SOMA
ENVIRONMENTAL ENGINEERING, INC.
6620 Owens Drive, Suite A • Pleasanton, CA 94588
TEL (925)734-6400 • FAX (925)734-6401
www.somaenv.com

June 3, 2014

Ms. Karel Detterman
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Site Location: 6501 Shattuck Avenue, Oakland, CA
Fuel Leak Case No. RO0003066

Dear Ms. Detterman:

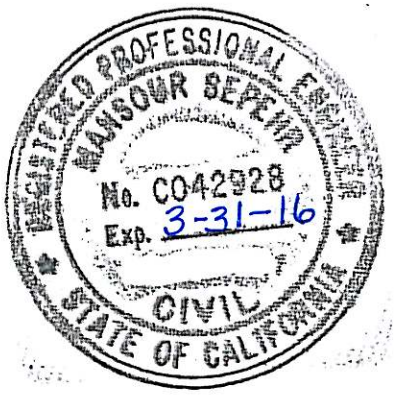
SOMA's "Well Decommissioning Report" for the subject site has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

Mansour Sepehr, Ph.D.,PE
Principal Hydrogeologist

cc: Mr. Athan Magganas w/report enclosure



Well Decommissioning Report

6501 Shattuck Avenue
Oakland, California

June 3, 2014

Project 5032

Prepared for

Bruder LLC
2550 Appian Way, Suite 201
Pinole, California

SOMA ENVIRONMENTAL ENGINEERING, INC.
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PERJURY STATEMENT

Site Location: 6501 Shattuck Avenue, Oakland, California
Well Decommissioning Report

"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".

A. Magganas 6/2/14

Manager of Bruder LLC
Athan Magganas
2550 Appian Way, Suite 201
Pinole, California 94564

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this document for Bruder LLC, at the request of Bruder LLC manager Mr. Athan Magganas, for the property located at 6501 Shattuck Avenue, Oakland, California. This report was prepared in response to Alameda County Health Care Services correspondence dated March 12, 2014.

Mansour Sepehr, PhD, PE
Principal Hydrogeologist

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1. INTRODUCTION

SOMA Environmental Engineering, Inc. (SOMA) decommissioned the monitoring wells and prepared this report at the request of Bruder LLC manager Mr. Athan Magganas, for the property located 6501 Shattuck Avenue, Oakland, California (the site). This report was prepared in response to Alameda County Health Care Services (ACHCS) approval correspondence dated March 12, 2014. The site map is shown in Figure 1.

Three groundwater monitoring wells were installed at the site in 2013 in order to assess the groundwater quality beneath the site and to determine if the site is eligible for closure. Two wells were installed in the sidewalk areas adjacent to the site and one well was installed inside the subject site. This report documents the decommissioning of the wells.

1.1 Site History and Use

According to the Phase I Environmental Site Assessment Report dated January 26, 2007, prepared for the site by RGA Environmental, the site was redeveloped from a single-family residential property to a service station in 1933. The total period of operation of the service station could not be precisely determined from available historical sources, but based on the City Directory Abstract, the service station appears to have been converted to a repair shop and used car sales facility during the mid-1980s. The facility has operated as East Bay Smog Center and Auto Repair since 2000.

The site is located at the northwest quadrant of the intersection of Shattuck Avenue and 65th Street near the common municipal limits of Oakland and Berkeley, approximately 3.25 miles north-northeast of the downtown Oakland commercial district. According to the Alameda County Assessor Office, the parcel is rectangular and covers an area of 0.19 acres (8,333 square feet). Prior to recent underground storage tank (UST) removal and soil excavation activities, the property was improved with an automotive tune-up and repair facility that included the former service station office and canopy structure and a detached two-bay service building. The two site structures were single-story buildings constructed on concrete slabs at grade. Portions of the parcel not occupied by the structures were asphalt or concrete paved. The site vicinity is a mix of service commercial properties along Shattuck Avenue, with older residential development farther to the east and west. Based on assessments of other properties in the area, there are no manufacturing or heavy industrial facilities in the vicinity.

In September 2009, Controlled Environmental Services (CES) obtained permits for removal of six steel USTs located at the subject site. According to the report prepared by CES, dated October 23, 2009, two 1,000-gallon gasoline USTs,

three 2,000-gallon gasoline USTs, and one 500-gallon waste oil UST were removed.

The initial soil and groundwater investigation was conducted by SOMA in July of 2010, and a follow up investigation was conducted in June of 2011.

The remedial soil excavation was conducted in October of 2011. The approved excavation entailed removal of contaminated soil in the area of former USTs to a maximum depth of 15 feet below ground surface (bgs); a total of 770 tons of PHC- impacted soils were excavated and disposed of off-site at Potrero Hills Landfill.

On August 29 and 30, 2012, three 2-inch diameter groundwater monitoring wells were installed (MW-1 through MW-3). SOMA has conducted quarterly groundwater monitoring since the installation.

On December 20, 2013 SOMA advanced one soil borehole (B-10) at the site, adjacent to the former waste oil UST location in order to further characterize the vertical extent of potential impact of volatile organic compounds (VOCs), poly-aromatic hydrocarbons (PAHs) and CA LUFT-5 metals (cadmium, chromium, zinc, nickel, lead) to the west of the former waste oil underground storage tank (UST).

1.2 Geologic and Hydrogeologic Conditions

The property is situated near the east-center of the San Francisco Bay physiographic sub-region, characterized as a partially submerged structural basin situated between sub-parallel, northwest trending faults. Tectonic subsidence of the basin during the past two million years has resulted in a thick layer of Quaternary alluvium up to 2,000 feet in depth, underlain by interbedded marine sandstone and shale of the Franciscan Assemblage, which was deposited in an off-shore environment during the Late Jurassic/Early Cretaceous Period (125-150 million years before present). Surficial soils are medium- to coarse-grained alluvium deposited by periodic debris flow and sheet erosion processes at the lower slopes of the adjacent Oakland Hills in alluvial fan structures. The soils are characterized as weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand and gravel, with the coarser component typically situated at the heads of old alluvial fans (Helley, et al, 1979). Deposition of the upper soil zone has occurred during the Late Pleistocene Epoch (11,000 to 50,000 years before present), resulting in a typical soil profile ranging from 20 to 30 feet in depth. The surficial soils have moderate permeability and, based on the nearly flat topography, relatively low transmissivity values. Based on local surface topography, the near surface groundwater aquifer in the area of the site is inferred to be less than 25 feet in depth, and regional groundwater flow is generally westerly, toward San Francisco Bay.

2. SCOPE OF WORK

Per above-referenced ACHCS correspondence, the existing wells located onsite were decommissioned in compliance with California Well Standards and Alameda County specifications.

The following tasks were performed to implement the scope of work:

Task 1: Acquire Permit, Preparation of Site Health and Safety Plan

Task 2: Decommission Wells

Task 3: Preparation of Technical Report

3. PERMIT ACQUISITION, HEALTH AND SAFETY PLAN, SUBSURFACE UTILITY CLEARANCE

Before initiating field activities, SOMA obtained well permits from Alameda County Public Works Agency (W2014-0453 to W2014-0455). ACPWA was given required 5 day notice in advance of drilling. Permits are included in Appendix A.

Before conducting field activities, a site-specific health and safety plan (HASP) was prepared by SOMA. The HASP is a requirement of the Occupational Safety and Health Administration (OSHA), "Hazardous Waste Operation and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Safety and Health Administration (Cal/OSHA) "Hazardous Waste Operation and Emergency Response" guidelines (CCR Title 8, section 5192). It is designed to address safety provisions during field activities and protect the field crew from physical and chemical hazards resulting from drilling and sampling. It establishes personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans. Field staff and contractors reviewed and signed the HASP prior to beginning field operations.

4. WELL DECOMMISSIONING

On May 27, 2014, SOMA's field geologist oversaw decommissioning of three monitoring wells by Gregg Drilling and Testing (C-57 485165) in accordance with California Well Standards and with concurrence from ACPWA, wells were decommissioned using pressure grouting. Prior to decommissioning, each well was inspected and cleared of any undesirable materials.

For pressure grouting, type I/II cement grout was tremmied into each well, followed by application of 25 psi pressure maintained for 5 minutes. Once each well was pressure grouted, the well vaults were removed and the location was

completed to grade. As required, well completion reports were prepared and filed with appropriate agencies.

All well boxes were removed. Well locations were completed to grade with concrete to match the existing grade. Photographs taken during well decommissioning are included in Appendix B. Boring logs illustrating original well construction details are cataloged in Appendix C.

5. CONCLUSIONS

This report documents that all wells associated with this site have been decommissioned in accordance with California Well Standards and requirements of Alameda County.

FIGURES

N

approximate scale in feet

0 50 100

Figure 1: Site vicinity map.

SOMA ENVIRONMENTAL ENGINEERING, INC.

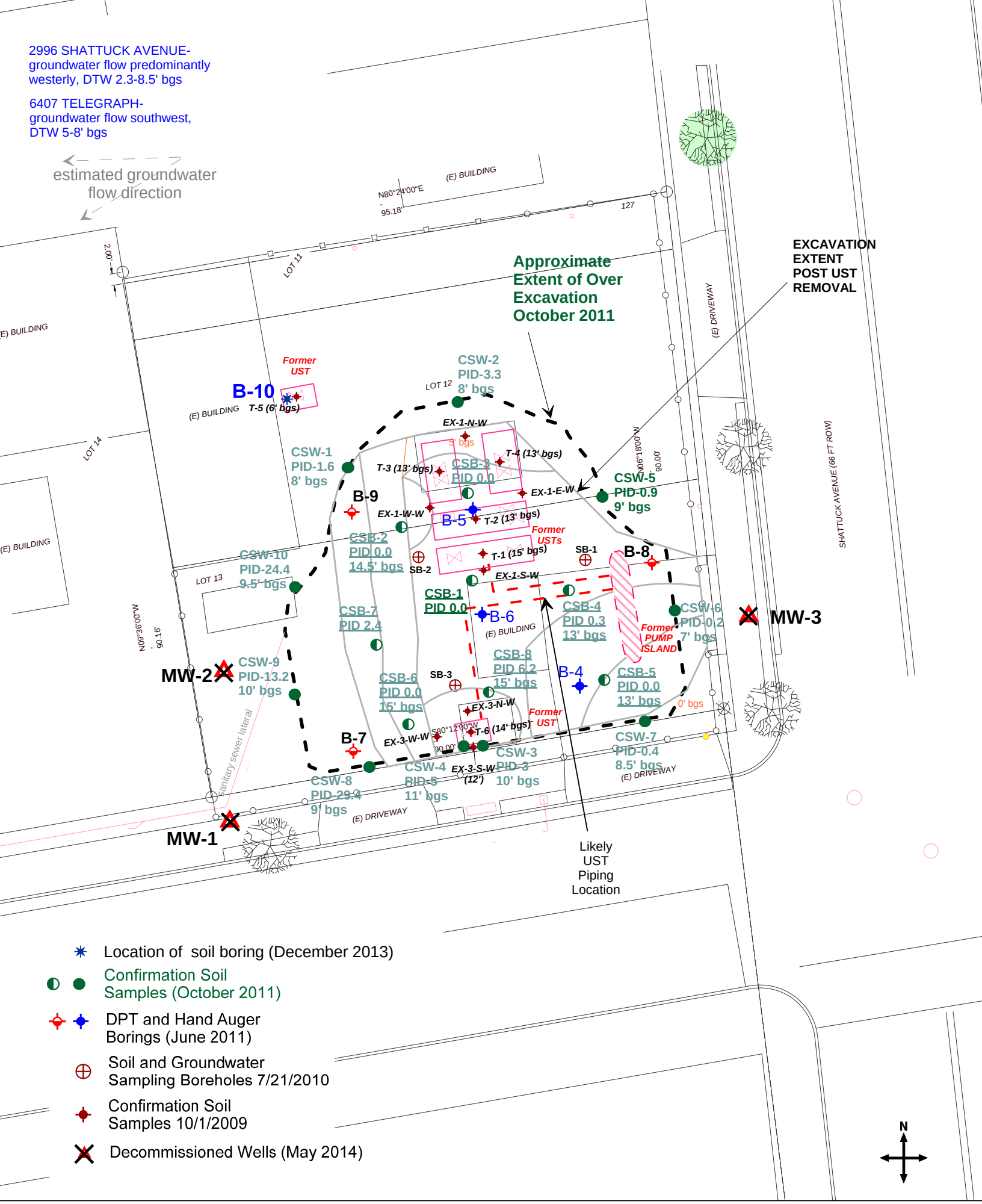


Figure 2: Site map showing locations of decommissioned wells

SOMA ENVIRONMENTAL ENGINEERING, INC.

APPENDIX A

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 04/30/2014 By jamesy

Permit Numbers: W2014-0453 to W2014-0455
Permits Valid from 05/27/2014 to 05/27/2014

Application Id:	1398460769473	**City of Project Site:**	Oakland
Site Location:	6501 Shattuck Ave.		
Project Start Date:	05/19/2014	**Completion Date:**	05/19/2014
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org		
Extension Start Date:	05/27/2014	**Extension End Date:**	05/27/2014
Extension Count:	1	**Extended By:**	priest

Applicant:	SOMA Environmental Engineering - Mansour Sepehr 6620 Owens Drive, Suite A, Pleasanton, CA 94588	**Phone:**	925-734-6400
Property Owner:	Athan Magganas 2550 Appian Way, Suite 201, Pinole, CA 94564	**Phone:**	510-520-1482
Client:	** same as Property Owner **		
Contact:	Lizzie Hightower	**Phone:** **Cell:**	925-734-6400 925-330-5235

	Total Due:	$1191.00
Receipt Number: WR2014-0176	**Total Amount Paid:**	$1191.00
Payer Name : Mansour Sepehr	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Well Destruction-Monitoring - 3 Wells
Driller: Gregg Drilling & Testing - Lic #: 485165 - Method: press **Work Total: $1191.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2014-0453	04/30/2014	08/17/2014	MW-1	8.00 in.	2.00 in.	5.00 ft	24.00 ft	1S4W11R	W2012-0484	e0159852
W2014-0454	04/30/2014	08/17/2014	MW-2	8.00 in.	2.00 in.	5.00 ft	24.00 ft	1S4W11R	W2012-0485	e0159853
W2014-0455	04/30/2014	08/17/2014	MW-3	8.00 in.	2.00 in.	5.00 ft	24.00 ft	1S4W11R	W2012-0486	e0159852

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

APPENDIX B

Site Photographs

Plate 1. Gregg Drilling pouring grout into MW-2

Plate 2. Applying pressure to MW-2

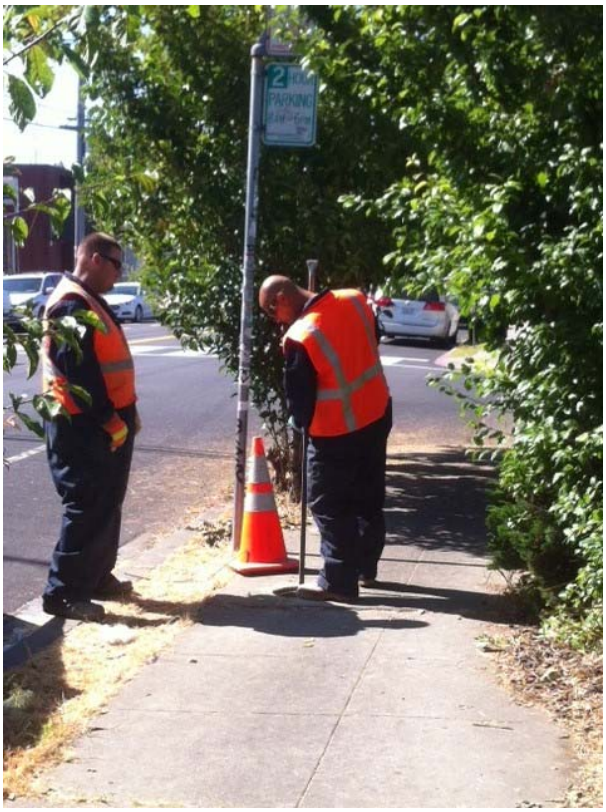


Plate 3. Gregg Drilling taking out the well box

Plate 4. MW-3 finished to grade with concrete

Plate 5. MW-1 finished to grade with concrete

Plate 6. MW-2 finished to grade with cement

APPENDIX C

Boring Logs

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE: MW-1

PROJECT: 5032

DATE DRILLED: August 30, 2012

SITE LOCATION: 6501 Shattuck Ave., Oakland

CASING ELEVATION: 128.70

DRILLER: Woodward Drilling

First Encountered GW: 21.00 feet
Stablized GW: 6.14 feet

DRILLING METHOD: DP/HSA

T.O.C. TO SCREEN: 7 ft.

BORING DIAMETER: 8-inches

SCREEN LENGTH: 17 ft.

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SAMPLED: SPLIT SPOON / CORE	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.5			SC	Hand auger to 5 ft. CLAYEY SAND: Dark brown, dry, ~85% fine- to medium-grained sand, ~15% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no Petroleum Hydrocarbon (PHC) odor.				
0.9	5		CL	SANDY LEAN CLAY: Dark brown, dry, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.				
0.3	10		CL	CLAY: Grayish-brown, hard, dry, medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.				
0.3	15		CL	SANDY LEAN CLAY: Dark brown, moist, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor. As above, moist, brown				
0.5	20			As above, moist, brown, some wet stringers				
0.7	25							

Bentonite Seal
2" Schedule 40 PVC Casing
Cement/Bentonite Grout
2/12 Sand
Schedule 40 PVC Screen 20 slot (0.020 inch)

COMMENTS: TD @ 24 feet

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE: MW-2

PROJECT: 5032

DATE DRILLED: August 29, 2012

SITE LOCATION: 6501 Shattuck Ave., Oakland

CASING ELEVATION: 130.32

DRILLER: Woodward Drilling

First Encountered GW: 21.00 feet
Stablized GW: 7.81 feet

DRILLING METHOD: DP/HSA

T.O.C. TO SCREEN: 7 ft.

BORING DIAMETER: 8-inches

SCREEN LENGTH: 17 ft.

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

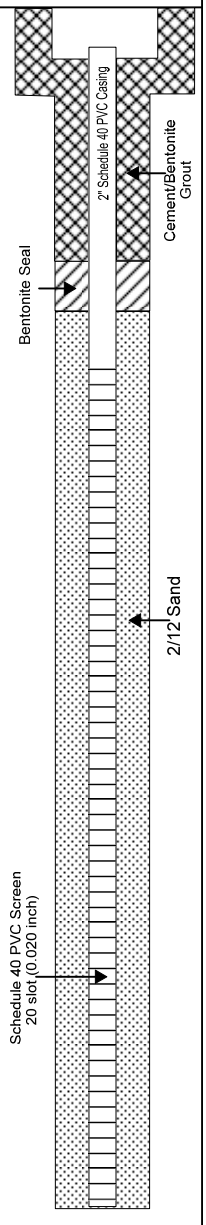
PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
0.4	0		SC	Hand auger to 5 ft. CLAYEY SAND: Dark brown, dry, ~85% fine- to medium-grained sand, ~15% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no Petroleum Hydrocarbon (PHC) odor.
187	5		CL	SANDY LEAN CLAY: Dark brown, dry, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, PHC odor.
	10		CL	CLAY: Grayish-brown, hard, dry, medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.
1.3			CL	SANDY LEAN CLAY: Dark brown, moist, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.
0.4	15			As above, moist, brown
0.3				
0.8	20			As above, moist, brown, some wet stringers
0.2	25			

SAMPLED: SPLIT SPOON, CORE

GW LEVEL

BLOWCOUNTS

WELL DIAGRAM



COMMENTS: TD @ 24 feet

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE: MW-3

PROJECT: 5032

DATE DRILLED: August 29, 2012

SITE LOCATION: 6501 Shattuck Ave., Oakland

CASING ELEVATION: 131.34

DRILLER: Woodward Drilling

First Encountered GW: 21.00
Stablized GW: 7.89

DRILLING METHOD: DP/HSA

T.O.C. TO SCREEN: 7 ft.

BORING DIAMETER: 8-inches

SCREEN LENGTH: 17 ft.

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

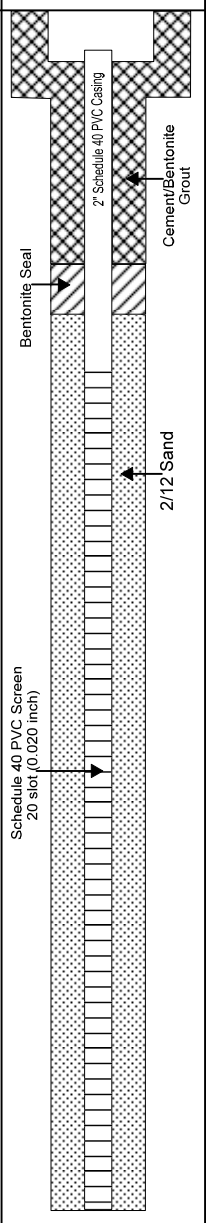
PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
0.2	0		SC	Hand auger to 5 ft. CLAYEY SAND: Dark brown, dry, ~85% fine- to medium-grained sand, ~15% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no Petroleum Hydrocarbon (PHC) odor.
0.2	5		CL	SANDY LEAN CLAY: Dark brown, dry, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.
0.1	10		CL	CLAY: Grayish-brown, hard, dry, medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.
0.9			CL	SANDY LEAN CLAY: Dark brown, moist, ~30% fine- to medium-grained sand, ~70% clay with medium dry strength, slow dilatancy, medium toughness, no HCl reaction, medium plasticity, no PHC odor.
0.1	15			As above, moist, brown
0.3	20			As above, moist, brown, some wet stringers
0.0	25			

SAMPLED: SPLIT SPOON, CORE

GW LEVEL

BLOWCOUNTS

WELL DIAGRAM



COMMENTS: TD @ 24 feet