## Golder Associates Inc.

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## RECEIVED

2:13 pm, Feb 01, 2008

Alameda County Environmental Health



January 31, 2008 Our Ref.: 053-7020

Alameda County Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Attention: Ms. Donna Drogos

RE: PILOT TEST CONTINUATION SCHEDULE UPDATE, FUEL LEAK CASE NO. RO0000278, FORMER DESERT PETROLEUM, 2008 1<sup>ST</sup> STREET, LIVERMORE, CALIFORNIA

Dear Ms. Drogos:

Golder Associates Inc. (Golder) has prepared this letter on behalf of Valley Gas (Formerly B&C Minimart) for the Desert Petroleum (DP) site at 2008 1<sup>st</sup> Street, Livermore, California. Golder conducted the first portion of an air-sparging pilot test consistent with a remediation plan<sup>1</sup> and subsequent addendum<sup>2</sup> submitted to the Alameda County Environmental Health Services (ACEHS). The implementation schedule was revised<sup>3</sup>, the pilot test was halted early due to falling groundwater levels, and a Pilot Test Report was submitted on December 7, 2007.<sup>4</sup> Groundwater levels at the site were measured following the recent abundant rainfall and the water levels have increased several feet. The rise in groundwater levels has been sufficient to re-saturate the source zone and both sparge point depth zones (see hydrograph on next page). As a result, Golder recommends continuing the air-sparging pilot test with the revised implementation schedule (attached).

The pilot test continuation will enable the complete data evaluation that was included in the original pilot test workplan. The following provides a brief summary of the proposed pilot test continuation tasks and follows the proposed continuation schedule.

The sparge unit will be re-installed and sparging will occur in both sparge points SP-1A and SP-1B. Note that during the initial pilot test, SP-1A was not used because groundwater levels had fallen below the screened portion of the upper sparge point. The sparge test will run for two weeks, likely at a more continuous rate than the initial test, which was limited to approximately 10 minutes every hour due to the low groundwater level. The pilot test will be stopped and rebound monitoring will follow. After rebound sampling the system will be turned back on and air sparging will continue in one or more of the on-site sparge points. Recommendations for the final remedial approach for on-site and downgradient areas will be presented in a corrective action plan.

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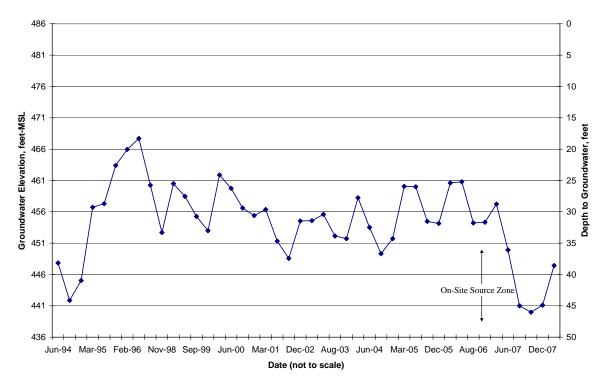
<sup>&</sup>lt;sup>1</sup> Golder Associates, Inc., Source Zone Remediation Plan, August 11, 2006.

<sup>&</sup>lt;sup>2</sup> Golder Associates, Inc., Revised Source Zone Remediation Plan Addendum, June 28, 2007.

<sup>&</sup>lt;sup>3</sup> Golder Associates Inc., *Pilot Test Performance and Schedule Update*, November 30, 2007.

<sup>&</sup>lt;sup>4</sup> Golder Associates Inc., *Pilot Test Report*, December 7, 2007.

## Well MW-2 Hydrograph



We propose to begin the pilot test continuation on February 11, 2008. However, the pilot test will not continue until we receive concurrence from Alameda County Environmental Health Services.

If you have any questions or comments, please call Kris Johnson at 650-386-3828 or Mark Naugle at 916-786-2424.

Sincerely,

GOLDER ASSOCIATES INC.

Kris H. Johnson, C.E.G. 1763

Senior Consultant

Attachments: Revised Pilot Test Continuation Schedule

Pilot Test Schedule

**Distribution**:

- (1) Copy Mr. Balaji Angle (hardcopy)
- (1) Copy Ms. Donna Drogos, ACEHS(electronic upload)
- (1) Copy GeoTracker Database (submitted electronically)
- (1) Copy Mr. Michael Veiluva (electronic)
- (1) Copy Ms. Chris Davidson, City of Livermore (electronic)
- (1) Copy Mr. Michael Bordoni, Barry Swenson Builders (electronic)

## **Revised Pilot Test Continuation Schedule**

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ACTIVITY	RATIONALE/PURPOSE	SCHEDULE
Collect samples from onsite sparge points surrounding SP-1	"A" screens have not been sampled yet and we need to re-assess the baseline before continuing the test	2/4/08 to 2/8/08
Sparging unit delivery and reconnection	Rental unit delivery, connect electrical, and connect conveyance lines	2/11/08 to 2/12/08
Continuous testing on SP-1A and SP-1B	Assess ROI, mass reduction rate, and rebound	2/13/2008 to 2/26/08
Monitor vapors in head space of onsite, inactive sparge points.	Indicates ROI and confirms ozone mass transfer	2/15/2008 and 2/22/08
Stop continuous testing on SP-1A and SP-1B	Assess rebound	2/26/2008
Collect initial rebound samples	Provide comparison with results from samples collected after the rebound period	2/27/08 to 2/29/08
Resting period	Allow soil and groundwater to re-equilibrate	2/27/08 to 3/19/08
Perform rebound sampling	Provides an indication of the effectiveness of ozone sparging to reduce mass of adsorbed petroleum hydrocarbons	3/19/2008
Begin onsite operations	Reduce petroleum hydrocarbon mass onsite and provide DO for enhanced natural attenuation downgradient	3/26/2008
Prepare Corrective Action Plan	Recommend final remedial approach for site and downgradient areas	3/26/08 through 4/18/2008

