

# **2019 Annual Groundwater Sampling Report**

## **Location:**

**729 Cross Road  
Oaks Corners, New York**

## **Prepared For:**

Elderlee, Inc.  
729 Cross Road  
Oaks Corners, New York 14518

**June 2019**

## **Prepared By:**



**NEU-VELLE<sup>LLC</sup>**

Eastman Business Park, 1667 Lake Avenue, Building 59, 1st Floor  
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## **1.0 Introduction**

NEU-VELLE, LLC (“NEU-VELLE”) was retained by Elderlee, Inc. to provide professional environmental services at 729 Cross Road, Oaks Corners, New York, hereinafter referred to as the “Site” for the 2019 annual groundwater sampling event. (Figure 1)

A portion of this Site (Elderlee, Inc.) in Oaks Corners, New York is a listed New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site (NYSDEC ID3 835014). This Site has been utilized to manufacture road signs, galvanized highway bridge rail, and guide rails since approximately 1968. Hazardous waste was disposed of in two (2) distinct areas of the Site.

Area A is a location of two (2) former settling lagoons that are located north of the galvanizing plant and used for neutralizing waste sulfuric acid until approximately 1984. Elevated levels of zinc and lead were detected in soil samples collect from the former lagoon area. A Remedial Investigation/Feasibility Study (RI/FS) was conducted at the Site in the fall of 1995. The RI/FS was finalized in 1998 and a Record of Decision (ROD) was signed in March 1998. The ROD specified asphalt capping of the former lagoon area combined with continued semi-annual ground water monitoring of selected wells located within, and downgradient, from Area A. The sampling frequency was subsequently reduced to annual sampling.

Area B was the former paint waste disposal area immediately southeast of the sign plant at the Site. Waste paint thinner and cleaning solvents were reportedly disposed of on the ground surface. Elevated levels of xylene, ethylbenzene, toluene and acetone have been detected in soil and groundwater samples collected form this area. The March 1998 ROD specified the operation and enhanced bioremediation program (i.e., oxygen injection) in this area combined with continued groundwater monitoring of selected wells located within the downgradient from Area B. After ground water analytical results indicated a significant decrease in contaminant levels with Area B monitoring wells utilizing a passive (wind-powered) soil vapor extraction system was installed to treat unsaturated soils in the area in the summer of 2001. Based on analytical results, periodic sampling of Area B ground water monitoring wells was terminated in 2006.

### **1.1 Objective**

The objective of this project is to monitor Area A groundwater monitoring wells, collect cap photos and provide an annual progress report for Area A at the Site. The Scope of Work in Section 2.0 of this Report was conducted at the Site.

## **2.0 Scope of Work**

### **2.1 Annual Sampling of Area A Groundwater Monitoring Wells**

The NYSDEC requires the annual sample of Area A monitoring wells (MW-4A, MW-5A, MW-8, MW-9R, MW-10R, and MW-11). To meet the objective, NEU-VELLE completed the

following:

1. A NEU-VELLE Environmental Scientist measured water levels from all on-site Area A monitoring wells prior to sample collection using an electronic water level meter calibrated to  $\pm 0.01$  foot. Measurements were taken from the top of the inner PVC casing of each well which have previously been surveyed for elevation. Water level measurements were recorded on the groundwater sampling logs generated for each well sampled. The groundwater sampling logs are contained in Appendix C.
2. Prior to groundwater sampling, the monitoring wells were purged by the NEU-VELLE Environmental Scientist. Specifically, a peristaltic pump and dedicated Teflon tubing were used to purge the selected wells using low flow methodologies. Field parameter measurements for pH, Specific Conductance, Temperature and Turbidity were collected at five-minute intervals, then recorded on the individual Groundwater Sampling Log Sheets for each well sampled. Purging was considered complete with the field parameters of pH and Specific Conductance stabilized to within 10% for three (3) successive readings, and when the turbidity readings were at or below 10 Nephelometric Turbidity Units (NTUs). However, since the turbidity criteria of 10 NTUs could not be achieved, sampling was completed after turbidity measurements stabilized.
3. Groundwater samples were collected from each well once the purging criteria described above had been reached. The samples were collected using the peristaltic pump operating at the same low flow rate utilized during purging of the well. The groundwater samples were placed in laboratory supplied bottles, placed in a cooler on ice, and transported to Paradigm Laboratories under chain-of-custody procedures for the following analysis:
  - Target Analyte List (TAL) Metals by USEPA Methods 6010 and 7471
  - Chloride and Sulfate Ions by USEPA Method 300.0

## **2.2 Deviation from Reporting Requirements**

This is the seventh annual reporting period for well MW-9R and MW-10R monitoring well locations, which replaced former well locations MW-9 and MW-10.

## **2.3 Annual Progress Report**

Following sampling, NEU-VELLE prepared this Annual Progress Report for the Site. The Report details the field methodologies implemented at the Site, and summarizes and discusses the results of the work, including a comparison of the current analytical result to historical site data as well as the appropriate NYSDEC Groundwater Standards and Guidance Values.

This Annual Progress Report will be submitted electronically as follows:

- Jonathan Tamargo – NYSDEC Region 8
- Karis Manning – NYSDEC Region 8
- Adam Morgan – NYSDEC Region 8
- Director, Bureau of Environmental Exposure Investigation – NYSDOH
- James Morlang – Elderlee, Inc
- Robert Lamb – Elderlee, Inc

### 3.0 Field Measurements

On May 9, 2019, NEU-VELLE Environmental Scientist measured the water levels within the referenced groundwater monitoring wells in Area A with an electronic water level meter. Static water level readings were utilized to evaluate the groundwater flow pattern with historical data.

Well I.D.	Static Water Level (feet)	Depth of Well (feet)
MW-4A	3.31	12.0
MW-5A	2.60	11.3
MW-8	6.36	13.9
MW-9R	10.23	20.0
MW-10R	6.87	15.0
MW-11	1.04	12.3

The Site groundwater flow direction was calculated from the above static water level measurements collected on May 9, 2019 is depicted in Figure 3 – Appendix A. Water-level elevation data indicate groundwater to be flowing in a southeast direction on site.

### 4.0 Analytical Results

The laboratory results were compared to the NYCRR Part 703 Groundwater Standards from the NYSDEC Technical and Operational Guidance Series (1.1.1) Memorandum, and to historical analytical data collected for each well. Table 2 presents the analytical data from the Area A monitoring wells from the sampling event. Tables 3 through 8 present the current and historic analytical data for each well in Area A. Appendix E contains the laboratory report. The following summarizes the infringements of groundwater quality standards identified during the 2018 annual sampling event:

- Two (2) wells (MW-9R and MW-11) contained concentrations of Chloride Ion that exceeded the NYCRR Part 703 Groundwater Standard.
- Four (4) wells (MW-4A, MW-5A, MW-8 and MW-11) contained concentrations of Sulfate Ion that exceeded the NYCRR Part 703 Groundwater Standard.

- Five (5) wells (MW-4A, MW-5A, MW-8, MW-10R and MW-11) contained concentrations of iron that exceeded the NYCRR Part 703 Groundwater Standard.
- Three (3) wells (MW-4A, MW-8 and MW-11) contained concentrations of magnesium that exceeded the NYCRR Part 703 Groundwater Standard.
- Four (4) wells (MW-4A, MW-8, MW-10R and MW-11) contained concentrations of manganese that exceeded the NYCRR Part 703 Groundwater Standard.
- Six (6) wells (MW-4A, MW-5A, MW-8, MW-9R, MW-10R and MW-11) contained concentrations of sodium that exceeded the NYCRR Part 703 Groundwater Standard.
- One (1) well (MW-4A) contained concentrations of zinc that exceeded the NYCRR Part 703 Groundwater Standard.
- One (1) well (MW-10R) contained concentrations of chromium that exceeded the NYCRR Part 703 Groundwater Standard.
- Four (4) wells (MW-4A, MW-5A, MW-8 and MW-11) contained concentrations of Sulfate that exceeded the NYCRR Part 703 Groundwater Standard.

The concentration of analytes detected in groundwater samples collected on May 10, 2019 were generally within the ranges of values previously recorded for Area A monitoring wells. Appendix B – Table 2 depicts the results from the May 10, 2019 annual sampling event.

## **5.0 Summary of Findings**

### **Summary of Findings**

In general, the concentrations of analytes of concern have remained relatively unchanged over the past year. Many of the analytes that exceed the Part 703 Value in the previous sampling event were reported at concentrations still exceeding the Part 703 Value in the May 10, 2019 sampling event.

Concentrations of analytes of concern were below the standard deviation (SD) above their associated historical average concentration except for the following well/analyte that exceeded the historical average by one SD:

- MW-4A: Iron, Magnesium, Manganese, Sodium, Zinc, Chloride and Sulfate
- MW-5A: Sodium and Sulfate
- MW-8: Magnesium, Manganese, Sodium, Chloride and Sulfate
- MW-9R: None

- MW-10R: Chromium, Manganese and Sodium
- MW-11: Iron, Magnesium, Manganese, Sodium, Chloride and Sulfate

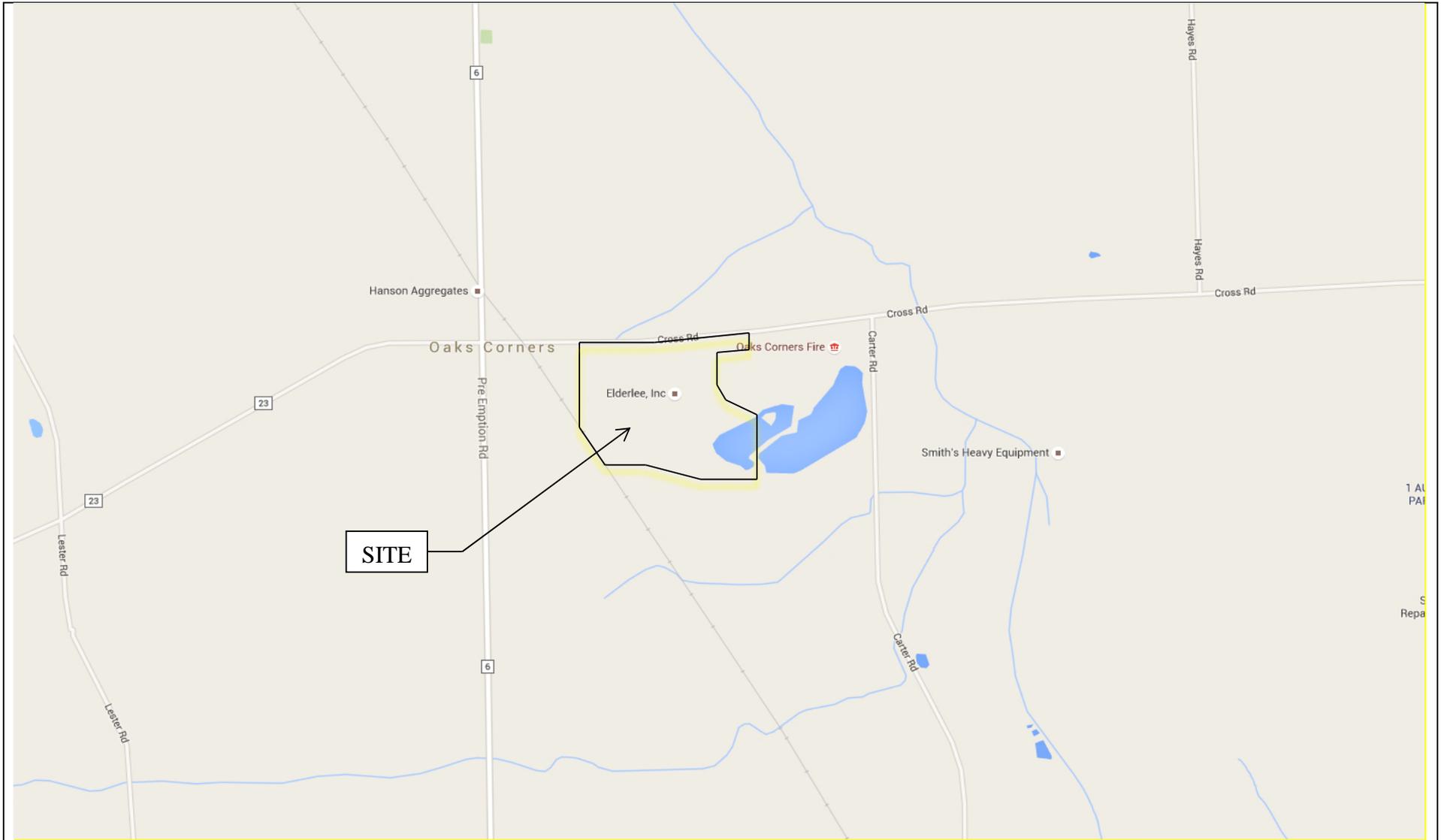
Appendix B depicts the historical data in Table 3 through 8.

### **Conclusions**

- Overall the concentrations of analytes of interest are either decreasing in certain compounds or have remained relatively stable. Additionally, the analytical parameters have included testing for TAL metals, chloride and sulfates. Generally, only a select few metals have been detected above the Part 703 Values on a consistent basis. These metals include:
  - Chromium
  - Iron
  - Magnesium
  - Manganese
  - Sodium
  - Zinc
  - Chloride
  - Sulfate
- As requested by the NYSDEC, a change of use and corrective action work plan was developed and submitted to the NYSDEC to address the BMP's for Area A. Area A consists of the two (2) former settling lagoons that are asphalt capped that are located north of the galvanizing plant. Based on the agreement between the NYSDEC and Elderlee, the following will be implemented.
  - In 2018 a lining for a section storm water piping to the west of Area A was completed to restrict infiltration into the piping.
  - In 2018, installation for drainage swale to the east of the manufacturing facility to control no industrial storm water from entering the site.
  - In 2018 the former dewatering pump station was abandoned, removed and closed.

## **APPENDIX A**

### **FIGURES**



1667 Lake Avenue, Building 59, Suite 101, Rochester, New York 14615

Site Location Map

Elderlee, Inc. - 729 Cross Road, Oaks Corners, NY

Drawn Date: May 2019

Drawn By: J. Moore

Scale: NTS

Drawing No. 1



NO.	DATE	APPR.	REVISION	NO.	DATE	APPR.	REVISION

ELDERLEE, INC. - AREA A  
 729 CROSS ROAD, OAKS CORNERS, NY

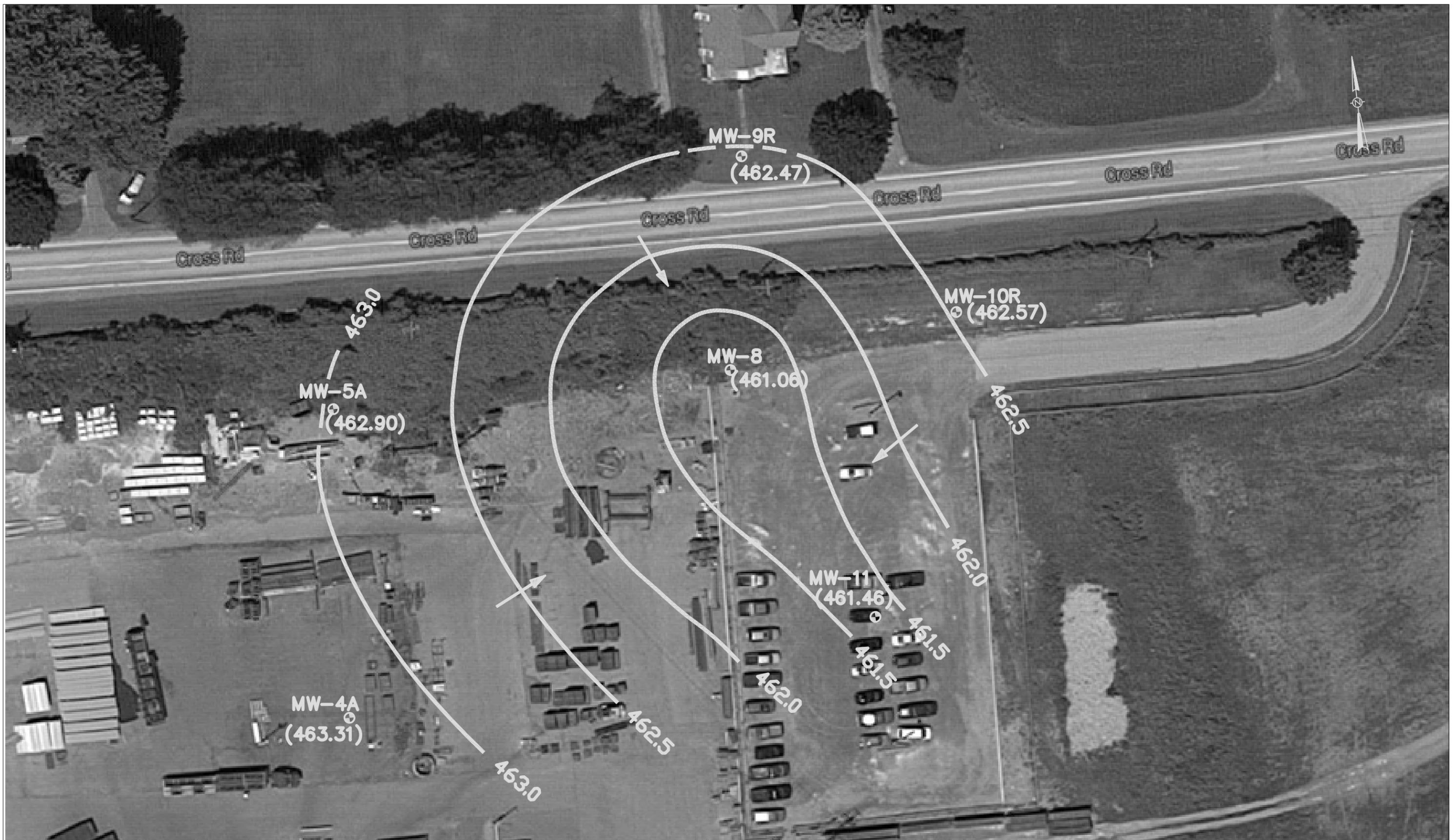
**NEU-VELLE**  
 1667 LAKE AVENUE  
 ROCHESTER, NEW YORK 14615

CHECKED	JAM	DATE	5/2019
DESIGN ENGINEER	JAM	DATE	5/2019
PROJECT ENGINEER	JAM	DATE	5/2019
PROJECT MANAGER	JAM	DATE	5/2019
APPROVED	JAM	DATE	5/2019
APPROVED	JAM	DATE	5/2019

MONITORING WELL LOCATION MAP  
 MAY 9 2019

DRAWN: JAM      DATE: MAY 2019      REVISION DATE:      FILE NAME:      JOB NO.      SCALE: NDT TO SCALE

DRAWING NO.	2
REV. NO.	1
SHEET	1
OF	1



NO.	DATE	APPR.	REVISION	NO.	DATE	APPR.	REVISION

ELDERLEE, INC. - AREA A  
 729 CROSS ROAD, OAKS CORNERS, NY

**NEU-VELLE**  
 1667 LAKE AVENUE  
 ROCHESTER, NEW YORK 14615

CHECKED	JAM	DATE	6/2019
DESIGN ENGINEER	JAM	DATE	6/2019
PROJECT ENGINEER	JAM	DATE	6/2019
PROJECT MANAGER	JAM	DATE	6/2019
APPROVED	JAM	DATE	6/2019
APPROVED	JAM	DATE	6/2019

GROUNDWATER CONTOUR MAP  
 MAY 10 2019

DRAWN: JAM      DATE: JUNE 2018      REVISION DATE:      FILE NAME:      JOB NO.      SCALE: NDT TO SCALE

DRAWING NO.	3
REV. NO.	1
SHEET	1
OF	1

**APPENDIX B**  
**ANALYTICAL SUMMARY TABLES**

**Table 1**  
**Annual Groundwater Sampling**  
**729 Cross Road, Oaks Corners, New York**

**Summary of Monitoring Well Depths**  
**May 9, 2019**

<b>Well I.D.</b>	<b>Static Water Level (feet)</b>	<b>Depth of Well (feet)</b>
MW-4A	3.31	12.04
MW-5A	2.60	11.3
MW-8	6.36	13.9
MW-9R	10.23	20.0
MW-10R	6.87	15.0
MW-11	1.04	12.3

**Table 2**  
**Elderlee, Inc. Oaks Corners Facility - Area A**  
**Table of Analytical Results - May 10, 2019**

Field Parameters	Units	Method	MW-4A	MW-5A	MW-8	MW-9R	MW-10R	MW-11	6NYCRR Part 703 MCL/Std.
Gradient Location	NA	NA	Downgradient	Downgradient	Downgradient	Downgradient	Downgradient	Downgradient	NS
Static Water Level	feet	NA	3.31	2.60	6.36	10.23	6.87	1.04	NS
Specific Conductance	umhos/cm	NA	1,890	2,170	1,610	2,620	1,390	2,670	NS
Temperature	Degrees C	NA	12.9	9.2	10.3	10.5	10.7	10.4	NS
pH	S.U.	NA	6.65	6.86	6.84	6.88	6.91	6.73	6.5 - 8.5
Turbidity	NTU	NA	2.21	1.1	2.14	2.69	2.8	12.4	NS
<b>Metals</b>									
Aluminum	ug/l	200.7	ND	ND	ND	ND	199	115	NS
Antimony	ug/l	200.7	ND	ND	ND	ND	ND	ND	3
Arsenic	ug/l	200.7	ND	ND	ND	ND	ND	18.7	25
Barium	ug/l	200.7	ND	ND	ND	ND	ND	ND	1,000
Beryllium	ug/l	200.7	ND	ND	ND	ND	ND	ND	3
Cadmium	ug/l	200.7	ND	ND	ND	ND	ND	ND	5
Calcium	ug/l	200.7	320,000	451,000	312,000	162,000	109,000	364,000	NS
Chromium	ug/l	200.7	ND	ND	ND	ND	ND	ND	50
Cobalt	ug/l	200.7	ND	ND	ND	ND	ND	ND	5
Copper	ug/l	200.7	ND	ND	ND	ND	ND	ND	200
Iron	ug/l	200.7	<b>1,420</b>	<b>1,740</b>	<b>2,650</b>	120	<b>446</b>	<b>6,190</b>	300
Lead	ug/l	200.7	ND	ND	ND	ND	ND	ND	25
Magnesium	ug/l	200.7	<b>38,900</b>	29,900	<b>23,000</b>	<b>39,000</b>	25,000	<b>60,300</b>	35,000
Manganese	ug/l	200.7	<b>408</b>	440	<b>637</b>	88	<b>1,150</b>	<b>1,110</b>	300
Mercury	ug/l	245.1	ND	ND	ND	ND	ND	ND	0.7
Nickel	ug/l	200.7	ND	ND	ND	ND	ND	ND	100
Potassium	ug/l	200.7	2,960	ND	ND	4,530	ND	3,860	NS
Selenium	ug/l	200.7	ND	ND	ND	ND	ND	ND	10
Silver	ug/l	200.7	ND	ND	ND	ND	ND	ND	50
Sodium	ug/l	200.7	<b>88,400</b>	<b>53,400</b>	<b>25,500</b>	<b>303,000</b>	<b>143,000</b>	<b>158,000</b>	20,000
Thallium	ug/l	200.7	ND	ND	ND	ND	ND	ND	0.5
Vanadium	ug/l	200.7	ND	ND	ND	ND	ND	ND	NS
Zinc	ug/l	200.7	<b>7,400</b>	314	1,190	144	658	ND	2,000
<b>Wet Chemistry</b>									
Chloride	mg/l	300.0	160	86	26	<b>630</b>	220	<b>290</b>	250
Sulfate	mg/l	300.0	<b>880</b>	<b>1,100</b>	<b>700</b>	88	110	<b>870</b>	250

**Bold Type** - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

NA - Not Applicable

ND<5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.

NS - No Groundwater Standard

B - This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

--- - Not Sampled

**Table 3**  
**Elderlee, Inc. Oaks Corners Facility - MW-4A**

Field Parameters	UNITS	METHOD	6NYCRR Part 703 MCL-GL	05/10/19	05/02/18	05/01/17	05/11/16	06/11/15	06/20/14	07/01/13	04/11/12	07/22/11	05/15/09	05/27/08	06/14/07	06/13/06	06/01/05	12/06/04	06/02/04	12/16/03	07/10/03	02/19/03	06/06/02	12/06/01	06/22/01	12/14/00	06/01/00	###	Arithmetic Mean	Standard Deviation
Static Water Level	feet	NA	NS	3.31	3.16	3.07	3.36	2.95	3.75	3.55	5.48	4.42	3.7	3.81	3.85	3.75	3.79	3.93	3.31	3.66	4.01	4.67	3.43	4.66	3.98	3.77	3.25	NA	3.80	0.58
Specific Conductance	umhos/cm	NA	NS	1,890	3,100	3,930	2,520	3,140	3,340	2,550	1,910	3,730	2,833	2,810	3,190	3,320	2,920	3,350	3,160	3,590	3,630	3,539	2,610	3,020	2,520	3,380	3,060	NA	3093.57	471.27
Temperature	Degrees F	NA	NS	12.9	11.7	14	15.2	16.5	21.16	20.21	52.5	23.81	15.4	58.60	64.40	62.40	70.20	48.40	59.20	50.40	65.80	46.50	60.60	60.60	68.50	46.00	62.80	NA	44.13	21.16
pH	S.U.	NA	6.5-8.5	6.65	6.75	5.07	7.17	6.82	6.74	6.75	6.57	8.2	7.77	7.62	6.85	7.07	7.12	6.85	6.68	6.75	6.21	6.97	6.68	6.69	6.74	6.52	6.81	NA	6.84	0.58
Turbidity	NTU	NA	NS	2.21	2.6	12	21	22.8	12.5	15.2	3.0	33.5	9.8	44.00	30.00	8.00	5.00	100.00	18.00	3.00	6.00	8.04	2.89	7.63	NA	12.00	11.50	NA	18.36	21.61

Metals																															
Aluminum	ug/l	200.7	NS	ND	ND	532.0	1,080.0	470.0	ND	ND	70.9 B	ND	190	269	ND	102	ND	241	ND	ND	ND	ND	13	209	149	71 B	ND	B	265.39	290.20	
Antimony	ug/l	200.7	3	ND	ND<60	ND	20.5 B	ND		ND	NA																				
Arsenic	ug/l	200.7	25	ND	ND	ND	ND	11.4	ND	ND	ND	J	4.9 J	ND<10	ND	3.4 B	ND		ND	NA											
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	ND	30.1 B	ND	15.7 B	B	43 J	ND<20	ND	37.4	ND	ND	ND	ND	ND	ND	18.1	ND	22.9	14.1 B	B	44.5	B	27.74	11.68
Beryllium	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	24.2 B	ND	ND	ND<5	ND	0.9	ND		12.55	16.48												
Cadmium	ug/l	200.7	5	ND	ND	ND	ND	ND	4.0 B	ND	3.9 B	J	3.2 J	ND<5	ND	ND	ND	ND	6.1	7.3	ND	5.2	3.4	ND	4.0 B	4.3 B	7.0		4.84	1.48	
Calcium	ug/l	200.7	NS	320,000	572,000	592,000	425,000	607,000	523,000	475,000	347,000	560,000	425,000	497,000	557,000	596,000	495,000	584,000	443,000	551,000	498,000	553,000	536,000	503,000	347,000	575,000	572,000	523,500.00	92095.96		
Chromium	ug/l	200.7	50	ND	ND	21.2	47.7	16.4	3.2 B	2.7 B	10.5 B	B	1.1 J	11	11.3	3.2	ND	ND	17.5	11.9	11.7	12.8	ND	3.4	43.8	14.2	2.6 B	B	14.29	13.19	
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	1.5 B	2.0 B	1.5 B	J	1.5 J	ND<50	ND	2.7 B	3 B	ND	B	1.93	0.67										
Copper	ug/l	200.7	200	ND	ND	ND	ND	ND	3.8 B	ND	4.6 B	ND	ND<20	ND	0.88 B	ND		ND	NA												
Iron	ug/l	200.7	300	1,420	6,460	2,860	6,070	1,980	6,790	5,660	2,350	8,300	2,480	4,190	8,770	12,300	7,160	14,800	7,250	9,690	5,950	15,300	13,100	13,300	5,200	14,700	12,900	9,245.71	5,416.27		
Lead	ug/l	200.7	25	ND	ND	84.3	178.0	46.7	13.6	4.7 B	18.3	ND	ND<50	22.4	9.1	11.4	ND	29.6	11.0	5.9	7.3	ND	2.5	17.5	11.4	ND		29.61	44.52		
Magnesium	ug/l	200.7	35,000	38,900	65,700	69,500	46,800	39,100	80,100	69,900	55,900	81,000	75,000	71,000	79,600	74,300	81,200	76,900	89,800	103,000	103,000	83,200	72,300	57,400	54,200	78,100	82,600	70,800.00	20,321.11		
Manganese	ug/l	200.7	300	408	472	122	276	296	561	548	551	560	698	635	670	578	652	537	596	705	739	619	647	331	646	697	719		565.14	162.08	
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	0.043 B	ND	ND	ND	ND<0.3	ND	ND	ND		0.17	0.17												
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	7.2 B	8.1 B	7.6 B	J	6.6 J	ND<40	ND	8	ND	8 B	10.5	ND	B	8.34	1.57								
Potassium	ug/l	200.7	NS	2,960	4,190	5,890	3,660	5,390	6,930	4,960	4,660	7,300	7,700	6,850	7,880	7,690	7,970	7,010	7,690	7,370	8,670	5,190	6,160	5,830	5,620	5,300	6,360		6,375.00	1,575.01	
Selenium	ug/l	200.7	10	ND	ND	ND	ND	ND	1.6	ND	21.7 B	ND	ND<10	ND	2.8 B	ND	ND		8.51	9.06											
Silver	ug/l	200.7	50	ND	ND<10	ND	3 B	ND		1.91	NA																				
Sodium	ug/l	200.7	20,000	88,400	168,000	265,000	164,000	161,000	203,000	199,000	177,000	230,000	198,000	161,000	175,000	181,000	162,000	228,000	194,000	231,000	189,000	154,000	111,000	97,700	78,900	115,000	114,000		165,864.29	59,031.44	
Thallium	ug/l	200.7	0.5*	ND	ND<10	ND	ND	ND		12.00	NA																				
Vanadium	ug/l	200.7	NS	ND	ND<50	ND	ND	ND		ND	NA																				
Zinc	ug/l	200.7	2,000	7,400	10,500	16,600	18,000	12,900	13,500	11,400	12,300	12,000	13,100	12,000	13,200	8,100	11,000	9,150	14,400	15,100	13,400	11,600	10,300	5,910 E	14,500 E	11,900	13,800		12,073.33	2,816.76	

Wet Chemistry																				
Chloride	mg/l	300.0	250	160	310	510	260	250	340 B	310	310	360	357	316	297	316	312	470	449	520
Sulfate	mg/l	300.0	250	880	1,600	1,600	970	1,300	1,400 B	1,200	970	1,400	1,250	1,060	1,510	1,600	1,210	1,550	1,420	1,590

343.94	94.83
1324.12	244.64

**Bold Type** - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

NA - Not Applicable

ND<5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.

NS - No Groundwater Standard

**Table 4**  
**Elderlee, Inc. Oaks Corners Facility - MW-5A**

Field Parameters	UNITS	METHOD	6NYCRR Part 703 MCLand	05/10/19	05/02/18	05/01/17	05/11/16	06/11/15	06/20/14	07/01/13	04/11/12	07/22/11	05/15/09	05/27/08	06/14/07	06/13/06	06/01/05	12/06/04	06/02/04	12/16/03	07/10/03	02/19/03	06/06/02	12/06/01	06/22/01	12/14/00	06/01/00	12/16/99	12/11/97	12/12/96	09/12/95	Arithmetic Mean	Standard Deviation
Static Water Level	feet	NA	NS	2.60	2.02	2.20	2.72	1.88	3.00	2.23	2.70	3.57	3.80	3.28	3.45	3.14	3.32	2.92	2.71	2.94	3.58	4.01	3.02	4.10	3.60	2.44	2.32	4.00	NA	NA	NA	3.05	0.66
Specific Conductance	umhos/cm	NA	NS	2,170	2,381	2,690	2,520	2,820	2,550	2,680	2,764	3,200	2,780	2,940	2,790	2,800	2,740	2,730	2,890	3,380	3,610	2,775	2,270	2,720	2,750	2,870	2,470	2,570	NA	NA	NA	2778.75	293.42
Temperature	Degrees F	NA	NS	9.2	9.5	9.1	10.9	14.20	16.35	16.5	48.8	21.2	12.8	52.2	59.0	60.1	60.4	45.9	55.2	45.0	61.0	43.1	57.0	56.1	62.1	43.9	59.9	47.9	NA	NA	NA	40.34	20.06
pH	S.U.	NA	6.5--8.5	6.86	7.07	5.47	7.10	6.89	6.65	6.95	6.92	7.87	7.81	7.61	7.02	7.24	7.48	7.06	7.05	6.99	<b>6.44</b>	7.06	6.99	6.94	7.08	7.03	6.92	7.38	NA	NA	NA	7.04	0.47
Turbidity	NTU	NA	NS	1.1	0.7	1.2	1.6	4.1	13.2	5	0.7	80	8	7	16	4	5	16	5	4	3	6	6	7	NA	1	5	2	NA	NA	NA	9.10	16.46

**Metals**

Aluminum	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	31.3	44.9	ND	ND	ND	ND	ND	ND	109.0	61.73	41.50															
Antimony	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA																
Arsenic	ug/l	200.7	25	ND	ND	ND	ND	16	ND	ND	4.6 B	19 J	ND	10.6	ND	ND	ND	ND	20.8	7.1	ND	ND	20.8	13.8	ND	14.09	6.20								
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	ND	12.2 B	13.9 B	13.3 B	14 J	ND	ND	ND	ND	12.1	ND	14.6	16.4	ND	ND	ND	ND	ND	15.6	14.01	1.51							
Beryllium	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	1.20	NA																	
Cadmium	ug/l	200.7	5	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	1.20	NA																	
Calcium	ug/l	200.7	NS	451,000	435,000	596,000	641,000	655,000	584,000	576,000	586,000	600,000	606,000	625,000	629,000	624,000	641,000	641,000	572,000	545,000	610,000	603,000	567,000	605,000	603,000	589,000	566,000	525,000	547,000	631,000	712,000	596,814.81	50,534.86		
Chromium	ug/l	200.7	50	ND	0.68 J	ND	ND	ND	2	ND	1	ND	1.26	0.61																					
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	1.7 B	1.8 B	1.9 B	1.9 J	ND	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND	ND	2.28	NA								
Copper	ug/l	200.7	200	ND	ND	ND	ND	ND	ND	1	3	ND	ND	ND	ND	ND	1.92	1.39																	
Iron	ug/l	200.7	300	<b>1,740</b>	<b>1,600</b>	<b>2,330</b>	<b>2,490</b>	<b>3,200</b>	<b>4,010</b>	<b>3,940</b>	<b>2,440</b>	<b>5,300</b>	<b>4,800</b>	<b>5,610</b>	<b>4,380</b>	<b>6,380</b>	<b>5,140</b>	<b>7,080</b>	<b>5,430</b>	<b>6,280</b>	<b>8,260</b>	<b>5,960</b>	<b>4,590</b>	<b>6,020</b>	<b>7,480</b>	<b>8,540</b>	<b>7,090</b>	<b>6,040</b>	<b>6,860</b>	<b>4,160</b>	<b>1,900</b>	5,085.56	1,924.67		
Lead	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	ND	ND	5.00	NA																
Magnesium	ug/l	200.7	35,000	29,900	21,500	27,800	<b>39,800</b>	<b>39,900</b>	<b>42,500</b>	<b>33,600</b>	<b>37,600</b>	<b>40,000</b>	<b>47,700</b>	<b>36,800</b>	<b>45,000</b>	<b>42,500</b>	<b>44,300</b>	32,300	<b>40,900</b>	32,200	<b>39,700</b>	<b>43,300</b>	<b>39,000</b>	<b>38,900</b>	<b>46,200</b>	27,600	29,300	31,900	<b>38,700</b>	<b>67,400</b>	<b>71,200</b>	39,911.11	10,552.96		
Manganese	ug/l	200.7	300	440	296	<b>502</b>	<b>600</b>	<b>834</b>	<b>725</b>	<b>613</b>	<b>788</b>	<b>710</b>	<b>684</b>	<b>672</b>	<b>567</b>	<b>651</b>	<b>557</b>	<b>608</b>	<b>637</b>	<b>651</b>	<b>1,110</b>	<b>556</b>	<b>553</b>	<b>572</b>	<b>582</b>	<b>884</b>	<b>766</b>	<b>636</b>	<b>726</b>	<b>804</b>	<b>805</b>	669.96	132.49		
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	ND	0.037 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	NA										
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	2.8 B	6.4 B	2.5 B	2.7 J	ND	ND	ND	ND	3	ND	ND	5	ND	ND	ND	ND	7	4.11	1.94								
Potassium	ug/l	200.7	NS	ND	ND	ND	ND	ND	1,890	1,880	1,850	2,300	ND	2,020	2,130	ND	1,580	ND	1,580	1,430	ND	ND	ND	2,580	3,420	2,060.00	561.00								
Selenium	ug/l	200.7	10	ND	ND	ND	ND	<b>14.6</b>	<b>15 B</b>	<b>17.5 B</b>	ND	ND	ND	ND	ND	4	ND	ND	10	ND	<b>15</b>	ND	12.70	4.87											
Silver	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	1	2.60	2.26																		
Sodium	ug/l	200.7	20,000	<b>53,400</b>	<b>52,200</b>	<b>58,100</b>	<b>67,400</b>	<b>68,500</b>	<b>68,200</b>	<b>66,500</b>	<b>61,800</b>	<b>71,000</b>	<b>78,900</b>	<b>72,400</b>	<b>72,200</b>	<b>84,500</b>	<b>69,700</b>	<b>82,200</b>	<b>109,000</b>	<b>242,000</b>	<b>248,000</b>	<b>55,300</b>	<b>46,700</b>	<b>44,600</b>	<b>39,600</b>	<b>33,900</b>	<b>37,400</b>	<b>38,900</b>	<b>48,600</b>	<b>85,700</b>	<b>80,700</b>	76,335.71	50,706.56		
Thallium	ug/l	200.7	0.5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA																	
Vanadium	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA																
Zinc	ug/l	200.7	2,000	314	273	363	364	306	366	290	332	300	246	238	208	221	186	215	210	206	223	207	157	165	119	247	173	160	232	211	302	244.07	67.40		

**Wet Chemistry**

Chloride	mg/l	300.0	250	86	95	93	110	110	110 B	100	95	100	174	141	134	195	149	177	244	<b>450</b>
Sulfate	mg/l	300	250	<b>1,100</b>	<b>960</b>	<b>1,400</b>	<b>1,400</b>	<b>1,300</b>	<b>1,300 B</b>	<b>1,100</b>	<b>1,300</b>	<b>1,200</b>	<b>1,340</b>	<b>1,140</b>	<b>1,300</b>	<b>1,320</b>	<b>1,190</b>	<b>1,310</b>	<b>1,270</b>	<b>1,110</b>

150.76	88.63
1,237.65	121.53

*Bold Type - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.*

*NA - Not Applicable*

*ND < 5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.*

*NS - No Groundwater Standard*

**Table 5  
Elderlee, Inc. Oaks Corners Facility - MW-8**

Field Parameters	UNITS	METHOD	6NYCRR Part703 MCLStd.	05/10/19	05/02/18	05/01/17	05/11/16	06/11/15	06/20/14	07/01/13	04/11/12	07/22/11	05/15/09	05/27/08	06/14/07	06/13/06	06/02/05	12/06/04	06/02/04	12/16/03	07/10/03	02/19/03	06/06/02	12/06/01	06/22/01	12/14/00	06/01/00	12/16/99	12/11/97	12/12/96	09/12/95	Arithmetic Mean	Standard Deviation
Static Water Level	feet	NA	NS	6.36	5.75	5.91	6.36	5.79	5.20	4.44	7.80	5.63	5.5	5.78	5.66	5.30	5.55	5.09	4.99	5.09	NR	6.21	5.24	6.33	5.91	4.55	4.52	NA	NA	NA	NA	5.47	0.56
Specific Conductance	umhos/cm	NA	NS	1,610	2,910	2,700	1,520	1,320	2,040	3,230	3,315	2,400	2,055	3,010	2,780	2,830	3,210	2,400	2,570	2,570	4,060	3,660	2,570	3,560	4,100	1,478	2,510	NA	NA	NA	NA	2730.35	751.99
Temperature	Degrees F	NA	NS	10.3	11.7	12.0	12.7	14.50	20.72	17.4	52.4	16.2	13.4	49.5	61.5	59.2	58.1	46.8	55.9	45.9	57.9	43.4	58.1	56.5	69.8	43.5	55.6	NA	NA	NA	NA	40.55	20.16
pH	S.U.	NA	6.5-8.5	6.84	6.85	6.98	7.26	6.98	6.90	6.90	6.83	8.16	7.74	7.68	7.11	7.33	7.51	7.27	7.10	6.89	<b>6.58</b>	6.98	6.85	6.87	6.92	7.10	6.89	NA	NA	NA	NA	7.12	0.36
Turbidity	NTU	NA	NS	2.14	0.10	3.10	2.74	4.50	9.66	0.35	1.8	123	8.7	1	25	2	8	21	8	0	6	1	3	10	NA	10	7	NA	NA	NA	NA	12.04	26.24

**Metals**

Aluminum	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	113	142	86.2	ND	ND	ND	ND	92.7	108.48	25.10
Antimony	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Arsenic	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	ND	6.2 B	11 J	ND<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	ND	ND	ND	19.5	ND	ND	10.43	6.58
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	ND	32.5 B	80.4 B	68.3 B	59 J	ND<20	23.2	34.7	31.2	28.3	41.8	37	20.7	22	39.1	30.6	20.3	25.1	33	27.1	25.3	30.1	50	56.4	37.10	16.18
Beryllium	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	ND	B	ND	ND<5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	2.10	NA
Cadmium	ug/l	200.7	5	ND	ND	ND	ND	ND	ND	ND	B	ND	ND<5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.67	ND	ND	1	ND	ND	ND	ND	1.6	1.09	0.47
Calcium	ug/l	200.7	NS	312,000	284,000	305,000	204,000	215,000	485,000	468,000	475,000	470,000	506,000	580,000	559,000	530,000	617,000	430,000	360,000	510,000	643,000	559,000	483,000	489,000	6340,000	562,000	477,000	511,000	359,000	296,000	418,000	451,807.69	119,635.45
Chromium	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	1.3 B	B	ND	ND<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND	1.60	NA
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	1.2 B	1.3 B	2.7 B	2.2 J	ND<50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	ND	ND	1.1	1.95	0.88
Copper	ug/l	200.7	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Iron	ug/l	200.7	300	<b>2,650</b>	<b>1,780</b>	<b>1,720</b>	<b>1,090</b>	<b>962</b>	<b>5,850</b>	<b>5,570</b>	<b>6,330</b>	<b>5,600</b>	<b>8,150</b>	<b>5,460</b>	<b>4,960</b>	<b>6,620</b>	<b>6,110</b>	<b>6,090</b>	<b>5,350</b>	<b>6,230</b>	<b>10,100</b>	<b>12,500</b>	<b>9,660</b>	<b>9,200</b>	<b>11,400</b>	<b>7,100</b>	<b>8,500</b>	<b>9,400</b>	<b>5,660</b>	<b>4,530</b>	<b>516</b>	6,038.86	3,146.87
Lead	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Magnesium	ug/l	200.7	35,000	<b>23,000</b>	<b>36,400</b>	30,800	22,300	24,300	29,800	<b>35,100</b>	27,800	31,000	32,300	<b>38,500</b>	<b>44,100</b>	<b>45,400</b>	<b>36,300</b>	<b>37,600</b>	20,200	26,000	<b>44,900</b>	<b>66,200</b>	<b>44,300</b>	<b>63,600</b>	<b>60,400</b>	<b>11,600</b>	<b>48,700</b>	<b>53,000</b>	<b>53,100</b>	<b>33,800</b>	<b>36,800</b>	37,760.71	13,406.01
Manganese	ug/l	200.7	300	<b>637</b>	<b>321</b>	<b>352</b>	285	<b>353</b>	<b>452</b>	<b>417</b>	<b>496</b>	<b>950</b>	<b>892</b>	<b>1070</b>	<b>1030</b>	<b>651</b>	<b>566</b>	<b>521</b>	<b>376</b>	<b>624</b>	<b>768</b>	<b>846</b>	<b>709</b>	<b>753</b>	<b>917</b>	<b>1000</b>	<b>1030</b>	<b>738</b>	<b>437</b>	<b>538</b>	<b>1140</b>	673.89	258.13
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	ND	0.054	ND	ND	ND<0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	0.04	NA
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	5.1 B	6.4 B	7.1 B	5.5 J	ND<40	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND	6.4	6.5	ND	ND	ND	ND	8.3	6.28	1.12
Potassium	ug/l	200.7	NS	ND	ND	ND	ND	ND	1,280	2,040	2,440	3,700	2,100	3,330	2,340	3,730	3,110	4,030	ND	3,590	6,220	6,300	5,630	4,560	6,090	1,930	4,670	6,010	6,620	4,960	3,120	3,990.91	1,640.29
Selenium	ug/l	200.7	10	ND	ND	ND	ND	ND	ND	17.6 B	ND	ND	ND<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.5	ND	ND	12.8	ND	7.74	2.5	9.23	6.00
Silver	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.2	ND	ND	ND	ND	ND	0.71	2.46	2.47
Sodium	ug/l	200.7	20,000	<b>25,500</b>	<b>295,000</b>	<b>252,000</b>	<b>115,000</b>	<b>39,400</b>	<b>69,400</b>	<b>304,000</b>	<b>240,000</b>	<b>61,000</b>	<b>62,500</b>	<b>115,000</b>	<b>97,800</b>	<b>148,000</b>	<b>200,000</b>	<b>112,000</b>	<b>111,000</b>	<b>130,000</b>	<b>237,000</b>	<b>174,000</b>	<b>123,000</b>	<b>246,000</b>	<b>224,000</b>	<b>131,000</b>	<b>50,400</b>	<b>191,000</b>	<b>243,000</b>	<b>152,000</b>	<b>121,000</b>	152,500.00	79,101.95
Thallium	ug/l	200.7	0.5*	ND	ND	ND	ND	ND	ND	ND	7.1 B	ND	ND<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.10	NA
Vanadium	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND<50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Zinc	ug/l	200.7	2,000	1,190	1,550	1,870	1,930	<b>2,710</b>	1,260	1,920	<b>2,490</b>	2,000	762	576	673	436	185	437	640	188	233	381	288	465	529	686	1,790	485	548	752	<b>6,490</b>	1,195.14	1,273.14

**Wet Chemistry**

Chloride	mg/l	300	250	26	<b>550</b>	450	160	85	150 B	<b>440</b>	<b>430</b>	91	<b>263</b>	190	193	<b>255</b>	<b>284</b>	186	141	80.4
Sulfate	mg/l	300	250	<b>700</b>	<b>470</b>	<b>530</b>	<b>330</b>	<b>320</b>	<b>900 B</b>	<b>810</b>	<b>970</b>	<b>860</b>	<b>1,020</b>	<b>1,100</b>	<b>1,200</b>	<b>1,230</b>	<b>1,230</b>	<b>1,060</b>	<b>1,000</b>	<b>834</b>

233.79	151.61
856.71	296.65

*Bold Type - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.*

*NA - Not Applicable*

*ND<5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.*

*NS - No Groundwater Standard*

**Table 6  
Elderlee, Inc. Oaks Corners Facility - MW-9R**

Field Parameters	UNITS	METHOD	6NYCRR Part703 MCL/std.	05/10/19	05/02/18	05/01/17	05/11/16	06/11/15	06/20/14	07/01/13	Arithmetic Mean	Standard Deviation
Static Water Level	feet	NA	NS	10.23	9.60	9.73	10.22	9.65	10.60	9.80	9.98	0.38
Specific Conductance	umhos/cm	NA	NS	2,620	913	1,620	1,430	2,030	1540	1410.00	1651.86	539.67
Temperature	Degrees F	NA	NS	10.5	10.5	10.6	11.1	13.20	15.72	13.14	12.11	1.99
pH	S.U.	NA	6.5--8.5	6.88	7.04	6.33	7.27	7.10	6.62	7.13	6.91	0.33
Turbidity	NTU	NA	NS	2.69	1.60	1.22	1.39	2.30	4.54	1.54	2.18	1.16

**Metals**

Aluminum	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	ND	NA	NA
Antimony	ug/l	200.7	3	ND	ND	ND	ND	ND	9.7	B	ND	NA
Arsenic	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	ND	NA	NA
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	ND	40.8	B	41.6	B
Beryllium	ug/l	200.7	3	ND	ND	ND	ND	ND	ND	ND	NA	NA
Cadmium	ug/l	200.7	5	ND	ND	ND	ND	ND	ND	ND	NA	NA
Calcium	ug/l	200.7	NS	162,000	122,000	191,000	146,000	149,000	159,000	168,000	156714.29	21,273.73
Chromium	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	1.10	B	NA
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	ND	0.95	B	NA
Copper	ug/l	200.7	200	ND	ND	ND	ND	ND	ND	ND	NA	NA
Iron	ug/l	200.7	300	120	ND	168	220	222	158	B	<b>424</b>	238.40
Lead	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	ND	NA	NA
Magnesium	ug/l	200.7	35,000	<b>39,000</b>	33,400	<b>48,000</b>	<b>37,200</b>	<b>36,100</b>	<b>40,700</b>	<b>4,500</b>	34128.57	13,850.60
Manganese	ug/l	200.7	300	88	167	110	125	76	101	<b>302</b>	138.41	77.90
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	ND	0.043	B	NA
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	1.0	B	3.9	B
Potassium	ug/l	200.7	NS	4,530	3,170	4,130	3,610	3,270	3,260	2,810	3540.00	599.19
Selenium	ug/l	200.7	10	ND	ND	ND	ND	ND	ND	<b>15.1</b>	B	NA
Silver	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	ND	NA	NA
Sodium	ug/l	200.7	20,000	<b>303,000</b>	<b>32,500</b>	<b>76,800</b>	<b>134,000</b>	<b>215,000</b>	<b>174,000</b>	<b>63,700</b>	142714.29	95,487.00
Thallium	ug/l	200.7	0.5*	ND	ND	ND	ND	ND	ND	ND	NA	NA
Vanadium	ug/l	200.7	NS	ND	ND	ND	ND	ND	ND	ND	NA	NA
Zinc	ug/l	200.7	2,000	144	276	398	357	149	246	419	284.14	112.46

**Wet Chemistry**

Chloride	mg/l	300.0	250	<b>630</b>	54	250	180	<b>380</b>	250	B	83	B
Sulfate	mg/l	300	250	88	130	160	210	61	170	B	<b>250</b>	152.71

**Bold Type** - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

NA - Not Applicable

ND<5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.

NS - No Groundwater Standard

**Table 7  
Elderlee, Inc. Oaks Corners Facility - MW-10 and MW-10R**

Field Parameters	UNITS	METHOD	6NYCRR Part703 MCLStd.	05/10/19	05/02/18	05/01/17	05/11/16	06/11/15	06/20/14	07/01/13	07/22/11	05/15/09	05/27/08	06/14/07	06/13/06	06/01/05	12/06/04	06/02/04	12/16/03	07/10/03	02/19/03	06/06/02	12/06/01	06/22/01	12/14/00	06/01/00	12/16/99	12/11/97	12/12/96	Arithmetic Mean	Standard Deviation
Static Water Level	feet	NA	NS	6.87	6.26	6.39	6.90	6.26	7.30	6.50	5.49	4.3	4.39	4.60	4.19	4.42	3.95	3.85	3.97	4.70	Could Not Locate	4.26	5.20	4.86	3.40	2.32	NA	NA	NA	5.02	1.31
Specific Conductance	umhos/cm	NA	NS	1,390	1,165	1,170	1,620	2,100	1,920	1,210	2,790	1,087	2,690	3,020	2,950	2,560	2,870	2,710	3,070	3,320		2,600	3,390	3,110	1,838	2,450	NA	NA	NA	2319.55	768.06
Temperature	Degrees F	NA	NS	10.7	10.7	11.3	12.5	14.5	15.1	17.5	19.8	14.6	50.9	62.1	57.0	61.2	49.3	54.7	49.8	58.3		56.3	57.0	64.0	42.4	55.2	NA	NA	NA	38.40	21.29
pH	S.U.	NA	6.5--8.5	6.91	7.01	6.84	7.22	7.05	6.61	7.09	8.01	7.74	7.61	7.09	7.30	7.45	7.19	7.07	6.91	6.57		6.91	6.87	6.97	6.86	6.94	NA	NA	NA	7.10	0.35
Turbidity	NTU	NA	NS	2.8	2.8	2.5	1.5	1.3	32.1	38	101	7.96	13	66	8	10	1	38	0	7		3	6	NA	8	7	NA	NA	NA	16.97	25.53

**Metals**

Aluminum	ug/l	200.7	NS	199	ND	ND<100	ND	NA	10.7	ND	29.8	70.7	ND	ND	132	108	91.70	69.62													
Antimony	ug/l	200.7	3	ND	ND<60	ND	NA	ND	NA	NA																					
Arsenic	ug/l	200.7	25	ND	ND	ND	ND	ND	ND	4.6 B	13 J	ND<10	ND	NA	ND	10.9	11.6	ND	ND	ND	22	ND	14.43	5.26							
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	ND	91.40 B	101 B	17 J	64	ND	23.6	ND	ND	ND	33.8	25.2	36.4	NA	28.3	22.5	30.7	128	25.2	20.9	40.8	31.3	41.27	30.70
Beryllium	ug/l	200.7	3	ND	ND<5	ND	NA	ND	ND	1.6	ND	ND	ND	ND	ND	1.60	NA														
Cadmium	ug/l	200.7	5	ND	ND<5	ND	NA	ND	ND	ND	1	ND	ND	ND	ND	1.00	NA														
Calcium	ug/l	200.7	NS	109,000	102,000	128,000	137,000	131,000	154,000	127,000	520,000	338,000	521,000	465,000	574,000	492,000	598,000	406,000	514,000	581,000	NA	399,000	565,000	446,000	170,000	426,000	345,000	351,000	289,000	355520.00	175130.22
Chromium	ug/l	200.7	50	ND	83.4	ND	ND	12.20	ND	ND	ND	ND<10	ND	ND	ND	ND	ND	ND	11.6	NA	1.9	ND	27.28	37.71							
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	0.76 B	1.2 B	1.9 J	ND<50	ND	NA	3.2	ND	3.9	ND	ND	ND	ND	2.19	1.33								
Copper	ug/l	200.7	200	ND	ND<20	ND	NA	ND	NA	NA																					
Iron	ug/l	200.7	300	446	515	410	445	736	1940	2770	7,200	1,980	7,290	6,530	9,820	7,310	9,160	12,300	10,800	13,000	NA	8,190	9,590	9,160	8,020	7,830	6,070	6,780	5,310	6144.08	3931.20
Lead	ug/l	200.7	25	ND	ND<50	ND	NA	2.2	ND	2.20	NA																				
Magnesium	ug/l	200.7	35,000	25,000	25,300	27,200	26,700	23,600	29,300	25,800	27,000	19,500	34,800	29,200	45,800	48,100	36,500	42,000	46,200	47,500	NA	42,300	36,100	38,700	19,700	39,700	39,300	44,500	37,100	34276.00	9024.15
Manganese	ug/l	200.7	300	1,150	990	1,380	1,060	1,010	848	894.00	860	904	702	689	763	580	595	778	686	1,170	NA	906	871	622	880	496	610	592	536	822.88	221.65
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	ND	0.04 B	ND	ND<0.3	ND	NA	ND	0.04	ND														
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	2.10 B	4.70 B	7.2 J	ND<40	ND	NA	6.9	ND	8.2	ND	ND	ND	ND	ND	5.82	2.44							
Potassium	ug/l	200.7	NS	ND	ND	ND	ND	ND	1,070	1,020	3,300	2,200	ND	2,340	3,320	2,540	3,950	4,090	5,360	3,960	NA	3,500	4,580	4,460	1,190	3,220	3,640	4,500	4,260	3289.47	1259.72
Selenium	ug/l	200.7	10	ND	ND	ND	ND	ND	ND	17.9 B	ND	ND<10	ND	NA	ND	ND	4	ND	ND	8.9	ND	10.9	7.93	3.55							
Silver	ug/l	200.7	50	ND	ND<10	ND	NA	ND	ND	3.3	ND	ND	ND	ND	ND	3.30	NA														
Sodium	ug/l	200.7	20,000	143,000	105,000	84,000	187,000	283,000	237,000	117,000	81,000	92,600	81,000	206,000	124,000	81,600	130,000	171,000	205,000	184,000	NA	183,000	194,000	135,000	176,000	81,100	116,000	172,000	154,000	148932.00	54304.70
Thallium	ug/l	200.7	0.5*	ND	ND	ND	ND	ND	ND	6.20	ND	ND<10	ND	NA	ND	6.20	NA														
Vanadium	ug/l	200.7	NS	ND	ND<50	ND	NA	ND	NA	NA																					
Zinc	ug/l	200.7	2,000	658	430	566	528	605	727	416	1,000	1,700	738	632	861	743	857	760	925	974	NA	667	1,010	799	185	622	486	448	430	722.96	291.74

**Wet Chemistry**

Chloride	mg/l	300.0	250	220	160	130	310	410	390 B	130	230	213	140	359	256	202	230	329	415
Sulfate	mg/l	300	250	110	62	83	99	120	110 B	88	870	702	1,000	928	1,340	1,030	1,270	1,010	1,170

247.27	99.20
624.50	503.07

**Table 8**  
**Elderlee, Inc. Oaks Corners Facility - MW-11**

Field Parameters	UNITS	METHOD	6NYCRR Part703 MCL/std.	05/10/19	05/02/18	05/01/17	05/11/16	08/06/15	06/20/14	07/01/13	04/11/12	07/22/11	05/15/09	05/27/08	06/14/07	06/13/06	06/01/05
Static Water Level	feet	NA	NS	1.04	0.73	1.06	1.57	1.72	2.50	1.02	1.40	2.02	1.8	2.09	1.85	1.55	1.73
Specific Conductance	umhos/cm	NA	NS	2,670	2,811	2,450	2,420	1,940	2,680	2,520	3,025	2,990	3,076	3,790	3,520	3,880	41,000
Temperature	Degrees F	NA	NS	10.4	11.3	10.9	11.9	18.4	20.19	18.2	47.8	20.8	13.5	51.4	61.0	59.2	57.4
pH	S.U.	NA	6.5--8.5	6.73	6.96	7.02	7.10	7.65	6.75	6.99	7.01	8.46	7.75	7.64	7.03	7.32	7.37
Turbidity	NTU	NA	NS	12.4	9.8	26.9	11.0	22.0	12.0	19.9	0.94	69	8.5	14	16	52	10

**Metals**

Aluminum	ug/l	200.7	NS	115	205	278	ND	1050	ND	199 B	ND	81 J	ND<100	192	ND	ND	ND
Antimony	ug/l	200.7	3	ND	ND<60	ND	ND	ND	ND								
Arsenic	ug/l	200.7	25.0	18.7	13.6	<b>163</b>	22.3	<b>26.7</b>	5.1 B	13.4 B	9.6 B	22	10	11	ND	ND	13
Barium	ug/l	200.7	1,000	ND	ND	ND	ND	131	73.2 B	76.3 B	67.0 B	51 J	71	71.4	82.3	102	97.5
Beryllium	ug/l	200.7	3	ND	B	ND	ND<5	ND	ND	ND	ND						
Cadmium	ug/l	200.7	5	ND	B	ND	ND<5	ND	ND	ND	ND						
Calcium	ug/l	200.7	NS	364,000	415,000	385,000	450,000	422,000	487,000	375,000	430,000	370,000	316,000	361,000	353,000	340,000	380,000
Chromium	ug/l	200.7	50	ND	ND	ND	ND	ND	ND	1.6 B	ND	0.98 J	ND<10	ND	ND	ND	ND
Cobalt	ug/l	200.7	5	ND	ND	ND	ND	ND	1.4 B	1.8 B	1.4 B	1.2 J	ND<50	ND	ND	ND	ND
Copper	ug/l	200.7	200	ND	ND<20	ND	ND	ND	ND								
Iron	ug/l	200.7	300	<b>6,190</b>	<b>7,530</b>	<b>7,550</b>	<b>9,510</b>	<b>12,600</b>	<b>9,180</b>	<b>8,780</b>	<b>8,760</b>	<b>9,600</b>	<b>8,930</b>	<b>6,770</b>	<b>4,580</b>	<b>8,810</b>	<b>8,760</b>
Lead	ug/l	200.7	25	ND	ND<50	ND	ND	ND	ND								
Magnesium	ug/l	200.7	35,000	<b>60,300</b>	<b>53,800</b>	<b>48,800</b>	<b>57,100</b>	<b>51,400</b>	<b>68,300</b>	<b>53,100</b>	<b>72,100</b>	<b>74,000</b>	<b>75,000</b>	<b>77,900</b>	<b>80,100</b>	<b>81,200</b>	<b>99,800</b>
Manganese	ug/l	200.7	300	<b>1,110</b>	<b>1,100</b>	<b>1,110</b>	<b>1,210</b>	<b>1,810</b>	<b>1,680</b>	<b>1,570</b>	<b>1,600</b>	<b>1,300</b>	<b>1,260</b>	<b>1,250</b>	<b>1,290</b>	<b>1,500</b>	<b>1,530</b>
Mercury	ug/l	200.7	0.7	ND	ND	ND	ND	ND	ND	0.041 B	ND	ND	ND<0.3	ND	ND	0.02	ND
Nickel	ug/l	200.7	100	ND	ND	ND	ND	ND	2.6 B	6.5 B	2.7 B	2.9 J	ND<40	ND	ND	ND	ND
Potassium	ug/l	200.7	NS	3,860	3,480	4,010	3,990	6,530	5,200	5,310	5,190	6,700	6,100	6,300	6,670	7,440	7,770
Selenium	ug/l	200.7	10	ND	ND	ND	ND	<b>18</b>	<b>13 B</b>	21.3 B	ND	ND	ND<10	ND	ND	ND	ND
Silver	ug/l	200.7	50	ND	ND<10	ND	ND	ND	ND								
Sodium	ug/l	200.7	20,000	<b>158,000</b>	<b>182,000</b>	<b>134,000</b>	<b>126,000</b>	<b>130,000</b>	<b>157,000</b>	<b>168,000</b>	<b>215,000</b>	<b>190,000</b>	<b>285,000</b>	<b>334,000</b>	<b>337,000</b>	<b>430,000</b>	<b>413,000</b>
Thallium	ug/l	200.7	0.5*	ND	ND<10	ND	ND	ND	ND								
Vanadium	ug/l	200.7	NS	ND	ND<50	ND	ND	ND	ND								
Zinc	ug/l	200.7	2,000	ND	70.1	94.5	ND	229	46.8 B	82.2	48.0 B	100	46	37.3	88.8	73	53.4

**Wet Chemistry**

Chloride	mg/l	300.0	250	<b>290</b>	<b>320</b>	230	200	<b>270</b>	<b>230 B</b>	<b>250</b>	<b>350</b>	<b>280</b>	<b>579</b>	<b>534</b>	<b>560</b>	<b>725</b>	<b>710</b>
Sulfate	mg/l	300.0	250	<b>870</b>	<b>1,000</b>	<b>780</b>	<b>1,000</b>	<b>980</b>	<b>1,000 B</b>	<b>480</b>	<b>1,100</b>	<b>800</b>	<b>759</b>	<b>739</b>	<b>916</b>	<b>749</b>	<b>805</b>

*Bold Type - Exceeds NYCRR Part 703 Groundwater Standard from NYSDEC Technical and Operational Guidance Series (1.1.1) - Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.*

*NA - Not Applicable*

*ND<5.0 denotes that the constituent was not detected above the reported laboratory method detection limit.*

*NS - No Groundwater Standard*

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Field Parameters	12/06/04	06/01/04	12/16/03	07/10/03	02/19/03	06/06/02	12/06/01	06/22/01	12/14/00	06/01/00	12/16/99	12/11/97	12/12/96	Arithmetic Mean	Standard Deviation
Static Water Level	1.34	0.94	1.15	1.91	2.31	1.11	2.43	Damaged Well Not Sampled	Damaged Well Not Sampled	0.72	2.35	NA	NA	1.59	0.56
Specific Conductance	3,870	4,660	4,300	5,190	4195	3,190	4,200			3,990	1930.00	NA	NA	4969.43	7902.05
Temperature	45.9	58.5	46.4	61.9	42	57.4	55.2			54.7	41.90	NA	NA	38.10	19.94
pH	7.16	7.04	6.91	6.57	7.12	6.96	6.97			7.01	7.48	NA	NA	7.17	0.41
Turbidity	94	35	4	8	9.72	9	8			9	5.80	NA	NA	21.18	22.68

**Metals**

Aluminum			169	209	118	146	335	NA	NA	133	NA	132	NA	240.14	242.66
Antimony	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Arsenic	ND	ND	ND	ND	ND	5.3	ND	NA	NA	NA	NA	19	NA	25.17	40.19
Barium	121	129	113	151	89.6	71.7	95.4	NA	NA	123	45.3	11.3	110	90.80	33.56
Beryllium	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Cadmium	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Calcium	429,000	356,000	389,000	443,000	353,000	322,000	383,000	NA	NA	500,000	210,000	265,000	286,000	375360.00	66138.04
Chromium	ND	ND	ND	ND	ND	3	ND	NA	NA	NA	NA	NA	NA	1.93	1.15
Cobalt	ND	NA	NA	NA	NA	NA	NA	1.45	0.25						
Copper	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Iron	<b>10,700</b>	<b>8,010</b>	<b>7,870</b>	<b>9,890</b>	<b>9,180</b>	<b>6,600</b>	<b>6,700</b>	NA	NA	<b>10,100</b>	<b>2,450</b>	<b>3,840</b>	<b>6,070</b>	7958.40	2233.34
Lead	ND	ND	ND	7.2	ND	ND	ND	NA	NA	NA	NA	NA	NA	7.20	NA
Magnesium	<b>91,400</b>	<b>85,200</b>	<b>88,900</b>	<b>104,000</b>	<b>92,800</b>	<b>83,900</b>	<b>99,200</b>	NA	NA	<b>93,700</b>	<b>59,500</b>	<b>60,200</b>	<b>64,900</b>	75064.00	16771.67
Manganese	<b>1,890</b>	<b>1,920</b>	<b>2,060</b>	<b>1,630</b>	<b>1,630</b>	<b>1,850</b>	<b>2,100</b>	NA	NA	<b>2,110</b>	<b>1,600</b>	<b>2,560</b>	<b>2,080</b>	1630.00	380.50
Mercury	ND	NA	NA	NA	NA	NA	NA	0.03	0.02						
Nickel	ND	ND	ND	ND	ND	3	ND	NA	NA	NA	NA	NA	NA	3.56	1.65
Potassium	8,870	8,050	8,200	9,730	7,120	6,130	7,020	NA	NA	8,920	3,680	3,750	4,470	6179.60	1839.82
Selenium	ND	ND	ND	ND	3	ND	ND	NA	NA	NA	6.9	NA	13.7	12.65	6.79
Silver	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Sodium	<b>408,000</b>	<b>542,000</b>	<b>484,000</b>	<b>544,000</b>	<b>403,000</b>	<b>374,000</b>	<b>381,000</b>	NA	NA	<b>269,000</b>	<b>237,000</b>	<b>297,000</b>	<b>320,000</b>	300720.00	129426.47
Thallium	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Vanadium	ND	NA	NA	NA	NA	NA	NA	ND	NA						
Zinc	104	103	102	185	164	234	546	NA	NA	422	418	560	351	186.82	165.09

**Wet Chemistry**

Chloride	<b>729</b>	<b>1180</b>	<b>1100</b>
Sulfate	<b>909</b>	<b>708</b>	<b>746</b>

502.18	304.04
843.59	150.53

*Bold Type - Exceeds NYCRR P*

*NA - Not Applicable*

*ND<5.0 denotes that the consti*

*NS - No Groundwater Standard*

**APPENDIX C**  
**GROUNDWATER SAMPLING LOGS**

**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 5/10/2019 Personnel Jim Moore Weather Partly Cloudy 60°F  
 Site Name Elderlee, Inc Evacuation Method Low Flow Well # MW4A  
 Site Location Oaks Corners, NY Sampling Method Low Flow Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 12.04 ft.  
 Depth to Water \* 2.46 ft.  
 Length of Water Column 9.64 ft.

\* Measurements taken from

<input checked="" type="checkbox"/>	Top of Well Casing
<input type="checkbox"/>	Top of Protective Casing
<input type="checkbox"/>	(Other, Specify)

Start Purge Time: \_\_\_\_\_

Elapsed Time (min)	Depth To Water (ft)	Temperature (°C)	pH	Conductivity (µS/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
13:35 0	2.40	—	—	—	—	—	43.1	400
5	4.28	13.0	7.42	0.92	138.5	7.64	26.8	400
10	4.93	13.1	7.14	0.154	160.3	6.67	28.8	400
15	4.96	13.3	6.88	0.445	166.8	4.77	21.1	400
20	4.95	13.2	6.73	0.930	161.5	3.27	16.6	400
14:00 25	4.94	13.0	6.70	1.43	141.5	2.43	11.2	400
30	4.93	13.0	6.67	1.69	128.3	1.67	6.71	400
35	4.93	12.9	6.65	1.80	111.4	0.84	3.56	400
40	4.93	12.8	6.65	1.86	98.9	0.60	4.04	400
14:10 45	4.93	12.9	6.64	1.87	96.5	0.40	2.21	400

End Purge Time: 14:20

Water sample:

Time collected: 14:20

Total volume of purged water removed: 18 Liters

Physical appearance at start

Color Colorless  
 Odor None  
 Sheen/Free Product NO

Physical appearance at sampling

Color Colorless  
 Odor None  
 Sheen/Free Product NO

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH









**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 5/10/2019 Personnel Jim Moore Weather SUNNY 60°F  
 Site Name Elderlee, Inc Evacuation Method Low Flow Well # MW-11  
 Site Location Oaks Corners, NY Sampling Method Low Flow Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 12.3 ft.  
 Depth to Water \* 604.79 ft.  
 Length of Water Column 11.26 ft.

\* Measurements taken from

<input checked="" type="checkbox"/>	Top of Well Casing
<input type="checkbox"/>	Top of Protective Casing
<input type="checkbox"/>	(Other, Specify)

Start Purge Time: \_\_\_\_\_

Elapsed Time (min)	Depth To Water (ft)	Temperature (°C)	pH	Conductivity (µm/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
0	0.79	—	—	—	—	—	95.8	400
5	2.02	10.9	6.79	2.55	-22.1	0.37	119	400
10	2.09	10.8	6.76	2.64	-15.6	0.24	73.7	400
15	2.09	10.7	6.75	2.64	-15.3	0.24	50.3	400
20	2.09	10.5	6.75	2.64	-15.5	0.23	36.5	400
25	2.11	10.6	6.74	2.65	-16.3	0.22	21.6	400
30	2.11	10.6	6.73	2.65	-17.2	0.22	16.6	400
35	2.11	10.3	6.74	2.67	-17.2	0.21	12.1	400
40	2.11	10.4	6.73	2.66	-18.9	0.22	12.3	400
45	2.11	10.4	6.73	2.67	-18.4	0.21	12.4	400

End Purge Time: 1210

Water sample:

Time collected: 1210

Total volume of purged water removed: 18 LITERS

Physical appearance at start

Color COLORLESS  
 Odor NONE  
 Sheen/Free Product NO

Physical appearance at sampling

Color COLORLESS  
 Odor NONE  
 Sheen/Free Product NO

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

**APPENDIX D**  
**LABORATORY ANALYTICAL**  
**DATA**



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*

**Neu-Velle**

*For Lab Project ID*

**192055**

*Referencing*

**Elderlee-GW Annual 2019**

*Prepared*

**Tuesday, May 21, 2019**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in cursive script, appearing to read "J. Deutsch", is written over a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Tuesday, May 21, 2019*

Page 1 of 20

Page 31 of 54



**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-9R

**Lab Sample ID:** 192055-01

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	<b>630</b>	mg/L		5/18/2019
<b>Method Reference(s):</b>		EPA 300.0 Rev 2.1		
<b>Subcontractor ELAP ID:</b>		10709		

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 09:53
<b>Method Reference(s):</b>		EPA 7470A		
<b>Preparation Date:</b>		5/15/2019		
<b>Data File:</b>		Hg190516A		

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	< 0.100	mg/L		5/16/2019 14:49
Antimony	< 0.0600	mg/L		5/16/2019 14:49
Arsenic	< 0.0100	mg/L		5/16/2019 14:49
Barium	< 0.100	mg/L		5/16/2019 14:49
Beryllium	< 0.00500	mg/L		5/16/2019 14:49
Cadmium	< 0.00500	mg/L		5/16/2019 14:49
Calcium	<b>162</b>	mg/L		5/16/2019 14:49
Chromium	< 0.0100	mg/L		5/16/2019 14:49
Cobalt	< 0.0500	mg/L		5/16/2019 14:49
Copper	< 0.0400	mg/L		5/16/2019 14:49
Iron	<b>0.120</b>	mg/L		5/16/2019 14:49
Lead	< 0.0100	mg/L		5/16/2019 14:49
Magnesium	<b>39.0</b>	mg/L		5/16/2019 14:49
Manganese	<b>0.0880</b>	mg/L		5/16/2019 14:49
Nickel	< 0.0400	mg/L		5/16/2019 14:49
Potassium	<b>4.53</b>	mg/L		5/16/2019 14:49

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**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-9R

**Lab Sample ID:** 192055-01

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 14:49
Silver	< 0.0100	mg/L	5/16/2019 14:49
Sodium	<b>303</b>	mg/L	5/16/2019 14:49
Thallium	< 0.0250	mg/L	5/16/2019 14:49
Vanadium	< 0.0250	mg/L	5/16/2019 14:49
Zinc	<b>0.144</b>	mg/L	5/14/2019 18:49

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>88</b>	mg/L		5/18/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-10R  
**Lab Sample ID:** 192055-02  
**Matrix:** Groundwater

**Date Sampled:** 5/10/2019  
**Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	<b>220</b>	mg/L		5/18/2019
<b>Method Reference(s):</b>	EPA 300.0 Rev 2.1			
<b>Subcontractor ELAP ID:</b>	10709			

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 10:01
<b>Method Reference(s):</b>	EPA 7470A			
<b>Preparation Date:</b>	5/15/2019			
<b>Data File:</b>	Hg190516A			

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	<b>0.199</b>	mg/L		5/16/2019 14:54
Antimony	< 0.0600	mg/L		5/16/2019 14:54
Arsenic	< 0.0100	mg/L		5/16/2019 14:54
Barium	< 0.100	mg/L		5/16/2019 14:54
Beryllium	< 0.00500	mg/L		5/16/2019 14:54
Cadmium	< 0.00500	mg/L		5/16/2019 14:54
Calcium	<b>109</b>	mg/L		5/16/2019 14:54
Chromium	< 0.0100	mg/L		5/16/2019 14:54
Cobalt	< 0.0500	mg/L		5/16/2019 14:54
Copper	< 0.0400	mg/L		5/16/2019 14:54
Iron	<b>0.446</b>	mg/L		5/16/2019 14:54
Lead	< 0.0100	mg/L		5/16/2019 14:54
Magnesium	<b>25.0</b>	mg/L		5/16/2019 14:54
Manganese	<b>1.15</b>	mg/L		5/16/2019 14:54
Nickel	< 0.0400	mg/L		5/16/2019 14:54
Potassium	< 2.50	mg/L		5/16/2019 14:54

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**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-10R

**Lab Sample ID:** 192055-02

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 14:54
Silver	< 0.0100	mg/L	5/16/2019 14:54
Sodium	<b>143</b>	mg/L	5/16/2019 14:54
Thallium	< 0.0250	mg/L	5/16/2019 14:54
Vanadium	< 0.0250	mg/L	5/16/2019 14:54
Zinc	<b>0.658</b>	mg/L	5/16/2019 14:54

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>110</b>	mg/L		5/18/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-8  
**Lab Sample ID:** 192055-03  
**Matrix:** Groundwater

**Date Sampled:** 5/10/2019  
**Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	26	mg/L		5/18/2019
<b>Method Reference(s):</b>		EPA 300.0 Rev 2.1		
<b>Subcontractor ELAP ID:</b>		10709		

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 10:04
<b>Method Reference(s):</b>		EPA 7470A		
<b>Preparation Date:</b>		5/15/2019		
<b>Data File:</b>		Hg190516A		

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	< 0.100	mg/L		5/16/2019 14:58
Antimony	< 0.0600	mg/L		5/16/2019 14:58
Arsenic	< 0.0100	mg/L		5/16/2019 14:58
Barium	< 0.100	mg/L		5/16/2019 14:58
Beryllium	< 0.00500	mg/L		5/16/2019 14:58
Cadmium	< 0.00500	mg/L		5/16/2019 14:58
Calcium	312	mg/L		5/16/2019 14:58
Chromium	< 0.0100	mg/L		5/16/2019 14:58
Cobalt	< 0.0500	mg/L		5/16/2019 14:58
Copper	< 0.0400	mg/L		5/16/2019 14:58
Iron	2.65	mg/L		5/16/2019 14:58
Lead	< 0.0100	mg/L		5/16/2019 14:58
Magnesium	23.0	mg/L		5/16/2019 14:58
Manganese	0.637	mg/L		5/16/2019 14:58
Nickel	< 0.0400	mg/L		5/16/2019 14:58
Potassium	< 2.50	mg/L		5/16/2019 14:58

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**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-8

**Lab Sample ID:** 192055-03

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 14:58
Silver	< 0.0100	mg/L	5/16/2019 14:58
Sodium	<b>25.5</b>	mg/L	5/16/2019 14:58
Thallium	< 0.0250	mg/L	5/16/2019 14:58
Vanadium	< 0.0250	mg/L	5/16/2019 14:58
Zinc	<b>1.19</b>	mg/L	5/16/2019 14:58

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>700</b>	mg/L		5/18/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-11  
**Lab Sample ID:** 192055-04  
**Matrix:** Groundwater

**Date Sampled:** 5/10/2019  
**Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	<b>290</b>	mg/L		5/18/2019
<b>Method Reference(s):</b>		EPA 300.0 Rev 2.1		
<b>Subcontractor ELAP ID:</b>		10709		

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 10:07
<b>Method Reference(s):</b>		EPA 7470A		
<b>Preparation Date:</b>		5/15/2019		
<b>Data File:</b>		Hg190516A		

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	<b>0.115</b>	mg/L		5/16/2019 15:02
Antimony	< 0.0600	mg/L		5/16/2019 15:02
Arsenic	<b>0.0187</b>	mg/L		5/14/2019 19:03
Barium	< 0.100	mg/L		5/16/2019 15:02
Beryllium	< 0.00500	mg/L		5/16/2019 15:02
Cadmium	< 0.00500	mg/L		5/16/2019 15:02
Calcium	<b>364</b>	mg/L		5/16/2019 15:02
Chromium	< 0.0100	mg/L		5/16/2019 15:02
Cobalt	< 0.0500	mg/L		5/16/2019 15:02
Copper	< 0.0400	mg/L		5/16/2019 15:02
Iron	<b>6.19</b>	mg/L		5/16/2019 15:02
Lead	< 0.0100	mg/L		5/16/2019 15:02
Magnesium	<b>60.3</b>	mg/L		5/16/2019 15:02
Manganese	<b>1.11</b>	mg/L		5/16/2019 15:02
Nickel	< 0.0400	mg/L		5/16/2019 15:02
Potassium	<b>3.86</b>	mg/L		5/16/2019 15:02

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**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-11

**Lab Sample ID:** 192055-04

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 15:02
Silver	< 0.0100	mg/L	5/16/2019 15:02
Sodium	<b>158</b>	mg/L	5/16/2019 15:02
Thallium	< 0.0250	mg/L	5/16/2019 15:02
Vanadium	< 0.0250	mg/L	5/16/2019 15:02
Zinc	< 0.0600	mg/L	5/14/2019 19:03

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>870</b>	mg/L		5/18/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



Lab Project ID: 192055

**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-4A  
**Lab Sample ID:** 192055-05 **Date Sampled:** 5/10/2019  
**Matrix:** Groundwater **Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	160	mg/L		5/18/2019
<b>Method Reference(s):</b>		EPA 300.0 Rev 2.1		
<b>Subcontractor ELAP ID:</b>		10709		

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 10:10
<b>Method Reference(s):</b>		EPA 7470A		
<b>Preparation Date:</b>		5/15/2019		
<b>Data File:</b>		Hg190516A		

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	< 0.100	mg/L		5/16/2019 15:07
Antimony	< 0.0600	mg/L		5/16/2019 15:07
Arsenic	< 0.0100	mg/L		5/16/2019 15:07
Barium	< 0.100	mg/L		5/16/2019 15:07
Beryllium	< 0.00500	mg/L		5/16/2019 15:07
Cadmium	< 0.00500	mg/L		5/16/2019 15:07
Calcium	320	mg/L		5/16/2019 15:07
Chromium	< 0.0100	mg/L		5/16/2019 15:07
Cobalt	< 0.0500	mg/L		5/16/2019 15:07
Copper	< 0.0400	mg/L		5/16/2019 15:07
Iron	1.42	mg/L		5/16/2019 15:07
Lead	< 0.0100	mg/L		5/16/2019 15:07
Magnesium	38.9	mg/L		5/16/2019 15:07
Manganese	0.408	mg/L		5/16/2019 15:07
Nickel	< 0.0400	mg/L		5/16/2019 15:07
Potassium	2.96	mg/L		5/16/2019 15:07

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**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-4A

**Lab Sample ID:** 192055-05

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 15:07
Silver	< 0.0100	mg/L	5/16/2019 15:07
Sodium	<b>88.4</b>	mg/L	5/16/2019 15:07
Thallium	< 0.0250	mg/L	5/16/2019 15:07
Vanadium	< 0.0250	mg/L	5/16/2019 15:07
Zinc	<b>7.40</b>	mg/L	5/16/2019 15:07

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>880</b>	mg/L		5/18/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-5A  
**Lab Sample ID:** 192055-06  
**Matrix:** Groundwater

**Date Sampled:** 5/10/2019  
**Date Received:** 5/13/2019

**Chloride**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Chloride	86	mg/L		5/18/2019
<b>Method Reference(s):</b>		EPA 300.0 Rev 2.1		
<b>Subcontractor ELAP ID:</b>		10709		

**Mercury**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	< 0.000200	mg/L	D	5/16/2019 10:19
<b>Method Reference(s):</b>		EPA 7470A		
<b>Preparation Date:</b>		5/15/2019		
<b>Data File:</b>		Hg190516A		

**TAL Metals (ICP)**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Aluminum	< 0.100	mg/L		5/16/2019 15:11
Antimony	< 0.0600	mg/L		5/16/2019 15:11
Arsenic	< 0.0100	mg/L		5/16/2019 15:11
Barium	< 0.100	mg/L		5/16/2019 15:11
Beryllium	< 0.00500	mg/L		5/16/2019 15:11
Cadmium	< 0.00500	mg/L		5/16/2019 15:11
Calcium	451	mg/L		5/16/2019 15:11
Chromium	< 0.0100	mg/L		5/16/2019 15:11
Cobalt	< 0.0500	mg/L		5/16/2019 15:11
Copper	< 0.0400	mg/L		5/16/2019 15:11
Iron	1.74	mg/L		5/16/2019 15:11
Lead	< 0.0100	mg/L		5/16/2019 15:11
Magnesium	29.9	mg/L		5/16/2019 15:11
Manganese	0.440	mg/L		5/16/2019 15:11
Nickel	< 0.0400	mg/L		5/16/2019 15:11
Potassium	< 2.50	mg/L		5/16/2019 15:11

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Sample Identifier:** MW-5A

**Lab Sample ID:** 192055-06

**Date Sampled:** 5/10/2019

**Matrix:** Groundwater

**Date Received:** 5/13/2019

Selenium	< 0.0200	mg/L	5/16/2019 15:11
Silver	< 0.0100	mg/L	5/16/2019 15:11
Sodium	<b>53.4</b>	mg/L	5/16/2019 15:11
Thallium	< 0.0250	mg/L	5/16/2019 15:11
Vanadium	< 0.0250	mg/L	5/16/2019 15:11
Zinc	<b>0.314</b>	mg/L	5/16/2019 15:11

**Method Reference(s):** EPA 6010C  
EPA 3005A  
**Preparation Date:** 5/14/2019  
**Data File:** 190516B

**Sulfate**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Sulfate	<b>1100</b>	mg/L		5/21/2019

**Method Reference(s):** EPA 300.0 Rev 2.1  
**Subcontractor ELAP ID:** 10709



***Method Blank Report***

**Client:** Neu-Velle  
**Project Reference:** Elderlee-GW Annual 2019  
**Lab Project ID:** 192055  
**Matrix:** Groundwater

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***Mercury***

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Mercury	<0.000200	mg/L		5/16/2019 09:45

Method Reference(s): EPA 7470A  
Preparation Date: 5/15/2019  
Data File: Hg190516A  
QC Batch ID: QC190515Hgwater  
QC Number: 1

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Report Prepared Thursday, May 16, 2019



*QC Report for Laboratory Control Sample and Control Sample Duplicate*

**Client:** Neu-Velle

**Project Reference:** Elderlee-GW Annual 2019

**Lab Project ID:** 192055

**Matrix:** Groundwater

**Mercury**

Analyte	Added	Added	Units	Result	Result	Recovery	Recovery	% Rec	Limits	Outliers	Outliers	Difference	Limit	RPD	Outliers	Date Analyzed
Mercury	0.00200	0.00200	mg/L	0.00177	0.00227	88.5	114	85 - 115				24.9	20	*		5/16/2019

Method Reference(s): EPA 7470A  
 Preparation Date: 5/15/2019  
 Data File: Hg190516A  
 QC Number: 1  
 QC Batch ID: QC190515Hgwater

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### **Warranty.**

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### **Scope and Compensation.**

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### **Prices.**

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### **Limitations of Liability.**

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### **Hazard Disclosure.**

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### **Sample Handling.**

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### **Legal Responsibility.**

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### **Assignment.**

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### **Force Majeure.**

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### **Law.**

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY

1062



REPORT TO:

INVOICE TO:

LAB PROJECT ID

CLIENT: **NEW-VELLE**

ADDRESS: **1667 LAKE AVE Bldg 59, SUITE 101**

CITY: **ROCHESTER**

STATE: **NY**

ZIP: **14615**

LAB PROJECT ID: **192055**

PHONE: **585 313 4771**

ATTN: **JIM MORE**

Quotation #:

Email: **jim@new-velle.com**

PROJECT REFERENCE

**EDDAGE - GW Annual 2019**

Matrix Codes:  
AQ - Aqueous Liquid  
NQ - Non-Aqueous Liquid

WA - Water  
WG - Groundwater

DW - Drinking Water  
WW - Wastewater

SO - Soil  
SL - Sludge

SD - Solid  
PT - Paint

WP - Wipe  
CK - Caulk

OI - Oil  
AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	C O M P O S I T I O N	G R A B	SAMPLE IDENTIFIER	M A T R I X	C O U N T B E I N G S	T A L M E T A L S	S U L F A T E / C H L O R I D E	REMARKS	PARADIGM LAB SAMPLE NUMBER
5/10/19	0935		X	MW-9R	WG	2	X	X		01
5/10/19	1025		X	MW-10R	WG	2	X	X		02
5/10/19	1110		X	MW-8	WG	2	X	X		03
5/10/19	1210		X	MW-11	WG	2	X	X		04
5/10/19	1420		X	MW-4A	WG	2	X	X		05
5/10/19	1330		X	MW-5A	WG	2	X	X		06

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply.	
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>
Rush 1 day <input type="checkbox"/>	Other <input type="checkbox"/>
Date Needed <input type="checkbox"/>	Other EDD <input type="checkbox"/>
please indicate date needed:	please indicate EDD needed:

Sampled By: **JAMES AMORE** Date/Time: **5/10/19 1635**

Retinquished By: **[Signature]** Date/Time: **5/10/19 1635**

Received By: **[Signature]** Date/Time: **5/13/19 0943**

Received @ Lab By: **[Signature]** Date/Time: **5/13/19 0943**

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse). See additional page for sample conditions.



### Chain of Custody Supplement

Client: Neu-velle Completed by: Molyvail  
 Lab Project ID: 192055 Date: 5/13/19

**Sample Condition Requirements**  
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

190514008

# CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 10

REPORT TO:	Paradigm Environmental	INVOICE TO:	Same
COMPANY:	Paradigm Environmental	COMPANY:	Same
ADDRESS:		ADDRESS:	
CITY:		CITY:	
STATE:		STATE:	
ZIP:		ZIP:	
PHONE:		PHONE:	
FAX:		FAX:	
ATTN:	Reporting	ATTN:	Accounts Payable
COMMENTS:	Please email results to reporting@paradigmenv.com		

## REQUESTED ANALYSIS

DATE	TIME	C O M P O S I T I O N	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A M I N A T S	REMARKS	PARADIGM LAB SAMPLE NUMBER
5/10/19	0935		X	192055-01	Wg	1		-001
	1025		X	192055-02		X		-002
	1110		X	192055-03		X		-003
	1210		X	192055-04		X		-004
	1420		X	192055-05		X		-005
	1330		X	192055-06		X		-006

LAB PROJECT #:  1  2  3  5

CLIENT PROJECT #:

TURNOURD TIME: (WORKING DAYS)

STD

Date Due: 5/31/19



190514008

LAB USE ONLY BELOW THIS LINE  
Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: NELAC Compliance

Container Type: Y  N

Comments:

Preservation: Y  N

Comments:

Holding Time: Y  N

Comments:

Temperature: 8°C Y  N

Client

Sampled By: *[Signature]* Date/Time: 5/14/19 Total Cost:

Relinquished By: *[Signature]* Date/Time: 8:30

Received By: *[Signature]* Date/Time: 5-14-19 P.I.F.

Received @ Lab By: *[Signature]* Date/Time: 4:54 pm

**APPENDIX E**  
**PHOTO LOGS**

**Representative Photos – Area A**  
**729 Cross Road, Oaks Corners, NY** **May 10, 2019**

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**Photo Location No. 1 – Area A – Looking East on South Edge of Cover**



**Photo Location No. 2 – Area A – Looking North on West Edge of Cover**



**Representative Photos – Area A**  
**729 Cross Road, Oaks Corners, NY** **May 10, 2019**

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**Photo Location No. 3 – Area A – Looking West on North Edge of Cover**



**Photo Location No. 4 – Area A – Looking North on East Edge of Cover**



# Representative Photos – Area A

729 Cross Road, Oaks Corners, NY

May 10, 2019

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Photo Location No. 5 – Area A – Center overview - Looking Northeast at Cover

