From:	Roe, Dilan, Env. Health
To:	Wager, Janet J
Subject:	FW: RO0014 Former BP 11132 35th Ave. Oakland
Date:	Friday, September 07, 2012 6:22:00 PM
Attachments:	BP11132 DPE pilot test letter FINAL.pdf
	CA 11132 BP CPT Soil Invest Rpt FINAL.pdf
	CPT3 and MW-2 logs.pdf

Here is the first of the email communications with Hollis – to get you in the loop.

Dilan Roe, P.E.

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PDF copies of case files can be reviewed/downloaded at:

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

From: Phillips, Hollis [mailto:Hollis.Phillips@arcadis-us.com]
Sent: Wednesday, August 08, 2012 4:09 PM
To: Roe, Dilan, Env. Health
Subject: FW: RO0014 Former BP 11132 35th Ave. Oakland

Dilan:

Any chance we can move forward with mobile DPE at this site? It would be best implemented in the dry season which is ending in the not too distant future (hopefully).

Hollis

From: Phillips, Hollis Sent: Friday, July 06, 2012 4:15 PM To: 'Roe, Dilan, Env. Health' Subject: RO0014 Former BP 11132 35th Ave. Oakland

Dilan:

I've let this site languish and have not been very good at moving it towards a remedy. To give you some site history we conducted an AS/SVE pilot study that indicated that technology would not be viable. We then conducted a CPT/UVOST investigation as proposed in the June 23, 2011 Remedial Strategy Update (attached). The Remedial Strategy Update also proposed conducting a mobile DPE event at the site during the dry season. The CPT/UVOST investigation was conducted to identify area(s) containing separate phase hydrocarbons (SPH). However SPH was not encountered at any of the CPT/UVOST. Review of historical and recent groundwater data indicate measureable SPH has

not been present in any well since 2009 with the exception of MW-10 which contained 0.01 feet in 2011.

The recommendation in the CPT/UVOST report (attached) was to advance GeoProbe rods (continuous core) at three locations to try to identify area(s) containing SPH and attempt to better understand contaminant migration. CPT logs from the investigation indicate the site is underlain by fine grain material (predominantly clay and silty clay with some very dense/stiff soil interbedded). Review of boring logs indicate the site is underlain by silty clay with interbedded lenses of silty clay containing varying amounts of sand and/or gravel. Advancing GeoProbe rods at three more locations is not going to change our understanding of the site lithology or transport mechanism. ARCADIS therefore proposes to forego the GeoProbe investigation and conduct the mobile DPE. ARCADIS proposes to conduct the DPE on MW-2 and MW-10. These wells were chosen based on concentrations (MW-2 is within the source area) and periodic presence of SPH. In order to ensure the aquifer is sufficiently dewatered the DPE event would be one week operation 24hours per day for seven days at each well (2 weeks total).

The June 23, 2011 Site Remedial Strategy Update indicated a new well for the DPE would be installed in the source area based on CPT data. However, data from CPT-3, located in the source area, indicated fine grained material with no apparent coarse lenses. The log from MW-2 indicates silty clay with some fine sand and gravel is present from 23 to 35 feet bgs (the well is 2-inch diameter, screened from 10 - 35 feet bgs). The Remedial Strategy Update did not call for DPE in MW-10 however, because it is offsite and has had measurable SPH ARCADIS would like to attempt to knock down the concentrations. The mobile DPE test would begin with collecting baseline GW samples (most recent quarterly samples) and baseline DTW readings at the test wells and nearby monitoring wells. A stinger would be placed in the extraction location and slowly lowered until the well is dewatered to 30-35 ft bgs. Once dewatered, the well would be sealed and the vacuum incrementally increased until a maximum applied wellhead vacuum is observed. Baseline PID, flow rate, and vacuum readings would then be collected. The system would be periodically monitored for the same parameters. Groundwater extraction rate would also be monitored. The extracted groundwater would be sampled and submitted for laboratory analysis for characterization and offsite disposal. Soil vapor samples may also be collected and submitted for laboratory analysis. The collection and analysis of soil vapor samples would be determined in real time. Periodic measurement of induced water table drawdown and vacuum would be conducted at nearby monitoring locations. A PID reading would also be collected on the effluent of the abatement system to confirm adequate contaminant destruction is occurring to comply with the BAAQMD permit.

DPE has been conducted at the site previously (2008). However, the field notes indicated good hydraulic response with almost no vacuum response. Based on the amount of hydraulic response there should have been at least minimal vacuum response. Therefore ARCADIS is of the opinion that the field notes are questionable and DPE is likely a viable remedy. Since the DPE was recommended in a letter(June 23, 2011) and was never formally approved as a remedy what do we need to do to get approval to do this work?

Hollis

NOTE NEW PHONE NUMBER

Hollis E. Phillips, PG | Principal Geologist| hollis.phillips@arcadis-us.com ARCADIS U.S., Inc. | 100 Montgomery , Suite 300 | San Francisco, CA, 94104 T415.432.6903 | M. 510.219.7764 | F.415.374.2745 www.arcadis-us.com Professional Geologist/PG-CA #6887 ARCADIS, Imagine the result Please consider the environment before printing this email.

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