



July 23, 2014

Mr. Kevin Turner
USEPA Region 5
8588 Route 148
Marion, IL 62959

Ms. Michelle Kaysen
USEPA Region 5, Mail Code LU-9J
77 West Jackson Boulevard
Chicago, IL 60604

RE: Second Quarter 2014 Progress Report, Hartford Petroleum Release Site

Dear Ms. Kaysen and Mr. Turner,

Trihydro Corporation (Trihydro) is submitting this quarterly report summarizing the progress and status of activities performed at the Hartford Petroleum Release Site (Hartford Site) on behalf of Apex Oil Company, Inc. (Apex) for the time period from April 1 to June 30, 2014.

1. Apex submitted the following deliverables during the Second Quarter 2014:

- The *First Quarter 2014 Progress Report, Hartford Petroleum Release Site* was submitted to the United States Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency (Illinois EPA) on April 17, 2014 via email.
- A response to the USEPA and Illinois EPA comments regarding the *Draft LNAPL Component of the Conceptual Site Model for the Hartford Petroleum Release Site* was submitted to the USEPA and Illinois EPA on May 22, 2014 via email and standard mail.
- The *Final LNAPL Component of the Conceptual Site Model for the Hartford Petroleum Release Site* was submitted to the USEPA and Illinois EPA on May 22, 2014 via email and standard mail.

2. Apex submitted the following requests and notifications pertaining to activities at the Hartford Site:

- The USEPA, Illinois EPA, Hartford Working Group (HWG), Village of Hartford, and the Wood River Wastewater Treatment Plant (WRWTP) were provided notification of temporary shutdown of focused pumping in Area A due to greater than 0.5 inches of precipitation over a 24-hour period on April 2, 2014.
- A request to suspend in-home monitoring within 117 West Birch Street was submitted to the USEPA on April 2 and again on April 7, 2014 due to unsanitary conditions within the structure. In-home monitoring was resumed on May 14, 2014 following repairs to the plumbing and sanitary sewer by the property owner.



- The USEPA, Illinois EPA, and HWG were provided notification of initiation of a river stage triggered monitoring event (EBMP-19) and implementation of interim in-home event based monitoring activities on April 4, 2014.
- The USEPA, Illinois EPA, and HWG were provided daily notifications regarding field activities and monitoring results between April 7 and April 12, 2014 during the river stage triggered monitoring event (EBMP-19). Notifications to HWG, Illinois EPA, and USEPA was conducted in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan*, as well as the email dated February 7, 2014 outlining additional notification protocols during in-home monitoring.
- The USEPA and Illinois EPA were provided a request allowing demobilization of the temporary treatment system from Area A of the Hartford Petroleum Release Site during teleconference on April 10, 2014. An email was sent to the USEPA summarizing the request to demobilize the temporary treatment system on April 11, 2014.
- The Village of Hartford and WRWTP were provided notification of the suspension of focused pumping in Area A and the total volume of treated water conveyed to the WRWTP during the partial pilot test via email dated April 15, 2014.
- A request was made to the USEPA to use the results collected during river stage triggered monitoring performed within 32 structures between April 7 and 12, 2014 as a surrogate for quarterly in-home effectiveness monitoring. Quarterly effectiveness monitoring was proposed to be conducted in seven additional structures in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan*.
- The USEPA and Illinois EPA were provided a second request allowing demobilization of the temporary treatment system from Area A on April 22, 2014. An email was sent to the USEPA summarizing the second request to demobilize the temporary treatment system on April 23, 2014.
- The USEPA was provided notification on April 29, 2014 regarding the schedule for submittal of the additional LNAPL recovery partial pilot test results; as well as notification of additional baseline monitoring, stakeholder communications, and additional activities necessary to resume pilot testing once trigger elevations are achieved in Area A.
- The USEPA and Illinois EPA were provided a request on May 2, 2014 to conduct and evaluate vacuum enhanced recovery within the multiphase extraction and LNAPL recovery wells located in Area A and to proceed with final decommissioning of the temporary groundwater treatment system.
- HWG was provided a request to conduct and evaluate vacuum enhanced recovery within the LNAPL recovery well located in Area A on May 5, 2014.
- The USEPA, Illinois EPA, and HWG were provided notification of initiation of a river stage triggered monitoring event (EBMP-20) and implementation of interim in-home event based monitoring activities on June 8, 2014.
- The USEPA, Illinois EPA, and HWG were provided daily notifications regarding field activities and monitoring results between June 10 and June 17, 2014 during the river stage triggered



monitoring event (EBMP-20). Notifications to URS, Illinois EPA, and USEPA was conducted in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan*, as well as the email dated February 7, 2014 outlining additional notification protocols during in-home monitoring.

3. Apex participated in the following meetings and teleconferences during the Second Quarter 2014:

- Teleconference with the USEPA on April 10, 2014 to discuss discontinuance of focused pumping being performed as part of the additional LNAPL recovery pilot test in Area A and demobilization of the temporary groundwater treatment system.
- Teleconference with USEPA on April 22, 2014 to discuss discontinuance of the additional LNAPL recovery pilot testing in Area A, schedule for future testing activities, and demobilization of the temporary groundwater treatment system.
- Teleconference with USEPA and Illinois EPA on April 24, 2014 to discuss the combined Agency and HWG comments related to the *Draft LNAPL Component of the Conceptual Site Model for the Hartford Petroleum Release Site*.
- Teleconference with USEPA on May 14, 2014 to discuss revisions to the draft schedule for future deliverables and evolving Agency priorities including expansion/optimization of the soil vapor extraction system beneath Zone 1 of the Hartford Site and development of a multiphase final remedy framework.
- Meeting with the Village of Hartford Mayor and Board of Trustees on June 10, 2014 to discuss the additional LNAPL recovery partial pilot test results and proposed path forward for future testing when trigger conditions are reached in Area A.
- Meeting with the City of Wood River on June 10, 2014 to discuss renewal/extension of the existing agreement to discharge treated water generated during the resumed pilot test to the WRWTP.
- Monthly teleconference with the Hartford Working Group conducted on April 15, May 20, and June 17, 2014.

4. Summary of In-Home Effectiveness Monitoring Activities:

- Weekly in-home effectiveness monitoring was performed within twelve structures at the Hartford Site during the Second Quarter 2014.
- In-home screening was conducted within 32 structures at the Hartford Site in response to the river stage triggered monitoring event (EBMP-19) from April 4 to April 11, 2014. Sub-slab and indoor air samples were collected within three structures (516 North Delmar Avenue, 125 West Birch Street, and 129 West Birch Street) between April 8 and April 9, 2014, in response to total organic vapor concentrations exceeding 350 parts per million by volume (ppmv) in sub-slab soil vapor. Supplemental soil vapor recovery was implemented by the HWG to reduce total organic vapor concentrations beneath these structures.



- In-home screening was conducted within seven additional structures between April 21 and 25, 2014 as part of quarterly in-home effectiveness monitoring. Per agency approval on April 15, 2014, screening results collected from these seven structures, combined with those collected during river stage triggered monitoring event (EBMP-19) from April 4 to April 11, 2014, fulfilled the quarterly in-home monitoring requirements as described within the *Final Interim In-Home Effectiveness Monitoring Plan*.
- In-home screening was conducted in 27 structures at the Hartford Site in response to the river stage triggered monitoring event (EBMP-20) from June 9 to June 16, 2014.

5. Summary of West Birch Street Investigation Activities:

- Monthly screening within select monitoring points and nested soil vapor monitoring wells installed on West Birch and West Arbor Streets was conducted on April 28, May 29, and June 25, 2014.

6. Summary of Additional LNAPL Recovery Pilot Test Implementation Activities:

- Focused pumping was suspended due to greater than 0.5 inches of precipitation within a 24-hour period on April 2, 2014 in accordance with the *Final LNAPL Recovery Pilot Test Work Plan Addendum*.
- Monitoring activities in Area A continued including weekly fluid level gauging and vapor screening in selected multiphase extraction wells and soil vapor extraction wells.
- Monthly groundwater samples were collected from select Area A monitoring locations and analyzed to evaluate the influence of focused pumping on dissolved phase hydrocarbon concentrations between April 1 and 2, 2014 and May 6 and 8, 2014. Samples were not collected in June 2014 due to the presence of LNAPL within each of the monitoring locations.
- Vacuum enhanced LNAPL recovery was tested within the LNAPL recovery well, HLRW-01, and multiphase extraction wells installed in Area A between May 6 and May 12, 2014 per approval from the USEPA and HWG.
- Cleaning and demobilizing of the temporary pilot test groundwater treatment system was conducted between May 5 and May 9, 2014.

7. Summary of Dissolved Phase Investigation Implementation Activities:

- Quarterly manual gauging of fluid levels within 382 groundwater monitoring wells and monitoring points was completed between May 12 and May 19, 2014.
- Monthly manual gauging of fluid levels in select groundwater monitoring wells and monitoring points was performed on April 25 and June 3, 2014.



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- Groundwater samples were collected and analyzed from seven monitoring wells between June 27 and June 30, 2014.

8. Activities Planned During the Third Quarter 2014 at the Hartford Site:

- Continue weekly in-home effectiveness monitoring within twelve structures in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan*.
- Conduct river stage triggered monitoring in accordance with the triggers established within the *Final Interim In-Home Effectiveness Monitoring Plan*.
- Conduct quarterly in-home effectiveness monitoring in July 2014 in accordance with the *Final In-Home Interim Effectiveness Monitoring Plan*.
- Continue implementation of the dissolved phase investigation activities in accordance with the *Final Dissolved Phase Investigation Work Plan* including: (1) monthly and quarterly fluid level gauging, and (2) groundwater sampling.
- Submit a summary of the results of the Area A LNAPL recovery partial pilot test to the USEPA and Illinois EPA and describe potential system design modifications for future pilot test activities.
- Participate in USEPA and Illinois EPA open house for residents of the Village of Hartford and other stakeholders scheduled for August 12, 2014.
- Participate in routine teleconferences and meetings with the USEPA, Illinois EPA, and Hartford Working Group.

We appreciate your continued engagement with this project. If you have any questions or require any additional information, please contact me at (513) 429-7452.

Sincerely,

Paul Michalski, P.G.
Team Leader
Trihydro Corporation