



January 22, 2020

Reference No. 012607

Distributed via E mail

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

Dear Mr. Rudloff:

**Re: 2nd 2019 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 2nd half of 2019 (July 1, 2019 through December 31, 2019).

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

Sincerely,

GHD

A handwritten signature in blue ink, appearing to read "CJ Meincke", is written over a faint, light blue circular stamp.

Christopher J. Meincke, P.E.

CJM/30/ds/Det.

Attachment A: 2nd Semi Annual 2019 Progress Report

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



ATTACHMENT A
2nd SEMI-ANNUAL 2019 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN
July 1, 2019 to December 31, 2019

1. Description of Work Completed

- The Area 1 French Drain and Groundwater Treatment System was shut down from July 1, 2019 through December 31, 2019. The Great Lakes Water Authority (GLWA) has been updated on operations and documents required as part of the GLWA Special Discharge Permit were submitted as described below. During the second half of 2019 the system did not collect or discharge any groundwater. Monthly discharge totals are presented in Table 1. Groundwater elevation measurements were collected periodically within Area 1 to evaluate groundwater elevations.
- Submitted the 1st Semi-Annual 2019 Progress Report dated July 12, 2019 to USEPA.
- Completed a Site groundwater evaluation and submitted the results in an Area 1 Groundwater Elevation Monitoring Summary on September 30, 2019 as required by the GLWA Special Discharge Permit for the Site.
- Received comments on July 2, 2019 from USEPA on the *Quality Assurance Project Plan (QAPP) for the Resource Conservation and Recovery Act (RCRA) Area 1 Corrective Action Operations, Maintenance and Monitoring (OM&M) Plan Eckles Road Site Livonia, Michigan* dated June 27, 2019. A final revised QAPP was submitted to USEPA on August 1, 2019 based on revisions agreed to by USEPA on July 10, 2019. USEPA provided a signed copy of the QAPP on August 2, 2019.
- Collected groundwater samples as part of the Proposed Scope of Work – Area 1 PFAS Characterization activities on July 22 -26, including collection of groundwater samples for analysis of Per- and Polyfluoroalkyl Substances (PFAS). Split samples were sent to USEPA for the analysis of PFAS.
- Submitted a draft Work Plan for In Situ Chemical Oxidation Remediation of Trichloroethene Groundwater Plume – Eckles Road Facility, to USEPA on August 23, 2019.
- Submitted a draft summary of the Area 1 PFAS Characterization Activities at the RACER Eckles Road Site to GLWA and USEPA on August 30, 2019.
- Completed Area 1 PFAS Laboratory Treatability Study and submitted an Additional Permeable Reactive Barrier Treatability Study summary memorandum and an Area 1



Groundwater Elevation Monitoring Summary to GLWA and USEPA on September 30, 2019 as required by the GLWA Special Discharge Permit for the Site.

- Submitted a draft 2020 EA Budget Request to USEPA on October 23, 2019, the final 2020 EA Budget Request to USEPA on November 22, 2019, and received the signed final 2020 EA Budget Request from USEPA on December 6, 2019.
- Conducted a meeting on October 24, 2019 with USEPA to discuss Corrective Action O&M activities, Area 1 GWTP and Remedial Alternative, PFAS, AOI 31 Vapor Intrusion (VI) Pathway evaluation status, AOI 31 Proposed In Situ Chemical Oxidation Remediation Activities, Area 1 PFAS laboratory treatability study results, GW Model updates, alternatives evaluation, proposed characterization activities, and the 2020 scope and budget request.
- Collected groundwater samples from Area 1 monitoring wells October 24 and 25, 2019 as part of the approved Groundwater Monitoring Plan (GMP) activities.
- Submitted a summary of Proposed Additional Area 1 ISCR Injections to USEPA on November 10, 2019.
- Conducted a vapor mitigation system performance evaluation at 37780 Grantland Street (Home 7) November 18, 2019.
- Collected groundwater samples from AOI 31 GMP monitoring wells December 2-5 and 10, 2019.
- Performed ISCR Injections with sodium dithionite at two locations within Area 1 on December 11 and 12, 2019.
- Collected soil vapor samples from AOI 31 properties/homes in December 2019.
- Submitted a Proposed Area 1 Conceptual Remedy Plan (PFAS elimination plan as required by the GLWA Special Discharge Permit for the Site) dated December 30, 2019 to GLWA and USEPA.

2. Data Collected

- Groundwater sample results associated with the Area 1 GMP sampling event from Area 1 monitoring wells, AOI 31 GMP sampling event from the AOI 31 monitoring wells, and Area 1 PFAS results will be submitted under separate cover.
- AOI 31 long-term soil vapor and Vapor Pin[®] monitoring results will be submitted under separate cover. (Results do not indicate a need for additional VI risk mitigation at this time).

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. Submitted appropriate discharge reports as per the Special Discharge Permit. (Percent complete estimated as 11 years complete of 27 years estimated in the May 2010 RCES.)
- Long-Term Groundwater Monitoring On-going 75%
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 on April 9, 2019.
- 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 if proposed Permeable Reactive Gate is implemented and an acceptable remedy for PFAS is identified.
- Completion Report & Well Abandonment 0%
Anticipated to be completed in 2037 per May 2010 RCES.
- 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. 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 first 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 current plume's extent. A Draft Work Plan for In-Situ Chemical Oxidation Remediation of TCE at AOI 31 dated June 13, 2019 was submitted to USEPA.

- 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.

- PFAS Site Characterization 85%

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 are proposed in the northern areas of Area 1 in 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.
- 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 10%

Anticipated to be completed following the conclusion of the Laboratory Treatability Study, if applicable. A conceptual design incorporating elements of redevelopment is being evaluated.
- PFAS Remedy/Interim Measure Implementation 0%

Anticipated to be completed following the conclusion of the PFAS Remedy/Interim Measure Design task, if applicable.

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.

6. Changes in Personnel

- None



7. Projected Work for Next Reporting Period (January 2020 through June 2020)

- 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.
- Prepare a GLWA Special Discharge Permit Application for renewal of the current Special Discharger Permit.
- Collect groundwater samples from select Area 1 monitoring wells 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.
- Continue to work with USEPA, EGLE, and GLWA to address Area 1 impacts.
- 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 to mitigate future VI pathway monitoring for off-site AOI 31 receptors.
- Conduct a vapor mitigation system performance evaluation at Home 8.
- Continue support of redevelopment activities with Ashley Capitol.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the 1st 2020 Semi-Annual Progress Report.

Attachments:

Table 1 – Summary of Monthly Groundwater Treatment Plant Discharge Volume

TABLE 1January 2020
Page 1 of 1**SUMMARY OF MONTHLY GROUNDWATER TREATMENT PLANT DISCHARGE
AREA 1 - FORMER PLATING AREA
ECKLES ROAD SITE
LIVONIA, MICHIGAN**

	Monthly GWTP Discharge Volume (Gallons)
Month	
July 2019	0
August 2019	0
September 2019	0
October 2019	0
November 2019	0
December 2019	0
Total July 2019 to December 2019 Discharge	0