



January 15, 2021

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: 2nd 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 2nd half of 2020 (July 1, 2020 through December 31, 2020).

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 light blue horizontal line.

Christopher J. Meincke, P.E.

CJM/04/ds/Det.

Attachment A: 2nd Semi Annual 2020 Progress Report

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



ATTACHMENT A
2nd SEMI-ANNUAL 2020 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
13000 ECKLES ROAD SITE, LIVONIA, MICHIGAN
July 1, 2020 to December 31, 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 12, 2020 until it was restarted on September 2, 2020 and operated until September 22, 2020 due to significant rain events during August/September 2020. GLWA has been updated on operations and required effluent samples were collected and reported to GLWA. During the second half of 2020 the system collected and discharged 424,882 gallons of groundwater. Monthly discharge totals are presented in Table 1. Groundwater elevation measurements were collected periodically from the French drain sump located within Area 1 to evaluate groundwater elevations.
- Submitted the 1st Semi-Annual 2020 Progress Report dated July 16, 2020 to USEPA.
- Continued discussions and evaluations with potential developer to incorporate capping as an interim corrective measure with Site redevelopment, including off-site soil being brought to the Site for fill material.
- Conducted an inspection and performance evaluation of the Home 8 vapor mitigation system in July 2020.
- Submitted a summary of background information to USEPA via email on September 16, 2020. Additional supplemental information regarding AOI 31 was submitted to USEPA via email on September 30, 2020. Previously submitted RCRA Corrective Action documents were transmitted to USEPA via download link on October 8, 2020.
- Submitted a proposed scope of work to USEPA via email on September 29, 2020, for the installation of monitoring wells and a soil gas probe to replace damaged sample locations and install new monitoring wells to supplement the existing monitoring network. Based on discussions with USEPA, a revised proposed scope of work dated November 16, 2020 submitted. USEPA approved the proposed scope of work via email on November 24, 2020.
- Prospective Purchaser Agreement (PPA) for Area 1 was published in the Federal Register for public comment in July 2020 and no comments were received by August 17, 2020, the final day of the public comment period. USEPA provided a notice dated August 20, 2020 that the PPA was effective.



- Submitted a proposed Area 1 Groundwater Sampling Scope of Work to USEPA via email on October 14, 2020. USEPA approved the proposed scope of work via email on October 15, 2020.
- Collected groundwater samples from Area 1 GMP monitoring wells, additional existing monitoring wells, and grab samples from temporary soil boring locations October 20, 2020 through October 28, 2020. Off-site right-of-way temporary sampling locations will be installed January 2020 following receipt of a right-of-way permit from the City of Livonia.
- Collected groundwater samples from existing AOI 31 monitoring wells during November 2020 and December 2020, as access to residential properties permitted. The additional AOI 31 monitoring wells are scheduled to be installed during January 2020, pending property owner access being granted.
- Participated in virtual meetings on August 19, 2020, September 23, 2020, October 8, 2020, October 29, 2020, November 13, 2020, and December 2, 2020 with USEPA and EGLE, to provide historical details for the Site, discuss the status of the vapor intrusion evaluation at the southeast corner of the Site and additional monitoring wells, provide information on the proposed redevelopment and remedial alternative evaluation activities, discuss the proposed 2021 Annual Budget Request, potential fill soil characterization/evaluation activities, and historical Area 1 impacts and interim measures.
- Conducted an inspection and performance evaluation of the Home 7 vapor mitigation system on November 5, 2020.
- Collected soil vapor samples from AOI 31 properties/homes in December 2020.
- Submitted an Interim Measures Work Plan – Area 1 – Former Plating Area to USEPA via email on December 21, 2020.

2. Data Collected

- A Summary of Monthly Groundwater Treatment Plant Discharge Volumes is provided in Table 1.
- Groundwater sample results associated with the Area 1 sampling activities will be submitted under separate cover.
- Groundwater sample results and soil vapor sample results associated with AOI 31 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 revised 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 interim measure details are more certain.
- Vapor Intrusion Investigation 100%

Vapor Intrusion Investigation has been completed and subsequent mitigation has been implemented at two residences, 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 July 2020 (Home 8) and November 2020 (Home 7).

- 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 groundwater treatment plant optimization activities were not conducted due to health and safety concerns associated with handling, storing, and mixing the proposed replacement chemicals.

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.

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 expanded 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 2021 if the Area 1 interim measure details become more certain. The existing French drain collection system may be retained and the treatment system may be re-located/upgraded as a contingency for the proposed interim measure.



- Completion Report & Well Abandonment 0%

Anticipated to be completed in 2037 per May 2010 RCES but this is likely to change given change to Area 1 interim measure.

- 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, 2019 and 2020 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, December 2019, and December 2020. Preparation of a Long-Term VI pathway risk summary report of the VI sampling results from 2016 through 2020 will be prepared and submitted the first half of 2021.

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. Per USEPA's approval of the November 16, 2020 scope of work, groundwater monitoring wells MW-103 and MW-202, as well as soil gas well SG-1 will be replaced in January 2020 due to construction-related damage. Samples will be collected from these locations and used to refine the vapor source conceptual site model. Refinement of the vapor pathway CSM in the area downgradient of Home 1 (38101 Amrhein) is also under current consideration.

- Area 1 Remedial Implementation - Metals 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. The presence of PFAS-impacted groundwater within the Area 1 Barrier wall put implementation of the PRG on hold while the impacts of PFAS being presented were 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. Additional groundwater monitoring activities were completed in October 2020.

Currently discussions and evaluations with a developer are in progress with respect to incorporating a capping interim 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 evaluate 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 evaluate shallow PFAS impacted groundwater were conducted in the northern portion of Area 1 in May 2020. Additional characterization activities were conducted in October 2020 to further delineate shallow PFAS-impacted groundwater in the northern and western portions of Area 1, and outside the southern alignment of the Area 1 Barrier wall. Off-site characterization of PFAS groundwater impacts is in progress.
- PFAS Remedy/Interim Measure Evaluation 100%

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



- PFAS Pilot Tests 100%
A USEPA approved Scope of Work for a laboratory treatability study has been completed to evaluate several media to evaluate their effectiveness treating PFAS-impacted groundwater.
- PFAS Remedy/Interim Measure Design 30%
An initial conceptual design incorporating elements of redevelopment has been developed. The potential interim measure incorporates capping and redevelopment to eliminate/minimize the need for ongoing groundwater treatment/operation and maintenance activities. An Interim Measures Work Plan was submitted to USEPA for review in December 2020.
- 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.
- PFAS Remedy/Interim Measure Operation, Maintenance, and Monitoring 5%
The existing groundwater collection and treatment plant was supplemented with granular activated carbon to remove PFAS from collected groundwater. The GWTP has been operated on an as-necessary basis since December 2018 to manage groundwater elevations within the Area 1 Barrier Wall. O&M tasks are anticipated to change based on implementation of an interim measure and will be developed when the details for the interim measure are finalized.

5. Summary of Contacts with Interested Parties

- Correspondence with GLWA regarding Special Discharge Permit activities and required reporting
- 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, including meetings regarding the Brownfield Redevelopment Plan.

6. Changes in Personnel

- None.



7. Projected Work for Next Reporting Period (January 2021 through June 2021)

- Continue discussions and evaluations with a developer with respect to incorporating a capping interim measure for Area 1 with site redevelopment
- Continue to work with USEPA, EGLE, and GLWA to address Area 1 impacts
- Install additional AOI 31 monitoring wells to replace damaged wells and provide additional VI pathway characterization information.
- Prepare a 2016-2020 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 and possible.
- Prepare and submit supplemental information memoranda to support the review of the Area 1 Interim Measure Work Plan, including a historical metals and PFAS concentration evaluation, historical Area 1 interim Measures installation and operation assessment, additional PFAS characterization results, and Amrhein Road sewer information.
- Collect groundwater samples from select Area 1 and off-site monitoring wells and temporary sample locations, 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, off-site infiltration to sewers, and implementation of the capping/redevelopment interim measure.
- Preparation of an amended Declaration of Restrictive Covenant for Area 1.
- Continue to work toward an interim measure/remedy 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 potential change in proposed remedial technology and location.
- Conduct a vapor mitigation system performance evaluation at Home 8.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
- Prepare the 2nd 2020 Semi-Annual Progress Report.

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**

	Monthly GWTP Discharge Volume (Gallons)
Month	
July 2020	0
August 2020	0
September 2020	424,882
October 2020	0
November 2020	0
December 2020	0
Total July 2020 to December 2020 Discharge	424,882