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February 28, 2020

Ms. Young Chang  
Western New York Remediation Section  
New York Remediation Branch  
Emergency and Remediation Response Division  
U.S. EPA – Region II  
290 Broadway, 20<sup>th</sup> Floor  
New York, NY 10007-1866

Dear Young Chang:

**NECCO PARK FOURTH QUARTER 2019 DATA PACKAGE**

Enclosed is the *Fourth Quarter 2019 (4Q19) Data Package* for the Chemours Necco Park Hydraulic Control System (HCS) in accordance with the approved Long-Term Groundwater Monitoring Plan. The data package includes an operational summary, process sample analytical data, figures showing hydrographs, potentiometric surface contours map, and vertical gradient maps. The data package also includes a 4Q19 monitoring summary for dense non-aqueous phase liquid (DNAPL).

Pumping system uptime for 4Q19 was 90.6 percent. The total volume of groundwater treated during 4Q19 was 3,054,064 gallons. Monthly DNAPL monitoring was completed in November and December and a semi-annual DNAPL monitoring event was completed in November. The December DNAPL event identified DNAPL in RW-4 (4.0 feet) and removal of 18 gallons of DNAPL was completed in January 2020.

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

Sincerely,

CORPORATE REMEDIATION GROUP

A handwritten signature in black ink, appearing to read "Paul F. Mazierski", written in a cursive style.

Paul F. Mazierski  
Project Director

Enc. 4Q2019 Data Package

cc: Stanley Radon/NYSDEC  
E. Felter/Parsons



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**SOURCE AREA HYDRAULIC CONTROL SYSTEM  
FOURTH QUARTER 2019  
GROUNDWATER MONITORING DATA PACKAGE  
CHEMOURS NECCO PARK  
NIAGARA FALLS, NIAGARA COUNTY, NEW YORK**

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EPA ID No. NYD980532162

*Prepared For:*

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

P.O. Box 788  
Lewiston, NY 14092

*Prepared By:*

**PARSONS**

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

**February 2020**

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## APPENDIX B - GWTF PROCESS SAMPLING RESULTS FOURTH QUARTER 2019

## SECTION 1

### DATA PACKAGE SUMMARY

#### 1.1 INTRODUCTION

This data package presents a summary of operating and monitoring data collected during the fourth quarter of 2019 (4Q19) for groundwater remediation measures at the Chemours NECCO Park Site (Necco Park) in Niagara Falls, New York. Submission of this data package meets the reporting requirements defined in the agency-approved Long-Term Groundwater Monitoring Plan LTGMP (DuPont Corporate Remediation Group 2005) as well as agency-approved scope revisions (USEPA, 2010, 2012, 2015, and 2016).

This is the 58<sup>th</sup> data package submitted since the 2005 startup of the Necco Park Hydraulic Control System (HCS). It provides a summary of operations for the pumping wells and the Groundwater Treatment Facility (GWTF). Figures 1 through 13 are hydrographs depicting groundwater elevation since startup of the HCS, contours for six groundwater flow zones, and a map of vertical gradients between the A-Zone and the B-Zone. Groundwater elevation data are provided as a hard copy in Appendix A and as an electronic copy in Attachment 1.

#### 1.2 OPERATIONAL SUMMARY

The following table provides a summary of average HCS uptime, total gallons of groundwater treated, and gallons of dense non-aqueous phase liquid (DNAPL) removed for 4Q19:

|                   | HCS Uptime<br>(%) | Groundwater Treated<br>(gallons) | DNAPL Removed<br>(gallons) |
|-------------------|-------------------|----------------------------------|----------------------------|
| October           | 95%               | 1,069,827                        | 0                          |
| November          | 90.6%             | 1,038,224                        | 0                          |
| December          | 86.2%             | 946,013                          | 18                         |
| <b>4Q19 Total</b> | <b>90.6%</b>      | <b>3,054,064</b>                 | <b>18</b>                  |

System downtime is categorized into two groups: HCS downtime and individual recovery well downtime. Both categories are further grouped into two types: unscheduled and scheduled downtime. Downtime (for HCS or individual recovery wells, scheduled or unscheduled) is discussed below when the downtime is 48 consecutive hours or greater.

There was one unscheduled and no scheduled downtime events for the HCS during 4Q19. There were no scheduled or unscheduled downtimes for the pumping wells during 4Q19. The system and pumping wells shut down on November 29 due to a leak detection alarm triggered erroneously due to a float malfunction. The float malfunction was corrected and RW-4, RW-8, RW-9, and RW-11 were restarted December 2 with a total downtime of 73 hours. RW-5 was restarted December 3 with a total downtime of 100 hours.

Monthly DNAPL monitoring events occurred on November 27 and December 30, 2019, and a semi-annual DNAPL monitoring event was completed October 16, 2019. No DNAPL was identified during the October and November events. DNAPL was identified in RW-4 (4.0 feet) during the December 30 DNAPL monitoring event. Removal took place in January 2020 with sediment removal via vacuum truck extraction which provides a safer, more efficient, and more effective process. It was estimated that approximately 18 gallons of DNAPL were removed from RW-4. The sediments and DNAPL were separated and disposed of in a manner consistent with previous events and consistent with the Waste Management Plan.

### **1.3 GWTF PROCESS SAMPLING**

GWTF influent samples (from B/C-Zone and D/E/F-Zone) and a combined effluent sample were collected in 4Q19 in accordance with the Site SAMP and the approved reduction to VOCs only (USEPA, January 2012). Samples were collected by Parsons on November 5, 2019 and shipped to the TestAmerica Laboratories in North Canton, Ohio for analysis. Sample results for the process sampling are included in Appendix B.

### **1.4 POTW COMPLIANCE**

As required by the publicly-owned treatment works (POTW) Significant Industrial User (SIU) Permit #76 for Necco Park, the GWTF discharge is sampled and reported quarterly to the Niagara Falls Water Board (NFWB). The most recent Necco Park 4Q19 sewer discharge samples were collected on September 29, 2019 (following NFWB quarterly calendar). There were no permit limit exceedances in 4Q19. The results indicate that the GWTF continued operating within normal parameters during 4Q19.

## **SECTION 2**

### **REFERENCES**

DuPont Corporate Remediation Group, 2005. DuPont Necco Park Operations and Maintenance Plan. November 11, 2005.

DuPont Corporate Remediation Group, 2011. Letter regarding revisions to DuPont NECCO Park Groundwater Monitoring Program, December 8, 2011.

USEPA, 2010. Letter approving changes to the monitoring program, July 16, 2010

USEPA, 2012. Letter approving changes to the monitoring program, January 27, 2012

USEPA, 2015. Letter approving changes to DNAPL monitoring program, August 12, 2015

USEPA, 2016. Letter approving changes to the monitoring program, October 19, 2016

## TABLES

**Table 1**  
**Individual Well Shutdown Summary for 4Q19**  
**Chemours Necco Park**

|          | Well ID                     | Date(s)                        | Length of Shutdown (hours) | Reason for Shutdown                                                    | Remarks                                                        |
|----------|-----------------------------|--------------------------------|----------------------------|------------------------------------------------------------------------|----------------------------------------------------------------|
| October  |                             |                                |                            |                                                                        | No wells were down for greater than 48 hours in October 2019.  |
| November |                             |                                |                            |                                                                        | No wells were down for greater than 48 hours in November 2019. |
| December | RW-4, RW-8, RW-9, and RW-11 | November 29 through December 2 | 73                         | Leak detection alarm triggered erroneously due to a float malfunction. |                                                                |
|          | RW-5                        | November 29 through December 3 | 100                        | Leak detection alarm triggered erroneously due to a float malfunction. |                                                                |

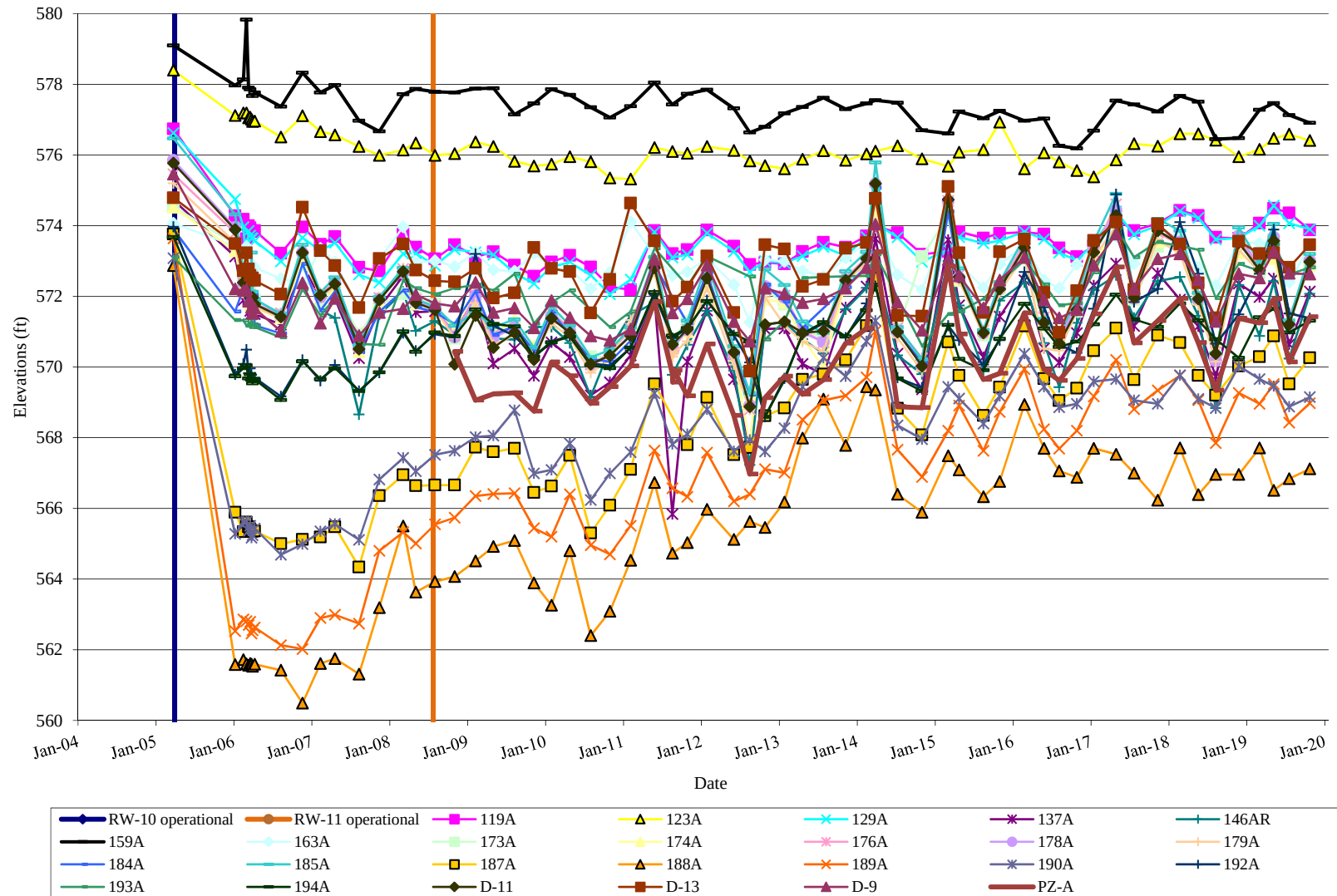


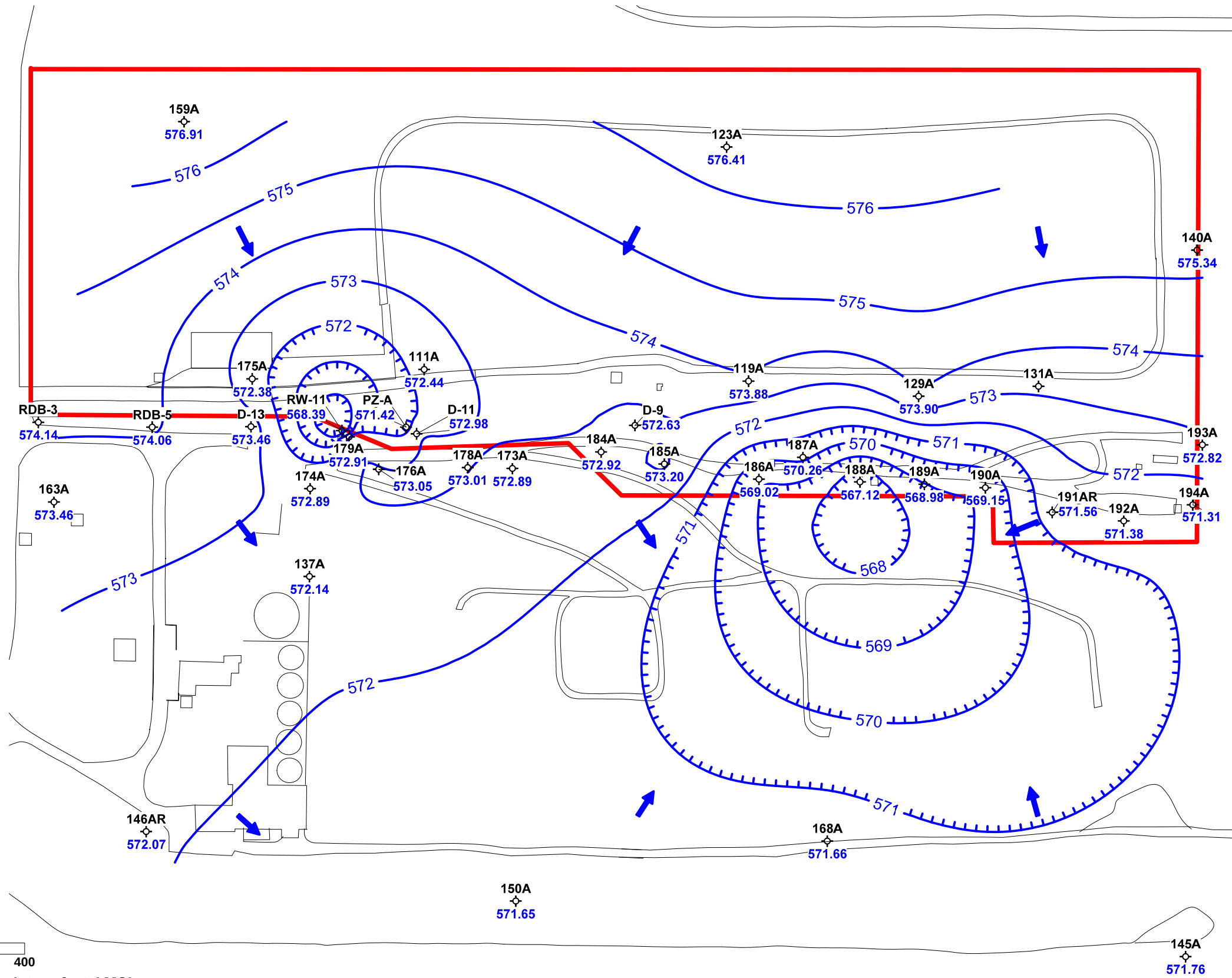
**Table 2**  
**Historical HCS Operational Summary - 4Q19**  
**Chemours Necco Park**

| <b>Reporting Period</b> | <b>HCS Uptime (%)</b> | <b>HCS Uptime Excluding Scheduled Maintenance Downtime (%)</b> | <b>Groundwater Treated (Gallons)</b> | <b>DNAPL Removed (Gallons)</b> |
|-------------------------|-----------------------|----------------------------------------------------------------|--------------------------------------|--------------------------------|
| 2005                    | 93.4                  | 95.2                                                           | 9,692,689                            | 103.5                          |
| 2006                    | 94.2                  | 95.6                                                           | 12,345,079                           | 151                            |
| 2007                    | 92.1                  | 92.5                                                           | 11,715,133                           | 153                            |
| 2008                    | 84.0                  | 85.4                                                           | 12,244,847                           | 512                            |
| 2009                    | 93.7                  | 93.9                                                           | 16,292,130                           | 0                              |
| 2010                    | 92.3                  | 99.4                                                           | 13,774,768                           | 90                             |
| 2011                    | 90.6                  | 93.7                                                           | 13,165,588                           | 130                            |
| 2012                    | 92.9                  | 93.1                                                           | 15,227,779                           | 72                             |
| 2013                    | 90.9                  | 90.9                                                           | 15,633,293                           | 122                            |
| 2014                    | 94.4                  | 94.4                                                           | 14,424,850                           | 0                              |
| 1Q15                    | 92.0                  | 92.0                                                           | 3,297,700                            | 28                             |
| 2Q15                    | 77.7                  | 98.9                                                           | 3,262,714                            | 0                              |
| 3Q15                    | 56.4                  | 97.8                                                           | 1,993,440                            | 0                              |
| 4Q15                    | 90.1                  | 95.6                                                           | 3,453,781                            | 40                             |
| 1Q16                    | 97.5                  | 97.5                                                           | 3,440,875                            | 0                              |
| 2Q16                    | 74.4                  | 97.1                                                           | 3,723,706                            | 0                              |
| 3Q16                    | 71.2                  | 90.4                                                           | 2,471,085                            | 0                              |
| 4Q16                    | 90.5                  | 100.0                                                          | 3,086,585                            | 0                              |
| 1Q17                    | 95.2                  | 95.2                                                           | 3,234,923                            | 0                              |
| 2Q17                    | 87.0                  | 88.5                                                           | 4,022,608                            | 0                              |
| 3Q17                    | 86.0                  | 86.0                                                           | 3,632,509                            | 0                              |
| 4Q17                    | 72.7                  | 96.7                                                           | 2,937,773                            | 0                              |
| 1Q18                    | 93.8                  | 93.8                                                           | 3,894,096                            | 0                              |
| 2Q18                    | 80.8                  | 96.9                                                           | 3,314,346                            | 0                              |
| 3Q18                    | 82.9                  | 88.2                                                           | 3,081,012                            | 0                              |
| 4Q18                    | 92.7                  | 92.7                                                           | 3,259,882                            | 0                              |
| 1Q19                    | 85.7                  | 85.7                                                           | 3,136,446                            | 12.8                           |
| 2Q19                    | 85.2                  | 100.0                                                          | 3,538,214                            | 0                              |
| 3Q19                    | 93.1                  | 93.1                                                           | 2,824,848                            | 0                              |
| 4Q19                    | 90.6                  | 90.6                                                           | 3,054,064                            | 18.0                           |
| <b>TOTALS</b>           | <b>---</b>            | <b>---</b>                                                     | <b>199,176,763</b>                   | <b>1,432</b>                   |
| <b>AVERAGE</b>          | <b>87.1</b>           | <b>93.7</b>                                                    | <b>---</b>                           | <b>---</b>                     |

## FIGURES

**Figure 1**  
**Select A-Zone Monitoring Wells**  
**Groundwater Elevations 2005 Through 4th Quarter 2019**  
**Chemours Necco Park**





Scale: Feet



Contour Interval = 1 foot Elevation datum feet AMSL

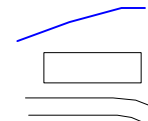
Well 131A water level was anomalously high and was not used in the contouring.

**PARSONS**

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|                          |                |
|--------------------------|----------------|
| Created by: RBP          | Date: 01-06-20 |
| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

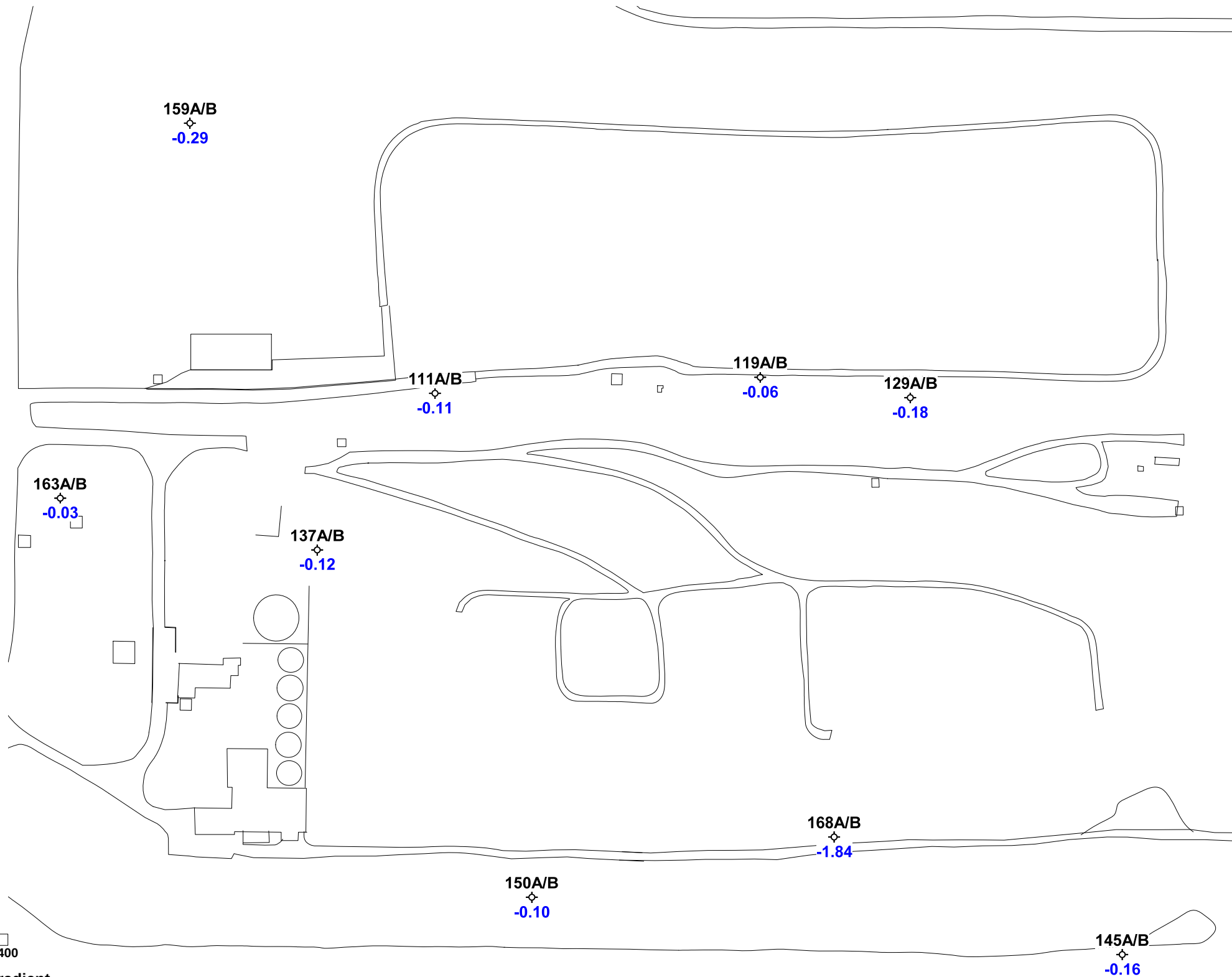
- 3B Well ID
- Monitoring Well
- ◆ Pumping Well



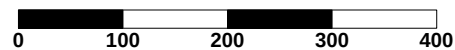
**LEGEND**

- Potentiometric Contour
- Structure
- Road
- Source Area Extent

**Figure 2**  
**Potentiometric Surface Map**  
**Chemours Necco Park: A-Zone**  
**November 05, 2019**



Scale: Feet



Negative value indicates downward gradient

Elevation datum feet AMSL

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|                          |                |
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| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

#### LEGEND

150A/B Well ID



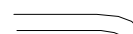
Monitoring Well



Pumping Well



Structure

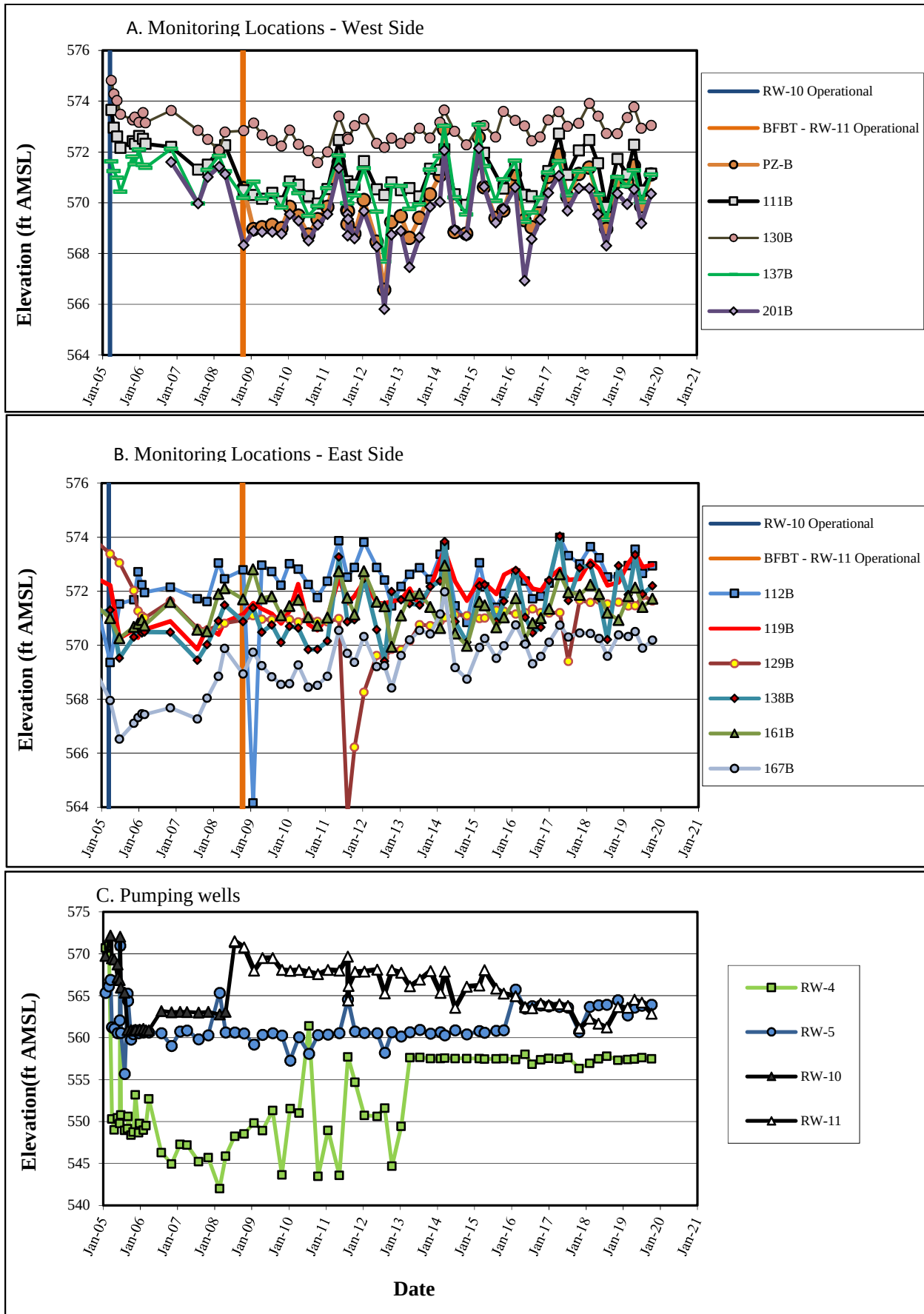


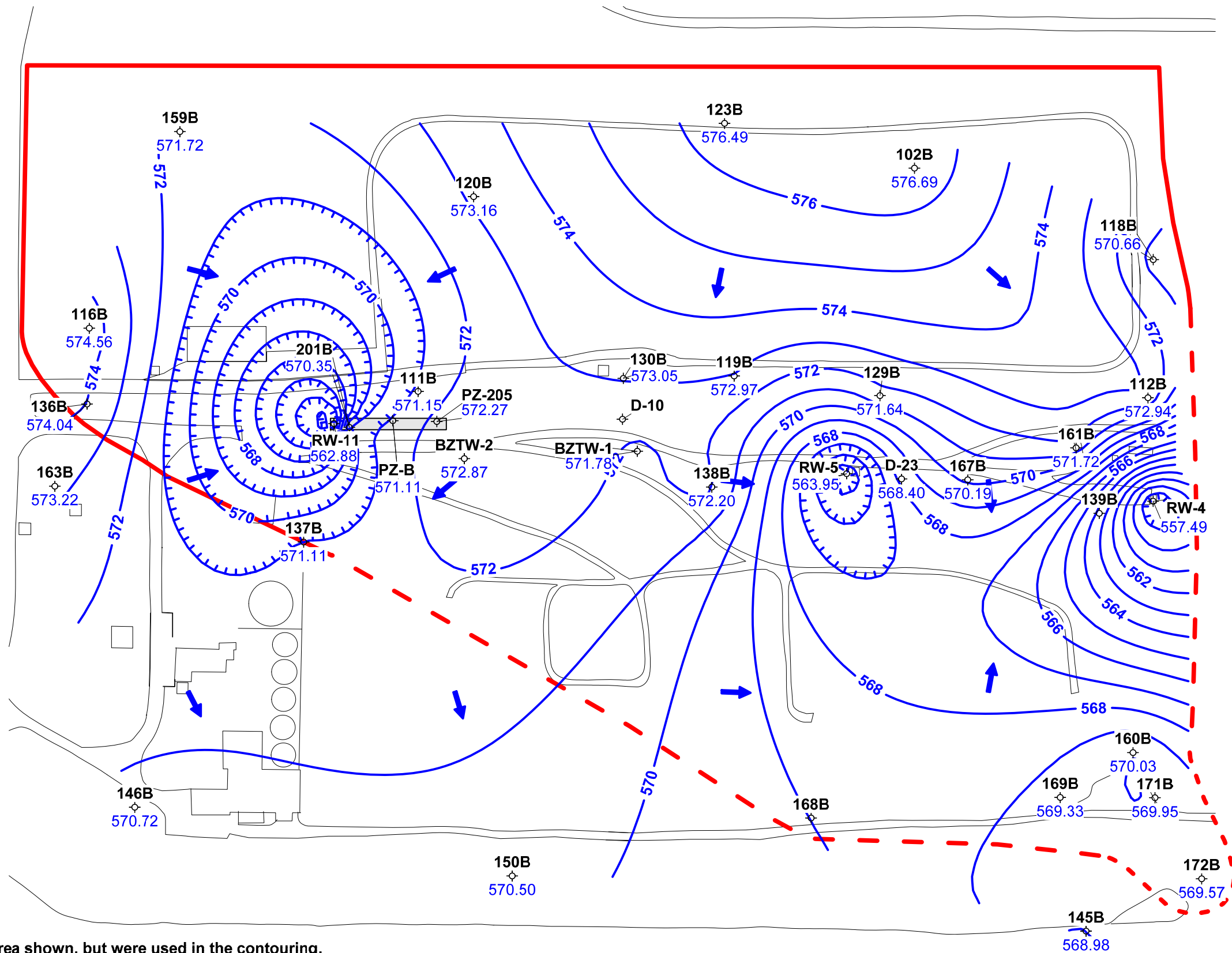
Road

-0.16 Vertical Hydraulic Gradient

**Figure 3**  
**Vertical Gradient: A-Zone to B-Zone**  
**Chemours Necco Park**  
**November 05, 2019**

**Figure 4**  
**Select B-Zone Monitoring Wells**  
**Groundwater Elevations 2005 through 4th Quarter 2019**  
**Chemours Necco Park**





Scale: Feet

0 100 200 300 400

Contour interval = 1.0 foot  
Elevation datum feet AMSL

Wells 149B and 151B are outside the area shown, but were used in the contouring.

Wells 139B, 168B, 170B, D-10, TRW-6, and TRW-7 were not used in the contouring.

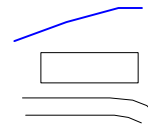
Water level elevation for RW-11 was the hourly average from November 5, 2019 at noon from Experion® Process Knowledge System water level probe measurements.

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| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

3B Well ID  
○ Monitoring Well  
◆ Pumping Well



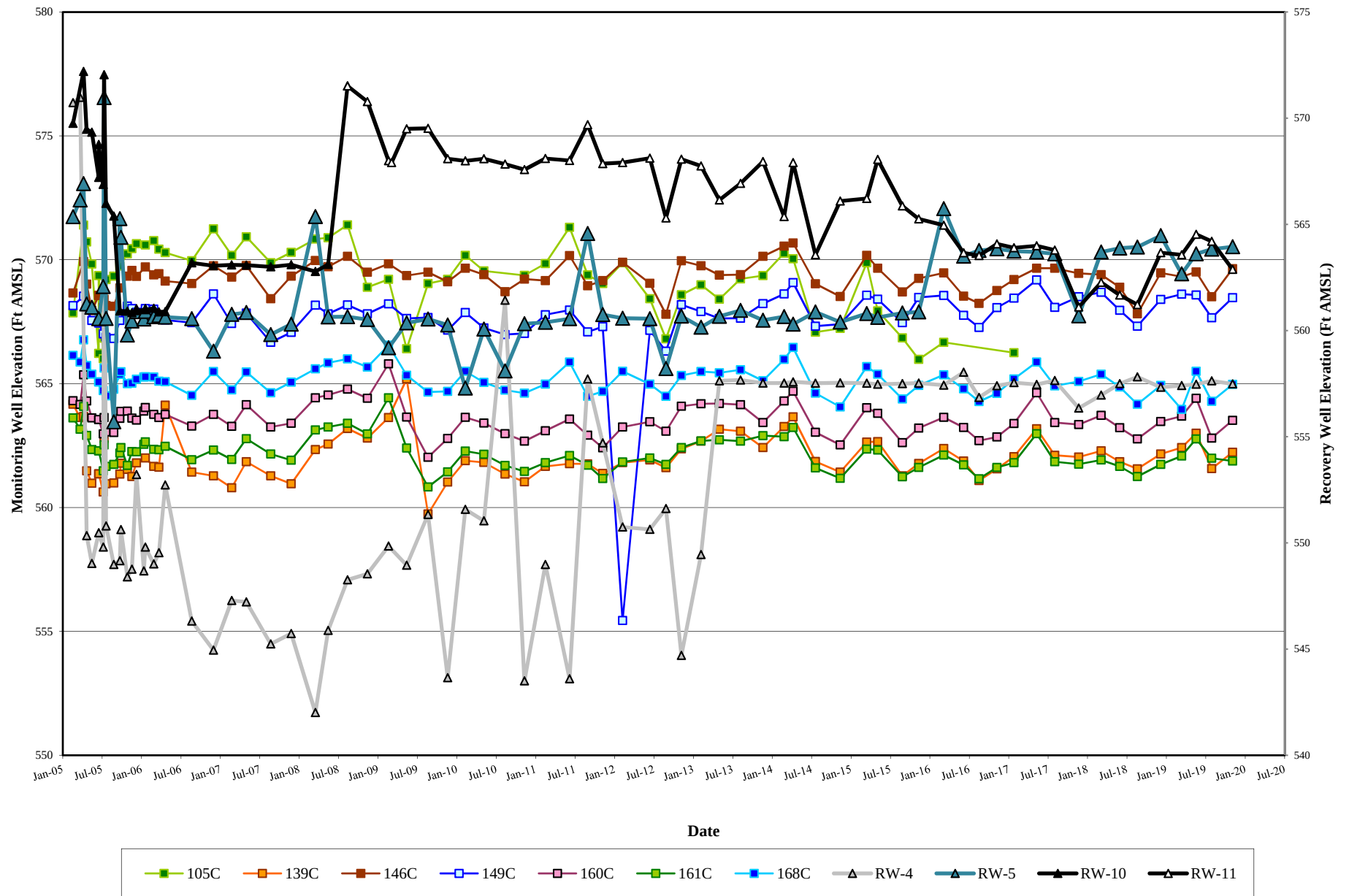
#### LEGEND

Potentiometric Contour  
Structure  
Road

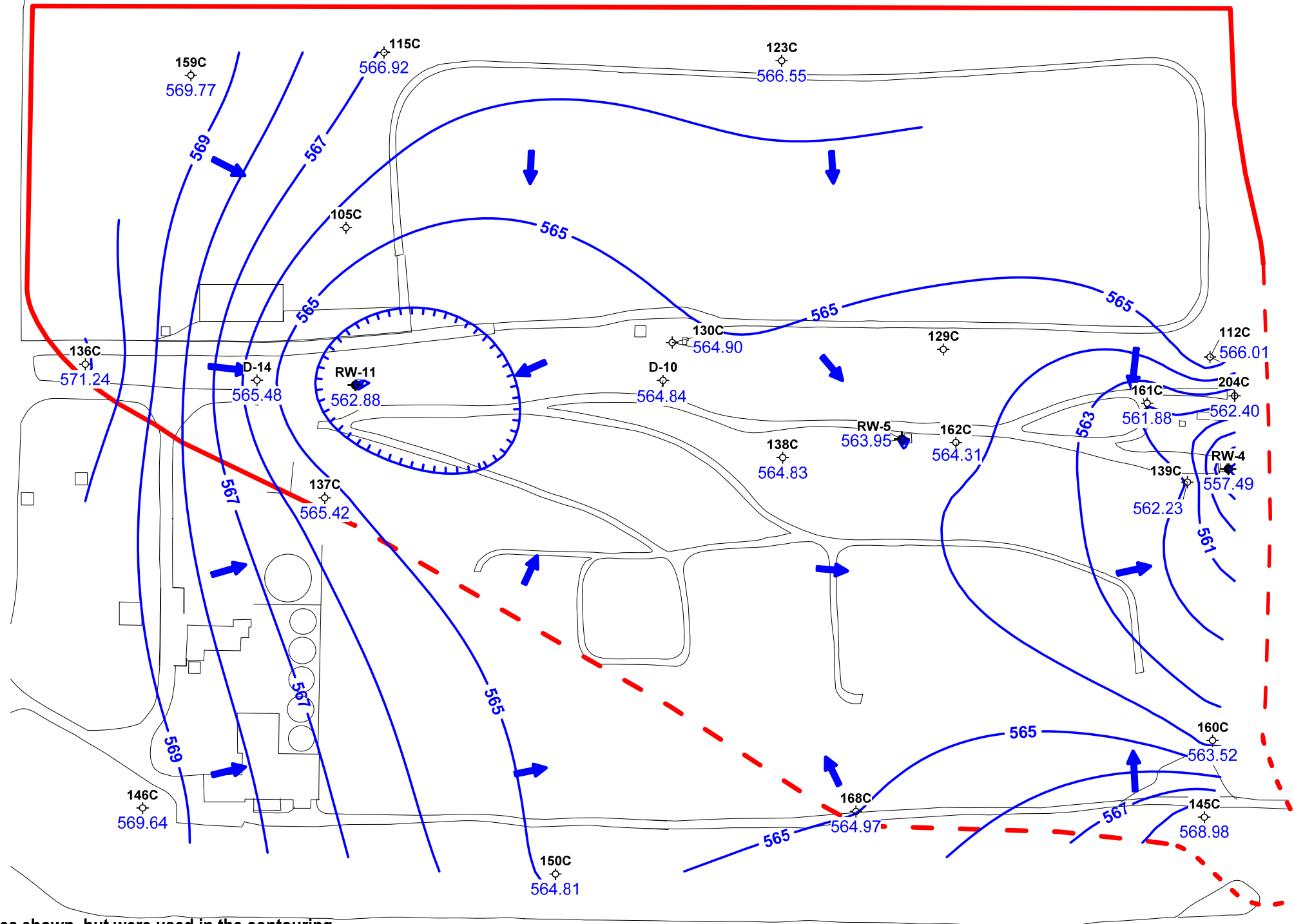
--- Source Area Extent  
Approximate Location of Bedrock Fractured Blast Trench

**Figure 5**  
**Potentiometric Surface Map**  
**Chemours Necco Park: B-Zone**  
**November 05, 2019**

**Figure 6**  
**Select C-Zone Monitoring Wells**  
**Groundwater Elevations 2005 Through 4th Quarter 2019**  
**Chemours Necco Park**







Scale: Feet



Contour interval = 1.0 foot  
Elevation datum feet AMSL

Wells 149C and 151C are outside the area shown, but were used in the contouring.  
The water level for 129C was erroneously high and was not used in the contouring.  
Well 105C was dry.

Water level elevation for RW-11 was the hourly average for November 5, 2019 at noon from Experion® Process Knowledge System water level probe measurements.

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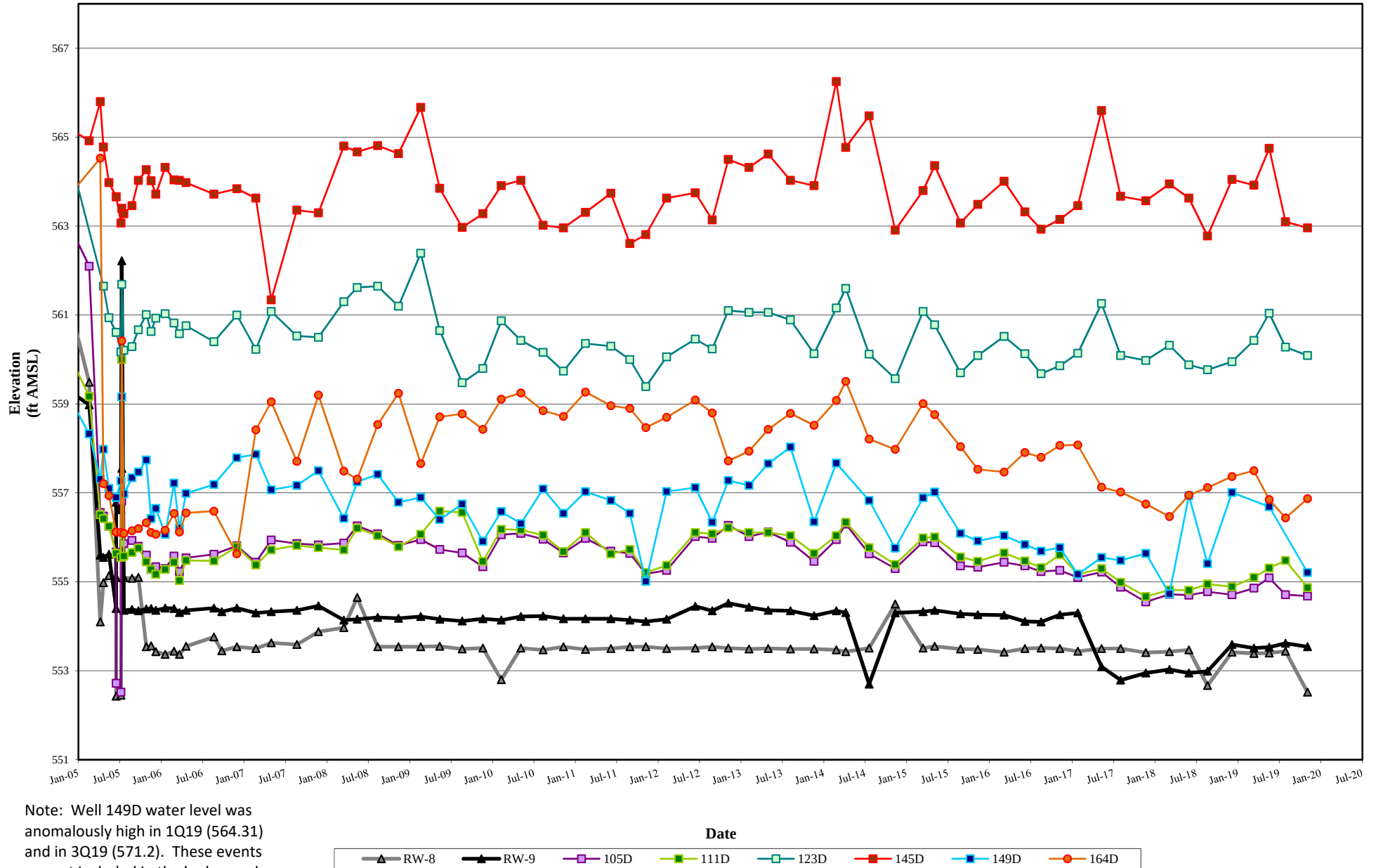
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| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

#### LEGEND

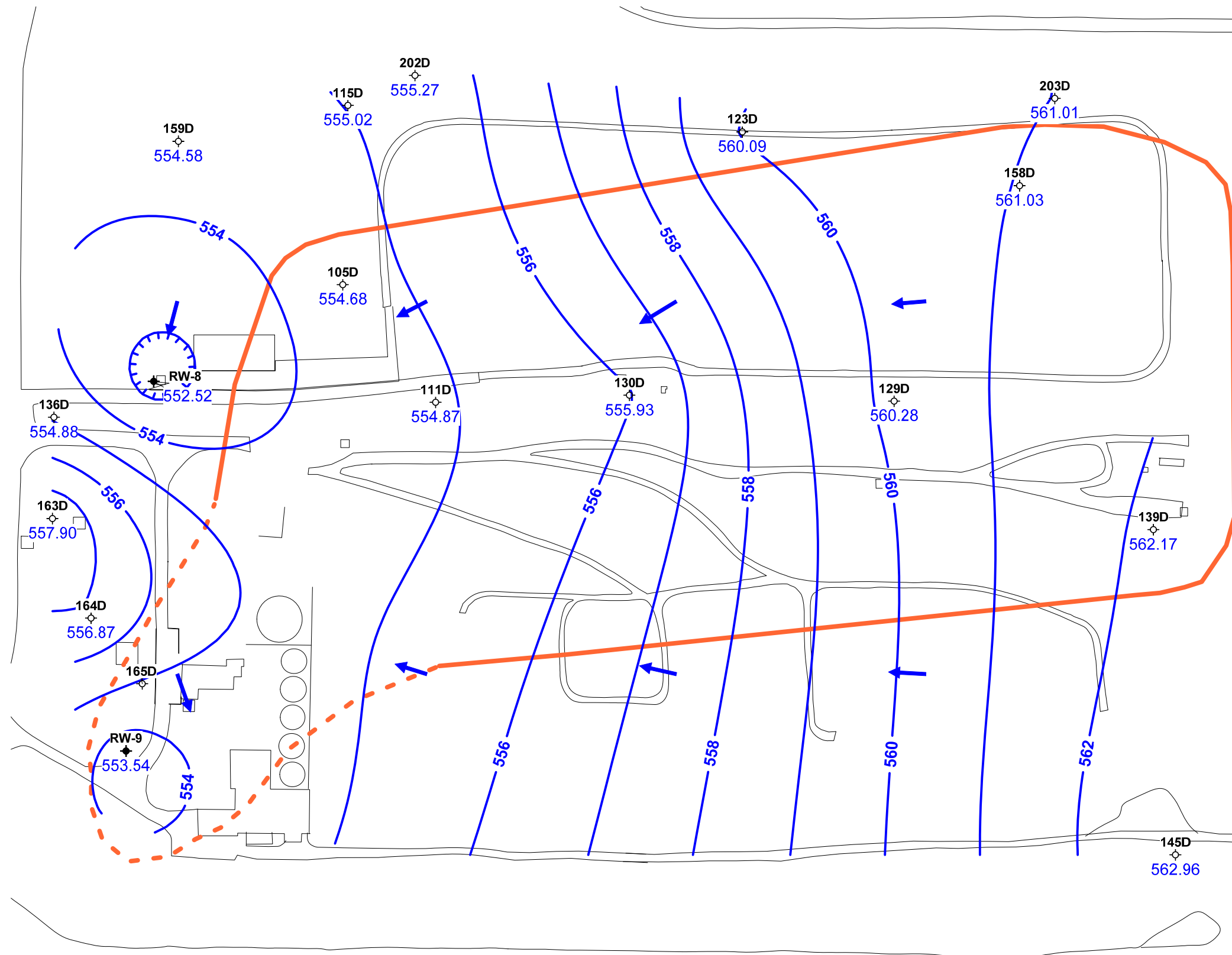
|    |                 |                        |                    |
|----|-----------------|------------------------|--------------------|
| 3B | Well ID         | Potentiometric Contour | Source Area Extent |
| ⊕  | Monitoring Well | Structure              |                    |
| ⚡  | Pumping Well    | Road                   |                    |

**Figure 7**  
**Potentiometric Surface Map**  
**Chemours Necco Park: C-Zone**  
**November 05, 2019**

**Figure 8**  
**Select D-Zone Monitoring Wells**  
**Groundwater Elevations 2005 through 4th Quarter 2019**  
**Chemours Necco Park**



Note: Well 149D water level was anomalously high in 1Q19 (564.31) and in 3Q19 (571.2). These events are not included in the hydrograph .



Scale: Feet

0 100 200 300 400

Contour interval = 1.0 feet

Elevation datum feet AMSL

Well 148D located downgradient was not used in the interpolation.

Wells 149D and 165D were not used in the contour interpolation.

Water level elevation for RW-8 was the hourly average for November 5, 2019 at noon from Experion® Process Knowledge System water level probe measurements.

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|--------------------------|----------------|
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| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

#### LEGEND

3B

Well ID



Monitoring Well



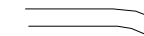
Pumping Well



Potentiometric Contour



Structure



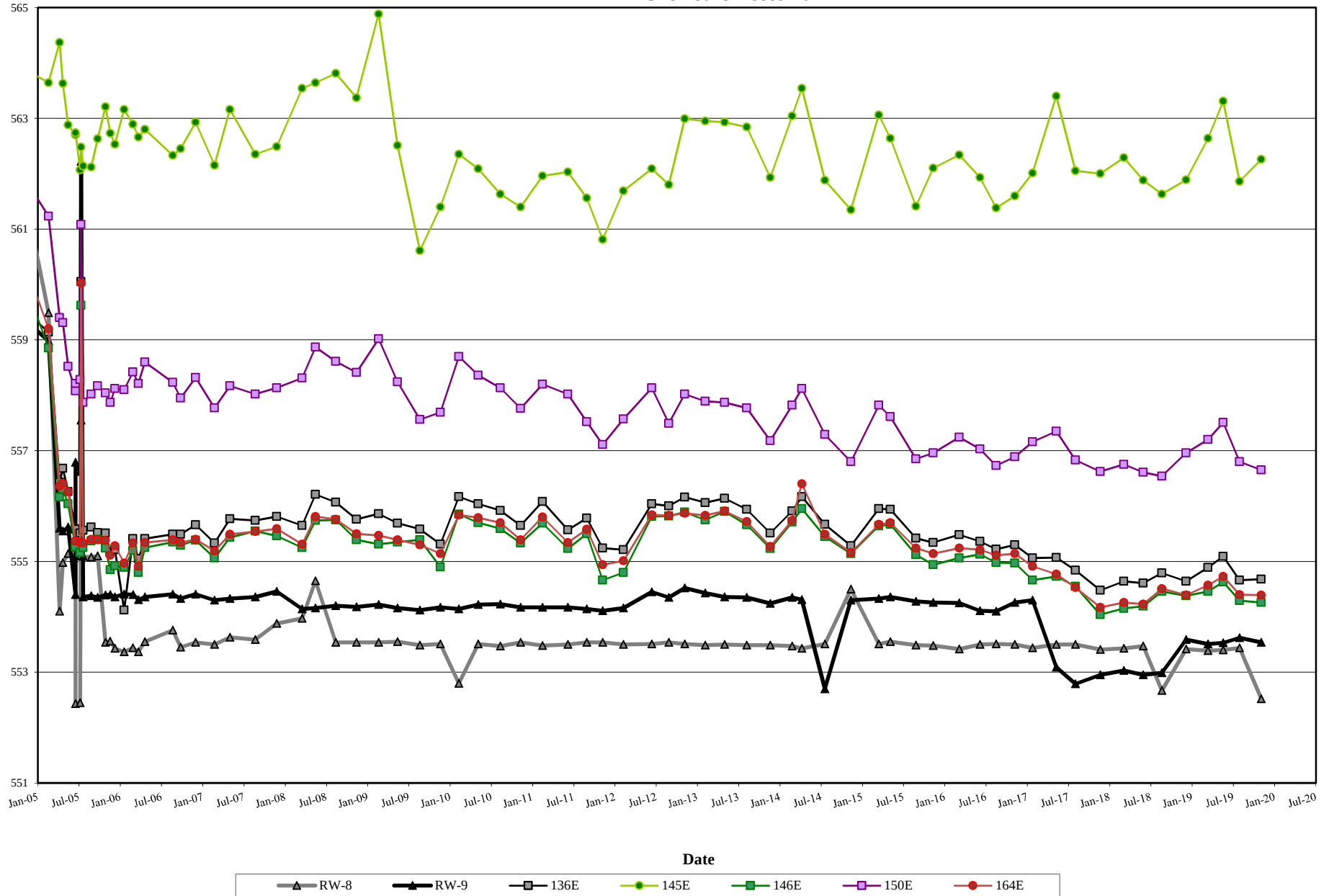
Road

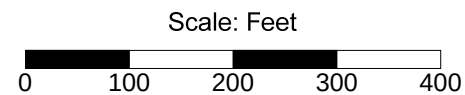
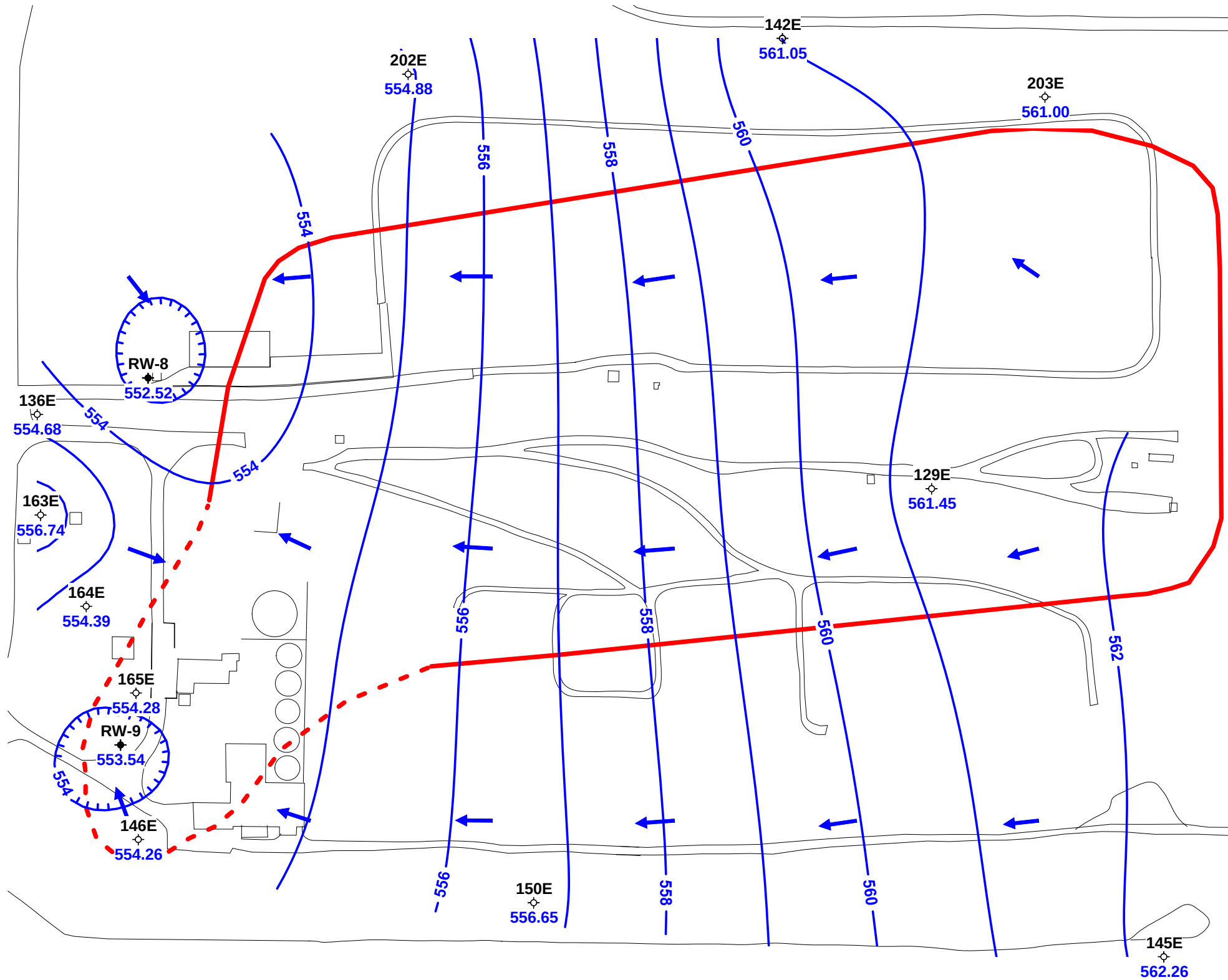


Source Area Extent

**Figure 9**  
**Potentiometric Surface Map**  
**Chemours Necco Park: D-Zone**  
**November 05, 2019**

**Figure 10**  
**Select E-Zone Monitoring Wells**  
**Groundwater Elevations 2005 Through 4th Quarter 2019**  
**Chemours Necco Park**





Contour interval = 1.0 foot  
Elevation datum feet AMSL

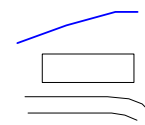
Water level elevation for RW-8 was the hourly average for November 5, 2019 at noon from Experion® Process Knowledge System water level probe measurements.

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|                          |                |
|--------------------------|----------------|
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| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

3B Well ID  
Monitoring Well  
Pumping Well

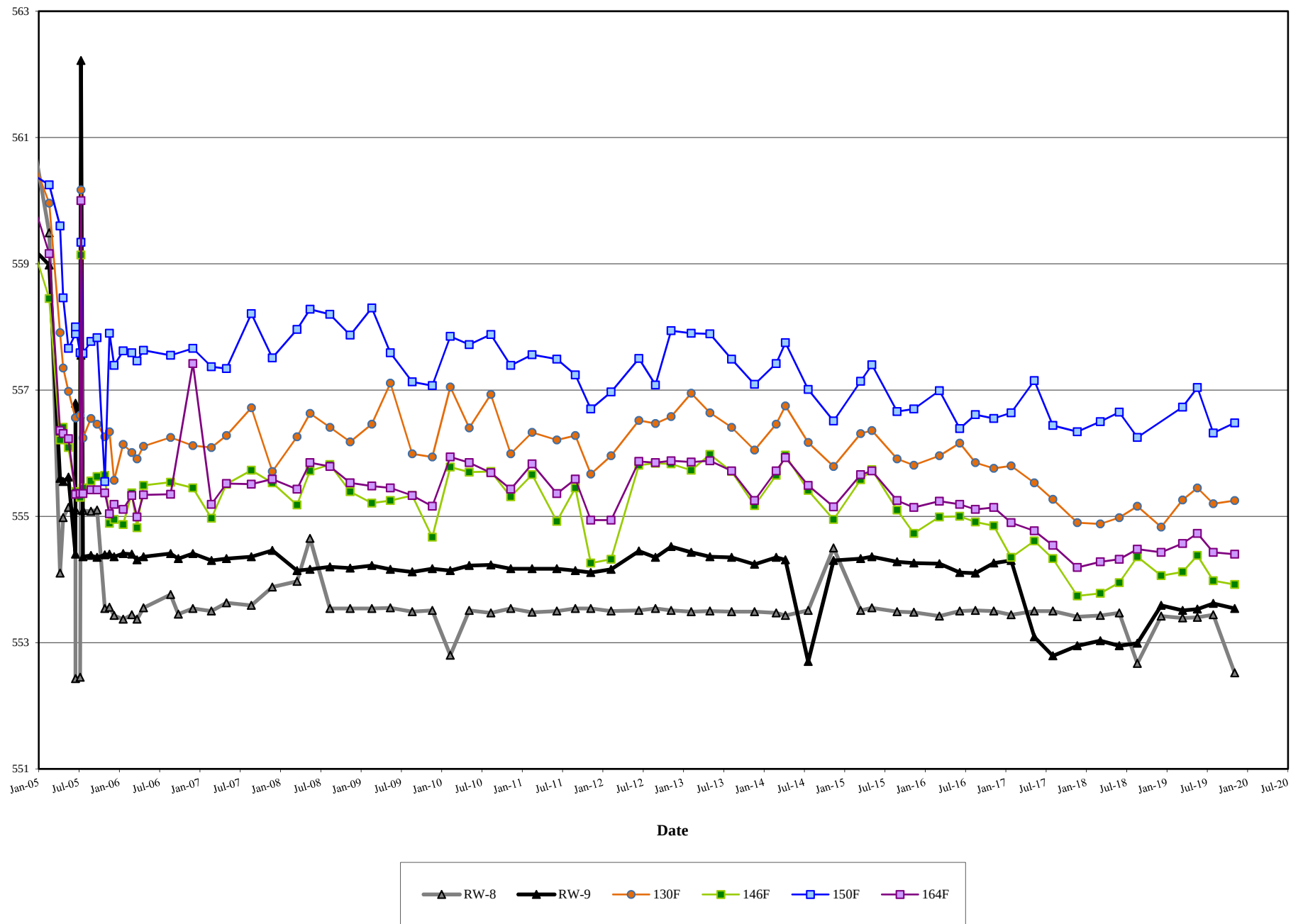


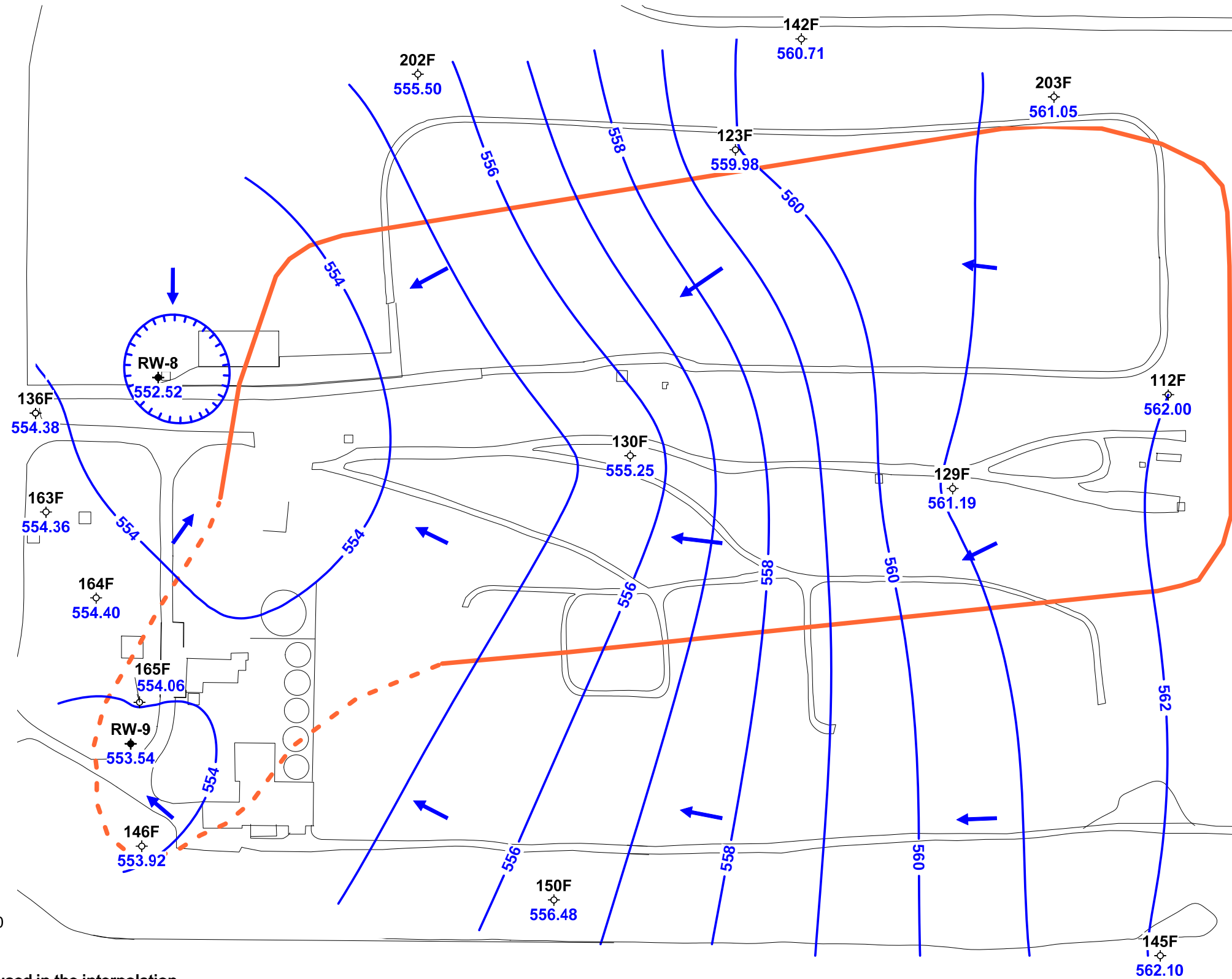
**LEGEND**

Potentiometric Contour  
Structure  
Road  
Source Area Extent

**Figure 11**  
**Potentiometric Surface Map**  
**Chemours Necco Park: E-Zone**  
**November 05, 2019**

**Figure 12**  
**Select F-Zone Monitoring Wells**  
**Groundwater Elevations 2005 Through 4th Quarter 2019**  
**Chemours Necco Park**





Scale: Feet  
0 100 200 300 400

Contour interval = 1.0 foot  
Elevation datum feet AMSL

148F located downgradient was not used in the interpolation.

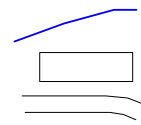
Water level elevation for RW-8 was the hourly average for November 5, 2019 at noon from Experion® Process Knowledge System water level probe measurements.

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| Checked by: JWS          | Date: 01-10-20 |
| Project Manager: EAF     | Date: 01-10-20 |
| Job number: 451999.03000 |                |

3B Well ID  
Monitoring Well  
Pumping Well



**LEGEND**

Potentiometric Contour  
Structure  
Road  
Source Area Extent

**Figure 13**  
**Potentiometric Surface Map**  
**Chemours Necco Park: F-Zone**  
**November 05, 2019**

**APPENDIX A**

**CHEMOURS NECCO PARK**  
**GROUNDWATER ELEVATION DATA**  
**FOURTH QUARTER 2019**



**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - 4Q19**  
**Chemours Necco Park**

| Location ID | Date Measured | Depth to Water | Reference Elevation | Groundwater Elevation | Time Measured |
|-------------|---------------|----------------|---------------------|-----------------------|---------------|
| 102B        | 11/05/2019    | 22.32          | 599.01              | 576.69                | 12:21         |
| 105C        | 11/05/2019    | well dry       | 595.28              | well dry              | 12:57         |
| 105D        | 11/05/2019    | 40.09          | 594.77              | 554.68                | 12:57         |
| 111A        | 11/05/2019    | 14.45          | 586.89              | 572.44                | 11:28         |
| 111B        | 11/05/2019    | 13.79          | 584.94              | 571.15                | 11:30         |
| 111D        | 11/05/2019    | 29.43          | 584.30              | 554.87                | 11:32         |
| 112B        | 11/05/2019    | 8.96           | 581.90              | 572.94                | 12:05         |
| 112C        | 11/05/2019    | 16.92          | 582.93              | 566.01                | 12:03         |
| 112F        | 11/05/2019    | 21.29          | 583.29              | 562.00                | 12:07         |
| 115C        | 11/05/2019    | 29.01          | 595.93              | 566.92                | 12:41         |
| 115D        | 11/05/2019    | 41.60          | 596.62              | 555.02                | 12:43         |
| 116B        | 11/05/2019    | 15.49          | 590.05              | 574.56                | 11:16         |
| 118B        | 11/05/2019    | 13.24          | 583.90              | 570.66                | 12:10         |
| 119A        | 11/05/2019    | 12.46          | 586.34              | 573.88                | 11:46         |
| 119B        | 11/05/2019    | 13.80          | 586.77              | 572.97                | 11:50         |
| 120B        | 11/05/2019    | 26.02          | 599.18              | 573.16                | 12:36         |
| 123A        | 11/05/2019    | 21.52          | 597.93              | 576.41                | 12:32         |
| 123B        | 11/05/2019    | 19.49          | 595.98              | 576.49                | 12:27         |
| 123C        | 11/05/2019    | 28.87          | 595.42              | 566.55                | 12:25         |
| 123D        | 11/05/2019    | 36.42          | 596.51              | 560.09                | 12:28         |
| 123F        | 11/05/2019    | 38.59          | 598.57              | 559.98                | 12:30         |
| 129A        | 11/05/2019    | 10.90          | 584.80              | 573.90                | 11:58         |
| 129B        | 11/05/2019    | 13.60          | 585.24              | 571.64                | 11:55         |
| 129C        | 11/05/2019    | 12.85          | 585.68              | 572.83                | 11:56         |
| 129D        | 11/05/2019    | 25.75          | 586.03              | 560.28                | 11:53         |
| 129E        | 11/05/2019    | 19.43          | 580.88              | 561.45                | 11:50         |
| 129F        | 11/05/2019    | 20.17          | 581.36              | 561.19                | 11:52         |
| 130B        | 11/05/2019    | 12.58          | 585.63              | 573.05                | 11:37         |
| 130C        | 11/05/2019    | 20.61          | 585.51              | 564.90                | 11:39         |
| 130D        | 11/05/2019    | 29.03          | 584.96              | 555.93                | 11:42         |
| 130F        | 11/05/2019    | 26.24          | 581.49              | 555.25                | 11:20         |
| 131A        | 11/05/2019    | 1.85           | 585.43              | 583.58                | 12:00         |
| 136B        | 11/05/2019    | 7.65           | 581.69              | 574.04                | 10:51         |
| 136C        | 11/05/2019    | 10.38          | 581.62              | 571.24                | 10:49         |
| 136D        | 11/05/2019    | 24.80          | 579.68              | 554.88                | 10:47         |
| 136E        | 11/05/2019    | 24.91          | 579.59              | 554.68                | 10:45         |
| 136F        | 11/05/2019    | 25.95          | 580.33              | 554.38                | 10:40         |
| 136F        | 11/05/2019    | 25.92          | 580.33              | 554.41                | 13:15         |
| 136G        | 11/05/2019    | 21.73          | 579.76              | 558.03                | 10:43         |
| 137A        | 11/05/2019    | 6.33           | 578.47              | 572.14                | 10:57         |
| 137B        | 11/05/2019    | 7.20           | 578.31              | 571.11                | 10:52         |
| 137C        | 11/05/2019    | 12.97          | 578.39              | 565.42                | 10:50         |

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - 4Q19**  
**Chemours Necco Park**

| Location ID | Date Measured | Depth to Water | Reference Elevation | Groundwater Elevation | Time Measured |
|-------------|---------------|----------------|---------------------|-----------------------|---------------|
| 137D        | 11/05/2019    | 15.12          | 579.09              | 563.97                | 10:54         |
| 138B        | 11/05/2019    | 11.78          | 583.98              | 572.20                | 11:27         |
| 138C        | 11/05/2019    | 22.23          | 587.06              | 564.83                | 11:30         |
| 139A        | 11/05/2019    | 13.47          | 585.14              | 571.67                | 12:02         |
| 139B        | 11/05/2019    | 5.87           | 585.39              | 579.52                | 12:07         |
| 139C        | 11/05/2019    | 23.04          | 585.27              | 562.23                | 12:10         |
| 139D        | 11/05/2019    | 23.32          | 585.49              | 562.17                | 12:12         |
| 140A        | 11/05/2019    | 6.21           | 581.55              | 575.34                | 12:13         |
| 142E        | 11/05/2019    | 24.95          | 586.00              | 561.05                | 12:49         |
| 142F        | 11/05/2019    | 24.98          | 585.69              | 560.71                | 12:48         |
| 145A        | 11/05/2019    | 4.08           | 575.84              | 571.76                | 12:05         |
| 145B        | 11/05/2019    | 6.50           | 575.48              | 568.98                | 12:08         |
| 145C        | 11/05/2019    | 6.92           | 575.90              | 568.98                | 11:37         |
| 145D        | 11/05/2019    | 13.09          | 576.05              | 562.96                | 11:35         |
| 145E        | 11/05/2019    | 13.72          | 575.98              | 562.26                | 12:06         |
| 145F        | 11/05/2019    | 13.95          | 576.05              | 562.10                | 12:08         |
| 146AR       | 11/05/2019    | 4.85           | 576.92              | 572.07                | 11:14         |
| 146B        | 11/05/2019    | 6.18           | 576.90              | 570.72                | 11:09         |
| 146C        | 11/05/2019    | 6.71           | 576.35              | 569.64                | 11:10         |
| 146E        | 11/05/2019    | 21.82          | 576.08              | 554.26                | 11:12         |
| 146F        | 11/05/2019    | 22.12          | 576.04              | 553.92                | 11:11         |
| 148D        | 11/05/2019    | 9.10           | 579.38              | 570.28                | 12:28         |
| 148F        | 11/05/2019    | 24.72          | 576.21              | 551.49                | 12:27         |
| 149B        | 11/05/2019    | 3.01           | 572.87              | 569.86                | 12:43         |
| 149C        | 11/05/2019    | 4.79           | 573.26              | 568.47                | 12:40         |
| 149D        | 11/05/2019    | 17.65          | 572.86              | 555.21                | 12:37         |
| 150A        | 11/05/2019    | 4.21           | 575.86              | 571.65                | 11:44         |
| 150B        | 11/05/2019    | 5.49           | 575.99              | 570.50                | 11:45         |
| 150C        | 11/05/2019    | 11.32          | 576.13              | 564.81                | 11:46         |
| 150E        | 11/05/2019    | 19.50          | 576.15              | 556.65                | 11:46         |
| 150F        | 11/05/2019    | 19.50          | 575.98              | 556.48                | 11:47         |
| 151B        | 11/05/2019    | 5.93           | 573.36              | 567.43                | 12:17         |
| 151C        | 11/05/2019    | 4.65           | 573.18              | 568.53                | 12:18         |
| 158D        | 11/05/2019    | 37.17          | 598.20              | 561.03                | 12:18         |
| 159A        | 11/05/2019    | 19.25          | 596.16              | 576.91                | 12:46         |
| 159B        | 11/05/2019    | 24.65          | 596.37              | 571.72                | 12:48         |
| 159C        | 11/05/2019    | 27.59          | 597.36              | 569.77                | 12:50         |
| 159D        | 11/05/2019    | 43.09          | 597.67              | 554.58                | 12:51         |
| 160B        | 11/05/2019    | 12.72          | 582.75              | 570.03                | 11:30         |
| 160C        | 11/05/2019    | 19.20          | 582.72              | 563.52                | 11:31         |
| 161B        | 11/05/2019    | 11.12          | 582.84              | 571.72                | 12:25         |
| 161C        | 11/05/2019    | 20.76          | 582.64              | 561.88                | 12:27         |

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - 4Q19**  
**Chemours Necco Park**

| Location ID | Date Measured | Depth to Water | Reference Elevation | Groundwater Elevation | Time Measured |
|-------------|---------------|----------------|---------------------|-----------------------|---------------|
| 162C        | 11/05/2019    | 16.69          | 581.00              | 564.31                | 11:43         |
| 163A        | 11/05/2019    | 4.68           | 578.14              | 573.46                | 11:02         |
| 163B        | 11/05/2019    | 4.72           | 577.94              | 573.22                | 11:01         |
| 163D        | 11/05/2019    | 20.92          | 578.82              | 557.90                | 11:03         |
| 163E        | 11/05/2019    | 22.32          | 579.06              | 556.74                | 11:05         |
| 163F        | 11/05/2019    | 24.40          | 578.76              | 554.36                | 11:07         |
| 164D        | 11/05/2019    | 20.55          | 577.42              | 556.87                | 11:12         |
| 164E        | 11/05/2019    | 22.93          | 577.32              | 554.39                | 11:11         |
| 164F        | 11/05/2019    | 22.87          | 577.27              | 554.40                | 11:09         |
| 165D        | 11/05/2019    | 13.72          | 577.52              | 563.80                | 11:02         |
| 165E        | 11/05/2019    | 23.28          | 577.56              | 554.28                | 11:03         |
| 165F        | 11/05/2019    | 23.66          | 577.72              | 554.06                | 11:04         |
| 167B        | 11/05/2019    | 10.74          | 580.93              | 570.19                | 11:57         |
| 168A        | 11/05/2019    | 7.06           | 578.72              | 571.66                | 11:20         |
| 168B        | 11/05/2019    | 26.28          | 578.90              | 552.62                | 11:21         |
| 168C        | 11/05/2019    | 14.24          | 579.21              | 564.97                | 11:24         |
| 169B        | 11/05/2019    | 11.10          | 580.43              | 569.33                | 11:29         |
| 170B        | 11/05/2019    | 10.85          | 579.10              | 568.25                | 11:27         |
| 171B        | 11/05/2019    | 9.59           | 579.54              | 569.95                | 11:33         |
| 172B        | 11/05/2019    | 7.38           | 576.95              | 569.57                | 12:01         |
| 173A        | 11/05/2019    | 7.82           | 580.71              | 572.89                | 11:07         |
| 174A        | 11/05/2019    | 4.73           | 577.62              | 572.89                | 10:46         |
| 175A        | 11/05/2019    | 14.43          | 586.81              | 572.38                | 11:23         |
| 176A        | 11/05/2019    | 6.98           | 580.03              | 573.05                | 11:00         |
| 178A        | 11/05/2019    | 6.91           | 579.92              | 573.01                | 11:02         |
| 179A        | 11/05/2019    | 6.10           | 579.01              | 572.91                | 12:51         |
| 184A        | 11/05/2019    | 6.96           | 579.88              | 572.92                | 11:17         |
| 185A        | 11/05/2019    | 7.64           | 580.84              | 573.20                | 11:24         |
| 186A        | 11/05/2019    | 10.74          | 579.76              | 569.02                | 11:33         |
| 187A        | 11/05/2019    | 9.68           | 579.94              | 570.26                | 11:35         |
| 188A        | 11/05/2019    | 13.79          | 580.91              | 567.12                | 11:38         |
| 189A        | 11/05/2019    | 10.84          | 579.82              | 568.98                | 11:45         |
| 190A        | 11/05/2019    | 11.43          | 580.58              | 569.15                | 11:55         |
| 191AR       | 11/05/2019    | 9.06           | 580.62              | 571.56                | 12:00         |
| 192A        | 11/05/2019    | 12.70          | 584.08              | 571.38                | 12:04         |
| 193A        | 11/05/2019    | 11.31          | 584.13              | 572.82                | 12:20         |
| 194A        | 11/05/2019    | 13.04          | 584.35              | 571.31                | 12:17         |
| 201B        | 11/05/2019    | 8.90           | 579.25              | 570.35                | 12:49         |
| 202D        | 11/05/2019    | 37.46          | 592.73              | 555.27                | 13:03         |
| 202E        | 11/05/2019    | 37.85          | 592.73              | 554.88                | 13:05         |
| 202F        | 11/05/2019    | 37.23          | 592.73              | 555.50                | 13:06         |
| 203D        | 11/05/2019    | 32.84          | 593.85              | 561.01                | 13:11         |

**APPENDIX A**  
**GROUNDWATER ELEVATION DATA - 4Q19**  
**Chemours Necco Park**

| Location ID | Date Measured | Depth to Water | Reference Elevation | Groundwater Elevation | Time Measured |
|-------------|---------------|----------------|---------------------|-----------------------|---------------|
| 203E        | 11/05/2019    | 32.85          | 593.85              | 561.00                | 13:12         |
| 203F        | 11/05/2019    | 32.80          | 593.85              | 561.05                | 13:14         |
| 204C        | 11/05/2019    | 19.37          | 581.77              | 562.40                | 12:22         |
| BZTW-1      | 11/05/2019    | 7.89           | 579.67              | 571.78                | 11:22         |
| BZTW-2      | 11/05/2019    | 6.51           | 579.38              | 572.87                | 11:05         |
| BZTW-4      | 11/05/2019    | 4.47           | 578.18              | 573.71                | 10:58         |
| D-10        | 11/05/2019    | 15.18          | 580.02              | 564.84                | 12:35         |
| D-11        | 11/05/2019    | 5.09           | 578.07              | 572.98                | 12:44         |
| D-13        | 11/05/2019    | 5.61           | 579.07              | 573.46                | 10:42         |
| D-14        | 11/05/2019    | 13.53          | 579.01              | 565.48                | 10:40         |
| D-23        | 11/05/2019    | 12.21          | 580.61              | 568.40                | 11:48         |
| D-9         | 11/05/2019    | 7.52           | 580.15              | 572.63                | 12:38         |
| PZ-205B     | 11/05/2019    | 7.11           | 579.38              | 572.27                | 12:41         |
| PZ-A        | 11/05/2019    | 7.64           | 579.06              | 571.42                | 12:46         |
| PZ-B        | 11/05/2019    | 8.36           | 579.47              | 571.11                | 12:47         |
| RDB-3       | 11/05/2019    | 5.17           | 579.31              | 574.14                | 10:52         |
| RDB-5       | 11/05/2019    | 4.51           | 578.57              | 574.06                | 10:56         |
| RW-11       | 11/05/2019    | 10.39          | 578.78              | 568.39                | 12:53         |
| RW-4        | 11/05/2019    | 24.03          | 581.52              | 557.49                | 12:15         |
| RW-5        | 11/05/2019    | 14.93          | 578.88              | 563.95                | 11:40         |
| RW-8        | 11/05/2019    | 33.60          | 585.52              | 551.92                | 11:20         |
| RW-9        | 11/05/2019    | 21.59          | 575.13              | 553.54                | 11:07         |
| TRW-6       | 11/05/2019    | 7.71           | 580.21              | 572.50                | 11:09         |
| TRW-7       | 11/05/2019    | 6.13           | 577.89              | 571.76                | 10:48         |

**APPENDIX B**

**CHEMOURS NECCO PARK**  
**GWTF PROCESS SAMPLING RESULTS**  
**FOURTH QUARTER 2019**

**Appendix B**  
**Summary of Analytical Results**  
**Chemours Necco Park**  
**Fourth Quarter 2019**

| Method | Code     | Parameter Name                | Location<br>Date<br>Units | BC-INFLUENT<br>11/5/2019<br>FS | DEF-INFLUENT<br>11/5/2019<br>FS | COMB-EFFLUENT<br>11/5/2019<br>FS | TB<br>11/5/2019<br>TB |
|--------|----------|-------------------------------|---------------------------|--------------------------------|---------------------------------|----------------------------------|-----------------------|
|        |          | <b>Field Parameters</b>       |                           |                                |                                 |                                  |                       |
|        |          | COLOR                         | NONE                      | Grey                           | Clear                           | Clear                            |                       |
|        |          | ODOR                          | NONE                      | Strong                         | None                            | None                             |                       |
|        |          | OXIDATION REDUCTION POTENTIAL | MV                        | -120.8                         | -206.1                          | -72.9                            |                       |
|        |          | PH                            | STD UNITS                 | 5.7                            | 6.92                            | 7.37                             |                       |
|        |          | SPECIFIC CONDUCTANCE          | UMHOS/CM                  | 6778                           | 4718                            | 2798                             |                       |
|        |          | TEMPERATURE                   | DEGREES C                 | 13.5                           | 12.5                            | 13.7                             |                       |
|        |          | TURBIDITY QUANTITATIVE        | NTU                       | 36.9                           | 54.7                            | 11.2                             |                       |
|        |          | <b>Volatile Organics</b>      |                           |                                |                                 |                                  |                       |
| 8260C  | 79-34-5  | 1,1,2,2-Tetrachloroethane     | UG/L                      | 5000                           | 1500                            | 23                               | <0.13                 |
| 8260C  | 79-00-5  | 1,1,2-Trichloroethane         | UG/L                      | 3600                           | 2500                            | 7                                | <0.09                 |
| 8260C  | 75-35-4  | 1,1-Dichloroethene            | UG/L                      | 450                            | 320 J                           | <0.19                            | <0.19                 |
| 8260C  | 107-06-2 | 1,2-Dichloroethane            | UG/L                      | 600                            | 220 J                           | 0.43 J                           | <0.21                 |
| 8260C  | 56-23-5  | Carbon Tetrachloride          | UG/L                      | 8800                           | 1200                            | <0.26                            | <0.26                 |
| 8260C  | 67-66-3  | Chloroform                    | UG/L                      | 20000                          | 3400                            | 21                               | <0.13                 |
| 8260C  | 156-59-2 | cis-1,2 Dichloroethene        | UG/L                      | 9700                           | 12000                           | 1.7                              | <0.16                 |
| 8260C  | 75-09-2  | Methylene Chloride            | UG/L                      | 3100                           | 5200                            | <2.6                             | <2.6                  |
| 8260C  | 127-18-4 | Tetrachloroethene             | UG/L                      | 12000                          | 780                             | 1.7                              | <0.15                 |
| 8260C  | 156-60-5 | trans-1,2-Dichloroethene      | UG/L                      | 470                            | 720                             | <0.19                            | <0.19                 |
| 8260C  | 79-01-6  | Trichloroethene               | UG/L                      | 17000                          | 4800                            | 3.6                              | <0.1                  |
| 8260C  | 75-01-4  | Vinyl Chloride                | UG/L                      | 2500                           | 2000                            | <0.2                             | <0.2                  |
|        |          | Total VOCs                    |                           | 83220                          | 34640                           | 58.43                            | 0                     |

< Not detected at stated reporting limit

J Estimated concentration