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Sent: Wednesday, November 19, 2014 10:45 AM
To: Duley, William (DEQ)
Cc: Sean Craven
Subject: Wood 5-11 (P/N 40134) Project Summary - July 3, 2014 Release Discovery

Bill –

The following information is attached for the Wood 5-11 project:

- Excavation & Soil Sampling Plan
- Satellite Image Detail
- Groundwater Flow Diagram
- Groundwater Elevation Data
- Soil Analytical Summary and Cleanup Criteria Comparison Table
- Groundwater Analytical Summary and Cleanup Criteria Comparison Table
- Groundwater Hydrographs
- Soil Boring Logs (with field screening results)

The following presents a brief chronological project summary:

- July 3, 2014 – Release of natural gas and condensate from a buried gas flowline discovered in the immediate vicinity of the Wood 5-11 wellhead. Release point was ~5' bgs.
- July 8, 2014 – 2 floor and 4 sidewall soil samples collected by MEC personnel from initial excavation. Soil analytical results from 1 floor sample and 2 sidewall samples reported above Part 201 Residential GCCSLs. Excavation depth is depicted by soil sample depths.
- July 14, 2014 – Personnel from ECT oversaw excavation of impacted soils from July 8, 2014 sample locations that exceeded Part 201 Residential GCCSLs. 3 soil samples were collected and soil analytical results from each sample were reported above Part 201 Residential GCCSLs. Excavation depth is depicted by soil sample depths.
- July 17, 2014 – Personnel from ECT advanced 3 shallow hand auger borings (B-1, B-2, and B-3) for additional soil characterization. Elevated PID readings were recorded from soil samples collected from the borings. No samples were submitted for laboratory analysis.
- August 13, 2014 – Personnel from ECT oversaw the advancement of 6 soil borings (B-4, B-5, B-6, B-7, B-8, and MW-1). The soil borings were advanced with a truck-mounted drill rig and split spoon samples were collected from each boring in 5' intervals. A monitor well (MW-1) was installed in the source area soil boring. B-4 through B-8 were advanced to delineate the lateral and vertical extent of impacted soils. MW-1 was advanced to characterize soils adjacent to the release source and source area groundwater characteristics. Field screening with a PID was completed on each split spoon sample. The sample interval that recorded the highest PID reading and a vertical delineation sample (excepting B-7) from each boring were submitted for laboratory analysis. All soil samples reported parameters below laboratory detection limits except MW-1-12'-14', which reported BTEX parameters below Part 201 Residential GCCSLs.
- August 18, 2014 – Personnel from ECT collected a groundwater sample from MW-1. The sample reported benzene above Part 201 Residential GCCSLs.
- September 2, 2014 – Personnel from ECT oversaw the installation of 2 monitor wells (MW-2 and MW-3) and 5 passive vent points (VP-1 through VP-5). The monitor wells were installed primarily to determine the direction of groundwater flow, and also served to further characterize groundwater impact. The passive vent points were installed as an interim abatement measure to address impacted soils remaining in the vicinity of the release. The passive vent points are constructed of 2" diameter PVC with screened intervals of 10'-35' bgs. The passive vent points are open to the atmosphere to allow for volatilization of residual condensate from the release.
- September 8, 2014 – Personnel from ECT collected static water levels from MW-1, MW-2, and MW-3 and groundwater samples from MW-2 and MW-3. The samples reported benzene above Part 201 Residential GCCSLs. Groundwater elevations from the gauging event identified a southwesterly flow direction.

- September 25, 2014 – Personnel from ECT oversaw the installation of 7 monitor wells – MW-4, MW-5, MW-6, MW-7S, MW-7D, MW-8, and MW-9. Rationale for monitor well locations is as follows:
 - MW-4 – Delineate the upgradient extent of groundwater impact.
 - MW-5 and MW-6 – Delineate the lateral extent of groundwater impact.
 - MW-7S – Characterize groundwater impact approximately 100 feet downgradient from the release source.
 - MW-7D – Delineate the vertical extent of groundwater impact.
 - MW-8 – Characterize groundwater impact approximately 200 feet downgradient from the release source.
 - MW-9 – Delineate the downgradient extent of groundwater impact. MW-9 is located approximately 350 feet downgradient from the release source.
- October 1, 2014 – Personnel from ECT collected groundwater samples from all monitor wells.
- November 12, 2014 – Personnel from ECT collected groundwater samples from MW-1, MW-2, MW-3, MW-7S, MW-8, and MW-9.
- Analytical results from the October 1, 2014 and November 12, 2014 sampling events reported concentrations of benzene above Part 201 Residential GCCSLs from MW-1, MW-2, MW-3, MW-7S, and MW-8.

Based on data obtained to date, the lateral and vertical extents of soil and groundwater impact at the Site are delineated to concentrations below laboratory detection limits.

ECT respectfully presents the following activities for the project:

- Complete a groundwater monitoring and sampling event mid-late December 2014.
- Evaluate interim response/remedial alternatives to address soil and groundwater impact.
- Present a project summary report to MDEQ-OOGM staff in mid-January 2015. At a minimum, the project summary report will include a compilation of data obtained to date for the project, and will identify the most cost effective, viable interim response/remedial alternative for addressing soil and groundwater impact.

Should you have any questions or comments pertaining to this summary, or the project in general, please do not hesitate to contact me at your convenience.

Thanks -

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