FIRST QUARTER 2019
GROUNDWATER MONITORING AND REMEDIAL STATUS REPORT

Part 2

Inactive Exxon Facility #28077
14258 Jarrettsville Pike
Phoenix, Maryland
Case Number 2006-0303-BA2
Facility I.D. No. 12342

Prepared By:
Kleinfelder
1745 Dorsey Road, Suite J
Hanover, MD 21076

Prepared For:
ExxonMobil Environmental &
Property Solutions Company
1400 Park Avenue, Building 7
Linden, NJ 07036

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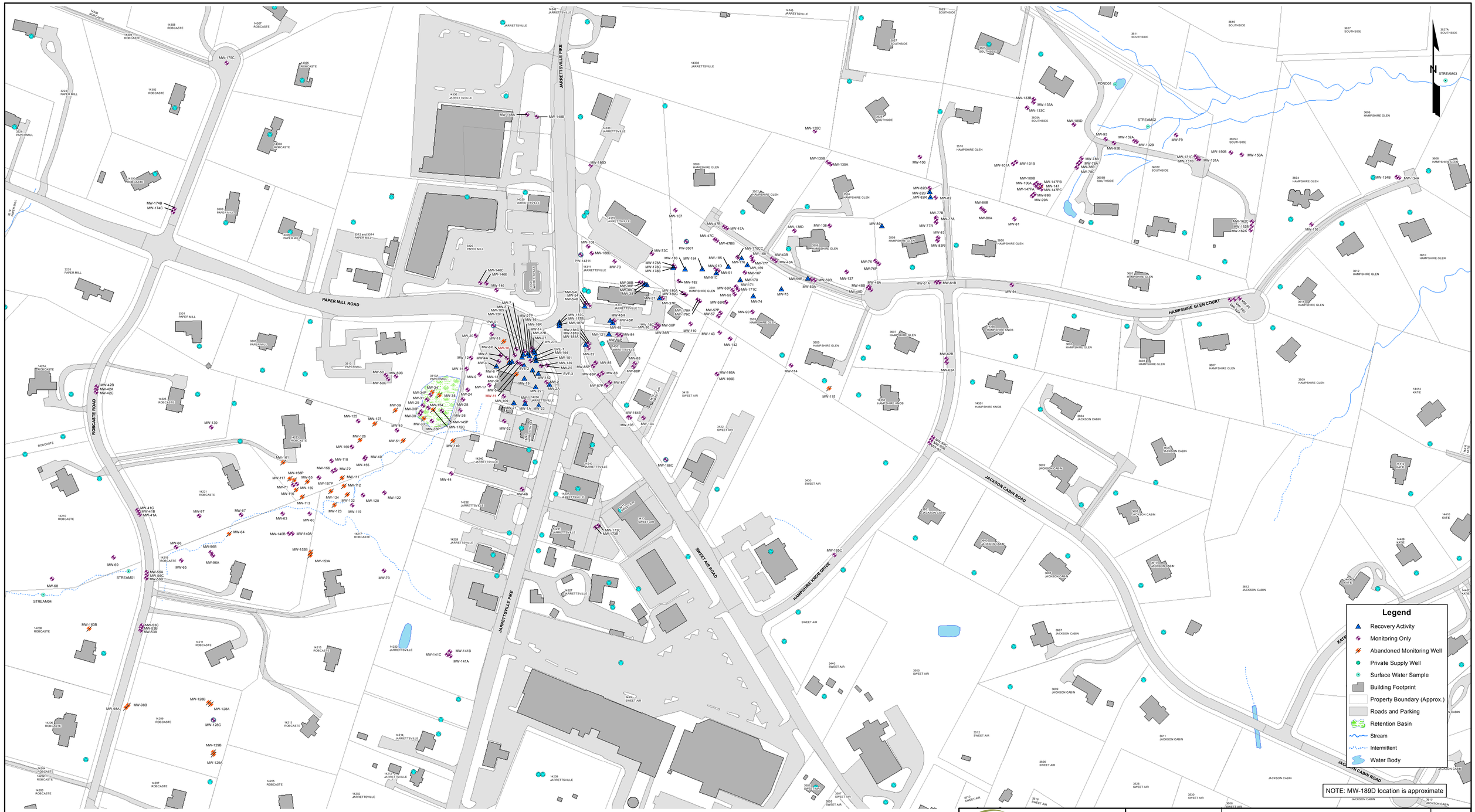
FIGURES



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\\azrgisstorp01\GIS_Projects\Client\EMES_MD_Phoenix\MXD\MDE_RAPR_PWS_Reports\RAPR\Fig1 Site Plan 081318.mxd

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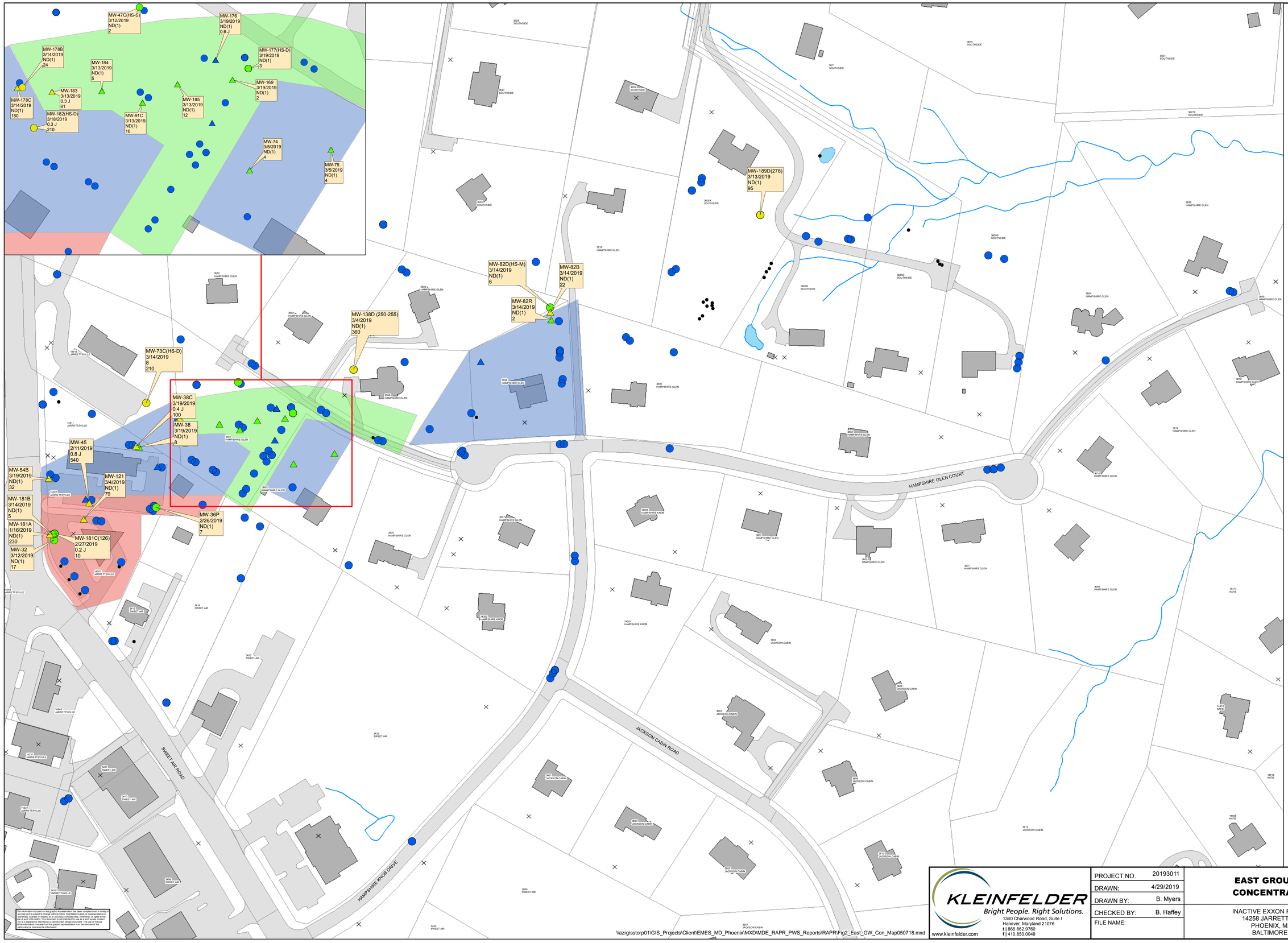
PROJECT NO.	20183146
DRAWN:	4/19/2019
DRAWN BY:	B. Myers
CHECKED BY:	C. Low

SITE PLAN
AS OF MARCH 31, 2019

INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
BALTIMORE COUNTY

FIGURE
1



Legend

MTBE Concentrations (µg/L)

- ND(RL≤1.0) - 1.0
- >1.0 - <20
- >20
- Not Sampled
- Monitoring Only
- Recovery Activity
- Private Supply Well

Groundwater Recovery Zones

- Zone 1
- Zone 2
- Zone 3
- Parcel Boundary (Approx.)
- Building Foot Prints
- Streams
- Water Bodies

Well ID
Sample Date
Benzene (µg/L)
MTBE (µg/L)

J = INDICATES AN ESTIMATED VALUE
ND(RL) = NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT (RL) LABORATORY REPORTING LIMIT INCLUDED

NOTES:
1. LOCATIONS WITH DEPTH INTERVAL SAMPLES DISPLAY LABEL FOR MAX. MTBE CONCENTRATION. IF ALL INTERVALS ARE "ND(RL)", LABEL WILL BE DEFAULTED TO THE MOST SHALLOW INTERVAL
2. MW-99B, MW-78B, MW-78C, MW-78R WERE FLOODED AT THE TIME OF SAMPLING

GROUNDWATER RECOVERY ZONES:

ZONE 1:
MW-37, MW-38, MW-38C, MW-54B, MW-74, MW-75, MW-82B, MW-82R, MW-89, MW-178C

ZONE 2:
MW-59B, MW-91C, MW-169, MW-170, MW-176, MW-183, MW-184, MW-185

ZONE 3:
MW-45, MW-45R, MW-121, MW-181A

N

0 45 90 180 Feet

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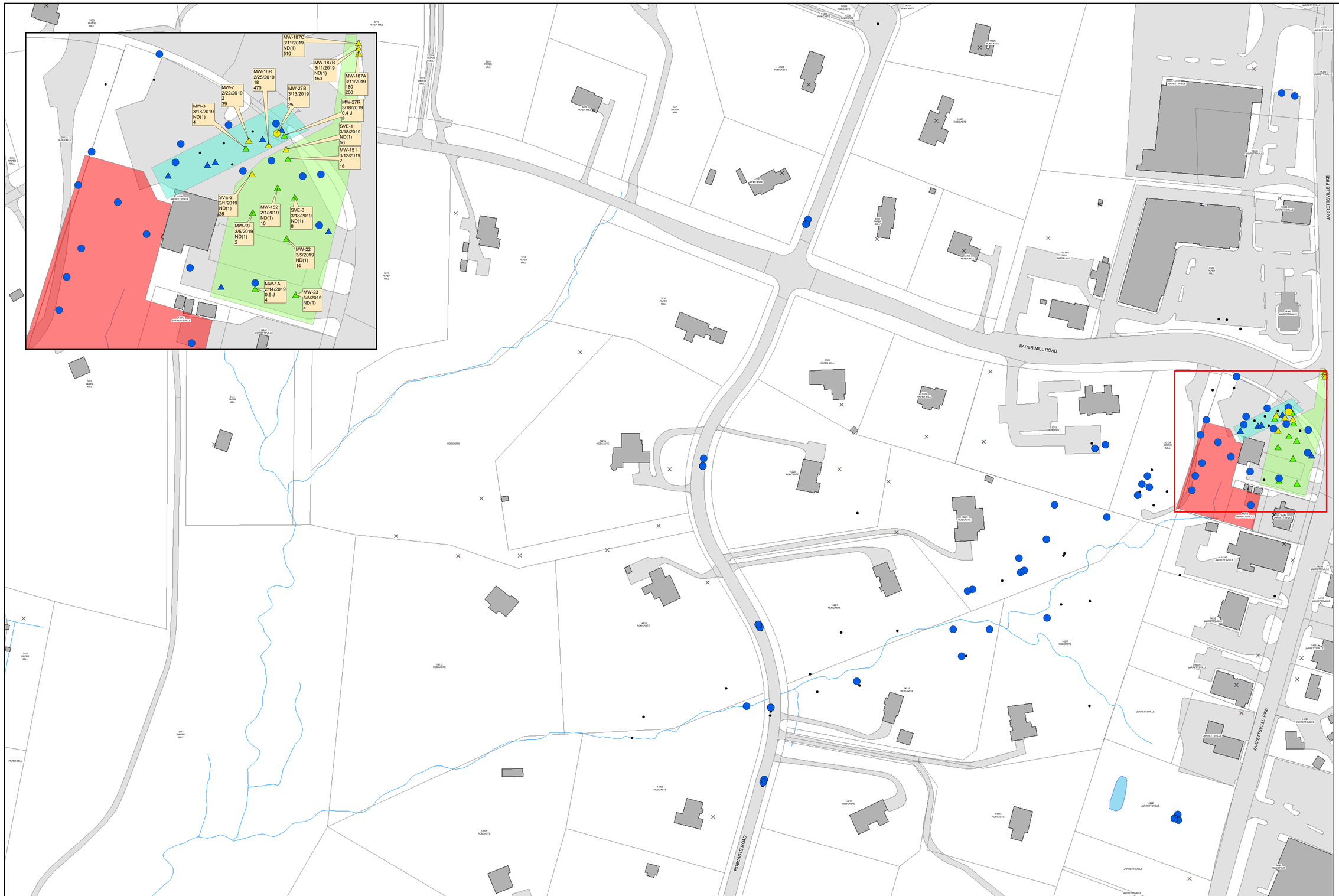
PROJECT NO.	20193011
DRAWN:	4/29/2019
DRAWN BY:	B. Myers
CHECKED BY:	B. Haffey
FILE NAME:	

EAST GROUNDWATER CONCENTRATION MAP

INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
BALTIMORE COUNTY

FIGURE
2



Legend

MTBE Concentrations (µg/L)

- ND(RL≤1.0) - 1.0
- >1.0 - <20
- >20
- Not Sampled
- Monitoring Only
- Recovery Activity
- Private Supply Well

Groundwater Recovery Zones

- Zone A
- Dispenser Island
- DPE
- Parcel Boundary (Approx.)
- Building Foot Prints
- Streams
- Water Bodies

Well ID
Sample Date
Benzene (µg/L)
MTBE (µg/L)

J = ESTIMATED VALUE
ND(RL) = NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT(RL)
LABORATORY REPORTING LIMIT INCLUDED

NOTES:
1. LOCATIONS WITH DEPTH INTERVAL SAMPLES DISPLAY LABEL FOR MAX. MTBE CONCENTRATION. IF ALL INTERVALS ARE "ND(RL)", LABEL WILL BE DEFAULTED TO THE MOST SHALLOW INTERVAL.

2. MW-20, MW-41A, MW-42A, MW-44, MW-46, MW-50, MW-53A, MW-56A, MW-63, MW-65, MW-66, MW-67, MW-68, MW-69, MW-70, MW-96A, MW-97, MW-120, MW-122, MW-128A, MW-128B, MW-130, MW-140A, MW-157P, AND PIEZOMETER ("P") MONITORING WELLS ARE NOT SAMPLED AND ARE USED FOR GROUNDWATER GAUGING ONLY

GROUNDWATER RECOVERY ZONES:

ZONE DISPENSER ISLAND:
MW-1A, MW-2A, MW-19, MW-21, MW-22, MW-23, MW-139, MW-151, MW-152, MW-187A, MW-187B, SVE-1, SVE-2, SVE-3

ZONE DPE:
MW-3, MW-4, MW-6, MW-7, MW-13, MW-16, MW-16R, MW-27, MW-27R

N

0 45 90 180 Feet

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DRAWN BY:	B. Myers
CHECKED BY:	B. Haffey
FILE NAME:	

WEST GROUNDWATER CONCENTRATION MAP

INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
BALTIMORE COUNTY

FIGURE
3

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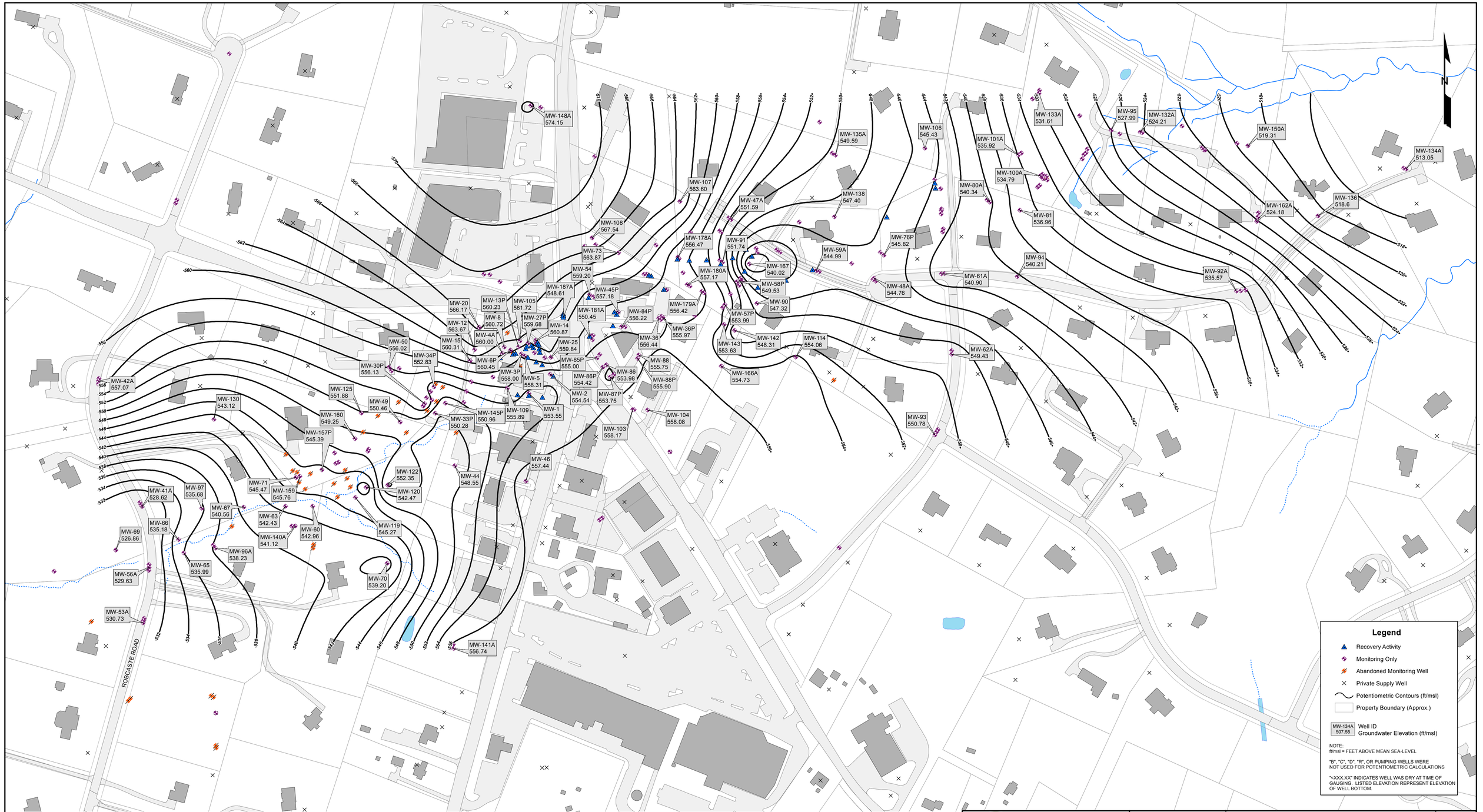
PROJECT NO.	20193011	**MDE APPROVED MONITORING POINT SAMPLING FREQUENCY**
DRAWN:	4/19/2019	
DRAWN BY:	B. Myers	
CHECKED BY:	C. Low	INACTIVE EXXON FACILITY #28077 14258 JARRETTSVILLE PIKE PHOENIX, MARYLAND BALTIMORE COUNTY
FILE NAME:		

FIGURE

4



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0 60 120 240 360 480 Feet

NOTE:

1. MW-70, MW-84P, MW-86 and MW-147PC were not used for contouring
2. Only wells gauged quarterly are used to create contours.

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PROJECT NO.	20193011
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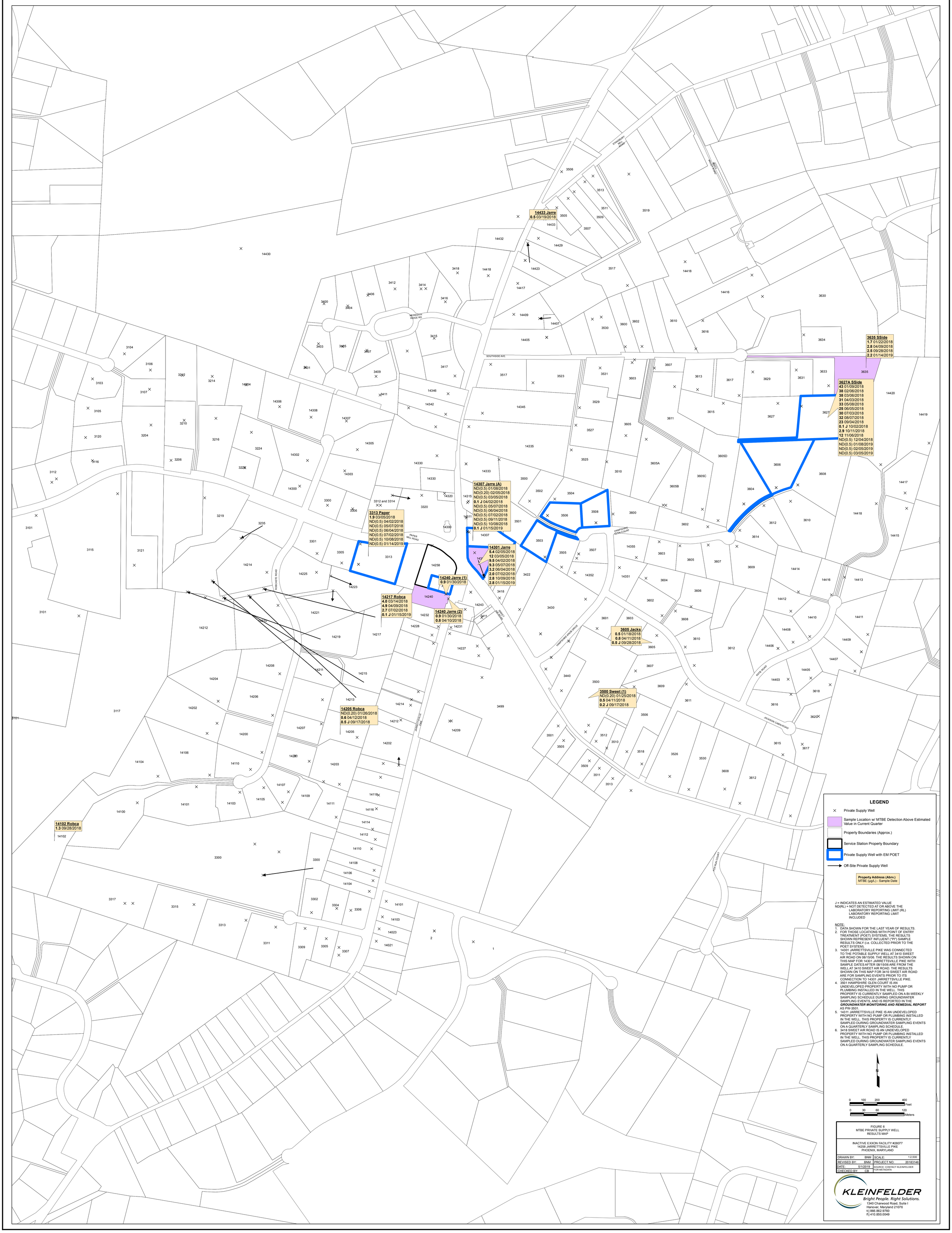
DRAWN BY:	B. MYERS
CHECKED BY:	J. HALE

POTENTIOMETRIC SURFACE MAP
GAUGING EVENT: FEBRUARY 2019

INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
BALTIMORE COUNTY

FIGURE
5


14433 Jarre
0.5 03/19/2018
3635 SSide
1.7 01/22/2018
2.8 04/09/2018
2.5 09/28/2018
2.2 01/14/2019
3627A SSide
43 01/09/2018
38 02/06/2018
38 03/06/2018
31 04/03/2018
33 05/08/2018
25 06/05/2018
30 07/03/2018
32 08/07/2018
23 09/04/2018
0.1 J 10/02/2018
2.9 10/11/2018
12 11/06/2018
ND(0.5) 12/04/2018
ND(0.5) 01/08/2019
ND(0.5) 02/05/2019
ND(0.5) 03/05/2019
14307 Jarre (A)
ND(0.5) 01/08/2018
ND(0.20) 02/05/2018
ND(0.5) 03/05/2018
0.1 J 04/02/2018
ND(0.5) 05/07/2018
ND(0.5) 06/04/2018
ND(0.5) 07/02/2018
ND(0.5) 09/11/2018
ND(0.5) 10/08/2018
0.1 J 01/15/2019
3313 Paper
1.9 03/05/2018
ND(0.5) 04/02/2018
ND(0.5) 05/07/2018
ND(0.5) 06/04/2018
ND(0.5) 07/02/2018
ND(0.5) 10/08/2018
ND(0.5) 01/14/2019
14301 Jarre
5.4 02/05/2018
12 03/05/2018
9.5 04/02/2018
9.3 05/07/2018
3.2 06/04/2018
2.0 07/02/2018
2.8 10/09/2018
2.8 01/15/2019
14240 Jarre (1)
0.9 01/30/2018
14217 Robca
4.0 03/14/2018
4.9 04/09/2018
2.7 07/02/2018
0.1 J 01/15/2019
14240 Jarre (2)
0.9 01/30/2018
0.8 04/10/2018
3605 Jacks
0.5 01/18/2018
0.8 04/11/2018
0.5 J 09/28/2018
3500 Sweet (1)
ND(0.20) 01/25/2018
0.5 04/11/2018
0.2 J 09/17/2018
14205 Robca
ND(0.20) 01/26/2018
0.6 04/12/2018
0.5 J 09/17/2018
14102 Robca
1.3 09/28/2018
STANBURY MILL ROAD
MEREDITH RIDGE RD
SOUTHSIDE AVE.
PAPER MILL ROAD
ROBCASTE ROAD
JARRETTSVILLE PIKE
HAMPSHIRE GLEN COURT
HAMPSHIRE KNOB DRIVE
KATIE ROAD
JACKSON CABIN ROAD
FOX RUN COURT
LEGEND
Private Supply Well
Sample Location w/ MTBE Detection Above Estimated Value in Current Quarter
Property Boundaries (Approx.)
Service Station Property Boundary
Private Supply Well with EM POET
Off-Site Private Supply Well
Property Address (Abrv.)
MTBE (µg/L) - Sample Date
J = INDICATES AN ESTIMATED VALUE
ND(RL) = NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT (RL) LABORATORY REPORTING LIMIT INCLUDED
NOTE:
1. DATA SHOWN FOR THE LAST YEAR OF RESULTS.
2. FOR THOSE LOCATIONS WITH POINT OF ENTRY TREATMENT (POET) SYSTEMS, THE RESULTS SHOWN REPRESENT INFLUENT ("PI") SAMPLE RESULTS ONLY (i.e. COLLECTED PRIOR TO THE POET SYSTEM).
3. 14301 JARRETTSVILLE PIKE WAS CONNECTED TO THE POTABLE SUPPLY WELL AT 3410 SWEET AIR ROAD ON 08/15/06. THE RESULTS SHOWN ON THIS MAP FOR 14301 JARRETTSVILLE PIKE WITH SAMPLE DATES AFTER 08/15/06 ARE FROM THE WELL AT 3410 SWEET AIR ROAD. THE RESULTS SHOWN ON THIS MAP FOR 3410 SWEET AIR ROAD ARE FOR SAMPLING EVENTS PRIOR TO ITS CONNECTION TO 14301 JARRETTSVILLE PIKE.
4. 3501 HAMPSHIRE GLEN COURT IS AN UNDEVELOPED PROPERTY WITH NO PUMP OR PLUMBING INSTALLED IN THE WELL. THIS PROPERTY IS CURRENTLY SAMPLED ON A BI-WEEKLY SAMPLING SCHEDULE DURING GROUNDWATER SAMPLING EVENTS, AND IS REPORTED IN THE GROUNDWATER MONITORING AND REMEDIAL REPORT AS PW-3501.
5. 14311 JARRETTSVILLE PIKE IS AN UNDEVELOPED PROPERTY WITH NO PUMP OR PLUMBING INSTALLED IN THE WELL. THIS PROPERTY IS CURRENTLY SAMPLED DURING GROUNDWATER SAMPLING EVENTS ON A QUARTERLY SAMPLING SCHEDULE.
6. 3418 SWEET AIR ROAD IS AN UNDEVELOPED PROPERTY WITH NO PUMP OR PLUMBING INSTALLED IN THE WELL. THIS PROPERTY IS CURRENTLY SAMPLED DURING GROUNDWATER SAMPLING EVENTS ON A QUARTERLY SAMPLING SCHEDULE.
N
0 100 200 400 Feet
0 30 60 120 Meters
FIGURE 6
MTBE PRIVATE SUPPLY WELL RESULTS MAP
INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
DRAWN BY: BNM
REVISED BY: BNM
DATE: 5/1/2019
CHECKED BY: CB
SCALE: 1:2,500
PROJECT NO: 20183146
SOURCE: CONTACT KLEINFELDER FOR METADATA
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Legend

- Monitoring Only
- Dual Phase Extraction (DPE)
- Pneumatic Pump
- Soil Vapor Extraction (SVE)
- SVE/Pneumatic Pump
- Electric Pump
- Private Supply Well
- Surface Water Sample
- Abandoned Well
- GW Discharge
- GW Recovery Piping
- GW/SVE Recovery Piping
- SVE Recovery Piping
- Tank Field
- Tank Field Piping
- Disconnected Piping
- GW Recovery System
- SVE System
- Fractionating Tank
- Liquid Carbon Filter
- Vapor Carbon Filter
- Electrical Equipment

Remediation Systems

2. Influent Tank and Pumps
4. ESD DPE Claw (Replaced MLE DPE Claw)
5. SW Manifold
6. SW Lift Station
8. Effluent Tank and Pumps
10. HDD Conduit Containing
    - Communication Conduit
    - Influent Water Lines (NE)
    - Effluent Water Lines (NE)
    - Spare Lines
11. NE Air and Water Manifold Vaults
12. Compressors for Pneumatic Pump
13. Groundwater Treatment: Carbon Adsorbers

Note: Pipe and Remediation System Locations and Scale are Approximate.

NOTE: MW-189D Location is Approximate

0 70 140 280 420 560 Feet

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PROJECT NO.	20193011
DRAWN:	5/7/2019
DRAWN BY:	B. Myers
CHECKED BY:	C. Low

REMEDIATION LAYOUT AS OF MARCH 31, 2019

INACTIVE EXXON FACILITY #28077
14258 JARRETTSVILLE PIKE
PHOENIX, MARYLAND
BALTIMORE COUNTY

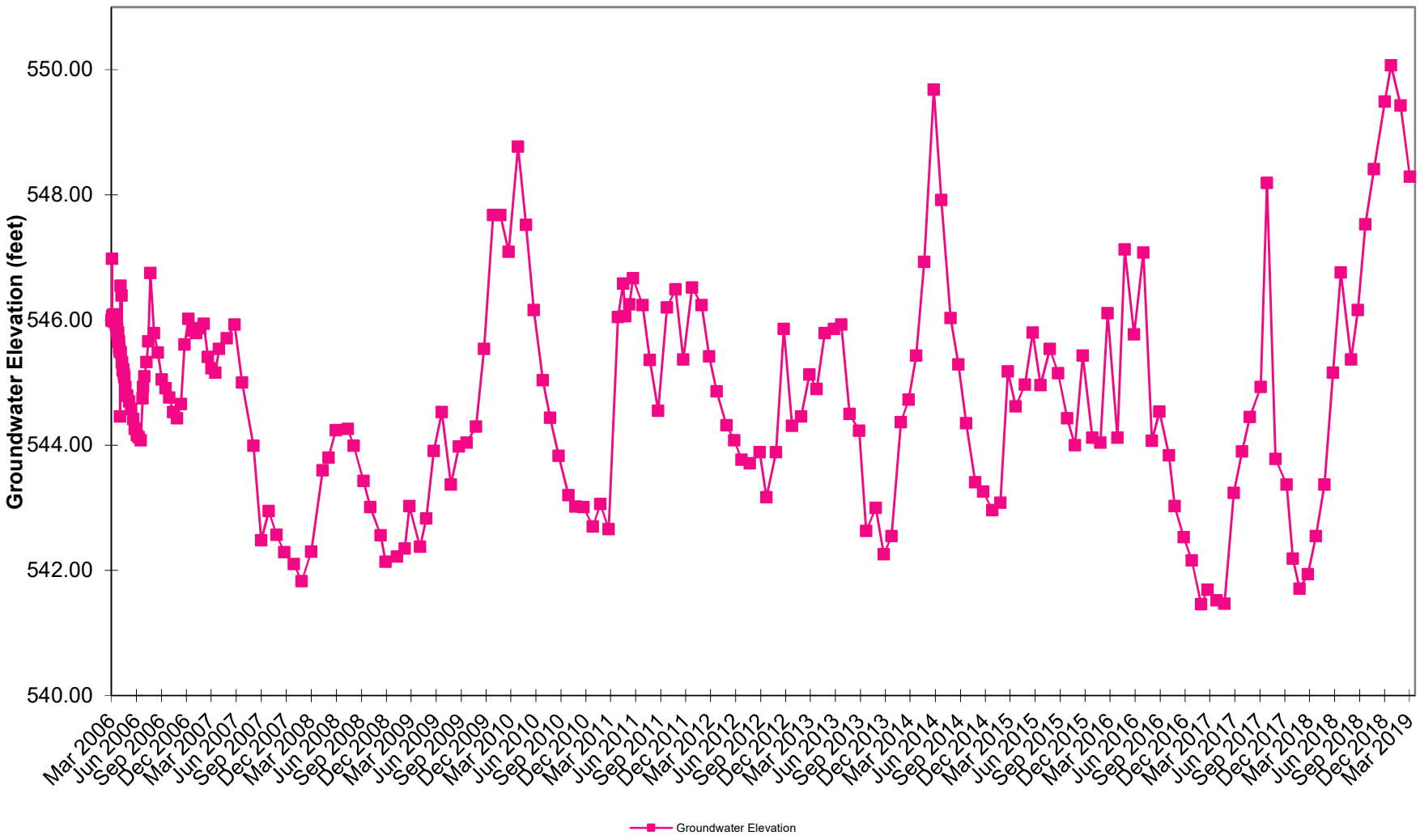
FIGURE 7

\\azgisstorp01\GIS_Projects\Client\EMES_MD_Phoenix\MXD\MDE_RAPR_PWS_Reports\RAPR\Fig7_Rem_Layout_081318.mxd

APPENDIX A

SELECT HYDROGRAPHS

Appendix A
MW-62A
Groundwater Elevation Trend (East)
March 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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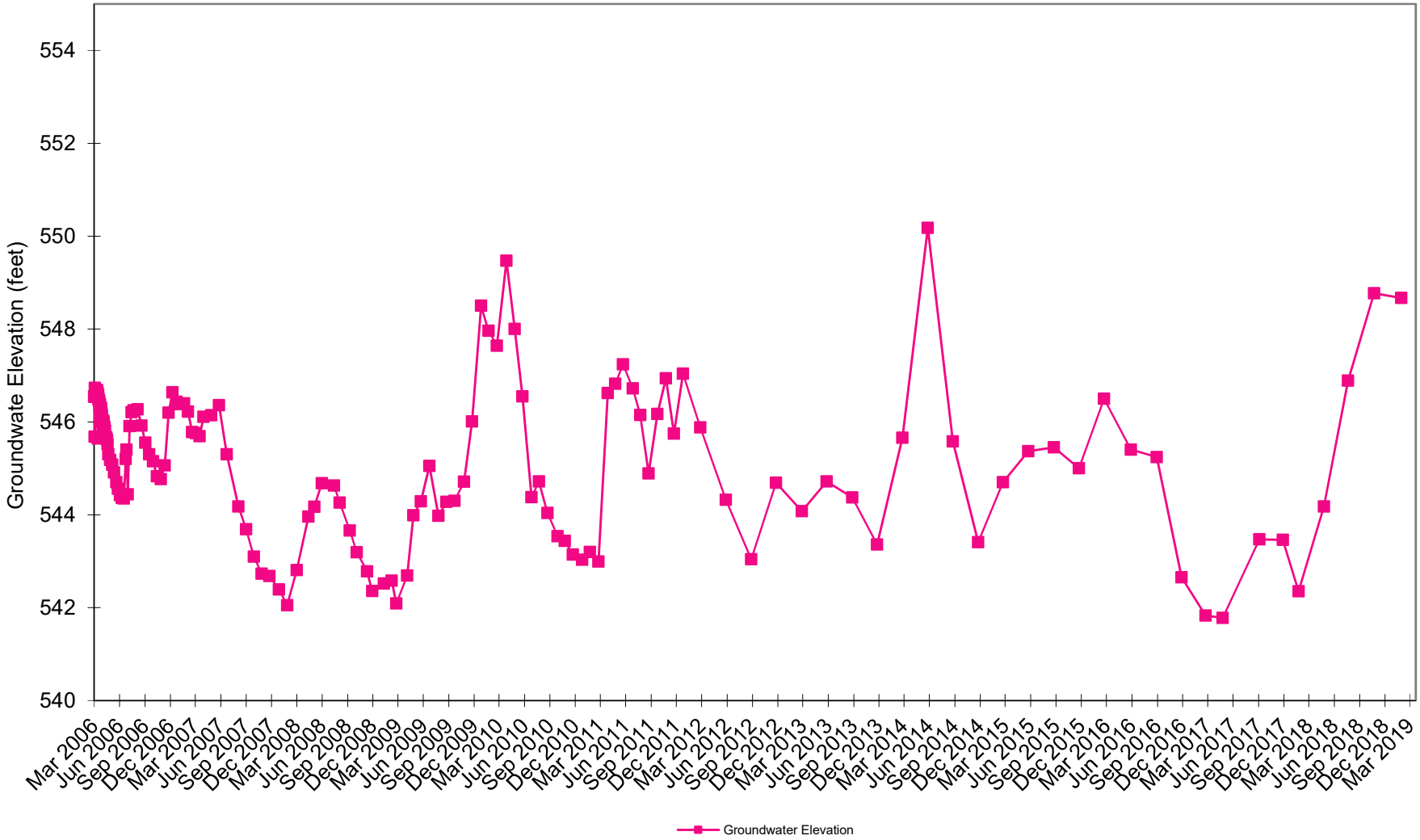
Appendix A
MW-62B
Groundwater Elevation Trend (East)
March 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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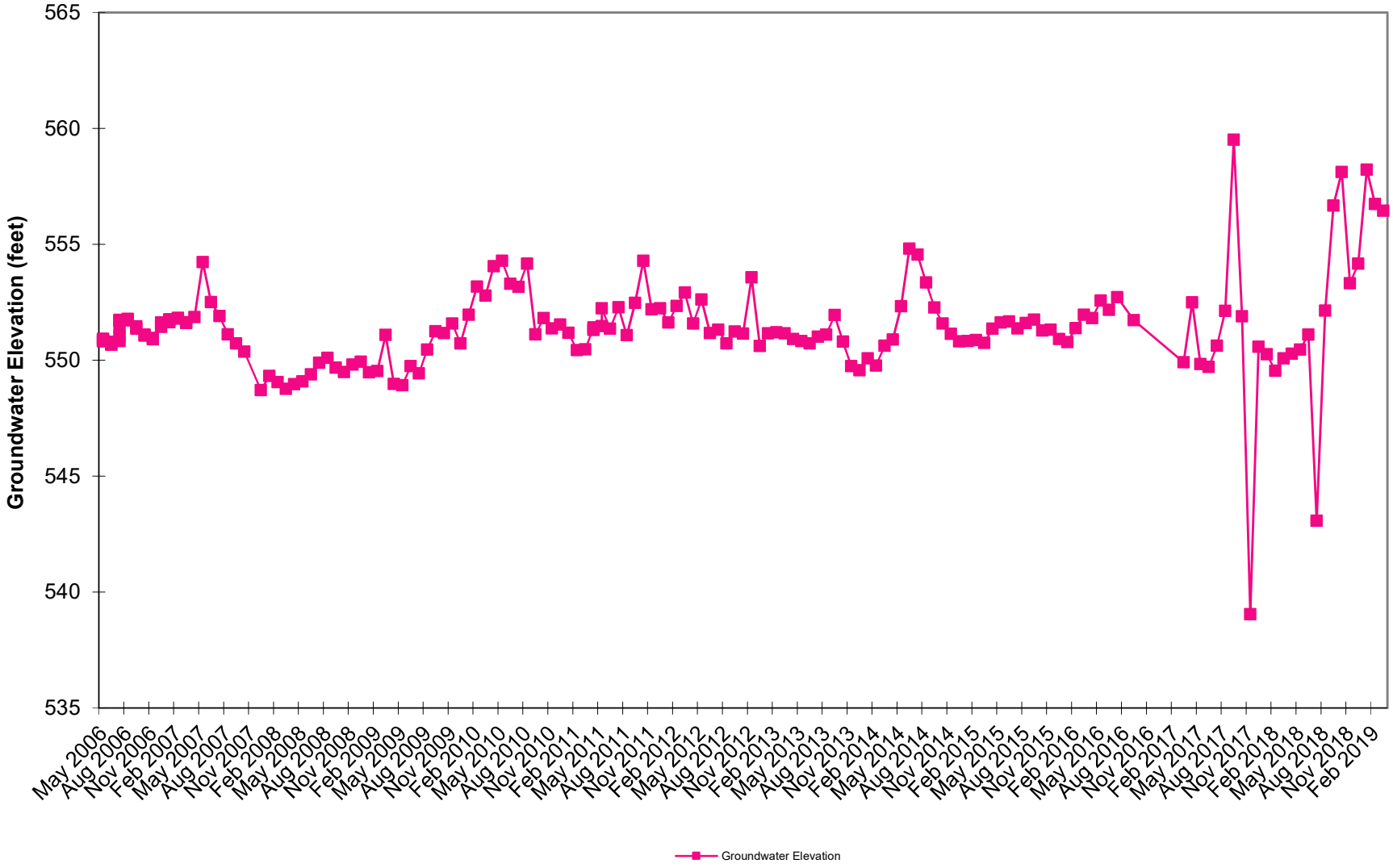
Appendix A
MW-141A
Groundwater Elevation Trend (South)
May 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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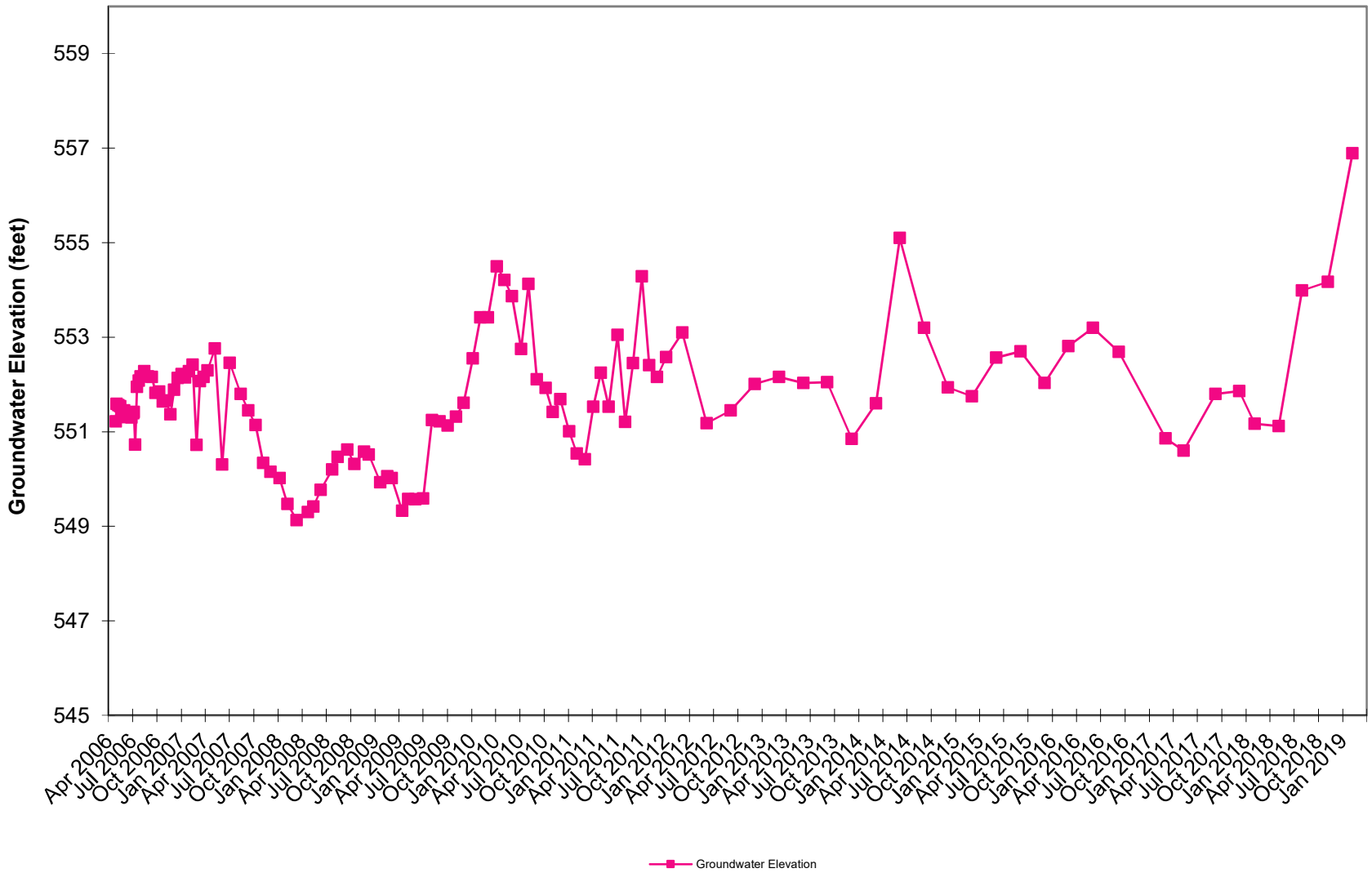
Appendix A
MW-141B
Groundwater Elevation Trend (South)
April 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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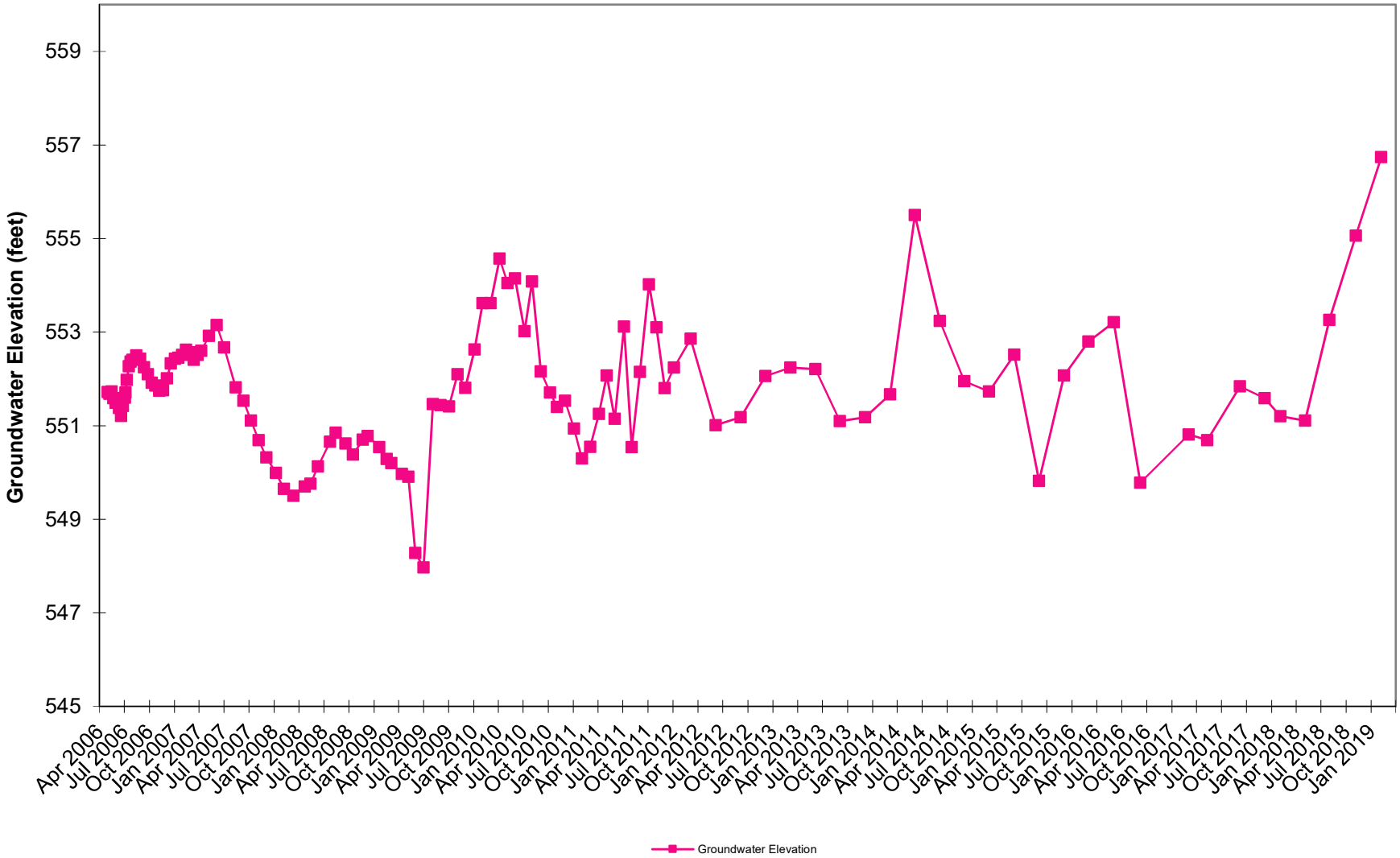
Appendix A
MW-141C
Groundwater Elevation Trend (South)
April 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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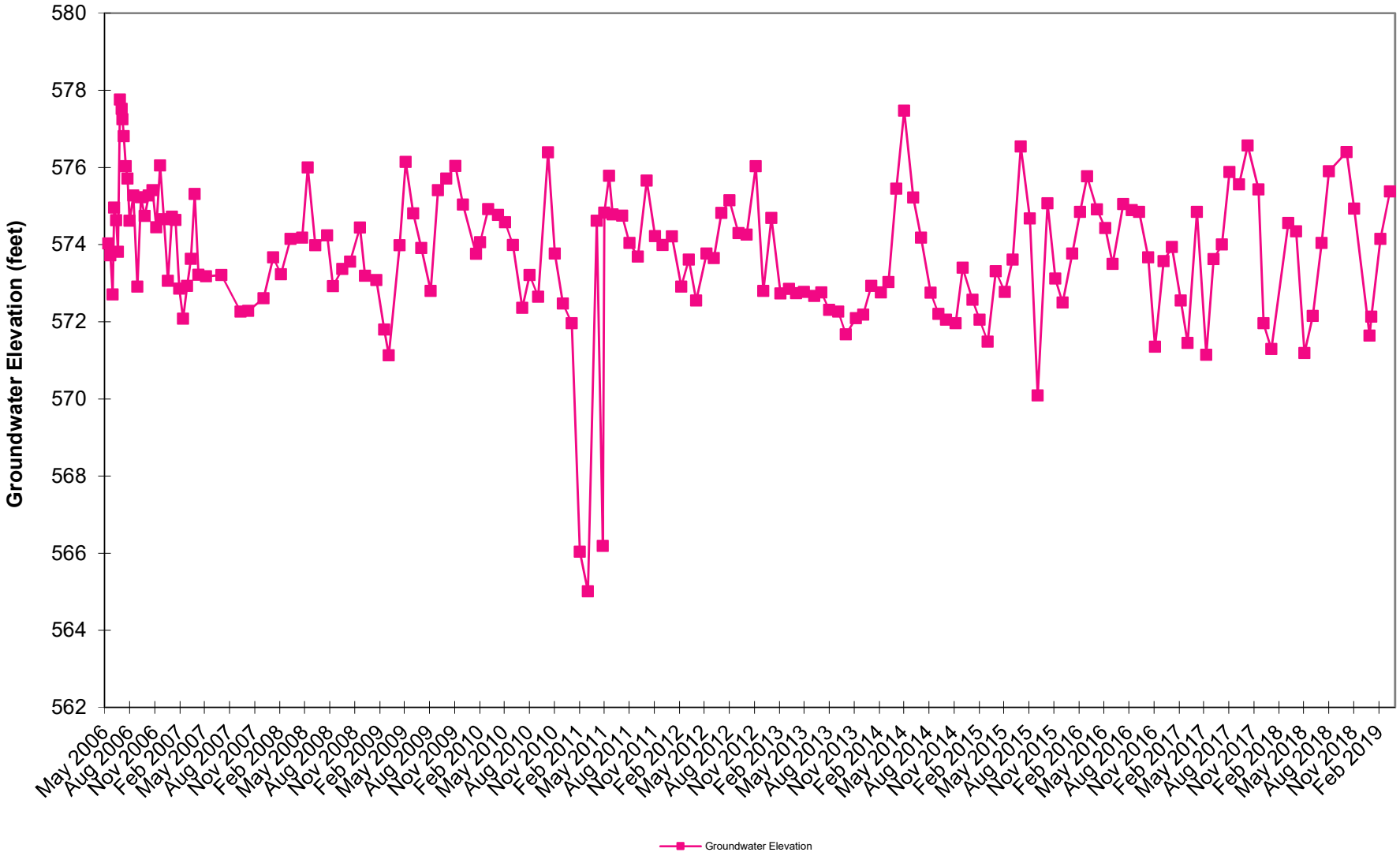
Appendix A
MW-148A
Groundwater Elevation Trend (North)
May 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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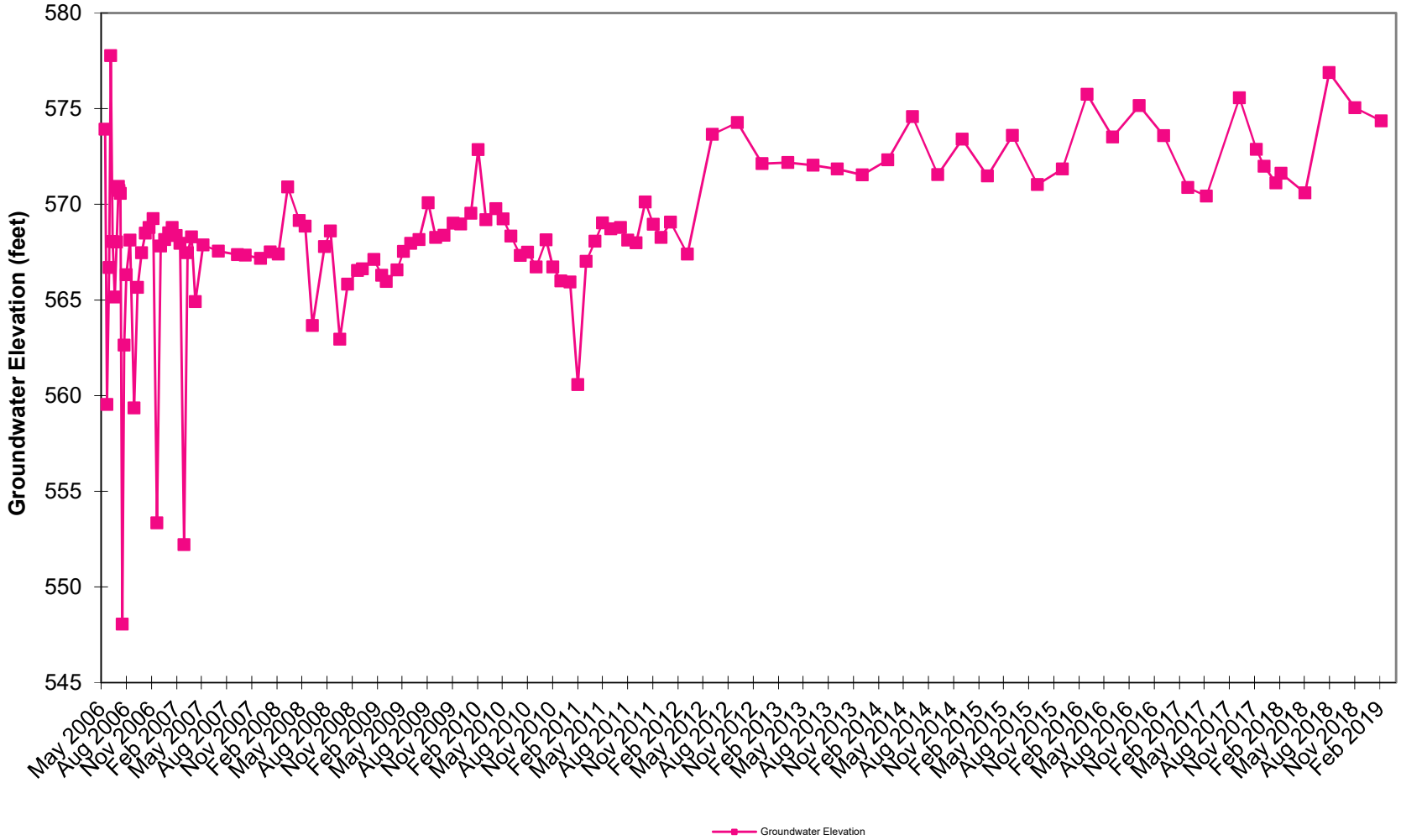
Appendix A
MW-148B
Groundwater Elevation Trend (North)
May 2006 - March 2019
Inactive Exxon Facility # 28077
14258 Jarrettsville Pike, Phoenix, MD



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