



DEPARTMENT OF THE AIR FORCE

AIR FORCE CIVIL ENGINEER CENTER
INSTALLATION RESTORATION PROGRAM
NIAGARA FALLS AIR RESERVE STATION

AFCEC/CZOE
2405 Franklin Drive
Niagara Falls, NY 14304-5063

October 10, 2025

MEMO TO: Distribution

Re: Transmittal of Final Remedial Injection Work Plan Addendum DS004 & FT005, Niagara Falls Air Reserve Station, New York

Seres-Arcadis SB JV, LLC is pleased to present our Final Remedial Injection Work Plan Addendum for Niagara Falls ARS, New York, Northeast Group ORC.

Sincerely,

MAIRS.LINDSAY, Digitally signed by
MAIRS.LINDSAY.LEE.1589783227
LEE.1589783227 Date: 2024.03.19 12:27:34 -04'00'

LINDSAY MAIRS
Remedial Project Manager

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SUBJECT

Addendum to the Remedial Injection Work Plan
Site 5 (DS004) and Site 10 (FT005)
Niagara Falls Air Reserve Station
Niagara Falls, New York

TO

U.S. Air Force Civil Engineering Center and
United States Army Corps of Engineers,
Baltimore District

DATE

October 10, 2025

OUR REF

Northeast Group Optimized Remediation Contract
Contract W912DR-19-D-0009
Delivery Order W912DR-20-F-0483

NAME

SERES-Arcadis 8(a) JV 2, LLC
669 Marina Drive, Suite B-7
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On behalf of the Air Force Civil Engineer Center (AFCEC) and the United States Army Corps of Engineers (USACE), Baltimore District, the SERES-Arcadis Small Business Joint Venture, LLC (S-A JV) has prepared this Addendum to the Remedial Injection Work Plan for Site 5 (DS004) and Site 10 (FT005) at the Niagara Falls Air Reserve Station (NFARS) located in Niagara Falls, New York (**Figure 1**). The Remedial Injection Work Plan (RI Work Plan; S-A JV 2022a) was submitted to the New York State Department of Environmental Conservation (NYSDEC) on 26 April 2022. That document proposed remedial injections to support the enhanced reductive dechlorination (ERD) of chlorinated volatile organic compound (CVOC) impacts in overburden and bedrock groundwater at Site 5 (**Figure 2**) and Site 10 (**Figure 3**). The scope of the remedial injections proposed in the RI Work Plan was developed in consideration of remedial actions performed in 2015 and 2018, groundwater data for the Fall 2020 monitoring event, groundwater concentration trend graphs for Site 5 and Site 10 (which were provided in Appendix A of the RI Work Plan). Following a review of the groundwater data for the Spring 2021 monitoring event, a supplement to the RI Work Plan proposing remedial injections in the vicinity of MW5-1DA at Site 5 was submitted to NYSDEC on September 6, 2022 (S-A JV 2022b). Injections of an organic carbon substrate (ABC-Olé) were conducted at Site 5 and Site 10 in November 2022 using the procedures specified in the Remedial Injection Work Plan. Those remedial injection activities were summarized in the Final Remedial Injection Summary (S-A JV 2023).

A review of the data for groundwater samples collected following the post-November 2022 injections (i.e., during the quarterly performance monitoring events and the semi-annual monitoring events conducted under the Installation-Wide Groundwater Monitoring Program ([IWGP])), indicates that ERD of CVOCs at Site 5 and Site 10 is ongoing; however, certain CVOCs remain at concentrations greater than the applicable Groundwater Protection Standards (GPSs) in select wells at each site. Therefore, the S-A JV is proposing a targeted ERD injection event at Site 5 and Site 10.

The remainder of this document provides a description of the proposed remedial injection activities, which will be implemented in accordance with the procedures specified in the RI Work Plan. As with the 2022 remedial injections, the remedial injection activities proposed herein are being implemented under the United States Department of Defense Installation Restoration Program and in compliance with the requirements of the Order on Consent and Administrative Settlement (NYSDEC 2016).

Proposed Injection Areas

The data associated with the Spring and Fall 2024 IWGP monitoring events and the total volatile organic compound (VOC) trend charts provided in the Draft Final 2024 Annual Comprehensive Sampling/Monitoring

Report (S-A JV 2025b) were reviewed to determine which areas within Site 5 and Site 10 should be targeted for the supplemental remedial injection activities described herein. Additional details regarding that review are provided below.

Site 5 (DS004)

A review of the data from the Spring and Fall 2024 IWGP monitoring events indicates that certain VOCs (i.e., cis-1,2-dichloroethene [cis-1,2-DCE], toluene, trichloroethene (TCE), and/or vinyl chloride [VC]) were detected at concentrations greater than the corresponding GPS in overburden wells RW5-1 and RW5-2, and shallow bedrock well MW5-5D (**Table 1**). Based on the review of those data and the total VOC trend charts (**Attachment A**), the S-A JV is proposing remedial injection activities in the vicinity of overburden wells RW-1 and RW-2 and shallow bedrock well MW5-5D.

Site 10 (FT005)

Certain VOCs (i.e., benzene, cis-1,2-DCE, toluene, TCE, and/or VC) were detected at concentrations greater than the corresponding GPS in shallow bedrock wells MW10-1DA, MW10-4D, MW10-9D, MW10-10D, and PW10-2 and deep bedrock well MW10-4E during the Spring and/or Fall 2024 IWGP sampling events (**Table 2**). A review of those data and the total VOC trend charts (**Attachment A**) indicated that only low-level of exceedances of the GPSs were observed in shallow bedrock wells MW10-1DA, MW10-4D, MW10-9D, and PW10-2 and deep bedrock well MW10-4E while VOC detections in shallow bedrock well MW10-10D are more persistent and have been measured at concentrations an order of magnitude higher than the other Site 10 wells. Therefore, the S-A JV is proposing remedial injection activities in the vicinity of shallow bedrock well MW10-10D.

Remedial Injection Design

Consistent with the November 2022 remedial injections, ABC-Olé (which contains a mixture of fatty acids, glycerol, hydrolyzed vegetable oil, emulsifying agent, and dipotassium phosphate) was selected as the organic carbon substrate for the remedial injections. Additional information regarding the selection of ABC-Olé is provided in Section 2.1 of the RI Work Plan and the safety data sheet was provided in Appendix B of that document.

As noted in Section 2.2 of the RI Work Plan, a two to five percent by volume solution of ABC-Olé will be used during the proposed remedial injection event. The target radius of influence (ROI) for each direct-push technology (DPT) point is five feet, with a target treatment thickness of four feet. Using these parameters, a target volume of 240 gallons of dilute organic carbon substrate was calculated for each DPT injection point using the formula provided in Section 2.2 of the RI Work Plan. As noted therein, that equation is appropriate for calculating injection volumes in porous media; however, it is not used to calculate injection volumes for fractured bedrock. Therefore, an injection volume of 1,000 gallons of dilute organic carbon substrate will be injected into select bedrock core holes to provide excess organic carbon to expedite treatment of CVOCs in fractured bedrock groundwater at Site 5. Additional details regarding the design of the specific remedial injection activities for Site 5 and Site 10 are presented below.

Site 5 (DS004)

As shown on **Figure 4**, residual CVOCs in overburden groundwater at concentrations greater than the corresponding GPS will be targeted using five DPT injection points each located upgradient of overburden wells RW5-1 (DPT5-14 through DPT5-19) and RW5-2 (DPT5-20 through DPT5-24), as determined based on a review of the Fall 2024 overburden contour map for Site 5 (**Attachment B**). In addition, residual CVOCs at concentrations greater than the GPS in shallow bedrock groundwater near well MW5-5D will be targeted using five DPT points (DPT5-25 to DPT5-29) in the overburden located upgradient of shallow bedrock well MW5-5D and three shallow bedrock core holes (CH5-01 through CH5-03) located adjacent to that well. Based on the

previously specified ROI of five feet, the DPT injection points will be spaced approximately 10 feet on center, as illustrated on **Figure 4**. As noted in **Table 3**, approximately 240 gallons of dilute ABC-Olé solution will be injected into each DPT injection point and 1,000 gallons of dilute ABC-Olé solution will be injected into each bedrock core hole. The total target injection volume at Site 5 will be approximately 6,600 gallons of dilute ABC-Olé solution, which includes a total carbon loading of approximately 1,620 pounds (198 gallons) of ABC-Olé. The location, injection intervals (described below), injection volumes, and total number of DPT injection points may be adjusted in the field based on observed conditions to ensure sufficient distribution of the ABC-Olé solution over the specified treatment areas.

Site 10 (FT005)

As shown on **Figure 5**, residual CVOCs at concentrations greater than the GPS in shallow bedrock groundwater will be targeted using five DPT injection points advanced in overburden. The DPT injection points will be located upgradient of well MW10-10D (DPT10-14 through DPT10-19), as determined based on a review of the Fall 2024 overburden contour map for Site 10 (**Attachment B**). Based on the previously specified ROI of five feet, the DPT injection points will be spaced approximately 10 feet on center, as shown on **Figure 5**. As noted in **Table 3**, approximately 240 gallons of dilute ABC-Olé solution will be injected into each DPT injection point. The total target injection volume at Site 10 will be approximately 1,200 gallons of ABC-Olé solution, which includes a total carbon loading of approximately 295 pounds (36 gallons) of ABC-Olé. As previously noted, the location, injection intervals (described below), injection volumes, and total number of DPT injection points may be adjusted in the field based on observed conditions to ensure sufficient distribution of the ABC-Olé solution over the specified treatment areas.

Remedial Injection Activities

At least two weeks prior to the injection event, the United States Environmental Protection Agency (USEPA) Underground Injection Control program will be notified via email. Immediately prior to injection activities, a private utility locating company will survey the proposed DPT injection areas with ground-penetrating radar and/or magnetic locating equipment to identify and mark any underground utilities. All DPT injection points will be cleared to 5 feet (ft) below ground surface (bgs) using soft-digging techniques (e.g., hand-auguring).

As indicated on **Table 3**, a four-foot vertical treatment interval will be targeted for each DPT injection point. Based on a screened interval of 10 to 15 ft bgs for well RW5-1, the DPT rods at locations DPT5-14 through DPT5-19 will be advanced to approximately 15 ft bgs, followed by retracting of the drill rod to expose a four-foot screen through which the dilute ABC-Olé solution will be injected. Similarly, based on a screened interval of 6.8 to 11.8 ft bgs for well RW5-2, the DPT rods at locations DPT5-20 through DPT5-24 will be advanced to approximately 12 ft bgs, followed by retracting of the drill rod to expose a four-foot screen through which the dilute ABC-Olé solution will be injected. For the DPT locations installed to treat shallow bedrock groundwater impacts adjacent to wells MW5-5D (DPT 5-25 through 5-29) and MW10-10D (DPT10-14 through DPT10-19), the DPT rods will be advanced to the top of bedrock before retracting the drill rod to expose the four-foot screen through which the dilute ABC-Olé solution will be injected.

The remedial injections for the DPT injection points at Sites 5 and 10 will be initially attempted under gravity-flow conditions. However, if reasonable flow rates cannot be achieved, a diaphragm pump will be used to apply low pressure (less than 20 pounds per square inch) to increase flow rates while minimizing the potential for daylighting and/or the formation of preferential flow pathways. The injections in the shallow bedrock core holes at Site 5 will be performed via gravity-flow conditions. The ABC-Olé solution will be delivered to the DPT injection points and shallow bedrock core holes via a modular system that uses either batch-style or in-line mixing. As

previously indicated, the initial target injection volume of ABC-Olé injection solution is 240 gallons for each DPT injection point and 1,000 gallons for the each shallow bedrock core hole.

During the injections well head pressure, flow rate, total injection volume, and substrate dosing will be monitored and recorded at each injection point, and the injection area will be continually observed for signs of daylighting. If daylighting is observed, injections will be suspended at nearby injection points and, if needed, additional injection points may be advanced. Routine measurements of field parameters (temperature, pH, conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity) and depth to water will be recorded at least once per day at the following wells to evaluate injection influence:

- Site 5 – overburden wells RW5-1, RW5-2, and MW5-6, and shallow bedrock well MW5-5D; and
- Site 10 – shallow bedrock well MW10-10D.

Upon completion of the remedial injections, the DPT injection points will be properly abandoned and plugged to match the surrounding land surface. A memo summarizing the completed field activities and actual injection quantities will be submitted to NYSDEC following completion of the remedial injection event.

Post-Injection Performance Monitoring Activities

Quarterly post-injection performance monitoring events will be performed for a period of one year starting in February 2026. Two of those events will be performed concurrently with the 2026 semi-annual (Spring and Fall) IWGP sampling events. **Table 4** presents the proposed post-injection performance monitoring program for Site 5 and Site 10. The quarterly performance monitoring groundwater samples will be collected from the following wells:

- Site 5 – overburden wells RW5-1, RW5-2, and MW5-6 and shallow bedrock well MW5-5D; and
- Site 10 – shallow bedrock well MW10-10D

Groundwater samples for will be collected using passive diffusion bags for analysis of VOCs by USEPA Method 8260C and rigid porous polyethylene samplers for analysis of dissolved gases (methane, ethene, and ethane) by Method RSK-175 and total organic carbon by USEPA Method 9060A. Groundwater sampling will be conducted in accordance with the requirements of the Draft Final Quality Assurance Project Plan (S-A JV 2025a). The results of the quarterly performance monitoring events will be evaluated and summarized in the 2026 Annual Comprehensive Sampling/Monitoring Report.

References

- NYSDEC. 2016. Order on Consent and Administrative Settlement. Site Name: 914 Tactical Airlift Group. Site No.: 932106. Index No.: R9-20150902-65. 22 August.
- S-A JV. 2022a. Final Remedial Injection Work Plan, Niagara Falls Air Reserve Station, New York, Contract W912DR-19-D-0009, Delivery Order W912DR-20-F-0483. 26 April.
- S-A JV. 2022b. Supplement to Final Remedial Injection Work Plan, Niagara Falls Air Reserve Station, New York, Contract W912DR-19-D-0009, Delivery Order W912DR-20-F-0483. 6 September.
- S-A JV. 2023. Final Remedial Injection Summary, Site 2 (DS004) and Site 10 (FT005), Niagara Falls Air Reserve Station, Niagara Falls, New York. 5 April.
- S-A JV. 2025a. Draft Final Quality Assurance Project Plan, Niagara Falls Air Reserve Station. Niagara Falls, New York. 12 June.
- S-A JV. 2025b. Draft Final 2024 Annual Comprehensive Sampling/Monitoring Report Quality Assurance Project Plan, Niagara Falls Air Reserve Station. Niagara Falls, New York. 9 September.

Tables

Table 1	Site 5 (DS004) – 2024 Groundwater Analytical Results
Table 2	Site 10 (FT005) – 2024 Groundwater Analytical Results
Table 3	Remedial Injection Details
Table 4	Post-Injection Performance Monitoring Program

Figures

Figure 1	Site Map
Figure 2	Site 5 (DS004) Layout
Figure 3	Site 10 (FT005) Layout
Figure 4	Site 5 (DS004) – Proposed Remedial Injection Locations
Figure 5	Site 10 (FT005) – Proposed Remedial Injection Locations

Attachments

Attachment A	Groundwater Trend Charts
Attachment B	Fall 2024 Overburden and Bedrock Contour Maps

Tables

Table 1
Site 5 (DS004) – 2024 Groundwater Analytical Results
Addendum to the Remedial Injection Work Plan
Niagara Falls Air Reserve Station
Niagara Falls, New York

Analyte	Screening Criteria ^(a)	Location ID Sample Name Sample Date Parent Sample	MW5-1DA MW5-1DA_20240716 7/16/2024	MW5-1DA MW5-1DA_20241028 10/28/2024	MW5-5D MW5-5D_20240716 7/16/2024	MW5-5D MW5-5D_20241028 10/28/2024	MW5-6 MW5-6_20240716 7/16/2024	MW5-6 DUP-02-20240716 7/16/2024 MW5-6_20240716	MW5-6 MW5-6_20241028 10/28/2024
Volatile Organic Compounds Detected by Method 8260C^(b)									
2-Butanone (MEK)	50	µg/L	< 5.0 U	< 5.0 U	4.8 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	50	µg/L	< 5.0 U	3.4 J	4.8 J	3.8 J	3.8 J	3.6 J	3.8 J
Chloroform	7	µg/L	< 1.0 U	0.42 J	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	0.47 J
cis-1,2-Dichloroethene	5	µg/L	0.45 J	0.56 J	3.2	8.4	2.6	2.4	3.3
Iodomethane	50	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5	µg/L	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	2.3	2.3	2.3
trans-1,2-Dichloroethene	5	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	5	µg/L	< 1.0 U	< 1.0 U	2.1	6.4	1.2	1.2	1.6
Vinyl chloride	2	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	6.8	1.1	1.0	< 1.0 U

Analyte	Screening Criteria ^(a)	Location ID Sample Name Sample Date Parent Sample	RW5-1 RW5-1_20240716 7/16/2024	RW5-1 RW5-1_20241028 10/28/2024	RW5-1 DUP_20241028 10/28/2024 RW5-1_20241028	RW5-2 RW5-2_20240716 7/16/2024	RW5-2 RW5-2_20241028 10/28/2024	RW5-4 RW5-4_20240716 7/16/2024	RW5-4 RW5-4_20241028 10/28/2024
Volatile Organic Compounds Detected by Method 8260C^(b)									
2-Butanone (MEK)	50	µg/L	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	50	µg/L	3.2 J	4.5 J	4.6 J	< 5.0 U	3.7 J	< 5.0 U	3.7 J
Chloroform	7	µg/L	< 1.0 U	0.49 J	0.44 J	< 1.0 U	0.42 J	< 1.0 U	0.48 J
cis-1,2-Dichloroethene	5	µg/L	58.3	1.1	0.98 J	13.3	0.67 J	0.46 J	0.43 J
Iodomethane	50	µg/L	0.44 J-	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5	µg/L	6.0	3.8	4.1	2.2	0.73 J	1.1	0.55 J
trans-1,2-Dichloroethene	5	µg/L	2.0	0.47 J	0.55 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	5	µg/L	0.70 J	0.89 J	0.81 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	2	µg/L	97.9	1.5	1.3	26.8	< 1.0 U	0.38 J	0.49 J

Notes:

^a New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

^b Only compounds with at least one detect are presented.

1. Bold values denote detections.
2. Shaded cells exceed the screening value.

Acronyms and Abbreviations:

µg/L = microgram per liter
MW = monitoring well
RW = recovery well

Qualifiers:

J = Analyte detected, estimated concentration.
J- = Estimated value that may be biased low
U = Compound was not detected

Table 2
Site 10 (FT005) – 2024 Groundwater Analytical Results
Addendum to the Remedial Injection Work Plan
Niagara Falls Air Reserve Station
Niagara Falls, New York

Analyte	Screening Criteria ^(a)	Location ID Sample Name Sample Date	MW10-1DA MW10-1DA_20241028 10/28/2024	MW10-3 MW10-3_20240716 7/16/2024	MW10-3D MW10-3D_20241028 10/28/2024	MW10-4D MW10-4D_20241028 10/28/2024	MW10-4E MW10-4E_20241028 10/28/2024	MW10-7 MW10-7_20240716 7/16/2024	MW10-9D MW10-9D_20241028 10/28/2024
Volatile Organic Compounds Detected by Method 8260C^(b)									
2-Butanone (MEK)	50	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	2.4 J	< 5.0 U
Acetone	50	ug/l	3.4 J	11.0	4.7 J	3.3 J	3.6 J	11.8	3.3 J
Benzene	1	ug/l	3.6	< 1.0 U	< 1.0 U	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform	7	ug/l	0.47 J	< 1.0 U	0.34 J	0.42 J	0.38 J	< 1.0 U	0.36 J
cis-1,2-Dichloroethene	5	ug/l	1.5	< 1.0 U	< 1.0 U	2.5	6.3	0.49 J	5.4
Iodomethane	50	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.61 J	< 1.0 U
trans-1,2-Dichloroethene	5	ug/l	0.33 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	1.0	< 1.0 U
Trichloroethene	5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	2	ug/l	3.4	< 1.0 U	< 1.0 U	8.0	1.2	< 1.0 U	6.2

Analyte	Screening Criteria ^(a)	Location ID Sample Name Sample Date	MW10-10D MW10-10D_20241028 10/28/2024	PW10-1 PW10-1_20240716 7/16/2024	PW10-1 PW10-1_20241028 10/28/2024	PW10-2 PW10-2_20240716 7/16/2024	PW10-2 PW10-2_20241028 10/28/2024	PZ10-7 PZ10-7_20240716 7/16/2024
Volatile Organic Compounds Detected by Method 8260C^(b)								
2-Butanone (MEK)	50	µg/L	10.1	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	50	µg/L	< 5.0 U	10.2	3.9 J	10.7	3.7 J	10.9
Benzene	1	µg/L	2.0	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U
Chloroform	7	µg/L	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	0.42 J	< 1.0 U
cis-1,2-Dichloroethene	5	µg/L	120	0.42 J	0.80 J	< 1.0 U	0.34 J	< 1.0 U
Iodomethane	50	µg/L	< 1.0 U	< 1.0 U	1.1	0.68 J-	< 1.0 U	0.42 J-
Toluene	5	µg/L	8.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	5	µg/L	2.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	5	µg/L	13.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	2	µg/L	6.0	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U

Notes:

^a New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

^b Only compounds with at least one detect are presented.

1. Bold values denote detections.
2. Shaded cells exceed the screening value.

Acronyms and Abbreviations:

µg/L = microgram per liter
MW = monitoring well
PW = Pumping well
PZ = Piezometer
RW = recovery well

Qualifiers:

J = Analyte detected, estimated concentration.
J- = Estimated value that may be biased low
U = Compound was not detected

Table 3
Remedial Injection Details
Addendum to the Remedial Injection Work Plan
Niagara Falls Air Reserve Station
Niagara Falls, New York



Injection Type	Target Well	Injection Location IDs	Injection Interval ^a (feet bgs)	Injection Volume/ DPT point or core hole (gallons)	Total Injection Volume (gallons)
Site 5 (DS004)					
Temporary DPT Points	RW5-1	DPT5-14 to DPT5-19	11 to 15	240	1,200
	RW5-2	DPT5-20 to DPT5-24	8 to 12	240	1,200
	MW5-5D	DPT5-25 to DPT5-29	top of bedrock, anticipated 11 to 15	240	1,200
Bedrock Core Holes	MW5-5D	CH5-01	17.5 to 32.5	1,000	1,000
		CH5-02	18.3 to 33.3	1,000	1,000
		CH5-03	18.5 to 33.5	1,000	1,000
Total Injection Volume at Site 5 (gallons)					6,600
Site 10 (FT005)					
Temporary DPT Points	MW10-10D	DPT10-14 to DPT10-19	top of bedrock, anticipated 6 to 10	240	1,200

Notes:

^a Number and location of DPT points, injection volumes, and injection intervals may be adjusted based on field conditions

bgs = below ground surface

DPT = direct-push technology

ID = identification

lbs = pounds

Table 4
Post-Injection Performance Monitoring Program
Addendum to the Remedial Injection Work Plan
Niagara Falls Air Reserve Station
Niagara Falls, New York

Well	Screened Interval (feet bgs)	Monitoring Frequency ^a	Analysis/Parameter								
			COCs	Biogeochemical Parameters		Field Parameters					
			VOCs USEPA Method 8260B	Methane, Ethane, Ethene USEPA Method RSK-175	Total Organic Carbon USEPA Method 9060A	pH	Oxidation Reduction Potential	Dissolved Oxygen	Turbidity	Temperature	Specific Conductance
Site 5 (DS004)											
MW5-5D	22.2 - 27.2	Quarterly	L	L	L	F	F	F	F	F	F
MW5-6	9.5 - 13.5	Quarterly	L	L	L	F	F	F	F	F	F
RW5-1	10 - 15	Quarterly	L	L	L	F	F	F	F	F	F
RW5-2	6.8 - 11.8	Quarterly	L	L	L	F	F	F	F	F	F
Site 10 (FT005)											
MW10-10D	5.5 - 10.5	Quarterly	L	L	L	F	F	F	F	F	F

Note:

^a The monitoring frequency may be adjusted based on field conditions.

Acronyms and Abbreviations:

bgs = below ground surface

COC = constituent of concern

F = field analysis using a water quality meter

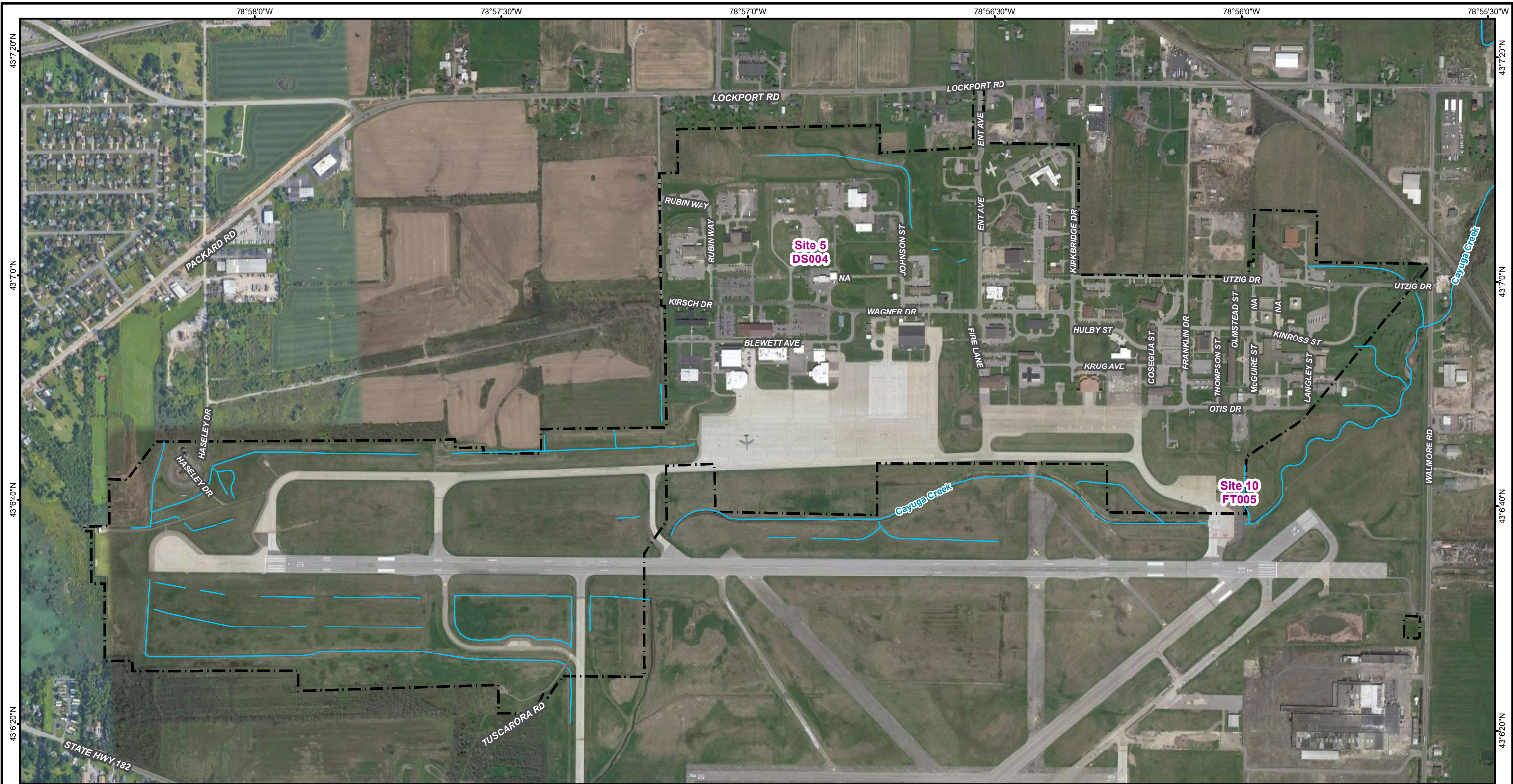
L = laboratory analysis

USEPA = United States Environmental Protection Agency

VOC = volatile organic compound

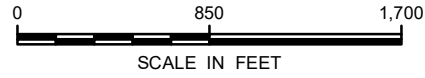
Figures

DIV/GRP: ENV/IMDV DB: shell LD: PIC: PM: TM: PROJECT: JBM DL (30028498.00001) PATH: I:\ENWNE_ORC\Niagara\Reports\RW\PIRI Memo\WMDs\Fig1_Niagara_SiteLocation.mxd DATE: 2/6/2023 3:22:40 PM



Legend

Installation Boundary



NIAGARA FALLS AIR RESERVE STATION
NEW YORK

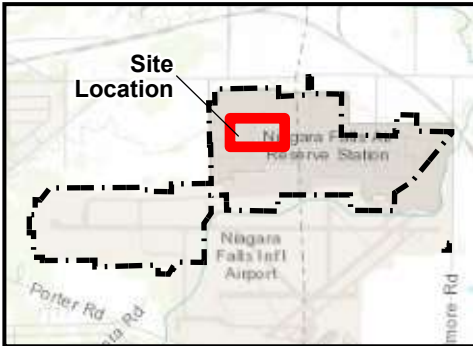
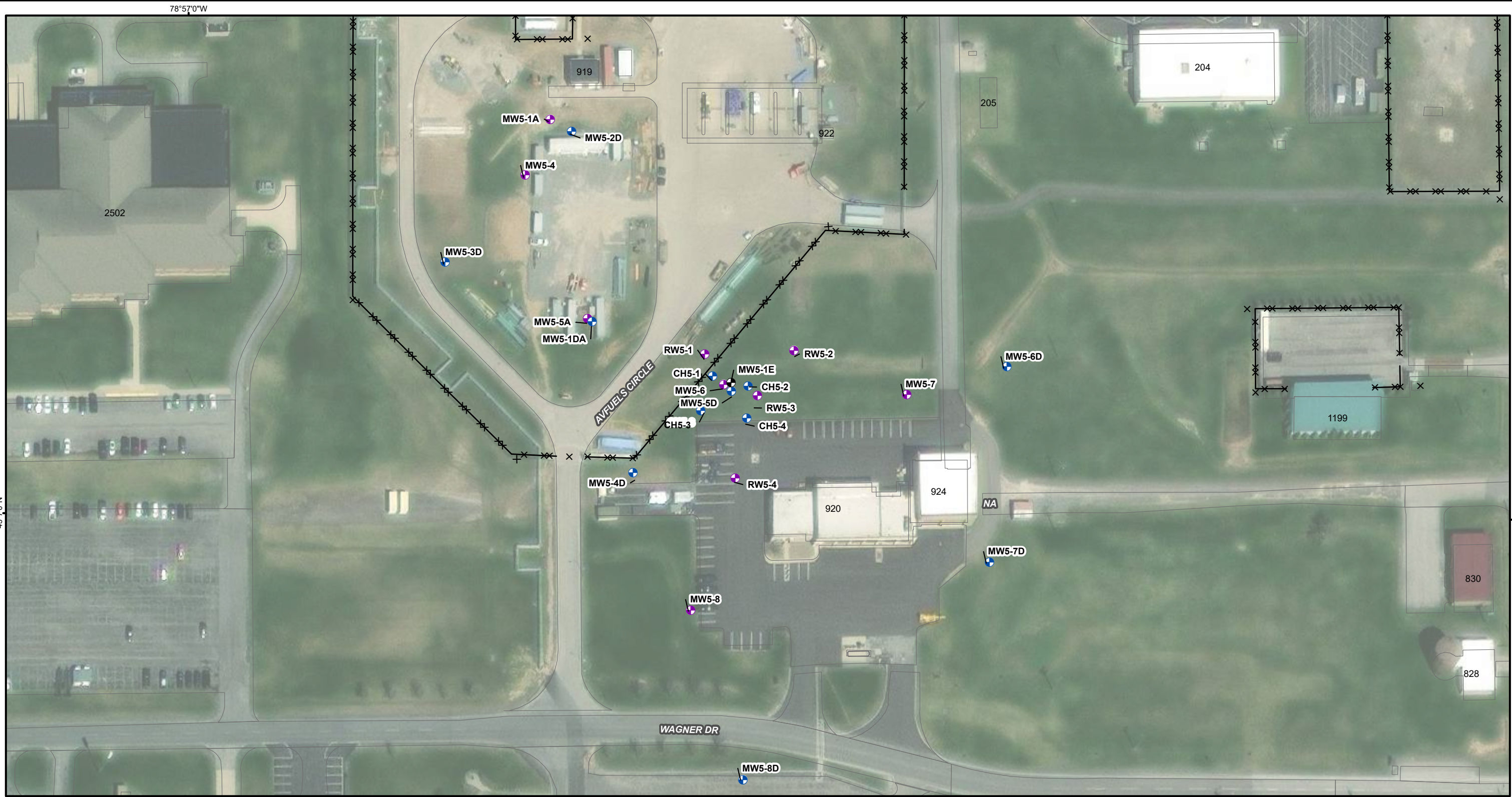
Addendum to the Remedial Injection Work Plan

SITE LOCATION

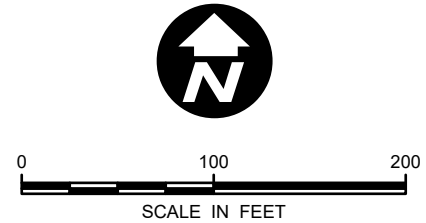


FIGURE
1

DIV/GROUP: ENV/MDV DB: h66006 LD: PIC: PM: TM: PROJECT: JBMDL (30028498.00001) PATH: T:\ENWNE_ORC\Niagara\Reports\Annual Report\2024\ArcGIS Pro\INFARS -Section 1\INFARS_Site5 Annual Report 2024 DATE: 8/7/2025

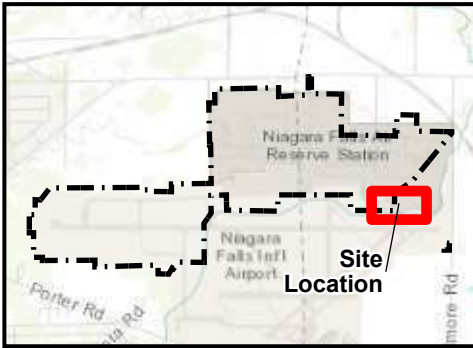
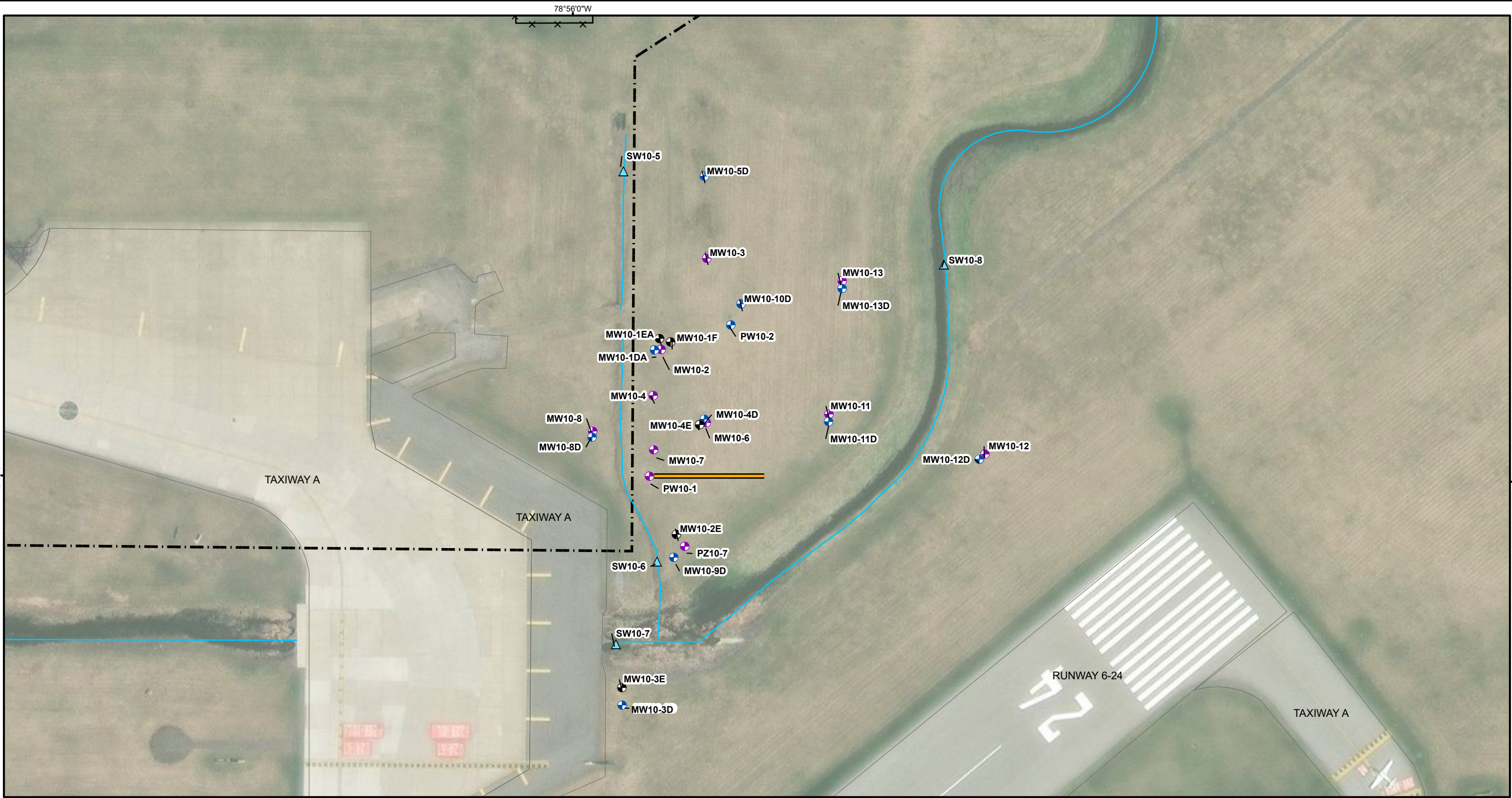


- Legend**
- Overburden Well/Piezometer
 - Shallow Bedrock Well/Piezometer
 - Deep Bedrock Well
 - Fence
 - Installation Boundary



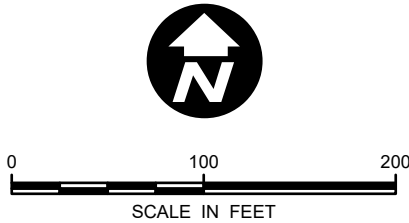
NIAGARA FALLS AIR RESERVE STATION NEW YORK	
Addendum to the Remedial Injection Work Plan	
SITE 5 (DS004) LAYOUT	
 	FIGURE 2

DIV/GROUP: ENV/MDV DB: h6606 ID: PIC: PM: TM: PROJECT: JBMDL (30028498.00001) PATH: T:\ENV\NE_ORC\Niagara\Reports\Annual Report\2024\AcGIS Pro\NFARS -Section 1\NFARS Section 1 2024 Annual Report.aprx /Fig5-1_Niagara_Site10 Annual Report 2024 DATE: 8/7/2025



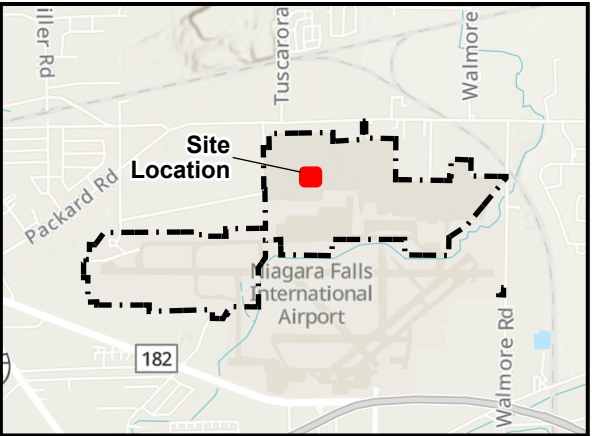
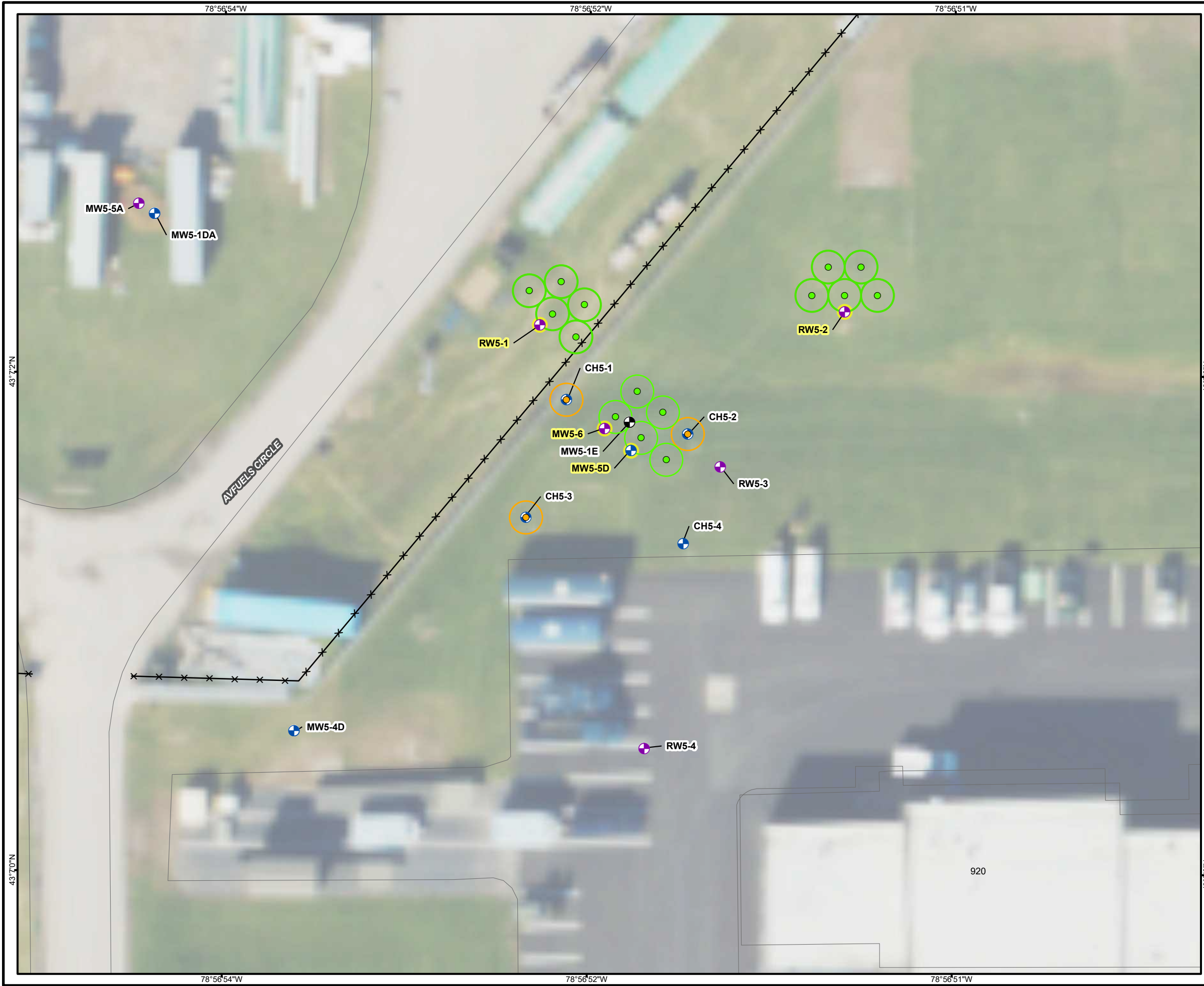
Legend

- | | |
|-----------------------------------|--------------------------------|
| ● Overburden Well/Piezometer | — Drainage Ditch |
| ● Shallow Bedrock Well/Piezometer | — Goundwater Collection Trench |
| ● Deep Bedrock Well | --- Installation Boundary |
| ▲ Surface Water Sample | |



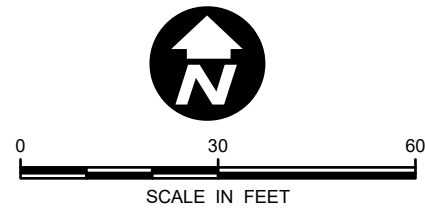
NIAGARA FALLS AIR RESERVE STATION NEW YORK	
Addendum to the Remedial Injection Work Plan	
SITE 10 (FT005) LAYOUT	
 	FIGURE 3

DIV/PROJECT: ENV/IMDV DB: pa9162 LD: PIC: PM: TM: DATE: 9/29/2025 1:17 PM
PROJECT: JBM DL (30028498.00001) PATH: T1 ENVNE_ORC\Niagara\Reports\RIWP\2025\PROW\912\DR20F0483.aprx



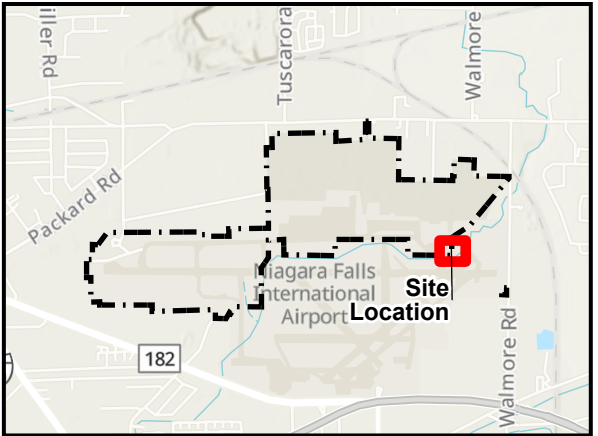
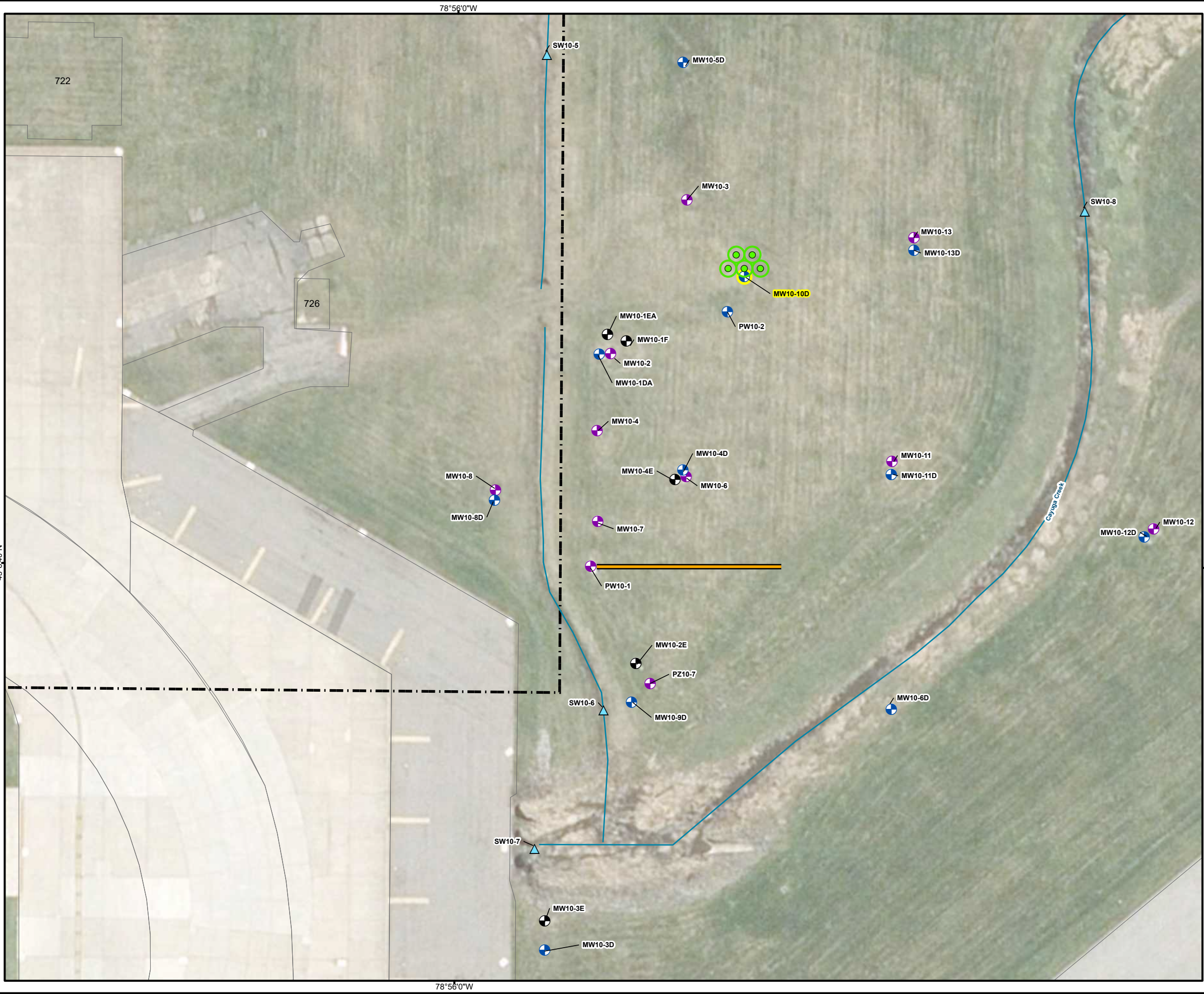
- Legend**
- Bedrock Core Hole Injection Location
 - Assumed Radius of Influence
 - Overburden DPT Injection Point Location
 - Assumed Radius of Influence
 - ⊕ Overburden Well
 - ⊕ Shallow Bedrock Well
 - ⊕ Deep Bedrock Well
 - Proposed Performance Monitoring Well
 - ××× Fence
 - ▬ Installation Boundary

Abbreviations:
DPT = Direct-Push Technology



NIAGARA FALLS AIR RESERVE STATION
NEW YORK
Addendum to the Remedial Injection Work Plan

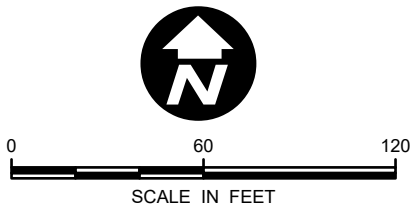
**SITE 5 (DS004) - PROPOSED
REMEDIAL INJECTION LOCATIONS**



Legend

- Shallow bedrock DPT Injection Point Location
- Assumed Radius of Influence
- Overburden Well/Piezometer
- Shallow Bedrock Well
- Deep Bedrock Well
- ▲ Surface Water Sample Location
- Proposed Performance Monitoring Well
- Groundwater Collection Trench
- - - Installation Boundary

Abbreviations:
DPT = Direct-Push Technology



NIAGARA FALLS AIR RESERVE STATION
NEW YORK
Addendum to the Remedial Injection Work Plan

SITE 10 (FT005) - PROPOSED REMEDIAL INJECTION LOCATIONS



FIGURE
5

Attachment A

Groundwater Trend Charts

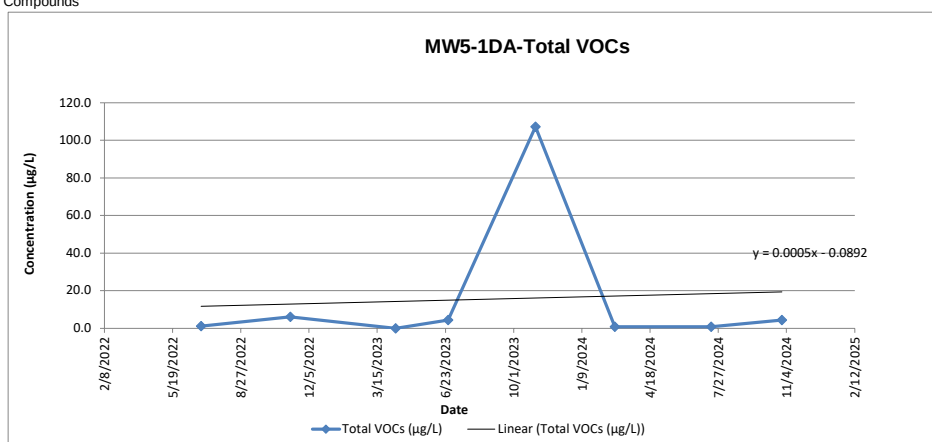
Site 5



Location ID	Unit	GPS	MW5-1DA							
Sample Date			6/29/2022	11/7/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	U	U	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	U	3.3 J	U	U	U	U	U	U
Acetone	µg/L	50	U	U	U	3.6 J	10.3	U	U	3.4 J
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	0.34 J	U
Chloroethane	µg/L	5	U	0.73 J	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.42 J
cis-1,2-Dichloroethene	µg/L	5	1.2	2	U	0.74 J	88.1	0.76 J	0.45 J	0.56 J
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	UJ	U	UJ	U	UJ	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	0.43 J	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	U	U	U	U	8.3	U	U	U
Total VOCs	µg/L		1.2	6.03	0	4.34	107.13	0.76	0.79	4.38

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value that may be biased low
6. R = Rejected
7. U = Non Detect
8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above
See above
No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

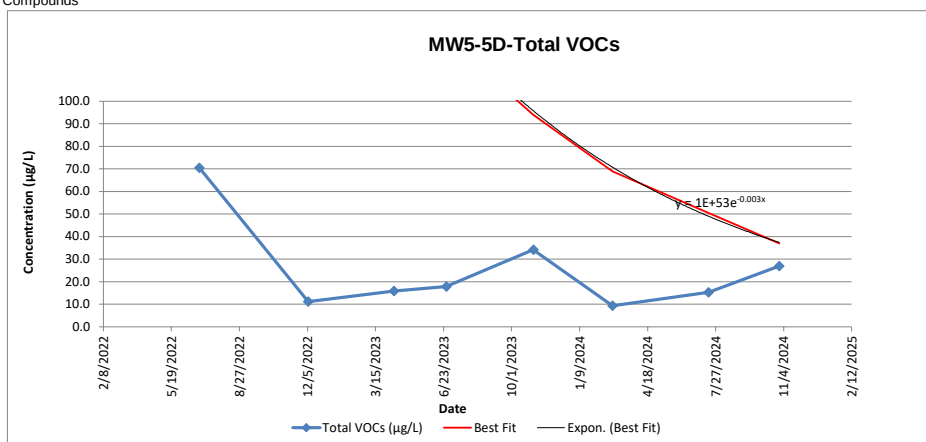
No
No

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	MW5-5D							
Sample Date			6/29/2022	12/6/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	U	--	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	U	U	U	U	2.5 J	U	4.8 J	U
Acetone	µg/L	50	4.8 J	6.9	6	4.25	10.8	U	4.8 J	3.8 J
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	0.54 J	U	U	U	U	1.13 J	U	0.54 J
Chloroethane	µg/L	5	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.43 J
cis-1,2-Dichloroethene	µg/L	5	31.2	1.3	4.25	3.95	7.2	5.3	3.2	8.4
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	0.87 J	UJ	U	U	U	UJ	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	0.65	U	U	0.34	U
trans-1,2-Dichloroethene	µg/L	5	2	U	0.405	0.445	1.3	0.55 J	U	0.52 J
Trichloroethene	µg/L	5	3	1.6	1.5	1.65	1.8	2.35	2.1	6.4
Vinyl chloride	µg/L	2	28.9	0.48 J	3.7	6.9	10.6	4	U	6.8
Total VOCs	µg/L		70.44	11.15	15.855	17.845	34.2	9.33	15.24	26.89

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value that may be biased low
6. J+ = Estimated value that may be biased high
7. R = Rejected
8. U = Non Detect
9. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

Yes*

- 2.a. Is the total concentration of COCs less than 100 µg/L?

Yes*

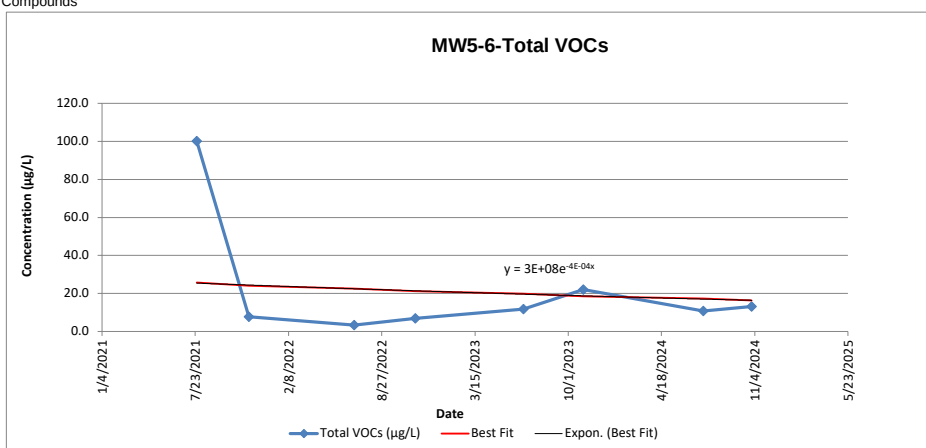
- 2.b. Are single COCs less than 50 µg/L?

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	MW5-6							
Sample Date			7/26/2021	11/15/2021	6/29/2022	11/7/2022	6/27/2023	11/2/2023	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	--	--	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	95.85	U	U	U	4.1 J	10.7	3.7 J	3.8 J
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	0.34	0.93 J	U	U	U	0.66 J	U	1.7
Chloroethane	µg/L	5	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.47 J
cis-1,2-Dichloroethene	µg/L	5	2.7	2.9	1.7	2.4	1.9	3.4	2.5 J	3.3
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	1.6 J+	U	U	U	U	UJ	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	U	U	U	U	U	U	U	U
Toluene	µg/L	5	0.63	1.4	0.585	3.1	2.7	4.5	2.3 J	2.3
trans-1,2-Dichloroethene	µg/L	5	U	0.85 J	U	0.73 J	U	0.38 J	U	U
Trichloroethene	µg/L	5	0.615	U	0.58	U	1.2	1.6	1.2	1.6
Vinyl chloride	µg/L	2	U	U	0.435	0.7 J	1.9	0.72 J	1.05	U
Total VOCs	µg/L		100.135	7.68	3.3	6.93	11.8	21.96	10.75	13.17

Notes:

- Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
- GPS = Groundwater Protection Standard
- µg/L = micrograms per liter
- B = Constituent detected in method blank, trip blank, or both
- J = Estimated value
- J+ = Estimated value that may be biased high
- U = Non Detect
- VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well achieve "Zero Slope Condition" as defined in the permit?
 - Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - Fit a trendline (either linear or exponential) using least squares regression model.
 - The slope is less than or equal to zero.

See above

See above

Yes

- Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- Is the total concentration of COCs less than 100 µg/L?
- Are single COCs less than 50 µg/L?

No

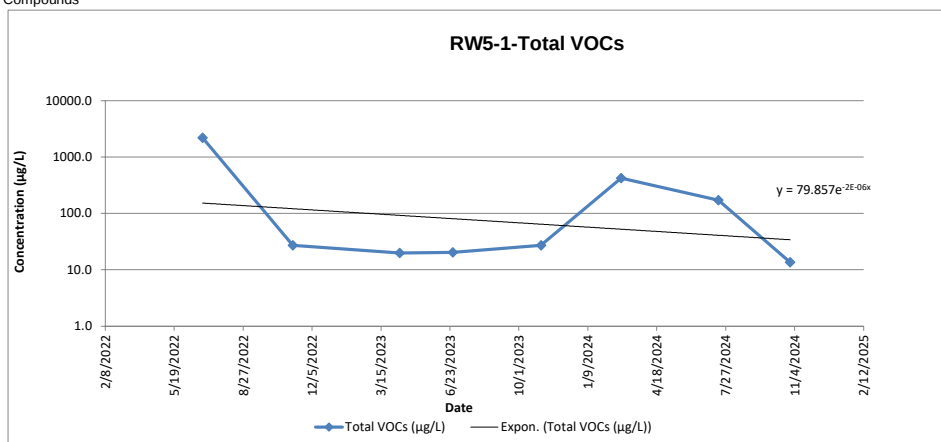
No

- Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	RW5-1							
Sample Date			6/29/2022	11/7/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	1.4	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	--	--	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	11.95	U	4.1 J	11.95	U	3.2 J	4.55 J
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	0.7 J	0.5 J	U	U	0.5 J	4.3 J+	3	0.89 J
Chloroethane	µg/L	5	26.2	U	5.8	5.6	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.465 J
cis-1,2-Dichloroethene	µg/L	5	1,390	1.05	2.6	1.6	1.05	218	58.3	1.04 J
Dichloromethane	µg/L	5	U	U	0.52 J	U	U	U	U	U
Iodomethane	µg/L	5	U	UJ	UJ	U	UJ	UJ	0.44 J-	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	U	U	U	U	U	U	U	U
Toluene	µg/L	5	2.8	11.55	5.6	6.3	11.55	3.1	6.0	3.95
trans-1,2-Dichloroethene	µg/L	5	7.6	0.37 J	0.56 J	0.47 J	0.37 J	3.5	2.0	0.51 J
Trichloroethene	µg/L	5	2.8	0.715 J	0.82 J	1.0	0.715 J	1.1	0.7 J	0.85 J
Vinyl chloride	µg/L	2	767	0.97 J	3.9	1.3 J+	0.97 J	189	97.9	1.4
Total VOCs	µg/L		2198.5	27.11	19.8	20.37	27.11	419	171.54	13.66

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value that may be biased low
6. R = Rejected
7. U = Non Detect
8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above
See above
Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 ug/L?
- 2.b. Are single COCs less than 50 ug/L?

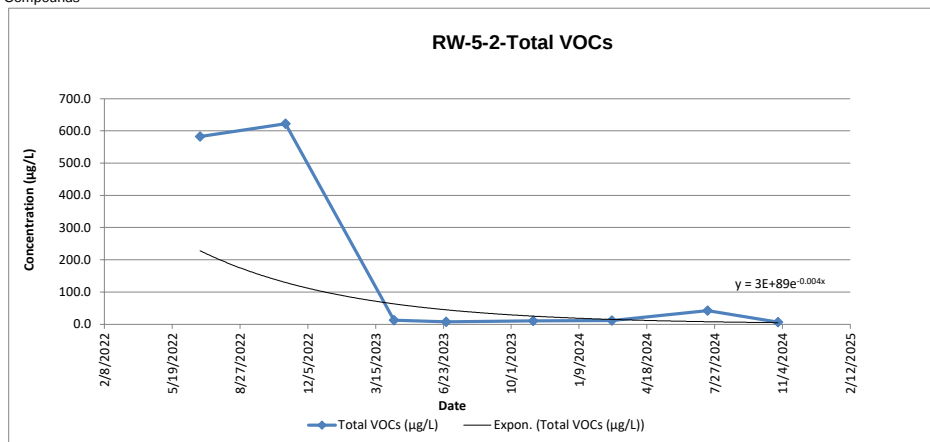
No
No

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	RW5-2							
Sample Date			6/29/2022	11/2/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	--	--	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	U	7.3	4.95 J	8.9	U	U	3.7 J
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	0.39 J	U	U	U	0.55 J	U	U	0.79 J
Chloroethane	µg/L	5	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.42 J
cis-1,2-Dichloroethene	µg/L	5	358	106	2.4	1.6	0.74 J	0.92 J	13.3	0.67 J
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	UJ	U	U	U	UJ	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	0.75 J	0.88 J	0.72 J	2.2	0.73 J
trans-1,2-Dichloroethene	µg/L	5	0.71 J	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	223	516	3.0	0.805 J+	U	10	26.8	U
Total VOCs	µg/L		582.1	622	12.7	8.11	11.07	11.64	42.3	6.31

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value that may be biased low
6. R = Rejected
7. U = Non Detect
8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above
See above
Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

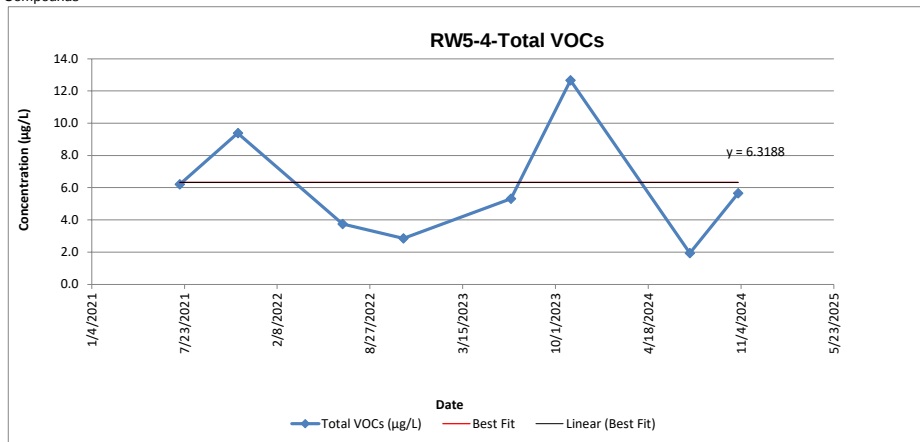
No
No

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	RW5-4							
Sample Date			7/13/2021	11/15/2021	6/29/2022	11/7/2022	6/27/2023	11/2/2023	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	R	U	U	U	U	U	U	U
1,4-Dioxane	µg/L	NS	--	--	--	--	--	--	--	--
2-Butanone (MEK)	µg/L	50	R	U	U	U	U	U	U	U
Acetone	µg/L	50	3.5 J-	3.2 J	U	U	3.9 J	11.8	U	3.7
Benzene	µg/L	1	R	0.54 J	0.38 J	U	U	U	U	U
Carbon Disulfide	µg/L	60	R	0.35 J	0.68 J	U	U	U	--	U
Chloroethane	µg/L	5	R	U	U	U	U	U	U	U
Chloroform	µg/L	7	R	U	U	U	U	U	U	0.48
cis-1,2-Dichloroethene	µg/L	5	1.2 J-	1.2	0.89 J	1	0.39 J	0.37 J	0.46 J	0.43
Dichloromethane	µg/L	5	R	U	U	U	U	U	U	U
Iodomethane	µg/L	5	R	1.8 J+	U	U	U	U	UJ	U
Methyl N-Butyl Ketone (2-Hexanone)	µg/L	50	R	U	U	U	U	U	U	U
Toluene	µg/L	5	1.5 J-	2.3	1.8	1.5	0.65 J	0.50 J	1.1	0.55
trans-1,2-Dichloroethene	µg/L	5	R	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	R	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	R	U	U	0.35 J	0.38 J	U	0.38 J	0.49
Total VOCs	µg/L		6.2	9.39	3.75	2.85	5.32	12.67	1.94	5.65

Notes:

- Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
- GPS = Groundwater Protection Standard
- µg/L = micrograms per liter
- J = Estimated value
- J- = Estimated value that may be biased low
- J+ = Estimated value that may be biased high
- R = Rejected
- U = Non Detect
- VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

Yes

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well achieve "Zero Slope Condition" as defined in the permit?
 - Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - Fit a trendline (either linear or exponential) using least squares regression model.
 - The slope is less than or equal to zero.

See above

See above

Yes

- Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

Yes*

- Is the total concentration of COCs less than 100 µg/L?

Yes*

- Are single COCs less than 50 µg/L?

- Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

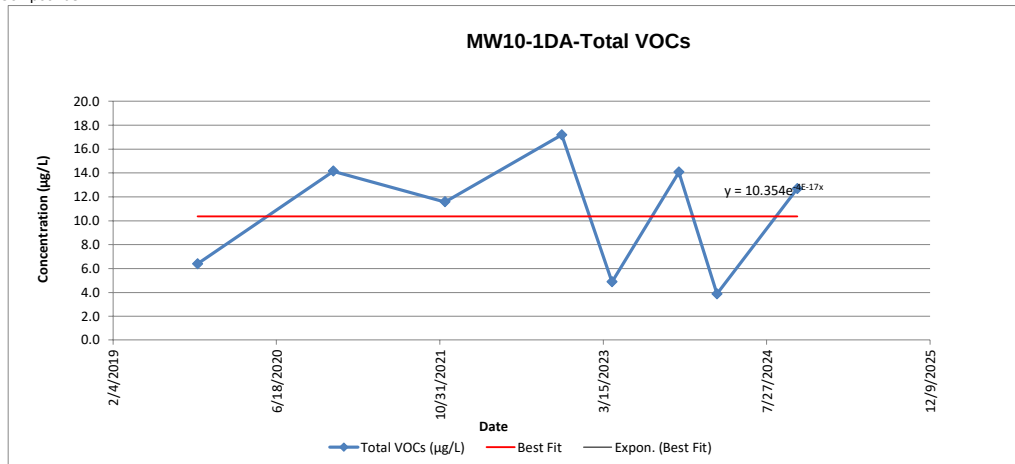
* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Site 10



Location ID	Unit	GPS	MW10-1DA							
Sample Date			10/21/2019	12/9/2020	11/16/2021	11/8/2022	4/11/2023	11/2/2023	2/26/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	U	U	U	U	9.3	U	3.4
Benzene	µg/L	1	3.5	3.8	4.4	3.2	2.7	3.1	2.4	3.6
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.47
Chloromethane	µg/L	5	U	U	U	U	UJ	U	U	U
cis-1,2-Dichloroethene	µg/L	5	U	0.9 J	0.71 J	3.2	0.48 J	1.3	0.38	1.5
Cyclohexane	µg/L	NS	U	0.33 J	0.425 J	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	0.4 J	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	0.345 J	U	UJ	U	U	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	0.44 J	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	3.7	1.65 J	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	0.48 J	U	U	U	0.37 J	U	0.33
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	2.9	4.1	4.05	10.8	1.7	3.8	1.1	3.4
Total VOCs	µg/L		6.4	14.15	11.58	17.2	4.88	14.07	3.88	12.7

- Notes:
1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
 2. GPS = Groundwater Protection Standard
 3. µg/L = micrograms per liter
 4. J = Estimated value
 5. U = Non-detect
 6. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.
2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?
 - 2.a. Is the total concentration of COCs less than 100 µg/L?
 - 2.b. Are single COCs less than 50 µg/L?

See above

See above

Yes

Yes*

Yes*

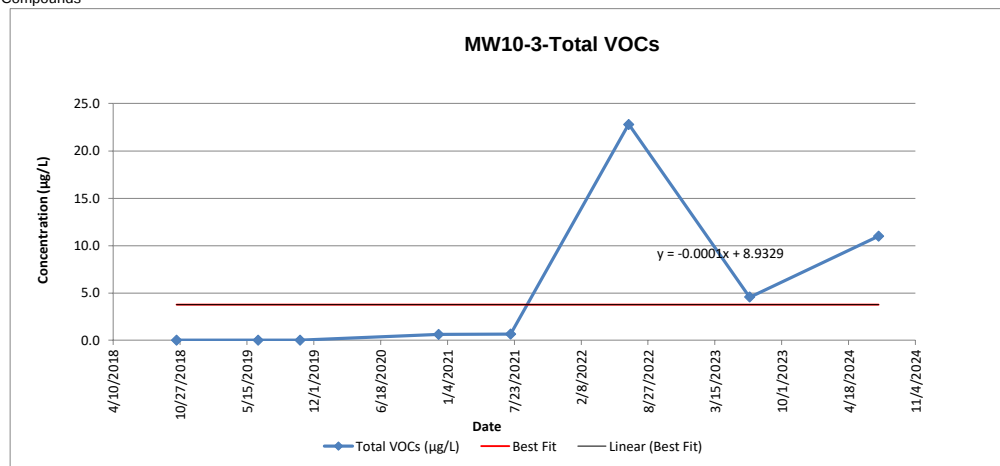
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-3							
Sample Date			10/17/2018	6/18/2019	10/21/2019	12/9/2020	7/12/2021	6/30/2022	6/27/2023	7/16/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	R	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	R	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	R	U	U	U
Acetone	µg/L	50	U	U	U	U	R	22.2	4.2 J	11
Benzene	µg/L	1	U	U	U	U	R	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	R	U	U	--
Chloroform	µg/L	7	U	U	U	U	R	U	U	U
Chloromethane	µg/L	5	U	U	U	U	R	U	U	--
cis-1,2-Dichloroethene	µg/L	5	U	U	U	U	R	0.6 J	U	U
Cyclohexane	µg/L	NS	U	U	U	U	R	U	U	--
Dichloromethane	µg/L	5	U	U	U	U	R	U	U	--
Ethylbenzene	µg/L	5	U	U	U	U	R	U	U	U
Iodomethane	µg/L	5	U	U	U	U	R	U	U	--
Methylcyclohexane	µg/L	NS	U	U	U	U	R	U	U	--
Toluene	µg/L	5	U	U	U	U	R	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	R	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	R	U	U	U
Trichloroethene	µg/L	5	U	U	U	0.61 J	0.65 J-	U	U	U
Vinyl chloride	µg/L	2	U	U	U	U	R	U	0.35 J	U
Total VOCs	µg/L		0	0	0	0.61	0.65	22.8	4.55	11

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value, result may be biased low
6. R = Rejected
7. U = Non-detect
8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

Yes

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 ug/L?
- 2.b. Are single COCs less than 50 ug/L?

Yes*

Yes*

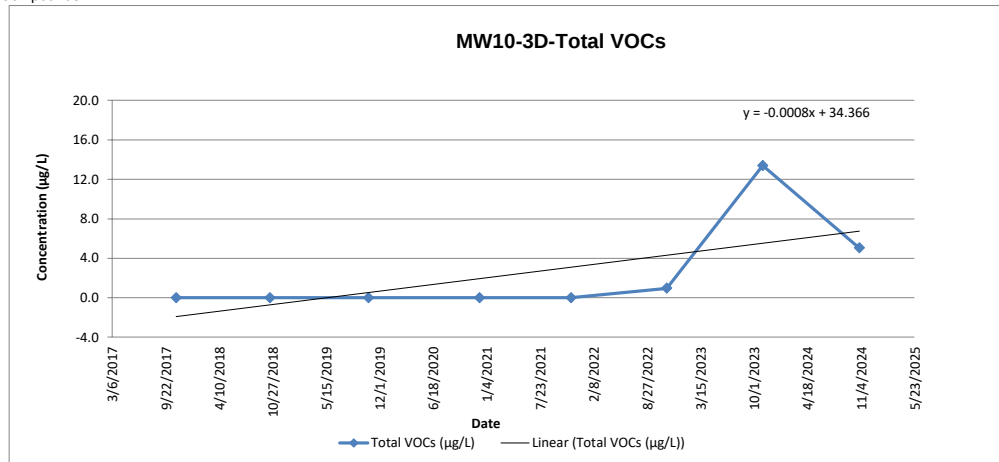
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-3D							
Sample Date			10/31/2017	10/17/2018	10/21/2019	12/9/2020	11/16/2021	11/8/2022	11/2/2023	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	U	U	U	U	U	13.4	4.7
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.34
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	U	U	U	0.96 J	UJ	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	U	U	U	U	U	U	U	U
Total VOCs	µg/L		0	0	0	0	0	0.96	13.4	5.04

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. U = Non-detect
6. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

Yes

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

Yes*

Yes*

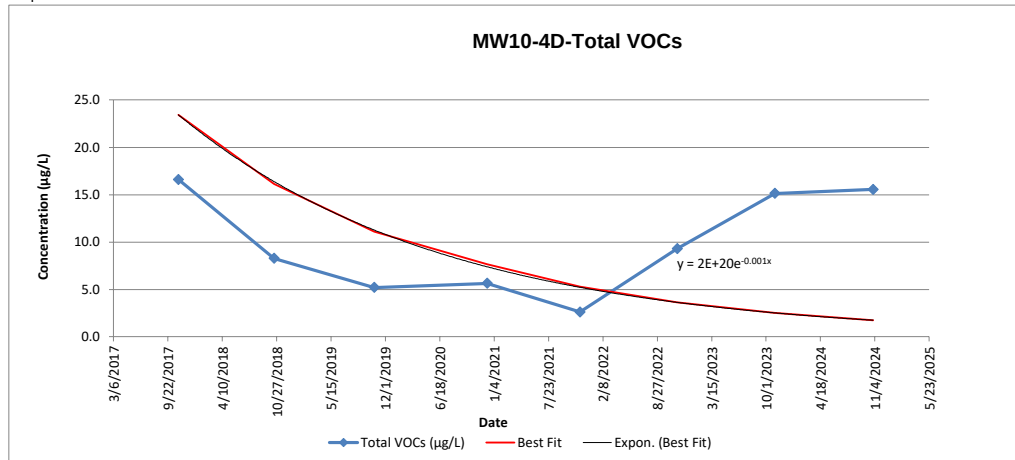
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-4D							
Sample Date			10/31/2017	10/17/2018	10/21/2019	12/9/2020	11/16/2021	11/8/2022	11/2/2023	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	14.3 J	U	U	U	U	U	10.5	3.3
Benzene	µg/L	1	0.56 J	0.47 J	U	1.3	0.97 J	1.3	0.45 J	0.99
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.42
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	1.3	2.6	1.5	0.83 J	0.44 J	3.7	0.68 J	2.5
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	U	U	U	U	U	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	0.44 J	U	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	0.34
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	U	5.2	3.7	3.5	1.2	4.3	3.5	8
Total VOCs	µg/L		16.6	8.27	5.2	5.63	2.61	9.3	15.13	15.55

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. B = Method and/or trip blank contamination
5. J = Estimated value
6. U = Non-detect
7. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

Yes*

- 2.a. Is the total concentration of COCs less than 100 µg/L?

- 2.b. Are single COCs less than 50 µg/L?

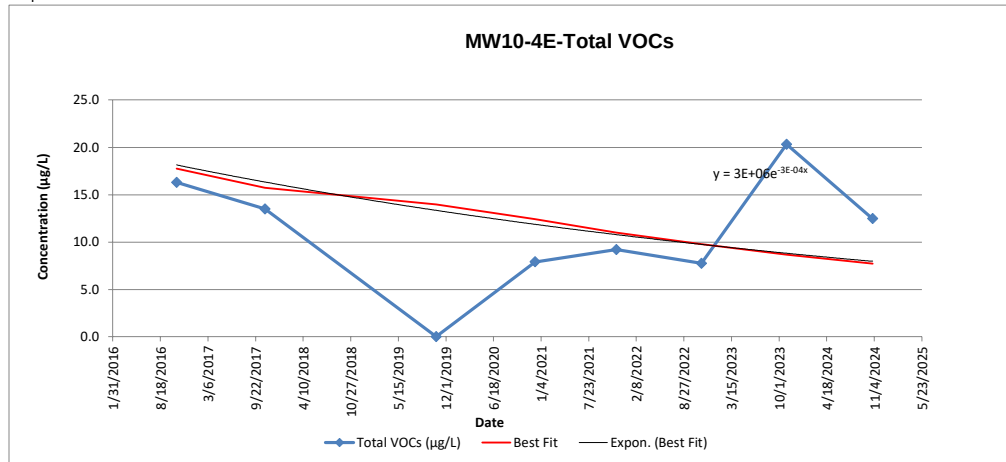
Yes*

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-4E							
Sample Date			10/25/2016	10/31/2017	10/21/2019	12/9/2020	11/16/2021	11/8/2022	11/2/2023	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	U	U	U	U	U	12.9	3.6
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	0.98
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.38
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	13.2	10.6	U	6.7	7.8	7.2	7.4	6.3
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	U	U	U	U	U	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	3.1	2.9	U	1.2	1.4	0.55 J	U	1.2
Total VOCs	µg/L		16.3	13.5	0	7.9	9.2	7.75	20.3	12.46

- Notes:
1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
 2. GPS = Groundwater Protection Standard
 3. µg/L = micrograms per liter
 4. B = Method and/or trip blank contamination
 5. J = Estimated value
 6. U = Non-detect
 7. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
- 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

Yes*

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

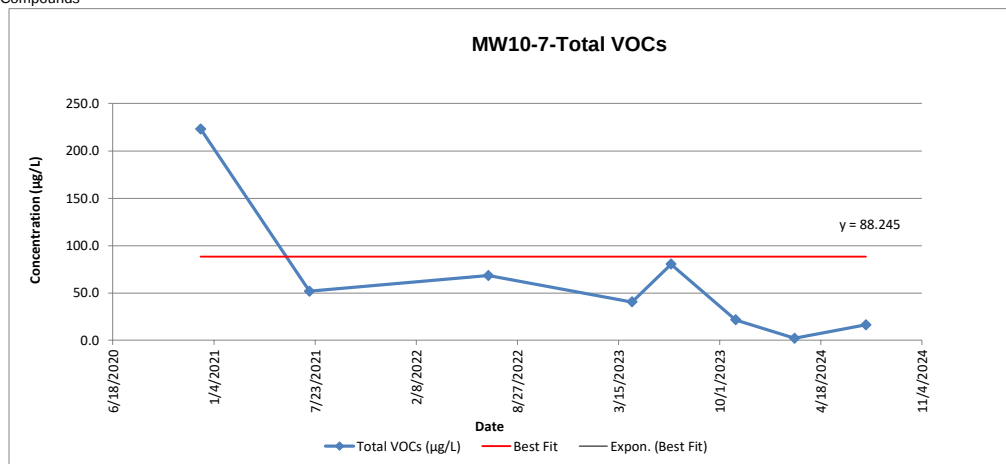
Yes*

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-7							
Sample Date			12/9/2020	7/12/2021	6/30/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024
Parameter										
1,1-Dichloroethene	µg/L	5	1.3	R	0.65 J	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	R	U	U	8.5	U	U	2.4
2-Hexanone (MBK)	µg/L	50	U	R	U	U	U	U	U	U
Acetone	µg/L	50	U	5.0 J-	22.8	U	21.0	13.3	U	11.8
Benzene	µg/L	1	1.3	R	U	U	0.37 J	U	U	U
Carbon Disulfide	µg/L	60	0.58 J	R	U	U	U	U	U	U
Chloroform	µg/L	7	U	R	U	U	U	U	U	U
Chloromethane	µg/L	5	U	R	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	174	33.2 J-	32.9	30.7	28.9	1.7	0.62	0.49
Cyclohexane	µg/L	NS	0.61 J	R	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	R	U	1.8	U	U	U	U
Ethylbenzene	µg/L	5	U	R	U	U	U	U	U	U
Iodomethane	µg/L	5	U	R	U	U	U	UJ	U	U
Methylcyclohexane	µg/L	NS	1.2	R	U	U	U	U	U	U
Toluene	µg/L	5	1	R	U	U	1.1	U	U	0.61
Total Xylenes	µg/L	5	U	R	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	0.37 J	0.82 J-	2.1	0.52 J	0.43 J	0.49 J	0.7	1
Trichloroethene	µg/L	5	1.5	12.8 J-	1.7	3.5	U	1.7	U	U
Vinyl chloride	µg/L	2	41.2	R	8.3	3.9	20.0	4.3	0.69	U
Total VOCs	µg/L		223.06	51.82	68.45	40.42	80.3	21.49	2.01	16.3

- Notes:
1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
 2. GPS = Groundwater Protection Standard
 3. µg/L = micrograms per liter
 4. J = Estimated value
 5. J- = Estimated value, result may be biased low
 6. R = Rejected
 7. U = Non-detect
 8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

No

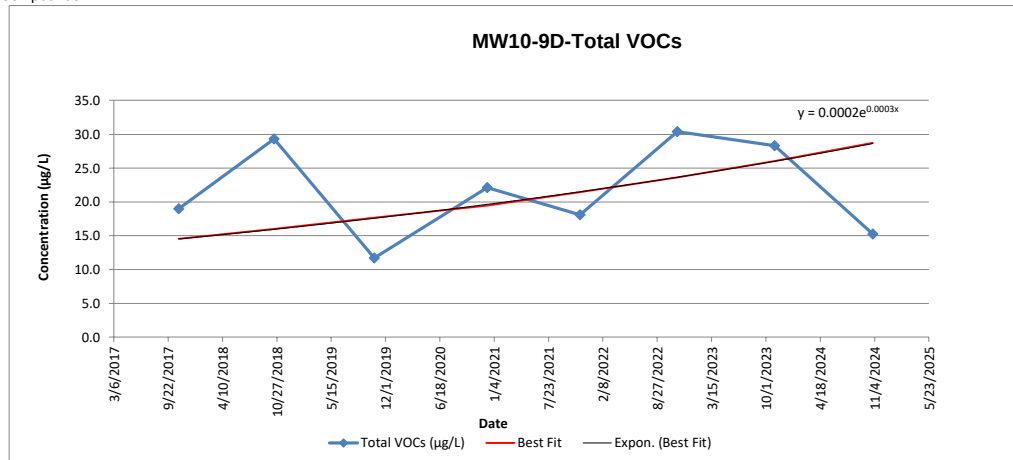
- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

No

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	MW10-9D							
Sample Date			10/31/2017	10/17/2018	10/21/2019	12/9/2020	11/16/2021	11/8/2022	11/2/2023	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	10.4 J	U	U	U	U	U	11.9	3.3
Benzene	µg/L	1	U	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	U
Chloroform	µg/L	7	U	U	U	U	U	U	U	0.36
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	10.2	6.1	10.2	7.2	10.9	6.6	4.1	5.4
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	U	U	U	U	U	U	UJ	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	8.7	5.6	11.9	10.9	19.5	16.6	12.3	6.2
Total VOCs	µg/L		19	29.3	11.7	22.1	18.1	30.4	28.3	15.26

- Notes:
1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
 2. GPS = Groundwater Protection Standard
 3. µg/L = micrograms per liter
 4. J = Estimated value
 5. U = Non-detect
 6. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
- 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

Yes*

Yes*

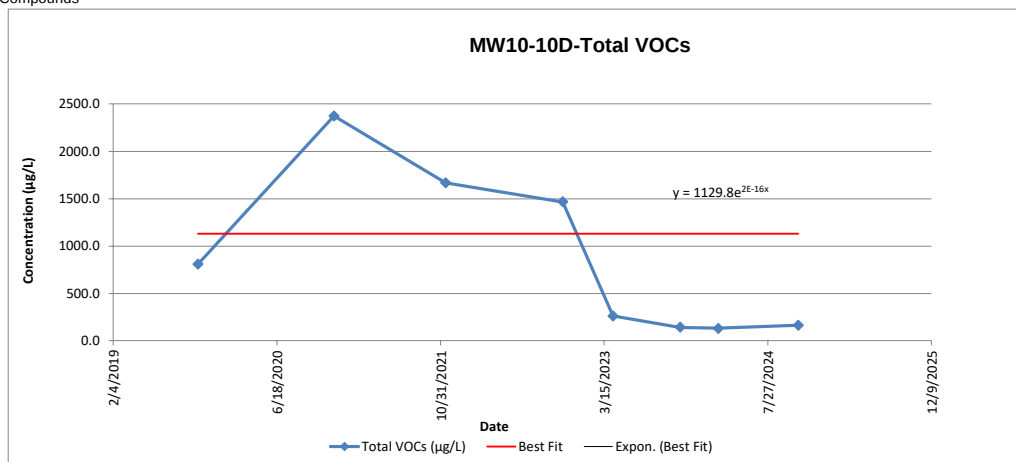
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	MW10-10D							
Sample Date			10/21/2019	12/9/2020	11/16/2021	11/8/2022	4/11/2023	11/2/2023	2/26/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	37.7 J	U	U	U	U	U	10.1
2-Hexanone (MBK)	µg/L	50	U	381	73.6 J	819	U	U	U	U
Acetone	µg/L	50	20.7 J	U	U	U	U	U	3.7	U
Benzene	µg/L	1	1.9	U	U	U	U	U	1.5	2.0
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	0.42	0.35
Chloroform	µg/L	7	U	U	U	29.2	U	U	U	U
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	638	1580 J+	1320	534	171	141	101	120
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	0.87	0.69
Ethylbenzene	µg/L	5	U	U	U	U	U	U	0.36	U
Iodomethane	µg/L	5	U	U	U	U	U	U	U	U
Methylcyclohexane	µg/L	NS	U	U	U	U	90.6 J	U	0.95	U
Toluene	µg/L	5	3.6	14.5 J	19.1 J	16.5 J	U	U	5.7	8.4
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	3.2	16 J	11.7 J	U	U	U	1.9	2.3
Trichloroethene	µg/L	5	9.4	47.6	45.2	24.8	U	U	8.6	13.6
Vinyl chloride	µg/L	2	132	296	197	42.2	U	U	5.3	6.0
Total VOCs	µg/L		808.8	2372.8	1666.6	1465.7	261.6	141	130.3	163.44

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J+ = Estimated value, result may be biased high
6. U = Non-detect
7. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?

- 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
- 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
- 1.c. The slope is less than or equal to zero.

See above

See above

No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

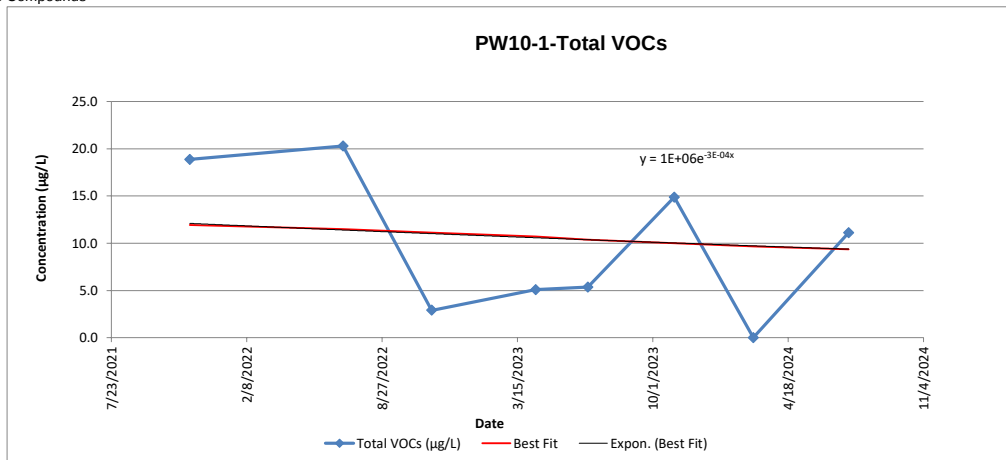
No

No

3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

Location ID	Unit	GPS	PW10-1							
Sample Date			11/16/2021	6/30/2022	11/8/2022	4/11/2023	6/27/2023	11/2/2023	2/26/2024	7/16/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	U	U	U	U
Acetone	µg/L	50	U	15.8	U	3.2 J	3.5 J	13.5	U	10.2
Benzene	µg/L	1	0.36 J	U	U	U	U	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	U	U	U	0.5
Chloroform	µg/L	7	U	U	U	U	U	U	U	U
Chloromethane	µg/L	5	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	4.5	2.1	1.1	1.5	1.1	0.77 J	U	0.42
Cyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	U	U	U	U
Iodomethane	µg/L	5	3.6	U	U	U	U	UJ	U	U
Methylcyclohexane	µg/L	NS	U	U	U	U	U	U	U	U
Toluene	µg/L	5	U	U	U	U	U	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	10.4	2.4	1.8	0.38 J	0.75 J	0.61 J	U	U
Total VOCs	µg/L		18.86	20.3	2.9	5.08	5.35	14.88	0	11.12

- Notes:
1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
 2. GPS = Groundwater Protection Standard
 3. µg/L = micrograms per liter
 4. B = Method and/or trip blank contamination
 5. J = Estimated value
 6. J- = Estimated value, result may be biased low
 7. J+ = Estimated value, result may be biased high
 8. R = Rejected
 9. U = Non-detect
 10. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
- 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above
See above
Yes

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

Yes*
Yes*

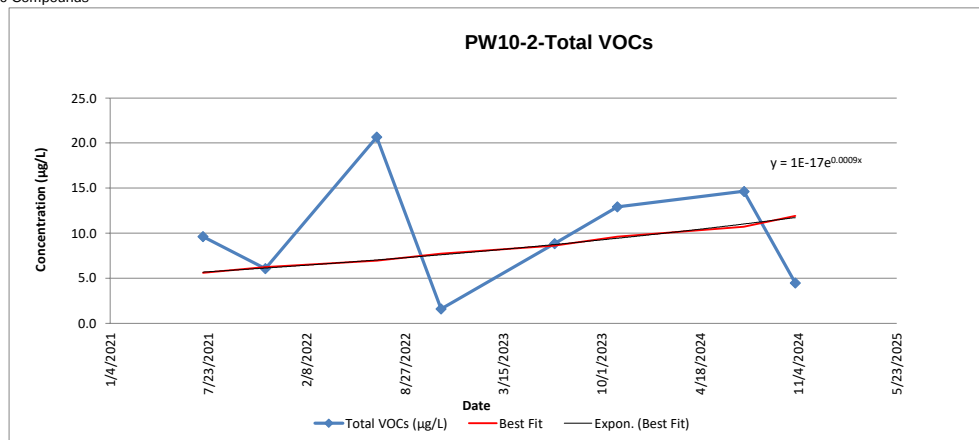
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	PW10-2							
Sample Date			7/12/2021	11/16/2021	6/30/2022	11/8/2022	6/27/2023	11/2/2023	7/16/2024	10/28/2024
Parameter										
1,1-Dichloroethene	µg/L	5	R	U	U	U	U	U	U	U
2-Butanone (MEK)	µg/L	50	R	U	U	U	U	U	U	U
2-Hexanone (MBK)	µg/L	50	R	U	U	U	U	U	U	U
Acetone	µg/L	50	3.7 J-	U	20.2	U	4.4 J	10.4	10.7	3.7
Benzene	µg/L	1	3.9 J-	2.8	0.48 J	1.6	2.4	1.6	1.9	U
Carbon Disulfide	µg/L	60	R	U	U	U	U	U	U	U
Chloroform	µg/L	7	R	U	U	U	U	U	U	0.42
Chloromethane	µg/L	5	R	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	5	R	U	U	U	U	U	U	0.34
Cyclohexane	µg/L	NS	0.51 J-	0.50 J	U	U	0.53 J	0.42 J	0.82	U
Dichloromethane	µg/L	5	R	U	U	U	U	U	U	U
Ethylbenzene	µg/L	5	0.61 J-	0.45 J	U	U	U	U	U	U
Iodomethane	µg/L	5	R	0.87 J	U	U	U	U	0.68	U
Methylcyclohexane	µg/L	NS	R	U	U	U	0.33 J	U	0.54	U
Toluene	µg/L	5	0.88 J-	0.43 J	U	U	0.68 J	0.49 J	U	U
Total Xylenes	µg/L	5	R	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	µg/L	5	R	U	U	U	U	U	U	U
Trichloroethene	µg/L	5	R	U	U	U	U	U	U	U
Vinyl chloride	µg/L	2	R	1.0	U	U	0.50 J	U	U	U
Total VOCs	µg/L		9.6	6.05	20.68	1.6	8.84	12.91	14.64	4.46

Notes:

- Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
- GPS = Groundwater Protection Standard
- µg/L = micrograms per liter
- B = Method and/or trip blank contamination
- J = Estimated value
- J- = Estimated value, result may be biased low
- J+ = Estimated value, result may be biased high
- R = Rejected
- U = Non-detect
- VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

No

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

- Does this well achieve "Zero Slope Condition" as defined in the permit?
 - Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - Fit a trendline (either linear or exponential) using least squares regression model.
 - The slope is less than or equal to zero.

See above

See above

No

- Does this well achieve the analytical concentration criteria for a minimum of eight quarters?
 - Is the total concentration of COCs less than 100 µg/L?
 - Are single COCs less than 50 µg/L?

Yes*

Yes*

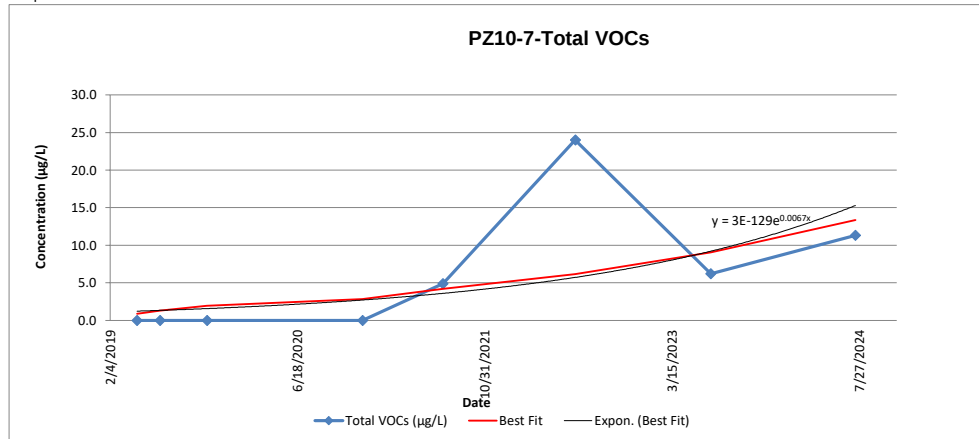
- Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

Location ID	Unit	GPS	PZ10-7							
Sample Date			4/17/2019	6/18/2019	10/21/2019	12/9/2020	7/12/2021	6/30/2022	6/27/2023	7/16/2024
Parameter										
1,1-Dichloroethene	µg/L	5	U	U	U	U	R	U	U	U
2-Butanone (MEK)	µg/L	50	U	U	U	U	R	U	U	U
2-Hexanone (MBK)	µg/L	50	U	U	U	U	R	U	U	U
Acetone	µg/L	50	U	U	U	U	4.9 J-	24	6.2	10.9
Benzene	µg/L	1	U	U	U	U	R	U	U	U
Carbon Disulfide	µg/L	60	U	U	U	U	R	U	U	U
Chloroform	µg/L	7	U	U	U	U	R	U	U	U
Chloromethane	µg/L	5	U	U	U	U	R	U	U	U
cis-1,2-Dichloroethene	µg/L	5	U	U	U	U	R	U	U	U
Cyclohexane	µg/L	NS	U	U	U	U	R	U	U	U
Dichloromethane	µg/L	5	U	U	U	U	R	U	U	U
Ethylbenzene	µg/L	5	U	U	U	U	R	U	U	U
Iodomethane	µg/L	5	U	U	U	U	R	U	U	0.42
Methylcyclohexane	µg/L	NS	U	U	U	U	R	U	U	U
Toluene	µg/L	5	U	U	U	U	R	U	U	U
Total Xylenes	µg/L	5	U	U	U	U	R	U	U	U
trans-1,2-Dichloroethene	µg/L	5	U	U	U	U	R	U	U	U
Trichloroethene	µg/L	5	U	U	U	U	R	U	U	U
Vinyl chloride	µg/L	2	U	U	U	U	R	U	U	U
Total VOCs	µg/L		0	0	0	0	4.9	24	6.2	11.32

Notes:

1. Shaded Cells indicate exceedence of NYSDEC GPS for contaminants of concern as defined in the Site Management Plan
2. GPS = Groundwater Protection Standard
3. µg/L = micrograms per liter
4. J = Estimated value
5. J- = Estimated value, result may be biased low
6. R = Rejected
7. U = Non-detect
8. VOCs = Volatile Organic Compounds



Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well meet the termination criteria by achieving the GPSs for an equivalent of 8 quarters?

Yes

Alternative Termination Criteria (Section 5.1.2 of the Site Management Plan):

1. Does this well achieve "Zero Slope Condition" as defined in the permit?
 - 1.a. Plot sum of concentration of hazardous waste constituents from an equivalent of 8 quarters
 - 1.b. Fit a trendline (either linear or exponential) using least squares regression model.
 - 1.c. The slope is less than or equal to zero.

See above

See above

No

2. Does this well achieve the analytical concentration criteria for a minimum of eight quarters?

- 2.a. Is the total concentration of COCs less than 100 µg/L?
- 2.b. Are single COCs less than 50 µg/L?

Yes*

Yes*

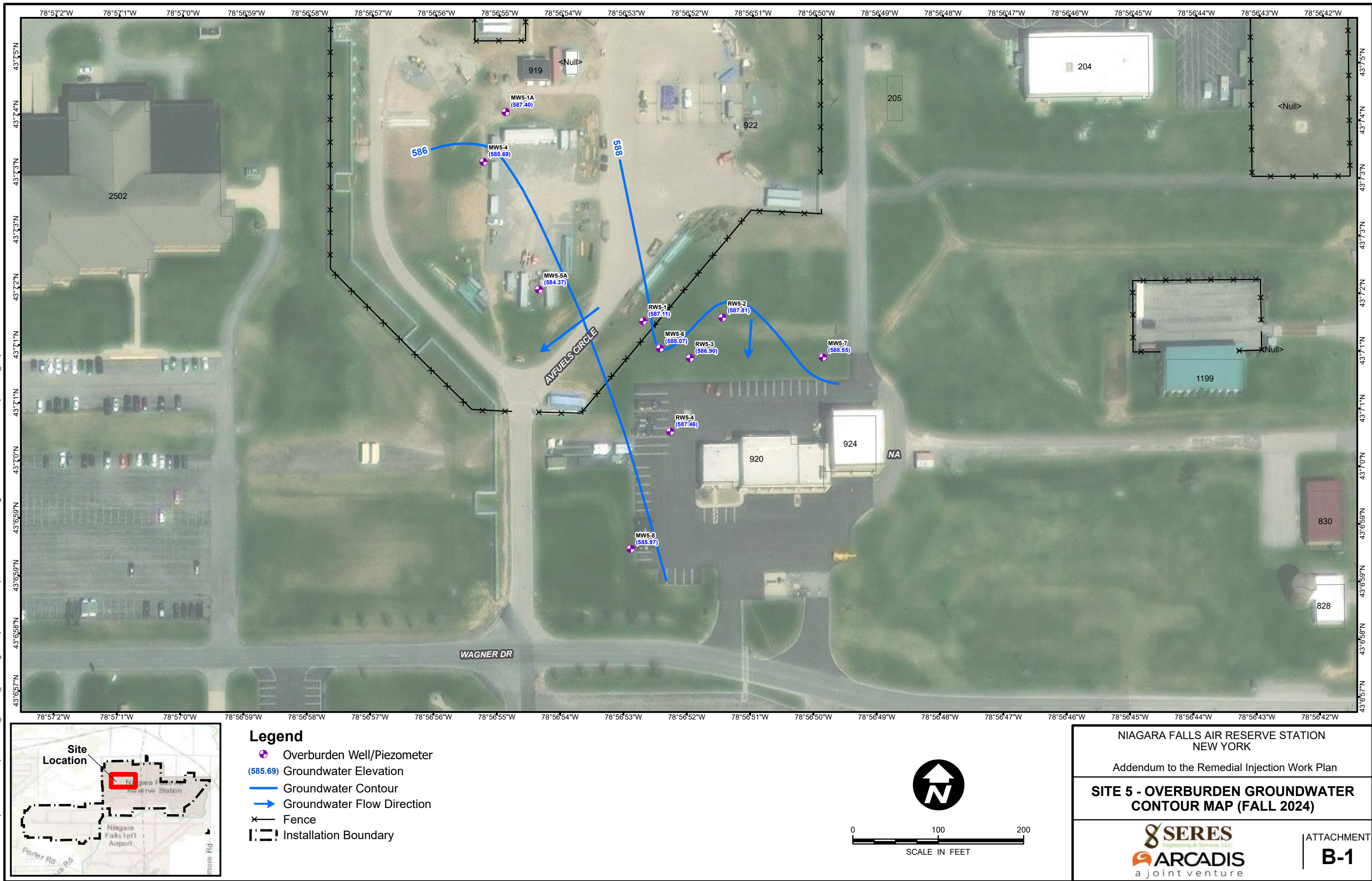
3. Will the residual groundwater contamination result in an unacceptable risk to human health and the environment? Provide analysis

* - While the well achieves this criteria for the last eight monitoring events, these events do not include monitoring over four consecutive quarterly sampling events per Section 5.1.2 of the SMP.

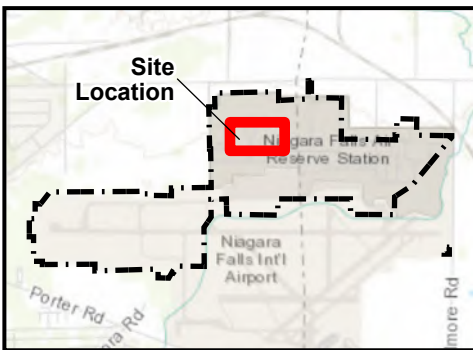
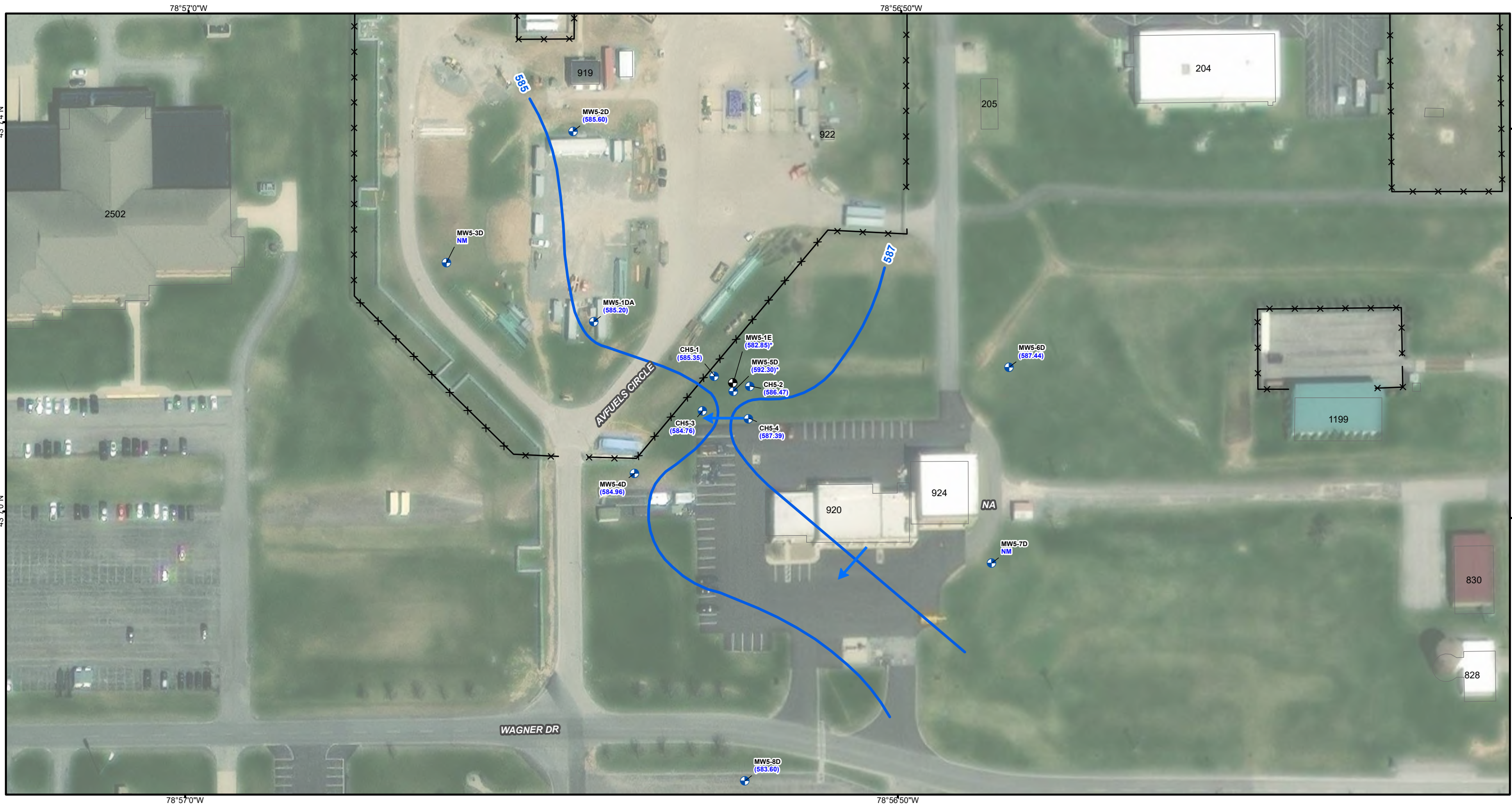
Attachment B

Fall 2024 Overburden and Bedrock Contour Maps

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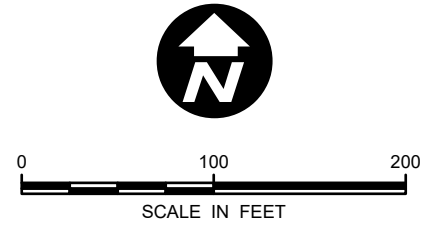


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- Legend**
- Shallow Bedrock Well/Piezometer
 - Deep Bedrock Well
 - (585.60) Groundwater Elevation
 - Groundwater Contour
 - Groundwater Flow Direction
 - Fence
 - Installation Boundary

Note:
1. * = Elevation not used to develop groundwater contours.
2. NM = Not measured.

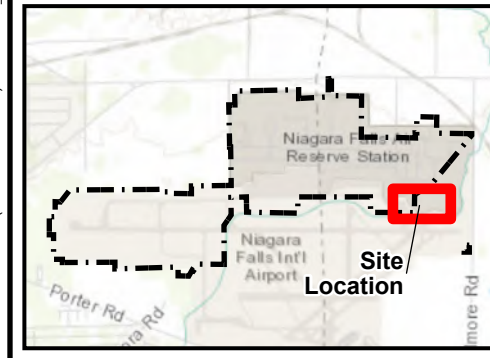
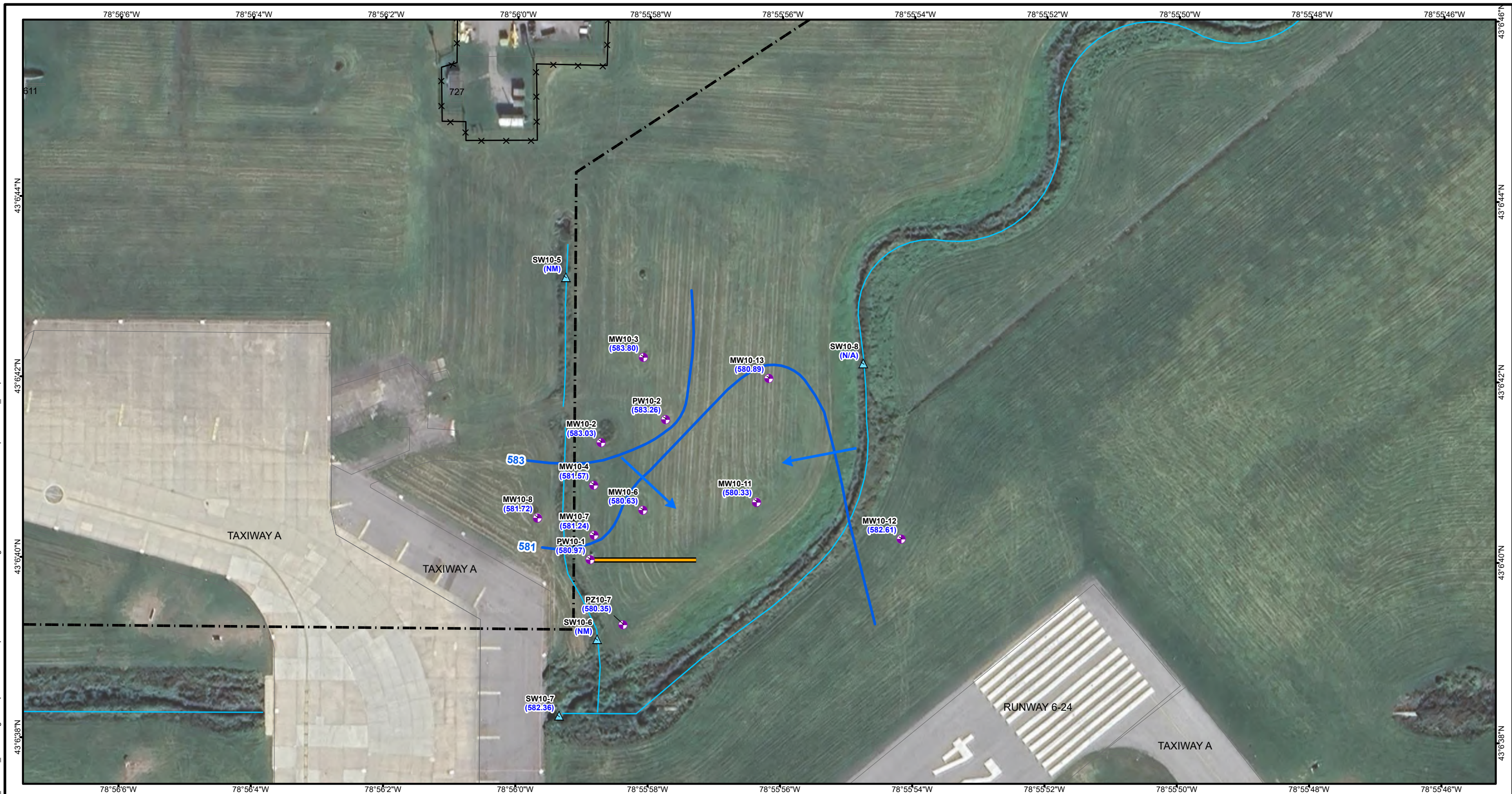


NIAGARA FALLS AIR RESERVE STATION
NEW YORK
Addendum to the Remedial Injection Work Plan

**SITE 5 - SHALLOW BEDROCK
GROUNDWATER CONTOUR
MAP (FALL 2024)**

ATTACHMENT
B-2

DIV/GROUP-ENV/IMDV DB: pa9162 LD: PIC: PM: TM: PROJECT: JBIMDL (30028496.00001) PATH: T: ENVINE_ORC\Niagara\Reports\Annual Report\2024\ArcGIS Pro\Niagara Falls ARS 2024 Annual Report Site 10_13.aprx DATE: 9/8/2025 3:57 PM



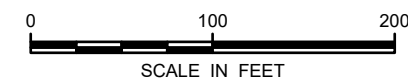
Legend

- Overburden well/Piezometer
- Surface Water Sample
- (580.97) Groundwater Elevation
- Groundwater Contour
- Groundwater Flow Direction
- Drainage Ditch/Cayuga Creek
- Groundwater Collection Trench

Installation Boundary

Notes:

- N/A = Not applicable; a water level measurement is not collected at this location.
- NM = Not measured.



NIAGARA FALLS AIR RESERVE STATION
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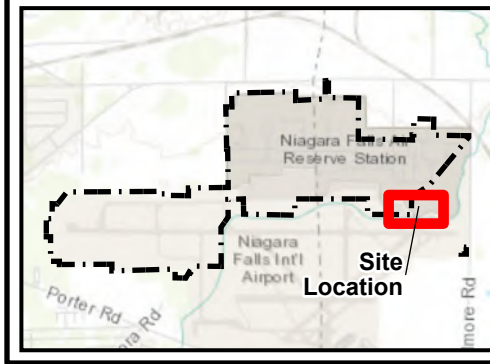
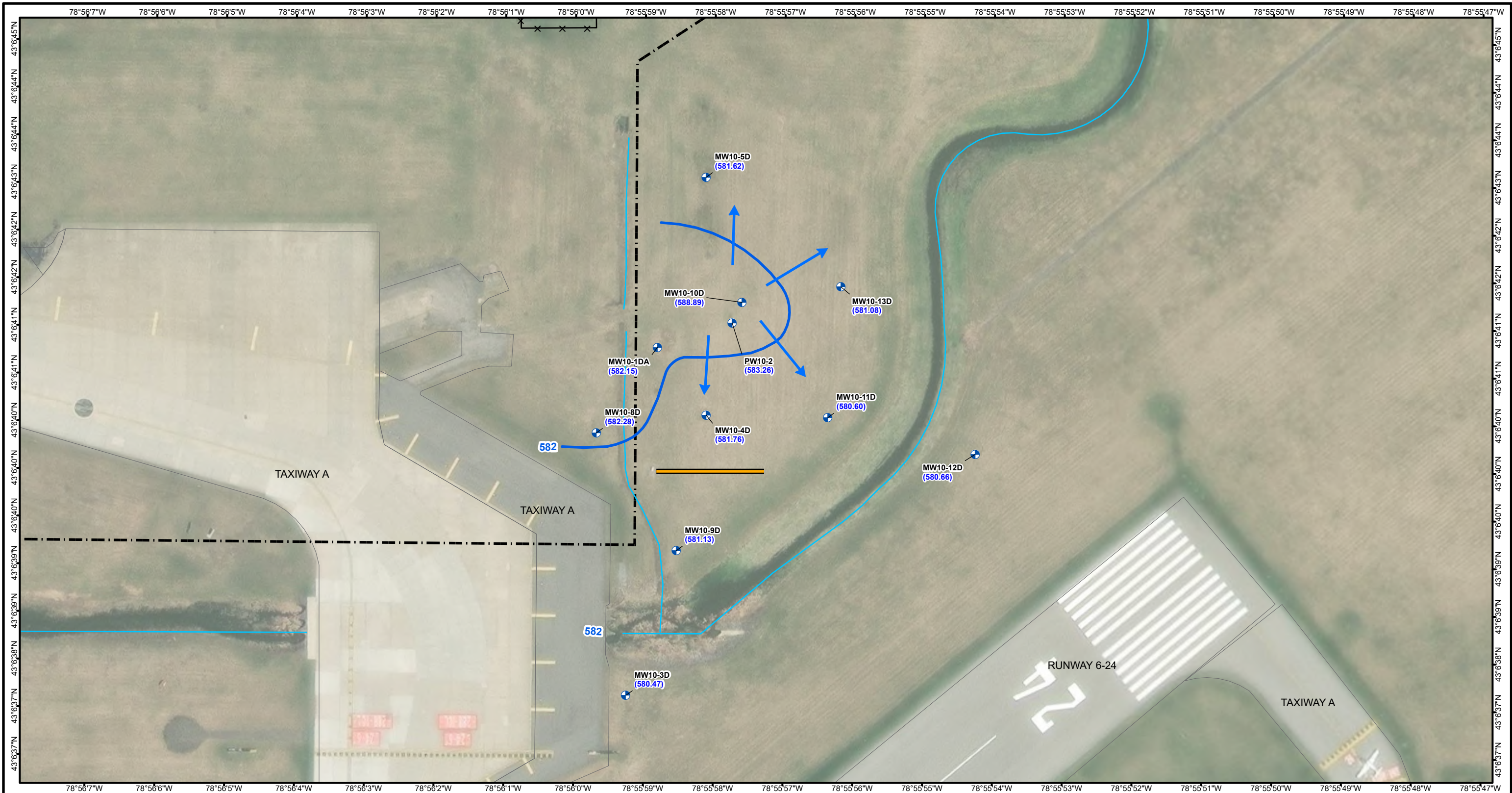
Addendum to the Remedial Injection Work Plan

SITE 10 - OVERBURDEN GROUNDWATER CONTOUR MAP (FALL 2024)



ATTACHMENT
B-3

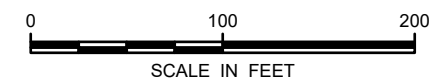
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Legend

- Shallow Bedrock Well/Piezometer
- (582.28) Groundwater Elevation
- Groundwater Contour
- Groundwater Flow Direction
- Drainage Ditch/Cayuga Creek
- Groundwater Collection Trench
- Installation Boundary

Notes:
1. * = Elevation not used to develop groundwater contours.



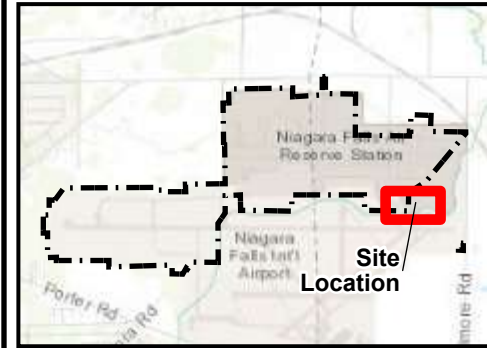
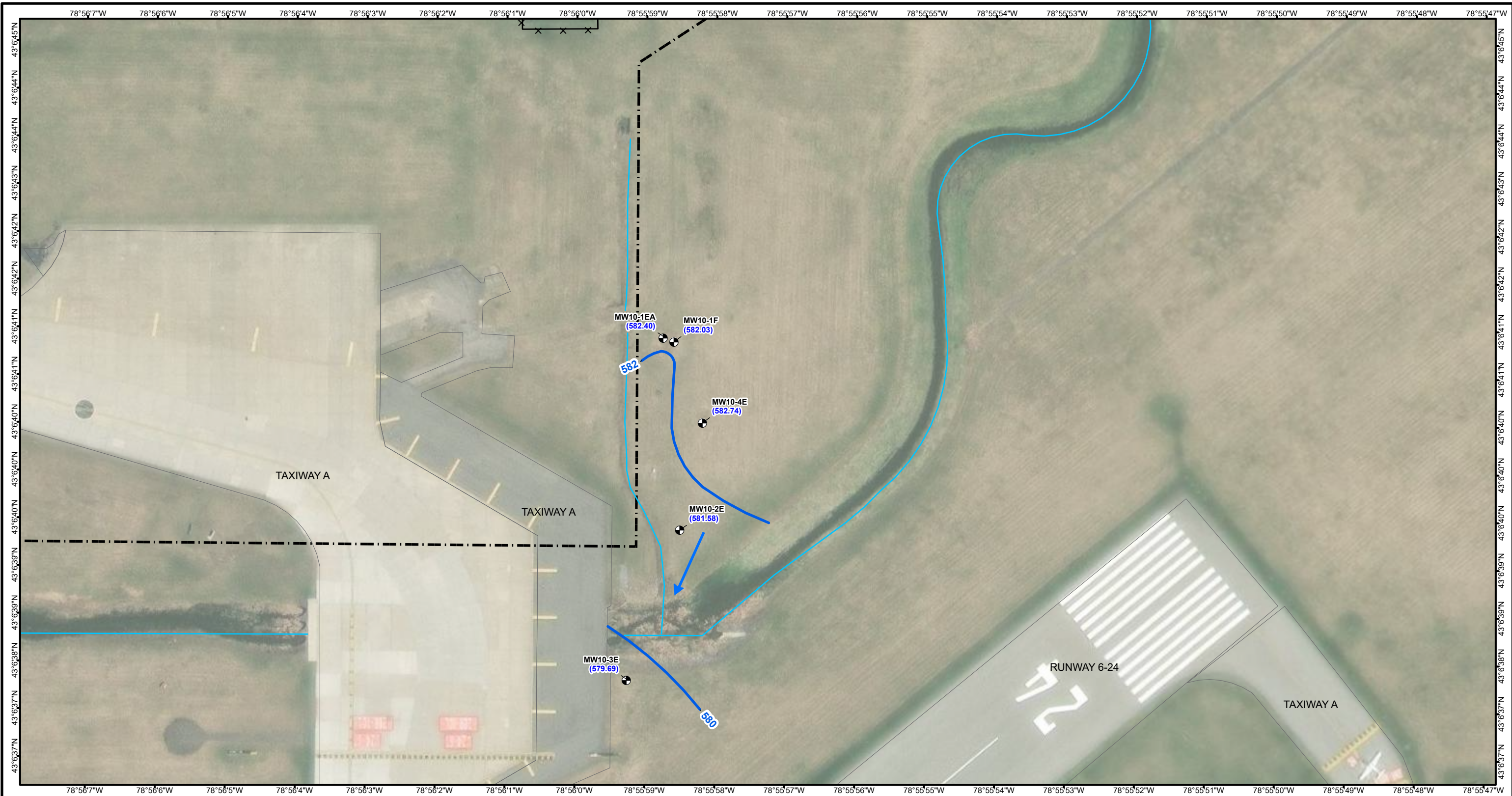
NIAGARA FALLS AIR RESERVE STATION
NEW YORK
Addendum to the Remedial Injection Work Plan

SITE 10 - SHALLOW BEDROCK GROUNDWATER CONTOUR MAP (FALL 2024)



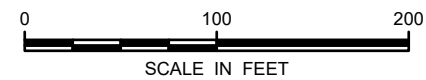
ATTACHMENT
B-4

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Legend

- Deep Bedrock Well
- (582.74) Groundwater Elevation
- Groundwater Contour
- Groundwater Flow Direction
- Drainage Ditch/Cayuga Creek
- Installation Boundary



NIAGARA FALLS AIR RESERVE STATION
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Addendum to the Remedial Injection Work Plan

SITE 10 - DEEP BEDROCK GROUNDWATER CONTOUR MAP (FALL 2024)



ATTACHMENT
B-5