Detterman, Mark, Env. Health

From: Andy Lojo <andrew.lojo@terraphase.com>
Sent: Monday, April 09, 2018 11:37 AM
To: Steve Michelson
Cc: Chris Jones; Roe, Dilan, Env. Health; Donald Sobelman (dsobelman@downeybrand.com); Steven Goldberg (sgoldberg@downeybrand.com); Yola Bayram; Detterman, Mark, Env. Health; Lance; Jeffrey Lawson (jsl@svlg.com)
Subject: RE: ACDEH Correspondence RO151- Soil gas PCE detection limits

Hi Steven,

The main point of my communication from March 28 was to point out that the lab CAN run the new samples, at lower detection limits for PCE if they are instructed to do so in advance, even in areas of high TPH. I made the recommendation so that the new maps you are preparing will include detection limits that are low enough to hopefully put this issue aside.

I also thought that the plan was to collect another full round of soil gas samples and report the full VOC suite from them. I could be mistaken on that, but as I also said below, I do not believe we can rely much on data from the April 2017 sampling round because many of the samples with low detection limits (like SV-15) correlate with the samples that appear to have leak problems and many of the ones that clearly do not have leak problems, have elevated detection limits. SV-15 (closest to the pit) is missing helium data and benzene is anomalously low in the April sample (<5.11) compared with the amount detected at the same location in July 2017 that does have helium data (1,750 ug/m3). Toluene and ethylbenzene had the same relative differences. This clearly indicates that there was a leak in the April sample, which makes the PCE result from that sample invalid. SV-17 also located on the Jefferson Court site, has an elevated PCE detection limit of <5,430, and no helium data reported; SV-18 has an elevated PCE reporting limit (<2,720), and also has anomalously low benzene, toluene, and xylene concentrations in April, compared to July. SS-3 from April, 2017 has a small detection of PCE (8.87) but no helium data.

As you know, but everyone CCd here may not, PCE has relatively low screening levels. The commercial ESL is 2,100 and the residential is 240. Some of the other HVOCs that should also be looked at when evaluating a HVOC issue are even lower. These numbers will be going down soon too because the state DTSC and RWQCB are about to announce the latest revision to the attenuation factors in another month or two. It is important that we have a completely reliable data set with sufficiently low detection limits to evaluate HVOC concentrations at the site in comparison to these low screening levels. Otherwise the pit with the unknown use will remain a possible issue. This would not be the first old gas station that disposed of parts cleaning solvents in a pit, nor would this be the first printing operation to have a solvent problem underneath it. It will not be helpful to see contour maps with non-detect values that are orders of magnitude higher than the risk screening values like the majority of the existing data show, supplemented by old data with questionable validity.

I expect that AWR will identify these issues (like the leak Mark identified in recent sample SV-24) and not be relying on questionable data like the April 2017 sample from SV-15. The maps you provide should be based on results that: 1) have valid helium data included verifying no leaks; 2) have TPH and BTEX concentrations that are not unusually low compared to other data from the same location; and most importantly 3) have low enough detection limits to compare to residential ESLs for HVOCs.

My recommendation again, is to review the current HVOC data to identify points with possible leaks, other QC issues, or elevated detection limits, and then collect new samples as necessary to create reliable contour maps. That subset of new samples probably needs to be run at a low dilution factor so that HVOCs can be seen at detection limits that are close to the ESLs. That instruction must be given to the lab in advance which is why I sent the message when I did.

Andy

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From: Steve Michelson <smichelson@awrcorp.net>
Sent: Tuesday, April 03, 2018 3:44 PM
To: Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>; Andy Lojo <andrew.lojo@terraphase.com>
Cc: Chris Jones <chris.jones@terraphase.com>; Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>; Donald Sobelman (dsobelman@downeybrand.com) <dsobelman@downeybrand.com>; Steven Goldberg (sgoldberg@downeybrand.com) <sgoldberg@downeybrand.com>; Yola Bayram <ybayram@awrcorp.net>
Subject: RE: ACDEH Correspondence RO151- Soil gas PCE detection limits

Mark and Andy -

We agree that the reporting limits will be higher when elevated concentrations of petroleum hydrocarbons are present in the sample.

Regarding the locations identified in Terraphase's March 28, 2018 email, soil vapor samples collected from both SV-6 and SV-15 have already been analyzed for the full TO-15 scan, which includes chlorinated compounds. SV-2 does not yield vapor to sample, possibly due to the silts not yielding vapor.

Table 10 in the Comprehensive Summary of Site Conditions report (CSSC, November 2017) summarizes the analytical results of PCE and TCE in samples SV-6 and SV15. The Site Investigation Report (October 2016) provides the laboratory analytical reports for sample SV-6. The CSSC report provides the laboratory analytical report for sample SV-15.

These samples reveal the following, in µg/m3:

Location	Sample Date	PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	VC
SV-6	5-15-16	<3.4	<2.8	<2.0	<2.0	<2.0	<1.3
SV-15	4-5-17	<10.9	<8.57	<6.34	<6.34	<6.34	<4.09
SV-2	Does not yield vapor						

We are currently preparing maps of the existing CVOC data for discussion at our upcoming meeting.

Regarding the historical uses of the site prior to the more recent printing operations, the 1939 building plan does identify a "pit" in the northwest corner of the property. However, the map does not indicate the purpose of the "pit", nor does the map utilize the word "maintenance". We reviewed several old aerial photos to further evaluate historical uses of the property, but did not discern a pit in the northwest corner, nor at any other location on the property. The Work Plan Addendum report (March 27, 2014) includes a discussion of the aerial photos reviewed and a copy of the 1939 plan. In addition, we observe that the location of the "pit" is closer to the Jefferson Street and further from the building in place at that time, which seems an unlikely spot for a "maintenance pit".

Nonetheless, boring C4 was advanced in 2016 to investigate this "pit" area. Observations of the soil and samples did not indicate visible wastes and the analytical results of soil samples collected from 3 feet and 8 feet below grade did not contain measurable concentrations of petroleum related compounds. The Site Investigation Report (October 2016) Appendix B contains the C4 boring log, and Appendix C contains the laboratory report.

I hope the above assists in everyone's evaluation of the current CVOC conditions and historical "pit" indicated at the ARC property.

As we move forward, please include Don Sobelman and Steve Goldberg, both are ARC counsel, on future emails and cc'd to this email.

Thank you,

Steven Michelson PG | Principal

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From: Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
Sent: Wednesday, March 28, 2018 3:05 PM
To: Andy Lojo <andrew.lojo@terraphase.com>; Steve Michelson <smichelson@awrcorp.net>
Cc: Yola Bayram <ybayram@awrcorp.net>; Chris Jones <chris.jones@terraphase.com>; Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: RE: ACDEH Correspondence RO151- Soil gas PCE detection limits

Andy,
Thanks for conducting the review. With the intent of determining if HVOCs are a concern at the site, the technique might be useful on a limited basis as you have suggested.

Mark Detterman
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PDF Copies of case files can be downloaded at:
http://www.acgov.org/aceh/lop/ust.htm

From: Andy Lojo [mailto:andrew.lojo@terraphase.com]
Sent: Wednesday, March 28, 2018 2:55 PM
To: smichelson@awrcorp.net; Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
Cc: Yola Bayram <ybayram@awrcorp.net>; Chris Jones <chris.jones@terraphase.com>; Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Subject: RE: ACDEH Correspondence RO151- Soil gas PCE detection limits

Dear Mark and Steven

I reviewed the PCE and other chlorinated solvent soil gas data reported in spring 2017. Most of the samples have significantly elevated reporting limits for PCE and the other chlorinated compounds especially on the ARC site. This is caused by the need for the lab to dilute the samples prior to analysis so that the high levels of BTEX and GRO can be quantified. That probably means we cannot obtain usable data from the other sampling rounds. It is possible however, for labs to run the new samples at a low dilution to see PCE, etc. at detection limits needed to assess that concern. It costs more money because they need to spend extra time cleaning the instrument column after they are done to clean out the high levels of GRO, but it can be done.

This is probably not needed on most of the sub-slab samples, but to get an idea where the PCE is coming from, it may be useful to instruct the lab to do that on some of the mid-depth samples as well.

SV-2, and SV-6 would be good candidates. SV-15 is deeper but is located closer to the former maintenance pit than the other probes already installed.

Thanks

Andy

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From: dehloptoxic, Env. Health <deh.loptoxic@acgov.org>
Sent: Tuesday, March 27, 2018 10:58 AM
To: matthew.westbrock@e-arc.com; jeffery.grimes@earc.com
Cc: smichelson@awrcorp.net; Yola Bayram <ybayram@awrcorp.net>; sgoldberg@downeybrand.com; llltcg@aol.com; citydentaloffice@aol.com; Andy Lojo <andrew.lojo@terraphase.com>; Chris Jones <chris.jones@terraphase.com>; jsl@svlg.com; Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>; Khatri, Paresh, Env. Health <paresh.khatri@acgov.org>; Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
Subject: ACDEH Correspondence RO151

Dear Interested Parties,

Attached is Alameda County Department of Environmental Health's (ACDEH) correspondence for your case, RO0000151

Please add our email address to your book to prevent future e-mails from being filtered as spam.

Sincerely,

ACDEH