

**APPENDIX C**  
**WELL DEVELOPMENT LOGS**

**2020 NYSDEC  
REMEDIAL INVESTIGATION**

## WELL DEVELOPMENT LOG



TASK : **Groundwater Monitoring & Sampling** PSID 853349

<b>Project Name:</b>	NYSDEC/Buffalo/NY/TonawandaSt/31-Off-Site	Date:	10/27/20
<b>Project Address:</b>	31 Tonawanda Street, Buffalo, NY	Sampler(s):	Peter Zaffram
<b>Project #/Phase/Task/Org:</b>	0901816//1109	Develop. Method:	Waterra Pump

Well ID: <u>1675-MW-1</u>	Pump Type/Model: <u>Waterra</u>
Well Diameter: <u>2"</u>	Water Quality Meter Model/SN: <u>YSI Pro DSS</u>
Initial Depth to Water (ft): <u>4.84</u>	Date Meter Calibrated: _____
Depth to Bottom (ft): <u>27.7</u>	

Well Volume Purged (Gallons)	Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Spec. Cond. (uS/cm or umhos/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
3	9:20	9.20			14.4	2.839	7.12	158.9	1.15	330.45	Brown muddy water
15	9:50	8.44			13.9	4.258	6.83	-125.4	0.40	1132.0	Brown muddy water
30	10:20	7.95			13.9	4.363	6.83	-73.1	1.15	Max	Brown muddy water
45	10:45	7.05			15.1	4.420	6.75	-65.5	0.63	2600.0	Brown muddy water
60	11:00	7.16			14.9	4.465	6.77	-64.2	1.03	2400.0	Brown muddy water
75	11:20	7.21			14.5	4.463	6.79	62.3	1.23	1900.0	Brown muddy water
90	11:40	7.15			14.6	4.466	6.79	-64.9	1.14	1700.0	Still muddy water
105	12:00	7.15			14.2	4.481	6.80	-63.8	1.24	1500.0	Still muddy water

Comments: Start time: 09:20  
Final well depth: 30.84  
Water is very turbid to start. Bottom was very soft, very fine sediments in bucket.

## WELL DEVELOPMENT LOG



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<b>Project Address:</b>	31 Tonawanda Street, Buffalo, NY	Sampler(s):	Peter Zaffram
<b>Project #/Phase/Task/Org:</b>	0901816//1109	Develop. Method:	Waterra Pump

Well ID: <u>1675-MW-2</u>	Pump Type/Model: <u>Waterra</u>
Well Diameter: <u>2"</u>	Water Quality Meter Model/SN: <u>YSI Pro DSS</u>
Initial Depth to Water (ft): <u>3.68</u>	Date Meter Calibrated: _____
Depth to Bottom (ft): <u>13.2</u>	

Well Volume Purged (Gallons)	Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Spec. Cond. (uS/cm or umhos/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
15	12:50	3.98			18.4	1.161	7.31	-33.4	1.55	1430.15	Fine silt, brown muddy water
30	13:15	3.95			18.3	1.118	7.09	-34.4	1.56	1375.0	Fine silt, brown muddy water
45	13:40	3.75			17.3	1.094	7.20	-10.8	2.01	12440.0	Fine silt, brown muddy water
60	14:00	3.75			18.4	1.099	6.96	-15.7	1.82	1047.0	Fine silt, brown muddy water
75	14:20	3.75			18.6	1.094	6.97	-10.8	1.20	1000.0	Fine silt, brown muddy water
90	14:45	3.75			18.6	1.090	6.95	-6.9	1.45	888.0	Fine silt, brown muddy water
105	15:05	3.75			18.8	1.087	6.90	-12.3	1.64	830.0	Water is still silty
120	15:25	3.75			18.8	1.092	6.91	-8.1	1.74	945.0	Water is still silty

Comments: Start time: 12:30

Final well depth: 14.61

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## WELL DEVELOPMENT LOG



TASK : Groundwater Monitoring & Sampling PSID 853349

<b>Project Name:</b>	NYSDEC/Buffalo/NY/TonawandaSt/31-Off-Site	Date:	10/28/20
<b>Project Address:</b>	31 Tonawanda Street, Buffalo, NY	Sampler(s):	Peter Zaffram
<b>Project #/Phase/Task/Org:</b>	0901816//1109	Develop. Method:	Waterra Pump

Well ID:           **MW-8R**           Pump Type/Model:   **Waterra**  
 Well Diameter:           **2"**           Water Quality Meter Model/SN:   **NA**  
 Initial Depth to Water (ft):           **9.9**           Date Meter Calibrated:     
 Depth to Bottom (ft):           **33.8**          

Well Volume Purged (Gallons)	Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Spec. Cond. (uS/cm or umhos/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
15	14:50	11.54			NA	NA	NA	NA	NA	NA	DNAPL in well, no readings taken
30	15:15	11.84			NA	NA	NA	NA	NA	NA	DNAPL in well, no readings taken
45	15:35	11.91			NA	NA	NA	NA	NA	NA	Move tubing down 1-2 feet to clear screen

Comments: Start time: 14:00  
Depth to product: 33.15 (DNAPL)  
Bottom depth not recorded.



# WELL DEVELOPMENT LOG



TASK : **Groundwater Monitoring & Sampling** PSID **853349**

<b>Project Name:</b>	NYSDEC/Bufalo/NY/TonawandaSt/31-Off-Site	Date:	10/29/20
<b>Project Address:</b>	31 Tonawanda Street, Buffalo, NY	Sampler(s):	Peter Zaffram
<b>Project #/Phase/Task/Org:</b>	0901816//1109	Develop. Method:	Waterra Pump

Well ID:         **MW-103**         Pump Type/Model:         **Waterra**          
 Well Diameter:         **2"**         Water Quality Meter Model/SN:         **NA**          
 Initial Depth to Water (ft):         **4.86**         Date Meter Calibrated:                                   
 Depth to Bottom (ft):         **23.42**        

Well Volume Purged (Gallons)	Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Spec. Cond. (uS/cm or umhos/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
15	13:00	7.49			NA	NA	NA	NA	NA	NA	Black water observed, no readings taken.
30	13:40	7.50			NA	NA	NA	NA	NA	NA	Black water observed, no readings taken.
45	14:25	7.74			NA	NA	NA	NA	NA	NA	Black water observed, no readings taken.

Comments:         **Start time: 12:10**          
        **No readings taken per conversation with DEC.**          
        **End time: 14:25**          
        **Tubing depth adjusted approximately 1 foot every 5 gallons to clear out screen.**          
        **Black water, slight sheen, a lot of fine black sediment.**          
        **Bottom depth not recorded**

**WELL DEVELOPMENT LOG**



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**PSID**

**853349**

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<b>Project Address:</b>	31 Tonawanda Street, Buffalo, NY	Sampler(s):	Peter Zaffram
<b>Project #/Phase/Task/Org:</b>	0901816//1109	Develop. Method:	Waterra Pump

Well ID: **MW-106**  
 Well Diameter: **2"**  
 Initial Depth to Water (ft): **6.5**  
 Depth to Bottom (ft): **22.6**

Pump Type/Model: **Waterra**  
 Water Quality Meter Model/SN: **NA**  
 Date Meter Calibrated: \_\_\_\_\_

Well Volume Purged (Gallons)	Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Spec. Cond. (uS/cm or umhos/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
15	15:10	8.24			NA	NA	NA	NA	NA	NA	Black water with sheen, no readings taken
30	15:30	8.11			NA	NA	NA	NA	NA	NA	Black water with sheen, no readings taken
45	15:50	7.95			NA	NA	NA	NA	NA	NA	Black water with sheen, no readings taken

Comments: **Start time: 14:45**  
**No readings taken per conversation with DEC.**  
**End depth: 23.20**