

TO: Mr. James Innes
FROM: Mr. Anthony Finch
RE: Off-Site Light Non-Aqueous Phase Liquid Investigation:
Smith Property on Hemphill Road
FILE: 15388/ 51441
DATE: August 22, 2014

cc: Mr. David Favero - RACER Trust

O'Brien & Gere Engineers, Inc. (O'Brien & Gere) has prepared this memo on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER Trust) to document the completion of the offsite light non-aqueous phase liquid (LNAPL) delineation in accordance with the MDEQ-approved July 3, 2012 Work Plan associated with the RACER Trust Hemphill Road Industrial Land Site (HRIL- formerly known as Burton Parcel). The LNAPL was previously delineated at the offsite property to the south of the HRIL Site in November 2013. This memo documents the procedures during the installation of soil borings and monitoring wells east of the RACER Trust HRIL. These activities were conducted to assess the extent of LNAPL that has been observed in monitoring wells OBG MW-4S and MW-401 at the southern portion of the HRIL.

In July 2012, a Work Plan was submitted to the MDEQ which outlined the methods to be implemented to assess the potential presence of LNAPL offsite to the east and south of the HRIL Site. The Work Plan was approved by the MDEQ in July 2012. An Access Agreement was entered into with the eastern adjacent property owner in February 2014. Access to the locations was limited based on the winter snowfall, therefore, the locations were installed after the Spring thaw.

In addition to completing the LNAPL delineation, a groundwater sample from OBG MW-4S was collected from below the LNAPL on July 2, 2014 to gather information to assess the potential for LNAPL to partition to groundwater.

MONITORING WELL AND SOIL BORING INSTALLATION

Soil borings were installed on June 9, 2014 using a Rotosonic® drill rig in accordance with the MDEQ-approved July 2012 Work Plan.

O'Brien & Gere's drilling contractor installed four soil borings (three completed as monitoring wells OBG OS MW- 3, OBG OS MW-4, and OBG OS MW-5) east of the HRIL to evaluate the extent of LNAPL observed in monitoring wells OBG MW-4S and MW-401 at the HRIL Site. These borings were also used to confirm the presence of waste fill materials (soil boring logs are included in Exhibit A). The locations of the soil borings are shown on Figure 1.

An O'Brien & Gere geologist was on-site during boring advancement to describe soil samples. Additionally, soils were screened using a photoionization detector (PID) and assessed for the presence of LNAPL using an ultraviolet light and Sudan® dye. The O'Brien & Gere geologist did not observe indications of LNAPL during the installation of the borings completed as wells using the ultraviolet light and Sudan® dye.

Soil cuttings and well development water was contained in 55-gal Department of Transportation (DOT)-approved drums and staged at the HRIL Site pending disposal.

Subsequent to monitoring well installation, a location and elevation survey was performed to establish top-of-casing and grade elevations for the newly installed wells and soil boring. The survey data for the newly installed monitoring wells is included on the well construction logs included in Exhibit A.

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LNAPL DELINEATION RESULTS

During installation of the newly installed monitoring wells (OBG OS MW-3, OBG OS MW-4 and OBG OS MW-5) and the soil boring at the eastern adjacent property to the HRIL Site, no field observations indicating the presence of LNAPL were observed at the final well locations. At one location (OBG SB-4), what appeared to be LNAPL was observed (through observation of small positive reaction with Sudan® dye) in the soil sample from 28 fbg -29 fbg and this location was backfilled and a new location (OBG OS MW-3) was placed approximately 25 ft outward to the east from OBG OS SB-4. On June 10, 2014 the newly installed wells were developed and during the well development no indications of LNAPL in the wells was observed. On July 2, 2014 (3.5 weeks after well installation) and July 28, 2014 (7 weeks after well installation) the wells were checked for the potential presence of LNAPL and no LNAPL was observed in the wells.

Based on the slow recharge of the LNAPL from the formation (waste fill material observed in), subsequent evaluation will be performed during site visits to the HRIL Site to assess the potential presence of LNAPL in the newly installed wells.

The current results of the offsite investigation on the eastern adjacent property to the HRIL indicate the LNAPL has been delineated to the east of the onsite monitoring wells in which LNAPL was observed. Therefore, the offsite extent of LNAPL has been assessed south and east of the HRIL property

GROUNDWATER CHARACTERIZATION AT OBG MW-4S

To better understand potential risks associated with the LNAPL located at the HRIL property, a groundwater sample from OBG MW-4S was collected from below the LNAPL on July 2, 2014. The sample was analyzed for the presence of VOCs and total and dissolved lead based on the results of previous LNAPL analysis performed in 2011 that detected benzene, 1,4-dichlorobenzene and lead above MDEQ Part 201 Generic Residential and Nonresidential Drinking Water criteria . Analytical results for the groundwater sample collected below the LNAPL at OBG MW-4S detected benzene at 2 µg/l and 1,4-dichlorobenzene was not detected above method detection limits. Other VOC analytes were detected above method detection limits, however, these detections were below the MDEQ Part 201 Generic Residential Drinking Water criteria. Dissolved lead was not detected above method detection limits and total lead was detected at a concentration of 10 µg/l, which is above the MDEQ Part 201 Generic Residential Drinking Water criteria of 4 µg/l. A copy of the groundwater analytical results is attached to this memo.

Based on the groundwater results collected from the groundwater below the LNAPL at OBG MW-4S, it does not appear the constituents are partitioning appreciably from the LNAPL to the dissolved phase in groundwater. The benzene partitioning coefficient appears to be less than 0.01 (1:100); likewise the lead partitioning coefficient is less than 0.001 (1:1000), and the total lead results may have been effected by the turbidity of the sample (>30 NTUs), as indicated by the non-detect dissolved lead results.

Please contact David Favero with RACER Trust at 217-741-6235 or Anthony Finch at 248-477-5701 if you have any questions.