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May 10, 2024

Kyle Forster
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau B
625 Broadway, 12th Floor
Albany, NY 12233-7016
(electronic copy via email)

Re: Point-of-Entry Treatment System Operation, Maintenance and Monitoring Plan
Route 203 Site
NYSDEC Site No.: 442064
Nassau, New York

Dear Mr. Forster:

The General Electric Company (GE) is submitting this letter in response to the comments received on April 15, 2024 from the New York State Department of Environmental Conservation (NYSDEC) on the revised Point-of-Entry Treatment (POET) System Operation, Maintenance and Monitoring Plan (OM&M Plan) dated March 28, 2024. While GE takes exception to many aspects of NYSDEC's comments, the intent of this letter is to clarify GE's position on several key elements rather than providing individual responses to each of NYSDEC's comments. A Final OM&M Plan is attached.

The initial version of the OM&M Plan submitted by GE on March 15, 2024 described the continued OM&M of the POET systems that were installed at two residential properties where trichloroethene (TCE) was detected above its maximum contaminant level (MCL) of 5 micrograms per liter (ug/L). Based on input from NYSDEC and the New York State Department of Health (NYSDOH) during a March 20, 2024 conference call, GE subsequently expanded the scope of the OM&M Plan to also include continued OM&M of the POET systems at two additional residential properties where TCE was detected below its MCL but greater than one-half (i.e., more than 50%) of its MCL.

The proposed OM&M activities within the initial and the revised OM&M Plans are reasonable based on the sample data collected over the past five years and are also consistent with NYSDEC's guidance (specifically, Division of Environmental Remediation [DER]-10 and DER-24). The dataset for the four residential wells (two in the initial OM&M Plan and two in the revised OM&M Plan) include results for samples collected by the United States Environmental Protection Agency (USEPA) in 2019, 2021 and 2022, and also the subsequent samples (initial [pre-design], quarterly and semi-annual) collected by GE under an agreement with USEPA. During this five-year period, TCE was detected above its MCL in only two residential supply wells (both with POET systems installed and located more than 1,500 feet south of the Route 203 Site), and the POET systems at these two properties were included in the original OM&M Plan. The TCE concentrations that were part of the sampling program implemented by both USEPA and GE were all either non-detect or less than its MCL (and for most less than one-half of its MCL) in the other 13 residential supply wells with TCE detections. At these 13 locations, GE went above and beyond what

USEPA was able to perform under the Removal Program and voluntarily installed POET systems at all locations where the property owner provided approval. The data fully establishes that the concentrations of TCE in the residential wells at all 13 locations are stable or decreasing over this five-year period. NYSDEC's references to a public health risk associated with groundwater south of the Route 203 site is inconsistent with the extensive dataset from numerous wells in this area. The data show that TCE is not detected or is detected below its MCL for all but two wells, both of which have POET systems that GE has been maintaining and will continue to maintain.

Notwithstanding the extensive dataset, as described above, GE is willing to perform POET system OM&M activities above and beyond what the data show to be reasonable. Specifically, this includes continuing the OM&M for the 13 POET systems (the two POET systems in the original OM&M Plan, the additional two POET systems in the revised OM&M Plan, and the remaining nine POET systems) for an additional two-year period (through May 2026), as described in the attached Final POET System OM&M Plan. As part of this ongoing OM&M, GE will continue the semi-annual sampling at the 13 POET systems. As stated in the enclosed Final POET System OM&M Plan, GE will perform the OM&M activities beyond the two-year period for any POET system at which TCE is detected in the associated residential supply well at a concentration equal to or above its MCL of 5 ug/L. Any other POET-related work beyond the two-year period can be discussed when an additional two years of data have been collected which will then include data collected over a seven-year period.

GE looks forward to NYSDEC's approval of this offer to implement the enclosed Final POET System OM&M Plan. However, please contact me if otherwise.

Sincerely,

Lewis S. Streeter
Senior Project Manager

Attachment

cc: Sarah Quandt, NYSDEC (via email)
Scott Deyette, NYSDEC (via email)
Shaun Surani, NYSDOH (via email)
Justin Deming, NYSDOH (via email)
Dave Rosoff, USEPA (via email)
Eric Merrifield, GE (via email)
Dean Sommer, Young, Sommer (via email)
Bill Callen, Behan Communications (via email)
Jesse Vollick, Ramboll (via email)
Paul Hare, Ramboll (via email)
William Pierce, Ramboll (via email)

Intended for
General Electric Company

Document type
Final Work Plan

Date
March 2024; rev. May 2024

Route 203 Site
Nassau, New York

NYSDEC Site No.: 442064

POINT-OF-ENTRY TREATMENT SYSTEM OPERATION, MAINTENANCE AND MONITORING PLAN

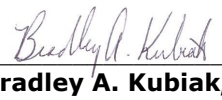
ROUTE 203 SITE

RAMBOLL Bright ideas. Sustainable change.

POINT-OF-ENTRY TREATMENT SYSTEM OPERATION, MAINTENANCE AND MONITORING PLAN ROUTE 203 SITE

Project name	**Route 203 Site**
Project no.	**1940102344**
Recipient	**General Electric Company**
Document type	**Final Work Plan**
Date	**March 15, 2024; rev. March 28, 2024; rev. May 9, 2024**

*"I, **Bradley A. Kubiak, P.E**., certify that I am currently a NYS registered professional engineer and that this Work Plan was prepared in general accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)."*



Bradley A. Kubiak, P.E.
Project Officer
Ramboll Americas Engineering Solutions, Inc.

081039 P.E. License #

05/09/2024 Date

Revisions to Approved OM&M Plan

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

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ABBREVIATIONS AND ACRONYMS

Settlement Agreement	Administrative Settlement Agreement and Order on Consent, Index No. CERCLA-02-2019-2014
AES	Adirondack Environmental Services, Inc.
AWS	alternate water supply
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
Culligan	Culligan of Troy
DER	Division of Environmental Remediation
EDD	electronic data deliverables
ELLE	Eurofins Lancaster Laboratories Environment Testing, LLC
FIR	Final Investigation Report
GE	General Electric Company
GAC	granulated activated carbon
Loeffel Companies	Loeffel's Waste Oil and Removal Service Company, Inc., and Marcar Oil, Inc.
MCL	maximum contaminant level
µg/L	micrograms per liter
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	operation, maintenance and monitoring
POET	point-of-entry treatment
PPE	personal protective equipment
Ramboll	Ramboll Americas Engineering Solutions, Inc.
RCDOH	Rensselaer County Department of Health
SOPs	Standard Operating Procedures
TCE	trichloroethene
UV	ultraviolet
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
Weston	Weston Solutions, Inc.

1. INTRODUCTION

1.1 Introduction

This Point-of-Entry Treatment (POET) System Operations, Maintenance and Monitoring (OM&M) Plan (hereafter OM&M Plan) has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of the General Electric Company (GE) to describe the continued OM&M of the POET systems previously installed at the two residential properties (identified as Properties P031 and P039) where trichloroethene (TCE) was detected above its maximum contaminant level (MCL) in their respective supply wells. These two residential wells are located south of the Loeffel property/Route 203 Site (Site) in the Town of Nassau, Rensselaer County, New York (see **Figures 1-1 and 1-2**). This OM&M Plan also describes the continued OM&M of the POET systems previously installed at two of the residential properties (identified as Properties P043 and P057) where TCE was detected less than its MCL but above 50 percent of the MCL, and also the nine residential properties where TCE was detected at concentrations less than 50 percent of the MCL.[1]

1.2 Site Background

The Site is located at 5225-5239 Route 203 and has been owned and operated by different generations of the Loeffel family since 1955. Beginning in the mid-1950s, Richard Loeffel and then his son Dewey Loeffel, used the property for the storage of trucks used for the collection and storage of waste oil and industrial wastes, associated with the Loeffels' various companies, including Loeffel Refining Products, Inc., Loeffel's Waste Oil and Removal Service Company, Inc. and Marcar Oil, Inc. (the "Loeffel Companies"). Ms. Carol Loeffel, spouse of Dewey Loeffel, was the most recent owner prior to the transfer of ownership to CEL Properties, LLC on August 19, 2021.

A significant amount of investigation and removal work has previously been completed at and in the vicinity of the Site. This work began with NYSDEC's sampling in 1979 and subsequent geophysical surveying by the Rensselaer County Department of Health (RCDOH) in 1981. The United States Environmental Protection Agency (USEPA) performed investigation activities from 2018 to 2022,[2] and GE performed additional investigation and removal activities from 2020 to 2023 under the oversight of USEPA.[3] Information on the investigation activities that have been performed at and in the vicinity of the Site and the associated findings are presented in the Final Investigation Report (FIR) submitted to USEPA on August 10, 2021 (Ramboll, 2021). A Removal Action Completion Report, which will include information on investigation and removal work conducted from April 2022 through December 2023, is currently being prepared and will be submitted to USEPA and NYSDEC in the second quarter of 2024. Information on the POET systems is presented in the Point-of Entry Treatment Systems

[1] The New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation (DER) guidance document DER-24 (Assistance for Contaminated Water Supplies) includes provisions for when an alternate water supply (AWS), such as bottled water or POET system, may be discontinued. These include discontinuation when the detected concentrations of the constituent are at or below 50 percent (%) of the MCL for four consecutive sampling events, and the use of statistical methods to evaluate if the detected concentrations are protective.

[2] The Route 203 Site is included on USEPA's Superfund Enterprise Management System (NYN000203244) but is not on or proposed for inclusion on the federal National Priorities List (NPL).

[3] GE's work was conducted in accordance with the Administrative Settlement Agreement and Order on Consent for a Removal Action (Index No. CERCLA-02-2020-2008) (Settlement Agreement) between USEPA and GE dated February 25, 2020, and associated USEPA-approved work plans.

Completion Report (POET System Completion Report) approved by USEPA on January 27, 2023 (Ramboll, 2023). Additionally, POET System OM&M Summary Reports have been submitted following each POET system OM&M sampling event (June 1, 2022; December 2, 2022; January 5, 2023; March 17, 2023; June 19, 2023; December 8, 2023).

The prior investigation activities by USEPA and GE included the sampling of many residential supply wells near the Site in addition to the residential supply well and commercial supply well located on the Site. In December 2018 and March 2019, USEPA's contractor (Weston Solutions, Inc. [Weston]) conducted supply well sampling of 26 wells on 24 properties including the Site and residences to the east, south and west (Weston, 2019a; Weston, 2019b). In October and December 2021, USEPA's contractor performed additional residential supply well sampling, which included re-sampling the 26 supply wells on 24 properties that were previously sampled as well as sampling 50 supply wells at 49 additional properties farther south of the Site (Weston, 2022). Additional supply well sampling performed by GE in April 2022 included one previously unsampled residential supply well in addition to re-sampling numerous other residential supply wells in the vicinity of the Site.

USEPA installed a POET system at Property P031 in January 2022 due to a detection of TCE at 9.5 micrograms per liter (µg/L), which is above its MCL of 5 µg/L (see **Figure 1-2, Table 1-1**). As described in the POET System Completion Report (Ramboll, 2023), GE subsequently installed POET systems at 12 other nearby properties that had TCE detections below the MCL of 5 µg/L. The decision to install these systems was made based on discussions with USEPA, and out of an abundance of caution until a larger groundwater analytical data set could be generated.[4] Under USEPA's oversight, GE has performed the associated OM&M at the 12 POET systems installed by GE as well as the system installed by USEPA at Property P031. TCE was not detected in any of the other residential supply wells that were sampled by USEPA in the area.

The POET system OM&M activities performed by GE have been summarized in POET System OM&M Summaries submitted to USEPA, NYSDEC, and the New York State Department of Health (NYSDOH). The analytical results for the OM&M samples collected from the inlet (pre-carbon), midpoint (between the two carbon units) and outlet (post-carbon) locations were included in these summaries.

Based on the sample results collected through October 2023, the arithmetic mean TCE inlet concentration is 9.4 µg/L at Property P031 and 5.0 µg/L at Property P039 (**Table 1-1**). TCE inlet concentrations at Properties P043 and P057 are less than the MCL of 5 µg/L. The arithmetic mean TCE inlet concentration is 2.7 µg/L at Property P043 and 2.6 µg/L at Property P057. The TCE inlet concentrations in the remaining POET systems have been consistently below 2.5 µg/L for the previous four sampling events.[5]

NYSDEC added the Site to its List of Inactive Hazardous Waste Disposal Sites (Site No. 442064) in October 2021. This OM&M Plan describes the continued POET system OM&M activities that will be performed by GE at the 13 properties with POET systems under the oversight of NYSDEC after GE has

[4] Two additional residences (Properties P042 and P048) had TCE detections at concentrations below the MCL of 5 µg/L in their residential supply wells but refused GE's offer of installation of a POET system.

[5] Inlet TCE concentrations at Property P032 have been below 2.5 µg/L for three consecutive sampling events and are expected to remain below 2.5 µg/L during the last semi-annual POET OM&M sampling event in May 2024.

completed its requirements under the Removal Order with USEPA, which is expected to be with the POET system monitoring event performed in May 2024.

1.3 Project Scope and Objectives

This OM&M Plan describes the OM&M activities to be performed at the 13 properties with POET systems as shown on **Figure 1-2**. These activities are contingent upon the property owners granting continued access and consist of the following as described in subsequent sections of this OM&M Plan:

- OM&M of the existing POET systems installed at residential supply wells where TCE was detected above its MCL (i.e., Properties P031 and P039)
- OM&M of the existing POET systems installed at residential supply wells where TCE has been detected below its MCL of 5 µg/L
- The POET system OM&M includes:
    - Semi-annual sampling and analysis for volatile organic compounds (VOCs) from the inlet, midpoint, and outlet of each POET system to monitor the system's effectiveness at removing TCE
    - Semi-annual sampling and analysis for total coliform from the outlet of each POET system
    - Replacement of the POET system granular activated carbon (GAC) units as warranted based on monitoring results

The POET system OM&M activities described herein will be performed for a two-year period. If there are any TCE detections in the inlet equal to or above the MCL of 5 µg/L, then OM&M of that particular POET system will continue beyond the two-year period.[6] If the TCE detections for the inlet remain below the DER-24 criteria of one half of the MCL (i.e., 2.5 µg/L) for four consecutive monitoring events, then POET system OM&M will be discontinued unless otherwise agreed to by NYSDEC and GE.

If OM&M is discontinued for any POET systems, the property owners(s) will have the opportunity to accept ownership of and continue operation of the POET system(s); alternatively, if desired by the property owner(s), the POET system(s) will be removed by GE at no cost to the owner(s).

[6] The two-year OM&M period may be modified if agreed to by NYSDEC and GE.

2. POET SYSTEM OPERATION, MAINTENANCE AND MONITORING

This section describes the OM&M of the POET systems.

2.1 POET System Operation

The POET system OM&M activities will be performed for a minimum period of two years as described in **Section 1.3.**

During POET system operation, the property owners will be responsible for the following:

- Ensuring water is directed through the GAC units and the treatment system is not bypassed
- Routine visual inspection of the system for leaks
- Sediment filter replacement as needed if the property owner is amenable; replacement filters provided by GE will be kept at the residences as discussed in **Section 2.3**
- Contacting GE and/or the designated contractor for as-needed assistance and/or maintenance as discussed in **Section 2.3**

2.2 POET System Monitoring

The POET system monitoring will consist of sample collection for analysis of VOCs at the inlet (pre-carbon), midpoint (i.e., between lead and lag carbon vessels) and outlet (post-carbon) to document concentrations and monitor system performance. The outlet will also be sampled for analysis of total coliform. The POET systems will be sampled on a semi-annual basis for a two-year period, as shown on **Table 2-1**. If there are any TCE detections in the inlet equal to or above its MCL of 5 µg/L, then OM&M of that particular POET system (including routine sampling) will continue beyond the two-year period.

POET system monitoring will be conducted in accordance with the Standard Operating Procedures (SOPs) provided in **Appendix A**. The POET system monitoring samples will be sent to Eurofins Lancaster Laboratories Environmental, LLC (ELLE) for VOC analysis and to Adirondack Environmental Services, Inc. (AES) for total coliform analysis under chain-of-custody procedures. Complete analytical data packages and electronic data deliverables (EDDs) will be obtained from ELLE for the VOC analyses, and standard analytical data packages will be obtained from AES for the total coliform analyses.

2.3 POET System Maintenance

During POET system operation, the following routine maintenance will be performed as needed:

- Sediment filter replacement as needed; if acceptable to the property owners, replacement filters will be kept at the residences for use by the property owners on an as-needed basis

- Carbon changes as required based on monitoring results (i.e., when breakthrough of the lead carbon vessel is observed based on the TCE analytical data from the midpoint sample collection location)[7]

- Ultraviolet (UV) treatment unit bulb replacement as required or as recommended by the manufacturer, typically on an annual basis

The POET systems will be visually inspected during each semi-annual monitoring event and documented. Any other required maintenance of the POET systems will be performed on an as-needed basis based on the routine inspection event results performed during POET system monitoring. In addition, assistance and maintenance will be provided when needed based on property owner calls. Maintenance activities will be performed by Ramboll and/or Culligan of Troy (Culligan) or equivalent under contract to Ramboll.

2.4 Waste Management

Waste will be generated during performance of the various activities described in this OM&M Plan and will be managed by Ramboll or Culligan as non-hazardous waste at a permitted solid waste disposal facility. The different types of waste include spent carbon from POET system maintenance, personal protective equipment (PPE, such as nitrile gloves), and other general sampling debris (e.g., paper towels).

[7] Lag-to-lead GAC vessel rotation with fresh GAC vessel installed in the lag position.

3. REPORTING

After each semi-annual monitoring event, a POET System OM&M Summary will be prepared and submitted to NYSDEC and NYSDOH within 45 days of receipt of the analytical results, or such longer time as specified or agreed to by NYSDEC. Each summary will include a figure showing the location and POET system identification, summary tables that provide the analytical results for the inlet, mid-carbon and outlet samples, and, if applicable, the date(s) of carbon changes, UV bulb replacements, and system repairs. The monitoring results will also be separately provided to the property owners.

4. PROJECT SCHEDULE

The table below provides an estimated schedule for implementing this OM&M Plan beginning with NYSDEC's acceptance of the OM&M Plan and progressing through the last OM&M monitoring event within the minimum two-year monitoring period described in **Section 1.3**.

Table 4-1. Project Schedule

Milestone Activity	Estimated Schedule
NYSDEC acceptance of this OM&M Plan	To be established based on communication with NYSDEC
Implementation of POET system OM&M activities	POET system operation and maintenance activities to commence following conclusion of POET OM&M activities under the Settlement Agreement with USEPA, and continue through the end of the minimum two-year monitoring period
Semi-annual POET system monitoring	October 2024, May and October 2025 and May 2026
POET System OM&M Summary submittal to NYSDEC and NYSDOH	45 days after receipt of the analytical results for the POET system monitoring; expected December 2024, July and December 2025 and July 2026

5. REFERENCES

Ramboll, 2021. Final Investigation Report, Route 203 Site, Nassau, New York. Prepared for the General Electric Company, June 30, 2021; Revised August 10, 2021.

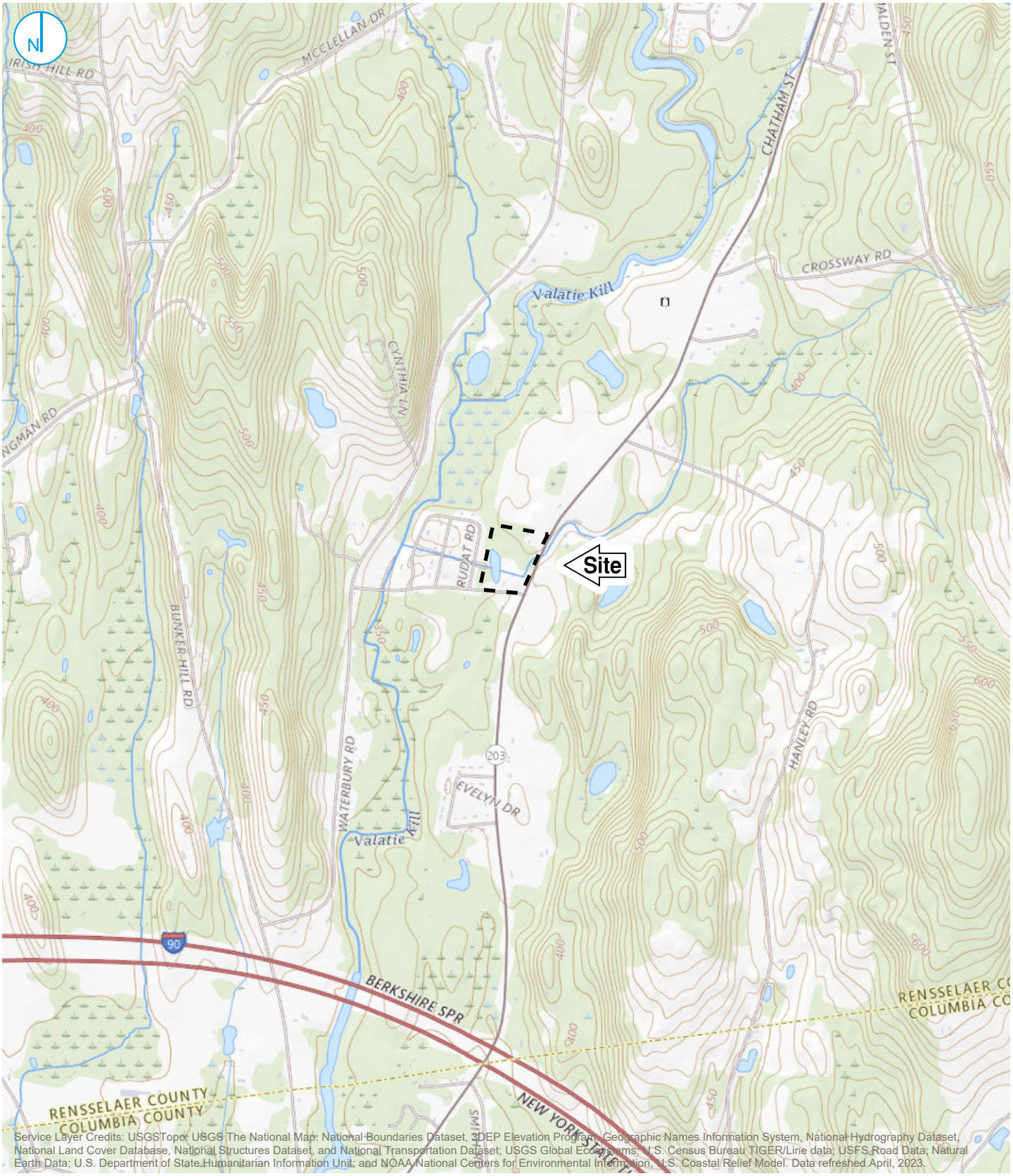
Ramboll, 2023. Point-of-Entry Treatment Systems Completion Report, Route 203 Site, Nassau, New York. Prepared for the General Electric Company, January 26, 2023.

Weston, 2019a. Removal Assessment Sampling Report, Route 203 Site, Nassau, Rensselaer County, New York. Prepared for USEPA, Region II Superfund and Emergency Management Division, Edison, New Jersey, May 23, 2019.

Weston, 2019b. Removal Assessment Sampling Report Residential Tap Water Sampling Event, Route 203 Site, Nassau, Rensselaer County, New York. Prepared for USEPA, Region II Superfund and Emergency Management Division, Edison, New Jersey, June 11, 2019.

Weston, 2022. Final Removal Assessment Sampling Report – October 2021, December 2021, and January 2022 Residential Tap Water Sampling Events, Route 203 Site, Nassau, Rensselaer County, New York. Prepared for USEPA, Region II Superfund and Emergency Management Division, Edison, New Jersey, December 22, 2022.

FIGURES



Service Layer Credits: USGSTopo: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

Map Scale: 1:24,000 | Map Center: 73°37'28"W 42°29'40"N

PROJECT: 169000XXXX | DATED: 2/9/2024 | DESIGNER: gardneme I:\Ge-Cep.612\73458.Route-203-Prope\Docs\Reports\RIFS Work Plan\Figures\GIS\Figure 1-1 Site Location\SITE LOCATION.aprx\Ramboll_ANSI_A_Site_Location

KEY MAP (not to scale)

Note:
The eastern drainageway drains to a topographic low-lying area to the south of Sweets Crossing Road.

0 1,000 2,000 Feet

SITE LOCATION

FIGURE 1-1

ROUTE 203 SITE
NASSAU, NEW YORK

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY

RAMBOLL

COMMERCIAL SUPPLY WELL

RESIDENTIAL SUPPLY WELL (PREVIOUSLY SAMPLED)

RESIDENTIAL WELL WITH TREATMENT SYSTEM OM&M

ROUTE 203 SITE

ACCESS NOT PROVIDED

VACANT PROPERTY

0 275 550 Feet

POET SYSTEM OM&M ACTIVITIES LOCATION MAP

FIGURE 1-2

ROUTE 203 SITE
NASSAU, NEW YORK

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY
RAMBOLL

TABLES

Table 1-1
Trichloroethene (TCE) in Residential Supply Well Water
POET System OM Plan

Route 203 Site
Nassau, New York

Property / **Sampling Event**	P031	P039	P022	P023	P025	P032	P040	P043
Mar-19	--	--	0.54	1.2	--	--	--	--
Oct-Dec 21	**9.5**	--	0.61	1.1	0.15 J	1.9	1.2	2.8
Jan-22	**12**	--	--	--	--	--	--	--
Apr-22	**9.0**	4.7	0.45 J	0.89	0.12 J	2.0	1.0	2.7
Aug-Sep 22	**9.0**	**5.6**	0.39 J	0.95	ND	2.6	1.3	2.7
Nov-22	**8.7**	**5.3**	0.51	0.88	ND	2.6	1.2	2.7
Feb-23	**9.0**	4.8	0.44 J	0.86	0.14 J	2.0	1.2	2.7
Mar-23	--	**5.0**	--	--	--	--	--	--
May-23	**8.7**	4.9	0.36 J	0.72	ND	2.0	0.99	2.6
Oct-23	**8.9**	4.6	0.42 J	0.89	ND	2.0	1.2	2.7
Arithmetic mean	**9.4**	**5.0**	0.47	0.94	0.06	2.2	1.2	2.7
Geometric mean	**9.3**	**5.0**	0.46	0.93	0.14	2.1	1.2	2.7

Property / **Sampling Event**	P044	P046	P047	P053	P057	P042	P048
Mar-19	--	--	--	--	--	--	--
Oct-Dec 21	2.1	2.5	0.67	0.41 J	1.5	0.14 J	2.6
Jan-22	--	--	--	--	--	--	--
Apr-22	1.9	2.4	0.47 J	ND	2.7	0.23 J	4.2
Aug-Sep 22	1.9	2.0	0.97	0.29 J	3.2	0.39 J	4.1
Nov-22	1.8	2.2	0.66	0.32 J	3.0	0.16 J	3.8
Feb-23	1.6	2.0	0.50	0.32 J	2.8	0.34 J	3.9
Mar-23	--	--	--	--	--	--	--
May-23	1.6	1.9	0.39 J	0.30 J	2.4	ND	3.7
Oct-23	1.6	2.1	0.37 J	0.37 J	2.7	0.35 J	3.9
Arithmetic mean	1.8	2.2	0.58	0.29	2.6	0.23	3.7
Geometric mean	1.8	2.1	0.55	0.33	2.6	0.25	3.7

Notes: 1. Results are in micrograms per liter (ug/L)

2. Property criteria denoted by the shading below:

Residential supply well with point-of-entry treatment (POET) system (TCE detections ≥ 5 ug/L).

Residential supply well with POET system (TCE detections < 5 ug/L).

Residential supply well with detected TCE but owner declined POET system installation.

3. "--" designates no sample was collected.

4. "J" designates TCE is detected above the laboratory's method detection limit (MDL) but below the laboratory's reporting limit.

5. "ND" designates TCE was not detected.

6. Arithmetic mean includes samples whose TCE analysis was non-detect and a value of zero was used in the calculation.

7. Geometric mean includes samples with TCE detections only.

8. TCE concentrations at or above the maximum contaminant level (MCL) of 5 ug/L are bolded

Table 2-1
Point-of-Entry Treatment System Monitoring
Route 203 Site
Nassau, New York

		Analysis		Residential Well Information*										
Location ID	Sample Location	VOCs	TC	Reported Total Well Depth (feet)	Estimated Ground Surface Elevation at Well (feet NAVD88)	Well Type	Reported Depth to Bedrock (feet)	Reported Well Casing Length (feet)	Reported Well Diameter (inches)	Well Screen Installed (Yes/No)	Reported Well Yield (gpm)	Well Installation Date	Well Driller	NYSDEC Well Number
OM&M - Semi-annual Sampling of Residential Wells with Point-of-Entry Treatment System (TCE ≥ MCL⁺)														
P031	*Inlet*	✓		242	361	Bedrock	50	53	6	NA	5	1988	Hanson Well Drilling & Pump Co. Inc.	NA
	Between carbon	✓												
	Outlet	✓	✓											
P039	*Inlet*	✓		160	361	Bedrock	44	44	NA	No	5	≥2000	Richard B. Eckel Wells & Pumps (NYRD10090)	RE1954
	Between carbon	✓												
	Outlet	✓	✓											
OM&M - Semi-annual Sampling of Residential Wells with Point-of-Entry Treatment System (2.5 µg/L ≤ TCE < MCL⁺)														
P043	*Inlet*	✓		184	362	Bedrock	44	43	NA	No	6	NA	Richard B. Eckel Wells & Pumps (NYRD10090)	RE01862
	Between carbon	✓												
	Outlet	✓	✓											
P057	*Inlet*	✓		NA	358	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Between carbon	✓												
	Outlet	✓	✓											
OM&M - Semi-annual Sampling of Residential Wells with Point-of-Entry Treatment System (2.5 µg/L > TCE < MCL⁺)														
P022	*Inlet*	✓		200		Bedrock	NA	NA	NA	NA	NA	1975	Smith Well Drilling, Inc. (NYRD10001)	NA
	Between carbon	✓												
	Outlet	✓	✓											
P023	*Inlet*	✓		25		Overburden	NA	NA	NA	NA	NA	1977	NA	NA
	Between carbon	✓												
	Outlet	✓	✓											
P025	*Inlet*	✓		36		Overburden	NA	NA	NA	NA	NA	Approximately 1960	Smith Well Drilling, Inc. (NYRD10001)	NA
	Between carbon	✓												
	Outlet	✓	✓											
P032	*Inlet*	✓		200	362	Bedrock	44	42.5	NA	No	8	≥2000	Richard B. Eckel Wells & Pumps (NYRD10090)	RE01863
	Between carbon	✓												
	Outlet	✓	✓											
P040	*Inlet*	✓		160	362	Bedrock	40	40	NA	No	5	≥2000	Richard B. Eckel Wells & Pumps (NYRD10090)	RE01917
	Between carbon	✓												
	Outlet	✓	✓											
P044	*Inlet*	✓		160	362	Bedrock	40	40	NA	No	5	≥2000	Richard B. Eckel Wells & Pumps (NYRD10090)	RE01956
	Between carbon	✓												
	Outlet	✓	✓											
P046	*Inlet*	✓		322		Bedrock	26	40	6	No	10	1988	Hanson Well Drilling & Pump Co. Inc.	NA
	Between carbon	✓												
	Outlet	✓	✓											
P047	*Inlet*	✓		122		Bedrock	33	40	6	No	5.5	1984	Hanson Well Drilling & Pump Co. Inc.	NA
	Between carbon	✓												
	Outlet	✓	✓											
P053	*Inlet*	✓		182	365	Bedrock	32	40	6	No	5	1989	Hanson Well Drilling & Pump Co. Inc.	NA
	Between carbon	✓												
	Outlet	✓	✓											

Notes:

1. Activity is based on the property owner(s) granting access.
2. Sample analysis methods and laboratories:
   Volatile oganic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Method 524.2 analyzed by Eurofins Lancaster Laboratories Environment Testing, LLC (ELLE).
   Total coliform (TC) via Standard Method (SM) 9223B-04 Colilert® analyzed by Adirondack Environmental Services, Inc. (Adirondack).
3. "NAVD88" designates North American Vertical Datum of 1988.
4. "gpm" designates gallons per minute.
5. "NYSDEC" designates the New York Department of Environmental Conservation.
5. "NA" designates not available.
6. "OM&M" designates operation, maintenance and monitoring.
7. "TCE" designates trichloroethene.
8. "µg/L" designates micrograms per liter.
9. "MCL" designates maximum contaminate level as specified in 10 New York Codes, Rules and Regulations Subpart 5. TCE has a MCL of 5µg/L.
10. For clarity, well locations are specified using the associated property ID (e.g., P031)
11. "*" indicates information compiled from the following residential well data sources:
    Well driller's log or letter.
    USEPA well survey.
    NYSDEC, Water Wells: Beginning 2000, accessed at https://data.ny.gov/Energy-Environment/Water-Wells-Beginning-2000-Map/q37q-gerb on March/May 2024.

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APPENDIX A
STANDARD OPERATING PROCEDURES

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ENVIRONMENT
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STANDARD OPERATING PROCEDURE - POINT-OF-ENTRY TREATMENT SYSTEM SAMPLING

Project name	**Route 203 Site**
Project no.	**1940102344**
Recipient	**General Electric Company**
Document type	**Final**
Date	**March 5, 2024**
Prepared by	**William Pierce**
Checked by	**Jesse J. Vollick**
Approved by	**Brad Kubiak**

1. Scope and Application

This Standard Operating Procedure (SOP) provides guidance, material needs, and methodology for point-of-entry treatment (POET) system sampling. Refer to the Point-of-Entry Treatment System Operation, Maintenance and Monitoring Plan and the included SOP – Chain-of-Custody, Handling, Packing and Shipping for sample preservation, chain-of-custody, sample handling, packing, shipping, or laboratory analysis, as appropriate.

2. Personnel Qualifications

Field sampling personnel involved with the collection of POET system samples will have completed a training course of at least 40 hours meeting the requirements of 29 Code of Federal Regulations (CFR) 1910.120(e) for health and safety at hazardous waste operations. If the course was completed more than 12 months before the date of the site work, completion of an approved 8-hr refresher course will be required. Field activities that involve the collection of supply well samples will be performed by a Ramboll Americas Engineering Solutions, Inc. (Ramboll) geologist, hydrogeologist, or field scientist. Field personnel will be familiar with this SOP and possess the required skills, training, field observation documentation and experience necessary to successfully complete field activities.

3. Materials

The following materials and supplies, as appropriate, are necessary for collection of supply well samples:

- Field log book;
- Field form(s);
- Field sampling personnel business cards;
- Client's community representative name and contact information (if applicable);
- Clean, non-slip disposable boot/shoe covers/booties;
- Supply well sampling database for the Site containing information from the prior sampling event(s);
- Indelible, blue or black ink pen;
- Chain-of-custody and security seal(s);
- Clean sample container(s) (with an extra set) including any preservatives, as required per the method
- Sample label(s);
- Sample cooler(s);
- Wet ice;
- Plastic bags for ice and sample set(s);
- Paper towels;
- 5-gallon bucket(s);
- Nitrile gloves; and,
- Contractor bags.

4. Procedures

Prior planning and preparation tasks in advance of supply well sampling will include owner contact to arrange access and understand the sampling conditions.

The following procedures will be followed for collecting POET system samples:

1. Don required personal protective equipment (PPE) including clean nitrile gloves and a clean pair of non-slip disposable boot/shoe covers/booties over footwear immediately prior to entering the residence/house.

2. Perform a visual inspection of the POET system and identify the three sampling port locations on each system: inlet (raw, pre-carbon), midpoint (mid-carbon) and outlet (post-carbon and post-ultraviolet [UV] treatment unit). Check the water meter against the prior reading to confirm that the system has been in use and the water in the system is representative of the incoming well water.

3. Turn on a cold water tap with an associated drain located downstream of the POET system and allow the water to run until the well pump cycles on and the water temperature is cool to cold (typically about one minute). Monitor the water level in the sink to prevent overflow. Turn off the cold-water tap.

4. Place an empty bucket below the effluent sampling port to collect and contain any drips. Don a new pair of nitrile gloves, and turn on the sampling port and begin filling outlet sample bottles for volatile organic compounds (VOCs) by USEPA SW-846 Method 524.2 and coliform bacteria analysis by Standard Method (SM) 9223B-04 Colilert® with cool to cold supply well water.

5. After filling the sample containers, turn off the sampling port to stop the flow of supply well water and wipe any excess water or moisture off the outside of the sample containers with clean paper towels.

6. Complete sample labels per SOP – Chain-of-Custody, Handling, Packing and Shipping and affix labels to the sample containers. Sample identification nomenclature is as follows for the three sampling port locations on each system: inlet (raw, pre-carbon), midpoint (mid-carbon) and outlet (post-carbon and post-UV treatment unit):

   - P0XX-INLET-MMDDYYYY
   - P0XX-MID-MMDDYYYY
   - P0XX-OUTLET-MMDDYYYY

   Where P0XX is the sample field location and MMDDYYYY designates the month/day/year of sample collection.

7. Repeat steps 4-6 for the midpoint sample followed by the inlet sample for VOCs by USEPA SW-846 Method 524.2.

8. Ship the samples to the laboratory per project requirements following SOP - Chain-of-Custody, Handling, Packing and Shipping.

9. Place any PPE used for collecting the supply well samples in contractor bags and dispose of per the Point-of-Entry Treatment System Operation, Maintenance and Monitoring Plan and Management of Waste section below.

5. Management of Waste

Waste generated during this sample collection task will be managed as non-hazardous waste at a permitted solid waste disposal facility.

6. Quality Control Samples

Specific details related to field quality control (QC) samples are described in the Point-of-Entry Treatment System Operation, Maintenance and Monitoring Plan. A brief overview of the collection of QC samples, if needed, is included here for reference.

6.1 Duplicate Samples

Duplicate samples, if needed, are prepared by alternately filling the container for the "primary sample" for a particular parameter and then filling the container for the "duplicate sample" for that same parameter. Duplicate samples need to be included on the same chain-of-custody.

6.2 Trip Blanks

Trip blanks (for VOCs only), if needed, are prepared in the laboratory and are shipped from the laboratory with the applicable sample collection containers for each project. The trip blank vials should be inspected for air bubbles upon receipt from the laboratory. The trip blanks are not opened in the field. A trip blank should be present in each shipping cooler containing samples to be analyzed for VOCs. Trip blanks need to be included on the chain-of-custody form.

6.3 Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) sample pairs, if needed, are collected in the same manner as a duplicate sample. MS/MSD sample pairs need to be included on the chain-of-custody form.

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STANDARD OPERATING PROCEDURE - CHAIN-OF-CUSTODY, HANDLING, PACKING AND SHIPPING

Project name	**Route 203 Site**
Project no.	**1940102344**
Recipient	**General Electric Company**
Document type	**Final**
Date	**March 5, 2024**
Prepared by	**William Pierce**
Checked by	**Jesse J. Vollick**
Approved by	**Brad Kubiak**

1. Scope and Application

This Standard Operating Procedure (SOP) describes the chain-of-custody, handling, packing, and shipping procedures for the management of samples.

2. Materials

The following materials and supplies, as appropriate, are necessary for chain-of custody, handling, packing, and shipping:

1. Field logbook;
2. Polyethylene bags (resealable-type);
3. Clear packing tape, strapping tape;
4. Chain-of-custody forms;
5. DOT shipping forms, as applicable;
6. Custody seals;
7. Insulated coolers of adequate size for samples and wet ice;
8. Cushioning material (i.e., bubble wrap);
9. Temperature blank (typically provided by the laboratory);
10. Sample return shipping papers, addresses and billing account numbers; and,
11. Indelible, blue, or black ink pen.

3. Procedures

3.1 Chain-of-Custody

1. Start chain-of-custody (COC) records in the field when sample collection is completed, if possible. One completed chain-of-custody record must be kept with each sample cooler at all times.
2. Complete COC and sample collection forms in indelible ink.
3. Complete COC forms neatly using printed text. If a simple mistake is made, the error will be crossed out with a single line, initialed, and dated.
4. Sequentially number each separate sample entry.

5. Avoid the use of "ditto" or quotation marks to indicate repetitive information in columnar entries.

6. A continuous vertical arrow will be used between the first entry and the next different entry if numerous repetitive entries must be made in the same column. Ensure vertical arrow completely fills the space between entries.

7. Consecutively number each form using the "Page ___ of ___" format when more than one chain-of-custody form is used for a single shipment.

8. Place additional instructions directly onto the COC form, if necessary.

9. Define acronyms used on a COC form.

10. The COC form will contain the following information:

    a. Project identification and number;
    b. Laboratory purchase order (PO) number, if known;
    c. Sample identification (ID);
    d. Sample location ID;
    e. Date and time of sample collection;
    f. Type and matrix of sample;
    g. Number of sample containers;
    h. Analyses requested, including analytical method;
    i. Special analytical comments;
    j. Sample preservatives;
    k. Sampler signature/date/time;
    l. Shipping carrier used to ship sample coolers; Air bill number if shipped by a commercial carrier; and,
    m. Signature/date/time of the laboratory representative receiving the samples.

11. The field sampling team will transport or ship the cooler via an overnight delivery service (e.g., FedEx) or hand deliver the cooler to the laboratory or laboratory shipping center. Prior to shipment of sample coolers, the field sampling team will contact the laboratory to notify the laboratory of the shipment.

12. The COC form will be completed by the field sampler and included in the sample cooler.

3.2 Handling

1. The field sampling team is personally responsible for the care and custody of the samples until samples are relinquished. The field logbook and/or field forms will be used to note information regarding collection of samples and any applicable observations.

2. The following information will be recorded in the field logbook or field forms by the field sampling team:

    a. Project number and site name;

    b. Sample identification (ID) code and other sample identification information, including sample location ID;

    c. Sampling method;

    d. Date and time;

    e. Sample matrix;

    f. Name of sampler(s);

    g. Location and sample ID codes of field duplicates and/or matrix spike/matrix spike duplicate (MS/MSD) sample pairs; and,

3. Sample labels will be completed in indelible ink and must include the following information:

    a. Sample ID and other sample identification information;

    b. Site name;

    c. Analysis required, including analytical method;

    d. Date and time sampled;

    e. Initials of sampling personnel; and,

    f. Sample preservative.

3.3 Packing

1. For aqueous and solid samples, ice that has been placed in heavy-duty polyethylene bags and properly sealed will be placed on top of and/or between the samples. Samples will be packed securely to eliminate breakage during shipment.

2. Sampling containers will be packed using standard packing materials (e.g., bubble wrap). When possible, sample container preparation and cooler-packing activities will be completed in a well-organized and clean area. Sample containers will be prepared for shipment by wiping containers clean of debris/water using paper towels. Care will be taken to use enough packing materials to properly protect the samples, but not so much that the samples are insulated from the ice.

3. Prior to sealing the cooler for shipment, the field sampling team with relinquish the sample cooler to either another individual or a courier service, as described below. The field sampling team

should retain a copy of the COC form and keep it with the field logbook, while the original copy of the COC form should be kept with the cooler being relinquished.

4. When transferring the possession of samples from one individual to another (e.g., from a field sampler to a laboratory technician), individuals relinquishing and receiving the sample cooler will sign, date, and note the time on the COC. Custody of samples must be continuous between parties, and time gaps must not be present.

5. When transferring the possession of samples from one individual to a courier service (e.g., FedEx), the COC form must be included with the contents of the cooler, method of shipment, name of courier, courier tracking number, custody seals and other pertinent information written on the form. COC forms should be placed within a resealable polyethylene bag and placed within the cooler prior to sealing it, preferably with fiber tape. One custody seal will be affixed to the latch and lid of the cooler, covering the seam. Custody seals will consist of adhesive-backed tape that easily rips if it is disturbed. The field sampler will initial and date the seal and cover the seal with clear packing tape. If applied as designed, the custody seal must be broken in order to open the cooler. A broken custody seal upon laboratory receipt will indicate tampering with the cooler during shipment.

6. A shipping label containing the name and address of the shipper will be placed on the outside of the container.

3.4 Shipping

1. All samples should be delivered to the laboratory or laboratory shipment center within 24 hours from sample collection.

2. The field sampling team will take appropriate precautions to ship or deliver samples to the laboratory or laboratory shipment center so that extraction and/or analytical holding times will not be exceeded.

3. Samples must be maintained at ≤6 degrees Celsius (°C)[1] from collection through shipment and receipt at the laboratory, if required.

4. When the samples are received by the laboratory, laboratory personnel will complete the COC form by recording the date and time of sample receipt, measuring and recording the internal temperature of the shipping container, checking the sample ID on the containers, and confirming the number of containers per sample to ensure they correspond with the included COC form.

[1] Considering the ambient temperature and conditions at the Site during sample collection, cooler temperatures may exceed temperature requirements if samples are hand-delivered to and received by the laboratory within eight to 12 hours of sample collection. This exception to temperature requirements is acceptable only if: (1) samples are properly chemically preserved; (2) the sample cooler contains sufficient ice for the samples to reach the required temperatures within 24 hours of sample collection; and (3) the samples are not insulated from exposure to ice with excessive bubble wrapping. Sample results determined to be impacted by a rapid delivery to the laboratory (within eight to 12 hours of sample collection) will not be qualified during data validation, if data validation is performed.

4. Data Recording and Management

The original COC form accompanies the shipment, while the copies are kept with the field logbook, field forms, and distributed to the Project Manager and project team. The laboratory will immediately contact the Project Manager if issues pertaining to sample condition or documentation are detected (e.g., broken custody seals upon receipt; broken, open, or otherwise compromised sample containers; discrepancies between cooler contents and the included COC form).

5. Quality Control Samples

COC forms will identify all quality control (QC) samples. The COC forms will be legibly completed in accordance with this SOP. A copy of the completed COC form will be sent to the Project Manager or designee for review.

5.1 Duplicate Samples

Duplicate samples, if required, are prepared by alternately filling the sampling container(s) for the "primary sample" for a particular parameter and then filling the sampling container(s) for the "duplicate sample" for that same parameter. Duplicate samples are included on the COC form. If the duplicate is “blind”, the sample location ID and time of sampling should be omitted on the COC form and a single horizontal line should be drawn in these fields.

5.2 Trip Blanks

Trip blanks (for analyses of volatile organic compounds [VOCs] only) are prepared in the laboratory and are shipped from the laboratory with the empty sample containers. Upon receipt, the trip blank vials should be inspected for air bubbles. Trip blanks should remain intact and are not opened in the field. A trip blank should accompany each cooler with samples to be analyzed for VOCs and should be placed in the sample cooler immediately after the first sample is collected for VOCs. Trip blanks are included on the COC form.

5.3 Matrix Spike/Matrix Spike Duplicates

MS/MSD sample pairs, if required, are collected in the same manner as a duplicate sample, except that two sets of samples, one for the MS sample and one for the MSD sample, are collected in addition to the “primary sample”. MS/MSD sample pairs are included on the COC form.