`

Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Joe Branch
Site Manager
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Montague, MI 49437
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January 28, 2016

Reference No. 001069

Ms. Gloria M. Sosa
USEPA
Region II, Site Investigation & Compliance Branch
290 Broadway, 20th Floor
New York, NY 10007-1866

Mr. Brian P. Sadowski
NYSDEC
270 Michigan Avenue
Buffalo, NY 14203-2999

Dear Ms. Sosa and Mr. Sadowski:

Re: Quarterly Operations Report – Fourth Quarter 2015
Hyde Park Remedial Program
Bedrock and Overburden Monitoring Programs

In accordance with the July 2006 "Performance Monitoring Plan" (PMP), the following is the Quarterly Operations Report for the Hyde Park Remedial Program for the period October 1, 2015 through December 31, 2015. A total of 4.3 million gallons of aqueous phase liquid (APL) was collected, treated, and discharged in compliance with the Site's City of Niagara Falls Publicly Owned Treatment Works (POTW) Significant Industrial Users Wastewater Discharge Permit #49. No non-aqueous phase liquid (NAPL) was shipped for disposal this quarter. The potentiometric contours are consistent with previous interpretations. Flow Zones 6, 7, and 9 have dewatered areas between the landfill and the gorge face. The current data continue to support the interpretation of effective hydraulic containment and inward gradients.

The performance monitoring data are presented as follows:

- Figures 1-9: Showing the potentiometric surface for the bedrock flow zones and overburden
- Figure 10: Showing continuously recorded water levels at flow zone 9 piezometer PMW-1M-09
- Table 1: Water level elevation summary
- Tables 2, 3, and 4: Daily, weekly, and quarterly treatment system effluent monitoring data
- Attachment A: Purge well performance graphs indicating daily level and flow information

The pumping wells are operational and functioning as designed. The pumps are operated to maintain a water level between a typical range of 2.5 feet above (pump on) and 2.5 feet below (pump off) a specific setpoint in accordance with the setpoint range defined in the Operation & Maintenance Manual. The following minor operational and setpoint issues were investigated or resolved during the fourth quarter of 2015:

- All Site wells were shut down between October 1 and October 2. This shutdown was necessary to collect an accurate measurement of NAPL in the treatment system decanters. The measurement was necessary in order to plan the NAPL cleanouts of decanters and subsequent NAPL waste shipment. This shutdown caused the water level elevation to exceed set point range in the following 11 wells:

PW-1U	PW-5UR	PW-8U
PW-2L	PW-6MR	PW-9U
PW-2UR	PW-6UR	PW-10U
PW-3L	PW-7U	

  The wells were restarted in the afternoon of October 2. Once the wells were restated, all wells returned to within set point range by October 4.

- The water level in PW-2UR exceeded setpoint range on December 3 due to low flow caused by a faulty pump. The pump and motor were replaced on December 7 and the water level returned to within setpoint range.
- The water level in PW-4U exceeded setpoint range on November 13 due to an electrical fault associated with the pump motor. The fault was diagnosed and the motor reset on November 17 after which, the water level returned to within the setpoint range.
- The water level in PW-5UR exceeded setpoint on October 9 and November 29. The October 9 exceedance was caused by low flow due to a malfunctioning pump. The PW-5UR pump and motor were replaced on October 12, and the water level returned to within setpoint range on October 15. The November 29 exceedance was also caused by low flow due to a malfunctioning pump. The pump and motor were replaced on December 2 and returned to within setpoint range on December 4.
- The water level in PW-8U exceeded setpoint between November 13 and 28. The pump in PW-8U shut down daily during this period due to run-feedback communication faults. The pump worked upon the daily reset, and the water levels returned to within setpoint range daily. Attempts were made to diagnose the faults; however, the cause could not be determined. The PW-8U pump did not experience run-feedback communication faults for the remainder of the quarter.
- The water level in PW-9U exceeded setpoint on November 18 due to a malfunctioning pump. The pump was repaired on November 18 and the water level returned to within setpoint range on November 19.

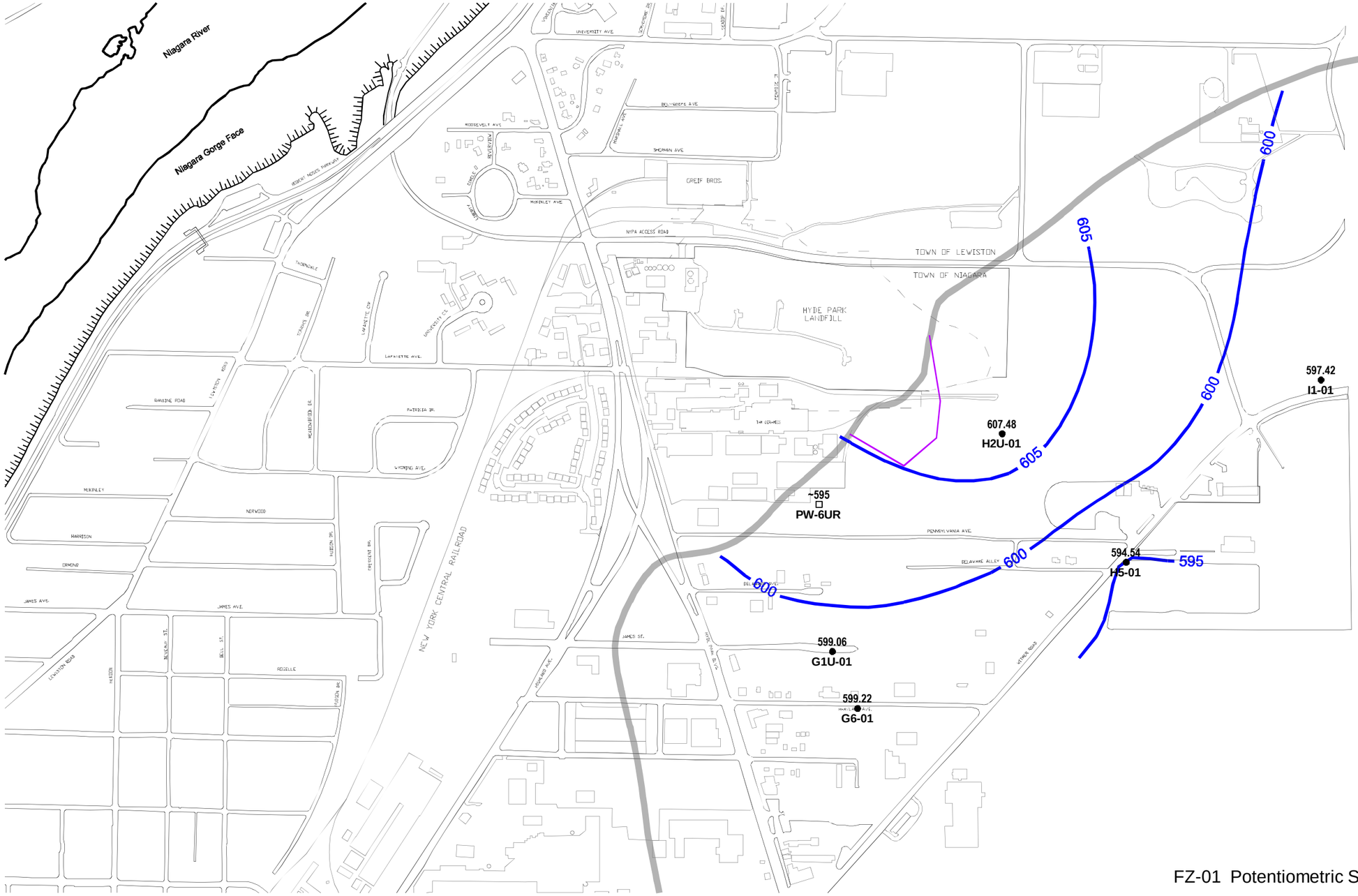
If you have any questions, please feel free to contact me at (231) 670-6809 or by email at joseph_branch@oxy.com.

Very truly yours,

GLENN SPRINGS HOLDINGS, INC.

Joe Branch
Site Manager
231-670-6809 Cell

JB/eew/22
Encl.
cc: M. Anderson, GSH
C. Babcock, GSH
M. Forcucci, NYSDOH
J. Pentilchuk, GHD
B. Sadowski, NYSDEC
G. Sosa, USEPA
J. Raby, GHD

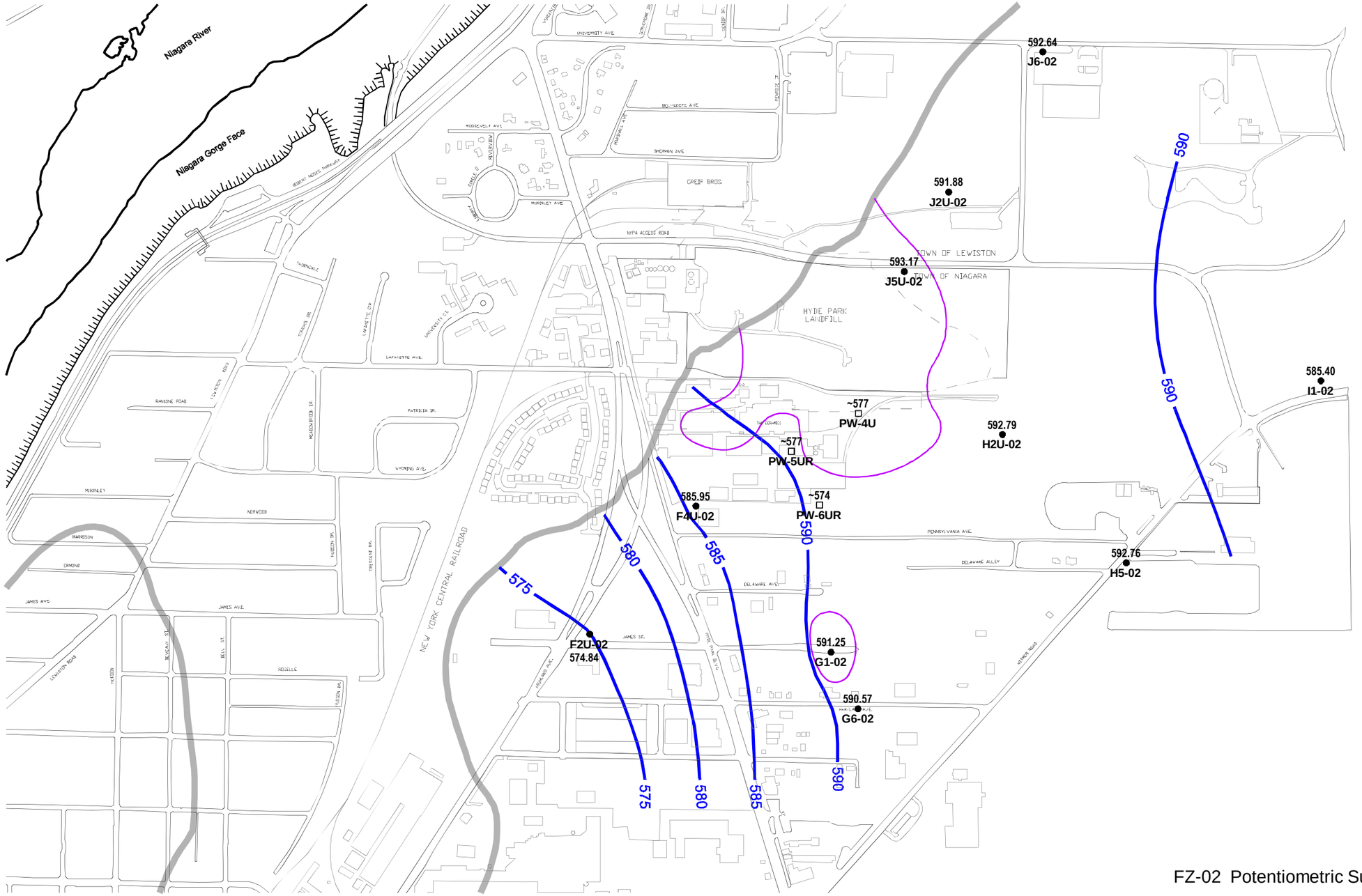


Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
- ~ 525 Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

figure 1
FZ-01 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York

Glenn Springs Holdings, Inc.



Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
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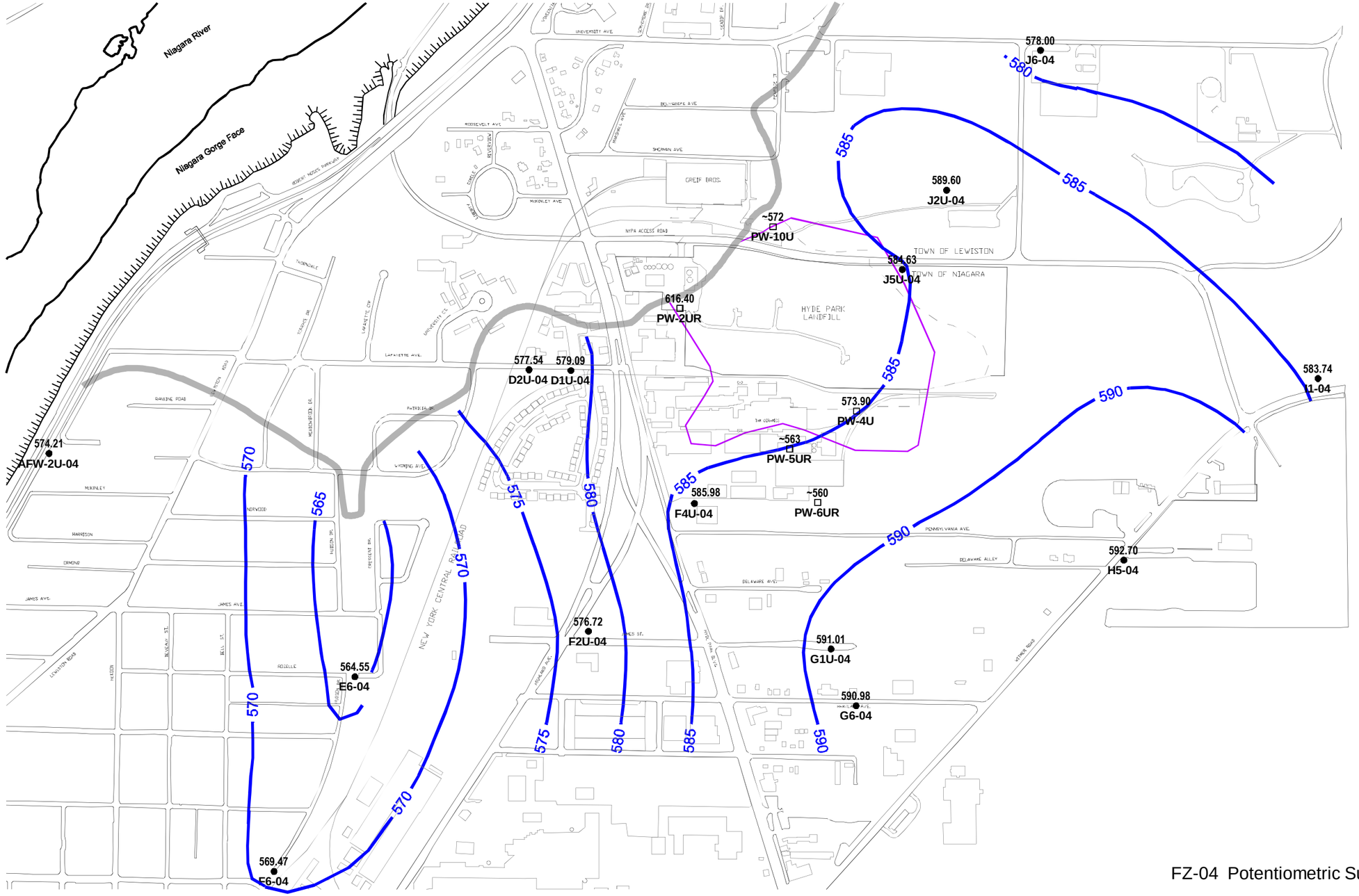
figure 2
FZ-02 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York



Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
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figure 3
FZ-04 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York

Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- Piezometer used in contouring
- Piezometer considered unreliable - data not used in contouring
- Purge Well - data not used in contouring
- ~ 525 — Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

0 200 400 600

figure 4
FZ-05 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York

Glenn Springs Holdings, Inc.

Legend

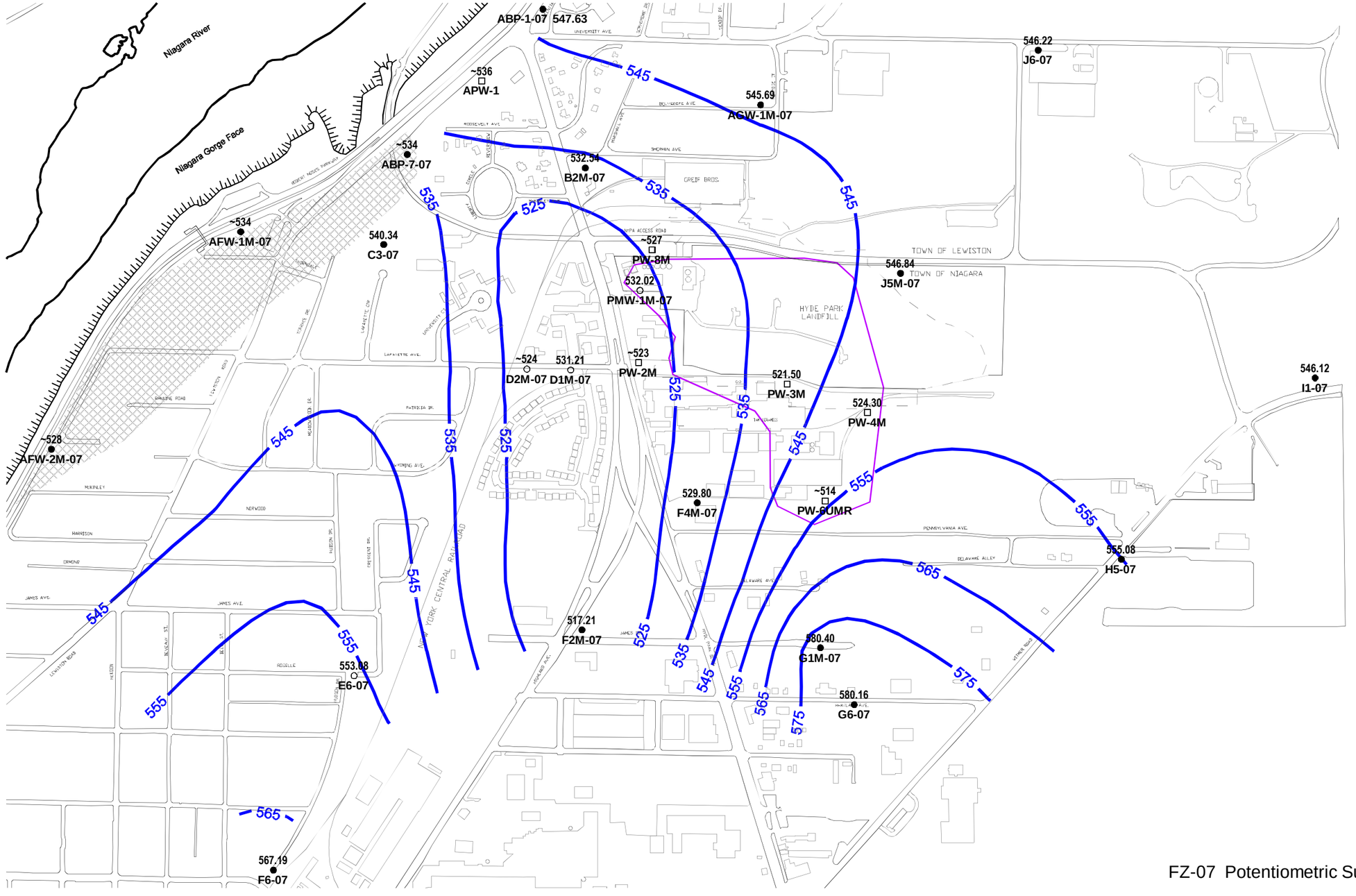
- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
- ~ 525 Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

N

0 200 400 600

figure 5
FZ-06 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York

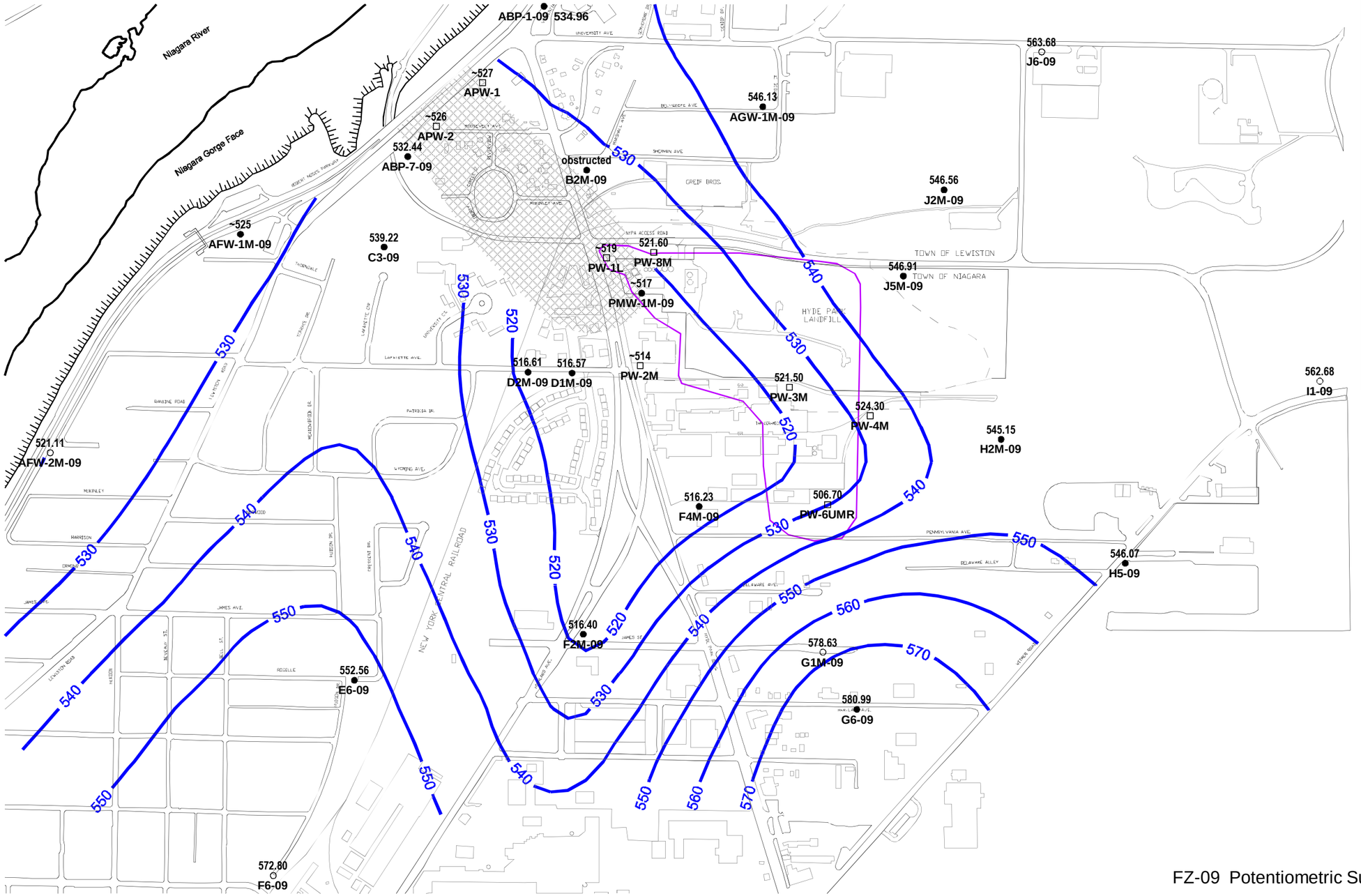
Glenn Springs Holdings, Inc.



Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
- ~ 525 Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

figure 6
FZ-07 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York



Legend

- Potentiometric Contour (ft AMSL)
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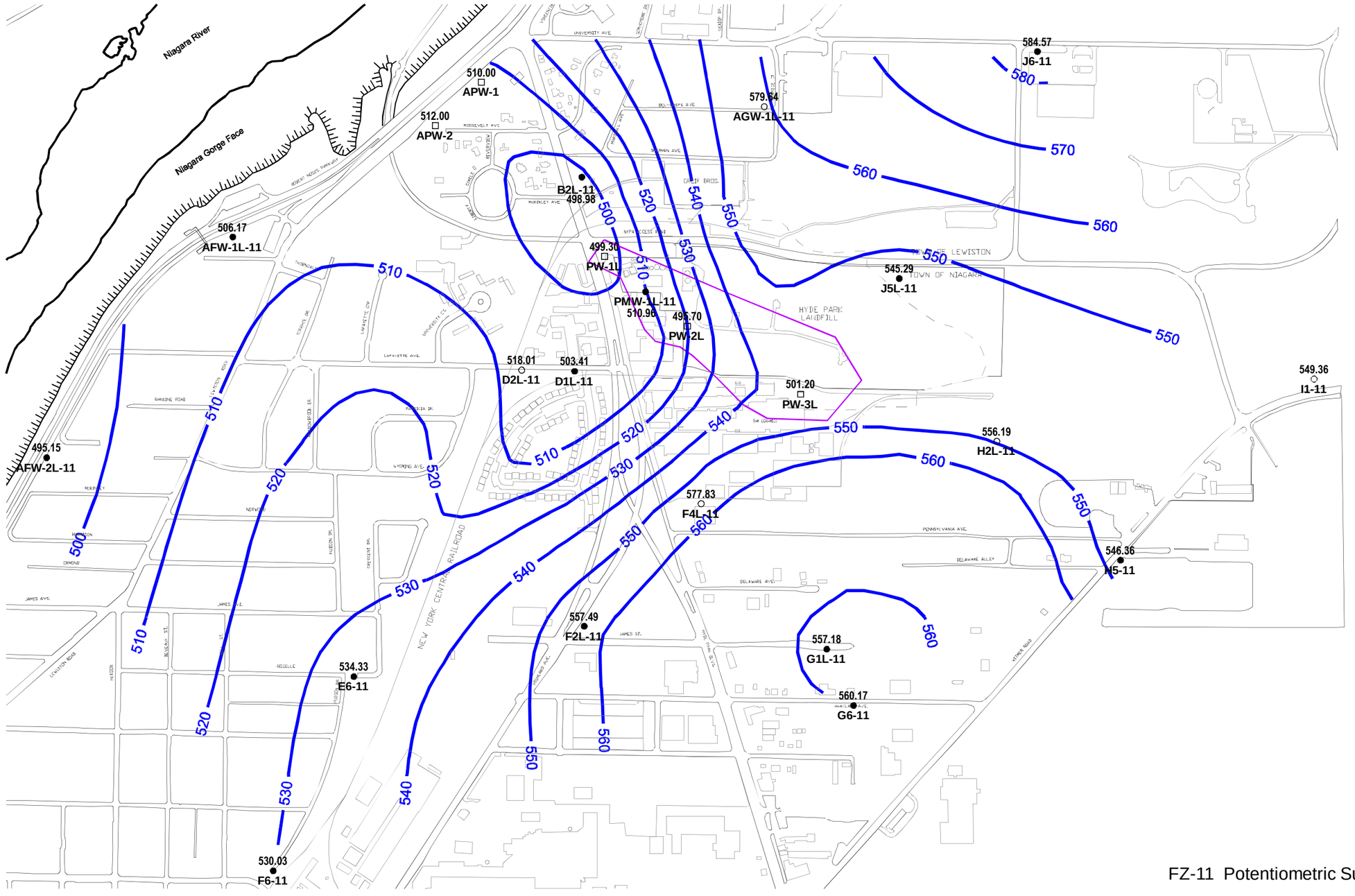
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
- ~ 525 Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

figure 7
FZ-09 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York



Legend

- Potentiometric Contour (ft AMSL)
- 2003 Delineation of NAPL Limits
- Flow Zone Subcrop
- Dewatered area of flow zone
- ● Piezometer used in contouring
- ○ Piezometer considered unreliable - data not used in contouring
- □ Purge Well - data not used in contouring
- ~ 525 Tilde at a piezometer indicates that the flow zone is dewatered. At a purge well, the pumping water level is below the flow zone, but the flow zone is not necessarily dewatered. Value shown is the flow zone elevation.

figure 8
FZ-11 Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
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Niagara Falls, New York

Glenn Springs Holdings, Inc.

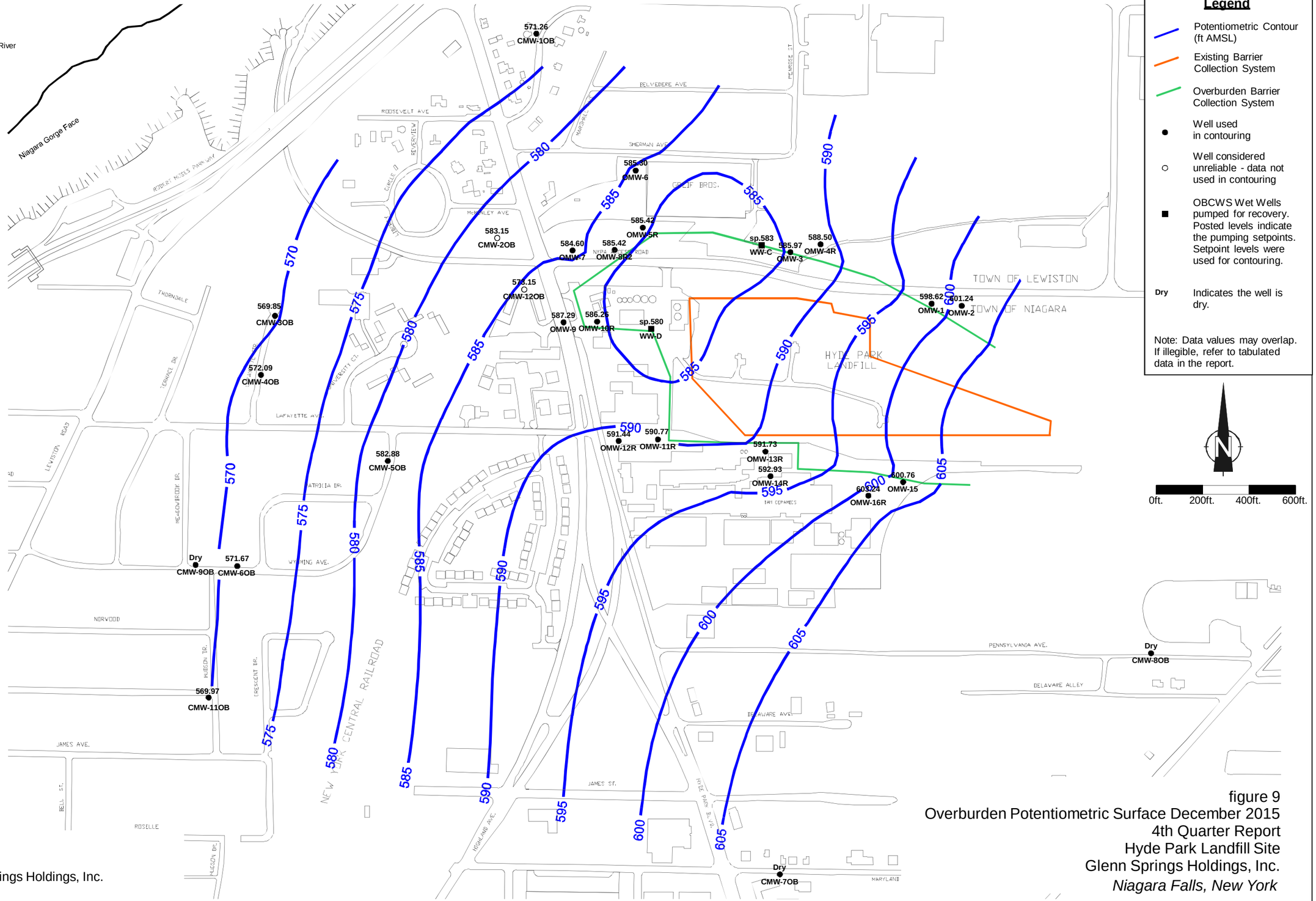


figure 9
Overburden Potentiometric Surface December 2015
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Niagara Falls, New York

Glenn Springs Holdings, Inc.

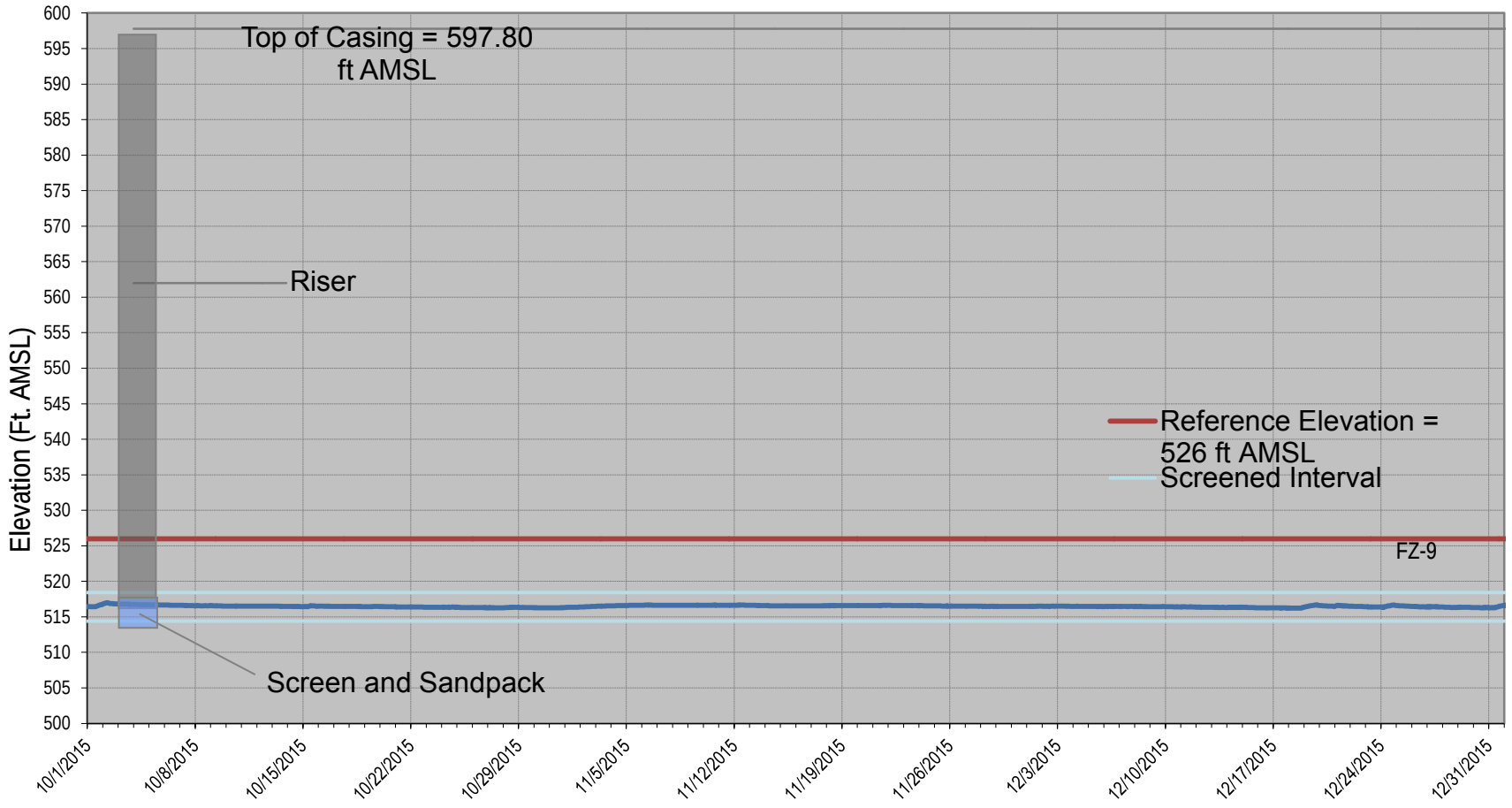


figure 10

PMW-1M-09 4th Quarter 2015 - Hourly Water Level Elevation
4th Quarter Report
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.

Table 1

Water Level Elevation Summary
Fourth Quarter - 2015
Hyde Park RRT Program

Well	Reference Elevation (ft AMSL)	Depth to Water (ft)	Water Level Elevation (ft AMSL)
Overburden			
CMW-2OB	590.79	7.64	583.15
CMW-3OB	582.13	12.28	569.85
CMW-4OB	574.28	2.19	572.09
CMW-5OB	583.43	0.55	582.88
CMW-6OB	571.89	0.22	571.67
CMW-7OB	611.00	Dry	NA
CMW-8OB	616.11	Dry	NA
CMW-9OB	571.76	Dry	NA
CMW-1OB	576.80	5.54	571.26
CMW-11OB	572.85	2.88	569.97
CMW-12OB	594.74	21.59	573.15
MH20	605.87	4.93	600.94
MH21	599.77	6.12	593.65
MH22	593.37	7.02	586.35
MH23	587.05	12.18	574.87
MH24	582.57	6.50	576.07
MH25	583.82	6.13	577.69
MH26	584.48	7.69	576.79
MH27	586.12	10.88	575.24
MH28	585.23	16.52	568.71
MH29	604.58	15.18	589.40
MH30	599.49	Dry	NA
MH31	590.10	9.84	580.26
MH32	592.01	9.63	582.38
MH33	592.51	8.75	583.76
MH34	598.34	7.17	591.17
MH35	605.69	6.55	599.14
MH35A	605.69	7.49	598.20
OMW-1	605.28	6.66	598.62
OMW-2	605.99	4.75	601.24
OMW-3	598.63	12.66	585.97
OMW-4R	601.17	12.67	588.50
OMW-5R	591.31	5.89	585.42
OMW-6	587.62	2.32	585.30
OMW-7	592.74	8.14	584.60
OMW-8R2	594.67	9.25	585.42
OMW-9	595.27	7.98	587.29
OMW-10R	595.13	8.87	586.26
OMW-11R	597.52	6.75	590.77
OMW-12R	597.20	5.76	591.44
OMW-13R	601.50	9.77	591.73
OMW-14R	599.64	6.71	592.93
OMW-15	607.48	6.72	600.76
OMW-16R	607.62	4.38	603.24
SC-2	625.61	*	*
SC-3	638.72	41.02	597.70
SC-4	639.35	30.75	608.60
SC-5	634.07	28.37	605.70
SC-6	631.15	52.95	578.20

Water Level Elevation Summary
Fourth Quarter - 2015
Hyde Park RRT Program

Well	Reference Elevation (ft AMSL)	Depth to Water (ft)	Water Level Elevation (ft AMSL)
Shallow Bedrock			
CMW-1SH	576.11	12.60	563.51
CMW-2SH	590.51	19.22	571.29
CMW-3SH	581.91	33.62	548.29
CMW-4SH	574.16	7.49	566.67
CMW-5SH	583.36	9.25	574.11
CMW-6SH	572.05	11.19	560.86
CMW-7SH	610.58	12.39	598.19
CMW-8SH	615.95	10.93	605.02
CMW-9SH	571.96	12.12	559.84
CMW-11SH	573.21	9.30	563.91
CMW-12SH	597.02	27.72	569.30
Flow Zone 1			
G1U-01	617.08	18.02	599.06
G6-01	609.24	10.02	599.22
H2U-01	620.92	13.44	607.48
H5-01	617.61	23.07	594.54
I1-01	625.58	28.16	597.42
Flow Zone 2			
F2U-02	599.89	25.05	574.84
F4U-02	602.32	16.37	585.95
G1-02	616.86	25.61	591.25
G6-02	608.65	18.08	590.57
H2U-02	620.88	28.09	592.79
H5-02	617.47	24.71	592.76
I1-02	625.47	40.07	585.40
J2U-02	609.66	17.78	591.88
J5U-02	606.21	13.04	593.17
J6-02	609.23	16.59	592.64
Flow Zone 4			
AFW-2U-04	593.48	19.27	574.21
D1U-04	593.77	14.68	579.09
D2U-04	590.65	13.11	577.54
E6-04	578.23	13.68	564.55
F2U-04	599.76	23.04	576.72
F4U-04	602.19	16.21	585.98
F6-04	588.06	18.59	569.47
G1U-04	616.96	25.95	591.01
G6-04	609.15	18.17	590.98
H5-04	617.40	24.70	592.70
I1-04	625.30	41.56	583.74
J2U-04	609.42	19.82	589.60
J5U-04	606.05	21.42	584.63
J6-04	609.12	31.12	578.00
Flow Zone 5			
AFW-2U-05	593.33	19.21	574.12
AGW-1U-05	591.80	11.16	580.64

Water Level Elevation Summary
Fourth Quarter - 2015
Hyde Park RRT Program

Well	Reference Elevation (ft AMSL)	Depth to Water (ft)	Water Level Elevation (ft AMSL)
Flow Zone 5-Continued			
D1U-05	593.51	15.52	577.99
D2U-05	590.56	11.75	578.81
E6-05	578.04	13.33	564.71
F2U-05	599.64	22.38	577.26
F4U-05	602.06	16.67	585.39
F6-05	587.85	18.43	569.42
G6-05	609.13	18.55	590.58
H2M-05	621.59	31.09	590.50
H5-05	617.31	25.74	591.57
I1-05	625.25	72.29	552.96
J2U-05	609.30	32.83	576.47
J5U-05	605.87	29.48	576.39
J6-05	609.02	31.28	577.74
PMW-1U-05	598.00	20.52	577.48
Flow Zone 6			
ABP-7-06	575.78	Dry	NA
AFW-1U-06	571.83	14.51	557.32
AFW-2U-06	593.22	48.08	545.14
AGW-1U-06	591.66	40.28	551.38
B2U-06	589.29	36.79	552.50
C3-06	585.78	Dry	NA
D1U-06	593.25	47.61	545.64
D2U-06	590.38	42.71	547.67
E6-06	577.99	6.27	571.72
F2M-06	599.06	43.52	555.54
F4M-06	602.05	49.17	552.88
F6-06	587.84	15.03	572.81
G1M-06	616.75	43.82	572.93
G6-06	609.09	34.74	574.35
H2M-06	621.42	60.80	560.62
H5-06	617.17	27.26	589.91
I1-06	625.15	74.51	550.64
J2M-06	608.94	55.71	553.23
J5M-06	606.22	59.67	546.55
J6-06	608.93	54.19	554.74
PMW-1U-06	597.92	51.19	546.73
Flow Zone 7			
ABP-1-07	576.44	28.81	547.63
ABP-7-07	575.73	41.92	533.81
AFW-1M-07	571.41	Dry	NA
AFW-2M-07	593.44	66.82	526.62
AGW-1M-07	592.91	47.22	545.69
B2M-07	589.52	56.98	532.54
C3-07	585.62	45.28	540.34
D1M-07	594.15	62.94	531.21
D2M-07	590.77	66.83	523.94
E6-07	577.91	24.83	553.08

Water Level Elevation Summary
Fourth Quarter - 2015
Hyde Park RRT Program

Well	Reference Elevation (ft AMSL)	Depth to Water (ft)	Water Level Elevation (ft AMSL)
Flow Zone 7-Continued			
F2M-07	598.91	81.70	517.21
F4M-07	601.91	72.11	529.80
F6-07	587.68	20.49	567.19
G1M-07	616.68	36.28	580.40
G6-07	609.06	28.90	580.16
H5-07	617.05	61.97	555.08
I1-07	625.14	79.02	546.12
J5M-07	606.07	59.23	546.84
J6-07	608.85	62.63	546.22
PMW-1M-07	598.50	66.48	532.02
Flow Zone 9			
ABP-1-09	575.49	40.53	534.96
ABP-7-09	575.67	43.23	532.44
AFW-1M-09	571.12	46.51	524.61
AFW-2M-09	593.32	72.21	521.11
AGW-1M-09	592.75	46.62	546.13
B2M-09	589.34	obstructed at 59.9 BTOC	<529.44
C3-09	585.00	45.78	539.22
D1M-09	594.02	77.45	516.57
D2M-09	590.66	74.05	516.61
E6-09	577.82	25.26	552.56
F2M-09	598.71	82.31	516.40
F4M-09	601.79	85.56	516.23
F6-09	587.53	14.73	572.80
G1M-09	616.58	37.95	578.63
G6-09	608.98	27.99	580.99
H2M-09	621.32	76.17	545.15
H5-09	616.93	70.86	546.07
I1-09	624.91	62.23	562.68
J2M-09	608.77	62.21	546.56
J5M-09	605.82	58.91	546.91
J6-09	608.76	45.08	563.68
PMW-1M-09			
Flow Zone 11			
AFW-1L-11	572.10	65.93	506.17
AFW-2L-11	593.43	98.28	495.15
AGW-1L-11	592.71	13.07	579.64
B2L-11	589.65	90.67	498.98
D1L-11	593.80	90.39	503.41
D2L-11	590.21	72.20	518.01
E6-11	577.72	43.39	534.33
F2L-11	598.94	41.45	557.49
F4L-11	602.22	24.39	577.83
F6-11	587.40	57.37	530.03
G1L-11	616.84	59.66	557.18
G6-11	608.89	48.72	560.17
H2L-11	620.73	64.54	556.19

Water Level Elevation Summary
Fourth Quarter - 2015
Hyde Park RRT Program

Well	Reference Elevation (ft AMSL)	Depth to Water (ft)	Water Level Elevation (ft AMSL)
Flow Zone 11-Continued			
H5-11	616.81	70.45	546.36
I1-11	624.75	75.39	549.36
J5L-11	607.20	61.91	545.29
J6-11	608.68	24.11	584.57
PMW-1L-11	598.84	87.88	510.96
Purge Wells			
APW-1	564.98	54.98	510.00
APW-2	569.89	57.89	512.00
PW-1L	593.16	93.86	499.30
PW-1U	593.16	47.36	545.80
PW-2L	597.29	101.59	495.70
PW-2M	596.61	84.81	511.80
PW-2UR	594.75	-21.65	616.40
PW-3L	599.05	97.85	501.20
PW-3M	597.79	76.29	521.50
PW-4M	606.93	82.63	524.30
PW-4U	604.85	30.95	573.90
PW-5UR	601.31	41.81	559.50
PW-6UMR	609.31	102.61	506.70
PW-6UR	608.47	100.97	507.50
PW-7U	592.47	50.47	542.00
PW-8M	592.67	71.07	521.60
PW-8U	589.27	39.27	550.00
PW-9U	587.47	48.07	539.40
PW-10U	593.54	28.54	565.00

Notes:

ft AMSL	- Feet above mean sea level
Dry	- No water present at the time of measurement
Surcharged	- Well full of water to top of casing
N/A	- Not available/not applicable
*	- Not available - malfunctioning transducer
BTOC	- Below top of casing

Table 2

Leachate Treatment System Daily Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

	Effluent	
Date	**pH (su)**	**Flow (gal)**
10/01/15	7.0	141,000
10/02/15		
10/03/15		
10/04/15		
10/05/15	7.0	135,000
10/06/15	7.0	41,000
10/07/15	7.0	45,000
10/08/15		
10/09/15	6.9	87,000
10/10/15		
10/11/15		
10/12/15	7.0	104,000
10/13/15		
10/14/15	7.0	56,000
10/15/15	7.1	81,000
10/16/15	7.1	54,000
10/17/15		
10/18/15		
10/19/15	7.1	106,000
10/20/15		
10/21/15	7.0	104,000
10/22/15		
10/23/15	7.1	102,000
10/24/15		
10/25/15		
10/26/15	7.0	90,000
10/27/15		
10/28/15	7.0	75,000
10/29/15	7.0	132,000
10/30/15	7.0	100,000
10/31/15		

Table 2

Leachate Treatment System Daily Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

	Effluent	
Date	**pH (su)**	**Flow (gal)**
11/01/15		
11/02/15	7.0	181,000
11/03/15	7.0	119,000
11/04/15	7.0	105,000
11/05/15	7.0	53,000
11/06/15		
11/07/15		
11/08/15		
11/09/15	7.0	120,000
11/10/15	7.0	72,000
11/11/15	7.0	72,000
11/12/15	7.0	75,000
11/13/15	7.0	58,000
11/14/15		
11/15/15		
11/16/15	7.0	91,000
11/17/15		
11/18/15	7.0	100,000
11/19/15	7.0	74,000
11/20/15	7.0	43,000
11/21/15		
11/22/15		
11/23/15	7.1	100,000
11/24/15	7.1	68,000
11/25/15	7.0	77,000
11/26/15		
11/27/15		
11/28/15		
11/29/15		
11/30/15	7.0	105,000

Table 2

Leachate Treatment System Daily Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

	Effluent	
Date	**pH (su)**	**Flow (gal)**
12/01/15		93,000
12/02/15		104,000
12/03/15		
12/04/15	7.0	62,000
12/05/15		
12/06/15		
12/07/15		
12/08/15	7	105,000
12/09/15	6.8	87,000
12/10/15		
12/11/15	6.9	68,000
12/12/15		
12/13/15		
12/14/15		
12/15/15	7	102,000
12/16/15	7	84,000
12/17/15		
12/18/15	7	48,000
12/19/15		
12/20/15		
12/21/15	7	67,000
12/22/15	7	64,000
12/23/15	7	60,000
12/24/15		
12/25/15		
12/26/15		
12/27/15		
12/28/15	7	75,000
12/29/15	7	113,000
12/30/15	7	172,000
12/31/15	7	60,000

Notes:

su - Standard Unit
gal - Gallons

Leachate Treatment System Weekly Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

Leachate Treatment System Weekly Effluent Monitoring Data

Parameter	Units	10/07/2015	10/14/2015	10/21/2015	10/28/2015	11/04/2015	11/11/2015	11/18/2015
Volatiles								
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	0.27 J	1.0 U	0.51 J	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Leachate Treatment System Weekly Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

Leachate Treatment System Weekly Effluent Monitoring Data

Parameter	Units	10/07/2015	10/14/2015	10/21/2015	10/28/2015	11/04/2015	11/11/2015	11/18/2015
Volatiles-Continued								
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	240	220	270	300	260	320	440
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Wet Chemistry								
Phenolics (total)	mg/L	0.030	0.017	0.029	0.020	0.035	0.0088 J	0.031

Leachate Treatment System Weekly Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

Leachate Treatment System Weekly Effluent Monitoring Data

Parameter	Units	11/25/15	12/02/2015	12/09/2015	12/16/2015	12/22/2015	12/30/2015
Volatiles							
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.7	10 U	1.4	1.5
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U

Table 3

Leachate Treatment System Weekly Effluent Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

Leachate Treatment System Weekly Effluent Monitoring Data

Parameter	Units	11/25/15	12/02/2015	12/09/2015	12/16/2015	12/22/2015	12/30/2015
Volatiles-Continued							
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Vinyl acetate	µg/L	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Vinyl chloride	µg/L	360	310	360	370	350	420
Xylenes (total)	µg/L	3.0 U	3.0 U	3.0 U	30 U	3.0 U	3.0 U
Wet Chemistry							
Phenolics (total)	mg/L	0.041	0.040	0.033	0.031 U	0.055	0.025

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
µg/L - Microgram per liter
mg/L - Milligram per liter

Table 4

Leachate Treatment System Quarterly Monitoring Data
Fourth Quarter - 2015
Hyde Park RRT Program

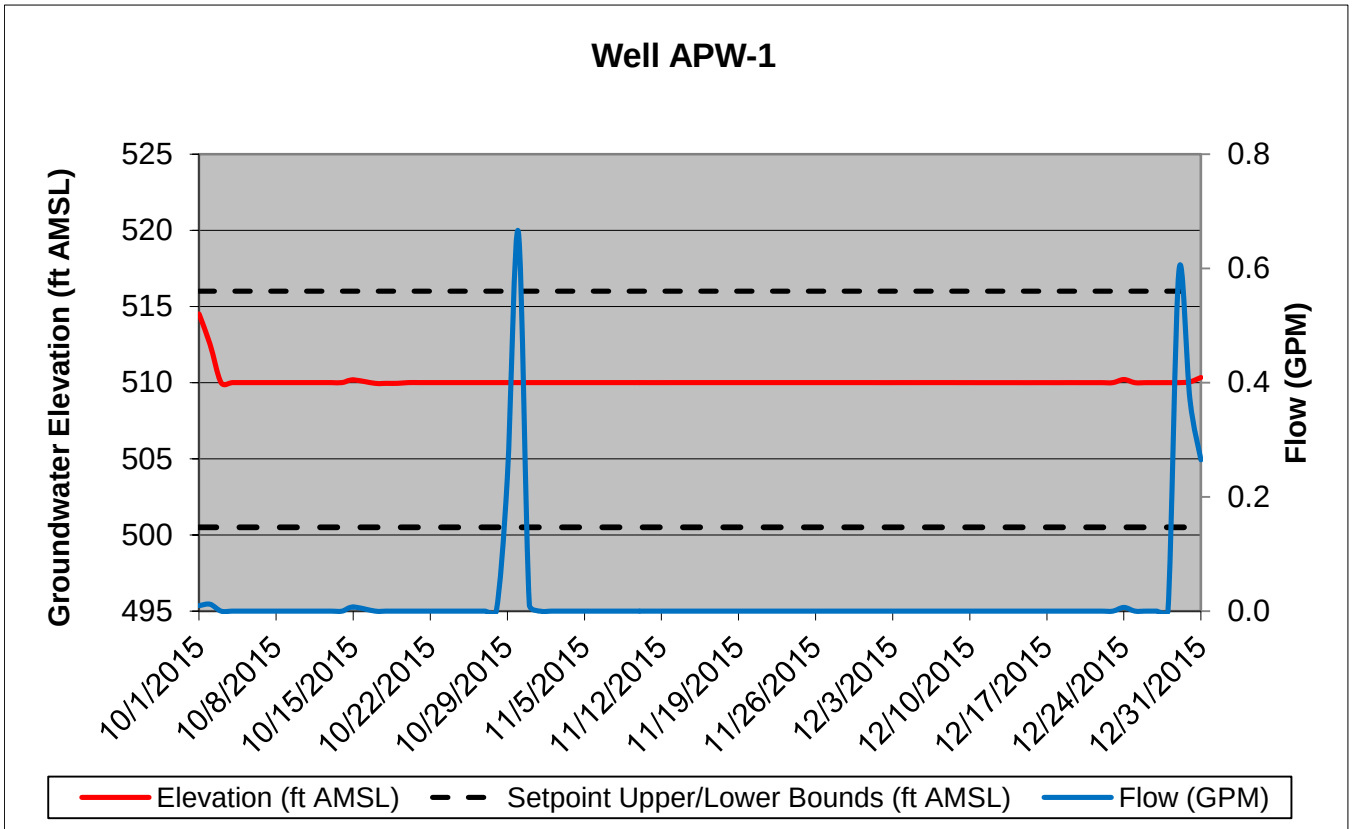
	Sample Location:	EFFLUENT	EFFLUENT
	Sample ID:	HP121615 EFF A-D	HP121615 EFF
	Sample Date:	12/16/2015	12/16/2015
Parameters	**Units**		
Volatile Organic Compounds			
Vinyl chloride	µg/L	220	-
General Chemistry			
Phosphorus	mg/L	-	0.24

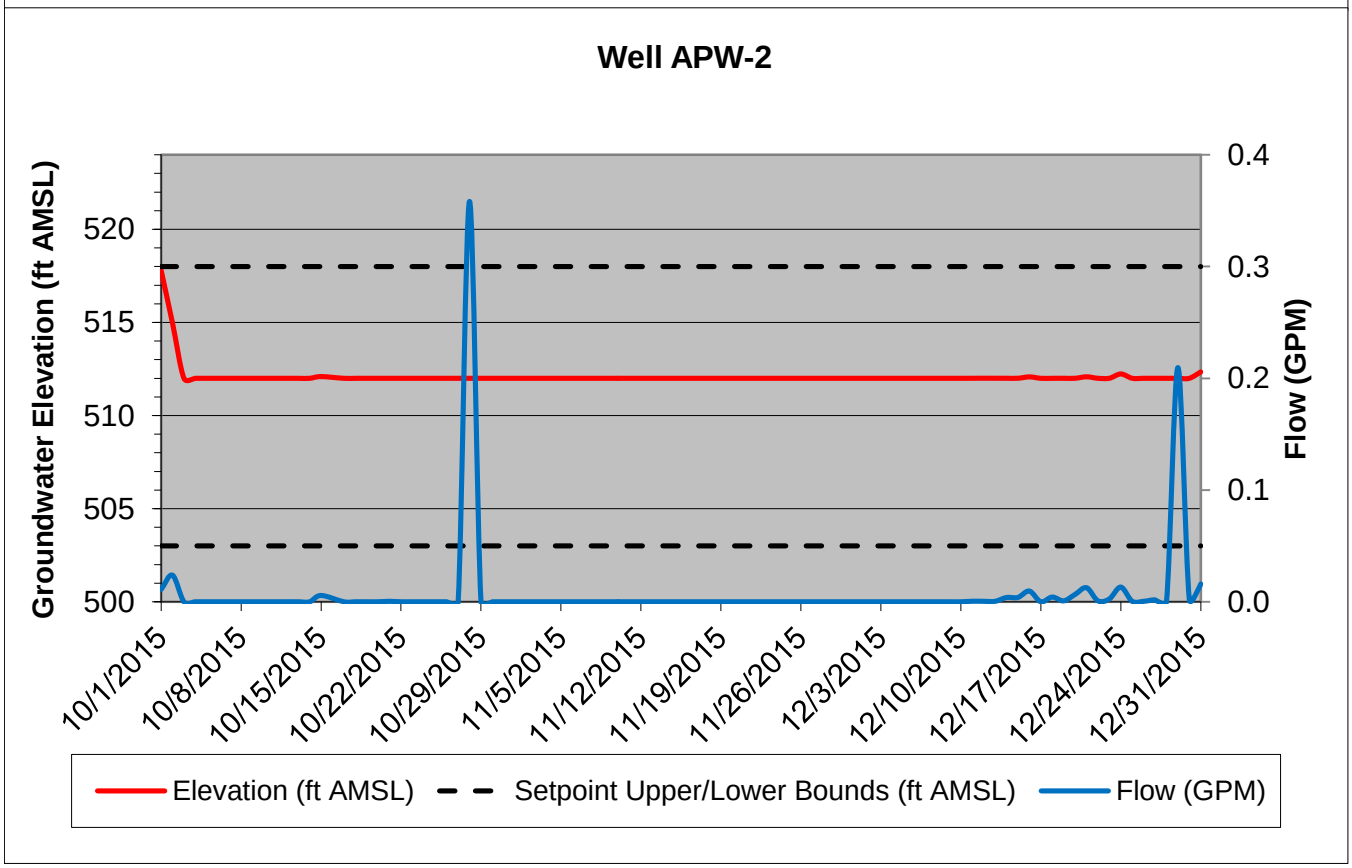
Notes:

- - Not analyzed
µg/L - Microgram per liter
mg/L - Milligram per liter

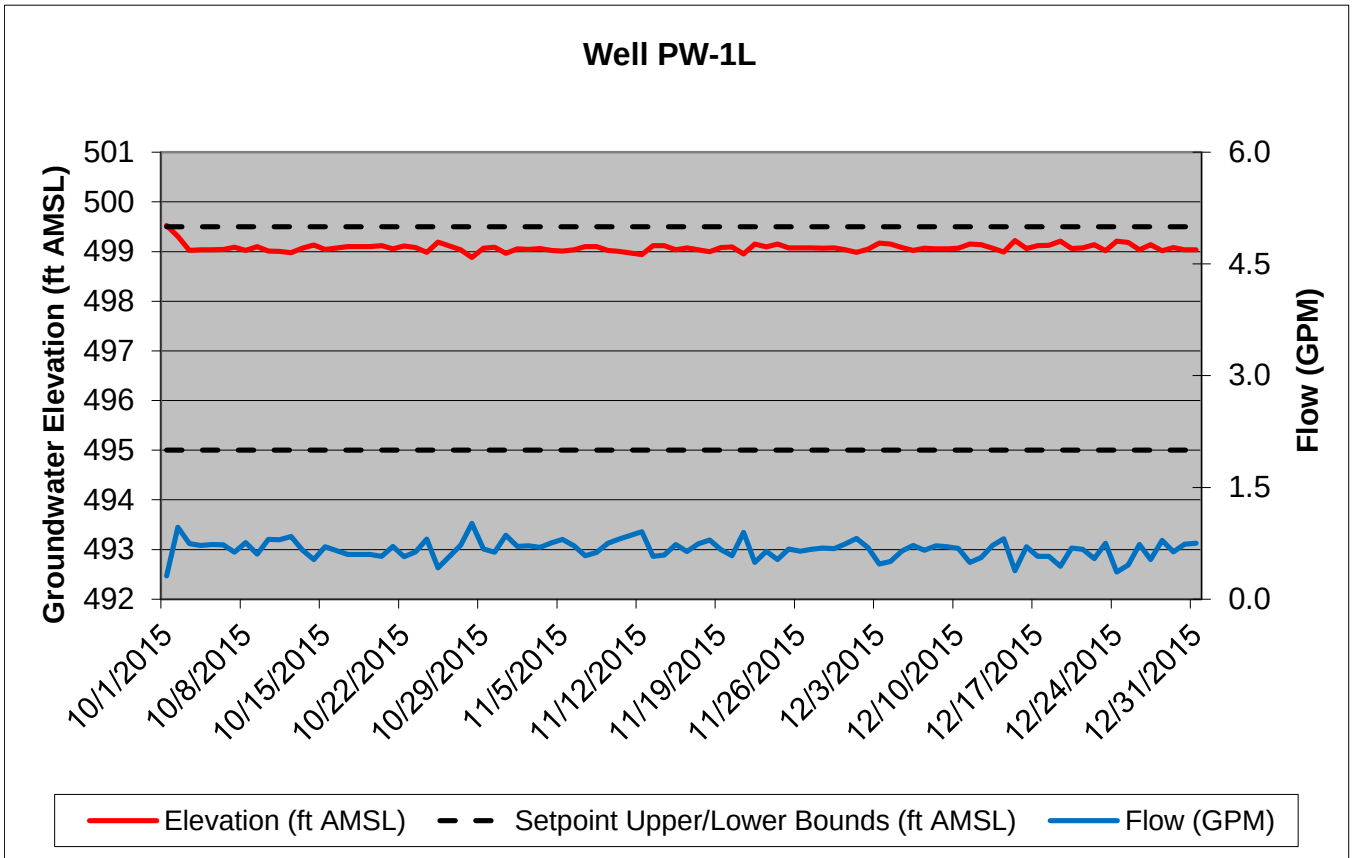
Attachment A

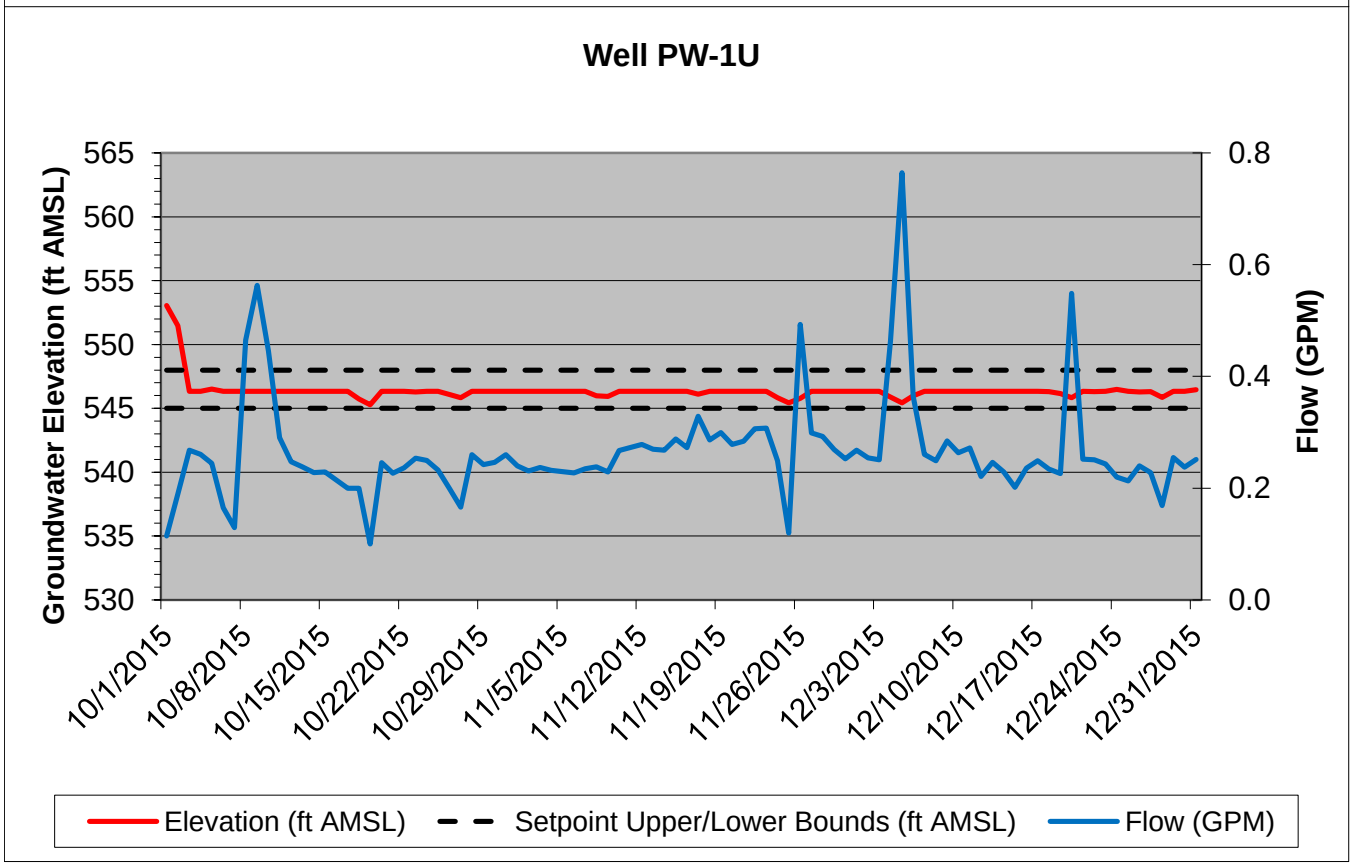
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



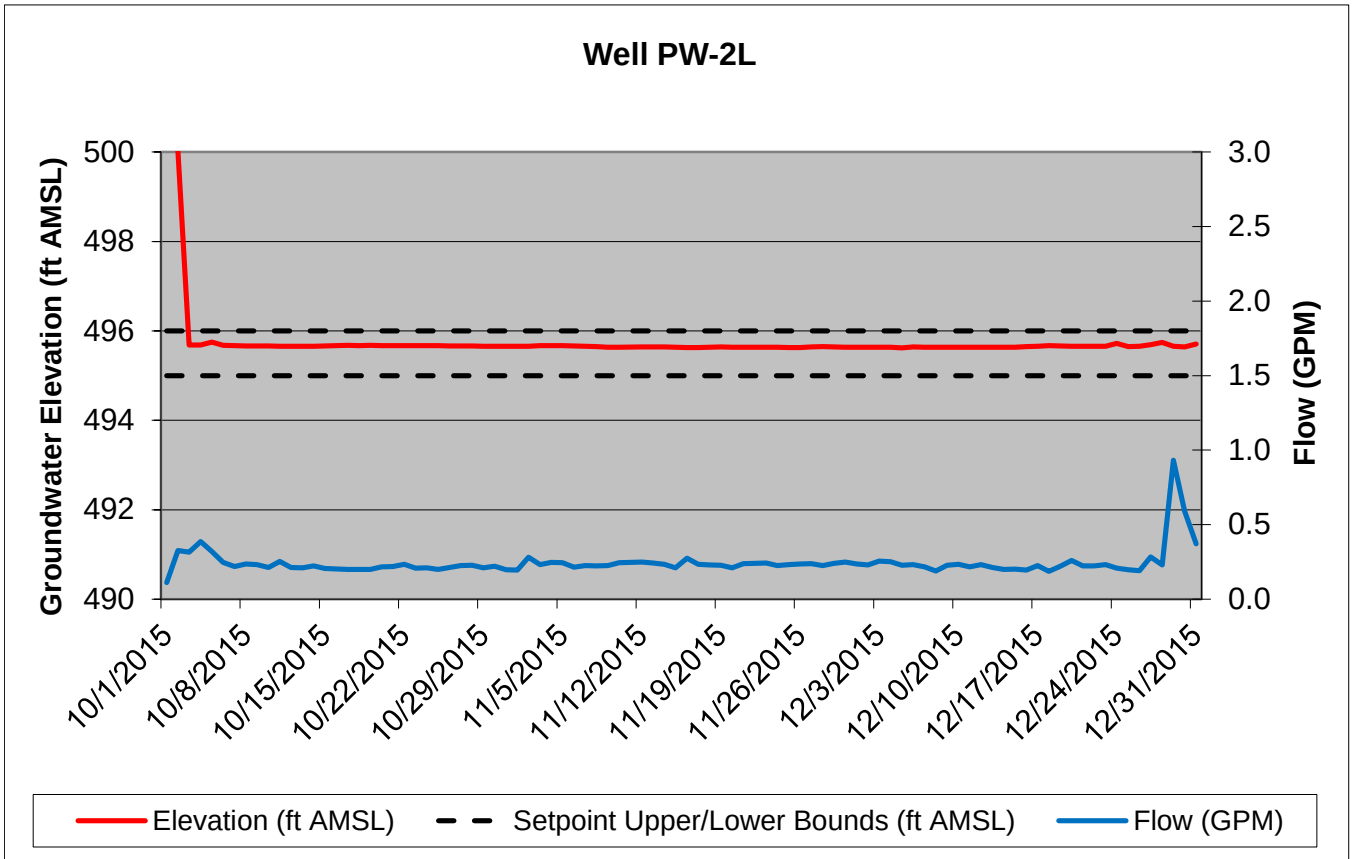


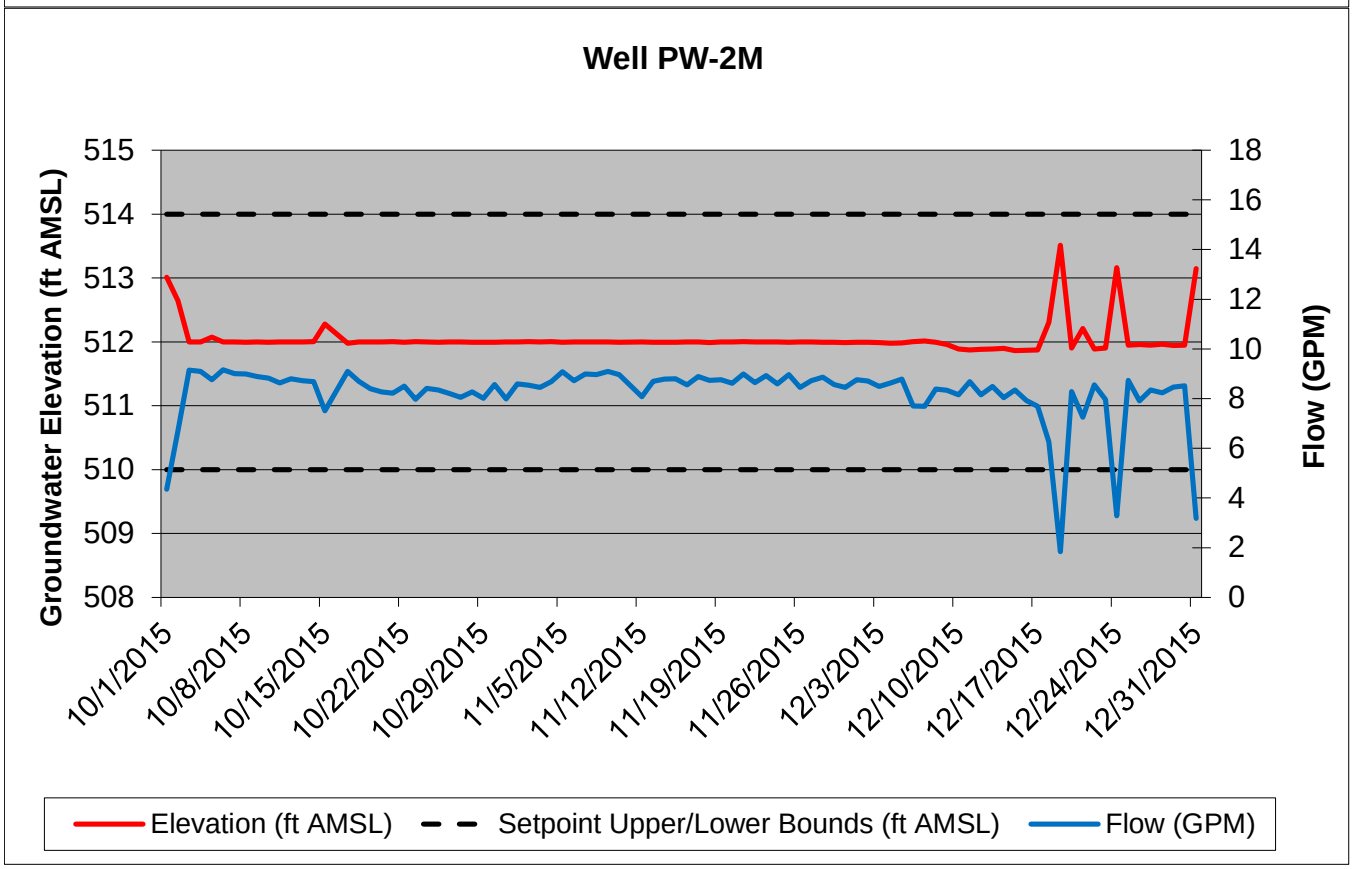
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



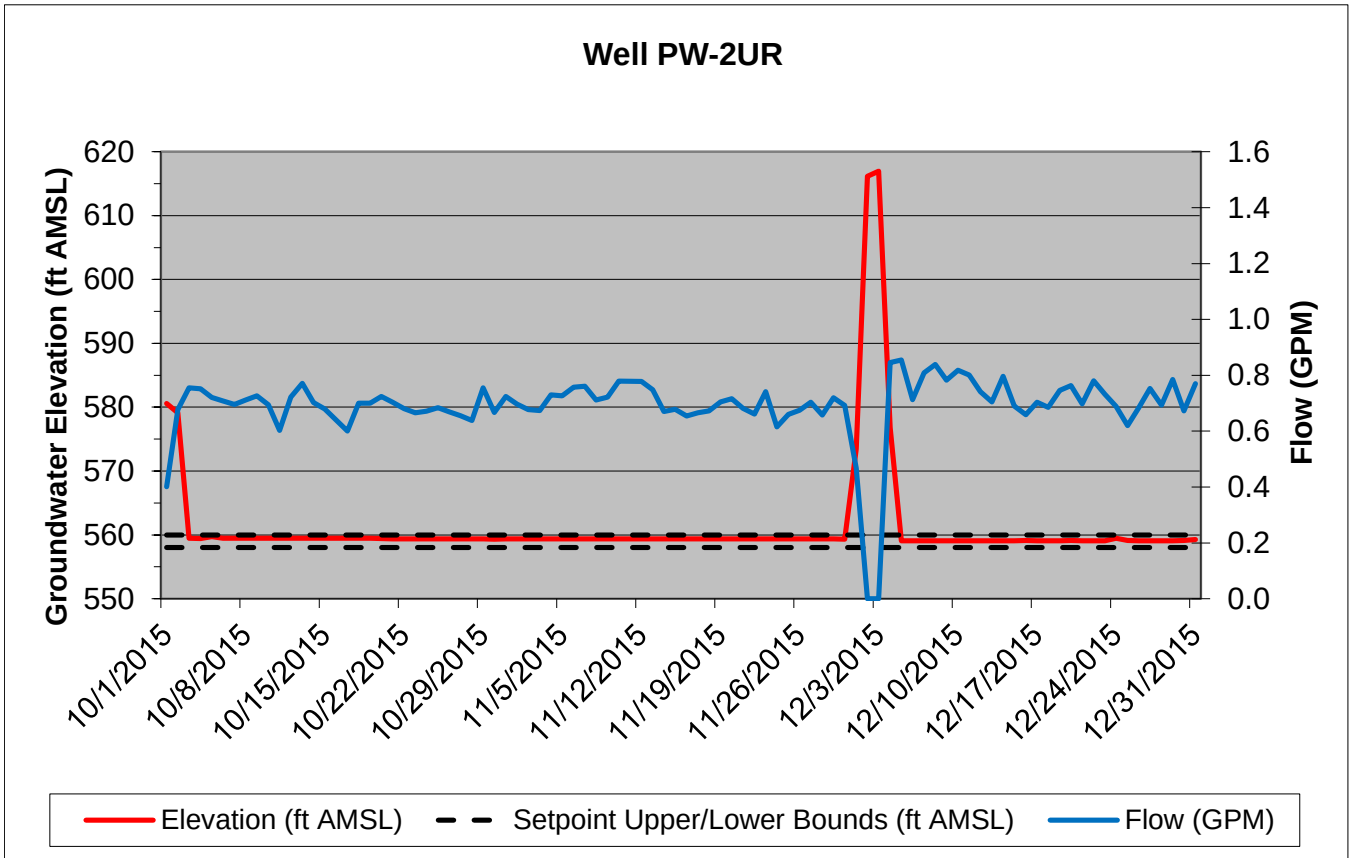


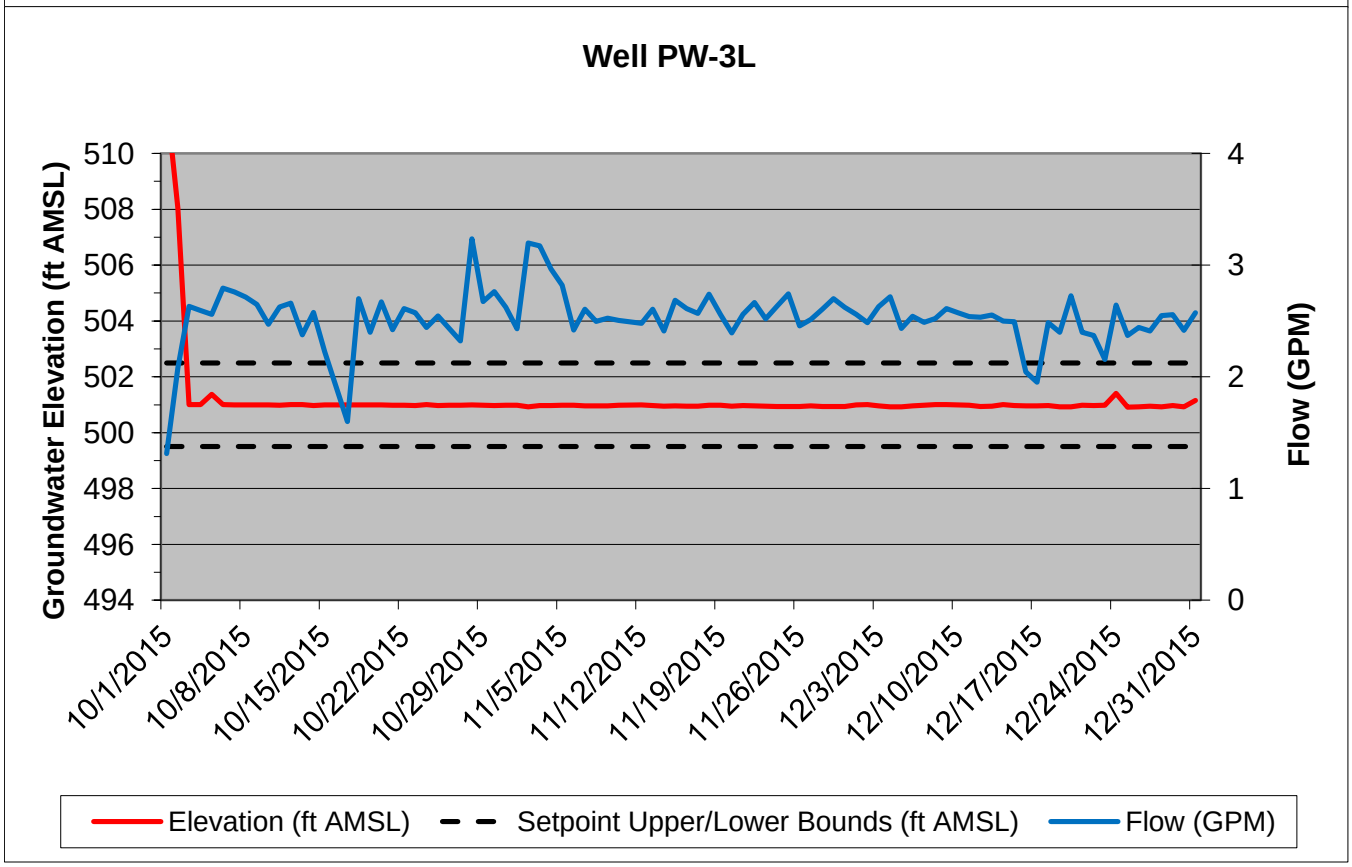
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



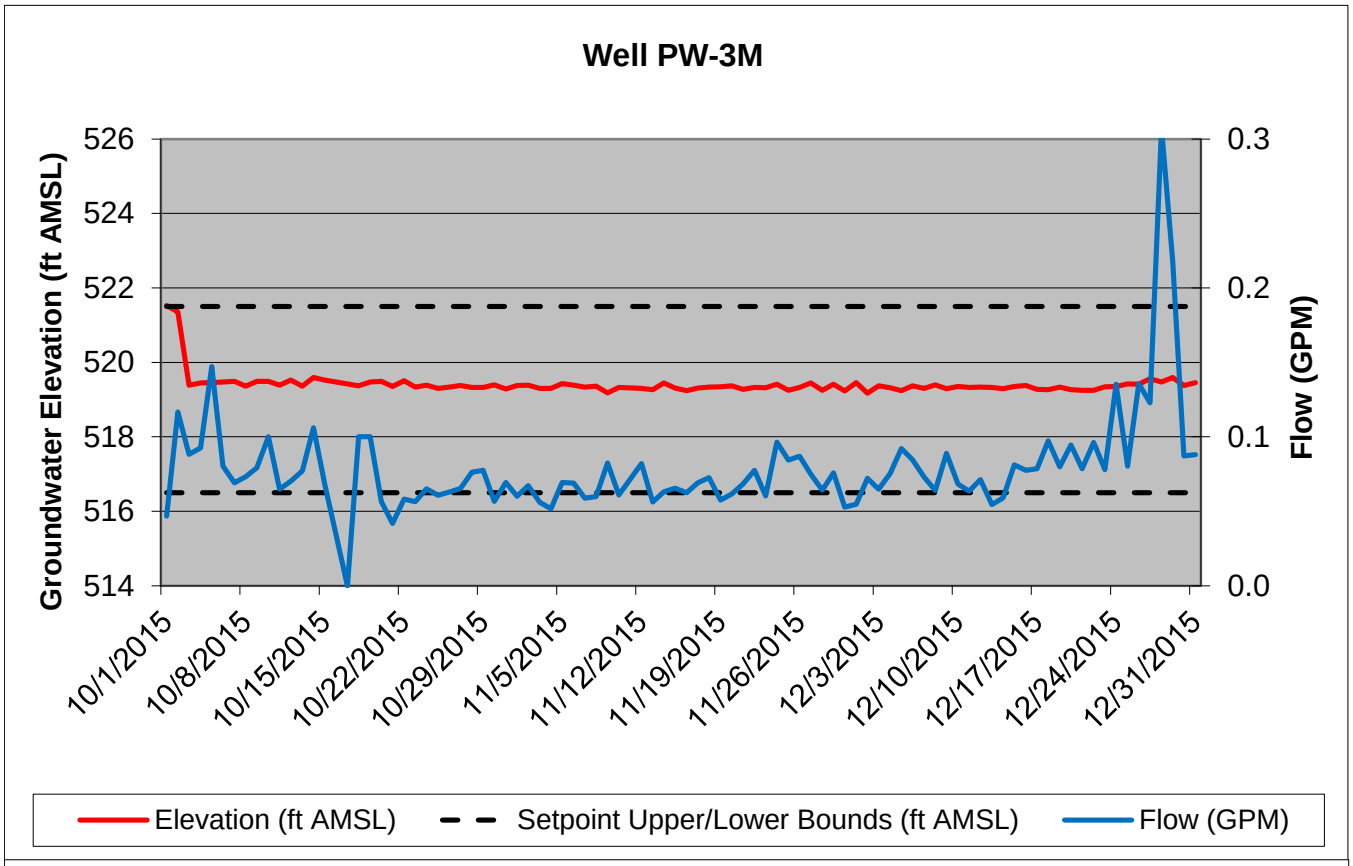


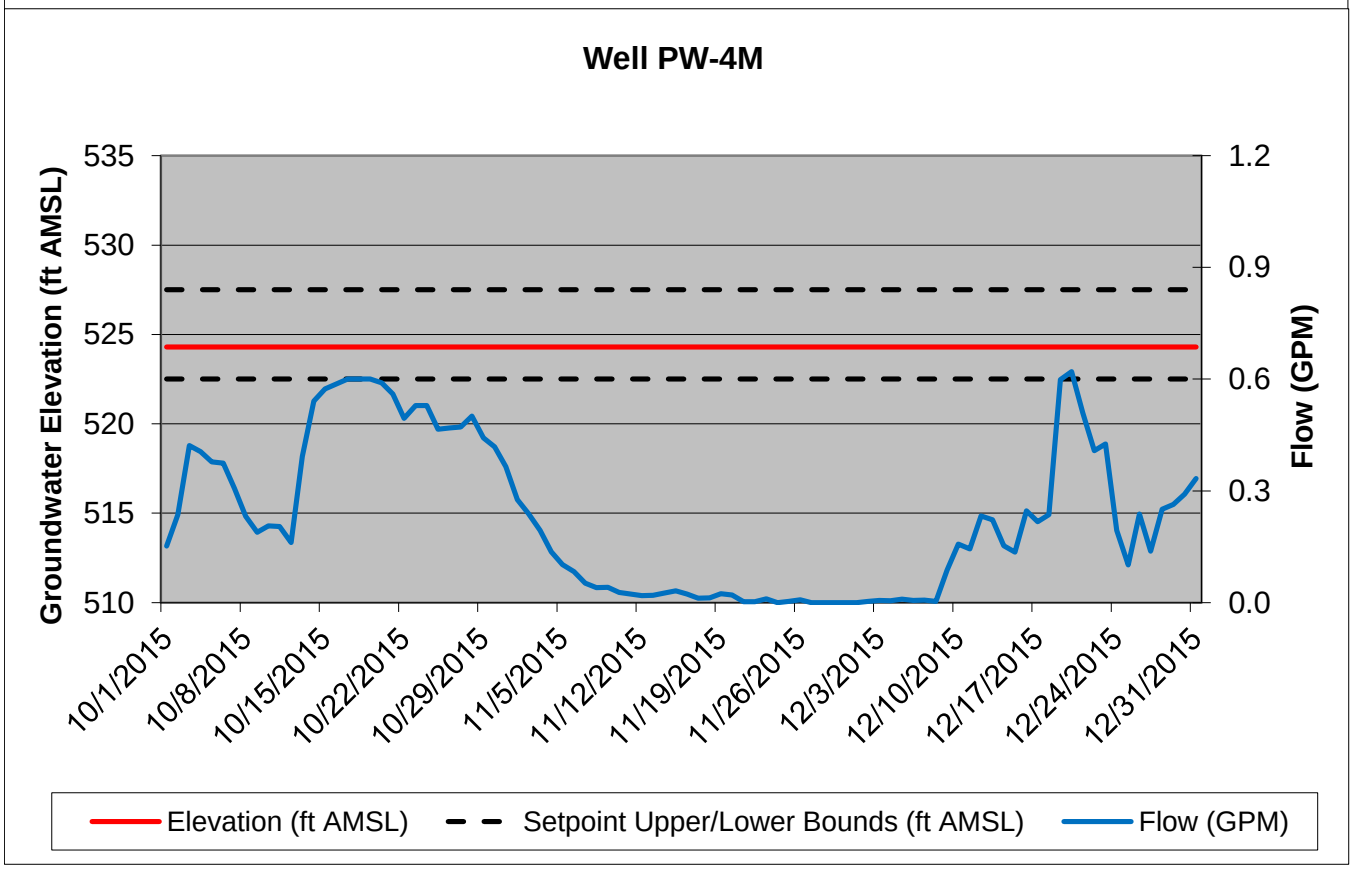
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



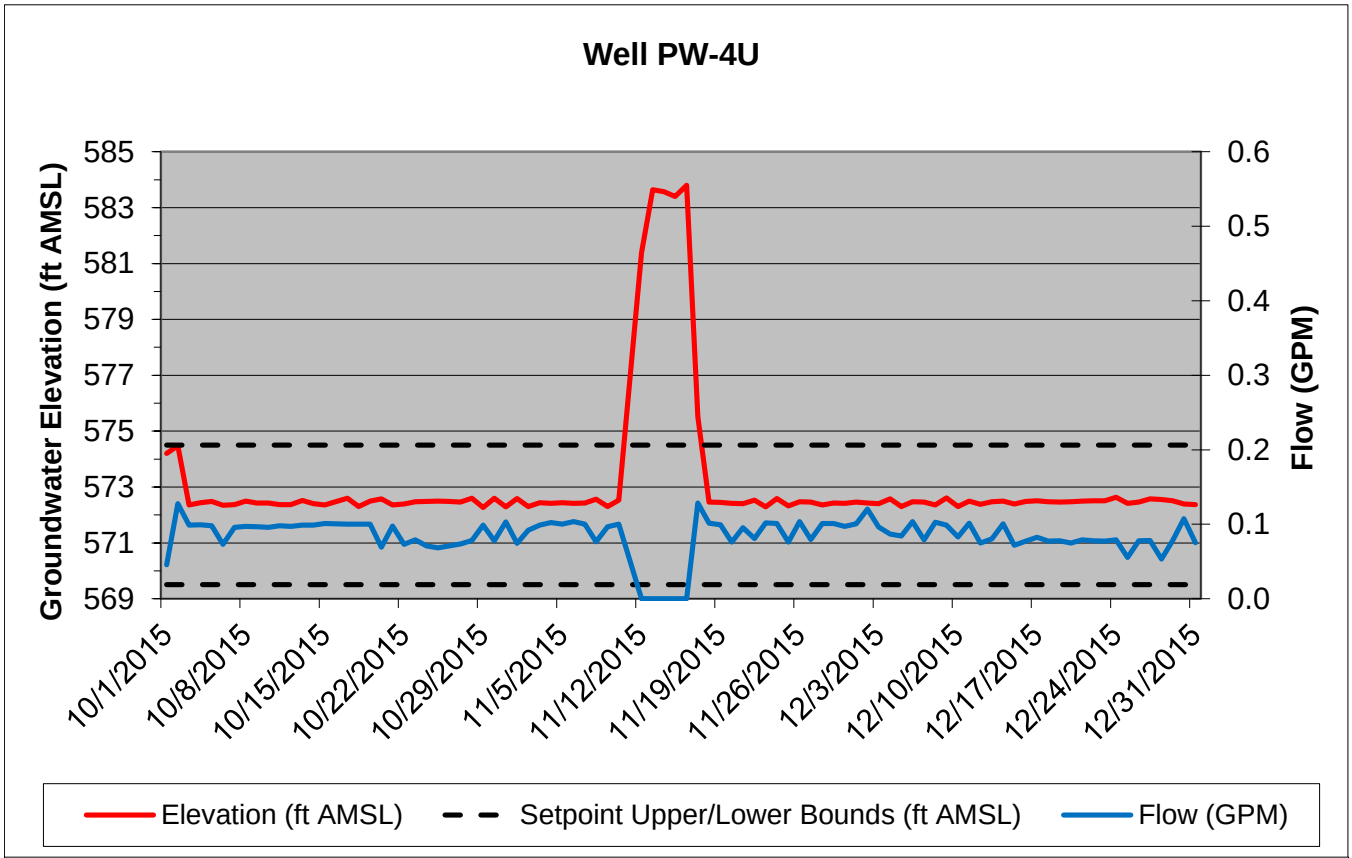


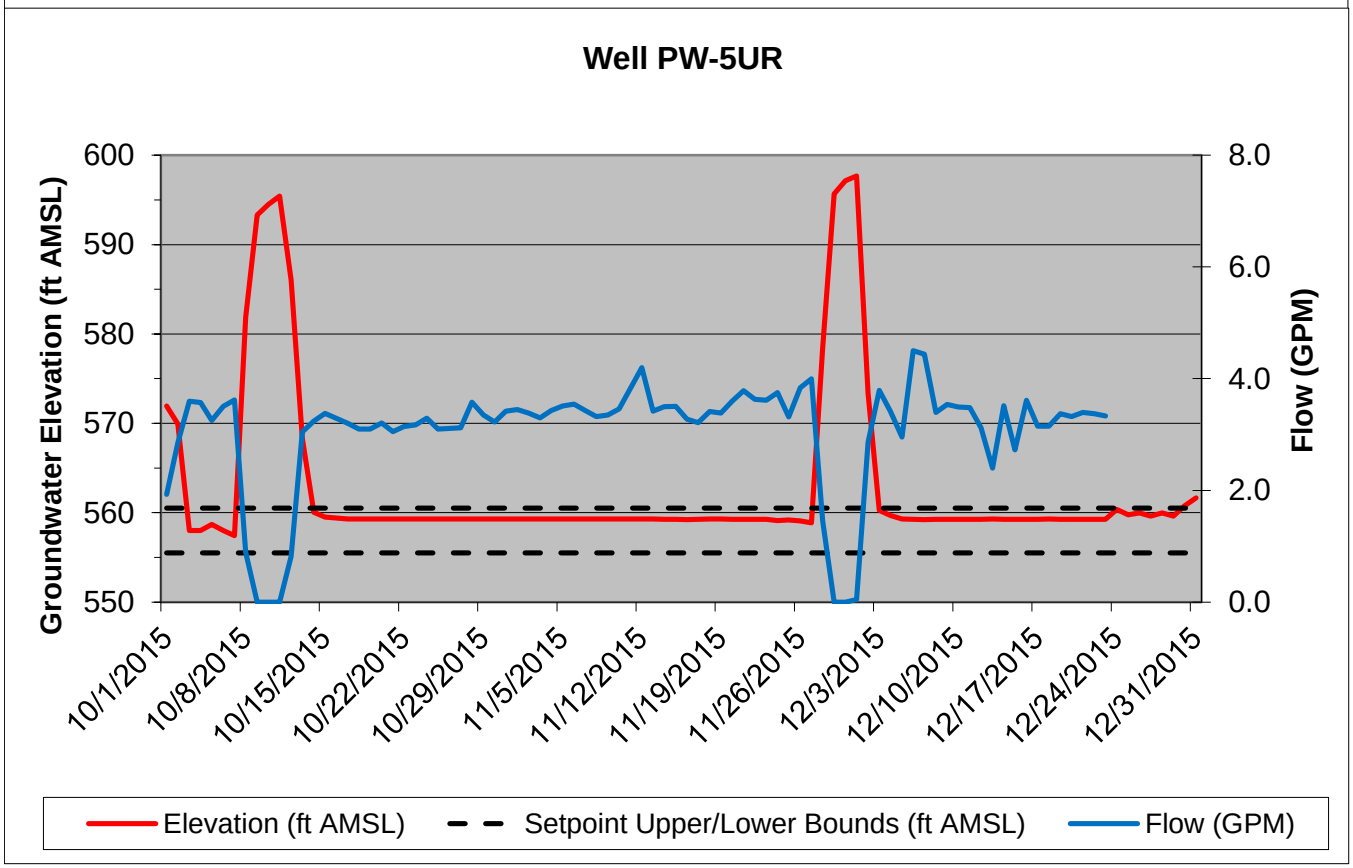
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



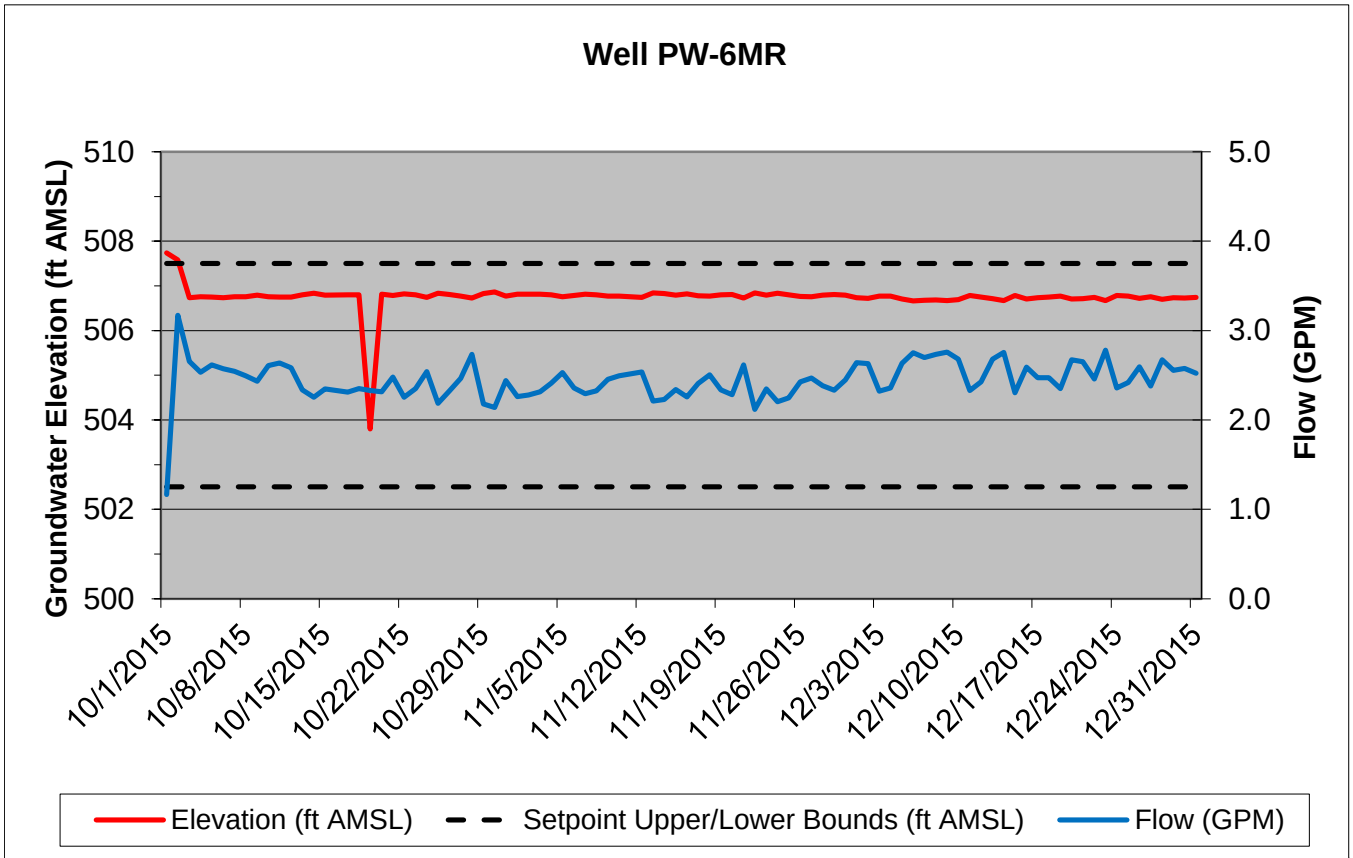


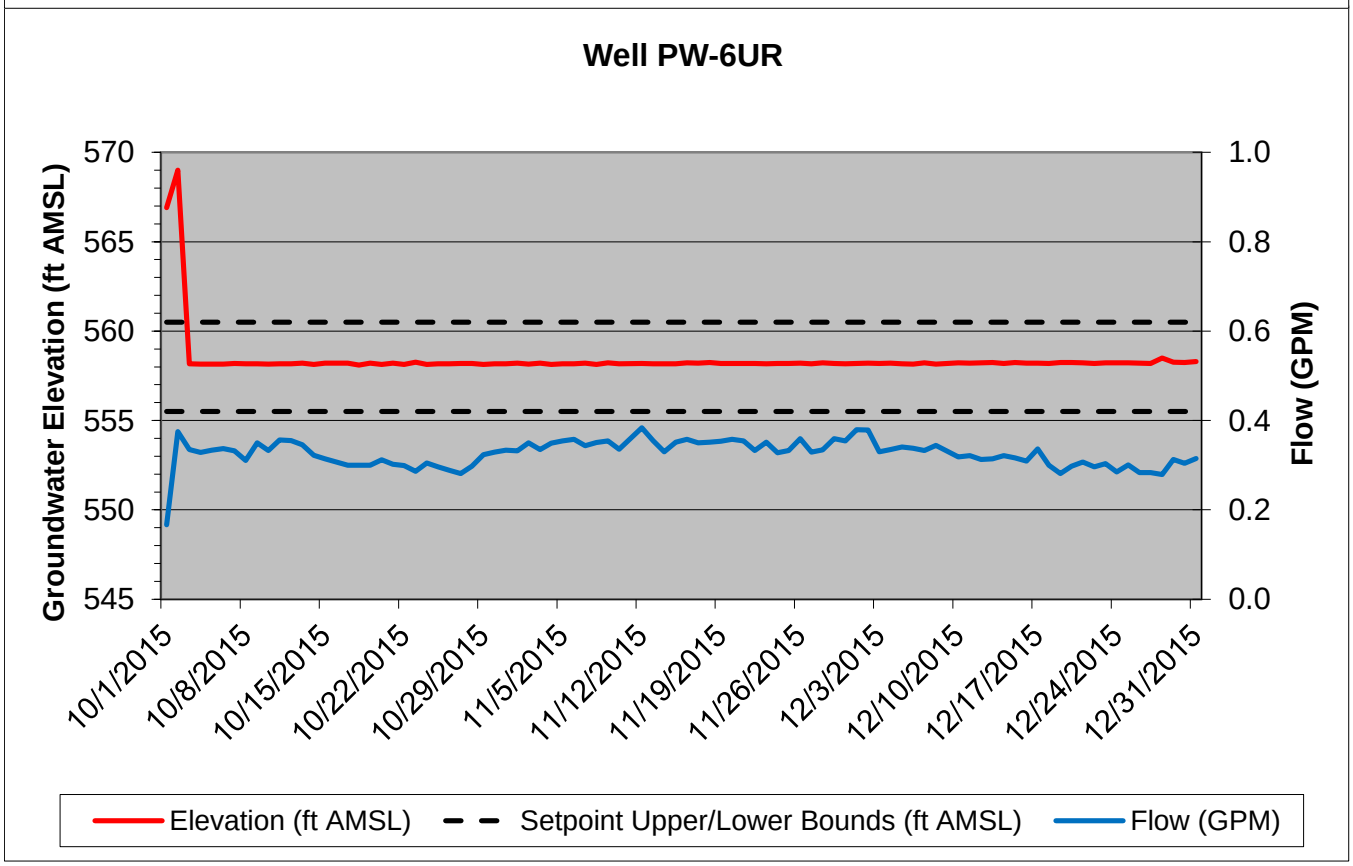
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



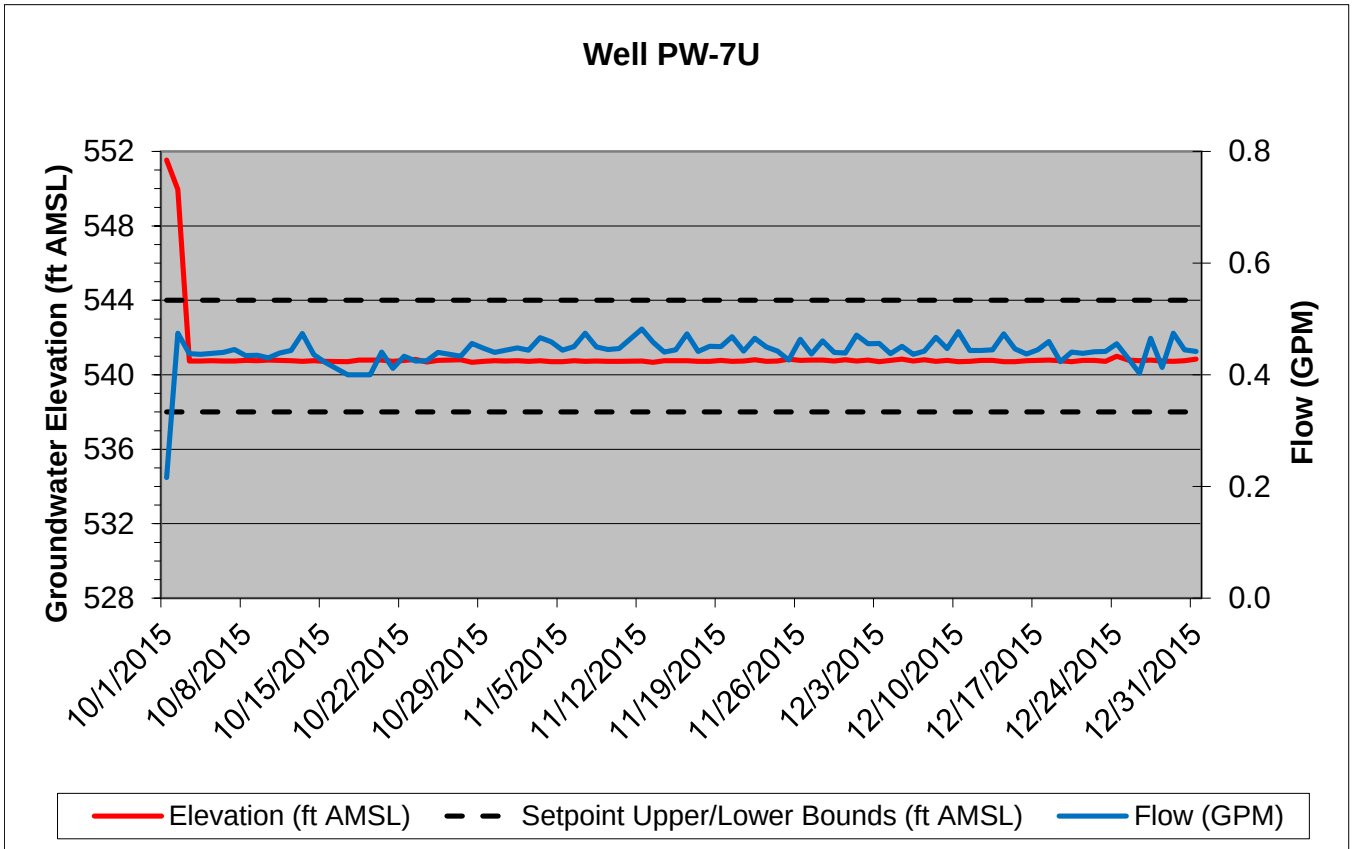


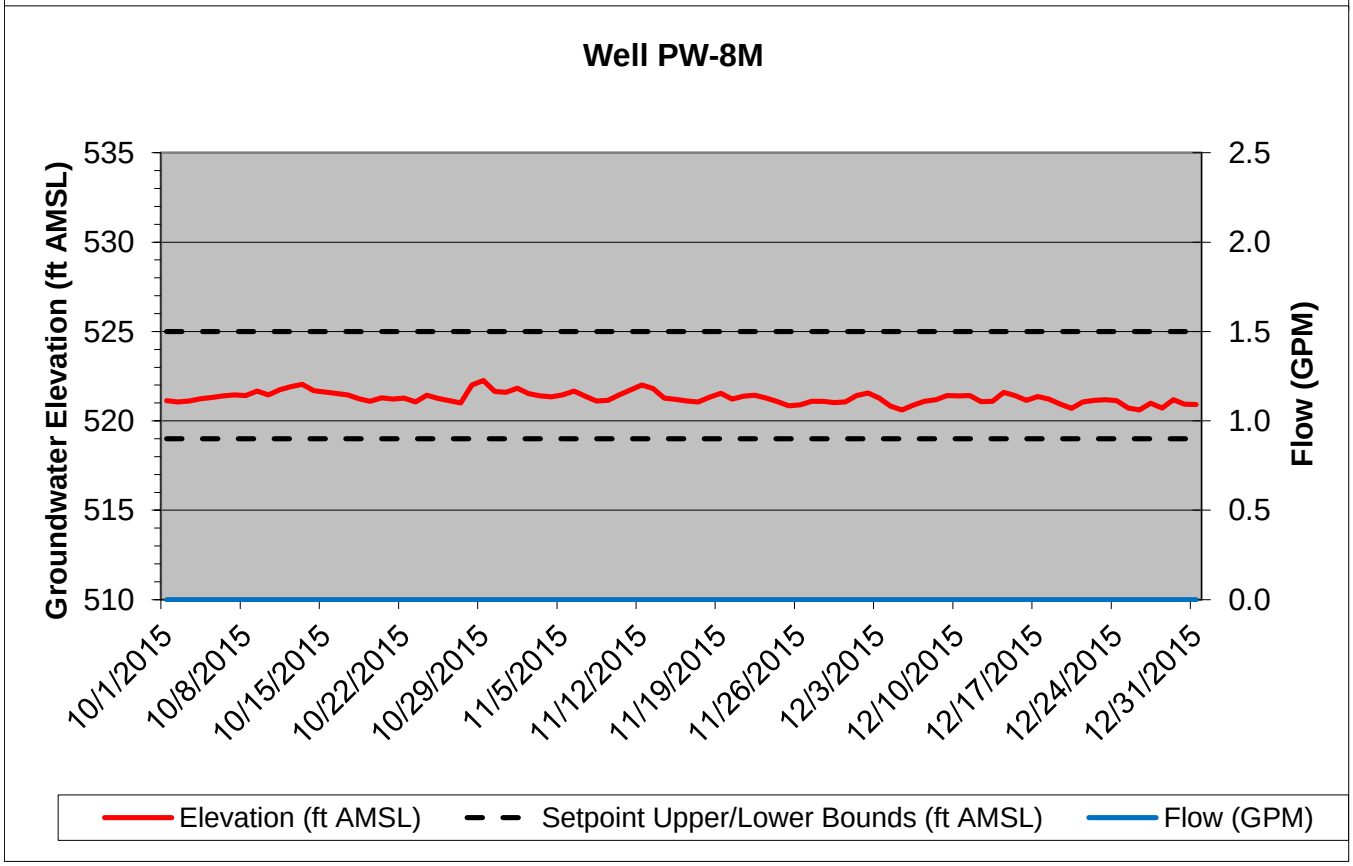
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK



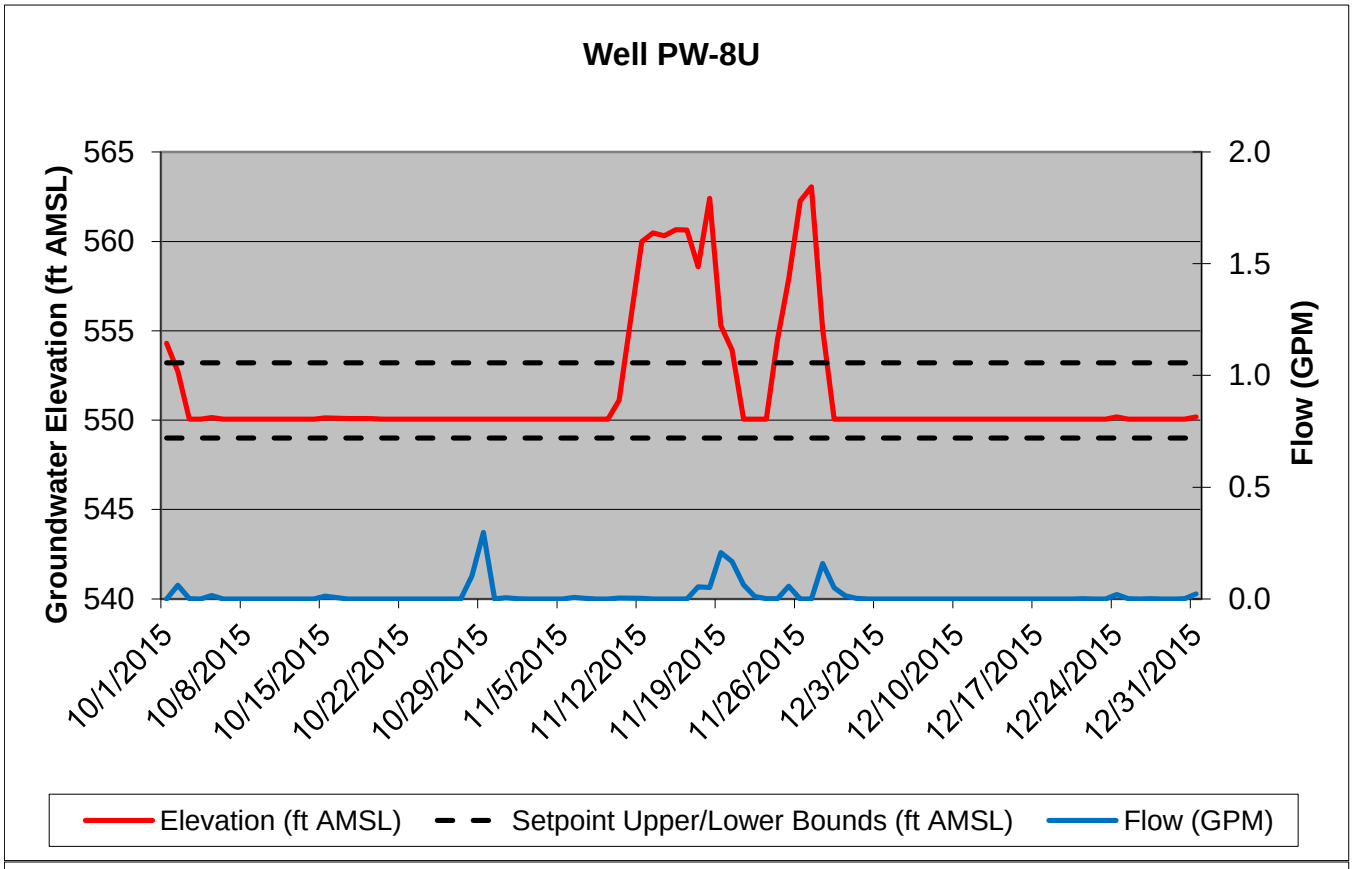


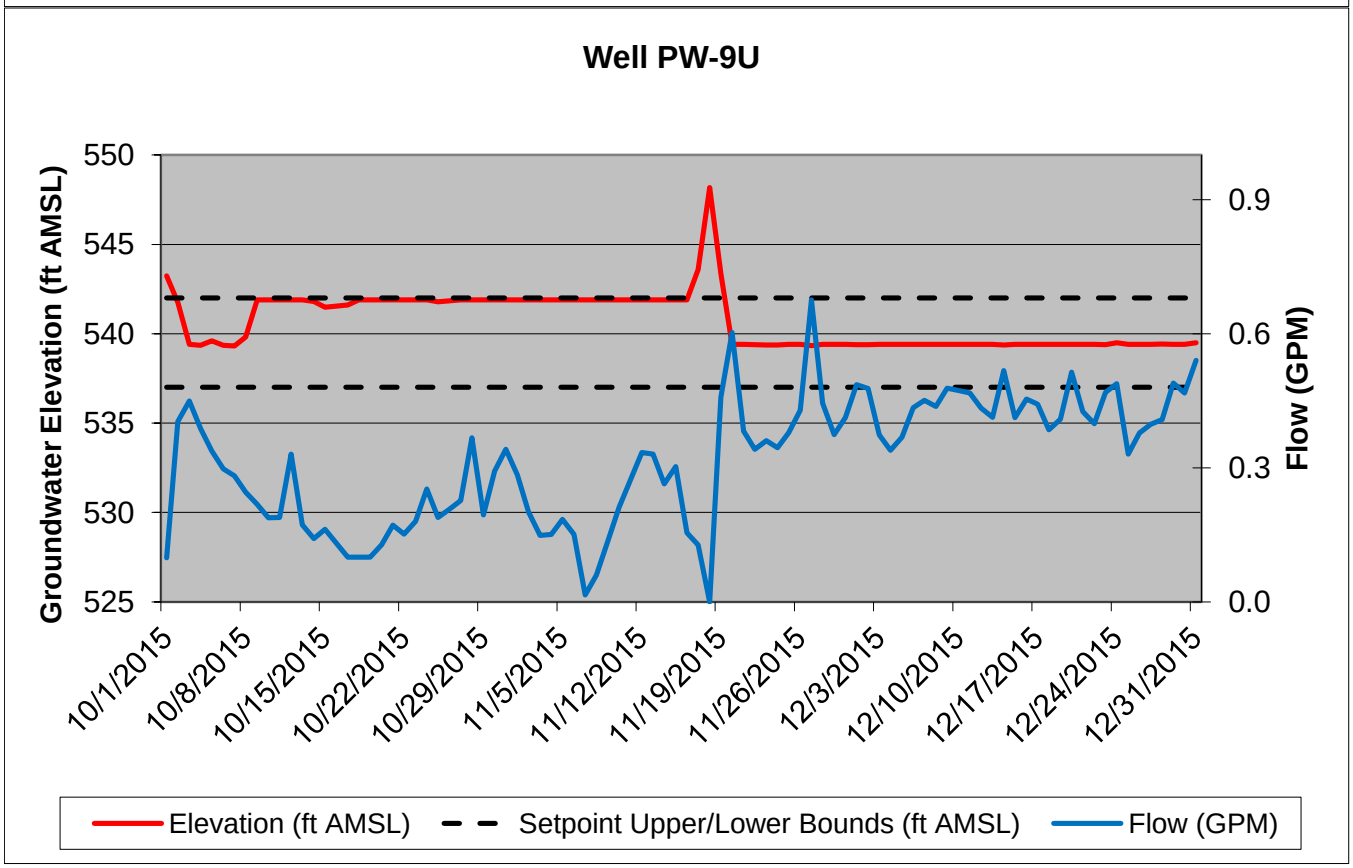
FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK





FOURTH QUARTER 2015 - PUMPING WELL PERFORMANCE GRAPHS
HYDE PARK





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