From: Mike Palmer
To: Wetmore, Cynthia; "Brian Dean"; Jolish, Taly; Safouh.Sayed@dtsc.ca.gov; Mike.Grigorieff@CH2M.com; Kelly.Richardson@LW.com; Benjamin.Gibson@lw.com; Jeff.Carlin@lw.com; "Joe Kelly"; Gabriel.Allen@usdoj.gov; megan.hey@doj.ca.gov; Marilee.Hanson@dtsc.ca.gov
Subject: Phase 1 Test Results
Date: Friday, March 13, 2015 5:31:29 AM
Attachments: 15-02-2103.pdf

Cynthia

As requested, attached is a copy of the Phase 1 testing results. Phase 1 testing results are also summarized as follows:

Constituent	Concentration in Groundwater (ug/L)				Concentration in Air (ppmv)	
	Influent	Post-HiPOx	Post-Air Stripper	Post-LGAC	VGAC Influent	Discharge Stack
pCBSA	48,000	34,000	31,000	<5	NA	NA
MCB	8,400	3,400	85	<0.5	5.7	<0.0005
CF	1,700	1,600	34	<0.5	5.5	<0.0005
Benzene	<100	<40	0.34 J	<0.5	0.14	<0.0005
1,2-DCA	<100	<40	0.78	<0.5	0.020	<0.0005
PCE	67 J	48	<0.5	<0.5	0.12	<0.0005
TCE	<100	<40	<0.5	<0.5	0.021	<0.0005
TBA	<2,000	<800	12	10	NA	NA
Arsenic	6.9	5.7	5.0	2.1	NA	NA

- Influent concentrations were similar to the prior tests
  - pCBSA was down slightly while MCB and CF were up slightly
- pCBSA reduction across the HiPOx system was 14,000 ug/L, which is below expectations
  - Higher MCB (compared to Dec 1 test) may have scavenged some oxidants
  - pCBSA concentration is above the injection standard prior to LGAC
- MCB and CF reduction across the air stripper was 97.5% to 97.9% and comparable to prior tests
  - MCB and 1,2-DCA are slightly above the injection standards of 70 and 0.5 ug/L, respectively, prior to LGAC
- Post-LGAC concentrations fully comply with the injection standards
  - No pCBSA was detected (<5 ug/L)
  - TBA was less than 12 ug/L, and no other VOCs were detected
  - Arsenic was less than 10 ug/L
  - No pesticides or SVOCs were detected
- Effluent Tank verification sample confirmed that pCBSA was non-detectable (<5 ug/L)
- The VGAC effectively treated vapor-phase VOCs prior to atmospheric discharge
  - Discharge stack concentrations were fully compliant with SCAQMD Tier 2 emission screening levels (MICR = 1.2E-10)

Any questions or comments, please contact me.
Mike

Mike Palmer, PG, CHG, CEM
de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106
619-546-8377
619-546-0924 Fax
619-316-0924 Cell
mpalmer@demaximis.com
www.demaximis.com