From:	Roe, Dilan, Env. Health
To:	"Phillips, Hollis"
Cc:	Wager, Janet J; "nick@vintersdist.com"
Subject:	FW: RO76 Former BP 4931 - RPs and soil vapor sampling
Date:	Wednesday, April 18, 2012 4:33:00 PM

Hollis:

Re transmittal of email correspondence with ACEH comments regarding your request for deviations on ARCADIS' Work Plan Addendum for Additional Soil Characterization dated March 7, 2011 to include RPs on the cc list.

Dilan Roe, P.E.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510.567.6767; Ext. 36767
QIC: 30440
dilan.roe@acgov.org

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

From: Roe, Dilan, Env. Health
Sent: Wednesday, April 18, 2012 4:24 PM
To: 'Phillips, Hollis'
Subject: RE: RO76 Former BP 4931 - RPs and soil vapor sampling

Hollis:

Thank you for the RP contact information. I have reviewed your responses to my comments on your requests for deviations from the ACEH approved Work Plan Addendum for Additional Soil Characterization dated March 7, 2011. Based on this review and a discussion with Air Toxics, LTD on April 18, 2012, I have modified my comments dated April 9, 2012 as follows:

COMMENT 1: Please collect and analyze samples for benzene, ethyl benzene and naphthalene in accordance with Method TO-17. Per a discussion with the laboratory, Method TO-17 will provide appropriate RLs for each of the compounds. Please coordinate with the laboratory and be sure to indicate the appropriate screening levels for each of the compounds when submitting the samples for analysis.

COMMENT 2: No change

COMMENT 3: Please conduct a leak test at each vapor monitoring probe each time a soil gas sample is collected in accordance with the DTSC Advisory to ensure Samples are not diluted or contaminated by ambient air. Also please investigate the observations noted in the Soil Gas Sample

Collection Logs dated June 6, 2011 and included in Appendix D of ARCADIS' Soil Vapor Probe Installation and Sampling Summary dated July 15, 2011, to determine impacts, if any, on sample and/or probe integrity. Field observations include the "brittle" appearance of tubing, "moist" to "very wet" bentonite conditions in the well box, and bentonite on portions of the sample tubing and end caps.

COMMENT 4: Given our concerns with the previous sampling event laboratory QA/QC as noted in my comments, please collect soil vapor samples in 100% certified 1-L SUMMA canisters tin accordance with the approved Work Plan.

COMMENT 5: The Soil Gas Sample Collection Log for SV-5B noted the presence of water rising to top of the tubing during PID screening during the afternoon event therefore precluding sample collection; however this water was not observed in the tubing during the morning sampling event, thus indicating significantly different conditions between the morning and afternoon events. Since no sample was collected, variations in concentration data cannot be assessed. Concentration data varied significantly more than 30% as indicated in your response in probes SV-1 and SV-6 during the morning and afternoon events. Also, due to the high reporting limits discussed in Comment 1, variations in data cannot be assessed. Therefore, please conduct your upcoming soil vapor probe sampling in accordance with the protocols in the approved Work Plan.

Please submit the results of the wet season soil vapor sampling event in a Soil and Water Investigation Report within 30 days of sampling. Please include a revised discussion of the dry season data presented in the Soil and Vapor Probe Installation and Sampling Summary in the SWI Report to address the comments noted in this correspondence and the April 6, 2012 correspondence.

Thank you for your cooperation.

Regards,

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From: Phillips, Hollis [mailto:Hollis.Phillips@arcadis-us.com]
Sent: Wednesday, April 11, 2012 3:13 PM
To: Roe, Dilan, Env. Health
Subject: RO76 Former BP 4931 - RPs and soil vapor sampling

Dilan:

Per your request to provide you with email addresses for Raj Mulkh & Bhatia Kulwinder and Vintners Distributors, Inc. we were unable to find an email address for the former (only a physical address).

Raj Mulkh & Bhatia Kulwinder,
4445 Pinewood Drive
Union City, CA 94587-4824

For the Vitners distributors we were able to get an email address from Broadbent Associates, Inc

nick@vintnersdist.com.
Vintners Distributors, Inc.
28456 Century Street
Hayward, CA 94545-4800

As far as the ETAL , we looked far and wide and the only thing we came up with was a euro telecom company with offices in Sri Lanka. I assume that is not correct. Could it be et. al. and somewhere along the way it became capitalized?

We are currently scheduled to conduct soil vapor sampling mid to late next week (weather permitting). Below are my responses to your comments on my request for deviations from the soil vapor WP:

COMMENT:
Table 1 presents analytical laboratory test results for the soil vapor samples collected during the dry season event on June 9, 2011. Concentrations of naphthalene in samples collected from probes SV-2-6911, SV-2B-6911,SV-3-6911, SV-3B-6911, SV-6-6911, SV-6B-6911, and Dup-01-6911 were reported as Non-Detects, however, each of these results had a high Reporting Limit (RL) due to sample dilution. Thus, although reported as non-detects, the RL exceeded the target screening level by one to two orders of magnitude. Concentrations of benzene and ethyl benzene in samples collected from probes SV-6B-6911 and Dup-01-6911 were also reported as non-detects, however again the limits exceed the target screening levels. Please select appropriate analytical methods (including consideration of Method TO-17 for confirmation sampling of naphthalene) to achieve the RLs at or below the target levels in accordance with our Directive Letter dated May 12, 2011 and the DTSC Advisory. Also, Table 1 references both commercial/industrial ESLs and residential ESLs as the target concentrations. Please clarify the target levels.

RESPONSE:
Discussion with the analytical lab revealed that TO-17 analysis will provide the appropriate RLs for naphthalene. However the concentrations of compounds of similar weight such as benzene and ethylbenzene are clouding the instrument's ability to distinguish these compounds. As long as there are elevated concentrations of GRO we cannot distinguish the benzene and ethylbenzene

concentrations. Additional analytical methods are not available to alter the RLs for these compounds. Therefore we will run TO-15 for GRO and BTEX and TO-17 for naphthalene

COMMENT:
Field notes indicate very slow flow into the Summa canister at well SV-5. If low flow conditions persist in the upcoming sampling event, please investigate and re-evaluate the need for the for the sampling location and consider using alternate low flow sampling methods if appropriate (Appendix D of the DTSC Advisory).

RESPONSE:
We'll look into the issue when we sample and if necessary collect the samples using an alternate method per Appendix D.

COMMENT:
The soil gas sample collected from SV-1-6911 contained helium at a concentration indicative of a significant leak and thus potentially compromising the validity of the reported target compound concentrations. Also, field notes indicate that sample tubing for several of the wells has a brittle feel. Although no visible cracks were observed, please conduct a leak test at each vapor monitoring well each time a soil gas sample is collected in accordance with the DTSC Advisory to ensure samples are not diluted or contaminated by ambient air.

RESPONSE:
Leak tests will be conducted prior to sampling each soil vapor point. Since the soil vapor probes were installed approximately one year ago the tubing should not be brittle but we will look into that issue when we are out there.

COMMENT:
Based on these results, please continue to collect the samples in individually certified rather than batch certified SUMMA canisters, in order to provide additional QA/QC for Naphthalene by Method TO-15. Also, although the Work Plan specifies the use of 6L- canisters, please use 1L canisters in accordance with the DTSC Advisory for shallow samples collected at less than five feet below ground surface.

RESPONSE:
The attached document (Section 2.1.2) discusses the difference between batch and 100% certification. Generally 100% certification is used when extremely low levels are expected (ppt). Since our samples contain elevated concentrations of COCs, any potential residual chemicals in the cans would not affect the results and therefore it is ARCADIS' opinion that batch certification is sufficient.

COMMENT:
5) Also, at this time the data does not provide conclusive evidence that the soil gas concentrations are stable over the course of a day, therefore please continue to sample each well during both the morning and evening hours as directed in our May 12 letter.

RESPONSE:
Results of the soil vapor samples collected in the morning and evening during the last round of sampling indicted the highest variation in the data was within 30%. This is an acceptable range even for duplicate samples. Additionally data indicates (see links below) that variations can occur over months but not hours. Based on the results of the first round of AM/PM sampling which showed data within acceptable ranges and studies indicating variations occur temporally not within hours it is ARCADIS' opinion that one round of sampling per day is sufficient to evaluate soil vapor conditions beneath the site.

LINK 1:

https://iavi.rti.org/WorkshopsAndConferences.cfm

LINK 2:

https://iavi.rti.org/WorkshopsAndConferences.cfm?PageID=documentDetails&AttachID=541

Please let me know if you concur with my responses to your comments.

Thanks
Hollis

NOTE NEW PHONE NUMBER

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