



**CONESTOGA-ROVERS
& ASSOCIATES**

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Distributed via E-mail

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Reference No. 012607

Mr. Greg Rudloff
U.S. Environmental Protection Agency, Region 5
Land and Chemicals Division
77 West Jackson Blvd., LU-9J
Chicago, Illinois 60604-3590

Dear Mr. Rudloff:

RE: 2nd Semi-Annual 2012 Progress Report
Performance-Based Administrative Order on Consent
Docket Number RCRA-05-2011-0025
13000 Eckles Road Site, Livonia, Michigan
USEPA ID No. MID 005 356 621

In accordance with the Performance-Based Administrative Order on Consent between the U.S. Environmental Protection Agency Region 5 (USEPA) and Revitalizing Auto Communities Environmental Response Trust (RACER), please find the attached progress report for the 2nd half of 2012 (July 1, 2012 through December 31, 2012).

Please contact Grant Trigger or Jeff Crum (regarding soil vapor related matters), or myself (regarding system operation and groundwater matters) if you would like to discuss further. Thank you.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Meincke, P.E.

CJM/ds/10/Det.

Attachment A: 2nd Semi-Annual 2012 Progress Report

cc: Christina Rose Bush, MDCH
Grant Trigger, RACER
Dave Favero, RACER
Richard Conforti, MDEQ
Jeff Crum, Hamp, Mathews & Associates
Livonia Civic Center Library

ATTACHMENT A

**2nd SEMI-ANNUAL 2012 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN
JULY 1, 2012 TO DECEMBER 31, 2012**

DESCRIPTION OF WORK COMPLETED

- Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system.
- Submitted a 1ST Semi-Annual 2012 Progress Report dated July 13, 2012 to USEPA.
- Oversight of a vapor mitigation (Subslab Depressurization-SSD) system install at Home 7 July 16, 2012.
- Submitted Operation and Maintenance Manual for the SSD vapor mitigation system at Home 7 to EPA August 9, 2012.
- Conducted a 30-day operation, maintenance and monitoring evaluation of the SSD vapor mitigation system at Home 7 August 16, 2012.
- Coordinated third-party vapor intrusion (VI) sampling at Home 11, and conducted VI sampling also at Home 11 August 22-23, 2012.
- Oversight of modified SSD vapor mitigation system install and conduct inspection and document mitigation system operation and performance September 5, 2012.
- Submitted a Semi-Annual Report for Special Discharge Permit SD6-94508 dated September 11, 2012 to the City of Detroit Water and Sewerage Department.
- Participated in a meeting with USEPA on September 12, 2012 to review and discuss the Vapor Intrusion Pathway investigation results and overall project status.
- Performed and provided to USEPA Johnson & Ettinger Model calculations using pressure differential data as basis for no additional VI investigation sampling (for two homes that had VOC detections in soil gas beneath the slab); Conference call with EPA and follow-up e-mail to EPA to assure agreement for no further sampling September 18, 2012.
- Conference calls with EPA, MDCH and RACER on September 25 and 28, 2012 to develop discussion strategy with homeowner for addressing confounding indoor air sampling results by third-party consultant at Home 11.
- Performed groundwater elevation and LNAPL thickness measurement activities at AOI 21 monitoring wells on September 6 and December 31, 2012.
- Completed the Annual Groundwater Monitoring Event at Area 1 monitoring wells on September 4-5, 2012, consistent with the approved Groundwater Monitoring Plan. AOI 31 monitoring wells included in the Annual Groundwater Monitoring Event were sampled during April 2012.
- Submitted Home 11 chronological report of sample results and interpretations from five sampling events to EPA October 4, 2012.
- Submitted a draft proposed 2013 Annual Environmental Action Budget to USEPA for review and comment on October 29, 2012. USEPA provided comments on the draft proposed 2013 Annual EA Budget to RACER on November 16, 2012.

- Submitted the Final Proposed 2013 Annual EA Budget to USEPA for approval on November 19, 2012. USEPA approved the Proposed 2013 Annual EA Budget on December 4, 2012.
- Evaluated potential cost savings and remedial alternatives to decrease the long-term OM&M costs associated with the Area 1 Groundwater Collection and Treatment System.
- Submitted a proposed scope of work for the installation of 11 additional monitoring wells and collection and analysis of groundwater samples to further characterize Area 1 to USEPA on November 21, 2012. USEPA approved the proposed scope of work and utilizing existing Task 02 budget on November 21, 2012.
- Implemented the well installation portion of the Proposed Area 1 Scope of Work December 10-14, 2012.
- Completed and submitted to EPA a draft site-wide vapor intrusion investigation summary report December 6, 2012.

DATA COLLECTED

- Soil gas and indoor air analytical results and reports provided by Fibertec for Vapor Intrusion Investigation at Home 11. Interpretation of sample results provided to EPA in report noted above.
- Vapor mitigation diagnostic and performance measurements collected at one residence to facilitate appropriate design specifications for the installed vapor mitigation system. Results to be provided to EPA in a Property-Specific Vapor Mitigation Operation, Maintenance and Performance Monitoring report in April/May 2013.
- Groundwater elevation and LNAPL thickness measurements from AOI 21 monitoring wells (to be provided in a separate report).
- Analytical results of groundwater samples collected from AOI 31 monitoring wells in April 2012 and Area 1 monitoring wells in September 2012(to be provided in a separate report).

PROBLEMS ENCOUNTERED

- The Area 1 Groundwater Collection and Treatment System was struck by lightning during a summer storm in June 2012 and was not operational from June 18, 2012 through July 29, 2012. The system components were repaired and new motors installed at that time.
- A substantially elevated soil gas concentration of trans-1,2-dichloroethene (trans-DCE) was reported at one of two subslab sampling locations at Home 11 from the second sampling event. The result was evaluated and determined not attributable to sampling or laboratory error. Three additional sampling events were completed, with a third-party consultant also collecting samples during the last of these three subsequent sampling events. Trans-DCE was not detected in any of the three sampling events. The suspect result was concluded as anomalous based on the lack of detection in the following three sampling events, and also because trans-DCE has not been detected in groundwater samples collected in the off-site area.

- The initially installed vapor mitigation system at Home 7 was noisy. After subsequent steps were taken during one visit to the residence to muffle the fan noise, a different system was installed. The new system performed equally effective as the previous system, and was satisfactory to the homeowner as the new system operated more quietly.

ESTIMATED PERCENT COMPLETE AND INFORMATION SUMMARY FOR SELECTED ACTIVITIES

- O&M of the Groundwater Pump & Treat System (GWTP, Barrier Wall, Cover) 11%
Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system. Submitted appropriate discharge reports as per the Special Discharge Permit. (Percent complete estimated as 3 years complete of 27 years estimated in the May 2010 RCES.)
- Long-Term Groundwater Monitoring 100%
Long-Term Groundwater Monitoring Plan scheduled to be complete after 5 years of continued stability/reduction in off-Site/boundary concentrations (2006 through 2010). Sampling activities are currently planned to continue pending USEPA approval to cease monitoring.
- Maintenance of the AOI 39 Dust Control Plan 100%
- Restrictive Covenants 100%
- Vapor Intrusion Investigation 65%
- Installation of Vapor Mitigation System 100%
- Operation, Maintenance and Performance Monitoring of Vapor Mitigation System on-going
- Pilot Tests - Alternative Chemicals & Target In-Situ Treatment Injection 30%
Objective was to design, implement and evaluate a pilot test to use alternative chemicals in the wastewater treatment process that could reduce treatment system operating time and/or operating costs. Also, design and implement an in-situ stabilization treatment in Area 1 that could also reduce treatment system operating time and long-term monitoring duration. The Area 1 field pilot test was conducted in November and December 2010. Based on an evaluation of the pilot test results, additional pilot study injection and monitoring activities were recommended to determine if full-scale on-site implementation would significantly reduce dissolved concentrations of chromium and nickel and allow for the groundwater treatment plant activities to be reduced or eliminated. The groundwater treatment plant optimization activities have not been conducted due to health and safety concerns associated with handling, storing, and mixing the proposed replacement chemicals. Additional cost and remedial alternative evaluations were performed in 2012. Additional Area 1 Characterization activities are currently being implemented.
- Groundwater Treatment System Decommissioning & Removal 0%
Anticipated to be completed in 2037 per May 2010 RCES.
- Completion Report & Well Abandonment 0%
Anticipated to be completed in 2037 per May 201 RCES.

SUMMARY OF CONTACTS WITH INTERESTED PARTIES

- Discussions with residents in the area vapor intrusion investigation area regarding investigation results and mitigation system installation and operation.
- Discussions with City of Livonia and MDCH representatives regarding the results of the vapor intrusion investigation.

CHANGES IN PERSONNEL

- None

PROJECTED WORK FOR NEXT REPORTING PERIOD (JANUARY 2013 THROUGH JUNE 2013)

- Collect Additional Area 1 Characterization groundwater samples
- Remove subslab and near-slab soil gas ports from residences
- Conduct a vapor mitigation performance evaluation in April 2013, and submit a summary of the vapor mitigation performance results and any system modifications, if needed, to EPA
- Prepare and submit to EPA a soil gas monitoring work plan to monitor potential spatial and temporal changes in the soil gas plume immediately above the water table to assure that VI pathway conditions remain not an indoor air risk
- Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system
- Complete quarterly groundwater elevation and LNAPL thickness measurements from AOI 21 monitoring wells
- Perform groundwater sampling activities in accordance with the revised Groundwater Monitoring Plan
- Perform evaluation of Area 1 French Drain Collection Trench and Groundwater Treatment system
- Conduct meetings/information sessions with off-Site property owners related to AOI 31 groundwater and soil vapor as appropriate
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate
- Prepare the 1st 2013 Semi-Annual Progress Report
