FIVE PERIOD TECHNICAL REPORT

SECOND HALF 2013 THROUGH SECOND HALF 2015

FRIENDS RECYCLING
(FKA Big D Roofing, Inc.)
2350 NW 27th Avenue
Ocala, Marion County, Florida

PREPARED FOR:

Florida Department of Environmental Protection
Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

PREPARED BY:

Robert M. Couch III, P.E.
ENVIRO-TECH, INC.
15290 SE Hwy 42, PO Box 152
Weirsdale, Florida 32195
(352) 694-1799
Registration No. 55311
Certificate of Authorization No. 8692

February 14, 2016

ROBERT M. COUCH III LICENSE No. 55311 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert M. Couch III, P.E.
Digitally signed by Robert M. Couch III, P.E.
DN: cn=Robert M. Couch III, P.E., o=ENVIRO-TECH, Inc., ou=President, email=envirotech@ymail.com, c=US
Date: 2016.02.18 11:46:33 -05'00'

ROBERT M. COUCH III LICENSE NO. 55311 STATE OF FLORIDA PROFESSIONAL ENGINEER
2/16/2016

February 14, 2016

Florida Department of Environmental Protection
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767

Attention: Mr. Clarke Moore

RE: Five Period Technical Report for the Second Half of 2013 through the Second Half of 2015
Friends Recycling C&D Landfill
Ocala, Marion County, Florida
Permit No.: SO42-0019600-008

Dear Mr. Moore:

Enviro-Technologies, Inc. (ETI) has completed the five period technical groundwater monitoring report of the second half of 2013 through the second half of 2013 for the Friends Recycling C&D Landfill located in Ocala, Marion County, Florida.

INTRODUCTION

The groundwater monitoring program for this site consists of groundwater sampling activities on Monitoring Wells: MW-1, MW-5, MW-6, MW-7, MW-8, and MW-9S (currently identified as MW-9). Information about the individual wells is provided in the Appendix of this report. To operate the Friends Recycling C&D Landfill, the conditions of the permit require that the following tasks must be performed as part of the five period technical report monitoring program:

A. Tabular and graphical displays of any data that shows that a monitoring parameter has been detected, including hydrographs for all monitoring wells.

B. Trend analyses of any monitoring parameters detected.

C. Comparisons among shallow, middle, and deep zone wells.

D. Comparison between upgradient and downgradient wells

E. Correlation between related parameters such as total dissolved solids and specific conductance.

F. Discussion of erratic and/or poorly correlated data.

G. An interpretation of the groundwater contour maps, including an evaluation of groundwater flow rates.

H. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions

TABULAR AND GRAPHICAL DATA

Tables and graphs of detected parameters have been prepared and are presented in the Appendix. The tables and graphs summarize the data collected for the past five periods. These parameters include: groundwater elevation, groundwater temperature, chloride, nitrate, sulfate, total dissolved solids (TDS), iron, sodium, pH, dissolved oxygen, turbidity, and specific conductance. During the past five periods between the second half of 2013 and the second half of 2015, exceedances above the MCL's were noted for Ammonia as N, Total Arsenic, Benzene, Iron, Sulfate, and TDS only.

TREND ANALYSIS

During the five periods from the second half of 2013 to the second half of 2015, detectable levels of the following parameters were noted with the following trends:

Parameter	MW-1	MW-5	MW-6	MW-7	MW-8	MW-9S
Aluminum - Total	N	N	N	U	N	N
Ammonia as N	N	N	N	N	N	N
Arsenic - Total	U	N	N	N	N	N
Benzene	N	D	N	N	N	N
Bicarbonate as CaCO3	N	N	N	N	N	N
Cadmium	N	N	N	N	N	N
Chloride	D	U	U	N	U	D
Chloroform	N	N	N	N	N	N
Chloromethane	N	N	N	N	N	N
Chromium	N	N	N	N	N	N
cis-1,2-Dichloroethene	N	N	N	N	U	N
Dissolved Oxygen	N	N	D	N	U	U
Iron - Total	U	N	N	U	N	U
Copper - Total	N	N	N	N	N	N
Lead - Total	N	N	N	N	N	N
Mercury - Total	N	N	N	N	N	N
Methylene Chloride	N	N	N	N	N	N
Nickel - Total	N	N	N	N	N	N
Nitrate as N	N	N	U	D	N	N
Nitrate/Nitrite as N	N	N	N	N	N	N
O-Xylene	N	N	N	N	N	N
pH	N	D	N	D	N	D
Phenolics	N	N	N	N	N	N
Sodium - Total	D	U	U	U	N	D
Specific Conductance (EC)	D	U	N	N	N	N
Sulfate	D	U	N	U	N	D
Temperature	N	N	N	N	N	N
Toluene	N	D	N	N	N	N
Thallium - Total	N	N	N	N	N	N
Tetrachloroethene	N	N	N	N	N	N
Total Alkalinity	N	N	N	N	N	N
Total Dissolved Solids	D	N	N	N	N	D
Trichloroethene	N	U	N	N	N	N
Turbidity	N	N	N	N	U	U
Vanadium - Total	N	N	N	N	N	N
Water Elevation	N	N	N	N	N	N
Zylenes - Total	N	N	N	N	N	N

Notes: D - indicates downward trend
U - indicates upward trend
N - indicates no definitive trend

COMPARISONS AMONG SHALLOW, MIDDLE, AND DEEP WELL ZONES

The Friends Recycling facility is located in the northwestern portion of the City of Ocala in Marion County, Florida. All monitoring wells at this site are between twenty-nine and fifty feet deep and extend directly into the Floridan aquifer, which is considered a deep well zone. There are no shallow or middle well zones in the area. Therefore, no comparisons of the well zones can be made.

COMPARISON BETWEEN UP-GRADIENT AND DOWN-GRADIENT WELLS

There was no definitive trend in temperature noted in background well MW-1 and there did not appear to have a definitive correlation to the parameters noted in compliance wells MW-5, MW-6, MW-7, MW-8, and MW-9S. Variations in arsenic concentrations in MW-8 appeared to increase and decrease in correlation with background well MW-1. Variations in groundwater elevations appeared to correspond between MW-1 and the other wells, with the exception of MW-9S (9). Variations in pH appeared to correlate between MW-1 and compliance wells MW-5, MW-6, MW-7, MW-8, MW-9S (9). Other trends noted in the various compliance wells appeared to have no correlation to the background well MW-1.

CORRELATION BETWEEN RELATED PARAMETERS SUCH AS TOTAL DISSOLVED SOLIDS AND SPECIFIC CONDUCTANCE

There appears to be a correlation between concentration levels of total dissolved solids, and specific conductance, and total dissolved solids in MW-1 through MW-9S. There also appears to be a correlation between concentration levels sodium and chloride in MW-8.

DISCUSSION OF ERRATIC AND/OR POORLY CORRELATED DATA

There were no significant instances of erratic or poorly correlated data for the period of evaluation.

INTERPRETATION OF THE GROUNDWATER CONTOUR MAPS, INCLUDING EVALUATION OF GROUNDWATER FLOW RATES

The groundwater flow regime has remained consistent through the period of evaluation. Groundwater contour maps for the five periods are presented in the Appendix. Groundwater elevations appear to fluctuate similarly at all monitoring locations. However, there appears to be a greater change in groundwater elevations between MW-9S and MW-7 which allows a trough condition to be formed between these two wells during drought conditions.

EVALUATION OF THE ADEQUACY OF THE WATER QUALITY MONITORING FREQUENCY AND SAMPLING LOCATIONS BASED UPON SITE CONDITIONS

Based on this review and evaluation, we do not recommend any revisions to the monitoring frequency at this time. The groundwater flow patterns since the previous technical report appear to be fairly consistent with the existing monitoring well layout. Based on the groundwater flow study for the Cross-Florida Barge Canal performed in the 1960's, the flow direction is expected to return to an east-southeasterly direction upon exiting the site. There have been relatively few exceedances in parameters monitored and those exceedances noted could be more reflective of the monitored formation characteristics and background conditions. Therefore no changes to the monitoring locations are recommended at this time.

CLOSURE

Thank you for the opportunity to provide consulting services to the Friends Recycling C&D Landfill. If you have any questions or comments about this report, please feel free to contact me at (352) 694-1799.

Sincerely,

Robert M. Couch III

Robert M. Couch III, P.E.
President
ENVIRO-TECH, Inc.

Cc: Laxamee Levin - Florida Department of Environmental Protection

APPENDIX

TABLES

Parameter	MW-1	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-1**	0	0	0	0	0
Ammonia as N	**MW-1**	1.1	4.4	3.3	5	2.9
Arsenic - Total	**MW-1**	7.04	7.33	0	14.9	15.1
Benzene	**MW-1**	0	0	12.1	0	0
Bicarbonate as CaCO3	**MW-1**	0	0	0	0	0
Cadmium	**MW-1**	0	1.02	0	0	0
Chloride	**MW-1**	26	19	18	21	21
Chloromethane	**MW-1**	0	0	0	0	0
Chromium - Total	**MW-1**	0	1.1	0	0	0
cis-1,2-Dichloroethene	**MW-1**	0	0	0	0	0
Dissolved Oxygen	**MW-1**	0.34	0.14	0.11	0.19	0.44
Iron - Total	**MW-1**	3450	9570	12900	19600	7590
Copper - Total	**MW-1**	0	0	0	0	0
Lead - Total	**MW-1**	0	0	0	0	0
Mercury - Total	**MW-1**	0	0.111	0.0355	0.0423	0
Methylene Chloride	**MW-1**	0	0	2	0	0
Nickel - Total	**MW-1**	0	0	0	0	0
Nitrate as N	**MW-1**	0.21	0	0	0.73	0.35
Nitrate/Nitrite as N	**MW-1**	0	0	0	0	0
o-xylene	**MW-1**	0	0	0	0	0
pH	**MW-1**	6.57	6.61	6.4	6.57	6.48
Phenolics	**MW-1**	0	0	0	0	0
Sodium - Total	**MW-1**	71.7	64.2	39.9	54.4	30.2
Specific Conductance (EC)	**MW-1**	1685	2845	1970	2047	1252
Sulfate	**MW-1**	810	1100	560	890	200
Temperature	**MW-1**	25.22	24.98	24.2	24.61	24.35
Toluene	**MW-1**	0	0	0	0	0
Thallium - Total	**MW-1**	0	0	0	0	0
Tetrachloroethene	**MW-1**	0	0	0	0	0
Total Alkalinity	**MW-1**	0	0	0	0	0
Total Dissolved Solids	**MW-1**	1700	2200	1400	2000	860
Trichloroethene	**MW-1**	0	0	0	0	0
Turbidity	**MW-1**	1.2	0.9	6.8	4	5.1
Vanadium - Total	**MW-1**	0	0	0	0	0
Water Elevation	**MW-1**	40.79	42.31	44.02	43.5	41.88
Xylenes (Total)	**MW-1**	0	0	0	0	0

Parameter	MW-5	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-5**	0	0	0	0	0
Ammonia as N	**MW-5**	1.8	1.2	6.2	4.4	2.9
Arsenic - Total	**MW-5**	0	0	0	0	0
Benzene	**MW-5**	1.4	1.6	2.2	1	0
Bicarbonate as CaCO3	**MW-5**	0	0	0	0	0
Cadmium	**MW-5**	0	0	0	0	0
Chloride	**MW-5**	3.7	12	16	27	37
Chloroform	**MW-5**	0	0	0	1.3	0
Chloromethane	**MW-5**	0	0	0	0	0
Chromium - Total	**MW-5**	0	0	0	0	0
cis-1,2-Dichloroethene	**MW-5**	0	0	0	0.64	0
Dissolved Oxygen	**MW-5**	0.42	0.09	0.1	0.21	0.41
Iron - Total	**MW-5**	34900	34700	51000	35800	33900
Copper - Total	**MW-5**	0	0	0	0	0
Lead - Total	**MW-5**	0	0	0	0	0
Mercury - Total	**MW-5**	0	0	0	0	0
Nickel - Total	**MW-5**	0	0	0	0	0
Nitrate as N	**MW-5**	0	0	0	0	0.73
Nitrate/Nitrite as N	**MW-5**	0	0	0	0	0
o-xylene	**MW-5**	0	0.79	1	0	0
pH	**MW-5**	6.45	6.43	6.22	6.36	6.34
Phenolics	**MW-5**	0	0	0	0	0
Sodium - Total	**MW-5**	6.53	10.5	8.07	19.5	28.8
Specific Conductance (EC)	**MW-5**	1133	1455	1535	1368	1447
Sulfate	**MW-5**	0.16	0.15	0.82	0.76	22
Temperature	**MW-5**	24.69	24.56	25.95	26.38	26.92
Toluene	**MW-5**	1.4	1.6	0.81	0	0
Thallium - Total	**MW-5**	0	0	0	0	0
Tetrachloroethene	**MW-5**	0	0	0	0	0
Total Alkalinity	**MW-5**	0	0	0	0	0
Total Dissolved Solids	**MW-5**	750	710	790	740	820
Trichloroethene	**MW-5**	0	0	0	0	0
Turbidity	**MW-5**	1	0.4	1.7	0	1.6
Vanadium - Total	**MW-5**	0	0	0	0	0
Water Elevation	**MW-5**	40.7	42.21	43.95	43.39	41.77
Xylenes (Total)	**MW-5**	0	1.6	2	0	0

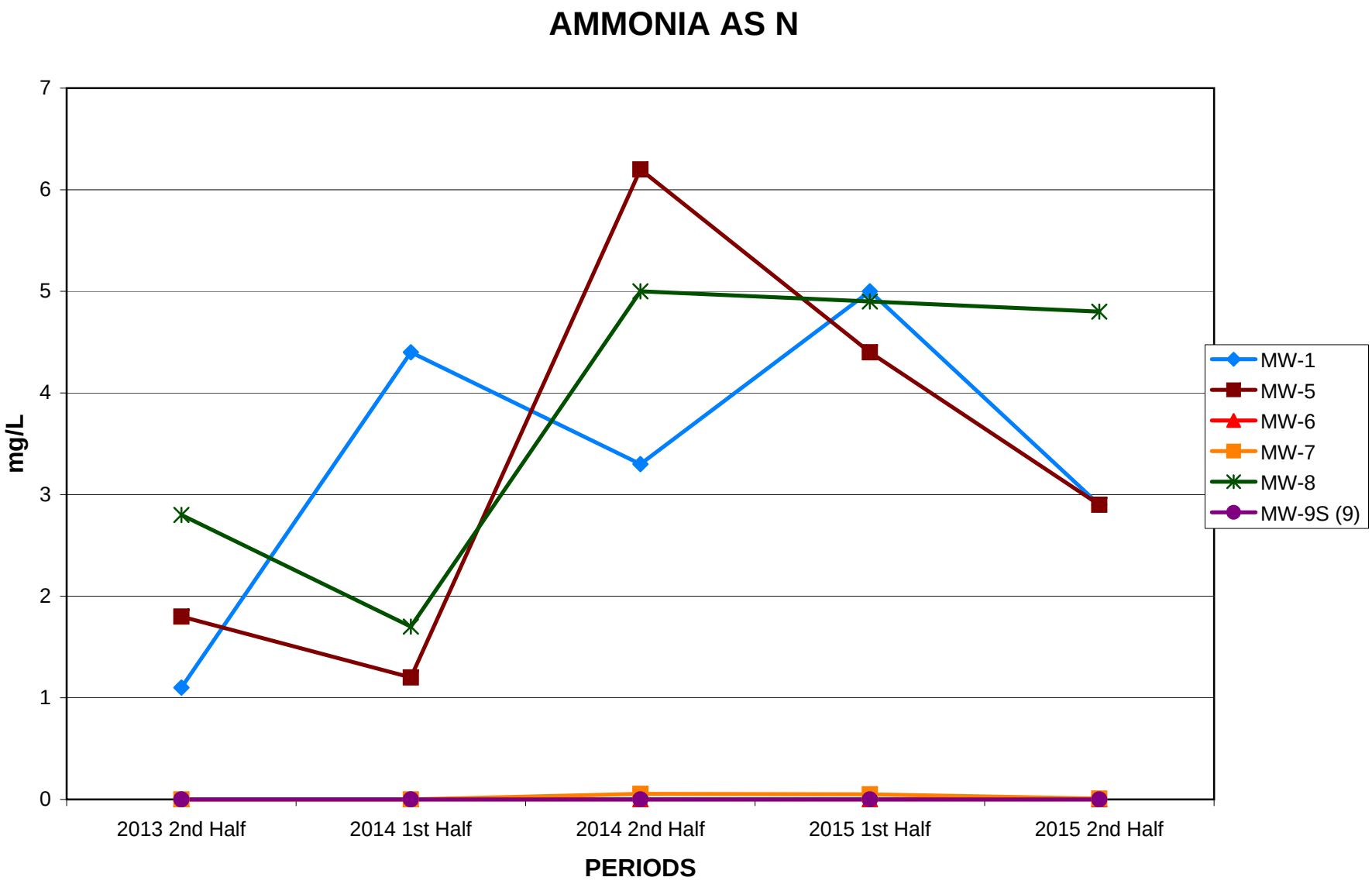
Parameter	MW-6	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-6**	0	0	0	0	0
Ammonia as N	**MW-6**	0	0	0	0	0
Arsenic - Total	**MW-6**	0	0	0	0	0
Benzene	**MW-6**	0	0	0	0	0
Bicarbonate as CaCO3	**MW-6**	0	0	0	0	0
Cadmium	**MW-6**	0	0	0	0	0
Chloride	**MW-6**	1.5	1.3	1.3	1.5	1.7
Chloromethane	**MW-6**	0	0	0	0	0
Chromium - Total	**MW-6**	0	2.1	0	0	0
cis-1,2-Dichloroethene	**MW-6**	0	0	0	0	0
Dissolved Oxygen	**MW-6**	1.22	1.36	1.21	0.45	0.5
Iron - Total	**MW-6**	0	13.9	0	0	8.12
Copper - Total	**MW-6**	0	0	0	0	0
Lead - Total	**MW-6**	0	0	0	2	0
Mercury - Total	**MW-6**	0	0	0	0	0.035
Methylene Chloride	**MW-6**	0	0	0.71	0	0
Nickel - Total	**MW-6**	0	0	0	0	0
Nitrate as N	**MW-6**	0.96	0.46	0.46	0.87	1
Nitrate/Nitrite as N	**MW-6**	0	0	0	0	0
o-xylene	**MW-6**	0	0	0	0	0
pH	**MW-6**	6.77	6.8	6.46	6.67	6.55
Phenolics	**MW-6**	0	0	0	0	0
Sodium - Total	**MW-6**	2.88	3.15	2.42	2.73	3.43
Specific Conductance (EC)	**MW-6**	611	880	753	769	736
Sulfate	**MW-6**	9.3	9.8	9.7	11	12
Temperature	**MW-6**	23.38	23.12	23.34	23.13	23.58
Toluene	**MW-6**	0	0	0	0	0
Thallium - Total	**MW-6**	0	0	0	0	0
Tetrachloroethene	**MW-6**	0	0	0	0	0
Total Alkalinity	**MW-6**	0	0	0	0	0
Total Dissolved Solids	**MW-6**	440	430	450	440	450
Trichloroethene	**MW-6**	0	0	0	0	0
Turbidity	**MW-6**	3.9	2.7	9.8	2.2	1.8
Vanadium - Total	**MW-6**	0	0	0	0	0
Water Elevation	**MW-6**	40.96	42.42	44.12	43.62	41.97
Xylenes (Total)	**MW-6**	0	0	0	0	0

Parameter	MW-7	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-7**	101	0	0	112	209
Ammonia as N	**MW-7**	0	0	0.055	0.05	0.0086
Arsenic - Total	**MW-7**	0	0	0	0	0
Benzene	**MW-7**	0	0	0	0	0
Bicarbonate as CaCO3	**MW-7**	0	0	0	0	0
Cadmium	**MW-7**	0	0.839	0	0	0
Chloride	**MW-7**	8.8	7.7	6.4	7.1	9.8
Chloromethane	**MW-7**	0	0	0	0	0
Chromium - Total	**MW-7**	0	0	0	0	0
cis-1,2-Dichloroethene	**MW-7**	0	0	0	0	0
Dissolved Oxygen	**MW-7**	0.14	0.14	0.81	0.11	0.54
Iron - Total	**MW-7**	0	29.6	2110	1520	3130
Copper - Total	**MW-7**	0	0	0	0	0
Lead - Total	**MW-7**	0	0	0	0	0
Mercury - Total	**MW-7**	0.155	0.127	0.0374	0.208	0
Nickel - Total	**MW-7**	0	0	0	0	0
Nitrate as N	**MW-7**	7.7	4.6	1.5	1.7	1.7
Nitrate/Nitrite as N	**MW-7**	0	0	0	0	0
o-xylene	**MW-7**	0	0	0	0	0
pH	**MW-7**	6.61	6.63	6.32	6.38	6.2
Phenolics	**MW-7**	0	0	0	0	0
Sodium - Total	**MW-7**	10.6	10.7	9.79	10.9	11.2
Specific Conductance (EC)	**MW-7**	711	982	911	842	980
Sulfate	**MW-7**	33	40	38	42	83
Temperature	**MW-7**	25.31	24	25.35	24.55	24.6
Toluene	**MW-7**	0	0	0	0	0
Thallium - Total	**MW-7**	0	0	0	0	0
Tetrachloroethene	**MW-7**	0	0	0	0	0
Total Alkalinity	**MW-7**	0	0	0	0	0
Total Dissolved Solids	**MW-7**	550	500	530	530	640
Trichloroethene	**MW-7**	0	0	0	0	0
Turbidity	**MW-7**	1.8	0.2	2.1	1.8	9.5
Vanadium - Total	**MW-7**	12.8	0	0	0	0
Water Elevation	**MW-7**	40.82	42.26	43.9	43.5	41.95
Xylenes (Total)	**MW-7**	0	0	0	0	0

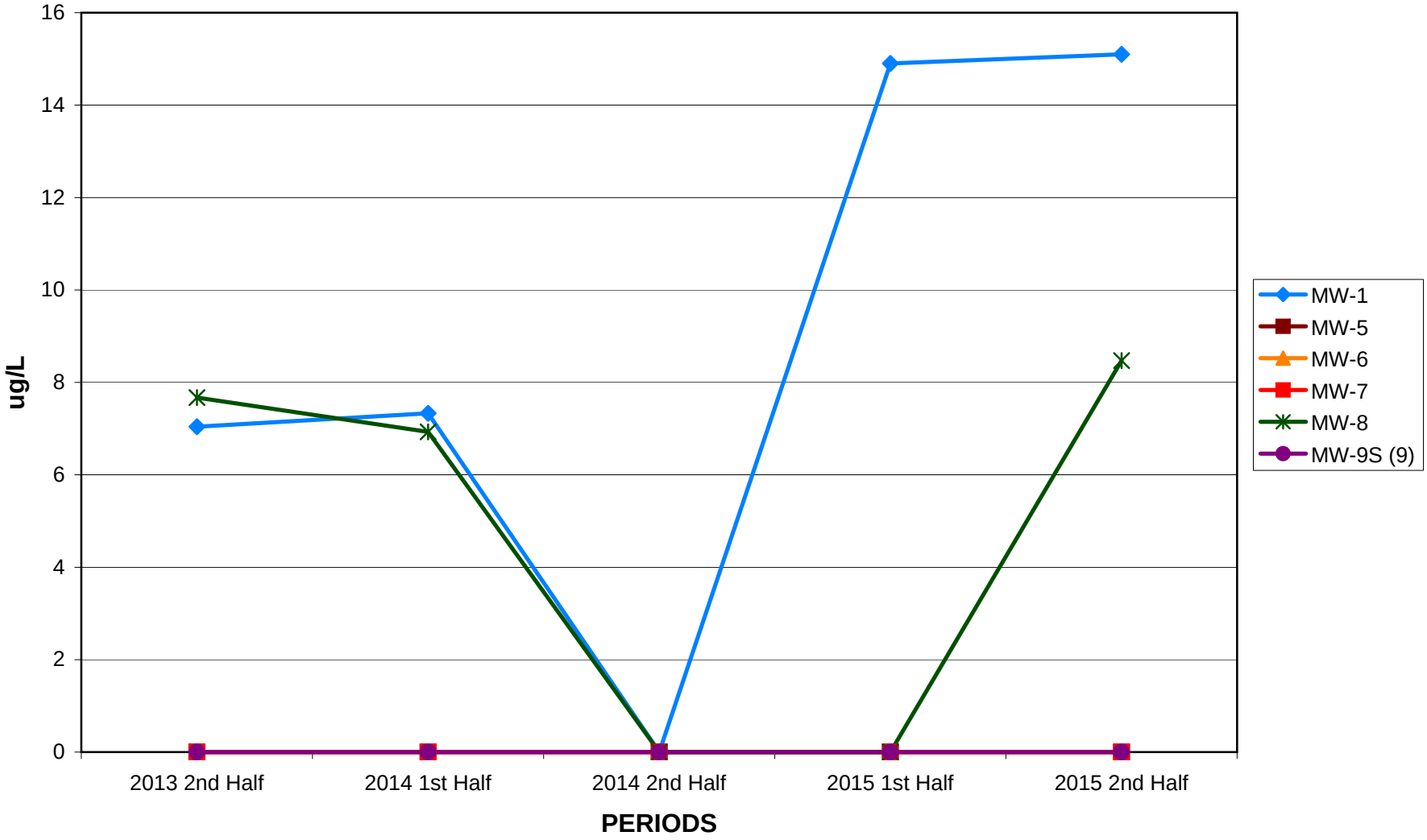
Parameter	MW-8	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-8**	0	0	0	0	0
Ammonia as N	**MW-8**	2.8	1.7	5	4.9	4.8
Arsenic - Total	**MW-8**	7.67	6.93	0	0	8.47
Benzene	**MW-8**	0	0	0	0	0
Bicarbonate as CaCO3	**MW-8**	0	0	0	0	0
Cadmium	**MW-8**	0	0	0	0	0
Chloride	**MW-8**	26	28	35	39	39
Chloroform	**MW-8**	0	0	0	0.99	0
Chloromethane	**MW-8**	0	0	0	0	0
Chromium - Total	**MW-8**	0	0	0	0	0
cis-1,2-Dichloroethene	**MW-8**	0.68	0.68	0.7	0.87	0.79
Dissolved Oxygen	**MW-8**	0.22	0.23	0.12	0.3	0.48
Iron - Total	**MW-8**	13200	12700	16700	15800	15400
Copper - Total	**MW-8**	0	0	0	0	0
Lead - Total	**MW-8**	0	0	0	0	0
Mercury - Total	**MW-8**	0	0	0	0	0
Nickel - Total	**MW-8**	0	0	0	0	0
Nitrate as N	**MW-8**	0	0	0	0.95	0.6
Nitrate/Nitrite as N	**MW-8**	0	0	0	0	0
o-xylene	**MW-8**	0	0	0	0	0
pH	**MW-8**	6.53	6.53	6.29	6.45	6.36
Phenolics	**MW-8**	0	0	0	0	0
Sodium - Total	**MW-8**	19.8	23.7	31.1	34.2	35.6
Specific Conductance (EC)	**MW-8**	994	1276	1250	1211	1205
Sulfate	**MW-8**	2.5	3.7	3.9	2.6	1.3
Temperature	**MW-8**	25.46	24.31	25.21	24.83	25.2
Toluene	**MW-8**	0	0	0	0	0
Thallium - Total	**MW-8**	0	0	0	0	0
Tetrachloroethene	**MW-8**	0	0	0	0	0
Total Alkalinity	**MW-8**	0	0	0	0	0
Total Dissolved Solids	**MW-8**	650	640	710	680	710
Trichloroethene	**MW-8**	0	0	0	0	0
Turbidity	**MW-8**	0.9	1.1	6.7	0.8	2.6
Vanadium - Total	**MW-8**	0	0	0	0	0
Water Elevation	**MW-8**	40.83	42.23	43.94	43.4	41.77
Xylenes (Total)	**MW-8**	0	0	0	0	0

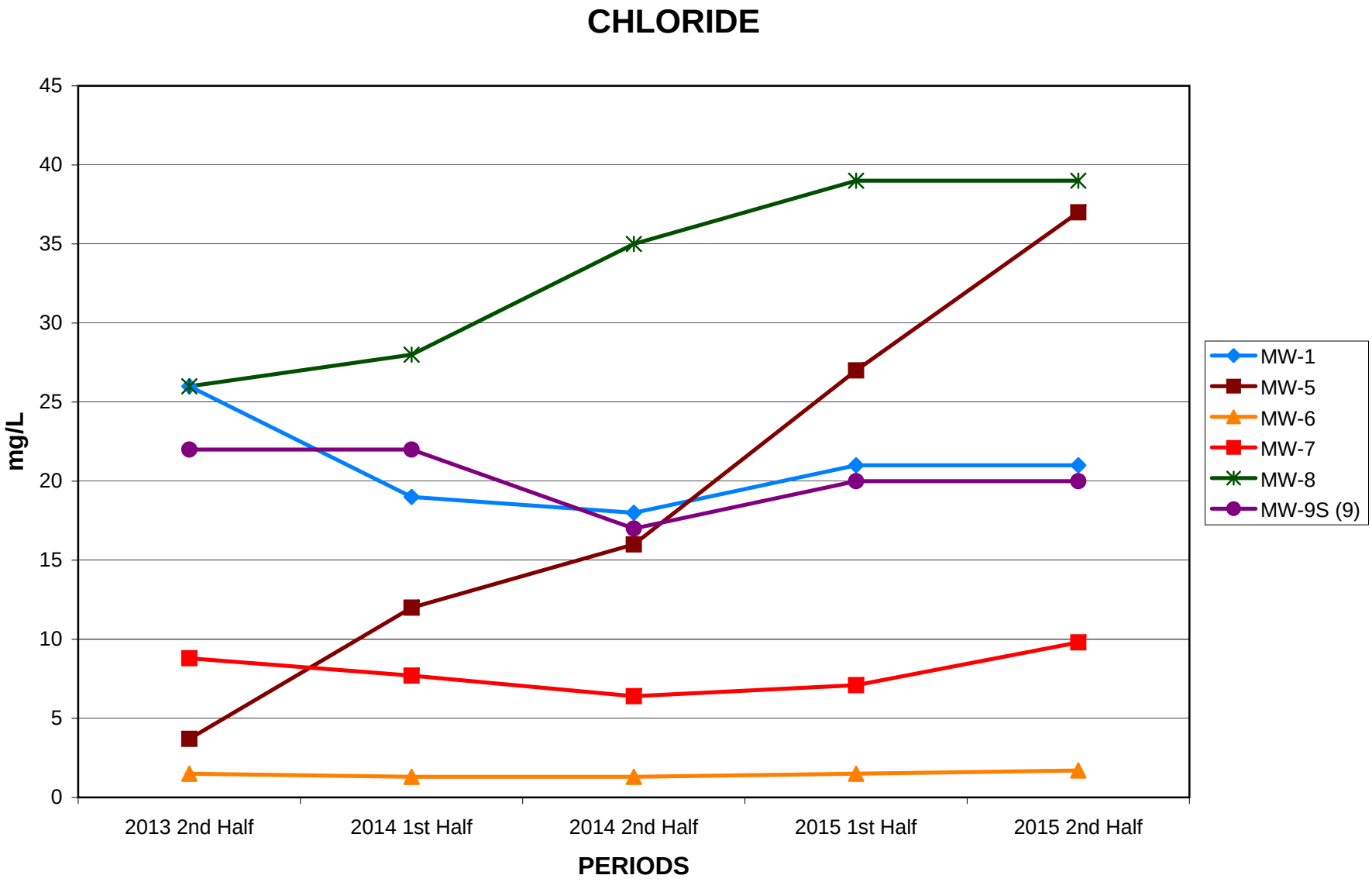
Parameter	MW-9S (9)	2013 2nd Half	2014 1st Half	2014 2nd Half	2015 1st Half	2015 2nd Half
Aluminum - Total	**MW-9S (9)**	0	0	0	0	0
Ammonia as N	**MW-9S (9)**	0	0	0	0	0
Arsenic - Total	**MW-9S (9)**	0	0	0	0	0
Benzene	**MW-9S (9)**	0	0	0	0	0
Bicarbonate as CaCO3	**MW-9S (9)**	0	0	0	0	0
Cadmium	**MW-9S (9)**	0	0	0	0	0
Chloride	**MW-9S (9)**	22	22	17	20	20
Chloroform	**MW-9S (9)**	0	0	0	0.95	0
Chloromethane	**MW-9S (9)**	0	0	0	0	0
Chromium - Total	**MW-9S (9)**	0	1.35	0	0	0
cis-1,2-Dichloroethene	**MW-9S (9)**	0	0	0	0	0
Dissolved Oxygen	**MW-9S (9)**	0.43	0.8	0.2	0.57	0.9
Iron - Total	**MW-9S (9)**	0	10.8	0	0	13.2
Copper - Total	**MW-9S (9)**	0	0	0	0	0
Lead - Total	**MW-9S (9)**	0	0	0	0	0
Mercury - Total	**MW-9S (9)**	0	0	0.0454	0	0
Nickel - Total	**MW-9S (9)**	0	0	0	0	0
Nitrate as N	**MW-9S (9)**	0.43	0.44	1.1	0.77	0.53
Nitrate/Nitrite as N	**MW-9S (9)**	0	0	0	0	0
o-xyllene	**MW-9S (9)**	0	0	0	0	0
pH	**MW-9S (9)**	6.8	6.77	6.47	6.67	6.5
Phenolics	**MW-9S (9)**	0	0	0	0	0
Sodium - Total	**MW-9S (9)**	12.3	13.2	11.3	12.9	11.3
Specific Conductance (EC)	**MW-9S (9)**	766	1117	955	905	891
Sulfate	**MW-9S (9)**	94	99	89	85	73
Temperature	**MW-9S (9)**	23.23	23.3	22.79	23.02	23.04
Toluene	**MW-9S (9)**	0	0	0	0	0
Thallium - Total	**MW-9S (9)**	0	0	0	0	0
Tetrachloroethene	**MW-9S (9)**	0	0	0	0	0
Total Alkalinity	**MW-9S (9)**	0	0	0	0	0
Total Dissolved Solids	**MW-9S (9)**	590	610	590	590	570
Trichloroethene	**MW-9S (9)**	0	0	0	0	0
Turbidity	**MW-9S (9)**	1.5	1.7	1.4	2.6	4.2
Vanadium - Total	**MW-9S (9)**	0	0	0	0	0
Water Elevation	**MW-9S (9)**	40.6	42.04	24.87	43.29	41.64
Xylenes (Total)	**MW-9S (9)**	0	0	0	0	0

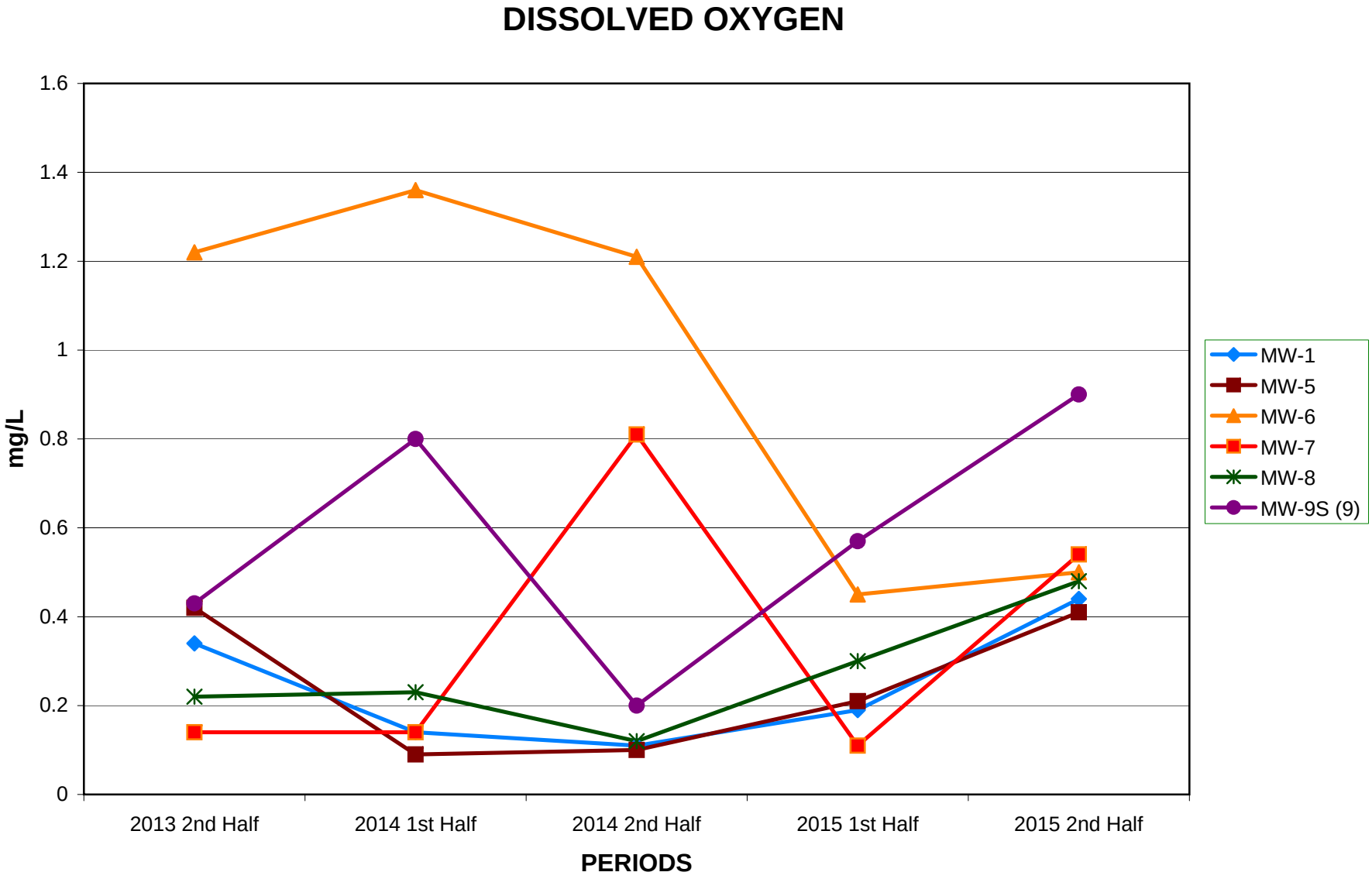
GRAPHS

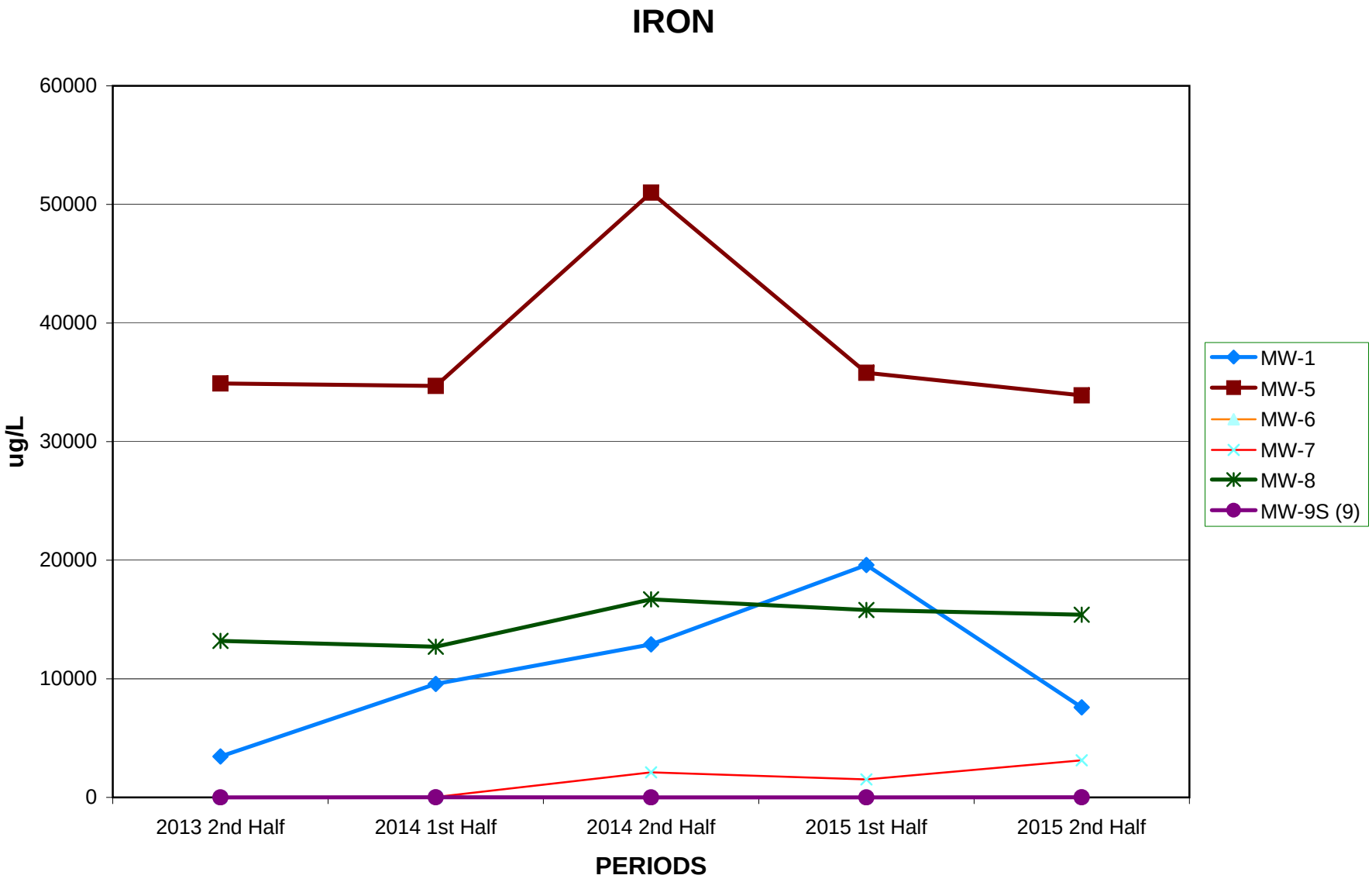

AMMONIA AS N
mg/L
7
6
5
4
3
2
1
0
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

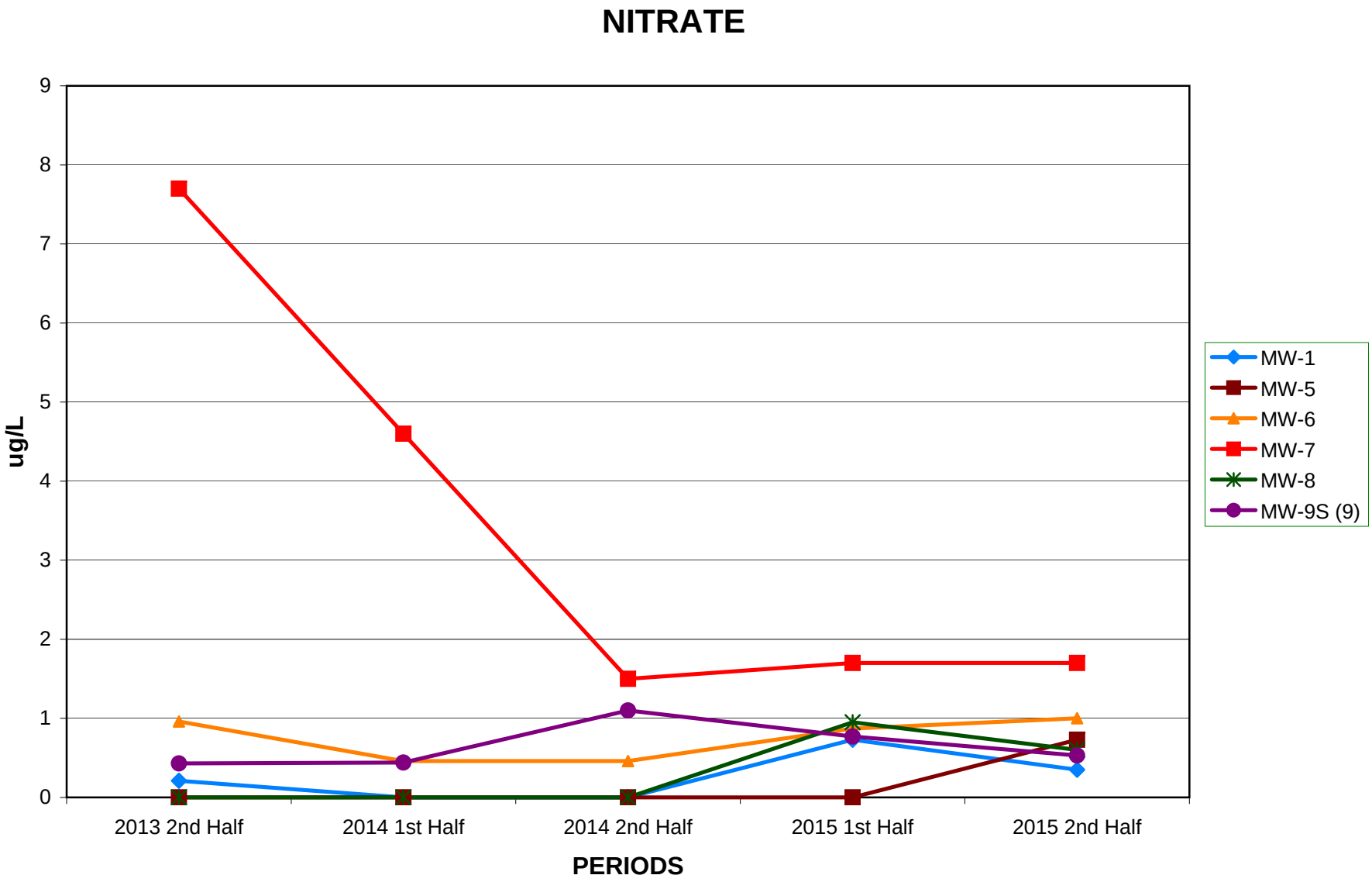
ARSENIC - TOTAL

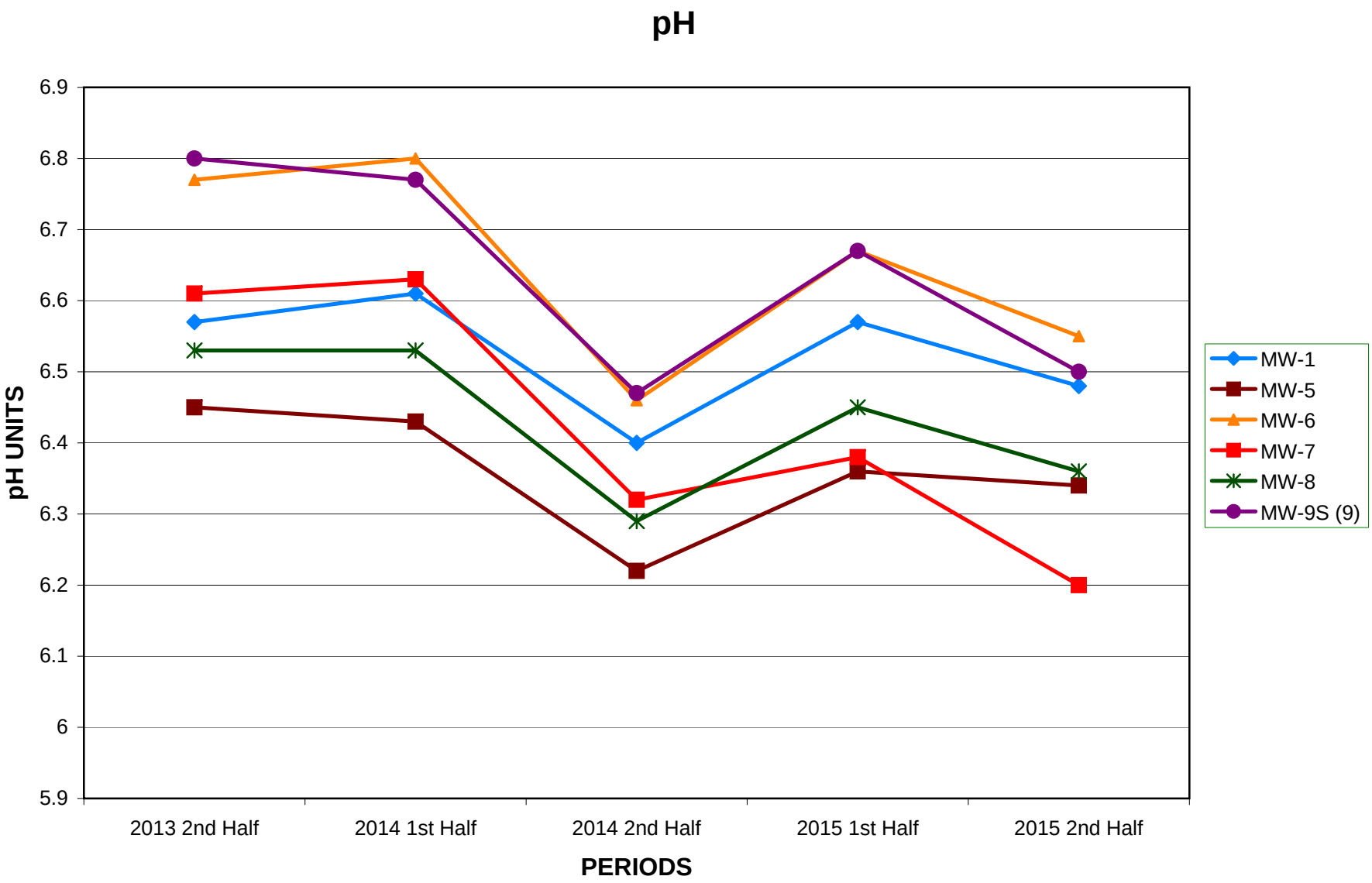


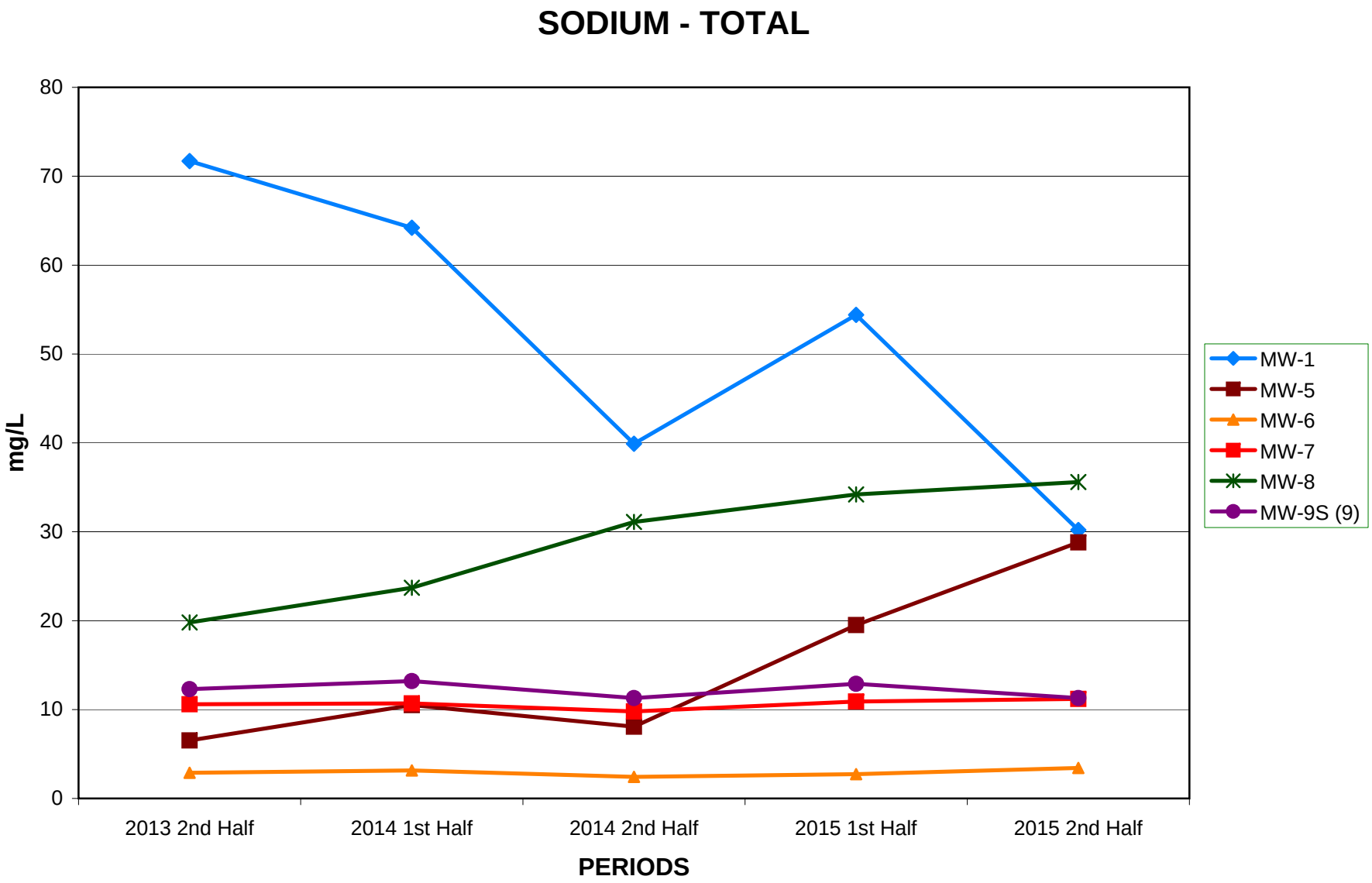

CHLORIDE
45
40
35
30
25
20
15
10
5
0
mg/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

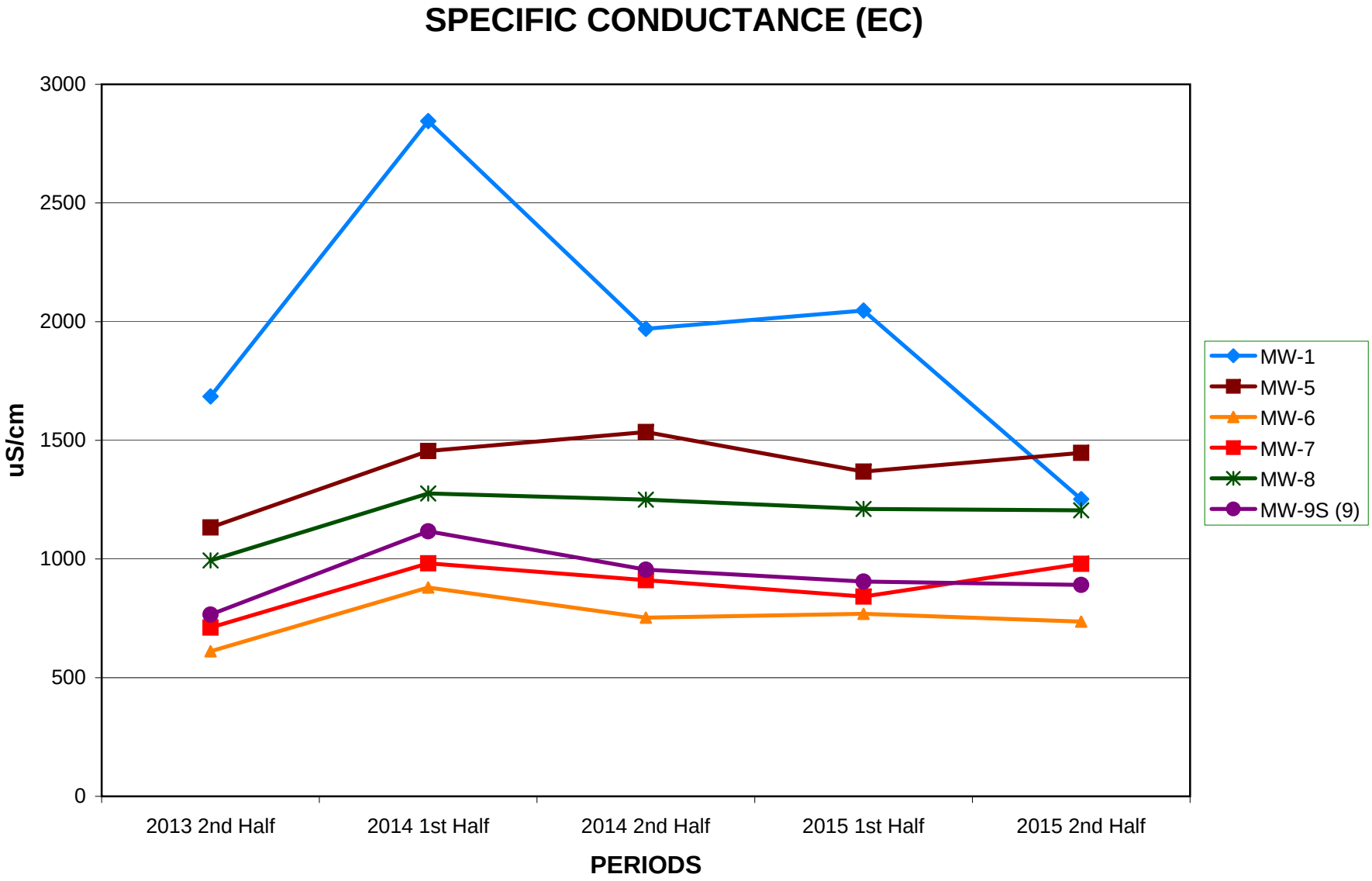

DISSOLVED OXYGEN
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
mg/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

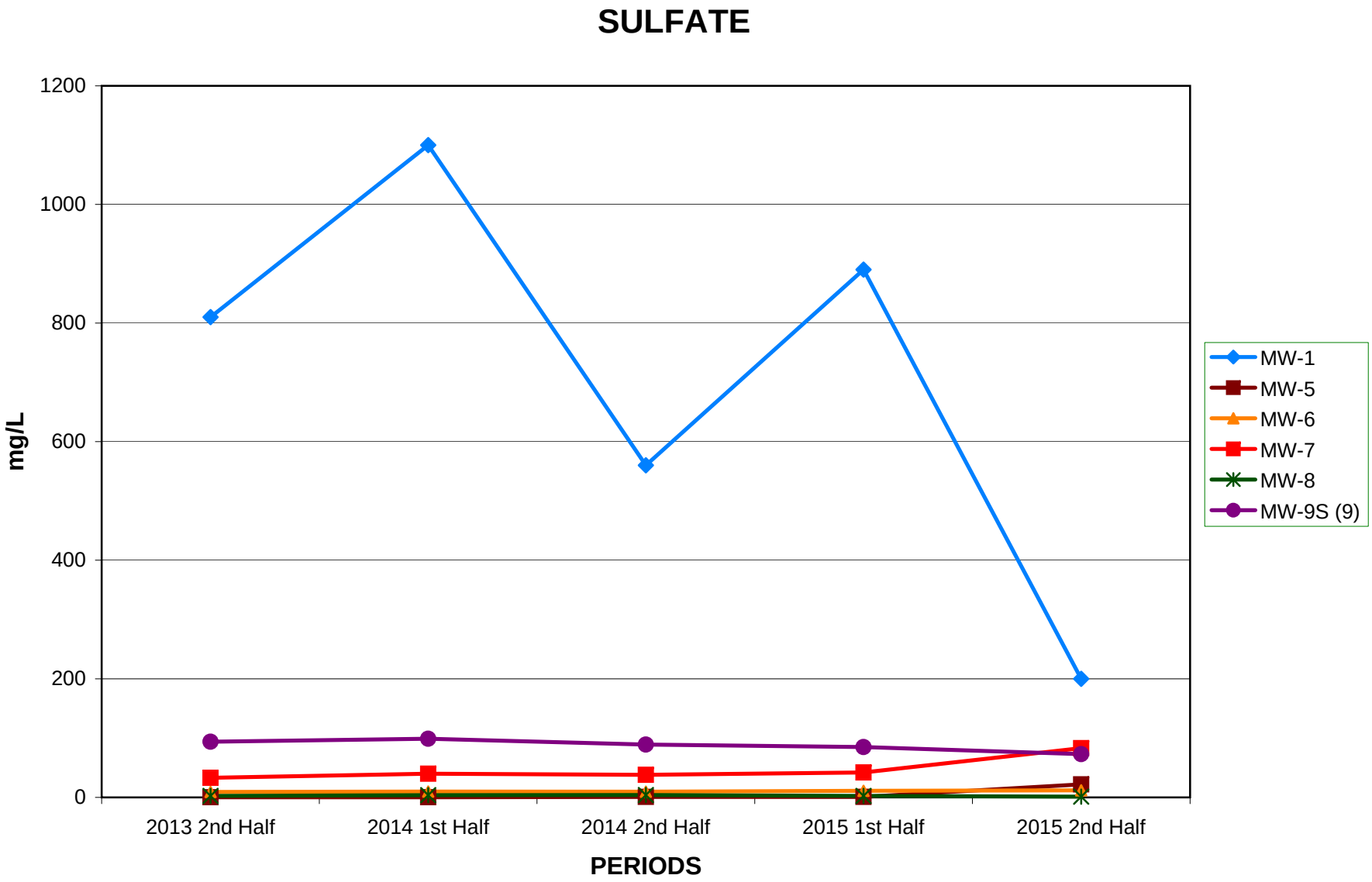

IRON
60000
50000
40000
30000
20000
10000
0
ug/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

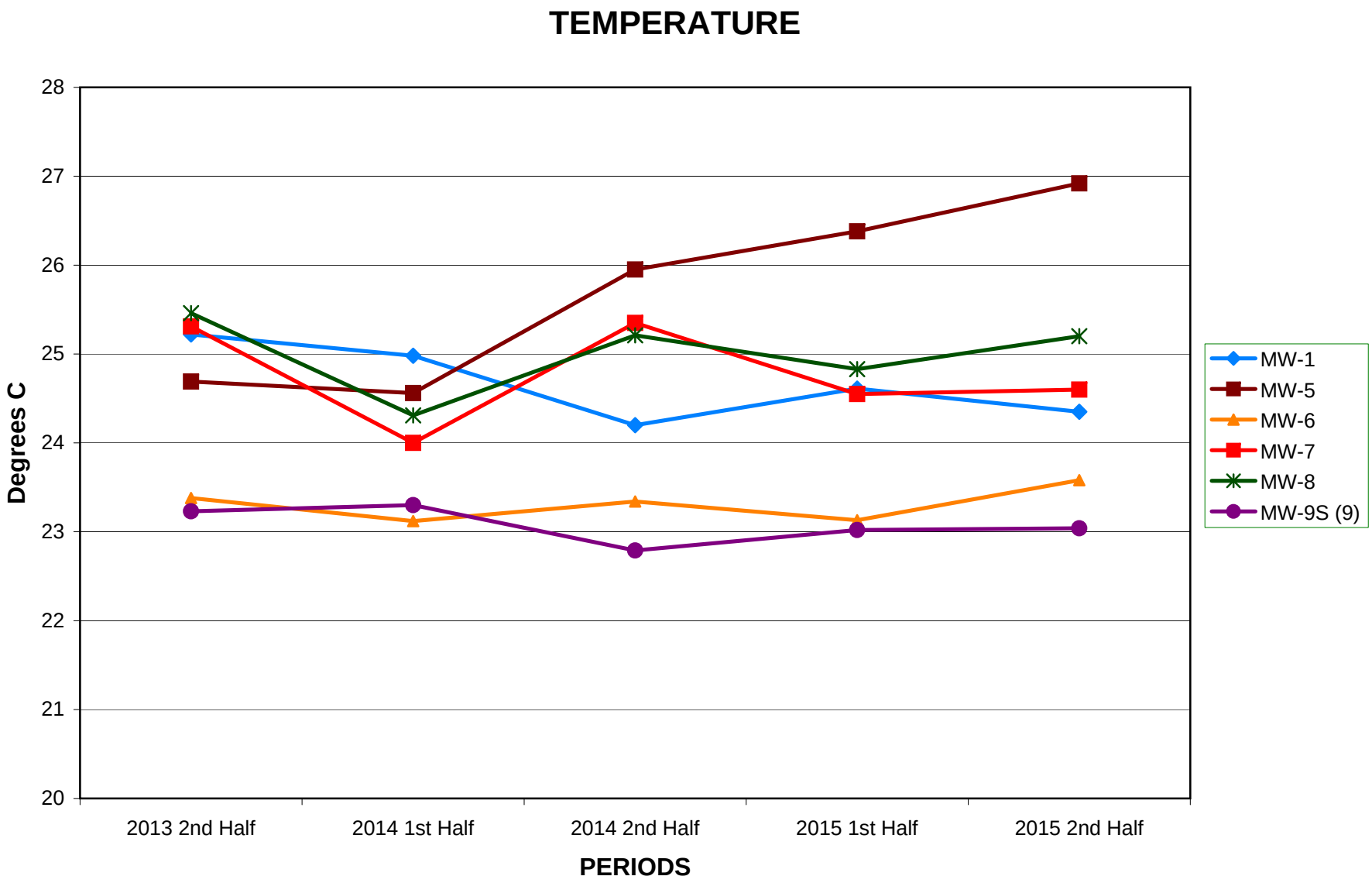

NITRATE
9
8
7
6
5
4
3
2
1
0
ug/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)


pH
6.9
6.8
6.7
6.6
6.5
6.4
6.3
6.2
6.1
6
5.9
pH UNITS
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

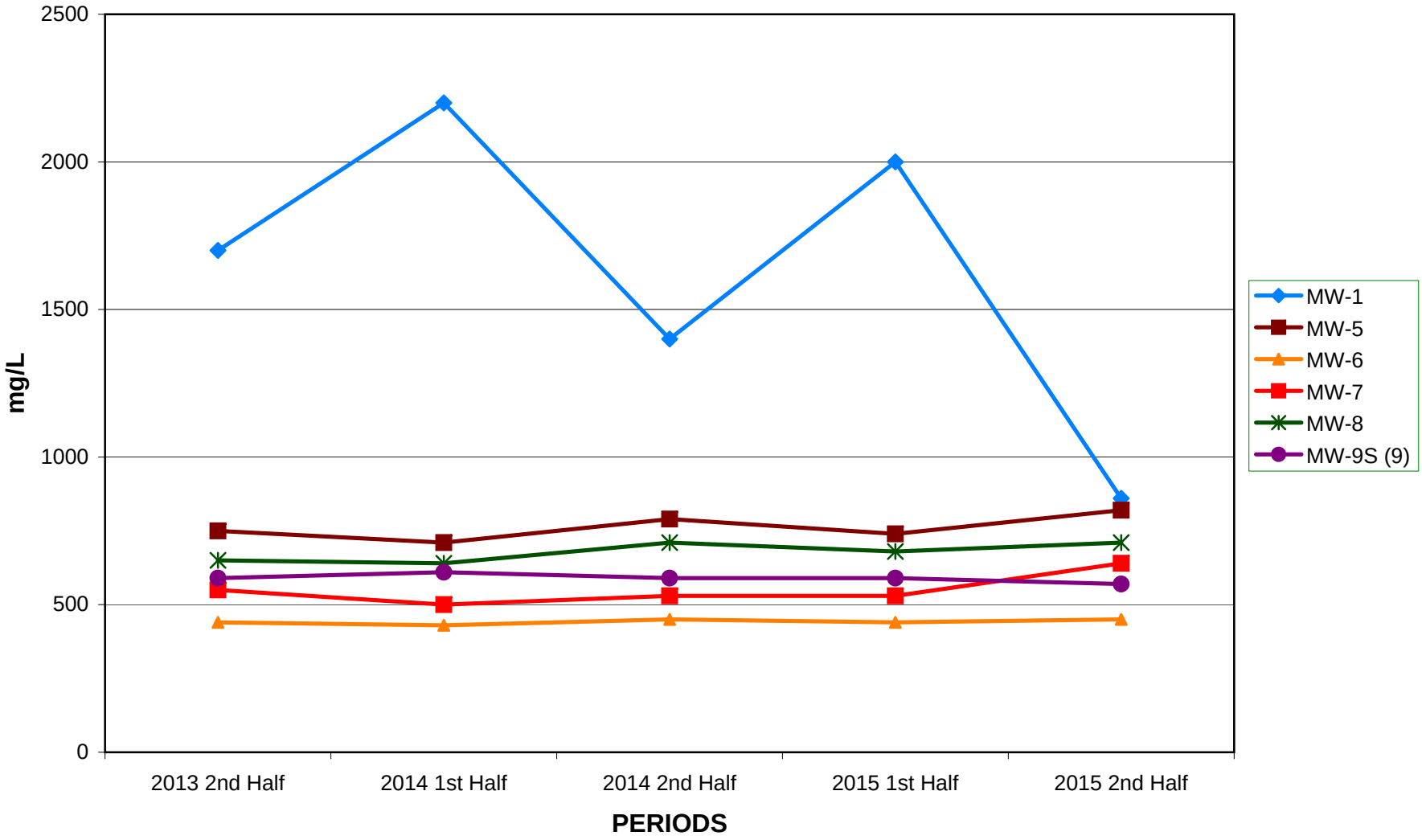

SODIUM - TOTAL
80
70
60
50
40
30
20
10
0
mg/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

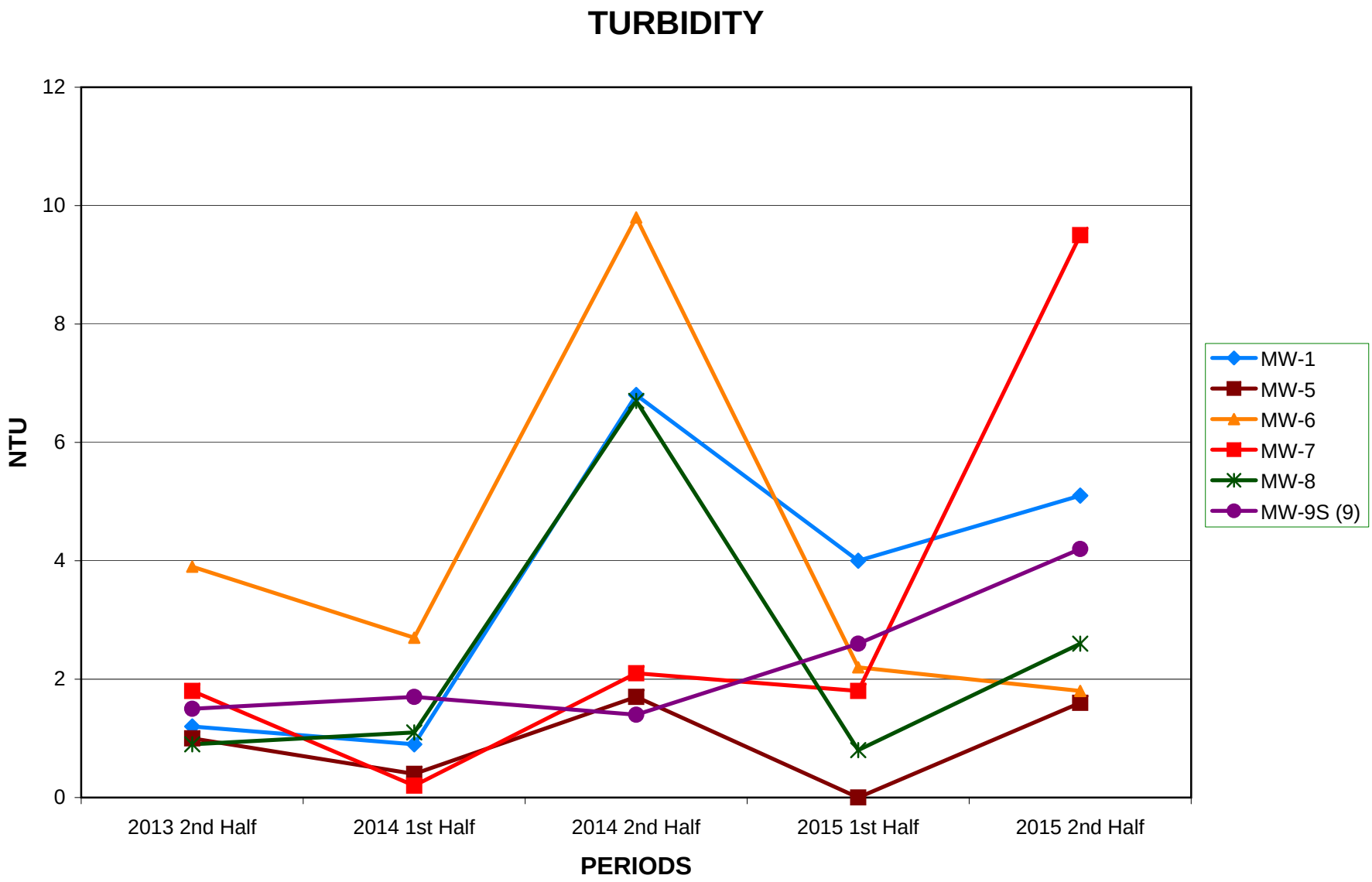

SPECIFIC CONDUCTANCE (EC)
3000
2500
2000
1500
1000
500
0
uS/cm
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

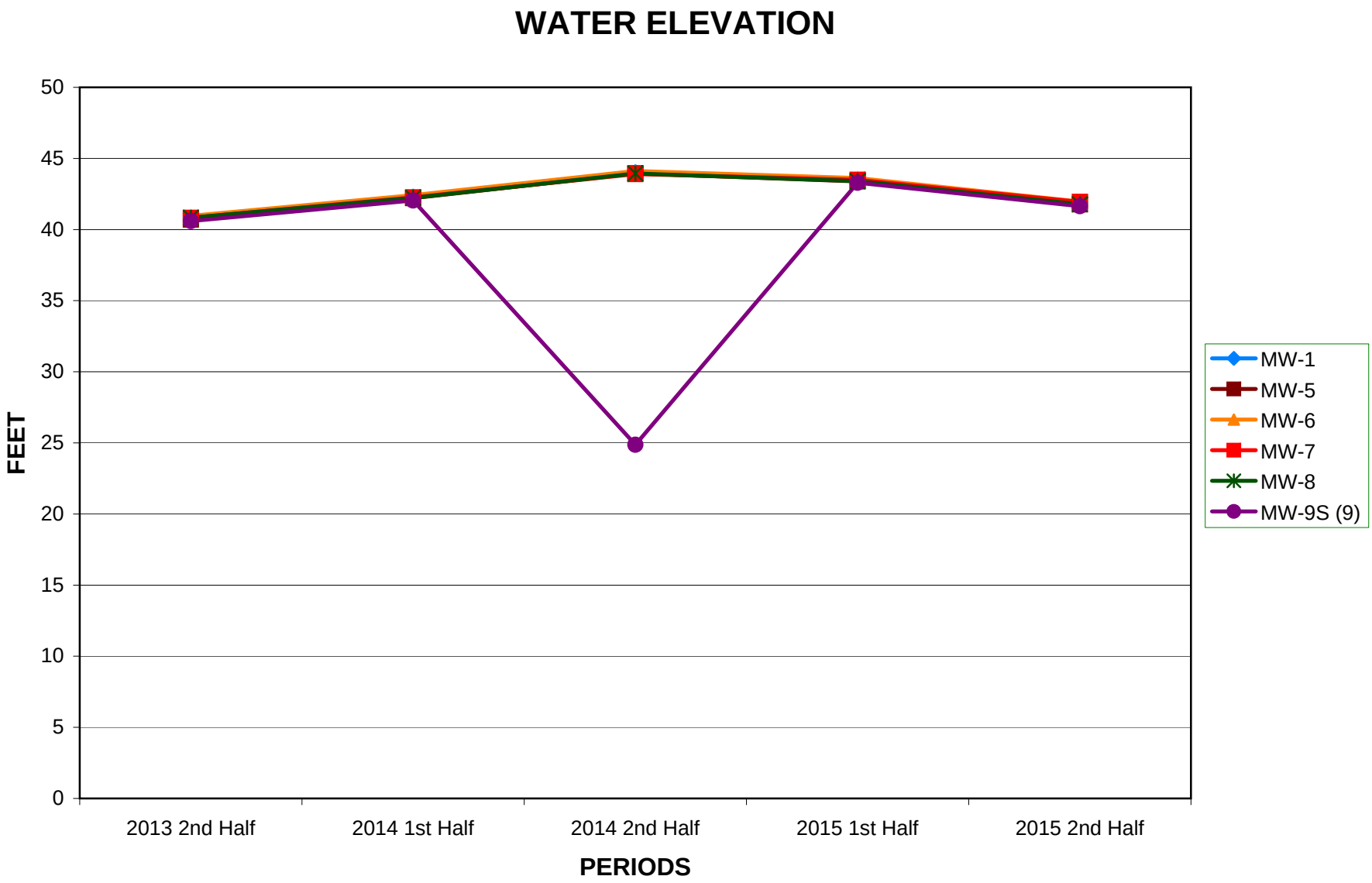

SULFATE
1200
1000
800
600
400
200
0
mg/L
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)


TEMPERATURE
28
27
26
25
24
23
22
21
20
Degrees C
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

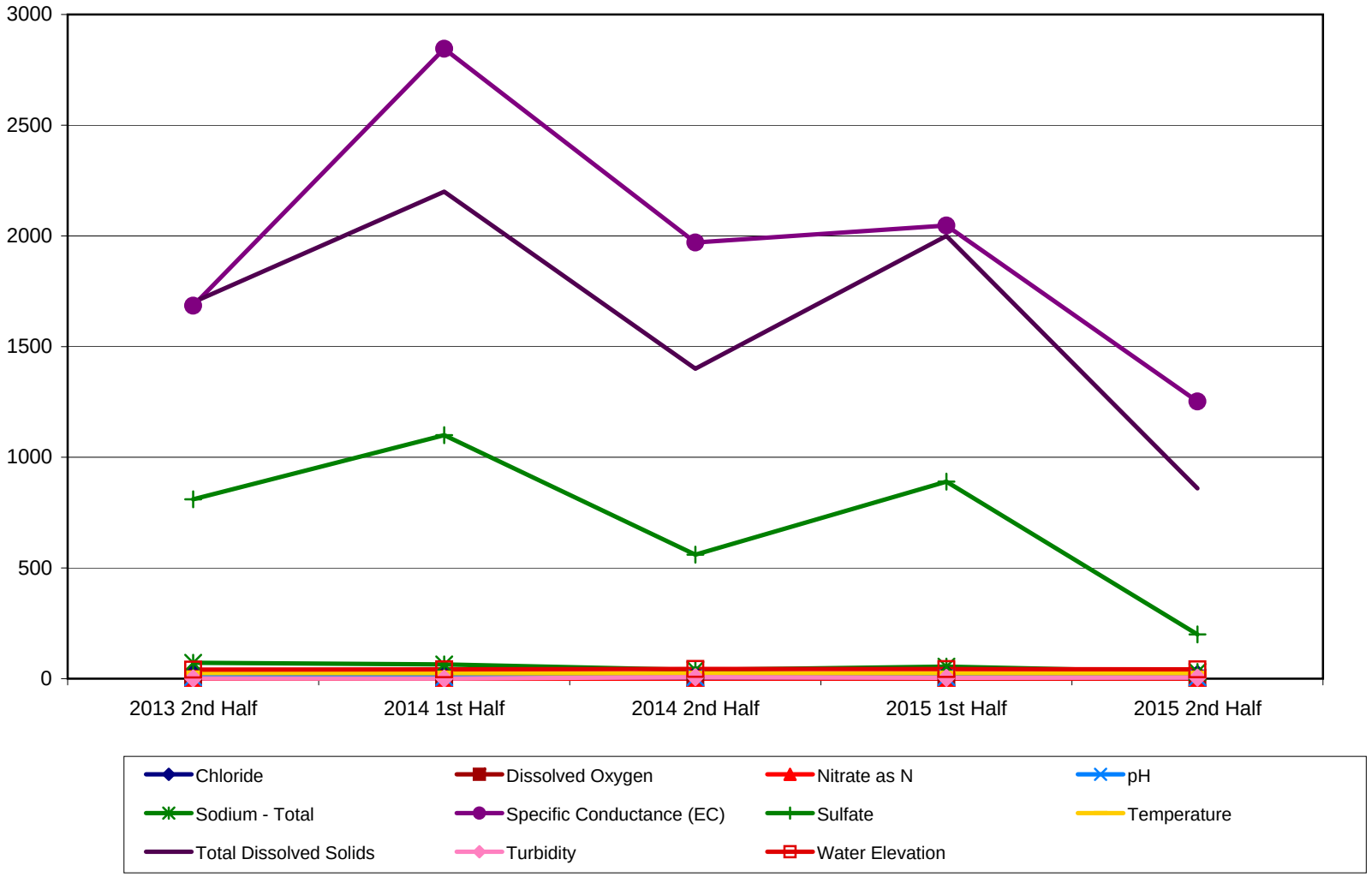
TOTAL DISSOLVED SOLIDS



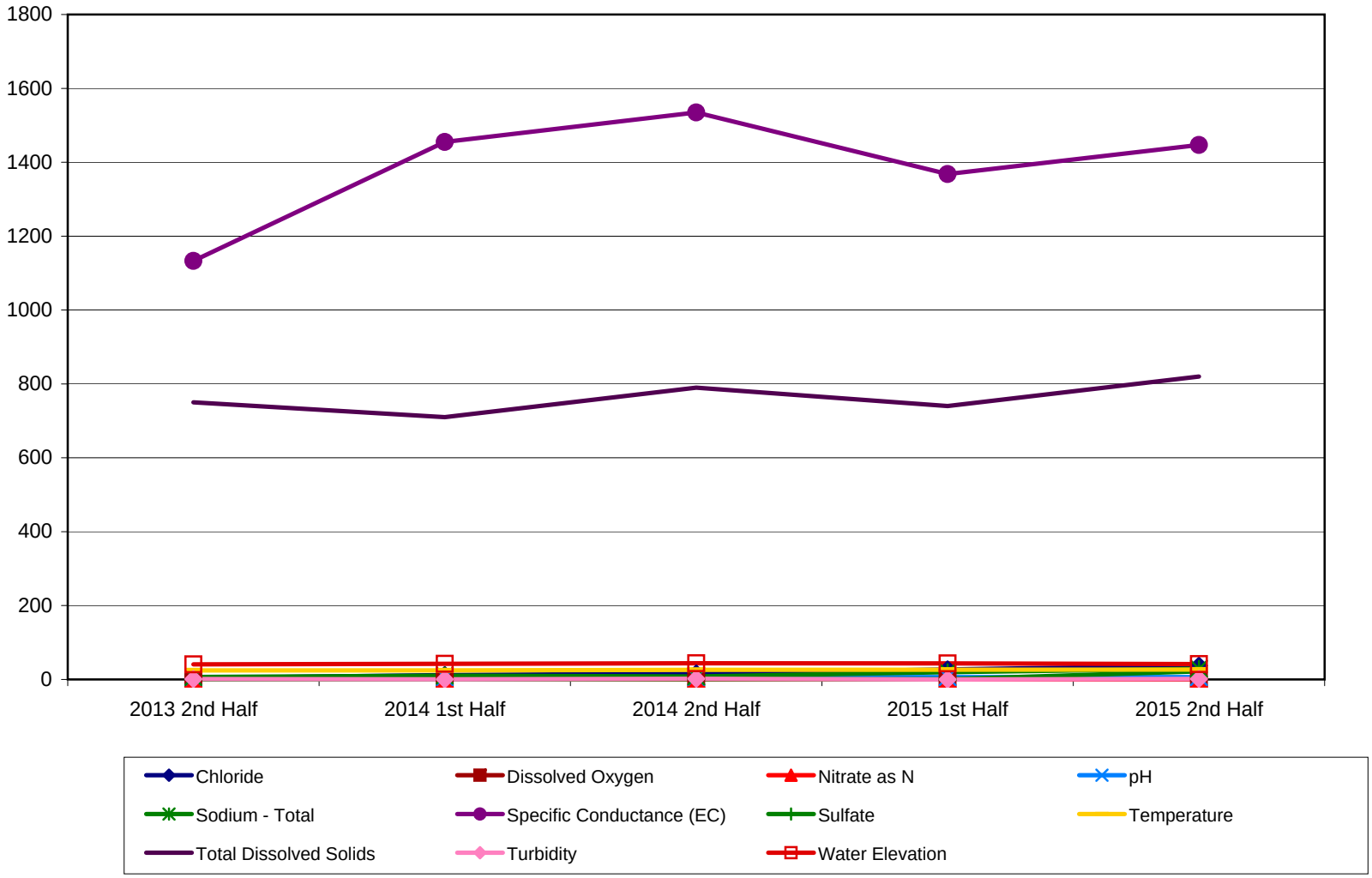

TURBIDITY
NTU
12
10
8
6
4
2
0
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)


WATER ELEVATION
50
45
40
35
30
25
20
15
10
5
0
FEET
2013 2nd Half
2014 1st Half
2014 2nd Half
2015 1st Half
2015 2nd Half
PERIODS
MW-1
MW-5
MW-6
MW-7
MW-8
MW-9S (9)

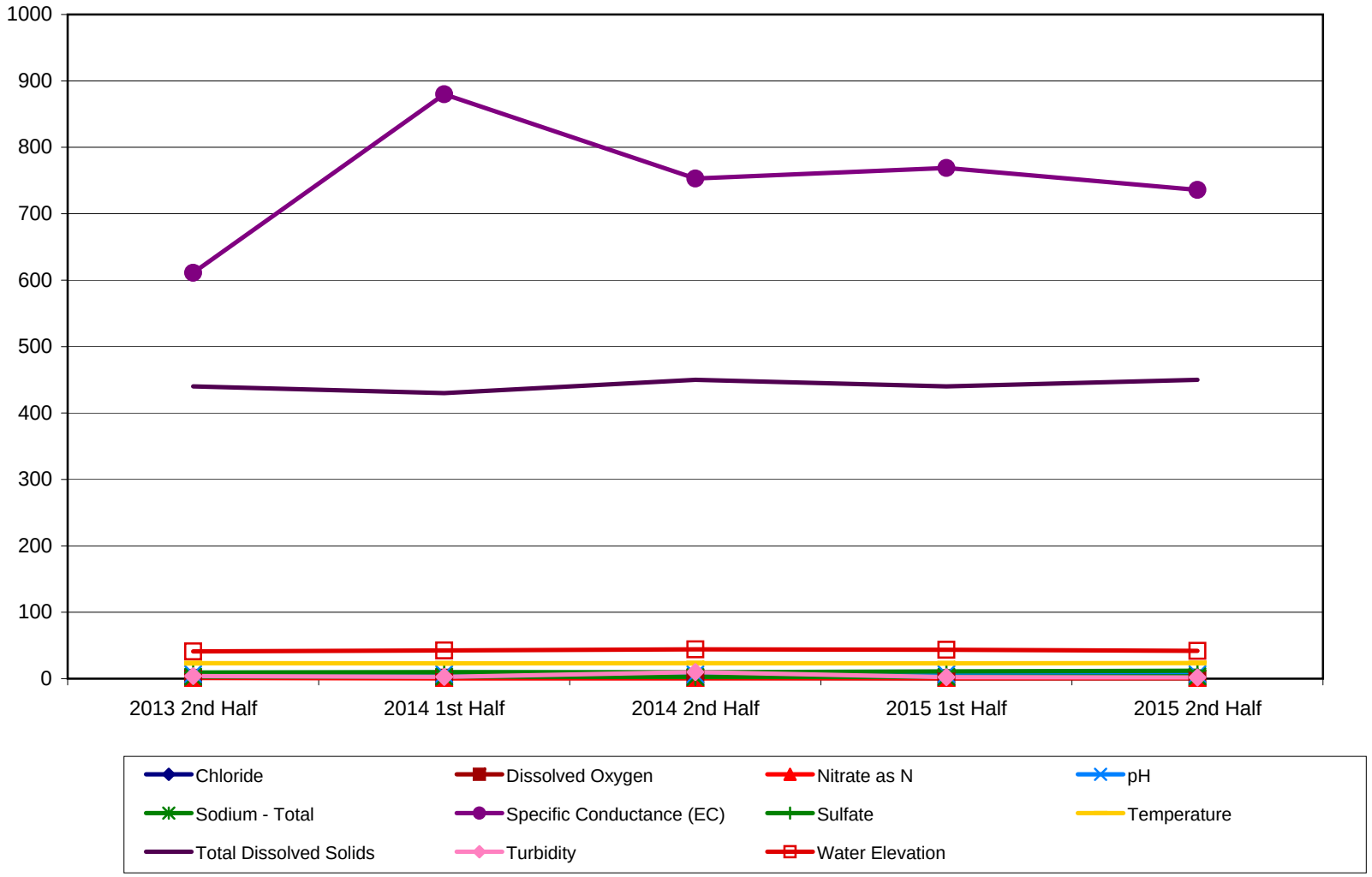
MW-1 Comparison



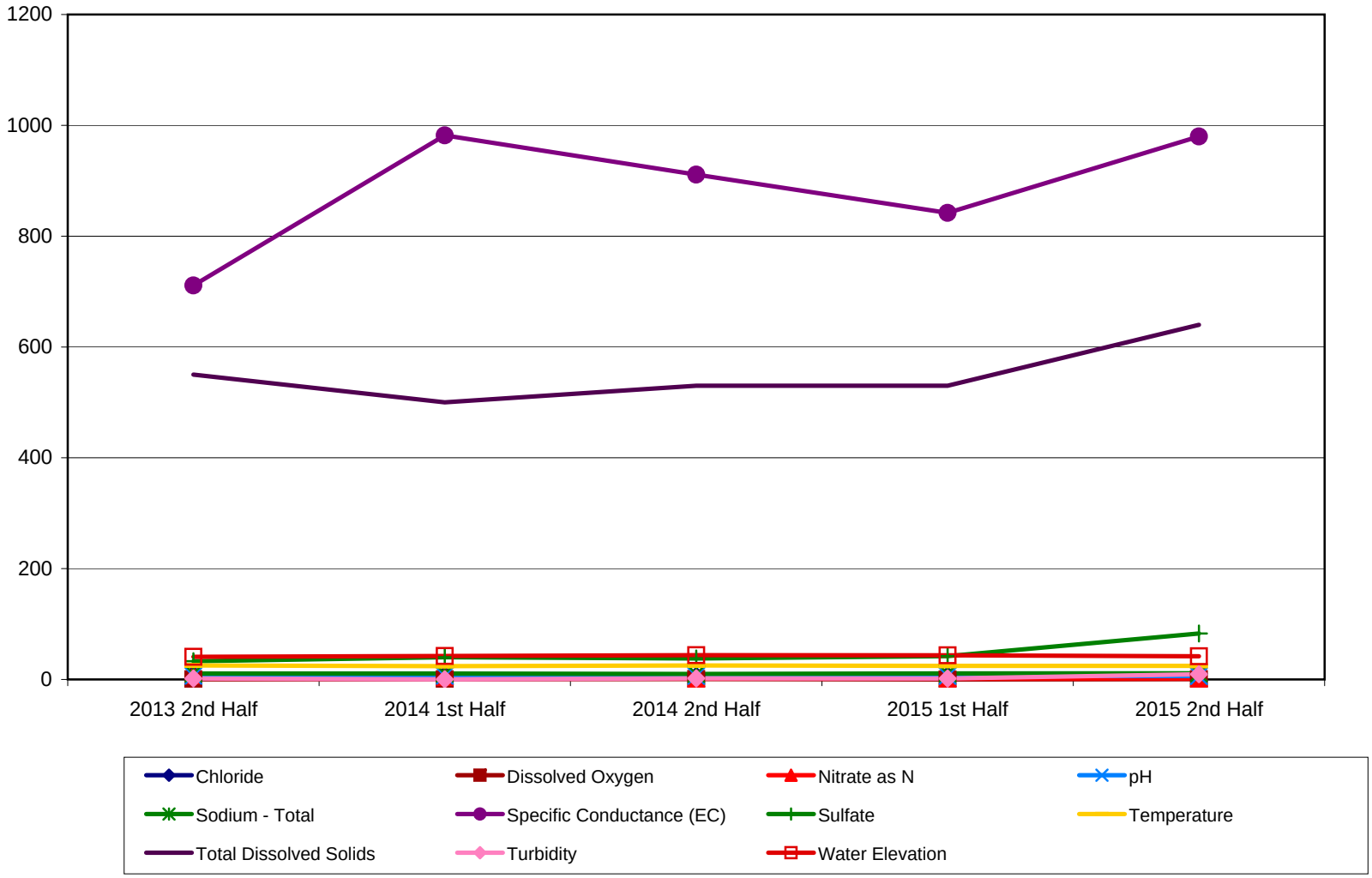
MW-5 Comparison



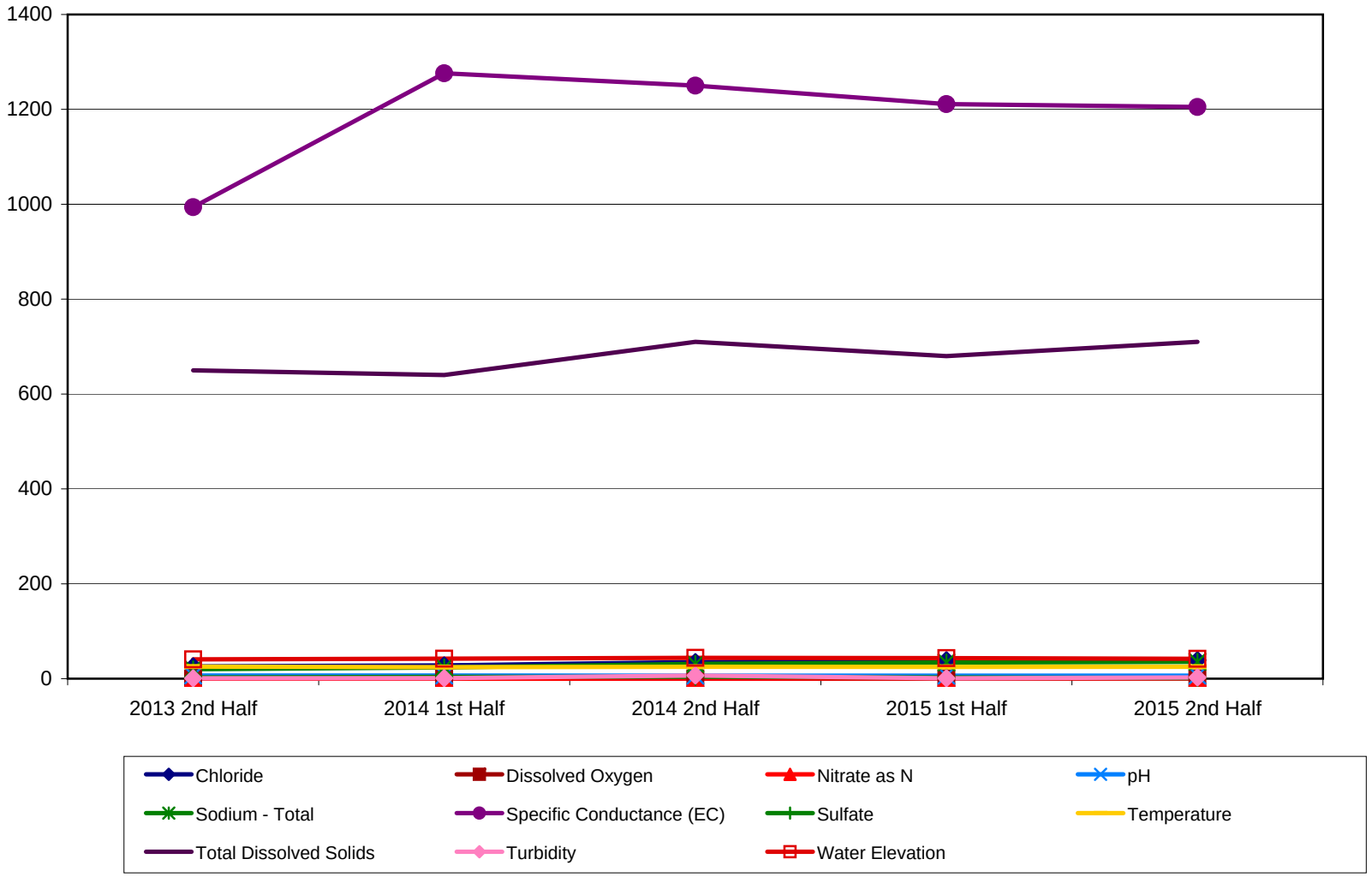
MW-6 Comparison



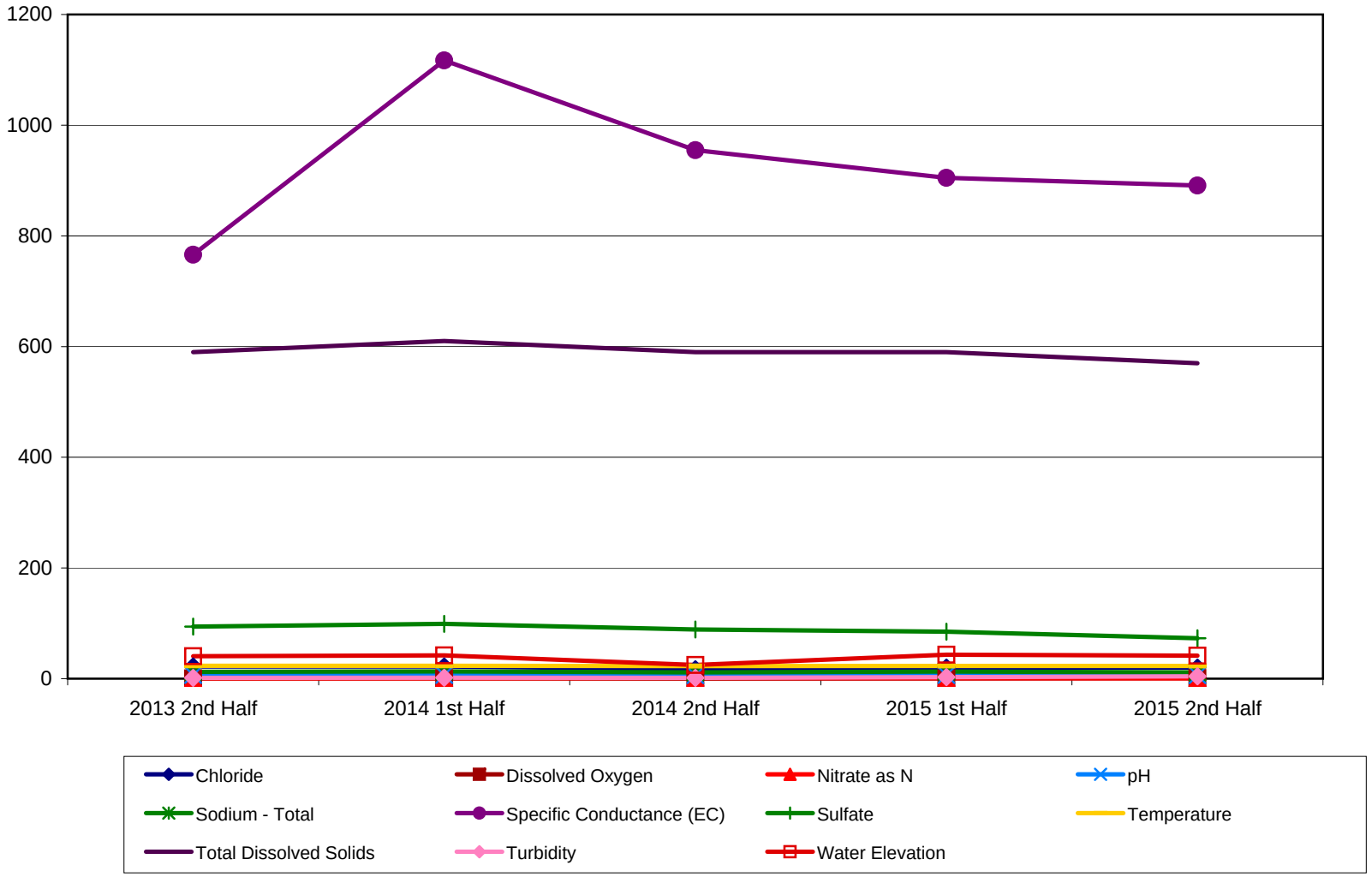
MW-7 Comparison



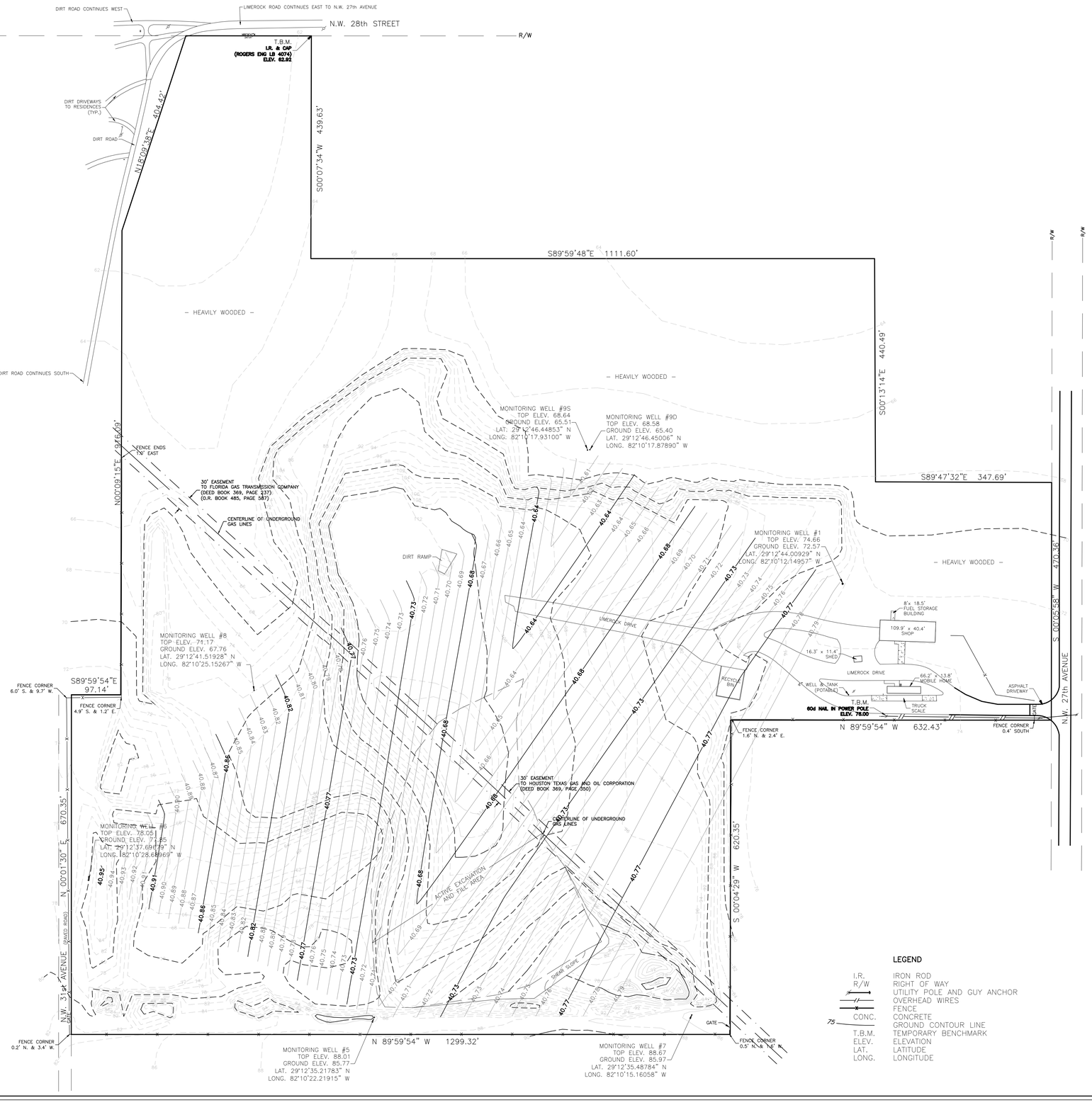
MW-8 Comparison

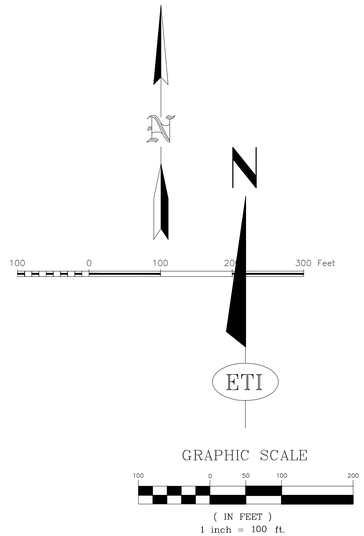


MW-9S Comparison



GROUNDWATER MAPS





NOTES:

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2. FIELD SURVEY DATE : 12–21–2012.
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LEGEND

I.R.	IRON ROD
R/W	RIGHT OF WAY
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
CONC.	CONCRETE
75	GROUND CONTOUR LINE
T.B.M.	TEMPORARY BENCHMARK
ELEV.	ELEVATION
LAT.	LATITUDE
LONG.	LONGITUDE

SURVEY PREPARED BY:

ROBERT L. ROGERS ENGINEERING CO. INC.

LIC. BUS. #4074

1105 S.E. 3rd Ave. OCALA, FLORIDA 34471 (352) 622–9214

REVISIONS

PLOTTED:	N/A	
DRAWN:	RMC–3	N/A	*Groundwater contours revised 8–28–2013*
DESIGNED:	RMC–3	N/A	
CHECKED:	RMC–3	N/A	
SCALE:	1" = 100'		

GROUNDWATER CONTOURS

FRIENDS RECYCLING, LLC.

MARION COUNTY, FLORIDA

ENVIRONMENTAL & CIVIL ENGINEERING CONSULTANTS

PHONE: (352) 694–1799
FAX: (866) 832–0250

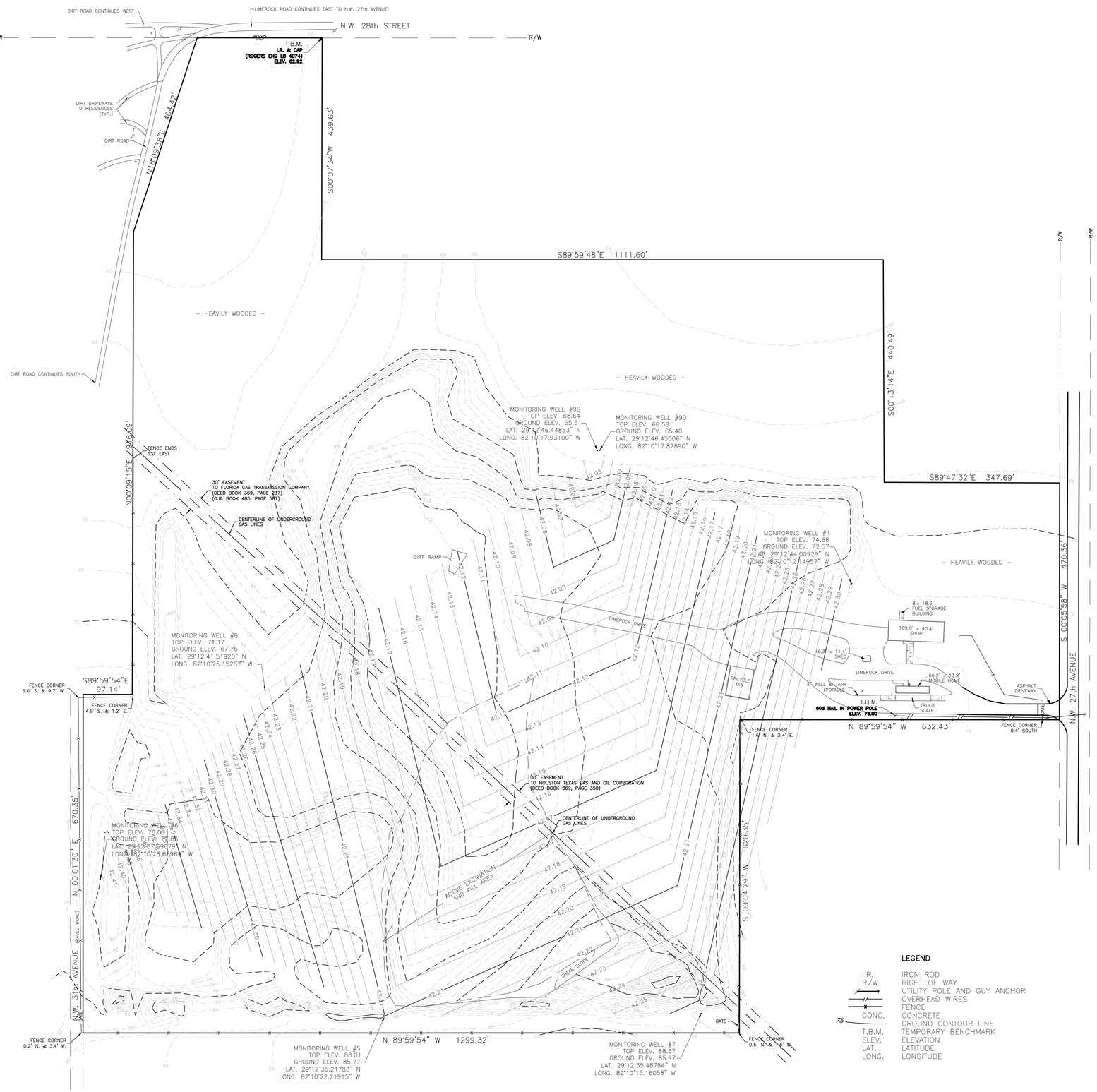
15290 SE HWY 42, PO BOX 152
WEIRSDALE, FLORIDA 32195

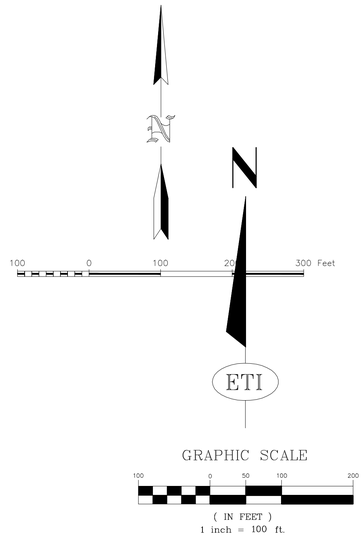
ROBERT M. COUCH III, P.E. : _____
FLORIDA REG. No. 55311
DATE : _____
C.O.A. No. 8692

SITE PLAN

P.N. 2009–

Sht. 1 of 1





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LEGEND

I.R.	IRON ROD
R/W	RIGHT OF WAY
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
CONC.	CONCRETE
75	GROUND CONTOUR LINE
T.B.M.	TEMPORARY BENCHMARK
ELEV.	ELEVATION
LAT.	LATITUDE
LONG.	LONGITUDE

SURVEY PREPARED BY:

ROBERT L. ROGERS ENGINEERING CO. INC.
LIC. BUS. #4074
1105 S.E. 3rd Ave. OCALA, FLORIDA 34471 (352) 622-9214

REVISIONS
Groundwater contours revised 2-9-2014

PLOTTED: RMC-3 N/A
DRAWN: RMC-3 N/A
DESIGNED: RMC-3 N/A
CHECKED: RMC-3 N/A
SCALE: 1" = 100'

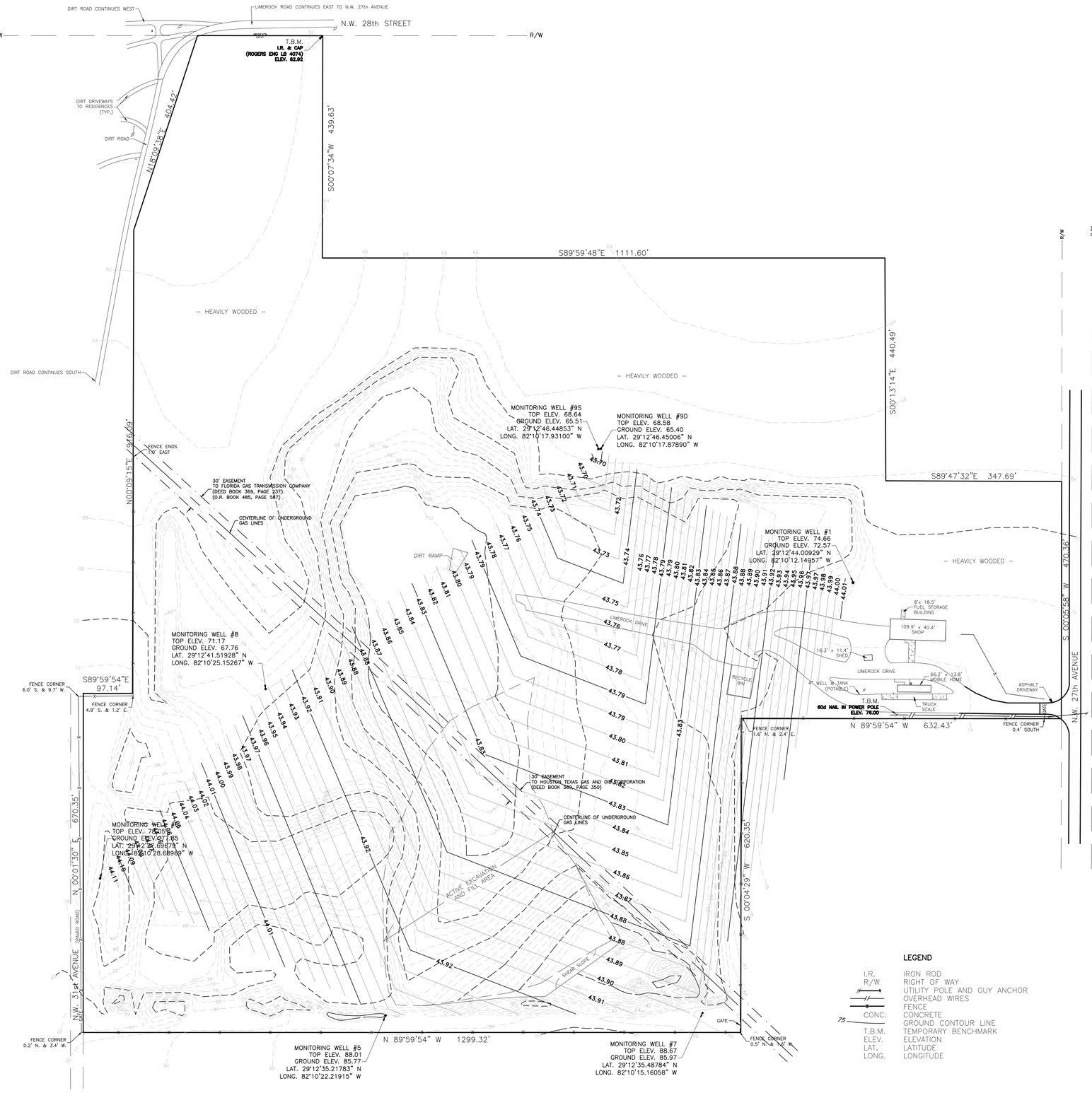
GROUNDWATER CONTOURS

FRIENDS RECYCLING, LLC.
MARION COUNTY, FLORIDA

ENVIRONMENTAL & CIVIL ENGINEERING CONSULTANTS
PHONE: (352) 694-1799
FAX: (866) 832-0250
15290 SE HWY 42, PO BOX 152
WEIRSDALE, FLORIDA 32195

ROBERT M. COUCH III, P.E. :
FLORIDA REG. No. 55311
DATE :
C.O.A. No. 8692

SITE PLAN
P.N. 2009-
Sht. 1 of 1



N

ETI

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

NOTES:

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LEGEND

I.R.	IRON ROD
R/W	RIGHT OF WAY
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
CONC.	CONCRETE
75	GROUND CONTOUR LINE
T.B.M.	TEMPORARY BENCHMARK
ELEV.	ELEVATION
LAT.	LATITUDE
LONG.	LONGITUDE

SURVEY PREPARED BY:

ROBERT L. ROGERS ENGINEERING CO. INC.
LIC. BUS. #4074
1105 S.E. 3rd Ave. OCALA, FLORIDA 34471 (352) 622-9214

ROBERT M. COUCH III, P.E. :
FLORIDA REG. No. 55311
DATE :
C.O.A. No. 8692

REVISIONS

PLOTTED:	RMC-3	N/A
DRAWN:	RMC-3	N/A
DESIGNED:	RMC-3	N/A
CHECKED:	RMC-3	N/A
SCALE:	1" = 100'	

Groundwater contours revised 8-4-2014

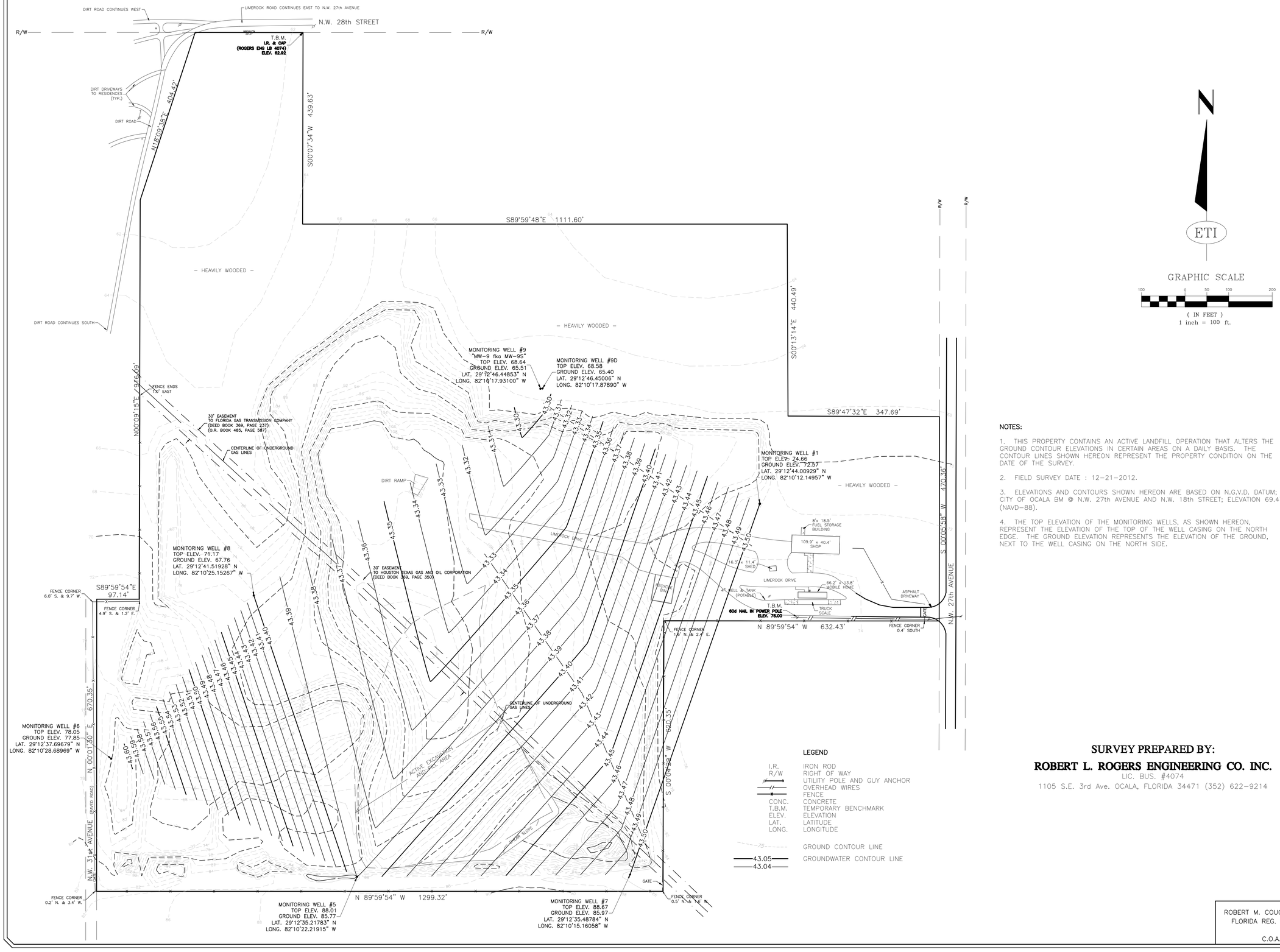
GROUNDWATER CONTOURS

FRIENDS RECYCLING, LLC.

MARION COUNTY, FLORIDA

ENVIRO-TECH INC.
ENVIRONMENTAL & CIVIL ENGINEERING CONSULTANTS
15290 SE HWY 42, PO BOX 152
WEIRSDALE, FLORIDA 32195
PHONE: (352) 694-1799
FAX: (866) 832-0250

SITE PLAN
P.N. 2009-
Sht. 1 of 1



N

ETI

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

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LEGEND

I.R.	IRON ROD
R/W	RIGHT OF WAY
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
CONC.	CONCRETE
T.B.M.	TEMPORARY BENCHMARK
ELEV.	ELEVATION
LAT.	LATITUDE
LONG.	LONGITUDE
	GROUND CONTOUR LINE
43.05	GROUNDWATER CONTOUR LINE
43.04	

SURVEY PREPARED BY:

ROBERT L. ROGERS ENGINEERING CO. INC.
LIC. BUS. #4074
1105 S.E. 3rd Ave. OCALA, FLORIDA 34471 (352) 622–9214

ROBERT M. COUCH III, P.E. : _____
FLORIDA REG. No. 55311
DATE : _____
C.O.A. No. 8692

REVISIONS

PLOTTED:	RMC-3	N/A
DRAWN:	RMC-3	N/A
DESIGNED:	RMC-3	N/A
CHECKED:	RMC-3	N/A
SCALE:	1" = 100'	

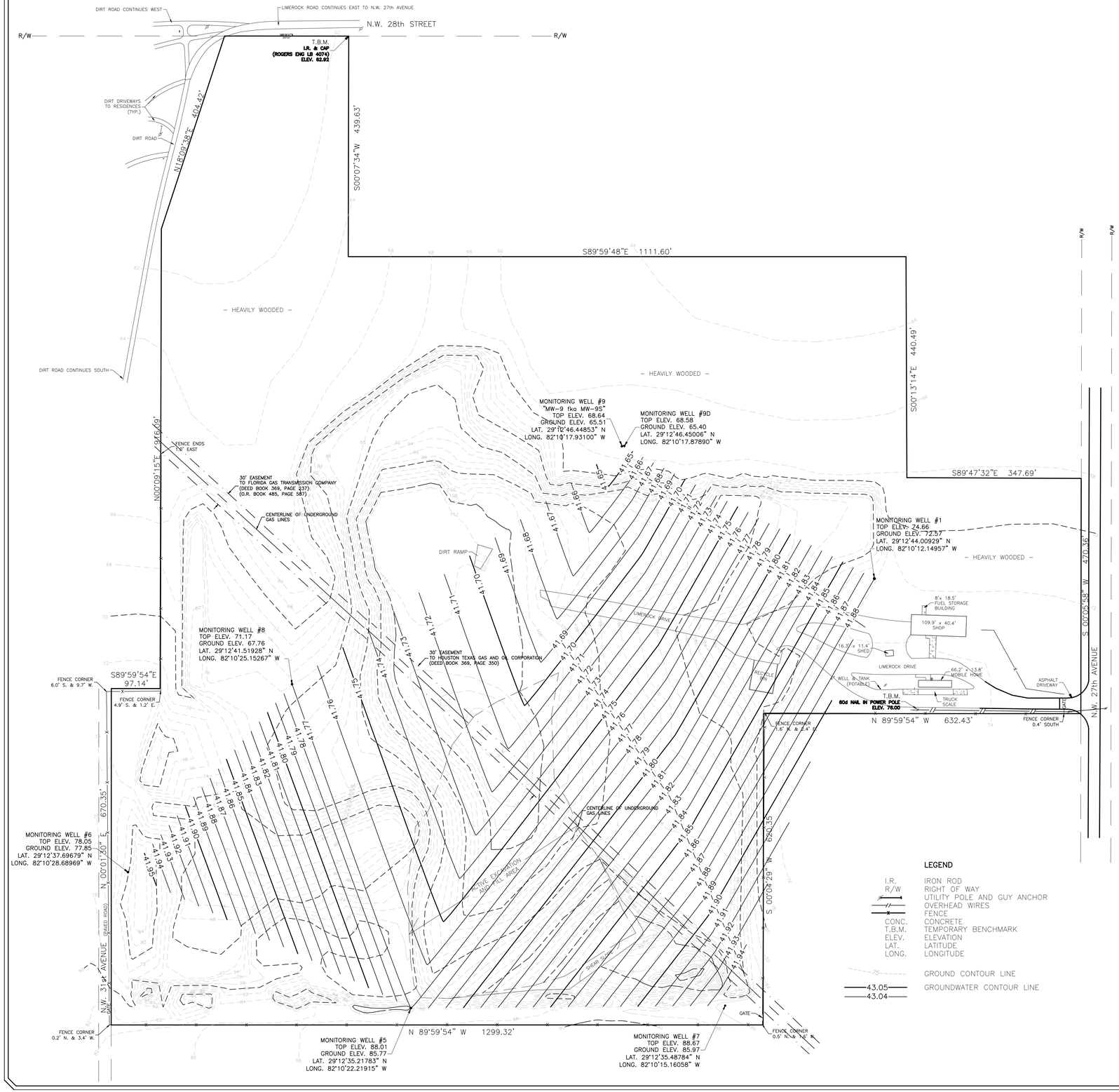
Groundwater contours revised 1-23-2015

GROUNDWATER CONTOURS

FRIENDS RECYCLING, LLC.
MARION COUNTY, FLORIDA

ENVIRONMENTAL & CIVIL ENGINEERING CONSULTANTS
ENVIROTECH INC.
15290 SE HWY 42, PO BOX 152
WEIRSDALE, FLORIDA 32195
PHONE: (352) 694-1799
FAX: (866) 832-0250

SITE PLAN
P.N. 2009–
Sht. 1 of 1



N

ETI

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

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LEGEND

I.R.	IRON ROD
R/W	RIGHT OF WAY
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
CONC.	CONCRETE
T.B.M.	TEMPORARY BENCHMARK
ELEV.	ELEVATION
LAT.	LATITUDE
LONG.	LONGITUDE
	GROUND CONTOUR LINE
43.05	GROUNDWATER CONTOUR LINE
43.04	

SURVEY PREPARED BY:

ROBERT L. ROGERS ENGINEERING CO. INC.
LIC. BUS. #4074
1105 S.E. 3rd Ave. OCALA, FLORIDA 34471 (352) 622-9214

REVISIONS

N/A	N/A	Groundwater contours revised 7-25-2015
RMC-3	RMC-3	N/A
RMC-3	RMC-3	N/A
RMC-3	RMC-3	N/A
1" = 100'		

PLOTTED:
DRAWN:
DESIGNED:
CHECKED:
SCALE:

GROUNDWATER CONTOURS

FRIENDS RECYCLING, LLC.
MARION COUNTY, FLORIDA

ENVIROTECH SERVICES, INC.
ENVIRONMENTAL & CIVIL ENGINEERING CONSULTANTS
15290 SE HWY 42, PO BOX 152
WEIRSDALE, FLORIDA 32195
PHONE: (352) 694-1799
FAX: (866) 832-0250

ROBERT M. COUCH III, P.E. :
FLORIDA REG. No. 55311
DATE :
C.O.A. No. 8692

SITE PLAN
P.N. 2009-
Sht. 1 of 1