



The Chemours Company  
P.O. Box 788  
Lewiston, NY 14092

(716) 221-4723  
[chemours.com](http://chemours.com)

May 28, 2021

Mr. Stanley Radon  
New York State Department of  
Environmental Conservation  
270 Michigan Avenue  
Buffalo, NY 14203-2999

Dear Mr. Radon:

**NIAGARA PLANT FIRST QUARTER 2021 DATA PACKAGE**

Enclosed is the Groundwater Remediation System First Quarter 2021 (1Q21) Data Package for the Chemours Niagara Plant pursuant to Order on Consent No. B9-0206-87-09. The data package includes an operational summary, potentiometric surface contour maps, and process sample analytical data for 1Q21.

Pumping well uptime was 99.9 percent for the original GWRS pumping wells, 99.7 percent for pumping well PW-37, and 99.7 percent for PW-39 during 1Q21. There were no scheduled or unscheduled system shutdowns greater than 24 hours in 1Q21. No pumping wells were down for greater than 48 consecutive hours during the quarter.

Please contact me at (716) 221-4723 if you have any questions or comments regarding this submittal.

Sincerely,

Chemours

A handwritten signature in black ink that reads "Paul F. Mazierski".

Paul F. Mazierski  
Project Director

PFM/EAF  
Enc. NIAGARA 1Q21 Data Package

cc: Brian Sadowski/NYSDEC (elec.)  
Charlotte Bethoney/NYSDOH (elec.)  
Dawn Hettrick/NYSDOH (elec.)  
Chemours Records Retentions (elec.)



---

**GROUNDWATER REMEDIATION SYSTEM  
FIRST QUARTER 2021  
GROUNDWATER MONITORING DATA PACKAGE  
CHEMOOURS NIAGARA PLANT  
NIAGARA FALLS, NIAGARA COUNTY, NEW YORK**

---

*Prepared For:*

**THE CHEMOOURS COMPANY FC LLC  
CORPORATE REMEDIATION GROUP**

P.O. Box 788  
Lewiston, NY 14092

*Prepared By:*

**PARSONS**

40 La Riviere Drive, Suite 350  
Buffalo, New York 14202  
Phone: (716) 541-0730

**May 2021**

## TABLE OF CONTENTS

	Page
<b>SECTION 1 DATA PACKAGE SUMMARY .....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 Operational Summary.....	1
<b>TABLES.....</b>	<b>3</b>
Table 1 – Refined Indicator Parameters	
Table 2 – GWRS Operations Statistics, First Quarter 2021	
Table 3 – Total Volatile Organic Compounds Removed by GWRS, First Quarter 2021	
Table 4 – Summary of Organic Compounds Removed by GWRS	
Table 5 – Summary of Organic Compunds Removed by Olin Production Well	
Table 6 – Point Source Contaminant Loading Rates, Loading Indicator Organics- First Quarter 2021	

## FIGURES

- Figure 1 – Potentiometric Surface Map: A-Zone Overburden - March 10, 2021
- Figure 2 – Potentiometric Surface Map: A-Zone Bedrock - March 10, 2021
- Figure 3 – Potentiometric Surface Map: B-Zone Bedrock - March 10, 2021
- Figure 4 – Potentiometric Surface Map: C-Zone Bedrock - March 10, 2021
- Figure 5 – Potentiometric Surface Map: D-Zone Bedrock - March 10, 2021

## APPENDIX A CHEMOOURS NIAGARA PLANT GROUNDWATER ELEVATION DATA FIRST QUARTER 2021

## APPENDIX B CHEMOOURS NIAGARA PLANT SUMMARY OF ANALYTICAL RESULTS FIRST QUARTER 2021 SYSTEM MONITORING

## APPENDIX C SILICONE OIL REMEDIATION 1Q21

## **SECTION 1**

### **DATA PACKAGE SUMMARY**

#### **1.1 INTRODUCTION**

This data package presents a summary of operating and monitoring data collected during the first quarter of 2021 (1Q21) for groundwater remediation measures at the Chemours Niagara Plant (the Plant) in Niagara Falls, New York. The Niagara Plant remediation program was implemented pursuant to an Administrative Consent Order with the New York State Department of Environmental Conservation (NYSDEC), Index Number B9-0206-87-09. This Data Package also includes the Silicone Oil Remediation First Quarter Progress Report.

Tables 1 through 6 provide information related to the quarterly sampling program and operational statistics. Figures 1 through 5 provide groundwater potentiometric maps. Appendix A through C provide supporting data.

#### **1.2 OPERATIONAL SUMMARY**

Pumping well uptime was 99.9 percent for the original GWRS pumping wells, 99.7 percent for pumping well PW-37, and 99.7 percent for PW-39 during 1Q21. There were no scheduled or unscheduled system shutdowns greater than 24 hours in 1Q21. No pumping wells were down for greater than 48-hours and no well pumps required replacement during 1Q21.

From an operations standpoint, the air strippers effectively remove organics from groundwater. The refined indicator parameters for process sampling are summarized in Table 1. It is estimated that 1,428 pounds of volatile organic compounds were removed from groundwater during operation of the Groundwater Remediation System (GWRS) in 1Q21 (see Tables 2 and 3). Historical organic compound removal by the GWRS is summarized in Table 4.

Olin Production Well uptime was 100.0 percent during 1Q21. Beginning in 2020, under an intercompany agreement, slightly higher average pumping rates are being implemented during the summer months for Olin non-contact cooling water production needs. Organics removal at the Olin Production Well treatment system was estimated to be 641.5 pounds for 1Q21 (see Tables 2 and 5). Estimated organic compound removal for the Olin Production Well from October 1992 through March 2021 is approximately 48,757 pounds (Table 5).

Point source contaminant loading rates are provided in Table 6. Loading to the Niagara Falls Wastewater Facility (NFWWF) from Outfall 023 is estimated to have been 0.57 pounds of organics per day during 1Q21. Since effluent discharged through this outfall is treated at the NFWWF, this represents an additional 52 pounds of organics (Table 2) that were removed and treated during 1Q21.

Groundwater elevation data collected during 1Q21 indicated that inward hydraulic gradients exist in the A-Zone throughout most plant areas while the GWRS is operating, thereby decreasing off-plant groundwater flow. Inward gradients are coincident with the southern border of the West

Plant along Staub Road in both the A-Zone overburden (Figure 1) and A-Zone top-of-rock (Figure 2) and are largely attributed to pumping of the two BFBTs.

Investigation and recovery activities related to Silicone Oil Recovery have been conducted in accordance with the technical scope of work submitted on July 21, 1999 and approved by NYSDEC on August 26, 1999. During 1Q21, no silicone oil was observed in PW-20 and 9.5 gallons were recovered from PW-24 (Appendix C). Silicone oil has never been observed at PW-22 since inspections began at this location in 3Q00. To date, 64 gallons and 2,095.0 gallons of Silicone Oil have been recovered from PW-20 and PW-24 respectively. A total of 2,159.0 gallons of silicone oil have been removed from GWRS pumping wells since recovery began in June 1999.

## **TABLES**

**Table 1**

**Refined Indicator Parameters  
First Quarter 2021  
Chemours Niagara**

<b>Volatiles</b>	<b>Base/Neutrals<sup>1</sup></b>
Benzene	1,4-dichlorobutane
Carbon tetrachloride	bis(2-ethylhexyl)phthalate
Chlorobenzene	Naphthalene
Chloroform	1,2-dichlorobenzene
Chloromethane	1,4-dichlorobenzene
1,1-dichloroethane	Hexachlorobutadiene
1,1-dichloroethene	Hexachloroethane
trans-1,2-dichloroethene	<b>Pesticides/PCBs<sup>1</sup></b>
cis-1,2-dichloroethene	alpha-BHC
Methylene chloride	beta-BHC
1,1,2,2-tetrachloroethane	delta-BHC
Tetrachloroethene	gamma-BHC
Tetrahydrothiophene	Total PCBs
Toluene	
1,1,1-trichloroethane	
1,1,2-trichloroethane	
Trichloroethene	
Vinyl chloride	
<b>Inorganics and Other Parameters</b>	
Total cyanide <sup>1</sup>	
Soluble barium <sup>1</sup>	
pH*	
Temperature*	
Specific Gravity*	
Specific Conductivity*	

<sup>1</sup> Analyses required once per year for these parameters  
on select samples.

\* Field measurement

**Table 2**

**GWRS Operations Statistics**  
**First Quarter 2021**  
**Chemours Niagara**

<b>Treatment System Operations</b>		
<b><i>GWRS</i></b>		
Original 23 Pumping Wells System Uptime		99.9%
Pumping Well 37 Uptime		99.7%
Pumping Well 39 Uptime		99.7%
Total Gallons Pumped		2,327,342
Average System Pumping Rate for Quarter (GPM)		18.6
Estimated Pounds of Organics Treated		1,428
Number of unscheduled treatment shutdowns (> 24 hours)		0
Number of scheduled treatment shutdowns (> 24 hours)		0
<b><i>Olin System</i></b>		
Pumping System Uptime		100.0%
Estimated Pounds of Organics Treated		641.5
Carbon vessel changes		3
	V-2	2/11/21
	V-3	2/11/21
	V-4	2/11/21
<b><i>Outfall 023</i></b>		
Estimated Pounds of Organics Treated		52

<b>GWRS Pumping Well Operations</b>		
<b><i>Total Pump Replacements:</i></b>		0
<b><i>Number of Individual Pumps down &gt; 48 hours:</i></b>		0

**Table 3**

**Total Volatile Organic Compounds Removed by GWRS  
First Quarter 2021  
Chemours Niagara**

<b>Quarterly</b>	<b>Influent Total VOC</b>	<b>Effluent Total VOC</b>	<b>Estimated VOC Removal (lbs.)</b>
<b>Total Flow (gallons)</b>	<b>Concentration (<math>\mu\text{g/l}</math>)</b>	<b>Concentration (<math>\mu\text{g/l}</math>)</b>	
2,327,342	73,620	14.9	1,428

Note: Italicized values are an average of sample result and duplicate sample result.

**Table 4**

**Summary of Organic Compounds Removed by GWRS**  
**First Quarter 2021**  
**Chemours Niagara**

<b>Time Period</b>	<b>Estimated Organic Removal (lbs)<sup>(1)</sup></b>
1991 <sup>(2)</sup>	4,700
1992	10,350
1993	7,220
1994	7,320
1995	7,840
1996	9,436
1997	6,463
1998	7,000
1999	3,382
2000	3,010
2001	3,224
2002	3,848
2003	2,820
2004	2,645
2005	2,237
2006	11,589
2007	8,678
2008	7,932
2009	12,128
2010	7,854
2011	9,004
2012	8,453
2013	9,433
2014	8,567
2015	8,255
2016	6,629
2017	10,815
1Q18	1,454
2Q18	1,410
3Q18	1,321
4Q18	1,609
1Q19	1,357
2Q19	1,393
3Q19	1,389
4Q19	1,496
1Q20	1,208
2Q20	1,300
3Q20	1,583
4Q20	1,598
1Q21	1,428
<b>TOTAL</b>	<b>209,378</b>

<sup>(1)</sup> Estimated based on influent/effluent data and daily groundwater flow rates, except as noted.

<sup>(2)</sup> Estimated based on influent/effluent data and instantaneous flow to treatment system.

**Table 5**

**Summary of Organic Compounds Removed by Olin Production Well**  
**First Quarter 2021**  
**Chemours Niagara**

Date	Average Pumping Rate (gpm)	Influent Total VOC ( $\mu\text{g/l}$ )	Effluent Total VOC ( $\mu\text{g/l}$ )	Total VOC Removed (lbs/day)	Total VOC Removed (lbs)
1992					5,470
1993					3,580
1994					3,530
1995					2,378
1996					2,240
1997					1,887
1998					1,392
1999					1,695
2000					1,214
2001					1,185
2002					1,374
2003					1,124
2004					1,044
2005					1,066
2006	590	491	71	3.0	1,096
2007	527	514	56	2.9	1,068
2008	529	547	6.7	3.4	1,257
2009	536	534	14	3.3	1,222
2010	557	483	5	3	1,168
2011	595	546	9	3.8	1,386
2012	578	459	11	3.1	1,137
2013	541	461	24	2.8	1,042
2014	574	534	32	3.5	1,269
2015	566	511	23	3.3	1,197
2016	573	468	11	3.1	1,137
2017	568	510	11	3	1301
1Q18	550	454	1	3	270
2Q18	567	299	14.6	1.9	176
3Q18	604	369	41.5	2.4	218
4Q18	590	453	18.3	3.1	283
1Q19	545	388	1.0	2.5	228
2Q19	533	356	28.1	2.1	191
3Q19	618	413	20.7	2.9	268
4Q19	579	1,065	7.8	7.3	676
1Q20	565	1,026	113.7	6.2	563
2Q20	559	765	0.0	5.1	467
3Q20	688	858	0.0	7.1	652
4Q20	529	1,141	0.0	7.2	666
1Q21	519	1,121	1.9	7.0	642
<b>TOTAL</b>					<b>48,757</b>

An average analytical result is used when a field duplicate is reported.

All averages are italicized.

Annual VOCs removed is sum of quarterly VOCs removed

**Table 6**

**Point Source Contaminant Loading Indicator Organics  
First Quarter 2021  
Chemours Niagara**

<b>Outfall Sample Location*</b>	<b>Quarterly Average Flow Rate (gpm)</b>	<b>Total Indicator Organic Concentration (<math>\mu\text{g/l}</math>)<sup>(1)</sup></b>	<b>Quarterly Average Loading Rate (lb/day)<sup>(1)</sup></b>
023	252	189.3	0.57
Olin GAC <sup>(2)</sup>	519	1.9	0.01

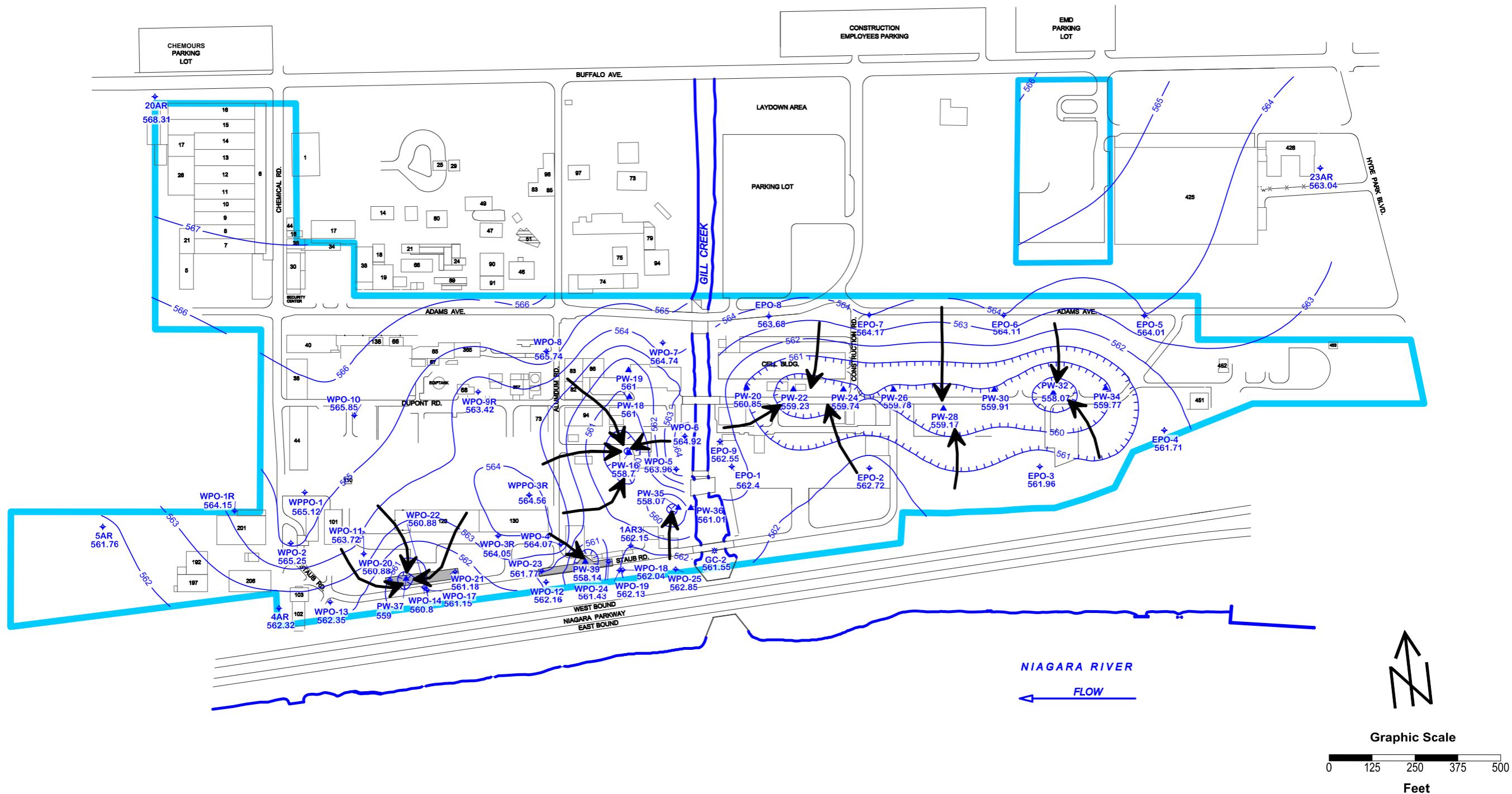
GAC = Granular Activated Carbon (Olin Treatment Effluent)

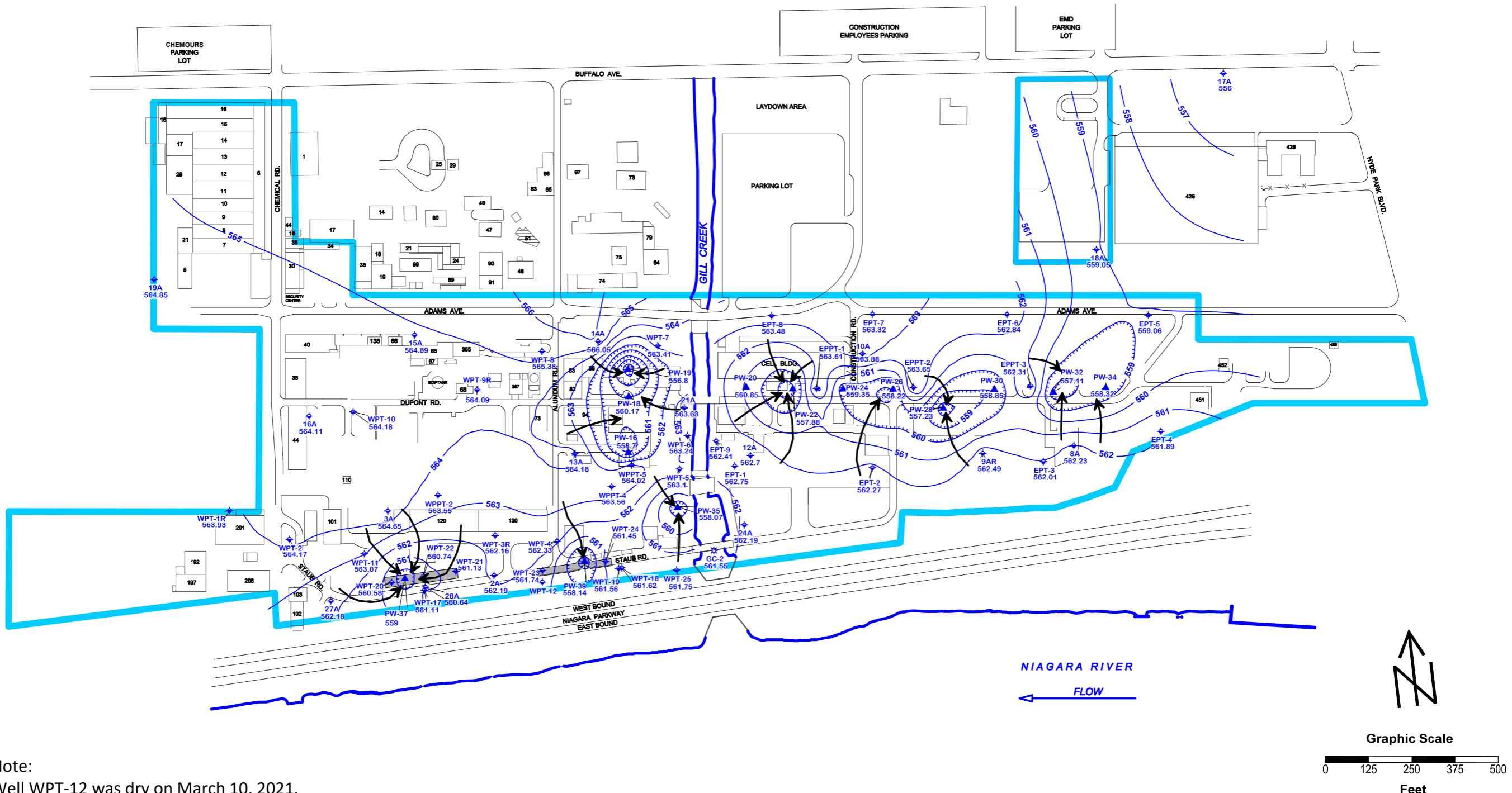
TIO average of field duplicate results are *italicized*.

<sup>(1)</sup> Values are not adjusted to account for concentrations of loadings indicator organics which may be present in the raw intake water.

<sup>(2)</sup> Average pumping rate for Olin well through quarter.

## **FIGURES**





**Note:**

Well WPT-12 was dry on March 10, 2021

**PARSONS**  
40 La Riviere Dr, Suite 35  
Buffalo, NY 14202  
(716) 541-0730

Created by: RBP	Date: 4/6/21
Checked by: JWS	Date: 4/7/21
Project Manager: EAF	Date: 4/7/21

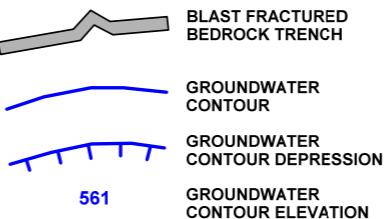
Job number: 452457 03000

## LEGEND

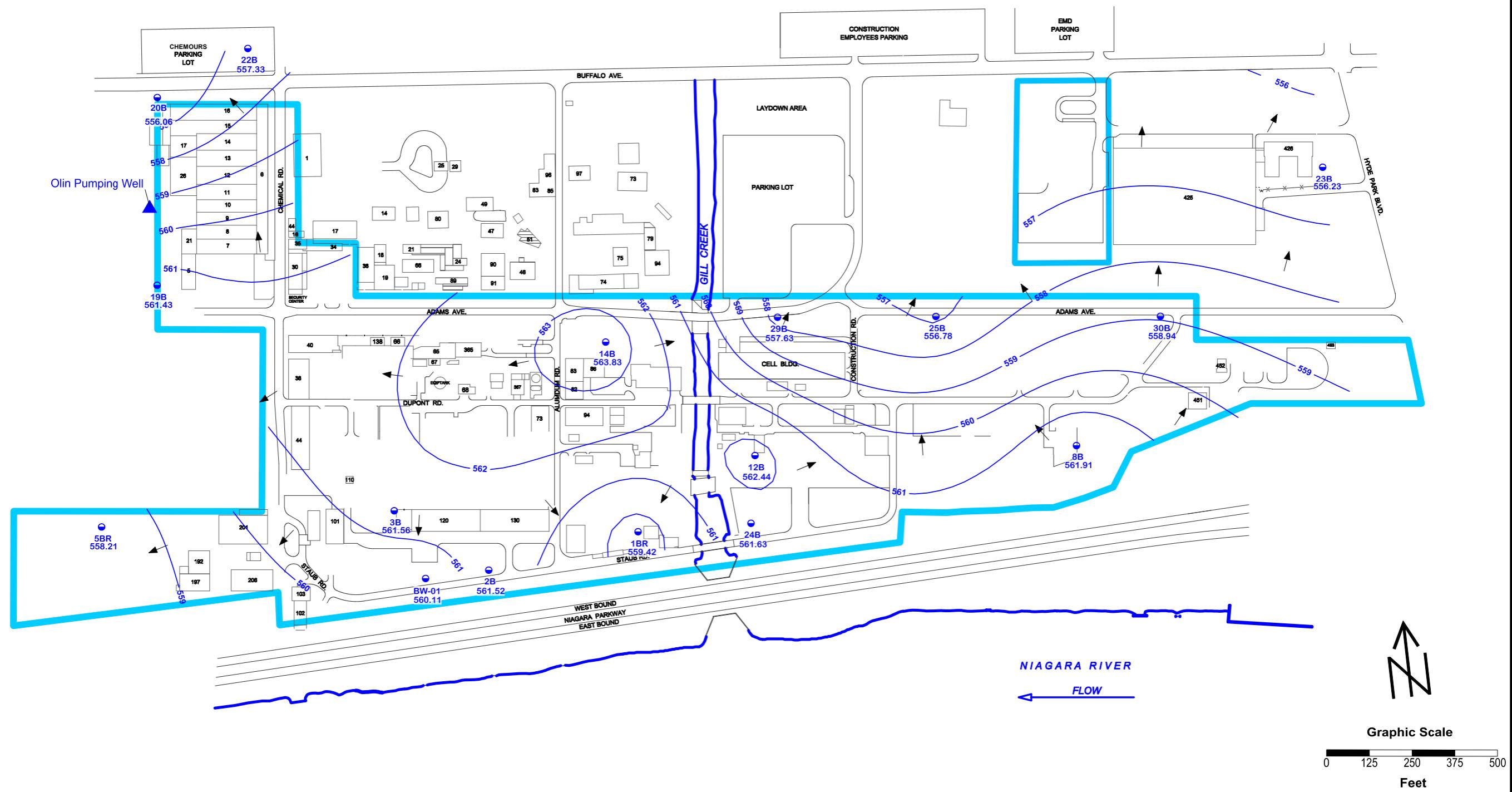
A legend box containing four entries: 'BUILDING' with a grey square icon, 'ROAD' with a black wavy line icon, 'CHEMICAL BOUNDARY' with a blue horizontal line icon, and 'SURFACE' with a dark blue horizontal line icon.

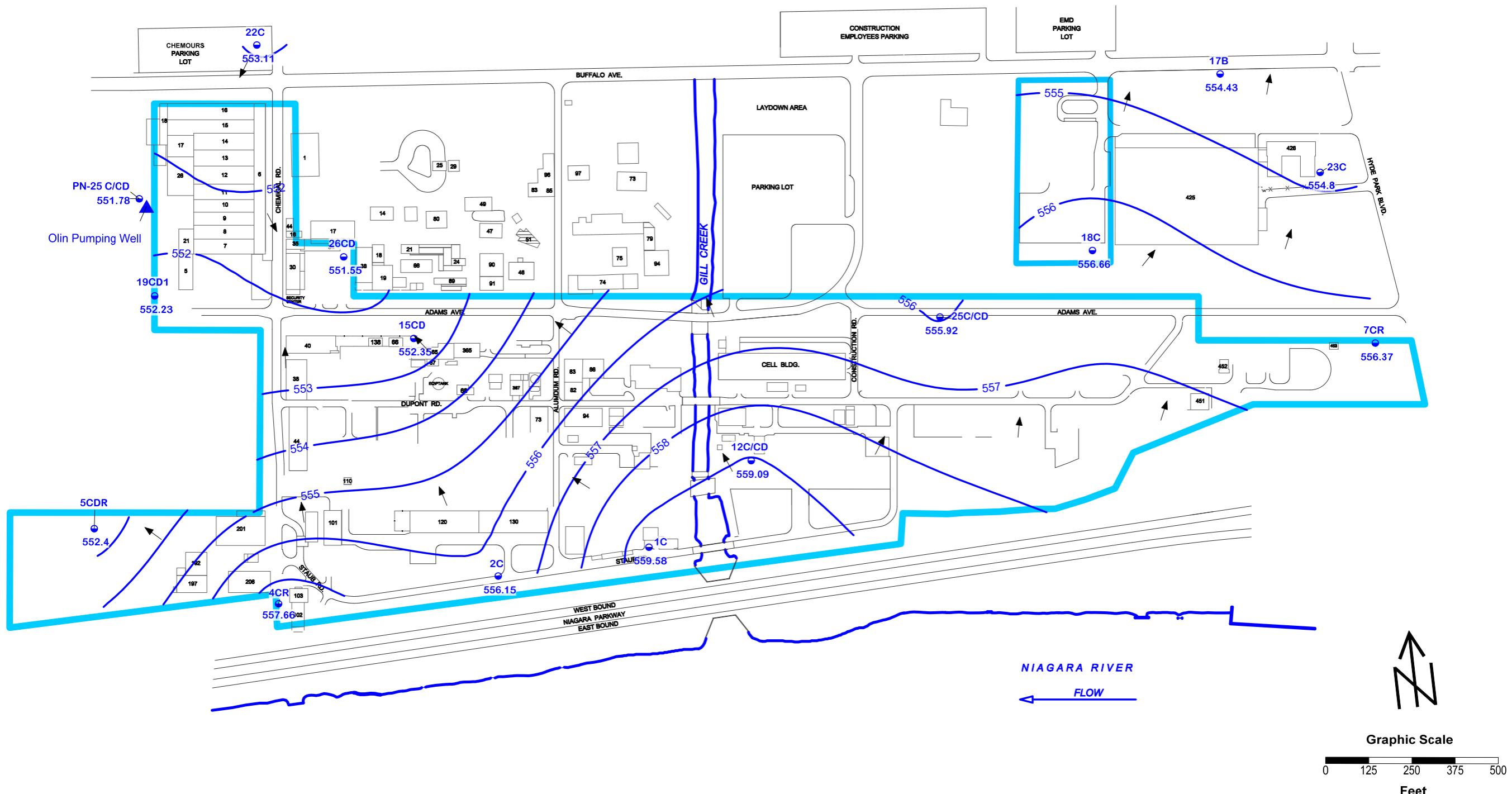
CHEMOURS WELLS

- 1AR3 WELL ID
  - ◆ PIEZOMETER
  - ▲ PUMPING WELL
  - MONITORING WELL
  - ⊕ UNDERGROUND UTILITY WELL
  - ⊗ GILL CREEK SURFACE WELL  
or WATER SAMPLE LOCATION



**FIGURE 2  
POTENTIOMETRIC SURFACE MAP  
A-ZONE BEDROCK - MARCH 10, 2021  
CHEMOURS NIAGARA PLANT, NIAGARA FALLS, NY**





**PARSONS**  
40 La Riviere Dr, Suite 350  
Buffalo, NY 14202  
(716) 541-0730

Created by: RBP	Date: 3/12/21
Checked by: JWS	Date: 3/12/21
Project Manager: EAF	Date: 3/12/21
Job number: 452457.03000	

#### LEGEND

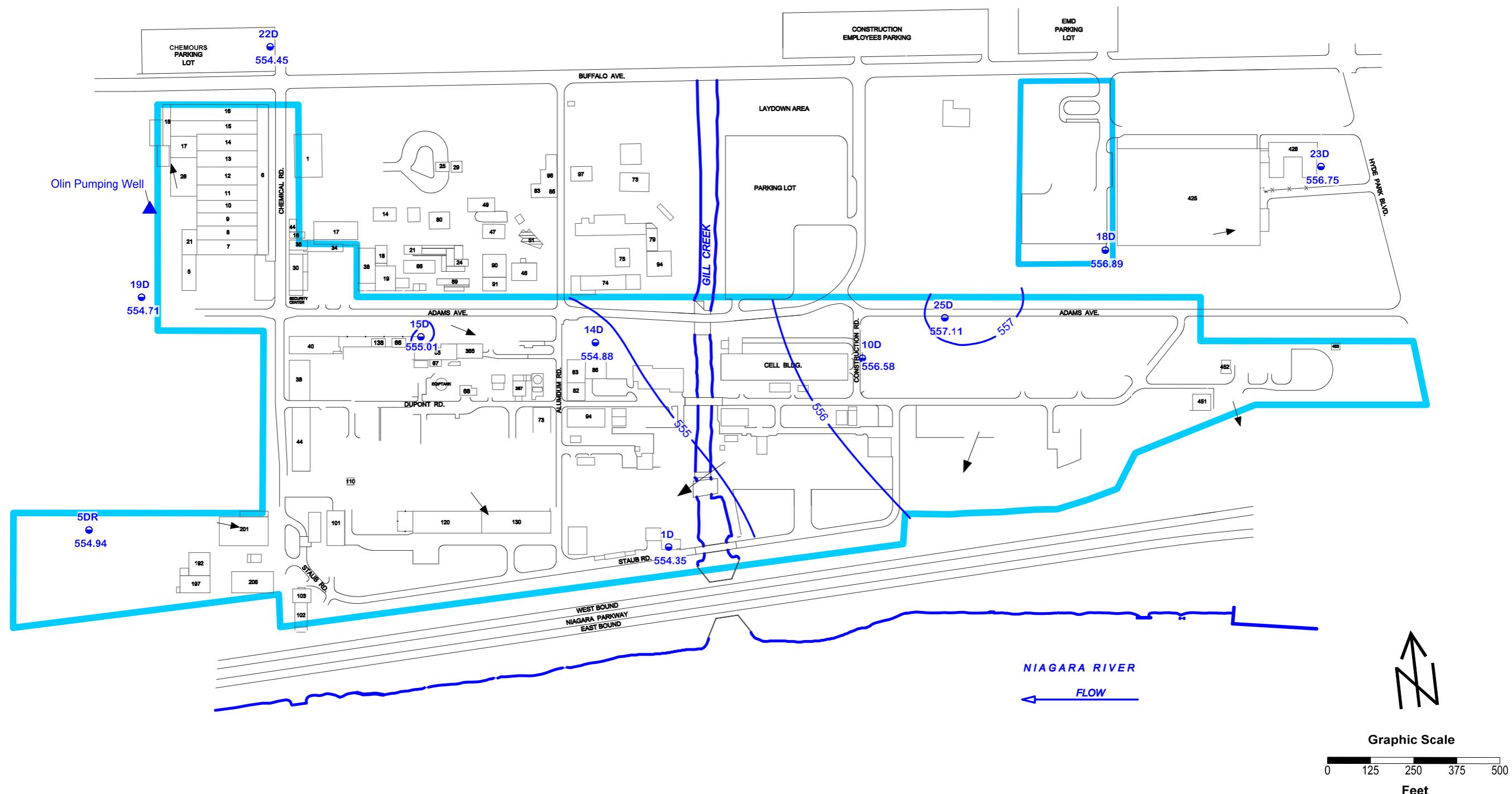
- Building
- Road
- CHEMOURS PROPERTY BOUNDARY
- SURFACE WATER

#### CHEMOURS WELLS

- 1C WELL ID
- ◆ PIEZOMETER
- ▲ PUMPING WELL
- MONITORING WELL

- GROUNDWATER CONTOUR
- GROUNDWATER CONTOUR DEPRESSION
- 558 GROUNDWATER CONTOUR ELEVATION

**FIGURE 4**  
**POTENTIOMETRIC SURFACE MAP**  
**C/CD-ZONE BEDROCK - MARCH 10, 2021**  
**CHEMOURS NIAGARA PLANT, NIAGARA FALLS, NY**



**PARSONS**  
40 La Riviere Dr, Suite 350  
Buffalo, NY 14202  
(716) 541-0730

Created by: RBP	Date: 4/6/21
Checked by: JWS	Date: 4/7/21
Project Manager: EAF	Date: 4/7/21
Job number: 452457.03000	

#### LEGEND

- BUILDING
- ROAD
- CHEMOURS PROPERTY BOUNDARY
- SURFACE WATER

#### CHEMOURS WELLS

- 1D WELL ID
- ◆ PIEZOMETER
- ▲ PUMPING WELL
- MONITORING WELL

- 557 GROUNDWATER CONTOUR ELEVATION
- 557 GROUNDWATER CONTOUR DEPRESSION
- 557 GROUNDWATER CONTOUR

**FIGURE 5**  
**POTENTIOMETRIC SURFACE MAP**  
**D-ZONE BEDROCK - MARCH 10, 2021**  
**CHEMOURS NIAGARA PLANT, NIAGARA FALLS, NY**

**APPENDIX A**

**CHEMOOURS NIAGARA PLANT**  
**GROUNDWATER ELEVATION DATA**  
**FIRST QUARTER 2021**

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - FIRST QUARTER 2021**  
**CHEMOURS NIAGARA PLANT**

SAMPLE POINT	DATE	DEPTH TO WATER (FT)	CASING ELEVATION (FT AMSL)	GW ELEVATIONS (FT AMSL)	TIME	COMMENTS
BW-01	03/10/2021	11.42	571.53	560.11	13:43	
DEC-3R	03/10/2021	12.55	574.39	561.84	11:52	
DEC-4R	03/10/2021	14.16	575.81	561.65	12:00	
DEC-5	03/10/2021	20.62	582.13	561.51	12:06	
EPO-1	03/10/2021	10.27	572.67	562.40	13:07	
EPO-2	03/10/2021	9.59	572.31	562.72	13:33	
EPO-3	03/10/2021	10.71	572.67	561.96	14:10	
EPO-4	03/10/2021	9.04	570.75	561.71	14:01	
EPO-5	03/10/2021	6.34	570.35	564.01	13:56	
EPO-6	03/10/2021	6.35	570.46	564.11	14:01	
EPO-7	03/10/2021	6.54	570.71	564.17	14:13	
EPO-8	03/10/2021	7.01	570.69	563.68	14:17	
EPO-9	03/10/2021	9.81	572.36	562.55	13:10	
EPPT-1	03/10/2021	5.35	568.96	563.61	13:19	
EPPT-2	03/10/2021	8.76	572.41	563.65	13:39	
EPPT-3	03/10/2021	9.74	572.05	562.31	13:45	
EPT-1	03/10/2021	10.11	572.86	562.75	13:08	
EPT-2	03/10/2021	9.95	572.22	562.27	13:32	
EPT-3	03/10/2021	10.50	572.51	562.01	14:09	
EPT-4	03/10/2021	9.14	571.03	561.89	14:03	
EPT-5	03/10/2021	11.22	570.28	559.06	13:54	
EPT-6	03/10/2021	7.68	570.52	562.84	13:59	
EPT-7	03/10/2021	7.21	570.53	563.32	14:12	
EPT-8	03/10/2021	7.18	570.66	563.48	14:19	
EPT-9	03/10/2021	9.38	571.79	562.41	13:09	
GC-2	03/10/2021	11.24	572.79	561.55	12:50	
MW-10A	03/10/2021	8.25	572.13	563.88	13:24	
MW-10C	03/10/2021	11.16	568.10	556.94	13:28	
MW-10D	03/10/2021	11.91	568.49	556.58	13:29	
MW-12A	03/10/2021	9.86	572.56	562.70	13:04	
MW-12B	03/10/2021	9.92	572.36	562.44	13:03	
MW-12C/CD	03/10/2021	13.68	572.77	559.09	13:06	
MW-13A	03/10/2021	8.95	573.13	564.18	12:13	
MW-14A	03/10/2021	6.25	572.30	566.05	11:50	
MW-14B	03/10/2021	8.46	572.29	563.83	11:53	
MW-14C	03/10/2021	17.00	572.10	555.10	11:53	
MW-14D	03/10/2021	17.80	572.68	554.88	11:49	
MW-15A	03/10/2021	3.72	568.61	564.89	12:30	
MW-15C	03/10/2021	12.01	568.52	556.51	12:30	
MW-15CD	03/10/2021	16.20	568.55	552.35	12:32	
MW-15D	03/10/2021	13.56	568.57	555.01	12:33	
MW-16A	03/10/2021	8.22	572.33	564.11	12:46	
MW-16B	03/10/2021	10.38	572.96	562.58	12:45	
MW-17A	03/10/2021	15.98	571.98	556.00	13:31	
MW-17B	03/10/2021	17.51	571.94	554.43	13:34	
MW-18A	03/10/2021	11.76	570.81	559.05	13:41	

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - FIRST QUARTER 2021**  
**CHEMOURS NIAGARA PLANT**

SAMPLE POINT	DATE	DEPTH TO WATER (FT)	CASING ELEVATION (FT AMSL)	GW ELEVATIONS (FT AMSL)	TIME	COMMENTS
MW-18C	03/10/2021	14.05	570.71	556.66	13:44	
MW-18D	03/10/2021	14.00	570.89	556.89	13:43	
MW-19A	03/10/2021	8.82	573.67	564.85	11:55	
MW-19B	03/10/2021	11.83	573.26	561.43	11:54	
MW-19C	03/10/2021	19.81	573.59	553.78	11:53	
MW-19CD1	03/10/2021	21.06	573.29	552.23	11:52	
MW-19D	03/10/2021	18.37	573.08	554.71	11:46	
MW-1AR3	03/10/2021	9.53	571.68	562.15	12:27	
MW-1BR	03/10/2021	11.96	571.38	559.42	12:30	
MW-1C	03/10/2021	11.80	571.38	559.58	12:33	
MW-1D	03/10/2021	17.78	572.13	554.35	12:39	
MW-20AR	03/10/2021	2.20	570.51	568.31	12:07	
MW-20B	03/10/2021	14.03	570.09	556.06	12:06	
MW-21A	03/10/2021	9.78	573.41	563.63	12:01	
MW-22B	03/10/2021	12.53	569.86	557.33	14:29	
MW-22C	03/10/2021	16.98	570.09	553.11	14:30	
MW-22D	03/10/2021	15.66	570.11	554.45	14:31	
MW-23AR	03/10/2021	10.46	573.50	563.04	13:24	
MW-23B	03/10/2021	16.47	572.70	556.23	13:22	
MW-23C	03/10/2021	17.94	572.74	554.80	13:26	
MW-23D	03/10/2021	16.06	572.81	556.75	13:28	
MW-24A	03/10/2021	10.38	572.57	562.19	12:57	Partially blocked at ten feet below casing.
MW-24B	03/10/2021	11.06	572.69	561.63	12:59	
MW-25B	03/10/2021	12.93	569.71	556.78	14:05	
MW-25C/CD	03/10/2021	14.79	570.71	555.92	14:07	
MW-25D	03/10/2021	13.42	570.53	557.11	14:08	
MW-26C	03/10/2021	13.70	568.39	554.69	14:50	
MW-26CD	03/10/2021	17.32	568.87	551.55	14:56	
MW-27A	03/10/2021	11.42	573.60	562.18	13:05	
MW-28A	03/10/2021	9.84	570.48	560.64	13:27	
MW-29B	03/10/2021	13.90	571.53	557.63	14:20	
MW-2A	03/10/2021	9.63	571.82	562.19	13:30	
MW-2B	03/10/2021	12.03	573.55	561.52	13:33	
MW-2C	03/10/2021	15.47	571.62	556.15	13:31	
MW-30B	03/10/2021	11.89	570.83	558.94	13:52	
MW-3A	03/10/2021	7.78	572.43	564.65	13:53	
MW-3B	03/10/2021	10.69	572.25	561.56	13:49	
MW-4AR	03/10/2021	11.50	573.82	562.32	12:59	
MW-4CR	03/10/2021	12.19	569.85	557.66	13:01	
MW-5AR	03/10/2021	13.25	575.01	561.76	14:52	
MW-5BR	03/10/2021	16.72	574.93	558.21	14:51	
MW-5CDR	03/10/2021	22.60	575.00	552.40	14:53	
MW-5CR	03/10/2021	16.97	574.91	557.94	14:54	
MW-5DR	03/10/2021	20.16	575.10	554.94	14:56	
MW-6AR	03/10/2021	7.78	576.41	568.63	15:02	
MW-7AR	03/10/2021	15.16	571.90	556.74	13:54	

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - FIRST QUARTER 2021**  
**CHEMOURS NIAGARA PLANT**

SAMPLE POINT	DATE	DEPTH TO WATER (FT)	CASING ELEVATION (FT AMSL)	GW ELEVATIONS (FT AMSL)	TIME	COMMENTS
MW-7CR	03/10/2021	15.23	571.60	556.37	13:56	
MW-8A	03/10/2021	9.41	571.64	562.23	14:06	
MW-8B	03/10/2021	9.52	571.43	561.91	14:05	
MW-9AR	03/10/2021	10.17	572.66	562.49	14:12	
MW-U-1	03/10/2021	12.85	573.25	560.40	11:50	
MW-U-14	03/10/2021	8.81	571.26	562.45	11:48	
MW-U-16	03/10/2021	11.00	573.78	562.78	12:10	
OBA-01B	03/10/2021	11.95	570.85	558.90	15:11	
OBA-01C	03/10/2021	15.16	570.41	555.25	15:08	
PN-25 C/CD	03/10/2021	19.48	571.26	551.78	11:39	
PW-16	03/10/2021	14.75	573.45	558.70	12:11	
PW-18	03/10/2021	9.96	570.13	560.17	11:56	
PW-19	03/10/2021	16.50	573.30	556.80	11:58	
PW-20	03/10/2021	8.90	569.75	560.85	13:14	
PW-22	03/10/2021	11.62	569.50	557.88	13:16	
PW-24	03/10/2021	9.40	568.75	559.35	13:21	
PW-26	03/10/2021	10.18	568.40	558.22	13:38	
PW-28	03/10/2021	10.14	567.37	557.23	13:42	
PW-30	03/10/2021	9.96	568.81	558.85	13:43	
PW-32	03/10/2021	11.06	568.17	557.11	13:46	
PW-34	03/10/2021	10.60	568.92	558.32	13:47	
PW-35	03/10/2021	14.61	572.68	558.07	12:42	
PW-36	03/10/2021	8.50	569.51	561.01	12:44	
PW-37	03/10/2021	10.04	569.04	559.00	13:17	
PW-38	03/10/2021	11.26	572.07	560.81	13:39	
PW-39	03/10/2021	13.62	571.76	558.14	12:17	
TPW-01	03/10/2021	10.29	570.85	560.56	13:41	
WPO-10	03/10/2021	6.18	572.03	565.85	12:39	
WPO-11	03/10/2021	9.53	573.25	563.72	13:09	
WPO-12	03/10/2021	11.67	573.83	562.16	14:34	
WPO-13	03/10/2021	11.30	573.65	562.35	13:04	
WPO-14	03/10/2021	9.71	570.51	560.80	13:28	
WPO-15	03/10/2021	14.10	575.98	561.88	12:02	
WPO-16	03/10/2021	12.67	574.84	562.17	11:53	
WPO-17	03/10/2021	9.69	570.84	561.15	13:23	
WPO-18	03/10/2021	10.34	572.38	562.04	14:21	
WPO-19	03/10/2021	10.36	572.49	562.13	14:23	
WPO-1R	03/10/2021	9.28	573.43	564.15	15:00	
WPO-2	03/10/2021	8.07	573.32	565.25	12:56	
WPO-20	03/10/2021	10.76	571.64	560.88	13:12	
WPO-21	03/10/2021	10.88	572.06	561.18	13:37	
WPO-22	03/10/2021	9.98	570.86	560.88	13:46	
WPO-23	03/10/2021	10.07	571.84	561.77	14:40	
WPO-24	03/10/2021	9.98	571.41	561.43	12:22	
WPO-25	03/10/2021	8.92	571.77	562.85	12:48	
WPO-3R	03/10/2021	8.79	572.84	564.05	14:43	

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - FIRST QUARTER 2021**  
**CHEMOURS NIAGARA PLANT**

SAMPLE POINT	DATE	DEPTH TO WATER (FT)	CASING ELEVATION (FT AMSL)	GW ELEVATIONS (FT AMSL)	TIME	COMMENTS
WPO-4	03/10/2021	8.31	572.38	564.07	14:31	
WPO-5	03/10/2021	9.03	572.99	563.96	12:07	
WPO-6	03/10/2021	12.81	577.73	564.92	12:04	
WPO-7	03/10/2021	6.78	571.52	564.74	11:45	
WPO-8	03/10/2021	2.60	568.34	565.74	14:14	Well partially blocked at 0.9 ft
WPO-9R	03/10/2021	9.52	572.94	563.42	12:25	
WPPO-1	03/10/2021	3.54	568.66	565.12	12:53	
WPPO-3R	03/10/2021	7.22	571.78	564.56	14:27	
WPPT-2	03/10/2021	8.60	572.15	563.55	13:58	
WPPT-4	03/10/2021	8.74	572.30	563.56	14:23	
WPPT-5	03/10/2021	12.63	576.65	564.02	12:10	
WPT-10	03/10/2021	7.97	572.15	564.18	12:39	
WPT-11	03/10/2021	10.19	573.26	563.07	13:08	
WPT-12	03/10/2021	DRY	573.41	-	14:36	
WPT-17	03/10/2021	9.70	570.81	561.11	13:22	
WPT-18	03/10/2021	11.33	572.95	561.62	14:20	
WPT-19	03/10/2021	11.17	572.73	561.56	14:24	
WPT-1R	03/10/2021	10.09	574.02	563.93	15:02	
WPT-2	03/10/2021	8.96	573.13	564.17	12:55	
WPT-20	03/10/2021	11.61	572.19	560.58	13:14	
WPT-21	03/10/2021	11.36	572.49	561.13	13:35	
WPT-22	03/10/2021	10.90	571.64	560.74	13:44	
WPT-23	03/10/2021	9.95	571.69	561.74	14:39	
WPT-24	03/10/2021	10.01	571.46	561.45	12:20	
WPT-25	03/10/2021	10.75	572.50	561.75	12:47	
WPT-3R	03/10/2021	10.82	572.98	562.16	14:42	
WPT-4	03/10/2021	10.23	572.56	562.33	14:30	
WPT-5	03/10/2021	9.41	572.51	563.10	12:06	
WPT-6	03/10/2021	14.46	577.70	563.24	12:03	
WPT-7	03/10/2021	8.17	571.58	563.41	11:46	
WPT-8	03/10/2021	3.28	568.66	565.38	12:20	
WPT-9R	03/10/2021	8.53	572.62	564.09	12:25	

**APPENDIX B**

**CHEMOOURS NIAGARA PLANT**  
**SUMMARY OF ANALYTICAL RESULTS**  
**FIRST QUARTER 2021 SYSTEM MONITORING**

**Appendix B**  
**Summary of Analytical Results**  
**Chemours Niagara Plant**  
**First Quarter 2021**

Method	Parameter	Location Date Units	GWRS-INF 3/10/2021 FS	GWRS-EFF 3/10/2021 FS	GWRS-EFF 3/10/2021 DUP	OLIN-INF 3/10/2021 FS	OLIN-EFF 3/10/2021 FS	Outfall 023 (MS-8) 12/29/2020 FS	TRIP BLANK 3/10/2021 TB
	<b>Field Parameters</b>								
	COLOR	NONE	None	None	None	None	None	--	--
	ODOR	NONE	Slight	None	None	Moderate	None	--	--
	OXIDATION REDUCTION PO	MV	148.9	198.2	198.2	84.8	97.2	--	--
	PH	STD UNITS	7.84	7.68	7.68	8.14	8.44	--	--
	SPECIFIC CONDUCTANCE	UMHOS/CM	1.7	1.9	1.9	1	1.1	--	--
	TEMPERATURE	DEGREES C	15.7	12.2	12.2	11.9	12.3	--	--
	TURBIDITY QUANTITATIVE	NTU	2.09	3.21	3.21	3.12	1.13	--	--
	<b>Volatile Organics</b>								
8260C	1,1,1-Trichloroethane	UG/L	<500	<1	<1	<20	<1	<2.0	<1
8260C	1,1,2,2-Tetrachloroethane	UG/L	520	7.4	7.9	<20	<1	8.1	<1
8260C	1,1,2-Trichloroethane	UG/L	<500	<1	<1	<20	<1	<1.5	<1
8260C	1,1-Dichloroethane	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	1,1-Dichloroethene	UG/L	<500	<1	<1	<20	<1	<1.0	<1
8260C	1,2-Dichlorobenzene	UG/L	<500	<1	<1	<20	<1	<15	<1
8260C	1,4-Dichlorobenzene	UG/L	<500	<1	<1	<20	<1	<15	<1
8260C	1,4-Dichlorobutane	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	Benzene	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	Carbon Tetrachloride	UG/L	<500	<1	<1	<20	<1	<1.0	<1
8260C	Chlorobenzene	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	Chloroform	UG/L	32000	<1	<1	190	<1	15	<1
8260C	cis-1,2 Dichloroethene	UG/L	10000	<1	<1	290	<1	57	<1
8260C	Methyl Chloride	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	Methylene Chloride	UG/L	<2500	<5	<5	<100	<5	<1.0	<5
8260C	Tetrachloroethene	UG/L	7300	3.2	3.6	110	<1	41	<1
8260C	Tetrahydrothiophene	UG/L	<1000	<2	<2	<40	<2	--	<2
8260C	Toluene	UG/L	<500	<1	<1	<20	<1	--	<1
8260C	trans-1,2-Dichloroethene	UG/L	<500	<1	<1	<20	<1	1.2	<1
8260C	Trichloroethene	UG/L	22000	3.8	3.8	470	<1	54	<1
8260C	Vinyl Chloride	UG/L	1800	<1	<1	61	1.9	11	<1
	<b>Total VOCs</b>	UG/L	73620	14.4	15.3	1121	1.9	187.3	0
	<b>Other Organics</b>								
8270D	Bis(2-Ethylhexyl)Phthalate	UG/L	<5.8	<5.8	<5.9	<5.8	<5.8	<2.2	--
8270D	Hexachlorobutadiene	UG/L	<9.6	<9.6	<9.9	<9.7	<9.7	<2.0	--
8270D	Hexachloroethane	UG/L	<9.6	<9.6	<9.9	<9.7	<9.7	--	--
8270D	Naphthalene	UG/L	<9.6	<9.6	<9.9	<9.7	<9.7	--	--
8081B	Alpha-BHC	UG/L	4	2.7	2.7	<0.05	<0.049	0.404	--
8081B	beta-BHC	UG/L	<1	<0.5	<0.25	<0.05	<0.049	0.026	--
8081B	delta-BHC	UG/L	<1	<0.5	<0.25	<0.5	<0.049	0.014	--
8081B	Lindane	UG/L	1.4	0.96	0.84	<0.5	<0.049	0.178	--
8082A	PCB 1016	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
8082A	PCB 1221	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
8082A	PCB 1232	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
8082A	PCB 1242	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
8082A	PCB 1248	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
8082A	PCB 1254	UG/L	<1	<0.99	<0.98	<0.099	<0.097	0.077	--
8082A	PCB 1260	UG/L	<1	<0.99	<0.98	<0.099	<0.097	<0.05	--
	<b>Inorganics</b>								
6010C	Barium, dissolved	MG/L	<0.2	<0.2	<0.2	<0.2	<0.2	0.697	--
9012B	Cyanide, total	MG/L	1.7	1.8	1.8	<0.01	<0.01	0.236	--

< Not detected at stated reporting limit

J Estimated concentration

## **APPENDIX C**

### **CHEMOOURS NIAGARA PLANT SILICONE OIL REMEDIATION 1Q21**

**TABLE 1**  
**Silicone Oil Recovery Summary - 1Q2021**  
**Niagara Plant**  
**Niagara Falls, NY**

DATE	PW-20			PW-24		
	PRODUCT THICKNESS (FT)	AMOUNT RECOVERED (GALLONS)	CUMULATIVE TOTAL (GALLONS)	PRODUCT THICKNESS (FT)	AMOUNT RECOVERED (GALLONS)	CUMULATIVE TOTAL (GALLONS)
			<b>64.0</b>			<b>2,085.5</b>
01/05/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,085.5</b>
01/06/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,085.5</b>
01/18/21	0.0	0.0	<b>64.0</b>	0.0	0.5	<b>2,086.0</b>
01/21/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,086.0</b>
01/26/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,086.0</b>
02/02/21	0.0	0.0	<b>64.0</b>	0.0	0.5	<b>2,086.5</b>
02/10/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,086.5</b>
02/15/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,086.5</b>
02/23/21	0.0	0.0	<b>64.0</b>	0.0	6.0	<b>2,092.5</b>
03/01/21	0.0	0.0	<b>64.0</b>	0.0	1.0	<b>2,093.5</b>
03/08/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,093.5</b>
03/17/21	0.0	0.0	<b>64.0</b>	0.0	1.5	<b>2,095.0</b>
03/23/21	0.0	0.0	<b>64.0</b>	0.0	0.0	<b>2,095.0</b>
<b>1Q21 Totals</b>	<b>0.0</b>	<b>0.0</b>	<b>64.0</b>	<b>0.0</b>	<b>9.5</b>	<b>2,095.0</b>
<b>TOTAL SILICONE OIL RECOVERED SINCE JUNE 1999:</b> <b>2,159.0 GALLONS</b>						
<b>Comments:</b>	2-10-2021 Changed out Abanaki Belt and placed in 5 gallon container for disposal. #2020-12-16-1 2-10-2021 Switched out Container #2020-12-16-1 with #2021-02-10-1					