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Ms. Jeannette DeBartolomeo
Oil Control Program
Maryland Department of Environment
1800 Washington Boulevard
Baltimore, MD 21230

ENVIRONMENT

Subject:
Seven Risk Factor Analysis
Former Exxon Facility #14489
285 Old Bayview Road
North East, Cecil County, Maryland
MDE Case No. 1986-1205-CE

Date:
30 July 2013

Dear Ms. DeBartolomeo:

Contact:
Rusty Kahl

ARCADIS U.S. (ARCADIS), on behalf of ExxonMobil Environmental Services Company (EMES), is pleased to submit this Seven Risk Factor Analysis for the Inactive Exxon Station #14489, located at 285 Old Bayview Road, North East, Maryland. As required by the Maryland Department of the Environment (MDE) Oil Control Program (OCP) Maryland Environmental Assessment Technology (MEAT) guidance, an evaluation of remedial goals for the property is described below, using the risk determination made with the MEAT guidance Seven Risk Factors. This evaluation was request by MDE in a letter dated 2 July 2013.

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Our ref:
B0085851.0010

1. Liquid Phase Hydrocarbons (LPH)

The MEAT guidance requires that LPH must be removed from the site to the extent practicable. No LPH has been detected in monitoring wells at the site during groundwater gauging and monitoring since November 2008 (groundwater monitoring data available since June 2005). Injection well INJ-2 had measurable LPH of 0.01 ft in August 2012. On-site wells will continue to be gauged for LPH to ensure it is no longer present at the site.

2. Current and Future Use of Groundwater

There is a supply well located on the site; however there are no current users of groundwater on the former Exxon facility. Several residential wells have been located

Imagine the result

in the vicinity of the site. Currently, two potable wells downgradient of the site (259 and 261 Old Bayview Road) are sampled quarterly to monitor groundwater concentrations. ExxonMobil maintains a Granular Activated Carbon (GAC) filtration system for the potable well at 259 Old Bayview Road. Influent samples from 259 Old Bayview Rd potable wells indicate that this is only current user of groundwater with constituent concentrations above screening levels.

3. Migration of Contamination

Three gasoline underground storage tanks (USTs) were removed in 2007, reducing the migration of residual petroleum. A total of twelve site wells and two off-site potable wells are monitored quarterly. Off-site contamination is declining based on results from off-site monitoring wells. No constituents were detected above the MDE Groundwater Clean-Up Standards in downgradient wells MW-13 through MW-16. MTBE concentrations in the influent sample from 259 Old Bayview Rd are above MDE Cleanup levels in the most recent sampling event (May 2013).

4. Human Exposure

Human exposure to site constituents is not expected to occur. The site is currently unoccupied and is partially covered by an impermeable layer (concrete/asphalt) that prevents exposure to soil through ingestion or dermal contact. Vapor intrusion is not possible because the site is unoccupied. If future development were to occur, the property owner is aware of environmental conditions and can implement precautionary measures, such as a vapor barrier.

5. Environmental Ecological Exposure

The site is adjacent to Old Bayview Road in a mixed residential and commercial area. Sensitive ecological and natural resources are not located near the site. There has been no exposure to natural resources from site-related constituents.

6. Impact to Utilities and other Buried Services

Underground utilities in the vicinity of elevated groundwater concentrations at the site are private electrical lines, which are typically installed at depths of less than 5 feet. Groundwater in this area occurs at depths less than 5 feet, but no impacts have been observed to private utilities.

Public utilities off-site are also typically installed at depths of less than 5 feet. Off-site groundwater depths are greater than 5 feet; therefore there is no potential for impact to off-site public utilities.

7. Other Sensitive Receptors

No surface water, wetlands, or other specially designated environmental habitat is located within 300 meters of the site. No public use areas are located within 100 meters of the site.

Conclusions

Evaluation of the Seven Risk Factors shows that current groundwater use and migration of contamination off-site are the two primary risk factors. LPH, human and environmental exposure, utilities, and other sensitive receptors are not anticipated to be risk factors. Risk due to current use of groundwater is mitigated by the residential treatment system. Because off-site current use is affected, addressing the migration of contamination off-site will address the risk to current users of groundwater.

ARCADIS is preparing a response to comment letter for the MDE letter dated 2 July 2013. This response will include information on how the selected remedy addresses off-site contamination.

Please contact me if you have any questions or comments regarding this Seven Risk Factor Analysis.

Sincerely,

ARCADIS U.S., Inc.



William R. Kahl, PG
Project Manager

Copies:

Ms. Jewel Cox, ExxonMobil