



Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Joe Branch
Project Manager
Direct Dial (231) 670-6809

7601 Old Channel Trail
Montague, MI 49437
Fax (231) 894-4033

August 1, 2022

Reference No. 11225008

Mr. Benjamin J. McPherson
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: Quarterly Progress Report – Second Quarter 2022
Occidental Chemical Corporation, Buffalo Avenue Plant
NY Permit Number 9-2911-00112/00167-0
Module II – Corrective Action Requirements

In accordance with Module II of the Niagara Plant's Resource Conservation and Recovery Act (RCRA)/Part 373 Permit, the following is the quarterly data report for the period of April 1, 2022 to June 30, 2022. Table 1 is a summary of the monitoring tasks by quarter that are performed each year along with completion dates where applicable. Table 2 presents a summary of maintenance activities performed during the quarter.

Bedrock Groundwater

The groundwater system was operational 96.3 percent of the time this quarter. The treatment system downtime was due to various alarms (low effluent flow, oxidizer sump level, low compressed air, leak detection in BEW704D chamber, and burner temp), pH calibration, and oxidizer faulty valve. Downtime for greater than 72 hours consecutively and/or greater than 120 hours in a month occurred in May associated with the oxidizer faulty valve. NYSDEC was notified on May 10, 2022.

Downtime for all extraction system wells (or most wells at once) occurred due to some of the issues associated with the treatment system as well as sand filter pump repair (BEW700B and BEW701B). Downtime for greater than 72 hours consecutively and/or greater than 120 hours in a month occurred in April associated with the sand filter pump repair. NYSDEC was notified on April 28, 2022.

Performance monitoring data for the bedrock groundwater system are presented as follows:

Hydraulic Monitoring Locations	Figure 1
Chemical Monitoring Locations	Figure 2
Recovery Volumes by Zone.....	Tables 3, 4, and 5
Average Monthly Flow Rate Summary	Table 6
Groundwater Elevations	Table 7
Groundwater Contours (regional containment) by Zone	Figures 3, 4, and 5

Overburden Groundwater

The Flow Zone 1 remedial system was operational 91.7 percent of the time for WW1 and 91.7 percent of the time for WW2 this quarter. The Flow Zone 3 remedial system (WWB of the Energy Boulevard Drain Tile System) was operational 95.9 percent of the time this quarter. Downtime occurred due to some of the issues associated with the treatment system as well as sand filter pump repair (WW1 and WW2). Downtime for greater than 72 hours consecutively and/or greater than 120 hours in a month occurred in April associated with the sand filter pump repair. NYSDEC was notified on April 28, 2022.

Occidental Chemical Corporation (OxyChem) voluntarily operates two additional overburden groundwater collection systems at the Plant. These systems include the abandoned Outfall 005 and adjacent abandoned sanitary sewer in the F- and K-Areas of the Plant (MH159L) and the abandoned D-Area sanitary sewer (MH301).

Performance monitoring data for the overburden groundwater system are presented as follows:

Hydraulic Monitoring LocationsFigure 6
 Chemical Monitoring LocationsFigure 7
 Weekly Flow Rates Table 8
 Average Monthly Flow Rate Summary Table 9
 Groundwater Elevations Table 10
 Groundwater Contours, Flow Zone 1 Figure 8
 Groundwater Contours, Flow Zone 3 Figure 9

Non-aqueous Phase Liquid (NAPL) Monitoring

In accordance with the letter to the NYSDEC dated February 26, 2009, OxyChem incorporated quarterly NAPL monitoring and collection from six bedrock monitoring wells installed and monitored under the S-Area Remedial Requisite Technology Program into the Niagara Plant Corrective Action Program. Three other wells were added in accordance with the recommendations of the 2009 Annual Performance Evaluation. An additional well was added during the first quarter of 2012 in accordance with the recommendations of the 2011 Annual Performance Evaluation. These bedrock monitoring wells, designated OW229, OW243, OW618, OW619, OW620, OW621, OW634, OW635, OW638, and OW643, are located within, or immediately adjacent to, the N-Area of the Niagara Plant and contain N-Area NAPL. Quarterly NAPL checks and recovery have continued in 2022.

NAPL monitoring and collection data are presented as follows:

Bedrock NAPL Monitoring LocationsFigure 10
 Overburden NAPL Monitoring LocationsFigure 11
 Bedrock NAPL Monitoring and Collection Table 11
 Overburden NAPL Monitoring and Collection..... Table 12

Should you have any questions on the above, please do not hesitate to contact Joseph Branch at 231-670-6809 or email at joseph_branch@oxy.com or Tim Bathory at 716-278-7679 or email at timothy_bathory@oxy.com.

Very truly yours,



Tim Bathory
HSE Manager
Glenn Springs Holdings, Inc.

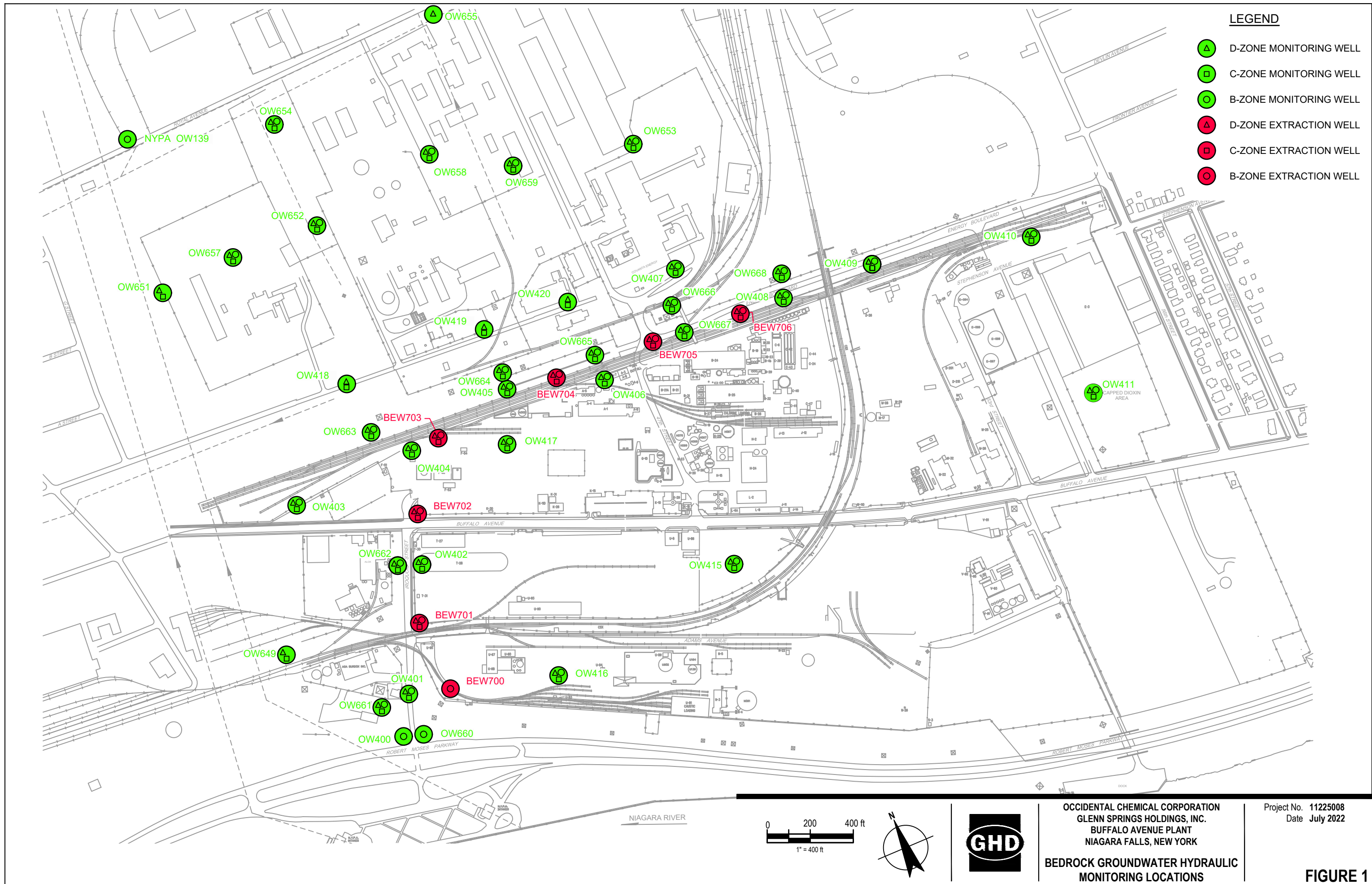


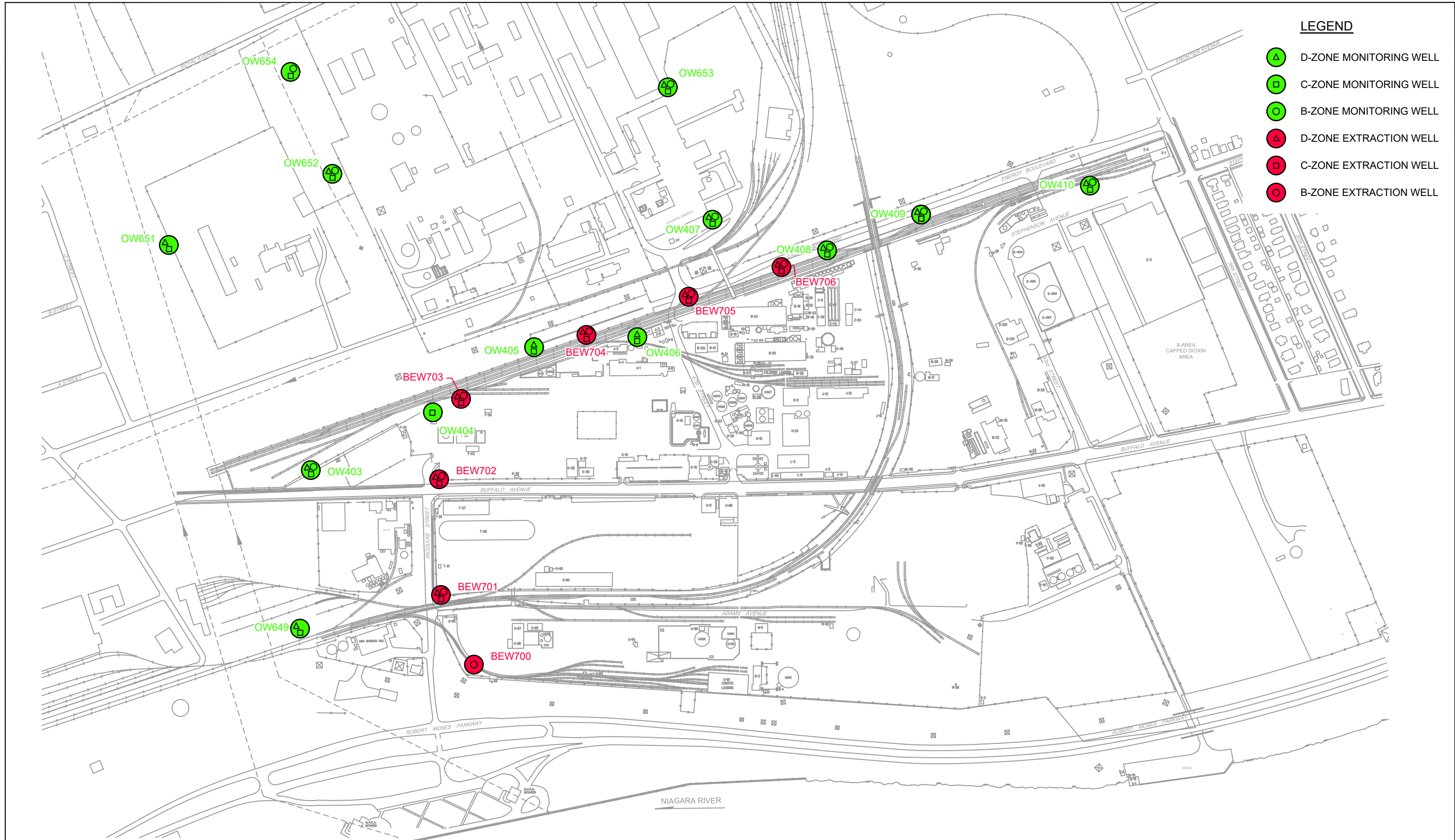
Joseph Branch
Project Manager
Glenn Springs Holdings, Inc.

JP/kf/4/11225008

Encl.

cc: C. Staniszewski, NYSDEC
A. Everett, USEPA
N. Ackerman, OCC
J. Pentilchuk, GHD





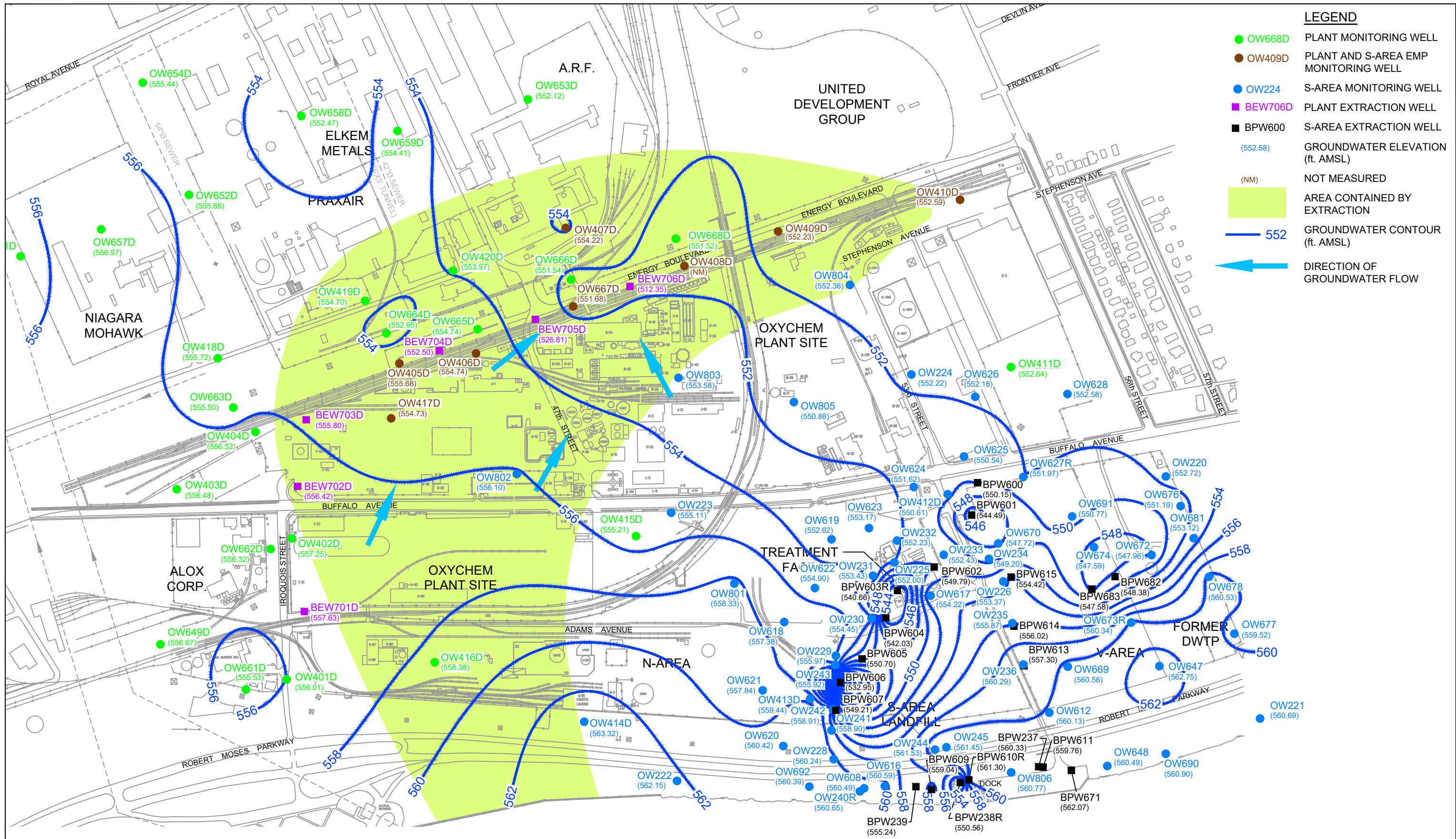
LEGEND

- ▲ D-ZONE MONITORING WELL
- ◻ C-ZONE MONITORING WELL
- B-ZONE MONITORING WELL
- ▲ D-ZONE EXTRACTION WELL
- ◻ C-ZONE EXTRACTION WELL
- B-ZONE EXTRACTION WELL

			<p>OCCIDENTAL CHEMICAL CORPORATION GLENN SPRINGS HOLDINGS, INC. BUFFALO AVENUE PLANT NIAGARA FALLS, NEW YORK</p> <p>BEDROCK GROUNDWATER CHEMICAL MONITORING LOCATIONS</p>	<p>Project No. 11225008 Date July 2022</p>
--	--	--	---	---

FIGURE 2

Filename: \\ghdnet\ghd\CAI\Waterloo\Projects\662\11225008\Digital_Design\ACAD\Figures\LTR004\11225008-GHD-00-00-LTR-EN-D102_WA-004.dwg
 Plot Date: 28 July 2022 2:48 PM



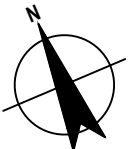
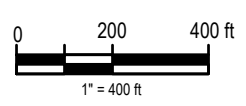
LEGEND

- OW668D PLANT MONITORING WELL
- OW409D PLANT AND S-AREA EMP MONITORING WELL
- OW224 S-AREA MONITORING WELL
- BEW706D PLANT EXTRACTION WELL
- BPW600 S-AREA EXTRACTION WELL
- (552.58) GROUNDWATER ELEVATION (ft. AMSL)
- (NM) NOT MEASURED
- AREA CONTAINED BY EXTRACTION
- 552 GROUNDWATER CONTOUR (ft. AMSL)
- ➔ DIRECTION OF GROUNDWATER FLOW

NOTES:

- CONTOURS REFLECT AN AVERAGE CONDITION OVER THE DATA COLLECTION PERIOD, APPROXIMATELY 4 HOURS. UNLESS OTHERWISE NOTED, CONTOURS RESPECT ALL WATER LEVEL MEASUREMENTS TO THE LEVEL OF UNCERTAINTY ASSOCIATED WITH COLLECTING LEVELS OVER A PERIOD OF SEVERAL HOURS. THAT UNCERTAINTY IS APPROXIMATELY +/-0.5 FEET FOR NYPA WINTER OPERATING CONDITIONS.
- MEASURED ELEVATIONS FOR PLANT EXTRACTION WELLS BEW701D-BEW706D WERE NOT USED FOR CONTOURING.

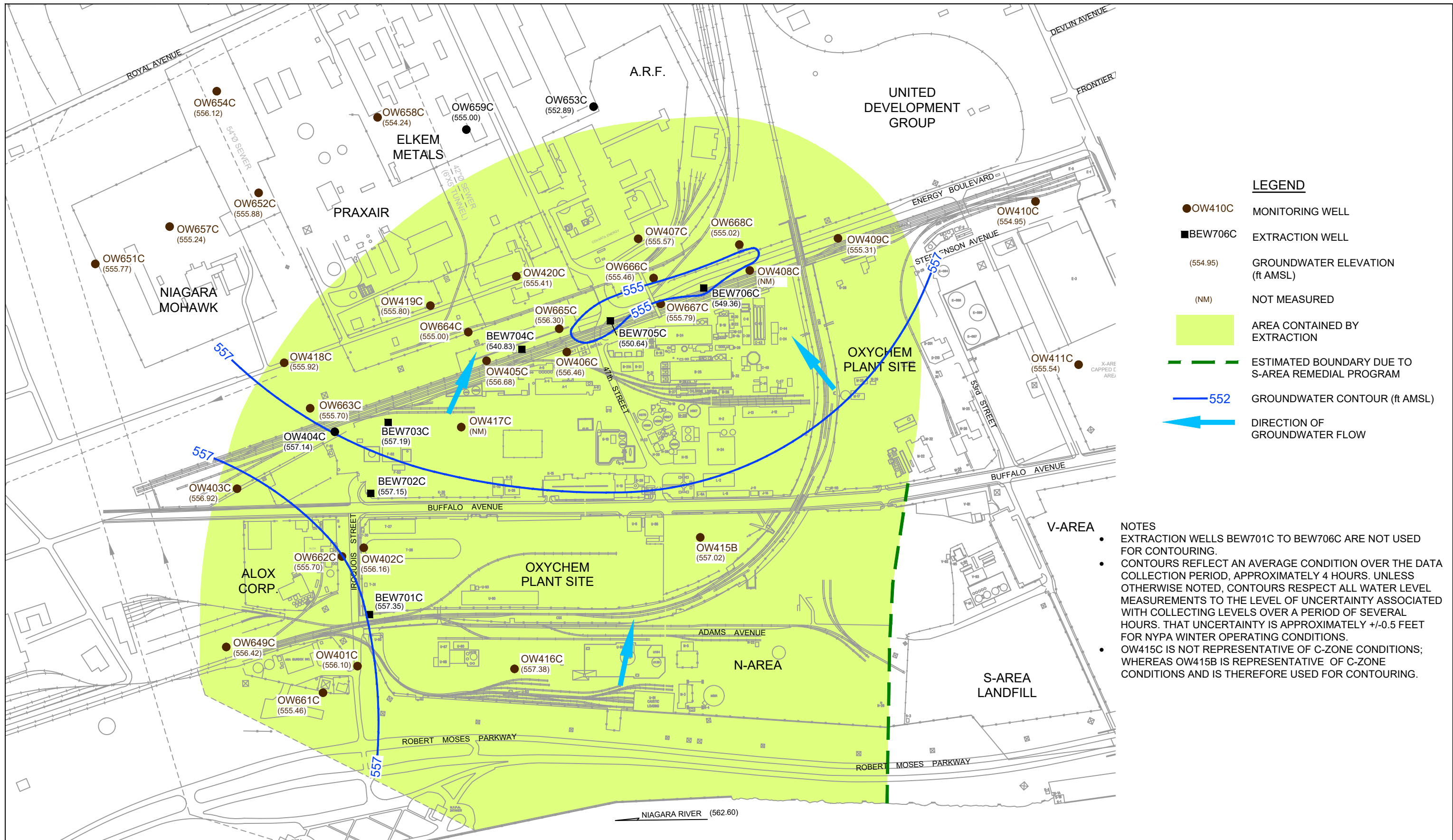
NIAGARA RIVER (561.76)



OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK
 D-ZONE BEDROCK GROUNDWATER
 CONTOURS - JUNE 2, 2022

Project No. 11225008
 Date July 2022

FIGURE 3

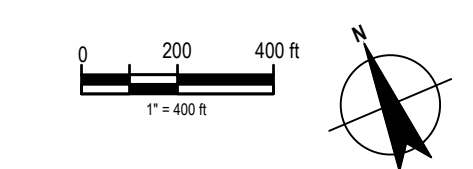


LEGEND

- OW410C MONITORING WELL
- BEW706C EXTRACTION WELL
- (554.95) GROUNDWATER ELEVATION (ft AMSL)
- (NM) NOT MEASURED
- AREA CONTAINED BY EXTRACTION
- ESTIMATED BOUNDARY DUE TO S-AREA REMEDIAL PROGRAM
- 552 GROUNDWATER CONTOUR (ft AMSL)
- ➔ DIRECTION OF GROUNDWATER FLOW

NOTES

- EXTRACTION WELLS BEW701C TO BEW706C ARE NOT USED FOR CONTOURING.
- CONTOURS REFLECT AN AVERAGE CONDITION OVER THE DATA COLLECTION PERIOD, APPROXIMATELY 4 HOURS. UNLESS OTHERWISE NOTED, CONTOURS RESPECT ALL WATER LEVEL MEASUREMENTS TO THE LEVEL OF UNCERTAINTY ASSOCIATED WITH COLLECTING LEVELS OVER A PERIOD OF SEVERAL HOURS. THAT UNCERTAINTY IS APPROXIMATELY +/-0.5 FEET FOR NYPA WINTER OPERATING CONDITIONS.
- OW415C IS NOT REPRESENTATIVE OF C-ZONE CONDITIONS; WHEREAS OW415B IS REPRESENTATIVE OF C-ZONE CONDITIONS AND IS THEREFORE USED FOR CONTOURING.

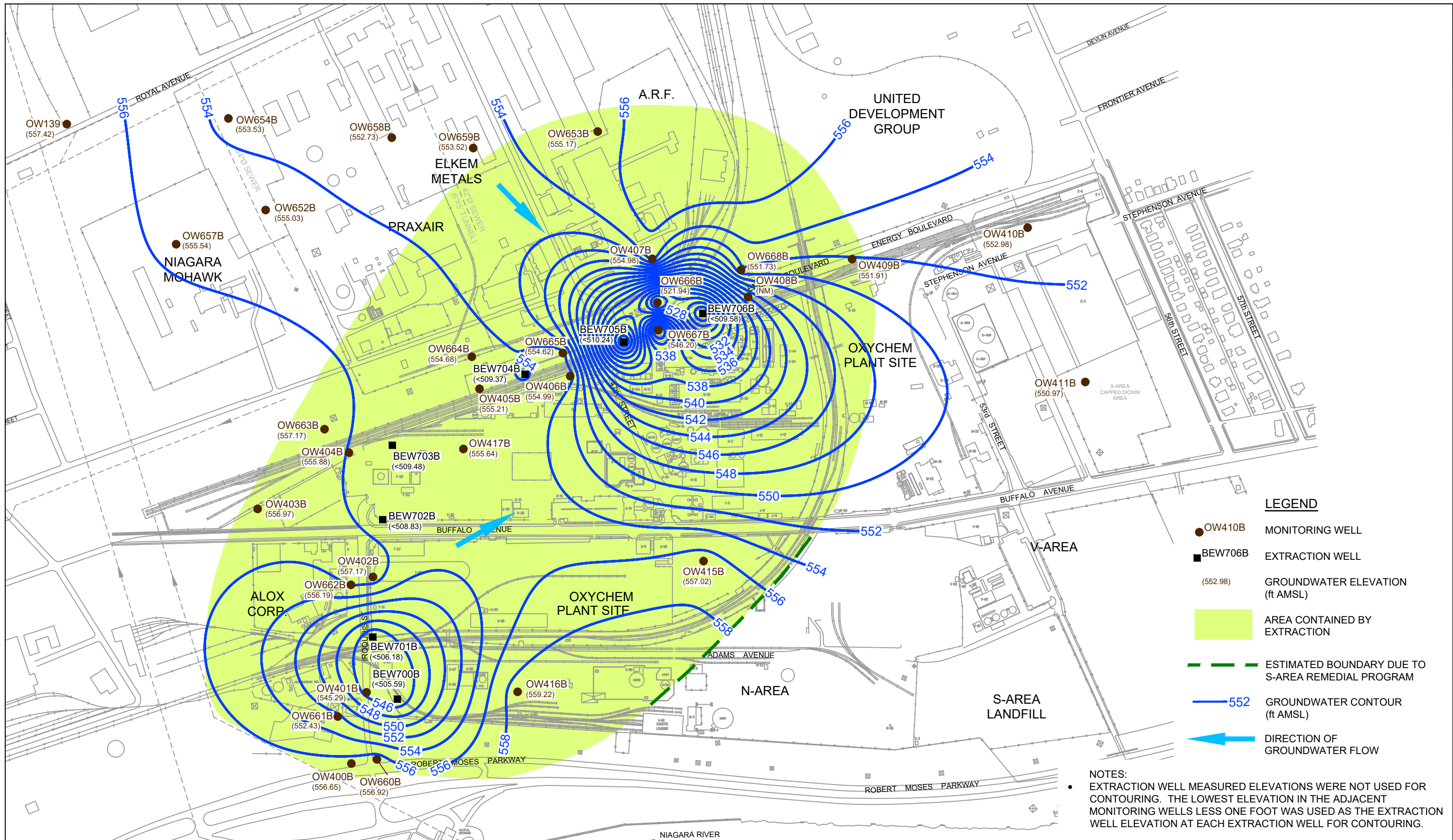


OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK

**C-ZONE BEDROCK GROUNDWATER
 CONTOURS - JUNE 2, 2022**

Project No. 11225008
 Date July 2022

FIGURE 4



LEGEND

- OW410B MONITORING WELL
- BEW706B EXTRACTION WELL
- (552.98) GROUNDWATER ELEVATION (ft AMSL)
- AREA CONTAINED BY EXTRACTION
- ESTIMATED BOUNDARY DUE TO S-AREA REMEDIAL PROGRAM
- 552— GROUNDWATER CONTOUR (ft AMSL)
- ← DIRECTION OF GROUNDWATER FLOW

NOTES:

- EXTRACTION WELL MEASURED ELEVATIONS WERE NOT USED FOR CONTOURING. THE LOWEST ELEVATION IN THE ADJACENT MONITORING WELLS LESS ONE FOOT WAS USED AS THE EXTRACTION WELL ELEVATION AT EACH EXTRACTION WELL FOR CONTOURING.

0 200 400 ft

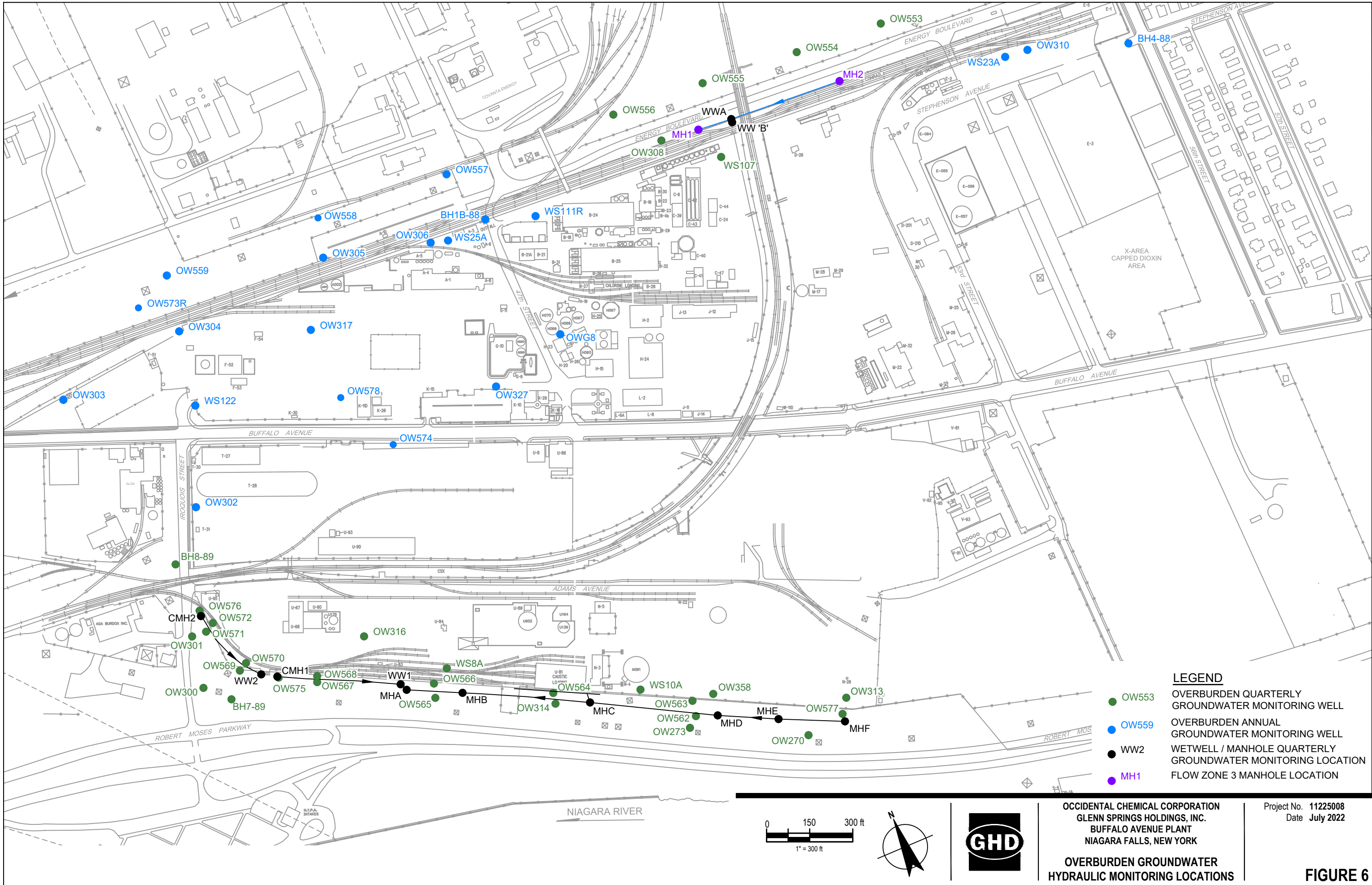
1" = 400 ft

OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
BUFFALO AVENUE PLANT
NIAGARA FALLS, NEW YORK

**B-ZONE BEDROCK GROUNDWATER
CONTOURS - JUNE 2, 2022**

Project No. 11225008
Date July 2022

FIGURE 5



LEGEND

- OW553 OVERBURDEN QUARTERLY GROUNDWATER MONITORING WELL
- OW559 OVERBURDEN ANNUAL GROUNDWATER MONITORING WELL
- WW2 WETWELL / MANHOLE QUARTERLY GROUNDWATER MONITORING LOCATION
- MH1 FLOW ZONE 3 MANHOLE LOCATION

0 150 300 ft
1" = 300 ft



OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
BUFFALO AVENUE PLANT
NIAGARA FALLS, NEW YORK

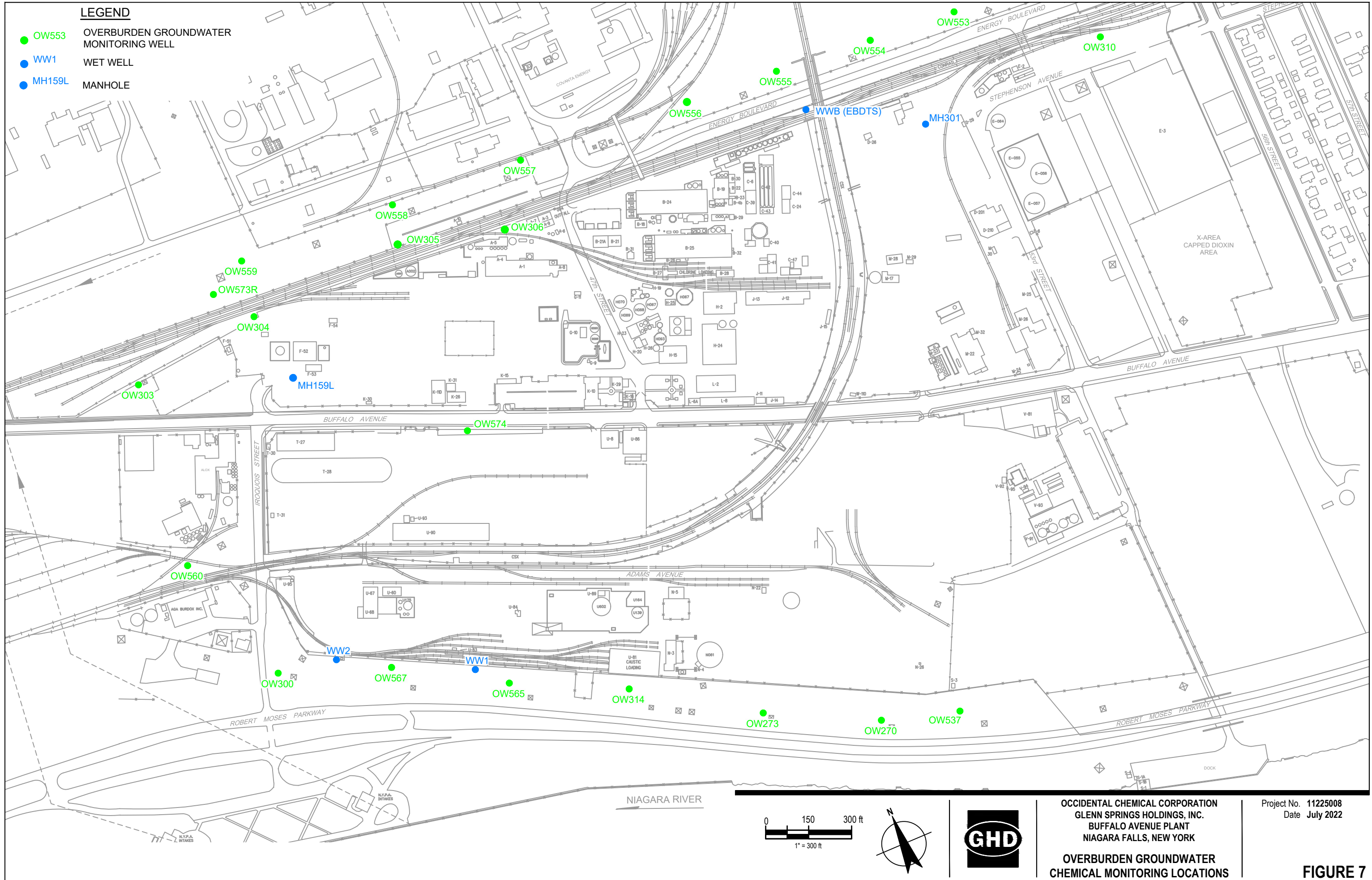
OVERBURDEN GROUNDWATER
HYDRAULIC MONITORING LOCATIONS

Project No. 11225008
Date July 2022

FIGURE 6

LEGEND

- OW553 OVERBURDEN GROUNDWATER MONITORING WELL
- WW1 WET WELL
- MH159L MANHOLE

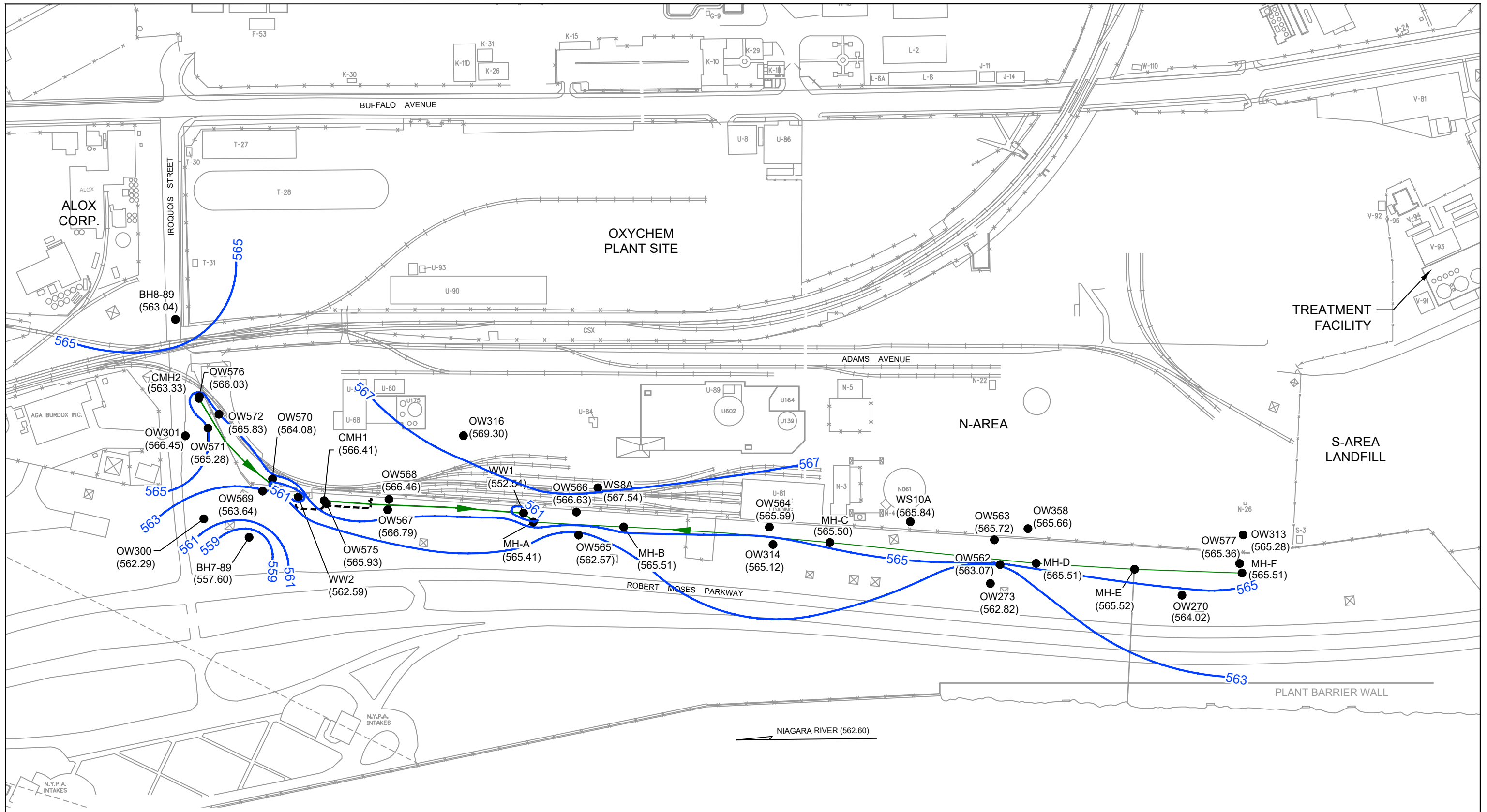


OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK



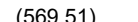

**OVERBURDEN GROUNDWATER
 CHEMICAL MONITORING LOCATIONS**

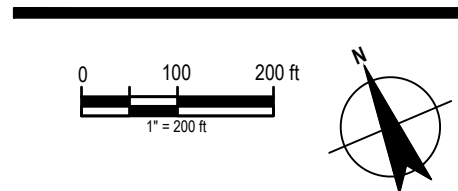
Project No. 11225008
 Date July 2022

FIGURE 7



LEGEND

-  FLOW ZONE 1 COLLECTION SYSTEM
-  OW316 EXISTING OVERBURDEN MONITORING WELLS
-  (569.51) GROUNDWATER ELEVATION
-  566 OVERBURDEN GROUNDWATER CONTOUR (ft AMSL) DASHED WHERE INFERRED

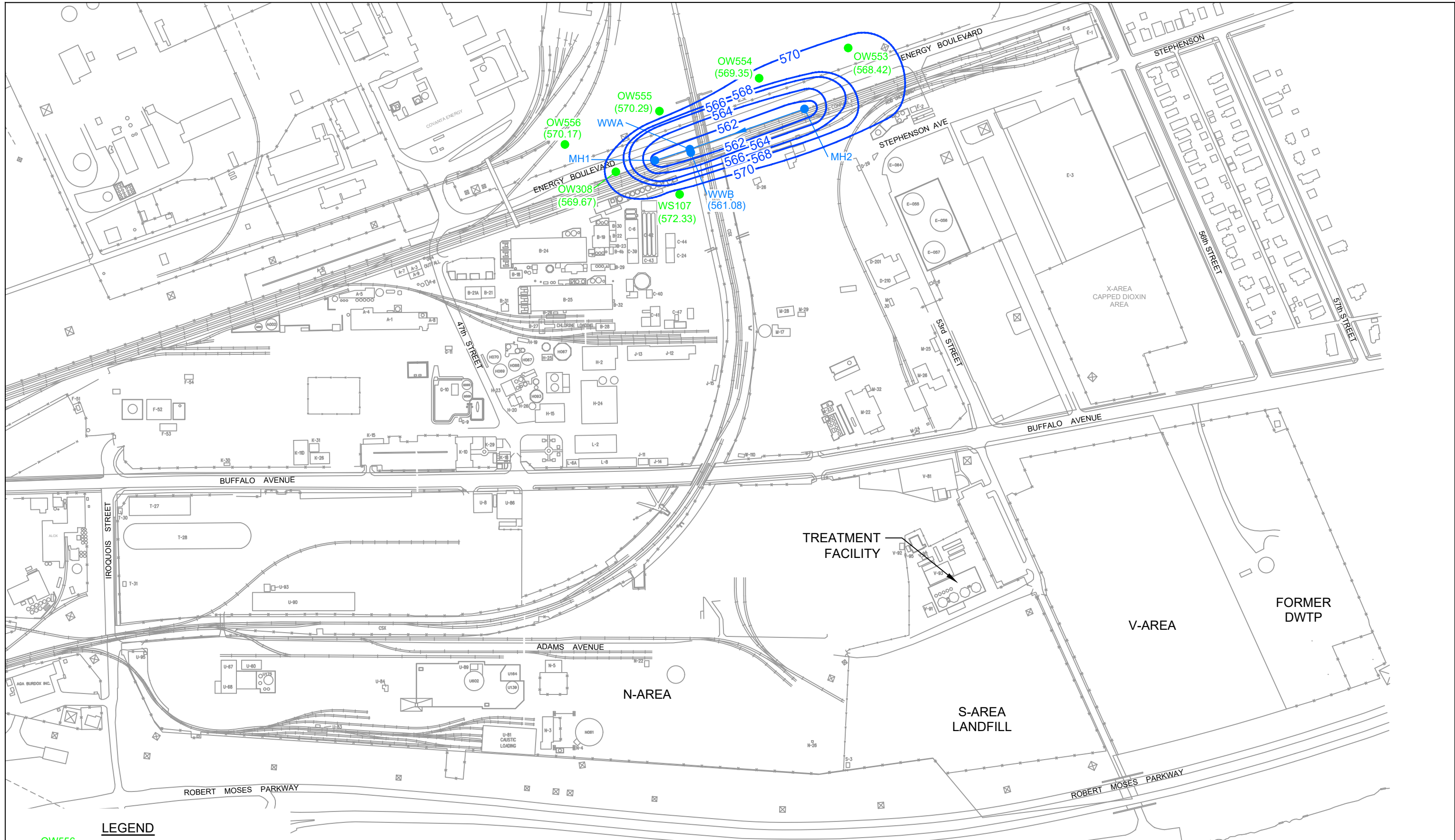


OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK
**FLOW ZONE 1 OVERBURDEN GROUNDWATER
 CONTOURS - JUNE 3, 2022**

Project No. 11225008
 Date July 2022

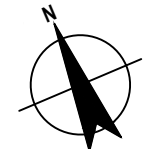
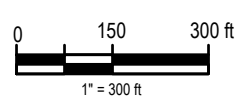
FIGURE 8

Filename: \\ghdnet\ghd\CAI\Waterloo\Projects\66211225008\Digital_Design\ACAD\Figures\LTR004\11225008-GHD-00-00-LTR-EN-D108_WA-004.DWG
 Plot Date: 29 July 2022 4:37 PM



- LEGEND**
- OW556 OVERBURDEN GROUNDWATER MONITORING WELL
 - (570.17) GROUNDWATER ELEVATION (ft AMSL)
 - 568 GROUNDWATER CONTOUR (ft AMSL)

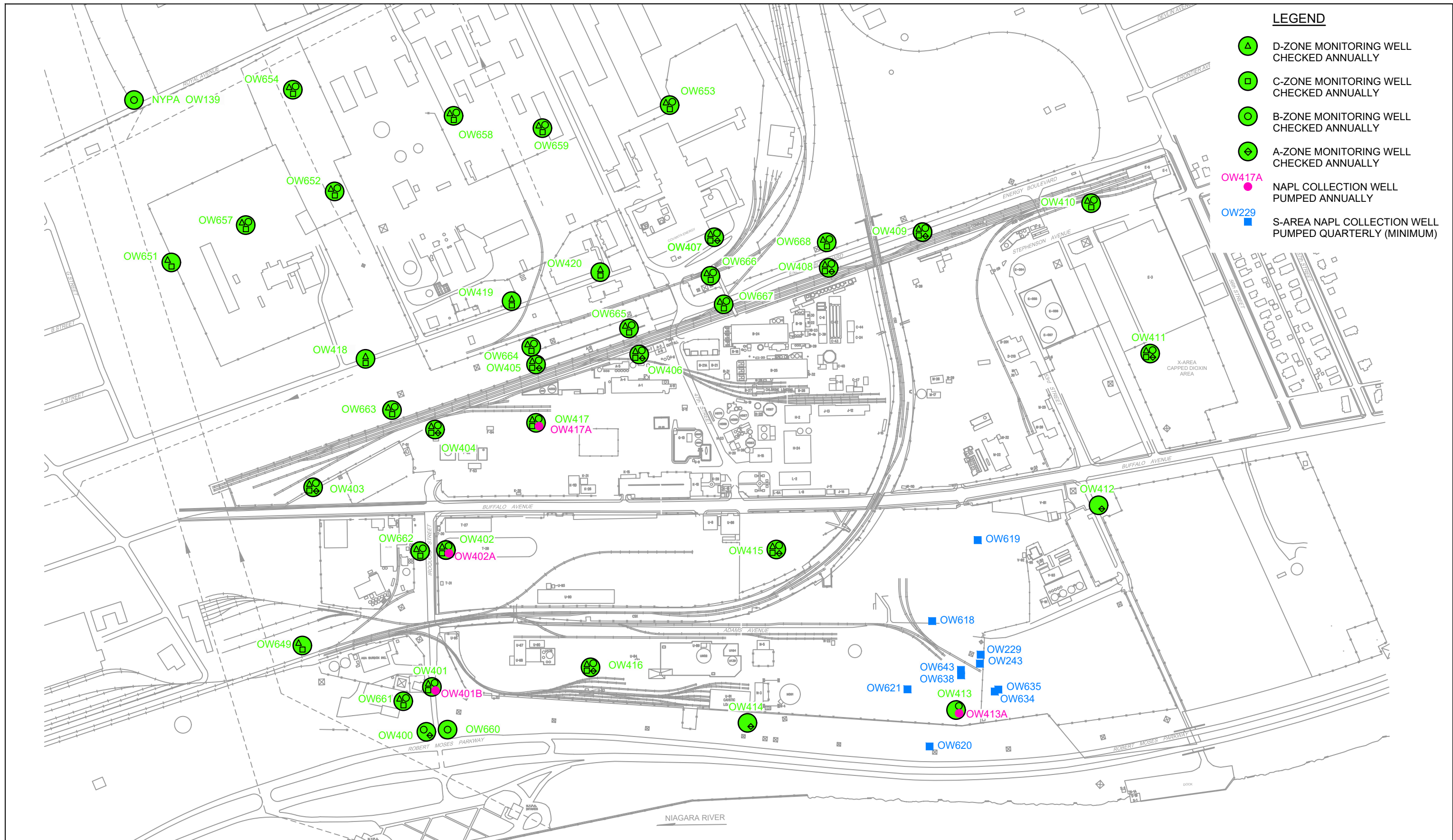
NIAGARA RIVER



OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK
 FLOW ZONE 3 OVERBURDEN GROUNDWATER
 CONTOURS - MARCH 7, 2022

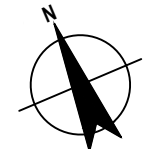
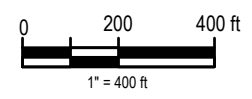
Project No. 11225008
 Date July 2022

FIGURE 9



LEGEND

- △ D-ZONE MONITORING WELL CHECKED ANNUALLY
- C-ZONE MONITORING WELL CHECKED ANNUALLY
- B-ZONE MONITORING WELL CHECKED ANNUALLY
- ⊕ A-ZONE MONITORING WELL CHECKED ANNUALLY
- OW417A NAPL COLLECTION WELL PUMPED ANNUALLY
- OW229 S-AREA NAPL COLLECTION WELL PUMPED QUARTERLY (MINIMUM)



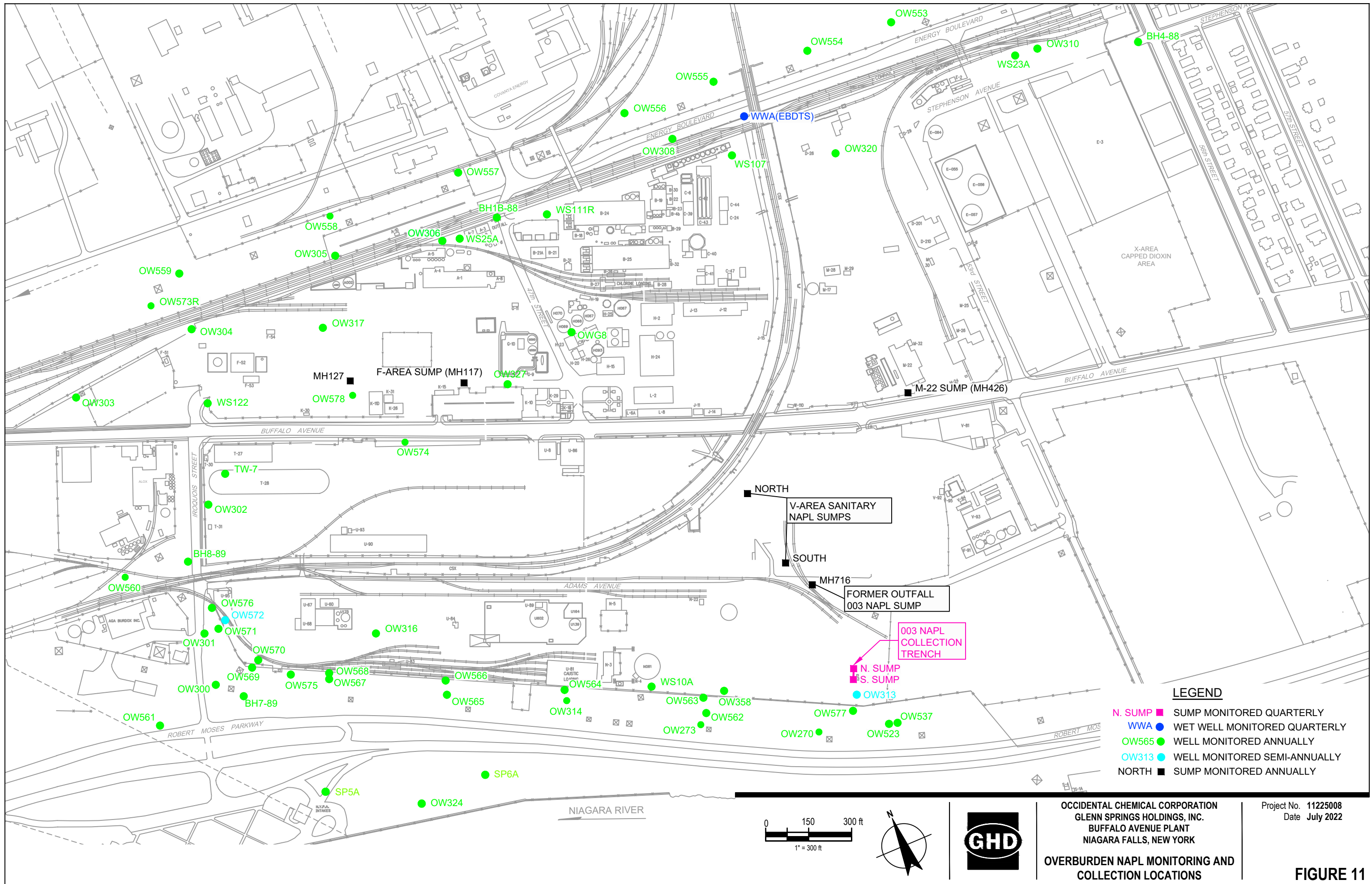
OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK

BEDROCK NAPL MONITORING AND COLLECTION LOCATIONS

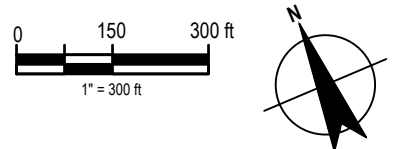
Project No. 11225008
 Date July 2022

FIGURE 10

Filename: \\ghdnet\ghd\CAI\Waterloo\Projects\662\11225008\Digital_Design\ACAD\Figures\LTR004\11225008-GHD-00-00-LTR-EN-D110_WA-004.dwg
 Plot Date: 28 July 2022 2:59 PM



- LEGEND**
- N. SUMP ■ SUMP MONITORED QUARTERLY
 - WWA ● WET WELL MONITORED QUARTERLY
 - OW565 ● WELL MONITORED ANNUALLY
 - OW313 ● WELL MONITORED SEMI-ANNUALLY
 - NORTH ■ SUMP MONITORED ANNUALLY



OCCIDENTAL CHEMICAL CORPORATION
 GLENN SPRINGS HOLDINGS, INC.
 BUFFALO AVENUE PLANT
 NIAGARA FALLS, NEW YORK

**OVERBURDEN NAPL MONITORING AND
 COLLECTION LOCATIONS**

Project No. 11225008
 Date July 2022

FIGURE 11

Table 1

**Summary of Monitoring Tasks and Associated Completion Dates
Second Quarter 2022
Buffalo Avenue Plant**

Quarter	Program	Task	Date(s) Task was Completed (2022)	
First	Bedrock Groundwater	Weekly Flow Measurements	1/3, 1/10, 1/17, 1/24, 1/31, 2/7, 2/14, 2/21, 2/28, 3/7, 3/14, 3/21, 3/28	
		Quarterly Hydraulic Monitoring	3/10	
		Annual Chemical Monitoring		
	Overburden Groundwater	Weekly Flow Measurements	1/3, 1/10, 1/17, 1/24, 1/31, 2/7, 2/14, 2/21, 2/28, 3/7, 3/14, 3/21, 3/28	
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	3/7	
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench	3/7	
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	3/11	
		Quarterly NAPL Monitoring/Collection of EBDTS	1/24	
		Annual NAPL Monitoring/Collection of Overburden Monitoring Wells	3/7	
	Second	Bedrock Groundwater	Weekly Flow Measurements	4/4, 4/11, 4/18, 4/25, 5/2, 5/9, 5/16, 5/23, 5/30, 6/6, 6/13, 6/20, 6/27
			Quarterly Hydraulic Monitoring	6/2
Overburden Groundwater		Weekly Flow Measurements	4/4, 4/11, 4/18, 4/25, 5/2, 5/9, 5/16, 5/23, 5/30, 6/6, 6/13, 6/20, 6/27	
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	6/3	
		Annual Chemical Monitoring - Mercury Cell Area (OW304, OW305, OW306, and OW574)	5/6	
		Annual Chemical Monitoring - Plant Wells	7/18 - 7/19	
NAPL Monitoring		Quarterly NAPL Monitoring/Collection in 003 Collection Trench	5/12	
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	6/9	
		Quarterly NAPL Monitoring/Collection of EBDTS	6/3	
Third		Bedrock Groundwater	Weekly Flow Measurements	
			Quarterly Hydraulic Monitoring	
	Overburden Groundwater	Weekly Flow Measurements		
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3		
		Annual Hydraulic Monitoring - Other Areas		
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench		
		Quarterly NAPL Monitoring/Collection of EBDTS		
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells		
		Semiannual NAPL Monitoring/Collection of Overburden Monitoring Wells		
		Annual NAPL Check - OW401B, OW402A, OW413A, and OW417A		
		Annual Sump/Manhole NAPL Checks		
Fourth	Bedrock Groundwater	Weekly Flow Measurements		
		Quarterly Hydraulic Monitoring		
		Annual Well Inspections		
	Overburden Groundwater	Weekly Flow Measurements		
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3		
		Semiannual Chemical Monitoring - Mercury Cell Area (OW574)		
		Annual Well Inspections		
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench		
		Quarterly NAPL Monitoring/Collection of EBDTS		
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells		

Notes:

(1) - To be completed in the next quarter

Table 2

**Summary of Maintenance Activities
Second Quarter 2022
Buffalo Avenue Plant**

Date	Location	Maintenance Activity
4/4	F-Area	Replaced pump in MH-301
4/4	F-Area	Troubleshoot electrical problem in MH-301
4/7	F-Area	Troubleshoot sump high-high level.
4/7	F-Area	Repaired MH-301
4/8	F-Area	Changed bleach totes.
4/12	F-Area	Repaired leaks on sand filter pump shroud
4/25	F-Area	Repaired leaks on sand filter pump shroud
4/28	F-Area	Repaired sand filter pump is repaired. South side pumps are on.
5/3	F-Area	Changed bleach totes.
5/6	F-Area	Calibrated pH probes.
5/9	F-Area	Troubleshoot problems with the inlet valve XV401. Replaced circuit board.
5/11	F-Area	Cleaned the quench system spray nozzles.
5/13	F-Area	Change bleach totes. Added sodium bicarbonate to WW-1 and WW-2
5/16	F-Area	Added sodium bicarbonate to WW-2.
5/17	F-Area	Added sodium bicarbonate to WW-2 and adjusted the carbon dioxide flow rat
5/21	F-Area	Troubleshoot air compressor
5/25	F-Area	Repaired WW2 flow meter
5/31	F-Area	Repaired sand filter pumps
6/9	F-Area	Pumped out BEW-704D chamber
6/14	F-Area	Cleaned out the connector pipe between MH-A and WW-1
6/17	F-Area	Added sodium bicarbonate to WW-2.
6/20	F-Area	Added sodium bicarbonate to WW-2.
6/27	F-Area	Troubleshoot oxidizer burner flame supervisor alarm.

Table 3

D-Zone Extraction Well Flow Rates
 Second Quarter 2022
 Buffalo Avenue Plant

Date	BEW701D		BEW702D		BEW703D		BEW704D		BEW705D		BEW706D	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/4/2022							417000	41.37	246000	24.40	223000	31.77
4/11/2022							405000	41.41	237000	24.23	317000	32.41
4/18/2022							414000	41.07	244000	24.21	329000	32.64
4/25/2022							413000	40.97	246000	24.40	332000	32.94
5/2/2022							414000	41.07	251000	24.90	335000	33.23
5/9/2022							258000	41.35	155000	24.84	204000	32.69
5/16/2022							347000	41.31	207000	24.64	276000	32.86
5/23/2022							403000	41.21	239000	24.44	312000	31.90
5/30/2022							425000	42.16	231000	22.92	324000	32.14
6/6/2022							422000	41.87	249000	24.70	317000	31.45
6/13/2022							406000	42.03	238000	24.64	303000	31.37
6/20/2022							423000	41.96	250000	24.80	313000	31.05
6/27/2022							423000	41.96	250000	24.80	313000	31.05

Notes:

GPM - gallons per minute
 BEW701D, 702D, and 703D were shut down on October 9, 2008 following NYSDEC approval.
 Target rates for BEW704D, 705D, and 706D are 40 GPM each.

Table 4
C-Zone Extraction Well Flow Rates
Second Quarter 2022
Buffalo Avenue Plant

Date	BEW701C		BEW702C		BEW703C		BEW704C		BEW705C		BEW706C	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/4/2022							1052000	105.62	1047000	105.12	784000	78.71
4/11/2022							1027000	105.66	1020000	105.59	736000	75.72
4/18/2022							1069000	106.05	1059000	105.06	750000	74.40
4/25/2022							1070000	106.15	1058000	104.96	746000	74.01
5/2/2022							1072000	106.35	1060000	105.16	746000	74.01
5/9/2022							665000	106.57	659000	104.60	461000	73.88
5/16/2022							891000	106.07	882000	105.00	619000	73.69
5/23/2022							1037000	106.69	1024000	105.35	709000	72.49
5/30/2022							1070000	106.15	1061000	105.26	734000	72.82
6/6/2022							1066000	105.75	1059000	105.06	724000	71.83
6/13/2022							1021000	105.04	1016000	104.53	679000	70.29
6/20/2022							1066000	105.75	1062000	105.36	702000	69.64
6/27/2022							1062000	105.36	1063000	105.46	693000	68.75

Notes:

GPM - gallons per minute.

BEW701C, 702C, and 703C were shut down on May 22, 2007 following NYSDEC approval.

Target rates for BEW704C, 705C, and 706C are 100 GPM each.

(1) The totalizer for BEW706C malfunctioned the week of January 27, 2020. The average flow of the weeks before and after was used.

Table 5
B-Zone Extraction Well Flow Rates
Second Quarter 2022
Buffalo Avenue Plant

Date	BEW700B		BEW701B		BEW702B		BEW703B		BEW704B		BEW705B		BEW706B	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/4/2022	18000	1.79	7000	0.69	21	0.002	35	0.003	86000	8.53	31000	3.08	60000	5.95
4/11/2022	18000	1.84	6000	0.61	11	0.001	16	0.002	83000	8.49	30000	3.07	58000	5.93
4/18/2022	19000	1.99	6000	0.63	22	0.002	29	0.003	85000	8.43	31000	3.08	58000	5.75
4/25/2022	22000	2.18	1000	0.10	20	0.002	26	0.003	84000	8.33	30000	2.98	60000	5.95
5/2/2022	17000	3.08	4000	0.72	19	0.002	25	0.002	84000	8.33	30000	2.98	60000	5.95
5/9/2022	21000	3.33	2000	0.32	15	0.001	20	0.002	51000	8.17	19000	3.04	36000	5.71
5/16/2022	28000	3.36	10000	1.20	24	0.002	32	0.003	72000	8.57	27000	3.21	51000	6.07
5/23/2022	32000	3.27	24000	2.45	19	0.002	20	0.002	82000	8.38	30000	3.07	60000	6.17
5/30/2022	41000	4.07	27000	2.68	22	0.002	27	0.003	84000	8.33	32000	3.17	63000	6.25
6/6/2022	40000	4.09	27000	2.76	18	0.002	26	0.003	83000	8.23	31000	3.08	63000	6.25
6/13/2022	47000	4.66	27000	2.68	19	0.002	27	0.003	79000	8.18	31000	3.21	48000	4.97
6/20/2022	36000	3.59	28000	2.78	19	0.002	27	0.003	84000	8.33	33000	3.27	46000	4.56
6/27/2022	33000	3.27	28000	2.78	20	0.002	29	0.003	83000	8.23	33000	3.27	41000	4.07

Notes:

GPM - gallons per minute.

(1) Totalizer malfunction occurred for BEW706B. The average flow of the weeks before and after was used.

Table 6

**Bedrock Extraction System Monthly Flow Rate Summary
Second Quarter 2022
Buffalo Avenue Plant**

<u>System Component</u>	Target Flow Rates (gpm)	Month			Quarterly Average (gpm)
		Apr-22 (gpm)	May-22 (gpm)	Jun-22 (gpm)	
B-Zone	40	20	22	23	22
C-Zone	300	287	285	281	284
D-Zone	120	98	98	98	98
Operational Average	460	405	406	402	404
<u>Treatment Plant</u>					
Operational Average		445	430	428	434
Operating Time		99.5%	89.4%	100.0%	96.3%
Quarterly Average Operating Time =		96.3%			
Total Volume Treated in Quarter =		54,812,160	gallons		

Notes:

GPM - gallons per minute.

Flow rates shown are the average flow rate while the pump/treatment system is operational.

Table 7

**Bedrock Groundwater Elevation Summary
Second Quarter 2022
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2022	
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)
BEW700B	565.59	568.69	12/2/1994	8	457.1	- 414.0	111.6	- 154.7	414.0	154.7	>60	<505.59
BEW701B	566.18	569.15	12/9/1994	8	458.8	- 413.8	110.4	- 155.4	413.8	155.4	>60	<506.18
BEW701C	566.33	569.60	11/17/1994	8	498.4	- 460.9	71.2	- 108.7	460.9	108.7	8.98	557.35
BEW701D	565.86	569.03	12/7/1994	8	545.9	- 500.9	23.1	- 68.1	500.9	68.1	8.23	557.63
BEW702B	568.83	572.24	8/15/1994	8	452.9	- 415.9	119.3	- 156.3	415.9	156.3	>60	<508.83
BEW702C	568.86	571.95	8/8/1994	8	496.4	- 455.9	75.6	- 116.1	455.9	116.1	11.71	557.15
BEW702D	569.20	572.17	7/6/1994	8	548.6	- 499.4	23.6	- 72.8	499.4	72.8	12.78	556.42
BEW703B	569.48	572.57	9/8/1994	8	450.8	- 410.8	121.8	- 161.8	410.8	161.8	>60	>509.48
BEW703C	569.00	572.10	9/15/1994	8	501.8	- 453.7	70.3	- 118.4	453.7	118.4	11.81	557.19
BEW703D	569.87	572.77	9/16/1994	8	550.0	- 504.2	22.8	- 68.6	504.2	68.6	14.07	555.80
BEW704B	569.37	573.41	10/14/1994	8	452.3	- 417.3	121.1	- 156.1	417.3	156.1	>60	<509.37
BEW704C	569.24	573.31	10/14/1994	8	498.3	- 454.3	75.0	- 119.0	454.3	119.0	28.41	540.83
BEW704D	570.24	573.10	9/30/1994	8	546.3	- 501.3	26.8	- 71.8	501.3	71.8	17.74	552.50
BEW705B	570.24	573.26	10/11/1994	8	453.7	- 416.0	119.6	- 157.3	416.0	157.3	>60	<510.24
BEW705C	570.06	573.15	9/30/1994	8	502.0	- 456.5	71.2	- 116.7	456.5	116.7	19.42	550.64
BEW705D	570.66	573.65	10/10/1994	8	550.2	- 505.2	23.4	- 68.4	505.2	68.4	43.85	526.81
BEW706B	569.58	572.69	9/19/1994	8	452.9	- 416.4	119.8	- 156.3	416.4	156.3	>60	<509.58
BEW706C	568.97	571.9	10/11/1994	8	504.1	- 455.6	67.8	- 116.3	455.6	116.3	19.61	549.36
BEW706D	569.46	572.49	9/26/1994	8	550.7	- 504.2	21.8	- 68.3	504.2	68.3	57.11	512.35
OW139	570.63	569.08	1958	12	559.2	435.2	9.9	- 133.9	435.2	133.9	13.21	557.42
OW400B	579.25	579.61	5/10/1989	4	454.6	- 424.5	125.0	- 155.1	424.5	155.1	22.60	556.65
OW401B	568.54	568.95	5/24/1989	4	462.9	- 413.9	106.1	- 155.1	413.9	155.1	23.25	545.29
OW401C	568.55	568.94	5/25/1989	4	492.3	- 462.8	76.6	- 106.1	462.8	106.1	12.45	556.10
OW401D	568.42	568.87	5/26/1989	6.25	545.9	- 507.9	23.0	- 61.0	507.9	61.0	12.41	556.01
OW402B	569.46	570.33	6/28/1989	4	473.8	- 409.9	96.5	- 160.4	409.9	160.4	12.29	557.17
OW402C	569.48	570.3	6/26/1989	4	488.5	- 473.8	81.8	- 96.5	473.8	96.5	13.32	556.16
OW402D	569.22	570.01	6/29/1989	6.25	544.7	- 518.8	25.3	- 51.2	518.8	51.2	11.97	557.25
OW403B	570.04	570.48	5/16/1989	4	457.8	- 427.8	112.7	- 142.7	427.8	142.7	13.07	556.97
OW403C	570.02	570.26	5/22/1989	4	487.3	- 457.7	83.0	- 112.6	457.7	112.6	13.10	556.92
OW403D	570.08	570.31	5/23/1989	6.25	546.8	- 502.8	23.5	- 67.5	502.8	67.5	13.60	556.48
OW404B	571.03	571.53	6/9/1989	4	438.3	- 404.8	133.2	- 166.7	404.8	166.7	15.15	555.88
OW404C	570.82	571.38	6/7/1989	4	498.5	- 468.2	72.9	- 103.2	468.2	103.2	13.68	557.14

Table 7

**Bedrock Groundwater Elevation Summary
Second Quarter 2022
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2022			
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)		
OW404D	570.45	571.85	6/23/1989	6.25	549.3	-	498.0	22.6	-	73.9	498.0	73.9	13.93	556.52
OW405B	572.78	573.14	3/27/1989	4	453.3	-	408.3	119.8	-	164.8	408.3	164.8	17.57	555.21
OW405C	572.7	573.07	5/31/1989	4	501.2	-	453.2	71.9	-	119.9	453.2	119.9	16.02	556.68
OW405D	572.6	573.11	6/9/1989	6.25	545.6	-	501.2	27.5	-	71.9	501.2	71.9	16.92	555.68
OW406B	571.52	571.77	6/8/1989	4	467.9	-	404.4	103.9	-	167.4	404.4	167.4	16.53	554.99
OW406C	571.44	571.73	6/14/1989	4	497.6	-	467.8	74.1	-	103.9	467.8	103.9	14.98	556.46
OW406D	571.81	572.1	6/16/1989	6.25	548.6	-	497.2	23.5	-	74.9	497.2	74.9	17.07	554.74
OW407B	572.05	572.46	5/2/1989	4	465.4	-	450.4	107.1	-	122.1	450.4	122.1	17.07	554.98
OW407C	571.27	572.12	5/1/1989	4	479.8	-	465.2	92.3	-	106.9	465.2	106.9	15.70	555.57
OW407D	571.32	571.72	5/4/1989	6.25	552.9	-	510.4	18.8	-	61.3	510.4	61.3	17.10	554.22
OW408B	575.04	571.98	7/20/1989	4	445.2	-	403.6	126.8	-	168.4	403.6	168.4	NM	NM
OW408C	575.68	572.71	7/11/1989	4	494.5	-	445.9	78.2	-	126.8	445.9	126.8	NM	NM
OW408D	576.2	573.12	7/6/1989	6.25	552.1	-	525.0	21.0	-	48.1	525.0	48.1	NM	NM
OW409B	575.7	572.79	6/20/1989	3	461.8	-	415.9	111.0	-	156.9	415.9	156.9	23.79	551.91
OW409C	575.57	572.95	6/26/1989	4	510.1	-	462.0	62.9	-	111.0	462.0	111.0	20.26	555.31
OW409D	575.46	575.76	6/28/1989	6.25	552.0	-	509.8	23.8	-	66.0	509.8	66.0	23.23	552.23
OW410B	572.32	572.62	6/26/1989	4	441.4	-	407.7	131.2	-	164.9	407.7	164.9	19.34	552.98
OW410C	572.57	572.72	7/17/1989	4	486.5	-	471.5	86.2	-	101.2	471.5	101.2	17.62	554.95
OW410D	571.96	572.64	6/27/1989	6.25	547.1	-	516.3	25.5	-	56.3	516.3	56.3	19.37	552.59
OW411B	574.08	574.82	4/4/1989	4	454.9	-	406.6	119.9	-	168.2	406.6	168.2	23.11	550.97
OW411C	574.39	574.78	4/11/1989	4	500.0	-	470.0	74.8	-	104.8	470.0	104.8	18.85	555.54
OW411D	574.51	574.84	4/14/1989	6.25	546.7	-	515.2	28.1	-	59.6	515.2	59.6	21.87	552.64
OW415B	571.38	571.73	5/31/1989	4	482.1	-	467.1	89.6	-	104.6	467.1	104.6	14.36	557.02
OW415C	571.26	571.56	5/30/1989	4	511.9	-	497.1	59.7	-	74.5	497.1	74.5	15.21	556.05
OW415D	571.3	571.6	5/31/1989	6.25	548.7	-	511.8	22.9	-	59.8	511.8	59.8	16.09	555.21
OW416B	570	570.69	5/22/1989	6.25	470.8	-	455.8	99.9	-	114.9	455.8	114.9	10.78	559.22
OW416C	569.9	570.57	~5/22/1989	6.25	500.7	-	470.7	69.9	-	99.9	470.7	99.9	12.52	557.38
OW416D	569.68	570.32	~5/22/1989	6.25	539.6	-	500.5	30.7	-	69.8	500.5	69.8	11.30	558.38
OW417B	572.93	572.7	~5/19/1989	6.25	461.1	-	412.6	111.6	-	160.1	412.6	160.1	17.29	555.64
OW417C	572.23	572.9	~5/19/1989	6.25	490.1	-	460.8	82.8	-	112.1	460.8	112.1	(1)	(1)
OW417D	572.26	572.5	~5/19/1989	6.25	545.5	-	505.9	27.0	-	66.6	505.9	66.6	17.53	554.73
OW418C	569.62	570.08	5/29/2003	4	501.0	-	458.7	69.1	-	111.4	458.7	111.4	13.70	555.92

Table 7

**Bedrock Groundwater Elevation Summary
Second Quarter 2022
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2022	
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)
OW418D	569.72	570.14	1/11/2002	6	547.0	- 504.3	23.1	- 65.8	504.3	65.8	14.00	555.72
OW419C	570.4	570.7	6/4/2003	4	502.7	- 455.7	68.0	- 115.0	455.7	115.0	14.60	555.80
OW419D	570.22	570.75	1/10/2002	6	550.3	- 505.6	20.5	- 65.2	505.6	65.2	15.52	554.70
OW420C	571.03	571.28	6/2/2003	4	500.3	- 452.5	71.0	- 118.8	452.5	118.8	15.62	555.41
OW420D	570.67	571.24	1/4/2002	6	548.7	- 503.1	22.5	- 68.1	503.1	68.1	16.70	553.97
OW649C	567.52	568.04	~10/31/1991	4	488.5	- 458.1	79.6	- 110.0	458.1	110.0	11.10	556.42
OW649D	568.29	568.35	10/31/1991	4	549.2	- 510.4	19.1	- 57.9	510.4	57.9	11.62	556.67
OW651C	568.62	568.91	10/10/1991	4	507.9	- 477.6	61.1	- 91.3	477.6	91.3	12.85	555.77
OW651D	568.53	568.72	~9/16/1991	6	553.2	- 507.7	15.5	- 61.0	507.7	61.0	13.00	555.53
OW652B	570.48	570.83	~9/16/1991	4	473.8	- 443.8	97.1	- 127.1	443.8	127.1	15.45	555.03
OW652C	570.18	570.64	2/5/1993	4	509.4	- 477.4	61.3	- 93.3	477.4	93.3	14.30	555.88
OW652D	569.98	570.25	9/16/1991	4	552.7	- 509.7	17.6	- 60.6	509.7	60.6	14.30	555.68
OW653B	572.19	572.55	~2/12/1993	4	475.4	- 451.4	97.2	- 121.2	451.4	121.2	17.02	555.17
OW653C	572.12	572.49	2/12/1993	4	503.1	- 478.1	69.4	- 94.4	478.1	94.4	19.23	552.89
OW653D	572	572.38	9/10/1991	6	552.1	- 503.7	20.3	- 68.7	503.7	68.7	19.88	552.12
OW654B	569.53	569.91	~8/27/1991	4	478.8	- 444.3	91.1	- 125.6	444.3	125.6	16.00	553.53
OW654C	570.14	570.39	~8/27/1991	4	509.7	- 481.8	60.7	- 88.6	481.8	88.6	14.02	556.12
OW654D	570.16	570.41	8/27/1991	6	556.0	- 510.7	14.4	- 59.7	510.7	59.7	14.72	555.44
OW655D	571.23	571.46	8/22/1991	6	552.7	- 507.4	18.8	- 64.1	507.4	64.1	14.68	556.55
OW657B	570.22	570.59	~4/9/1993	4	472.9	- 439.5	97.7	- 131.1	439.5	131.1	14.68	555.54
OW657C	570.42	570.83	~4/9/1993	4	503.7	- 475.7	67.2	- 95.2	475.7	95.2	15.18	555.24
OW657D	571.65	570.21	~4/9/1993	4	553.6	- 507.6	16.6	- 62.6	507.6	62.6	14.68	556.97
OW658B	570.48	570.93	~4/6/1993	4	473.4	- 439.9	97.6	- 131.1	439.9	131.1	17.75	552.73
OW658C	570.66	570.94	~4/6/1993	4	502.9	- 475.8	68.0	- 95.1	475.8	95.1	16.42	554.24
OW658D	570.75	571.1	~4/6/1993	4	552.6	- 506.1	18.6	- 65.1	506.1	65.1	18.28	552.47
OW659B	570.02	570.49	~3/30/1993	4	474.0	- 440.4	96.5	- 130.1	440.4	130.1	16.50	553.52
OW659C	570	570.41	~3/30/1993	4	503.9	- 475.8	66.5	- 94.6	475.8	94.6	15.00	555.00
OW659D	570.01	570.29	~3/30/1993	4	549.7	- 505.8	20.6	- 64.5	505.8	64.5	15.60	554.41
OW660B	579.42	579.85	10/19/1994	4	454.8	- 409.5	125.0	- 170.3	409.5	170.3	22.50	556.92
OW661B	568.63	569.05	12/15/1994	4	451.0	- 419.0	118.1	- 150.1	419.0	150.1	16.20	552.43
OW661C	568.87	569.22	10/24/1994	4	502.2	- 454.2	67.0	- 115.0	454.2	115.0	13.41	555.46
OW661D	568.88	569.25	11/1/1994	4	546.9	- 505.1	22.3	- 64.1	505.1	64.1	13.35	555.53

Table 7

**Bedrock Groundwater Elevation Summary
Second Quarter 2022
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2022			
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)		
OW662B	569.79	570.08	7/6/1994	4	456.1	-	415.1	114.0	-	155.0	415.1	155.0	13.60	556.19
OW662C	569.75	570.02	7/5/1994	4	501.0	-	459.0	69.0	-	111.0	459.0	111.0	13.42	556.33
OW662D	569.92	570.24	7/1/1994	4	546.1	-	503.2	24.1	-	67.0	503.2	67.0	13.60	556.32
OW663B	571.79	572.15	8/9/1994	4	452.7	-	413.6	119.5	-	158.6	413.6	158.6	14.62	557.17
OW663C	572.08	572.37	8/10/1994	4	501.4	-	455.9	71.0	-	116.5	455.9	116.5	16.38	555.70
OW663D	572.21	572.33	8/9/1994	4	549.5	-	504.5	22.8	-	67.8	504.5	67.8	16.71	555.50
OW664B	571.53	571.85	12/14/1994	4	449.9	-	418.9	122.0	-	153.0	418.9	153.0	16.85	554.68
OW664C	571.5	571.84	12/5/1994	4	499.8	-	452.8	72.0	-	119.0	452.8	119.0	16.50	555.00
OW664D	571.56	571.9	12/12/1994	4	548.1	-	502.9	23.8	-	69.0	502.9	69.0	18.61	552.95
OW665B	573.06	573.37	7/22/1994	4	450.0	-	415.0	123.4	-	158.4	415.0	158.4	18.44	554.62
OW665C	573.04	573.33	7/25/1994	4	498.9	-	453.4	74.4	-	119.9	453.4	119.9	16.74	556.30
OW665D	573.13	573.42	7/22/1994	4	547.0	-	502.3	26.4	-	71.2	502.3	71.2	18.39	554.74
OW666B	571.37	571.59	1/12/1995	4	453.2	-	410.2	118.4	-	161.4	410.2	161.4	49.43	521.94
OW666C	571.29	571.69	1/10/1995	4	504.7	-	456.2	67.0	-	115.5	456.2	115.5	15.83	555.46
OW666D	571.2	571.57	1/10/1995	4	552.5	-	507.1	19.1	-	64.5	507.1	64.5	19.66	551.54
OW667B	576.28	573.48	10/6/1994	4	453.4	-	413.4	120.1	-	160.1	413.4	160.1	30.08	546.20
OW667C	575.78	572.97	10/5/1994	4	503.8	-	456.2	69.2	-	116.8	456.2	116.8	19.99	555.79
OW667D	576.31	573.48	10/6/1994	4	552.2	-	506.2	21.3	-	67.3	506.2	67.3	24.63	551.68
OW668B	570.86	571.29	1/4/1995	4	454.3	-	420.8	117.0	-	150.5	420.8	150.5	19.13	551.73
OW668C	570.95	571.2	1/4/1995	4	502.9	-	457.7	68.3	-	113.5	457.7	113.5	15.93	555.02
OW668D	571.1	571.25	12/23/1994	4	551.0	-	506.0	20.3	-	65.3	506.0	65.3	19.58	551.52
River	568.91	N/A	N/A	N/A	N/A	-	N/A	N/A	-	N/A	N/A	N/A	6.31	562.60

Notes:

ft BTOC – feet below top of casing

ft AMSL – feet above mean sea level

NM - Not measured

NC - Not calculated

N/A - Not applicable

(1) - Well buried under stone

(2) - Water level measured on June 15, 2020

(3) - Water level measured on September 21, 2020

Table 8
Overburden Weekly Flow Rates
Second Quarter 2022
Buffalo Avenue Plant

Date	Flow Zone 1						Flow Zone 3		Abandoned Outfall 005		Abandoned D-Area Sanitary Sewer	
	System Total		Wet Well 2		Wet Well 1		WWB		MH159L		MH301	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/4/2022	522000	74.91	2000	0.20	520000	74.71	33000	3.27	27000	2.68	13000	1.56
4/11/2022	498000	50.92	3000	0.31	495000	50.61	48000	4.91	26000	2.58	29000	3.02
4/18/2022	399000	42.63	2000	0.21	397000	42.41	43000	4.40	28000	2.78	26000	2.67
4/25/2022	478000	47.42	1000	0.10	477000	47.32	74000	7.34	32000	3.17	44000	4.37
5/2/2022	260000	47.61	6000	1.09	254000	46.52	64000	6.35	18000	1.79	36000	3.57
5/9/2022	282000	44.78	15000	2.40	267000	42.38	51000	8.17	21000	2.08	41000	6.57
5/16/2022	293000	54.17	1000	0.69	292000	53.48	52000	6.15	24000	2.38	18000	2.16
5/23/2022	481000	52.06	0	0.00	481000	52.06	66000	6.71	36000	3.57	45000	4.60
5/30/2022	510000	51.00	2000	0.61	508000	50.40	53000	5.26	38000	3.77	32000	3.17
6/6/2022	482000	42.13	70000	0.00	412000	42.13	35000	3.47	37000	3.67	22000	2.18
6/13/2022	552000	49.01	58000	0.00	494000	49.01	102000	10.56	37000	3.67	64000	6.63
6/20/2022	578000	80.56	18000	25.00	560000	55.56	39000	3.87	38000	3.77	24000	2.38
6/27/2022	573000	64.19	10000	8.33	563000	55.85	25000	2.48	39000	3.87	16000	1.59

Notes:

GPM - gallons per minute.

Flow rates shown are the average flow rate while the pump is operational.

Table 9

**Overburden Performance Summary
Second Quarter 2022
Buffalo Avenue Plant**

Flow Rate Summary

System Component	Average Flow				Quarterly Total (gallons)
	Apr-22	May-22	Jun-22	Quarterly	
<u>Flow Zone 1</u>					
Wet Well 1	52.3	52.3	50.6	51.8	5,720,000
Wet Well 2	0.3	0.4	3.9	1.53	188,000
TOTAL	52.8	54.5	53.3	53.5	5,908,000
<u>Flow Zone 3</u>					
WWB	5.3	6.6	5.1	5.6	484,000
<u>Abandoned Outfall 005</u>					
MH159L	2.6	3.0	3.7	3.1	401,000
<u>Abandoned D-Area Sanitary Sewer</u>					
MH301	3.0	4.1	3.2	3.5	410,000

Operating Time Summary

System Component	Average Percent Operational			
	Apr-22	May-22	Jun-22	Quarterly
<u>Flow Zone 1</u>				
Wet Well 1	88.2%	89.0%	98.0%	91.7%
Wet Well 2	88.2%	89.0%	98.0%	91.7%
<u>Flow Zone 3</u>				
WWB	100.0%	89.7%	98.0%	95.9%
<u>Abandoned Outfall 005</u>				
MH159L	88.2%	89.0%	98.0%	91.7%
<u>Abandoned D-Area Sanitary Sewer</u>				
MH301	80.6%	89.7%	98.0%	89.4%

Notes:

GPM - gallons per minute.

Table 10

**Overburden Groundwater Elevation Summary
Second Quarter 2020
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Screened Interval				Well Bottom		Water Level Data 6/3/2022	
					Top (ft AMSL)	Bottom (ft AMSL)	Top (ft BGS)	Bottom (ft BGS)	Elev. of (ft AMSL)	Depth to (ft BGS)	(ft BTOC)	(ft AMSL)
BH1B-88 ⁽¹⁾	572.53	572.70	12/20/1988	2	568.8	- 557.8	3.9	- 14.9	557.8	14.9	(1)	(1)
BH4-88 ⁽¹⁾	572.12	572.45	12/9/1988	2	568.2	- 565.2	4.3	- 7.3	565.2	7.3	(1)	(1)
BH7-89	572.32	572.67	5/24/1989	2	560.6	- 553.2	12.1	- 19.5	553.2	19.5	14.72	557.60
BH8-89	568.00	568.23	1/6/1989	2	563.4	- 549.4	4.8	- 18.8	549.4	18.8	4.96	563.04
CMH1	569.50	568.53	1997	NA	NA	- 558.0	NA	- 10.5	558.0	10.5	3.09	566.41
CMH2	569.42	568.49	1997	NA	NA	- 562.5	NA	- 6.0	562.5	6.0	6.09	563.33
MH-A	568.89	569.85	Unknown	NA	NA	- 556.5	NA	- 13.4	556.5	13.4	3.48	565.41
MH-B	568.87	568.72	Unknown	NA	NA	- 556.5	NA	- 12.2	556.5	12.2	3.36	565.51
MH-C	568.88	568.59	Unknown	NA	NA	- 557.0	NA	- 11.6	557.0	11.6	3.38	565.50
MH-D	569.89	568.50	Unknown	NA	NA	- 556.3	NA	- 12.2	556.3	12.2	4.38	565.51
MH-E	568.81	567.48	Unknown	NA	NA	- 555.8	NA	- 11.7	555.8	11.7	3.29	565.52
MH-F	568.90	567.83	1998	NA	NA	- 553.5	NA	- 14.4	553.5	14.4	3.39	565.51
OW270	571.55	570.88	10/16/1987	2	564.5	- 545.5	6.4	- 25.4	545.5	25.4	7.53	564.02
OW273	570.00	570.28	10/20/1987	2	563.5	- 551.5	6.8	- 18.8	551.5	18.8	7.18	562.82
OW300	567.07	567.56	5/25/1989	2	560.5	- 545.0	7.1	- 22.6	545.0	22.6	4.78	562.29
OW301	568.38	568.95	7/24/1989	2	564.8	- 557.8	4.2	- 11.2	557.8	11.2	1.93	566.45
OW302 ⁽¹⁾	569.98	570.10	10/26/1988	2	565.6	- 563.6	4.5	- 6.5	563.6	6.5	(1)	(1)
OW303 ⁽¹⁾	570.81	570.10	11/2/1988	2	566.3	- 562.3	3.8	- 7.8	562.3	7.8	(1)	(1)
OW304 ⁽¹⁾	571.50	571.40	10/20/1988	2	565.3	- 560.3	6.1	- 11.1	560.3	11.1	(1)	(1)
OW305 ⁽¹⁾	572.75	573.20	10/31/1988	2	569.4	- 564.4	3.8	- 8.8	564.4	8.8	(1)	(1)
OW306 ⁽¹⁾	571.85	571.90	11/15/1988	2	567.9	- 564.9	4.0	- 7.0	564.9	7.0	(1)	(1)
OW308	574.24	571.40	11/17/1988	2	567.6	- 564.6	3.8	- 6.8	564.6	6.8	4.57	569.67
OW310 ⁽¹⁾	572.28	572.80	11/22/1988	2	569.3	- 564.3	3.5	- 8.5	564.3	8.5	(1)	(1)
OW313	569.26	568.70	10/13/1988	2	550.8	- 545.8	17.9	- 22.9	545.8	22.9	3.98	565.28
OW314	569.04	568.90	6/12/1989	2	565.4	- 553.4	3.5	- 15.5	553.4	15.5	3.92	565.12
OW316	569.77	570.10	11/9/1988	2	566.1	- 559.1	4.0	- 11.0	559.1	11.0	.47	569.30
OW317 ⁽¹⁾	572.60	572.50	9/26/1988	2	568.8	- 563.8	3.7	- 8.7	563.8	8.7	(1)	(1)
OW327 ⁽¹⁾	570.75	571.40	2/9/1990	2	567.4	- 565.4	4.0	- 6.0	565.4	6.0	(1)	(1)
OW358	571.49	569.02	9/26/1989	2	563.9	- 550.9	5.1	- 18.1	550.9	18.1	5.83	565.66
OW553	573.51	573.77	8/27/1991	2	570.1	- 565.1	3.7	- 8.7	565.1	8.7	5.09	568.42
OW554	573.83	572.35	9/3/1991	2	568.4	- 563.4	4.0	- 9.0	563.4	9.0	4.48	569.35
OW555	571.51	571.65	9/3/1991	2	568.5	- 563.5	3.2	- 8.2	563.5	8.2	1.22	570.29
OW556	571.73	571.93	8/30/1991	2	567.8	- 562.8	4.1	- 9.1	562.8	9.1	1.56	570.17
OW557 ⁽¹⁾	571.69	572.16	5/16/1991	2	567.5	- 562.5	4.7	- 9.7	562.5	9.7	(1)	(1)
OW558 ⁽¹⁾	571.28	571.21	5/16/1991	2	567.4	- 562.4	3.8	- 8.8	562.4	8.8	(1)	(1)
OW559 ⁽¹⁾	569.73	570.35	9/10/1991	2	566.7	- 561.7	3.7	- 8.7	561.7	8.7	(1)	(1)
OW562	568.49	568.48	12/9/1996	2	555.2	- 550.2	13.3	- 18.3	550.2	18.3	5.42	563.07
OW563	567.67	568.02	12/5/1996	2	560.6	- 555.6	7.4	- 12.4	555.6	12.4	1.95	565.72

Table 10

**Overburden Groundwater Elevation Summary
Second Quarter 2020
Buffalo Avenue Plant**

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Screened Interval				Well Bottom		Water Level Data 6/3/2022	
					Top (ft AMSL)	Bottom (ft AMSL)	Top (ft BGS)	Bottom (ft BGS)	Elev. of (ft AMSL)	Depth to (ft BGS)	(ft BTOC)	(ft AMSL)
OW564	569.05	569.58	12/11/1996	2	560.4	- 555.4	9.2	- 14.2	555.4	14.2	3.46	565.59
OW565	568.89	569.53	12/10/1996	2	557.0	- 552.0	12.5	- 17.5	552.0	17.5	6.32	562.57
OW566	568.55	568.83	12/5/1996	2	559.4	- 554.4	9.4	- 14.4	554.4	14.4	1.92	566.63
OW567	569.12	569.15	4/23/1998	2	560.1	- 555.1	9.0	- 14.0	555.1	14.0	2.33	566.79
OW568	568.26	568.95	4/23/1998	2	560.3	- 555.3	8.7	- 13.7	555.3	13.7	1.80	566.46
OW569	567.20	567.74	4/23/1998	2	562.7	- 559.7	5.0	- 8.0	559.7	8.0	3.56	563.64
OW570	568.46	568.70	4/23/1998	2	563.6	- 560.6	5.1	- 8.1	560.6	8.1	4.38	564.08
OW571	567.80	568.52	4/24/1998	2	566.2	- 561.2	2.3	- 7.3	561.2	7.3	2.52	565.28
OW572	567.95	568.30	4/24/1998	2	565.9	- 560.9	2.4	- 7.4	560.9	7.4	2.12	565.83
OW573R ⁽¹⁾	573.02	573.48	6/29/2004	2	569.0	- 564.0	4.5	- 9.5	564.0	9.5	(1)	(1)
OW574 ⁽¹⁾	571.16	571.24	11/15/1999	2	560.8	- 555.8	10.4	- 15.4	555.8	15.4	(1)	(1)
OW575	568.40	568.45	1/15/2002	1	564.6	- 559.8	3.9	- 8.7	559.8	8.7	2.47	565.93
OW576	568.32	568.52	1/15/2002	1	565.6	- 560.9	2.9	- 7.6	560.9	7.6	2.29	566.03
OW577	567.53	567.59	1/15/2002	1	563.3	- 558.0	4.3	- 9.6	558.0	9.6	2.17	565.36
OW578 ⁽¹⁾	572.21	572.48	6/6/2002	1	568.6	- 564.6	3.9	- 7.9	564.6	7.9	(1)	(1)
OWG8 ⁽¹⁾	570.66	571.10	6/3/1986	2	566.2	- 564.2	4.9	- 6.9	564.2	6.9	(1)	(1)
WS107	573.18	573.73	7/30/1980	1.5	565.6	- 563.6	8.1	- 10.1	563.6	10.1	.85	572.33
WS10A	572.58	569.78	1/16/1979	1.5	567.9	- 552.9	1.9	- 16.9	552.9	16.9	6.74	565.84
WS111R ⁽¹⁾	572.35	572.70	6/6/2002	1	568.2	- 565.2	4.5	- 7.5	565.2	7.5	(1)	(1)
WS122 ⁽¹⁾	571.57	572.25	7/7/1980	1.5	564.6	- 562.6	7.7	- 9.7	562.6	9.7	(1)	(1)
WS23A ⁽¹⁾	572.30	572.74	1/29/1979	1.5	570.5	- 565.5	2.2	- 7.2	565.5	7.2	(1)	(1)
WS25A ⁽¹⁾	571.10	571.67	1/26/1979	1.5	569.3	- 564.3	2.4	- 7.4	564.3	7.4	(1)	(1)
WS8A	570.10	570.20	3/19/1979	1.5	566.3	- 551.3	3.9	- 18.9	551.3	18.9	2.56	567.54
WW1	570.30	569.26	1997	NA	NA	- 545.3	NA	- 24.0	545.3	24.0	17.76	552.54
WW2	569.27	568.82	1997	NA	NA	- 553.8	NA	- 15.0	553.8	15.0	6.68	562.59
WWB	573.74	572.68	1980	NA	NA	- 556.7	NA	- 16.0	556.7	16.0	12.66	561.08

Notes:

ft BGS - Feet below ground surface
ft BTOC - Feet below top of casing
ft AMSL - Feet above mean sea level

MH - Manhole chamber

NA - Not applicable

NM - Not measured

"-" Not measured per monitoring schedule

(1) - Annual measurements only

(2) - Dry

Table 11

**Summary of Bedrock NAPL Monitoring and Collection
Second Quarter 2022
Buffalo Avenue Plant**

Date	Bedrock A-Wells				S-Area Bedrock Wells in the N-Area									
	OW402A (Gallons)	OW413A (Gallons)	OW417A (Gallons)	OW401B (Gallons)	Shallow				Intermediate		Deep			
					OW229 (Gallons)	OW243 (Gallons)	OW618 (Gallons)	OW619 (Gallons)	OW620 (Gallons)	OW621 (Gallons)	OW634 (Gallons)	OW638 (Gallons)	OW635 (Gallons)	OW643 (Gallons)
June 9, 2022	--	--	--	--	NR	1.5	NR	ND	ND	0.5	NR	3.75	NR	NR
Cumulative Volume (as of March 31, 2022)	6160.05	579.75	<40.80	6.00	12.15	57.80	21.45	0.00	0.00	35.25	5.50	144.05	8.75	242.70
Cumulative Volume (as of June 30, 2022)	6160.05	579.75	<40.80	6.00	12.15	59.30	21.45	0.00	0.00	35.75	5.50	147.80	8.75	242.70
Monitoring Frequency ⁽¹⁾	Annual	Annual	Annual	Annual	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

Notes:

-- Not checked per schedule.

ND None detected.

NR Not recoverable

⁽¹⁾ Frequency revised in second quarter 2010 to reflect NYSDEC's May 4, 2010 letter.

Table 12

Summary of Overburden NAPL Monitoring and Collection
 Second Quarter 2022
 Buffalo Avenue Plant

Date	003 NAPL Collection Trench (Gallons)	OW313 (Gallons)	OW572 (Gallons)	OW317 (Gallons)	OW320 (Gallons)	OW358 (Gallons)	OW523 (Gallons)	OW562 (Gallons)	OW563 (Gallons)	TW-7 (Gallons)	OW306 (Gallons)	BH8-89 (Gallons)	OW564 (Gallons)	OW537 (Gallons)	OW577 (Gallons)	Energy Boulevard Drain Tile System (Gallons)
May 12, 2022	NR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June 3, 2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NR
Subtotal (First Quarter)	0.25	0.10	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative volume (as of March 31, 2022)	959.75	46.40	39.03	0.21	1.50	0.50	0.30	0.00	9.00	0.56	0.00	0.00	0.00	0.00	0.25	6011.25
Cumulative volume (as of June 30, 2022)	950.00	46.50	39.28	0.21	1.50	0.50	0.30	0.00	9.00	0.56	0.00	0.00	0.00	0.00	0.25	6011.25
Monitoring Frequency ⁽¹⁾	Quarterly	Semiannual	Semiannual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Quarterly

Notes:

-- Not checked per schedule.

ND - None detected.

NR - Not recoverable.

⁽¹⁾ Frequency revised in second quarter 2010 to reflect NYSDEC's May 4, 2010 letter.