



March 19, 2015

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: Fourth 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 October 1 to December 31, 2014.

1. Apex submitted the following deliverables during the Fourth Quarter 2014:
  - A response to the Hartford Working Group (HWG) comments regarding the *Draft Zone 1 Soil Vapor Extraction System Optimization Work Plan* was submitted to the USEPA and Illinois EPA on October 9, 2014 via email.
  - The *Third Quarter 2014 Progress Report* was submitted to the United States Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency (Illinois EPA) on October 21, 2014 via email.
2. Apex submitted the following requests and notifications pertaining to activities at the Hartford Site:
  - The USEPA, Illinois EPA, and HWG were provided draft talking points for the Multiphase Remedy Framework Meeting on October 3, 2014.
  - The USEPA, Illinois EPA, and HWG were provided notification of initiation of a river stage triggered monitoring event (EBMP-22) and implementation of interim in-home event based monitoring activities on October 4, 2014.
  - The USEPA, Illinois EPA, and HWG were provided daily notifications regarding field activities and monitoring results between October 7 and October 14, 2014 during the river stage triggered monitoring event (EBMP-22). Notifications to USEPA, Illinois EPA, and HWG were 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.



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- The USEPA, Illinois EPA, and HWG were provided draft concern statements related to development of the Multiphase Remedy Framework on October 3, 2014.
- The USEPA, Illinois EPA, and HWG were provided notification of initiation of a river stage triggered monitoring event (EBMP-23) and implementation of interim in-home event based monitoring activities on October 16, 2014.
- The USEPA, Illinois EPA, and HWG were provided daily notifications regarding field activities and monitoring results between October 18 and October 25, 2014 during the river stage triggered monitoring event (EBMP-23). Notifications to USEPA, Illinois EPA, and HWG were 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 tentative schedule of activities pertaining to the Hartford Soil Vapor Extraction (SVE) System on November 5, 2014 including: (1) installation and connection of SVE wells along West Birch and West Arbor Streets, (2) transfer of operation, maintenance, and monitoring (OMM) of the SVE system components from HWG to Apex, and (3) transfer of groundwater monitoring within the sentinel well network from HWG to Apex.
- The HWG received a request for information pertaining to the OMM of the Hartford SVE system and thermal treatment units (TTUs) on November 5, 2014.
- The USEPA and Illinois EPA were provided a request on November 12, 2014 to temporarily discontinue weekly in-home effectiveness monitoring at 125 West Birch Street during the week of November 9 through 15, 2014. Approval from the USEPA was received via email on November 12, 2014.
- The USEPA and Illinois EPA were provided a summary of the schedule for the Additional LNAPL Recovery Pilot Test in Area A, as well as the SVE well installation and connection schedule along West Birch and West Arbor Streets on November 20, 2014.
- The USEPA and Illinois EPA were provided a request on November 21, 2014 to temporarily discontinue weekly in-home effectiveness monitoring at 125 West Birch Street during the week of November 23 through 29, 2014. Approval from the USEPA was received via email on November 24, 2014.
- The USEPA, Illinois EPA, HWG, and Village of Hartford were provided notification regarding the beginning of baseline monitoring activities for the Area A LNAPL recovery pilot test as described in the *Final LNAPL Recovery Pilot Test Work Plan Addendum* and the *Final Additional LNAPL Recovery Partial Pilot Test Summary Report* on December 1, 2014.
- The USEPA and Illinois EPA were provided a summary of activities proposed to minimize disruptions to residents and businesses during installation of the additional SVE wells and infrastructure along West Birch and West Arbor Streets on December 3, 2014.



- The USEPA and Illinois EPA were provided a request on December 8, 2014 to discontinue weekly in-home effectiveness monitoring during the weeks of (1) December 21 through December 27, 2014, and (2) December 28, 2013 through January 3, 2015 to accommodate holiday schedules in accordance with historical practices. Approval from the USEPA was received via email on December 9, 2014.
  - The USEPA, Illinois EPA, HWG, Village of Hartford, and City of Wood River were provided notification of the anticipated schedule for continuation of the Additional LNAPL Recovery Pilot Test in Area A on December 16, 2014.
  - The HWG was provided a request on December 19, 2014 to activate vapor recovery at the five multiphase extraction (MPE) wells and to perform modifications (e.g., install Venturi flowmeters) to the MPE wells located in Area A as part of the Additional LNAPL Recovery Pilot Test.
  - The USEPA, Illinois EPA, HWG, Village of Hartford, and City of Wood River were provided notification of updates to the anticipated schedule for continuation of the Additional LNAPL Recovery Pilot Test on December 19, 2014.
  - The USEPA, Illinois EPA, and HWG were provided notification of the mobilization of infrastructure for the temporary groundwater treatment system in preparation for the continuation of the Additional LNAPL Recovery Pilot Test on December 30, 2014.
3. Apex participated in the following meetings and teleconferences during the Fourth Quarter 2014:
- Meeting to discuss reassignments of OMM of the Hartford SVE system in accordance with the USEPA's correspondence dated September 18, 2014 was conducted with the HWG at Apex Headquarters in St. Louis, Missouri on November 13, 2014.
  - Meeting to discuss the Multiphase Remedy Framework for the Hartford Petroleum Release Site was conducted with the USEPA and Illinois EPA at the Jenner & Block, LLP Offices in Chicago, Illinois on October 9, 2014.
  - Monthly teleconferences with the HWG were conducted on October 21 and December 16, 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 Fourth Quarter 2014.
  - Quarterly in-home effectiveness monitoring was performed within 33 structures at the Hartford Site between October 9 and 18, 2014.
  - In-home screening was conducted within 28 structures at the Hartford Site in response to the river stage triggered monitoring event (EBMP-22) between October 4 and 13, 2014.



- In-home screening was conducted within 24 structures at the Hartford Site in response to the river stage triggered monitoring event (EBMP-23) between October 16 and 24, 2014.
5. Summary of Additional LNAPL Recovery Pilot Test Implementation Activities:
- An amended agreement with the Village of Hartford to discharge treated water to the Village of Hartford combined sewer system in accordance with modifications detailed in the *Additional Light Non-Aqueous Phase Liquid Recovery Partial Pilot Test Summary Report* was approved on September 29, 2014.
  - An amended agreement with the City of Wood River to discharge treated water to the Wood River Wastewater Treatment Plant in accordance with modifications detailed in the *Additional Light Non-Aqueous Phase Liquid Recovery Partial Pilot Test Summary Report* was approved on November 14, 2014.
  - The Supplemental Application for Permit for Construction /Operation Approval (WPC-PS-1) was prepared and submitted to the Illinois EPA on November 18, 2014 with modifications detailed in the *Additional Light Non-Aqueous Phase Liquid Recovery Partial Pilot Test Summary Report*.
  - The Registration of Small Source Application was prepared and submitted to the Illinois EPA on December 2, 2014 with modifications detailed in the *Additional Light Non-Aqueous Phase Liquid Recovery Partial Pilot Test Summary Report*.
  - Installation, development, and completion of the three groundwater piezometers in Area A as described in the *Additional Light Non-Aqueous Phase Liquid Recovery Partial Pilot Test Summary Report* was completed on October 31, 2014. Additional development within the LNAPL recovery well (HLRW-01) was also completed at the same time.
  - Baseline monitoring activities in Area A began on December 4, 2014 and included weekly fluid level gauging at selected monitoring points, groundwater monitoring wells, and SVE wells.
  - Mobilization of the temporary groundwater treatment system components (GAC vessels, frac tanks, etc.) began on December 30, 2014 in preparation for the continuation of the additional LNAPL Recovery Pilot Test in Area A as described in the *Final LNAPL Recovery Pilot Test Work Plan Addendum (Work Plan)* and the *Final Additional LNAPL Recovery Partial Pilot Test Summary Report*.
6. Summary of Dissolved Phase Investigation Implementation Activities:
- Quarterly manual gauging of fluid levels within 378 groundwater monitoring wells and monitoring points was completed between October 27 and 31, 2014.
  - Monthly manual gauging of fluid levels in select groundwater monitoring wells and monitoring points was performed on November 20 and December 23, 2014.



7. Zone 1 Soil Vapor Extraction System Optimization and SVE Transition Activities:

- The *Zone 1 Soil Vapor Extraction System Optimization Work Plan* and Apex's response to the HWG comments were submitted to the Village of Hartford on November 4, 2014.
- The final subcontractor bid packages for the SVE well installation and connection were submitted to the Village of Hartford on November 5, 2014.
- The final subcontractor bid packages for the SVE well installation and connection were submitted to the HWG on November 6, 2014 in accordance with Apex's response to the HWG comments regarding the *Zone 1 Soil Vapor Extraction System Optimization Work Plan*.
- Files and information pertaining to the OMM of the Hartford SVE system and TTUs were provided by the HWG during the meeting to discuss the Hartford SVE system transition on November 13, 2014.
- Approval for installation and connection of six SVE wells proposed to be installed along West Birch and West Arbor Streets as detailed in the *Zone 1 Soil Vapor Extraction Optimization Work Plan* was provided by the Village of Hartford on November 19, 2014.
- Additional files and information pertaining to the OMM of the Hartford SVE system and TTUs were provided by the HWG on December 8, 2014 in accordance with Apex's request for information dated November 5, 2014.
- Comments regarding the final subcontractor bid packages for the SVE well installation and connection were provided by the HWG on December 8, 2014.
- Installation of six SVE wells along West Birch and West Arbor Streets was completed on December 12, 2014 as described in the *Zone 1 Soil Vapor Extraction Optimization Work Plan*.

8. Activities Planned During the First Quarter 2015 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 January 2015 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, (2) groundwater sampling, and (3) data reduction, analysis, and reporting.



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- Implement the continued additional LNAPL recovery pilot test including: (1) installation of security cameras in Area A, (2) installation of fluid level and telemetry equipment in the Village of Hartford combined sewer overflow, (3) installation of additional pressure transducers in the new piezometers in Area A, (3) continuation of baseline monitoring activities including fluid level gauging, vapor screening in the MPE wells, and LNAPL baildown testing, (4) commencement of focused pumping in the Area A, and (5) OMM activities associated with the resumed pilot test.
- Complete connection of the six additional SVE wells installed along West Birch and West Arbor Streets to the vapor collection system (VCS) as detailed in the *Zone 1 Soil Vapor Extraction System Optimization Work Plan*.
- Conduct quarterly groundwater monitoring in the five sentinel monitoring wells south of the Hartford Site.
- Coordinate with HWG regarding transition of the SVE system OMM activities.
- Participate in routine teleconferences and meetings with the USEPA, Illinois EPA, and HWG.

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