of diesel fuel at 955 Kennedy Street in Oakland, California. This request is based on the following observed conditions.

- The Site is located on a commercial/industrial property and given its close proximity to Interstate 880 and San Francisco Bay, will remain as a commercial/industrial property.
- All petroleum equipment has been removed from the Site.
- Source removal by excavation has been completed at the Site.

- The Site and surrounding vicinity are covered with either pavement or structures that limit the direct exposure of industrial and/or commercial workers to residual petroleum hydrocarbons in soil and groundwater.
- The site has been adequately characterized by over 55 soil borings, probeholes, and groundwater monitoring wells.
- Soil vapor intrusion will not occur because of the non-volatile nature of diesel fuel, silt and clay soil, no basement, and the elevated first floor slab of the plant.
- Residual TPH-d concentrations in soil are similar to TPH-d concentrations remaining from the 1996 environmental case closure.
- Direct exposure to TPH-d by industrial workers is not probable due to the depth of contamination and concrete or asphalt cover.
- Direct exposure to TPH-d by construction workers is limited to deep trench work (>10 feet).
- Groundwater is not suitable for a drinking water resource.
- BTEX have only been detected at trace levels on a few occasions since 1989 and PNAs have never been detected in groundwater.
- Diesel fuel contamination has not migrated significantly from the Site.
- Groundwater impact in the aquifer does not exceed the commercial industrial ESL for sites where groundwater is not a current or potential drinking water resource.
- Post source removal concentrations of TPH-d in groundwater indicate residual TPH-d in a range of 50 to 160 µg/L in the four wells surrounding the source area, below the Commercial ESL of 210 µg/L.
- Migration to surface water of TPH-d is not probable based on the silty clay soils and the length of any potential migration pathway.

ACEH has agreed that no further corrective action is required at the Site with the exception of the two additional wells. PSC and Earthgrains opinion that the additional wells are unnecessary is based on reasons listed in Section 1. PSC feels that installation of additional wells screened from 9 to 19 feet bgs north and south of MW-102 may or may not produce water of sufficient quantity for well development, adequate purging, or sample collection. Therefore, PSC and Earthgrains formally request that ACEH and SFBRWQCB grant the Earthgrains Bakery at 955 Kennedy Avenue, RO # 0002569 case closure without the installation of additional wells.

TABLES

Table 1A
Source Area Soil and Groundwater Removal
Confirmation Soil Sample - Analytical Results

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-d	Naphthalene
Leaching to Groundwater ESL			2.0	9.3	4.7	11	180	4.7
Direct Exposure (Industrial Worker) ESL			0.27	210	5.0	100	450	210
Gross Contamination Ceiling ESL <3M			870	650	400	420	500	400
Gross Contamination Ceiling ESL >3M			870	650	400	420	5,000	400
Final ESL for Soil			0.27	9.3	4.7	11	180	4.7
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)					
SR-CS-01	10/20/10	11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-02	10/19/10	11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	60	< 0.0050
SR-CS-03	10/19/10	11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	50	< 0.0050
SR-CS-04	10/19/10	11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	150	< 0.0050
SR-CS-05	10/27/10	15	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-06	10/27/10	15	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-07	10/27/10	15	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-08	10/27/10	15	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-09	10/26/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-10	10/26/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-11	10/25/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-12	10/25/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-13	10/25/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-14	10/22/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-15	10/22/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-16	10/22/10	16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050
SR-CS-17	10/20/10	11	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 1.0	< 0.0050

Notes:

mg/kg - Milligrams-per-kilogram
MTBE - Methyl Tertiary Butyl Ether.
TPH-g - Total Petroleum Hydrocarbons quantified as gasoline.
TPH-d - Total Petroleum Hydrocarbons quantified as diesel.
TPH-mo - Total Petroleum Hydrocarbons quantified as motor oil.

NA - Not Analyzed.

ESL - SFBROWCB Environmental Screening Levels, (May 2008)

 Reported value exceeds associated ESL.

Table 1B
Historical Analytical Data
Residual Concentration in Shallow Soil (<3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-
Direct Exposure (Industrial Worker) ESL			0.27	210	5.0	100	65	450	450	3,700
Gross Contamination Ceiling ESL <3M			870	650	400	420	500	500	500	2,500
Final ESL for Soil			0.27	9.3	4.7	11	8.4	180	180	2,500
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)							
MW-1	08/27/1992	10	<0.005	<0.005	<0.005	<0.005	NA	NA	560	<10
MW-2	08/27/1992	5	<0.005	<0.005	<0.005	<0.005	NA	<0.5	NA	NA
MW-2	08/27/1992	10	<0.005	<0.005	<0.005	<0.005	NA	NA	83	<10
Trench-1	03/08/2005	4	<0.005	<0.005	<0.005	<0.005	<0.010	<1.0	<1.0	NA
Trench-2	03/08/2005	4	<0.005	<0.005	<0.005	<0.005	<0.010	<1.0	<1.0	NA
Trench-3	03/08/2005	4	<0.005	<0.005	<0.005	<0.005	<0.010	<1.0	<1.0	NA
E1	09/15/2006	4.5	<0.005	<0.005	<0.005	<0.005	<0.005	4.0	17	NA
E1	09/15/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E2	09/15/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E3	09/22/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.8	NA
E3	09/22/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.0	NA
E4	09/12/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	5.6	NA
E5	09/12/2006	5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.7	NA
E5	09/12/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E6	09/12/2006	5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.7	NA
E6	09/12/2006	9	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	32	NA
E6	09/12/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	4.1	NA
E7	09/12/2006	2.5	<0.005	<0.005	<0.005	<0.005	<0.005	2.6	73	NA
E7	09/15/2006	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.6	NA
E7	09/15/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.4	NA
E8	09/12/2006	5.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.3	NA
E8	09/12/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E11	09/12/2006	5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E12	09/12/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.5	NA
E13	09/15/2006	5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.1	NA
E13	09/15/2006	8	NA	NA	NA	NA	NA	NA	<1.0	NA
E14	09/15/2006	4.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.3	NA
E14	09/15/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E15	09/21/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E15	09/21/2006	8.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA
E17	09/21/2006	8	NA	NA	NA	NA	NA	NA	1.6	NA
E23	09/22/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	3.6	NA
E24	09/22/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.5	NA
E24	09/22/2006	8.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.1	NA
E25	09/13/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	23	NA
E27	09/13/2006	5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.2	NA
E27	09/13/2006	8.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.2	NA
E28	09/11/2006	4.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	76	NA

Table 1B
Historical Analytical Data
Residual Concentration in Shallow Soil (<3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-
Direct Exposure (Industrial Worker) ESL			0.27	210	5.0	100	65	450	450	3,700
Gross Contamination Ceiling ESL <3M			870	650	400	420	500	500	500	2,500
Final ESL for Soil			0.27	9.3	4.7	11	8.4	180	180	2,500
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)							
E30	09/11/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	3.8	NA
E30	09/11/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E32	09/13/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.3	NA
E32	09/13/2006	8.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E34	09/13/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.1	NA
E34	09/13/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E37	09/13/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.4	NA
E37	09/13/2006	9.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.5	NA
E38	09/13/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E38	09/13/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E39	09/13/2006	4	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.3	NA
E39	09/13/2006	9.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	3.5	NA
E40	09/13/2006	4.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA
E40	09/13/2006	8	<0.005	<0.005	<0.005	<0.005	<0.005	NA	2.8	NA
E40	09/13/2006	10	<0.005	<0.005	<0.005	<0.005	<0.005	NA	190	NA
E41	03/28/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	4.5	19
E41	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	33	180
E42	03/29/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.6	< 10
E42	03/29/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	17	15
E43	03/29/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	8.8	29
E43	03/29/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	7.2	23
E44	03/28/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	5.6	20
E44	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10
E45	03/29/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	19	92
E45	03/29/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	1.4	350	< 10
E46	03/29/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.7	< 10
E46	03/29/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	29	1,800	< 10
E47	03/28/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	80	NA
E47	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	27	NA
E48	03/28/2007	4	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	2.5	NA
E48	03/28/2007	9	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	2.4	NA
E49	03/29/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	26	NA
E49	03/29/2007	8.5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	560	NA
E49	03/29/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	100	NA
E50	03/28/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	65	NA
E50	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	100	NA
E51	03/28/2007	5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	24	NA
E51	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	390	NA
E52	03/28/2007	5.5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.4	NA
E52	03/28/2007	10	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	3.4	NA

Table 1B
Historical Analytical Data
Residual Concentration in Shallow Soil (<3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-
Direct Exposure (Industrial Worker) ESL			0.27	210	5.0	100	65	450	450	3,700
Gross Contamination Ceiling ESL <3M			870	650	400	420	500	500	500	2,500
Final ESL for Soil			0.27	9.3	4.7	11	8.4	180	180	2,500
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)							
MW-101 (5-6.5)	01/19/2009	5 - 6.5	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-101 (8.5-10)	01/19/2009	8.5 - 10	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-102 (5-6.5)	01/20/2009	5 - 6.5	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-102 (8.5-10)	01/20/2009	8.5 - 10	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-103 (5-6.5)	01/19/2009	5 - 6.5	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-103 (8.5-10)	01/19/2009	8.5 - 10	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-104 (5-6.5)	01/20/2009	5 - 6.5	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 1.0	NA
MW-104 (8.5-10)	01/20/2009	8.5 - 10	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	370	NA

Notes:

mg/kg - Milligrams-per-kilogram
MTBE - Methyl Tertiary Butyl Ether.
TPH-g - Total Petroleum Hydrocarbons quantified as gasoline.
TPH-d - Total Petroleum Hydrocarbons quantified as diesel.
TPH-mo - Total Petroleum Hydrocarbons quantified as motor oil.

NA - Not Analyzed.

ESL - SFBWQCB Environmental Screening Levels, Table B-2 (May 2008)

Reported value exceeds associated ESL.

Table 1C
Remaining Historical Analytical Data
Residual Saturated Deep Soil (>3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo	Naphthalene
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-	4.7
Direct Exposure (Const. Worker Trench) ESL			12	650	210	420	2,800	4,200	4,200	12,000	210
Gross Contamination Ceiling ESL >3M			870	650	400	420	1,000	5,000	5,000	5,000	400
Final ESL for Soil			2.0	9.3	4.7	11	8.4	180	180	5,000	4.7
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)								
AA-1602 (Tank 2N)	10/12/1989	14 - 16	<0.05	<0.1	<0.1	<0.3	NA	NA	<10	NA	NA
AA-1601 (Tank 2S)	10/12/1989	14 - 16	<0.05	<0.1	<0.1	<0.3	NA	NA	<10	NA	NA
AA-1599 (Tank 3S)	10/12/1989	14 - 16	<0.05	<0.1	<0.1	<0.3	NA	NA	<10	NA	NA
AA-1597 (Tank 4S)	10/12/1989	14 - 16	<0.05	<0.1	<0.1	<0.3	NA	NA	<10	NA	NA
MW-1	08/27/1992	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<10	<10	NA
MW-2	08/27/1992	12	<0.005	<0.005	<0.005	<0.005	NA	<0.5	NA	NA	NA
MW-2	08/27/1992	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<10	<10	NA
MW-2	08/27/1992	17	<0.005	<0.005	<0.005	<0.005	NA	1.3	NA	NA	NA
MW-2	08/27/1992	20	<0.005	<0.005	<0.005	<0.005	NA	<0.5	NA	NA	NA
MW-2	08/27/1992	25	<0.005	<0.005	<0.005	<0.005	NA	<0.5	NA	NA	NA
MW-2	08/27/1992	28	<0.005	<0.005	<0.005	<0.005	NA	<0.5	NA	NA	NA
MW-3	08/26/1992	20	<0.005	<0.005	<0.005	<0.005	NA	4.0	<10	<10	NA
MW-4	08/27/1992	21	<0.005	<0.005	<0.005	<0.005	NA	<0.5	<10	<10	NA
MW-5	08/26/1992	20	<0.005	<0.005	<0.005	<0.005	NA	<0.5	<10	<10	NA
E1	09/15/2006	11.5	<0.005	<0.005	<0.005	<0.005	<0.005	3.5	710	NA	NA
E1	09/15/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	5.8	NA	NA
E1	09/15/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	5.2	NA	NA
E2	09/15/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	8.0	860	NA	NA
E2	09/15/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.7	NA	NA
E3	09/22/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E3	09/22/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E3	09/22/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E5	09/12/2006	15	<0.005	<0.005	<0.005	<0.005	0.017	<1.0	<1.0	NA	NA
E5	09/12/2006	20	<0.005	<0.005	<0.005	<0.005	0.020	<1.0	<1.0	NA	NA
E7	09/15/2006	12	NA	NA	NA	NA	NA	NA	<1.0	NA	NA
E7	09/15/2006	16	NA	NA	NA	NA	NA	NA	<1.0	NA	NA
E8	09/12/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E8	09/12/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E9	09/21/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.3	NA	NA
E9	09/21/2006	24	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E9	09/21/2006	28	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E10	09/21/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E10	09/21/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E10	09/21/2006	24	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E10	09/21/2006	27.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E10	09/21/2006	32	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E11	09/12/2006	10.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E11	09/12/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E11	09/12/2006	20	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E13	09/15/2006	12	NA	NA	NA	NA	NA	NA	<1.0	NA	NA
E13	09/15/2006	18.5	NA	NA	NA	NA	NA	NA	<1.0	NA	NA
E14	09/15/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E15	09/21/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E15	09/21/2006	19	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E16	09/12/2006	10.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E17	09/21/2006	12	NA	NA	NA	NA	NA	NA	<1.0	NA	NA
E17	09/21/2006	19	NA	NA	NA	NA	NA	NA	1.5	NA	NA
E19	09/15/2006	14.5	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E23	09/22/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.1	NA	NA
E23	09/22/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	<1.0	NA	NA
E24	09/22/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.6	NA	NA
E26	09/21/2006	19	<0.005	<0.005	<0.005	<0.005	<0.005	<1.0	1.2	<10	NA
E30	09/11/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E30	09/11/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E34	09/13/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	NA	19	NA	NA
E34	09/13/2006	19	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E35	09/11/2006	18	<0.005	<0.005	<0.005	<0.005	<0.005	NA	35	NA	NA
E35	09/11/2006	21	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.2	NA	NA
E37	09/13/2006	12.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	410	NA	NA
E37	09/13/2006	15	<0.005	<0.005	<0.005	<0.005	<0.005	NA	2.4	NA	NA

Table 1C
Remaining Historical Analytical Data
Residual Saturated Deep Soil (>3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo	Naphthalene
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-	4.7
Direct Exposure (Const. Worker Trench) ESL			12	650	210	420	2,800	4,200	4,200	12,000	210
Gross Contamination Ceiling ESL >3M			870	650	400	420	1,000	5,000	5,000	5,000	400
Final ESL for Soil			2.0	9.3	4.7	11	8.4	180	180	5,000	4.7
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)								
E38	09/13/2006	11	<0.005	<0.005	<0.005	<0.005	<0.005	NA	420	NA	NA
E38	09/13/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	NA	140	NA	NA
E38	09/13/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	NA	1.0	NA	NA
E38	09/13/2006	19	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E39	09/13/2006	12.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	37	NA	NA
E39	09/13/2006	17.5	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E40	09/13/2006	12	<0.005	<0.005	<0.005	<0.005	<0.005	NA	18	NA	NA
E40	09/13/2006	16	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<1.0	NA	NA
E41	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.7	< 10	NA
E41	03/28/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E41	03/28/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E42	03/29/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.3	< 10	NA
E42	03/29/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E42	03/29/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.2	< 10	NA
E43	03/29/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	2.5	< 10	NA
E43	03/29/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E43	03/29/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E44	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E44	03/28/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E44	03/28/2007	24	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E45	03/29/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.8	< 10	NA
E45	03/29/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E45	03/29/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E45	03/29/2007	28	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E46	03/29/2007	12	<0.005	<0.005	<0.005	<0.005	<0.005	21	180	< 10	NA
E46	03/29/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	1.2	< 10	NA
E46	03/29/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E46	03/29/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E46	03/29/2007	28	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	< 10	NA
E47	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	10	NA	NA
E48	03/28/2007	12.5	<0.005	<0.005	<0.005	<0.005	<0.005	2.1	320	NA	NA
E48	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	1.0	130	NA	NA
E48	03/28/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E48	03/28/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E49	03/29/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	14	NA	NA
E49	03/29/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E49	03/29/2007	25	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E49	03/29/2007	28	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E50	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	3.0	NA	NA
E51	03/28/2007	15	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E51	03/28/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
E52	03/28/2007	12.5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	220	NA	NA
E52	03/28/2007	15.5	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	180	NA	NA
E52	03/28/2007	20	<0.005	<0.005	<0.005	<0.005	<0.005	< 1.0	< 1.0	NA	NA
MW-101 (13.5-15')	01/19/2009	13.5 - 15	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-101 (18.5-20')	01/19/2009	18.5 - 20	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-101 (23.5-25')	01/19/2009	23.5 - 25	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-101 (26.5-28')	01/19/2009	26.5 - 28	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-102 (13.5-15')	01/20/2009	13.5 - 15	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-102 (18.5-20')	01/20/2009	18.5 - 20	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-102 (23.5-25')	01/20/2009	23.5 - 25	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-102 (26.5-28')	01/20/2009	26.5 - 28	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-103 (18.5-20')	01/19/2009	18.5 - 20	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-103 (23.5-25')	01/19/2009	23.5 - 25	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-104 (13.5-15')	01/20/2009	13.5 - 15	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
MW-104 (18.5-20')	01/20/2009	18.5 - 20	<0.005	<0.005	<0.005	<0.005	NA	NA	< 1.0	NA	NA
DW-1 (10-11.5')	01/20/2009	10 - 11.5	<0.005	<0.005	<0.005	<0.005	NA	NA	16	NA	NA
DW-1 (11.5-13')	01/20/2009	11.5 - 13	<0.005	<0.005	<0.005	<0.005	NA	NA	8.4	NA	NA
DW-1 (13.5-15')	01/20/2009	13.5 - 15	<0.005	<0.005	<0.005	<0.005	NA	NA	2.0	NA	NA

Table 1C
Remaining Historical Analytical Data
Residual Saturated Deep Soil (>3 meters)
Remaining After Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Environmental Screening Levels (mg/kg) Commercial/Industrial Land Use			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo	Naphthalene
Leaching to Groundwater ESL			2.0	9.3	4.7	11	8.4	180	180	-	4.7
Direct Exposure (Const. Worker Trench) ESL			12	650	210	420	2,800	4,200	4,200	12,000	210
Gross Contamination Ceiling ESL >3M			870	650	400	420	1,000	5,000	5,000	5,000	400
Final ESL for Soil			2.0	9.3	4.7	11	8.4	180	180	5,000	4.7
Sample Identification	Collection Date	Depth (feet bgs)	Sample Concentration (mg/kg)								
SR-CS-01	10/20/2010	11	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-02	10/19/2010	11	<0.005	<0.005	<0.005	<0.005	NA	NA	60	NA	<0.005
SR-CS-03	10/19/2010	11	<0.005	<0.005	<0.005	<0.005	NA	NA	50	NA	<0.005
SR-CS-04	10/19/2010	11	<0.005	<0.005	<0.005	<0.005	NA	NA	150	NA	<0.005
SR-CS-05	10/27/2010	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-06	10/27/2010	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-07	10/27/2010	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-08	10/27/2010	15	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-09	10/26/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-10	10/26/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-11	10/25/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-12	10/25/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-13	10/25/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-14	10/22/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-15	10/22/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-16	10/22/2010	16	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005
SR-CS-17	10/20/2010	11	<0.005	<0.005	<0.005	<0.005	NA	NA	<1.0	NA	<0.005

Notes:

mg/kg - Milligrams-per-kilogram
MTBE - Methyl Tertiary Butyl Ether.
TPH-g - Total Petroleum Hydrocarbons quantified as gasoline.
TPH-d - Total Petroleum Hydrocarbons quantified as diesel.

NA - Not Analyzed.
ESL - SFBRWQCB Environmental Screening Levels, Table B-2 (May 2008)
Reported value exceeds associated ESL.

Table 2A
Historical Monitoring Well Construction Data

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Date Installed	Casing Elevation ¹ (feet MSL)	Casing Material	Boring Depth (feet bgs)	Well Depth (feet bgs)	Boring Diameter (inches)	Casing Diameter (inches)	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Filter Pack Sand
MW-1	8/27/1992	10.84¹	PVC	31.0	25	8	2	0.010	18.0-25.0	15.5-25.0	#2/12
MW-2	8/27/1992	11.20¹	PVC	29.5	29.5	8	2	0.010	18.0-29.5	16.0-29.5	#2/12
MW-3	8/28/1992	10.92¹	PVC	27.0	27.0	8	2	0.010	7.0-27.0	6.5-27.0	#2/12
MW-4	8/27/1992	12.04¹	PVC	34.0	34.0	8	2	0.010	19.0-34.0	16.0-34.0	#2/12
MW-5	8/28/1992	14.39¹	PVC	34.0	34.0	8	2	0.010	24.0-34.0	22.0-34.0	#2/12
MW-101	1/19/2009	13.90 ²	PVC	28.10	28.05	8	2	0.010	18-28	16-28	#2/12
MW-102	1/20/2009	14.19 ²	PVC	28.40	28.35	8	2	0.010	18-28	16-28	#2/12
MW-103	1/19/2009	13.75 ²	PVC	25.00	24.92	8	2	0.010	10-25	8-25	#2/12
MW-104	1/20/2009	13.65 ²	PVC	25.15	25.10	8	2	0.010	10-25	8-25	#2/12
DW-1	1/20/2009	14.05 ²	PVC	14.65	14.60	12	6	0.020	5-15	3-15	#2/12

Notes:

Well properly abandoned and destroyed

MW-1 through MW-5 were properly abandoned in 1996

bgs - below ground surface

DW - dewatering well

MSL - mean sea level

PVC - poly-vinyl chloride (Schedule 40)

1 - Well casing elevations surveyed on January 26, 1994.

2 - Well casing elevations surveyed on January 28, 2009 by PLS Surveys, Inc. according to NAVD88 datum

**Table 2B
Historical Groundwater Elevation Data**

**Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606**

Well ID	Measurement Date	Well Casing Elevation (feet MSL) ¹	Water Depth From TOC (feet)	Groundwater Elevation (feet MSL)	Well Total Depth (TD) From TOC (feet)	TD Elevation (feet MSL)
MW-101	1/26/09	13.90	8.92	4.98	28.05	-14.15
	4/15/09	13.90	9.43	4.47	27.85	-13.95
	7/22/09	13.90	9.62	4.28	27.81	-13.91
	1/28/10	13.90	7.68	6.22	27.80	-13.90
	8/24/10	13.90	9.50	4.40	27.70	-13.80
	12/10/10	13.90	7.68	6.22	27.91	-14.01
	2/2/11	13.90	8.56	5.34	27.90	-14.00
	7/26/11	13.90	9.12	4.78	27.85	-13.95
MW-102	1/26/09	14.19	9.15	5.04	28.35	-14.16
	4/15/09	14.19	9.55	4.64	28.21	-14.02
	7/22/09	14.19	10.02	4.17	28.19	-14.00
	1/28/10	14.19	9.70	4.49	28.15	-13.96
	8/24/10	14.19	9.75	4.44	28.15	-13.96
	12/10/10	14.19	8.16	6.03	28.27	-14.08
	2/2/11	14.19	9.37	4.82	28.28	-14.09
	7/26/11	14.19	9.55	4.64	28.14	-13.95
MW-103	1/26/09	13.75	8.69	5.06	24.92	-11.17
	4/15/09	13.75	8.91	4.84	24.74	-10.99
	7/22/09	13.75	9.18	4.57	24.68	-10.93
	1/28/10	13.75	7.75	6.00	24.65	-10.90
	8/24/10	13.75	9.03	4.72	24.20	-10.45
	12/10/10	13.75	7.67	6.08	24.80	-11.05
	2/2/11	13.75	8.51	5.24	24.77	-11.02
	7/26/11	13.75	8.84	4.91	24.70	-10.95
MW-104	1/26/09	13.65	8.65	5.00	25.00	-11.35
	4/15/09	13.65	8.87	4.78	24.90	-11.25
	7/22/09	13.65	9.27	4.38	24.91	-11.26
	1/28/10	13.65	8.02	5.63	24.90	-11.25
	8/24/10	13.65	9.00	4.65	24.69	-11.04
	12/10/10	13.65	7.60	6.05	24.96	-11.31
	2/2/11	13.65	8.38	5.27	24.94	-11.29
	7/26/11	13.65	8.84	4.81	24.86	-11.21
DW-1	1/26/09	14.05	9.10	4.95	14.60	-0.55
	4/15/09	14.05	9.23	4.82	14.41	-0.36
	7/22/09	14.05	9.50	4.55	14.41	-0.36
	1/28/10	14.05	7.84	6.21	NM	NM
	8/24/10	14.05	9.00	5.05	14.25	-0.20
Well destroyed during source area removal						

Notes:

DW = de-watering well

MSL = mean sea level

TOC = top of casing

1 = well casing elevations surveyed according to NAVD88 datum by PLS Surveys, Inc. on January 28, 2009

Table 2C
Historical Analytical Data
Groundwater Well Samples

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Collection Date	Concentration and Associated ESLs (µg/L)							
		Benzene (46)	Toluene (130)	Ethylbenzene (43)	Total Xylenes (100)	MTBE (1,800)	TPH-g (210)	TPH-d (210)	TPH-mo (210)
MW-1	09/18/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<50
MW-1	03/24/1993	<0.30	<0.30	<0.30	<0.50	NA	NA	78	<50
MW-1	05/19/1993	<0.30	0.35	<0.30	<0.50	NA	NA	130	<50
MW-1	08/23/1993	<0.50	<0.50	<0.50	<0.50	NA	NA	460	<100
MW-1	10/14/1993	NA	NA	NA	NA	NA	NA	160	<100
MW-1	11/23/1993	<0.30	<0.30	<0.30	<0.50	NA	NA	340	<100
MW-1	02/16/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	160	170
MW-1	05/19/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	470
MW-1	08/23/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<100
MW-1	12/06/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<100
Well Abandoned in 1996									
MW-2	09/18/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	77
MW-2	11/04/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<50
MW-2	03/24/1993	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<50
MW-2	05/19/1993	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<50
MW-2	08/23/1993	<0.50	<0.50	<0.50	<0.50	NA	NA	720	<100
MW-2	10/14/1993	NA	NA	NA	NA	NA	NA	<50	<100
MW-2	11/23/1993	NA	NA	NA	NA	NA	NA	<50	<100
MW-2	02/16/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	480
MW-2	05/19/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	710
MW-2	08/23/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<100
MW-2	12/06/1994	<0.30	<0.30	<0.30	<0.50	NA	NA	<50	<100
Well Abandoned in 1996									

Table 2C
Historical Analytical Data
Groundwater Well Samples

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Collection Date	Concentration and Associated ESLs (µg/L)							
		Benzene (46)	Toluene (130)	Ethylbenzene (43)	Total Xylenes (100)	MTBE (1,800)	TPH-g (210)	TPH-d (210)	TPH-mo (210)
MW-3	09/17/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<50
MW-3	03/24/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	52
MW-3	05/19/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<50
MW-3	08/23/1993	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<100
MW-3	11/23/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-3	02/16/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-3	05/19/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	290
MW-3	08/23/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-3	12/06/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
Well Abandoned in 1996									
MW-4	09/18/1992	<0.50	<0.50	<0.50	<0.50	NA	54	<50	<50
MW-4	11/04/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	58
MW-4	03/24/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<50
MW-4	05/19/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<50
MW-4	08/23/1993	<0.50	<0.50	<0.50	<0.50	NA	<50	100	<100
MW-4	10/14/1993	NA	NA	NA	NA	NA	NA	<50	<100
MW-4	11/23/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-4	02/16/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	120
MW-4	05/19/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	690
MW-4	08/23/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-4	12/06/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
Well Abandoned in 1996									

Table 2C
Historical Analytical Data
Groundwater Well Samples

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Collection Date	Concentration and Associated ESLs (µg/L)							
		Benzene (46)	Toluene (130)	Ethylbenzene (43)	Total Xylenes (100)	MTBE (1,800)	TPH-g (210)	TPH-d (210)	TPH-mo (210)
MW-5	09/17/1992	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<50
MW-5	11/04/1992	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	03/24/1993	0.39	0.39	<0.30	0.56	NA	<50	<50	<50
MW-5	05/19/1993	<0.30	<0.30	<0.30	<0.50	NA	51	<50	<50
MW-5	08/23/1993	<0.50	<0.50	<0.50	<0.50	NA	<50	80	<100
MW-5	10/14/1993	NA	NA	NA	NA	NA	NA	<50	<100
MW-5	11/23/1993	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-5	02/16/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	410
MW-5	05/19/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	1,800
MW-5	08/23/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
MW-5	12/06/1994	<0.30	<0.30	<0.30	<0.50	NA	<50	<50	<100
Well Abandoned in 1996									
MW-101	01/26/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-101	04/15/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-101	07/22/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-101	01/28/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	64	NA
MW-101	08/24/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	110	NA
MW-101	12/10/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	86	NA
MW-101	02/02/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	61	NA
MW-101	07/26/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	60	NA

Table 2C
Historical Analytical Data
Groundwater Well Samples

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Collection Date	Concentration and Associated ESLs (µg/L)							
		Benzene (46)	Toluene (130)	Ethylbenzene (43)	Total Xylenes (100)	MTBE (1,800)	TPH-g (210)	TPH-d (210)	TPH-mo (210)
MW-102	01/26/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	160	NA
MW-102	04/15/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	140	NA
MW-102	07/22/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	120	NA
MW-102	01/28/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	54	NA
MW-102	08/24/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	89	NA
MW-102	12/10/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	160	NA
MW-102	02/02/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	110	NA
MW-102	07/26/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	97	NA
MW-103	01/26/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	80	NA
MW-103	04/15/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-103	07/22/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-103	01/28/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	63	NA
MW-103	08/24/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-103	12/10/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	<50	NA
MW-103	02/02/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	53	NA
MW-103	07/26/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	51	NA
MW-104	01/26/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	100	NA
MW-104	04/15/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	79	NA
MW-104	07/22/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	97	NA
MW-104	01/28/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	68	NA
MW-104	08/24/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	100	NA
MW-104	12/10/2010	<0.50	<0.50	<0.50	<0.50	NA	NA	84	NA
MW-104	02/02/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	92	NA
MW-104	07/26/2011	<0.50	<0.50	<0.50	<0.50	NA	NA	100	NA

Table 2C
Historical Analytical Data
Groundwater Well Samples

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Monitoring Well	Collection Date	Concentration and Associated ESLs (µg/L)							
		Benzene (46)	Toluene (130)	Ethylbenzene (43)	Total Xylenes (100)	MTBE (1,800)	TPH-g (210)	TPH-d (210)	TPH-mo (210)
DW-1	01/26/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	1,200	NA
DW-1	04/15/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	830	NA
DW-1	07/22/2009	<0.50	<0.50	<0.50	<0.50	NA	NA	1,000	NA
DW-1	01/28/2010	NS	NS	NS	NS	NS	NS	NS	NS
DW-1	08/24/10	0.83	1.4	<0.50	1.0	NA	NA	970	NA

Notes:

µg/L - Micrograms-per-liter.

MTBE - Methyl Tertiary Butyl Ether.

TPH-g - Total Petroleum Hydrocarbons quantified as gasoline.

TPH-d - Total Petroleum Hydrocarbons quantified as diesel.

TPH-mo - Total Petroleum Hydrocarbons quantified as motor oil.

NA - Not Analyzed.

ESL - SFBWQCB Environmental Screening Levels, Table F-1b (May 2008)

 Reported value exceeds associated ESL.

Table 2D
Groundwater Analytical Data
Poly-Nuclear Aromatic Hydrocarbons

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Well ID	Sample Collection Date	Parameter Concentration (µg/L)							
		Naphthalene ESL = 24	Acenaphthylene ESL = 30	Acenaphthene ESL = 23	Fluorene ESL = 39	Phenanthrene ESL = 4.6	Anthracene ESL = 0.73	Fluoranthene ESL = 8.0	Pyrene ESL = 2.0
MW-101	7/22/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-102	7/22/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-103	7/22/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-104	7/22/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
DW-1	7/22/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	Well destroyed during source area removal								
DUP	7/22/2009**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/28/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	8/24/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/10/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2/2/2011**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/26/2011**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Table 2D
Groundwater Analytical Data
Poly-Nuclear Aromatic Hydrocarbons

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Well ID	Sample Collection Date	Parameter Concentration (µg/L)							
		Benzo (a) Anthracene ESL = 0.027	Chrysene ESL = 0.35	Benzo (b) Fluoranthene ESL = 0.029	Benzo (k) Fluoranthene ESL = 0.40	Benzo (a) Pyrene ESL = 0.014	Dibenz (a,h) Anthracene ESL = 0.25	Benzo (g,h,i) Perylene ESL = 0.10	c,d) Pyrene ESL = 0.048
MW-101	7/22/09	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
MW-102	7/22/09	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
MW-103	7/22/09	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
MW-104	7/22/09	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	7/26/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
DW-1	7/22/09	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/10	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	2/2/11	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	Well destroyed during source area removal								
DUP	7/22/2009 **	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	1/28/2010 **	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/2010 **	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	8/24/2010**	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	12/10/2010**	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0
	7/26/2011**	<1.0	<1.0	<1.0	<1.0	<0.20	<1.0	<1.0	<1.0

Notes:

*DUP = duplicate sample for DW-1

**DUP = duplicate sample for MW-102

DW = de-watering well

ESL = environmental screening level according to ESL Document Table F-1b

µg/L = micrograms-per-liter

Table 3A
Revised Estimate of Residual TPH-d in Soil
Pre Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Based on Samples Collected 2006 through 2009

Total Petroleum Hydrocarbons - Diesel in Soil			
Area of Residual	Small Area near E-6	Medium Area Near Former Truck Maintenance Garage	Large Area Near Dispenser Island Source Plus Source Area
Area (sq.ft.)	50	1,500	6,400
Unit Weight of Soil (lb/ft ³)	120	120	120
Impact Thickness (ft.)	5	21	17
kg/lb Conversion	0.453	0.453	0.453
Avg. TPH-d Conc. (mg/kg)	13	131	534
Mass Conversion (mg/kg)	0.000001	0.000001	0.000001
TPH-d Mass (Kg)	0.17	223.46	3,158.27
Total TPH-d Mass (Kg) in Soil		3,382	
Total TPH-d Mass (lb) in Soil		7,440	

Contaminant Mass = Area x Unit Weight x Impact Thickness x 0.453 kg/lb x Avg. Conc. (mg/kg) x 1 E-6 kg/mg

Table 3B
Estimate of TPH-d in Soil Removed

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Total Petroleum Hydrocarbons - Diesel in Soil	
Source Area Removed	
Area (sq.ft.)	1,900
Unit Weight of Soil (lb/ft ³)	120
Impact Thickness (ft.)	12.5
kg/lb Conversion	0.453
Avg. TPH-d Conc. (mg/kg)	1,202
Mass Conversion (mg/kg)	0.000001
Total TPH-d Mass (Kg) in Soil	1,552
Total TPH-d Mass (lb) in Soil	3,414

Contaminant Mass = Area x Unit Weight x Impact Thickness x 0.453 kg/lb x Avg. Conc. (mg/kg) x 1 E-6 kg/mg

Table 3C
Revised Estimate of Residual TPH-d in Soil
Post Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Based on Samples Collected 2006 through 2009

Total Petroleum Hydrocarbons - Diesel in Shallow Soil (<3m)			
Area of Residual	Small Area near E-6	Medium Area Near Former Truck Maintenance Garage	Large Area Near Dispenser Island Source
Area (sq.ft.)	50	1,500	4,500
Unit Weight of Soil (lb/ft ³)	120	120	120
Impact Thickness (ft.)	5	21	17
kg/lb Conversion	0.453	0.453	0.453
L/Gal Conversion	1	1	1
Avg. TPH-d Conc. (mg/kg)	13	131	126
Mass Conversion (mg/kg)	0.000001	0.000001	0.000001
TPH-d Mass (Kg)	0.17	223.46	523.98
Total TPH-d Mass (Kg) in Soil		747.61	
Total TPH-d Mass (lb) in Soil		1,645	

Contaminant Mass = Area x Unit Weight x Impact Thickness x 0.453 kg/lb x Avg. Conc. (mg/kg) x 1 E-6 kg/mg

Table 4
Estimate of Residual TPH-d in Groundwater
Post Source Area Removal

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Based on Samples Collected from 1993 through 2010

Total Petroleum Hydrocarbons - Diesel Fuel in Groundwater		
Parameter	0 to 100 Contour	Over 100
Area (sq.ft.)	9,300	6,000
Porosity	0.30	0.30
Groundwater Thickness (ft.)	20	20
Gal/c.f. Conversion	7.5	7.5
L/Gal Conversion	3.785	3.785
Avg. TPH-d Conc. (ug/L)	77	423
Mass Conversion	0.000000001	0.000000001
TPH-d Mass (Kg)	0.1220	0.4323
Total TPH-d Mass (Kg)	0.55	
Total TPH-d Mass (lb)	1.2194	

TPH Mass = Area x porosity x g.w. thickness x 7.5 gal/c.f. x 3.785 L/gal x avg. conc. (ug/kg) x 1 E-9 kg/ug

Table 5
Input Data for Estimate of Contaminant Mass in soil and Groundwater
Based on Soil Samples Collected from 2006 through 2010

Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, California 94606

Revised Pre Source Removal Estimate of TPH-d in Soil				
Input Parameter	Units	Value	Notation	Source Reference
Estimated Area	sq. ft.	7,950	Combination of areas with over 10 mg/kg TPH-d, including Source Area.	Attached Figure 4
Unit Weight of Soil	lbs/ft ³	120	Soil removed during excavation divided by the size of the excavation subtracting approximately 3,000 ft ³ for concrete, footings, drain boxes, settling tank, slab, and wells.	Attached Figures 4, 5, 6, and 7
Thickness of impacted soil	vertical ft.	5, 21, and 17	Estimate based on soil samples used for average concentrations.	Historical soil sample results removed from the source area Table 1C.
Average Concentration	mg/kg	13, 131, and 534	Used average concentration of TPH-d from all soil samples collected in the respective areas.	Historical soil sample results removed from the source area Table 1C.

Removed Source Area Soil				
Input Parameter	Units	Value	Notation	Source Reference
Estimated Area	sq. ft.	1,900	Source area excavation completed in November 2010.	Attached Figure 4
Unit Weight of Soil	lbs/ft ³	120	Soil removed during excavation divided by the size of the excavation subtracting approximately 3,000 ft ³ for concrete, footings, drain boxes, settling tank, slab, and wells.	Attached Figures 4, 5, 6, and 7
Thickness of removed impacted source material in intermediate concentration range	vertical ft.	12.5	Estimate based on the first observed impact at 2 feet bgs to the average depth to the bottom of the excavation at 14 feet bgs.	Average thickness based on a average depth of 13 to 14 feet and an average concrete thickness of 1 to 2 feet.
Average Concentration	mg/kg	1,169	Used average concentration of TPH-d from 37 samples collected in the Source Area from 4 feet to 16 feet below ground surface.	Historical soil sample results removed from the source area Table 1C.

Post Source Area Removal Residual TPH-d in Soil				
Input Parameter	Units	Value	Notation	Source Reference
Estimated Area	sq. ft.	6,050	Combination of areas with over 10 mg/kg TPH-d, excluding Source Area.	Attached Figure 8
Unit Weight of Soil	lbs/ft ³	120	Soil removed during excavation divided by the size of the excavation subtracting approximately 3,000 ft ³ for concrete, footings, drain boxes, settling tank, slab, and wells.	Attached Figures 4, 5, 6, and 7
Thickness of removed impacted source material in intermediate concentration range	vertical ft.	12.5	Estimate based on soil samples used for average concentrations.	Historical soil sample results removed from the source area Table 1C.
Average Concentration	mg/kg	1,169	Used average concentration of TPH-d from all soil samples collected in the respective areas.	Historical soil sample results removed from the source area Table 1C.

Post Source Area Removal Residual TPH-d in Groundwater				
Input Parameter	Units	Value	Notation	Source Reference
Estimated Area	sq. ft.	9,300	Overall area of contaminated groundwater based on groundwater grab samples collected during 2006 Geoprobe Investigation	Soil and Groundwater Quality Investigation Report, ETIC, 2006d.
	sq. ft.	6,000	Area based on area of residual soil with elevated concentrations.	Attached Figure 9
Porosity	Percent	25	Literature value for silt, sand and gravel mixtures	Fetter, C.W. 1942.
Saturated Thickness	vertical ft.	20	first occurrence at 10 feet, clays at 30 feet.	Soil and Groundwater Quality Investigation Report, ETIC, 2006d.
Average Concentration	µg/l	77	Average concentration of groundwater monitoring well samples between 50 and 100 µg/l TPH-d.	Attached Table 2D
	µg/l	423	Average concentration of groundwater monitoring well samples over 100 µg/l TPH-d.	Attached Table 2D

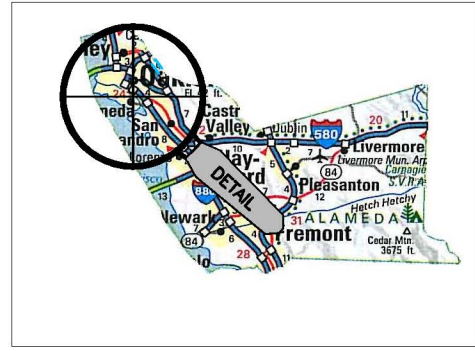
FIGURES

Case Closure Request Report
Earthgrains Baking Companies Inc.
RO #0002569

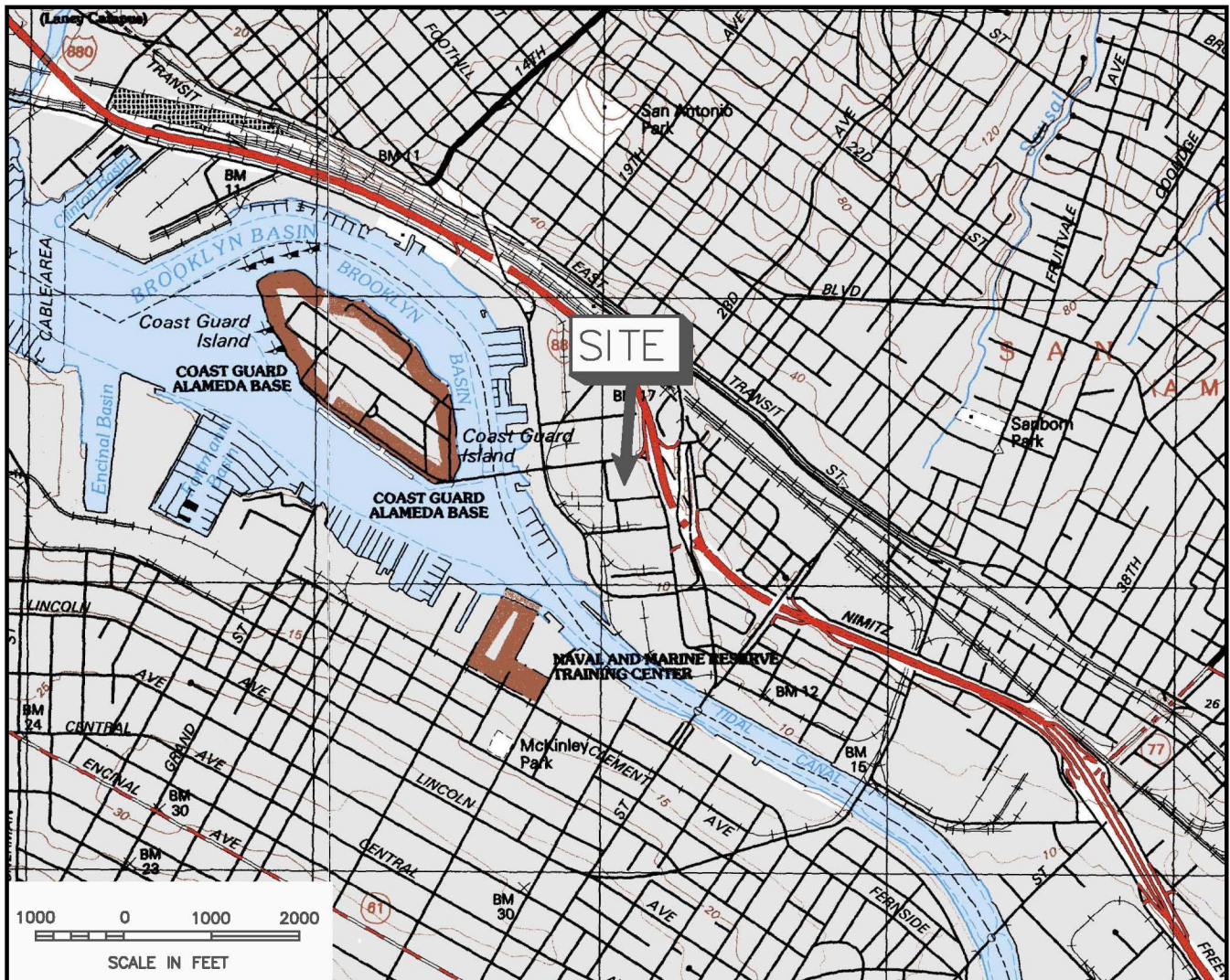
CALIFORNIA



ALAMEDA COUNTY



AREA IN DETAIL



Modified from U.S. Geological Survey, Oakland East & West, California, quadrangle, Photorevised 1997 & 1993.

SCALE IS VARIABLE



COL 624\02797C-002

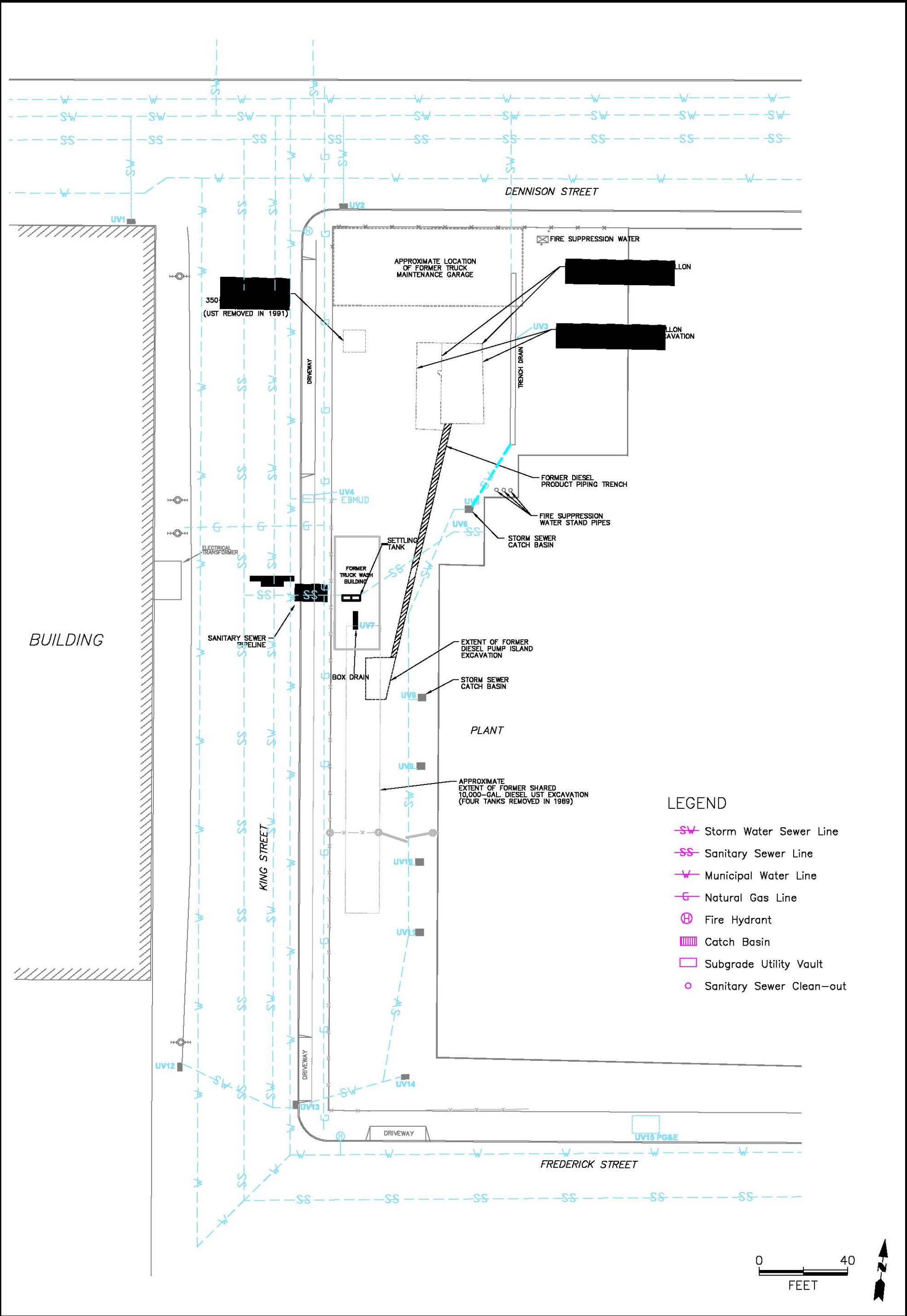


TITLE:
SITE LOCATION MAP
955 KENNEDY STREET
OAKLAND, CALIFORNIA 94606

DWN: TMM
DES.: JRC
CHKD: APPD:
DATE: 11/18/08
REV.: 0

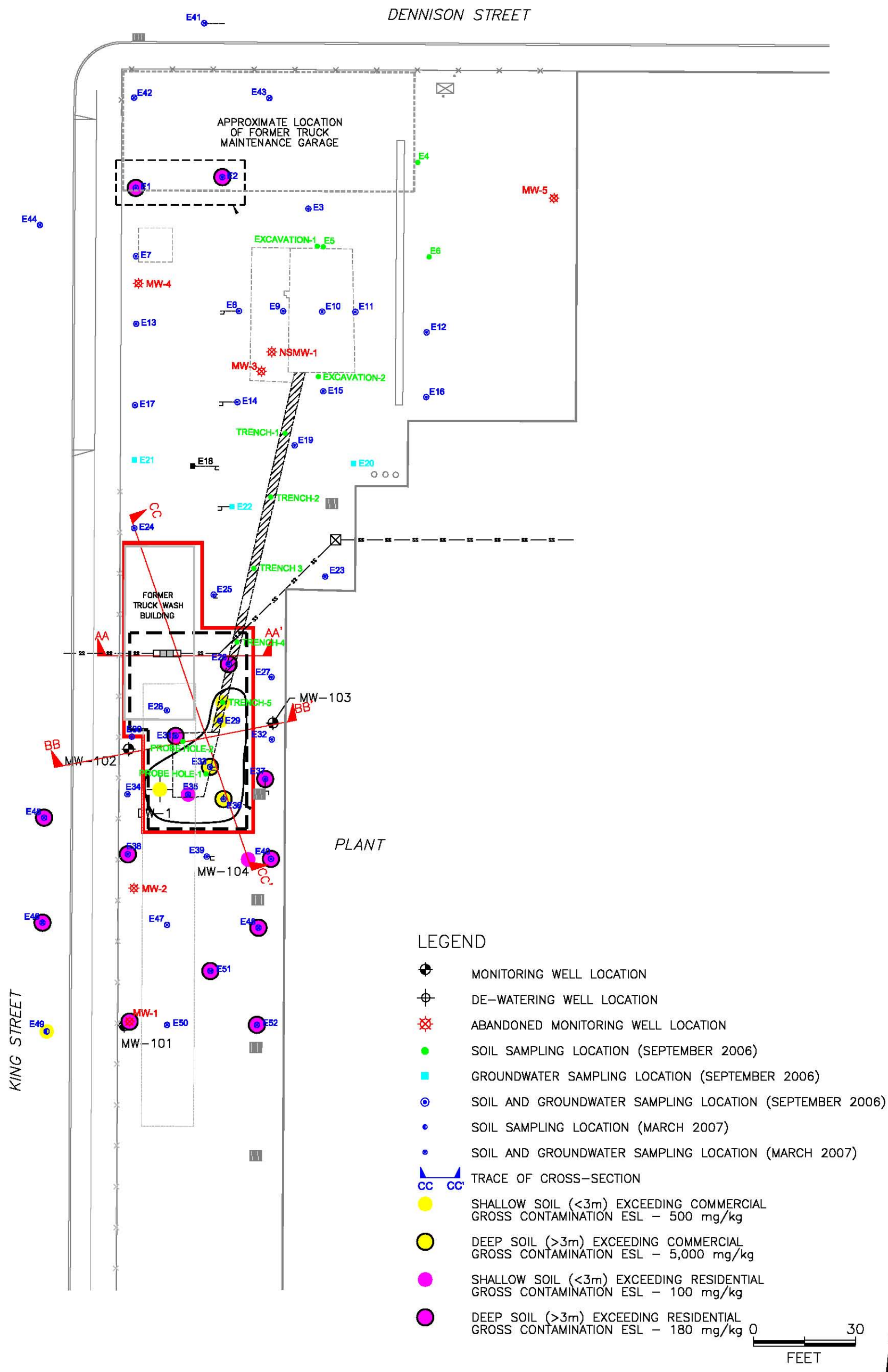
PROJECT NO.: 62402797
EARTHGRAINS
OAKLAND, CALIFORNIA

FIGURE 1



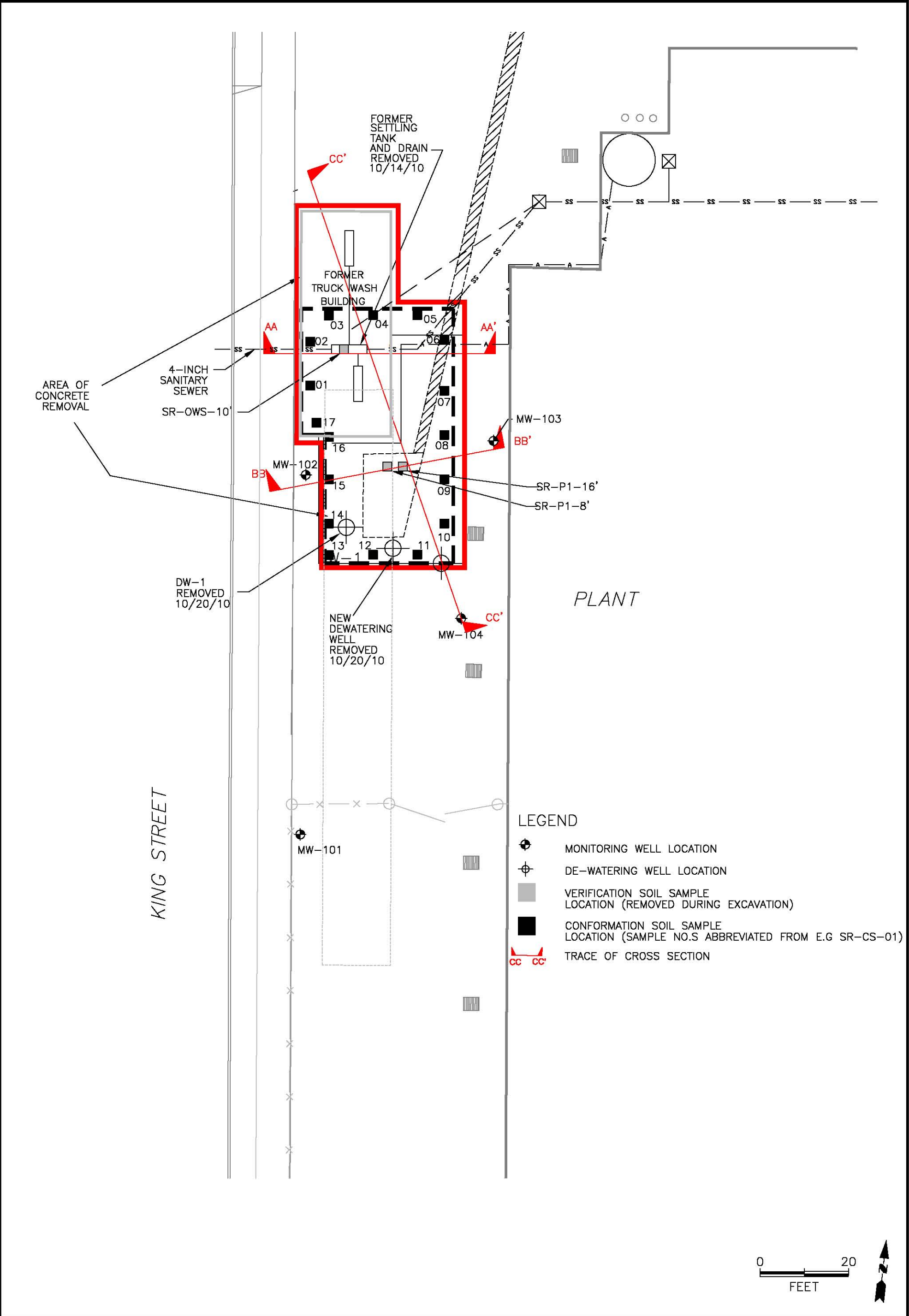
TITLE:
SITE MAP SHOWING SUBSURFACE UTILITIES
PRIOR TO SOURCE AREA REMOVAL

DWN: TMM	DES.: JRC	PROJECT NO.: 62402797 EARTHGRAINS OAKLAND, CALIFORNIA
CHKD:	APPD:	
DATE: 4/8/11	REV.: 0	FIGURE 2



TITLE:
HISTORICAL SOIL SAMPLING LOCATION MAP

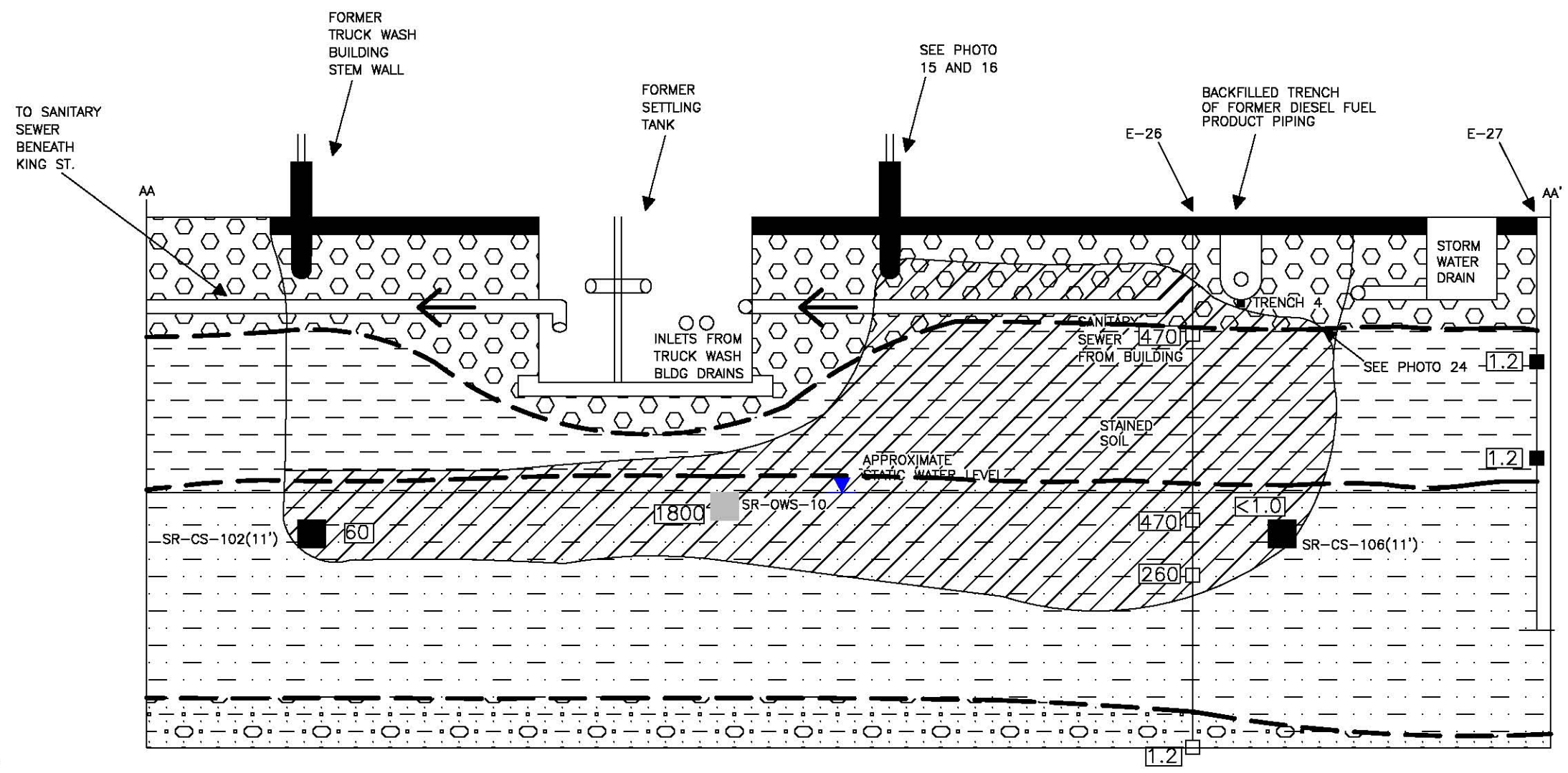
DWN: TMM	DES.: JRC	PROJECT NO.: 62402797 EARTHGRAINS OAKLAND, CALIFORNIA
CHKD:	APPD:	
DATE: 4/8/11	REV.: 0	FIGURE 3



TITLE:
SOURCE AREA REMOVAL
VERIFICATION AND CONFIRMATIONAL SOIL SAMPLE
LOCATIONS

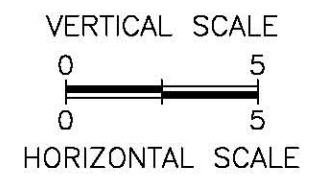
DWN:	DES.:
TMM	JRC
CHKD:	APPD:
DATE:	REV.:
4/8/11	0

PROJECT NO.:	62402797
EARTHGRAINS OAKLAND, CALIFORNIA	
FIGURE 4	



LEGEND

- STAINED SOIL
- SOURCE REMOVAL VERIFICATION AND CONFIRMATION SAMPLES SHOWING TPH-d CONCENTRATIONS IN SOIL (mg/kg), VERIFICATION SAMPLES SHOWN AS GRAY
- HISTORICAL SOIL SAMPLE LOCATIONS SHOWING TPH-d CONCENTRATIONS IN SOIL (mg/kg)
- FILL
- SILT AND CLAY
- SAND, SILT AND CLAY MIXTURES
- APPROXIMATE STATIC WATER LEVEL
- GRAVEL, SAND, AND CLAY MIXTURES



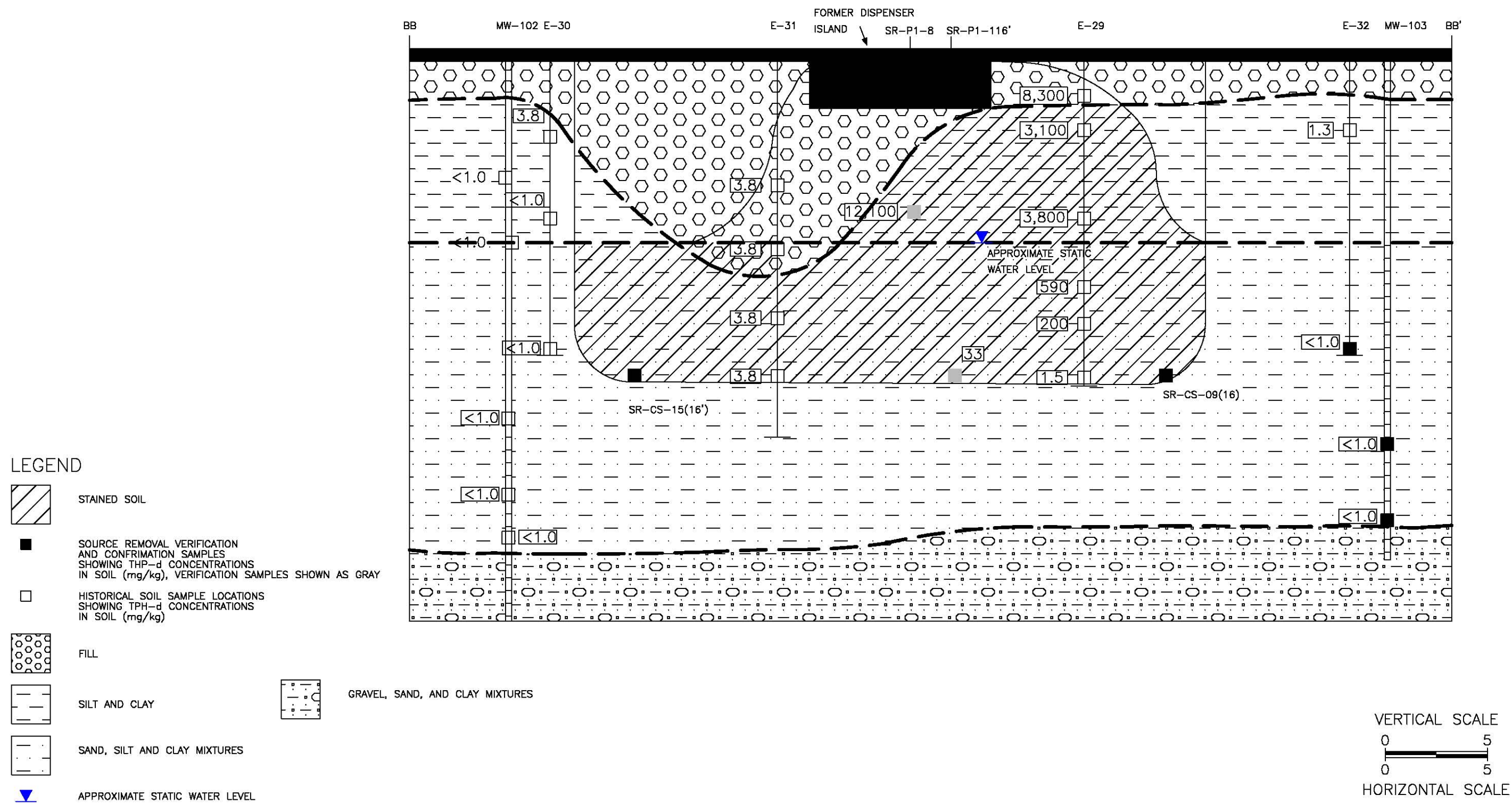
C012 H:\Drafting\624\02797E-AA TO AA'



TITLE:
SOURCE REMOVAL CROSS SECTION AA-AA'

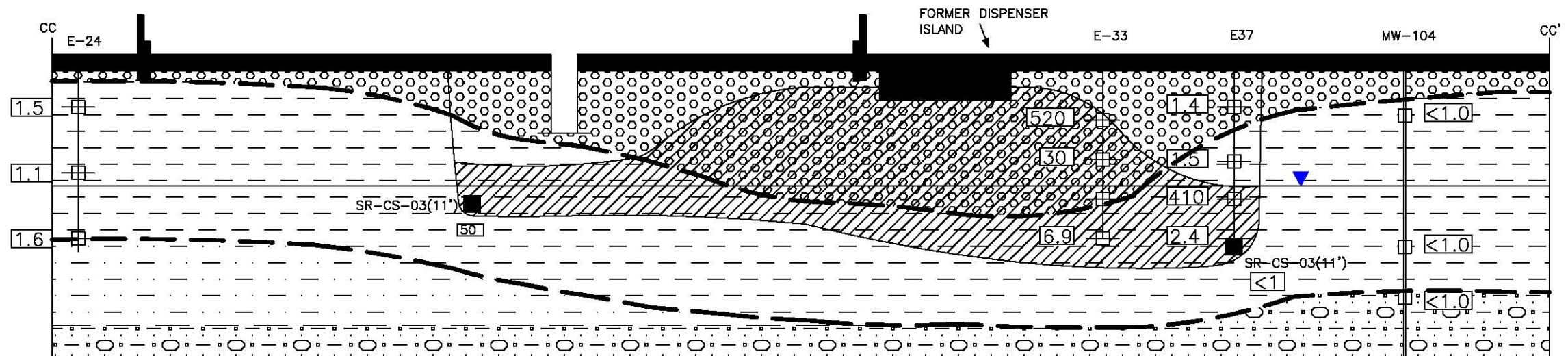
DWN:	DES:	PROJECT NO: 624.0908.0118 EARTHGRAINS OAKLAND CA
MMK	JC	
CHKD:	APPD:	FIGURE 5
DATE: 4/6/11	REV:	

0012 H:\Drafting\624\02797E-BB TO BB'











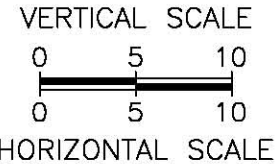
TITLE:
SOURCE REMOVAL CROSS SECTION BB-BB'

DWN:	DES:	PROJECT NO: 624.0908.0118 OAKLAND OAKLAND CA
MMK	JC	
CHKD:	APPD:	FIGURE 6
DATE:	REV:	
4/6/11		



LEGEND

-  STAINED SOIL
-  SOURCE REMOVAL VERIFICATION AND CONFIRMATION SAMPLES SHOWING TPH-d CONCENTRATIONS IN SOIL (mg/kg)
-  HISTORICAL SOIL SAMPLE LOCATIONS SHOWING TPH-d CONCENTRATIONS IN SOIL (mg/kg)
-  FILL
-  SILT AND CLAY
-  SAND, SILT AND GRAVEL MIXTURES
-  APPROXIMATE STATIC WATER LEVEL
-  GRAVEL, SAND, AND CLAY MIXTURES

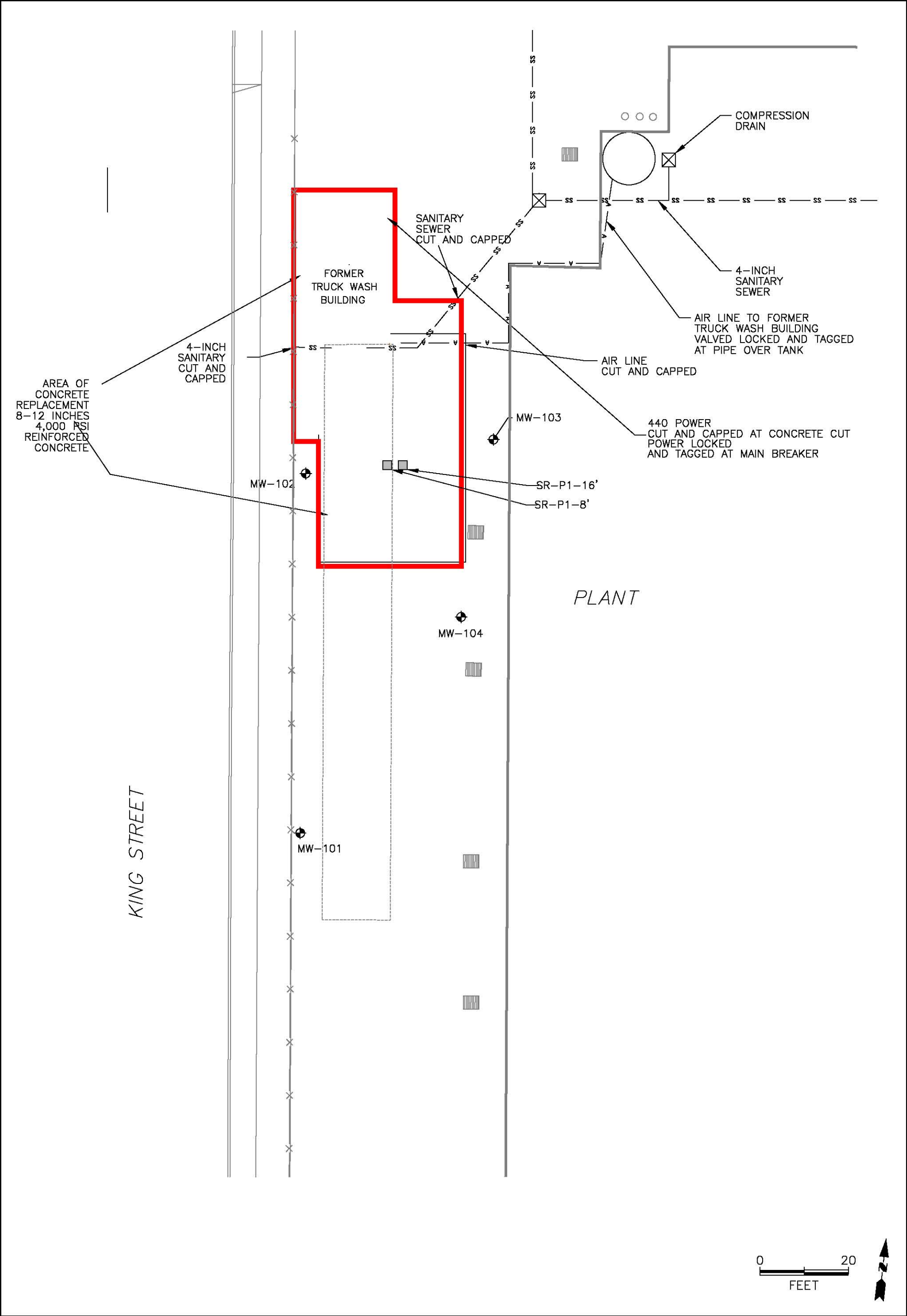


TITLE:
SOURCE REMOVAL CROSS SECTION CC-CC'

DWN:	DES:
MMK	JC
CHKD:	APPD:
DATE:	REV:
4/6/11	

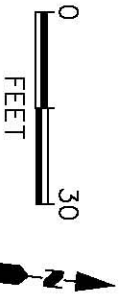
PROJECT NO: 624.0908.0118
EARTHGRAINS
OAKLAND CA
FIGURE 7



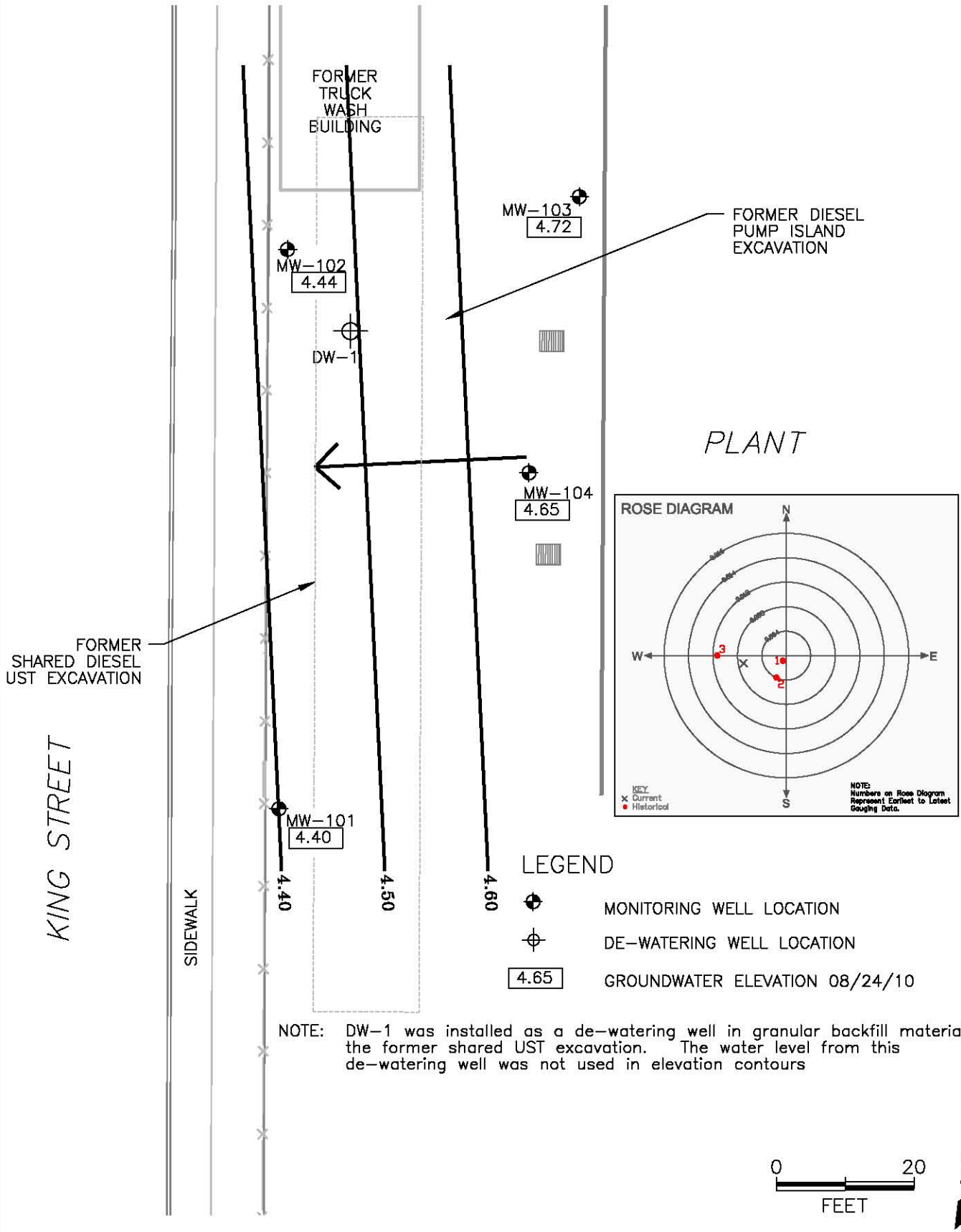




- LEGEND**
- MONITORING WELL LOCATION
 - DE-WATERING WELL LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - SOIL SAMPLING LOCATION (SEPTEMBER 2006)
 - GROUNDWATER SAMPLING LOCATION (SEPTEMBER 2006)
 - SOIL AND GROUNDWATER SAMPLING LOCATION (SEPTEMBER 2006)
 - SOIL SAMPLING LOCATION (MARCH 2007)
 - SOIL AND GROUNDWATER SAMPLING LOCATION (MARCH 2007)
 - SHALLOW SOIL (<3m) EXCEEDING COMMERCIAL GROSS CONTAMINATION ESL - 500 mg/kg
 - DEEP SOIL (>3m) EXCEEDING COMMERCIAL GROSS CONTAMINATION ESL - 5,000 mg/kg
 - SHALLOW SOIL (<3m) EXCEEDING RESIDENTIAL GROSS CONTAMINATION ESL - 100 mg/kg
 - DEEP SOIL (>3m) EXCEEDING RESIDENTIAL GROSS CONTAMINATION ESL - 180 mg/kg
 - CONFORMATION SOIL SAMPLE FROM SOURCE AREA REMOVAL



TITLE: RESIDUAL TPH-d IN SOIL AFTER SOURCE AREA REMOVAL		PROJECT NO.: 62402797 EARTHGRAINS OAKLAND, CALIFORNIA	
DWG: TMM	DES.: JRC	DATE: 9/17/09 REV.: 0	
CHKD:	APPD:		
FIGURE 9			



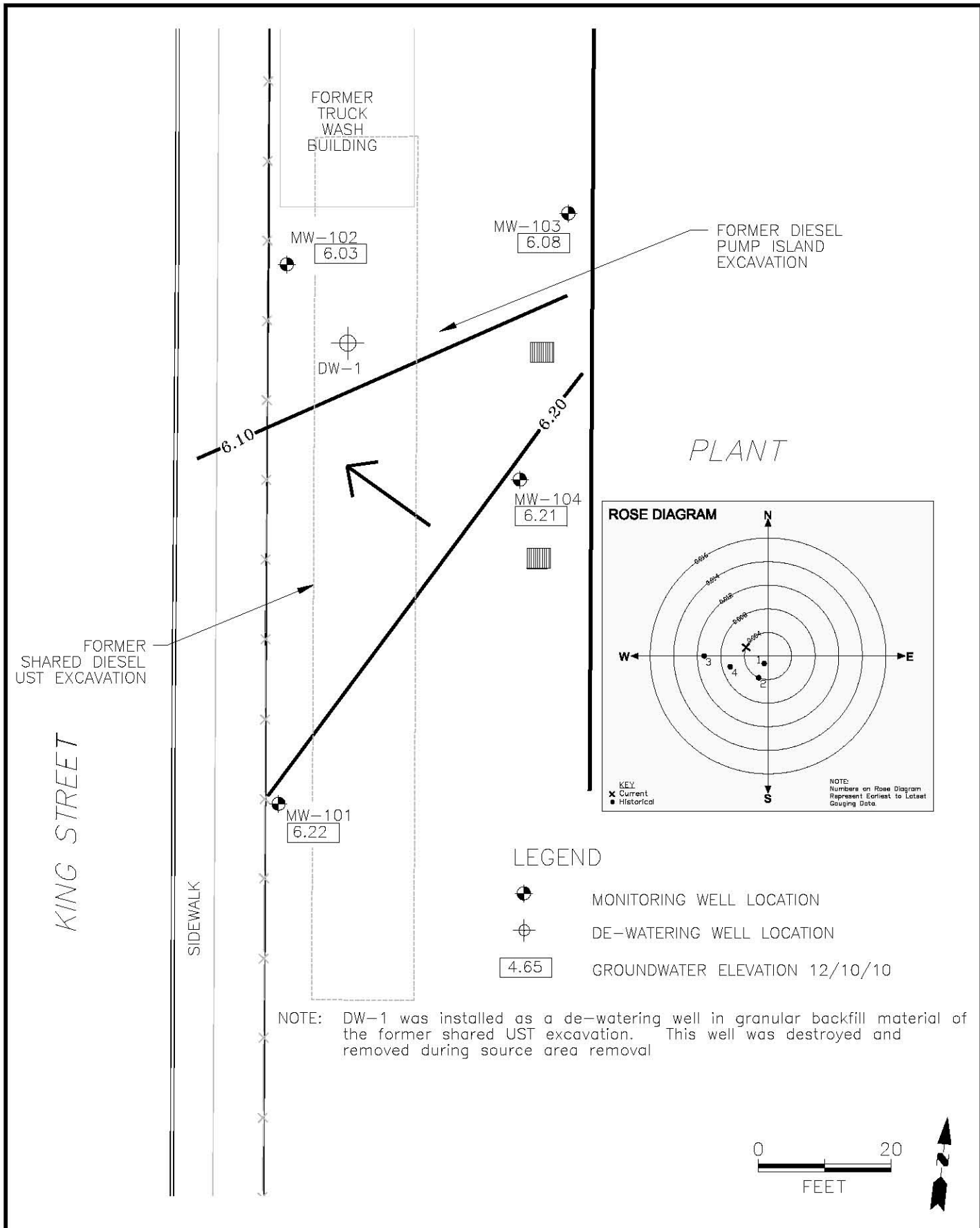
COL 624\02797B-026



TITLE:
 GROUNDWATER ELEVATION
 CONTOUR MAP
 AUGUST 24, 2010

DWN:	DES.:
TMM	JRC
CHKD:	APPD:
DATE:	REV.:
4/13/11	0

PROJECT NO.:	62402797
EARTHGRAINS OAKLAND, CALIFORNIA	
FIGURE 10A	



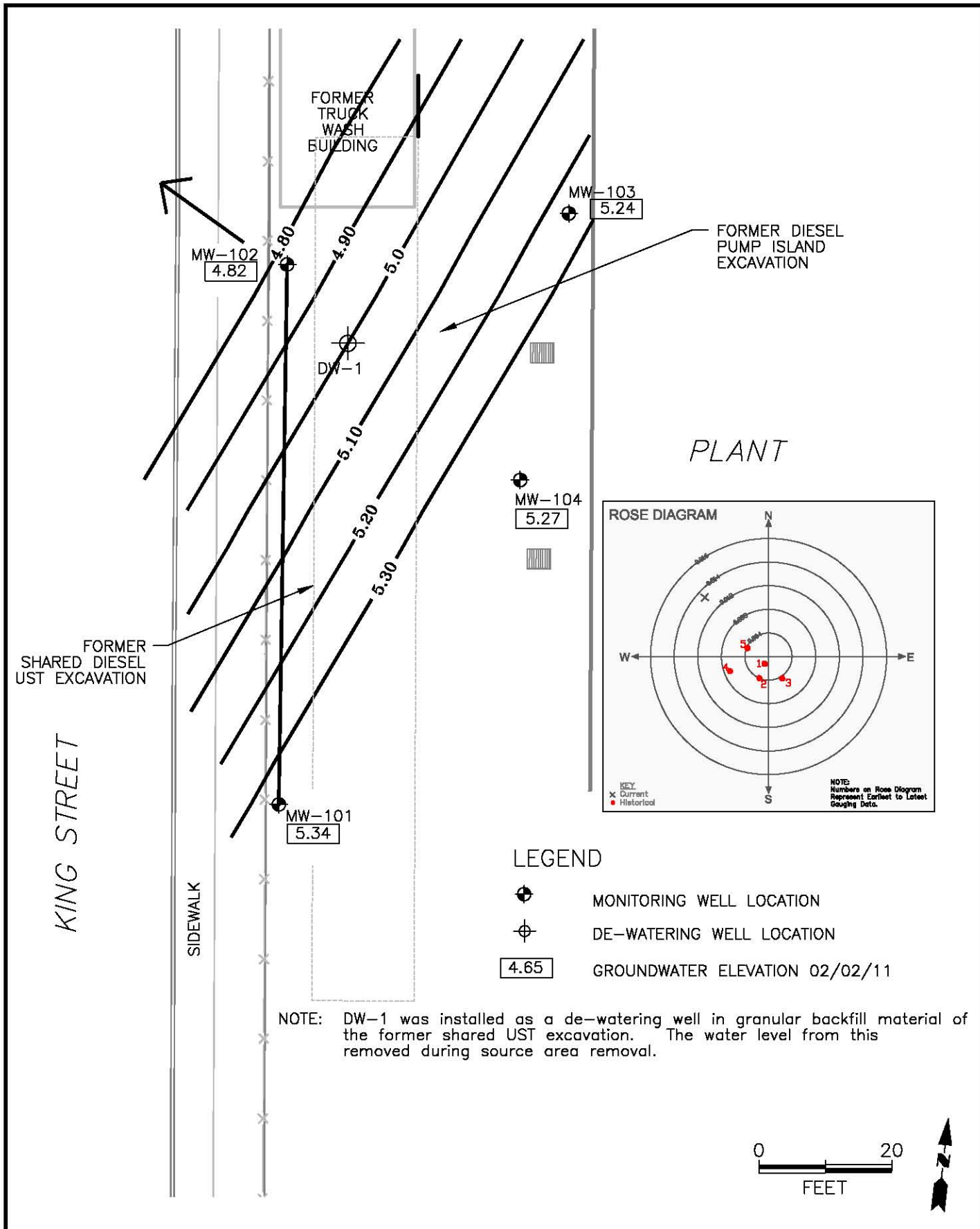
COL 624\02797B-027



TITLE:
GROUNDWATER ELEVATION
CONTOUR MAP
DECEMBER 10, 2010

DWN: TMM	DES.: JRC
CHKD:	APPD:
DATE: 4/13/11	REV.: 0

PROJECT NO.: 62402797
EARTHGRAINS
OAKLAND, CALIFORNIA
FIGURE 10B



COL 624\02797B-02B



TITLE:

GROUNDWATER ELEVATION
CONTOUR MAP
FEBRUARY 2, 2011

DWN:
TMM

DES.:
JRC

CHKD:

APPD:

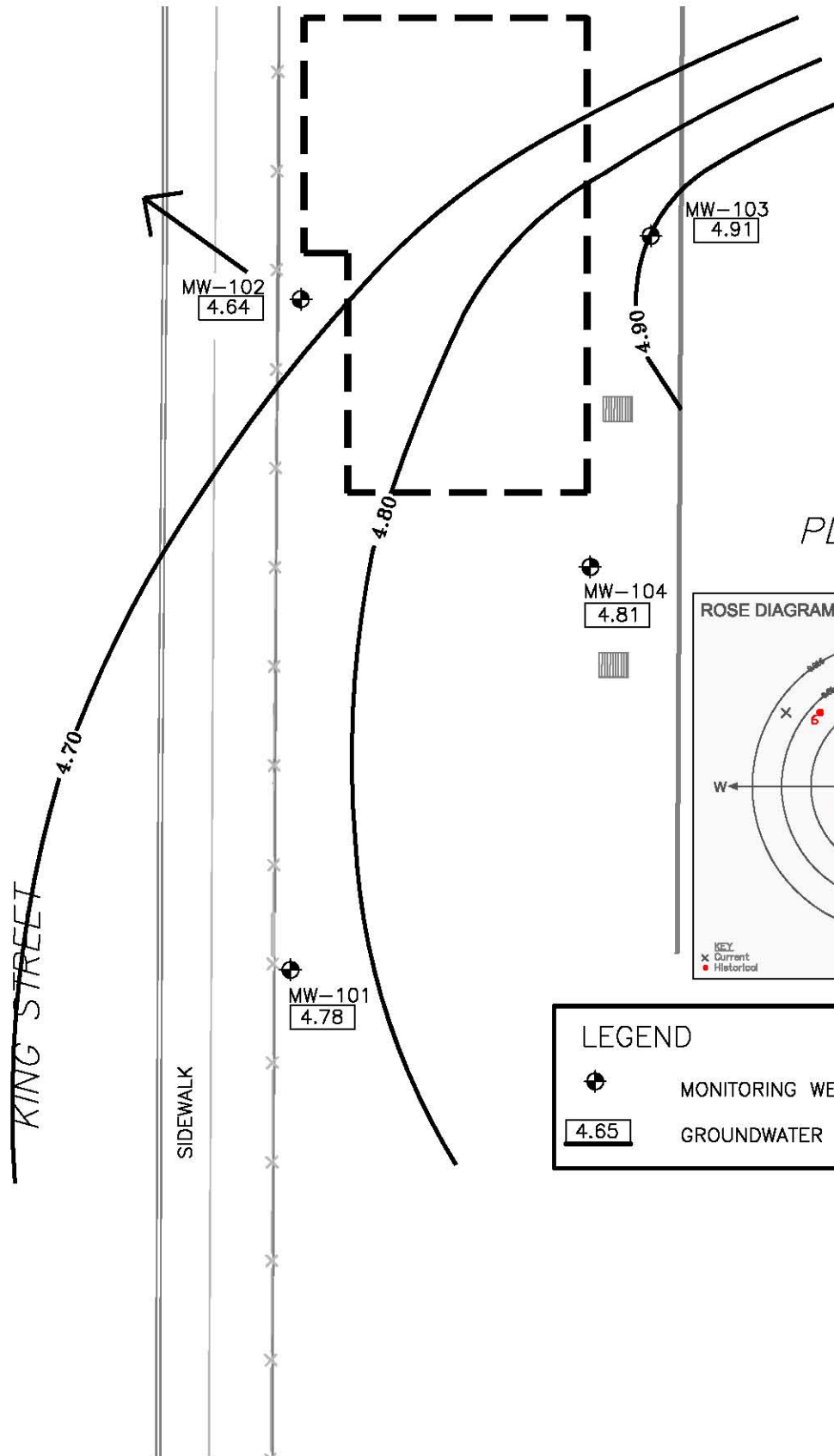
DATE:
4/13/11

REV.:
0

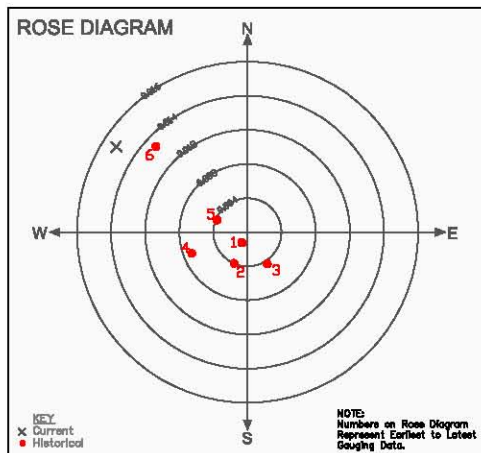
PROJECT NO.: 62402797

EARTHGRAINS
OAKLAND, CALIFORNIA

FIGURE 10C



PLANT



LEGEND



MONITORING WELL LOCATION

4.65

GROUNDWATER ELEVATION 07/26/11

0 20
FEET



COL 624\02797B-031



TITLE:

GROUNDWATER ELEVATION
CONTOUR MAP
July 26, 2011 (amended)

DWN:

TMM

DES.:

JRC

CHKD:

APPD:

DATE:

10/24/11

REV.:

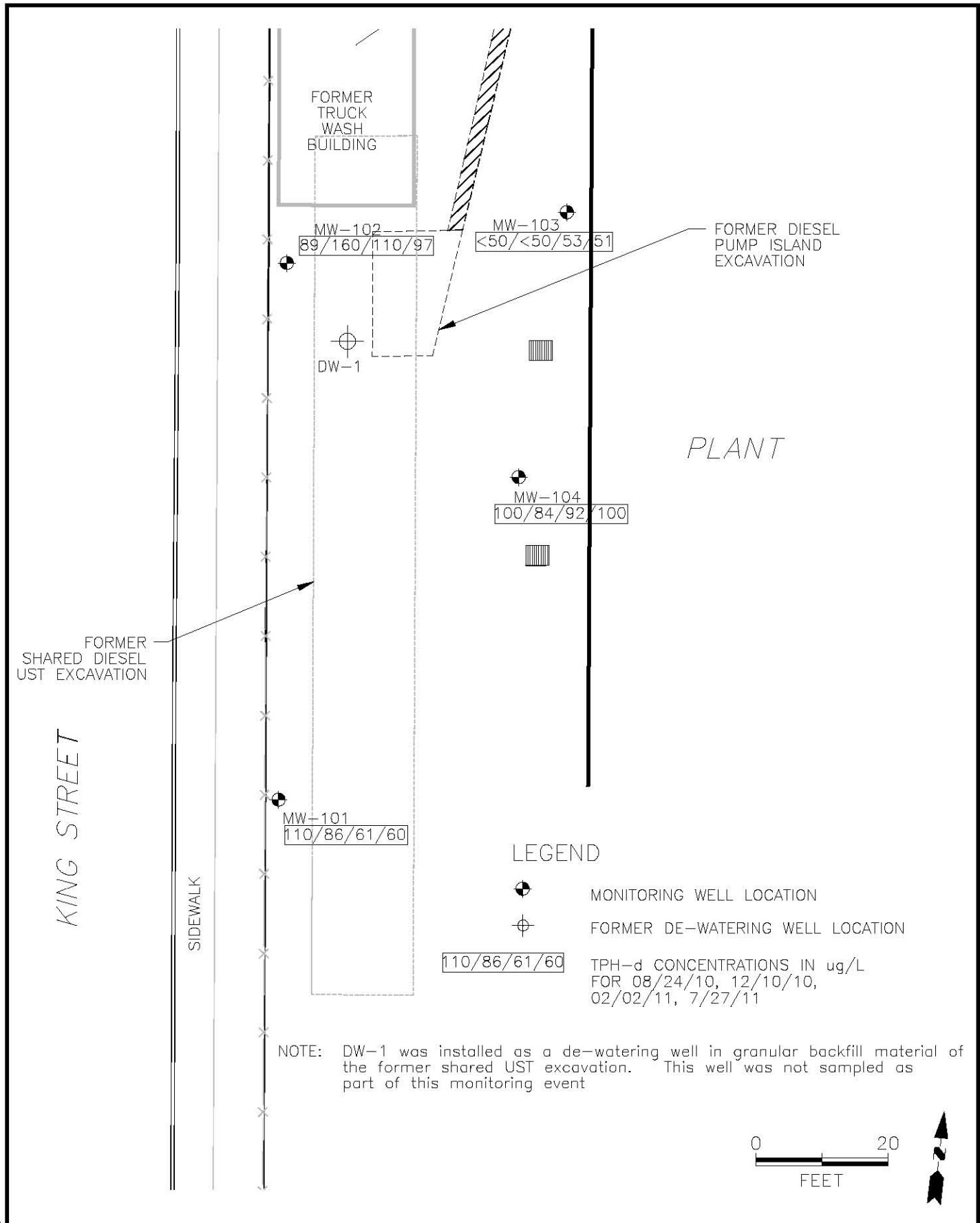
0

PROJECT NO.:

62402797

EARTHGRAINS
OAKLAND, CALIFORNIA

FIGURE 3



TITLE:

TPH-d IN GROUNDWATER
CONCENTRATION MAP
PRE AND POST SOURCE AREA REMOVAL

DWN:

TMM

DES.:

JRC

CHKD:

APPD:

DATE:

10/20/11

REV.:

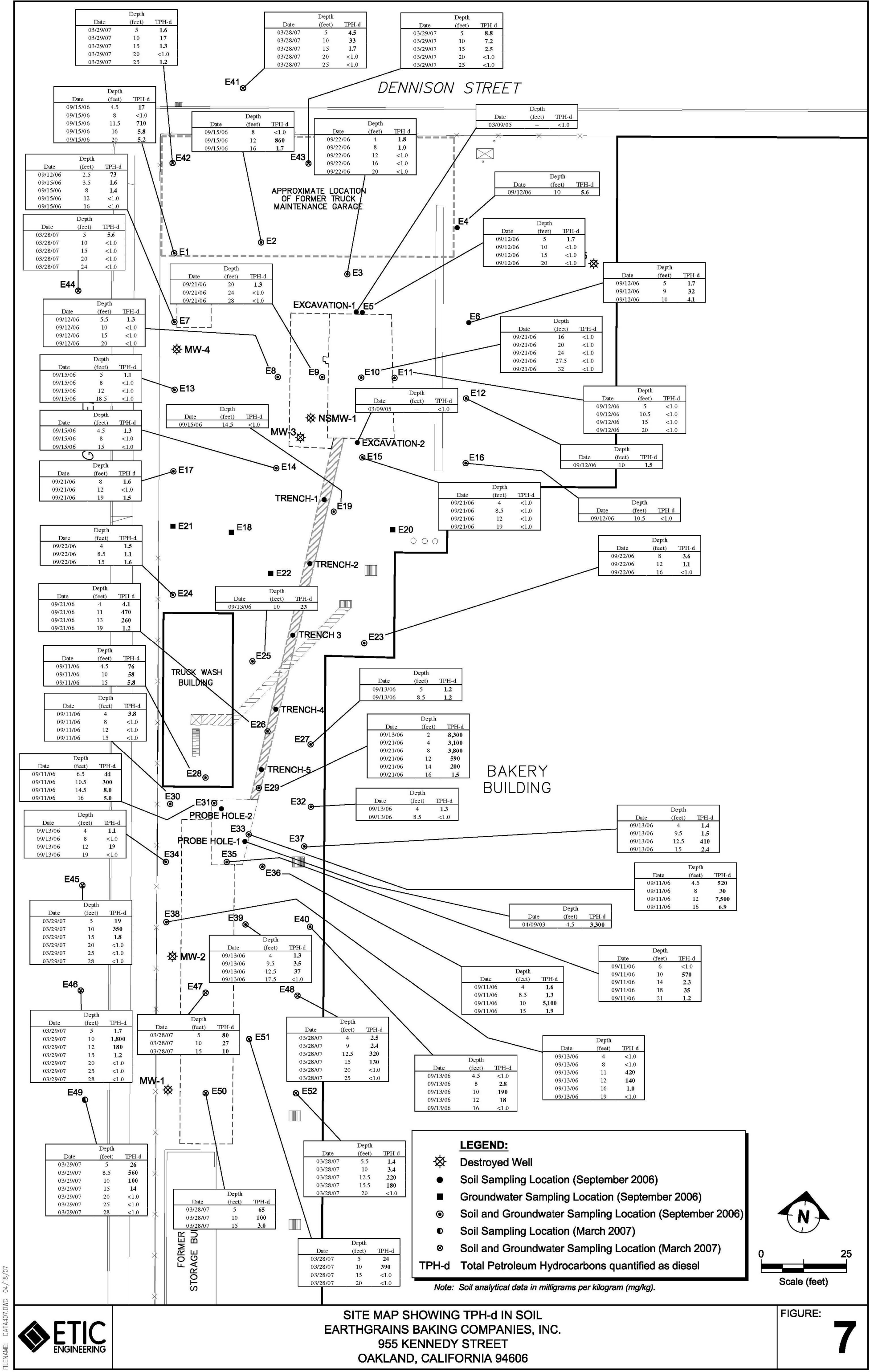
0

PROJECT NO.:

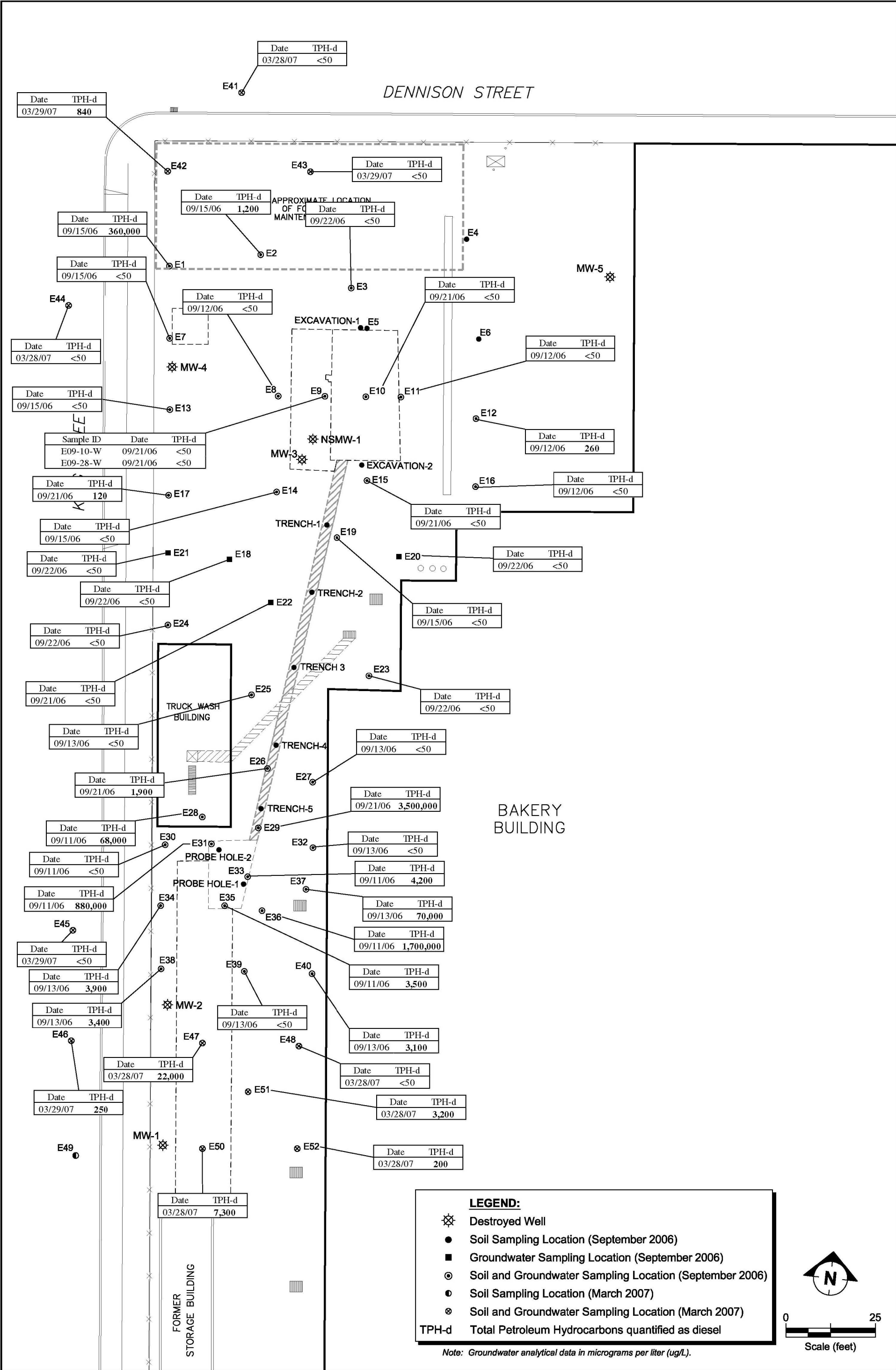
62402797

EARTHGRAINS
OAKLAND, CALIFORNIA

FIGURE 11



FILENAME: DATA407.DWG 04/18/07



APPENDIX A

SITE BACKGROUND

AND

UPDATED CONCEPTUAL SITE MODEL

Case Closure Request Report
Earthgrains Baking Companies Inc.
RO #0002569

A1 INTRODUCTION AND SITE BACKGROUND

The Site history, geology, hydrogeology, soil and groundwater quality are presented in the following Section A-1. The Conceptual Site Model (CSM) is presented as Section A-2 of this Appendix.

A1.1 Description of Site and Vicinity

The Site occupies approximately five acres of commercial property in Oakland, California. Earthgrains owns and operates a 105,000 square-foot plant consisting of a bakery, product distribution center, and thrift store at the Site. The entire Site is covered with building structures, asphalt, or concrete pavement. An asphalt-paved parking area and driveway border the eastern and western sides of the Site and truck-loading docks are located in the northwestern side of the plant. A stand-alone truck wash building was located west of the plant and a former truck maintenance garage was located in the northwestern corner of the Site. The truck wash building was removed during source area removal operations. The Site is bounded by Dennison Street to the north, Frederick Street to the south, Kennedy Street to the east, and King Street to the west. Surrounding properties to the north, south, and west of the Site are mainly industrial and commercial businesses. Interstate 880 is located east of Kennedy Street. The Site Location Map is presented as **Figure 1** within the main document's Figure's section.

The Site is located within an incorporated area of the City of Oakland and the municipal water provider is the East Bay Municipal Utility District (EBMUD). Treated surface water from the Mokelumne River watershed and rainfall from the East Bay watershed is combined to supply water to EBMUD customers. The underground utilities near the former UST system and the source of the release have been changed since the source removal. The sanitary sewer lateral that exited the building on the west side and connected to the sanitary sewer beneath King Street was removed with the truck wash building. The water, air, and electric underground utilities have been cut, removed, and capped. The sanitary sewer was capped near the western property boundary near a natural gas pipeline that travels parallel to King Street.

A1.2 Site History and Current Conditions

The Earthgrains facility (formerly Kilpatrick's Bakeries, Inc.) was constructed in the late 1960s and has operated as a bakery and product distribution center. Earthgrains installed and operated eight UST systems at the Site from 1967 to 2005 for fleet operations and back-up oven fuel storage. Subsurface investigations and groundwater monitoring were performed at the Site from 1989 through 1996 for a previous unauthorized release from a diesel UST system. Earthgrains received environmental case closure in 1996 following submittal of a Tier 1 Risk Assessment report to the Alameda County Department of Environmental Health (ACEH). Residual petroleum hydrocarbons were left in soil at the Site when closure was granted.

Earthgrains reported an additional unauthorized diesel UST system release at the Site in 2003 following the discovery of petroleum hydrocarbons during product piping modifications at a diesel pump island. Since the Tier 1 Risk Assessment report indicated that residual petroleum hydrocarbons remained in soil near the 2003 diesel UST system release area, the exact source of

the petroleum hydrocarbons was undetermined. Investigation and corrective action since 2005 was conducted under RO#0002569.

A1.3 UST System Closures and Corrective Action

Earthgrains operated eight UST systems at the Site from 1967 to 2005. The locations of the UST systems are shown on Figure 2 of the FS/CAP. Earthgrains performed the following UST activities:

- Four 10,000-gallon diesel UST systems were installed in a shared tank excavation in 1977, south of the truck wash building as a back-up fuel supply system for the ovens in the plant. The four diesel UST systems were removed for permanent closure on October 11, 1989. During the UST closure activities, 384 tons of diesel-impacted soil were excavated and removed for off-site disposal and the former UST excavation was backfilled with clean, imported pea gravel.
- One 10,000-gallon gasoline, one 10,000-gallon diesel, and one 350-gallon waste oil UST system was installed south of the former truck maintenance garage during 1967. The gasoline and diesel tanks shared a common excavation and were removed for permanent closure on December 12, 1990. The waste oil UST system was removed for permanent closure on January 28, 1991 and approximately 25 cubic-yards of petroleum-impacted material was excavated and removed for off-site disposal. The UST excavations were then backfilled with clean, imported granular material.
- One 10,000-gallon diesel UST system was installed in January 1991 to replace the former diesel UST system removed southeast of the truck maintenance garage in December 1990. Earthgrains removed the original pump island on the 10,000-gallon diesel UST system and installed a new diesel dispensing system south of the truck wash building in 1995.
- Earthgrains upgraded the product dispensing system in April 2003 in order to comply with new under-dispenser containment requirements. Additional diesel fuel-contaminated soil was discovered at that time and the diesel UST system was removed for permanent closure on March 9, 2005. Based upon the UST closure assessment data, Earthgrains submitted an unauthorized UST release (leak) report for the Site to the Oakland Fire Department on April 15, 2005. This was the last UST system operated by Earthgrains at the Site.

A1.4 Historic Environmental Investigations

A historical unauthorized release of diesel fuel was reported in 1989 following UST system closure. Historic subsurface investigation and corrective action were performed from 1989 through 1996 for this release. These historical environmental investigations assessed soil and groundwater quality. Soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g), diesel (d), and motor oil (mo); benzene, toluene, ethylbenzene, and total xylenes (BTEX); volatile organic compounds (VOC); and poly-cyclic aromatic hydrocarbons (PAHs). Historical soil sample locations, soil analytical data, and groundwater data are presented in the FS/CAP. The historic environmental investigation activities at the Site are summarized below:

1992 Site Investigation

PSC, formerly Burlington Environmental, Inc., performed a Site investigation in August 1992 to assess the lateral and vertical extent of petroleum hydrocarbons in soil and groundwater from the 1989 diesel UST system release. PSC installed five groundwater-monitoring wells (MW-1 through MW-5) at the Site and performed quarterly groundwater monitoring from August 1992 to December 1994.

1995 Tier 1 Risk Assessment

Groundwater samples collected and analyzed from the quarterly monitoring events performed between 1992 and 1994 detected concentrations of chlorinated and non-chlorinated solvents. PSC submitted a Tier 1 Risk Assessment report for the Site in July 1995 prepared in accordance with the American Society of Testing and Materials (ASTM) Risk Based Corrective Action procedures and Emergency Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites ES 38-94. The report presented evidence that solvent concentrations in groundwater found in the investigation were derived from an off-site source. The ACEH agreed with the assessment report findings and closed the environmental case in March 1996. PSC abandoned the five groundwater-monitoring wells at the Site in March 1996 and Earthgrains received environmental case closure on April 17, 1996.

2003 Release

Earthgrains reported an additional unauthorized diesel UST system release at the Site in 2003 following the discovery of petroleum hydrocarbons during product piping modifications at a diesel pump island. Since the 1995 Tier 1 Risk Assessment report indicated that residual petroleum hydrocarbons remained in soil near the 2003 diesel UST system release area, the exact source of the petroleum hydrocarbons was undetermined.

Detailed investigations performed in 2006 and 2007 indicate that subsurface soils at the Site consist of silt and clay to a depth of approximately 20 feet bgs, where a sand and gravel layer is typically first encountered. Groundwater in this permeable layer is under semi-confined conditions. The report stated that perched water is encountered in the gravel backfill material of the former shared diesel UST excavation and shallow silty-sand layers above 20 feet bgs at the Site.

2006 Soil and Groundwater Quality Investigation

On behalf of PSC, ETIC Engineering, Inc. (ETIC) performed a soil and groundwater quality investigation at the Site in September 2006 to further evaluate residual petroleum hydrocarbons remaining in the subsurface following the unauthorized diesel UST system release in April 2005. ETIC drilled 40 borings and submitted 131 soil and 38 groundwater grab samples for laboratory analyses.

Diesel was the primary chemical detected in soil and groundwater grab samples collected and analyzed during this Site investigation. The highest concentrations of TPH-d detected in soil were from samples collected in the vicinity of the former diesel pump island located south of the truck wash building and along the southern end of the former diesel product piping trench. The

highest concentrations of TPH-d detected in soil samples were collected at depths of less than 16 feet bgs. Concentrations of TPH-d were also detected in soil samples collected south of the former truck maintenance garage in the northwest corner of the Site.

2007 Remedial Investigation

ETIC performed a remedial investigation at the Site in March 2007 to assess the lateral and vertical extent of subsurface diesel contamination in preparation for remediation. ETIC drilled an additional 12 soil borings and collected 61 soil and 11 groundwater grab samples for laboratory analyses. The highest TPH-d concentrations detected in soil samples were collected at depths from 8.5 to 15.5 feet bgs. Concentrations of BTEX were not detected in any of the soil samples collected during this remedial investigation.

2009 Groundwater Investigation

PSC submitted a *Groundwater-Monitoring Well Installation Plan* dated November 18, 2008 and a *Groundwater-Monitoring Well Installation Plan Addendum* dated January 9, 2009 to the ACEH. The purpose for performing a groundwater investigation at the Site was to provide additional soil and groundwater data for a feasibility study/remedial evaluation (FS/RE) to evaluate source removal by excavation. Information from the 2009 groundwater investigation is presented in Section 2 of this report. The well installation plan and addendum were approved by the ACEH in January 2009.

Soils encountered in the borings consisted of a few feet of fill material overlying silty and sandy clay. Sand, gravelly sand, and clayey gravel were encountered in the soil borings for MW-102, MW-103, and MW-104. Saturated soil was typically encountered at approximately 20 feet bgs. Layers of saturated soil were encountered at shallower depths in MW-103 and MW-104. Selected soil samples were submitted for laboratory analysis of TPH-d, and BTEX.

Four two-inch diameter groundwater-monitoring wells (MW-101 through MW-104) and one six-inch diameter dewatering well (DW-1) were installed at the Site. MW-103 was installed northeast of the former diesel pump island in a hydraulically up-gradient location and the remaining three monitoring wells were installed west, southwest, and southeast of the former diesel pump island. DW-1 was installed in granular backfill material at the northern end of the former shared excavation for the back-up oven fuel tanks. This six-inch diameter well was constructed with Schedule 40 PVC casing and 10 feet of 0.020-inch slotted PVC well screen to a total depth of 15 feet bgs.

The analytical reports for soil samples indicate that TPH-d concentrations exceeded the Environmental Screening Levels (ESL) for leaching to groundwater in soil samples from MW-104 (8.5-10) and DW-1 (8.5-10) and the groundwater ESL in the groundwater sample collected from DW-1. ACEH indicated that soil concentrations in well DW-1 might be indicative of light non-aqueous liquids (LNAPLs). However, PSC has routinely checked all monitoring wells including DW-1 and have found no LNAPLs or free phase petroleum product.

Groundwater sample results from January indicated concentrations of TPH-d in MW-102, MW-103, and MW-104. These concentrations did not exceed the groundwater ESL of 210 µg/L. The

sample from DW-1 had a TPH-d concentration of 1,200 µg/L. Laboratory analytical data indicate that BTEX concentrations were not detected in any of the soil or groundwater samples collected. Results of soil bulk density ranged from 1.5 to 1.9 g/cm³, which is typical of a silty clay. Total organic carbon numbers ranged from 1,050 to 2,900 mg/kg.

PSC performed a modified pump test on DW-1 to determine the volume of water and the rate of removal required to dewater the area around the former diesel pump island. Gregg Drilling and Engineering (Gregg) installed a submersible pump in DW-1 and pumped the dewatering well at the highest sustainable flow rate. Gregg was only able to maintain a pumping rate of less than one gallon-per-minute in the dewatering well for a period of seven hours. PSC measured a water-level drawdown of approximately two feet in DW-1 during the seven-hour pump test event.

In order to assess the hydraulic connection between perched water in the former shared diesel UST excavation with the permeable zone screened in the monitoring wells, PSC placed pressure transducers near the bottom of each monitoring well. The pressure transducer measured the change in water pressure and calculated the water column height during the test. The transducers were connected to a Hermit 3000 Data Logger and the electronic components interfaced with a laptop computer using Win-Situ software. PSC measured a water-level drawdown of approximately one foot in MW-102 during the test. MW-102 is located about 15 feet northwest of DW-1. PSC observed minimal changes to the water levels in MW-101, MW-103, and MW-104 during the pump test, but these fluctuations could be attributed to changes in barometric pressure. This pump test indicated that there is a limited hydraulic connection between the groundwater in the former excavation and the groundwater encountered in the monitoring wells.

After completion of the well development and pump test, PSC conducted slug testing on the monitoring wells to assess hydraulic conductivity of the shallow aquifer. Pressure transducers were placed near the bottom in each well and connected to the Hermit 3000 data logger. Rising and falling water level data were recorded on a laptop computer. A 1-inch diameter by 3-foot long solid slug was lowered into the water column. The rise and fall of the water level were measured until it had stabilized. The slug was removed and the fall and rise of the rebounding water table were measured.

Data from the slug tests were analyzed using AQTESOLV™, commercially available solution software for hydraulic conductivity and pump tests. Water level and time data are plotted using the software. A Bouwer-Rice solution for confined aquifers was used to match a tangent line to the slope of the data. The results of the solution are presented as hydraulic conductivity in cm/sec. Not all of the slug test data were usable. Five results of slug in/slug out data provided useful curves that could be matched to the selected solution. An average hydraulic conductivity of 5.2×10^{-4} cm/sec was estimated from the slug test.

A1.5 Historic Groundwater Monitoring

Groundwater monitoring was performed at the Site from August 1992 to December 1994 and groundwater samples were collected for laboratory analyses from historic wells MW-1 through MW-5. Concentrations of TPH-g and TPH-mo were detected in groundwater samples collected from MW-2 and MW-4. Chlorinated and non-chlorinated solvent compounds were also detected

in groundwater samples from MW-4, but a risk assessment determined that the concentrations were derived from an off-site source. Earthgrains received environmental case closure from the ACEH in April 1996. These wells have been closed and abandoned.

Groundwater monitoring has been conducted at the site on a semi-annual basis since new wells were installed in January 2009. Free-phase petroleum hydrocarbons have never been detected in the wells during the historic groundwater-monitoring events at the Site. This includes well DW-1 installed for the purpose of de-watering the source area with a screen interval placed from 5 to the total depth of 15 feet bgs. Water level measurements obtained from the monitoring events indicated that groundwater flowed beneath the Site in a west-southwest direction at a hydraulic gradient of approximately 0.005 to 0.01 foot-per-linear foot (ft/ft).

PSC subcontracted Blaine Tech Services, Inc. (BTS) to perform April and July 2009 and January 2010 quarterly groundwater-monitoring events at the Site. BTS collected groundwater samples from the five active wells (MW-101 through MW-104 and DW-1) on April 15 and July 22, 2009 and January 28, 2010. Samples were submitted to Kiff for analyses of TPH-d, BTEX, and PAHs. The analytical data for the historical groundwater monitoring events are summarized in the FS/CAP.

Kiff analytical data indicates that TPH-d concentrations exceeded the ESL for groundwater in samples collected from DW-1. However, this well is screened in groundwater in the former UST excavation. As previously stated, no free phase product was observed in DW-1 or any of the newly installed groundwater monitoring wells. TPH-d concentrations in well MW-102 ranged from 160 to 120 µg/L from January to July 2009. TPH-d concentrations in well MW-104 ranged from 100 to 97 µg/L from January to July 2009. TPH-d concentrations were 80 µg/L in well MW-103 after the installation, but were not detected in the July 2009 or January 2010 sampling events. PAHs and BTEX concentrations were not detected in any of the groundwater samples collected during the two quarterly monitoring events. PAHs were not detected in the July sampling event.

A1.6 2009 Tier 1 Risk Assessment

PSC conducted a Tier 1 Risk Assessment in accordance with “Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, (Revised May 2008)” (SFBRWQCB ESL Guidance Document). PSC submitted their “Tier 1 Risk Assessment and No Further Action Request Report, on September 17, 2009.

Soil contaminated with residual petroleum hydrocarbons beneath the Site was primarily located south of the former diesel pump island and shared excavation for the former diesel fuel tanks. Concentrations of TPH-d in soil exceeding the gross contamination ceiling levels for commercial/industrial sites where groundwater is not a current or potential drinking water resource were located in an approximately 150-ft² area beneath King Street. Concentrations of TPH-d in soil that exceed the final ESL for both residential and commercial/industrial sites where groundwater is not a current or potential drinking water resource were located in an approximate 4,500 ft² area south of the former diesel pump island, shared excavation for former back-up oven fuel tanks, and former 350-gallon waste oil UST excavation.

Concentrations of TPH-d in groundwater encountered in the active monitoring wells did not exceed the groundwater ESL for commercial/industrial sites where groundwater is not a current or potential drinking water resource. Based on the length of time that soil and shallow groundwater had been impacted by residual petroleum hydrocarbons at the Site, and the stable concentration of TPH-d, migration through the shallow aquifer was considered minimal.

As the title indicates, based on the minimal risk to human health, safety and the environment, PSC requested that ACEH require no further action. ACEH disagreed that the Site was ready for “no further action” based on elevated concentrations of TPH-d in shallow soil and groundwater in the source area.

A1.7 2010 Feasibility Study/ Corrective Action Plan

ACEH required the submittal of a FS/CAP prepared in accordance with Title 23, California Code of Regulations, Section 2725. PSC prepared and submitted a FS/CAP on July 16, 2010. Because of the nature of diesel contamination and subsurface conditions, the report compared only 2 remedial alternatives. PSC concluded that dewatering and excavation of soil in the source area was the most effective remedy. The corrective action plan included de-watering the shallow saturated zone using well DW-1.

ACEH approved the FS/CAP on July 30, 2010. The only condition documented in the approval letter was a warning that any observed contamination coming from a source other than the diesel fuel release, i.e. the oil/water separator, may not be eligible for reimbursement by the California UST Fund. ACEH submitted a Fact sheet regarding the approved CAP to surrounding and potentially affected property owners for a 30-day comment period. No comments were received.

A 1.8 Summary of Source Removal Corrective Action

PSC commenced source removal activities in August 2010. The source area removal included excavating TPH-d contaminated soil in an approximately 1,800-ft² area around the former dispenser island to a depth of 12 feet bgs. The plan in the CAP included dewatering activities, the removal of the former Truck Wash Building, the settling tank, and the utilities supplying the building. Observations in the field expanded the excavation slightly. A total of 1,224 tons of soil contaminated with TPH-d were removed from the excavation. PSC estimates that a volume of 20,500 cubic feet or 755 cubic yards of soil was removed. This results in a bulk density of 120 pounds per cubic foot. This estimated density was used in revised estimates of residual mass.

Samples of contaminated soils, that were later removed, were collected in order to verify the necessity of source removal. Soil samples were also collected around the perimeter of the excavation at the depth near the shallow permeable zone and where the highest staining and odor were observed. Three of the 17 confirmation soil samples had detectable concentrations of TPH-d. These three samples had concentrations below the leaching to groundwater ESL. After sample collection, Rumex backfilled the excavation with crushed gravel and aggregate base course material. The backfill was compacted and after compaction testing, the excavation area was resurfaced with reinforced concrete pavement.

Post source removal concentrations of TPH-d in groundwater were only slightly lower than pre-source removal samples. These levels are below the Commercial ESL of 210 µg/l. PSC anticipates reductions in the concentrations of TPH-d in groundwater in the future due to contaminant mass removed during the source area removal.

PSC submitted the *Corrective Action Completion Report, Source Area Soil and Groundwater Removal* on April 19, 2011. The conclusions of this report were that Earthgrains had complied with ACEH directives and the source area soil and groundwater was removed in accordance with the approved FS/CAP. PSC included a case closure justification in the report and again requested case closure from ACEH.

A2 SUMMARY OF REVISED CONCEPTUAL SITE MODEL

PSC has presented a conceptual model of the Site in previous documents. Based on a discussion regarding the update of the California LUFT Manual, Version 2, October 4, 2010, PSC has revised the CSM. The objective of the CSM is to provide a current opinion on the following:

- an understanding of the origin, nature, and lateral and vertical extent of contamination;
- potential contaminant fate and transport processes and pathways;
- potential human and environmental receptors that may be impacted by contamination associated with the Site;
- additional data needed to draw reasonable conclusions regarding the source(s), pathways, and receptors; and
- evaluation of the risk to human health, safety and the environment posed by the LUFT Site.

The components of an effective CSM include maps, cross-sections, tables, charts, and boring logs. These components are included in this and previous reports and work plans prepared for the Site. The following sections of this report are a summary of the CSM as presented in previous reports with additional information from the completed corrective action supporting or clarifying the opinions presented in the previous CSM.

A2.1 Land Use and Environmental Setting

The Site has been a commercial/industrial property since the late 1960s. The current use of the Site is a bakery and bakery product distribution center. The Site is covered by either pavement or structures. Based on its close proximity to Interstate 880 and San Francisco Bay, the Site will likely remain a commercial/industrial property for the near future.

Surface water or storm water from the western side of the Site flows to a storm sewer located about 20-feet west of and parallel to the bakery building. Water in this storm sewer flows north where it empties into a concrete storm-water sewer beneath and parallel to Dennison Street. An additional storm drain is located approximately 25 feet west of the Site beneath King Street. The storm-water sewer along King Street flows north and intersects a second storm-water sewer that travels beneath and parallel to Dennison Street, approximately 60 feet northwest of the property. This storm water sewer flows west to Embarcadero Street and Brooklyn Basin. Based on the lateral and vertical extent of contamination in soil and groundwater, impact to storm water or surface waters from the release on Site has not occurred.

A2.2 Local Geology and Hydrogeology

The Site is located in the East Bay Plain Sub-basin of the Santa Clara Valley Groundwater Basin. The East Bay Plain Sub-basin aquifer system consists of unconsolidated deposits from the Quaternary age. These deposits include the early Pleistocene Santa Clara Formation, the late Pleistocene Alameda Formation, the early Holocene Temescal Formation, and artificial fill. The cumulative thickness of the unconsolidated deposits is approximately 1,000 feet.

Historical soil boring logs indicate that the predominant soil types beneath the Site consist primarily of clay and silty clay. During source removal corrective action in October and November 2010, soil consisted predominately of silty clays. A one to two foot thick layer of sand and gravel was encountered at depths ranging from 11 to 14 feet bgs. Silty clay was encountered beneath this sand layer.

Historical drilling activities performed across the Site indicated that groundwater was encountered within a sand and gravel layer located at depths of 18 to 26 feet bgs. Groundwater appeared to be in a semi-confined condition and groundwater levels stabilized at approximately 9 feet bgs. Previously, PSC believed that a large area of perched water, near the former shared diesel UST excavation south of the former Truck Wash Building was recharging the shallow permeable zones at 18 feet bgs. Sand and gravel encountered at 11 to 14 feet bgs in the source removal excavation appeared to be native soil. This soil was saturated. This observation indicates that the first occurrence of groundwater beneath the Site is in this sandy material encountered as shallow as 9 feet bgs. Based on boring logs across the Site the permeable sands do not appear to be laterally continuous across the Site.

Groundwater flow direction at the Site is generally toward the west-southwest with a hydraulic gradient ranging from approximately 0.005 to 0.01 ft/ft. An average hydraulic conductivity of 5.02×10^{-4} cm/sec was obtained from the results of slug testing. Using this hydraulic conductivity, a hydraulic gradient of 0.005 ft/ft and a porosity of 35, the linear velocity of groundwater is estimated to be 7.6 ft/year. This estimate is conservative and the distance traveled by a particle of groundwater should be much less than 7.6 feet a year. The distance a contaminated groundwater plume will travel in a year requires additional parameters for the contaminant such as solubility and natural attenuation parameters for the soil. Only TPH-d, which is a mixture and has no specific chemical properties like solubility, has been detected in groundwater. Therefore, fate and transport modeling has not been completed.

A2.3 Sources of Contamination

The primary source area for the current unauthorized diesel release at the Site is the former diesel pump island located south of the Truck Wash Building. An additional source of contamination is the former diesel fuel UST located adjacent to the former Truck Repair Building which was located north of the Truck Wash Building. Source areas are shown in numerous previous reports.

Based on observations from the source area removal, diesel fuel released from the dispenser pumps migrated along the east foundation of the Truck Wash Building. The former excavation from the four diesel fuel USTs removed in 1990 was actually located further north than previously reported. This excavation, backfilled with granular material, was located immediately west of the dispenser island, beneath the southern end of the Truck Wash Building. Diesel fuel appears to have migrated along the foundation of the building into the granular backfill of the former UST excavation beneath the building. Storm water infiltration through the pavement in this area has leached contamination into shallow groundwater.

A2.4 Chemical-of-Concern and Affected Media

Soil and groundwater analytical data from investigations and corrective actions at the Site indicate that the chemical-of-concern is TPH-d. No BTEX or PNA concentrations were detected in groundwater samples collected in July 2009. Contamination is encountered in saturated and unsaturated soil. Groundwater at a depth of approximately 10 feet bgs and shallow groundwater at a depth of approximately 18 feet bgs is impacted by TPH-d. There is a potential for surface water impact in the granular backfill installed in the trenches of the storm water and sanitary sewer utilities.

A2.5 Extent of Petroleum Hydrocarbons

Subsurface investigations performed in 2006, 2007, and 2009 included: drilling 57 soil borings and collecting 192 soil samples; 49 groundwater grab samples; and 15 groundwater well samples. The soil and groundwater samples were analyzed for TPH-d and other appropriate contaminants-of-concern. The following sections present a summary of those investigations and a comparison to the SFBRWQCB ESL Guidance Document.

A2.5.1 Selection of Appropriate ESLs

The Site has been a bakery and product distribution center since the late 1960s and will likely remain a commercial/industrial property in the future. Although some properties in the Site vicinity have been converted to residential buildings and public use areas, the plant is not suitable for this use without major renovations or demolition. Therefore, PSC believes that the ESL selections for commercial/industrial properties were appropriate for the Site. PSC compared TPH-d concentration in shallow soil (<3 meters) and unsaturated deeper soil (>3 meters) at the Site to both the residential and commercial/industrial ESL to assess the need for environmental land-use restrictions on the property. PSC used the residential ESL for estimating the mass of residual hydrocarbons in soil.

PSC also compared TPH-d concentrations in shallow soil to the ESL for direct exposure of industrial workers. Because the Site is completely covered by asphalt or concrete pavement or structures, PSC believes that a less stringent direct exposure ESL for construction workers in trenches would be more appropriate for the Site.

Groundwater in the vicinity of the Site is listed as suitable for beneficial use on the SFBRWQCB Basin Plan. However, in PSC's opinion, groundwater beneath the Site and vicinity is not suitable for drinking water due to the yield of the shallow aquifer. Deeper aquifers beneath the Site are not suitable for drinking water due to the close proximity of San Francisco Bay and a potential for salt-water intrusion. Therefore, PSC selected the appropriate ESL for sites where groundwater is not a current or potential drinking water resource for comparison to the soil and groundwater concentrations at the Site.

Analytical data for TPH include chromatograms that are characterized as gasoline, diesel fuel, or motor oil based on the elution time and the pattern of peaks. Concentrations characterized by a laboratory analyst as either motor oil or gasoline could be from diesel fuel contamination. TPH-d was the most frequently detected contaminant in soil or groundwater at the Site. The

groundwater ESL of 210 µg/L for TPH-d was selected for comparison to groundwater concentrations at the Site.

A2.5.2 Comparison of Results to ESLs

PSC compared soil sample data collected from 1989 through 2009 to the appropriate ESL selections listed in Section 2.5.1 of PSC's Tier 1 Risk Assessment. The comparison of shallow soil data and unsaturated deep soil is summarized in the CACR, as well as sample locations where TPH-d concentrations exceeded the ESL.

Based on soil analytical data from 275 soil samples (83 prior to 2006 and 192 after 2006) collected at the Site, only one sample (16TP-1) collected in 1990 exceeded the final ESL for benzene at a concentration of 0.15 mg/kg. As previously reported, two soil samples collected in 1990 (16TP-1 and 15NTW) exceeded the final ESL for TPH-mo at 1,300 mg/kg and 2,700 mg/kg, respectively. A review of the UST Closure Report revealed that these samples were waste characterization samples. This area was later excavated and disposed. Only one soil sample (E-29) exceeded the final residential ESL for TPH-g at 140 mg/kg. This sample was excavated and disposed of during the 2010 source area removal.

Nine shallow and 20 deep soil samples exceeded the final ESL for residential properties where groundwater is not a current or potential drinking water resource. The final ESLs presented for TPH-d in the ESL Document were based on contaminants in soil leaching to groundwater. Minimal groundwater contamination has been detected in the recent quarterly monitoring events. Soil sample locations near these groundwater-monitoring wells have exceeded the ESL for soil leaching to groundwater. This indicates that contaminants have not leached to groundwater in concentrations that result in groundwater contamination exceeding the groundwater ESLs.

The extent of TPH-d in soil was delineated and the results were compared with the residential and commercial ESLs of 100 and 180 mg/kg, respectively for non-drinking water sites. Historical soil sample analytical data are summarized on Tables 1D and 1E of the CACR. Historical groundwater analytical data for well samples is presented in Table 2D and 2E of the CACR. TPH-d concentrations in historic soil samples and groundwater well samples from July 22, 2009 are shown on geologic cross-sections in Figures 5 and 6 of the CACR.

A2.6 Contaminant Fate and Transport

TPH-d contamination in soil exists in the source areas at depths between 2 and 10 feet bgs. The soil in this depth interval at the Site is typically silt and clay. TPH-d concentrations in soil are a secondary source of contamination of groundwater at the Site. As previously discussed, a permeable saturated sand and gravel layer was observed during the source area removal. Diesel fuel appears to have migrated along the Truck Wash Building foundation and impacted the granular backfill of the former diesel fuel UST excavation. This contamination has leached to groundwater and the granular backfill in this excavation is regarded as a secondary source. This primary and secondary source of contamination has been removed by excavation and disposal as described in this report.

PSC's previous CSM was based on the opinion that storm water infiltrating the pavement has been impacted by diesel fuel in the source areas. Storm water was thought to migrate through granular material in the sub base of the pavement and the backfill of the sanitary sewer. Contaminated storm water in the backfill of the settling tank and sanitary sewer has apparently migrated along the sewer line and contaminated soil beneath King Street. Observations made during the source removal revealed misconceptions in this model. The granular saturated soils encountered at approximately 9 to 10 feet bgs in the excavation was impacted by contaminants migrating along the footing of the Truck Wash Building. This contamination then migrated to the granular backfill material in the former excavation of the four diesel fuel USTs. This excavation was closer to the source than previously reported. This contamination leached to the groundwater in the shallow permeable zone at 10 feet bgs. Based on boring logs, this zone is laterally discontinuous across the Site. This may explain isolated soil contamination found beneath King Street.

The storm water sewers located along the western side of the plant and beneath King Street could also be a conduit for contaminant migration. However, depth of these utilities near the source areas is only 3-4 feet deep. Based on shallow soil samples near the on-site storm sewers, there is less of a potential for these to be a migration pathway.

Groundwater beneath the Site is encountered in semi-confined conditions. Shallow groundwater was encountered at approximately 10 feet bgs in some borings and in the former UST system excavations. The primary transport mechanisms for residual contamination in the shallow aquifer are advection, adsorption, desorption, and volatilization. Laboratory analytical data from historic subsurface investigations indicate that both saturated soil and groundwater are affected in the shallow aquifer and adsorption and desorption between the two phases could be occurring. Residual petroleum-hydrocarbon contamination around the former diesel pump island and waste oil UST excavation may have migrated with groundwater through advection. It may also be possible that TPH-d contamination has migrated from the former diesel pump island source area through the shallow groundwater in the shared excavation of the former oven fuel tanks. Minor groundwater contamination in wells MW-101 through MW-104 is likely the result of this contaminant transport.

Volatilization of petroleum-hydrocarbon constituents from soil and groundwater into vapor can result in migration to the ground surface or into buildings. However, based on the low volatility of diesel and the clay nature of the soil, contaminant transport through this migration pathway has less of a potential to be complete.

A2.7 Potential Exposure Pathways and Receptors

Potential exposure pathways and receptors at the Site and nearby properties were evaluated based on current and potential future use. The Site is currently an active commercial and industrial property with nearby land used for commercial, industrial, and residential purposes. The plant and retail store occupy approximately 90 percent of the Site and both have concrete floors. The remaining surfaces at the Site are paved with either asphalt or concrete.

Potentially complete exposure pathways and receptors were identified for the Site using the following criteria:

- A point of potential contact with impacted medium (referred to as the exposure point); and
- An exposure route at the point of contact (inhalation, ingestion, or dermal contact).

Site-specific, potentially complete exposure pathways and potential receptors are summarized below:

- Inhalation of chemicals volatilizing from soil or groundwater to indoor or outdoor air (residential, commercial, or industrial receptors);
- Inhalation of volatiles, dermal contact, or incidental ingestion of contaminated soil or groundwater through excavation (industrial or construction workers);
- Ingestion of or dermal contact with contaminated groundwater from a potential current or future water supply well (residential, commercial, or industrial receptors); and
- Dermal contact with or incidental ingestion of contaminated surface water (residential, commercial, or industrial receptors or construction workers).

The vapor-intrusion pathway from impacted soil and/or groundwater to outdoor or indoor air is potentially complete. However, diesel contamination is not very volatile and the soil beneath the Site is silty clay. In addition, the bakery building and buildings near the Site have elevated slabs. The nearest receptors are the bakery plant, which has an elevated floor slab on the west side of the building. Soil vapor intrusion into this building is not likely to occur. The completion of this potential exposure pathway is not very likely. Based upon analytical data from historical subsurface investigations and soil vapor intrusion surveys from similar sites, PSC believes that a soil-vapor intrusion study is unnecessary to evaluate the potential health risks associated with exposure via inhalation of volatiles from the subsurface.

Based on the presence of paved surfaces at the Site, industrial workers, and occupants will not be subjected to direct exposure (ingestion and/or dermal contact) with residual petroleum-hydrocarbon constituents in near surface or subsurface soil for current land use at the Site. However, construction workers could have direct exposure to residual contamination in near surface and subsurface soil, if excavation occurs in the future.

Potential exposure by ingestion and/or dermal contact with impacted groundwater at the Site is minimal considering the Site is serviced by the EBMUD. Two abandoned public water supply wells (PRW1 and PRW2) are located northeast of the Site within 2,000 feet. One of the wells is located approximately 700 feet north-northeast and the other water well is approximately 1,400 feet east-northeast of the Site. Both abandoned water supply wells are hydraulically up gradient of the Site. Environmental Data Resources (EDR) records do not indicate any active water supply or irrigation wells within the search radius. The future installation of shallow water-producing wells within the contaminant plume could create a direct and complete exposure pathway. However, the probability of a water supply well installed in an industrial area this close to the Brooklyn Basin is very low.

If contaminated groundwater discharge to surface water occurs, then a potentially complete exposure pathway for off-site receptors and/or construction workers could exist. Based upon a sensitive receptor survey, the closest surface water body to the Site is the Brooklyn Basin within

the Oakland Estuary located approximately 800 feet southwest and down gradient of the Site. An unnamed creek flows into the Brooklyn Basin about 1,800 feet northwest of the Site. Wetlands were identified on the EDR figures within 2,000 feet of the Site and generally correspond to the margins of the estuary. There is a potential for surface water impact from storm water sewers, however based on sample results near the sewer (E-45 and E-46) concentrations exceeding ESLs are limited to a small area. Discharge of contaminated groundwater to surface water at levels that exceed the ESL for marine habitats is unlikely.

Construction workers may have direct exposure to residual contamination in groundwater, if excavation and/or dewatering activities occur at the Site in the future. There is also a potential construction-worker exposure risk for excavation work on utilities beneath King Street. It is PSC's opinion that source removal and natural attenuation should significantly reduce the potential exposure.

A2.8 Residual Petroleum Hydrocarbons in Soil

In previous reports, PSC compared historic shallow and deep soil sample analytical data to the ESL for gross contamination of commercial/industrial properties where groundwater is not a current or potential drinking water resource. Samples that exceeded the ESL were generally in the primary source area of former diesel pump island with the exception of E-49 in King Street. PSC also compared analytical data with the ESL for shallow and deep soil for residential and commercial/industrial properties where groundwater is not a current or potential drinking water resource. Summaries of these comparisons are presented in the Tier 1 Risk Assessment and Request for Closure.

Based on extrapolation of TPH-d concentrations in soil at the Site, areas with concentrations exceeding the gross contamination ESL include approximately 600-700 ft² at the former diesel pump island and approximately 100-150 ft² located near E-49 in King Street. In addition to the primary source area, residual petroleum-hydrocarbon concentrations above the final ESL are encountered in a 8,200 ft² area that includes the former diesel pump island, shared diesel UST excavation, and former 350-gallon waste oil UST excavation.

PSC originally estimated the extent of residual petroleum hydrocarbons in soil (pre-source removal) above ESLs to be an area of approximately 7,600 ft² near the former diesel pump island and shared diesel UST excavation. This area extends west into King Street. PSC estimated a second area of approximately 600 ft² near the former 350-gallon waste oil UST excavation located near the southwest corner of the former Truck Maintenance Garage. Using a thickness of 17 feet and average concentrations of samples exceeding the ESLs, PSC estimated approximately 5,782 Kg of TPH-d in soil.

PSC has revised these (pre-source area removal) estimates to include all samples collected in areas that are delineated by the samples exceeding the ESLs. The original estimate was biased high because samples with trace amounts of contaminants or samples with no detectable contaminants were not included in the average concentration in those areas. In addition, samples previously used in the average were samples originally collected before over excavation of soil in 1990 and 1991. A review of the UST removal reports indicate these source area soils were subsequently removed. In addition, the unit weight of soil was revised based on data from the

source removal. The revised estimate of 3,382 Kg was based on all samples collected in three areas including a small area (50 ft²), a medium sized area around the former Truck Maintenance Garage (1,500 ft²), and a large area around the diesel fuel dispenser island stretching out into King Street (6,400 ft²). This revised mass estimate is presented in Table 3A of the CACR.

PSC calculated the mass of TPH-d removed during the source area removal using the unit weight of soil calculated by weigh tickets and the dimensions of the excavation together with the concentrations of all soil samples collected in the mass removed. This resulted in approximately 1,552 Kg of TPH-d removed. This mass estimate is presented in Table 3B of the CACR.

The area of residual hydrocarbons in the three areas (post-source area removal) was then calculated using the three areas and subtracting the volume of source area soil removed. This resulted in an estimate of only 748 Kg of TPH-d. These three estimates do not balance out due to the significant reduction in the average concentrations used. PSC believes a good estimate of residual TPH-d is a range of between 748 kg and 1,800 kg of TPH-d. The post source removal mass estimate is presented on Table 3C of the CACR. Input parameters for each estimate are presented in Table 5 of the CACR.

A2.9 Residual Petroleum Hydrocarbons in Groundwater

Groundwater grab samples collected from open boreholes during historic Site investigations are not representative of groundwater quality and could have residual petroleum hydrocarbons in suspended sediments. Based on this opinion, concentrations of TPH-d in groundwater grab samples were not included in the ESL comparisons. However, these groundwater grab samples were used to estimate the area where residual hydrocarbons are found. Groundwater is encountered in semi-confined conditions at a depth of approximately 10 feet in the source area and 20 feet bgs over most of the Site. The rise in water levels after encountering the permeable zone at the Site indicates an upward vertical gradient on groundwater. A total thickness of 20 feet for groundwater was used for the mass estimates.

PSC originally used groundwater samples from a single groundwater monitoring event. Based on the opinion that residual hydrocarbons may be remaining near areas where grab samples were collected, the area of impact was estimated in a larger area. Average concentrations in the wells in these areas were used. This resulted in an estimate of 0.55 Kg of TPH-d in groundwater.

The groundwater analytical data from the post source area removal indicates that TPH-d concentrations in groundwater samples from the monitoring wells were below the ESL of 210 µg/L for sites where groundwater is not a current or potential drinking water resource. Concentrations of BTEX or PAHs were not detected in any groundwater samples analyzed from the semi-annual groundwater-monitoring events.

A3 REFERENCES

ASTM (American Society for Testing and Materials), 2000. Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), ASTM, West Conshohocken, Pennsylvania.

ACHCSA (Alameda County Health Care Services Agency), 2003. Notice of Responsibility, RO #0002569, Sara Lee Bakery Group, 955 Kennedy Street, Oakland, CA 94606, August 19, 2003.

ACHCSA, 2006. Approval Letter for Work Plan Addendum for Soil and Groundwater Quality Investigation, RO #0002569, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, CA 94606, August 25, 2006.

ACHCSA – Donna Drogos, 2007. Electronic Mail Correspondence Regarding Approval of Remedial Investigation Work Plan, RO #0002569, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, CA 94606, April 4, 2007.

Burlington (Burlington Environmental Inc.), 1993. Soil and Groundwater Investigation Report, 955 Kennedy Street, Oakland, California, Burlington Environmental Project No. CTI106/412, January 5, 1993.

Burlington, 1995. Fourth Quarter 1994 Groundwater Monitoring Report and Request for UST Case Closure, 955 Kennedy Street, Oakland, California, Burlington Environmental Project No. 121382/125971, January 19, 1995.

DWR (Department of Water Resources), 2003. California's Groundwater, Bulletin 118, Update 2003, San Francisco Bay Hydrologic Region, Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, DWR, Sacramento, California.

ETIC Engineering Inc., 2006a. Work Plan for Soil and Groundwater Quality Investigation, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, April 14, 2006.

ETIC (ETIC Engineering Inc.), 2006b. Work Plan Addendum for Soil and Groundwater Quality Investigation, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, August 11, 2006.

ETIC, 2006c. Electronic mail correspondence, ETIC to Mr. Don Hwang of ACHCSA, Regarding Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, August 25, 2006.

ETIC, 2006d. Soil and Groundwater Quality Investigation Report, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, December 21, 2006.

ETIC, 2007. Remedial Investigation Work Plan, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, February 8, 2007.

ETIC, 2008. Sensitive Receptor Survey, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California 94606, RO# 0002569, June 20, 2008.

HydroSolve, Inc., 2000. AQTESOLV for Windows: User's Guide, 2303 Horseferry Court, Reston, Virginia 20191, July 24, 2000.

Mathes (John Mathes & Associates, Inc.), 1990. Draft Site Assessment Work Plan, 955 Kennedy Street, Oakland, California, John Mathes & Associates Project No. 121382/4002, February 1990.

Mathes, 1991. Underground Storage Tank Closure and Installation Report, 955 Kennedy Street, Oakland, California, John Mathes & Associates Project No. 121382/5810, June 7, 1991.

PSC (Philip Environmental Services Corporation), 1995a. Well Destruction Report, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. CTI106/125971, July 7, 1995.

PSC, 1995b. Tier 1 Risk Assessment, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 121382/125971, July 25, 1995.

PSC, 1996. Notification of Well Abandonment, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. CTI106/125971.7052, April 4, 1996.

PSC, 2005. UST System Closure Report, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 62402797, April 15, 2005.

PSC, 2008. Groundwater Monitoring Well Installation Plan, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 62402797, November 18, 2008

PSC, 2009. Tier I Risk Assessment and No Further Action Request Report, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 62402797, September 17, 2009

PSC, 2010. Feasibility Study / Corrective Action Plan, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 62402797, July 20, 2010

PSC, 2011. Corrective Action Completion Report, Earthgrains Baking Companies, Inc., 955 Kennedy Street, Oakland, California, PSC Project No. 62402797, April 19, 2011

SFBRWQCB (San Francisco Bay Regional Water Quality Control Board), 2005. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables, Interim Final, February 2005.

Sowers, Janet M., 2000. Creek and Watershed Map of Oakland and Berkeley. The Oakland Museum of California.

APPENDIX B

PSC July 22, 2011 Directive Appeal Letter

Alameda County Environmental Health Department

June 2, 2011 Directive Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

ALEX BRISCOE, Director



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

June 2, 2011

Mr. Melvin Siegel (*Sent via E-mail to: melvin.siegel@saralee.com*)
Environmental Manager
Earthgrains Baking Companies, Inc.
955 Kennedy Street
Oakland, CA 94606

Subject: Corrective Action Plan For Fuel Leak Case No. R00002569 and GeoTracker Global ID
T0600177342, Earthgrains Baking Company, Inc., 955 Kennedy Street, Oakland,
California, 94606

Dear Mr. Siegel:

Thank you for the recently submitted document entitled, "Corrective Action Completion Report," dated April 19, 2011, which was prepared by PSC Industrial Outsourcing, LP (PSC) for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report for the above-referenced site. PSC has completed an over-excavation and based on soil and groundwater sampling, has recommended no further action for the site. ACEH generally concurs with PSC that active remediation is completed, however, in order to evaluate remedial effectiveness, post remediation monitoring must be conducted.

We request that you address the following technical comments and send us the technical reports requested below.

TECHNICAL COMMENTS

1. **Post Remediation Monitoring** – As mentioned above, in order to evaluate remediation effectiveness, post remediation groundwater monitoring is necessary. Since the zone of contamination that was remediated was shallow, groundwater monitoring wells must be installed with screened intervals that intersect this shallow zone only, and do not exhibit submerged screens. Monitoring well should be installed in locations within the source area(s) and down-gradient to adequately monitor the contaminant plume. Please note that demonstrating plume stability, as well as demonstrating that concentrations of contaminants will ultimately achieve cleanup goals, are some of the criteria necessary to achieve case closure consideration.

Mr. Siegel
RO0002569
June 2, 2011, Page 2

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **July 23, 2011** – Monitoring Installation Work Plan
- **Due within 30 Days of Sampling** – Quarterly Remediation Report (4th Quarter 2010)
- **Due within 30 Days of Sampling** – Quarterly Remediation Report (1st Quarter 2011)
- **Due within 30 Days of Sampling** – Quarterly Remediation Report (2nd Quarter 2011)
- **Due within 30 Days of Sampling** – Quarterly Remediation Report (3rd Quarter 2011)

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,



Digitally signed by Paresh C. Khatri
DN: cn=Paresh C. Khatri, o=Alameda
County Environmental Health
Department, ou,
email=paresh.khatri@acgov.org,
c=US
Date: 2011.06.02 10:04:00 -07'00'

Paresh C. Khatri
Hazardous Materials Specialist

Enclosure: Public Participation Fact Sheet
List of Fact Sheet Recipients
Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: John Carrow, PSC Environmental Services, 210 West Sand Bank Road, Columbia, Illinois,
62236 (Sent via E-mail to: JCarrow@pscnow.com)
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA
94612-2032 (Sent via E-mail to: lgriffin@oaklandnet.com)
Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)
Paresh Khatri, ACEH (Sent via E-mail to: paresh.khatri@acgov.org)
GeoTracker
File

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

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

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

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

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.