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By Alameda County Environmental Health at 2:37 pm, Mar 26, 2014

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Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Signal Oil Station No. 206145
800 Center Street
Oakland, CA

I have reviewed the *Site Assessment Work Plan* dated March 21, 2014.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Brian A. Waite

Digitally signed by Brian A. Waite
DN: cn=Brian A. Waite, o=Chevron Environmental Management Company, ou, email=bwaite@chevron.com, c=US
Date: 2014.03.20 16:15:28 -07'00'

Brian Waite
Project Manager

Attachment: Site Assessment Work Plan

CONESTOGA-ROVERS & ASSOCIATES

10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
www.CRAworld.com

March 21, 2014 Reference No. 312002

Mr. Mark Detterman, P.G., C.E.G.
Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Site Assessment Work Plan
Former Signal Oil Service Station 206145
800 Center Street
Oakland, California
Case No. RO0000454

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Site Assessment Work Plan* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). In a phone conference between the Alameda County Environmental Health Department (ACEH), Chevron, and CRA on September 30, 2013, the ACEH requested additional work to further assess historic benzene concentrations in soil onsite that were above the screening levels for utility worker exposure limits and the residential and commercial/industrial volatilization to outdoor air exposure limits at 5 to 10 feet below grade (fbg). In an email correspondence dated March 10, 2014 (Attachment A), the ACEH further requested that Chevron advance a soil boring near the former used oil underground storage tank (UST) to collect naphthalene and poly-aromatic hydrocarbon (PAH) data.

CRA's proposed scope of work for additional site assessment to address the ACEH's concerns is provided below.

PROPOSED SCOPE OF WORK

CRA proposes to advance six soil borings onsite in the area southeast of the 2002 over-excavation, and one boring immediately south of the former used oil UST (Figure 2). The seven soil borings will be advanced to approximately 9.5 fbg and soil samples from each boring will be collected as described below.

Permit
CRA will obtain the necessary soil boring permits from the Alameda County Public Works Department.

Site Health and Safety Plan: CRA will prepare a comprehensive site health and safety plan to protect site workers. The plan will be reviewed and signed by each site worker and kept with the field crew during field activities.

Underground Utility Location: CRA will mark the proposed boring locations and notify Underground Service Alert (USA) at least 48 hours prior to site assessment activities. CRA will also subcontract a private utility locator to further identify potential subsurface utility hazards.

Soil Borings: The soil borings will be advanced by direct push technology to approximately 9.5 fbg, using two-inch diameter direct push rods with Macrocore® sampling liners. Once each boring has been advanced and sampled, it will be backfilled with Portland Type II cement and finished to grade with topsoil.

Logging and Sampling: Soil will be continuously logged using the modified Unified Soil Classification System. Soil samples will be screened in one foot intervals using a photoionization detector (PID). One soil sample will be collected from each boring from the interval with the highest PID reading, which will be submitted to the laboratory for analysis. In addition, at the three locations near historic soil samples G-29@10', G-30@10' and SW-4@10', an additional soil sample will also be collected from each boring at 9 fbg and submitted for analysis to confirm historic benzene concentrations in soil. From the soil boring located adjacent to the former used oil UST, soil samples will be collected at 4.5 and 9 fbg for analysis. Soil sample containers submitted for analysis will be labeled, entered onto a chain-of-custody form, packed on ice, and sent to Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania. CRA's standard field procedures for soil borings are presented as Attachment B.

Chemical Analyses: Soil samples will be analyzed for the following:

- Benzene and ethylbenzene by EPA Method 8260
- Naphthalene by EPA Method 8270D (detection limit less than 10 milligrams per kilogram)
- PAHs by EPA Method 8270D

Waste Disposal: Soil cuttings and decontamination water generated during site assessment activities will be stored onsite in labeled U.S. Department of Transportation approved 55-gallon drums pending analysis and proper disposal at a Chevron-approved facility.

CONESTOGA-ROVERS & ASSOCIATES

March 21, 2014 Reference No. 312002

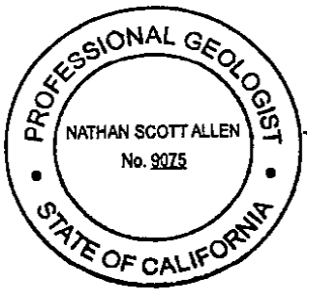
Reporting: Upon completion of the above activities, CRA will prepare a site assessment report that will include the following:

- A summary of soil boring activities
- Boring logs
- Tabulated analytical results
- Analytical report and chain-of-custody form
- Waste disposal status
- CRA's conclusions and recommendations

Schedule: CRA will begin the proposed work upon receipt of ACEH approval of this work plan. CRA will submit a report of findings approximately 60 days following the receipt of all final analytical data.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES



Nate Allen, P.G. 9075

NA/cm/28
Encl.

Figure 1 Vicinity Map
Figure 2 Proposed Soil Boring Locations

Attachment A ACEH Correspondence
Attachment B CRA's Standard Field Procedures

cc: Mr. Brian Waite, Chevron *(electronic copy)*
Mr. Rene Boisvert, 800 Center LLC

Figures

SOURCE: USGS QUADRANGLE MAP: OAKLAND WEST, CA.

Figure 1

VICINITY MAP
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2013(028)GN-WA001 MAR 20/2014

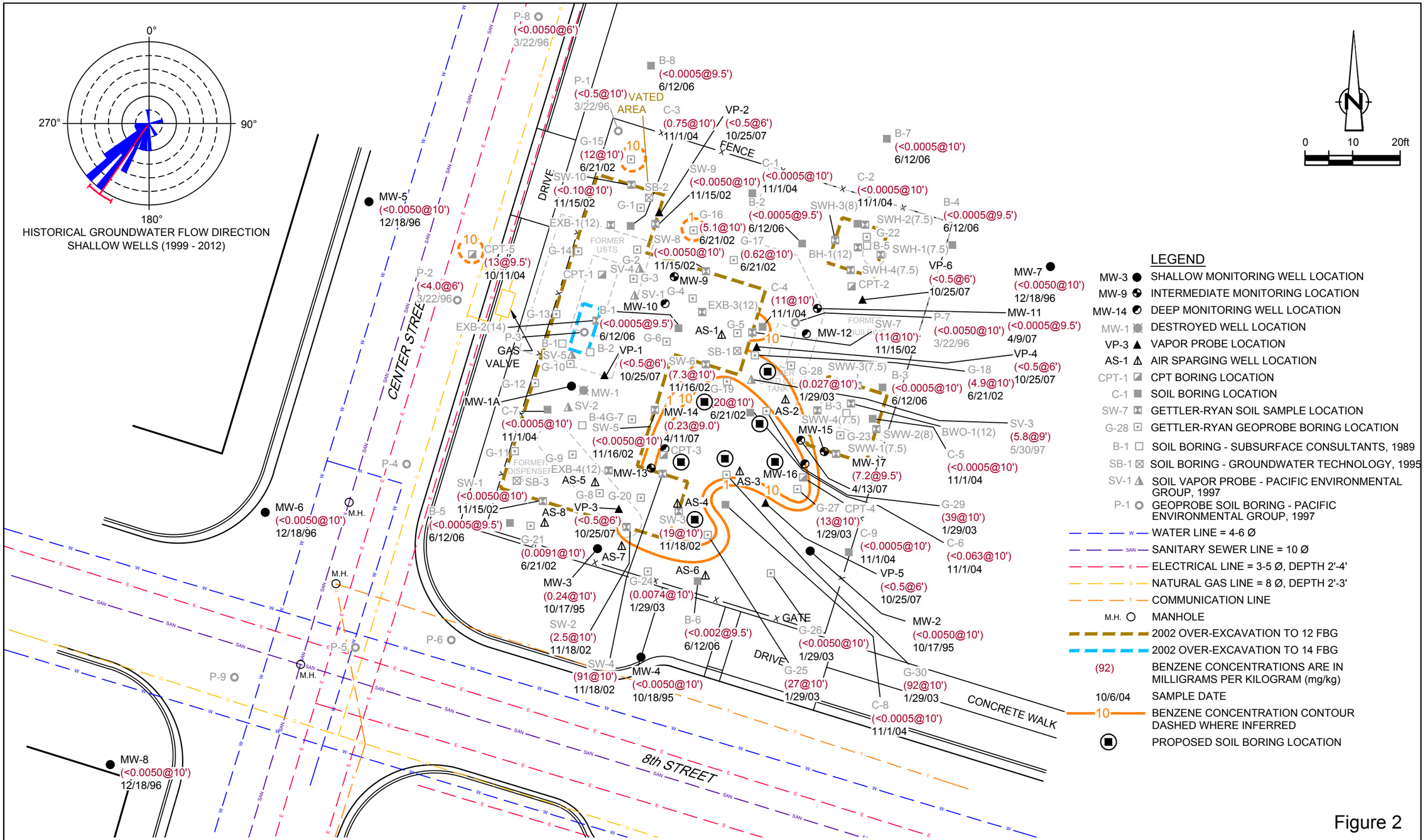


Figure 2

SITE PLAN WITH PROPOSED SOIL BORING LOCATIONS
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2013(028)GN-WA002 MAR 19/2014

Attachment A

ACEH Correspondence

Allen, Nathan

From: Detterman, Mark, Env. Health [Mark.Detterman@acgov.org]
Sent: Monday, March 10, 2014 3:17 PM
To: Allen, Nathan
Cc: Roe, Dilan, Env. Health; 'Waite, Brian A'
Subject: RE: 206145 - Scope of Work to Address Alameda County Environmental Health's Path to Closure Request
Attachments: DIR_L_2013-09-20.pdf; RO454_CORRES_L_2013-12-23.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Nathan,
Thanks for finding your email; it had escaped my notice earlier.

Please be aware that this email does not contain an approval of the scope of work described, but is intended to be used as a discussion for the submittal of a work plan using standard procedures (signed and stamped work plan with perjury statement).

I've also attached several PDFs as background to this email in order to more effectively communicate past requests.

In regards to the scope of work, we are in general agreement that the four locations appear appropriate to collect analytical data necessary to fill data gaps in the 5 to 10 foot depth interval at the site. However, instead of collecting soil samples at a predetermined 5.5 foot depth as proposed, please select the soil sample based on PID readings, other indications of contamination (positively biased toward the highest).

Additionally, our review of the data indicates it is prudent to collect confirmation soil samples at a depth of 9 feet at existing data points with elevated analytical concentrations (up to 92 mg/kg benzene). This depth will provide a direct comparison of old and new analytical data (new soil analytical may show that concentrations have reduced since the collection of the older data). Without this data, the existing documented concentrations are problematic for site closure.

Also please collect naphthalene and PAH analytical data adjacent to the former waste oil UST to fill the data gaps in this area.

Please present your strategy for collecting this data in the most efficient and cost effective manner possible.

Should you have questions, please let me know.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

From: Allen, Nathan [mailto:nallen@craworld.com]
Sent: Thursday, February 27, 2014 2:12 PM
To: Detterman, Mark, Env. Health
Subject: FW: 206145 - Scope of Work to Address Alameda County Environmental Health's Path to Closure Request

Mark –

Here's the scope of work we sent December 5th for your consideration / approval -
Please advise -

Nathan Allen, P.G.

Conestoga-Rovers & Associates (CRA)

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From: Allen, Nathan
Sent: Thursday, December 05, 2013 1:12 PM
To: 'Roe, Dilan, Env. Health'; mark.detterman@acgov.org
Cc: 'Waite, Brian A'
Subject: 206145 - Scope of Work to Address Alameda County Environmental Health's Path to Closure Request

Dilan and Mark -

As Brian Waite of Chevron and I discussed with you during our phone conference on September 30, 2013, we are providing this email communication in lieu of a work plan outlining what we agreed to regarding ACEH's request to further assess historic benzene in soil onsite at concentrations above the screening levels for utility worker exposure limits and the residential and commercial/industrial volatilization to outdoor air exposure limits (5 to 10 feet below ground surface [bgs]).

After review of historic soil data, we propose to advance four soil borings in the area southwest of the 2002 remedial over-excavation area shown on the attached figure. The soil borings will be advanced using a 3.5-inch diameter hand auger to 6 fbg. Once the borings have been advanced and soil samples collected, they will be backfilled with Portland cement to approximately 1 fbg and then completed to grade to match the existing surface material.

Soil will be continuously logged using the modified Unified Soil Classification System and will be screened using a photo-ionization detector (PID). One soil sample from each boring will be collected in a 6-inch long, 2-inch diameter stainless steel sleeve at approximately 5.5 fbg using a slide hammer. Soil samples submitted for analysis will be labeled, entered onto a chain-of-custody form, packed on ice, and sent to Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania.

Soil samples will be analyzed for the following:

- Benzene and Ethylbenzene by EPA Method 8260
- Naphthalene by EPA Method 8270D (detection limit less than 10 milligrams per kilogram)
- PAHs by EPA Method 8270D

Soil cuttings and decontamination water generated during site assessment activities will be stored onsite in labeled U.S. Department of Transportation approved 55-gallon drums pending analysis and proper disposal at a Chevron-approved facility. Upon completion of the above activities, CRA will prepare a site assessment report that will include the following:

- A summary of soil boring activities
- Boring logs
- Tabulated analytical results
- Analytical report and chain-of-custody form
- Waste disposal status
- CRA's conclusions and recommendations

CRA will begin the proposed work upon receipt of ACEH approval of this workscope. CRA will submit a report of findings approximately 60 days following the receipt of all final analytical data.

Please let me know if have any questions. Thank you.

Nathan Allen, P.G.

Conestoga-Rovers & Associates (CRA)

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Attachment B

CRA's Standard Field Procedures

CONESTOGA-ROVERS & ASSOCIATES

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Conestoga-Rovers & Associates, Inc. (CRA) standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic push technologies. Prior to drilling, the first 8 ft of the boring are cleared using an air or water knife and vacuum extraction. This minimizes the potential for impacting utilities.

At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal

location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4oC on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4oC, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC

blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.