July 16, 2020

Reference No. 012607

Distributed via E mail

Ms. Jennifer Stanhope
U.S. Environmental Protection Agency, Region 5
Land, Chemicals, and Redevelopment Division
77 West Jackson Blvd., LR-16J
Chicago, Illinois 60604 3590

Dear Ms. Stanhope:

Re: 1st 2020 Semi Annual 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 1st half of 2020 (January 1, 2020 through June 30, 2020).

Please let us know if you would like to discuss further. Thank you.

Sincerely,

GHD

Christopher J. Meincke, P.E.

CJM/01/ds/Det.
Attachment A: 1st Semi Annual 2020 Progress Report

cc: Richard Conforti/Jacob Runge, EGLE
Tessy Jose, GLWA
Grant Trigger, RACER
Dave Favero, RACER
Jeff Crum, Hamp, Mathews & Associates
Livonia Civic Center Library

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ATTACHMENT A

1st SEMI-ANNUAL 2020 PROGRESS REPORT

PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT

13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN

January 1, 2020 to June 30, 2020

1. Description of Work Completed

- Continued limited operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system (GWTP) on an as-needed basis. The Groundwater Treatment System was shut down from June 14, 2019 until it was restarted on January 14, 2020 and operated until January 31, 2020 due to significant rain events during January 2020. An updated Special Discharge Permit effective February 10, 2020 was issued by the Great Lakes Water Authority (GLWA). The updated permit requires treatment of Per- and Polyfluoroalkyl Substances (PFAS) with granular activated carbon (GAC). A GAC Treatment vessel was installed in May 2020. The system was restarted on May 18, 2020, including GAC treatment, and operated until June 12, 2020. GLWA has been updated on operations and required effluent samples were collected and reported to GLWA. During the first half of 2020 the system collected and discharged 1,653,132 gallons of groundwater. Monthly discharge totals are presented in Table 1. Groundwater elevation measurements were collected periodically within Area 1 to evaluate groundwater elevations.
- Submitted the 2nd Semi-Annual 2019 Progress Report dated January 22, 2019 to USEPA.
- Continued discussions and evaluations with potential developer to incorporate capping as a final corrective measure with Site redevelopment, including off-site soil being brought to the Site for fill material.
- The potential developer submitted a request for site-specific volatilization to indoor air criteria (VIAC) to Michigan Department of Environment, Great Lakes, and Energy (EGLE) on February 10, 2020 for a potential non-residential building within Area 1. A final letter transmitting the site-specific VIAC from EGLE was received on April 20, 2020.
- Submitted a proposed scope of work via email to USEPA dated March 6, 2020, for the collection of additional Area 1 groundwater samples to support incorporating Area 1 groundwater corrective measures with redevelopment.
- Continued finalizing and obtaining needed USEPA and DOJ signatures for the Prospective Purchaser Agreement (PPA) for Area 1.
- Collected groundwater samples from select temporary monitoring wells on May 21, 2020, including collection of groundwater samples for analysis of PFAS, to evaluate groundwater conditions in northern portions of Area 1

- Participated in a virtual meeting on June 23, 2020 with USEPA and EGLE, to provide a brief history of the Site, Area 1 pathway evaluation status, proposed redevelopment and remedial alternative evaluation status, and potential fill soil characterization/evaluation activities.
- Received USEPA comments March 10, 2020 on "Work Plan for In Situ Chemical Oxidation Remediation of Trichloroethene Groundwater Plume – Eckles Road Facility" submitted August 23, 2019. Revisions currently being developed to reflect a shift toward a pilot remediation strategy
- Correspondence with homeowner of 37750 Grantland Street (Home 8) regarding need to delay the annual vapor mitigation system performance evaluation due to COVID-19 health concerns.

2. Data Collected

- Groundwater sample results associated with the Area 1 sampling activities will be submitted under separate cover.

3. Problems Encountered

- None.

4. Estimated Percent Complete and Information Summary for Selected Activities

- O&M of the Groundwater Pump & Treat System (GWTP, Barrier Wall, Cover) 41%

  Continued operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system on an as-needed basis. Chromium VI and nickel treatment is no longer required to discharge to the sanitary sewer under GLWA special discharge permit. GAC installed to treat PFOS. Submitted appropriate discharge reports as per the Special Discharge Permit. (Although not applicable to the current Site remediation strategy, percent complete estimated as 11 years complete of 27 years estimated in the May 2010 RCES. This metric will be re-evaluated when the corrective measures approach for Area 1 is more certain.)

- Long-Term Groundwater Monitoring On-going
  Long-Term Groundwater Monitoring Plan proposed 5 years of monitoring to verify continued stability/reduction in off-Site/boundary concentrations (anticipated completion 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%

  Prepared a revised Declaration of Restrictive Covenant (DRC) and Termination of the 2007 DRC and submitted to USEPA on June 25, 2015. Recorded final DRC and 2007 DRC Termination on August 26, 2015. A DRC for currently owned RACER property was recorded on April 9, 2019. An amended DRC for Area 1 will be needed when the final corrective measures approach is more certain.

- Vapor Intrusion Investigation 100%

  Vapor Intrusion Investigation has been completed and subsequent mitigation has been implemented at one residence, and a VI pathway sampling plan downgradient of previously investigated homes has been approved and is being implemented. See AOI 31 below for additional activities.

- Installation of Vapor Mitigation System 100%
  (Homes 7 & 8: 37780 and 37750 Grantland St.)

  Installation completed and system operational at Home 7 since September 2012.
  Installation completed January 2018 and system operational at Home 8, 37750 Grantland St.

- O&M and Performance Monitoring of Vapor Mitigation System On-going

  System performance monitoring is being implemented at pre-scheduled time periods, though some delay in the schedule occurred due to home foreclosure and achieving contact with new homeowners. Latest system performance monitoring completed November 2019 (Home 7) and June 2019 (Home 8).

- Area 1 Pilot Tests - Alternative Chemicals & Target In-Situ Treatment Injection 100%

  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 2013. Additional Area 1 Characterization activities have been implemented. A laboratory treatability study was

performed using site groundwater to evaluate the effectiveness of utilizing a permeable reactive barrier wall (PRB) with zero valent iron (ZVI) to treat Area 1 groundwater if the existing groundwater collection and treatment system operations are ceased. Groundwater modeling activities were also performed to evaluate the optimal location and number of PRBs and the effects on groundwater flow inside and outside of the Area 1 Barrier Wall.

An additional field pilot test injection was completed in November 2013 and monitoring activities were completed through October 2014 with an additional Pilot Injections in the northern portion of the Area 1 chromium and nickel-impacted groundwater plume proposed in the 2015 Annual EA Budget Request.

Additional expanded pilot study injections were completed in May through June of 2015 including the injection of sodium sulfide, sodium dithionite, or a combination of the two in 83 injections points in the northern portion of the Area 1 chromium and nickel-impacted groundwater plume. Groundwater monitoring concluded in December 2015. An Area 1 ISCR Pilot Study Summary Report was submitted in January 2016.

- Groundwater Treatment System Decommissioning & Removal 0%

  Anticipated to be completed in 2037 per May 2010 RCES but could be completed in 2020 or 2021 if the final corrective measures approach becomes more certain.

- Completion Report & Well Abandonment 0%

  Anticipated to be completed in 2037 per May 2010 RCES but this is likely to change given change to final corrective measures.

- AOI 31 Long-Term VI Pathway Monitoring and Groundwater TCE Remediation 50%

  A Long-Term VI Pathway Monitoring Work Plan was approved May 2016 which included a minimum two years of semi-annual/annual soil vapor and groundwater sample collection to evaluate groundwater plume stability, downgradient extent of the groundwater and soil vapor TCE plume, and spatial and temporal variability in TCE soil vapor concentrations. The first semi-annual event was conducted in June 2016. Based on the results of the first event, additional groundwater delineation activities (Phase I Geoprobe®) were completed during the 1st Quarter of 2017 to further delineate TCE and TCA groundwater plumes and concentrations to determine if modifications are needed to the VI pathway monitoring plan, or if response actions are needed to mitigate potential unacceptable VI risk. Additional permanent monitoring wells and soil vapor probes were installed in June 2017 and were sampled in July 2017, as well as in 2018 and 2019 in coordination with the annual Groundwater Monitoring Program. Home 1 and Home 8 subslab soil vapor probes were resampled in December 2017. Soil vapor and Vapor Pin samples were collected November/December 2018 and December 2019. Preparation of a Long-Term VI pathway risk summary report of the VI sampling results from 2016 through 2019 will continue during the second half of 2020.

Groundwater and soil diagnostic sample and hydraulic data were collected June and October 2018 to assist design of an In-Situ Groundwater Remediation of the TCE plume to lessen vapor intrusion pathway risk assessment and mitigation activities in the future at homes downgradient of the plume's current extent. A Draft Work Plan for In-Situ Chemical Oxidation Remediation of TCE at AOI 31 dated June 13, 2019, and revised August 23, 2019 was submitted to USEPA. USEPA submitted technical review comments on March 10, 2020 which are currently under review by RACER.

- Area 1 Remedial Implementation 50%

  A request to perform Targeted Area 1 ISCR Injections was submitted to USEPA in April 2016 and approved by USEPA on May 18, 2016. Targeted injections were implemented in August 2016. An Area 1 Full Scale ISCR Work Plan was submitted to USEPA in April 2016 and approved by USEPA on May 18, 2016. Implementation of the work plan activities began September 2016. ISCR injections were completed in November 2016. Performance groundwater monitoring following the ISCR injections was completed in January 2017 and April/May 2017.

  An Area 1 Permeable Reactive Gate Evaluation report was submitted to USEPA in September 2017 proposing to install a permeable reactive gate (PRG) along a portion of the eastern alignment of the Area 1 Barrier Wall, to allow groundwater to exit the area surrounded by the barrier wall while being passively treated. An Area 1 Permeable Reactive Gate Work Plan was submitted to USEPA in April 2018. Comments received from USEPA were addressed and the presence of PFAS-impacted groundwater is currently being evaluated.

  Follow-up targeted injections were conducted in December 2017 along the south and southern eastern alignments of the Area 1 Barrier Wall (in the vicinity of French drain collection trench and proposed PRG location, where injections had not previously been conducted. Follow-up groundwater monitoring activities were completed in January 2018 and May 2018. Additional groundwater monitoring activities were completed in October 2019. Two additional injections with sodium dithionite were conducted in December 2019 northwest of the field pilot study injection locations.

  Currently discussions and evaluations with a developer are in progress with respect to incorporating a capping final corrective measure with site redevelopment.

- PFAS Site Characterization 90%

  Initial groundwater samples were collected during 2017/2018 to evaluate the potential presence of PFAS-impacted groundwater at the Site. PFAS has been detected in groundwater samples within the former Plating Area and GWTP influent/effluent samples at concentrations greater than the USEPA's 2016 Lifetime Health Advisory of 70 ng/L for PFOA and PFOS. Additional characterization activities were completed in 2019 to delineate horizontal and vertical extents of PFAS-impacted groundwater within Area 1, and how it may impact potential Area 1 remedies. Additional characterization activities to further delineate

shallow PFAS impacted groundwater were conducted in the northern areas of Area 1 in May 2020. The characterization activities are in progress.

- PFAS Remedy/Interim Measure Evaluation 50%

  Potential remedial alternatives to address PFAS-impacted groundwater within Area 1 have been reviewed, summarized and continue to be evaluated. Currently discussions and evaluations with a developer are in progress with respect to incorporating a capping final corrective measure with site redevelopment.

- PFAS Pilot Tests 95%

  A USEPA Proposed Scope of Work for a laboratory treatability study has been completed to evaluate several media to determine their effectiveness treating PFAS-impacted groundwater.

- PFAS Remedy/Interim Measure Design 30%

  A conceptual design incorporating elements of redevelopment is being evaluated. The potential final corrective measure incorporates capping and redevelopment to eliminate the need for ongoing groundwater treatment/operation and maintenance activities.

- PFAS Remedy/Interim Measure Implementation 0%

  Anticipated to be completed following the conclusion of the PFAS Remedy/Interim Measure Design task, if applicable, in coordination with redevelopment of the Site.

5. Summary of Contacts with Interested Parties

- Correspondence with GLWA regarding Special Discharge Permit Renewal
- Coordination regarding redevelopment activities continues as necessary.
- Residents are updated on a one-on-one basis to maintain privacy of VI pathway risk evaluations at their homes.
- Updates to local officials have been provided regarding potential redevelopment of Area 1.

6. Changes in Personnel

- On June 17, 2020, RACER was notified that Ms. Jennifer Stanhope was the new Project Manager for USEPA.

7. Projected Work for Next Reporting Period (July 2020 through December 2020)

- Continue discussions and evaluations with a developer with respect to incorporating a capping final corrective measure for Area 1 with site redevelopment
- Continue to work with USEPA, EGLE, and GLWA to address Area 1 impacts
- Continue to coordinate with USEPA as necessary with respect to the signature process for PPA for Area 1.
- Prepare a 2016-2019 summary report of the Long-Term Vapor Intrusion Pathway investigations for submittal to USEPA.
- Continue monitoring groundwater elevations and operation of the Area 1 French Drain Collection Trench and Groundwater Treatment system, as necessary.
- Collect groundwater samples from select Area 1 monitoring wells, as necessary to evaluate the presence of PFAS and metals, and evaluate impacts of PFAS concentrations on the French Drain Collection Trench, Groundwater Treatment System, and potential Area 1 Remedies.
- Meet individually with AOI 31 off-site residents to update them on the VI pathway risk conditions and basis for performing a Pilot Study of In-Situ Groundwater Remediation of the TCE plume.
- Continue to work toward installation and operation of ISCO Remediation of the TCE plume, or alternative, to mitigate future VI pathway monitoring for off-site AOI 31 receptors. Additional data collection is anticipated to be necessary to adapt the previously proposed larger scale remediation design and possible change in locations for installation of Pilot remediation systems.
- Conduct a limited VI pathway soil vapor sampling event (locations to be determined) based on soil vapor sample results from the past two years.
- Conduct a vapor mitigation system performance evaluation at Homes 7 and 8.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the 2nd 2020 Semi-Annual Progress Report.

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Attachments: Table 1 – Summary of Monthly Groundwater Treatment Plant Discharge Volume

TABLE 1

SUMMARY OF MONTHLY GROUNDWATER TREATMENT PLANT DISCHARGE
AREA 1 - FORMER PLATING AREA
ECKLES ROAD SITE
LIVONIA, MICHIGAN

Month	Monthly GWTP Discharge Volume (Gallons)
January 2020	945,854
February 2020	0
March 2020	0
April 2020	0
May 2020	369,101
June 2020	338,177
Total January 2020 to June 2020 Discharge	1,653,132