

## Detterman, Mark, Env. Health

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**From:** Detterman, Mark, Env. Health  
**Sent:** Monday, April 25, 2016 3:46 PM  
**To:** 'Divya Bhargava'  
**Cc:** Shawn Munger; Roe, Dilan, Env. Health; Kristen Gates, P.E. (kgates@hanoverco.com)  
**Subject:** RE: Drilling Permit for 25 DP Geoprobe bores

Hi Divya, all,

The proposed approach appears reasonable, and should provide an indication of the potential for the fill beneath the site to contain additional contaminants of concern as expressed in the service station closure. Please keep an option open for deeper more complete testing of the fill should a surprising result be encountered. Please incorporate the data generated into site tables, and keep us posted once you get the data so we can keep the site moving in your identified timeline. I've already let James Yoo know. Good luck out there.

*Mark Detterman*  
*Senior Hazardous Materials Specialist, PG, CEG*  
*Alameda County Department of Environmental Health*  
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*PDF copies of case files can be downloaded at:*

*<http://www.acgov.org/aceh/lop/ust.htm>*

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**From:** Divya Bhargava [mailto:dbhargava@engeo.com]  
**Sent:** Monday, April 25, 2016 1:43 PM  
**To:** Detterman, Mark, Env. Health  
**Cc:** Shawn Munger; Roe, Dilan, Env. Health; Kristen Gates, P.E. (kgates@hanoverco.com)  
**Subject:** RE: Drilling Permit for 25 DP Geoprobe bores

Good afternoon Mark –

We reviewed the existing data and propose the following scope of work. A total of 25 additional borings will be installed at the site (at locations presented as gray and yellow dots on the attached figure). Samples will be collected at depths of 5, 7.5, 10, 15, and 18 feet from each boring location. All samples (a total of 125 samples) will be analyzed for lead (EPA 6010).

30% of the samples collected from the vadose zone (above the groundwater table) – a total of 22 samples (2 samples each from 11 borings shown as yellow dots on the attached figure) will be additionally analyzed for CAM-17 metals (EPA 6010/7471A) and SVOCs (EPA 8270 SIM). We do not believe that the deeper samples (below the water table) need to be analyzed for SVOCs and metals, since there are no dust concerns associated with these.

Please let us know if this scope looks okay and we can proceed with the drilling. We are scheduled to begin drilling on Monday and are still on schedule to have an approved SMP for circulation mid-May.

Thanks,  
Divya

Divya Bhargava, PE  
Senior Engineer

**From:** Detterman, Mark, Env. Health [<mailto:Mark.Detterman@acgov.org>]

**Sent:** Wednesday, April 13, 2016 5:49 PM

**To:** Divya Bhargava

**Cc:** Shawn Munger; Roe, Dilan, Env. Health; Kristen Gates, P.E. ([kgates@hanoverco.com](mailto:kgates@hanoverco.com))

**Subject:** RE: Drilling Permit for 25 DP Geoprobe bores

Divya,

Thanks for your response and additional information, below, as well as on the phone a bit ago. As discussed, the 25 soil bores are to additionally pre-characterize near surface fill soils for offsite disposal, including defining the lateral extent of the contamination for the purpose of disposal segregation.

In regards to the difference between Interim Remedial Action and a Site Management Plan (SMP) at redevelopment sites, this has been a topic of internal discussion at the Alameda County Department of Environmental Health (ACDEH) due to a number of factors that I won't go into. One of the triggers for the Interim Remedial Action route, is the removal of a substantial amount of contamination, which this site meets. In further discussing the subject site internally, where essentially no residual contamination is anticipated to remain due to the depth of the excavation, it is agreed that it is appropriate to use the SMP route.

During the closure of the former Chevron service station LOP case, ACDEH identified metals (including lead) and SVOCs as potential contaminants of concern (CoC) for the site. Due to the documented levels of contamination in near surface soil at the site, ACDEH has been concerned with the potential exposure to contaminated dust to offsite receptors in a densely used urban area, both commercial and residential. The current SMP is limited to onsite construction worker exposure, and does not currently consider offsite receptors. This is an area that will require additional modification in the SMP (perhaps as an appendix). Contaminant exposure to offsite receptors, including children, is best determined by a statistical approach (95% UCL calculations) based on onsite analytical data. Appropriate dust control plans can then be identified and implemented (with perimeter dust monitoring, etc. to support actual exposure levels). The submittal of the draft revised SMP with the data tables as requested, quickly allowed ACDEH to review existing data, and illustrated that there may be insufficient analytical data to adequately determine the level of exposure to dust borne contaminants. As discussed, at present there are approximately 12 composite samples for multiple metals and SVOCs, and limited discrete samples, except for lead, for a fairly large area. The pre-characterization sampling is an opportunity to gather additional data.

Due to the removal of a substantial amount of contaminated soil at the site with the associated potential for offsite receptor exposure to contaminated dust, it is appropriate to conduct a 30-day public notification prior to starting excavations at the site. I have attached a copy of a recent example public notification with somewhat similar issues that ACDEH requests be modified for the subject site and returned to ACDEH in Word format to allow potential minor editing (tweaks usually). I can paste the site location image into the fact sheet, and can also place it in a two column format, so a simple write up is all that is necessary.

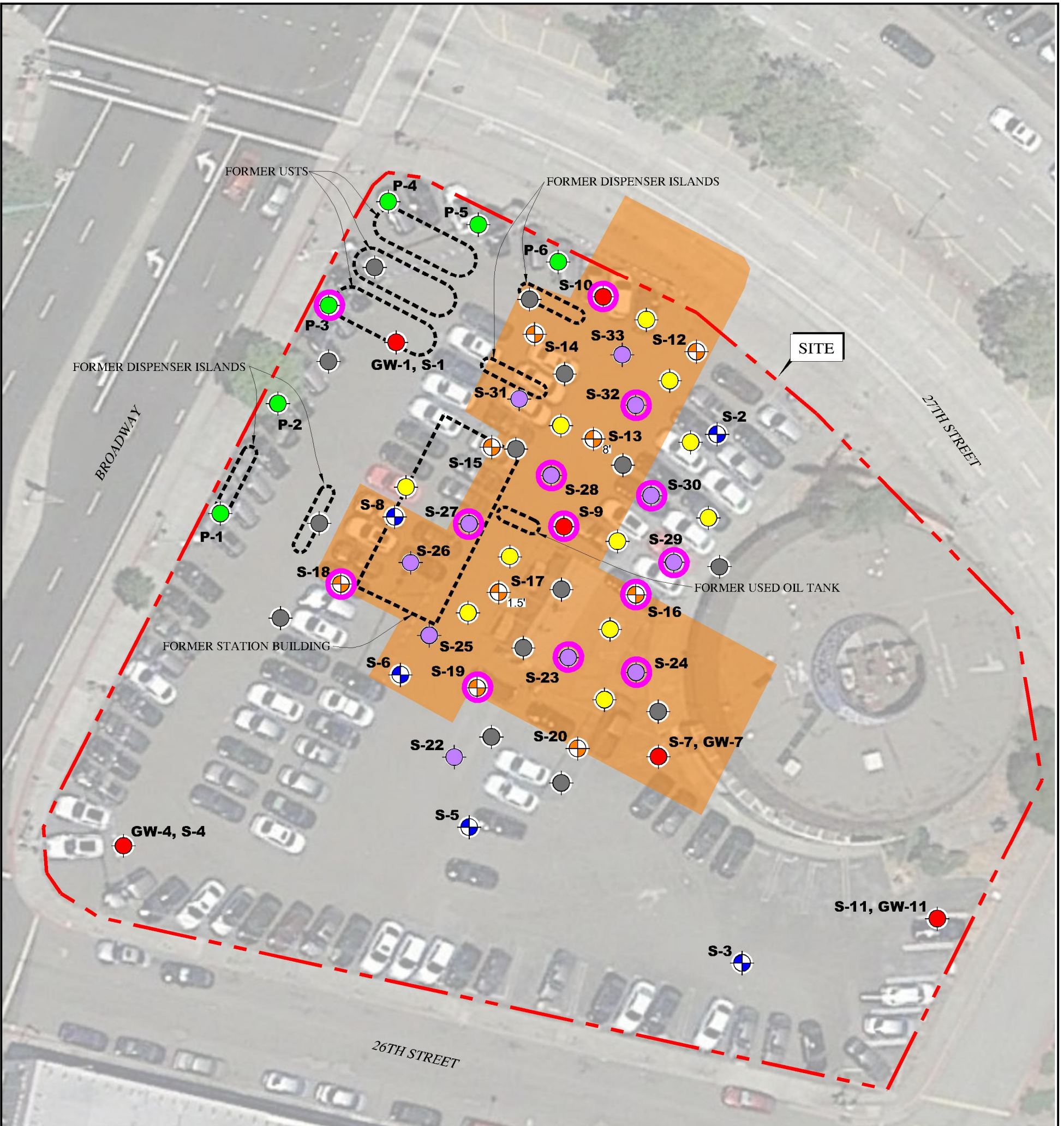
The intent of ACDEH with delaying the planned field work was to allow an opportunity to review existing data, allow review of an unknown site investigation report by Versar, and to create the opportunity to concurrently collect pre-characterization soil samples and sufficient additional discrete metals and SVOC samples to populate 95% UCL calculations. The end result was an intent to allow the site to move more quickly towards ground breaking.

As discussed this afternoon, should there be additional questions, let me know. If you believe a conference call is needed, let me know. Tomorrow is fully occupied, but I may have some very limited time Friday morning as I need to prep for another meeting; however, the best time may be Monday morning at 10.

*Mark Detterman*  
*Senior Hazardous Materials Specialist, PG, CEG*  
*Alameda County Department of Environmental Health*



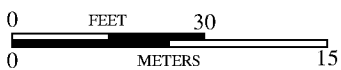
G:\Drafting\DR\A\TIN\G21\_low\10000 to 12999\11982\000\SMP\033016 - SMP\11982000000 - SMP - ADDITIONAL SAMPLING - 0316.dwg Plot Date: 4-21-16 llee



**EXPLANATION**

ALL LOCATIONS ARE APPROXIMATE

- S-33** PREVIOUS SOIL SAMPLE
- P-6** PERIMETER BORING
- S-20** PREVIOUS BORING WITHIN FILL AREA SHOWING APPROXIMATE REFUSAL DEPTH BGS
- S-11, GW-11** PREVIOUS SOIL AND GROUNDWATER SAMPLE
- S-10** PREVIOUS SOIL SAMPLE
- ADDITIONAL PROPOSED SAMPLE (TO BE ANALYZED FOR LEAD ONLY)
- PROPOSED ADDITIONAL SAMPLE (TO BE ANALYZED FOR LEAD, SVOCs, AND CAM-17 METALS)
- SAMPLE LOCATION EXHIBITING CLASS 1 HAZARDOUS MATERIAL
- FORMER HOSPITAL BUILDING FOOTPRINT



BASE MAP SOURCE: GOOGLE EARTH PRO



SAMPLING PLAN  
2630 BROADWAY  
OAKLAND, CALIFORNIA

PROJECT NO.: 11982.000.000	FIGURE NO.
SCALE: AS SHOWN	<b>1</b>
DRAWN BY: LL	