Water Quality Technical Report – June 2017

Tomoka Farms Road Landfill, Volusia County

Facility SW WACS No. 27540

FDEP Permit Number: 0078767-039-SF-01

Prepared for:

Volusia County Division of Solid Waste Management
3151 East New York Avenue
Deland, Florida 32724

Submitted To:

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

Prepared by:

HDR, Inc.
200 West Forsyth Street, Suite 800
Jacksonville, Florida 32202
(904) 598-8900
(904) 598-8988 fax

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1.0 INTRODUCTION

HDR, Inc. prepared this technical water quality monitoring report for the Tomoka Farms Road Landfill (TFRLF) on behalf of Volusia County (County) located in Volusia County, Florida in accordance with Florida Department of Environmental Protection (FDEP) Permit (No. SF64-0078767-039-SF-01) and Florida Administrative Code (FAC) (Chapter 62-701.510(8)(b)). The Tomoka Farms Road Landfill is operated under the following FDEP permit numbers:

- The North Class I Landfill cell operates under FDEP permit no. 0078767-039-SF-1.
- The Class III Landfill cell operates under FDEP permit no. 0078767-038-SO-MM.
- The closed South Class I cell is being monitored under closure permit no. SF64-0078767-028.

The TFRLF facility, including the North Class I Landfill, the Class III Landfill cell, and the closed South Class I cell are monitored in accordance with the Permit (No. 78767-034-SO-T3) issued September 24, 2014 and the modified Permit (78767-038-SO-MM) issued July 27, 2015. A site map is located as Figure 1 in Appendix A. The following paragraphs detail the specific data and information included in this report.

The MPIS technical report provides a summary and interpretation of the water level and chemical data from monitoring events performed at the site during routine semiannual compliance monitoring from November 2014 through November 2016 (technical reporting period):

- November 2014
- May 2015
- November 2015
- May 2016
- November 2016

This technical report includes groundwater and surface water monitoring data from 52 groundwater wells and 7 surface water sampling locations listed in Appendix 3 of the Permit (No. 0078767-034-SO-T3) issued September 24, 2014 and the Appendix 3 of the MPIS (Permit No.0078767-038-SO-MM), which was issued on July 27, 2015. The semiannual groundwater monitoring program included those parameters

listed in item 7 of the MPIS and the surface monitoring parameters included those listed in item 12 of the MPIS.

This technical report was completed in accordance with the requirements provided in the MPIS:

- Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron);
- Hydrographs for all permitted monitoring wells;
- Trend analyses of any monitoring parameters consistently detected;
- A comparison among shallow, middle, and deep zone wells;
- Comparison between background water quality and water quality in detection and compliance wells;
- Correlation between related parameters such as total dissolved solids and specific conductance;
- Discussion of erratic and/or poorly correlated data;
- An interpretation of the groundwater contour maps, including an evaluation of groundwater flow rates; and
- An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

2.0 HYDROGEOLOGIC CONDITIONS

Groundwater elevations were measured prior to each of the groundwater sampling events during the reporting period. The static water level measurements were recorded on the same day and were in accordance with the requirements specified in Condition #7 of the (MPIS) and were measured from the top of the PVC casing prior to purging and sampling procedures. Groundwater contour maps for Zone 1-2 (upper surficial aquifer), Zone 4 (lower surficial aquifer), Zone 6 (lower surficial aquifer), and the Floridan aquifer at the site for each of the semiannual sampling events performed during the reporting period are provided in Appendix A. The groundwater flow direction is generally from the southwest towards the northeast across the site, which is consistent with historic flow directions. The groundwater and surface water elevations measured throughout the technical reporting period are summarized in Tables 2 and 3 in Appendix C.

Hydrographs depicting the groundwater elevations within each well for each sampling event over the monitoring period were generated and are presented in Appendix B. Groundwater levels fluctuated slightly over time but were generally consistent with historic ranges. The groundwater elevations in Zone 1-2 wells were comparable to elevations in Zone 4, but groundwater elevations in Zone 6 and the Floridan aquifer were typically lower, indicating downward flow from the upper surficial and deeper surficial zones to the lower elevations in the Floridan aquifer.

The velocity of groundwater in the upper and lower surficial aquifer beneath the site was calculated using a form of Darcy's law[1], $V = k(dh/dl)/\theta$, where:

- V is the average velocity of groundwater (ft/day);
- k is the aquifer horizontal hydraulic conductivity (ft/day);
- dh/dl is the aquifer hydraulic gradient (ft/ft); and
- θ is the effective porosity of the aquifer (unit less).

[1] Lohman, S. W., "Ground-Water Hydraulics." Geological Survey Professional Paper 708, 1972, pp.10-11.

Groundwater flow velocities for Zone 1-2, Zone 4, Zone 6, and Floridan aquifer were calculated (see Table 4, Appendix C) and are considered representative of groundwater flow.

Hydraulic gradients were calculated using the difference between the groundwater elevations of an upgradient well and a downgradient well. The upper surficial aquifer (Zone 1-2) groundwater gradient was calculated between well B33-2 and well B-73-2 across the North cell, between well B34-2 and B70-2 across the south cell, and between well B35-2 and B42-2 across the Class III Landfill for each sampling event during the reporting period.

The Zone 4 surficial aquifer groundwater gradient was calculated between well B33-1 and well B-73-1 across the North cell, between well B34-1 and B82-1 across the south cell, and between well B36 and B42-1 across the Class III Landfill for each sampling event during the reporting period.

The Zone 6 surficial aquifer groundwater gradient was calculated between well B86 and well B-79-6 across the Class III Landfill in November 2014. Note that B86, the upgradient well is no longer monitored, and B85-6 and B87-6 are the only Zone 6 wells during the remainder of the reporting period. B85-6 and B87-6 are not located up or downgradient from one another and therefore do not provide gradient information.

The Floridan aquifer groundwater gradient was calculated between well FA-1B and well FA-2C across the North and South cells, and between well F-MB and FA-2C across the Class III Landfill during the reporting period. Note that the line between F-MB and FA-2C is not parallel to the indicated gradient; and the distance used in the gradient calculation was approximated along an assumed line parallel to the indicated direction of groundwater flow.

Hydraulic conductivity values used to calculate surficial aquifer Zone 2 and Zone 4 flow velocities were obtained from David N. Gomberg, Ph.D., July 16, 2001, *Tomoka Landfill: Technical Evaluation of Monitoring Results*. The hydraulic conductivity for the Zone 6 surficial aquifer and Floridan aquifer were based on the US Geological survey results in the David N. Gomberg, Ph.D., May 1992, *Tomoka Landfill: Hydrogeologic Summary and Groundwater Monitoring Plan.* Finally, the effective porosity of the aquifer material is estimated to be 0.25. A summary of the estimates used and the groundwater velocity calculations performed is shown in Table 4, Appendix C. The groundwater velocity across the landfill is calculated to average 2.14 feet per year (ft/yr), 3.80 ft/yr, 0.06 ft/yr, and 1.51 ft/yr for Zone 1-2, Zone 4, and Zone 6 of the surficial aquifer and Floridan aquifer respectively. The groundwater flow velocity values across the north, south, and Class III Landfill were all below 5 ft/yr.

3.0 WATER QUALITY MONITORING PROGRAM

The water quality monitoring program consists of semiannual groundwater and surface water monitoring. The following sections provide a summary of the current monitoring program for each media.

The reporting period for this site extends from the 2014 second semiannual event (2014 S2) through the 2016 S2 event. The 2014 S2 monitoring event was conducted in accordance with the MPIS dated September 24, 2014 (MPIS 2014); the 2015 S1 event was monitored based on the FDEP May 14, 2015 email; and the remaining three events (2015 S2, 2016 S1, and 2016 S2) were monitored in accordance with the MPIS dated July 27, 2015 (MPIS 2015) as detailed below.

MPIS - September 2014:

- Monitor groundwater from 48 wells (24 – Zone 1-2, 21 – Zone 4, and 3 – Floridan). All Zone 3-4 wells (except B43-1 and B54-1) were monitored

annually only during the second semiannual monitoring event. All the other wells were monitored semiannually.

- Six wells were suspended from monitoring: B8, B32, B61R, B62-1R, B62-2R, and B66.
- Monitor surface water from 7 surface water locations.
- Required groundwater parameters listed in MPIS 2014 item 7 and required surface water listed in item 12 of MPIS 2014.
- The monitoring well locations are shown on the aerial site plan in Appendix A of the 2014 MPIS.

Email from FDEP-CD - May 14, 2015:

- Four wells from the evaluation monitoring program were transferred to this permit – B82-1, (Zone 4), B85 (Zone 4), B85-6 (Zone 6) and B87-6 (Zone 6).
- Two wells were suspended: B41-1 and B45-1.

MPIS – July 2015:

- Monitor groundwater from 50 wells (23 – Zone 1-2, 22 – Zone 4, 2 Zone – 6, 3 – Floridan). Note that all but three of the Zone 4 wells (B43-1, B82-1, and B85) have been reduced to annual sampling – sampled during the second semiannual event.
- Monitor surface water from 7 surface water locations.
- Required groundwater parameters listed in MPIS 2015 item 7 and required surface water listed in item 12 of MPIS 2015.
- Monitoring well locations are shown on the aerial site plan in Appendix A of MPIS 2015.

Eight wells have been suspended from the MPIS requirements during the reporting period, including six in August 2014 (3 – Zone 1-2, 2 – Zone 4, 1 – Zone 6) and two in June 2015 (2 – Zone 4).

4.0 WATER QUALITY SUMMARY

Below is a summary of the groundwater and surface water quality during the reporting period. The discussion below identifies the regulatory exceedances as well as trends in the analytical data.

4.1 GROUNDWATER QUALITY

Water quality data for the groundwater parameters monitored during this reporting period were evaluated in accordance with Chapter 62-701.510, F.A.C. Selected data tables and graphs are presented to support the evaluation of the adequacy of the water quality monitoring frequency and sampling locations. The data tables and graphs display the data in a manner that differentiates between the Zone 1-2, Zone 3-4, and Zone 6 of the surficial aquifers and the Floridan aquifer. The tables in Appendix B summarizes water quality detections and exceedances for parameters detected during the reporting period. Exceedances are defined as concentrations in excess of Primary or Secondary Drinking Water Standards (PDWS and SDWS) listed in Chapter 62-550, F.A.C. or the Groundwater Cleanup Target Levels (GCTLs) listed in Chapter 62-777, F.A.C. Graphs of water quality data and trends for selected parameters detected from the 2014 S2 through 2016 S2 monitoring periods are included in Appendix D. The following section discusses exceedances and includes related trends, where appropriate.

4.1.1. Inorganic Exceedances and Trends

General inorganic parameters detected in the groundwater included ammonia-N, chloride, iron, nitrate, sodium, sulfate, and total dissolved solids (TDS). Trace metals detected in the groundwater include antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, vanadium, and zinc. The compounds detected during groundwater monitoring in Zone 1-2, Zone 4 and 6, and Floridan aquifer are provided in Tables 5 to 7, Appendix C. Only ammonia-N, arsenic, chloride, iron, lead, mercury, pH, sodium, sulfate, and TDS were detected in groundwater in excess of applicable PDWS, SDWS, and/or GCTLs for at least one sampling event during the reporting period. These exceedances are discussed below. Other inorganic parameters did not exceed their respective regulatory standard and are not further discussed.

Ammonia

Ammonia has been detected above the GCTL of 2.8 milligrams per liter (mg/L) in the following wells:

- Zone 1-2 – B43-2, B64, and B75;
- Zone 4 – B1-B, B2, B41-1, B43-1, B85, and MO-5B; and
- Zone 6 – B85-6.

Ammonia concentrations in Zone 1-2 wells ranged from < 0.02 to 4.9 mg/L. Zone 1-2 monitoring wells B61R, B62-1R, and B62-2R were suspended from the MPIS in August 2014. Ammonia concentrations in Zone 4 ranged from 0.13 to 27.6 mg/L. Ammonia concentrations in Zone 6 ranged from 8.3 to 18.2 mg/L. Monitoring well B85-6 was the only Zone 6 well that reported concentrations above the GCTL.

With the exception of B2 and B75, ammonia concentrations during the reporting period have indicated a decreasing trend. Ammonia concentrations in Zone 1-2 well B75 has increased throughout the reporting period, but concentrations were below the GCTL until May 2016. Zone 4 well B2 has indicated an increasing trend throughout the reporting period. See time series graphs in Appendix D.

Ammonia has historically exceeded the GCTL at the TFRLF; and Ammonia-N evaluation monitoring for ammonia was conducted from February 2010 to November 2013 in accordance with the October 26, 2009, letter from FDEP. Per the FDEP Memorandum dated December 3, 2012, addressing the subject "Monitoring and Evaluation of Ammonia in Groundwater at Solid Waste Management Facilities SMW-13.10," exceeding the ammonia GCTL does not trigger evaluation monitoring. The previous ammonia-N evaluation monitoring was terminated in 2014 based on the DEP letter dated May 9, 2013. However; monitoring for ammonia will continue as required by the MPIS.

Arsenic

Arsenic has been detected above the PDWS during the reporting period in Zone 1-2 wells B-33-2, B39, B45-2, B64, B73-2, and B75. Arsenic has also been detected at levels below the PDWS in Zone 1-2 wells B34-2, B40-2, B41-2, and B42-2; in Zone 4 well B8-2; and Floridan well FA-2C. Arsenic concentrations have ranged from 5.1 to 114 µg/L. Highest concentrations were detected in B45-2 which ranged from <5 to 114 µg/L. Arsenic was reported at 114 µg/L in 2015 S2, but levels decreased to below PDWS in 2016 S2. The time series plots (Appendix D) do not indicate noticeable trends in arsenic concentrations other than a few erratic shifts, the most notable being that of B45-2.

Chloride

Chloride was detected in both Zone 1-2 and Zone 4 wells including the Zone 4 background well B36 at levels above the SDWS of 250 mg/L. Chloride was detected above the SDWS in Zone 1-2 monitoring wells B44 (286 mg/L, 2016 S2) and B45-2

(278 mg/L, 2015 S2). Detections of chloride in the Zone 4 monitoring wells at levels above the SDWS included B36 (256 mg/L, 2015 S1) and B8-2 ranging from 367 mg/L to 648 mg/L. Chloride was detected above the SDWS in one Zone 6 well (B85-6) three of the five monitoring events. Chloride has not been detected above the SDWS in Floridan aquifer monitoring wells. Time series plots for chloride (Appendix D) indicate that chloride concentrations in most wells are stable or decreasing. However, increasing trends were observed in B34-2, B35-2, B37-1, B8-2, and B85-6, and chloride spiked to above the SDWS in B44 during 2016 S2.

Iron

Iron has been consistently detected above the SDWS of 300 µg/L in surficial aquifer (Zone 1-2, Zone 4, and Zone 6) and the Floridan aquifer monitoring wells. Iron concentrations appear to be stable or indicate a downward trend in most compliance wells. Exceptions to the downward trend include B75 and B34-2 in Zone 1-2; B-34-1, B68 and B8-2 in Zone 4; and B85-6 in Zone 6. Iron concentrations appear trending downward in Floridan wells FA-1B, FA-2C, and FM-B. Iron concentrations range from 64.8 to 78,200 µg/L in Zone 1-2, from 2,200 to 40,100 µg/L in Zone 4, from 1,620 to 11,900 µg/L in Zone 6 and from 20 to 965 µg/L in the Floridan aquifer.

pH

The pH levels are consistently below the SDWS range of 6.5-8.5 in most Zone 1-2 and Zone 4 surficial aquifer monitoring wells. The pH ranges from 4.62 to 6.98 S.U. in Zone 1-2 and from 5.13 to 6.74 S.U. in Zone 4. Low pH levels are typical in areas of Florida where the proximity between groundwater and surface water allows interaction. Zone 6 pH ranges from 6.15 to 6.91 S.U. and Floridan pH ranges from 6.56 to 7.62 S.U. indicating that pH increases with depth. Groundwater pH in Floridan aquifer wells were within the SDWS range during this reporting period. Trend graphs in Appendix D indicate that pH levels are stable at the TFRLF.

Sodium

Sodium concentrations are relatively stable in most surficial and Floridan aquifer monitoring wells. The only wells that reported Sodium concentrations above the SDWS of 160 mg/L were Zone 4 wells B37-1 and B45-1, and Zone 6 well B85-6. Concentrations range from 3.1 to 133 mg/L in Zone 1-2, from 13.8 to 267 mg/L in Zone 4, from 22.8 to 190 mg/L in Zone 6, and from below the detection limit to 45.7 mg/L in the Floridan aquifer. Increasing sodium concentrations were reported from Zone 1 background wells B34-2 and B35-2 while sodium concentrations decreased over time at B33-2; Sodium concentrations also indicated an increasing trend in

Zone 4 wells B33-1 (Background), B36 (background), B37-1, and B8-2; and Zone 6 well B85-6.

TDS

TDS was detected above the SDWS of 500 mg/L in Zone 1-2 monitoring wells B-11, B33-2, B34-2, B40-2, B43-2, B45-2, B59-2R, B63-2, B64, B65, and B75 at least once during the reporting period. TDS has been consistently detected in B34-2, and B75 at levels above the SDWS. TDS has been detected above the SDWS in Zone 4 wells B2, B1-B, B5, B8-2, B-33-1, B34-1, B36, B37-1, B-40-1, B41-1, B42-1, B43-1, B45-1, B85, and M05-B at least once during the reporting period. TDS has been consistently detected above the SDWS in Zone 4 wells B1-B, B8-2, B34-1, B36, B37-1, B41-1, B42-1, B45-1, B85, and M05-B. TDS concentrations above the SDWS have been detected in Zone 6 well B85-6 throughout the reporting period. TDS has not been detected above the SDWS in the Floridan aquifer monitoring wells.

4.1.2 Organic Parameters Exceedances and Trends

Trace levels of volatile organic compounds (VOC) were detected in at least one site well during semiannual compliance monitoring. These compounds include 1,1-dichloroethane, 1,4-dichlorobenzene, acetone, benzene, chlorobenzene, chloroform trichloroethene, toluene, vinyl chloride, and xylenes. Most of these detections were at low levels between the detection limit and the reporting limit and were well below applicable groundwater standards and will not be further discussed. However, benzene was detected above the PDWS in at least one well during the reporting period. The detection of benzene is discussed below:

Benzene

Benzene was detected in Zone 1-2 well B45-2 (0.38 to 1.8 µg/L); in Zone 4 wells B36 (1.8 to 2.6 µg/L) and B37-1 (7.6 to 11.9 µg/L); and in Zone 6 well B85-6 (0.34 to 2.4 µg/L). Benzene has not been detected in samples from the Floridan aquifer monitoring wells. Benzene has been detected at levels slightly above the detection limit but below the PDWS at several other monitoring wells (including B37-2, B43-1, B63-2, B75, and B85) at least once during the reporting period. Site assessment monitoring and post remediation monitoring at B5/B37area was conducted in the vicinity of the background well B-36 and compliance wells B5 and B37-1 since 1990 due to detections of benzene and other VOCs at the site. During the August 2016 meeting, FDEP agreed to reduce the B5/B37 monitoring frequency from semiannual to annual.

4.2. SURFACE WATER QUALITY

Water quality data for the surface water parameters monitored during this reporting period were evaluated in accordance with Chapter 62-701.510. The detected surface water monitoring results have been summarized in Table 8, Appendix C for all surface water parameters detected during the reporting period. The detected surface water parameters were compared to the Freshwater Surface Quality Criteria (62-302.530) and Surface Water Cleanup Target Levels (CTLs) listed in Chapter 62-777, FAC. Recent updates to surface water criteria (finalized on November 18, 2016) were not applied to this report because the updates were not approved prior to initiation of the 2016 S2 event. The updated surface water criteria will be applied beginning in 2017 S1.

Graphs of surface water quality data for selected parameters detected at the site during the reporting period (November 2014 to November 2016) are included in Appendix D. Both dissolved oxygen and pH from the field measurements and laboratory parameters iron, fecal coliform, and unionized ammonia-N were detected at least once above the Class III Standard in at least one surface water sample during the reporting period. The trend graphs for these parameters are also provided in Appendix D. The following section discusses exceedances and includes related trends, where appropriate.

Dissolved Oxygen

The dissolved oxygen (DO) levels in the surface water samples ranged from 0.73 mg/L in SW-11 and SW-12 (2015 S2) to 12.33 in SW-4 (2016 S2). DO was detected below the surface water standard of >5.0 mg/L at least once from all surface water locations from November 2014 through November 2016 sampling events:

- SW-1 – 3.59 mg/L (2015 S1), 4.19 mg/L (2015 S2);
- SW-2 – 3.96 mg/L (2014 S2), 3.03 mg/L (2015 S1), 2.59 mg/L (2015 S2), 4.2 (2016 S1);
- SW-3 – 1.4 mg/L (2014 S2), 1.73 mg/L (2015 S1), 1.78 mg/L (2015 S2), Dry (2016 S1), 4.14 (2016 S2);
- SW-4 – 3.1 mg/L (2014 S2), 3.03 mg/L (2015 S1), 1.23 mg/L (2015 S2), 2.54 (2016 S1);
- SW-5 – 4.05 mg/L (2014 S2), 4.59 mg/L (2015 S1), 0.94 mg/L (2015 S2), 4.84 (2016 S1);

- SW-11 – 4.25 mg/L (2014 S2), 0.73 mg/L (2015 S2); and
- SW-12 – 4.4 mg/L (2015 S1), 0.73 mg/L (2015 S2).

Trend analyses (Appendix D) indicated that DO varies with no apparent trend.

pH

Surface water pH measurements were all within the surface water standard range of 6.0-8.5 during the reporting period with the exception of SW-1 in 2014 S2 (5.45 S.U.). No apparent trends in pH were observed during the reporting period. pH is a field measured parameter and subject to variability in field conditions.

Unionized Ammonia

Unionized ammonia was detected above the Class III Standard (<0.02 mg/L) in SW-5 at 0.1 mg/L during the 2015 S1 sampling event. Unionized ammonia was not detected at other surface water sample locations during the reporting period. On November 18, 2016, FDEP approved updates to the surface water quality criteria, in which unionized ammonia has been replaced with a calculated total ammonia standard. However, the updated criteria are not applicable to this report since the sampling date for the 2016 second semiannual monitoring event was initiated prior to November 18, 2016.

Fecal Coliform

Fecal coliform bacteria were detected in the sample from SW-11 at 200 #/100 ml (2014 S2) and at 350 #/100 ml (2015 S1). Fecal coliform was not detected above the Class III standard in other surface water samples.

Iron

Iron concentrations in the surface water samples ranged from BDL in SW-12 (2015 S1) to 3420 in SW-2 (2015 S2). Iron was detected above the surface water standard of 1000 µg/L at least once during the reporting period in the following:

- SW-1 – 1140 J µg/L (2015 S1) with J qualifier;
- SW-2 – 3420 µg/L (2015 S2);
- SW-3 – 1030 µg/L (2015 S1); and
- SW-5 – 1160 µg/L (2014 S2), 1110 µg/L (2015 S1), 3000 µg/L (2015 S2), 1130 µg/L (2016 S1), and 1880 µg/L (2016 S2).

Surface water plots (see Appendix D) indicate that Iron concentrations are generally consistent with slight fluctuations. SW-5 has consistently reported concentrations above the Class III standard over this and previous reporting periods. Iron concentrations in surface water do not indicate a clear trend.

Lead

Lead was detected in SW-1 at 10.4 µg/L (2015 S1), above the calculated Class III standard of 1.78 µg/L. Lead did not exceed calculated surface water standards in other surface water sampling locations. The detection of lead at SW-1 is likely due to stormwater runoff from the highway (I-4).

Mercury

Mercury was detected above the Class III Standard (0.012 µg/L) in SW-1 at 0.0313 µg/L during the 2015 S1 monitoring event. Mercury concentrations in the surface water samples ranged from 0.00036 µg/L in SW-1 (2016 S1) to 0.0313 µg/L in SW-1 (2015 S1). Mercury was detected in surface water samples however; concentrations were all below the Class III Standard except at SW-1 during the May 2015 sampling event. The detection of mercury from SW-1 is also likely due to storm water runoff from the highway (I-4).

5.0 CORRELATION BETWEEN TDS and SC

A simple ratio was calculated to evaluate the correlation between TDS and specific conductance (SC) data. The ratio between TDS and SC may be evaluated using standard water/wastewater analysis methods to assess the accuracy of the laboratory methods. A generally acceptable correlation is a TDS to SC ratio of 0.55 to 0.75[2]. A full range of ratios from 0.54 to 0.96 can be expected. Ratios outside this range may indicate that one or both measurements are suspect.

A summary of the TDS/SC ratios for the reporting period is presented in Table 9, Appendix C. Overall, the majority of ratios lied within the expected range. The TDS/SC ratio slightly exceeded 1 at least once from two wells (B11 and B39); and the calculated TDS ratio was below 0.5 at least once from several other wells (B-2, B34-2, B41-1, B42-2, B1-B, B35-1, B42-1, B43-1, B43-2, and B85-6). Deviations may be due to analytical error or sampling procedures, but they are most likely due to differences in field sampling techniques and do not affect the quality of the reported analytical data.

[2] Hem, John D., "Study and Interpretation of Chemical Characteristics of Natural Water." USGS Water Supply Paper 2254, 1992, page 67.

6.0 ADEQUACY OF MONITORING PROGRAM

This section assesses the adequacy of the monitoring program to observe potential effects of the site's operations on groundwater and surface water.

6.1 MONITORING WELLS AND LOCATIONS

The existing monitoring wells were located based on groundwater flow patterns. Groundwater is monitored hydraulically upgradient to determine background conditions and downgradient to determine potential impacts caused by the landfill. The Tomoka Farms Road Landfill permit specifies the compliance monitoring protocol for groundwater wells and the surface water locations and sampling frequency for the monitoring program. The compliance monitoring protocol specified in the operating permit provides an appropriate surficial and Floridan aquifer groundwater monitoring program for the site. Groundwater sampling and reporting is currently conducted in

accordance with the MPIS issued July 25, 2015 which based on the slow groundwater flow velocity provides a conservative monitoring program.

6.2 FREQUENCY

The updated MPIS specified the groundwater and surface water monitoring frequency as follows:

- Semiannual groundwater monitoring includes twenty-three Zone 1-2 wells, one Zone 3-4 well, two Zone 4 wells, two Zone 6 wells, and three Floridan aquifer wells.
- Annual groundwater monitoring includes twenty Zone 4 wells.
- Semiannual surface water monitoring seven surface water locations.
- Six monitoring wells (B8, B-32, B61R, B62-1R, B62-2R, and B66) were suspended from the MPIS in August 2014, and two monitoring wells (B41-1, B45-1) were suspended from the MPIS in June 2015.

6.3 MONITORING PARAMETERS

Current routine groundwater and surface water compliance monitoring parameters include various volatile organic, metals, and inorganic constituents listed in 62-701.510(7) and in accordance with the operating permit.

6.4 Response to FDEP Questions

Questions presented in FDEP memoranda dated August 31, 2016 and April 20, 2017 are addressed below. Groundwater gradients are estimated based on the Zone of Discharge (ZOD) established by the MPIS dated July 27, 2015.

Arsenic exceedances were observed in monitoring wells B39, B45-2, B64, and B75 during the report period.

- B39 (Zone 1-2) – Concentration range was BDL to 26.4 µg/L, and the average concentration was 17.8 µg/L. B39 is located at the southeastern corner of the Class III landfill, approximately 600 ft. downgradient of the ZOD.
- B45-2 (Zone 1-2) – Concentration range was BDL to 114 µg/L (most recent was 9.4 I µg/L), and the average concentration was 46.12 µg/L. B45-2 is located north of the Class III landfill approximately 1,700 ft. downgradient of the ZOD.

- B64 (Zone 1-2) – Concentration was below the PDWS during all events except 2016 S1. The concentration during 2016 S1 was 13.3 µg/L. B64 is located south of the Class III landfill approximately 2,000 ft. downgradient of the ZOD.
- B75 (Zone 1-2) – Concentration range was BDL to 32.4 µg/L, and the average concentration was 18.68 µg/L. B75 is located near the northeastern corner of the Class I active landfill near the ZOD.

Note that sporadic changes in arsenic concentrations, often associated with high iron concentrations can be associated with related redox fluctuations. Due to the downgradient distance from the ZOD and the low groundwater flow rate, further delineation should not be necessary.

Benzene exceedances were observed in monitoring wells B36, B37-1, B45-2, and B85-6 during the report period.

- B36 (Zone 4) – Concentration range was 1.8 to 2.6 µg/L, and the average concentration was 2.25 µg/L. B36 is located south of the Class III landfill within the B5/B37 remediation area approximately 3,200 ft. downgradient of the ZOD.
- B37-1 (Zone 4) – Concentration range was 7.6 to 11.3 µg/L, and the average concentration was 8.0 µg/L. B37-1 is part of the B5/B37 benzene remediation area approximately 3,300 ft. from the ZOD.
- B45-2 (Zone 1-2) – Concentration range was BDL to 1.8 µg/L (most recent was BDL), and the average concentration was 0.95 µg/L. B45-2 is located north of the Class III landfill approximately 1,700 ft. downgradient of the ZOD.
- B85-6 (Zone 6) – Concentration range was 0.34 I to 2.4 µg/L, and the average concentration was 1.7 µg/L. B85-6 is located east of the Class III landfill approximately 700 ft. downgradient of the ZOD.

The FDEP questions and Volusia County responses:

FDEP: Are there any delineation well north of well 45-2? If not discuss whether installation of a new well north of well B45-2 in same zone is a viable option.

HDR/Volusia County: There are no wells north of well B45-2, however B45-2 was included in the benzene evaluation monitoring that led to establishing the July 27, 2015 ZOD revisions. Based on the downgradient distance from the ZOD (700 ft.) and the low groundwater flow rate, additional delineation wells should not be necessary.

FDEP: Are there any surface water locations to the east of B85 and B85-6 where potential surface water impacts can be evaluated?

HDR/Volusia County: There are no surface water locations in the area of B85 and B85-6.

The FDEP also noted that ammonia, sodium, and chloride were above the SDWS in some wells (ammonia – B43-1, B64, B85, and B85-6) (chloride – B8-2, B44, and B85-6) (sodium – B36,

B37-1, and B85-6). Based on the downgradient distance from the newly established ZOD and the low groundwater flow rates, additional delineation wells should not be necessary.

7.0 PROFESSIONAL CERTIFICATION

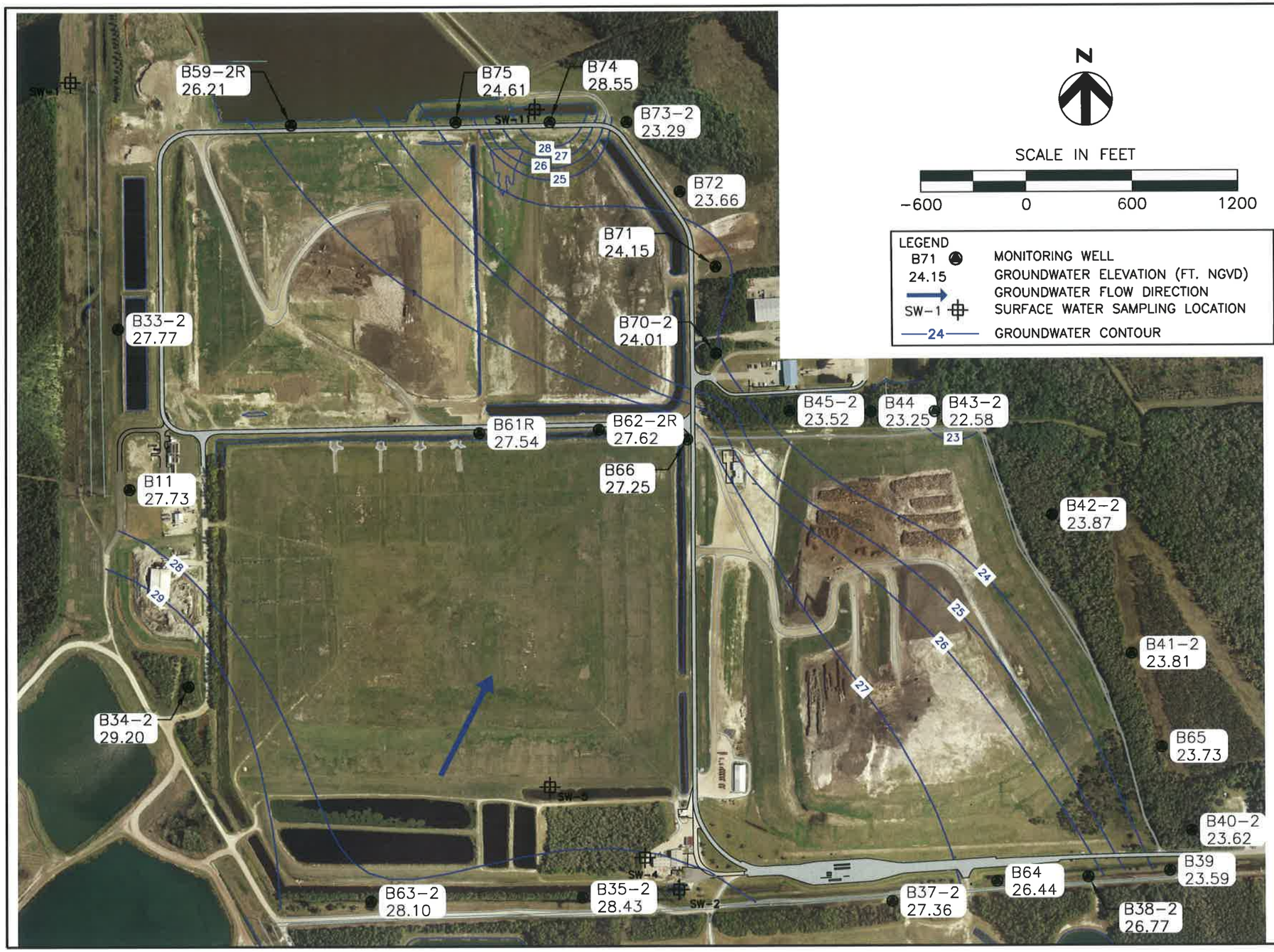
This document was prepared under my direction in general accordance with Chapter 62-701, Florida Solid Waste Management Facility Regulations. The information contained within this report is to the best of my knowledge and belief, true, accurate, and complete.

6/24/2017

John S. Catches, PG
HDR Engineering, Inc.
FL License No. 2203

APPENDIX A

GROUNDWATER POTENTIOMETRIC MAPS



N

SCALE IN FEET

−600 0 600 1200

LEGEND

- B71 / 24.15 — MONITORING WELL; GROUNDWATER ELEVATION (FT. NGVD)
- GROUNDWATER FLOW DIRECTION
- SW-1 — SURFACE WATER SAMPLING LOCATION
- 24 — GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B11	29°08'02"	81°06'14"	32.95
B33-2	29°08'12"	81°06'14"	32.97
B34-2	29°07'51"	81°06'11"	31.20
B35-2	29°07'39"	81°05'46"	29.34
B37-02	29°07'39"	81°05'25"	28.76
B38-2	29°07'40"	81°05'13"	28.12
B39	29°07'40"	81°05'08"	29.09
B40-2	29°07'43"	81°05'07"	27.67
B41-2	29°07'53"	81°05'11"	29.27
B42-2	29°08'01"	81°05'16"	28.47
B43-2	29°08'07	81°05'23"	28.23
B44	29°08'07"	81°05'27"	30.03
B45-2	29°08'07"	81°05'32"	30.35
B59-2R	29°08'23"	81°06'05"	33.12
B61R	29°08'05"	81°05'52"	39.42
B62-2R	29°08'05"	81°05'44"	39.36
B63-2	29°07'39"	81°05'59"	30.38
B64	29°07'40"	81°05'19"	28.22
B65	29°07'48"	81°05'09"	27.97
B66	29°08'06"	81°05'38"	31.26
B70-2	29°08'11"	81°05'37"	31.51
B71	29°08'15"	81°05'37"	30.75
B72	29°08'20"	81°05'39"	28.93
B73-2	29°08'24"	81°05'42"	28.95
B74	29°08'24"	81°05'47"	33.78
B75	29°08'24"	81°05'53"	31.62

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER CONTOURS DO NOT INCLUDE THE SURFACE WATER BODIES.
3. GROUND WATER LEVELS WERE MEASURED ON NOVEMBER 6, 2014.

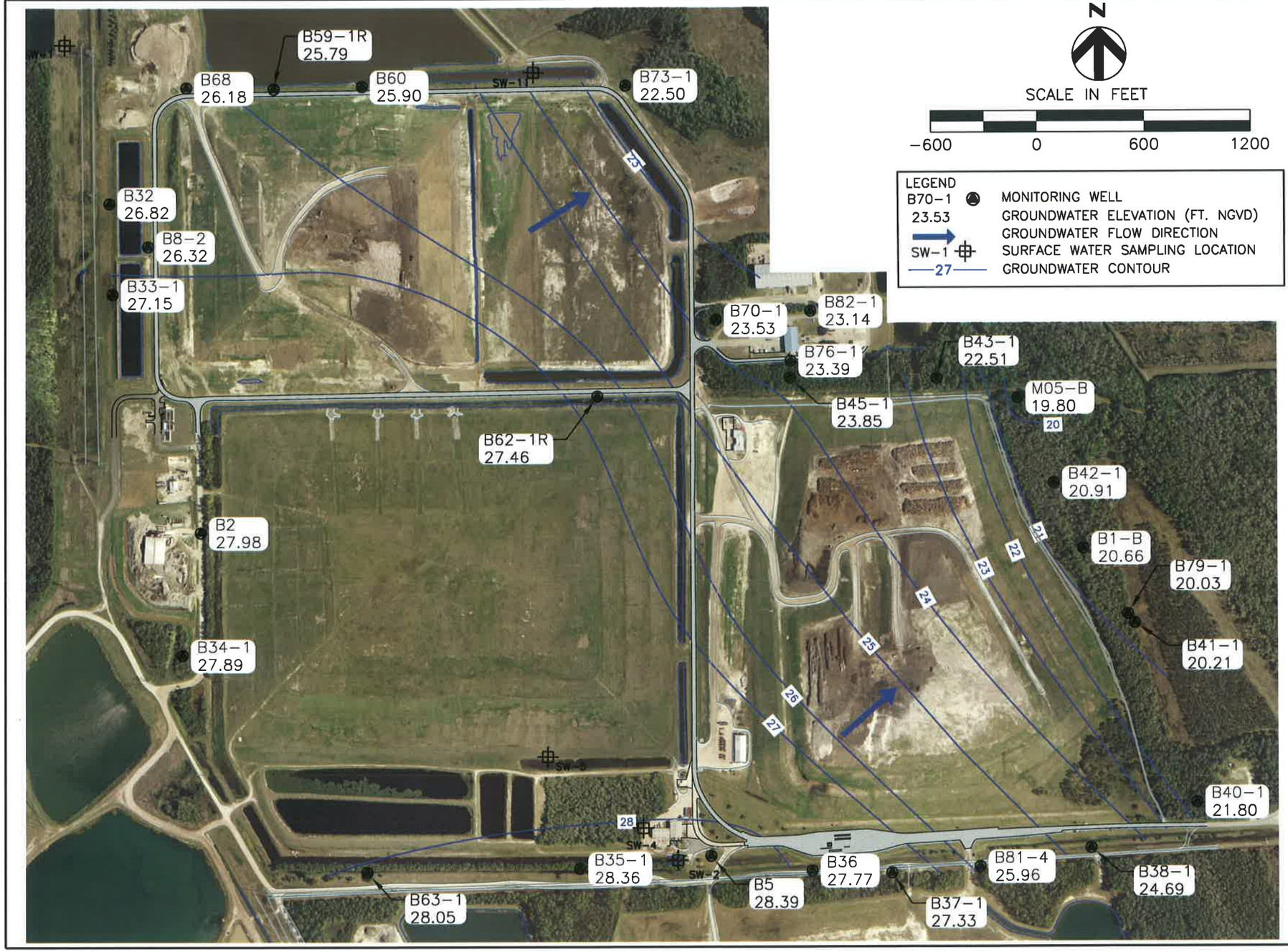
HDR

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONES 1 & 2 GROUNDWATER POTENTIOMETRIC MAP
2ND 2014 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 01/2015

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 2



WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B1-B	29°07'57"	81°05'14"	28.78
B2	29°07'58"	81°06'09"	34.53
B32	29°08'17"	81°06'14"	30.92
B33-1	29°08'12"	81°06'14"	34.69
B34-1	29°07'51"	81°06'11"	31.19
B35-1	29°07'39"	81°05'46"	29.26
B36	29°07'39"	81°05'31"	29.33
B37-01	29°07'39"	81°05'25"	28.63
B38-1	29°07'40"	81°05'13"	28.24
B40-1	29°07'43"	81°05'07"	27.77
B41-1	29°07'53"	81°05'11"	29.16
B42-1	29°08'01"	81°05'16"	28.30
B43-1	29°08'07"	81°05'23"	28.09
B45-1	29°08'07"	81°05'32"	30.28
B5	29°07'40"	81°05'38"	32.59
B59-1R	29°08'23"	81°06'05"	32.44
B60	29°08'24"	81°05'59"	32.95
B62-1R	29°08'05"	81°05'44"	38.97
B63-1	29°07'39"	81°05'59"	30.03
B68	29°08'23"	81°06'10"	32.98
B70-1	29°08'11"	81°05'37"	31.03
B73-1	29°08'24"	81°05'42"	29.20
B8-2	29°08'14"	81°06'11"	33.37
M05-B	29°08'06"	81°05'18"	29.80
B76-1	29°08'08"	81°05'31"	27.39
B79-1	29°07'54"	81°05'09"	27.53
B81-4	29°07'39"	81°05'19"	29.76
B82-1	29°08'11"	81°05'30"	30.78

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUND WATER LEVELS WERE MEASURED ON NOVEMBER 6, 2014.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 4 GROUNDWATER POTENTIOMETRIC MAP
2ND 2014 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 01/2015

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 3

N

SCALE IN FEET

−600 0 600 1200

LEGEND

B76-6 19.63	MONITORING WELL GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW-1	SURFACE WATER SAMPLING LOCATION
20	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B8	29°08'14"	81°06'11"	33.53
B76-6	29°08'08"	81°05'31"	27.33
B77	29°08'07"	81°05'32"	31.13
B79-6	29°07'54"	81°05'10"	27.51
B86	29°07'40"	81°05'19"	29.46
B85-6	29°07'57"	81°05'05"	27.02
B87-6	29°08'15"	81°05'26"	29.37

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUND WATER LEVELS WERE MEASURED ON NOVEMBER 6, 2014.

HDR

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 6 GROUNDWATER POTENTIOMETRIC MAP
2ND 2014 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER
235490

PROJECT MANAGER
J. CATCHES

DATE
01/2015

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER
FIGURE 4

N

SCALE IN FEET

−700 0 700 1400

LEGEND

FA-2C ●	MONITORING WELL
15.60	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW-1 ⊕	SURFACE WATER SAMPLING LOCATION
—15—	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
FA-1B	29°07'51"	81°06'11"	32.22
FA-2C	29°08'31"	81°05'32"	28.10
F-MB	29°07'42"	81°05'36"	33.88
B85-F	29°07'57"	81°05'05"	27.47
B87-F	29°08'15"	81°05'26"	29.25
B83	29°08'07"	81°05'32"	30.57

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUND WATER LEVELS WERE MEASURED ON NOVEMBER 6, 2014.

HDR

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
FLORIDAN AQUIFER GROUNDWATER POTENTIOMETRIC MAP
2ND 2014 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

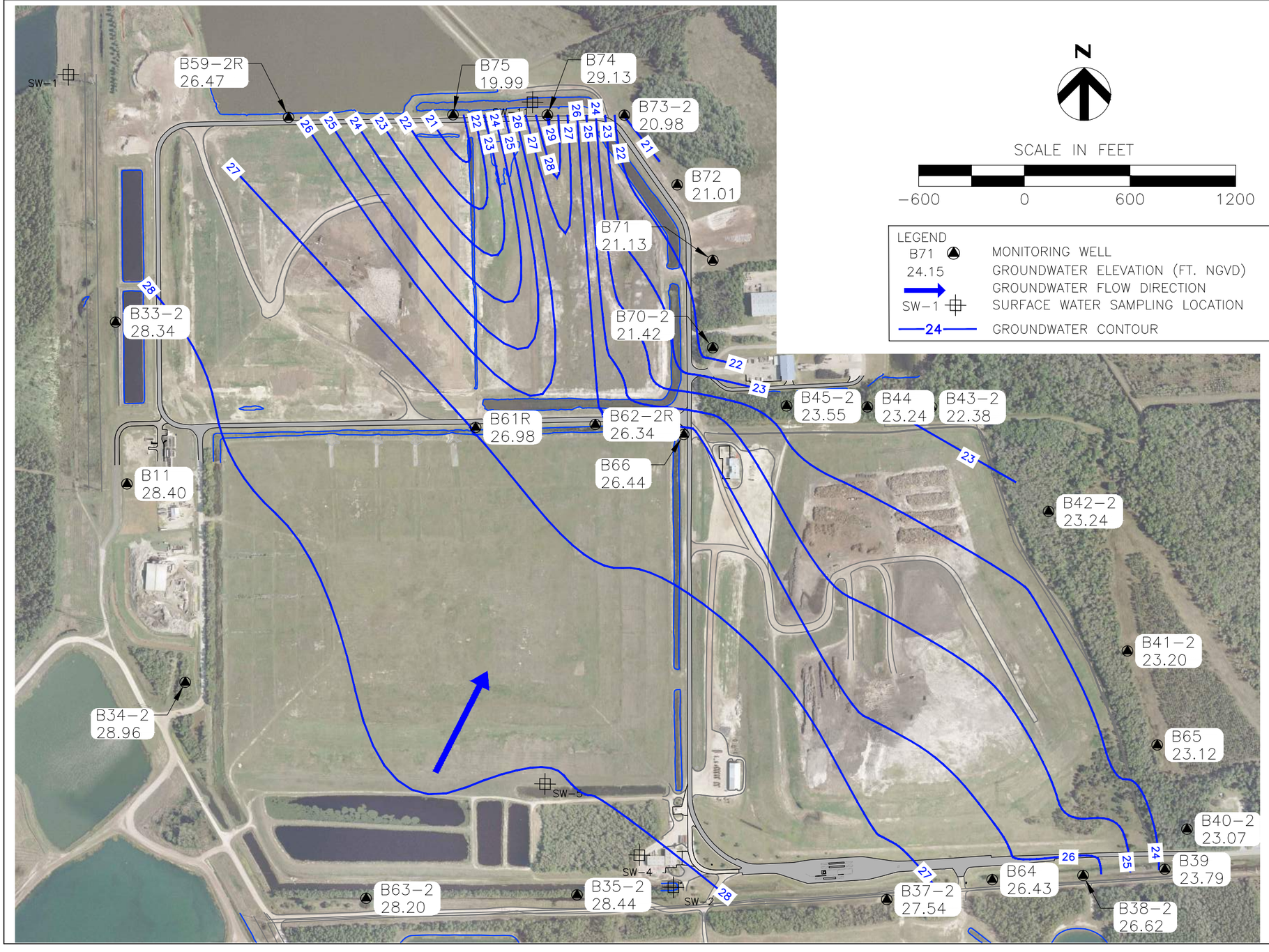
PROJECT MANAGER J. CATCHES

DATE 01/2015

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 5



WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B11	29°08'02"	81°06'14"	32.95
B33–2	29°08'12"	81°06'14"	32.97
B34–2	29°07'51"	81°06'11"	31.20
B35–2	29°07'39"	81°05'46"	29.34
B37–02	29°07'39"	81°05'25"	28.76
B38–2	29°07'40"	81°05'13"	28.12
B39	29°07'40"	81°05'08"	29.09
B40–2	29°07'43"	81°05'07"	27.67
B41–2	29°07'53"	81°05'11"	29.27
B42–2	29°08'01"	81°05'16"	28.47
B43–2	29°08'07	81°05'23"	28.23
B44	29°08'07"	81°05'27"	30.03
B45–2	29°08'07"	81°05'32"	30.35
B59–2R	29°08'23"	81°06'05"	33.12
B61R	29°08'05"	81°05'52"	39.42
B62–2R	29°08'05"	81°05'44"	39.36
B63–2	29°07'39"	81°05'59"	30.38
B64	29°07'40"	81°05'19"	28.22
B65	29°07'48"	81°05'09"	27.97
B66	29°08'06"	81°05'38"	31.26
B70–2	29°08'11"	81°05'37"	31.51
B71	29°08'15"	81°05'37"	30.75
B72	29°08'20"	81°05'39"	28.93
B73–2	29°08'24"	81°05'42"	28.95
B74	29°08'24"	81°05'47"	33.78
B75	29°08'24"	81°05'53"	31.62

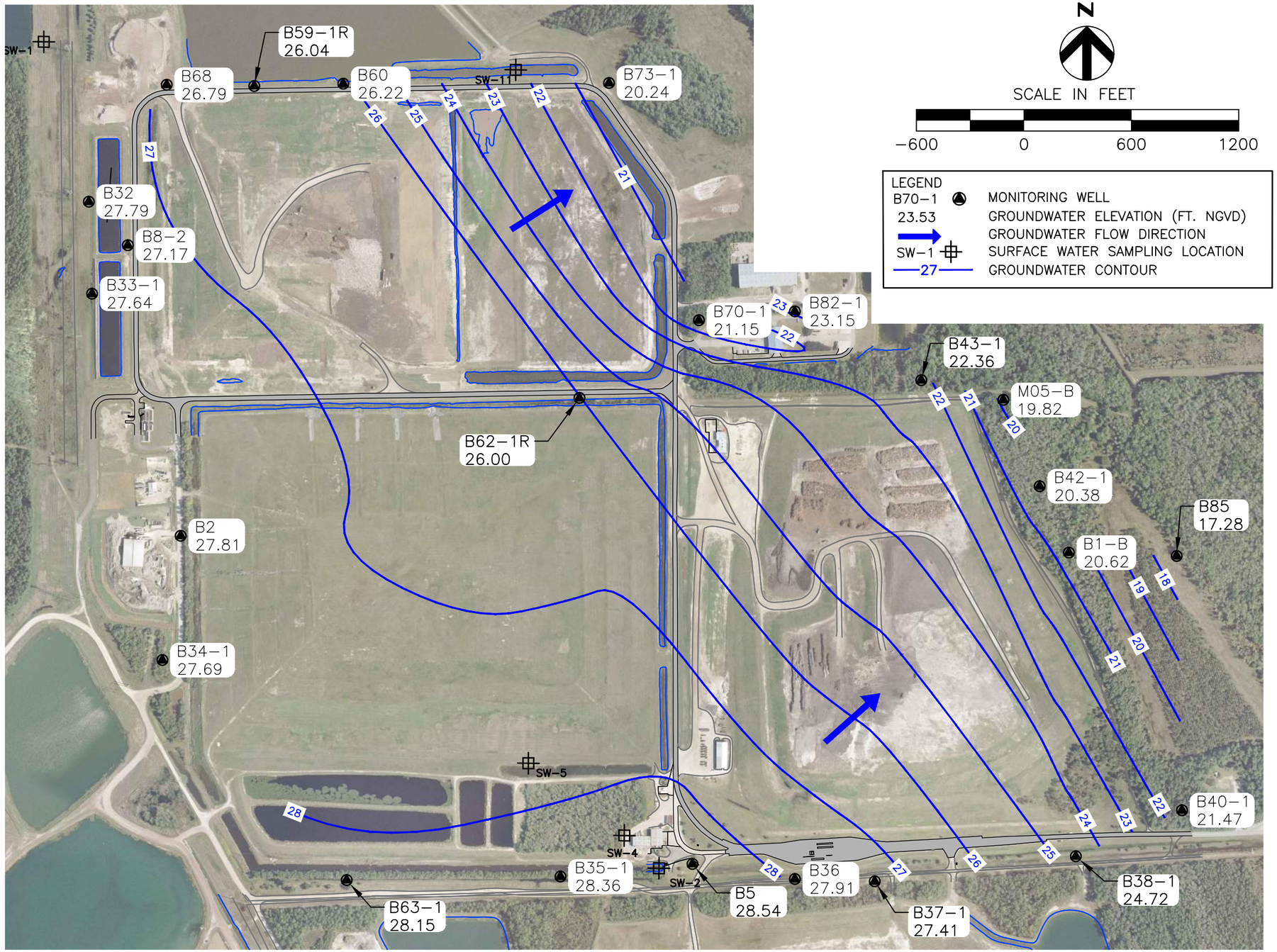
NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER CONTOURS DO NOT INCLUDE THE SURFACE WATER BODIES.
3. GROUNDWATER LEVELS WERE MEASURED ON MAY 4, 2015.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONES 1 & 2 GROUNDWATER POTENTIOMETRIC MAP
1ST 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 07/2015
REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 2



N

SCALE IN FEET

−600 0 600 1200

LEGEND

B70–1 ▲	MONITORING WELL
23.53	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW–1 ⌖	SURFACE WATER SAMPLING LOCATION
—27—	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B1–B	29°07'57"	81°05'14"	28.78
B2	29°07'58"	81°06'09"	34.53
B32	29°08'17"	81°06'14"	30.92
B33–1	29°08'12"	81°06'14"	34.69
B34–1	29°07'51"	81°06'11"	31.19
B35–1	29°07'39"	81°05'46"	29.26
B36	29°07'39"	81°05'31"	29.33
B37–01	29°07'39"	81°05'25"	28.63
B38–1	29°07'40"	81°05'13"	28.24
B40–1	29°07'43"	81°05'07"	27.77
B41–1	29°07'53"	81°05'11"	29.16
B42–1	29°08'01"	81°05'16"	28.30
B43–1	29°08'07"	81°05'23"	28.09
B45–1	29°08'07"	81°05'32"	30.28
B5	29°07'40"	81°05'38"	32.59
B59–1R	29°08'23"	81°06'05"	32.44
B60	29°08'24"	81°05'59"	32.95
B62–1R	29°08'05"	81°05'44"	38.97
B63–1	29°07'39"	81°05'59"	30.03
B68	29°08'23"	81°06'10"	32.98
B70–1	29°08'11"	81°05'37"	31.03
B73–1	29°08'24"	81°05'42"	29.20
B8–2	29°08'14"	81°06'11"	33.37
M05–B	29°08'06"	81°05'18"	29.80
B76–1	29°08'08"	81°05'31"	27.39
B79–1	29°07'54"	81°05'09"	27.53
B81–4	29°07'39"	81°05'19"	29.76
B82–1	29°08'11"	81°05'30"	30.78
B85	29°07'57"	81°05'06"	27.07

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON MAY 4, 2015.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 4 GROUNDWATER POTENTIOMETRIC MAP
1ST 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

PROJECT MANAGER J. CATCHES

DATE 07/2015

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 3

N

SCALE IN FEET

−600 0 600 1200

LEGEND

B76-6 ▲	MONITORING WELL
19.63	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW-1 ⊕	SURFACE WATER SAMPLING LOCATION
—20—	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B8	29°08'14"	81°06'11"	33.53
B76-6	29°08'08"	81°05'31"	27.33
B77	29°08'07"	81°05'32"	31.13
B79-6	29°07'54"	81°05'10"	27.51
B86	29°07'40"	81°05'19"	29.46
B85-6	29°07'57"	81°05'05"	27.02
B87-6	29°08'15"	81°05'26"	29.37

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
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PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

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PROJECT MANAGER J. CATCHES

DATE 07/2015

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 4

N

SCALE IN FEET

−700 0 700 1400

LEGEND

FA−2C	MONITORING WELL
15.60	GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW−1	SURFACE WATER SAMPLING LOCATION
15	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
FA−1B	29°07'51"	81°06'11"	32.22
FA−2C	29°08'31"	81°05'32"	28.10
F−MB	29°07'42"	81°05'36"	33.88
B85−F	29°07'57"	81°05'05"	27.47
B87−F	29°08'15"	81°05'26"	29.25
B83	29°08'07"	81°05'32"	30.57

NOTES:

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2. GROUNDWATER LEVELS WERE MEASURED ON MAY 4, 2015.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
FLORIDAN AQUIFER GROUNDWATER POTENTIOMETRIC MAP
1ST 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

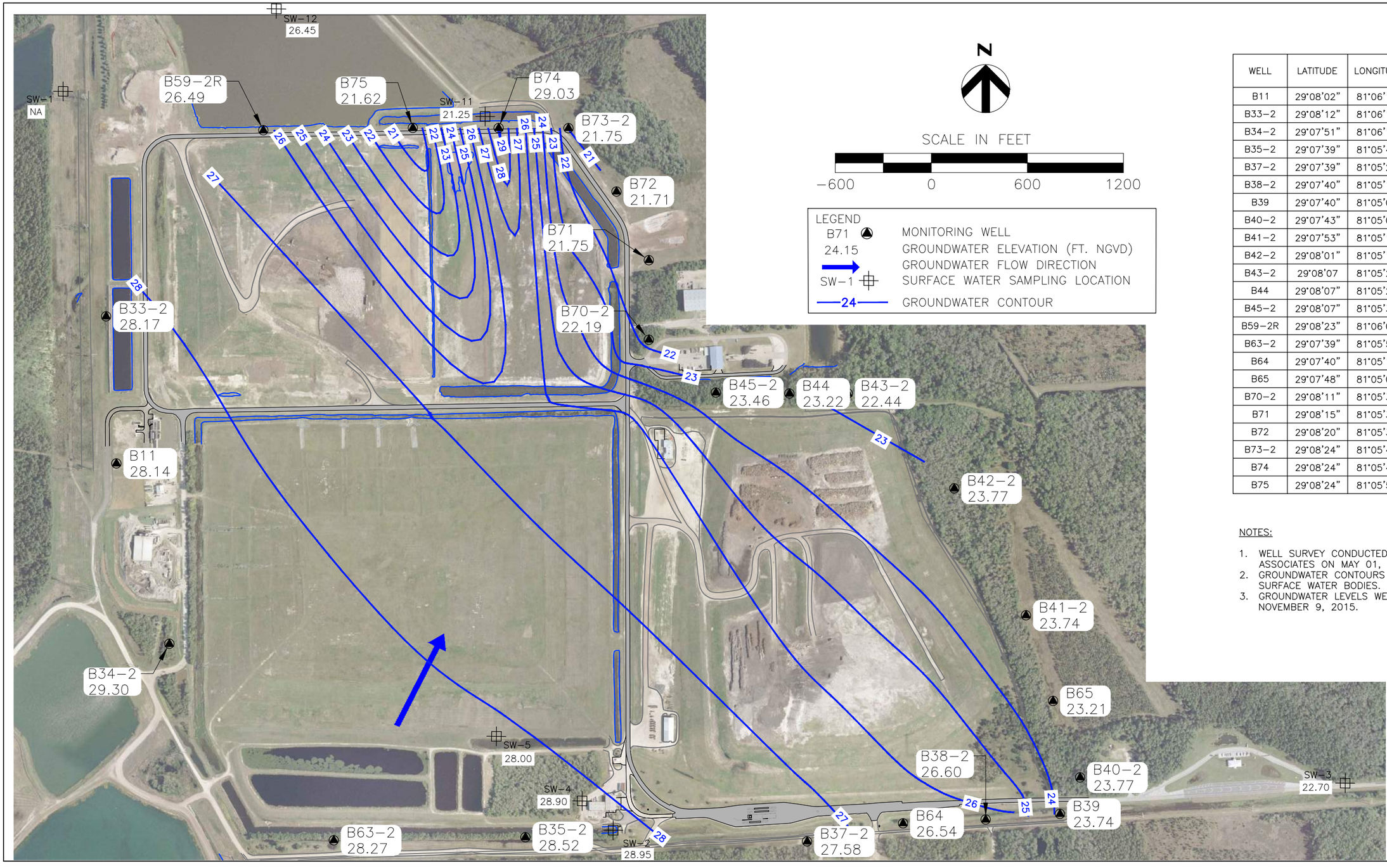
PROJECT MANAGER J. CATCHES

DATE 072015

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 5



N

SCALE IN FEET

−600 0 600 1200

LEGEND

B71	MONITORING WELL
24.15	GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW-1	SURFACE WATER SAMPLING LOCATION
24	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B11	29°08'02"	81°06'14"	32.95
B33-2	29°08'12"	81°06'14"	32.97
B34-2	29°07'51"	81°06'11"	31.20
B35-2	29°07'39"	81°05'46"	29.34
B37-2	29°07'39"	81°05'25"	28.76
B38-2	29°07'40"	81°05'13"	28.12
B39	29°07'40"	81°05'08"	29.09
B40-2	29°07'43"	81°05'07"	27.67
B41-2	29°07'53"	81°05'11"	29.27
B42-2	29°08'01"	81°05'16"	28.47
B43-2	29°08'07	81°05'23"	28.23
B44	29°08'07"	81°05'27"	30.03
B45-2	29°08'07"	81°05'32"	30.35
B59-2R	29°08'23"	81°06'05"	33.12
B63-2	29°07'39"	81°05'59"	30.38
B64	29°07'40"	81°05'19"	28.22
B65	29°07'48"	81°05'09"	27.97
B70-2	29°08'11"	81°05'37"	31.51
B71	29°08'15"	81°05'37"	30.75
B72	29°08'20"	81°05'39"	28.93
B73-2	29°08'24"	81°05'42"	28.95
B74	29°08'24"	81°05'47"	33.78
B75	29°08'24"	81°05'53"	31.62

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER CONTOURS DO NOT INCLUDE THE SURFACE WATER BODIES.
3. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 9, 2015.

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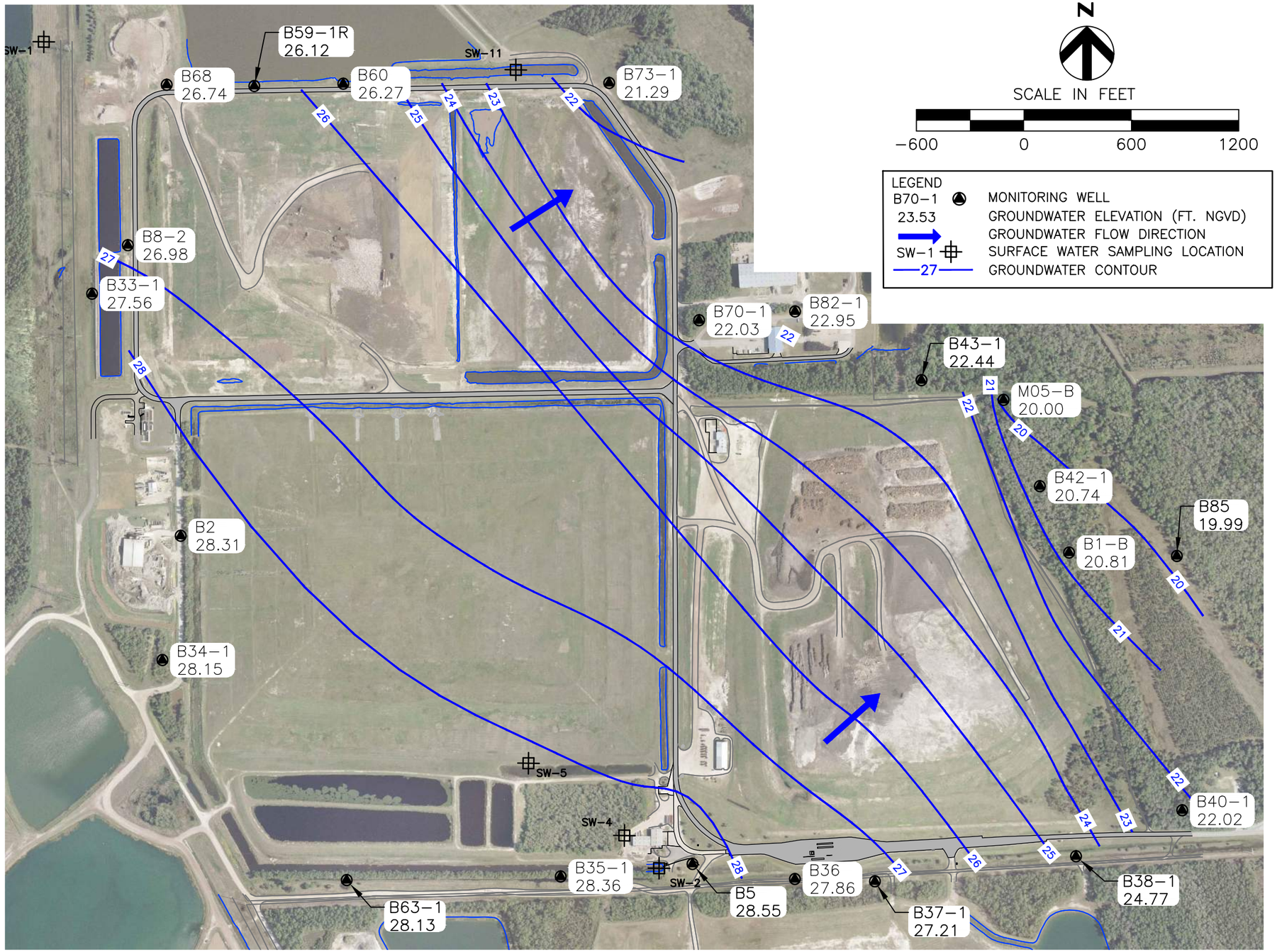
PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONES 1 & 2 GROUNDWATER POTENTIOMETRIC MAP
2ND 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 01/2016

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 2



N

SCALE IN FEET

−600 0 600 1200

LEGEND

B70−1	MONITORING WELL
23.53	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW−1	SURFACE WATER SAMPLING LOCATION
27	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B1−B	29°07'57"	81°05'14"	28.78
B2	29°07'58"	81°06'09"	34.53
B5	29°07'40"	81°05'38"	32.59
B8−2	29°08'14"	81°06'11"	33.37
B33−1	29°08'12"	81°06'14"	34.69
B34−1	29°07'51"	81°06'11"	31.19
B35−1	29°07'39"	81°05'46"	29.26
B36	29°07'39"	81°05'31"	29.33
B37−1	29°07'39"	81°05'25"	28.63
B38−1	29°07'40"	81°05'13"	28.24
B40−1	29°07'43"	81°05'07"	27.77
B42−1	29°08'01"	81°05'16"	28.30
B43−1	29°08'07"	81°05'23"	28.09
B59−1R	29°08'23"	81°06'05"	32.44
B60	29°08'24"	81°05'59"	32.95
B63−1	29°07'39"	81°05'59"	30.03
B68	29°08'23"	81°06'10"	32.98
B70−1	29°08'11"	81°05'37"	31.03
B73−1	29°08'24"	81°05'42"	29.20
M05−B	29°08'06"	81°05'18"	29.80
B82−1	29°08'11"	81°05'30"	30.78
B85	29°07'57"	81°05'06"	27.07

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 9, 2015.

C:\pwworking\tpa\d0853124\Figure 3.dwg, Layout1, 1/8/2016 11:54:11 AM, JRAYMOND

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 4 GROUNDWATER POTENTIOMETRIC MAP
2ND 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

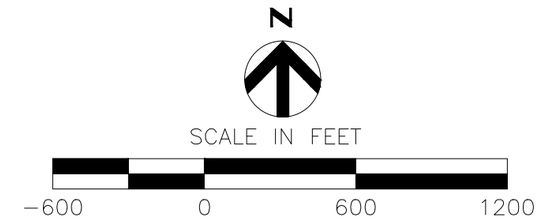
PROJECT MANAGER J. CATCHES

DATE 01/2016

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 3



LEGEND

B76-6	MONITORING WELL
19.63	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW-1	SURFACE WATER SAMPLING LOCATION
20	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B85-6	29°07'57"	81°05'05"	27.02
B87-6	29°08'15"	81°05'26"	29.37

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 9, 2015.

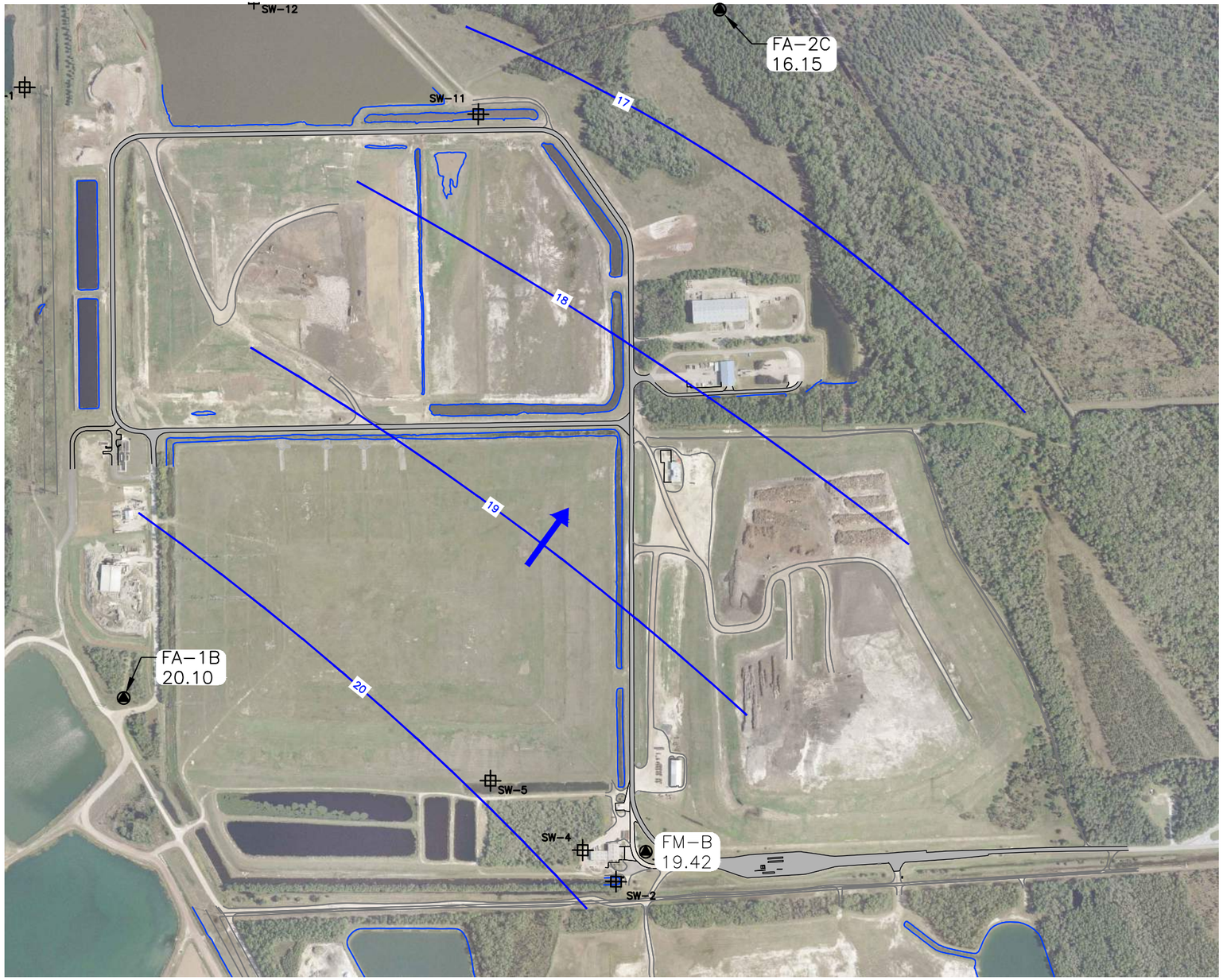
C:\pwworking\tpa\d0853124\Figure 4.dwg, Layout1, 1/8/2016 11:54:13 AM, JRAYMOND

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 6 GROUNDWATER POTENTIOMETRIC MAP
2ND 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 01/2016

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 4



N

SCALE IN FEET

−700 0 700 1400

LEGEND

FA−2C	MONITORING WELL
15.60	GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW−1	SURFACE WATER SAMPLING LOCATION
15	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
FA−1B	29°07'51"	81°06'11"	32.22
FA−2C	29°08'31"	81°05'32"	28.10
F−MB	29°07'42"	81°05'36"	33.88

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 9, 2015.

C:\pwworking\tpa\d0853124\Figure 5.dwg, Layout1, 1/8/2016 11:54:15 AM, JRAYMOND

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
FLORIDAN AQUIFER GROUNDWATER POTENTIOMETRIC MAP
2ND 2015 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

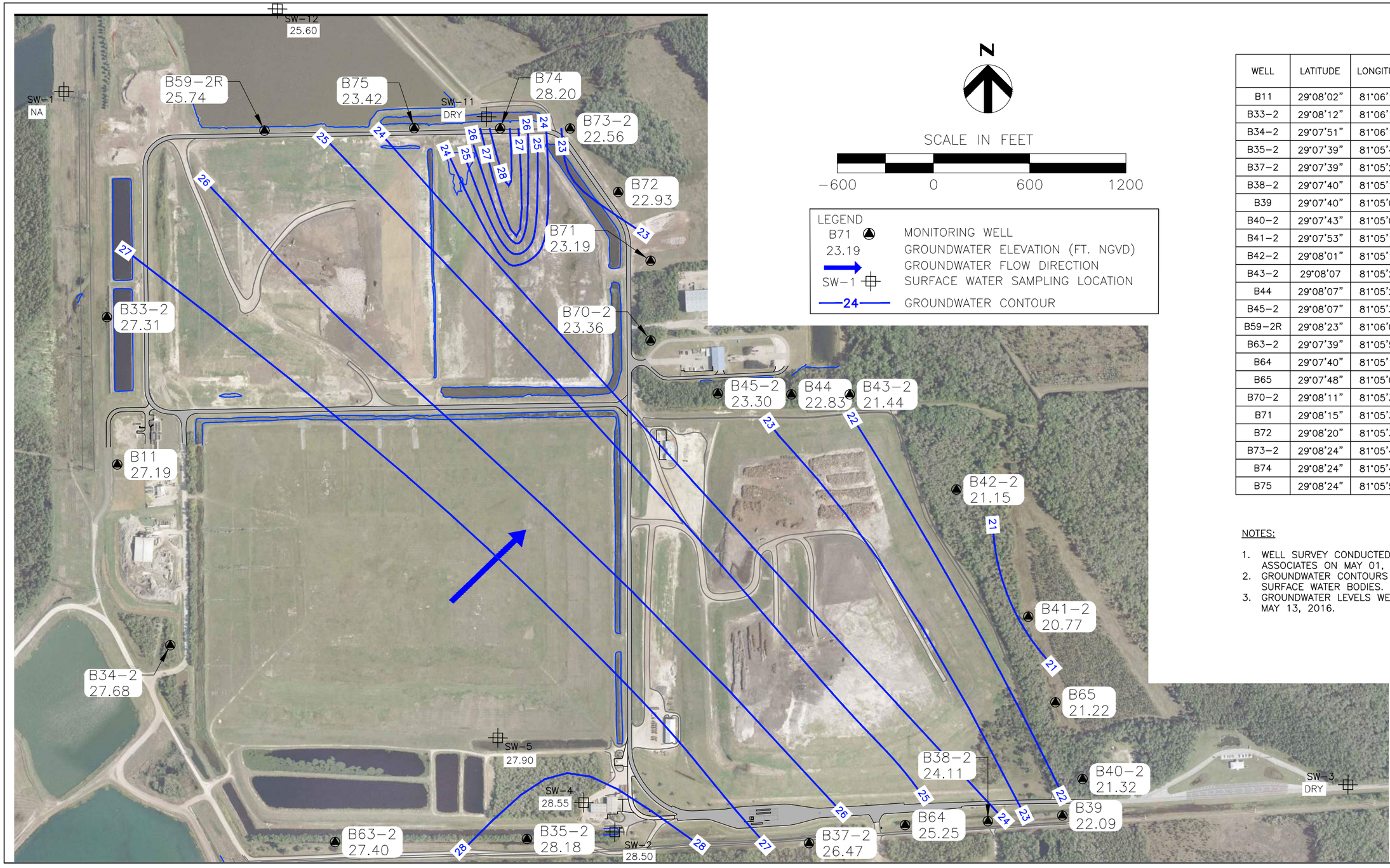
PROJECT MANAGER J. CATCHES

DATE 01/2016

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 5



WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B11	29°08'02"	81°06'14"	32.95
B33-2	29°08'12"	81°06'14"	32.97
B34-2	29°07'51"	81°06'11"	31.20
B35-2	29°07'39"	81°05'46"	29.34
B37-2	29°07'39"	81°05'25"	28.76
B38-2	29°07'40"	81°05'13"	28.12
B39	29°07'40"	81°05'08"	29.09
B40-2	29°07'43"	81°05'07"	27.67
B41-2	29°07'53"	81°05'11"	29.27
B42-2	29°08'01"	81°05'16"	28.47
B43-2	29°08'07	81°05'23"	28.23
B44	29°08'07"	81°05'27"	30.03
B45-2	29°08'07"	81°05'32"	30.35
B59-2R	29°08'23"	81°06'05"	33.12
B63-2	29°07'39"	81°05'59"	30.38
B64	29°07'40"	81°05'19"	28.22
B65	29°07'48"	81°05'09"	27.97
B70-2	29°08'11"	81°05'37"	31.51
B71	29°08'15"	81°05'37"	30.75
B72	29°08'20"	81°05'39"	28.93
B73-2	29°08'24"	81°05'42"	28.95
B74	29°08'24"	81°05'47"	33.78
B75	29°08'24"	81°05'53"	31.62

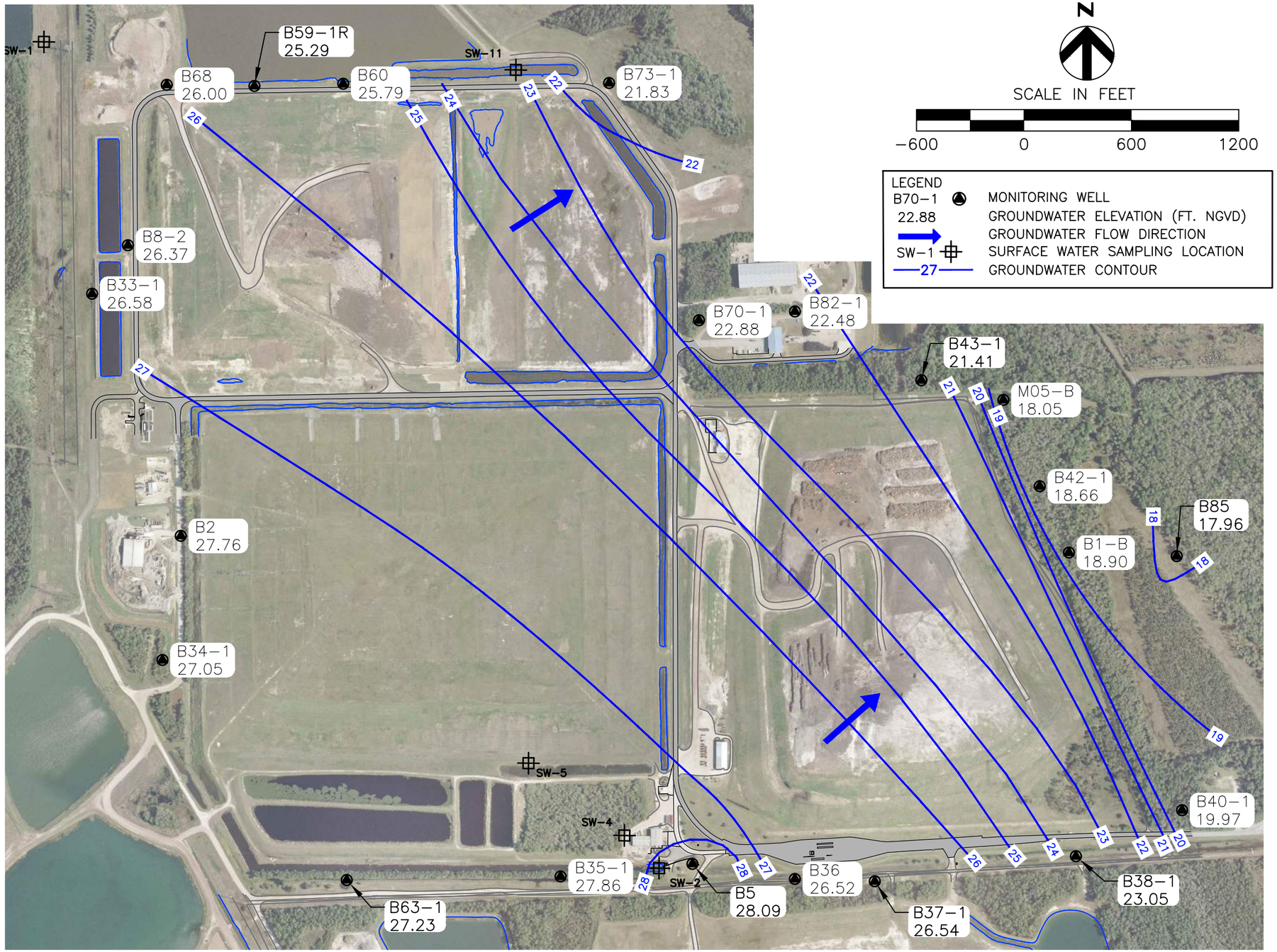
NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER CONTOURS DO NOT INCLUDE THE SURFACE WATER BODIES.
3. GROUNDWATER LEVELS WERE MEASURED ON MAY 13, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONES 1 & 2 GROUNDWATER POTENTIOMETRIC MAP
1ST 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 10020897
PROJECT MANAGER J. CATCHES
DATE 07/2016
REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 2



N

SCALE IN FEET

−600 0 600 1200

LEGEND

B70−1 22.88	MONITORING WELL GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW−1	SURFACE WATER SAMPLING LOCATION
27	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B1−B	29°07'57"	81°05'14"	28.78
B2	29°07'58"	81°06'09"	34.53
B5	29°07'40"	81°05'38"	32.59
B8−2	29°08'14"	81°06'11"	33.37
B33−1	29°08'12"	81°06'14"	34.69
B34−1	29°07'51"	81°06'11"	31.19
B35−1	29°07'39"	81°05'46"	29.26
B36	29°07'39"	81°05'31"	29.33
B37−1	29°07'39"	81°05'25"	28.63
B38−1	29°07'40"	81°05'13"	28.24
B40−1	29°07'43"	81°05'07"	27.77
B42−1	29°08'01"	81°05'16"	28.30
B43−1	29°08'07"	81°05'23"	28.09
B59−1R	29°08'23"	81°06'05"	32.44
B60	29°08'24"	81°05'59"	32.95
B63−1	29°07'39"	81°05'59"	30.03
B68	29°08'23"	81°06'10"	32.98
B70−1	29°08'11"	81°05'37"	31.03
B73−1	29°08'24"	81°05'42"	29.20
M05−B	29°08'06"	81°05'18"	29.80
B82−1	29°08'11"	81°05'30"	30.78
B85	29°07'57"	81°05'06"	27.07

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON MAY 13, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 4 GROUNDWATER POTENTIOMETRIC MAP
1ST 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 07/2016

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 3

N

SCALE IN FEET

−600 0 600 1200

LEGEND

B76-6	MONITORING WELL
17.57	GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW-1	SURFACE WATER SAMPLING LOCATION
20	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B85-6	29°07'57"	81°05'05"	27.02
B87-6	29°08'15"	81°05'26"	29.37

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON MAY 13, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 6 GROUNDWATER POTENTIOMETRIC MAP
1ST 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

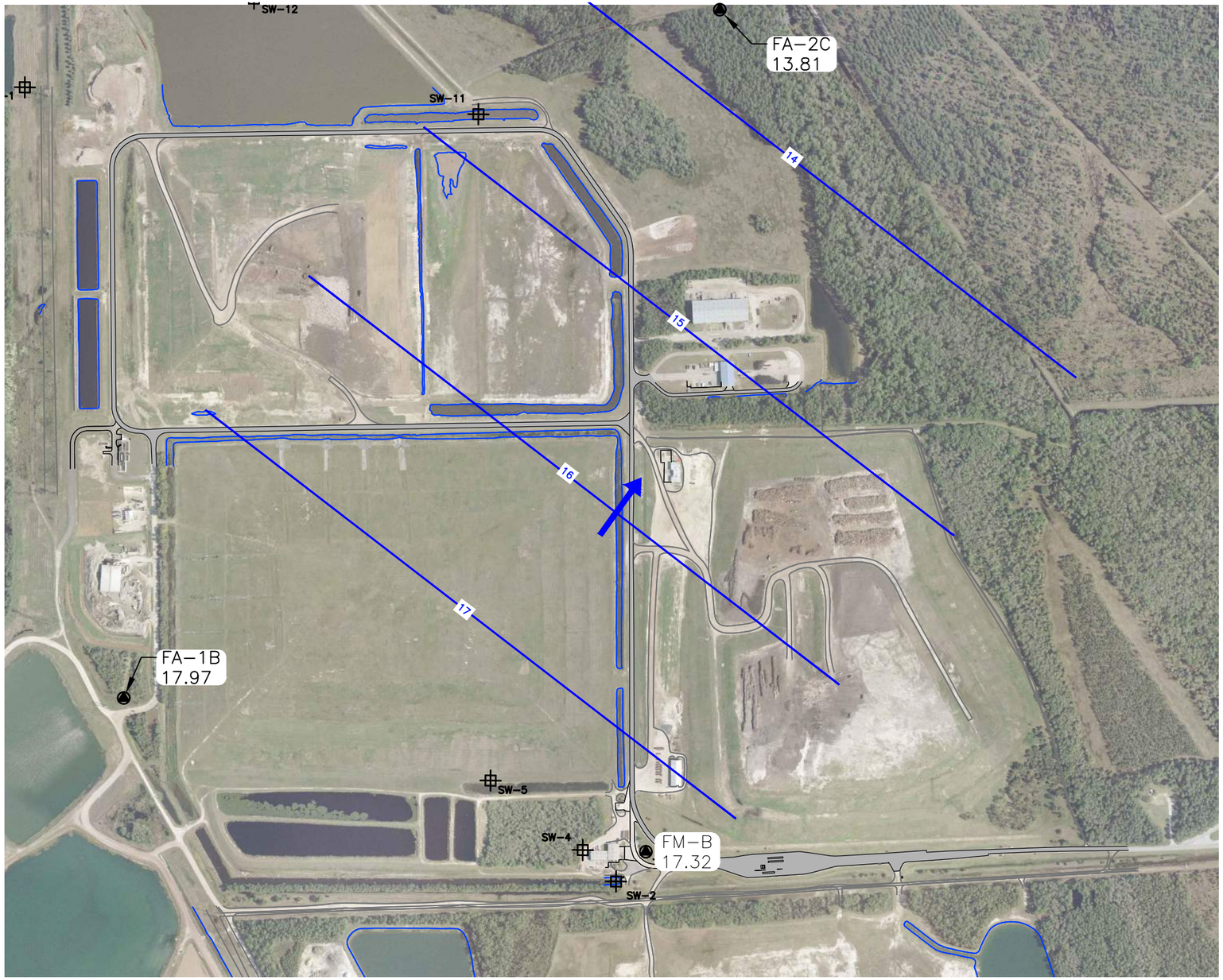
PROJECT MANAGER J. CATCHES

DATE 07/2016

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 4



N

SCALE IN FEET

−700 0 700 1400

LEGEND

FA−2C	MONITORING WELL
13.81	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW−1	SURFACE WATER SAMPLING LOCATION
—15—	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
FA−1B	29°07'51"	81°06'11"	32.22
FA−2C	29°08'31"	81°05'32"	28.10
F−MB	29°07'42"	81°05'36"	33.88

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON MAY 13, 2016.

HDR

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
FLORIDAN AQUIFER GROUNDWATER POTENTIOMETRIC MAP
1ST 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

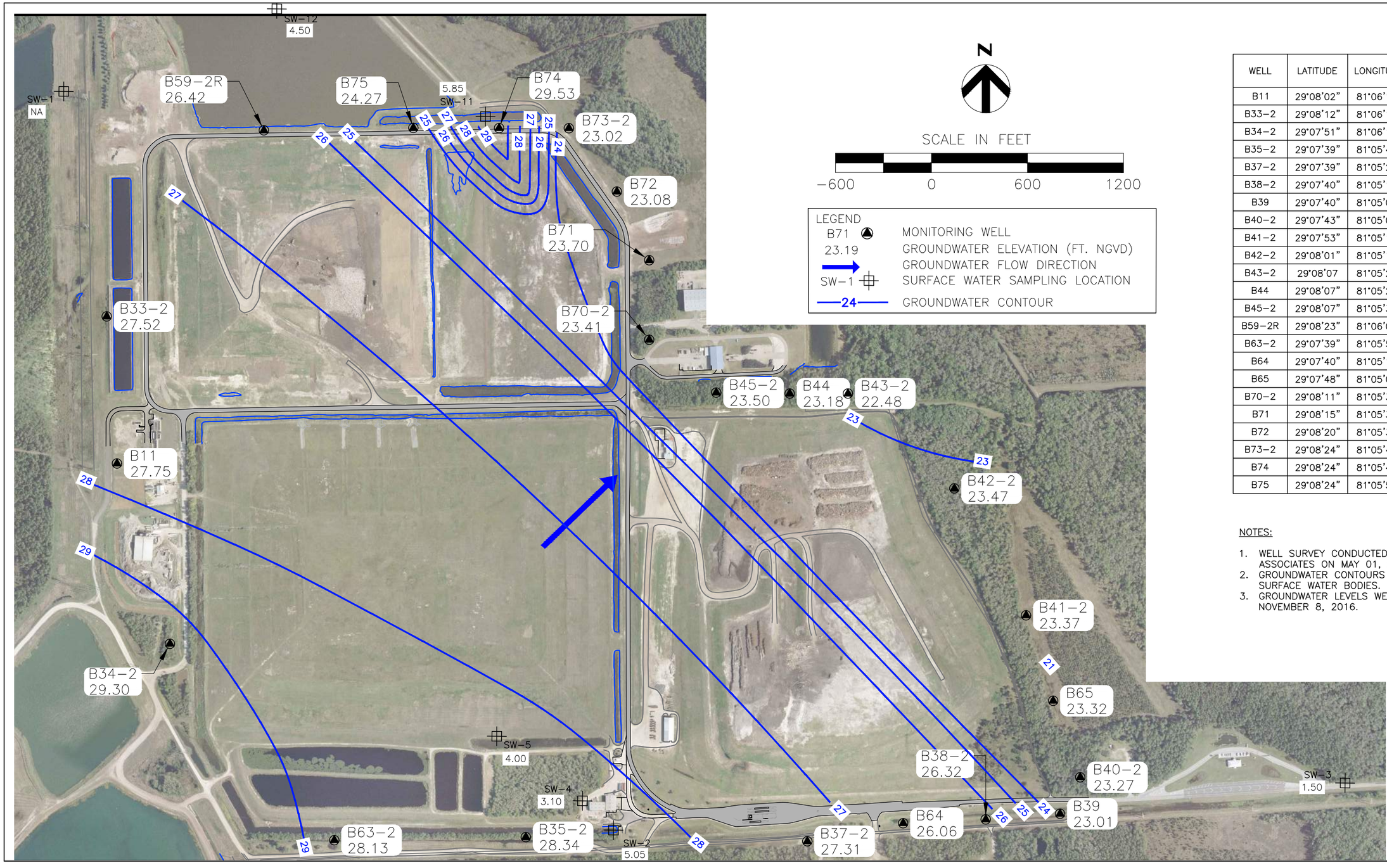
PROJECT MANAGER J. CATCHES

DATE 07/2016

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 5



WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B11	29°08'02"	81°06'14"	32.95
B33-2	29°08'12"	81°06'14"	32.97
B34-2	29°07'51"	81°06'11"	31.20
B35-2	29°07'39"	81°05'46"	29.34
B37-2	29°07'39"	81°05'25"	28.76
B38-2	29°07'40"	81°05'13"	28.12
B39	29°07'40"	81°05'08"	29.09
B40-2	29°07'43"	81°05'07"	27.67
B41-2	29°07'53"	81°05'11"	29.27
B42-2	29°08'01"	81°05'16"	28.47
B43-2	29°08'07	81°05'23"	28.23
B44	29°08'07"	81°05'27"	30.03
B45-2	29°08'07"	81°05'32"	30.35
B59-2R	29°08'23"	81°06'05"	33.12
B63-2	29°07'39"	81°05'59"	30.38
B64	29°07'40"	81°05'19"	28.22
B65	29°07'48"	81°05'09"	27.97
B70-2	29°08'11"	81°05'37"	31.51
B71	29°08'15"	81°05'37"	30.75
B72	29°08'20"	81°05'39"	28.93
B73-2	29°08'24"	81°05'42"	28.95
B74	29°08'24"	81°05'47"	33.78
B75	29°08'24"	81°05'53"	31.62

NOTES:

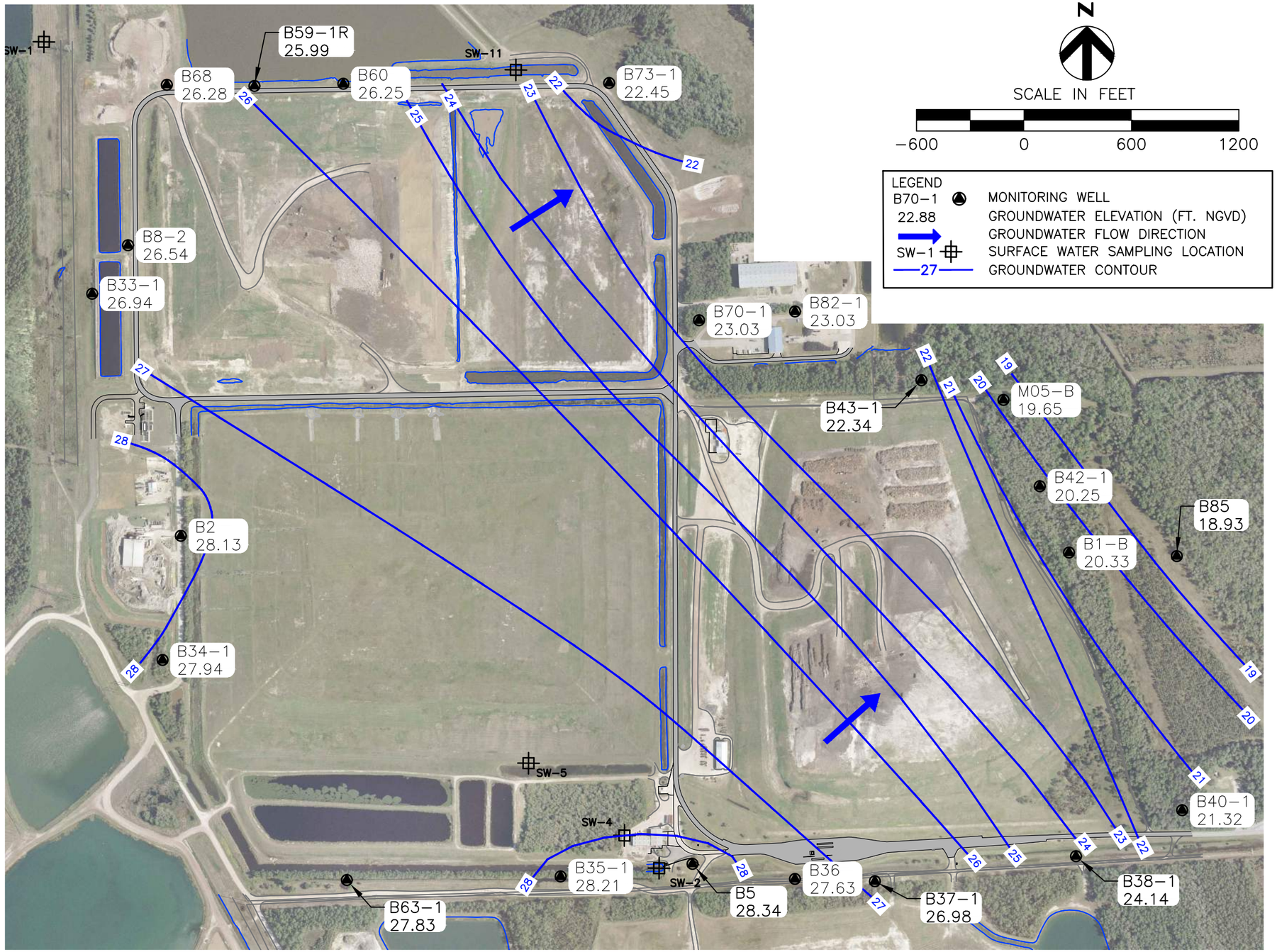
1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER CONTOURS DO NOT INCLUDE THE SURFACE WATER BODIES.
3. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 8, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONES 1 & 2 GROUNDWATER POTENTIOMETRIC MAP
2ND 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 10020897
PROJECT MANAGER J. CATCHES
DATE 11/2016

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 2



WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B1-B	29°07'57"	81°05'14"	28.78
B2	29°07'58"	81°06'09"	34.53
B5	29°07'40"	81°05'38"	32.59
B8-2	29°08'14"	81°06'11"	33.37
B33-1	29°08'12"	81°06'14"	34.69
B34-1	29°07'51"	81°06'11"	31.19
B35-1	29°07'39"	81°05'46"	29.26
B36	29°07'39"	81°05'31"	29.33
B37-1	29°07'39"	81°05'25"	28.63
B38-1	29°07'40"	81°05'13"	28.24
B40-1	29°07'43"	81°05'07"	27.77
B42-1	29°08'01"	81°05'16"	28.30
B43-1	29°08'07"	81°05'23"	28.09
B59-1R	29°08'23"	81°06'05"	32.44
B60	29°08'24"	81°05'59"	32.95
B63-1	29°07'39"	81°05'59"	30.03
B68	29°08'23"	81°06'10"	32.98
B70-1	29°08'11"	81°05'37"	31.03
B73-1	29°08'24"	81°05'42"	29.20
M05-B	29°08'06"	81°05'18"	29.80
B82-1	29°08'11"	81°05'30"	30.78
B85	29°07'57"	81°05'06"	27.07

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 8, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 4 GROUNDWATER POTENTIOMETRIC MAP
2ND 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490
PROJECT MANAGER J. CATCHES
DATE 11/2016

REFERENCE SHEET
REFERENCE DOCUMENT
EXHIBIT NUMBER FIGURE 3

N

SCALE IN FEET

−600 0 600 1200

LEGEND

B76-6	MONITORING WELL
18.42	GROUNDWATER ELEVATION (FT. NGVD)
	GROUNDWATER FLOW DIRECTION
SW-1	SURFACE WATER SAMPLING LOCATION
20	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
B85-6	29°07'57"	81°05'05"	27.02
B87-6	29°08'15"	81°05'26"	29.37

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 8, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
ZONE 6 GROUNDWATER POTENTIOMETRIC MAP
2ND 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

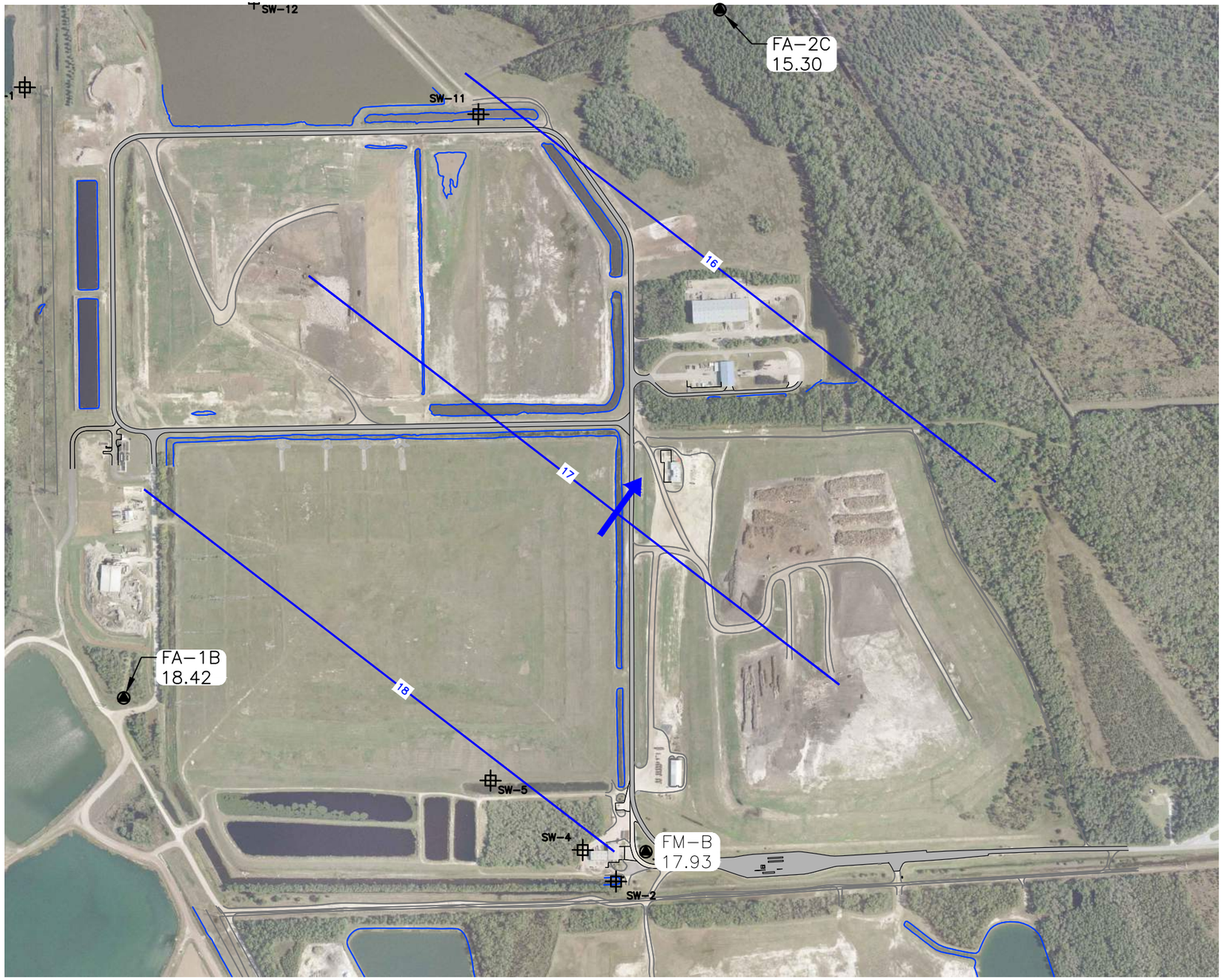
PROJECT MANAGER J. CATCHES

DATE 11/2016

REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 4



N

SCALE IN FEET

−700 0 700 1400

LEGEND

FA−2C ▲	MONITORING WELL
15.30	GROUNDWATER ELEVATION (FT. NGVD)
→	GROUNDWATER FLOW DIRECTION
SW−1 ⌗	SURFACE WATER SAMPLING LOCATION
—16—	GROUNDWATER CONTOUR

WELL	LATITUDE	LONGITUDE	TOP OF CASING ELEVATION (NGVD)
FA−1B	29°07'51"	81°06'11"	32.22
FA−2C	29°08'31"	81°05'32"	28.10
F−MB	29°07'42"	81°05'36"	33.88

NOTES:

1. WELL SURVEY CONDUCTED BY SLIGER & ASSOCIATES ON MAY 01, 2009.
2. GROUNDWATER LEVELS WERE MEASURED ON NOVEMBER 8, 2016.

PROJECT TITLE TOMOKA FARMS ROAD LANDFILL

SHEET TITLE
FLORIDAN AQUIFER GROUNDWATER POTENTIOMETRIC MAP
2ND 2016 SEMIANNUAL SAMPLING EVENT

PROJECT NUMBER 235490

PROJECT MANAGER J. CATCHES

DATE 11/2016

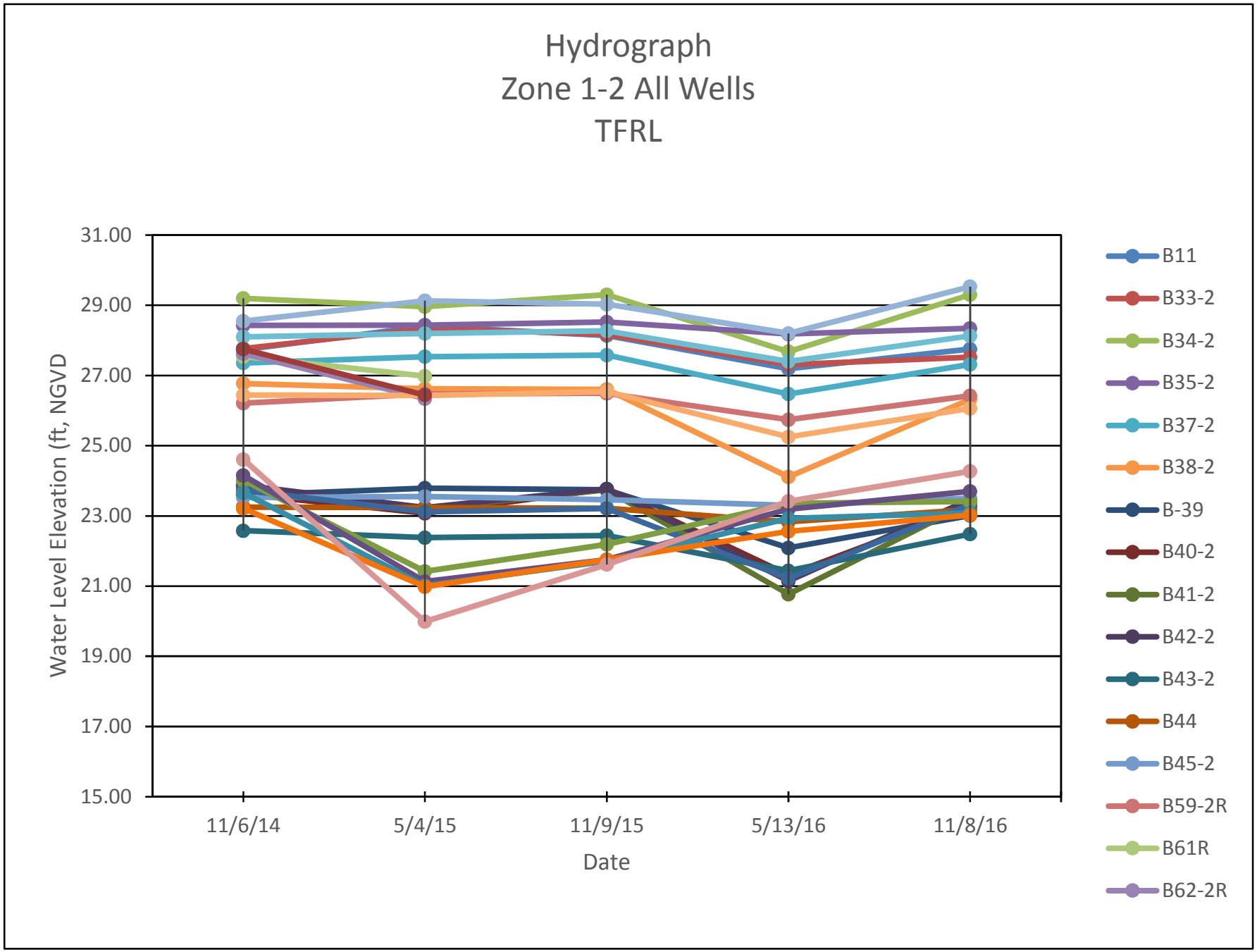
REFERENCE SHEET

REFERENCE DOCUMENT

EXHIBIT NUMBER FIGURE 5

APPENDIX B

HYDROGRAPHS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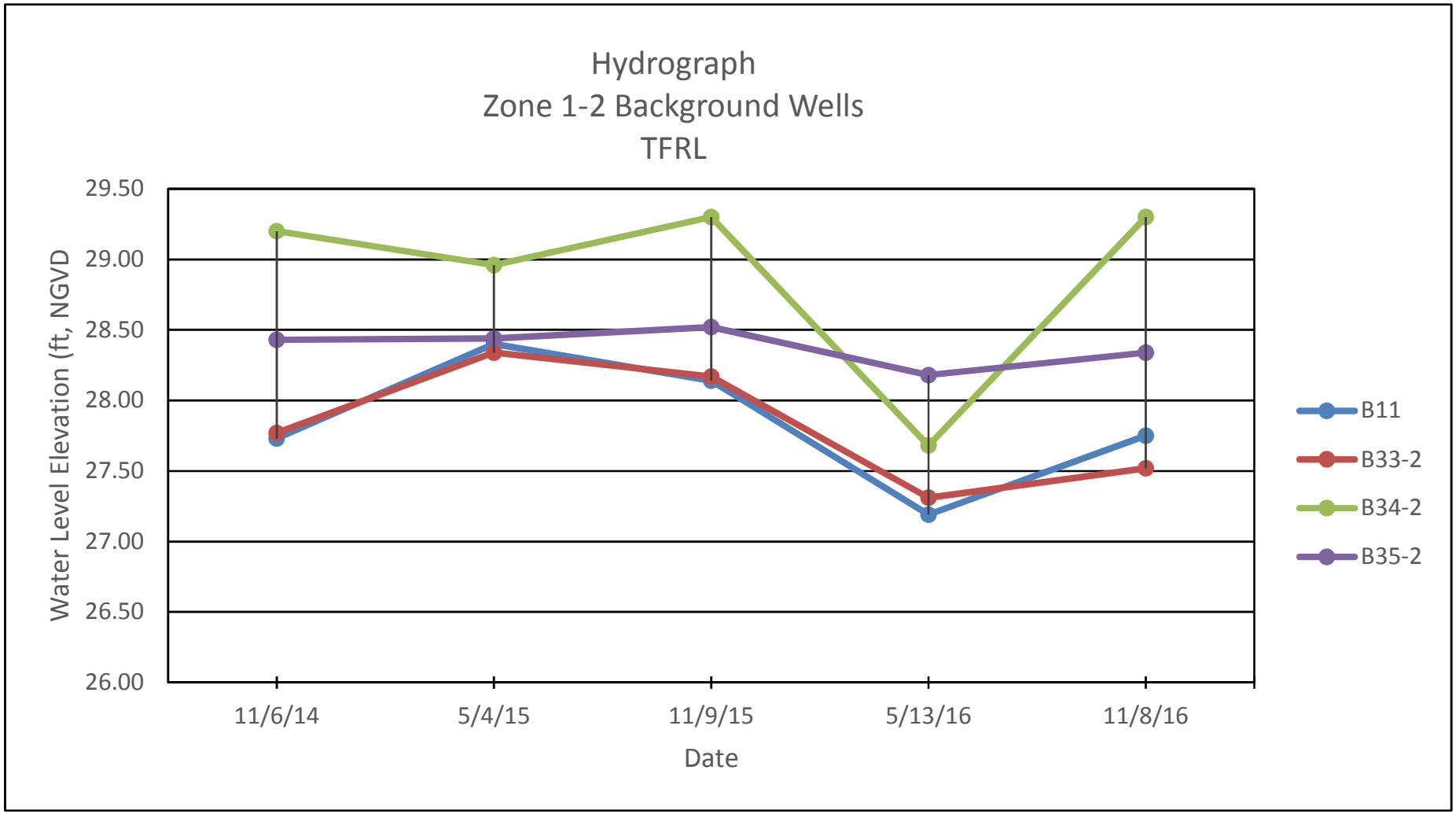
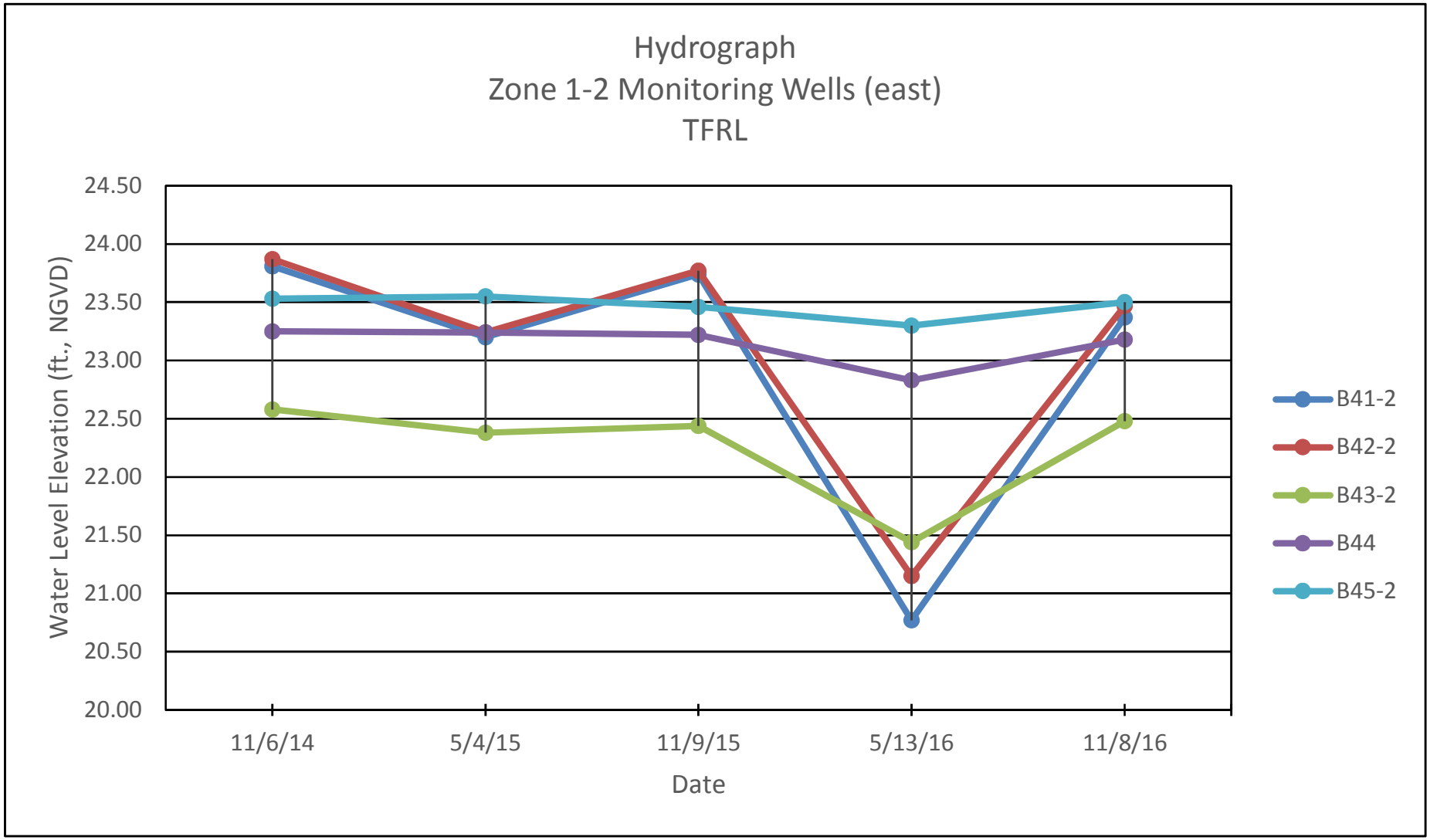
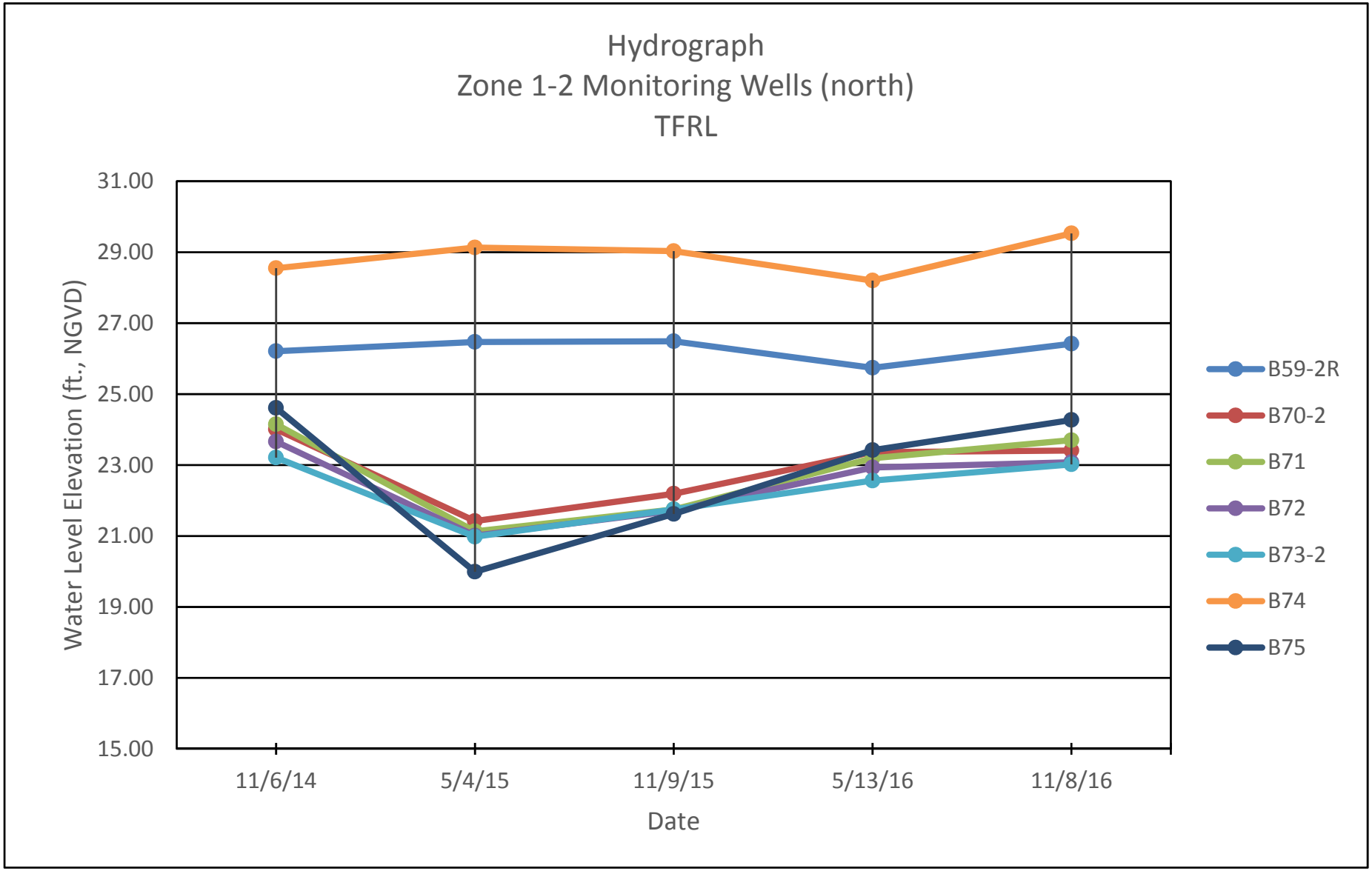
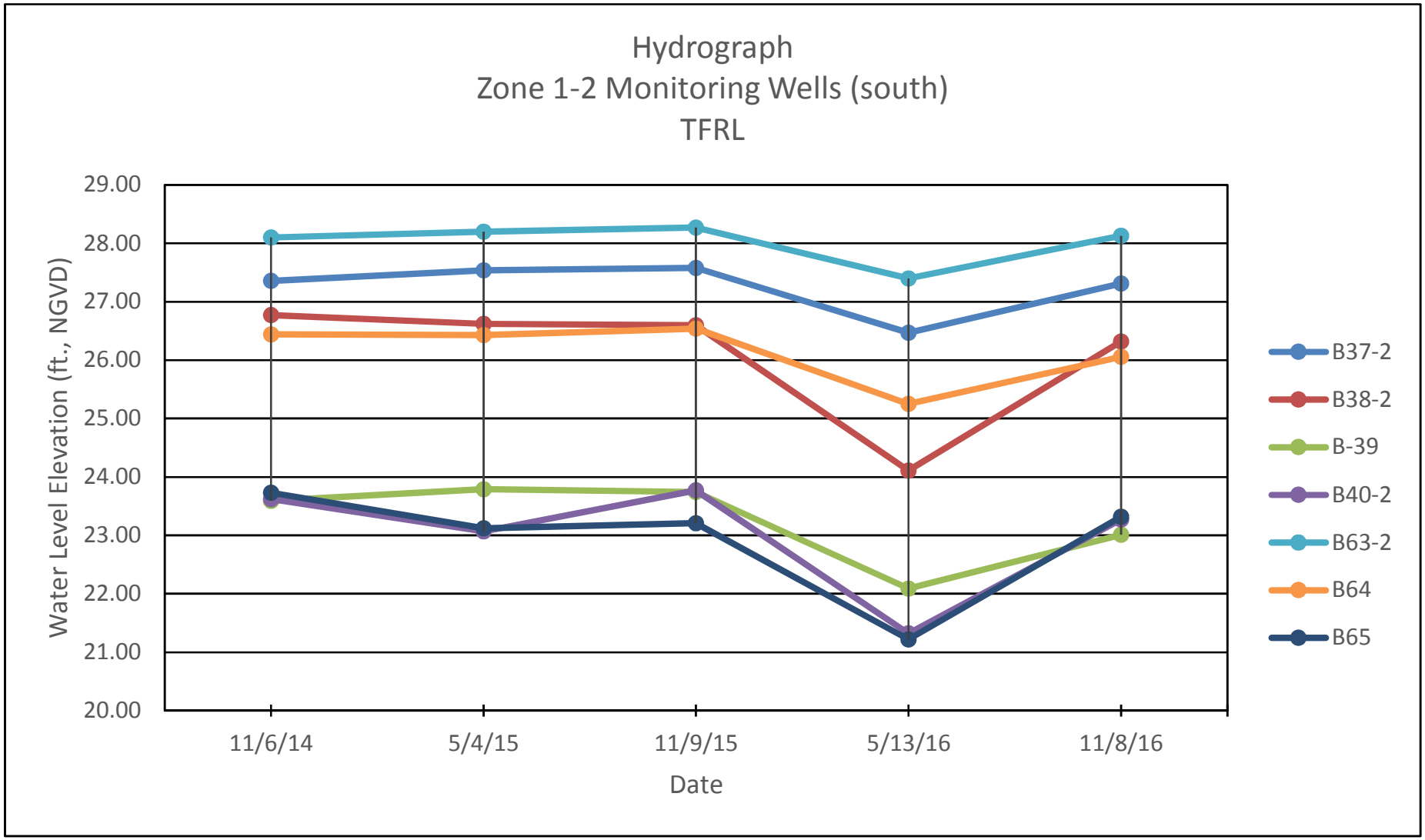
Zone 1-2 All Wells
TFRL
Water Level Elevation (ft, NGVD
31.00
29.00
27.00
25.00
23.00
21.00
19.00
17.00
15.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B11
B33-2
B34-2
B35-2
B37-2
B38-2
B-39
B40-2
B41-2
B42-2
B43-2
B44
B45-2
B59-2R
B61R
B62-2R


Hydrograph
Zone 1-2 Background Wells
TFRL
Water Level Elevation (ft, NGVD
29.50
29.00
28.50
28.00
27.50
27.00
26.50
26.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B11
B33-2
B34-2
B35-2


Hydrograph
Zone 1-2 Monitoring Wells (east)
TFRL
Water Level Elevation (ft., NGVD)
24.50
24.00
23.50
23.00
22.50
22.00
21.50
21.00
20.50
20.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B41-2
B42-2
B43-2
B44
B45-2


Hydrograph
Zone 1-2 Monitoring Wells (north)
TFRL
Water Level Elevation (ft., NGVD)
31.00
29.00
27.00
25.00
23.00
21.00
19.00
17.00
15.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B59-2R
B70-2
B71
B72
B73-2
B74
B75


Hydrograph
Zone 1-2 Monitoring Wells (south)
TFRL
Water Level Elevation (ft., NGVD)
29.00
28.00
27.00
26.00
25.00
24.00
23.00
22.00
21.00
20.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
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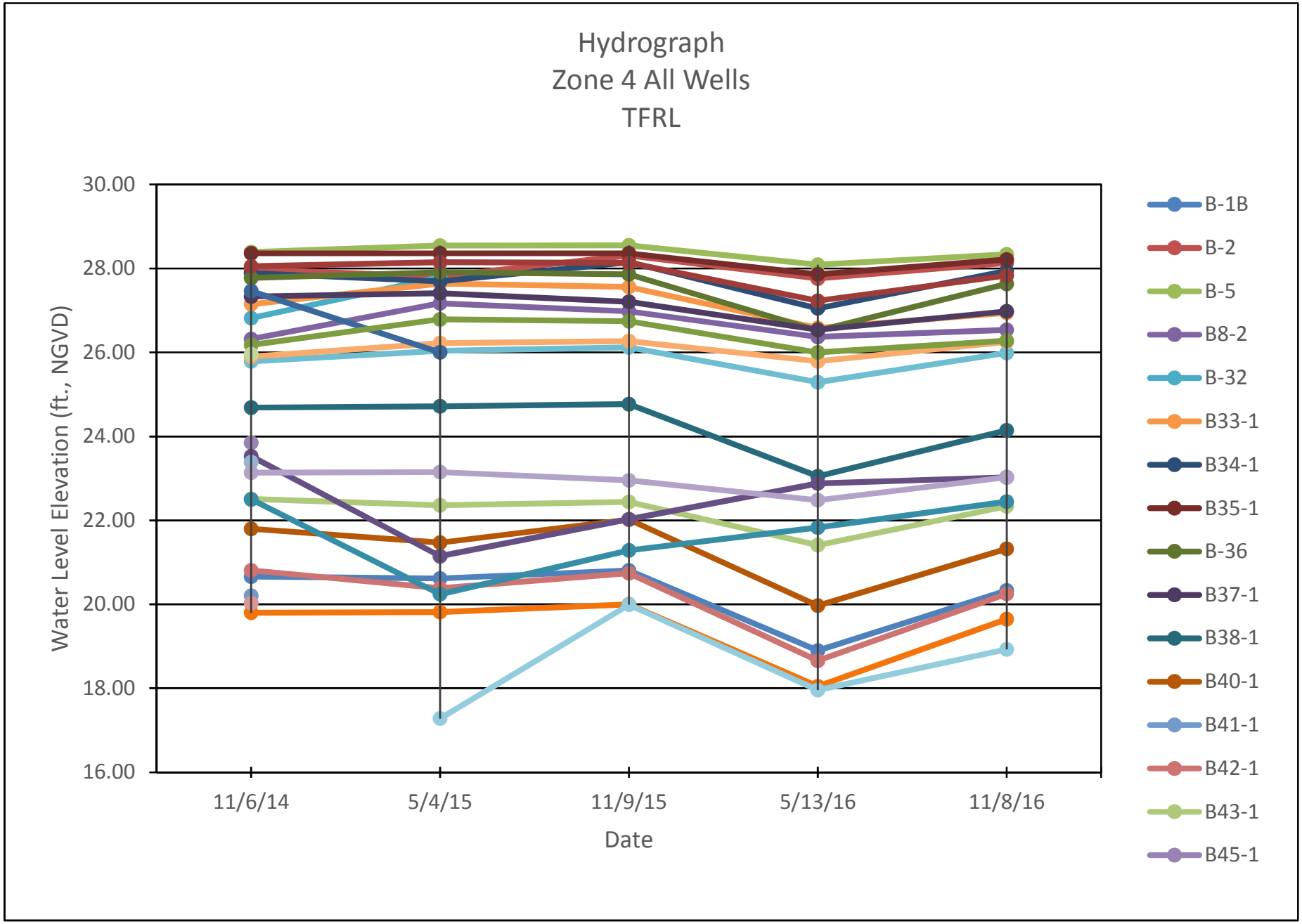
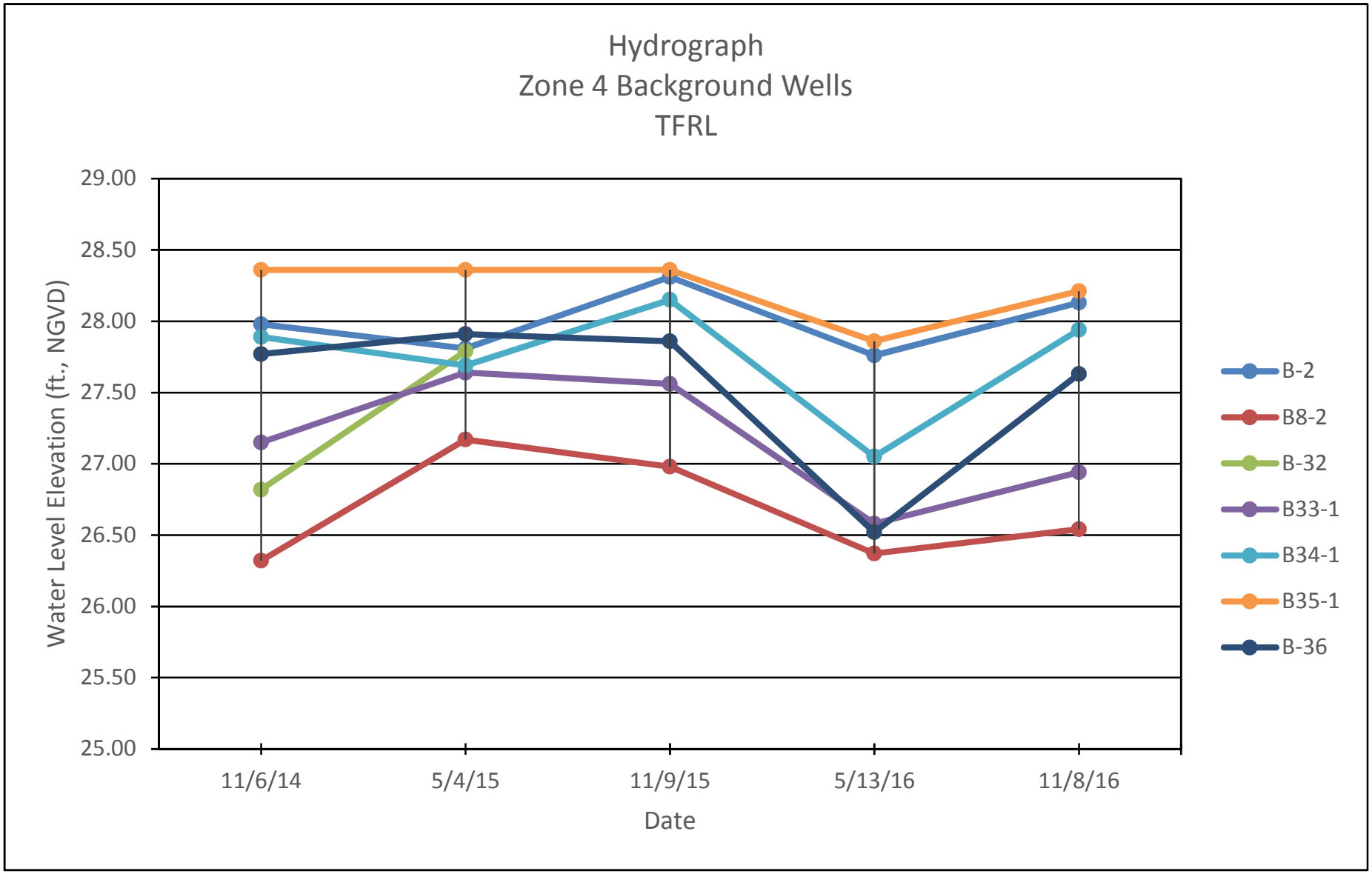
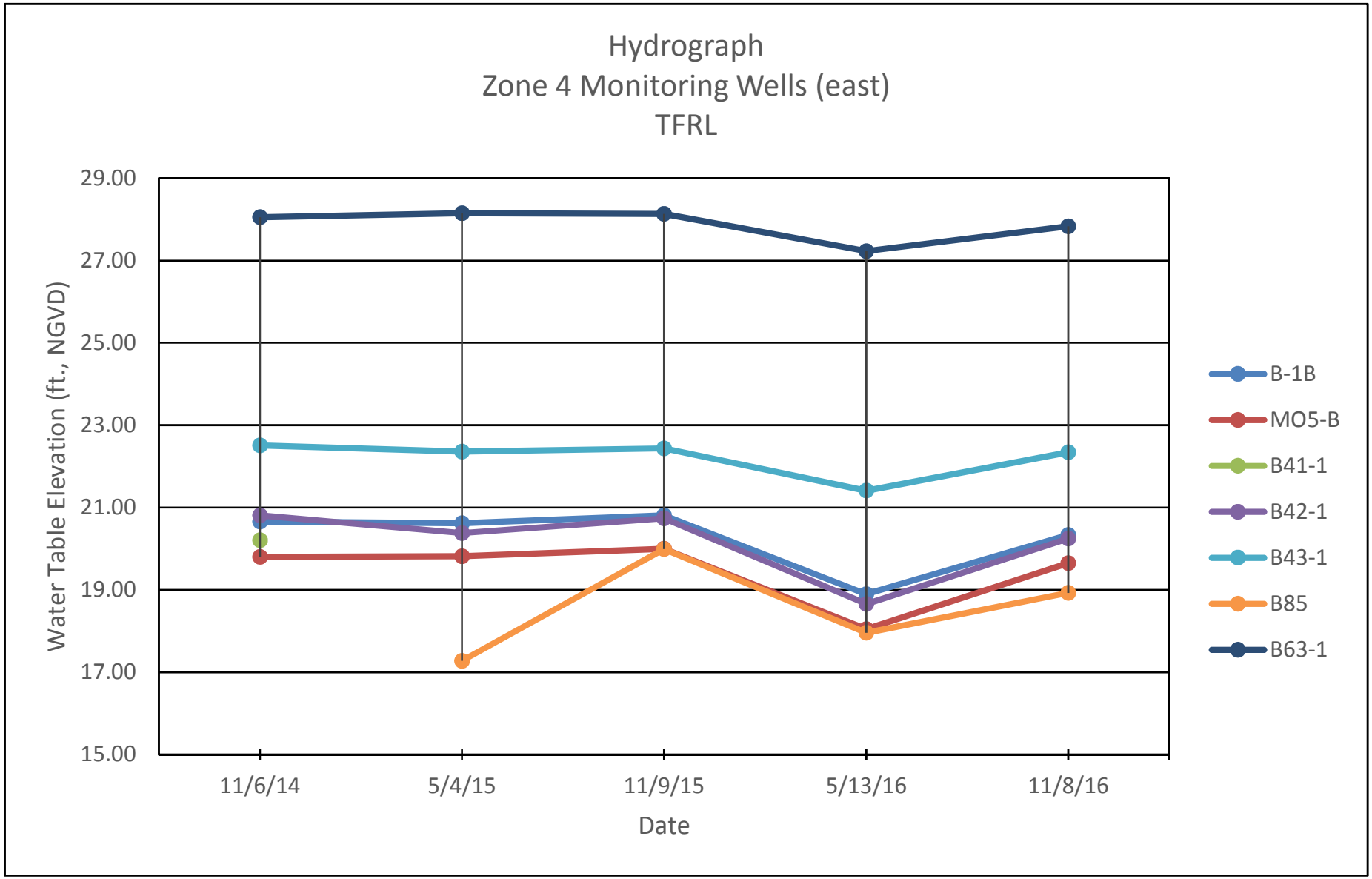
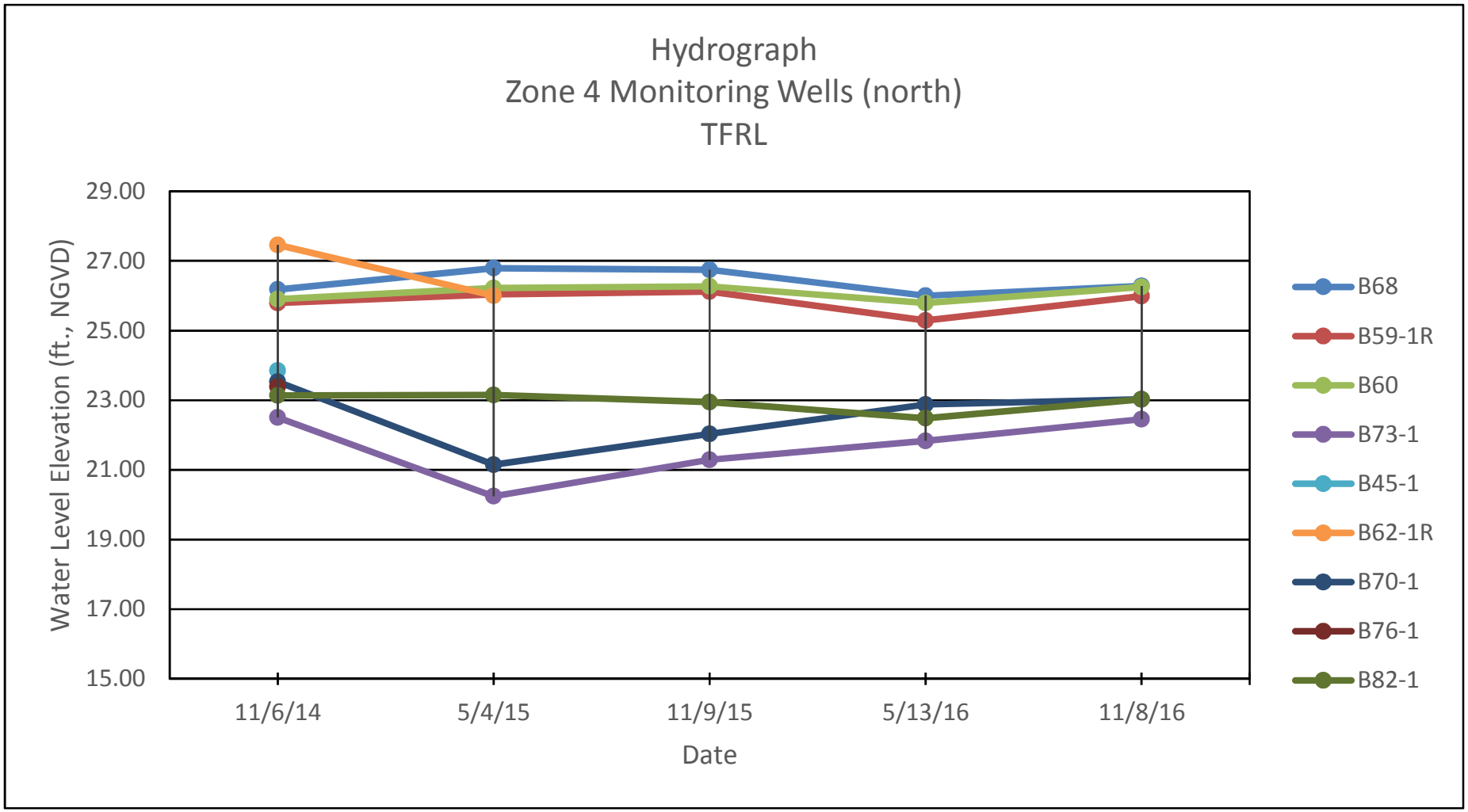
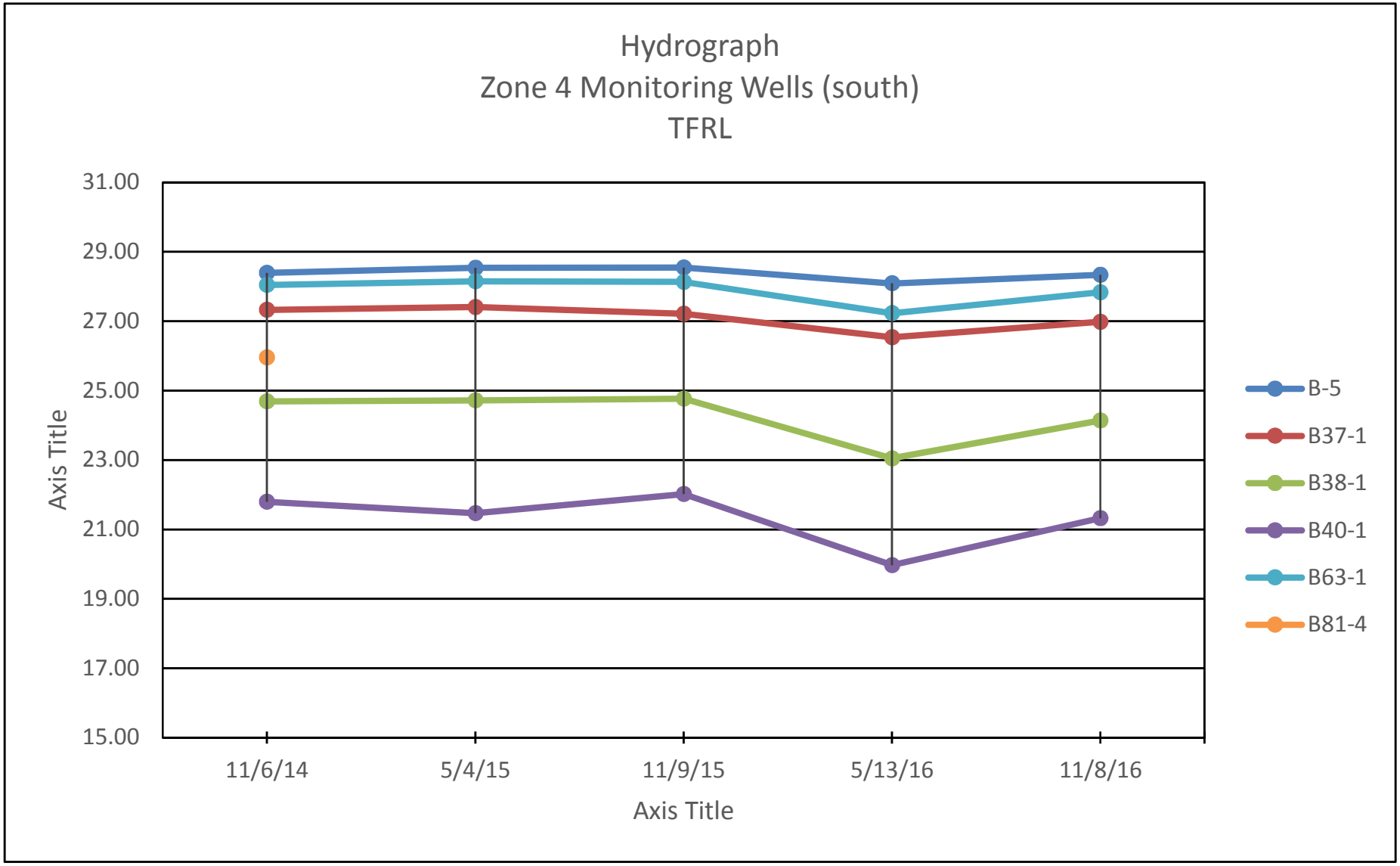
B-39
B40-2
B63-2
B64
B65

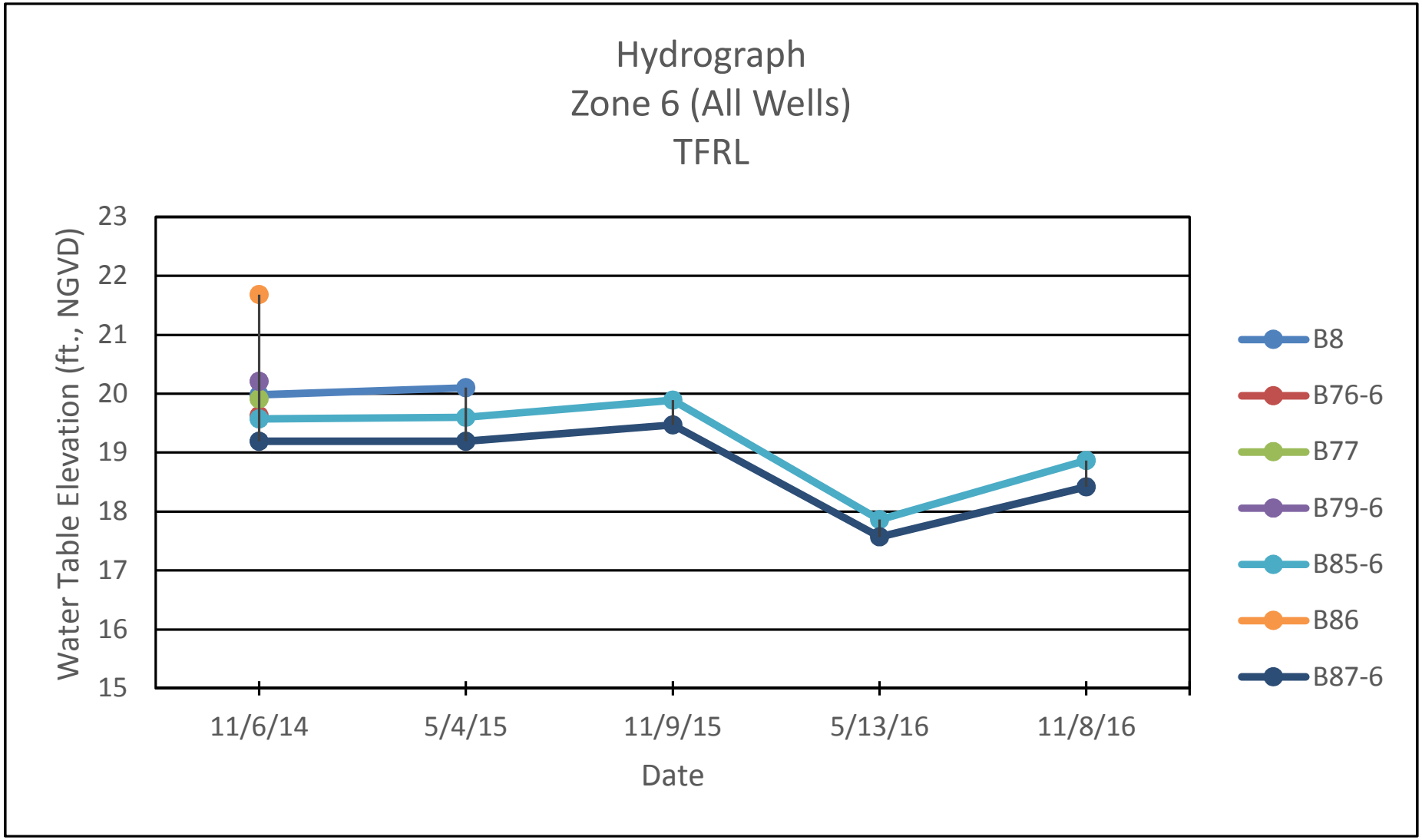

Hydrograph
Zone 4 All Wells
TFRL
Water Level Elevation (ft., NGVD)
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B-1B
B-2
B-5
B8-2
B-32
B33-1
B34-1
B35-1
B-36
B37-1
B38-1
B40-1
B41-1
B42-1
B43-1
B45-1

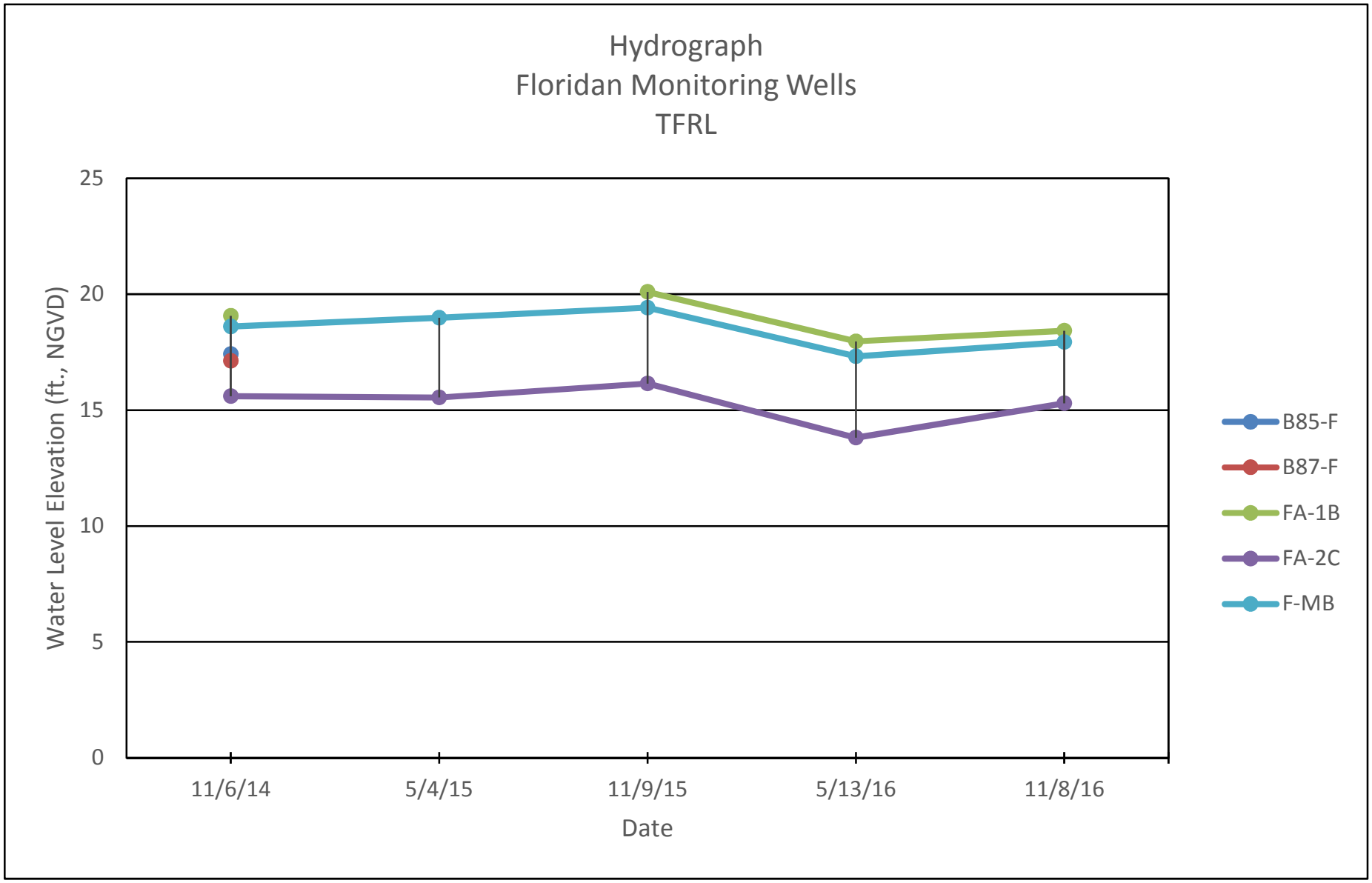

Hydrograph
Zone 4 Background Wells
TFRL
Water Level Elevation (ft., NGVD)
29.00
28.50
28.00
27.50
27.00
26.50
26.00
25.50
25.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B-2
B8-2
B-32
B33-1
B34-1
B35-1
B-36


Hydrograph
Zone 4 Monitoring Wells (east)
TFRL
Water Table Elevation (ft., NGVD)
29.00
27.00
25.00
23.00
21.00
19.00
17.00
15.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B-1B
MO5-B
B41-1
B42-1
B43-1
B85
B63-1


Hydrograph
Zone 4 Monitoring Wells (north)
TFRL
Water Level Elevation (ft., NGVD)
29.00
27.00
25.00
23.00
21.00
19.00
17.00
15.00
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B68
B59-1R
B60
B73-1
B45-1
B62-1R
B70-1
B76-1
B82-1


Hydrograph
Zone 4 Monitoring Wells (south)
TFRL
31.00
29.00
27.00
25.00
23.00
21.00
19.00
17.00
15.00
Axis Title
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Axis Title
B-5
B37-1
B38-1
B40-1
B63-1
B81-4


Hydrograph
Zone 6 (All Wells)
TFRL
Water Table Elevation (ft., NGVD)
23
22
21
20
19
18
17
16
15
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B8
B76-6
B77
B79-6
B85-6
B86
B87-6


Hydrograph
Floridan Monitoring Wells
TFRL
Water Level Elevation (ft., NGVD)
25
20
15
10
5
0
11/6/14
5/4/15
11/9/15
5/13/16
11/8/16
Date
B85-F
B87-F
FA-1B
FA-2C
F-MB

APPENDIX C

TABLES

1. Groundwater Well Construction Details
2. Groundwater Elevation Data
3. Surface Water Elevation Data
4. Groundwater Flow Velocity Calculation
5. Summary of Detected Groundwater Parameters – Zone 1-2
6. Summary of Detected Groundwater Parameters – Zone 4 & 6
7. Summary of Detected Groundwater Parameters – Floridan Aquifer
8. Summary of Detected Surface Water Parameters
9. Total Dissolved Solids/Specific Conductance (TDS/SC) Ratios

Appendix C - Table 1
Groundwater Well Construction Details
Tomoka Farms Road Landfill (2017)

Well ID	Also Known as	Well Type	Latitude	Longitude	Year Constructed	Monitored Zone	Well Diameter (Inches)	Riser Pipe Length (ft)	Ground Surface Elevation * (ft, NGVD)	Casing and Screen Characteristics								
										Casing				Screen				
										Bottom Depth (ft, BTOC)	Bottom Depth (ft, BLS)	TOC Elevation* (ft, NGVD)	Bottom Elevation (ft, NGVD)	Screen Length (ft)	Depth Top (ft, BLS)	Depth Bottom (ft, BLS)	Elevation Top (ft, NGVD)	Elevation Bottom (ft, NGVD)
B11	B-11B, B-11	BG	29°08'02"	-81°06'14"	1989	Zone 1-2	2	1.5	31.5	15.5	14	32.95	17.5	10	4	14	27.5	17.5
B33-2		BG	29°08'12"	-81°06'14"	1994	Zone 1-2	2	2.9	30.1	17.9	15	32.97	15.1	10	5	15	25.1	15.1
B34-2		BG	29°07'51 "	-81°06'11"	1994	Zone 1-2	2	1.8	29.4	16.8	15	31.2	14.4	10	5	15	24.4	14.4
B8-2		IM	29°08'14"	-81°06'11"	1994	Zone 4	2	2.8	30.6	32.8	30	33.37	0.6	10	20	30	10.6	0.6
B35-2		BG	29°07'39"	-81°05'46"	1994	Zone 1-2	2	1.7	27.6	16.7	15	29.34	12.6	10	5	15	22.6	12.6
B37-2		CO	29°07'39"	-81°05'25"	1994	Zone 1-2	2	1.4	27.4	16.4	15	28.76	12.4	10	5	15	22.4	12.4
B38-2		CO	29°07'40"	-81°05'13"	1994	Zone 1-2	2	1.8	26.3	16.8	15	28.12	11.3	10	5	15	21.3	11.3
B-39		CO	29°07'40"	-81°05'08"	1994	Zone 1-2	2	1.9	27.2	16.9	15	29.09	12.2	10	5	15	22.2	12.2
B40-2		CO	29°07'43"	-81°05'07"	1994	Zone 1-2	2	2.1	25.6	17.1	15	27.67	10.6	10	5	15	20.6	10.6
B41-2		CO	29°07'53"	-81°05'11"	1994	Zone 1-2	2	1.9	27.4	16.9	15	29.27	12.4	10	5	15	22.4	12.4
B42-2		CO	29°08'01"	-81°05'16"	1994	Zone 1-2	2	1.8	26.7	13.8	12	28.47	14.7	7	5	12	21.7	14.7
B43-1		CO	29°08'07"	-81°05'23"	1994	Zone 3-4	2	1.5	26.6	28.5	27	28.09	-0.4	10	17	27	9.6	-0.4
B43-2		CO	29°08'07"	-81°05'23"	1994	Zone 1-2	2	1.6	26.6	13.6	12	28.23	14.6	7	5	12	21.6	14.6
B44	B-44	CO	29°08'07"	-81°05'27"	1994	Zone 1-2	2	1.7	28.3	13.7	12	30.03	16.3	7	5	12	23.3	16.3
B45-2		CO	29°08'07"	-81°05'32"	1994	Zone 1-2	2	1.8	28.6	16.8	15	30.35	13.6	10	5	15	23.6	13.6
B59-2R	B5-9-2	CO	29°08'23"	-81°06'05"	2005	Zone 1-2	2	2.8	30.3	17.8	15	33.12	15.3	10	5	15	25.3	15.3
B63-2		CO	29°07'39"	-81°05'59"	1994	Zone 1-2	2	2.1	28.3	14.1	12	30.38	16.3	7	5	12	23.3	16.3
B-64		CO	29°07'40"	-81°05'19"	1994	Zone 1-2	2	1.6	26.6	13.6	12	28.22	14.6	7	5	12	21.6	14.6
B-65		CO	29°07'48"	-81°05'09"	1994	Zone 1-2	2	1.9	26.1	16.9	15	27.97	11.1	10	5	15	21.1	11.1
B70-2		DE	29°08'11"	-81°05'37"	2003	Zone 1-2	2	3	28.5	21	18	31.51	10.5	15	3	18	25.5	10.5
B71		DE	29°08'15"	-81°05'37"	2003	Zone 1-2	2	2.9	27.9	20.9	18	30.75	9.9	15	3	18	24.9	9.9
B72		DE	29°08'20"	-81°05'39"	2003	Zone 1-2	2	0.9	28	18.9	18	28.93	10	15	3	18	25	10
B73-2		DE	29°08'24"	-81°05'42"	2003	Zone 1-2	2	2.5	26.5	20.5	18	28.95	8.5	15	3	18	23.5	8.5
B74		DE	29°08'24"	-81°05'47"	2003	Zone 1-2	2	3.5	30.3	21.5	18	33.78	12.3	15	3	18	27.3	12.3
B75		DE	29°08'24"	-81°05'53"	2003	Zone 1-2	2	1.3	30.3	19.3	18	31.62	12.3	15	3	18	27.3	12.3
B82-1		CO	28°08'10.9"	-81°05'29.9"	2013	Zone 4	2	2.66	28.12	37.66	25	30.78	3.12	10	25	35	3.12	-6.88
B87-6		CO	29°08'15"	-81°05'26.4"	2013	Zone 6	2	3.02	26.35	43.02	40	29.37	-10.63	10	40	50	-10.63	-20.63
B85		CO	29°07'57.4"	-81°05'5.8"	2013	Zone 4	2	2.83	24.24	32.83	30	27.07	-5.76	10	30	40	-5.76	-15.76
B85-6		CO	29°07'57.3"	-81°05'5.7"	2013	Zone 6	2	2.71	24.31	-14.48	41.5	27.02	-17.19	10	41.5	51.5	-17.19	-27.19
FA-1B		BG	29°07'51"	-81°06'11"	1987	Floridan	2	3	29.2	95	92	32.22	-62.8	1	91	92	-61.8	-62.8
FA-2C		CO	29°08'31"	-81°05'32"	1991	Floridan	2	2.6	25.5	102.6	100	28.1	-74.5	6	94	100	-68.5	-74.5
F-MB	FM-B	CO	29°07'42"	-81°05'36"	2008	Floridan	2	2.8	31.08	100.8	98	33.88	NA	NA	NA	NA	NA	NA
B1-B	B-1B	CO	29°07'57"	-81°05'14"	1987	Zone 4	2	1.8	27	34.8	33	28.78	-6	5	28	33	-1	-6
B-2	B-2-B	BG	29°07'58"	-81°06'09"	2005	Zone 4	2	2.9	31.6	26.9	24	34.53	7.6	5	19	24	12.6	7.6
B-5	B5-B, B5	CO	29°07'40"	-81°05'38"	1991	Zone 4	2	1.4	31.2	24.4	23	32.59	8.2	5	18	23	13.2	8.2
B33-1		BG	29°08'12"	-81°06'14"	1991	Zone 4	2	3	31.7	35	32	34.69	-0.3	10	22	32	9.7	-0.3
B34-1		BG	29°07'51"	-81°06'11"	1994	Zone 4	2	1.8	29.4	33.8	32	31.19	-2.6	10	22	32	7.4	-2.6
B35-1		BG	29°07'39"	-81°05'46"	1994	Zone 4	2	1.7	27.6	33.7	32	29.26	-4.4	10	22	32	5.6	-4.4
B36	B-36	BG	29°07'39"	-81°05'31"	1994	Zone 4	2	1.6	27.7	34.6	33	29.33	-5.3	10	23	33	4.7	-5.3
B37-1		CO	29°07'39"	-81°05'25"	1994	Zone 4	2	1.4	27.2	38.4	37	28.63	-9.8	10	27	37	0.2	-9.8
B38-1		CO	29°07'40"	-81°05'13"	1994	Zone 4	2	2	26.2	39	37	28.24	-10.8	10	27	37	-0.8	-10.8
B40-1		CO	29°07'43"	-81°05'07"	1994	Zone 4	2	2.2	25.6	30.2	28	27.77	-2.4	10	18	28	7.6	-2.4
B42-1		CO	29°08'01"	-81°05'16"	1994	Zone 4	2	1.6	26.7	31.6	30	28.3	-3.3	10	20	30	6.7	-3.3
B59-1R	B5-9-1	CO	29°08'23"	-81°06'05"	2005	Zone 4	2	2.1	30.3	34.1	32	32.44	-1.7	10	22	32	8.3	-1.7
B-60	B60	CO	29°08'24"	-81°05'59"	1994	Zone 4	2	2.5	30.5	32.5	30	32.95	0.5	10	20	30	10.5	0.5
B63-1		CO	29°07'39"	-81°05'59"	1994	Zone 4	2	1.6	28.4	30.6	29	30.03	-0.6	10	19	29	9.4	-0.6
B-68		CO	29°08'23"	-81°06'10"	1994	Zone 4	2	2.3	30.7	32.3	30	32.98	0.7	10	20	30	10.7	0.7
B70-1		CI	29°08'11 "	-81°05'37"	2003	Zone 4	2	2.5	28.5	37.5	35	31.03	-6.5	10	25	35	3.5	-6.5
B73-1		CO	29°08'24"	-81°05'42"	2003	Zone 4	2	2.3	26.9	37.3	35	29.2	-8.1	10	25	35	1.9	-8.1
MO5B	MO-5B,MO5	CO	29°08'06"	-81°05'18"	1987	Zone 4	2	3.4	26.4	35.4	32	29.8	-5.6	5	27	32	-0.6	-5.6
B8	B8-1	IM	29°08'14"	-81°06'11"	1987	Zone 6	2	2.6	30.9	50.6	48	33.53	-17.1	5	43	48	-12.1	-17.1
B-32		BG	29°08'17"	-81°06'14"	1994	Zone 4	2	1.3	29.6	31.3	30	30.92	-0.4	10	20	30	9.6	-0.4
B-61R	B-61	CO	29°08'05"	-81°05'52"	2002	Zone 1-2	2	3.7	35.7	28.7	25	39.42	10.7	10	15	25	20.7	10.7
B62-1R		CO	29°08'05"	-81°05'44"	2002	Zone 4	2	3.8	35.2	38.8	35	38.97	0.2	15	20	35	15.2	0.2
B62-2R		CO	29°08'05"	-81°05'44"	2002	Zone 1-2	2	4.1	35.3	22.1	18	39.36	17.3	7	11	18	24.3	17.3
B-66		CO	29°08'06"	-81°05'38"	1994	Zone 1-2	2	1.1	30.2	16.1	15	31.26	15.2	10	5	15	25.2	15.2
B45-1		CO	29°08'07"	-81°05'32"	1994	Zone 4	2	2	28.3	37	35	30.28	-6.7	10	25	35	3.3	-6.7
B41-1		CO	29°07'53"	-81°05'11"	1994	Zone 4	2	1.8	27.4	38.8	37	29.16	-9.6	10	27	37	0.4	-9.6

Note: ft = feet
NGVD = National Geodetic Vertical Datum
TOC = Top of Casing
BTOC = Below Top of Casing
BLS = Below Land Surface
*Surfey data taken from Survey performed by Sliger & Associates, Inc., dated October 8, 2013

Suspended August 2014
Suspended June 2015

Appendix C
Table 2 - Groundwater Elevation Data
Tomoka Farms Landfill
Reporting Period November 2014 to November 2016

Well Number	Aquifer Zone	Top of Casing (feet, NGVD)	Groundwater Elevation (ft, NGVD)				
			11/6/14	5/4/15	11/9/15	5/13/16	11/8/16
Zone 1 & 2							
B11	1-2	32.95	27.73	28.40	28.14	27.19	27.75
B33-2	1-2	32.97	27.77	28.34	28.17	27.31	27.52
B34-2	1-2	31.20	29.20	28.96	29.30	27.68	29.30
B35-2	1-2	29.34	28.43	28.44	28.52	28.18	28.34
B37-2	1-2	28.76	27.36	27.54	27.58	26.47	27.31
B38-2	1-2	28.12	26.77	26.62	26.60	24.11	26.32
B-39	1-2	29.09	23.59	23.79	23.74	22.09	23.01
B40-2	1-2	27.67	23.62	23.07	23.77	21.32	23.27
B41-2	1-2	29.27	23.81	23.20	23.74	20.77	23.37
B42-2	1-2	28.47	23.87	23.24	23.77	21.15	23.47
B43-2	1-2	28.23	22.58	22.38	22.44	21.44	22.48
B44	1-2	30.03	23.25	23.24	23.22	22.83	23.18
B45-2	1-2	30.35	23.53	23.55	23.46	23.30	23.50
B59-2R	1-2	33.12	26.21	26.47	26.49	25.74	26.42
B61R	1-2	39.42	27.54	26.98			
B62-2R	1-2	39.36	27.62	26.34			
B63-2	1-2	30.38	28.10	28.20	28.27	27.40	28.13
B64	1-2	28.22	26.44	26.43	26.54	25.25	26.06
B65	1-2	27.97	23.73	23.12	23.21	21.22	23.32
B66	1-2	31.26	27.75	26.44			
B70-2	1-2	31.51	24.01	21.42	22.19	23.36	23.41
B71	1-2	30.75	24.15	21.13	21.75	23.19	23.70
B72	1-2	28.93	23.66	21.01	21.71	22.93	23.08
B73-2	1-2	28.95	23.21	20.98	21.75	22.56	23.02
B74	1-2	33.78	28.55	29.13	29.03	28.20	29.53
B75	1-2	31.62	24.61	19.99	21.62	23.42	24.27
Zone 4							
B-1B	4	28.78	20.66	20.62	20.81	18.90	20.33
B-2	4	34.53	27.98	27.81	28.31	27.76	28.13
B-5	4	32.59	28.39	28.54	28.55	28.09	28.34
B8-2	4	33.37	26.32	27.17	26.98	26.37	26.54
B-32	4	30.92	26.82	27.79			
B33-1	4	34.69	27.15	27.64	27.56	26.58	26.94
B34-1	4	31.19	27.89	27.69	28.15	27.05	27.94
B35-1	4	29.26	28.36	28.36	28.36	27.86	28.21
B-36	4	29.33	27.77	27.91	27.86	26.52	27.63
B37-1	4	28.63	27.33	27.41	27.21	26.54	26.98
B38-1	4	28.24	24.69	24.72	24.77	23.05	24.14

Appendix C
Table 2 - Groundwater Elevation Data
Tomoka Farms Landfill
Reporting Period November 2014 to November 2016

Well Number	Aquifer Zone	Top of Casing (feet, NGVD)	Groundwater Elevation (ft, NGVD)				
			11/6/14	5/4/15	11/9/15	5/13/16	11/8/16
B40-1	4	27.77	21.80	21.47	22.02	19.97	21.32
B41-1	4	29.16	20.21				
B42-1	4	28.30	20.81	20.38	20.74	18.66	20.25
B43-1	4	28.09	22.51	22.36	22.44	21.41	22.34
B45-1	4	30.28	23.85				
B59-1R	4	32.44	25.79	26.04	26.12	25.29	25.99
B60	4	32.95	25.90	26.22	26.27	25.79	26.25
B62-1R	4	38.97	27.46	26.00			
B63-1	4	30.03	28.05	28.15	28.13	27.23	27.83
B68	4	32.98	26.18	26.79	26.74	26.00	26.28
B70-1	4	31.03	23.53	21.15	22.03	22.88	23.03
B73-1	4	29.20	22.50	20.24	21.29	21.83	22.45
MO5-B	4	29.80	19.80	19.82	20.00	18.05	19.65
B76-1	4	27.39	23.39				
B79-1	4	27.53	20.03				
B81-4	4	29.76	25.96				
B82-1	4	30.78	23.14	23.15	22.95	22.48	23.03
B85	4	27.07		17.28	19.99	17.96	18.93
Zone 6							
B8	6	33.53	19.98	20.10			
B76-6	6	27.33	19.63				
B77	6	31.13	19.91				
B79-6	6	27.51	20.21				
B85-6	6	27.02	19.57	19.6	19.89	17.86	18.87
B86	6	29.46	21.68				
B87-6	6	29.37	19.19	19.19	19.47	17.57	18.42
Floridian Aquifer							
B85-F	FL	27.47	17.42				
B87-F	FL	29.43	17.13				
FA-1B	FL	32.22	19.07	Dry	20.10	17.97	18.42
FA-2C	FL	28.10	15.60	15.54	16.15	13.81	15.30
F-MB	FL	33.88	18.60	18.98	19.42	17.32	17.93

Notes: NGVD = National Geodetic Vertical Datum of 1929

Shaded cell indicates that well was not measured.

Appendix C
Table 3 - Surface Water Elevation Data
Tomoka Farms Road, Volusia County, Florida
November 2014 to November 2016

Location	Staff Gage Reference Elevation (ft, NGVD)	Surface Water Elevation (ft, NGVD)				
		11/6/14	5/4/15	11/5/15	5/13/16	11/8/16
SW-1	24	26.7	NA	NA	NA	NA
SW-2	24	29.4	29.05	28.95	28.5	29.05
SW-3	21	23.1	22.15	22.7	NA*	22.5
SW-4	26	29.3	29.05	28.9	28.55	29.1
SW-5	24	27.2	26.85	28	27.9	28
SW-11	17	NA	18.05	21.25	NA*	22.85
SW-12	22	26.3	26.25	26.45	25.6	26.5

Notes:

NGVD = National Geodetic Vertical Datum of 1929;

Dry = Not Calculated; sampling point was dry at the time of the reading;

ft-are = feet above reference elevation.

NA - FDOT removed the staff Gage during construction of the area before 2015 Second Semiannual sampling.

NA* - Water level was below the Staff Gage.

Appendix B - Table 4
Groundwater Flow Rate Calculations
MPIS Technical Reporting Period - November 2014 through November 2016

Upper Surficial (Zone 1-2) Aquifer Groundwater Flow Velocity Across the North Cell								
Date	**B33-2 GW Elevation (ft, NGVD)**	**B73-2 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	27.77	23.21	4.56	3117	0.001463	0.88	0.25	0.005
May-15	28.34	20.98	7.36	3117	0.002361	0.88	0.25	0.008
Nov-15	28.17	21.75	6.42	3117	0.00206	0.88	0.25	0.007
May-16	27.31	22.56	4.75	3117	0.001524	0.88	0.25	0.005
Nov-16	27.52	23.02	4.50	3117	0.001444	0.88	0.25	0.005
							Average	**0.006**
						Average (ft/yr)		**2.27**

Upper Surficial (Zone 1-2) Aquifer Groundwater Flow Velocity Across the South Cell								
Date	**B34-2 GW Elevation (ft, NGVD)**	**B70-2 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	29.20	24.01	5.19	3545	0.001464	0.88	0.25	0.0052
May-15	28.96	21.42	7.54	3545	0.002127	0.88	0.25	0.0075
Nov-15	29.30	22.19	7.11	3545	0.002006	0.88	0.25	0.0071
May-16	27.68	23.36	4.32	3545	0.001219	0.88	0.25	0.0043
Nov-16	29.30	23.41	5.89	3545	0.001661	0.88	0.25	0.0058
							Average	**0.0060**
						Average (ft/yr)		**2.18**

Upper Surficial (Zone 1-2) Aquifer Groundwater Flow Velocity Across the Class III Landfill								
Date	**B35-2 GW Elevation (ft, NGVD)**	**B42-2 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	28.43	23.87	4.56	3451	0.001321	0.88	0.25	0.0047
May-15	28.44	23.24	5.20	3451	0.001507	0.88	0.25	0.0053
Nov-15	28.52	23.77	4.75	3451	0.001376	0.88	0.25	0.0048
May-16	28.18	21.15	7.03	3451	0.002037	0.88	0.25	0.0072
Nov-16	28.34	23.47	4.87	3451	0.001411	0.88	0.25	0.0050
							Average	**0.0054**
						Average (ft/yr)		**1.97**
						Average overall (ft/yr)		**2.14**

Notes:

Hydraulic conductivities for zones 2 and 4 were obtained from: David N. Gomberg, Ph.D., July 16, 2001, Tomoka Landfill: Biennial Evaluation of Monitoring Results.

Appendix B - Table 4 (continued)
Groundwater Flow Rate Calculations
MPIS Technical Reporting Period - November 2014 through November 2016
Tomoka Farms Road Landfill

Lower Surficial (Zone 4) Aquifer Groundwater Flow Velocity Across the North Cell								
Date	**B33-1 GW Elevation (ft, NGVD)**	**B73-1 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	27.15	22.50	4.65	3116	0.0015	1.474	0.25	0.009
May-15	27.64	20.24	7.40	3116	0.0024	1.474	0.25	0.014
Nov-15	27.56	21.29	6.27	3116	0.0020	1.474	0.25	0.012
May-16	26.58	21.83	4.75	3116	0.0015	1.474	0.25	0.009
Nov-16	26.94	22.45	4.49	3116	0.0014	1.474	0.25	0.008
							Average	**0.010**
						Average (ft/yr)		**3.81**

Lower Surficial (Zone 4) Aquifer Groundwater Flow Velocity Across the South Cell								
Date	**B34-1 GW Elevation (ft, NGVD)**	**B82-1 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	27.89	23.14	4.75	4031	0.0012	1.474	0.25	0.007
May-15	27.69	23.15	4.54	4031	0.0011	1.474	0.25	0.007
Nov-15	28.15	22.95	5.20	4031	0.0013	1.474	0.25	0.008
May-16	27.05	22.48	4.57	4031	0.0011	1.474	0.25	0.007
Nov-16	27.94	23.03	4.91	4031	0.0012	1.474	0.25	0.007
							Average	**0.007**
						Average (ft/yr)		**2.56**

Lower Surficial (Zone 4) Aquifer Groundwater Flow Velocity Across the Class III Landfill								
Date	**B35-1 GW Elevation (ft, NGVD)**	**B42-1 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	28.36	20.81	7.55	3450	0.0022	1.474	0.25	0.013
May-15	28.36	20.38	7.98	3450	0.0023	1.474	0.25	0.014
Nov-15	28.36	20.74	7.62	3450	0.0022	1.474	0.25	0.013
May-16	27.86	18.66	9.20	3450	0.0027	1.474	0.25	0.016
Nov-16	28.21	20.25	7.96	3450	0.0023	1.474	0.25	0.014
							Average	**0.014**
						Average (ft/yr)		**5.03**
						Average Overall (ft/yr)		**3.80**

Notes:

Hydraulic conductivities for zones 2 and 4 were obtained from: David N. Gomberg, Ph.D., July 16, 2001, Tomoka Landfill: Biennial Evaluation of Monitoring Results.

Appendix B - Table 4 (continued)
Groundwater Flow Rate Calculations
MPIS Technical Reporting Period - November 2014 through November 2016

Lower Surficial (Zone 6) Aquifer Groundwater Flow Velocity Across the Class III Landfill								
Date	**B86 GW Elevation (ft, NGVD)**	**B79-6 GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	21.68	20.21	1.47	1643	0.000895	4.82E-02	0.25	0.0002
May-15	NA	NA						
Nov-15	NA	NA						
May-16	NA	NA						
Nov-16	NA	NA						
							Average	**0.0002**
						Average (ft/yr)		**0.06**

Floridan Aquifer Groundwater Flow Velocity Across the North and South Cells								
Date	**FA-1B GW Elevation (ft, NGVD)**	**FA-2C GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	19.07	15.60	3.47	5292	0.000656	2.83	0.25	0.0074
May-15	NA	15.54	NA	5292	NA	2.83	0.25	NA
Nov-15	20.10	16.15	3.95	5292	0.000746	2.83	0.25	0.0084
May-16	17.97	13.81	4.16	5292	0.000786	2.83	0.25	0.0089
Nov-16	18.42	15.30	3.12	5292	0.00059	2.83	0.25	0.0067
							Average	**0.0079**

Floridan Aquifer Groundwater Flow Velocity Across the Class III Landfill								
Date	**FM-B GW Elevation (ft, NGVD)**	**FA-2C GW Elevation (ft, NGVD)**	**Delta H (ft)**	**Distance (ft)**	**Gradient (i)**	**Hydraulic Conductivity (ft/day)**	**Porosity (n)**	**Velocity (ft/day)**
Nov-14	18.60	15.60	3.00	4130	0.000726	2.83	0.25	0.0082
May-15	18.98	15.54	3.44	4130	0.000833	2.83	0.25	0.0094
Nov-15	19.42	16.15	3.27	4130	0.000792	2.83	0.25	0.0090
May-16	17.32	13.81	3.51	4130	0.00085	2.83	0.25	0.0096
Nov-16	17.93	15.30	2.63	4130	0.000637	2.83	0.25	0.0072
							Average	**0.0087**
						Average (ft/yr)		**3.02**
						Average Overall (ft/yr)		**1.51**

Notes:

1. Hydraulic conductivities for zones 6 and Floridan Aquifer were obtained from: David N. Gomberg, Ph.D. May 1992, Tomoka Landfill: Hydrogeologic Summary and Groundwater Monitoring Plan.

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B11								
Parameter	**Standard**	**Standard Type**	**Units**	**Semiannual Sampling Event**				
				Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	-	NE	mg/L	0.28	0.23	0.25	0.03	0.09
Field Temperature	-	NE	deg C	26.3	24.69	26.79	24.33	26.9
PH, Field	6.5-8.5	SDWS	S.U.	**5.11**	**5.20**	**5.00**	**4.99**	**5.26**
Specific Conductance	-	NE	µmhos/cm	205	196	216	196	214
Turbidity	-	NE	NTU	2.03	0.22	0.72	0.27	0.05
Ammonia-N	2.8	GCTL	mg/L	0.76	0.83	0.94	0.85	0.84
Chloride	250	SDWS	mg/L	19.8	21.6	18.8	18.1	16.6
ORP	-	-	mV	-151	-117.1	3.6	75.1	34.5
Iron	300	SDWS	µg/L	**2,660**	**3,220**	**2,990**	**4,300**	**3,450**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.033 I	0.074	0.02 I
Sodium	160	PDWS	mg/L	9.7	10.2	11.1	9.6	11.1
Sulfate	250	SDWS	mg/L	19.1	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**523**	154	144	141	164
Barium	2,000	PDWS	µg/L	56.3	60.7	60.1	66.9	63.1
Beryllium	4	PDWS	µg/L	0.42	<0.5	<0.5	0.56 I	0.71 I
Chromium	100	PDWS	µg/L	3.6 I	3.1 I	3.4 I	3.8 I	3.6 I
Selenium	50	PDWS	µg/L	0.8 I	<7.5	<7.5	<7.5	<7.5
Vanadium	49	GCTL	µg/L	15	12.9	13.8	14.9	16.6

Well B33-2								
Parameter	**Standard**	**Standard Type**	**Units**	**Semiannual Sampling Event**				
				Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	-	NE	mg/L	0.38	0.44	0.87	0.49	1.1
Field Temperature	-	NE	deg C	23.21	24.07	24.29	23.46	25.2
PH, Field	6.5-8.5	SDWS	S.U.	**6.47**	6.73	6.51	6.66	6.84
Specific Conductance	-	NE	µmhos/cm	990	962	1190	1127	1135
Turbidity	-	NE	NTU	3.52	2.51	16.9	25.02	16.9
Ammonia-N	2.8	GCTL	mg/L	0.32	0.7	0.76	0.3	<0.02
Chloride	250	SDWS	mg/L	42.3	38.9	45.3	61	55.3
ORP	-	-	mV	-84.8	-132.3	-83.2	-57.6	38.8
Iron	300	SDWS	µg/L	**3,660**	**6,010**	**7,200 J**	**3,250**	**1,120**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	0.16	0.092
Sodium	160	PDWS	mg/L	111	108 J	121 J	133	127
Sulfate	250	SDWS	mg/L	20.1	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	474	**734**	**828**	**766**	**764**
Antimony	6	PDWS	µg/L	<0.5	<0.5	0.55 I	<0.5	2.7
Arsenic	10	PDWS	µg/L	<5	8.5 I	**12.2**	<5	<5
Barium	2,000	PDWS	µg/L	83.4	72.8	99.4	74.3	72.1
Chromium	100	PDWS	µg/L	4.4 I	3.8 I	7.7 I	6.5	6.1
Copper	1,000	SDWS	µg/L	<2.5	<2.5	2.8 I	<2.5	5.1
Mercury	2	PDWS	µg/L	<0.1	<0.1	<0.1	<0.1	0.1 I
Nickel	100	PDWS	µg/L	4.6 I	3.5 I	5.6	4.4 I	3.9 I
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	<7.5	7.9 I
Vanadium	49	GCTL	µg/L	6.7 I	8.2 I	15.4	11.1	14.4

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B34-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.47	0.15	0.32	0.04	0.14
Field Temperature	-	NE	deg C	23.33	22.47	23.84	22.05	23.66
PH, Field	6.5-8.5	SDWS	S.U.	6.79	6.83	6.65	6.75	6.88
Specific Conductance	-	NE	µmhos/cm	1091	1549	1418	2160	1720
Turbidity	-	NE	NTU	2.5	0.49	2.03	0.93	1.76
Ammonia-N	2.8	GCTL	mg/L	0.59	0.46	0.8	0.59	0.75
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	0.074	0.016 I
Chloride	250	SDWS	mg/L	54	96.6	66.8	83.2	53.1
ORP	-	-	mV	-208.6	-164	-148.7	-163.3	-129.2
Iron	300	SDWS	µg/L	**11,800**	**18,200**	**22,600**	**32,800**	**17,500 J**
Sodium	160	PDWS	mg/L	29.2	45.9	33	48.2	49 J
Sulfate	250	SDWS	mg/L	113	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**840**	**529**	**882**	**1,320**	**1,130**
Arsenic	10	PDWS	µg/L	<5	5.4 I	<5	8 I	5.1 I
Barium	2,000	PDWS	µg/L	67.1	98.7	82.7	124	109 J
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	<0.5	0.5 I
Copper	1,000	SDWS	µg/L	<2.5	<2.5	<2.5	2.7 I	<2.5
Lead	15	PDWS	µg/L	<5	<5	<5	9.7 I	<5
Nickel	100	PDWS	µg/L	14.7	20.8	9.6	7.4	8.2
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	9.8 I	<7.5

Well B35-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.51	0.54	0.11	0.06	0.04
Field Temperature	-	NE	deg C	23.5	22.52	23.57	21.79	22.9
PH, Field	6.5-8.5	SDWS	S.U.	**4.90**	**5.06**	**4.97**	**4.97**	**5.55**
Specific Conductance	-	NE	µmhos/cm	405	430	491	508	535
Turbidity	-	NE	NTU	2.19	1.08	1.74	1.33	1.84
Ammonia-N	2.8	GCTL	mg/L	1	1.1	1.3	1.3	1.4
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.053	0.027 I	0.033 I
Chloride	250	SDWS	mg/L	102	115	110	128	108
ORP	-	-	mV	-139.8	-86	-13	69	29.5
Iron	300	SDWS	µg/L	**9,340**	**9,010**	**9,260**	**8,490**	**10,000**
Sodium	160	PDWS	mg/L	63.6	75.2	73.4	70.5	79.3
Total Dissolved Solids	500	SDWS	mg/L	316	336	305	334	323
Barium	2,000	PDWS	µg/L	69.3	74.7	75.2	74.2	85
Lead	15	PDWS	µg/L	<5	<5	<5	6 I	<5
Chromium	100	PDWS	µg/L	7.1	6.4	6.3	6.2	5 I
Vanadium	49	GCTL	µg/L	10.9	10.7	8.9 I	8.8 I	8.5 I

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B37-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.21	0.43	0.17	0.13	0.19
Field Temperature	-	NE	deg C	23.41	23.94	24.62	22.99	23.45
PH, Field	6.5-8.5	SDWS	S.U.	**5.9**	**6.17**	**5.98**	**5.95**	**5.8**
Specific Conductance	-	NE	µmhos/cm	480	458	455	478	419
Turbidity	-	NE	NTU	6.36	3.35	4.42	3.66	7.71
Ammonia-N	2.8	GCTL	mg/L	0.31	0.32	0.3	0.32	0.31
Chloride	250	SDWS	mg/L	42.8	39.5	26.6	46.4	34.1
Arsenic	10	PDWS	µg/L	<5	<5	7 I	<5	<5
ORP	-	-	mV	-112.4	-90.7	-52.3	-	-
Iron	300	SDWS	µg/L	**13,900**	**10,700**	**11,700**	**10,200**	**10,700**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.017 I
Sodium	160	PDWS	mg/L	34	25.8	20.3	34.9	30.2
Total Dissolved Solids	500	SDWS	mg/L	331	309	283	298	265
Barium	2,000	PDWS	µg/L	30.8	30.3	25.4	27.5	24
Benzene	1	PDWS	µg/L	<0.1	0.2 I	<0.1	0.14 I	<0.1
Chlorobenzene	100	PDWS	µg/L	0.76 I	0.6 I	<0.5	0.65 I	<0.5
Vanadium	49	GCTL	µg/L	<5	<5	<5	5.1 I	<5
Vinyl chloride	1	PDWS	µg/L	<0.5	<0.5	<0.5	0.91 I	<0.5

Well B38-2								
Parameter	Standard	Standard Type	Unit	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.37	0.28	0.11	0.09	0.24
Field Temperature	-	NE	deg C	21.9	23.03	23.58	22.42	22.52
PH, Field	6.5-8.5	SDWS	S.U.	**5.65**	**5.94**	**5.79**	**5.91**	**5.88**
Specific Conductance	-	NE	µmhos/cm	539	507	624	562	511
Turbidity	-	NE	NTU	1.97	0.51	1.69	3.05	3.32
Ammonia-N	2.8	GCTL	mg/L	0.99	1.3	2.3	2	1.2
Chloride	250	SDWS	mg/L	59.2	54.4	43.8	55.2	51.7 J
Iron	300	SDWS	µg/L	**9,090**	**7,890**	**10,200**	**8,380**	**5,040**
ORP	-	-	mV	-120.4	-147.4	-64.2	4.5	-
Nitrate-N	10	PDWS	mg/L	0.025	0.025	0.042 I	0.025	0.025
Sodium	160	PDWS	mg/L	40.3	40.1	41.3	40.4	38.9
Total Dissolved Solids	500	SDWS	mg/L	422	374	410	370	347
Barium	2,000	PDWS	µg/L	30.3	27.9	36.1	30.6	30.2
Lead	15	PDWS	µg/L	<5	<5	<5	10.3	<5

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B39								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.46	0.25	0.19	0.06	0.35
Field Temperature	-	NE	deg C	23.89	23.58	24.57	22.62	23.87
PH, Field	6.5-8.5	SDWS	S.U.	**4.62**	**4.87**	**4.7**	**4.82**	**5.08**
Specific Conductance	-	NE	µmhos/cm	218	208	265	230	181
Turbidity	-	NE	NTU	3.27	2.64	1.98	1.05	19.48
Ammonia-N	2.8	GCTL	mg/L	1.3	1.5	1.6	1.5	0.91
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.052 I	0.03 I	0.018 I
Chloride	250	SDWS	mg/L	37.5	37.5	38.7	32.3	21.9
ORP	-	-	mV	-94.1	-56.2	0.3	91.5	125.7
Iron	300	SDWS	µg/L	**14,700**	**13,800**	**18,400**	**28,600**	**10,900**
Sodium	160	PDWS	mg/L	22.3	19.6	18.9	51.2	16.5
Sulfate	250	SDWS	mg/L	9.2	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	190	230	240	255	194
Arsenic	10	PDWS	µg/L	**26.2**	**23.4**	**18**	<5	**21.4**
Barium	2,000	PDWS	µg/L	31.5	29.6	33.2	120	26.3
Cadmium	5	PDWS	µg/L	<0.5	<0.5	0.59 I	<0.5	<0.5
Chromium	100	PDWS	µg/L	10.4	9.8	9.1	<2.5	11
Nickel	100	PDWS	µg/L	<2.5	2.6 I	2.7 I	<2.5	<2.5
Vanadium	49	GCTL	µg/L	33.7	34.4	28.1	<5	47
Zinc	5,000	SDWS	µg/L	<10	<10	11.1 I	<10	<10

Well B40-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.83	0.66	0.11	1.33	0.09
Field Temperature	-	NE	deg C	20.72	21.08	23.45	20.92	23.2
PH, Field	6.5-8.5	SDWS	S.U.	**5.86**	**6.26**	**5.89**	**6.11**	**5.91**
Specific Conductance	-	NE	µmhos/cm	669	673	616	601	764
Turbidity	-	NE	NTU	10.47	2.14	15.84	11.31	7.72
Ammonia-N	2.8	GCTL	mg/L	1.7	1.9	1.7	1.6	0.38
Chloride	250	SDWS	mg/L	27.5	26.5	26.9	26.2	33.4
ORP	-	-	mV	-144.8	-116.1	-130	-27	71.2
Iron	300	SDWS	µg/L	**5,970**	**7,410**	**4,760**	**5,460**	**1,480**
Nitrate-N	10	PDWS	mg/L	<0.025	0.026 I	<0.025	0.65	0.029 I
Sodium	160	PDWS	mg/L	24.1	20.6	20.4	19.4	26.1
Sulfate	250	SDWS	mg/L	18.5	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	**506**	**513**	403	365	**533**
Arsenic	10	PDWS	µg/L	<2.5	6.5 I	<2.5	<2.5	<2.5
Barium	2,000	PDWS	µg/L	46.4	39.8	35.3	35.4	50.5
Chromium	100	PDWS	µg/L	<2.5	<2.5	2.7 I	2.8 I	<2.5
Vanadium	49	GCTL	µg/L	<5	<5	<5	<5	7.4 I

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Well B41-2								
Parameter	Standard	Standard Type	Unit	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.37	0.38	0.75	0.12	0.06
Field Temperature	-	NE	deg C	19.84	21.12	46.37	21.08	22.3
PH, Field	6.5-8.5	SDWS	S.U.	**6.33**	6.73	**6.32**	6.55	6.56
Specific Conductance	-	NE	µmhos/cm	577	681	1215	729	804
Turbidity	-	NE	NTU	0.72	0.26	1.75	21.08	0.77
Ammonia-N	2.8	GCTL	mg/L	0.7	0.74	0.38	0.19	0.25
Chloride	250	SDWS	mg/L	27.5	26	19.5	32.3	33
ORP	-	-	mV	-154.9	-130.1	-66.7	-81.8	-47.6
Iron	300	SDWS	µg/L	**1,090**	**1,490**	**1,070**	**1,710**	**1,600**
Arsenic	10	PDWS	µg/L	<5	<5	5.6 I	<5	<5
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.016 I
Sodium	160	PDWS	mg/L	18.9	19.7	18	18.8	24.9
Total Dissolved Solids	500	SDWS	mg/L	412	428 J	356	452	**504**
Barium	2,000	PDWS	µg/L	34	39.3	33.9	38	48.8

Well B42-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.29	1.02	0.3	0.37	0.28
Field Temperature	-	NE	deg C	21.02	20.6	46.34	20.9	23.02
PH, Field	6.5-8.5	SDWS	S.U.	**5.90**	**6.35**	**5.77**	**5.76**	**5.75**
Specific Conductance	-	NE	µmhos/cm	282	281	772	312	537
Turbidity	-	NE	NTU	4.39	0.66	3.28	6.74	1.36
Ammonia-N	2.8	GCTL	mg/L	0.52	0.57	0.39	0.41	0.19
Chloride	250	SDWS	mg/L	4.8 I	4.1 I	9.8	11.3	35.3
Arsenic	10	PDWS	µg/L	5.9 I	<5	<5	<5	<5
ORP	-	-	mV	-69.4	-86.8	-12.4	24	100.3
Iron	300	SDWS	ug/L	**3,270**	**6,090**	**979**	**2,130**	**1,190**
Nitrate-N	10	PDWS	mg/L	0.032 I	0.029 I	0.028 I	<0.025	0.029 I
Sodium	160	PDWS	mg/L	5.6	5.7	13.2	12.2	24.5
Sulfate	250	SDWS	mg/L	6	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	210	194	251	235	356
Barium	2,000	PDWS	µg/L	18.8	15.7	30.9	27	72.5
Chromium	100	PDWS	µg/L	<2.5	<2.5	<2.5	2.6 I	4.6 I

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Well B43-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.83	0.54	0.13	0.18	0.39
Field Temperature	-	NE	deg C	23.37	22.22	23.25	21.89	24
PH, Field	6.5-8.5	SDWS	S.U.	**5.99**	**6.23**	**5.74**	**6.05**	**6.37**
Specific Conductance	-	NE	µmhos/cm	408	555	994	766	515
Turbidity	-	NE	NTU	8.35	0.81	8.76	6.43	2.59
Ammonia-N	2.8	GCTL	mg/L	<0.02	0.077	**4.9**	0.14	<0.02
Chloride	250	SDWS	mg/L	14.6	41.9	125	51.9	34.7
ORP	-	-	mV	136.8	-48.6	-66.6	-1.3	-
Iron	300	SDWS	µg/L	**3,180**	**3,940**	**27,100**	**6,090**	**618**
Nitrate-N	10	PDWS	mg/L	<0.025	0.026 I	<0.025	<0.025	0.019 I
Sodium	160	PDWS	mg/L	21.7	43.7	104	49.7	29
Sulfate	250	SDWS	mg/L	7.6	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	268	240	**531**	447	152
Barium	2,000	PDWS	µg/L	13.5	20.4	192	53.4	16.6
Selenium	50	PDWS	µg/L	<7.5	<7.5	7.7 I	<7.5	<7.5
Vanadium	49	GCTL	µg/L	9.4 I	<5	<5	<5	<5
Chlorobenzene	100	PDWS	µg/L	<0.5	<0.5	2.7	<0.5	<0.5

Well B44								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.61	0.27	0.61	0.09	0.18
Field Temperature	-	NE	deg C	23.3	21.76	23.27	21.53	23.7
PH, Field	6.5-8.5	SDWS	S.U.	**4.89**	**5.60**	**5.03**	**5.18**	**5.02**
Specific Conductance	-	NE	µmhos/cm	192	220	209	138	1240
Turbidity	-	NE	NTU	3.21	1.2	1.51	1.72	2.41
Ammonia-N	2.8	GCTL	mg/L	0.036 I	<0.02	0.034 I	<0.02	0.031 I
Nitrate-N	10	PDWS	mg/L	<0.025	0.093	<0.025	0.032 I	0.07
Chloride	250	SDWS	mg/L	37.1 J	51.6	40.1	21.5	**286**
ORP	-	-	mV	-72.3	-10.5	-10.2	80.4	-
Iron	300	SDWS	µg/L	**11,600**	**19,600**	**14,500**	**6,010**	**30,700**
Sodium	160	PDWS	mg/L	18.3	16.9	20.9	14.7	99.2
Sulfate	250	SDWS	mg/L	12.3	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	155	158	117	87	**592**
Barium	2,000	PDWS	µg/L	26.6	28.8	31.1	13	112
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	<0.5	0.66 I
Chromium	100	PDWS	µg/L	3.5 I	<2.5	<2.5	<2.5	<2.5
Lead	15	PDWS	µg/L	<5	<5	<5	<5	5.6 I
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	<7.5	8.7 I
Vanadium	49	GCTL	µg/L	8.7 I	<5	6.1 I	5.3 I	18.4
Zinc	5,000	SDWS	µg/L	11.6 I	<10	<10	<10	<10

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Well B45-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	2.04	0.39	0.32	0.16	0.16
Field Temperature	-	NE	deg C	23.9	22.26	23.42	22.09	24
PH, Field	6.5-8.5	SDWS	S.U.	**5.21**	**5.59**	**5.34**	**5.36**	**5.43**
Specific Conductance	-	NE	µmhos/cm	489	1035	1314	1131	371.5
Turbidity	-	NE	NTU	17.9	5.14	6.9	3.33	3.37
Ammonia-N	2.8	GCTL	mg/L	0.057	0.13	0.17	0.096	0.023 I
Chloride	250	SDWS	mg/L	105	232	**278**	242	65.2 J
Arsenic	10	PDWS	µg/L	<5	**49.2**	**114**	**58.3**	9.4 I
ORP	-	-	mV	-72.8	-11.2	-33.6	24.7	-
Iron	300	SDWS	µg/L	**6,310**	**49,000**	**78,200**	**56,500**	**6,220**
Nitrate-N	10	PDWS	mg/L	2.7	0.045 I	<0.025	<0.025	0.36
Sodium	160	PDWS	mg/L	32	48.3	54	47.8	21.8
Sulfate	250	SDWS	mg/L	37.3	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	424	**742**	**734 J**	**649**	203
Barium	2,000	PDWS	µg/L	77	180	234	180	61.8
Beryllium	4	PDWS	µg/L	0.5 I	<0.5	<0.5	0.51 I	<0.5
Cadmium	5	PDWS	µg/L	<0.5	<0.5	<0.5	1.2	<0.5
Chromium	100	PDWS	µg/L	4.5 I	<2.5	<2.5	<2.5	<2.5
Cobalt	140	GCTL	µg/L	20.6	50.6	25.4	17.5	<5
Copper	1,000	SDWS	µg/L	<2.5	<2.5	<2.5	3.6 I	<2.5
Lead	15	PDWS	µg/L	<5	<5	<5	<5	6.6 I
Nickel	100	PDWS	µg/L	23.9	62.3	40.5	27.1	4.8 I
Vanadium	49	GCTL	µg/L	5.1 I	7.3 I	7.8 I	10.6	9.2 I
Zinc	5,000	SDWS	µg/L	41.6	92.9	61.8	74.7	87.5
Benzene	1	PDWS	µg/L	0.38 I	1.1	1.8	1.4	<0.1

Well B59-2R								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.26	0.22	0.27	0.08	0.17
Field Temperature	-	NE	deg C	26.11	23.36	25.88	23.65	25.65
PH, Field	6.5-8.5	SDWS	S.U.	**6.29**	6.69	**6.33**	6.61	6.61
Specific Conductance	-	NE	µmhos/cm	695	681	904	824	777
Turbidity	-	NE	NTU	12.3	3.93	10.09	14.66	4.7
Ammonia-N	2.8	GCTL	mg/L	0.42	0.58	0.55	0.57	0.52
Chloride	250	SDWS	mg/L	21	21.4	26.1	21.5	23.6
ORP	-	-	mV	-142	-156.4	-92.5	-74.9	-45.9
Iron	300	SDWS	µg/L	**5,920**	**6,870**	**7,690**	**6,070**	**4,700**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.034 I	0.05	0.032 I
Sodium	160	PDWS	mg/L	34.3	34.7	42.8	32.1	32.2
Sulfate	250	SDWS	mg/L	37.8	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	474	485	**570**	464	477
Barium	2,000	PDWS	µg/L	80.1	85.7	98.9	89.9	82.8

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Well B63-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.37	0.38	0.22	0.2	0.05
Field Temperature	-	NE	deg C	23.9	23.51	24.21	22.45	23.5
PH, Field	6.5-8.5	SDWS	S.U.	**6.35**	6.58	**6.33**	**6.62**	6.63
Specific Conductance	-	NE	µmhos/cm	858	853	907	827	704
Turbidity	-	NE	NTU	11.7	1.88	5.64	1.46	2.49
Ammonia-N	2.8	GCTL	mg/L	0.28	0.31	0.59	0.33	0.21
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.053	<0.025	0.022 I
Chloride	250	SDWS	mg/L	74.9	69.1	47.9	60.6	39.2
ORP	-	-	mV	-175.4	165.3	-101	-115.4	-79.3
Iron	300	SDWS	µg/L	**18,600**	**17,000**	**18,000**	**9,410**	**8,700**
Sodium	160	PDWS	mg/L	53.9	56	46.4	49.4	33
Total Dissolved Solids	500	SDWS	mg/L	**549**	**573**	**503**	460	**422**
Barium	2,000	PDWS	µg/L	68.5	76.1	68.8	58.5	46.9
Benzene	1	PDWS	µg/L	<0.1	<0.1	0.35 I	<0.1	<0.1

Well B64								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	1.1	0.2	0.13	0.08	0.19
Field Temperature	-	NE	deg C	24.67	23	24.21	22.79	22.8
PH, Field	6.5-8.5	SDWS	S.U.	**6.24**	**6.37**	**6.17**	**6.3**	**6.43**
Specific Conductance	-	NE	µmhos/cm	829	838	940	945	758
Turbidity	-	NE	NTU	4.16	6.9	6.4	2.77	4.84
Ammonia-N	2.8	GCTL	mg/L	2.3	**3.4**	**3.1**	**3**	0.75
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.023 I
Chloride	250	SDWS	mg/L	39.4	37.6	34.7	33.4	51.6
ORP	-	-	mV	-142.7	-91.6	-54.4	-75.8	-
Iron	300	SDWS	µg/L	**28,000**	**23,800**	**24,200**	**17,600**	**30,800**
Sodium	160	PDWS	mg/L	51.3	51.1	51.2	17.6	41.3
Total Dissolved Solids	500	SDWS	mg/L	**548**	498	468	499	455
Arsenic	10	PDWS	µg/L	5.1 I	<5	<5	**13.3**	<5
Barium	2,000	PDWS	µg/L	90	101	112	30.6	70
Cadmium	5	PDWS	µg/L	<0.5	<0.5	0.77 I	<0.5	0.54 I
Chromium	100	PDWS	µg/L	<2.5	<2.5	<2.5	12.2	<2.5
Copper	1,000	SDWS	µg/L	3.6 I	<2.5	<2.5	<2.5	3.7 I
Lead	15	PDWS	µg/L	<5	<5	<5	5.1 I	<5
Vanadium	49	GCTL	µg/L	<5	<5	<5	<5	0.023
Chlorobenzene	100	PDWS	µg/L	4.4	4.8	5.3	4.3	<0.5
Trichloroethene	3	PDWS	µg/L	<0.5	<0.5	0.53 I	<0.5	<0.5

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Well B65								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.38	0.46	0.12	0.14	0.06
Field Temperature	-	NE	deg C	20.56	20.53	23.32	20.51	22.4
PH, Field	6.5-8.5	SDWS	S.U.	**5.83**	**6.27**	6.87	**6.00**	**5.94**
Specific Conductance	-	NE	µmhos/cm	639	466	573	443	546
Turbidity	-	NE	NTU	0.59	2.06	0.56	0.61	3.75
Ammonia-N	2.8	GCTL	mg/L	1.4	0.96	0.73	0.53	0.19
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.015 I
Chloride	250	SDWS	mg/L	47.5	32.7	24.4	27.6	35.8
ORP	-	-	mV	-149.1	-120.1	-161.4	-28.9	38
Iron	300	SDWS	µg/L	**1,970**	**1,810**	**1,120**	**998**	**2,480**
Sodium	160	PDWS	mg/L	31.1	23.7	23.1	21.4	27
Total Dissolved Solids	500	SDWS	mg/L	**500**	360	387	297	387
Barium	2,000	PDWS	µg/L	50.2	30.4	38.9	26.3	59.2
Chromium	100	PDWS	µg/L	2.8 I	2.6 I	2.8 I	<2.5	3.7 I
Cobalt	140	GCTL	µg/L	0.6 I	<5	<5	<5	<5
Vanadium	49	GCTL	µg/L	<5	<5	<5	<5	9.1 I

Well B70-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.89	0.39	0.5	0.23	0.29
Field Temperature	-	NE	deg C	25.21	22.41	24.98	22.86	25.09
PH, Field	6.5-8.5	SDWS	S.U.	**5.70**	**5.96**	**5.77**	**5.94**	**6.11**
Specific Conductance	-	NE	µmhos/cm	341	252	903	367	452
Turbidity	-	NE	NTU	11.8	3.36	6.16	8.56	5.62
Ammonia-N	2.8	GCTL	mg/L	<0.02	<0.02	<0.02	<0.02	0.034 I
Chloride	250	SDWS	mg/L	24.9	27.6	47.2	23.6	28.8
ORP	-	-	mV	-80.3	-88.9	14.5	-9.4	67.3
Iron	300	SDWS	µg/L	**4,010**	**8,710**	**10,100**	**7,920**	**1,420**
Nitrate-N	10	PDWS	mg/L	0.06	0.058	0.084	0.28	0.37
Sodium	160	PDWS	mg/L	13.5	15.1	27.4	26.4	24.1
Sulfate	250	SDWS	mg/L	21.7	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	224	167	270	218	261
Barium	2,000	PDWS	µg/L	37.2	49.6	62.4	42.5	53.7
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	0.094 I	<0.5
Chromium	100	PDWS	µg/L	3.1 I	2.8 I	<2.5	<2.5	<2.5
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	2.4	<7.5
Vanadium	49	GCTL	µg/L	11	<5	<5	7 I	<5
Zinc	5,000	SDWS	µg/L	12.4 I	10.7 I	<10	<10	<10

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Well B71								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.84	0.31	0.16	0.08	0.38
Field Temperature	-	NE	deg C	25.39	23.34	25.15	23.41	25.27
PH, Field	6.5-8.5	SDWS	S.U.	**5.75**	**5.81**	**5.07**	**5.69**	**5.99**
Specific Conductance	-	NE	µmhos/cm	313	189	190	188	324
Turbidity	-	NE	NTU	1.24	6.7	7.03	7.67	1.23
Ammonia-N	2.8	GCTL	mg/L	0.037 I	0.058	<0.02	<0.02	<0.02
Chloride	250	SDWS	mg/L	4.8 I	6.9	8.2	5.4	5.4
ORP	-	-	mV	8.5	-36.2	74	157.8	-89.8
Iron	300	SDWS	µg/L	**645**	**5,460**	**1,120**	**365**	**526**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.032 I	0.029 I	0.026 I
Sodium	160	PDWS	mg/L	3.7	5.2	5	3.9	4.2
Sulfate	250	SDWS	mg/L	10	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	221	180	136	123 J	185
Barium	2,000	PDWS	µg/L	20.2	18	19.3	16.6	19.3
Chromium	100	PDWS	µg/L	<2.5	6.3	3.8 I	<2.5	<2.5
Copper	1,000	SDWS	µg/L	2.8 I	2.6 I	<2.5	<2.5	<2.5
Vanadium	49	GCTL	µg/L	7.5 I	19.4	9.3 I	6.9 I	5.3 I
Zinc	5,000	SDWS	µg/L	22.6	48.4	22.5	13.9 I	13.4 I

Well B72								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.69	0.73	0.34	0.46	0.9
Field Temperature	-	NE	deg C	26.7	24.28	26.07	23.97	26.41
PH, Field	6.5-8.5	SDWS	S.U.	**6.37**	6.57	**6.29**	6.64	6.63
Specific Conductance	-	NE	µmhos/cm	556	461	537	457	530
Turbidity	-	NE	NTU	5.72	4.11	10.76	1.91	1.5
Chloride	250	SDWS	mg/L	3.4 I	5	4.2 I	4.9 I	3.6 I
ORP	-	-	mV	-3.5	-75.4	65.3	-	107.9
Iron	300	SDWS	µg/L	**461**	**421**	**1320**	152	64.8
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	0.05 I	0.06
Sodium	160	PDWS	mg/L	3.4	4	4.3	3.9	4.1
Sulfate	250	SDWS	mg/L	71.9	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	386	318	308	255	280
Barium	2,000	PDWS	µg/L	37.9	39.1	36.2	31.6	30.9
Chromium	100	PDWS	µg/L	2.8 I	<2.5	<2.5	<2.5	<2.5
Vanadium	49	GCTL	µg/L	<5	<5	5.5 I	<5	5.5 I
Zinc	5,000	SDWS	µg/L	91.5	236	155	48.6	35.8

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B73-2								
Parameter	Standard	Standard Type	Unit	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.52	1.99	0.36	0.14	3.01
Field Temperature	-	NE	deg C	27.3	26.85	25.61	23.21	25.52
PH, Field	6.5-8.5	SDWS	S.U.	**6.26**	6.5	**6.18**	**6.58**	**6.44**
Specific Conductance	-	NE	µmhos/cm	346	229	275	346	317
Turbidity	-	NE	NTU	2.13	34.1	6.83	4.3	1.99
Ammonia-N	2.8	GCTL	mg/L	0.084	0.027 I	0.05 I	0.053	<0.02
Chloride	250	SDWS	mg/L	3.5 I	5.6	4.5 I	5 I	5.5
ORP	-	-	mV	-81.4	-55.5	-15.1	5.2	65.1
Iron	300	SDWS	µg/L	**12,600**	**8,900 J**	**2,530**	**461**	**854**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.036 I	<0.025	0.092
Sodium	160	PDWS	mg/L	4.5	3.1	4.2	4.6	5
Sulfate	250	SDWS	mg/L	3 I	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	281	168	183	195	201
Arsenic	10	PDWS	µg/L	**20.6**	**12.4**	**11.1**	<5	6.7 I
Barium	2000	PDWS	µg/L	32.9	26.1	30.7	32.1	32.8
Chromium	100	PDWS	µg/L	2.9 I	5.7	<2.5	<2.5	<2.5
Cobalt	140	GCTL	µg/L	8.2 I	<5	<5	<5	<5
Nickel	100	PDWS	µg/L	4.7 I	4.2 I	3 I	<2.5	<2.5
Mercury	2	PDWS	µg/L	<0.1	<0.1	<0.1	<0.1	0.1 I
Zinc	5,000	SDWS	µg/L	33.8	21.2	20.5	<10	10.8 I
Acetone	6,300	GCTL	µg/L	<10	12.2 I	<10	<10	<10

Well B74								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.2	0.2	0.17	0.05	0.12
Field Temperature	-	NE	deg C	24.15	22.73	24.02	23.13	23.86
PH, Field	6.5-8.5	SDWS	S.U.	**6.4**	6.98	6.58	6.76	6.69
Specific Conductance	-	NE	µmhos/cm	687	646	733	740	751
Turbidity	-	NE	NTU	0.63	0.36	2.87	1.31	0.51
Ammonia-N	2.8	GCTL	mg/L	0.13	0.15	0.16	0.14	0.15
Chloride	250	SDWS	mg/L	26.3	21.4	26.8	23.1	24
ORP	-	-	mV	-159.2	-115.9	-81.7	-107.9	-69.5
Iron	300	SDWS	µg/L	**3,660**	**4,070**	**3,820**	**3,750**	**3,440**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	0.034 I	0.018 I
Sodium	160	PDWS	mg/L	44.8	36.7	43.7	42.2	41.8
Sulfate	250	SDWS	mg/L	12.4	<2.5	<2.5	<2.5	<2.5
Total Dissolved Solids	500	SDWS	mg/L	465	426	433	414	424
Barium	2,000	PDWS	µg/L	46.3	44.7	47.1	46.6	42.8
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	<7.5	8.9 I

Appendix C - Table 5
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 1-2 Wells
Tomoka Farms Road Landfill

Well B75								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.39	0.43	0.18	0.04	0.1
Field Temperature	-	NE	deg C	25.7	24	25.94	23.88	26.05
PH, Field	6.5-8.5	SDWS	S.U.	**6.12**	6.57	**6.21**	**6.34**	**6.26**
Specific Conductance	-	NE	µmhos/cm	1191	1270	1355	1330	1377
Turbidity	-	NE	NTU	22	0.67	7.42	4.62	8.99
Ammonia-N	2.8	GCTL	mg/L	2.6	2.3	2.5	2.8	**3**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.088	0.17	0.052
Chloride	250	SDWS	mg/L	66.6	61.3	77.6	64.4	89
ORP	-	-	mV	-103.3	-120.8	-93.7	-100.2	-67.8
Iron	300	SDWS	µg/L	**40,700**	**50,000**	**50,200**	**50,100**	**54,000**
Total Dissolved Solids	500	SDWS	mg/L	**763**	**760**	**776**	**656**	**738**
Arsenic	10	PDWS	µg/L	<5	**26**	**32.4**	**14.8**	**20.2**
Barium	2,000	PDWS	µg/L	108	116	122	113	122
Chromium	100	PDWS	µg/L	3.1 I	<2.5	<2.5	<2.5	<2.5
Copper	1,000	SDWS	µg/L	3.3 I	<2.5	<2.5	2.9 I	6.6
Sodium	160	PDWS	mg/L	53.1	56	61.4	54.9	60.4
Vanadium	49	GCTL	µg/L	5.8 I	5.1 I	<5	<5	5.5 I
Benzene	1	PDWS	µg/L	<0.1	0.1 I	<0.1	<0.1	<0.1

Notes:

Limit = Maximum threshold limit per regulatory standards;

NE= Not Established;

- = Not Measured;

PDWS = Primary Drinking Water Standard (62-550 F.A.C.);

SDWS = Secondary Drinking Water Standard (62-550 F.A.C.);

GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.);

I = The reported value is between the laboratory method detection method and the laboratory practical quantization limit;

J = Estimated value.

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

Well B1-B								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.32	0.56	0.34	-	0.08
Field Temperature	-	NE	deg C	22.01	22.25	46.24	-	23.1
PH, Field	6.5-8.5	SDWS	S.U.	**6.15**	6.57	**6.17**	-	**6.33**
Specific Conductance	-	NE	µmhos/cm	750	904	2366	-	1326
Turbidity	-	NE	NTU	0.82	3.96	1.27	-	1.47
Ammonia-N	2.8	GCTL	mg/L	**9.8**	**13.6**	**16.9**	-	**21.7**
Nitrate-N	10	PDWS	mg/L	<0.025	0.11	0.051	-	0.032 I
NITRATE (NO3 + NO2) TOTAL N	10	PDWS	mg/L	-	0.11 J	-	-	-
Chloride	250	SDWS	mg/L	25.6	36.8	56.4	-	64.1
ORP	-	-	mV	141.2	-112.1	-207.1	-	-63.3
Iron	300	SDWS	µg/L	**12,200**	**14,800**	**18,800**	-	**18,300**
Sodium	160	PDWS	mg/L	36.9	46.3	63.4	-	74.3
Sulfate	250	SDWS	mg/L	40.9	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**505**	**531**	**640**	-	**696**
Barium	2,000	PDWS	µg/L	144	189	242	-	277
Chlorobenzene	100	PDWS	µg/L	<0.5	<0.5	0.71 I	-	0.86 I

Well B2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.27	0.22	0.16	-	0.05
Field Temperature	-	NE	deg C	25.21	24.37	25.62	-	25.8
PH, Field	6.5-8.5	SDWS	S.U.	**5.51**	**5.57**	**5.49**	-	**5.72**
Specific Conductance	-	NE	µmhos/cm	1013	828	1016	-	1009
Turbidity	-	NE	NTU	10.98	1.31	2.48	-	4.07
Ammonia-N	2.8	GCTL	mg/L	**5.7**	**4.2**	**5.6**	-	**5.5**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.063	-	0.022 I
Chloride	250	SDWS	mg/L	46	35.5	39.1	-	34.6
Chloroform	70	GCTL	µg/L	<0.5	<0.5	1.4	-	<0.5
ORP	-	-	mV	-155.2	155.8	-84.4	-	-17.3
Iron	300	SDWS	µg/L	**30,100**	**26,400**	**23,800**	-	**18,700**
Sodium	160	PDWS	mg/L	28.9	28.6	24.4	-	29.6
Sulfate	250	SDWS	mg/L	**401**	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	497	**638**	**751**	-	**698**
Barium	2,000	PDWS	µg/L	129	109	120	-	116
Beryllium	4	PDWS	µg/L	1.7	1.5	1.5	-	1.1
Cadmium	5	PDWS	µg/L	<0.5	<0.5	0.57 I	-	<0.5
Chromium	100	PDWS	µg/L	6.2	3.2 I	3.1 I	-	3.9 I
Copper	1,000	SDWS	µg/L	3.6 I	<2.5	<2.5	-	<2.5
Mercury	2	PDWS	µg/L	<0.1	<0.1	<0.1	-	0.1 I
Nickel	100	PDWS	µg/L	5.1	<2.5	<2.5	-	2.9 I
Vanadium	49	GCTL	µg/L	17.9	14	14.2	-	16.3

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

Well B-5								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.48	0.15	0.18	-	0.07
Field Temperature	-	NE	deg C	24.12	23.62	24.03	-	24.5
PH, Field	6.5-8.5	SDWS	S.U.	**6.28**	6.64	**6.31**	-	6.59
Specific Conductance	-	NE	µmhos/cm	745	582	935	-	799
Turbidity	-	NE	NTU	1.4	3.94	0.63	-	1
Ammonia-N	2.8	GCTL	mg/L	0.44	0.65	0.56	-	0.82
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.052	-	0.018 I
Chloride	250	SDWS	mg/L	26	14.1	26.7	-	23
ORP	-	-	mV	-97	-146	-78.3	-	79.9
Iron	300	SDWS	µg/L	**16,600**	**12,400**	**16,600**	-	**16,600**
Sodium	160	PDWS	mg/L	32.5	24.3	34	-	33.7
Total Dissolved Solids	500	SDWS	mg/L	491	376	**543**	-	471
Barium	2000	PDWS	µg/L	96	68	96.5	-	89.7
Mercury	2	PDWS	µg/L	<0.1	<0.1	<0.1	-	**3.9**
Chlorobenzene	100	PDWS	µg/L	<0.5	<0.5	0.92 I	-	<0.5
Vinyl chloride	1	PDWS	µg/L	<0.5	0.7 I	<0.5	-	<0.5

Well B8-2								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.7	0.33	0.14	-	0.09
Field Temperature	-	NE	deg C	25.5	24.59	25.57	-	25.57
PH, Field	6.5-8.5	SDWS	S.U.	**5.36**	**5.15**	**5.07**	-	**5.24**
Specific Conductance	-	NE	µmhos/cm	1327	2135	2387	-	2073
Turbidity	-	NE	NTU	0.54	4.02	1.57	-	2.49
Ammonia-N	2.8	GCTL	mg/L	0.13	0.18	0.32	-	0.17
Chloride	250	SDWS	mg/L	**367**	**648**	**648**	-	**572**
ORP	-	-	mV	-154.4	-90.4	2.6	-	68
Iron	300	SDWS	µg/L	**37,700**	**69,300**	**61,200**	-	**46,700**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	-	0.056
Sodium	160	PDWS	mg/L	58.9	109	130	-	131
Sulfate	250	SDWS	mg/L	61.8	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**1,170**	**1,580**	**1,700**	-	**1,250**
Arsenic	10	PDWS	µg/L	<5	<5	6.3 I	-	<5
Barium	2,000	PDWS	µg/L	224	497	554	-	427
Cadmium	5	PDWS	µg/L	<0.5	<0.5	1.4	-	<0.5
Copper	1,000	SDWS	µg/L	2.8 I	2.5 I	<2.5	-	5.4
Lead	15	PDWS	µg/L	<5	<5	<5	-	8.6 I
Vanadium	49	GCTL	µg/L	8 I	20.2	26.4	-	25.5

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

Well B33-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.23	0.23	0.13	-	0.09
Field Temperature	-	NE	deg C	23.8	23.39	24.03	-	24.1
PH, Field	6.5-8.5	SDWS	S.U.	**6.04**	**6.28**	**6.07**	-	**6.24**
Specific Conductance	-	NE	µmhos/cm	607	603	698	-	787
Turbidity	-	NE	NTU	7.43	1.29	0.82	-	1.15
Ammonia-N	2.8	GCTL	mg/L	0.26	0.25	0.28	-	0.28
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.038 I	-	<0.025
Chloride	250	SDWS	mg/L	83.5	79.1	87	-	101
ORP	-	-	mV	-147.3	-138.6	-62.6	-	-69.3
Iron	300	SDWS	µg/L	**10,500**	**10,700**	**11,000**	-	**13,100**
Sodium	160	PDWS	mg/L	62.4	63	62.5	-	71.7
Total Dissolved Solids	500	SDWS	mg/L	**771**	477	471	-	**522**
Barium	2,000	PDWS	µg/L	52.1	50.6	53.2	-	60.3
Chromium	100	PDWS	µg/L	3.1 I	2.9 I	2.9 I	-	<2.5

Well B34-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.43	0.2	0.14	-	0.18
Field Temperature	-	NE	deg C	23.34	22.05	23.13	-	22.93
PH, Field	6.5-8.5	SDWS	S.U.	**6.34**	**6.48**	**6.34**	-	**6.47**
Specific Conductance	-	NE	µmhos/cm	1,167	1,237	1,442	-	1,418
Turbidity	-	NE	NTU	0.39	0.93	1.24	-	2.41
Ammonia-N	2.8	GCTL	mg/L	0.17	0.14	0.17	-	0.16
Chloride	250	SDWS	mg/L	51.6	54	58.5	-	46.2
ORP	-	-	mV	-181.3	-129.2	-110.4	-	-79.9
Iron	300	SDWS	µg/L	**33,400**	**32,400**	**37,400**	-	**34,000**
Nitrate-N	10	PDWS	mg/L	<0.025	0.064	0.034 I	-	0.053
NITRATE (NO3 + NO2) TOTAL N	10	PDWS	mg/L	<0.025	0.064 I	<0.025	-	<0.025
Sodium	160	PDWS	mg/L	43.4	41.7	46.8	-	41
Sulfate	250	SDWS	mg/L	211	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**802**	**826**	**978**	-	**896**
Barium	2,000	PDWS	µg/L	159	146	166	-	163

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

Well B35-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.5	0.12	0.15	-	0.05
Field Temperature	-	NE	deg C	23.18	22.31	22.9	-	22.4
PH, Field	6.5-8.5	SDWS	S.U.	**5.35**	**5.73**	**5.47**	-	**5.81**
Specific Conductance	-	NE	µmhos/cm	324	330	350	-	338
Turbidity	-	NE	NTU	10.27	1.84	2.74	-	1.59
Ammonia-N	2.8	GCTL	mg/L	0.15	0.15	0.15	-	0.15
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	-	0.033 I
Chloride	250	SDWS	mg/L	66.5	64.6	64.9	-	55.9
ORP	-	-	mV	-106.5	-71	-8.8	-	30.8
Iron	300	SDWS	µg/L	**11,000**	**10,900**	**10,200**	-	**8,930**
Sodium	160	PDWS	mg/L	27.2	29.4	28.4	-	29
Total Dissolved Solids	500	SDWS	mg/L	100	276	244	-	204
Barium	2,000	PDWS	µg/L	96.6	97.1	89.9	-	87.8

Well B36								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.32	0.31	0.12	-	0.05
Field Temperature	-	NE	deg C	23.9	23.4	23.02	-	22.8
PH, Field	6.5-8.5	SDWS	S.U.	**6.15**	**6.4**	**6.25**	-	**6.41**
Specific Conductance	-	NE	µmhos/cm	1692	1788	1972	-	1937
Turbidity	-	NE	NTU	6.19	1.97	0.77	-	3.5
Chloride	250	SDWS	mg/L	224	**256**	235	-	241
ORP	-	-	mV	-122.7	-190.6	-71.2	-	-40.6
Iron	300	SDWS	µg/L	**6,610**	**6,000**	**5,650**	-	**5,950**
Sodium	160	PDWS	mg/L	120	129	123	-	134
Total Dissolved Solids	500	SDWS	mg/L	**1,300**	**1,260**	**1,280**	-	**1,230**
Ammonia-N	2.8	GCTL	mg/L	0.23	0.31	0.34	-	0.34
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.028 I	-	0.032 I
Barium	2,000	PDWS	µg/L	121	139	138	-	145
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	-	0.6 I
Nickel	100	PDWS	µg/L	4.2 I	<2.5	<2.5	-	<2.5
Benzene	1	PDWS	µg/L	**2.2**	**2.6**	**2.4**	-	**1.8**
Chromium	100	PDWS	µg/L	6.2	<2.5	<2.5	-	<2.5
1,1-Dichloroethane	70	GCTL	µg/L	1.2	1.9	1.5	-	1.1
1,4-Dichlorobenzene	75	PDWS	µg/L	<0.5	<0.5	0.54 I	-	0.6 I
Chlorobenzene	100	PDWS	µg/L	2.8	3.6	3.8	-	3.4
Xylene (Total)	20	SDWS	µg/L	1.3	1 I	<0.5	-	<1.5

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
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Well B37-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.25	0.39	0.07	-	0.06
Field Temperature	-	NE	deg C	23.44	23.42	23.48	-	23.2
PH, Field	6.5-8.5	SDWS	S.U.	**6.15**	**6.36**	**6.19**	-	**6.31**
Specific Conductance	-	NE	µmhos/cm	2376	2265	2625	-	2604
Turbidity	-	NE	NTU	1.55	0.86	0.8	-	1.01
Ammonia-N	2.8	GCTL	mg/L	0.49	0.71	0.62	-	0.67
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	-	0.059
Chloride	250	SDWS	mg/L	189	191	213	-	227
ORP	-	-	mV	-176.6	-115	-110.9	-	-79.7
Iron	300	SDWS	ug/L	**37,400**	**37,500**	**38,800**	-	**40,100**
Sodium	160	PDWS	mg/L	**267**	**246**	**255**	-	**257**
Total Dissolved Solids	500	SDWS	mg/L	**1,420**	**1,480**	**1,530**	-	**1,400**
Barium	2000	PDWS	µg/L	251	258	251	-	252
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	-	0.77 I
Cadmium	5	PDWS	µg/L	<0.5	<0.5	1.2	-	<0.5
Copper	1000	SDWS	µg/L	3 I	<2.5	<2.5	-	<2.5
Chromium	100	PDWS	µg/L	<2.5	3.8 I	<2.5	-	<2.5
Silver	100	SDWS	µg/L	3 I	<2.5	<2.5	-	<2.5
1,4-Dichlorobenzene	75	PDWS	µg/L	0.89 I	0.85 I	0.65 I	-	<0.5
Benzene	1	PDWS	µg/L	**11.3**	**11.9**	**11.3**	-	**7.6**
Chlorobenzene	100	PDWS	µg/L	11.1	12.3	8.7	-	6.2
Trichloroethene	3	PDWS	µg/L	<0.5	<0.5	0.51 I	-	<0.5
Toluene	40	SDWS	µg/L	0.53 I	0.62 I	0.81 I	-	1.1
Xylene (Total)	20	SDWS	µg/L	3.3	4.2	9.4	-	6.8

Well B38-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.28	0.34	0.17	-	0.27
Field Temperature	-	NE	deg C	22.45	22.41	23.09	-	22.65
PH, Field	6.5-8.5	SDWS	S.U.	**5.13**	**5.37**	**5.15**	-	**5.26**
Specific Conductance	-	NE	µmhos/cm	314	315	353	-	375
Turbidity	-	NE	NTU	1.62	1.02	1.73	-	0.45
Ammonia-N	2.8	GCTL	mg/L	0.058	0.072	0.085	-	0.083
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.071	-	0.044
Chloride	250	SDWS	mg/L	61.5 J	64.8	62.9	-	69
ORP	-	-	mV	-90.1	-127.8	-18.2	-	-
Iron	300	SDWS	µg/L	**21,200 J**	**21,300**	**21,900**	-	**22,600 J**
Sodium	160	PDWS	mg/L	28.5	28	28.8	-	30.3
Sulfate	250	SDWS	mg/L	20.3	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	214	227	210	-	207
Barium	2,000	PDWS	µg/L	98.1	103	97.8	-	104

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Well B40-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.85	0.75	0.19	-	0.11
Field Temperature	-	NE	deg C	18.97	21.19	22.86	-	22.9
PH, Field	6.5-8.5	SDWS	S.U.	**5.23**	**5.65**	**5.29**	-	**5.5**
Specific Conductance	-	NE	µmhos/cm	638	602	664	-	723
Turbidity	-	NE	NTU	0.49	1.01	0.21	-	0.05
Ammonia-N	2.8	GCTL	mg/L	0.21	0.18	0.18	-	0.21
Chloride	250	SDWS	mg/L	58.3	61	63.3	-	79.5
ORP	-	-	mV	-121.7	-91.2	-69.7	-	30.3
Iron	300	SDWS	µg/L	**20,300**	**18,700**	**18,300**	-	**22,600**
Nitrate-N	10	PDWS	mg/L	<0.025	0.057	0.038 I	-	0.056
Sodium	160	PDWS	mg/L	52.7	48.9	49.6	-	57.1
Sulfate	250	SDWS	mg/L	175	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**516**	418	452	-	484
Barium	2,000	PDWS	µg/L	184	169	173	-	200
Chromium	100	PDWS	µg/L	<2.5	<2.5	<2.5	-	2.8 I
Lead	15	PDWS	µg/L	<5	<5	<5	-	5.3 I
Copper	1,000	SDWS	µg/L	<2.5	<2.5	<2.5	-	2.8 I

Well B42-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.29	0.73	0.41	-	0.06
Field Temperature	-	NE	deg C	21.96	21.45	45.34	-	22.8
PH, Field	6.5-8.5	SDWS	S.U.	**5.55**	**5.94**	**5.54**	-	**5.72**
Specific Conductance	-	NE	µmhos/cm	781	744	1581	-	756
Turbidity	-	NE	NTU	0.49	0.3	1.77	-	1.04
Ammonia-N	2.8	GCTL	mg/L	0.47	0.41	0.44	-	0.47
Chloride	250	SDWS	mg/L	69.4	68.2	62.4	-	60.3
ORP	-	-	mV	-122.1	-65.1	-57.8	-	-12.4
Iron	300	SDWS	µg/L	**13,400**	**12,000**	**12,000**	-	**11,400**
Nitrate-N	10	PDWS	mg/L	<0.025	0.056	0.05	-	0.058
Sodium	160	PDWS	mg/L	92.3	87.4	91.4	-	85.7
Sulfate	250	SDWS	mg/L	209	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**639**	**589**	**555**	-	**529**
Barium	2,000	PDWS	µg/L	111	104	106	-	101
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	-	0.52 I
Chromium	100	PDWS	µg/L	<2.5	<2.5	2.8 I	-	2.5 I

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Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
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Well B43-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	1.65	0.58	0.28	0.07	0.09
Field Temperature	-	NE	deg C	23.39	22.34	24.03	22.27	23.4
PH, Field	6.5-8.5	SDWS	S.U.	**5.76**	**6.11**	**6.01**	**5.89**	**6.03**
Specific Conductance	-	NE	umhos/cm	751	851	677	1039	810
Turbidity	-	NE	NTU	3.5	2.4	2.06	5.4	3.77
Ammonia-N	2.8	GCTL	mg/L	**3.4**	**5**	0.13	**5.8**	2.2
Chloride	250	SDWS	mg/L	93.7	113	36.5	129	98.9
ORP	-	-	mV	-144.9	-90.2	-80.4	-24.9	-
Iron	300	SDWS	µg/L	**23,000**	**27,400**	**11,500**	**32,500**	**23,900**
Nitrate-N	10	PDWS	mg/L	<0.025	0.11	<0.025	0.14	0.057
Sodium	160	PDWS	mg/L	87.9	102	13.8	100	77.9
Sulfate	250	SDWS	mg/L	18.8	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	450	**514**	287	**562**	418
Barium	2,000	PDWS	µg/L	168	178	46.5	211	159
Selenium	50	PDWS	µg/L	<7.5	<7.5	<7.5	9.5 I	<7.5
Benzene	1	PDWS	µg/L	0.18 I	0.1 I	<0.1	0.16 I	<0.1
Vanadium	49	GCTL	µg/L	<5	<5	6.8 I	<5	<5
Chlorobenzene	100	PDWS	µg/L	2.4	2.6	<0.5	3	1.1

Well B59-1R								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.14	0.37	0.19	-	0.08
Field Temperature	-	NE	deg C	25.86	24.13	25.39	-	25.44
PH, Field	6.5-8.5	SDWS	S.U.	**6.38**	6.74	6.52	-	6.65
Specific Conductance	-	NE	umhos/cm	604	589	612	-	578
Turbidity	-	NE	NTU	2.44	0.43	4.34	-	1.18
Ammonia-N	2.8	GCTL	mg/L	0.81	1	1.2	-	1.1
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.026 I	-	0.027 I
Chloride	250	SDWS	mg/L	66.9	60.8	55.3	-	47.7
ORP	-	-	mV	-168	-123.2	-110.5	-	-82.7
Iron	300	SDWS	µg/L	**4,420**	**4,890**	**3,980**	-	**3,720**
Sodium	160	PDWS	mg/L	56	55.7	51.1	-	45.7
Sulfate	250	SDWS	mg/L	3.2 I	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	385	394	348	-	321
Barium	2,000	PDWS	µg/L	61.4	65.8	66.1	-	60.1

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Well B60								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.34	1.03	0.1	-	0.1
Field Temperature	-	NE	deg C	23.1	24.42	25.69	-	25.44
PH, Field	6.5-8.5	SDWS	S.U.	**6.42**	6.57	**6.35**	-	**6.48**
Specific Conductance	-	NE	umhos/cm	501	533	581	-	585
Turbidity	-	NE	NTU	3.36	0.13	0.54	-	0.68
Ammonia-N	2.8	GCTL	mg/L	1.3	1.6	1.7	-	1.6
Nitrate-N	10	PDWS	mg/L	0.091	<0.025	<0.025	-	0.019 I
NITRATE (NO3 + NO2) TOTAL N	10	PDWS	mg/L	0.1	<0.025	<0.025	-	<0.025
Chloride	250	SDWS	mg/L	69.2	62.3	59	-	52.5
ORP	-	-	mV	-84	-150.5	-89.1	-	-69
Iron	300	SDWS	µg/L	**3,660**	**4,330**	**3,930**	-	**4,040**
Sodium	160	PDWS	mg/L	53.5	53.8	52	-	46.7
Total Dissolved Solids	500	SDWS	mg/L	346	347	293	-	329
Barium	2,000	PDWS	µg/L	79.6	81.1	80.4	-	80.9

Well B63-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.26	0.39	0.38	-	0.05
Field Temperature	-	NE	deg C	24.2	23.27	23.9	-	23.3
PH, Field	6.5-8.5	SDWS	S.U.	**6.35**	6.6	**6.42**	-	6.72
Specific Conductance	-	NE	umhos/cm	467	465	529	-	539
Turbidity	-	NE	NTU	13.9	1.74	5.65	-	0.45
Ammonia-N	2.8	GCTL	mg/L	0.13	0.15	0.13	-	0.11
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	-	0.015 I
Chloride	250	SDWS	mg/L	30.8	29.3	35.9	-	41.5
ORP	-	-	mV	-155.2	-154.2	-71.6	-	-68.5
Iron	300	SDWS	µg/L	**2,310**	**2,310**	**2,490**	-	**2,200**
Sodium	160	PDWS	mg/L	52.4	56.9	53.8	-	53.8
Total Dissolved Solids	500	SDWS	mg/L	374	312	311	-	313
Barium	2,000	PDWS	µg/L	43.6	44.5	42.7	-	46.7

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Well B68								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	1.14	0.3	0.14	-	0.08
Field Temperature	-	NE	deg C	25.87	24.51	24.82	-	25
PH, Field	6.5-8.5	SDWS	S.U.	**5.65**	**5.89**	**5.74**	-	**5.89**
Specific Conductance	-	NE	umhos/cm	821	932	1049	-	1110
Turbidity	-	NE	NTU	0.41	0.68	0.69	-	0.34
Ammonia-N	2.8	GCTL	mg/L	1.2	1.8	2.0	-	2.3
Nitrate-N	10	PDWS	mg/L	<0.025	0.065 I	0.035 I	-	0.06 I
Chloride	250	SDWS	mg/L	33	35.9	35.1	-	31.7
ORP	-	-	mV	-179.1	-130.8	-93.2	-	-21.9
Iron	300	SDWS	µg/L	**23,600**	**31,100**	**29,500**	-	**36,100**
Sodium	160	PDWS	mg/L	26.2	28.1	29.7	-	32.7
Sulfate	250	SDWS	mg/L	63.9	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**649**	**729**	**712**	-	**718**
Barium	2,000	PDWS	µg/L	131	163	178	-	204
Mercury	2	PDWS	µg/L				-	0.1 I

Well B70-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.26	0.54	0.2	-	0.09
Field Temperature	-	NE	deg C	24.47	22.66	23.33	-	24.52
PH, Field	6.5-8.5	SDWS	S.U.	**5.24**	**5.75**	**5.23**	-	**5.38**
Specific Conductance	-	NE	umhos/cm	267	249	320	-	321
Turbidity	-	NE	NTU	0.36	0.16	0.42	-	0.41
Ammonia-N	2.8	GCTL	mg/L	0.046 I	0.044 I	0.064	-	0.038 I
Nitrate-N	10	PDWS	mg/L	<0.025	0.035 I	<0.025	-	0.019 I
Chloride	250	SDWS	mg/L	26.7	24.6	38.6	-	36.4
ORP	-	-	mV	116.3	-78.1	-26.6	-	26.1
Iron	300	SDWS	µg/L	**5,710**	**5,070**	**6,420**	-	**6,150**
Nitrate-N	10	PDWS	mg/L	<0.025	0.035	<0.025	-	0.019
Sodium	160	PDWS	mg/L	26.8	24.6	28.5	-	27.6
Sulfate	250	SDWS	mg/L	46.4	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	188	168	193	-	194
Barium	2,000	PDWS	µg/L	38.8	31.2	43	-	40

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Well B73-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.21	0.19	0.09	-	0.13
Field Temperature	-	NE	deg C	24.39	23.79	24.63	-	24.32
PH, Field	6.5-8.5	SDWS	S.U.	**6.37**	6.73	**6.44**	-	6.56
Specific Conductance	-	NE	umhos/cm	729	613	729	-	760
Turbidity	-	NE	NTU	0.89	0.11	0.37	-	1.79
Ammonia-N	2.8	GCTL	mg/L	0.11	0.12	0.14	-	0.13
Chloride	250	SDWS	mg/L	32	16.9	16.1	-	20.5
ORP	-	-	mV	-126.8	-144.8	-107.7	-	-79.3
Iron	300	SDWS	µg/L	**13,800**	**12,100**	**12,400**	-	**11,900**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	0.056	-	0.043
Sodium	160	PDWS	mg/L	41	33.6	38.1	-	39.7
Sulfate	250	SDWS	mg/L	5.4	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	438	379	391	-	412
Barium	2,000	PDWS	µg/L	51.4	46.6	47.7	-	48.5

Well MO5-B								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.63	0.63	0.13	-	0.31
Field Temperature	-	NE	deg C	23.53	22.04	23.38	-	23.59
PH, Field	6.5-8.5	SDWS	S.U.	**6.02**	**6.46**	**6.06**	-	**6.09**
Specific Conductance	-	NE	umhos/cm	1045	974	1106	-	1118
Turbidity	-	NE	NTU	0.09	0.42	0.48	-	0.97
Ammonia-N	2.8	GCTL	mg/L	**4.0**	**3.2**	**4.0**	-	**3.9**
Chloride	250	SDWS	mg/L	101	89.3	94.2	-	87
ORP	-	-	mV	-147.6	-95.1	-112.9	-	-10.1
Iron	300	SDWS	µg/L	**9,040**	**8,500**	**8,290**	-	**8,410**
Nitrate-N	10	PDWS	mg/L	<0.025	0.026 I	<0.025	-	0.028 I
Sodium	160	PDWS	mg/L	115	126	112	-	123
Sulfate	250	SDWS	mg/L	52	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	**692**	**765**	**699**	-	**662**
Barium	2000	PDWS	µg/L	174	168	167	-	167
Beryllium	4	PDWS	µg/L	<0.5	<0.5	<0.5	-	0.51 I
Chromium	100	PDWS	µg/L	5.1	3.6 I	3.5 I	-	3.3 I

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B82-1								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.52	0.39	0.09	0.15	0.07
Field Temperature	-	NE	deg C	27.77	23.76	25.05	24.22	25
PH, Field	6.5-8.5	SDWS	S.U.	**6.07**	**6.48**	**5.90**	**6.13**	**6.18**
Specific Conductance	-	NE	µmhos/cm	409	405	446	468	476
Turbidity	-	NE	NTU	8.27	2.12	6.42	1.88	1.16
Ammonia-N	2.8	GCTL	mg/L	0.12	0.11	0.1	0.12	0.12
Chloride	250	SDWS	mg/L	40	40.1	37.6	40.1	38.3
ORP	-	-	mV	-161.9	49.01	-72.1	-40.6	-
Iron	300	SDWS	µg/L	**11,600**	**11,800**	**6,330**	**10,800**	**11,200**
Nitrate-N	10	PDWS	mg/L	<0.025	0.065	<0.025	0.047 I	0.045
Sodium	160	PDWS	mg/L	13.3	14	46.9	13.8	12.9
Sulfate	250	SDWS	mg/L	43.5	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	338	328	408	278	291
Barium	2,000	PDWS	µg/L	44.3	45.7	32.2	45.2	45.2
Lead	15	PDWS	µg/L	<5	<5	<5	<5	**16.9**
Vanadium	49	GCTL	µg/L	7.4 I	6.9 I	<5	5.7 I	5.6 I

B85								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	-	0.48	0.12	0.05	0.06
Field Temperature	-	NE	deg C	-	22.32	23.19	22.8	23.1
PH, Field	6.5-8.5	SDWS	S.U.	-	6.55	**6.22**	**6.36**	**6.36**
Specific Conductance	-	NE	µmhos/cm	-	1637	1815	1837	1888
Turbidity	-	NE	NTU	-	0.48	0.18	0.15	0.39
Ammonia-N	2.8	GCTL	mg/L	-	**16.7**	**18**	**15.3**	**19.2**
Chloride	250	SDWS	mg/L	-	157	146	148	152 J
ORP	-	-	mV	-	-94.3	-106	-69.4	-56.2
Iron	300	SDWS	µg/L	-	**6,790**	**6,260**	**6,200**	**6,740**
Nitrate-N	10	PDWS	mg/L	-	0.085	<0.025	0.086	0.026 I
Sodium	160	PDWS	mg/L	-	120	107	114	121
Total Dissolved Solids	500	SDWS	mg/L	-	**994**	**1,000**	**974**	**996**
Barium	2,000	PDWS	µg/L	-	0.18	0.14	<5	<5
Chromium	100	PDWS	µg/L	-	3 I	3.9 I	3.9 I	4.9 I
Benzene	1	PDWS	µg/L	-	0.18 I	0.14 I	<0.1	<0.1
Chlorobenzene	100	PDWS	µg/L	-	3.2	3.4	3.2	3.3
1,4-Dichlorobenzene	75	PDWS	µg/L	-	0.82 I	0.78 I	0.75 I	0.84 I

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

B85-6								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.84	0.45	0.24	0.05	0.09
Field Temperature	-	NE	deg C	22.62	22.23	23.45	22.7	23.1
PH, Field	6.5-8.5	SDWS	S.U.	**6.23**	6.82	**6.18**	**6.29**	**6.3**
Specific Conductance	-	NE	µmhos/cm	2192	1791	4504	2393	2192
Turbidity	-	NE	NTU	8.11	9.63	1.19	3.24	0.63
Ammonia-N	2.8	GCTL	mg/L	**12.3**	**8.3**	**18.2**	**14.9**	**17.8**
Chloride	250	SDWS	mg/L	**279**	177	215	**272**	**271**
ORP	-	-	mV	-69.9	-70.4	-117	-87.4	-53.5
Iron	300	SDWS	µg/L	**11,900**	**1,620**	**9,790**	**10,800**	**11,200**
Nitrate-N	10	PDWS	mg/L	<0.025	0.14	0.036 I	0.034 I	0.025 I
Sodium	160	PDWS	mg/L	**182**	136	**173**	**190**	**188**
Total Dissolved Solids	500	SDWS	mg/L	**1,390**	**1,160**	**1,280**	**1,250**	**1,380**
Barium	2,000	PDWS	µg/L	68.4	49.2	59	61.6	59.9
Chromium	100	PDWS	µg/L	2.5 I	<2.5	<2.5	2.6 I	3.3 I
Copper	1,000	SDWS	µg/L	2.7 I	4.2 I	<2.5	<2.5	3.1 I
Vanadium	49	GCTL	µg/L	6.2 I	<5	<5	<5	5.1 I
Zinc	5,000	SDWS	µg/L	<10	11.5 I	<10	<10	<10
Benzene	1	PDWS	µg/L	**2.4**	0.34 I	**1.7**	**2.1**	**1.8**
Chlorobenzene	100	PDWS	µg/L	3.4	1.3	3.6	3.6	3.3
1,4-Dichlorobenzene	75	PDWS	µg/L	<0.5	<0.5	<0.5	0.72 I	0.69 I

B87-6								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.43	0.45	2.09	0.42	0.06
Field Temperature	-	NE	deg C	23.53	22.96	23.36	23.05	23.2
PH, Field	6.5-8.5	SDWS	S.U.	**6.48**	6.91	**6.47**	6.63	6.7
Specific Conductance	-	NE	µmhos/cm	591	560	607	639	653
Turbidity	-	NE	NTU	6.23	2.03	19.04	4.81	5.4
Ammonia-N	2.8	GCTL	mg/L	<0.02	0.093	0.13	0.11	0.11
Chloride	250	SDWS	mg/L	25	29	28.6	26.6	26.5
ORP	-	-	mV	-185.8	-111.6	-88.9	-	-
Iron	300	SDWS	µg/L	**3,630**	**3,050**	**4,000**	**3,440**	**3,510**
Nitrate-N	10	PDWS	mg/L	<0.025	0.05 I	<0.025	0.057	0.017 I
NITRATE (NO3 + NO2) TOTAL N	10	PDWS	mg/L	-	0.05 I	-	-	-
Sodium	160	PDWS	mg/L	23.8	24.1	25.4	24.2	22.8
Sulfate	250	SDWS	mg/L	23.9	-	-	-	-
Total Dissolved Solids	500	SDWS	mg/L	413	393	367	328	370
Barium	2,000	PDWS	µg/L	25	23.6	27.2	25	24.9
Chromium	100	PDWS	µg/L	<2.5	<2.5	2.7 I	<2.5	<2.5
Lead	15	PDWS	µg/L	<5	<5	<5	9.2 I	**21.2**

Appendix C - Table 6
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Zone 4 & 6 Wells
Tomoka Farms Road Landfill

Parameter	Standard	Standard Type	Units	Well ID	
				B41-1	B45-1
November 2014 Monitoring Event					
Dissolved Oxygen		NE	mg/L	0.94	1.55
Field Temperature		NE	deg C	21.7	22.78
ORP		NE	mV	-101.1	-162.2
PH, Field	6.5-8.5	SDWS	S.U.	**6.13**	**5.83**
Specific Conductance		NE	µmhos/cm	1416	1522
Turbidity		NE	NTU	7.46	7.7
Ammonia-N	2.8	GCTL	mg/L	**27.6**	0.15
Chloride	250	SDWS	mg/L	85.7	22.6
Sodium	160	PDWS	mg/L	89.6	**225**
Sulfate	250	SDWS	mg/L	**255**	7.3
Total Dissolved Solids	500	SDWS	mg/L	**1190**	**1060**
Barium	2,000	PDWS	µg/L	319	158
Chromium	100	PDWS	µg/L	4.2 I	<2.5
Copper	1000	SDWS	µg/L	<2.5	2.6 I
Iron	300	SDWS	µg/L	**14,700**	**46,100**
Vanadium	49	GCTL	µg/L	5.8 I	<5
Benzene	1	PDWS	µg/L	<0.1	**10.3**
Chlorobenzene	100	PDWS	µg/L	1.3	5.9
Xylenes	20	SDWS	µg/L	<0.5	2.4

Notes:

NE= Not Established;

NS = Not Sampled;

PDWS = Primary Drinking Water Standard (62-550 F.A.C.);

SDWS = Secondary Drinking Water Standard (62-550 F.A.C.);

GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.);

I = The reported value is between the laboratory

J = Estimated value;

- = Not Measured.

Appendix C - Table 7
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Floridan Aquifer Wells
Tomoka Farms Road Landfill

Well FA-1B								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.21	0.09	0.39	0.03	0.13
Field Temperature	-	NE	deg C	22.64	22.22	22.26	22.46	22.26
PH, FIELD	6.5-8.5	SDWS	S.U.	6.69	7.17	6.99	7.04	6.92
Specific Conductance	-	NE	µmhos/cm	515	533	597	585	584
Turbidity	-	NE	NTU	0.07	0.68	1.11	0.95	0.86
Ammonia-N	2.8	GCTL	mg/L	0.33	1.2	1	1.1	0.41
Chloride	250	SDWS	mg/L	13	15.5	16	13.4	13.4
ORP	-	-	mV	-209.1	-209.8	-126.9	-130.1	-77.7
Iron	300	SDWS	µg/L	**324**	**310**	**428**	**444**	**346**
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.014 I
Sodium	160	PDWS	mg/L	9.5	10.1	10.7	10	10.6
Total Dissolved Solids	500	SDWS	mg/L	339	360	352	307	309
Barium	2,000	PDWS	µg/L	21.1	33.2	41.6	26.1	21.2
Chromium	100	PDWS	µg/L	4.6 I	<2.5	<2.5	<2.5	<2.5

Well FA-2C								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.15	0.11	0.08	0.03	0.09
Field Temperature	-	NE	deg C	22.37	22.03	22.04	22.21	21.83
PH, FIELD	6.5-8.5	SDWS	S.U.	7.03	7.62	7.08	7.26	7.33
Specific Conductance	-	NE	µmhos/cm	682	664	739	734	733
Turbidity	-	NE	NTU	0.13	3.52	0.4	0.09	0.55
Ammonia-N	2.8	GCTL	mg/L	0.45	0.45	0.52	0.48	0.48
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.018 I
Chloride	250	SDWS	mg/L	70.1	68.2	68	65.3	67.6
ORP	-	-	mV	-231.5	-195.7	-176.5	-162.6	159.4
Iron	300	SDWS	µg/L	**965**	**927**	**865**	**896**	<20
Sodium	160	PDWS	mg/L	45	45.7	43.3	43.5	<0.5
Total Dissolved Solids	500	SDWS	mg/L	471	412	431	401	404
Arsenic	10	PDWS	µg/L	<5	<5	5.4 I	<5	<5
Barium	2,000	PDWS	µg/L	23.1	22.4	22.5	22	<5

Appendix C - Table 7
Summary of Detected Groundwater Parameters - November 2014 to November 2016
Floridan Aquifer Wells
Tomoka Farms Road Landfill

Well F-MB								
Parameter	Standard	Standard Type	Units	Semiannual Sampling Event				
				Nov-14	May-15	Nov-15	May-16	Nov-16
Dissolved Oxygen	-	NE	mg/L	0.22	0.11	0.14	0.06	0.1
Field Temperature	-	NE	deg C	23.94	23.72	23.47	23.62	23.5
PH, FIELD	6.5-8.5	SDWS	S.U.	6.56	6.94	6.74	6.92	6.9
Specific Conductance	-	NE	µmhos/cm	563	561	619	624	630
Turbidity	-	NE	NTU	7.93	15.71	12.66	13.13	15.82
Ammonia-N	2.8	GCTL	mg/L	0.31	0.35	0.36	0.34	0.36
Chloride	250	SDWS	mg/L	22.3	23.5	23.5	23.4	21.4
ORP	-	-	mV	-163.4	-151.9	-52.2	-54.4	-26
Iron	300	SDWS	µg/L	125	136	125	105	106
Nitrate-N	10	PDWS	mg/L	<0.025	<0.025	<0.025	<0.025	0.016 I
Sodium	160	PDWS	mg/L	16.6	17.8	17.1	16.7	17.1
Total Dissolved Solids	500	SDWS	mg/L	360	360	366	348	351
Barium	2,000	PDWS	µg/L	18	19.2	18.4	18.9	18.7
Lead	2	PDWS	µg/L	<5	<5	<5	<5	6.3 I

Notes:

Limit = Maximum threshold limit per regulatory standards;

NA = Not Available;

NS = Not Sampled;

PDWS = Primary Drinking Water Standard (62-550 F.A.C.);

SDWS = Secondary Drinking Water Standard (62-550 F.A.C.);
GCTL = Groundwater Clean-up Target Level (62-777 F.A.C.);

I = The reported value is between the laboratory method detection method and the laboratory practical quantization limit;

J = Estimated value;

- = Not Measured;

<x.xx = Indicates that the compound was analyzed for but not detected above the detection limit.

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-1							
Parameters	**Class III Standard**	**Units**	**Semiannual Sampling Events**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	8.1	**3.59**	**4.19**	6.46	10.49
Field Temperature	No Standard	deg C	17.8	27.79	27.79	26.27	23.6
PH, Field	6.0 - 8.5	S.U.	**5.45**	7	7.65	8.31	7.57
Specific Conductance	1,275	µmhos/cm	104	163	453	315	311
Turbidity	No Standard	NTU	7.24	143.3	2.31	1.57	16.99
Ammonia-N	No Standard	mg/L	<0.02	<0.02	0.19	<0.02	0.2
BOD, 5 day	No Standard	mg/L	<2	2.3	<2	<2	<2
Chemical Oxygen Demand	No Standard	mg/L	27.2	70.1	47	15.3 I	<12.5
Chlorophyll A	No Standard	µg/L	4.4	<15	5.2	<2.2	4.1 I
Fecal Coliforms	200	#/100 mL	82 B	34 B	64 B	<2	17
Hardness (As CaCO3)	No Standard	mg/L	15.5	63.4	98.8	132	127
Iron	1,000	µg/L	34.9 I	**1,140 J**	181	32.9 I	240
Nitrate-N	No Standard	mg/L	<0.025	0.33	0.17	<0.025	0.091
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.28 I	1.2	0.94	0.51	0.81 I
Phosphorus	No Standard	mg/L	0.21	0.16	<0.05	<0.05	<0.1
Sodium	No Standard	mg/L	14.3	14.2	12.8	13.7	11.3
Total Dissolved Solids	No Standard	mg/L	126	189	176	193	179
Total Nitrogen	No Standard	mg/L	0.28 I	1.5	1.1	0.52	0.91
Total Organic Carbon	No Standard	mg/L	5.3	14.5	12.4	11.3	10.9
Total Suspended Solids	No Standard	mg/L	<5	5	<5	<5	<5
Antimony	4,300	µg/L	<0.5	<0.5	<0.5	<0.5	1.2
Barium	No Standard	µg/L	6.2 I	22.4	<5	8 I	19
Beryllium	0.13	µg/L	<0.05	0.11	<0.05	<0.05	<0.05
Chromium	Result	µg/L	<2.5	6.5	<2.5	<2.5	<2.5
	Calc. Std: $e^{(0.819[lnH]+0.6848)}$	µg/L	18.72	59.34	85.33	108.18	104.81
Copper	Result	µg/L	<0.93	1.7	<0.93	<0.93	<0.93
	Calc. Std: $e^{(0.8545[lnH]-1.702)}$	µg/L	1.90	6.32	9.23	11.83	11.44
Lead	Result	µg/L	<0.5	**10.4**	<0.5	<0.5	0.92 I
	Calc. Std: $e^{(1.273[lnH]-4.705)}$	µg/L	0.30	1.78	3.13	4.53	4.31
Mercury	0.012	µg/L	0.00137	**0.0313**	0.00157	0.000355 I	0.00325
Selenium	5	µg/L	<0.5	0.74 I	<0.5	<0.5	<0.5
Vanadium	No Standard	µg/L	<5	8.6 I	<5	<5	<5
Zinc	Result	µg/L	<10	12.4 I	<10	<10	<10
	Calc. Std: $e^{(0.8473[lnH]+0.884)}$	µg/L	24.69	81.44	118.60	151.59	146.71

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-2							
Parameters	**Standard**	**Units**	**Semiannual Sampling Events**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	**3.96**	**3.03**	**2.59**	**4.2**	5.92
Field Temperature	No Standard	deg C	16.26	26.07	22.59	26.81	21.9
PH, Field	6.0 - 8.5	S.U.	6.84	7.46	6.97	7.69	7.34
Specific Conductance	1,275	µmhos/cm	394	406	381	389	394
Turbidity	No Standard	NTU	0.98	1.15	4.78	0.86	1.72
Ammonia-N	No Standard	mg/L	<0.02	<0.02	0.032 I	<0.02	<0.02
BOD, 5 day	No Standard	mg/L	<2	<2	3.4	<2	<2
Chemical Oxygen Demand	No Standard	mg/L	57	38.6	38.4	24.1	<12.5
Chlorophyll A	No Standard	µg/L	6.3	3.7 I	22.5	3.3 I	7.2
Fecal Coliforms	200	#/100 mL	40	13	65 B	7	20
Hardness (As CaCO3)	No Standard	mg/L	133	147	134	119	114
Iron	1,000	µg/L	142	191	**3,420**	505	476
Nitrate-N	No Standard	mg/L	0.071	<0.025	0.041 I	<0.025	0.1
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.94	0.8	1.3	0.59	0.78
Phosphorus	No Standard	mg/L	<0.05	<0.05	0.062 I	<0.05	0.05 I
Sodium	No Standard	mg/L	35.9	32	31.9	29.6	27.9
Total Dissolved Solids	No Standard	mg/L	279	266	227	210	229
Total Nitrogen	No Standard	mg/L	1	0.8	1.4	0.59	0.88
Total Organic Carbon	No Standard	mg/L	14.3	13.6	11.3	11.5	11.6
Total Suspended Solids	No Standard	µg/L	<5	<5	69.5	<5	<5
Barium	No Standard	µg/L	28.8	29.8	43.3	24	23.1
Lead	Resullt	µg/L	<0.5	<0.5	1	<0.5	<0.5
	Calc. Std: $e^{(1.273[\ln H]-4.705)}$	µg/L	4.57	5.20	4.62	3.97	3.76
Mercury	0.012	µg/L	0.00111	0.0003	0.0022	0.00107	0.00107
Zinc	Result	µg/L	<10	<10	10.3 I	<10	<10
	Calc. Std: $e^{(0.8473[\ln H]+0.884)}$	µg/L	152.57	166.07	153.54	138.84	133.88

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-3							
Parameters	**Standard**	**Units**	**Semiannual Sampling Events**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	**1.4**	**1.73**	**1.78**	Dry	**4.14**
Field Temperature	No Standard	deg C	15.6	24.9	22.39	Dry	23.73
PH, Field	6 - 8.5	S.U.	6.48	7.16	6.49	Dry	6.63
Specific Conductance	1275	µmhos/cm	284	340	335	Dry	276
Turbidity	No Standard	NTU	1.68	5.83	16.65	Dry	3.7
Ammonia-N	No Standard	mg/L	<0.02	0.52	0.045 I	Dry	<0.02
BOD, 5 day	No Standard	mg/L	<2	12.2	3	Dry	4.2
Chemical Oxygen Demand	No Standard	mg/L	55.2	91.4	79.5	Dry	157
Chlorophyll A	No Standard	µg/L	5	29.4	8.7 I	Dry	41.3
Fecal Coliforms	200	#/100 mL	11	16 B	60 Z	Dry	69 B
Hardness (As CaCO3)	No Standard	mg/L	115	168	102	Dry	114
Iron	1000	µg/L	262	**1,030**	529	Dry	920
Total Nitrogen	No Standard	mg/L	0.55	1.9	1.3	Dry	3
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.55	1.9	1.3	Dry	3
Phosphorus	No Standard	mg/L	<0.05	0.13	0.068 I	Dry	0.14 I
Sodium	No Standard	mg/L	16.7	14.1	16.6	Dry	12.2
Total Dissolved Solids	No Standard	mg/L	216	236	225	Dry	265
Total Organic Carbon	No Standard	mg/L	18.9	19.3	25.2	Dry	55.7
Total Suspended Solids	No Standard	mg/L	<5	94.5	5	Dry	10.5
Barium	No Standard	µg/L	20.5	30.6	21.2	Dry	26
Copper	Result	µg/L	<0.93	<0.93	<0.93	Dry	0.97 I
	Calc. Std: $e^{(0.8545[lnH]-1.702)}$	µg/L	10.51	14.53	9.49	Dry	10.43
Mercury	0.012	µg/L	0.00213	0.0017	0.00102	Dry	0.006
Zinc	No Standard	µg/L	<10	12.2 I	<10	Dry	<10
	Calc. Std: $e^{(0.8473[lnH]+0.884)}$	µg/L	134.88	185.96	121.84	Dry	133.88
Toluene	No Standard	µg/L	<0.5	0.91 I	0.52 I	Dry	<0.5

Appendix C - Table 8

Summary of Detected Surface Water Parameters - November 2014 to November 2016

Tomoka Farms Road Landfill

Surface Water Sampling Location SW-4							
Parameters	**Standard**	**Units**	**Semiannual Sampling Events**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	**3.1**	**3.03**	**1.23**	**2.54**	12.44
Field Temperature	No Standard	deg C	15.28	26.07	21.97	25.34	24.97
PH, Field	6.0 - 8.5	S.U.	6.39	7.46	6.77	7.33	6.34
Specific Conductance	1,275	µmhos/cm	404	406	386	390	396
Turbidity	No Standard	NTU	1.57	1.15	1.72	1.81	1.39
Ammonia-N	No Standard	mg/L	0.021 I	0.022 I	0.048 I	0.032 I	0.021 I
BOD, 5 day	No Standard	mg/L	<2	11.9	<2	2.1	3.5
Chemical Oxygen Demand	No Standard	mg/L	54	60.9	39	26.5	14.2 I
Chlorophyll A	No Standard	µg/L	5.2	99.9	5.8	7	28.1
Fecal Coliforms	200	#/100 mL	69 B	12 B	112 B	7 B	98 B
Hardness (As CaCO3)	No Standard	mg/L	133	152	116	123	102
Iron	1,000	µg/L	208	358	226	935	321
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.84	3	1	0.74	1.3
Phosphorus	No Standard	mg/L	<0.05	0.17	<0.05	<0.05	0.12
Sodium	No Standard	mg/L	36.3	33.8	29.1	30.1	30.8
Total Dissolved Solids	No Standard	mg/L	318	257	232	210	216
Total Nitrogen	No Standard	mg/L	0.84	3	1	0.75	1.3
Total Organic Carbon	No Standard	mg/L	18.2	14.3	12.5	12	16.8
Total Suspended Solids	No Standard	mg/L	4.3	74	<5	<5	6
Barium	No Standard	µg/L	24.9	34.6	22.6	26.9	21
Mercury	0.012	µg/L	0.00137	0.001	0.00126	0.00131	0.00161
Nitrate N	No Standard	µg/L	<0.025	<0.025	<0.025	<0.025	0.018 I

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-5							
Parameter	**Standard***	**Units**	**Semiannual Sampling Event**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	**4.05**	**4.59**	**0.94**	**4.84**	9.96
Field Temperature	No Standard	deg C	15.94	26.43	23.82	25.68	22.92
PH, Field	6.0 - 8.5	S.U.	6.76	7.75	7.01	7.69	7.58
Specific Conductance	1,275	µmhos/cm	446	685	499	516	403
Turbidity	No Standard	NTU	4.06	9.64	7.11	5.85	NM
Ammonia-N	No Standard	mg/L	0.9	2.5	0.93	0.32	0.12
BOD, 5 day	No Standard	mg/L	<2	4.1	3.6	3.2	6.8
Chemical Oxygen Demand	No Standard	mg/L	51.6	69.6	79.3	20.9	44.8
Chlorophyll A	No Standard	µg/L	11.3	35.5	26.1	16.3	41.3
Fecal Coliforms	200	#/100 mL	22	18 B	32	21	9
Hardness (As CaCO3)	No Standard	mg/L	193	260	185	178	142
Iron	1,000	µg/L	**1,160**	**1,110**	**3,000**	**1,130**	**1,880**
Nitrate-N	No Standard	mg/L	0.05 I	0.14	0.072	0.036 I	0.29
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	1.7	3.9	2.6	1.8	2
Phosphorus	No Standard	mg/L	0.088 I	0.051 I	0.062 I	0.053 I	0.078 I
Sodium	No Standard	mg/L	28.6	53.7	30.4	36.2	24.1
Total Dissolved Solids	No Standard	mg/L	308	458	312	288	243
Total Nitrogen	No Standard	mg/L	1.8	4	2.7	1.9	2.3
Total Organic Carbon	No Standard	mg/L	18	23.3	22	18.4	19.7
Total Suspended Solids	No Standard	mg/L	<5	7.5	6.5	<5	7
Unionized Ammonia-N	0.02	mg/L	<0.02	**0.1**	<0.02	<0.02	<0.02
Barium	No Standard	µg/L	40.7	67.4	49.3	35.5	25.6
Mercury	0.012	µg/L	0.00172	0.0071	0.00169	0.00112	0.00204
Chloroform	No Standard	µg/L	<0.5	0.53 I	0.85 I	<0.5	<0.5

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-11							
Parameter	**Standard**	**Units**	**Semiannual Sampling Event**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	**4.25**	5.3	**0.73**	6.69	5.12
Field Temperature	No Standard	deg C	17.48	29.16	26.6	25.62	24.07
PH, Field	6.0 - 8.5	S.U.	6.63	8.24	7.24	7.71	7.15
Specific Conductance	1275	µmhos/cm	364	435	487	365	584
Turbidity	No Standard	NTU	3.79	25.17	4.6	3.17	8.97
Ammonia-N	No Standard	mg/L	0.047 I	<0.02	<0.02	<0.02	0.83
BOD, 5 day	No Standard	mg/L	<2	4.2	<2	<2	9.4
Chemical Oxygen Demand	No Standard	mg/L	38.7	51.6	50.9	<12.5	66.5
Chlorophyll A	No Standard	µg/L	6.1	30.9	6.7	4.4 I	68.4
Fecal Coliforms	200	#/100 mL	**200 B**	**350**	108 B	137 B	60 Z
Hardness (As CaCO3)	No Standard	mg/L	148	167	192	99.3	166
Iron	1,000	µg/L	163	514	768	123	715
Nitrate-N	No Standard	mg/L	0.047 I	<0.025	<0.025	<0.025	<0.01
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.69	1.2	0.9	0.89	3.9
Phosphorus	No Standard	mg/L	<0.05	0.078 I	<0.05	<0.05	0.45
Sodium	No Standard	mg/L	24.6	28.9	31.9	29.7	36.1
Total Dissolved Solids	No Standard	mg/L	278	283	312	227	330
Total Nitrogen	No Standard	mg/L	0.73	1.2	0.9	0.9	3.9
Total Organic Carbon	No Standard	mg/L	12	14.3	16.9	15.7	26.8
Total Suspended Solids	No Standard	mg/L	5.5	22	<5	<5	94
Antimony	<4,300	µg/L	<0.5	0.68 I	<0.5	0.56 I	0.67 I
Barium	No Standard	µg/L	30.9	20.7	30.1	16.8	28
Lead	Result	µg/L	<0.5	0.64 I	<0.5	<0.5	<0.5
	Calc. Std: $e^{(1.273[\ln H]-4.705)}$	µg/L	5.24	6.11	7.30	3.15	6.07
Mercury	0.012	µg/L	0.00172	0.0037	0.00134	0.00273	0.00213
Selenium	5	µg/L	<0.5	0.61 I	<0.5	<0.5	<0.5

Appendix C - Table 8
Summary of Detected Surface Water Parameters - November 2014 to November 2016
Tomoka Farms Road Landfill

Surface Water Sampling Location SW-12							
Parameter	**Standard**	**Units**	**Semiannual Sampling Event**				
			Nov-14	**May-15**	**Nov-15**	**May-16**	**Nov-16**
Dissolved Oxygen	≥ 5	mg/L	6.53	**4.4**	**0.73**	6.08	9.58
Field Temperature	No Standard	deg C	18.5	26.78	26.6	26.73	24.95
PH, Field	6.0 - 8.5	S.U.	7.16	7.93	7.24	8.1	7.56
Specific Conductance	1,275	µmhos/cm	417	407	487	487	471
Turbidity	No Standard	NTU	10.47	3.18	2.31	4.78	10.38
Ammonia-N	No Standard	mg/L	0.13	0.051	<0.02	<0.02	0.037 I
Chemical Oxygen Demand	No Standard	mg/L	46.3	38.9	39.6	18.3 I	14.7 I
Chlorophyll A	No Standard	µg/L	10.5	13.1	8.8	5.6 I	11.7
Fecal Coliforms	200	#/100 mL	112 B	16 B	70 B	78	38
Hardness (As CaCO3)	No Standard	mg/L	148	155	161	175	148
Iron	1,000	µg/L	190	<20	20.2 I	34.8 I	138
Nitrate-N	No Standard	mg/L	0.12	<0.025	0.23	<0.025	0.25
Nitrogen, Kjeldahl (Total)	No Standard	mg/L	0.78	1	1.1	0.81	0.97
Sodium	No Standard	mg/L	27.7	26.6	25.8	27	27.6
Total Dissolved Solids	No Standard	mg/L	321	275	279	282	278
Total Nitrogen	No Standard	mg/L	0.9	1	1.4	0.81	1.3
Total Organic Carbon	No Standard	mg/L	11.3	12.5	12.4	11.7	12.4
Total Suspended Solids	No Standard	mg/L	5.5	<5	<5	5.5	8.5
Antimony	4,300	µg/L	0.79 I	0.62 I	0.76 I	0.8 I	0.78 I
Barium	No Standard	µg/L	34.3	8.6 I	29.7	28.1	30.3
Mercury	0.012	µg/L	0.00212	0.0013	0.000812	0.00101	0.00203
Selenium	5	µg/L	0.65 I	<0.5	<0.5	<0.5	<0.5
Vanadium	No Standard	µg/L	<5	<5	<5	<5	5.6 I

Notes:

Calc. Std. - Calculated Standard;

Results in Bold numbers were above the standard;

* Surface water Class III standards (62-302, F.A.C.);

Dry = Sampling Point was dry and sample was not collected;

I = The reported value is between the laboratory method detection method and the laboratory practical quantization limit;

J = Estimated value;

- = Not Measured;

B = Results based upon colony counts outside the acceptable range.

Z = Too many colonies present.

Table 9 - Appendice C
Total Dissolved Solids/Specific Conductance (TDS/SC) Ratio for Groundwater
Tomoka Farms Road Landfill

Wells ID	Monitoring Period					
	May-14	Nov-14	May-15	Nov-15	May-16	Nov-16
	TDS/SC Ratio (mg.cm/µS.L)					
Zone 1-2						
B-11	0.93	2.55	0.79	0.67	0.72	0.77
B33-2	0.77	0.48	0.76	0.70	0.68	0.67
B34-2	0.79	0.77	0.34	0.62	0.61	0.66
B35-2	0.75	0.78	0.78	0.62	0.66	0.60
B37-2	0.67	0.69	0.67	0.62	0.62	0.63
B38-2	0.74	0.78	0.74	0.66	0.66	0.68
B39	1.39	0.87	1.11	0.91	1.11	1.07
B40-2	0.72	0.76	0.76	0.65	0.61	0.70
B41-2	0.72	0.71	0.63	0.29	0.62	0.63
B42-2	0.70	0.74	0.69	0.33	0.75	0.66
B43-2	0.78	0.66	0.43	0.53	0.58	0.30
B44	0.77	0.81	0.72	0.56	0.63	0.48
B45-2	0.85	0.87	0.72	0.56	0.57	0.55
B59-2R	0.68	0.68	0.71	0.63	0.56	0.61
B63-2	0.63	0.64	0.67	0.55	0.56	0.60
B64	0.68	0.66	0.59	0.50	0.53	0.60
B65	0.72	0.78	0.77	0.68	0.67	0.71
B70-2	0.71	0.66	0.66	0.30	0.59	0.58
B71	0.90	0.71	0.95	0.72	0.65	0.57
B72	0.68	0.69	0.69	0.57	0.56	0.53
B73-2	0.70	0.81	0.73	0.67	0.56	0.63
B74	0.65	0.68	0.66	0.59	0.56	0.56
B75	0.60	0.64	0.60	0.57	0.49	0.54
Zone 3-4						
B1-B	0.63	0.67	0.59	0.27		0.52
B-2	0.81	0.49	0.77	0.74		0.69
B33-1	0.77	1.27	0.79	0.67		0.66
B34-1	0.73	0.69	0.67	0.68		0.63
B35-1	0.74	0.31	0.84	0.70		0.60
B36	0.69	0.77	0.70	0.65		0.64
B37-1	0.64	0.60	0.65	0.58		0.54
B38-1	0.72	0.68	0.72	0.59		0.55
B40-1	0.77	0.81	0.69	0.68		0.67
B41-1	0.58	0.84				
B42-1	0.76	0.82	0.79	0.35		0.70
B43-1	0.60	0.60	0.60	0.42	0.54	0.52
B45-1	0.66	0.70				
B5	0.61	0.66	0.65	0.58		0.59
B59-1R	0.64	0.64	0.67	0.57		0.56

Table 9 - Appendice C
Total Dissolved Solids/Specific Conductance (TDS/SC) Ratio for Groundwater
Tomoka Farms Road Landfill

Wells ID	Monitoring Period					
	May-14	Nov-14	May-15	Nov-15	May-16	Nov-16
	TDS/SC Ratio (mg.cm/µS.L)					
B60	0.64	0.69	0.65	0.50		0.56
B63-1	0.68	0.80	0.67	0.59		0.58
B68	0.71	0.79	0.78	0.68		0.65
B70-1	0.73	0.70	0.67	0.60		0.60
B73-1	0.52	0.60	0.62	0.54		0.54
B8-2	0.87	0.88	0.74	0.71		0.60
B82-1	0.75	0.83	0.81	0.91	0.59	0.61
B85			0.61	0.55	0.53	0.53
MO5-B	0.74	0.66	0.79	0.63		0.59
Zone 6						
B85-6	0.63	0.63	0.65	0.28	0.52	0.63
B87-6	0.66	0.70	0.70	0.60	0.51	0.57
Floridan Aquifer						
FA-1B	0.65	0.66	0.68	0.59	0.52	0.53
FA-2C	0.63	0.69	0.62	0.58	0.55	0.55
F-MB	0.63	0.64	0.64	0.59	0.56	0.56

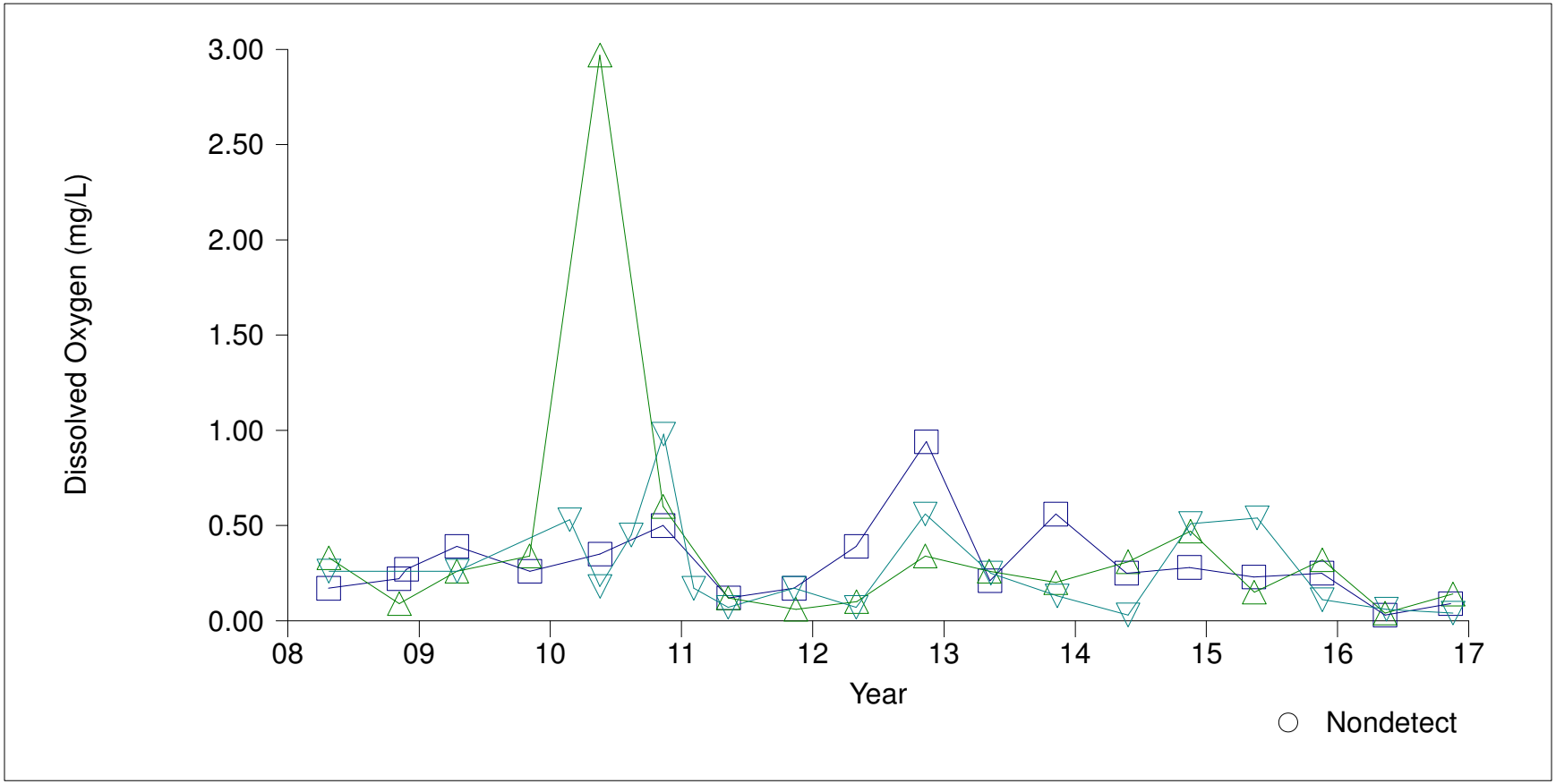
Note: Data for blank cells were not collected and were not required by facility permit.

APPENDIX D

TIME SERIES GRAPHS

Tomoka Farms Road Landfill

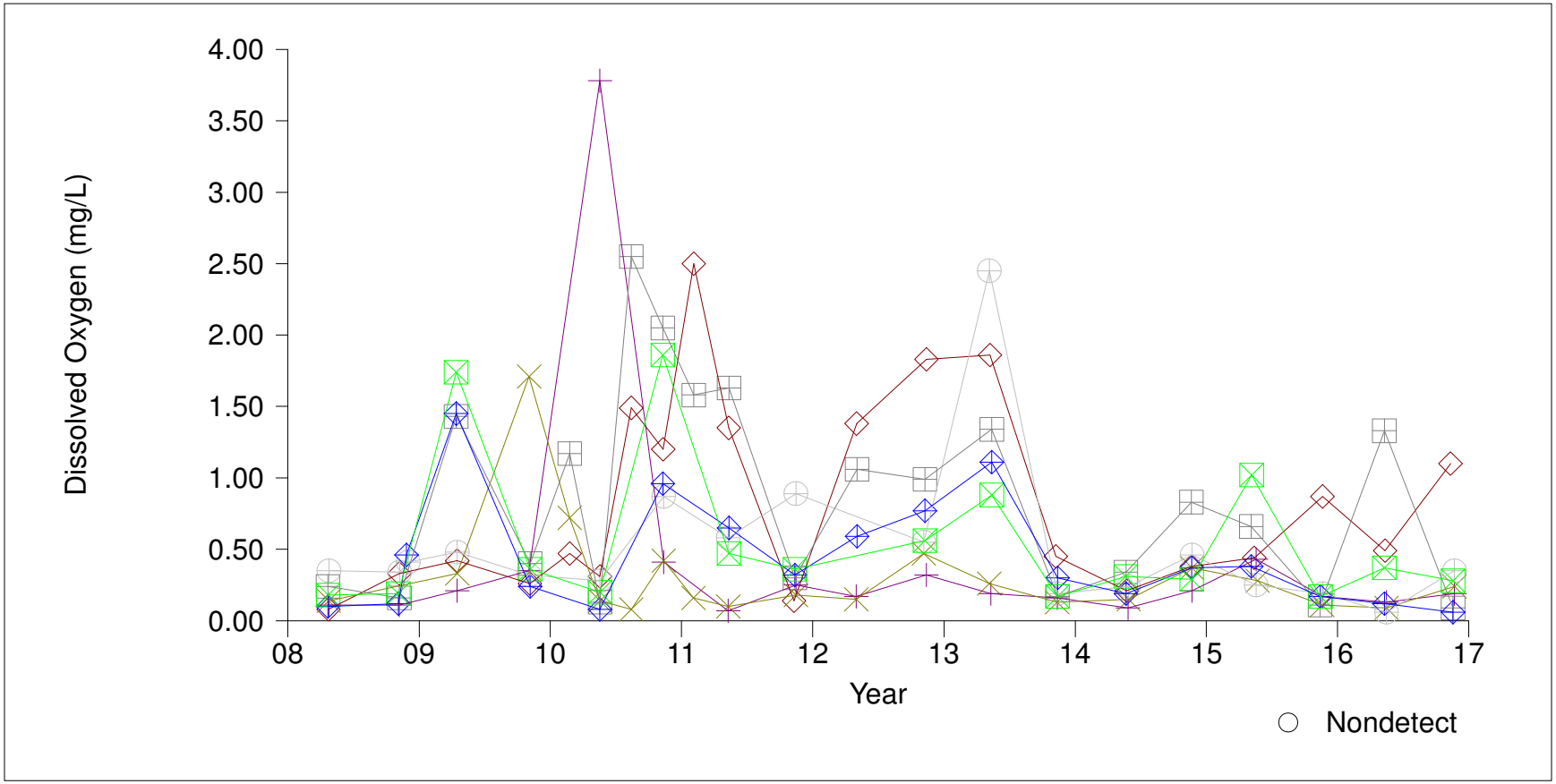
Time Series Plot for Dissolved Oxygen, Zone 1-2, Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

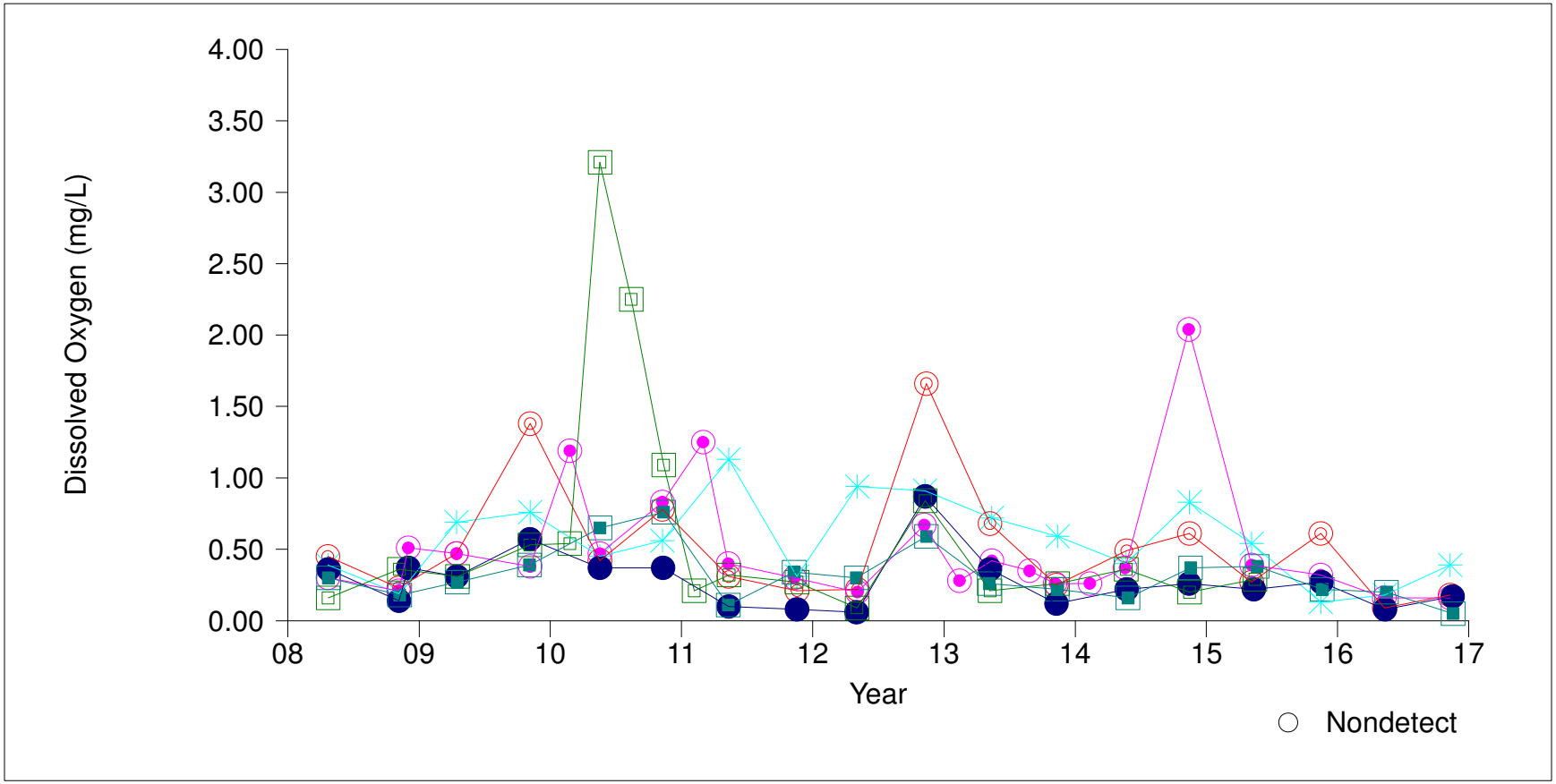
Time Series Plot for Dissolved Oxygen, Zone 1-2, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

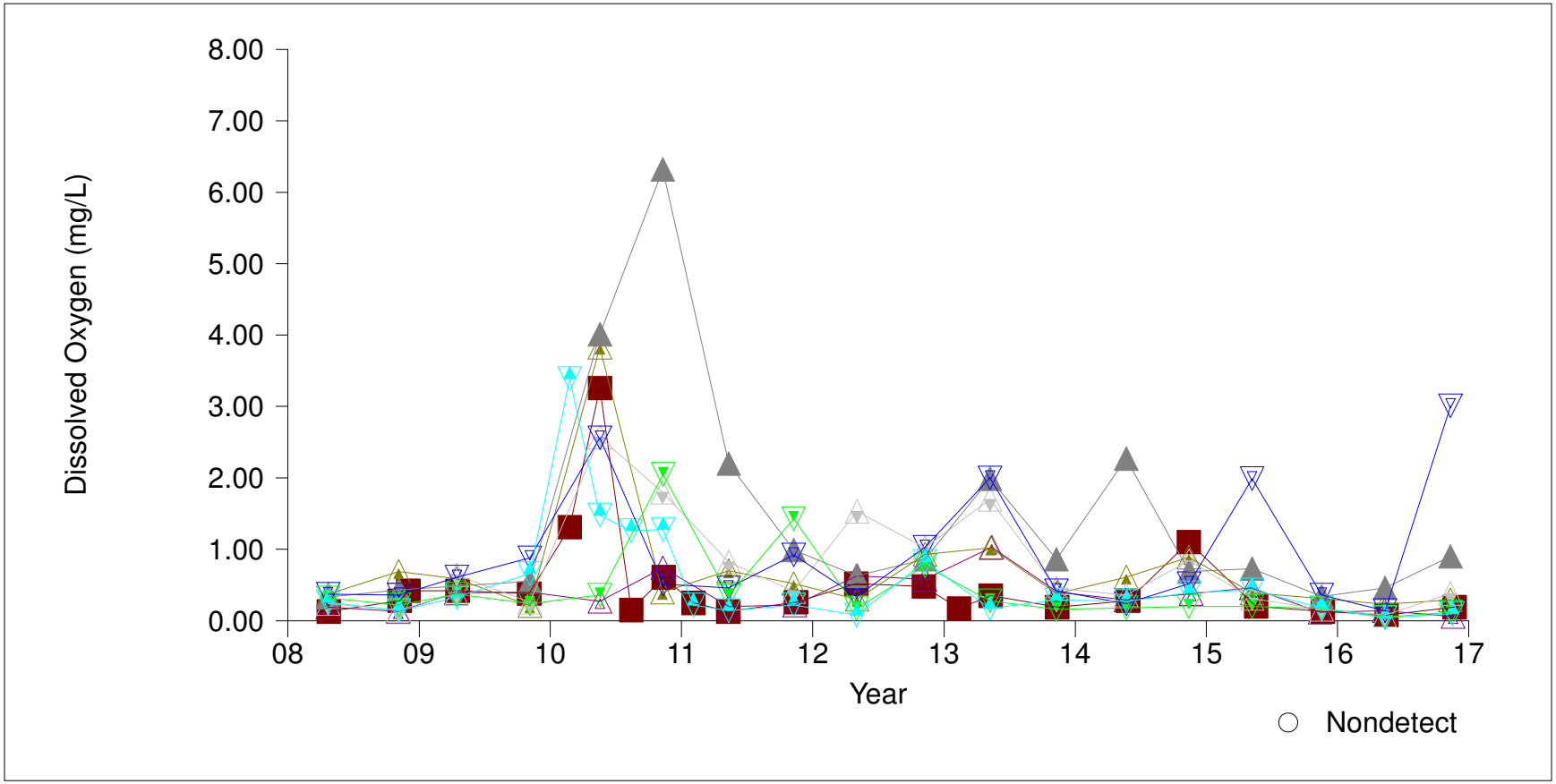
Time Series Plot for Dissolved Oxygen, Zone 1-2, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

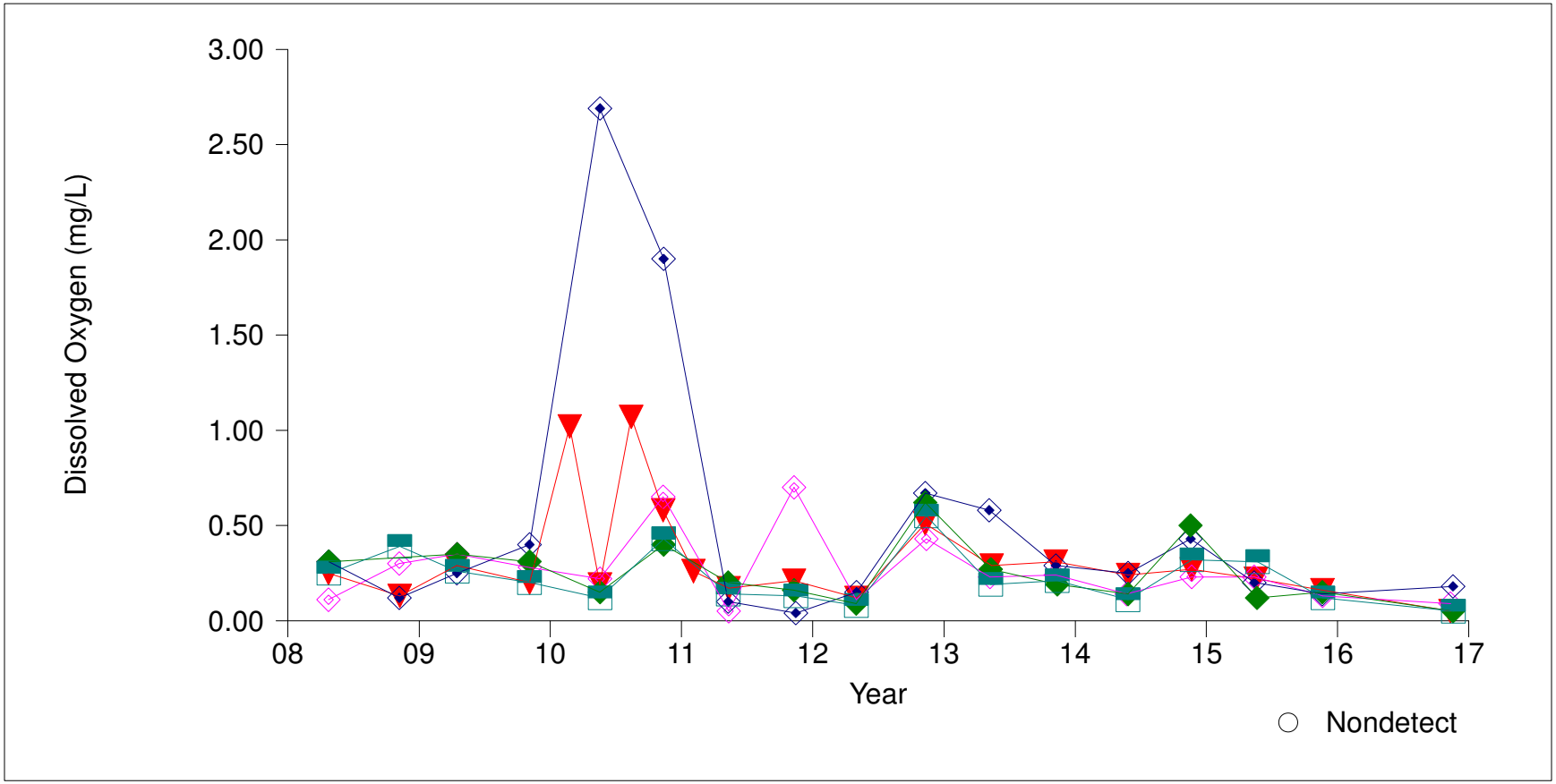
Time Series Plot for Dissolved Oxygen, Zone 1-2, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

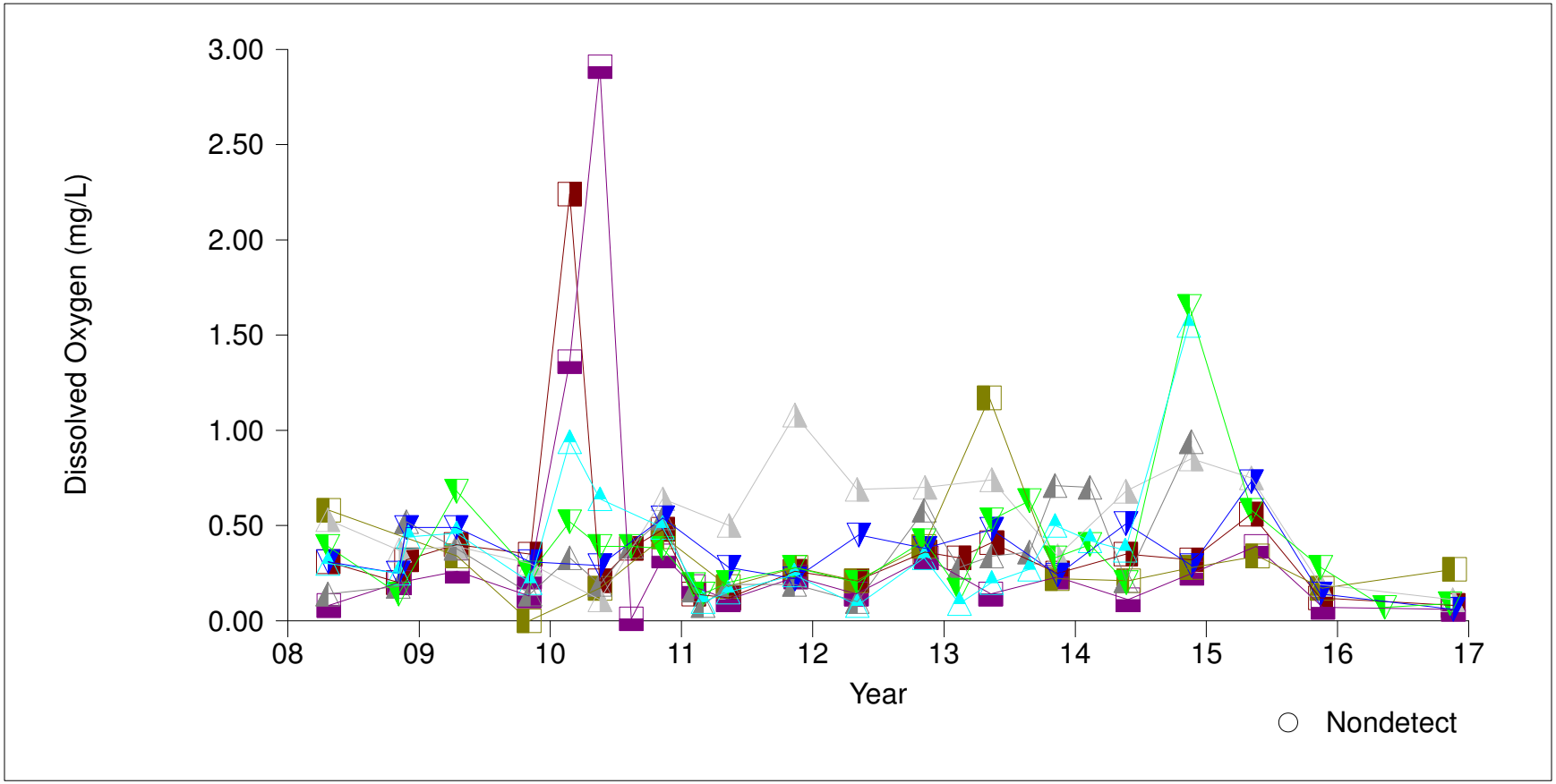
Time Series Plot for Dissolved Oxygen, Zone 4, Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

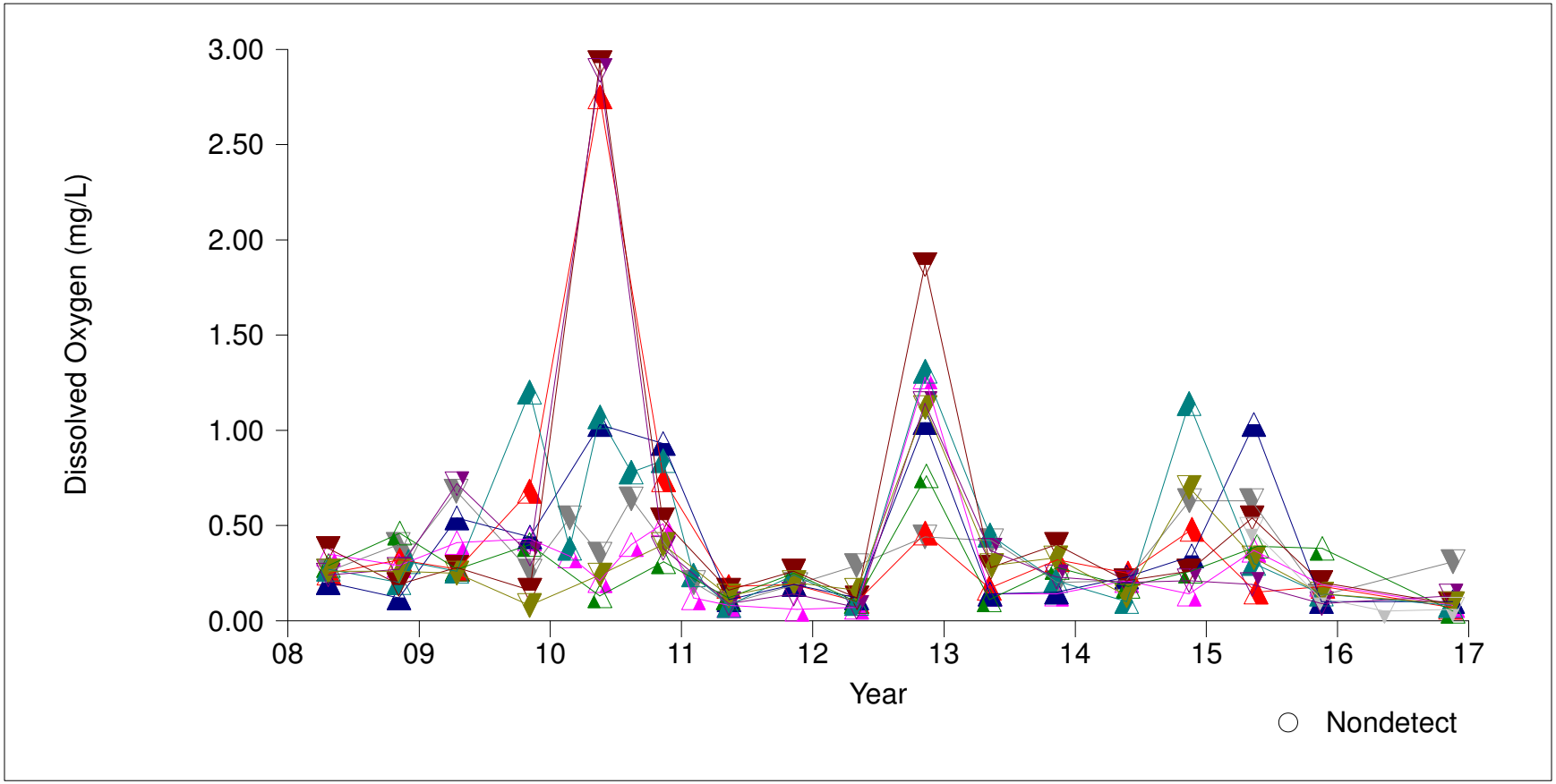
Time Series Plot for Dissolved Oxygen, Zone 4, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

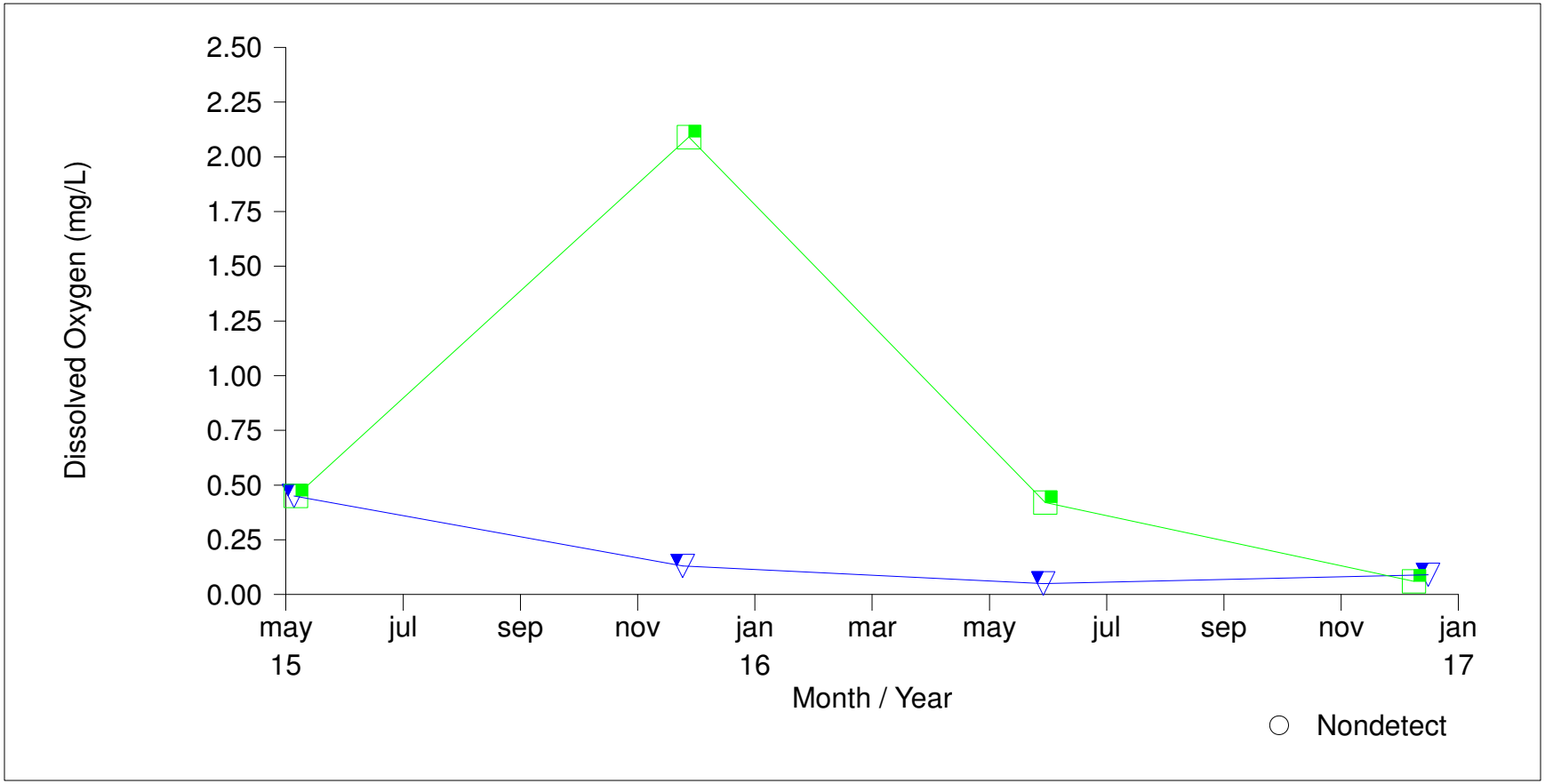
Time Series Plot for Dissolved Oxygen, Zone 4, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

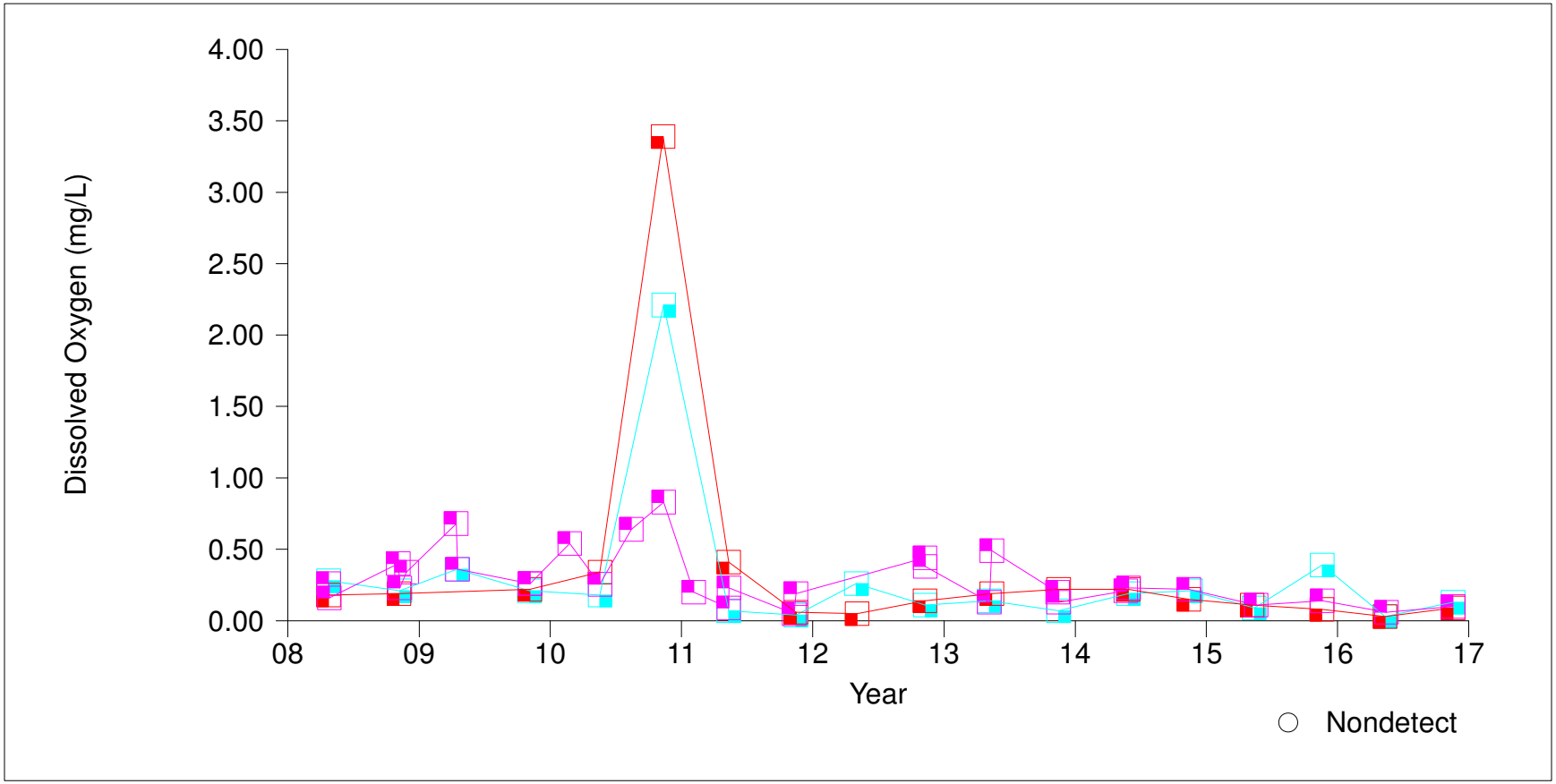
Time Series Plot for Dissolved Oxygen, Zone 6, Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

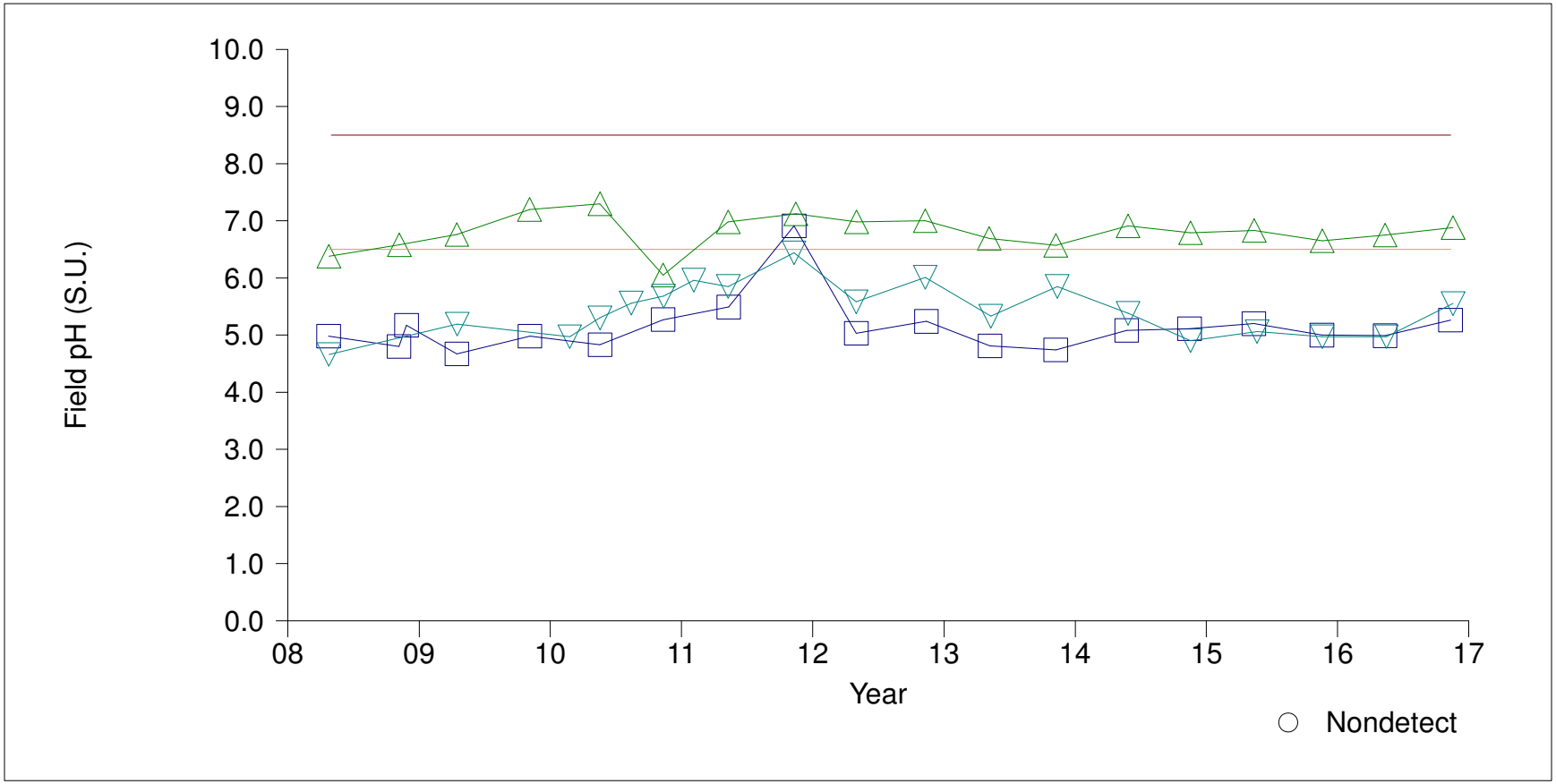
Time Series Plot for Dissolved Oxygen, Floridan Aquifer (FA-1B: Background Well; the others: Compliance Wells)



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

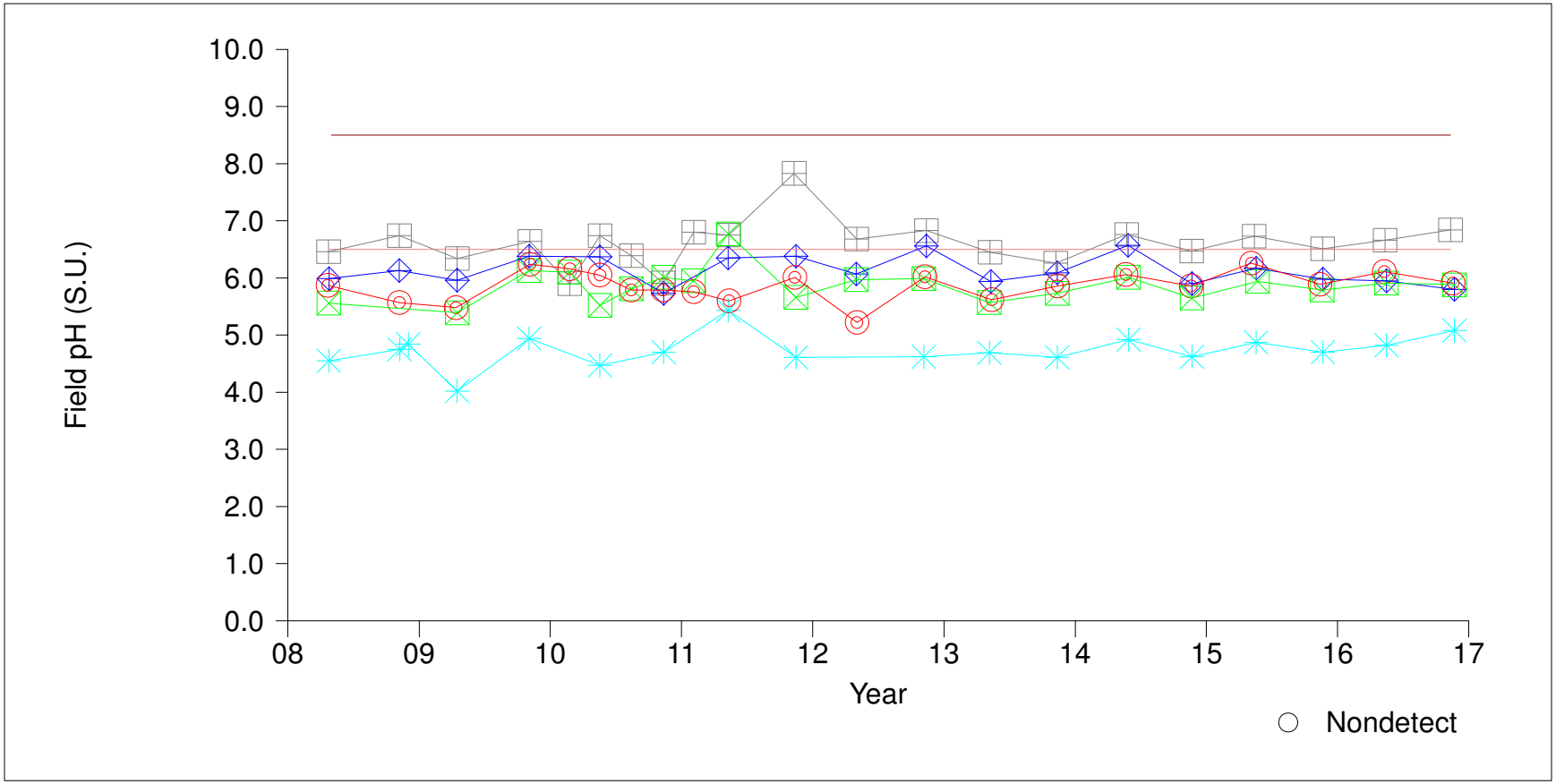
Time Series Plot for Field pH, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

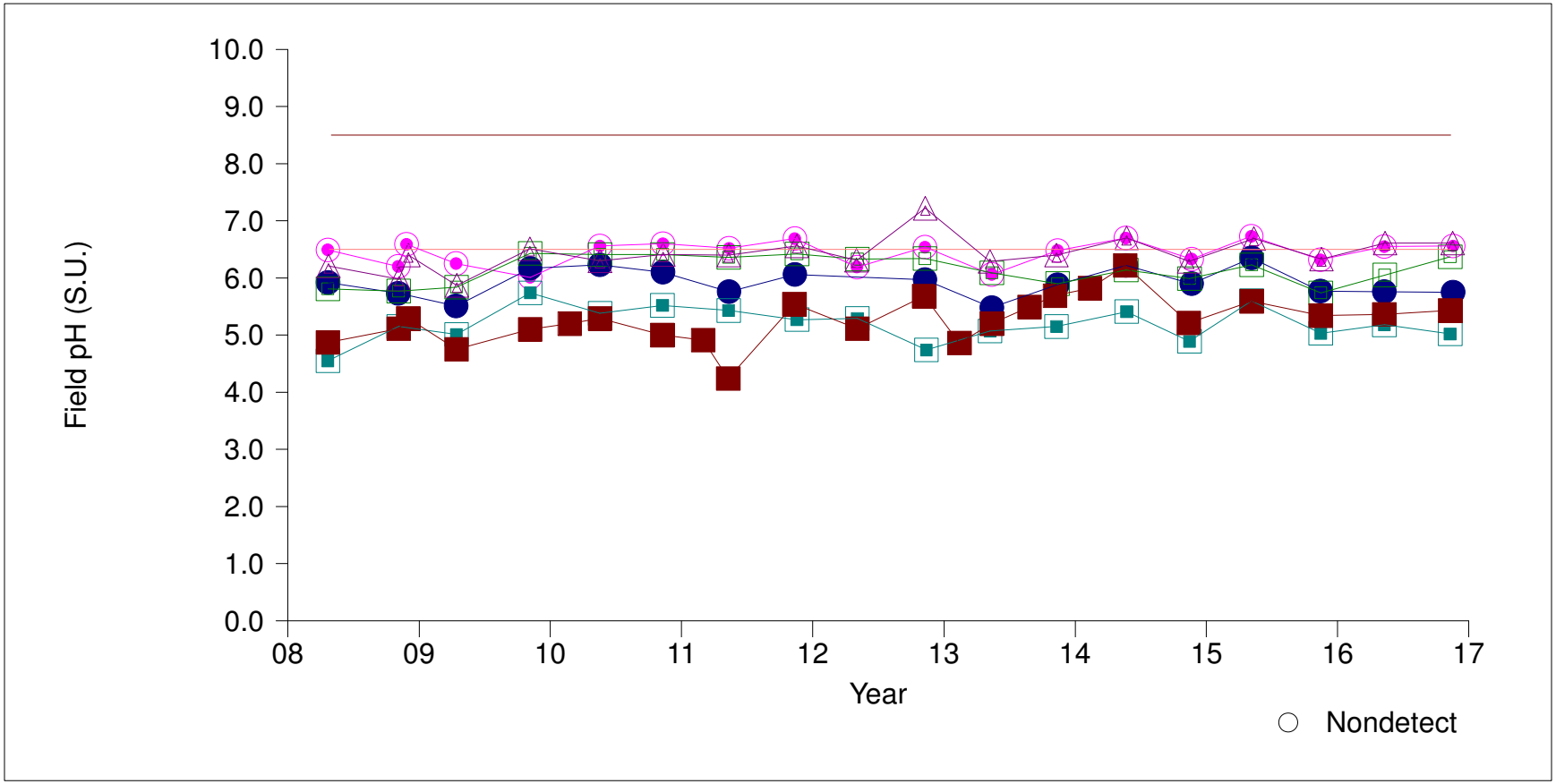
Time Series Plot for Field pH, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

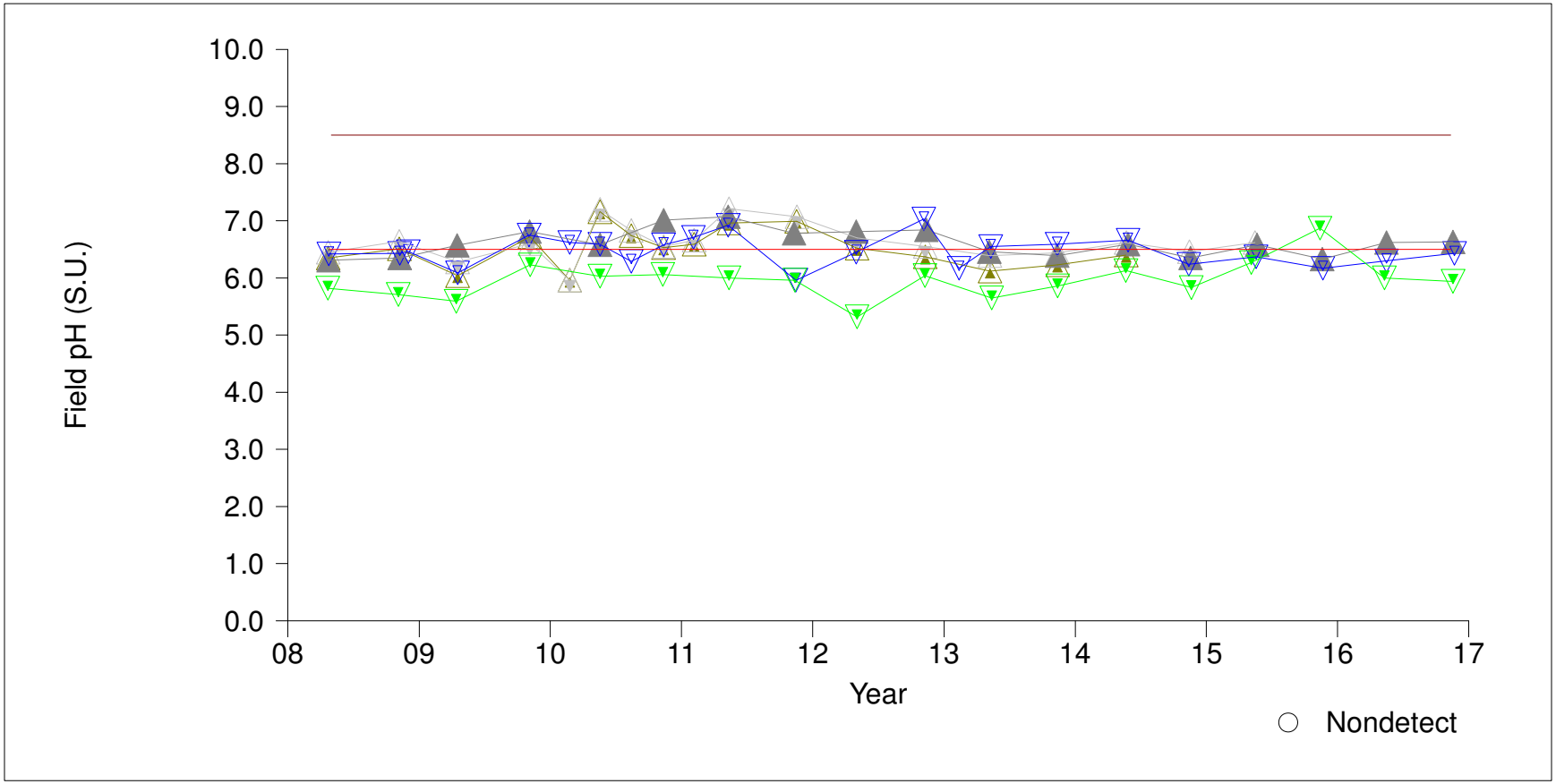
Time Series Plot for Field pH, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

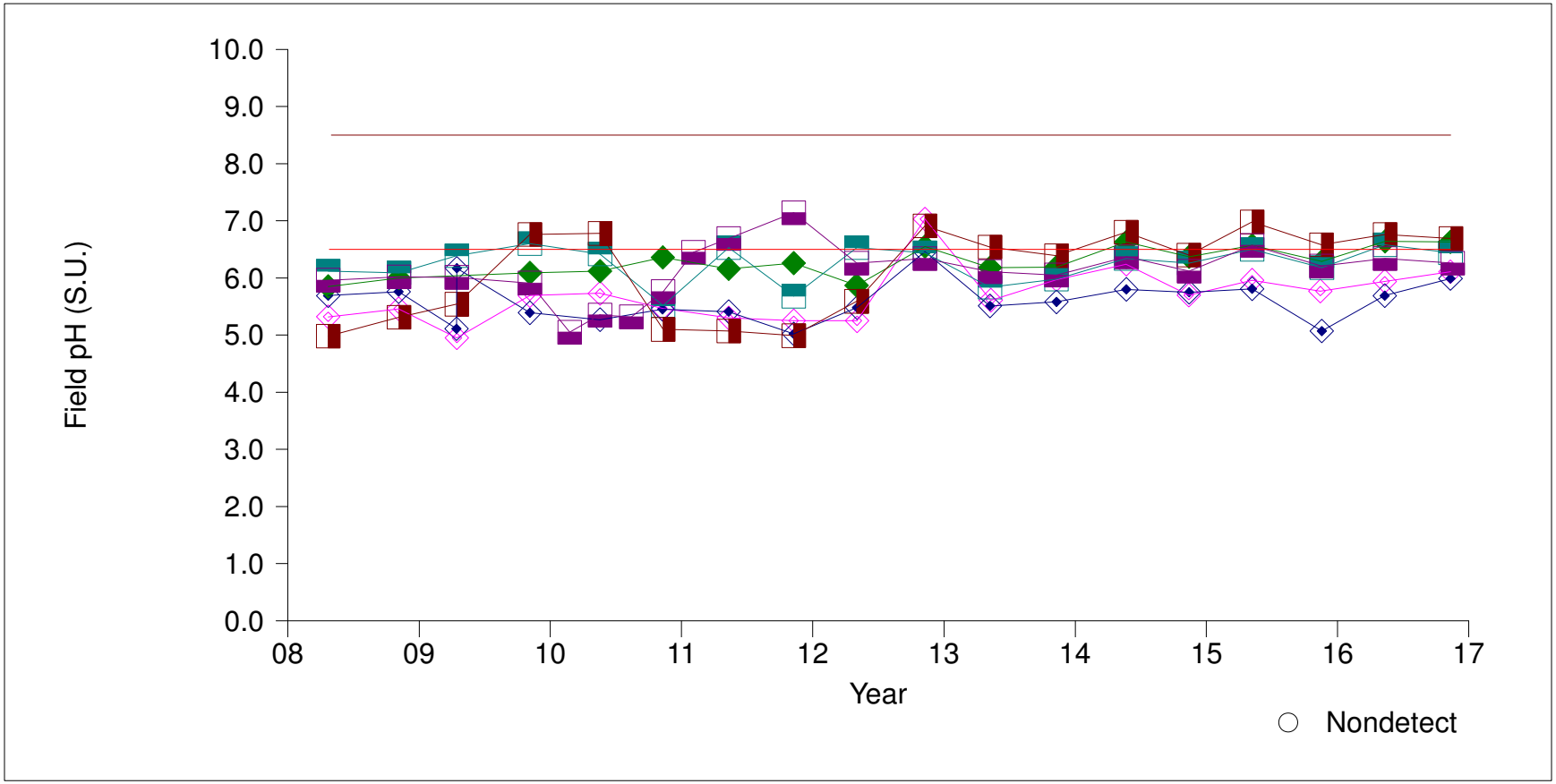
Time Series Plot for Field pH, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

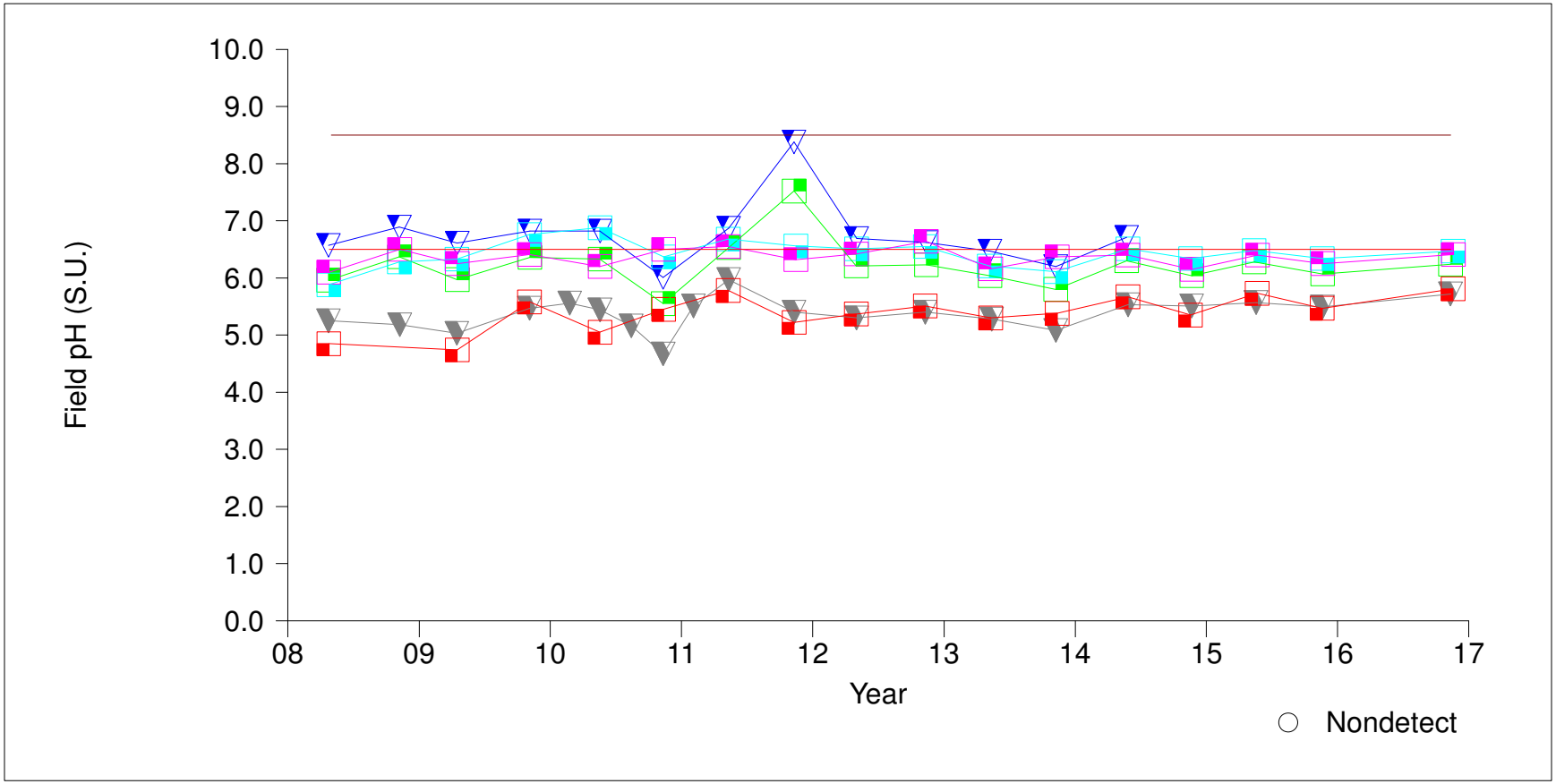
Time Series Plot for Field pH, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

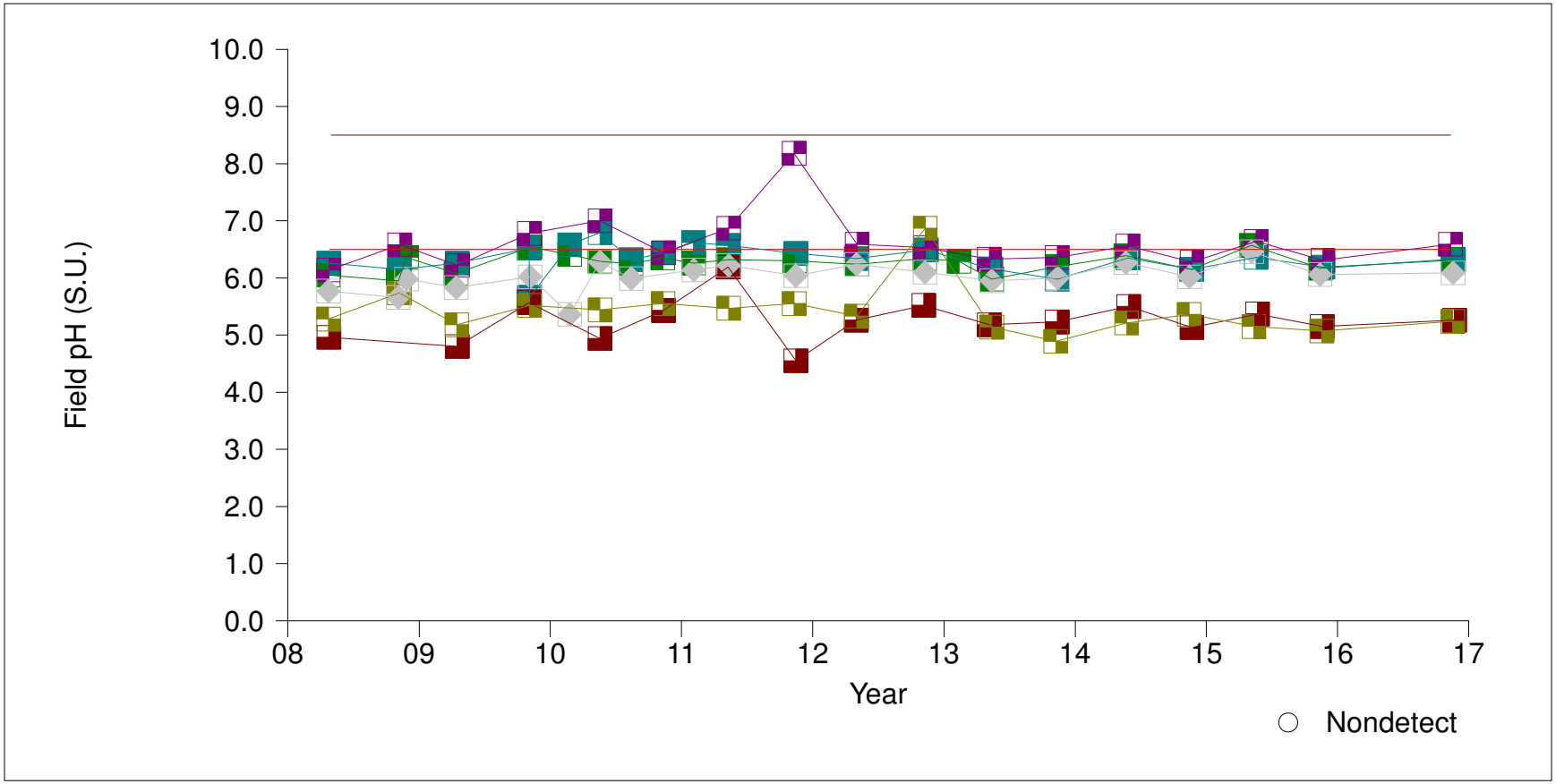
Time Series Plot for Field pH, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

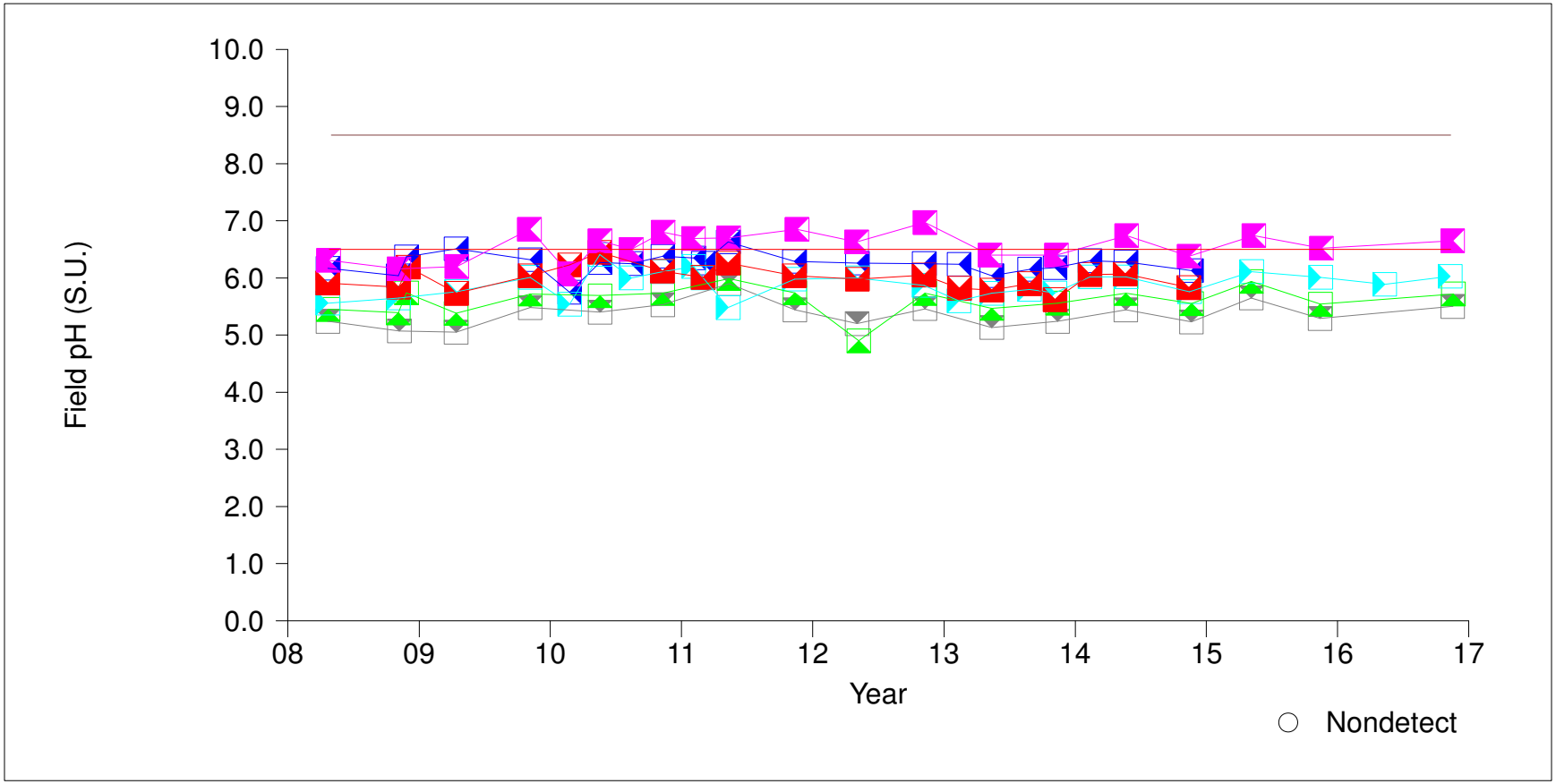
Time Series Plot for Field pH, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

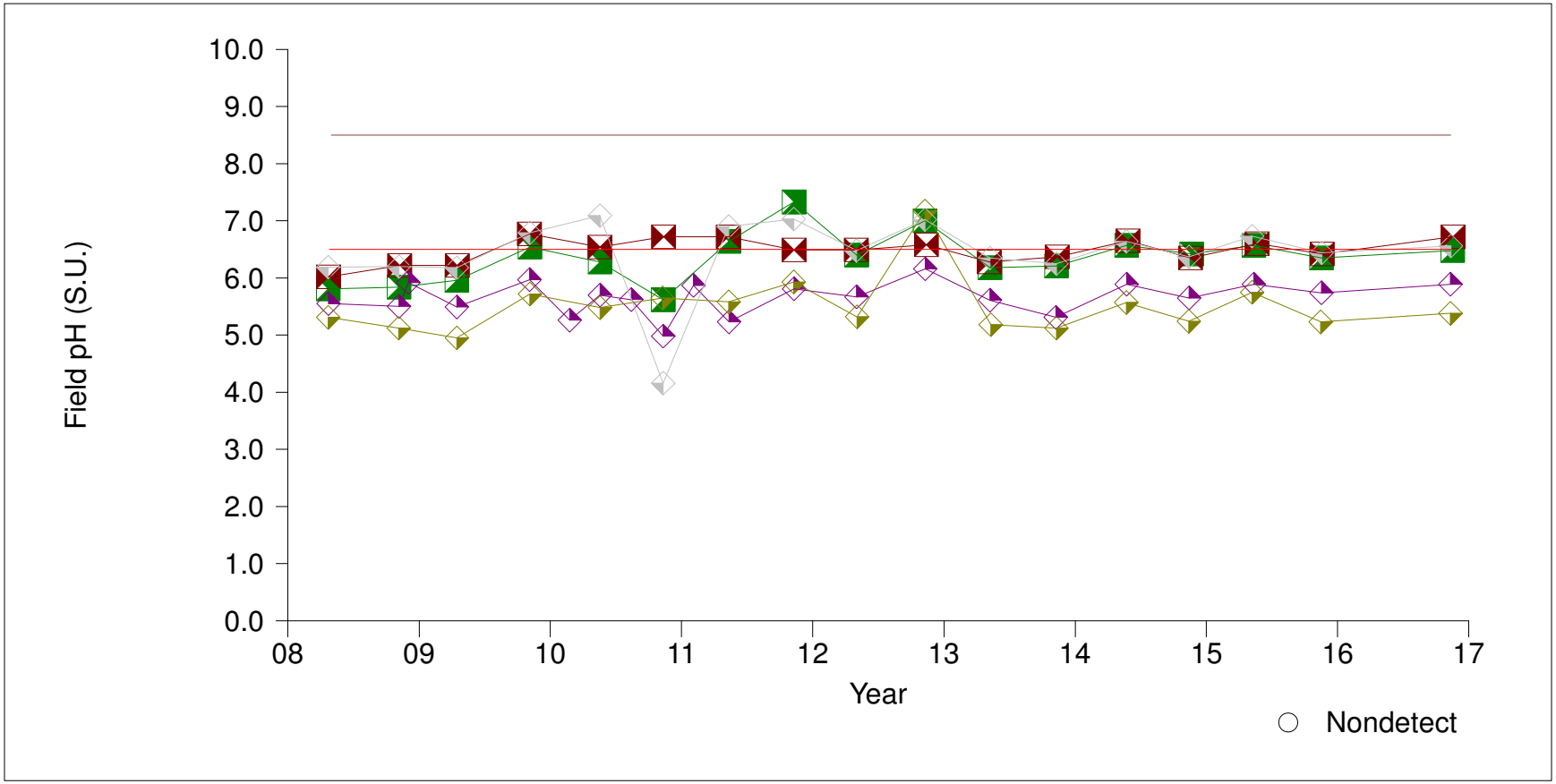
Time Series Plot for Field pH, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

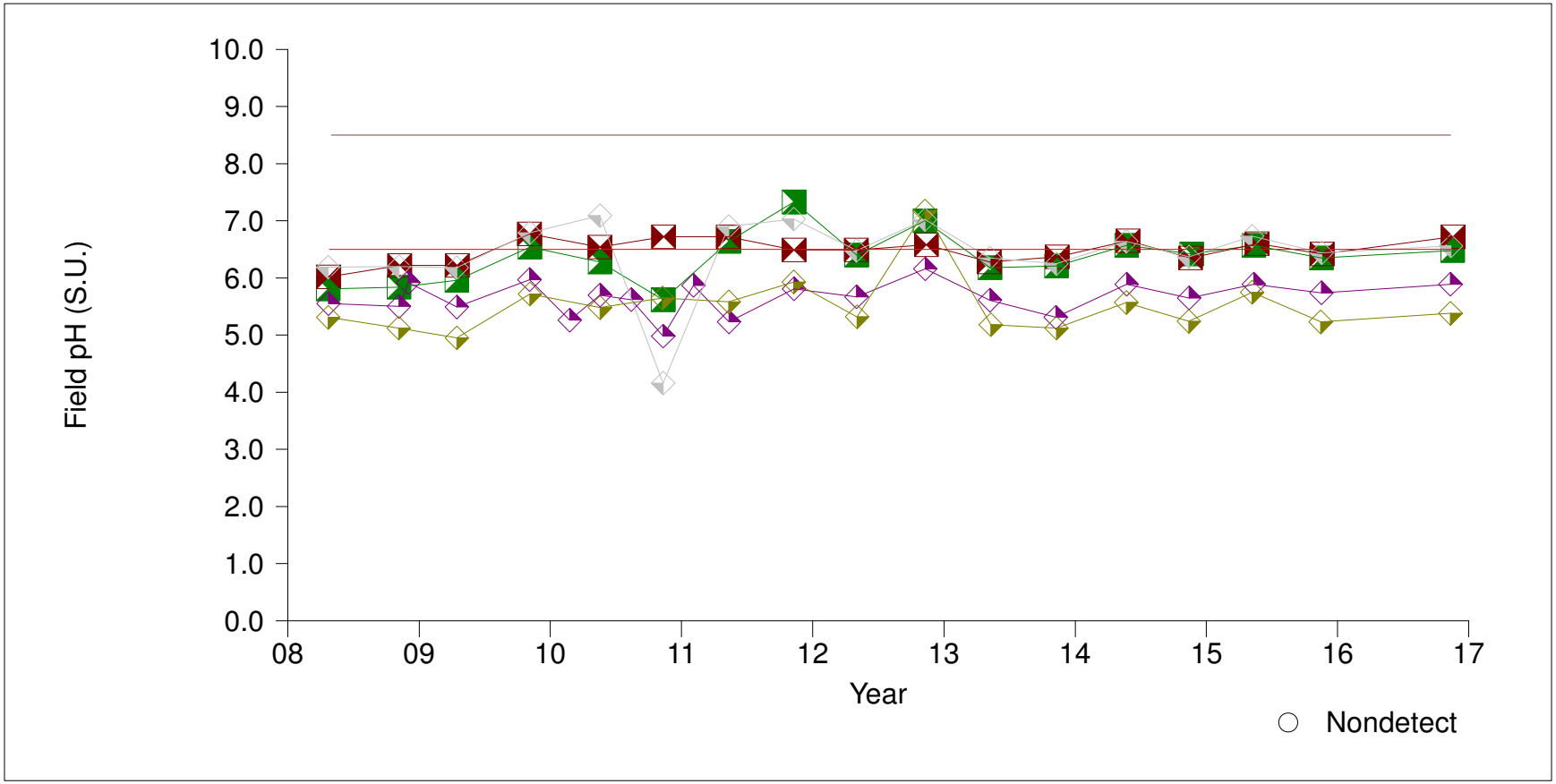
Time Series Plot for Field pH, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

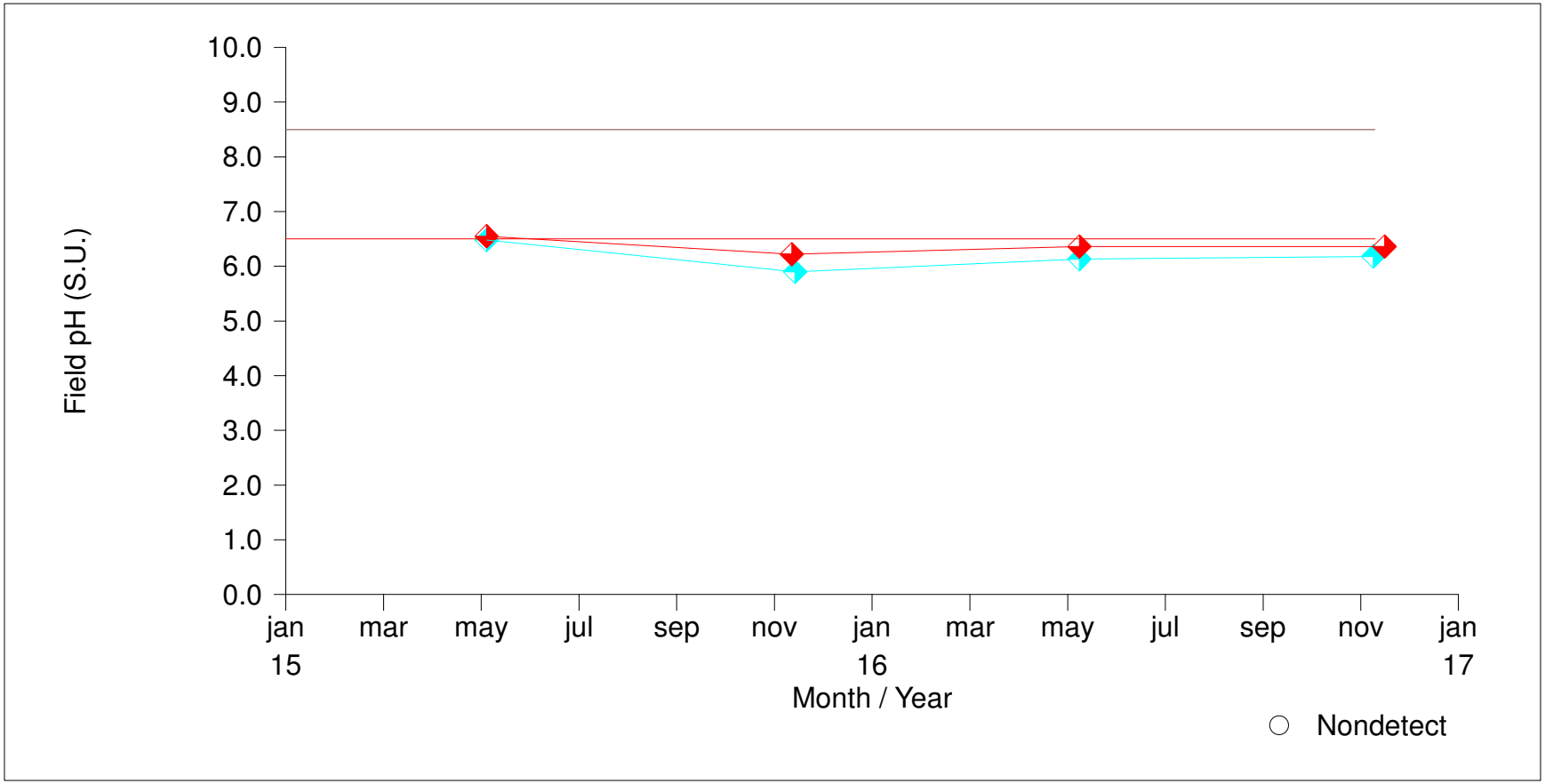
Time Series Plot for Field pH, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

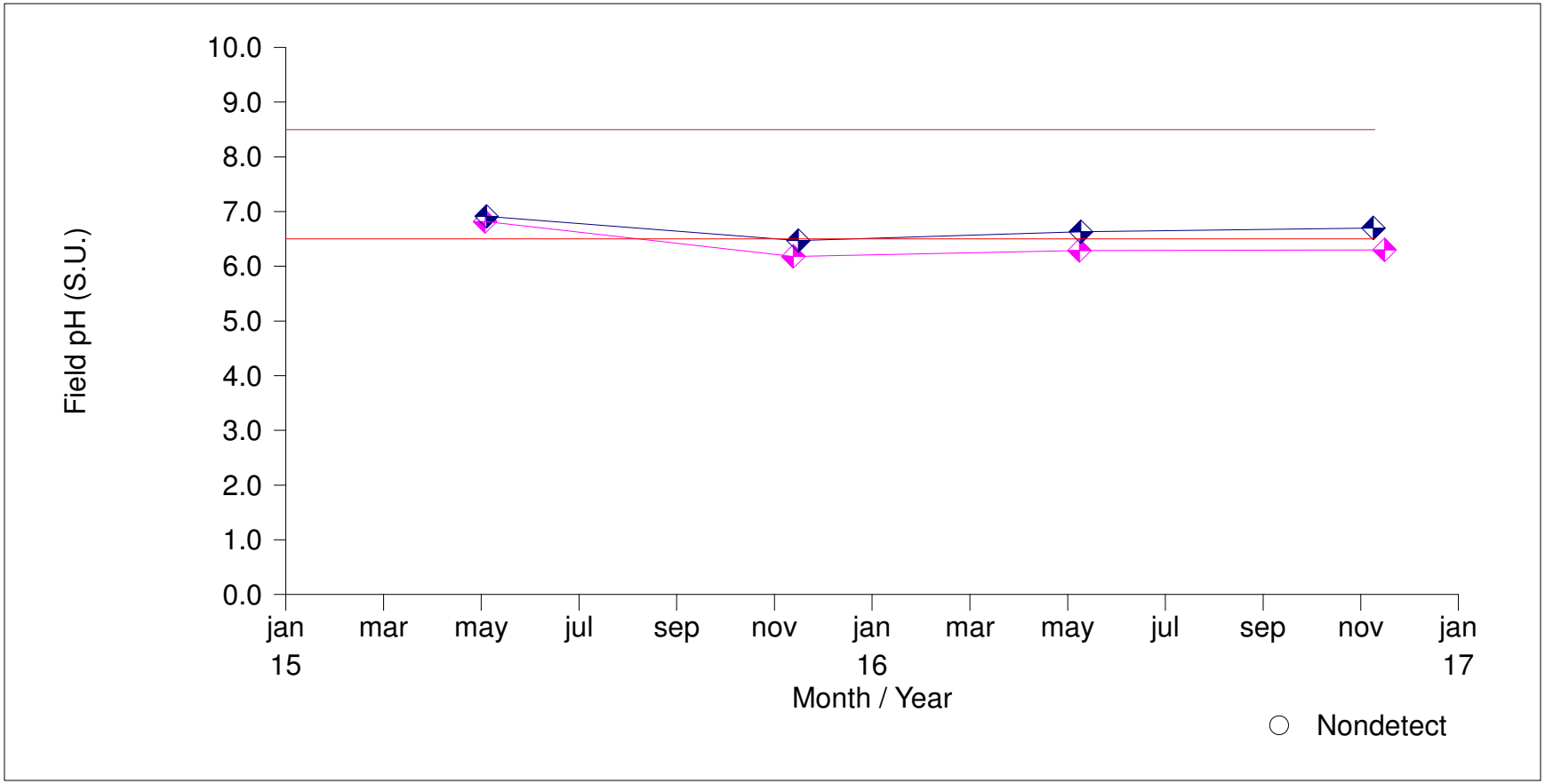
Time Series Plot for Field pH, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

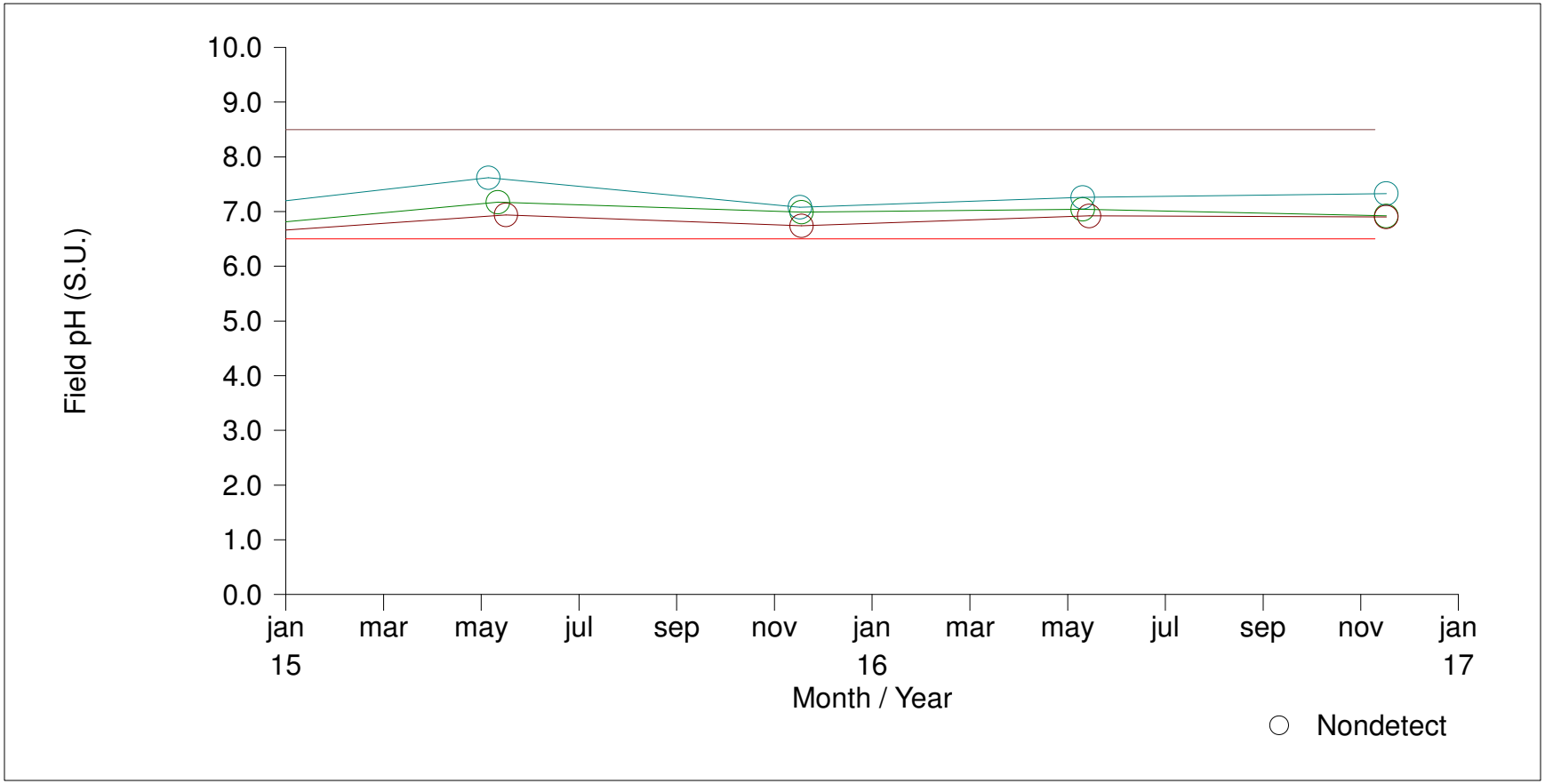
Time Series Plot for Field pH, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

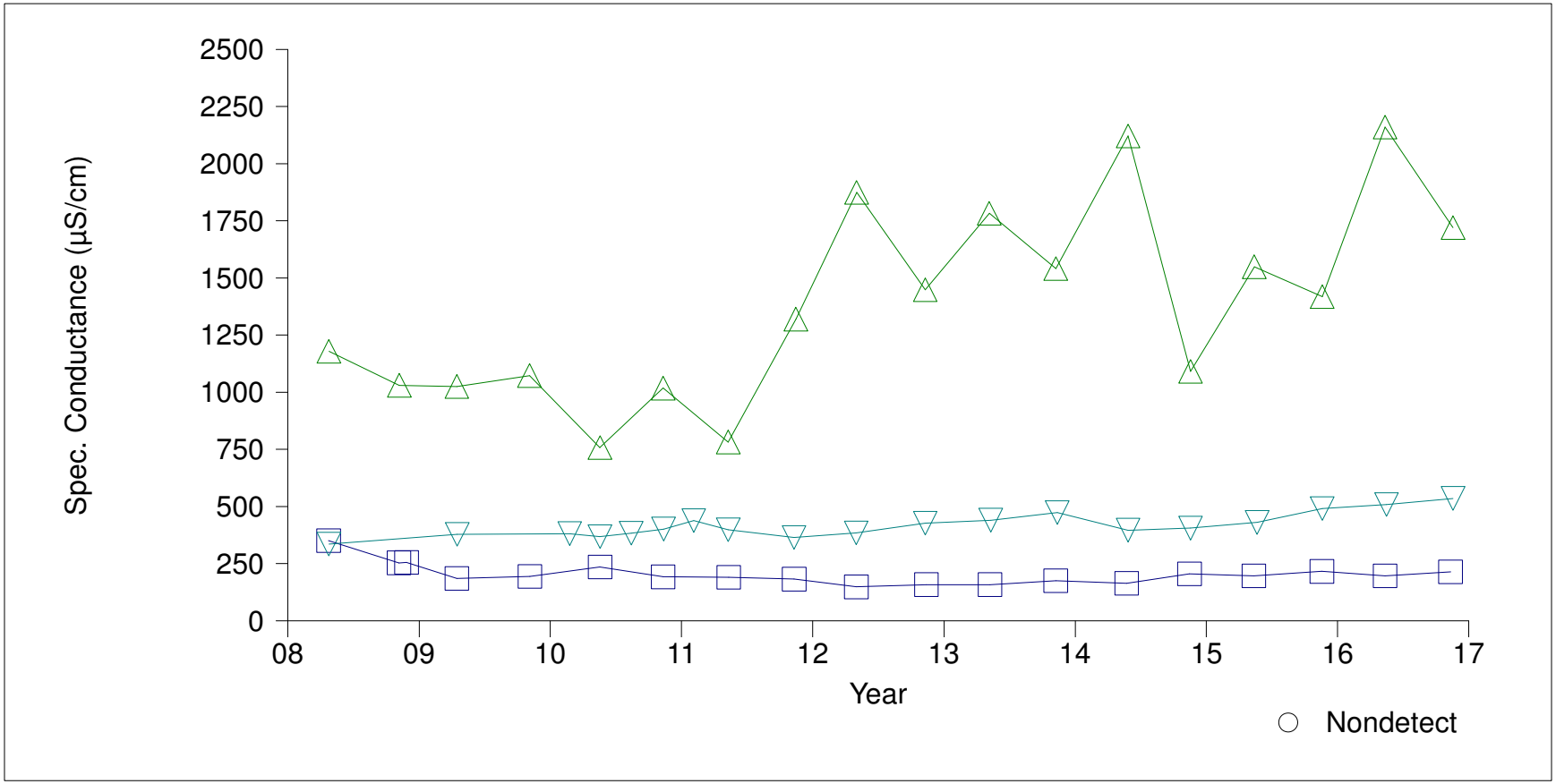
Time Series Plot for Field pH, Zone Floridan Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

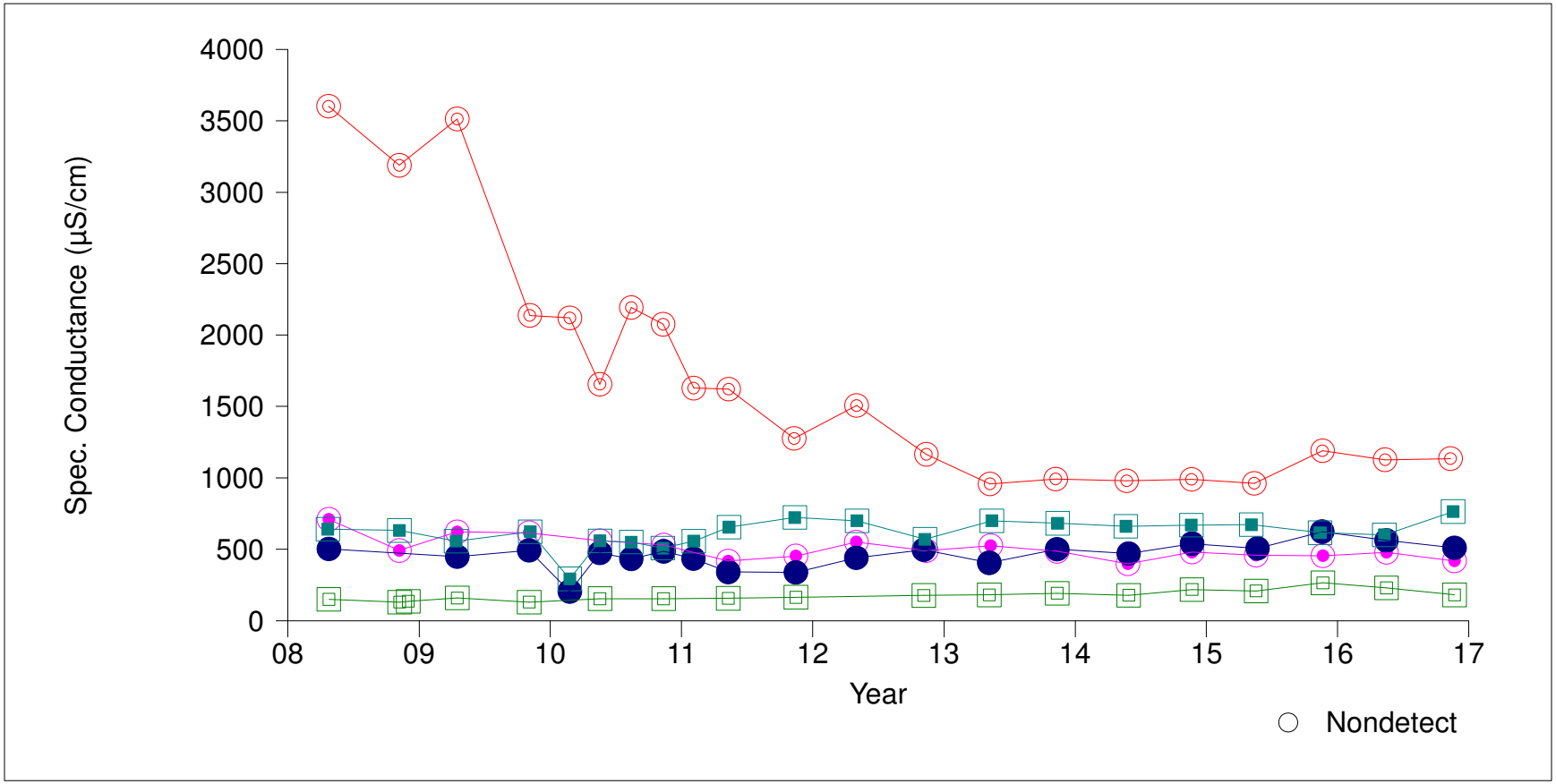
Time Series Plot for Spec. Conductance, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

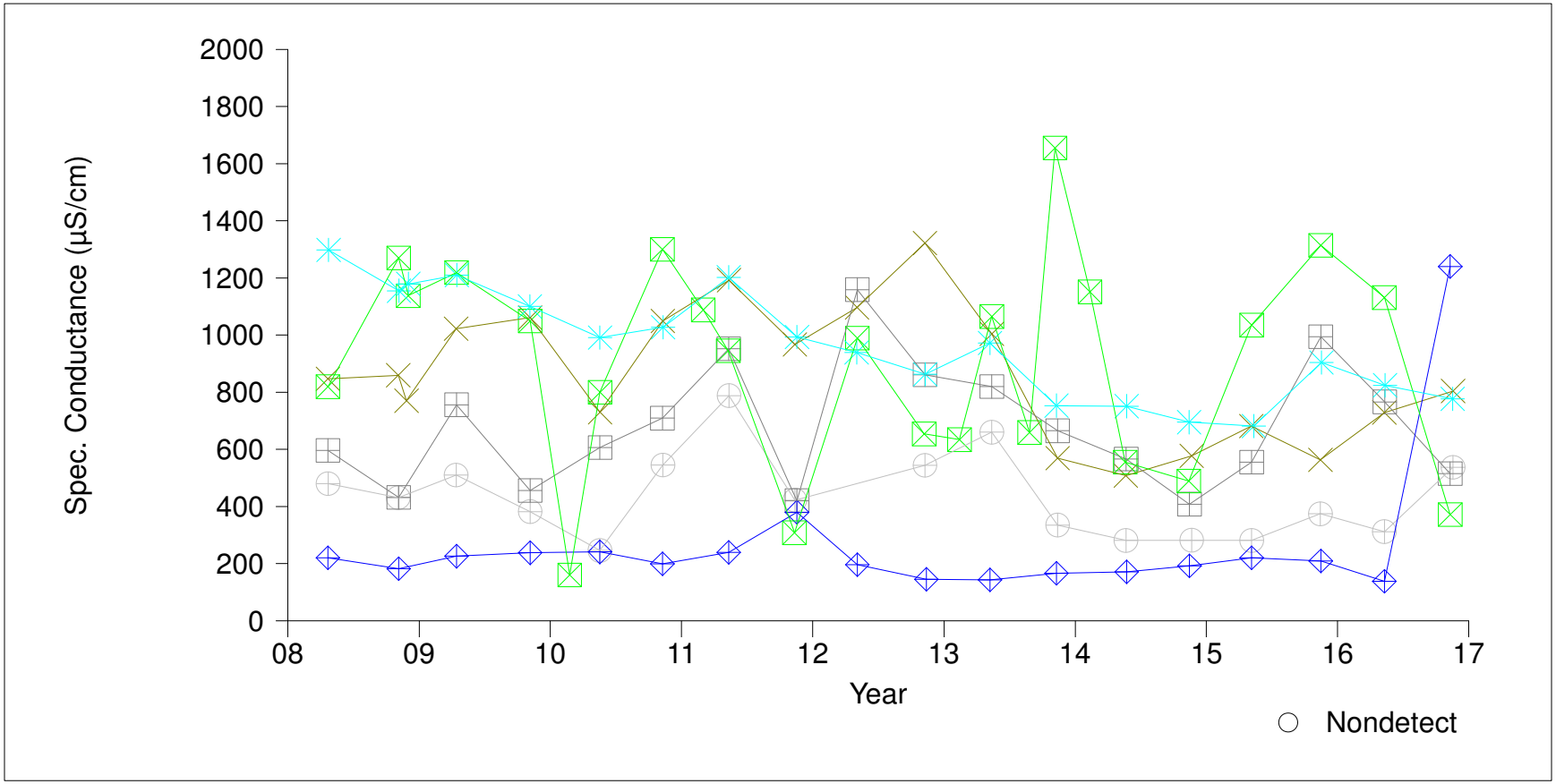
Time Series Plot for Spec. Conductance, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

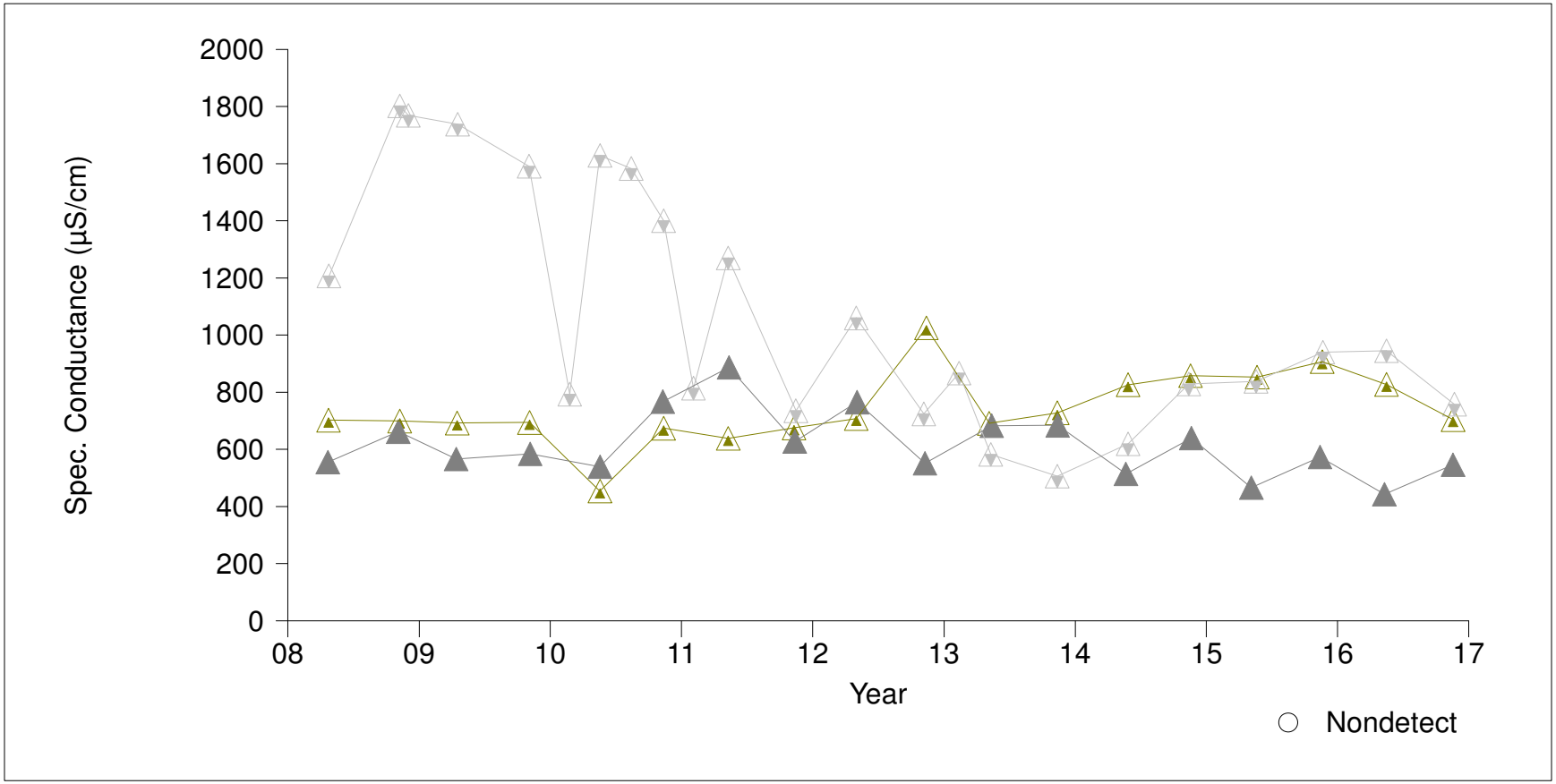
Time Series Plot for Spec. Conductance, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

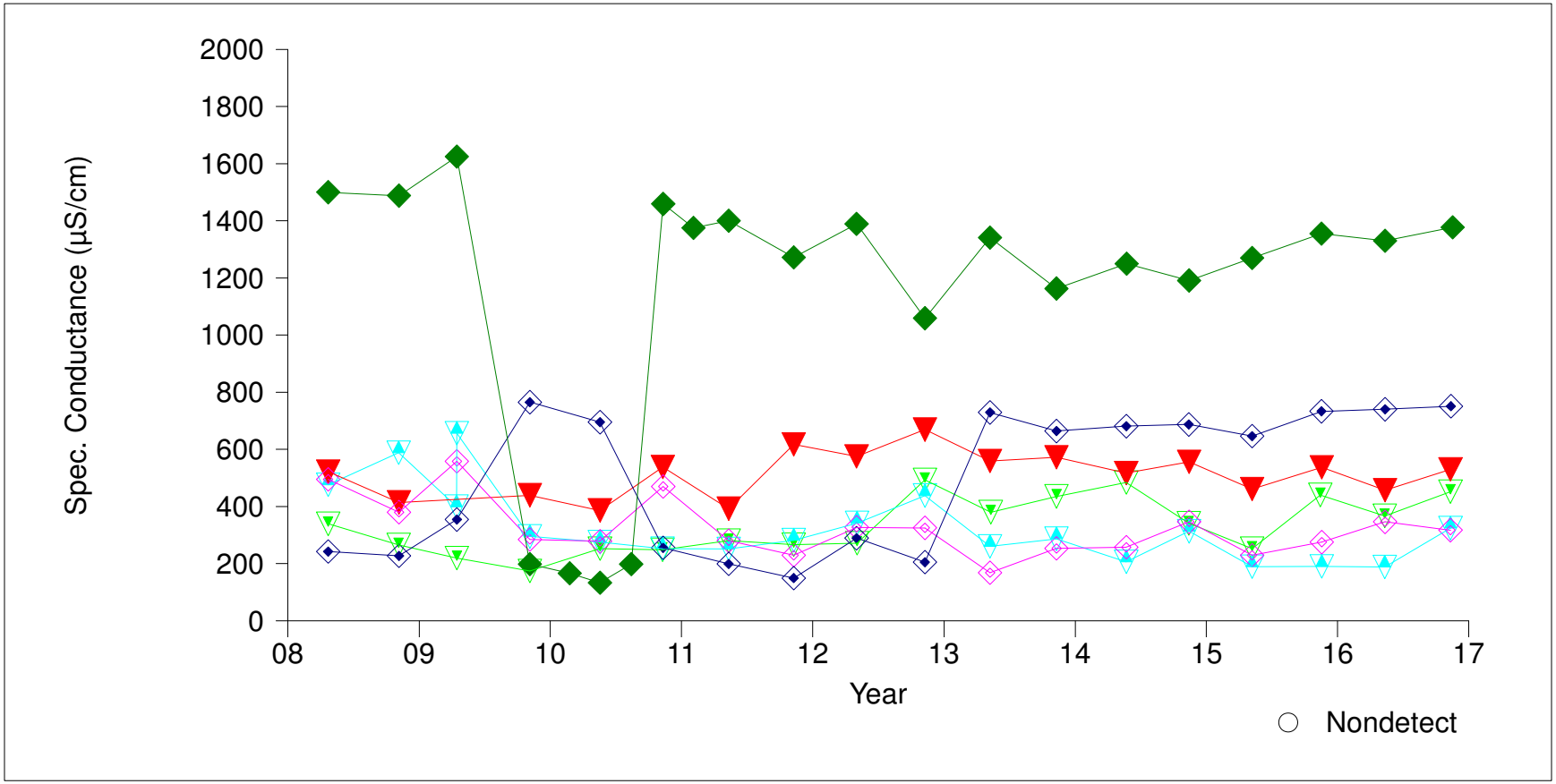
Time Series Plot for Spec. Conductance, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

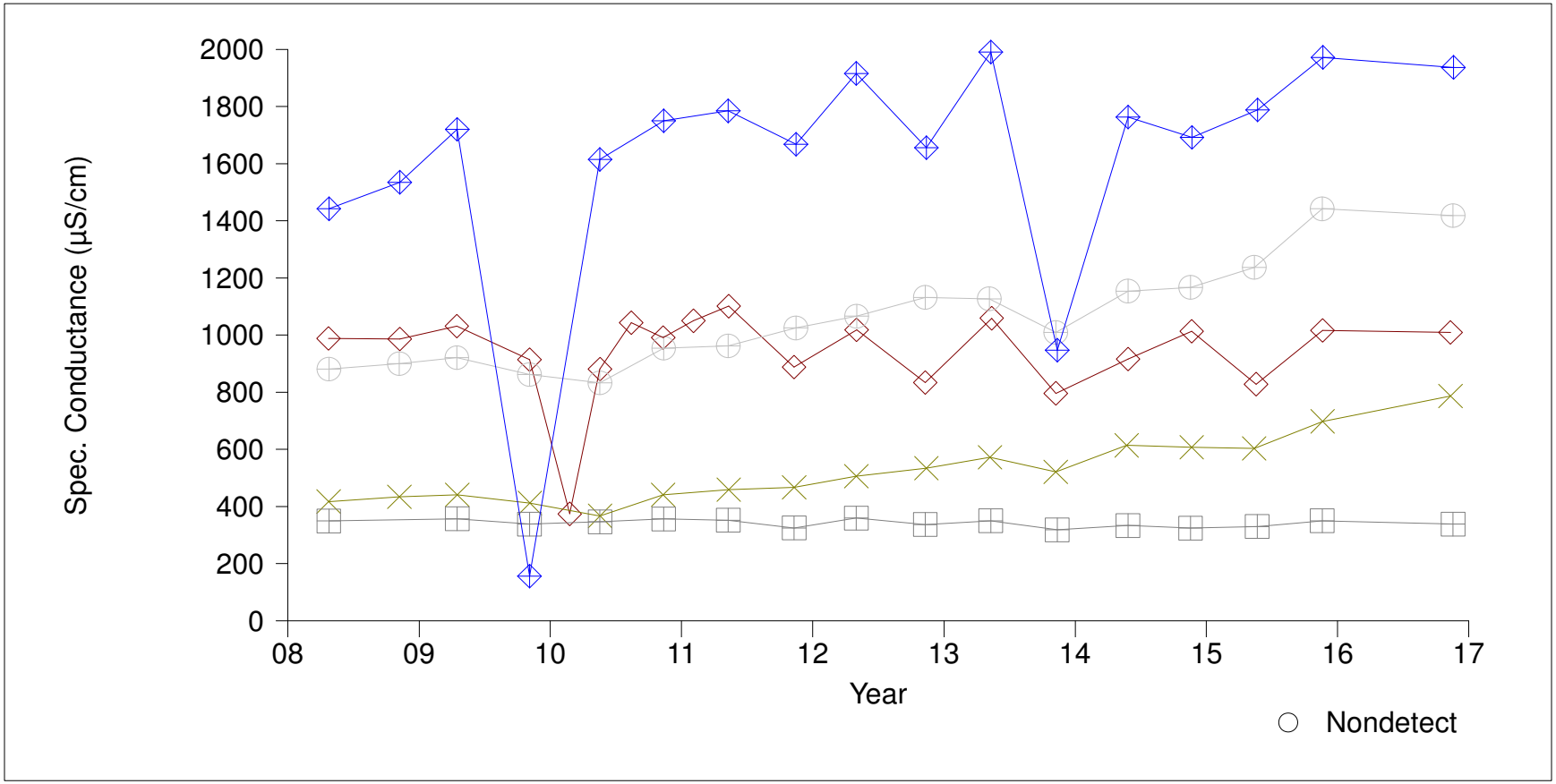
Time Series Plot for Spec. Conductance, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

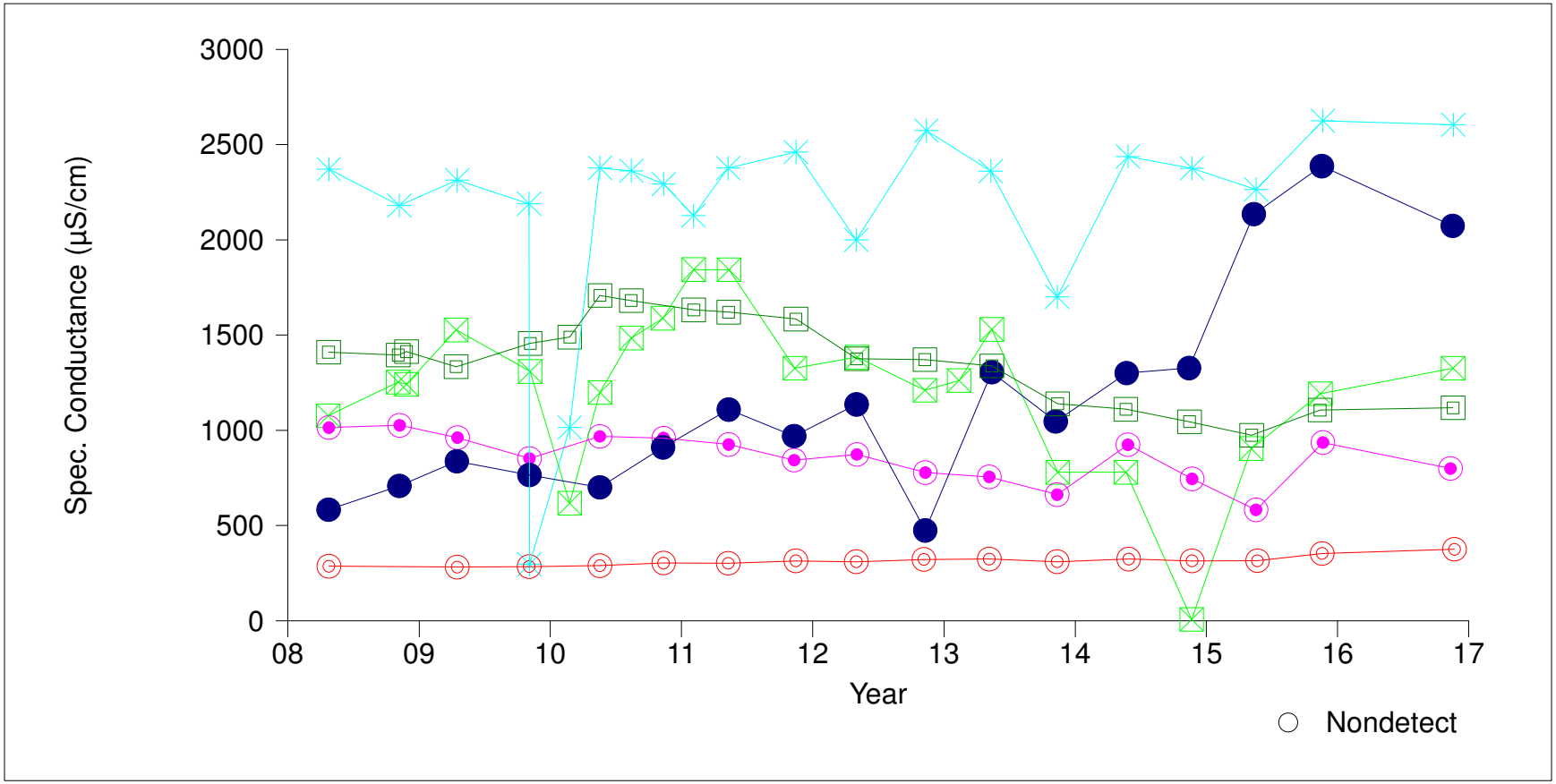
Time Series Plot for Spec. Conductance, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

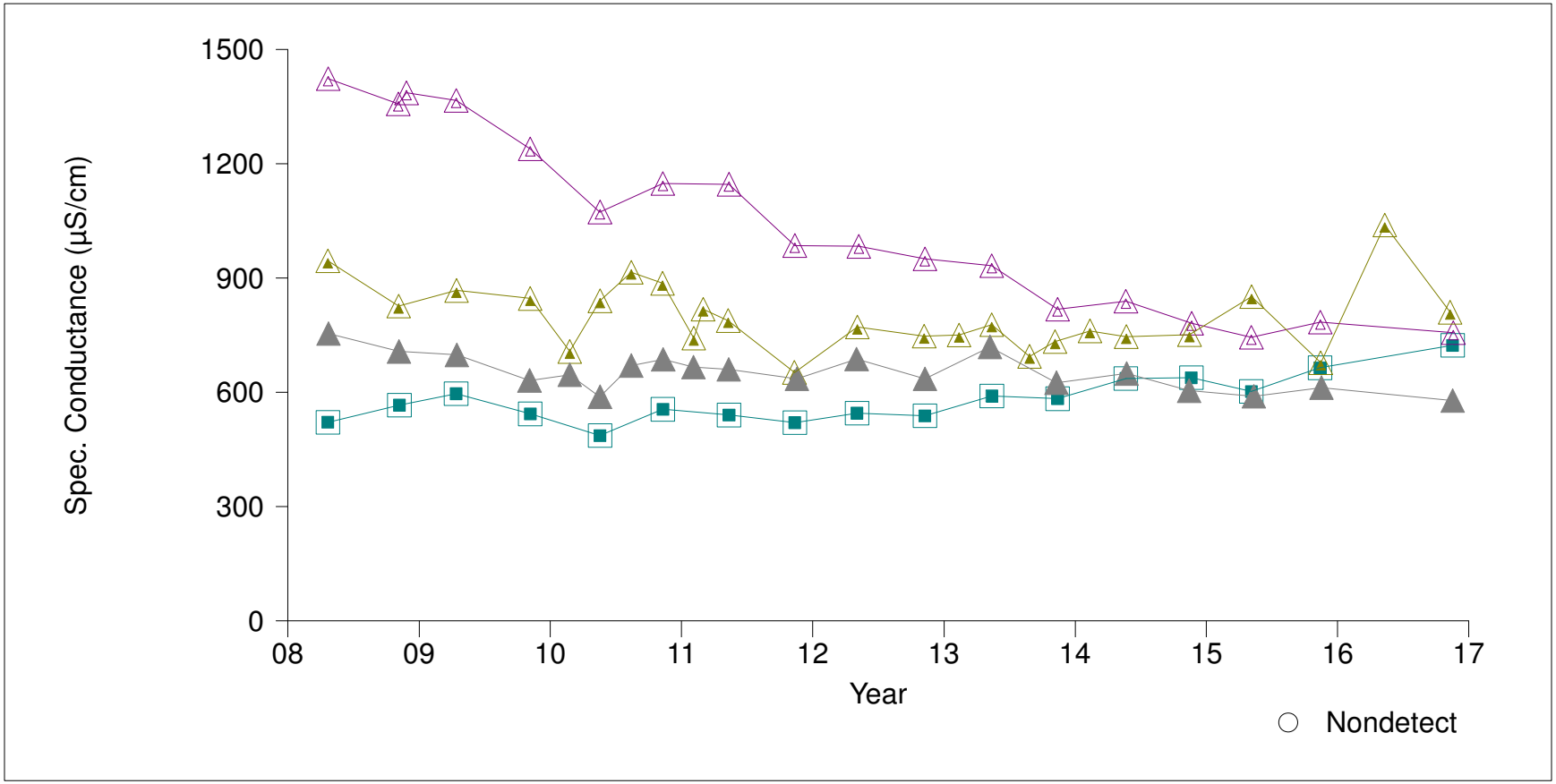
Time Series Plot for Spec. Conductance, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

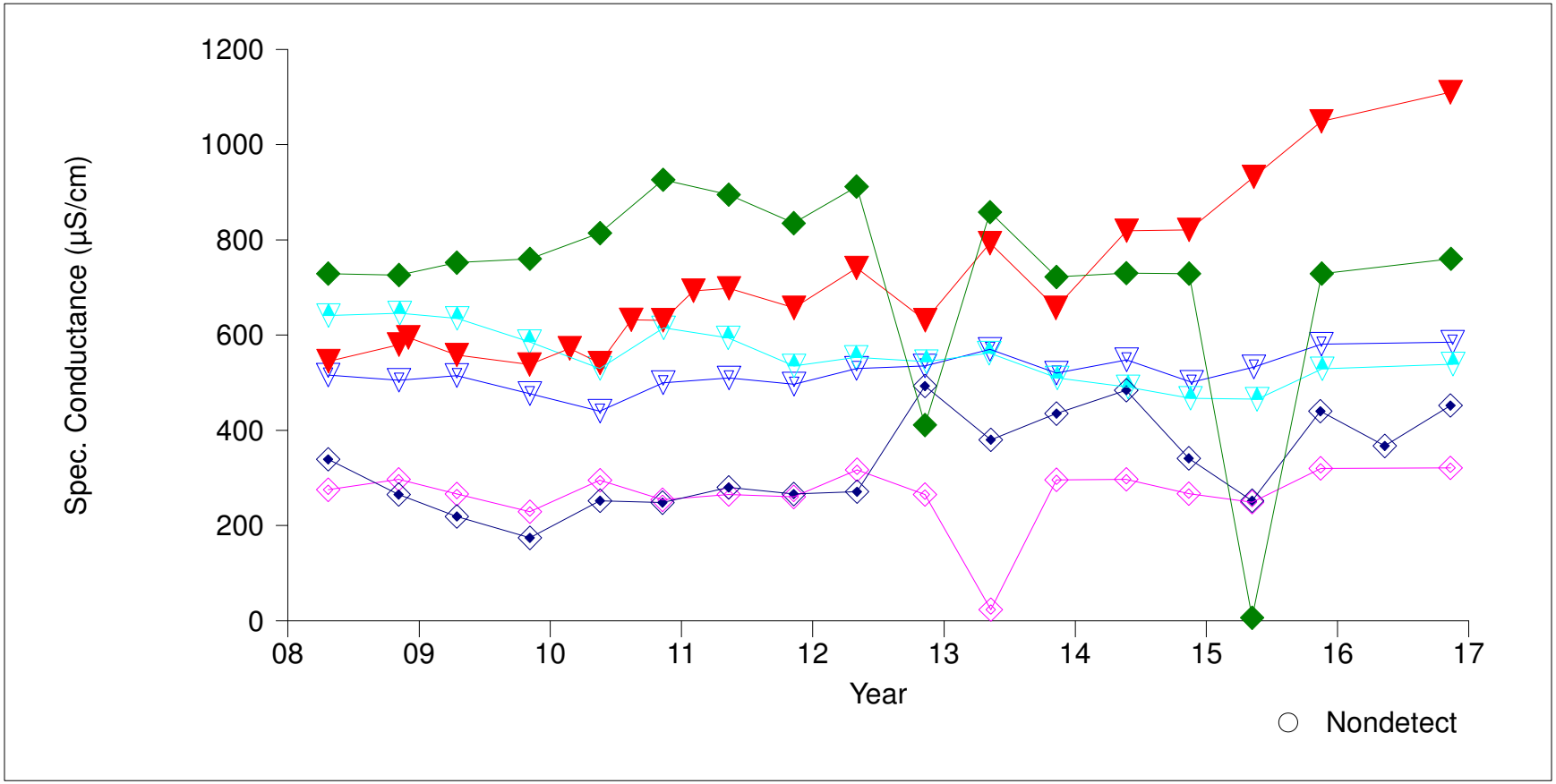
Time Series Plot for Spec. Conductance, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

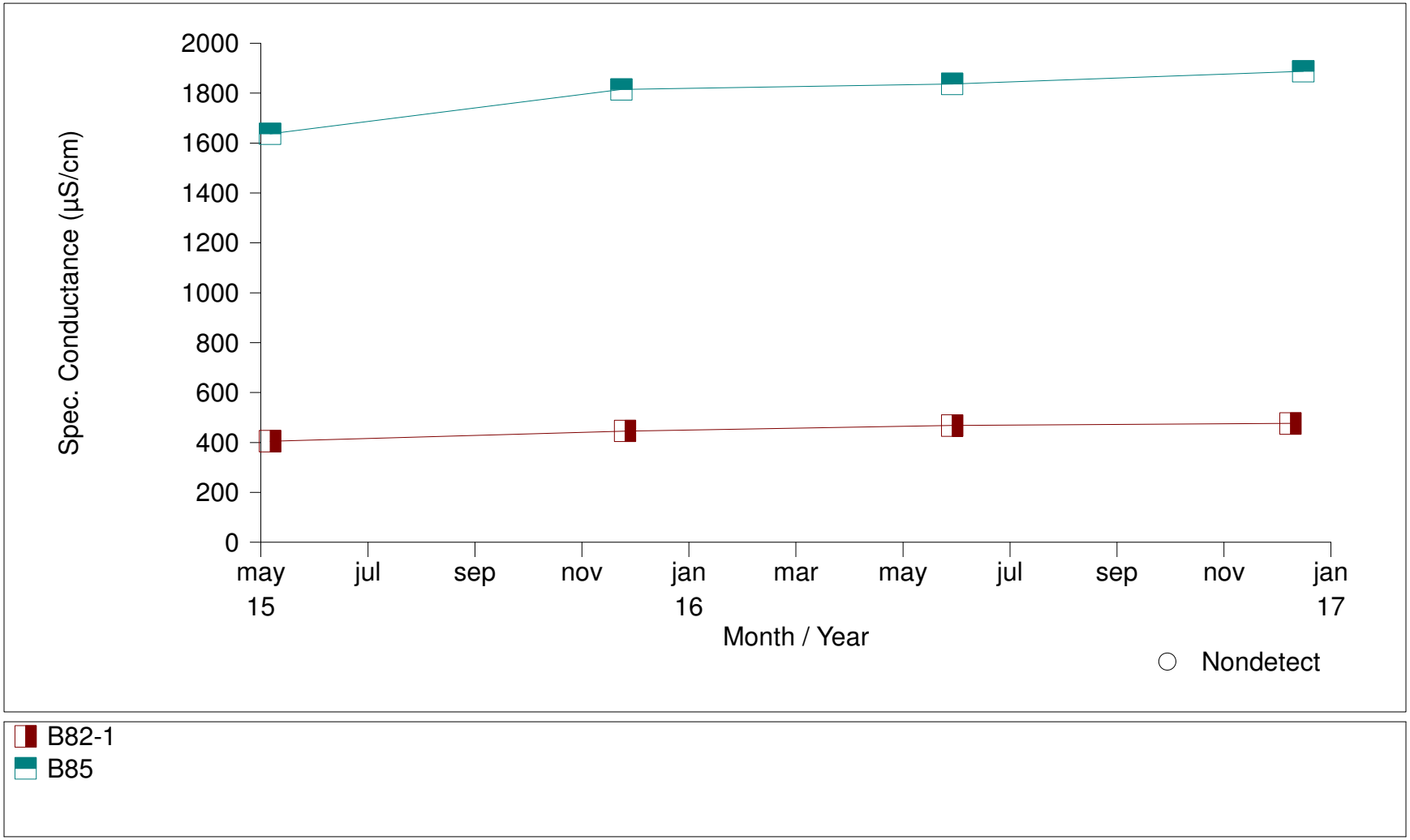
Time Series Plot for Spec. Conductance, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

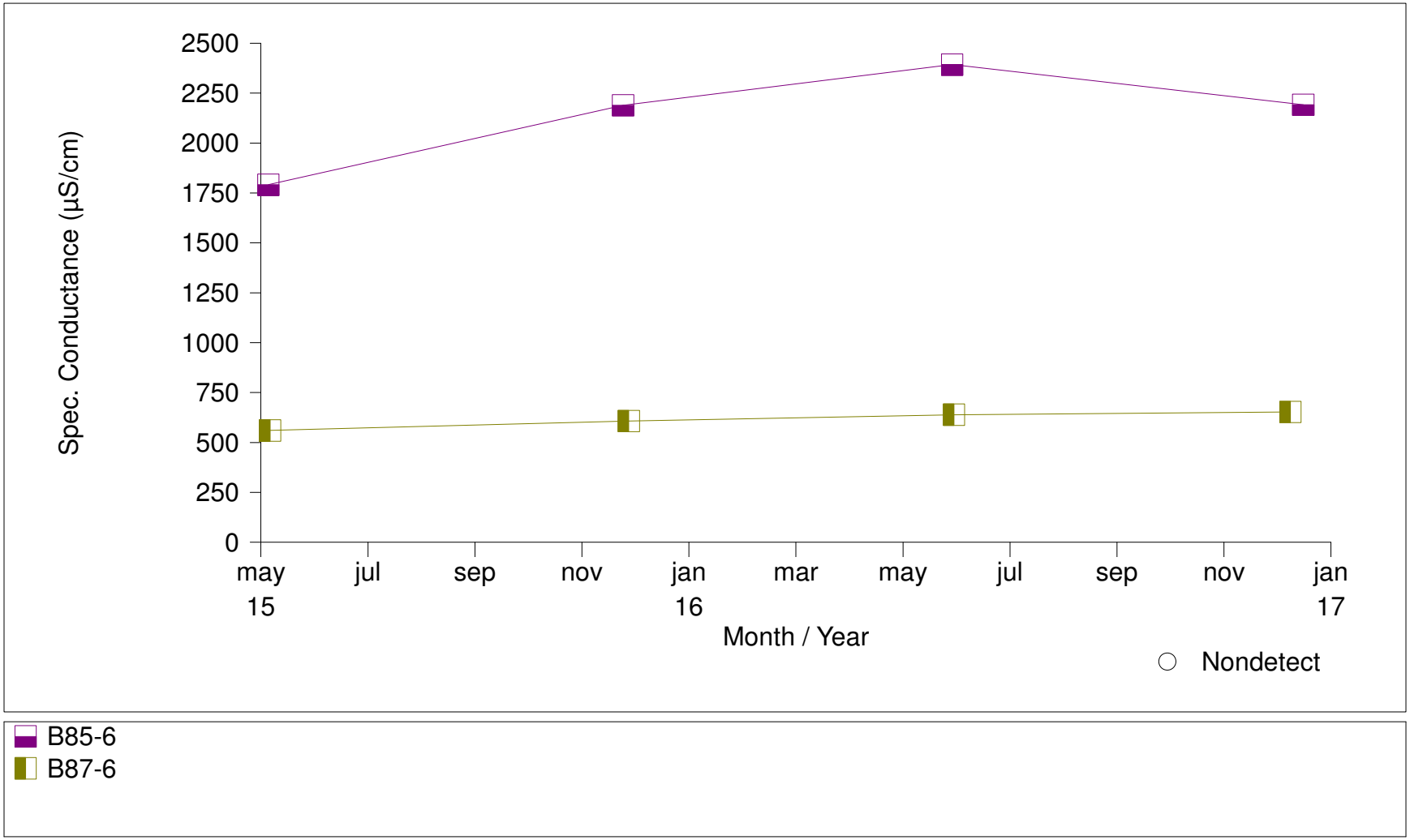
Time Series Plot for Spec. Conductance, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

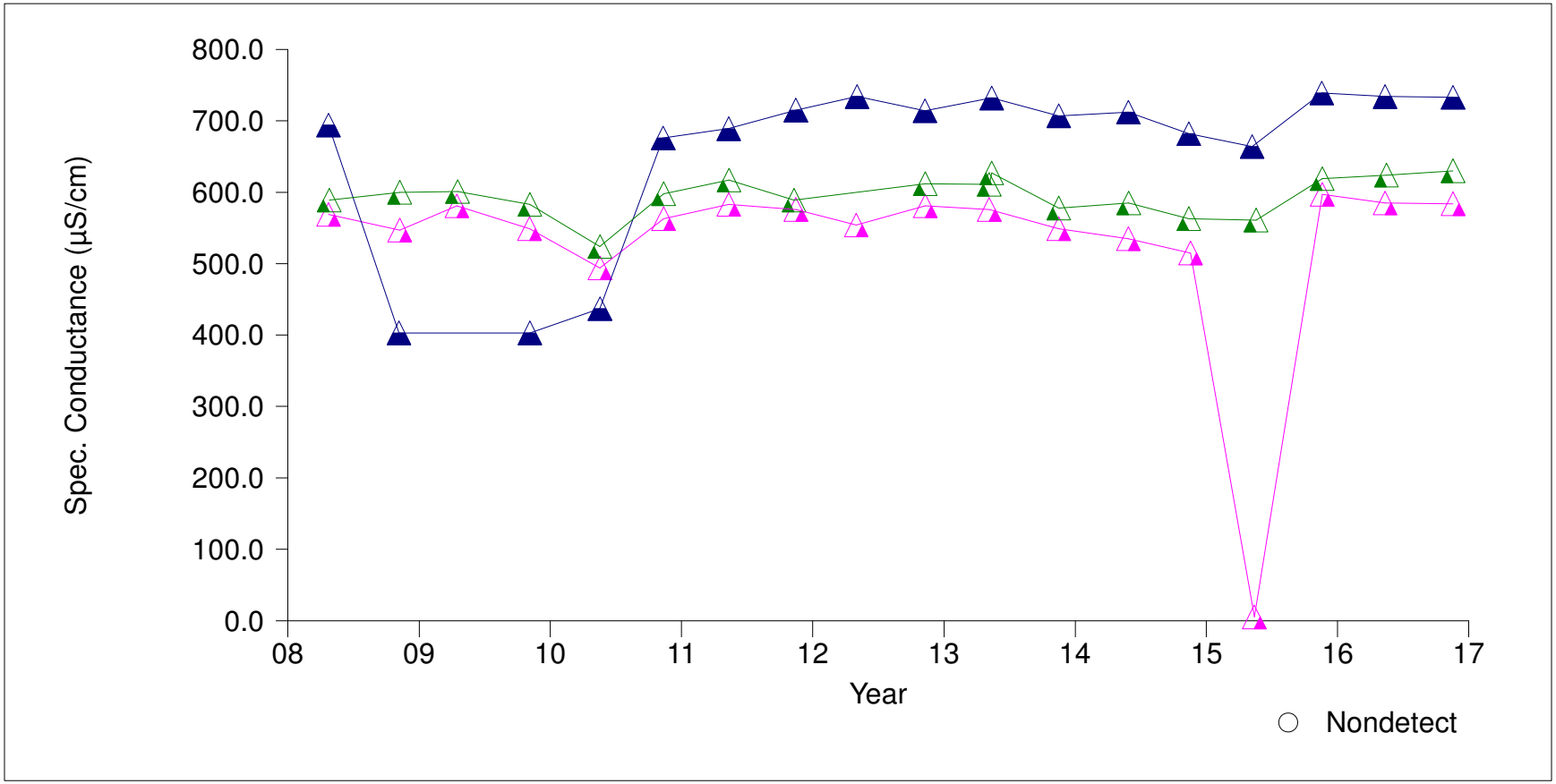
Time Series Plot for Spec. Conductance, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

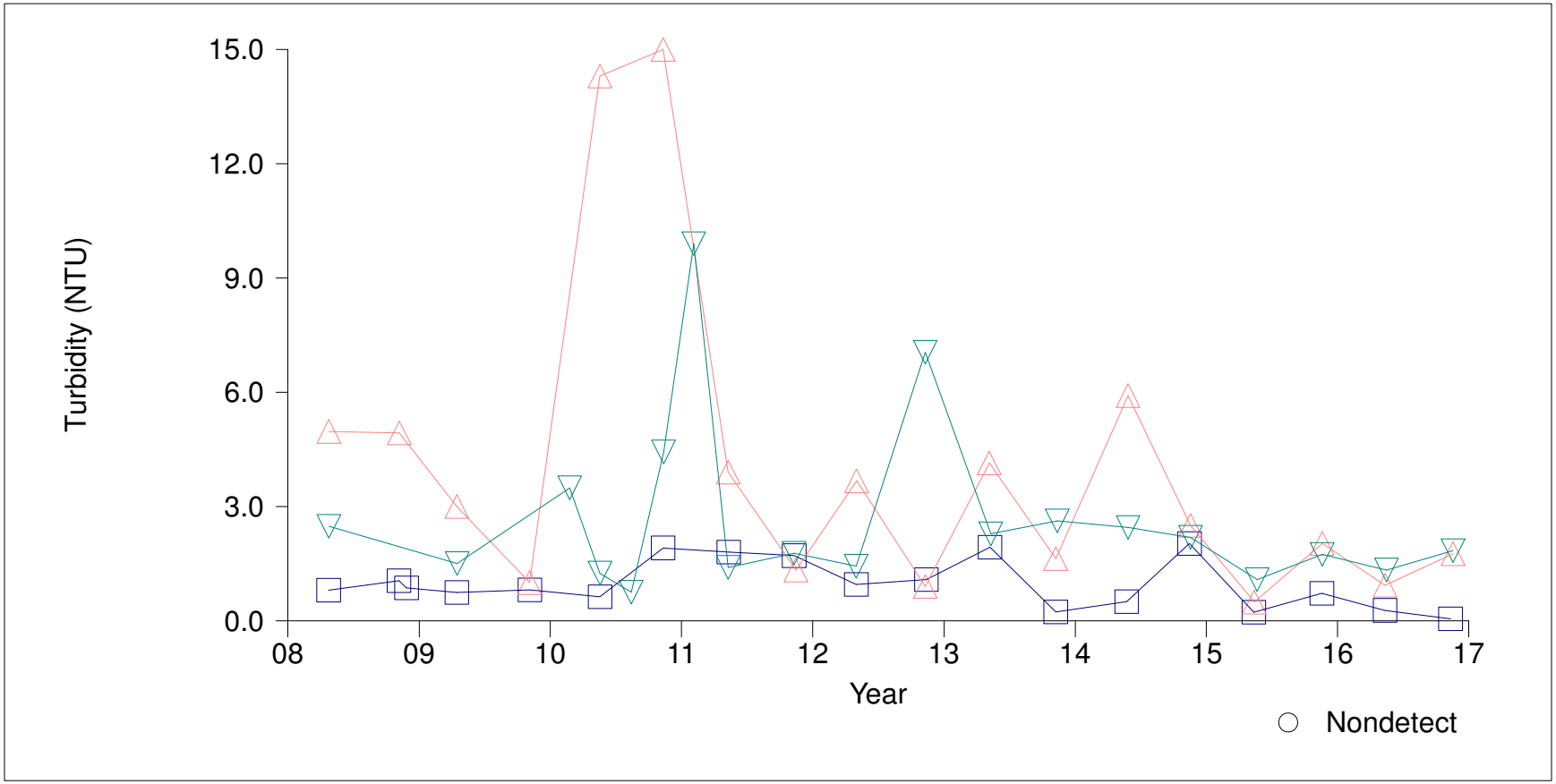
Time Series Plot for Spec. Conductance, Floridan Aquifer



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

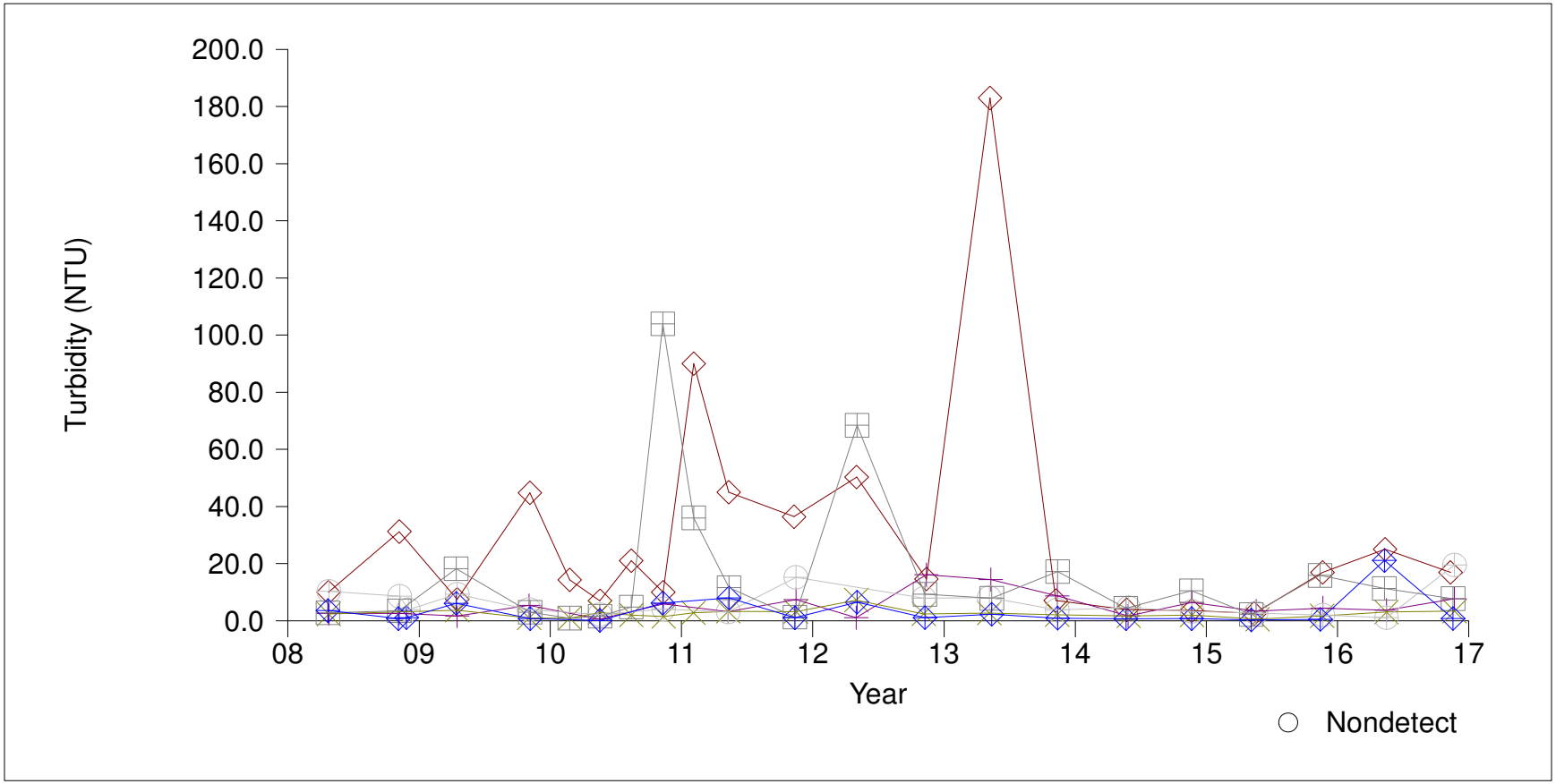
Time Series Plot for Turbidity, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

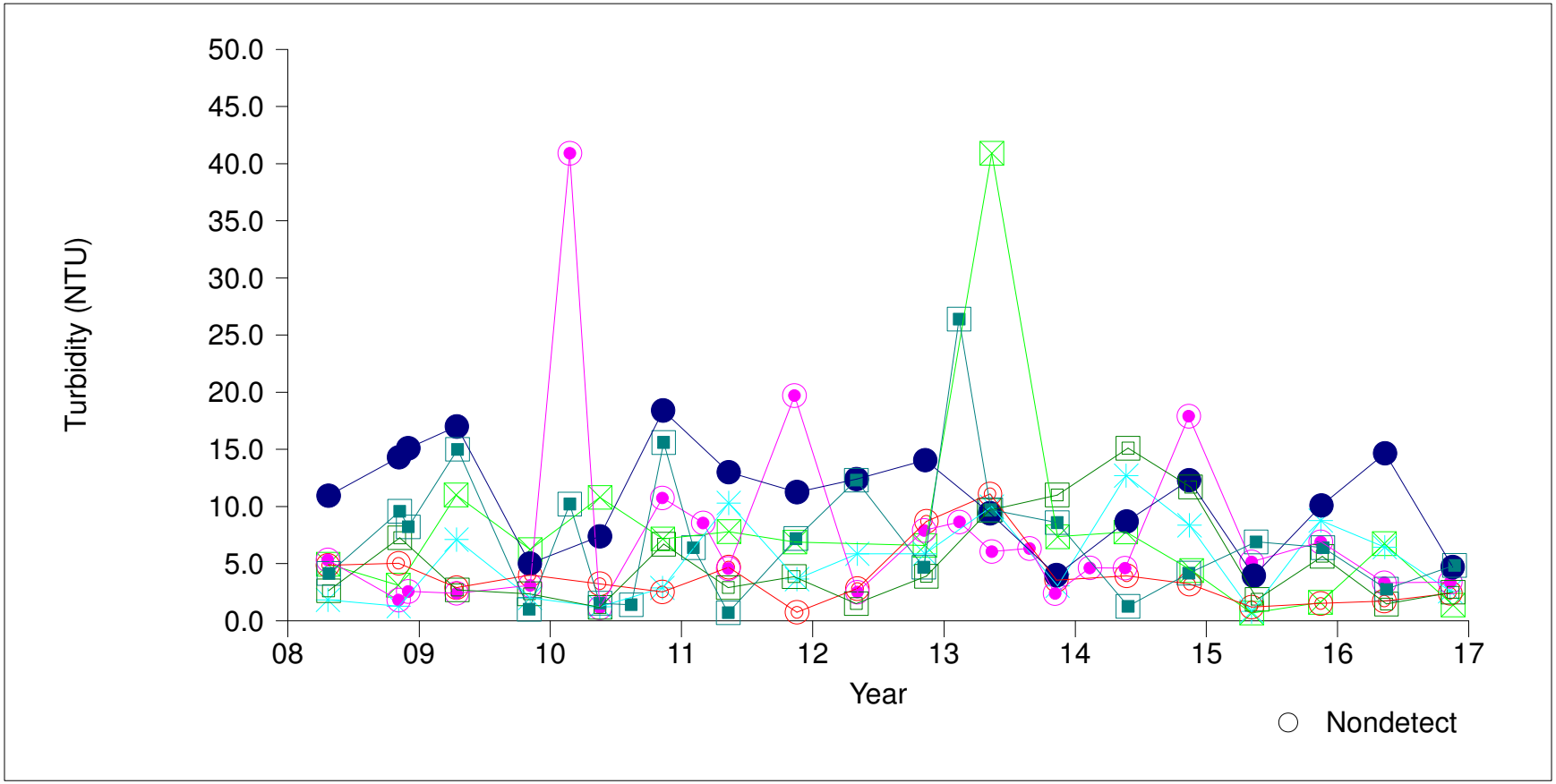
Time Series Plot for Turbidity, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

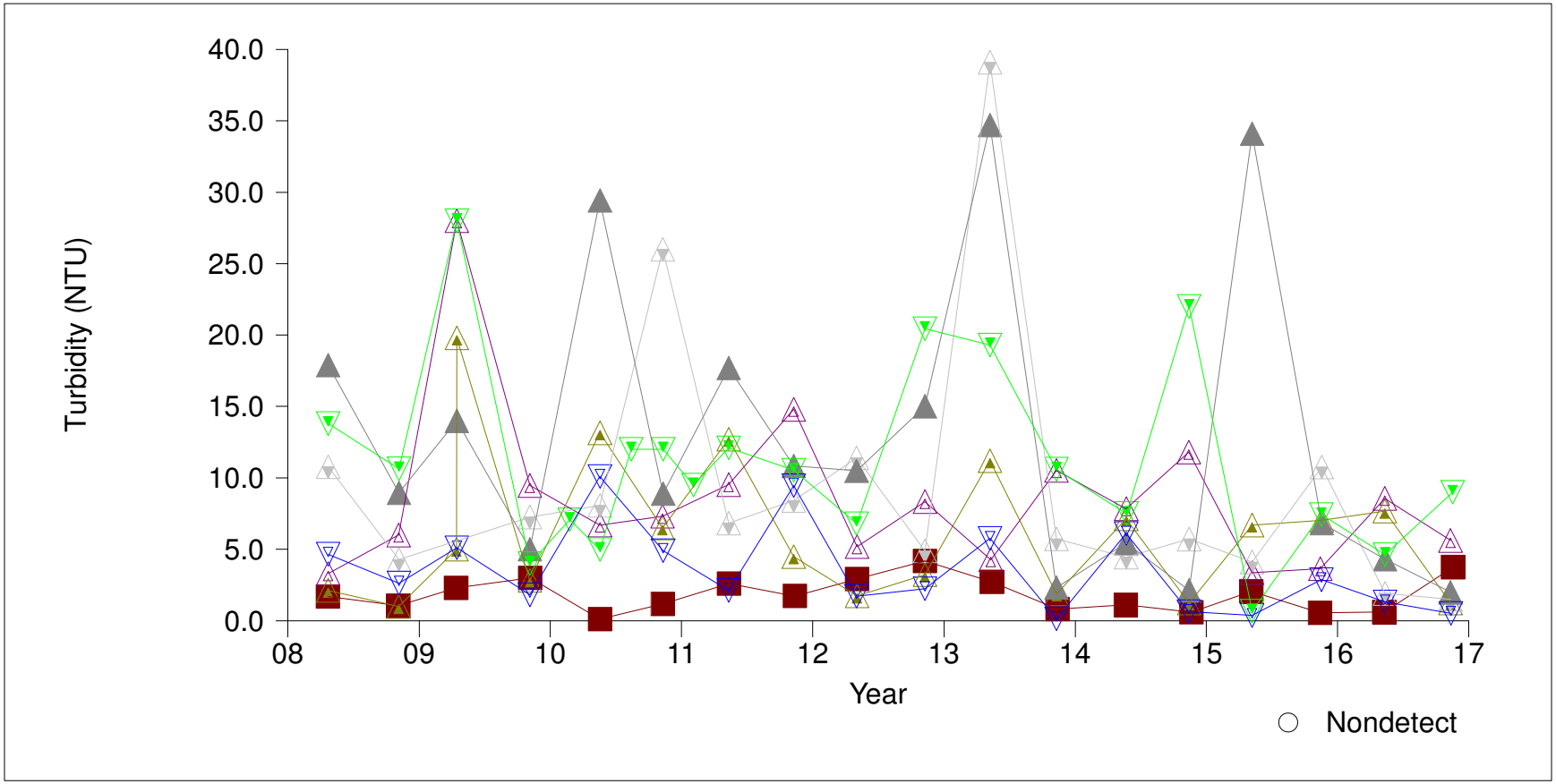
Time Series Plot for Turbidity, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

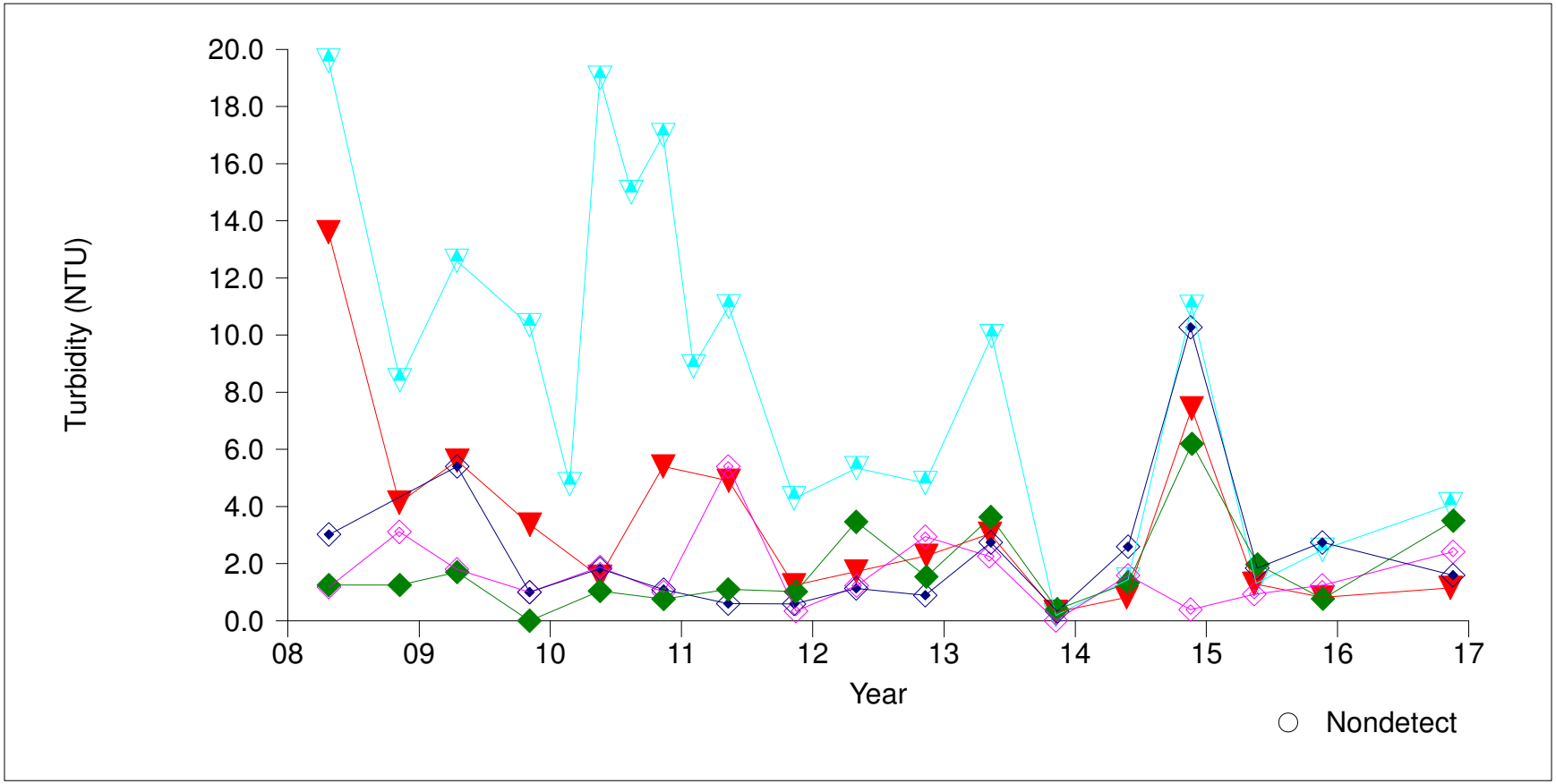
Time Series Plot for Turbidity, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

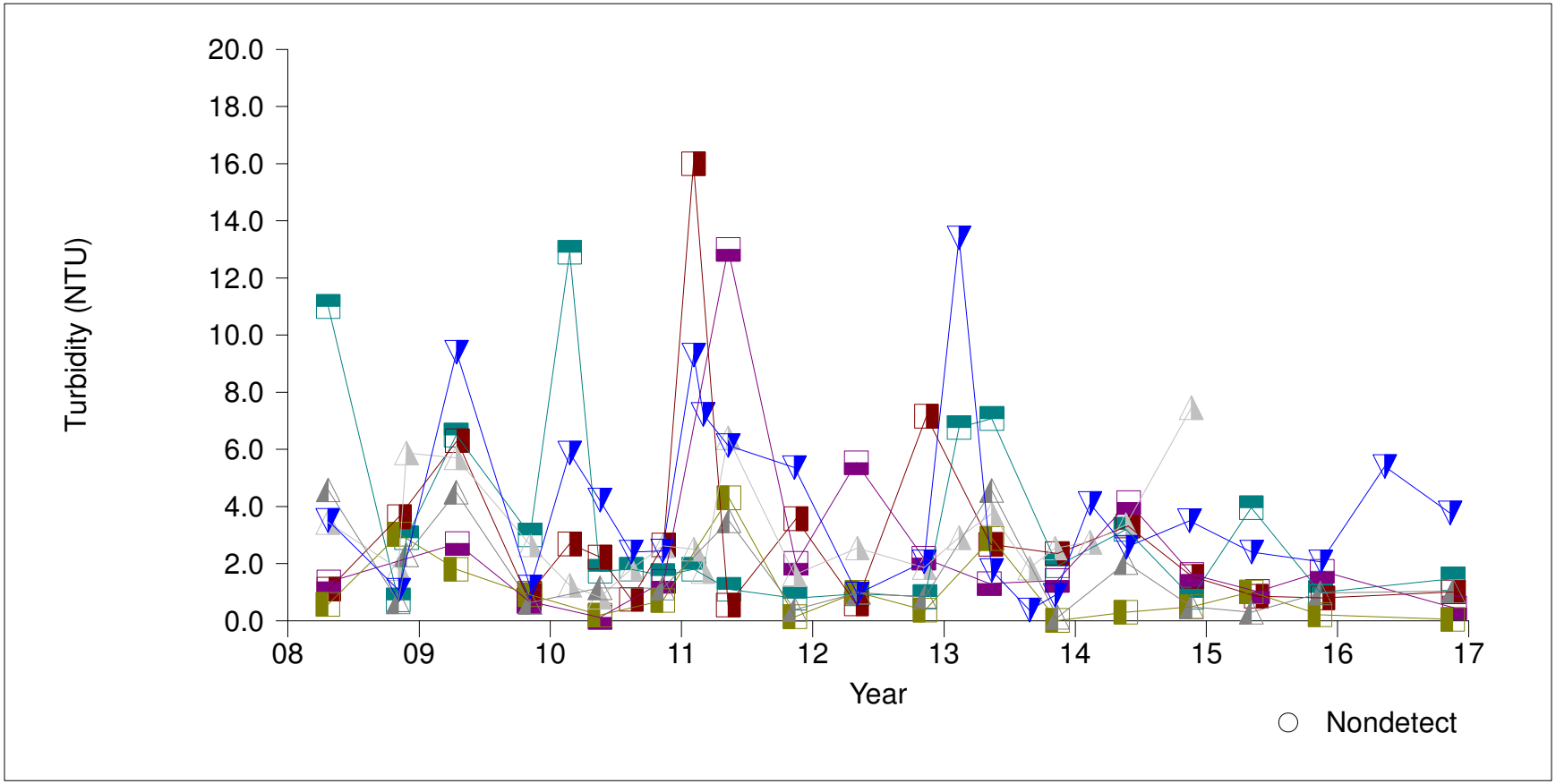
Time Series Plot for Turbidity, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

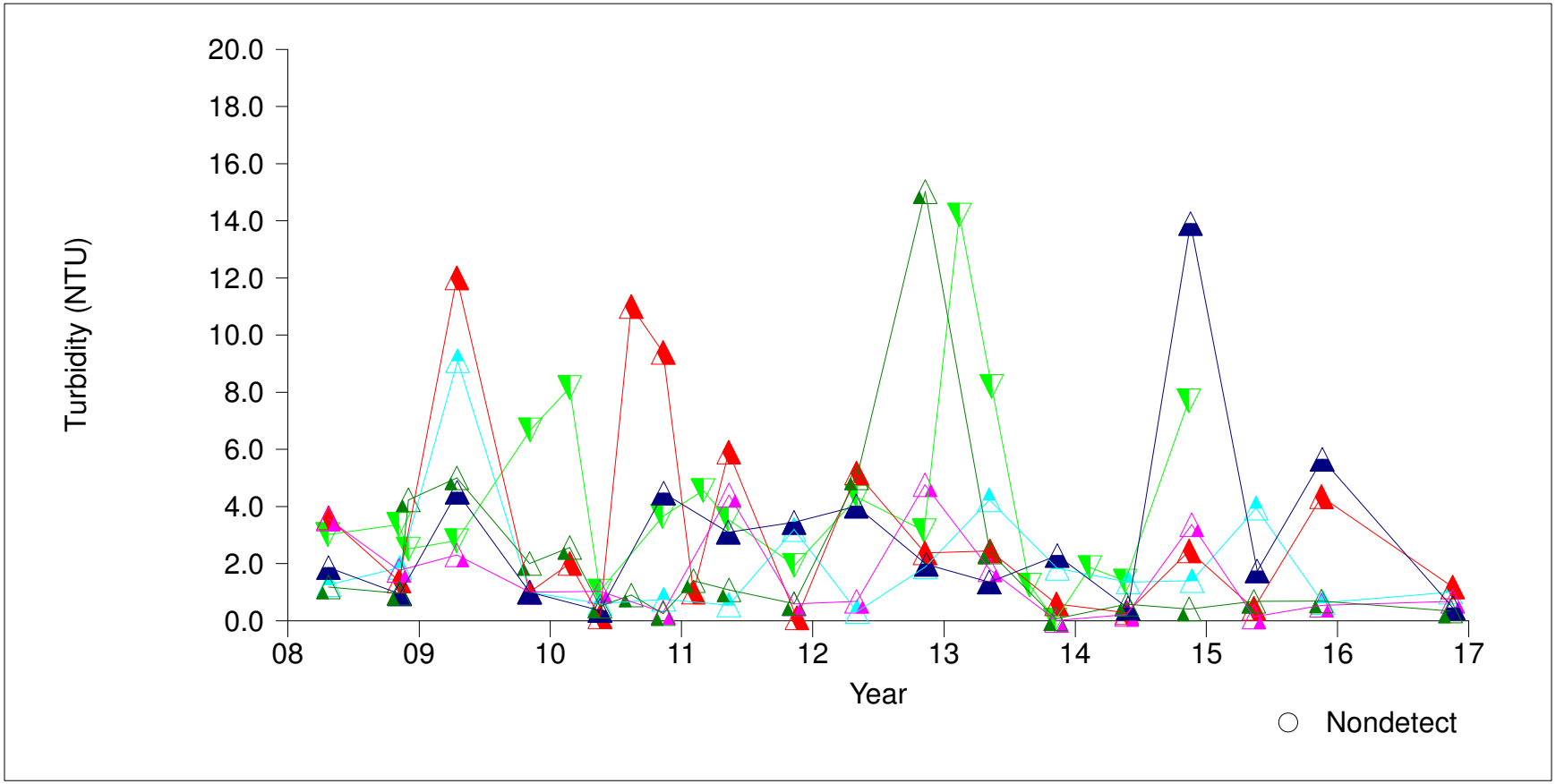
Time Series Plot for Turbidity, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

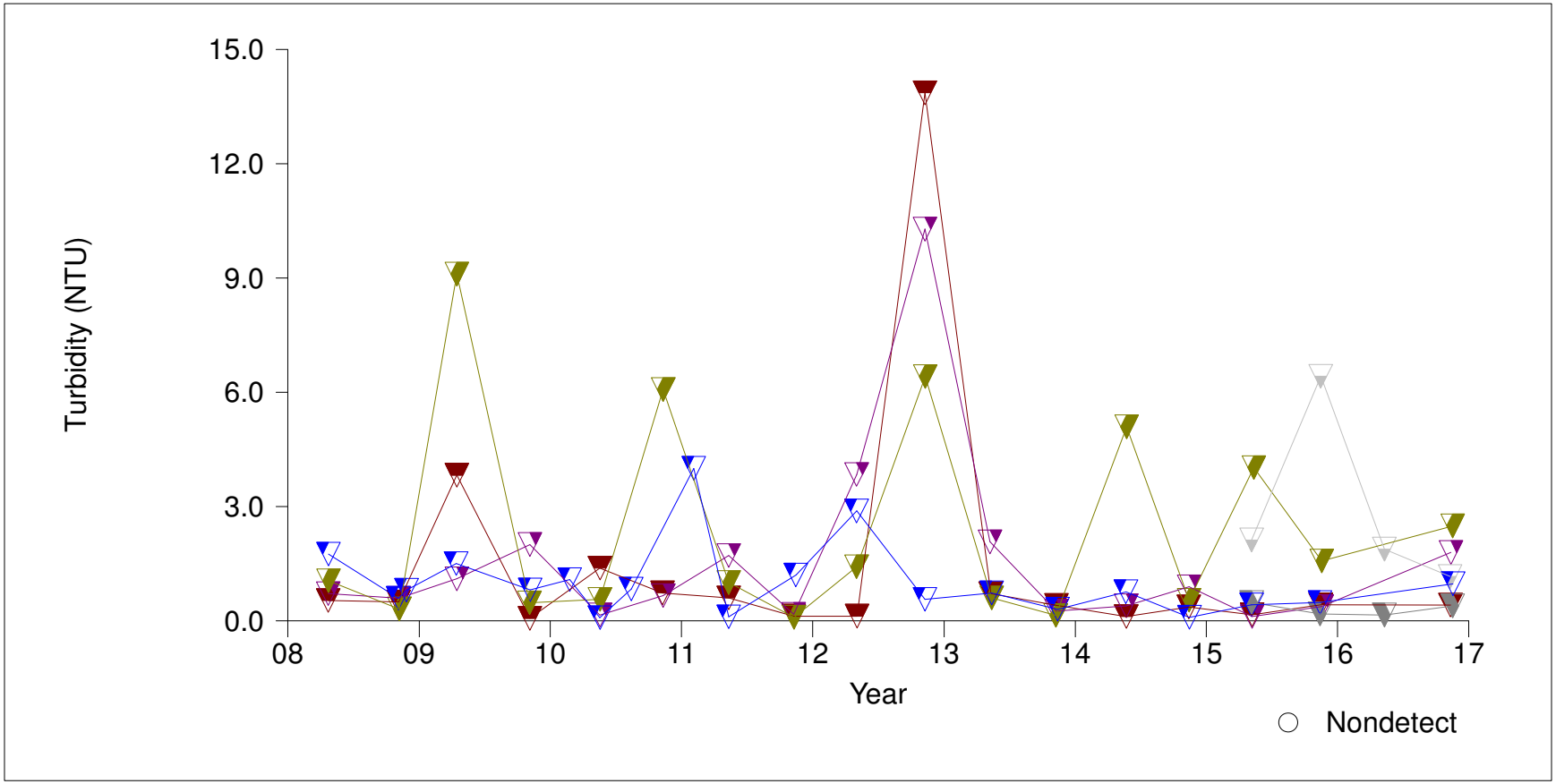
Time Series Plot for Turbidity, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

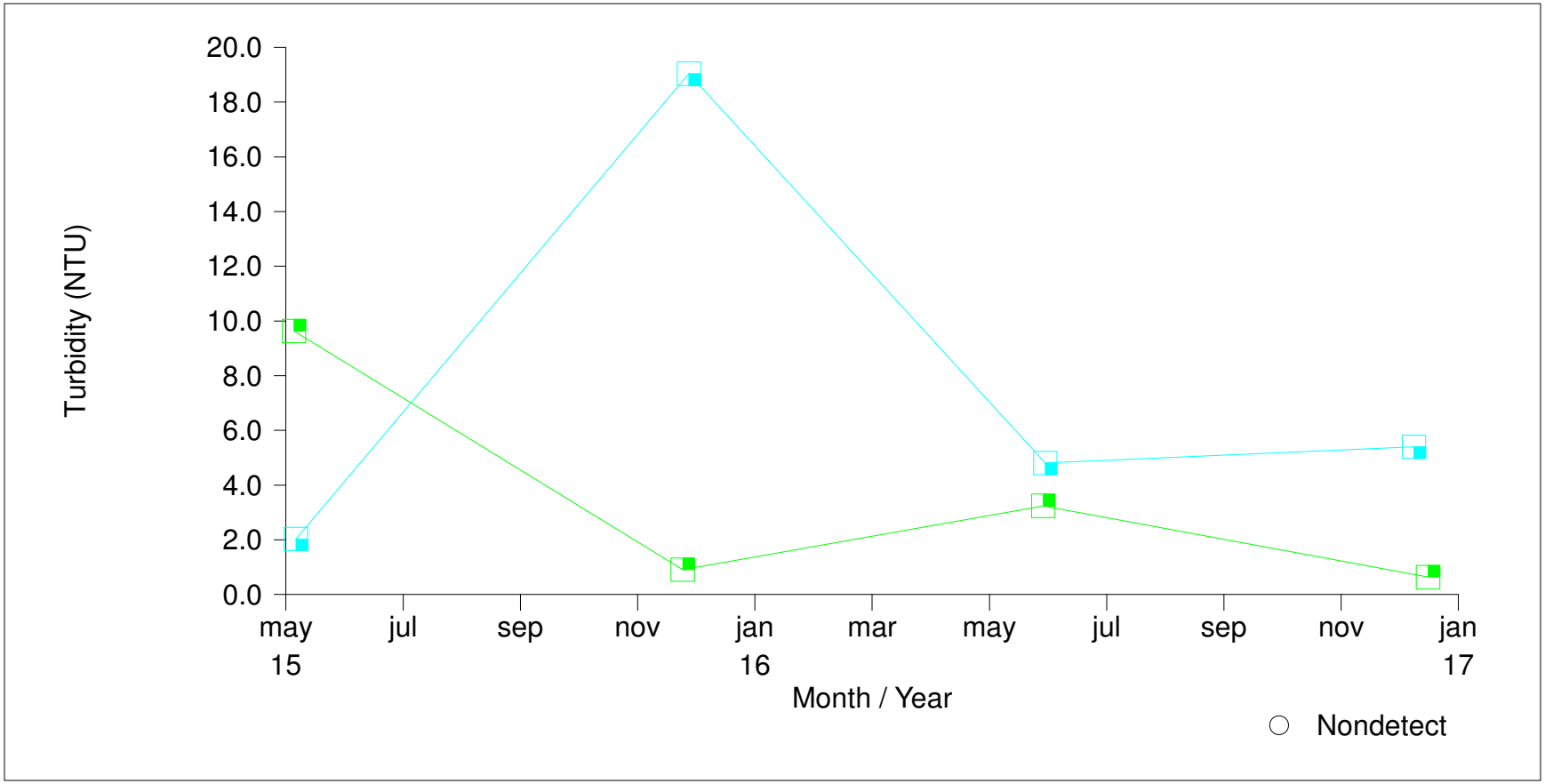
Time Series Plot for Turbidity, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

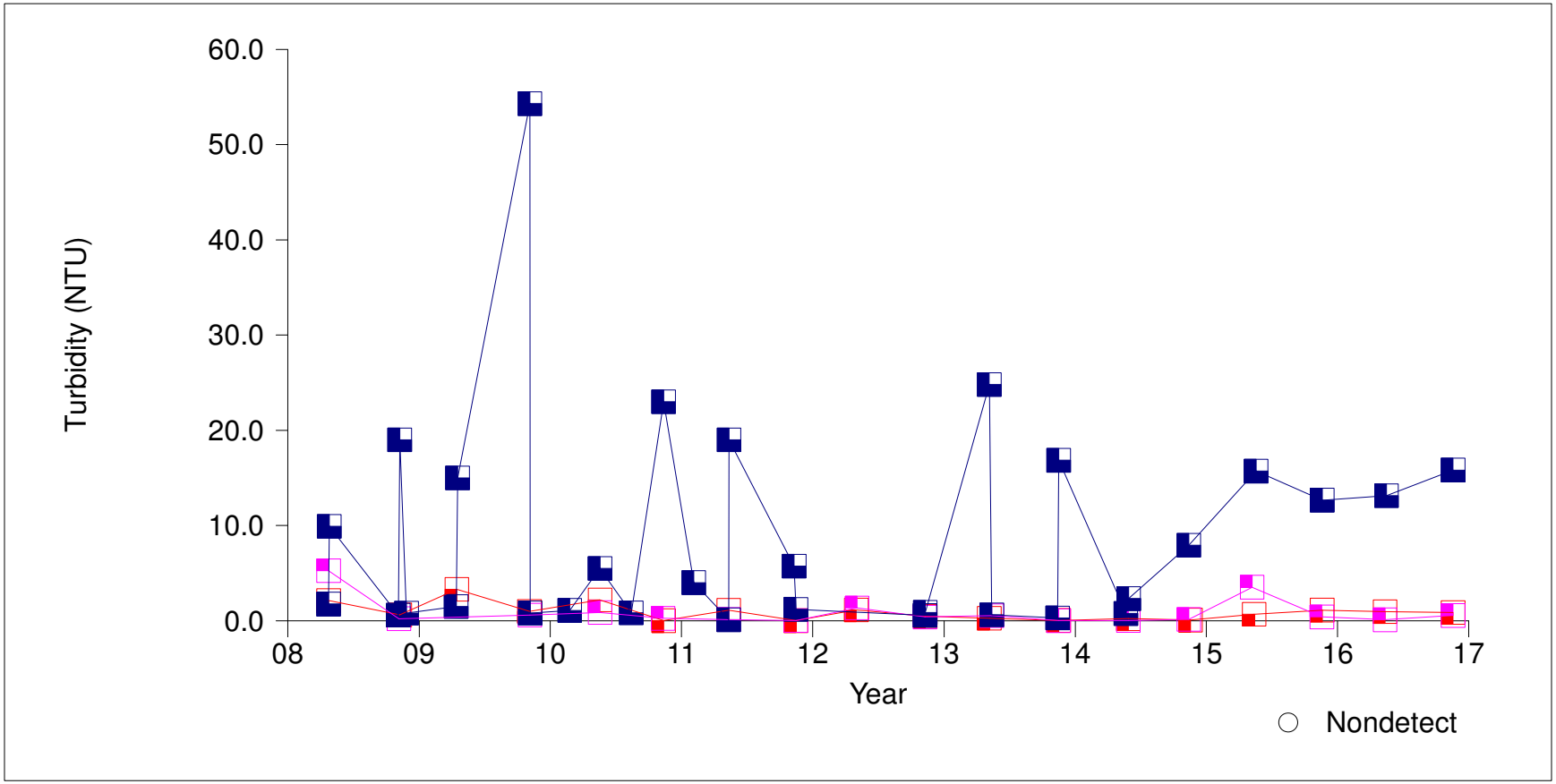
Time Series Plot for Turbidity, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

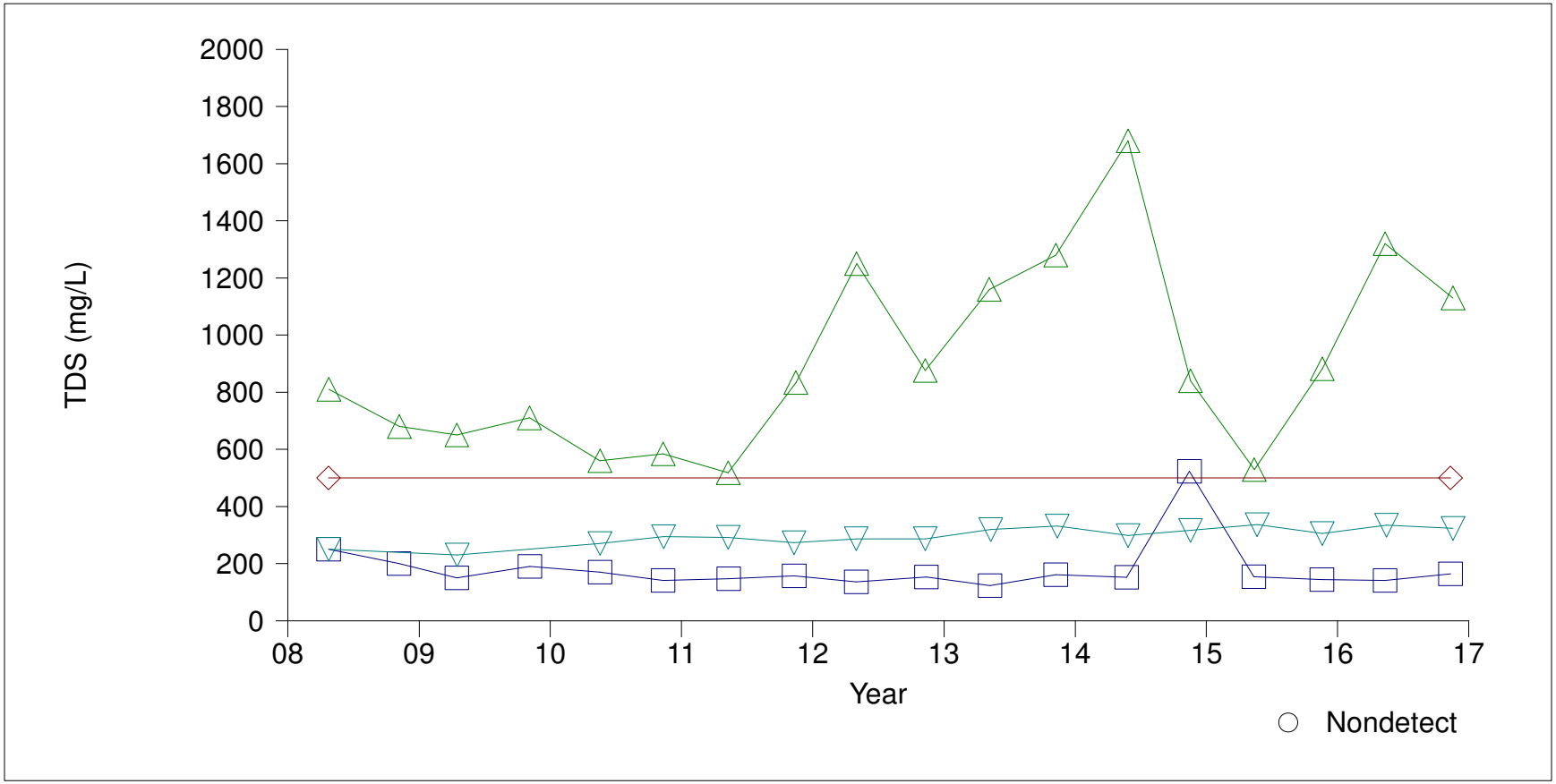
Time Series Plot for Turbidity, Floridan Aquifer



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

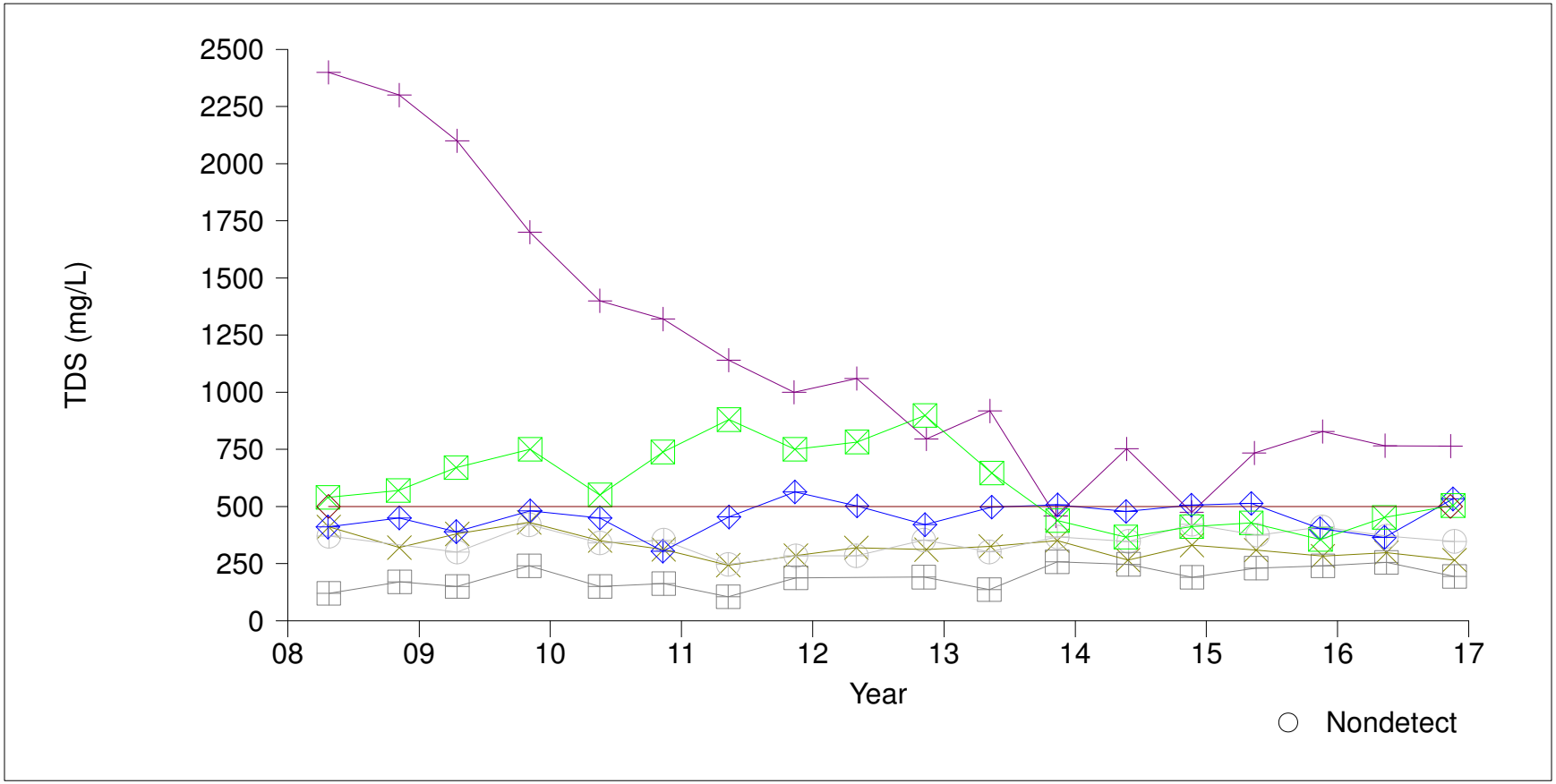
Time Series Plot for TDS, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

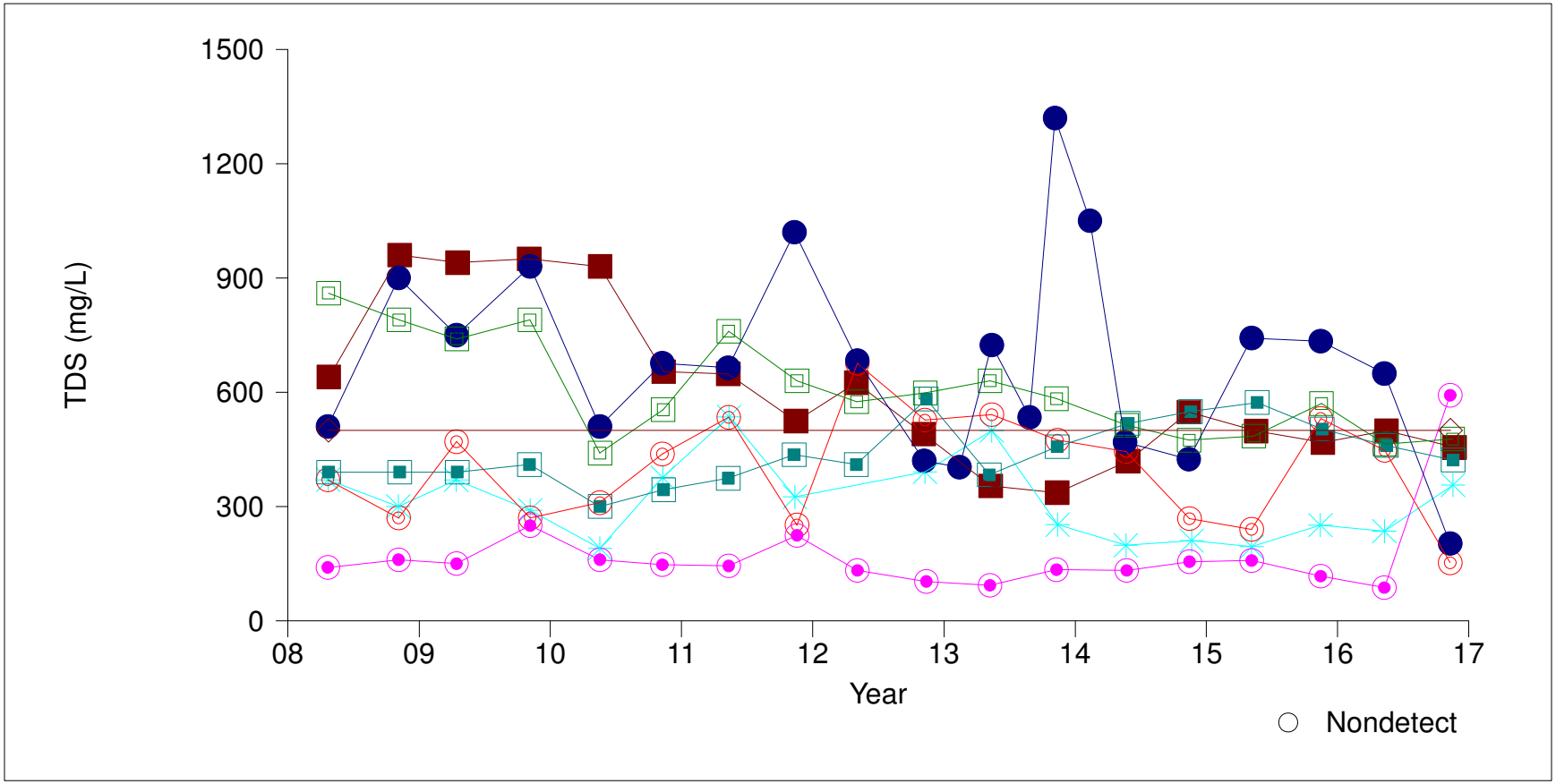
Time Series Plot for TDS, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

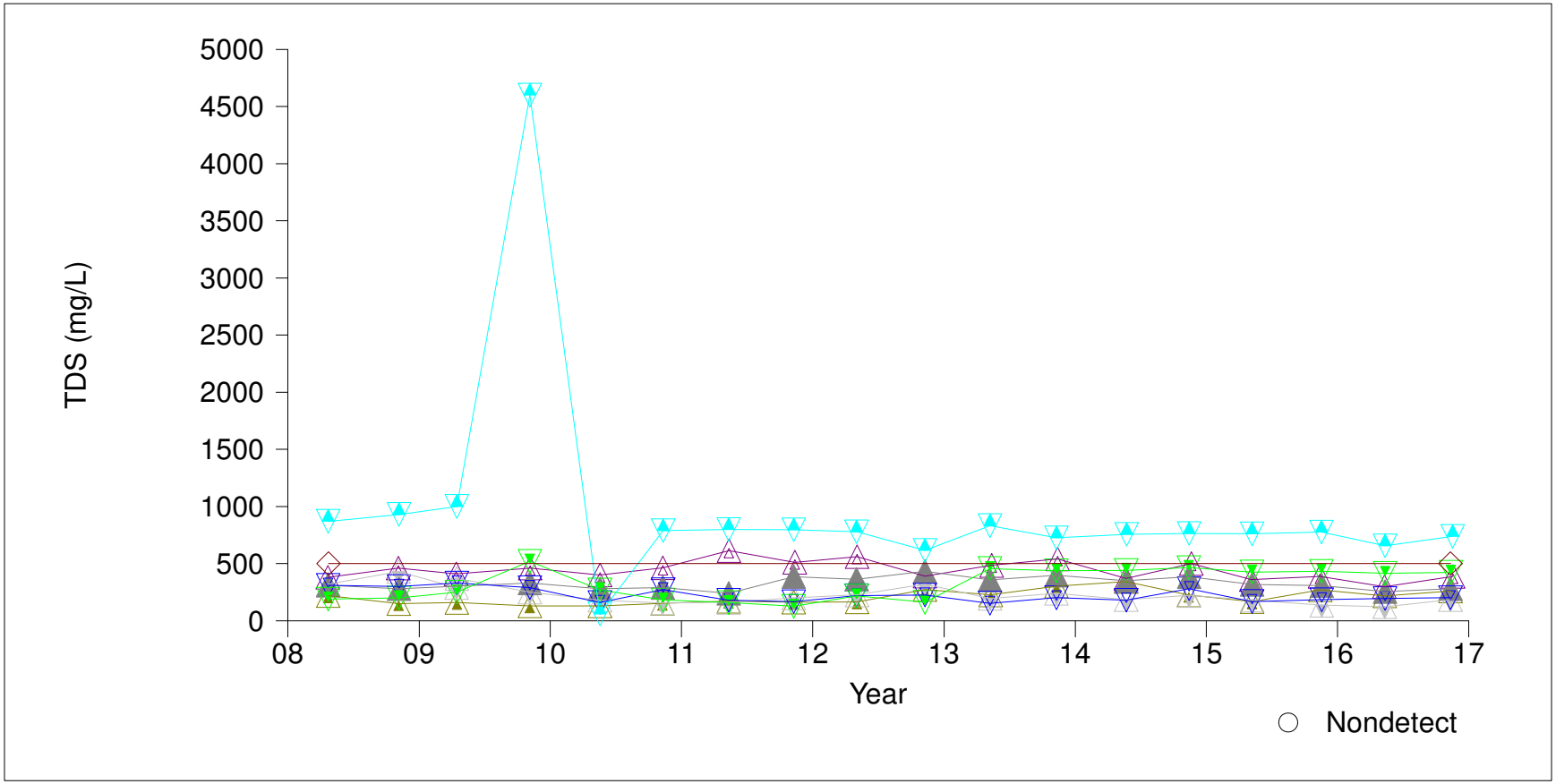
Time Series Plot for TDS, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

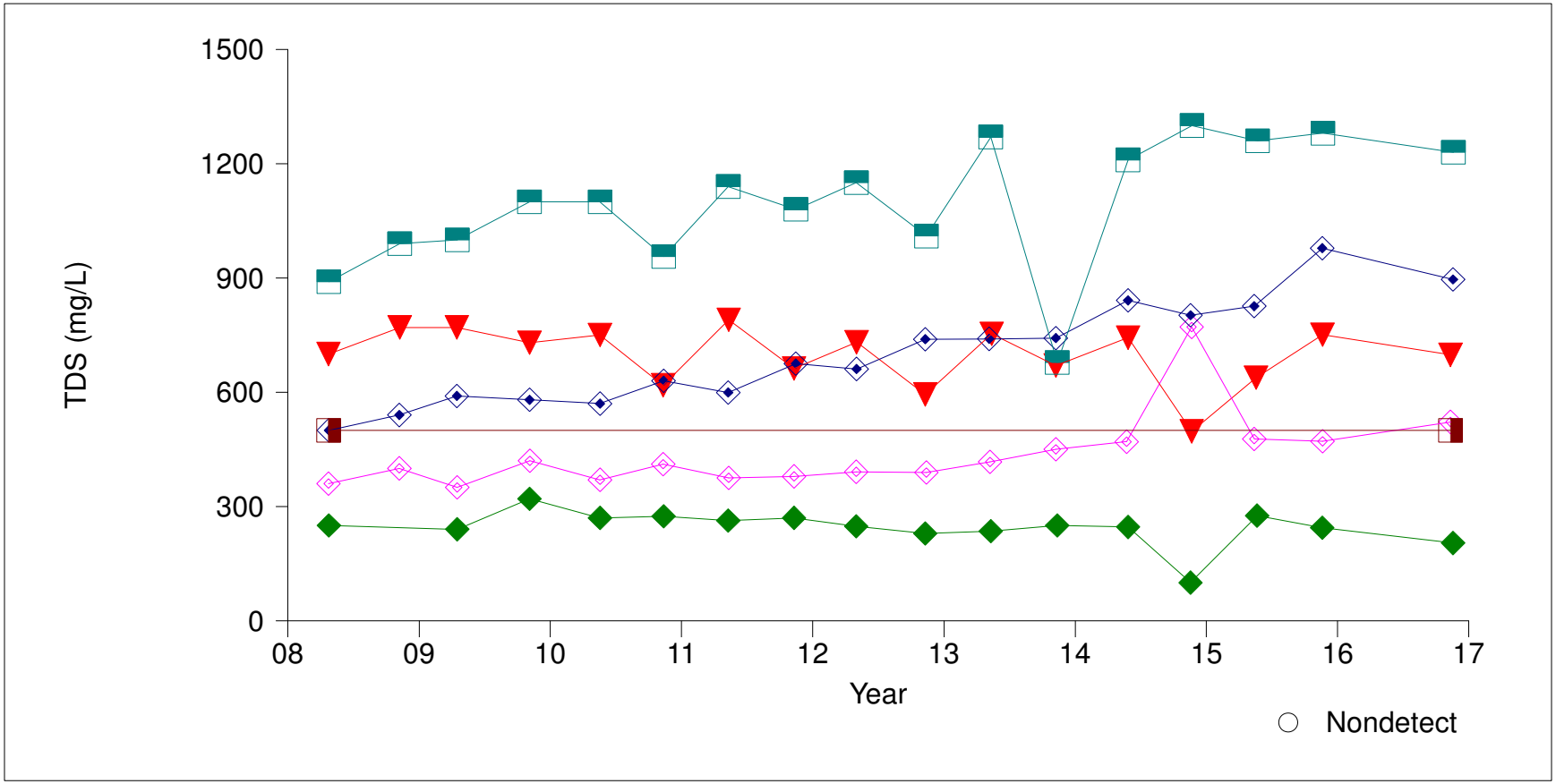
Time Series Plot for TDS, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

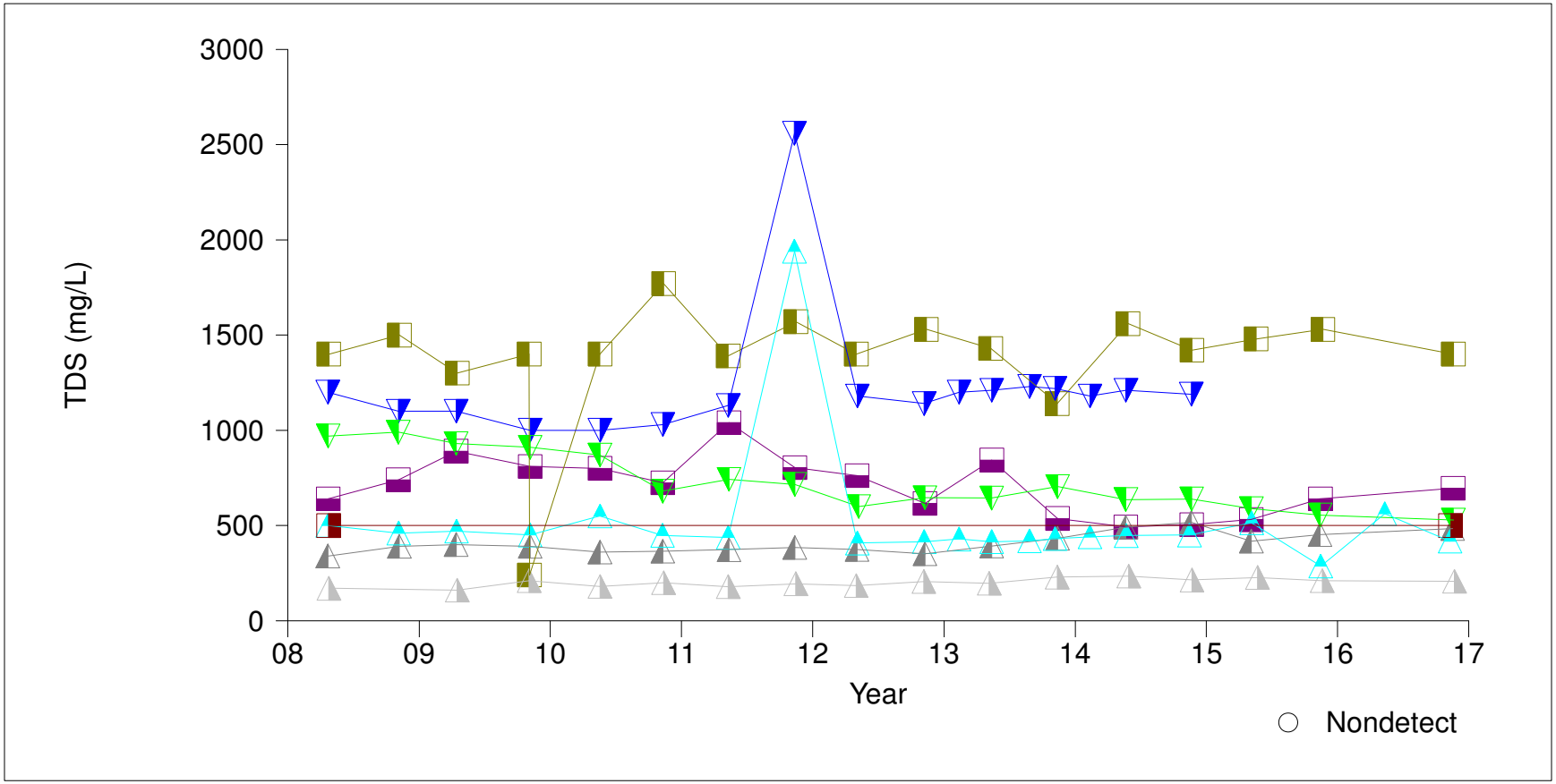
Time Series Plot for TDS, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

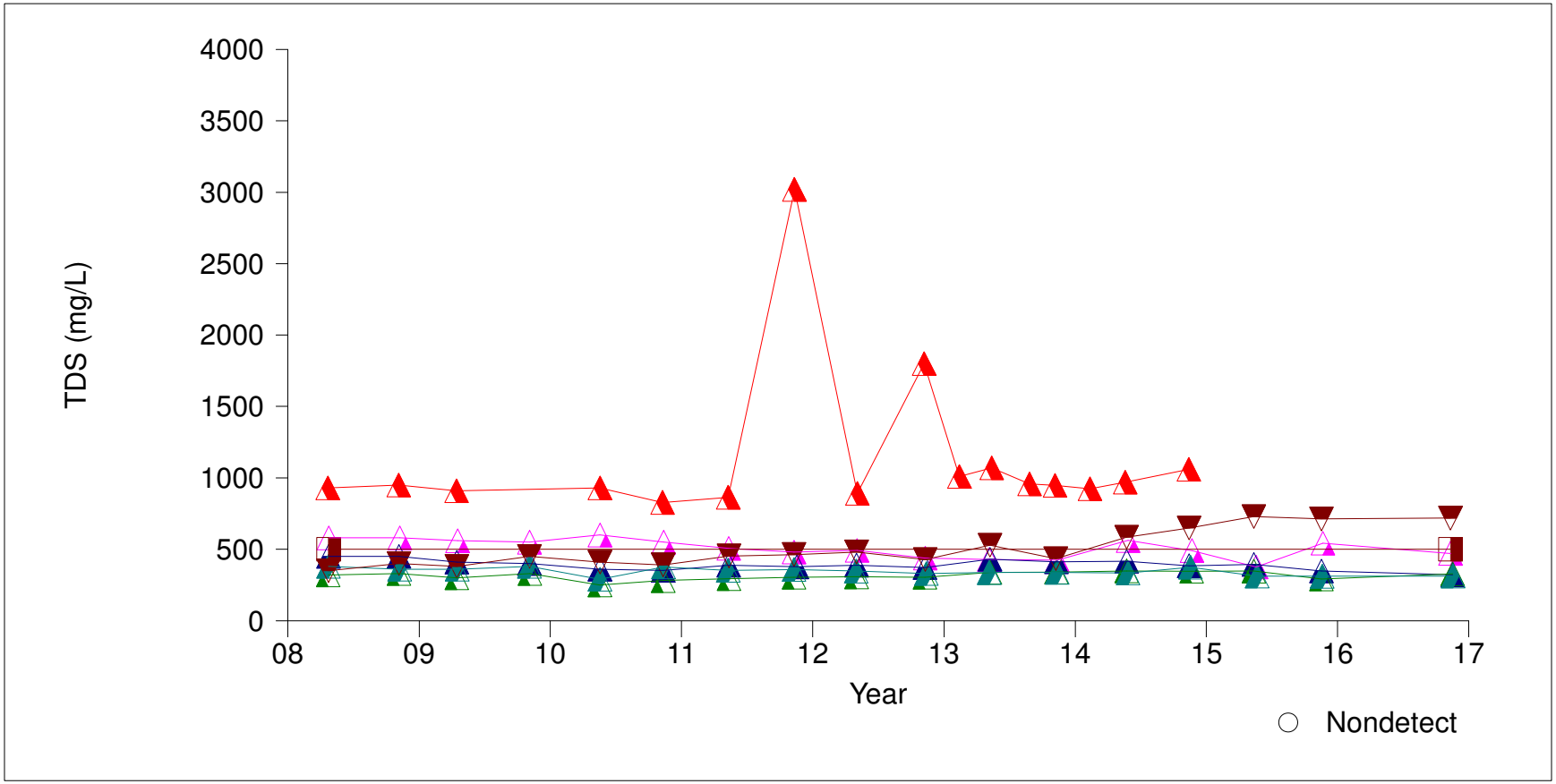
Time Series Plot for TDS, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

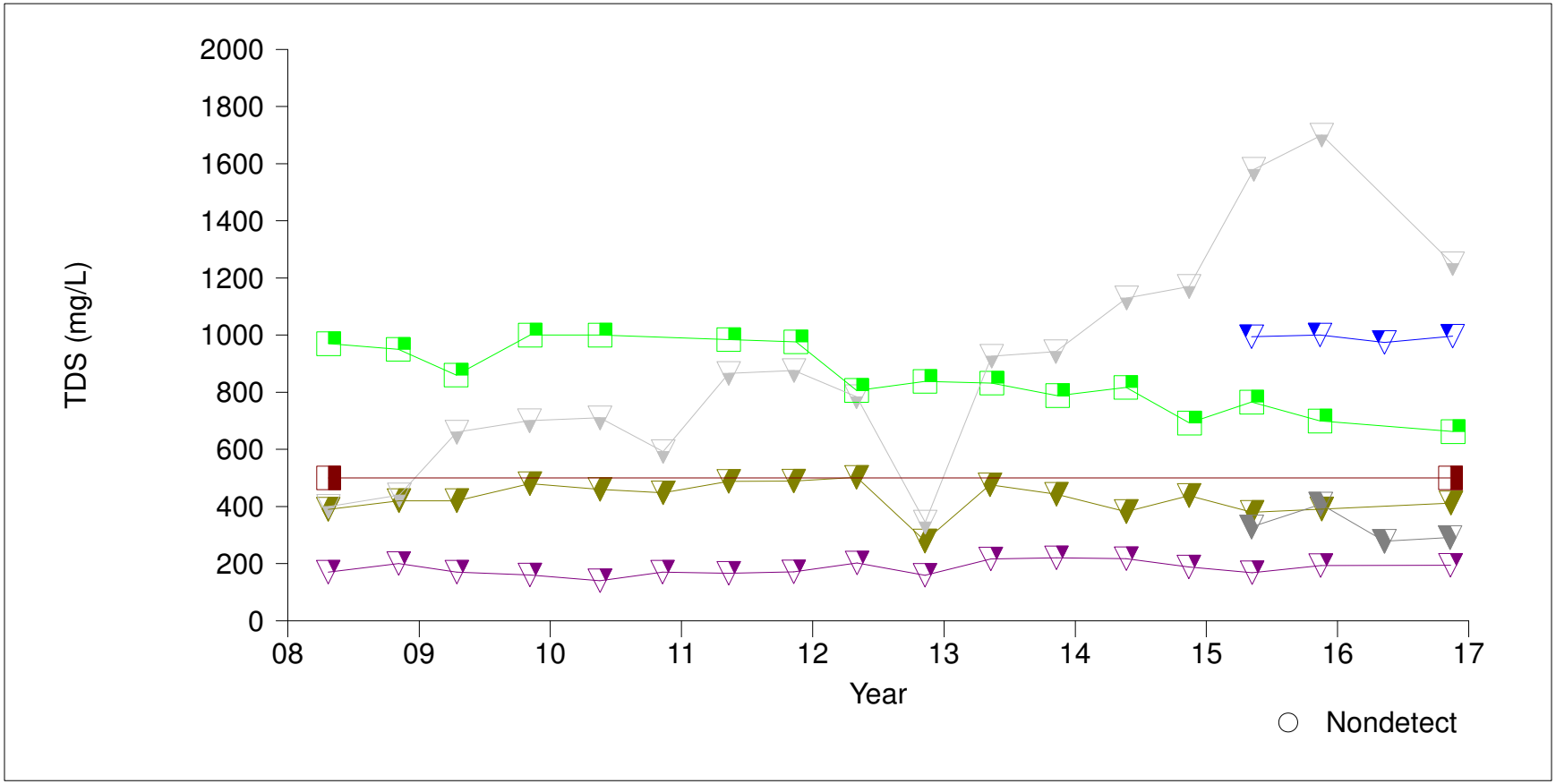
Time Series Plot for TDS, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

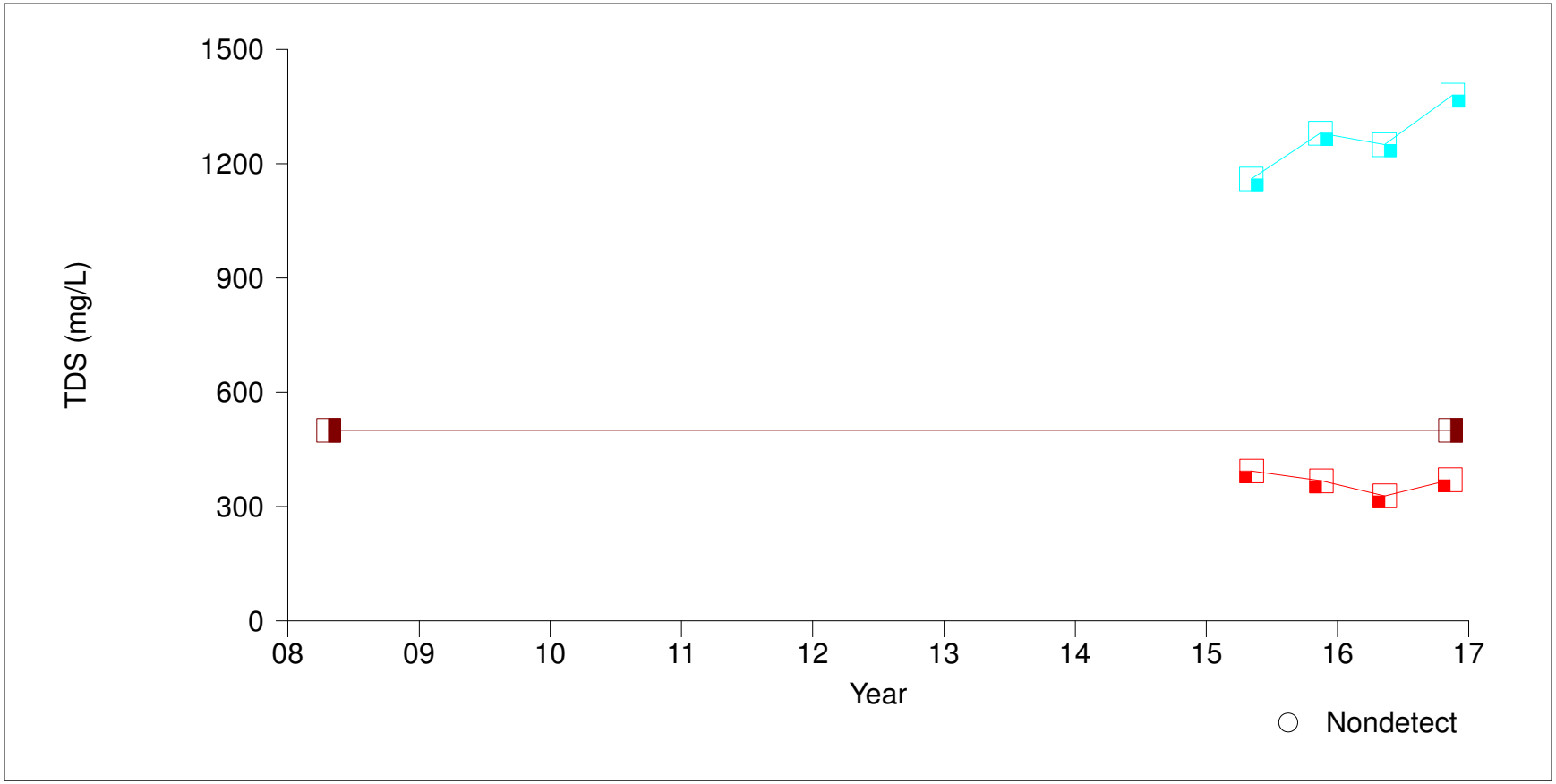
Time Series Plot for TDS, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

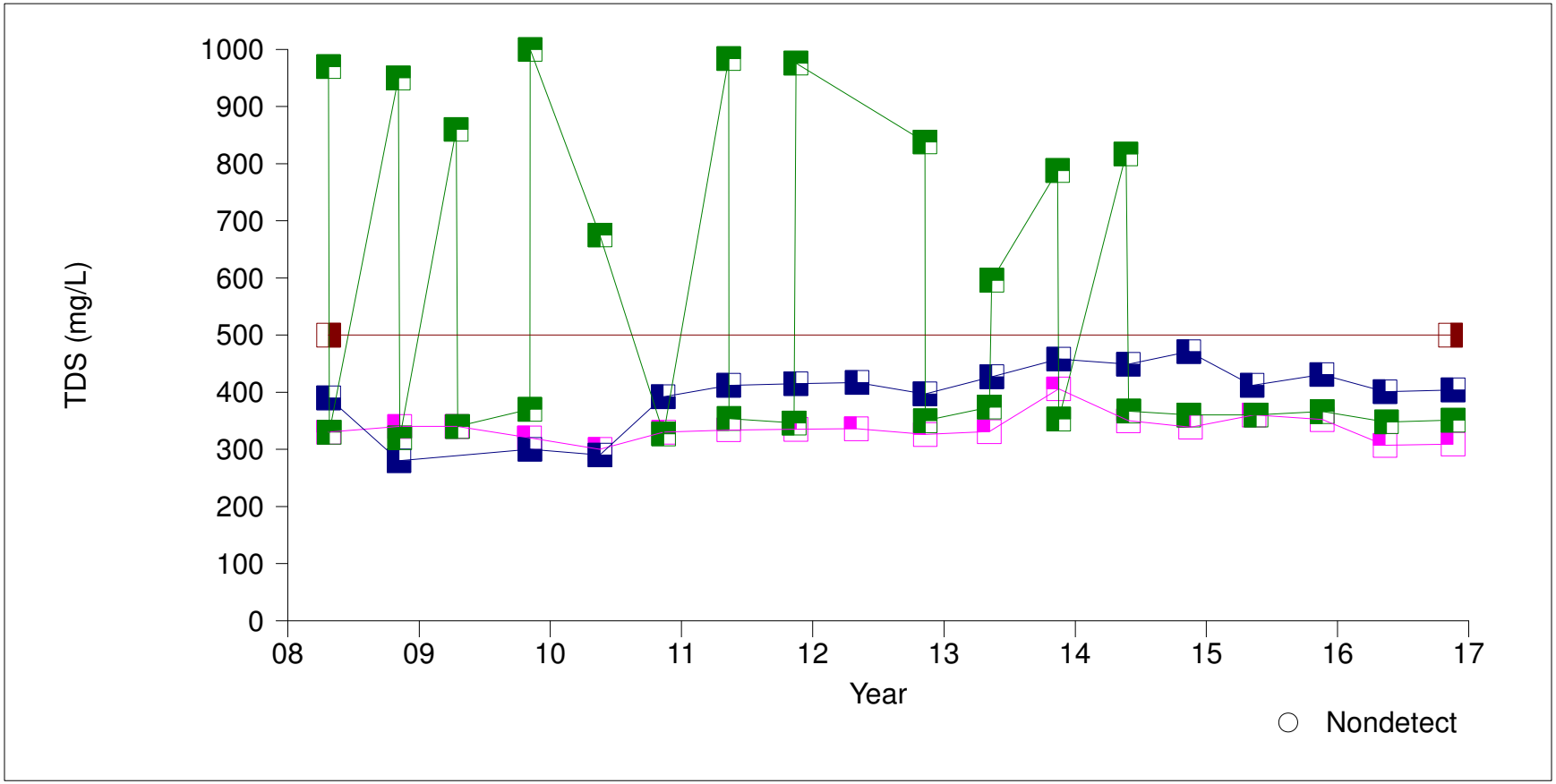
Time Series Plot for TDS, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

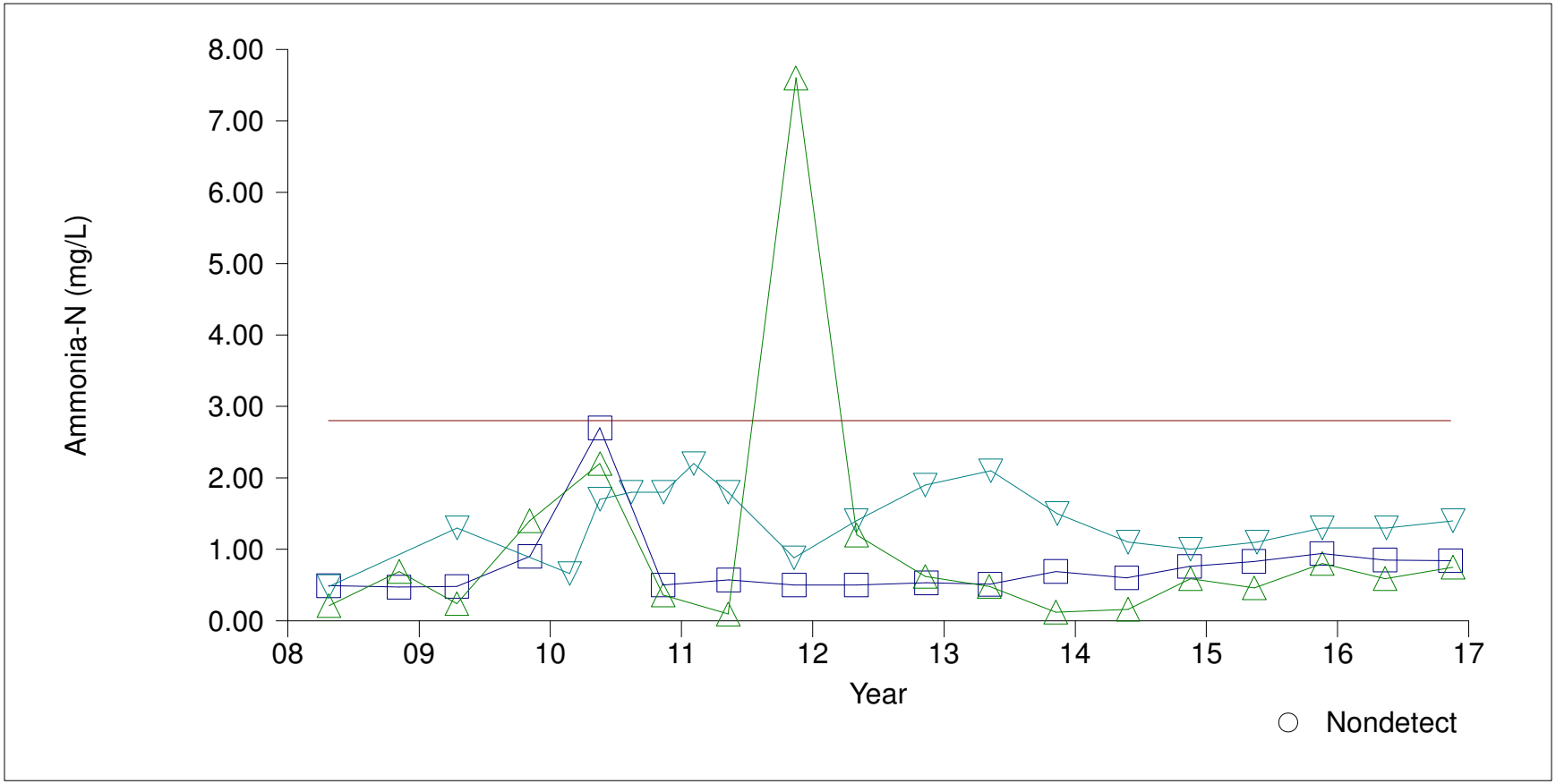
Time Series Plot for TDS, Floridan Aquifer (FA-1B: Background Well; the others: Compliance Wells)



Prepared by: HDR Jacksonville

Tomoka Farm Road Landfill

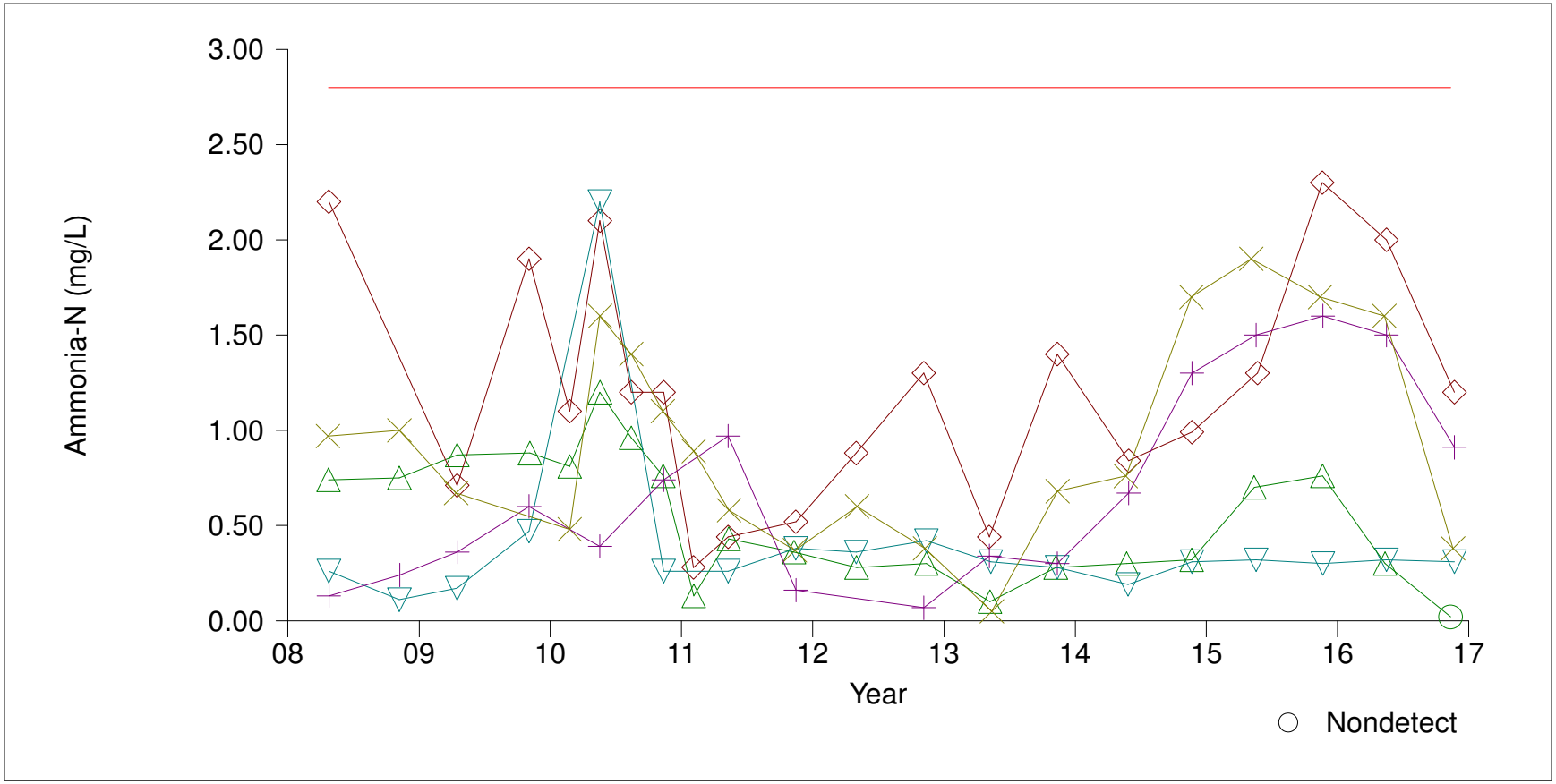
Time Series Plot for Ammonia-N, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

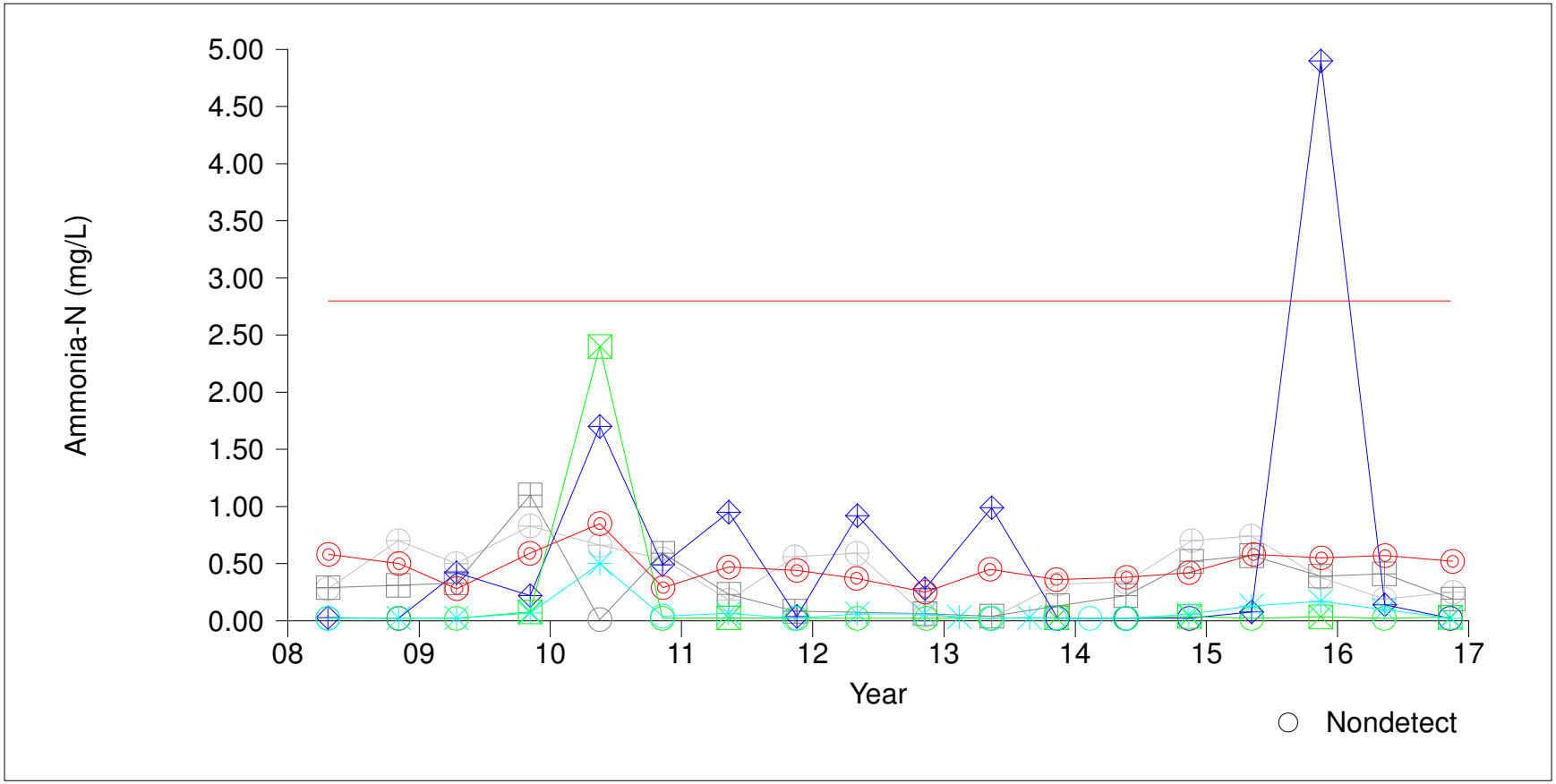
Time Series Plot for Ammonia-N, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

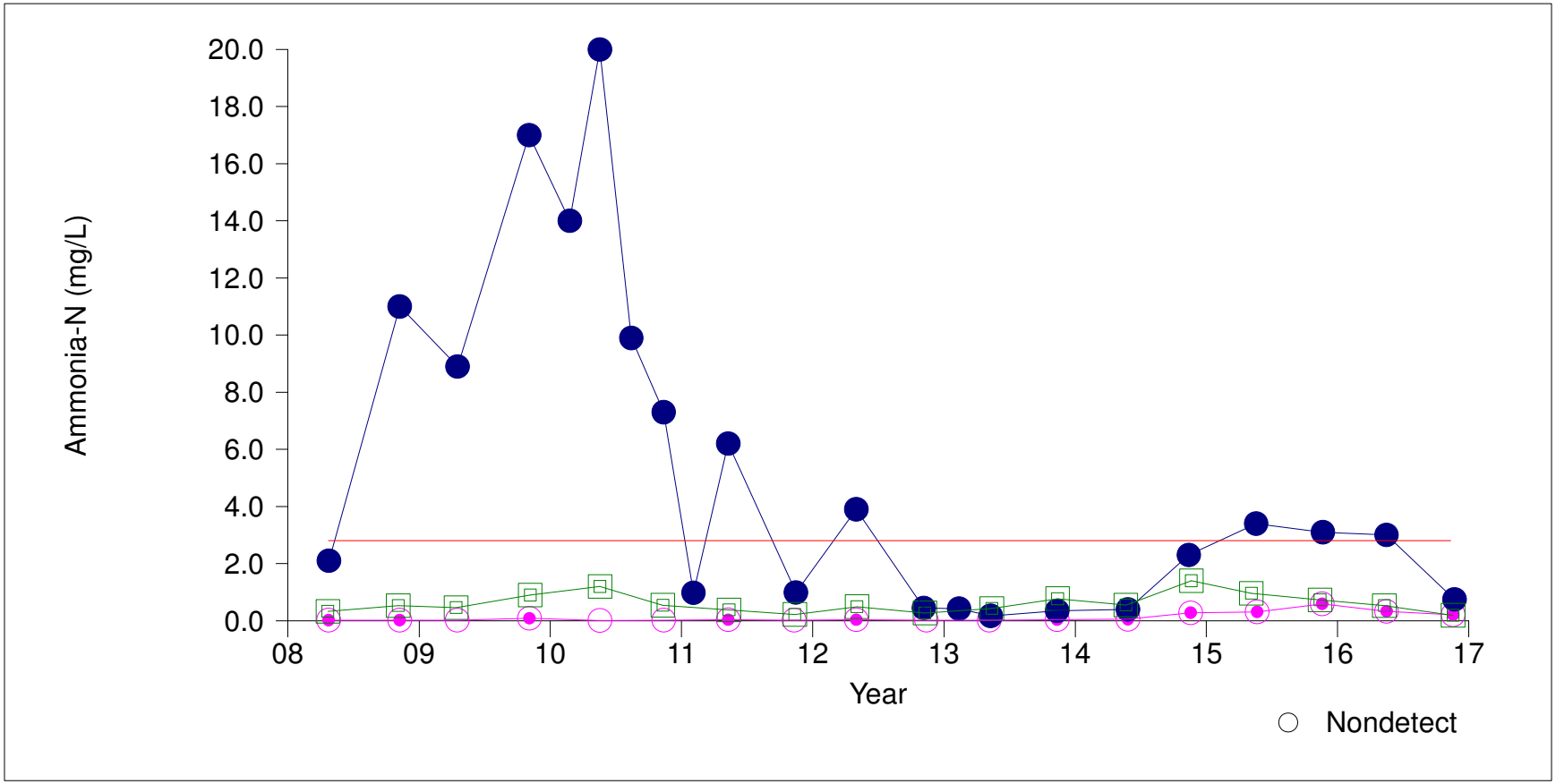
Time Series Plot for Ammonia-N, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

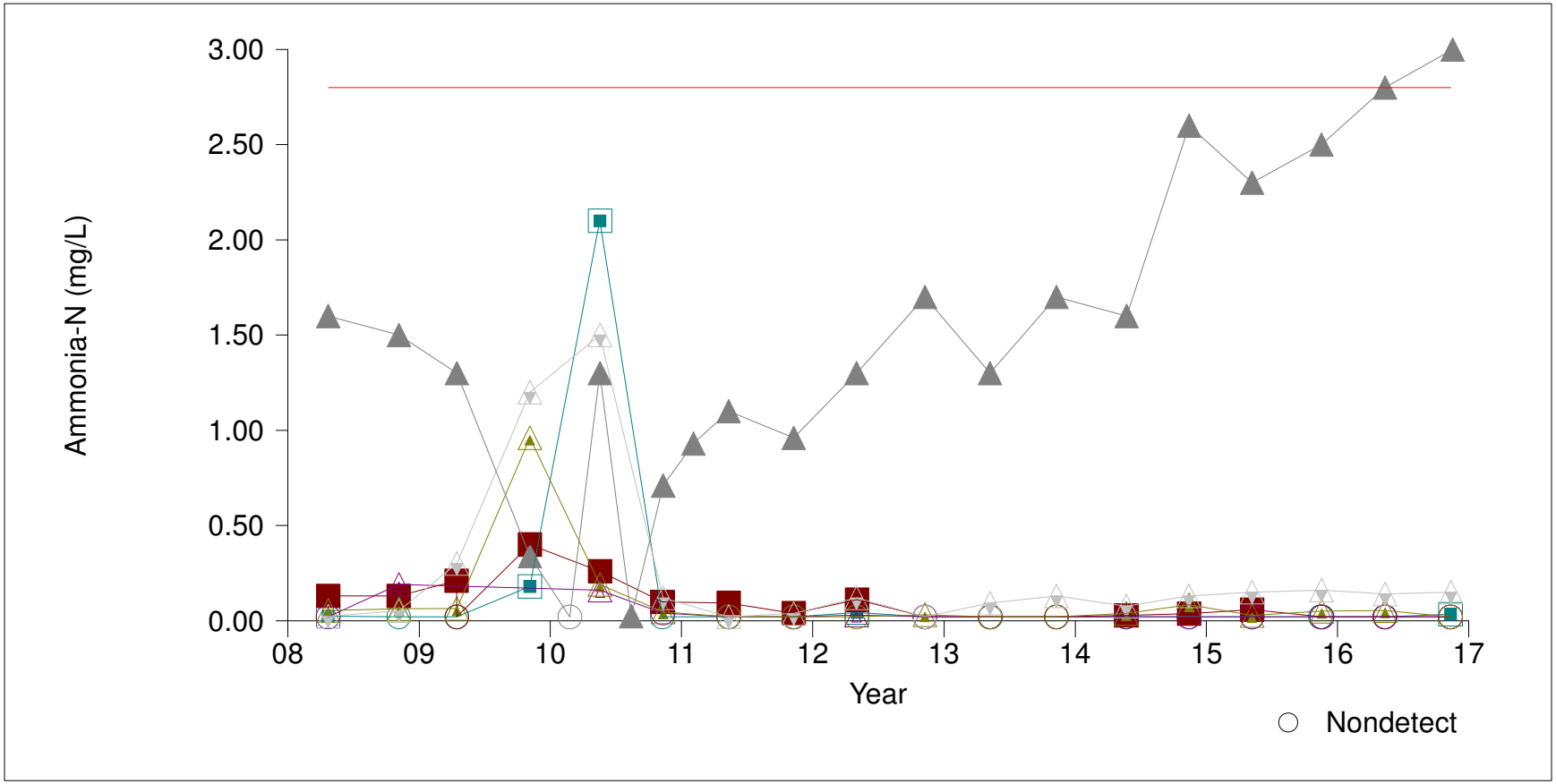
Time Series Plot for Ammonia-N, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

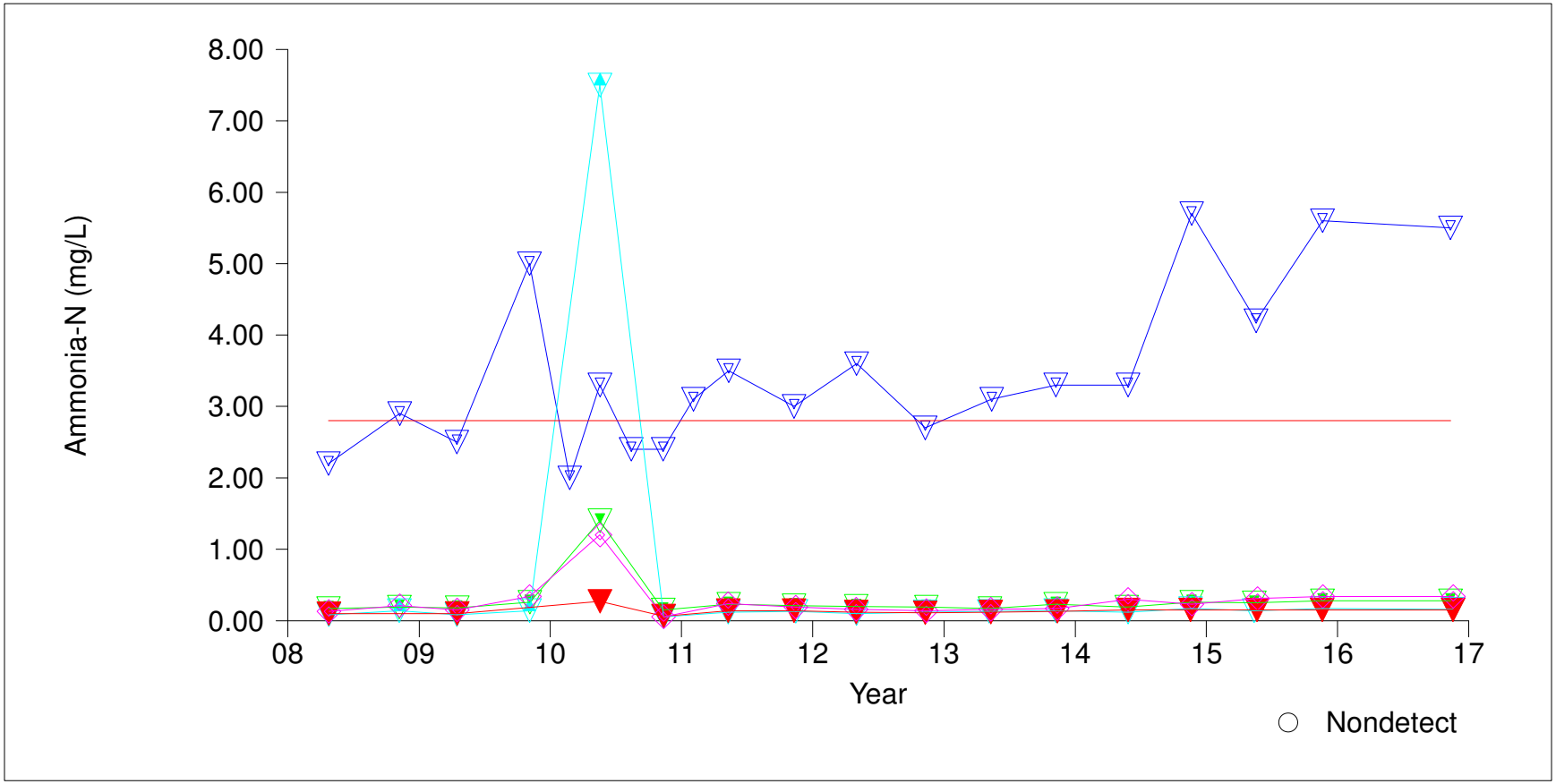
Time Series Plot for Ammonia-N, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

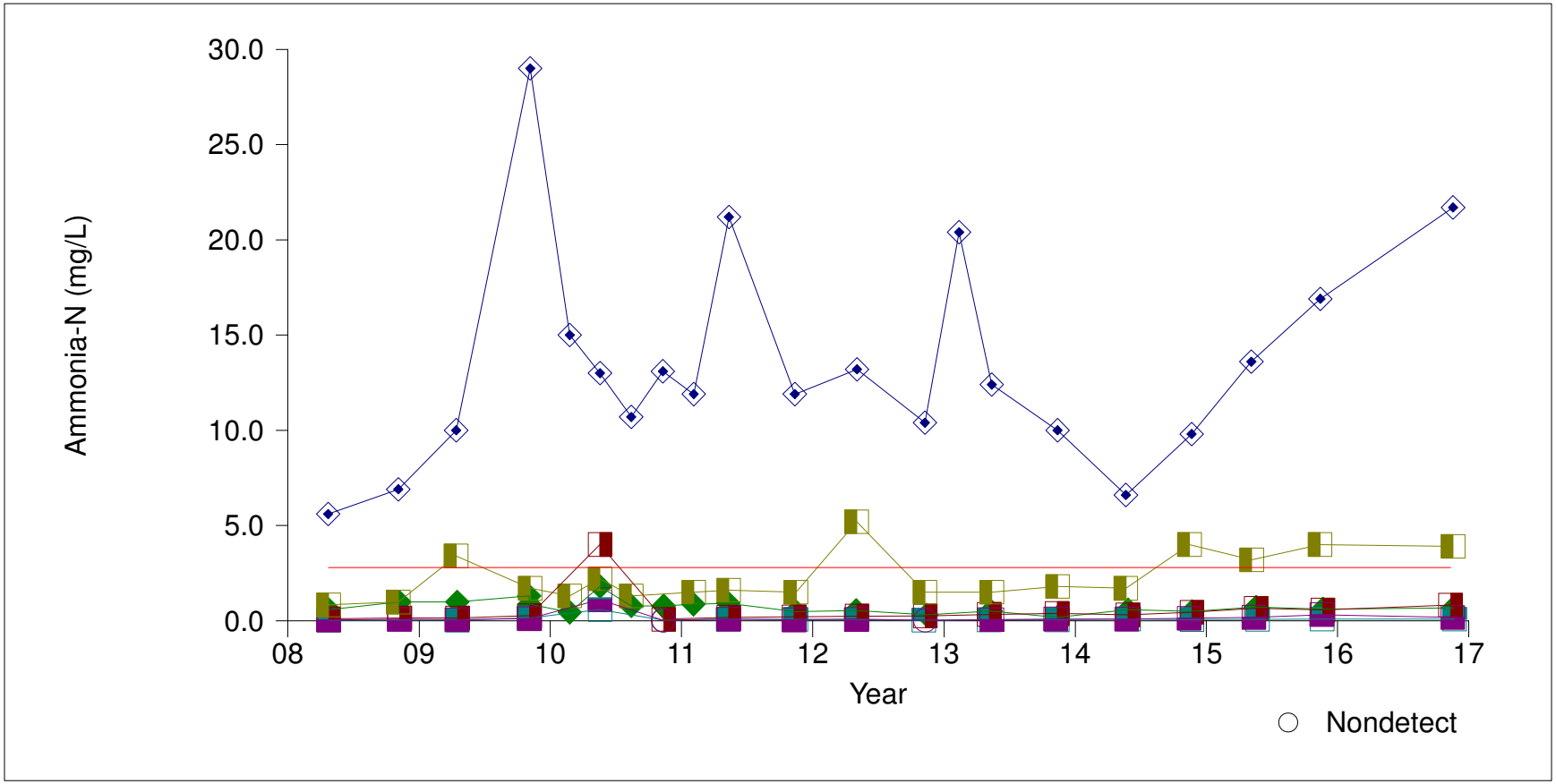
Time Series Plot for Ammonia-N, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

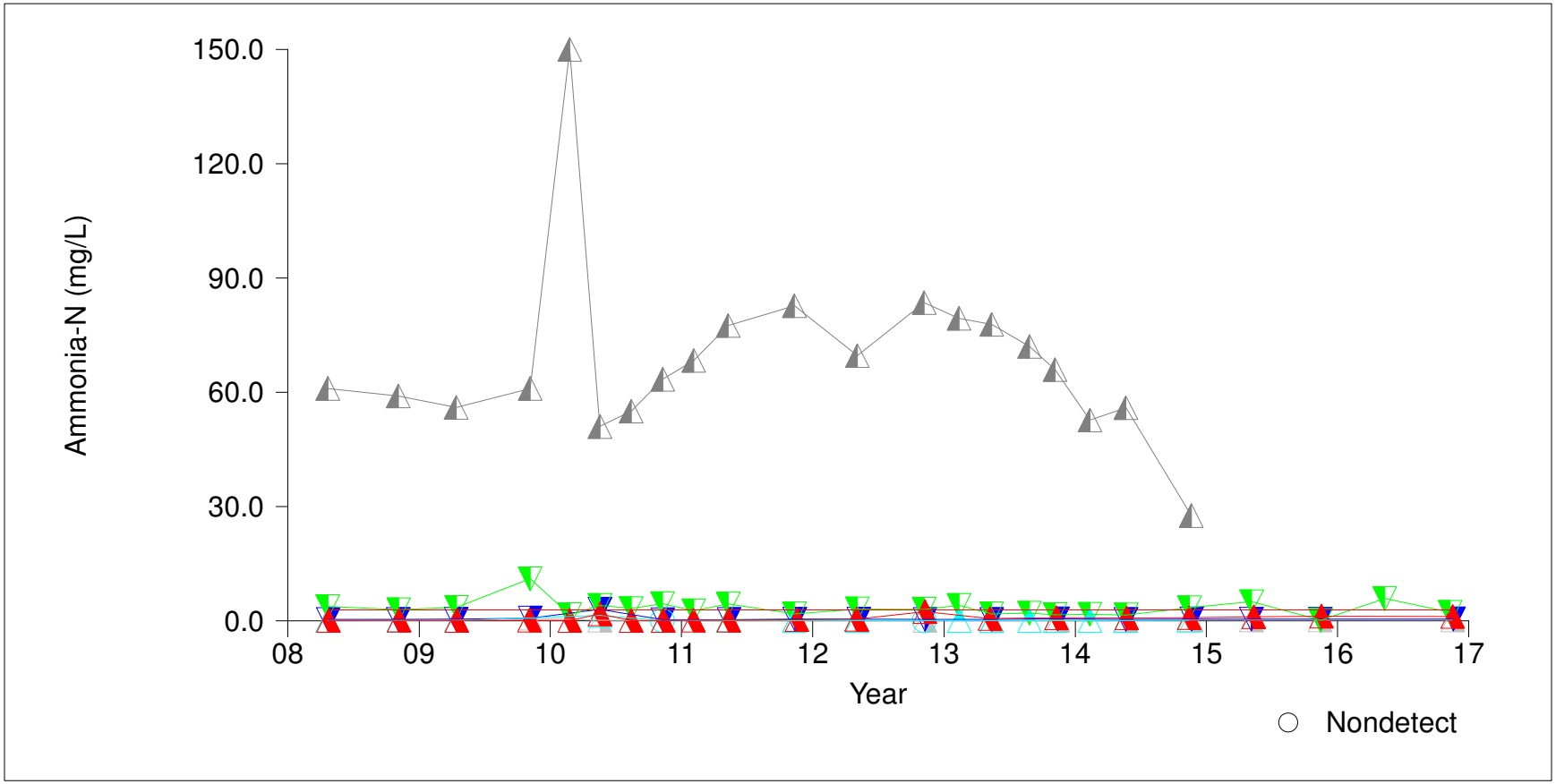
Time Series Plot for Ammonia-N, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

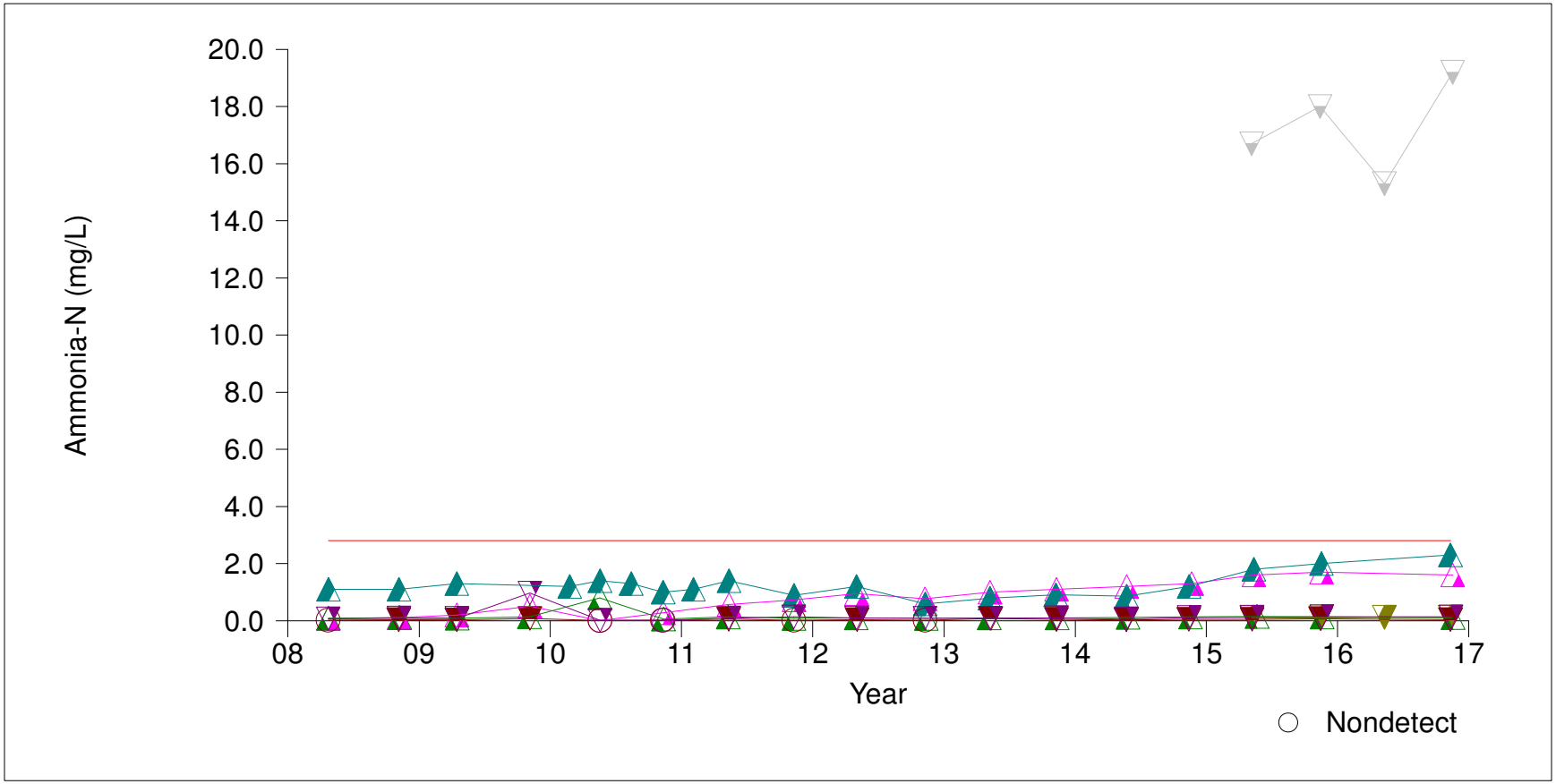
Time Series Plot for Ammonia-N, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

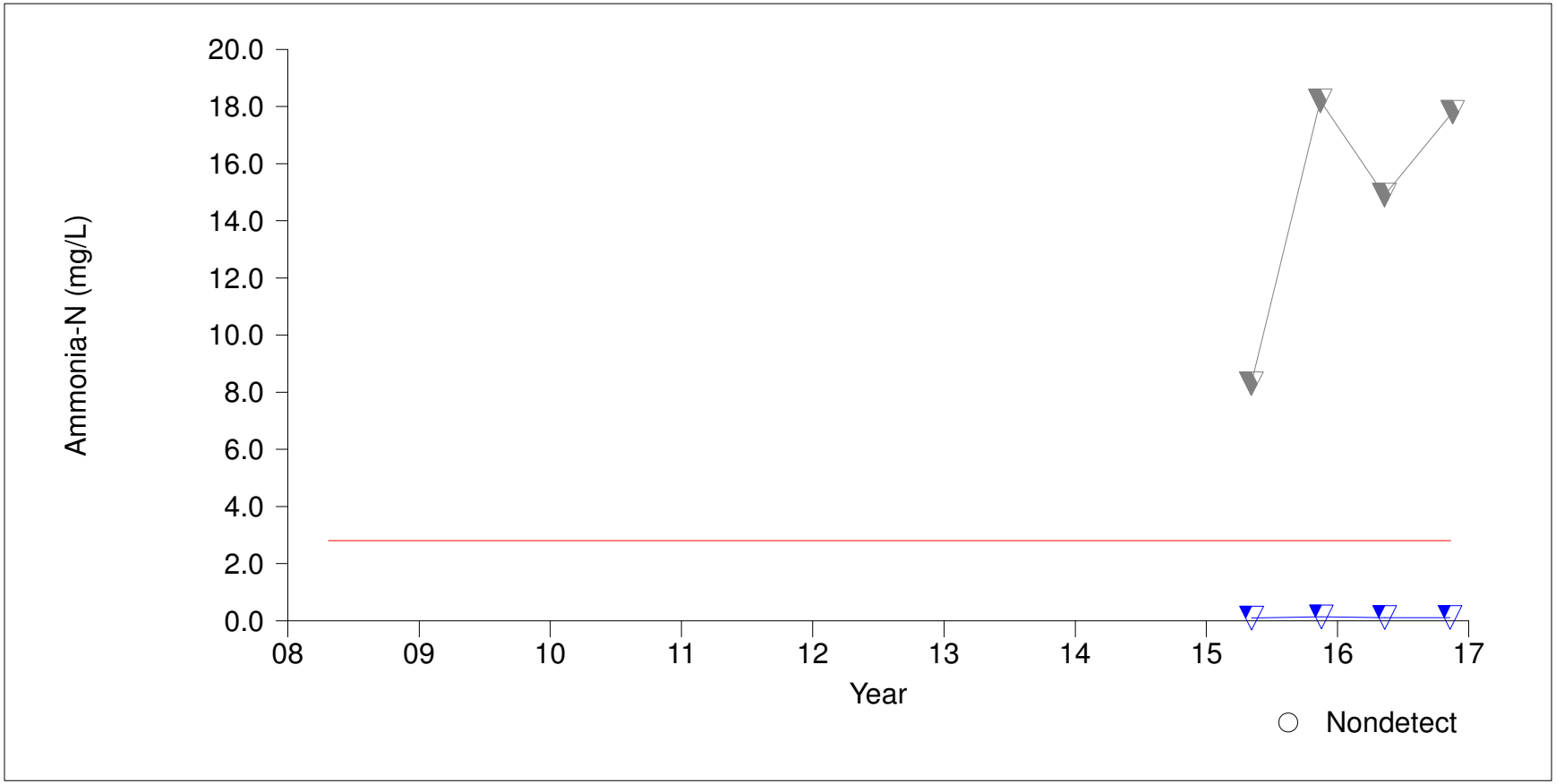
Time Series Plot for Ammonia-N, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

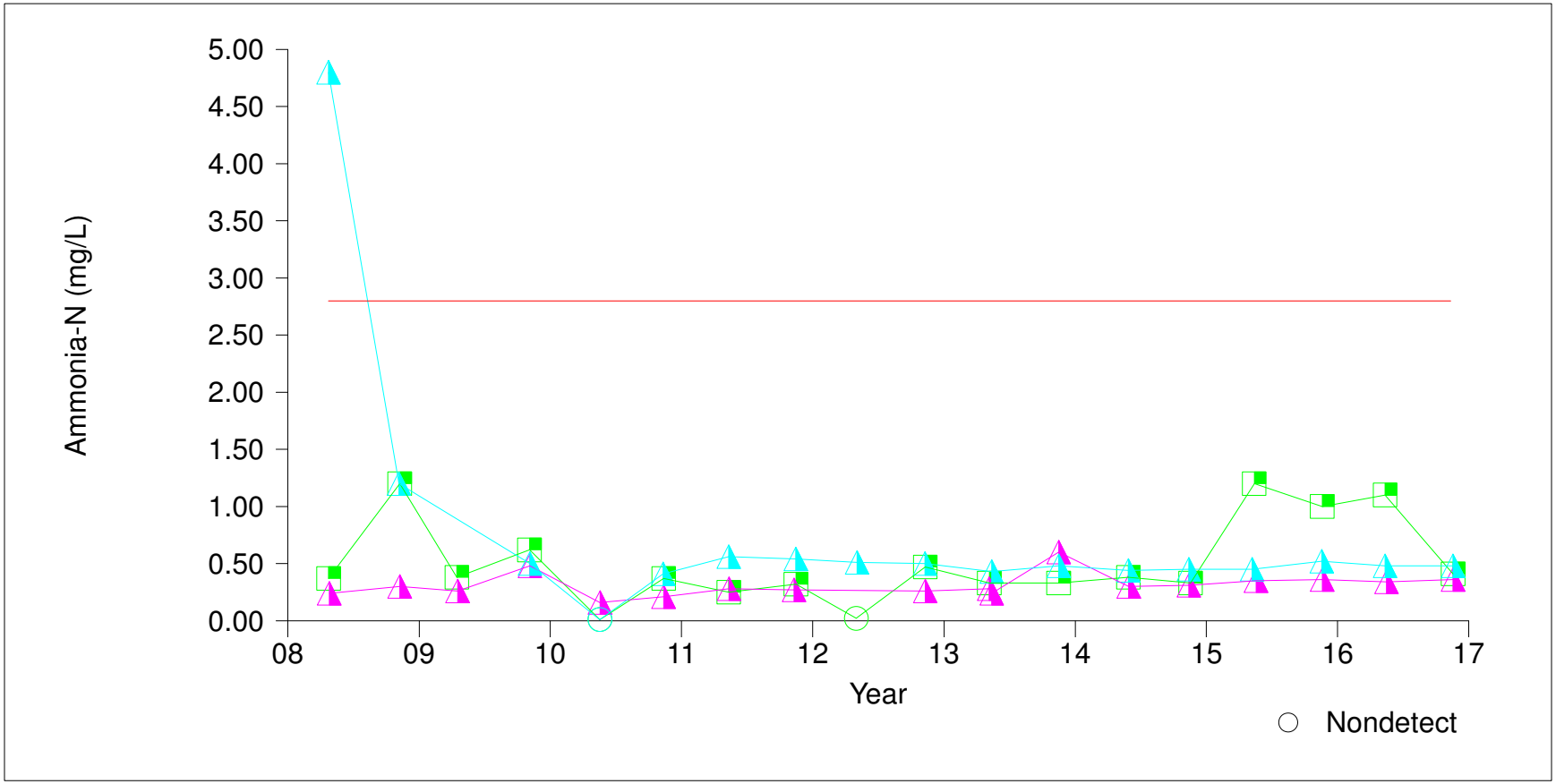
Time Series Plot for Ammonia-N, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

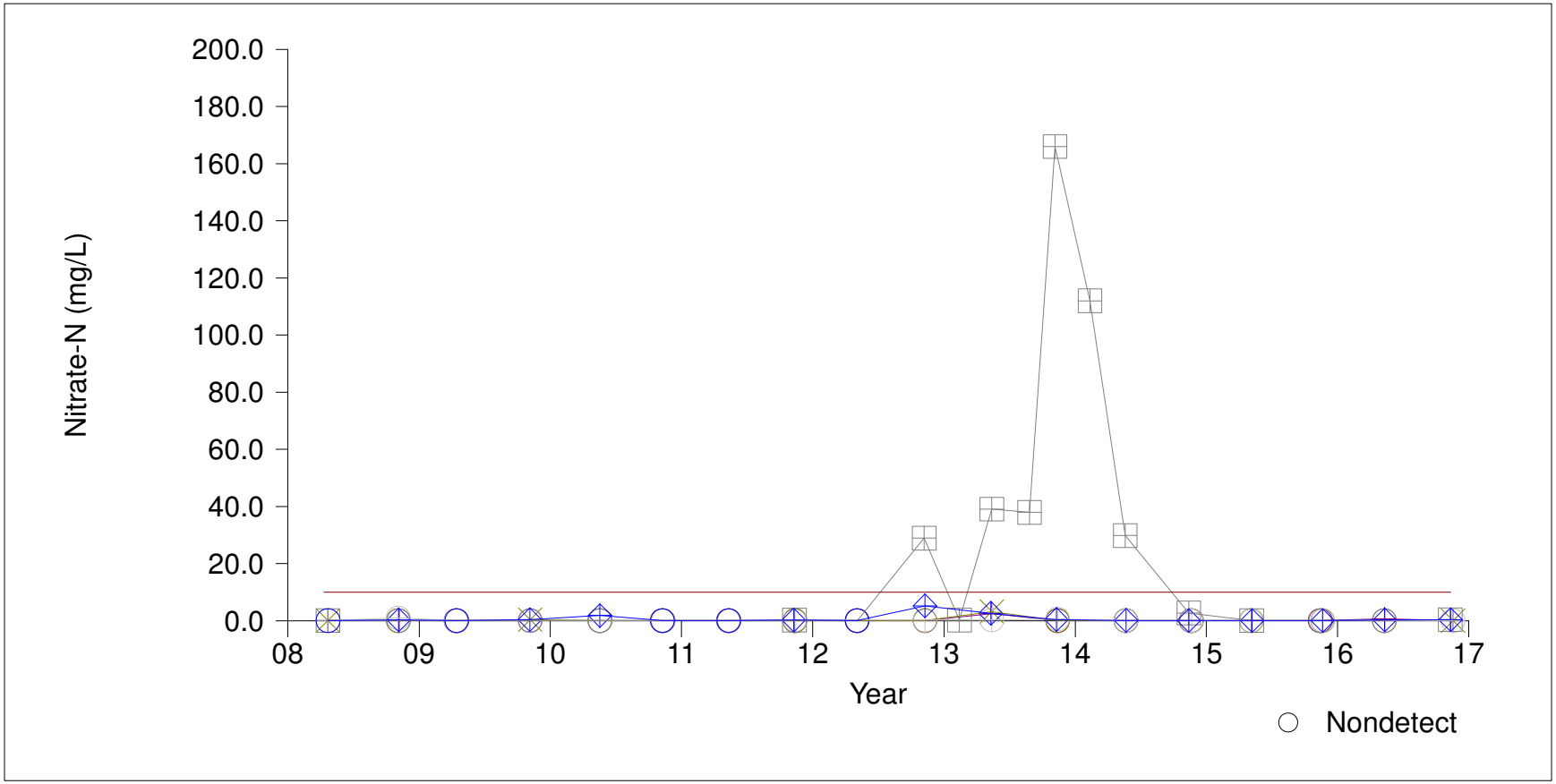
Time Series Plot for Ammonia-N, Floridan Aquifer Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

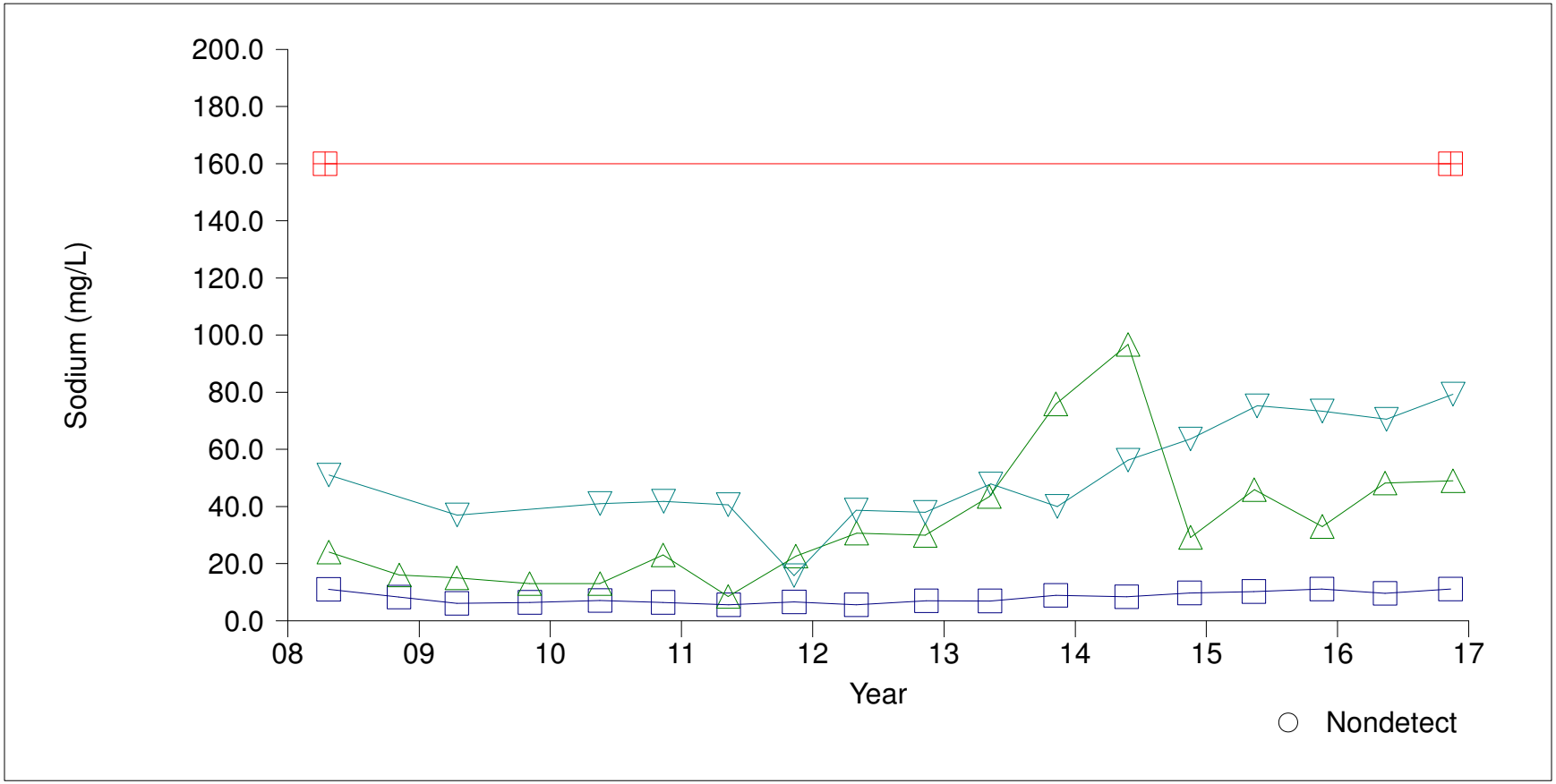
Time Series Plot for Nitrate-N, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

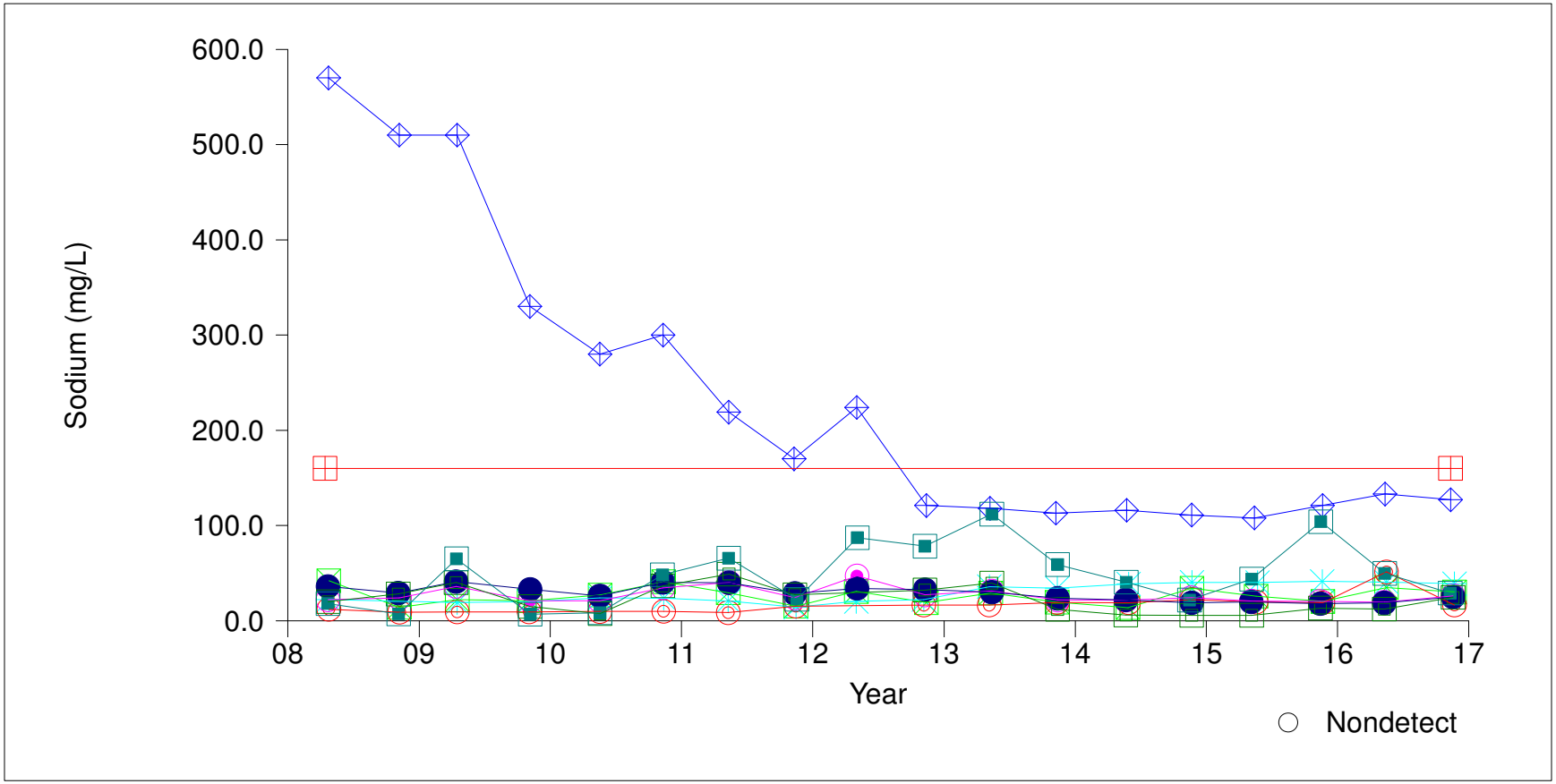
Time Series Plot for Sodium, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

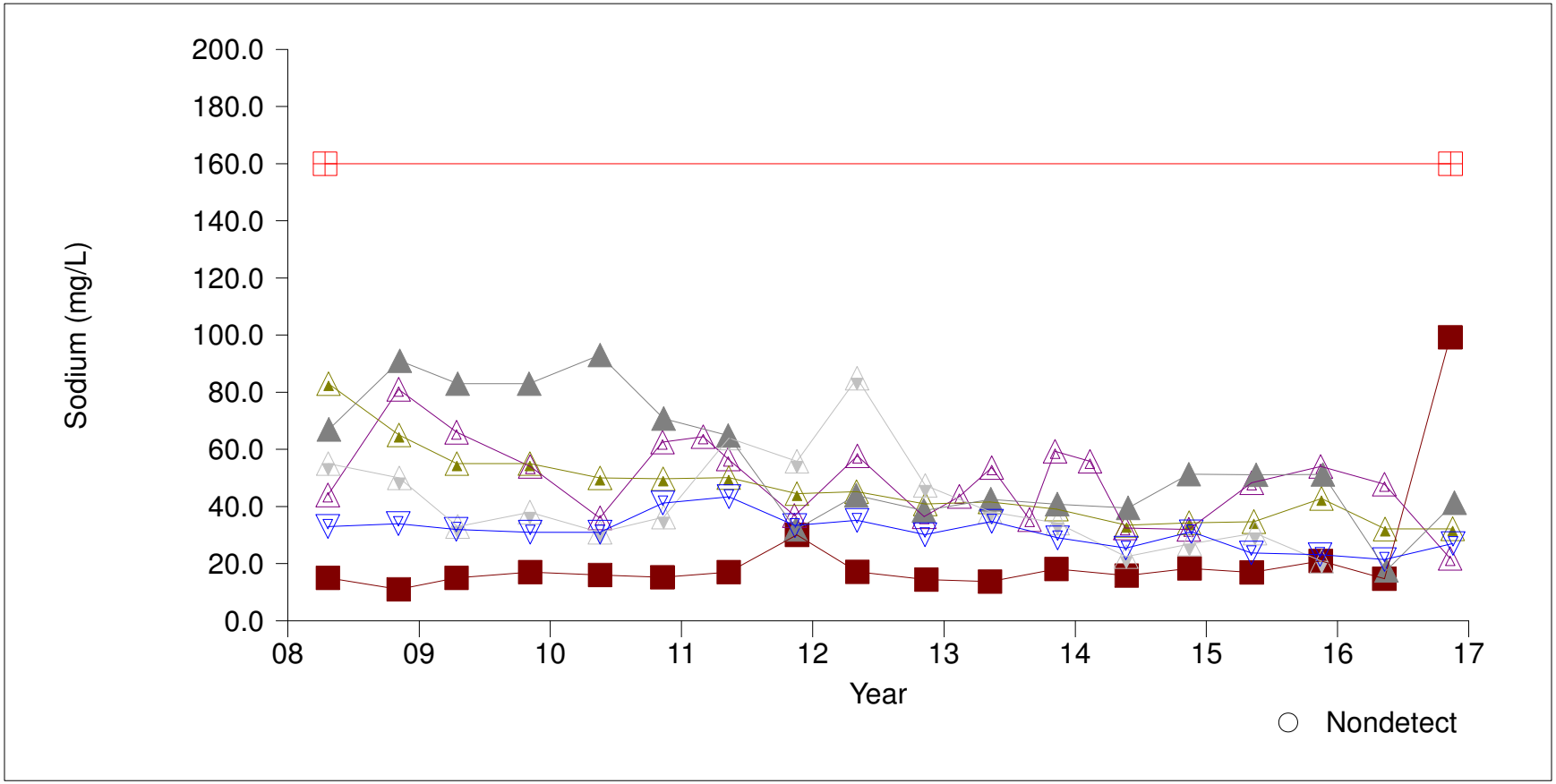
Time Series Plot for Sodium, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

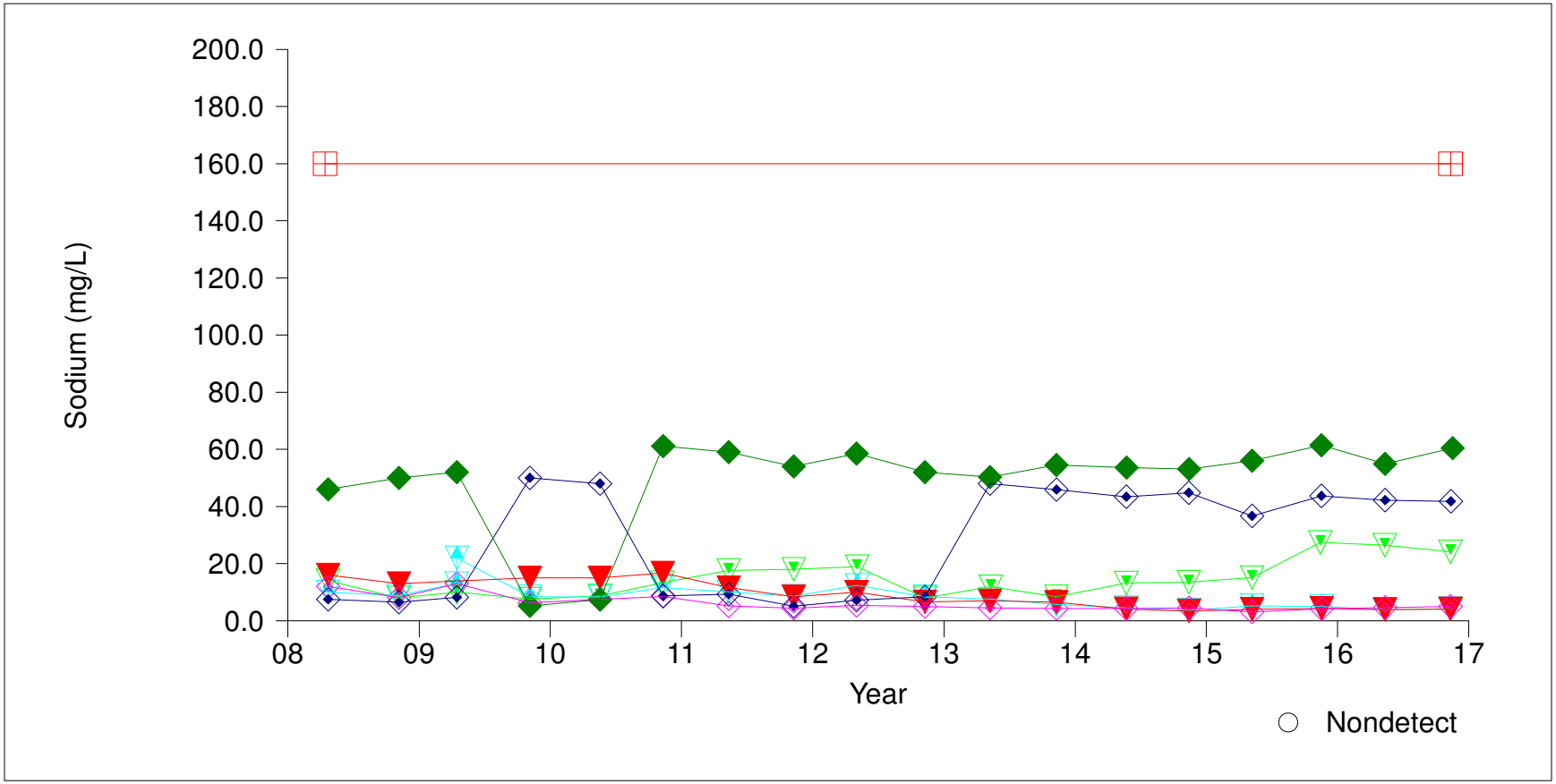
Time Series Plot for Sodium, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

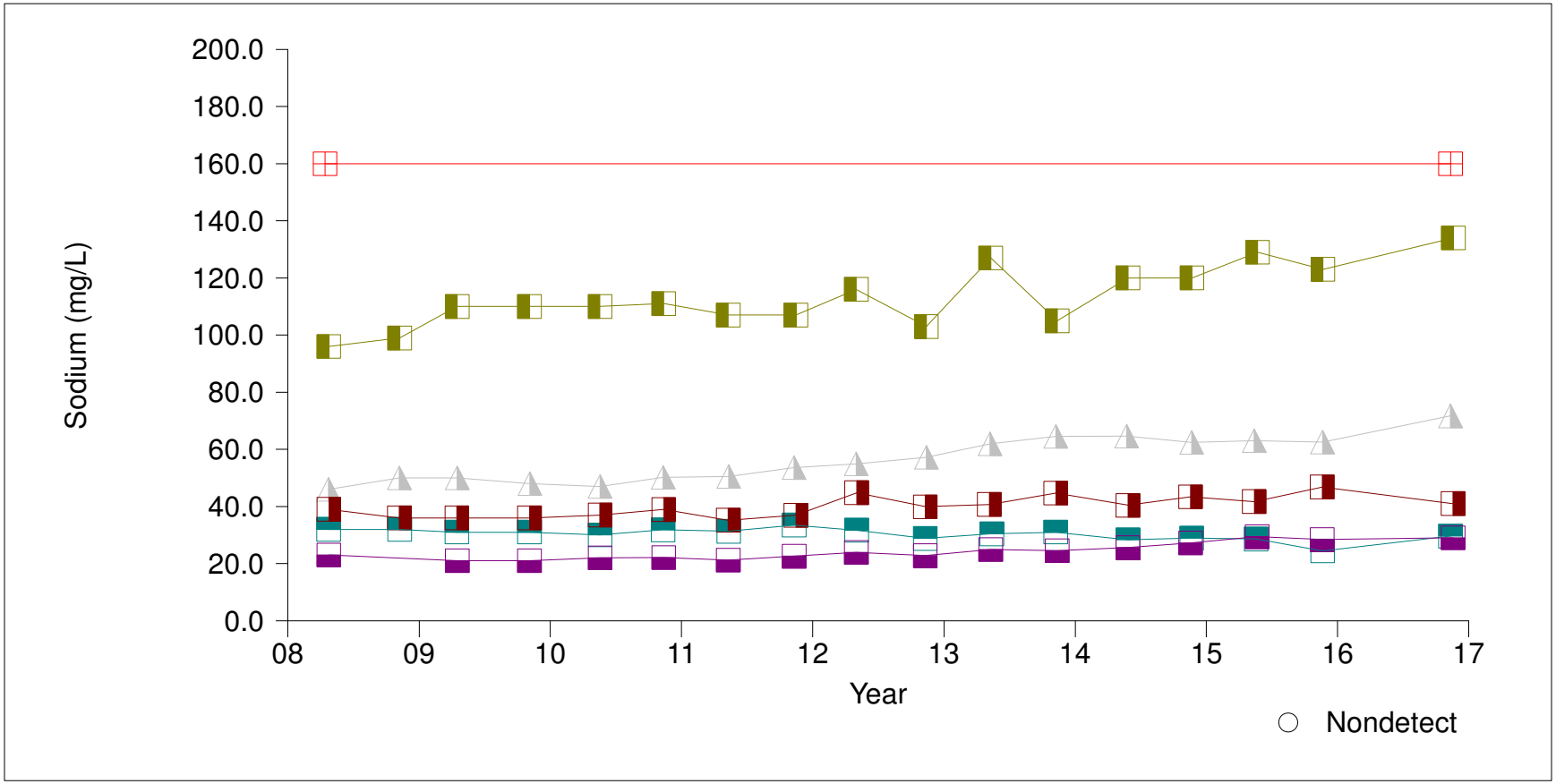
Time Series Plot for Sodium, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

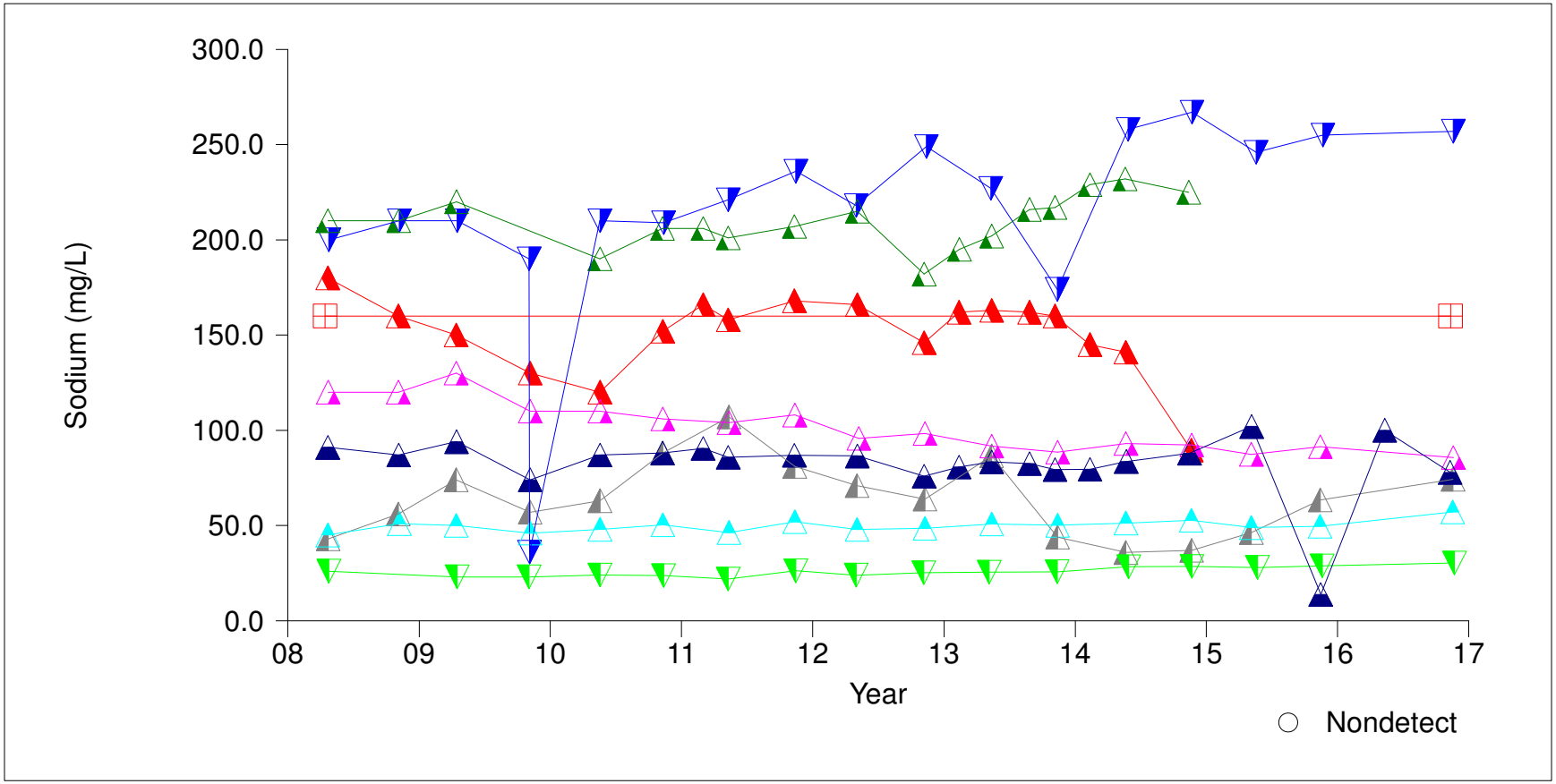
Time Series Plot for Sodium, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

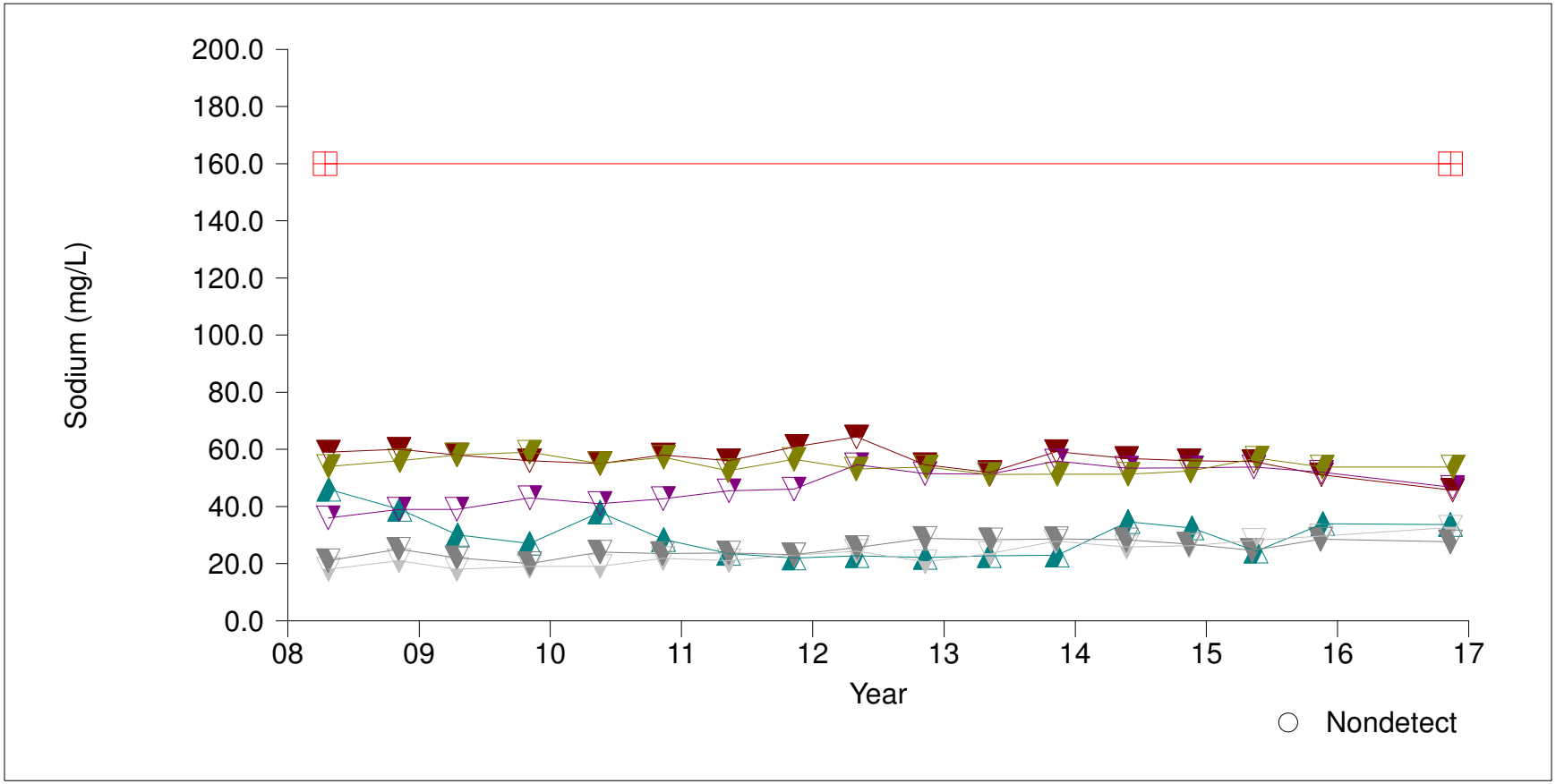
Time Series Plot for Sodium, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

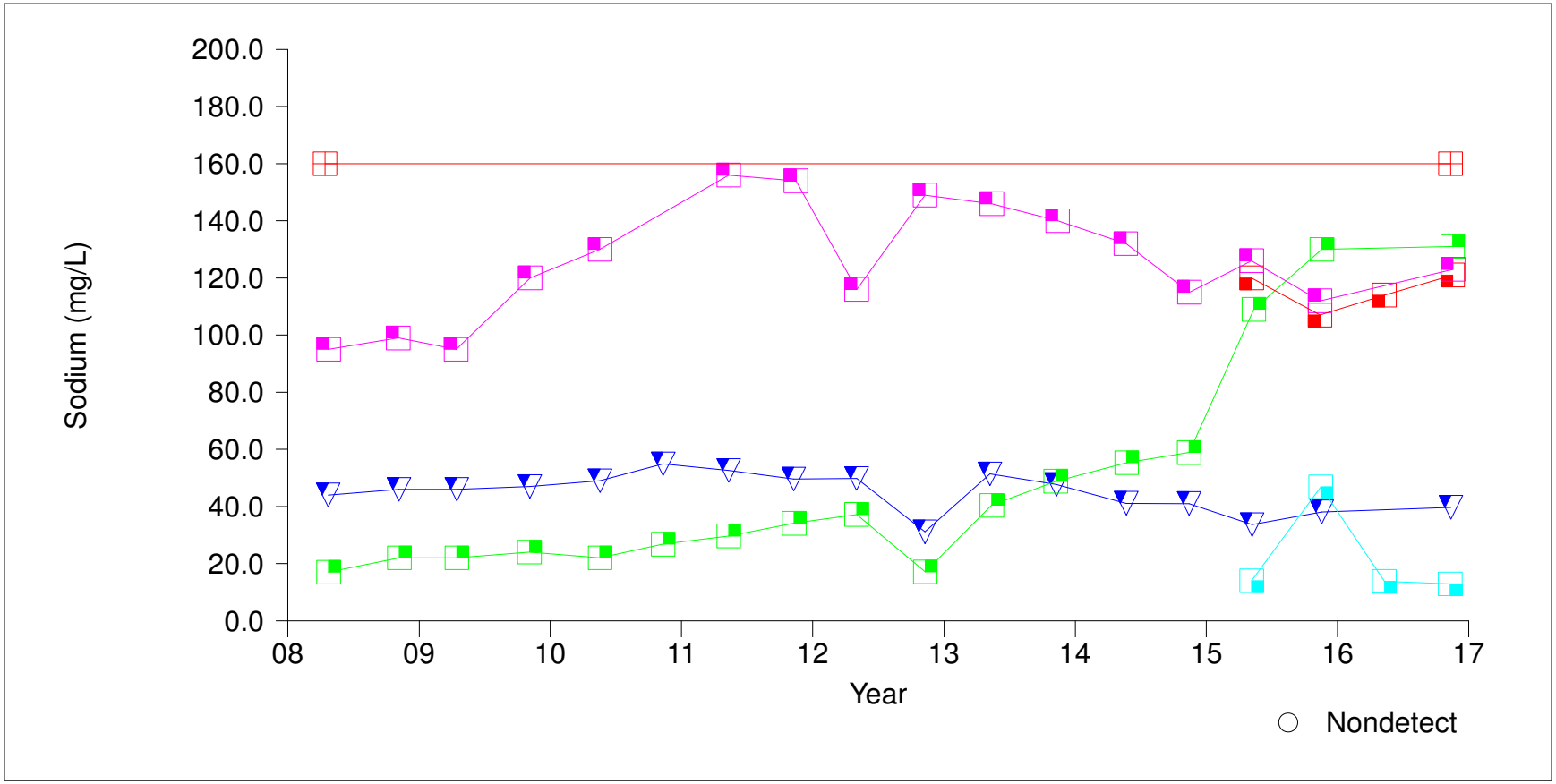
Time Series Plot for Sodium, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

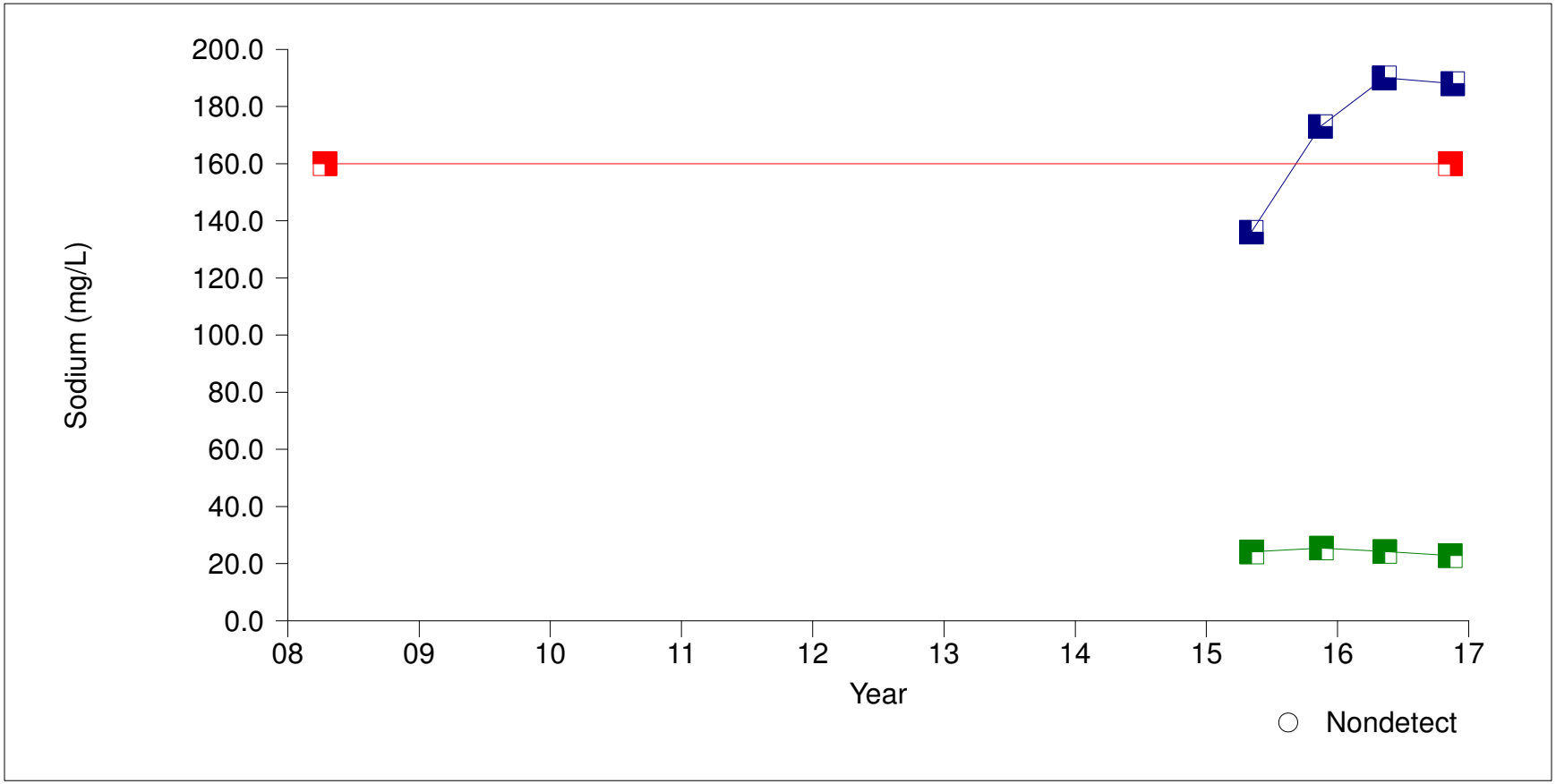
Time Series Plot for Sodium, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

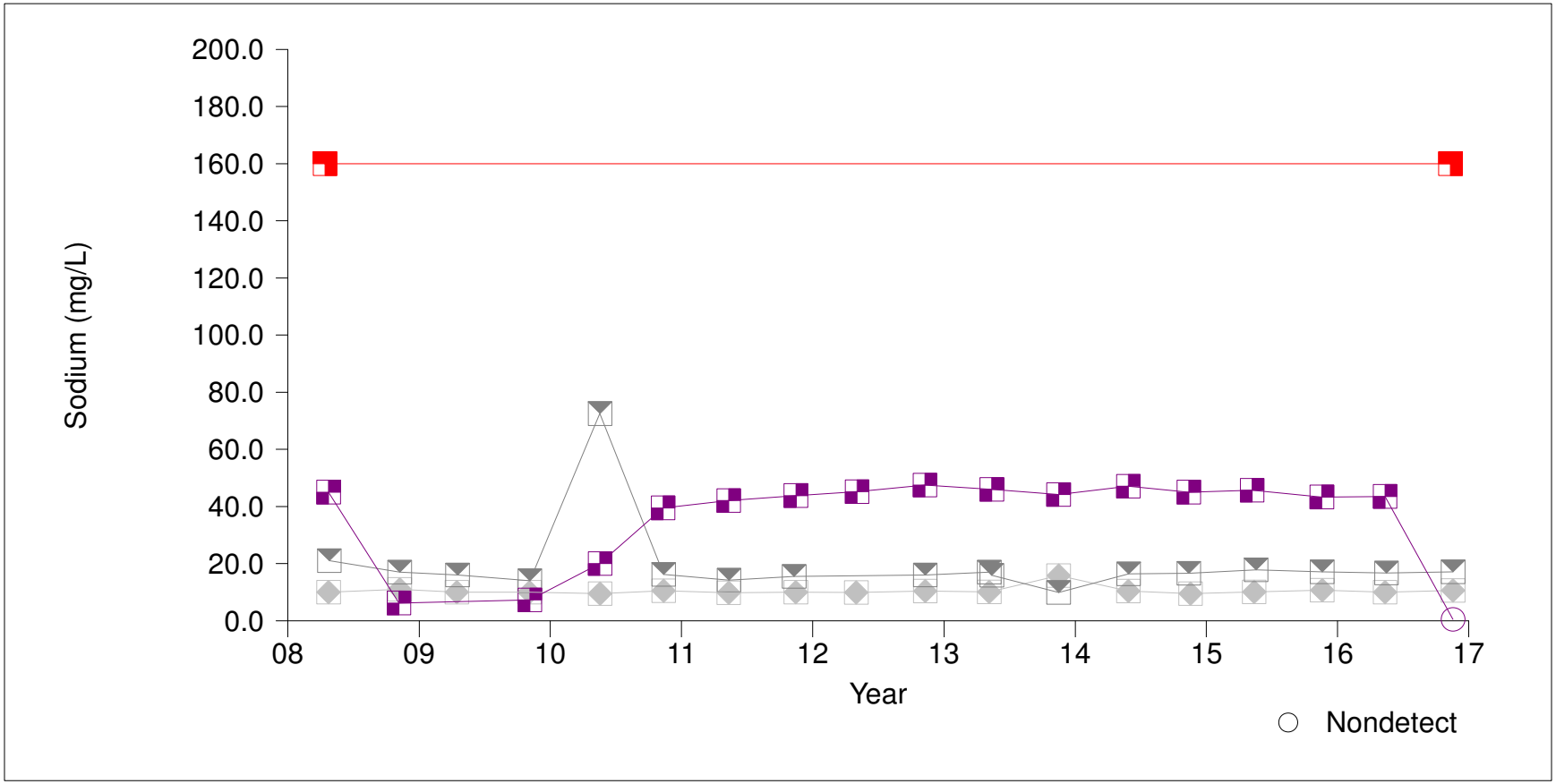
Time Series Plot for Sodium, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

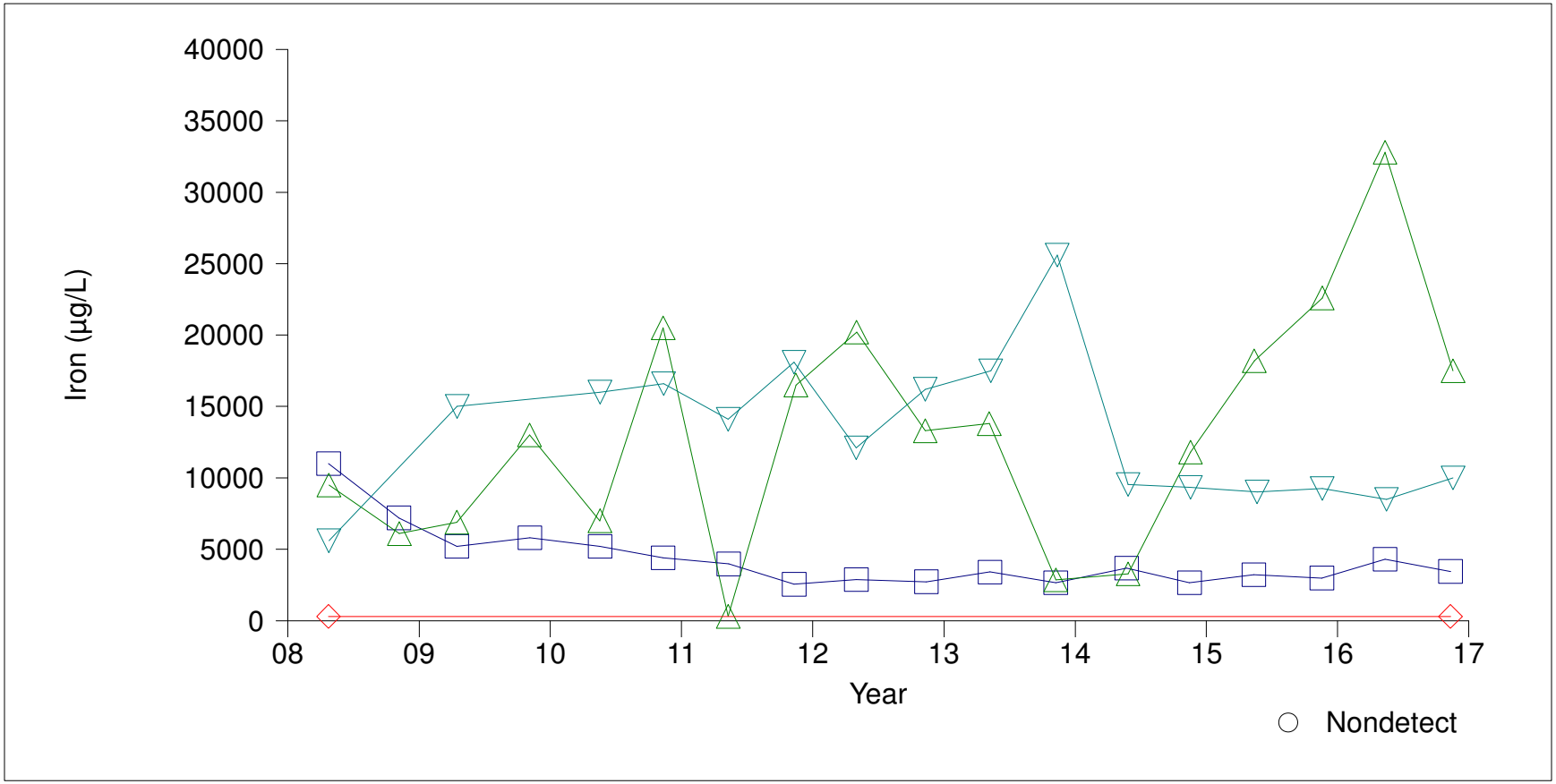
Time Series Plot for Sodium, Floridan Aquifer Wells (F-MB is Background Well)



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

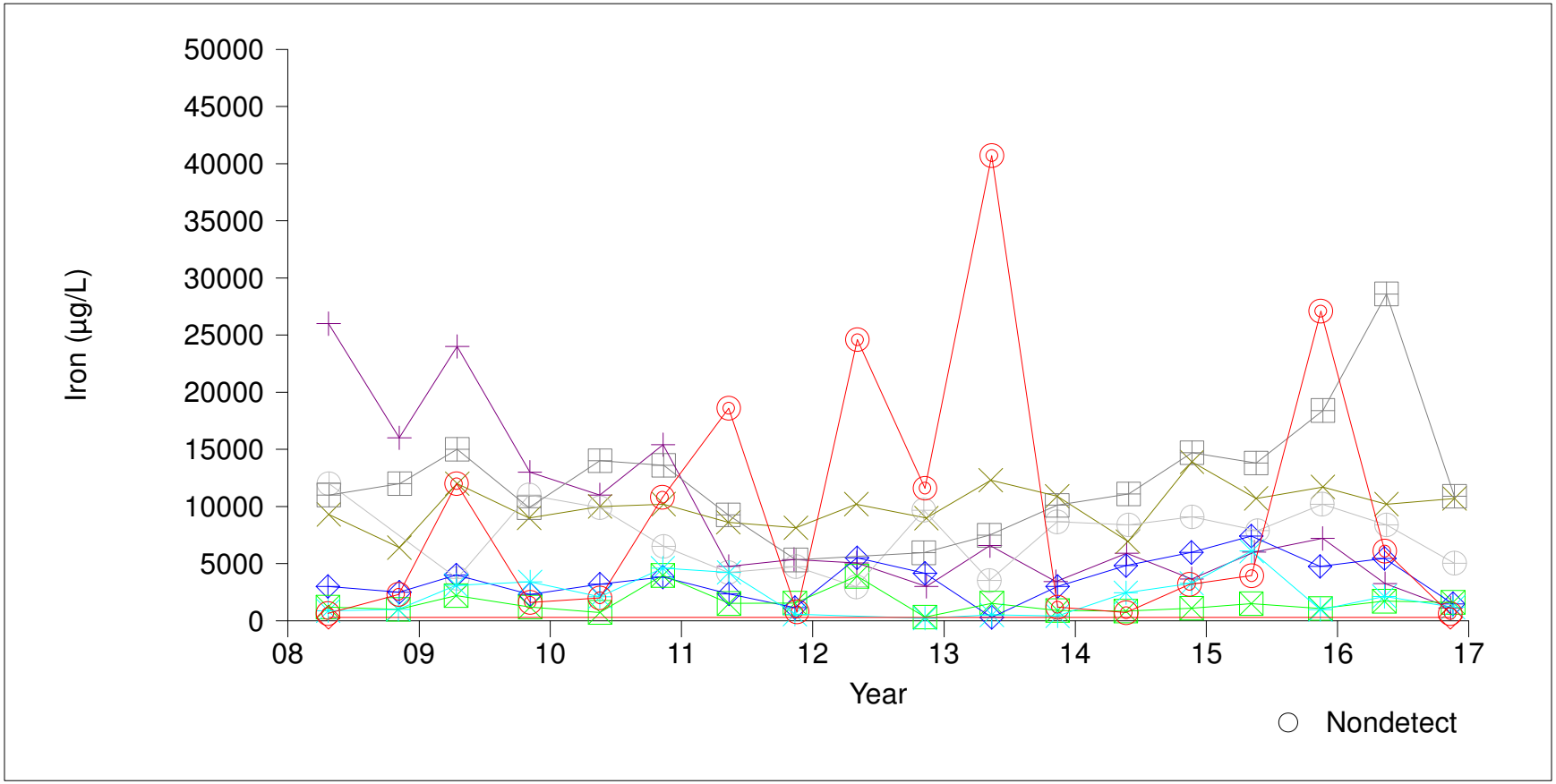
Time Series Plot for Iron, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

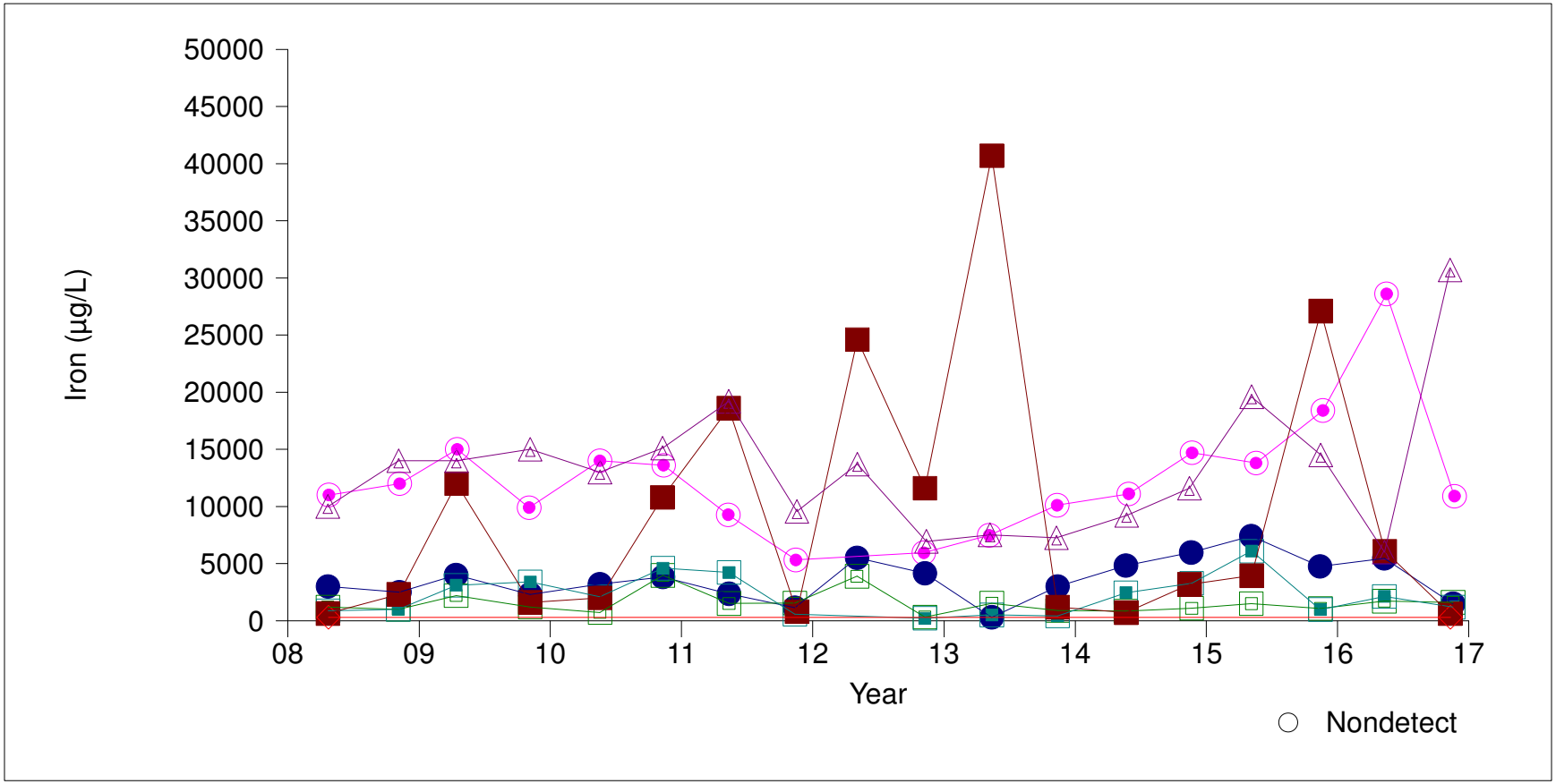
Time Series Plot for Iron, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

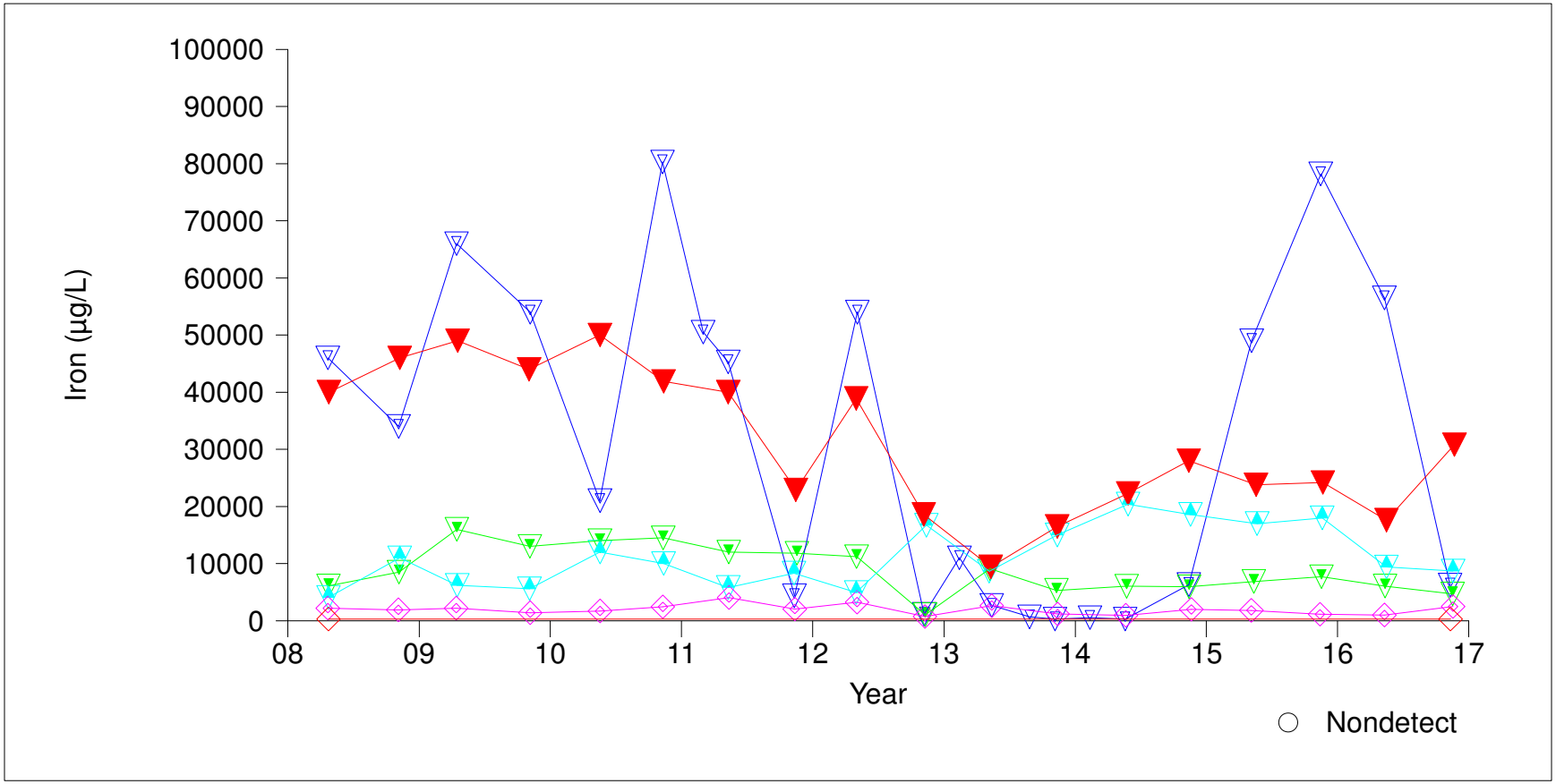
Time Series Plot for Iron, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

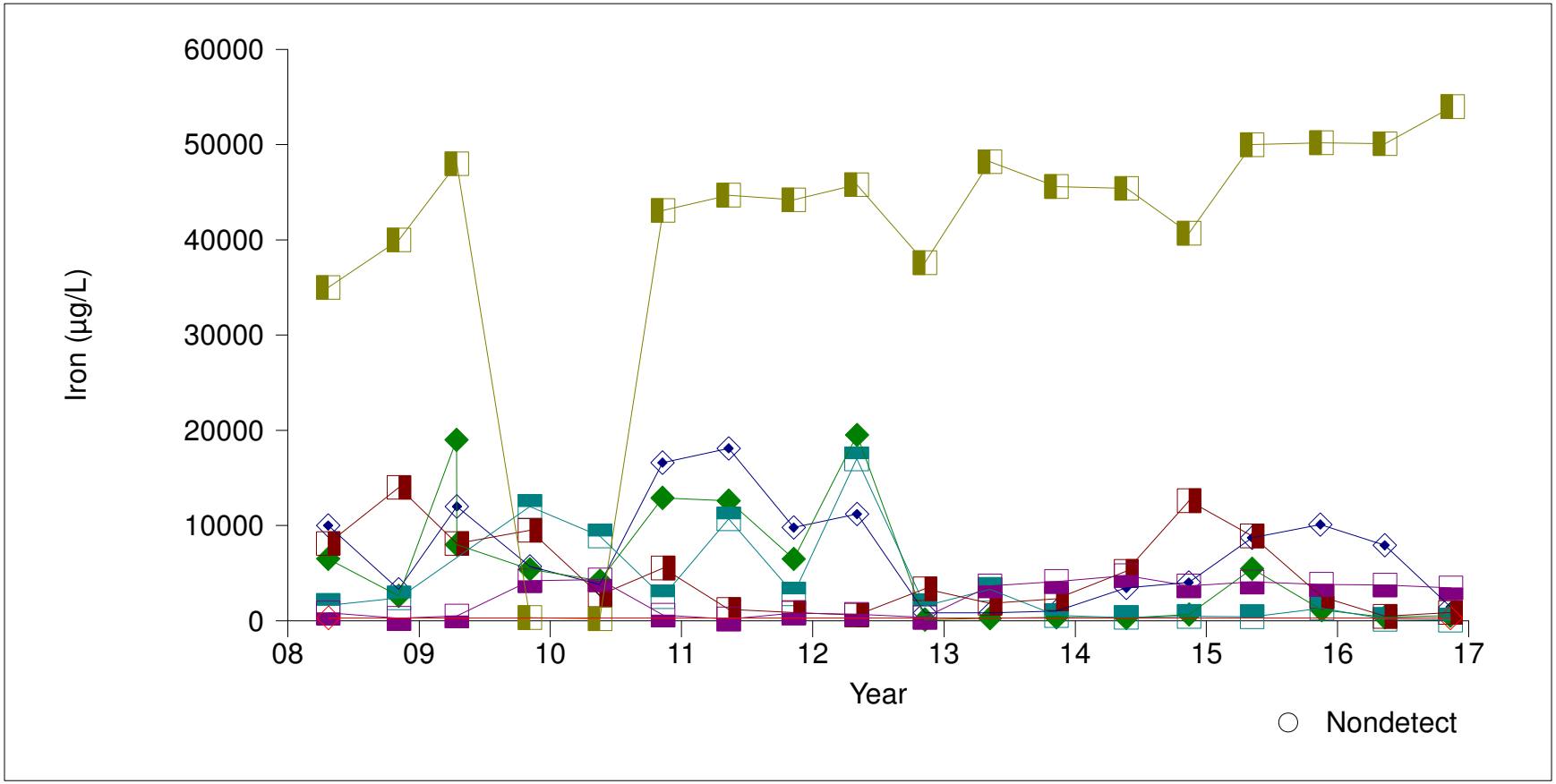
Time Series Plot for Iron, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

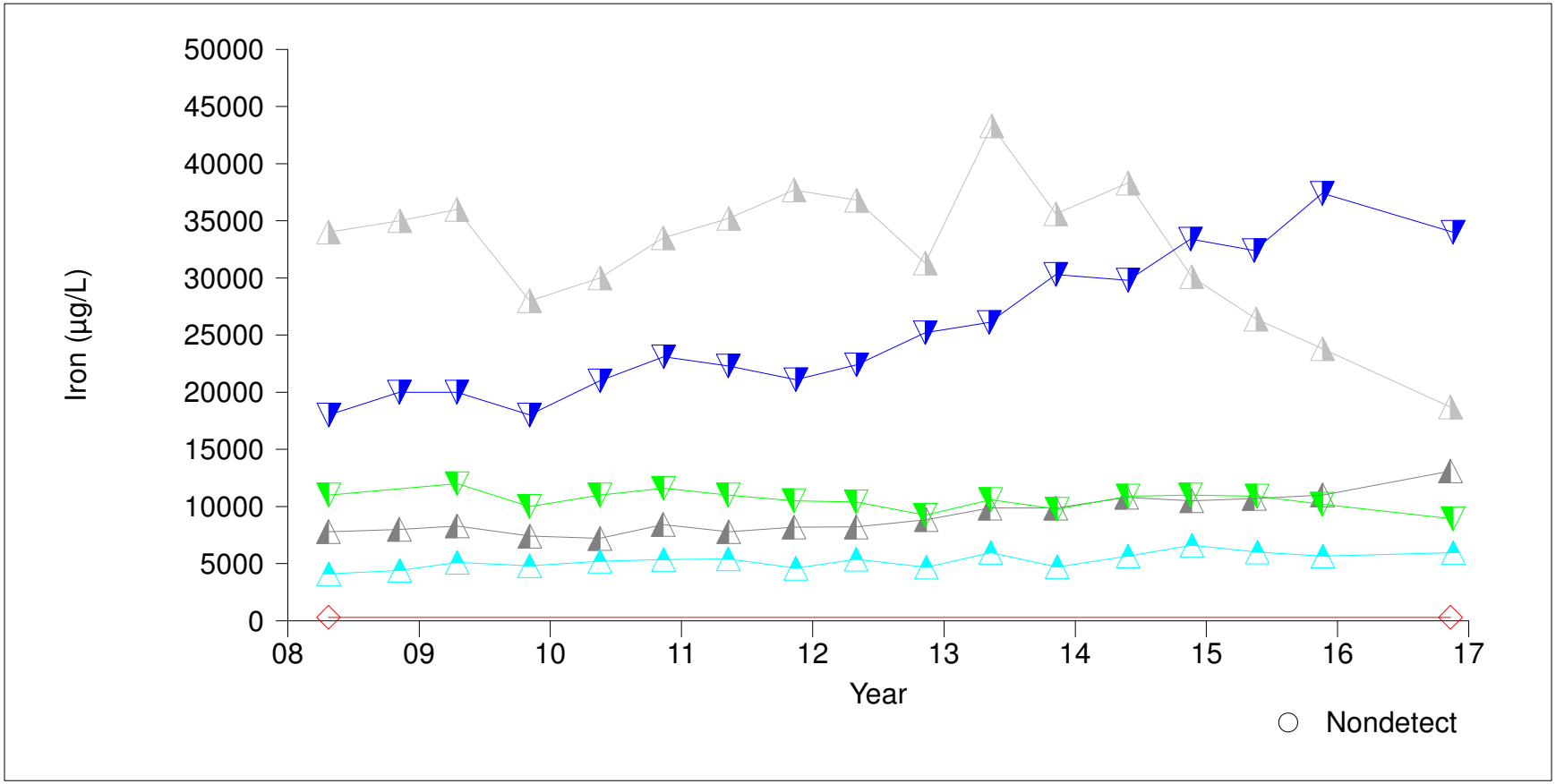
Time Series Plot for Iron, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

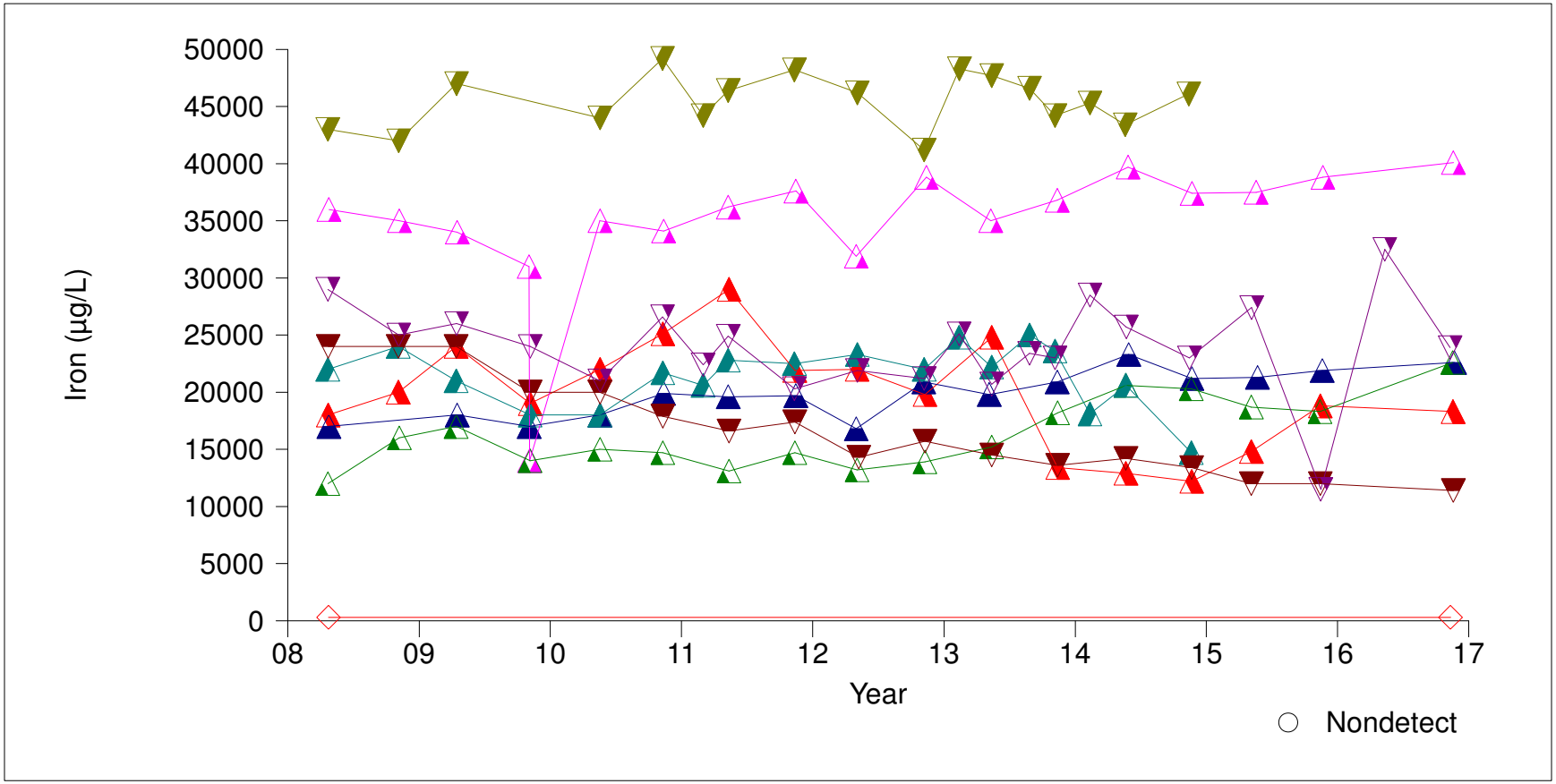
Time Series Plot for Iron, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

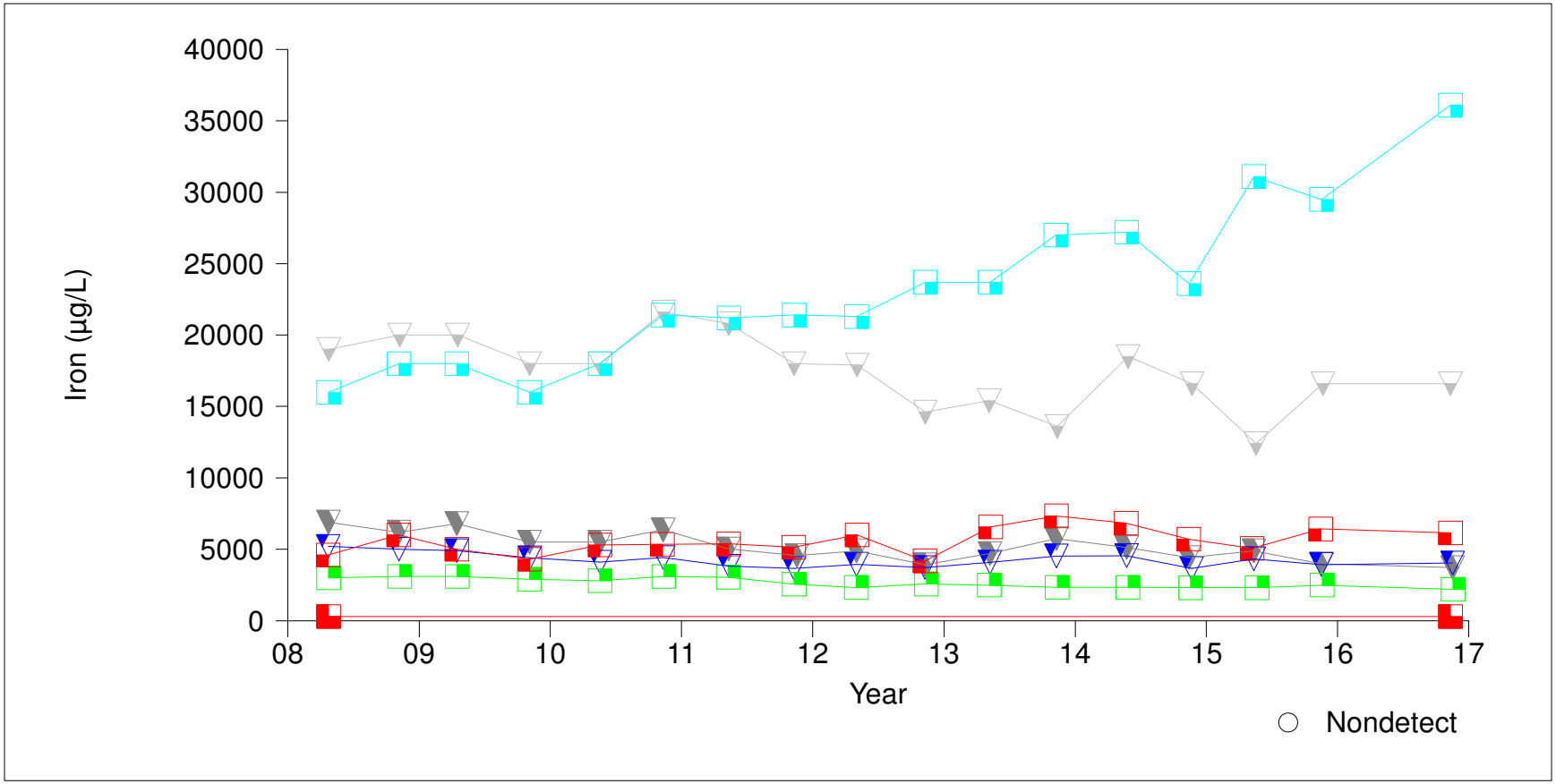
Time Series Plot for Iron, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

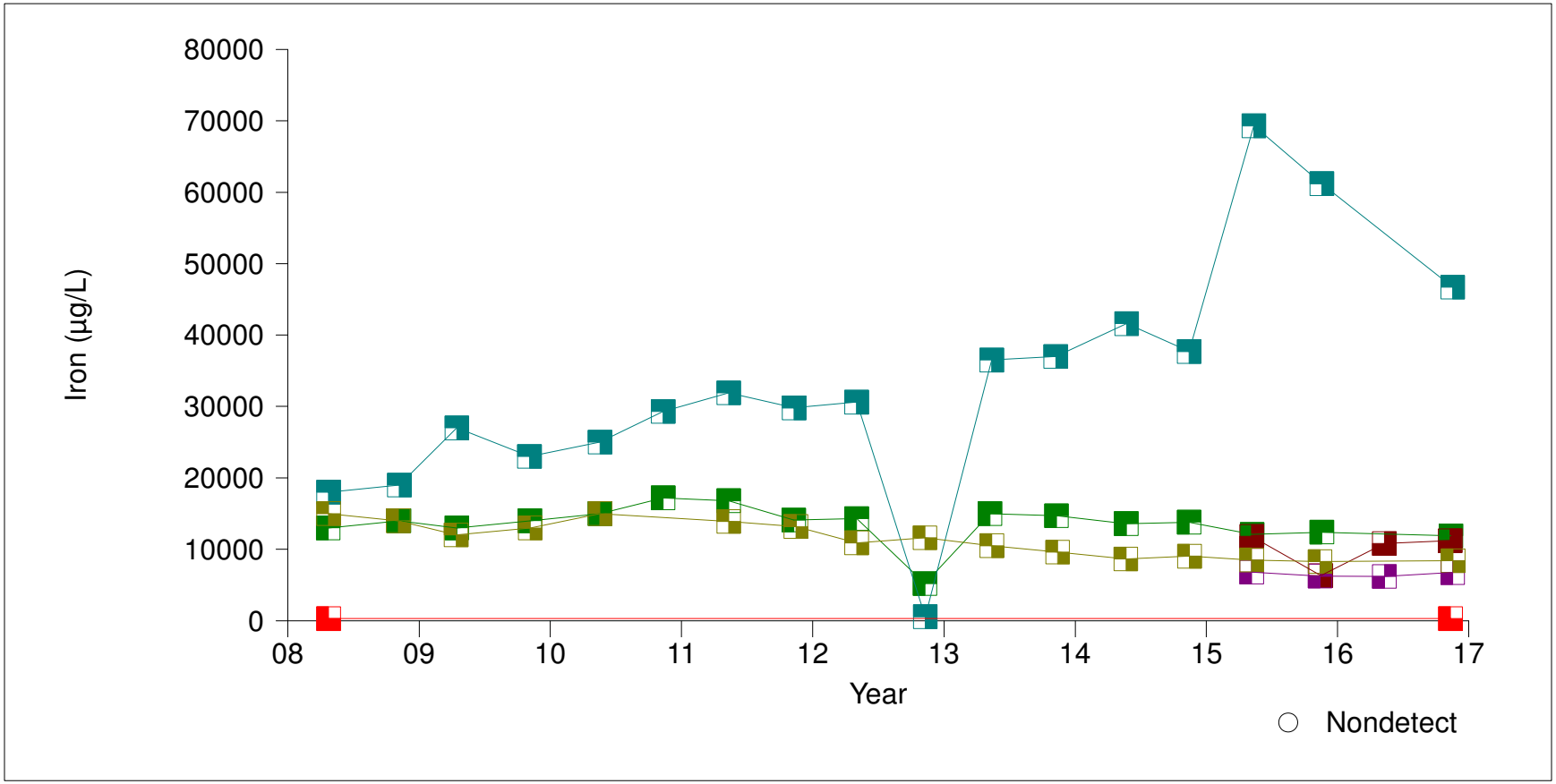
Time Series Plot for Iron, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

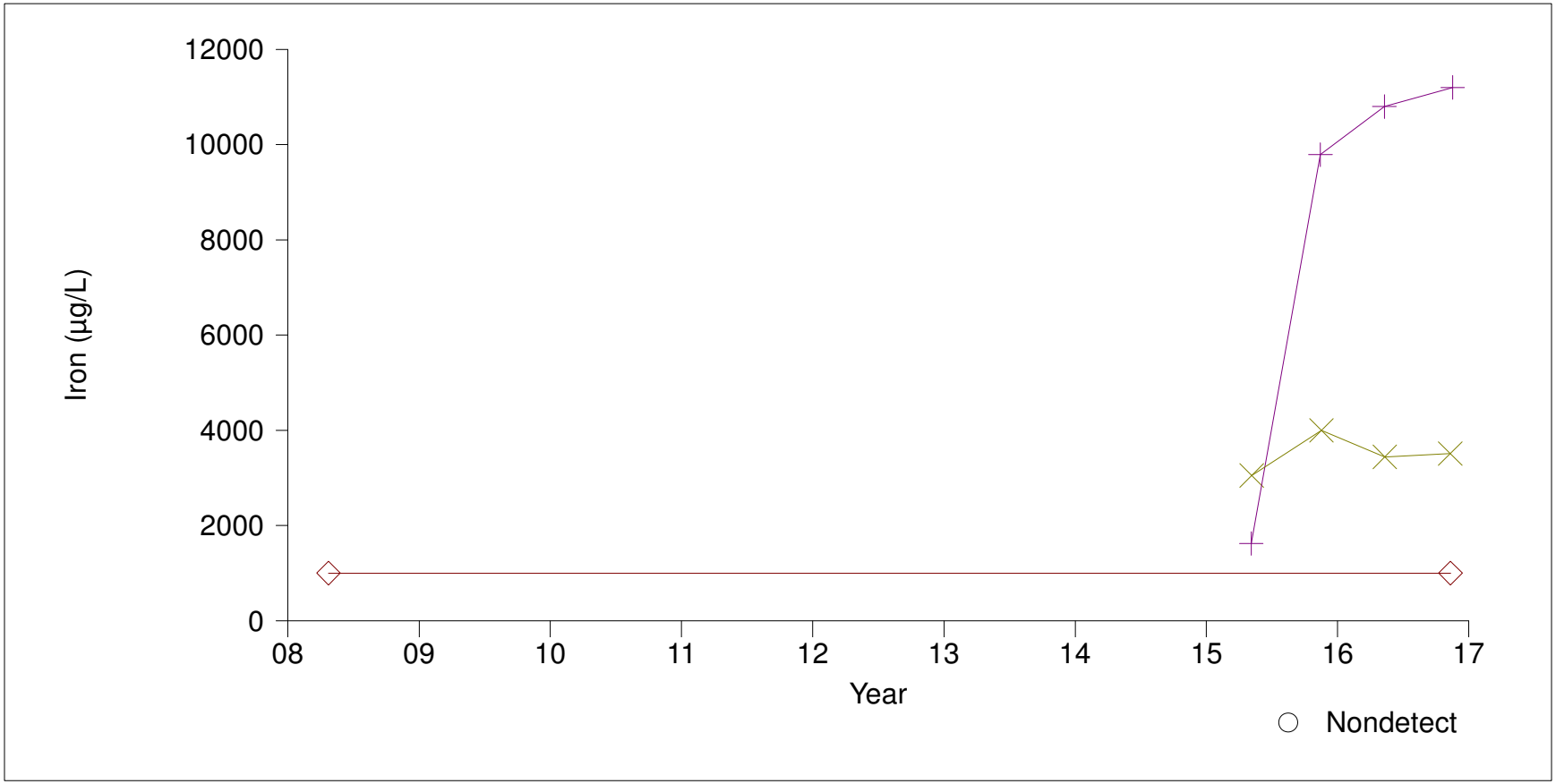
Time Series Plot for Iron, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

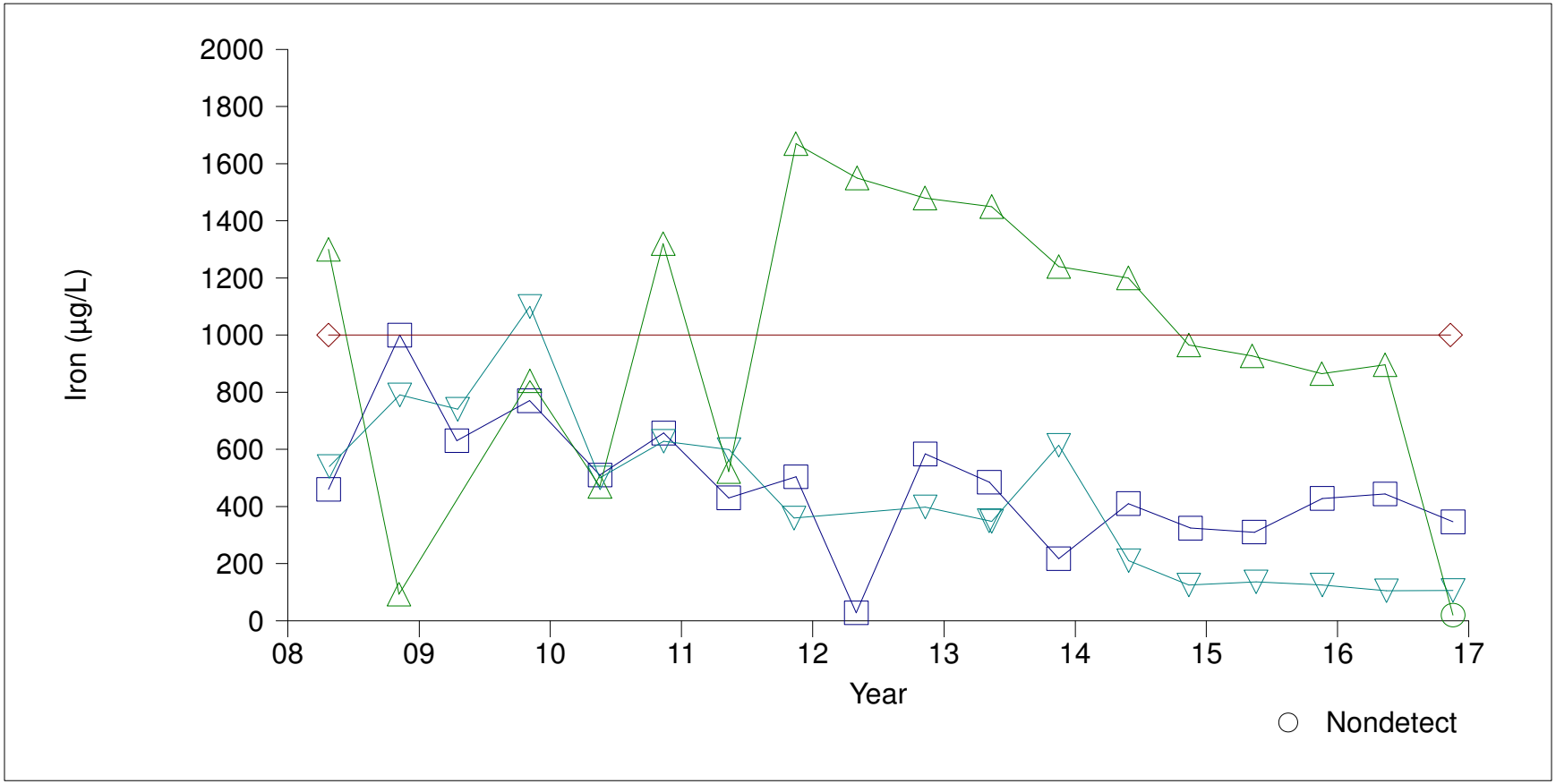
Time Series Plot for Iron, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

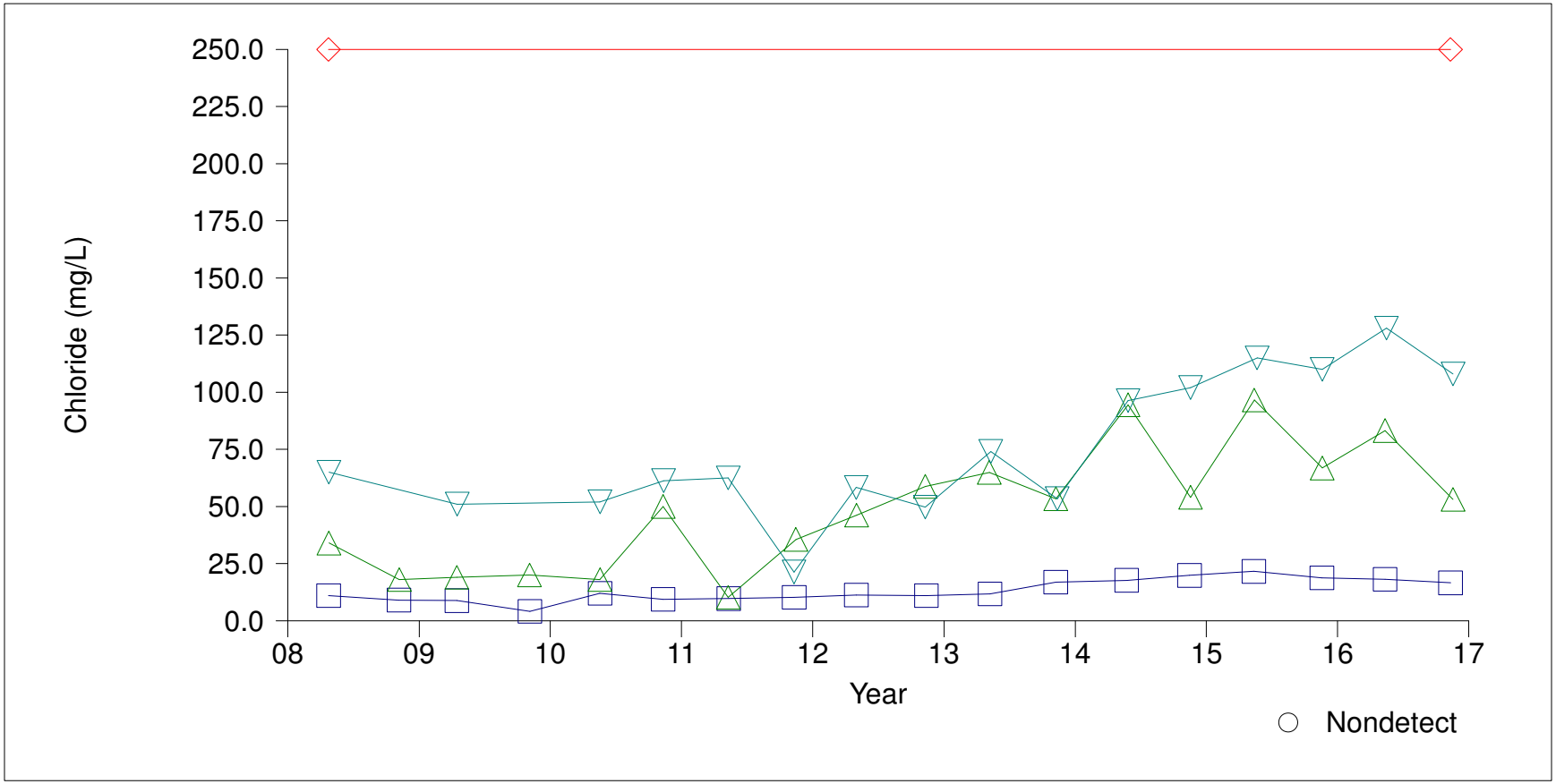
Time Series Plot for Iron, Floridan Aquifer (FA-1B: Background Well; the others: Compliance Wells)



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

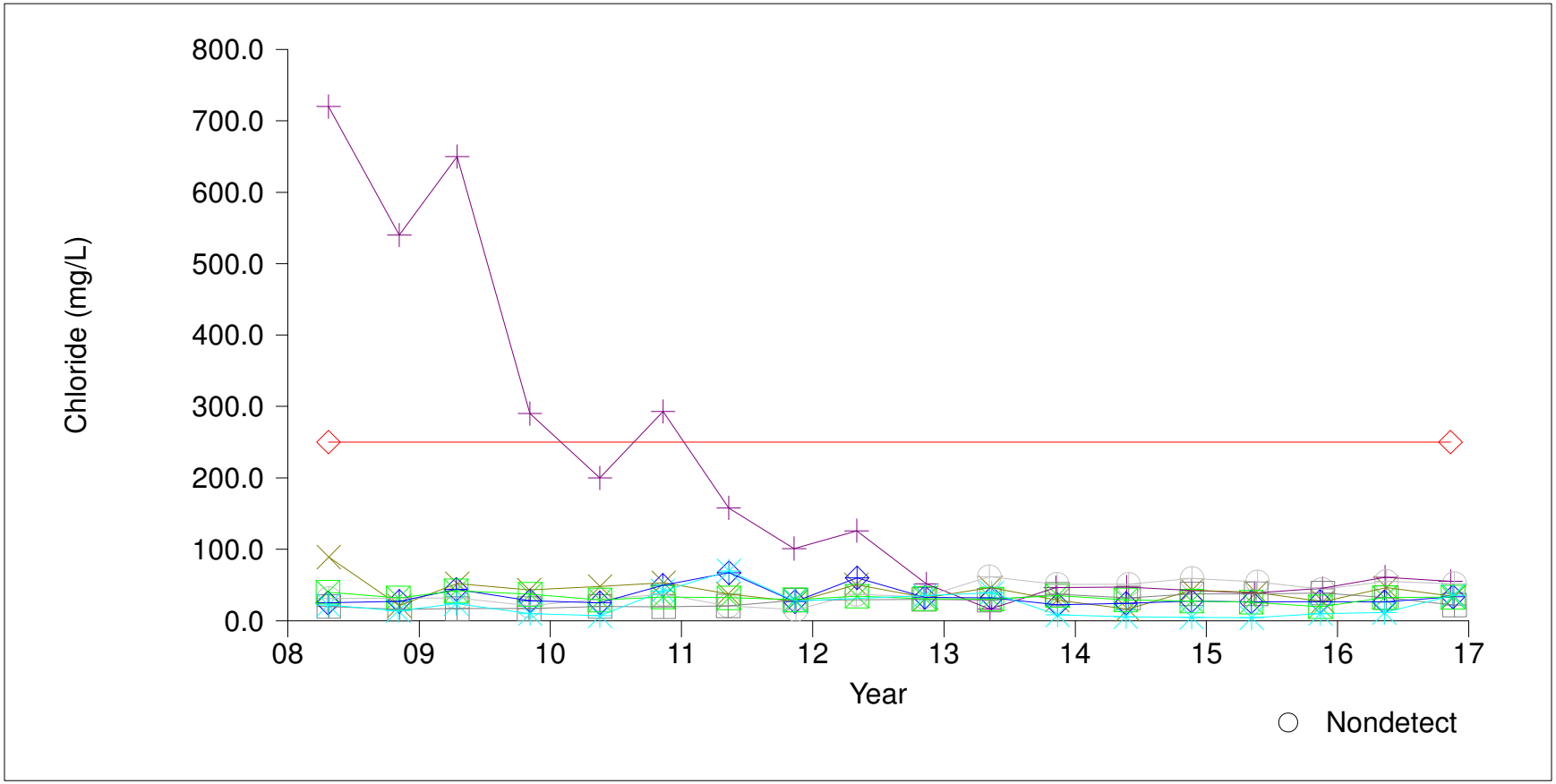
Time Series Plot for Chloride, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

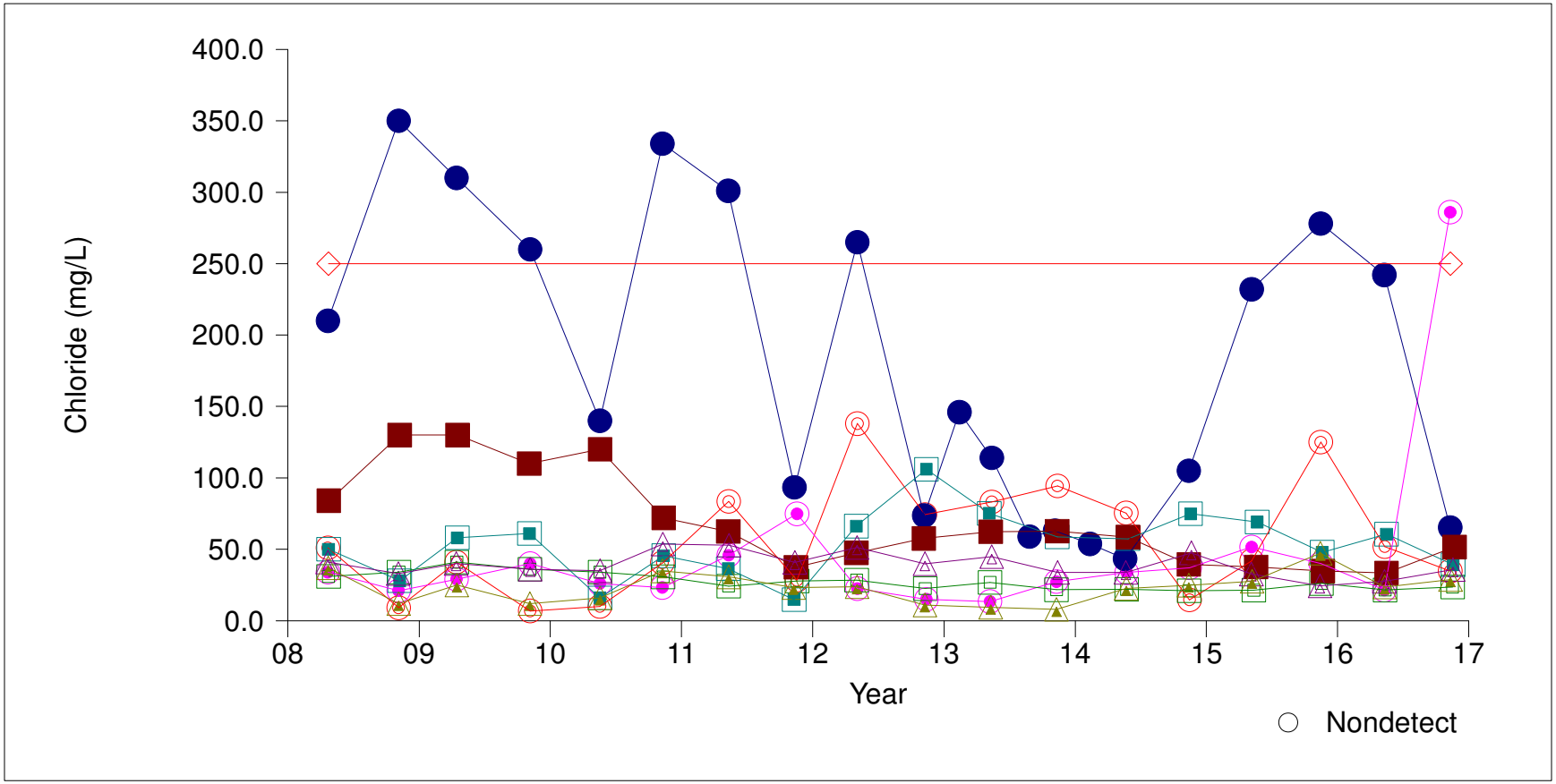
Time Series Plot for Chloride, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

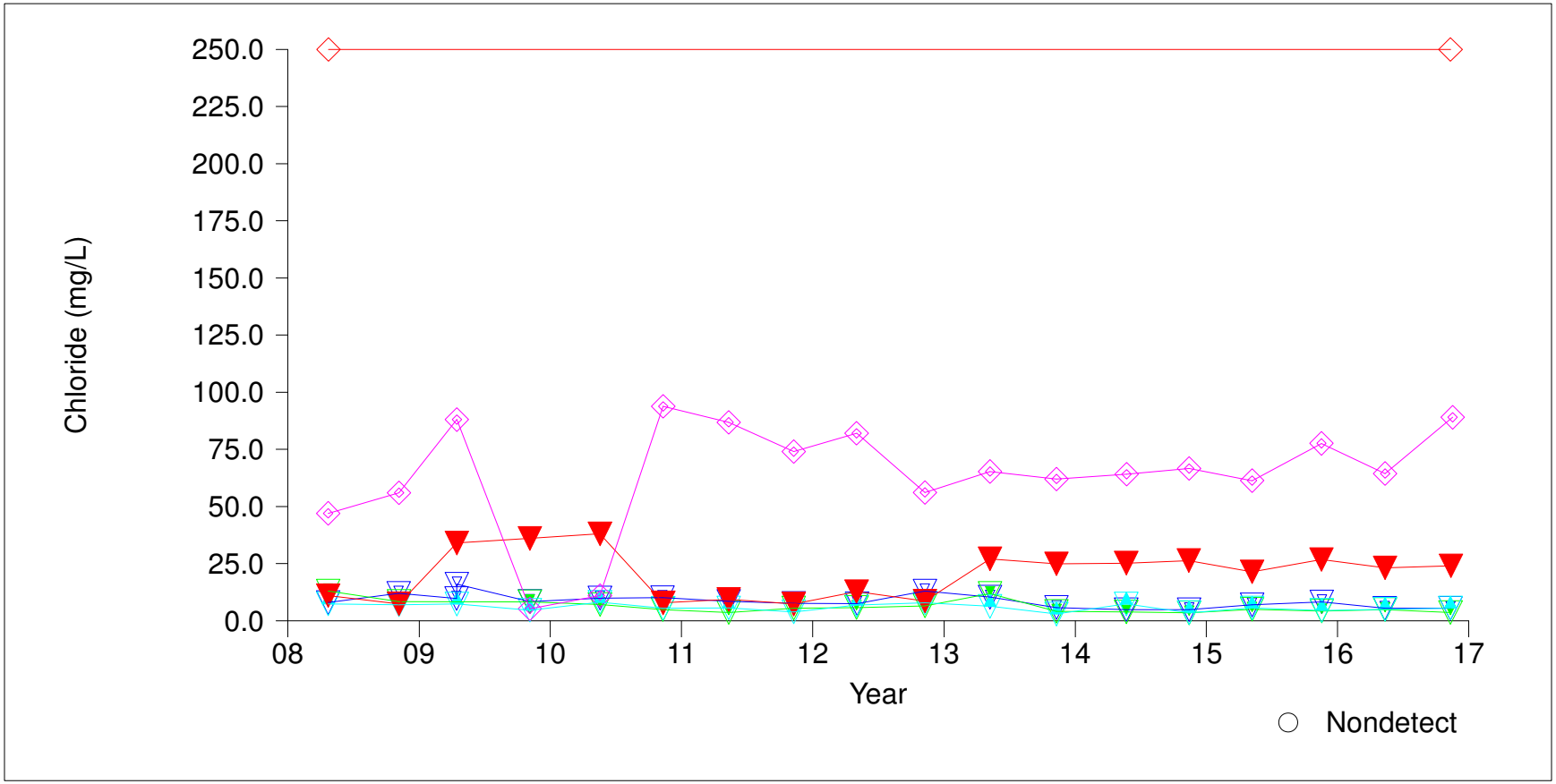
Time Series Plot for Chloride, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

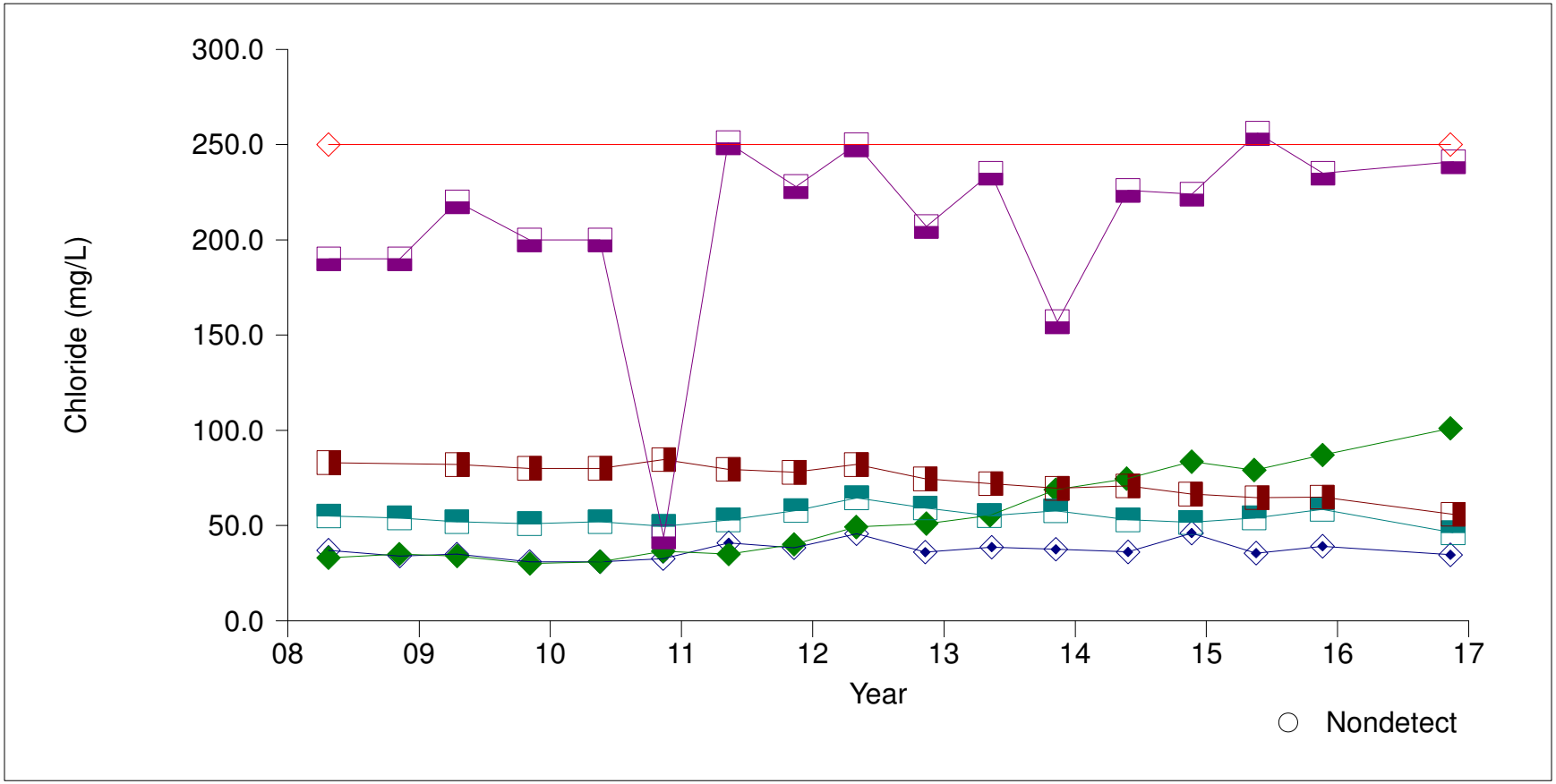
Time Series Plot for Chloride, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

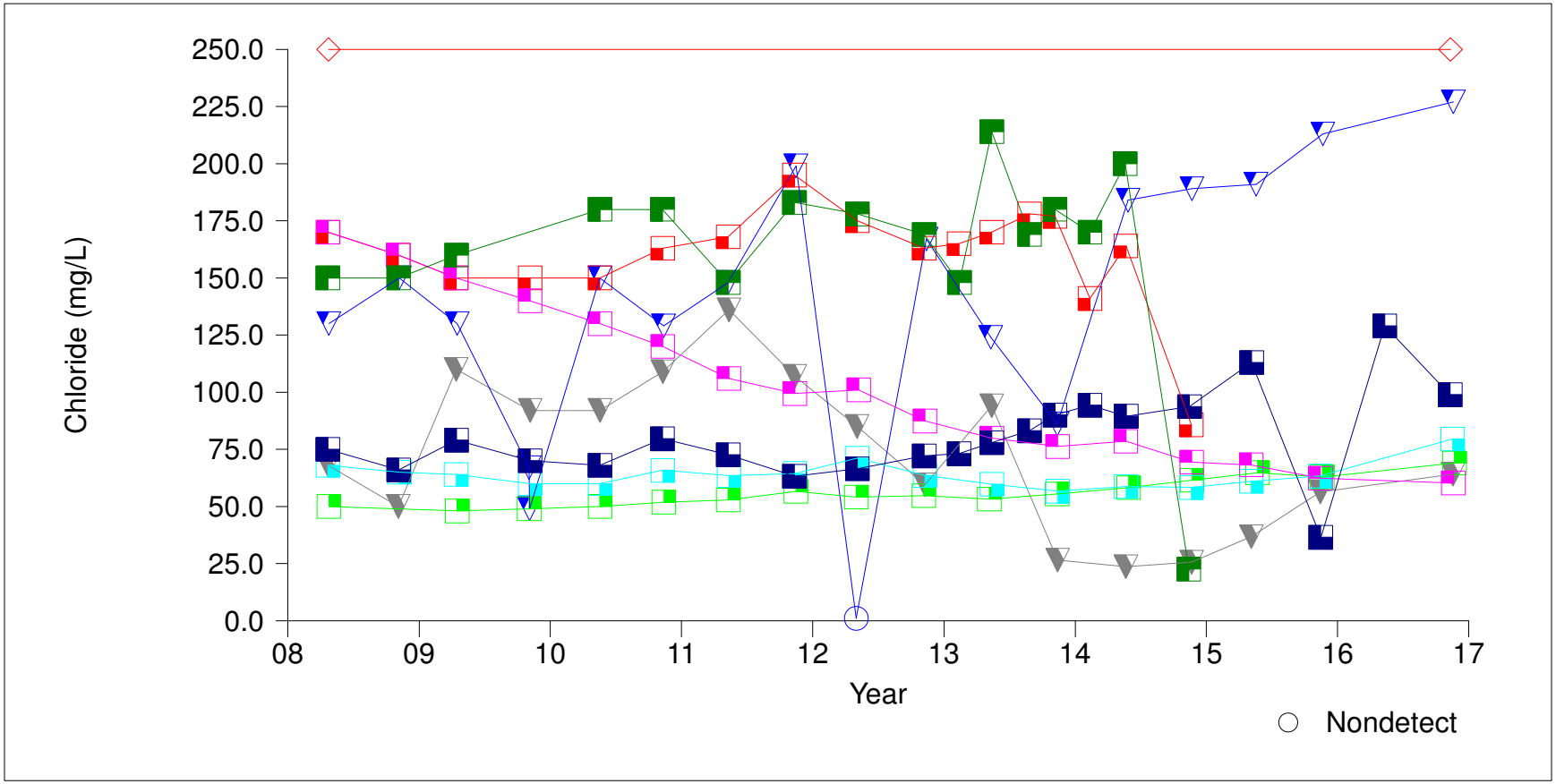
Time Series Plot for Chloride, Zone 4 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

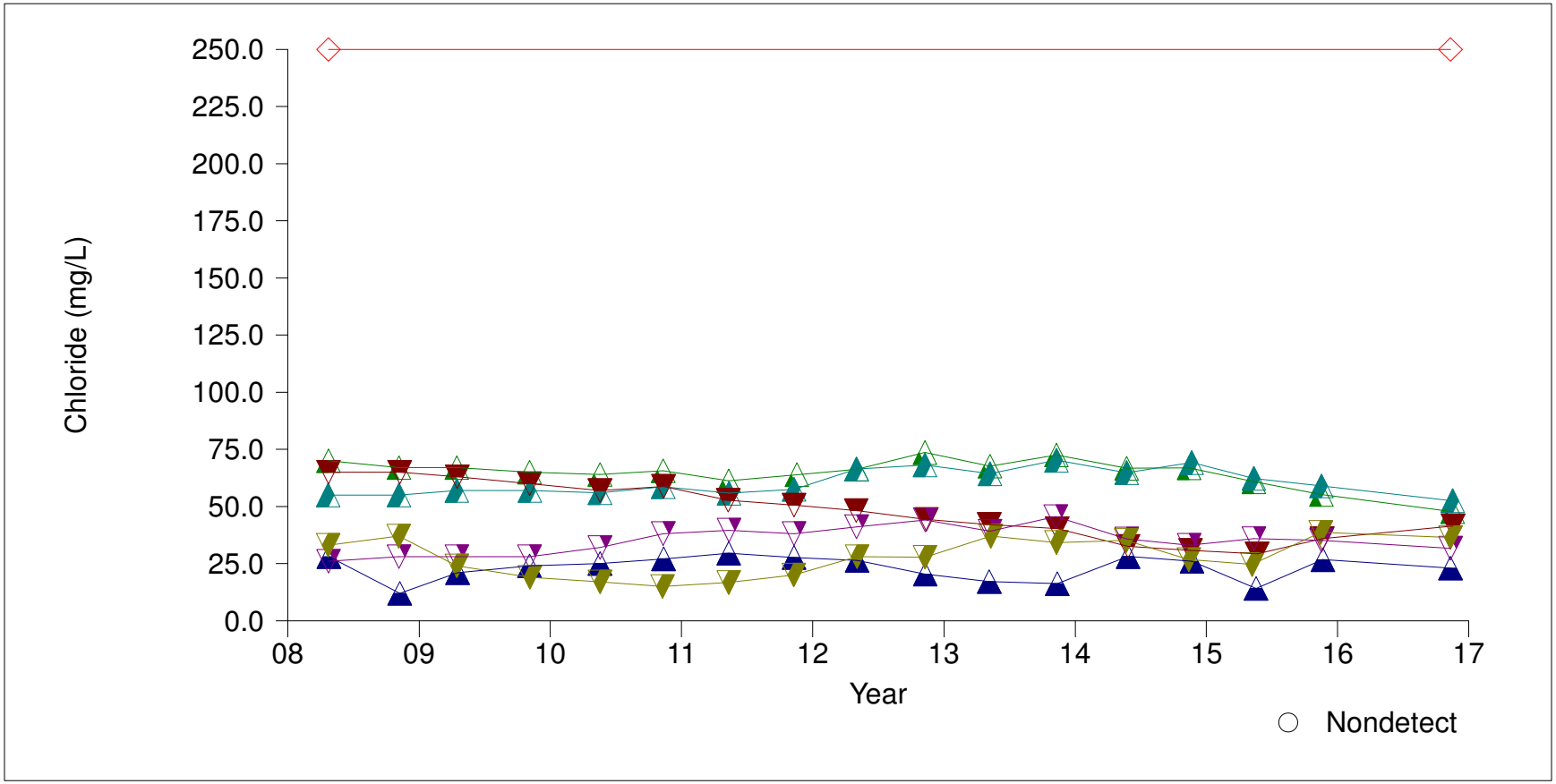
Time Series Plot for Chloride, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

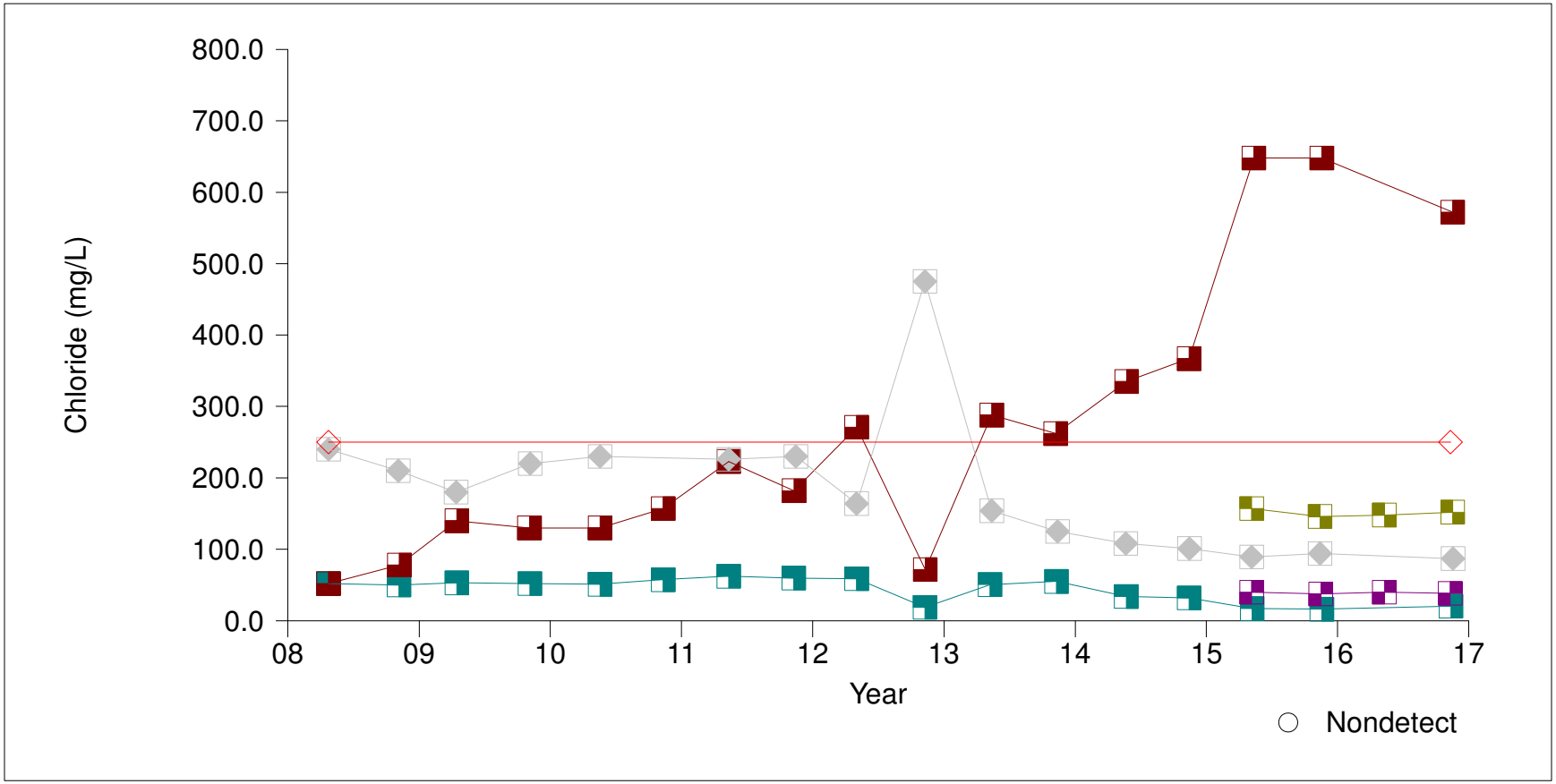
Time Series Plot for Chloride, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

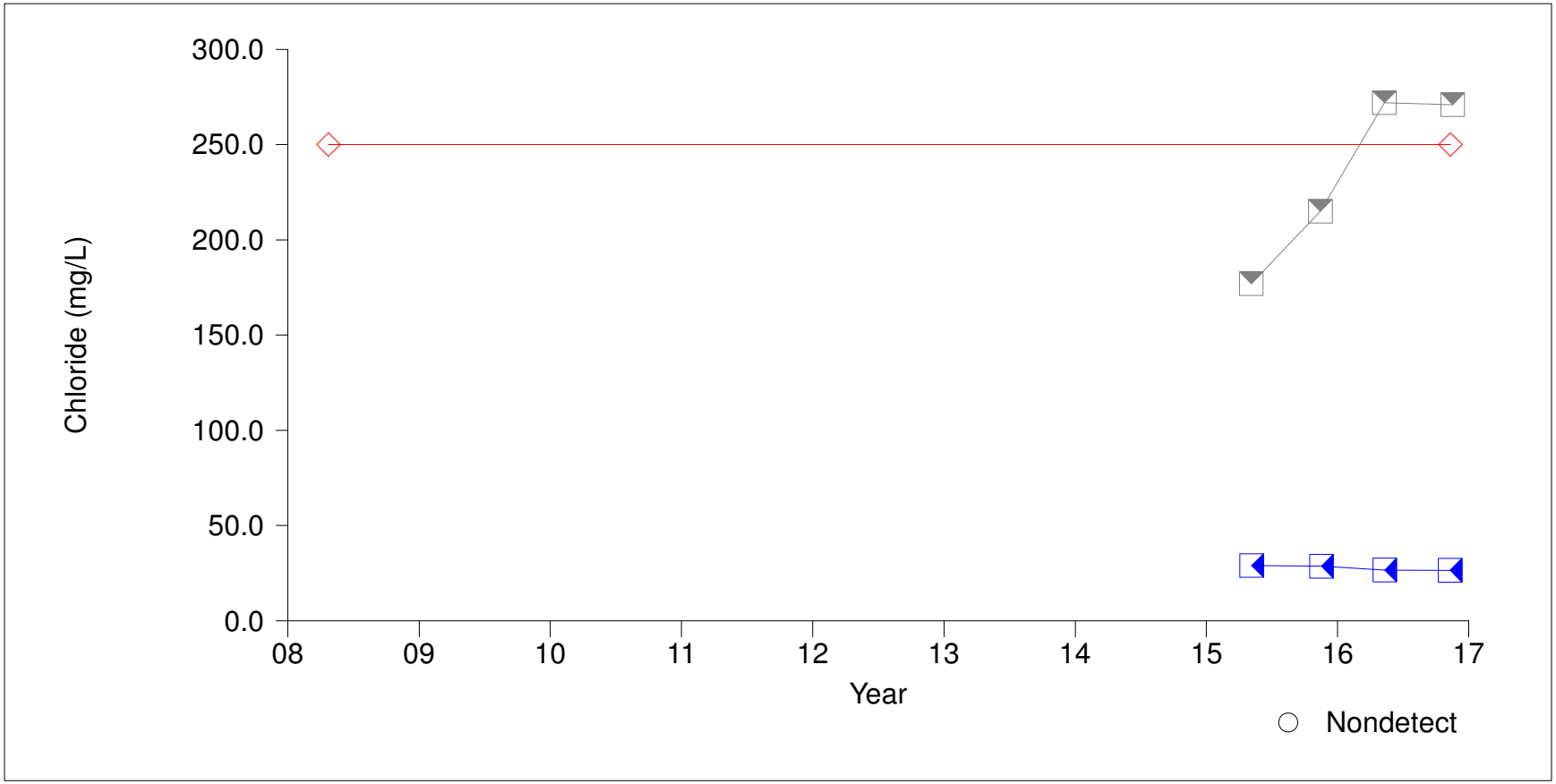
Time Series Plot for Chloride, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

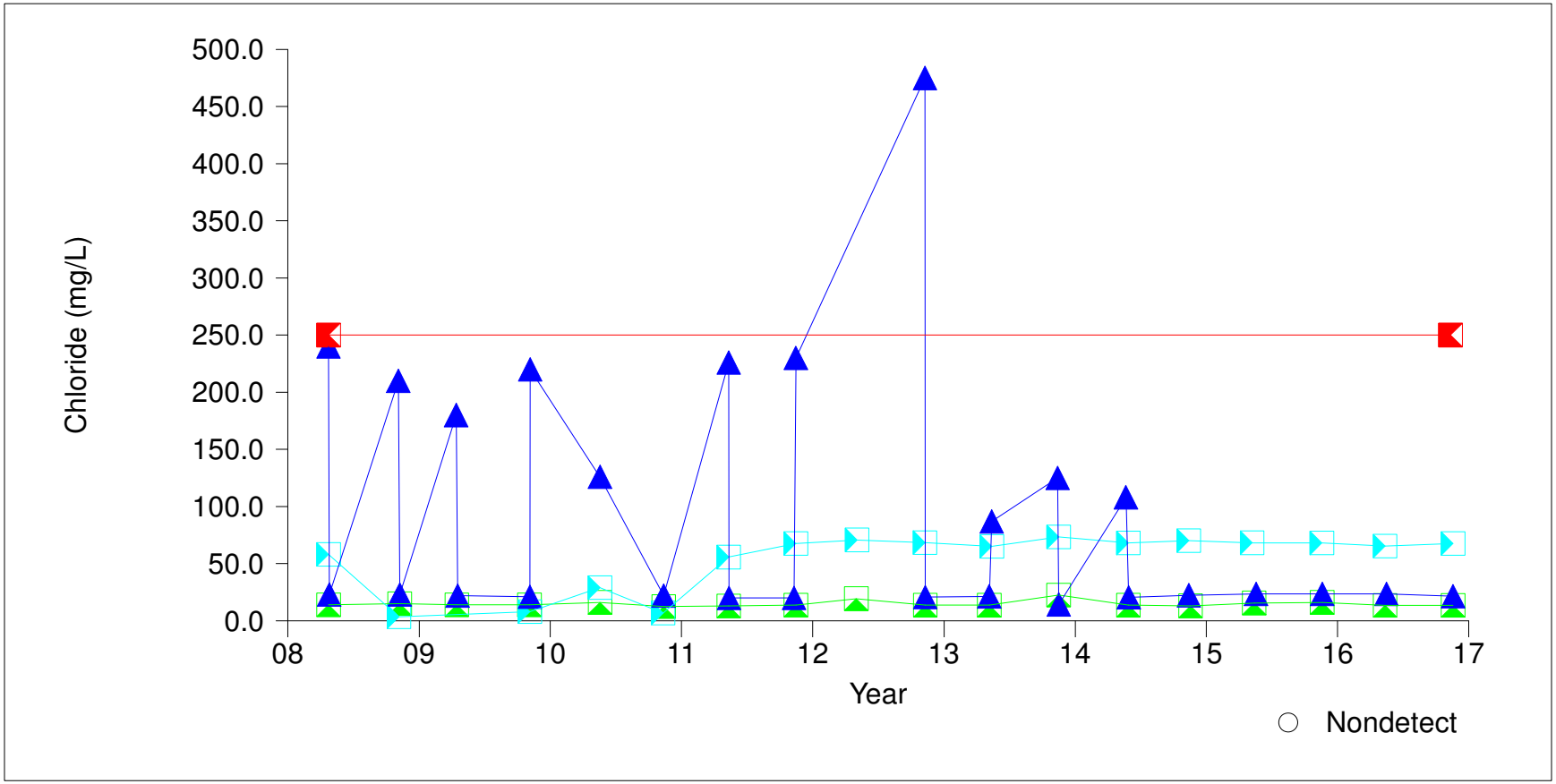
Time Series Plot for Chloride, Zone 6 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

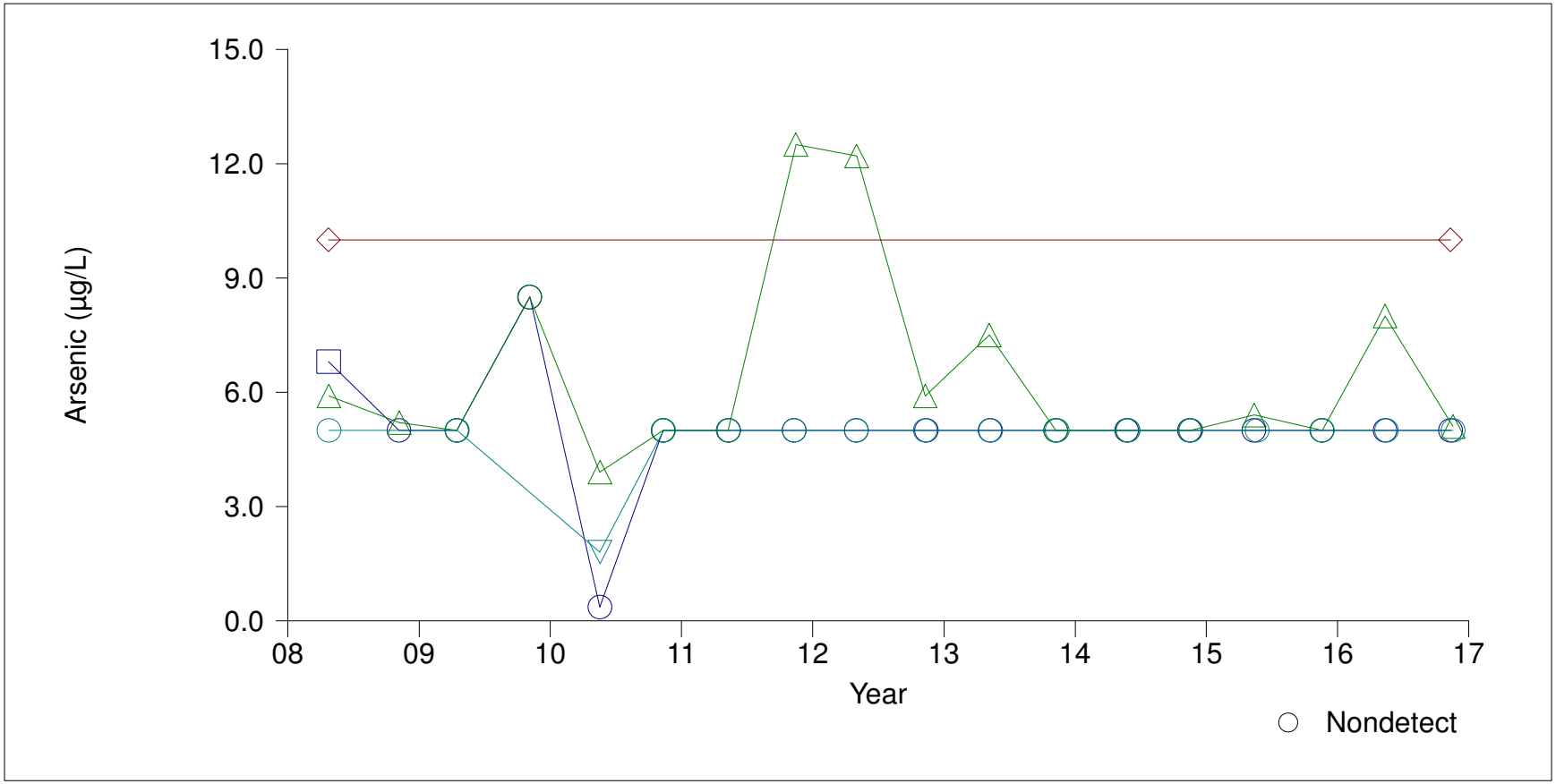
Time Series Plot for Chloride, Floridan Aquifer (FA-1B: Background Well; the others: Compliance Wells)



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

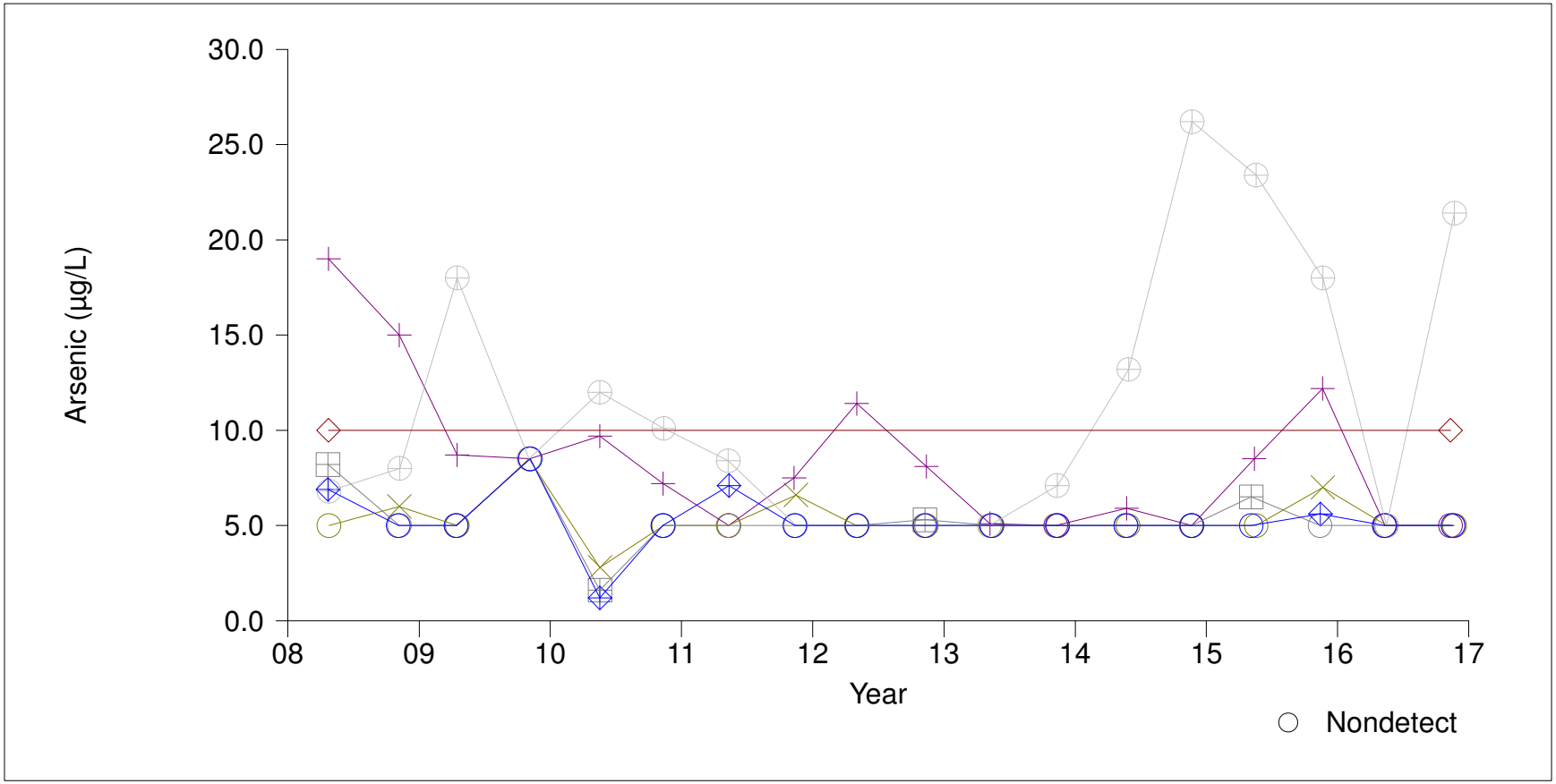
Time Series Plot for Arsenic, Zone 1-2 Background Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

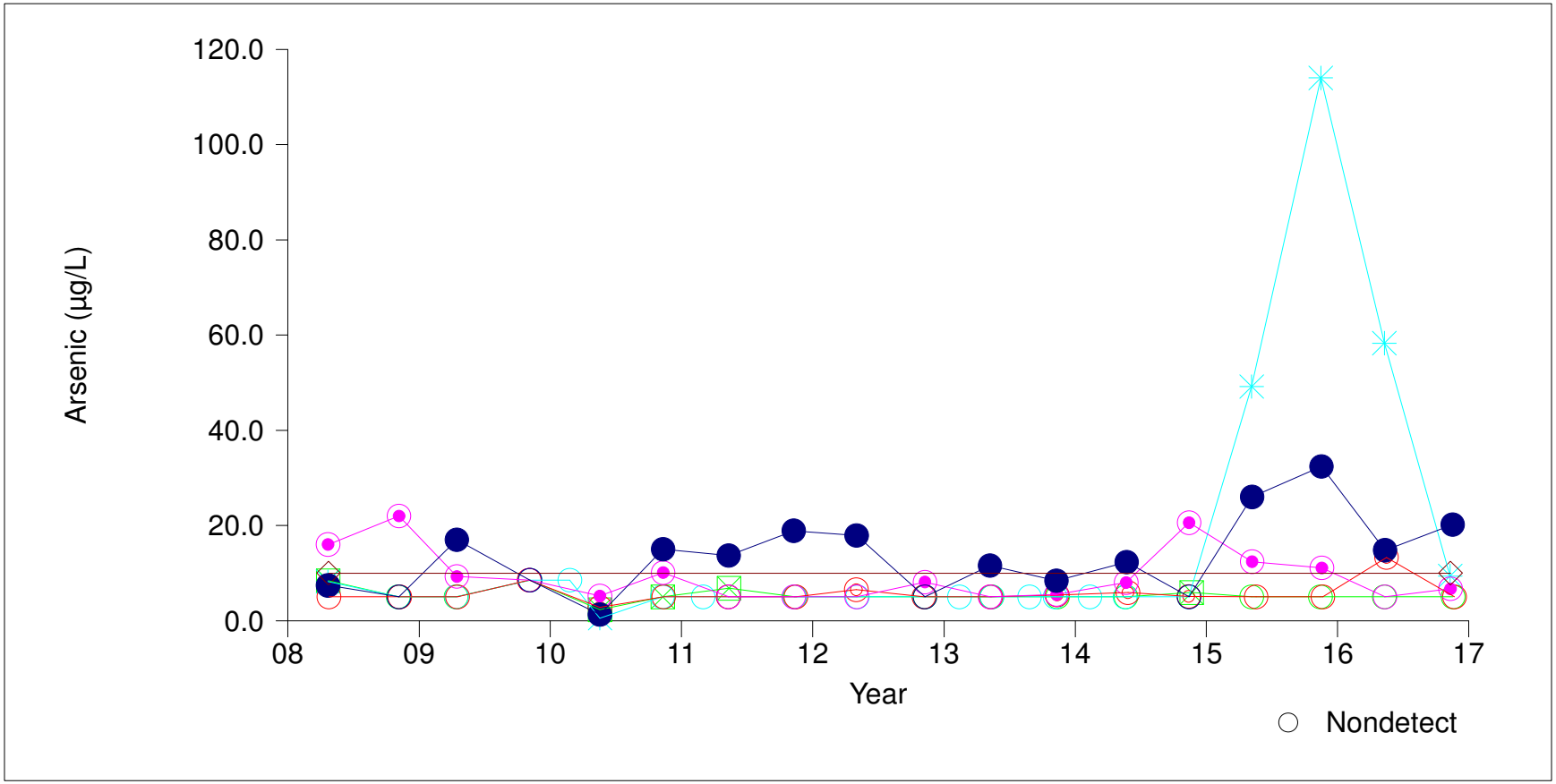
Time Series Plot for Arsenic, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

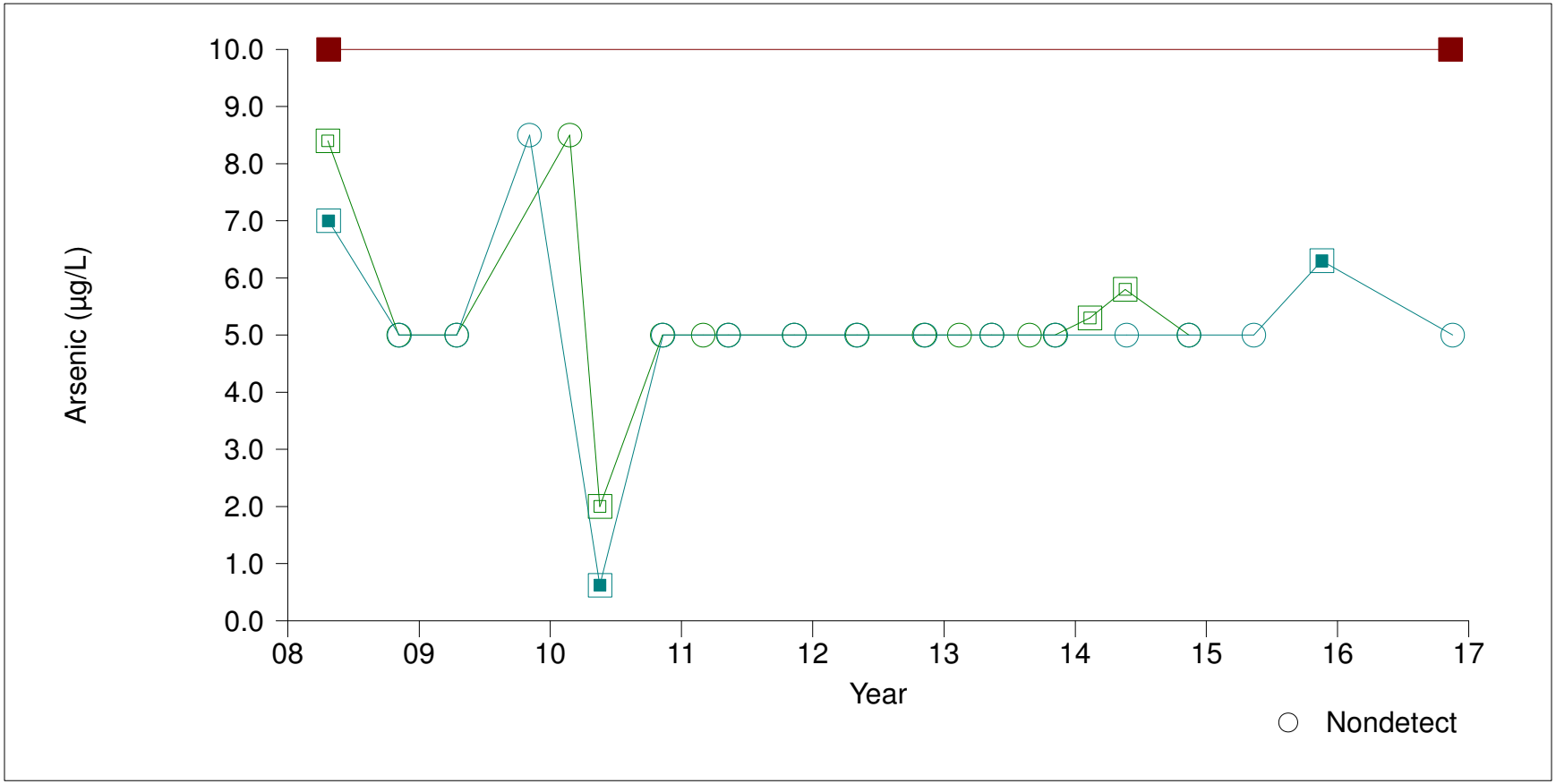
Time Series Plot for Arsenic, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

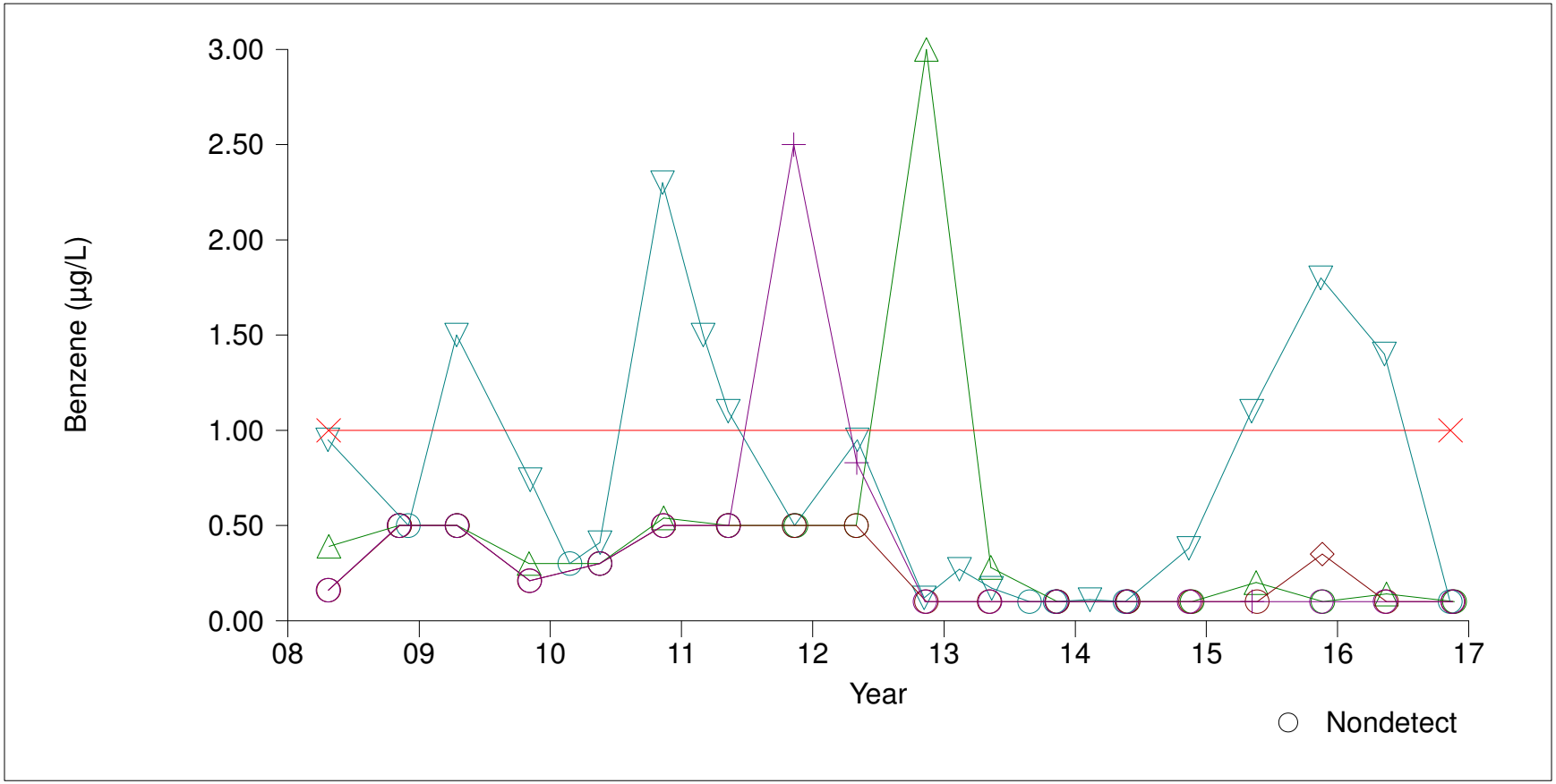
Time Series Plot for Arsenic, Zone 4 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

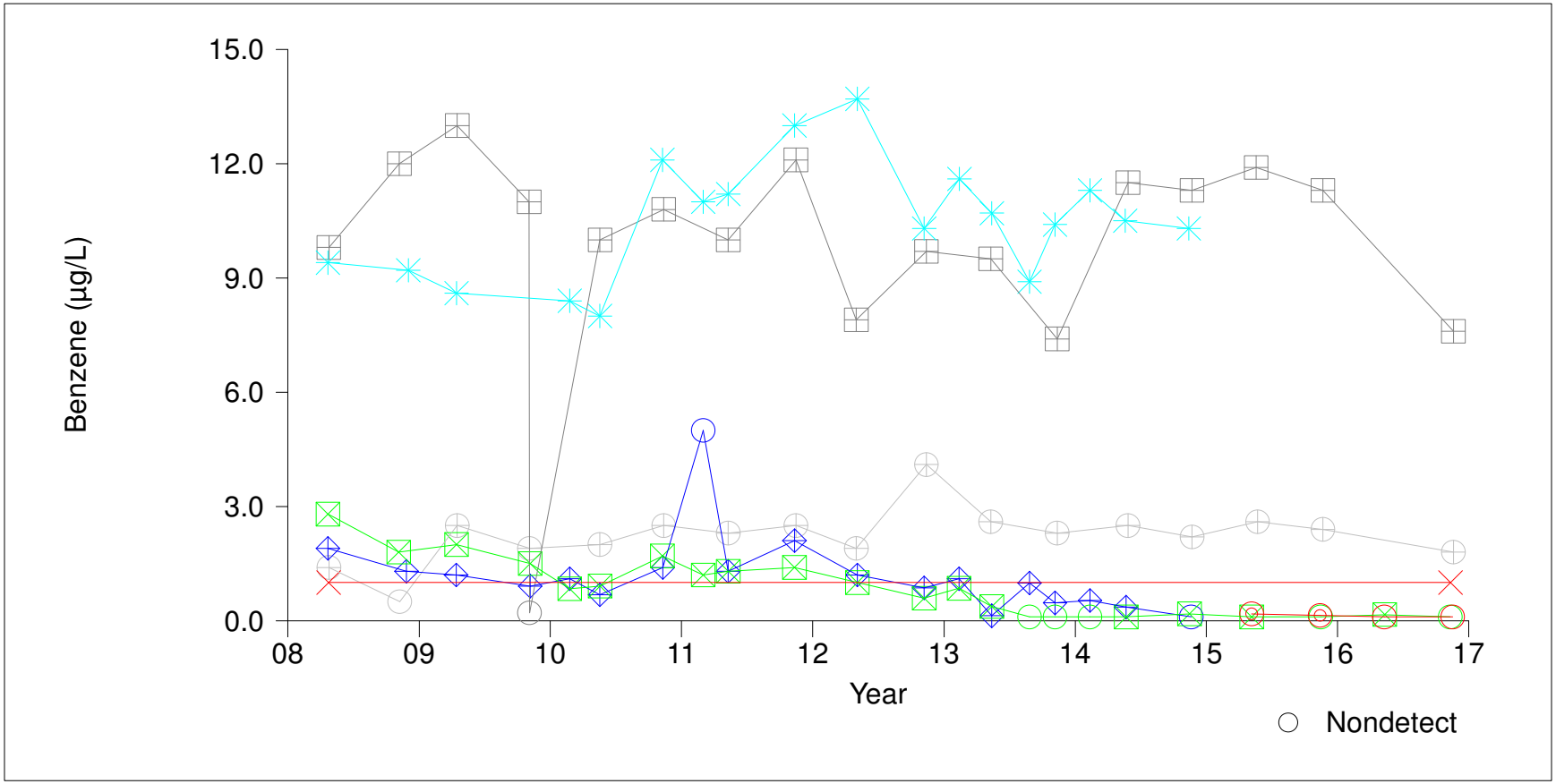
Time Series Plot for Benzene, Zone 1-2 Compliance Wells



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

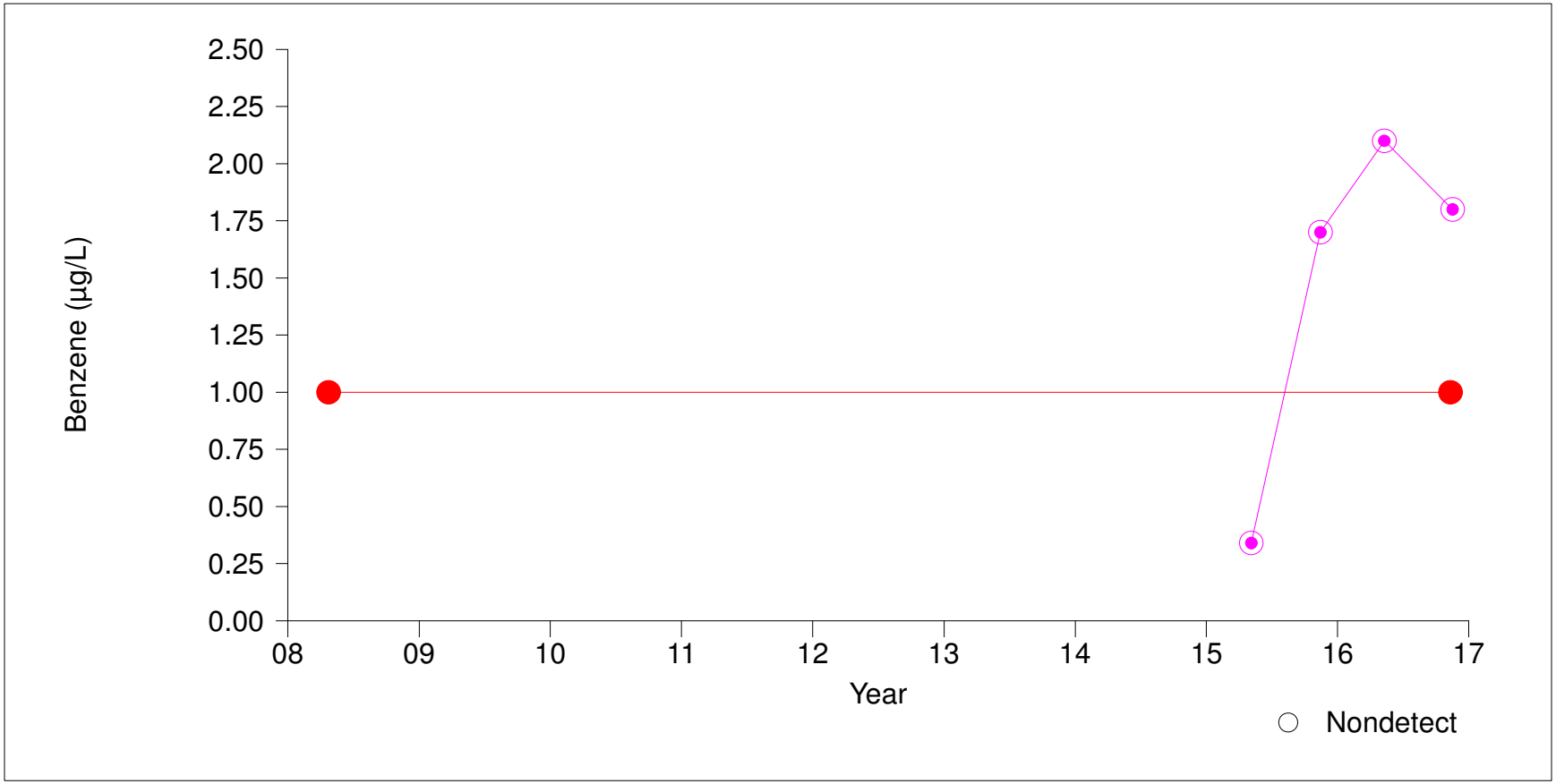
Time Series Plot for Benzene, Zone 4 (B36: Background Well; the others: Compliance Wells)



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

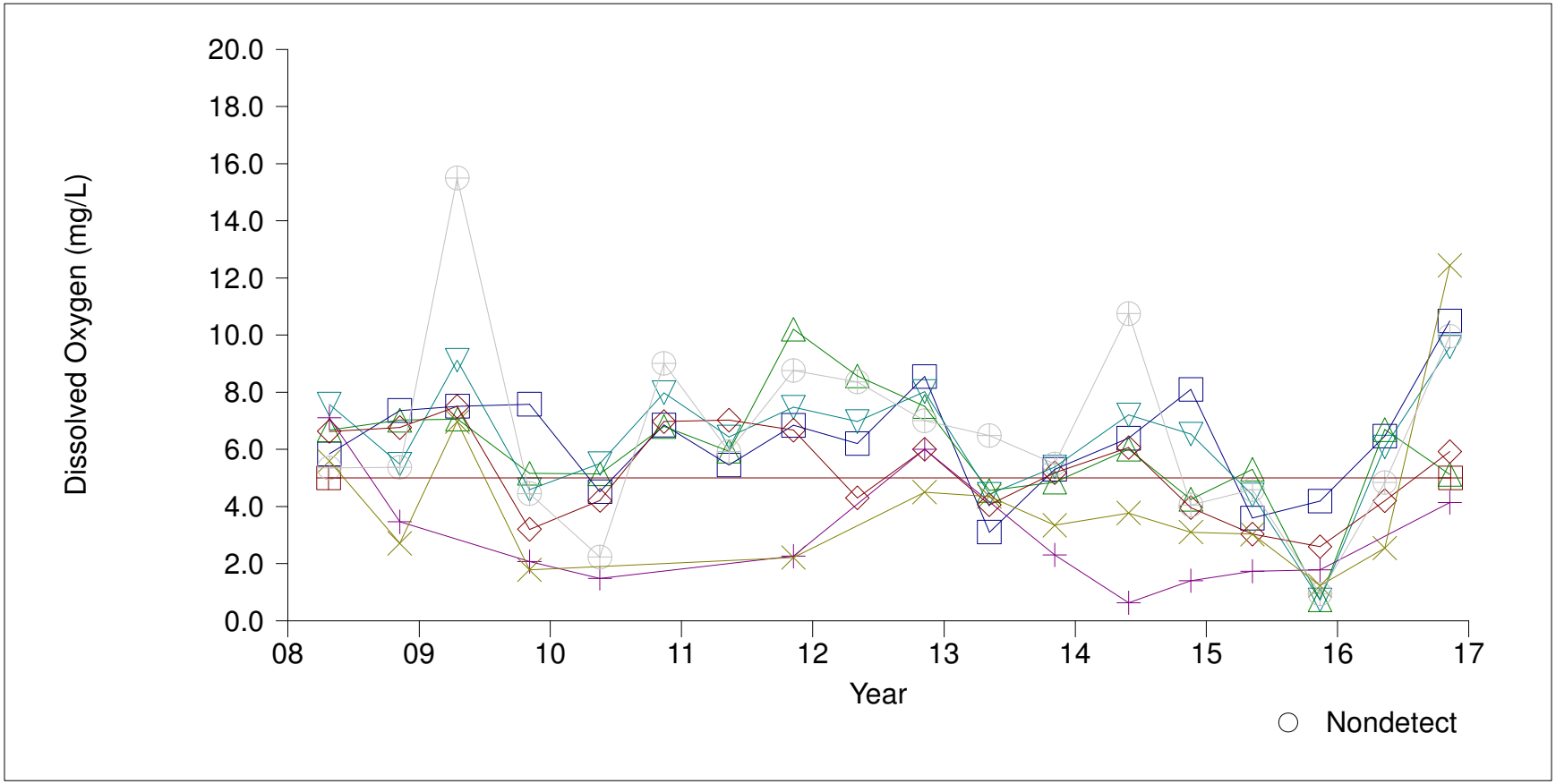
Time Series Plot for Benzene, Zone 6 Compliance Well



Prepared by: HDR Jacksonville

Tomoka Farm Road Landfill

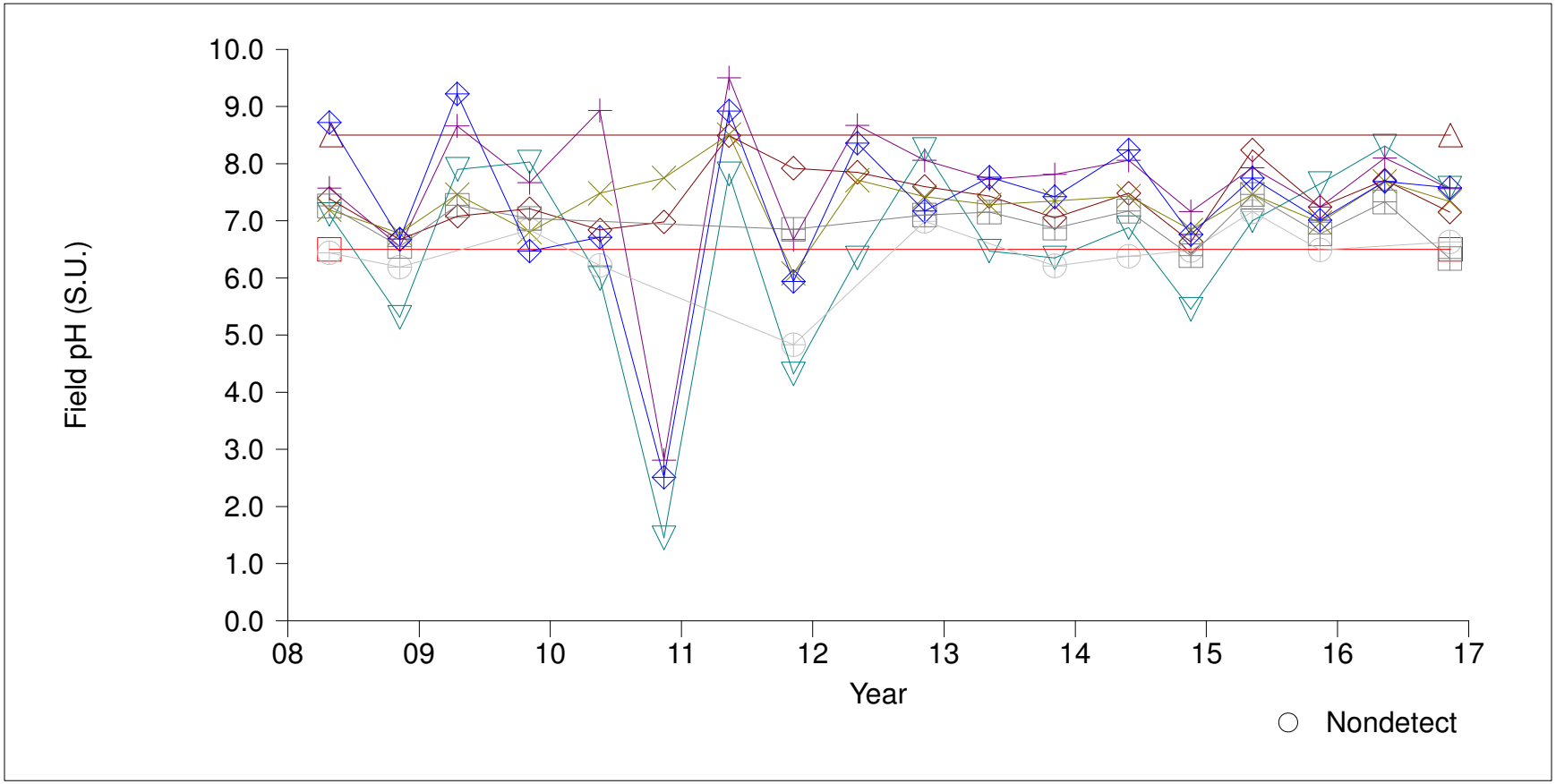
Time Series Plot for Dissolved Oxygen - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

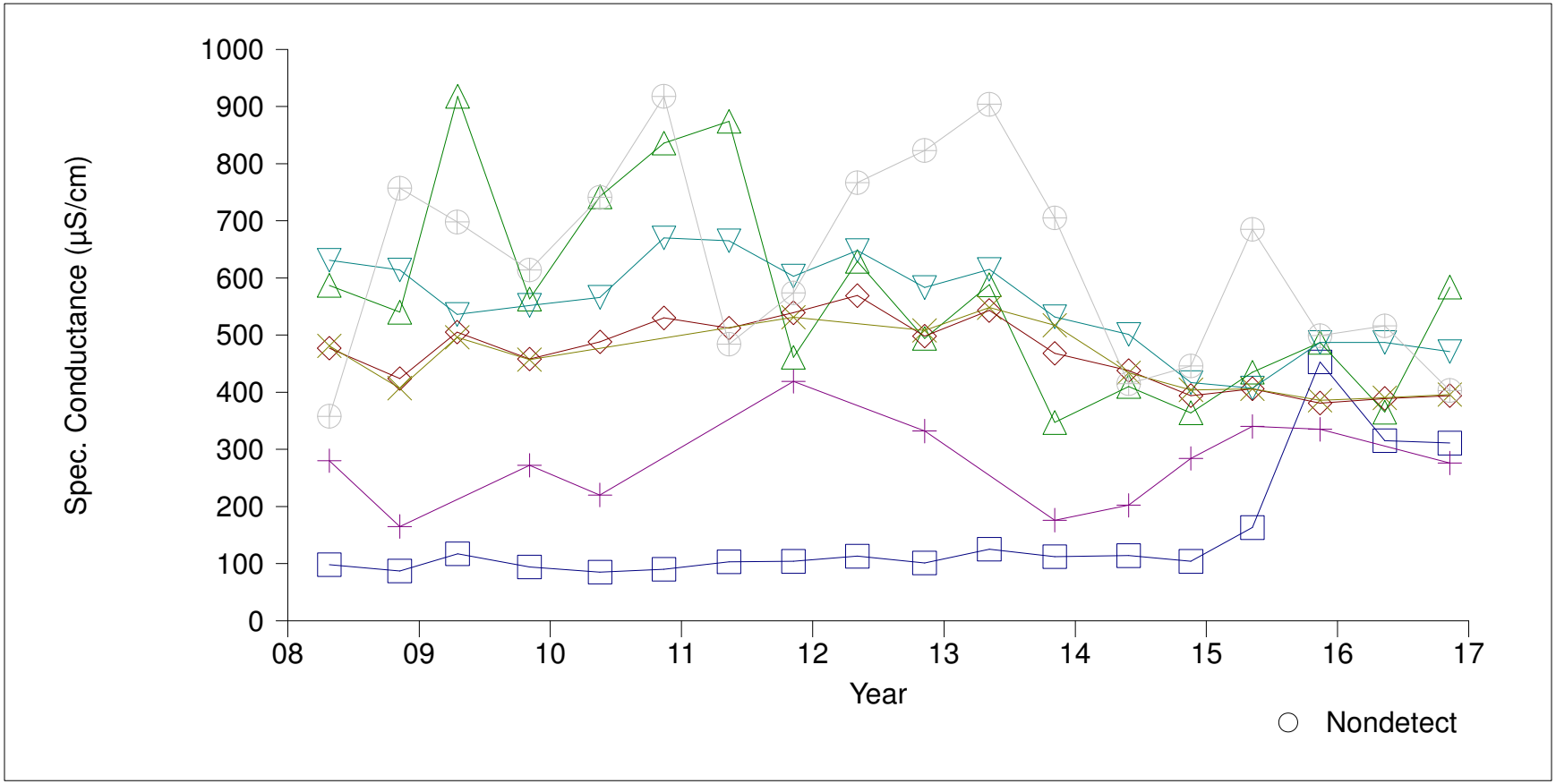
Time Series Plot for Field pH - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

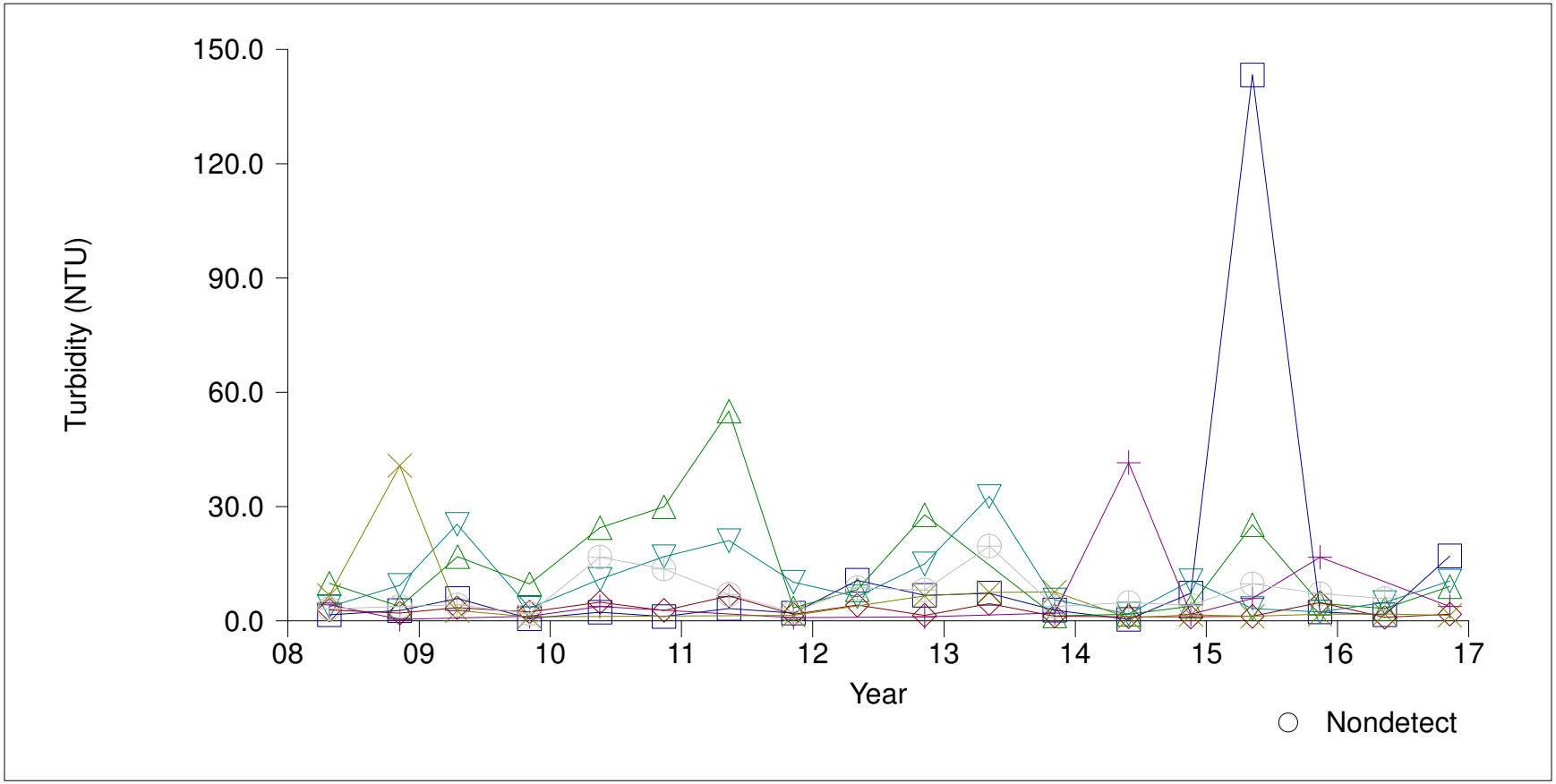
Time Series Plot for Spec. Conductance - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

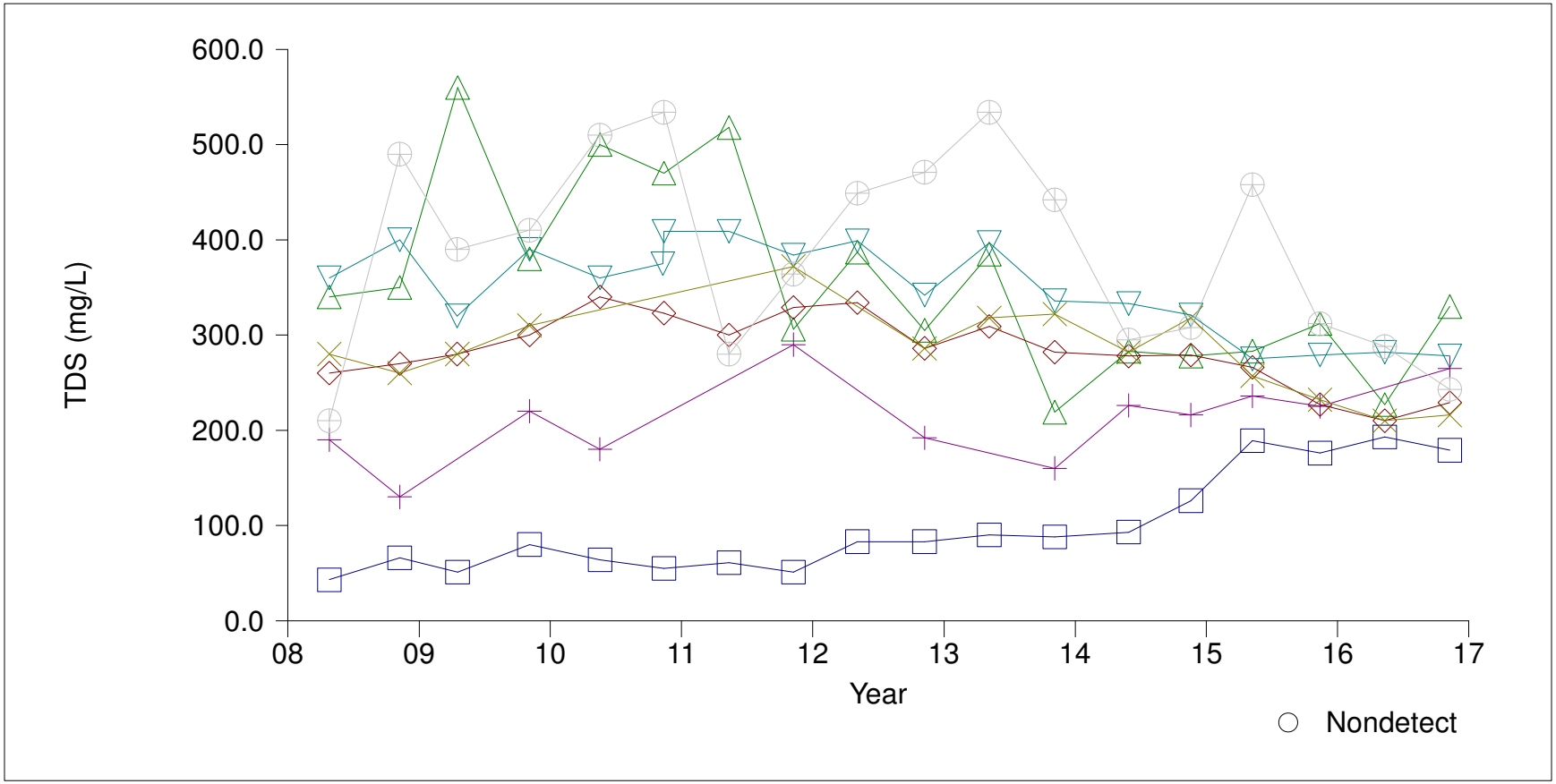
Time Series Plot for Turbidity - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farm Road Landfill

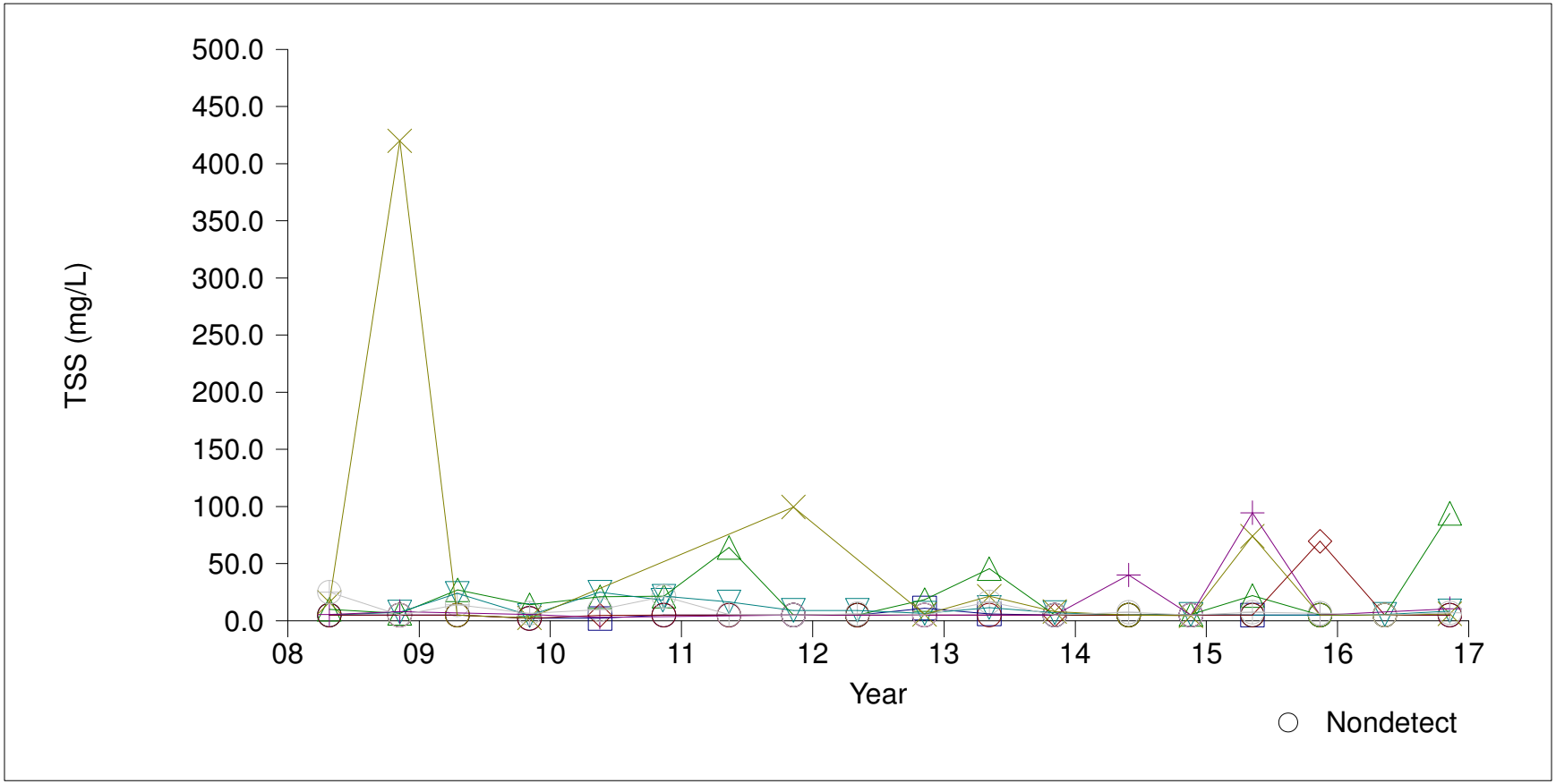
Time Series Plot for TDS - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

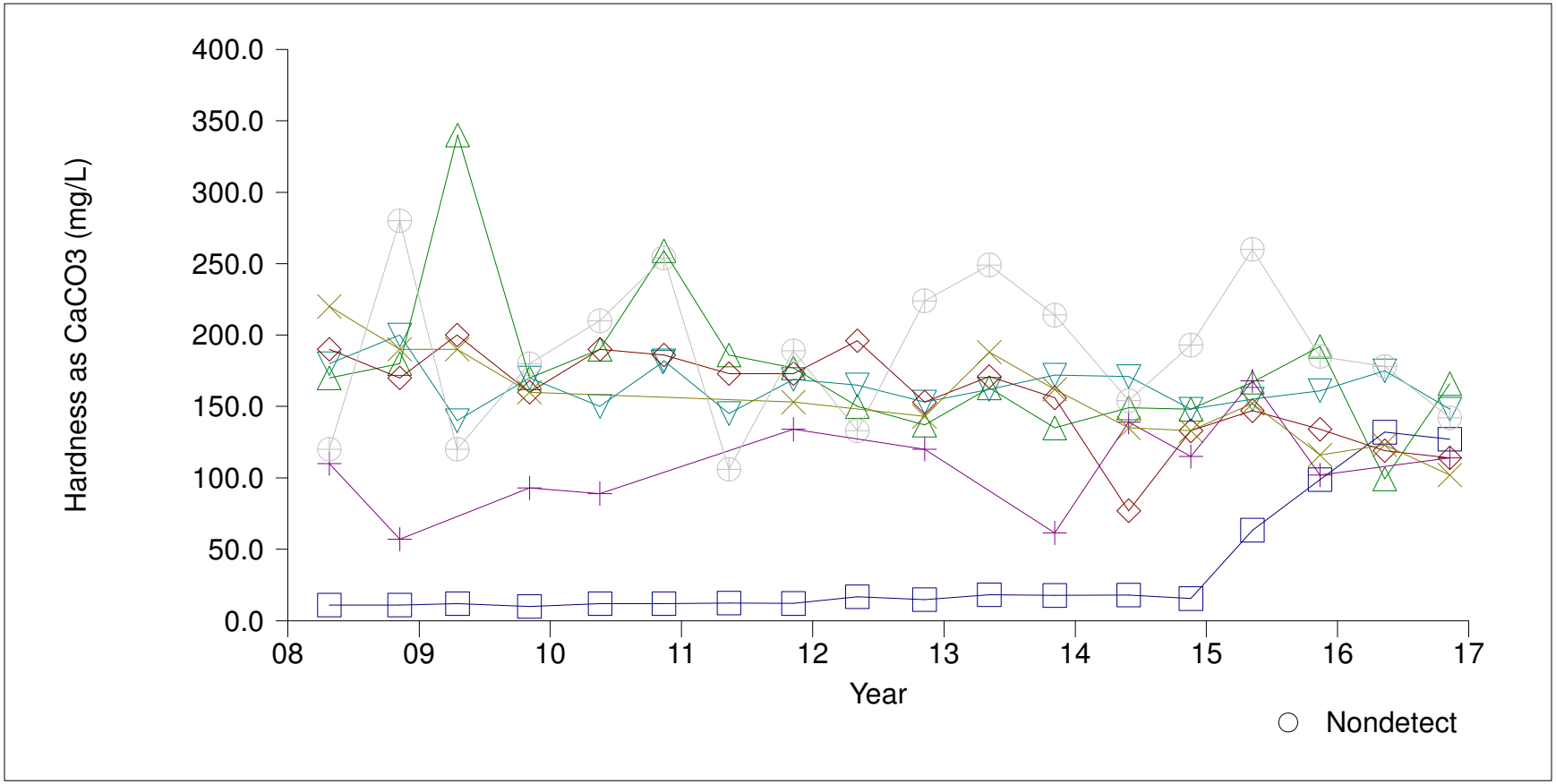
Time Series Plot for TSS - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

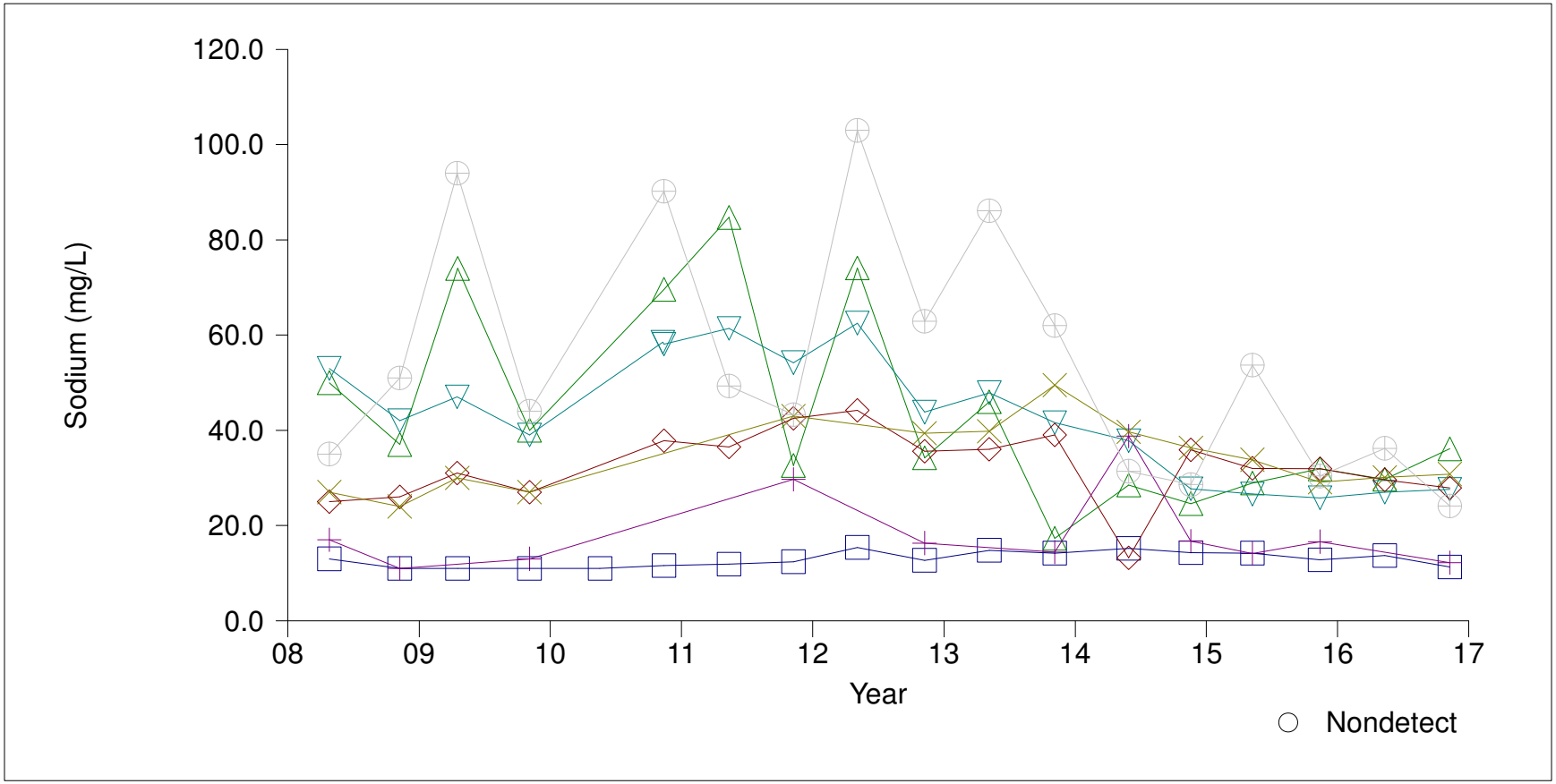
Time Series Plot for Hardness as CaCO3 - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

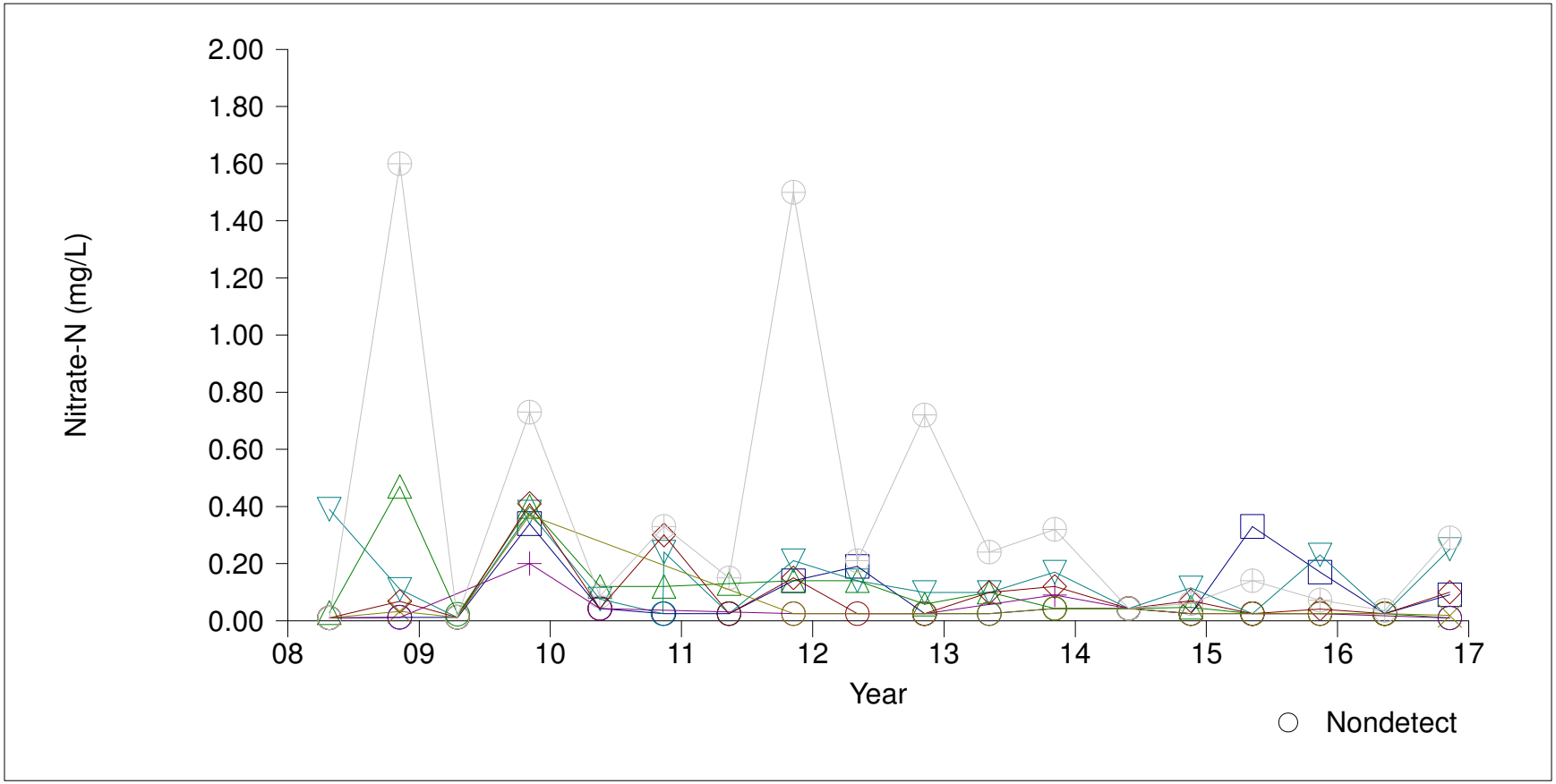
Time Series Plot for Sodium - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

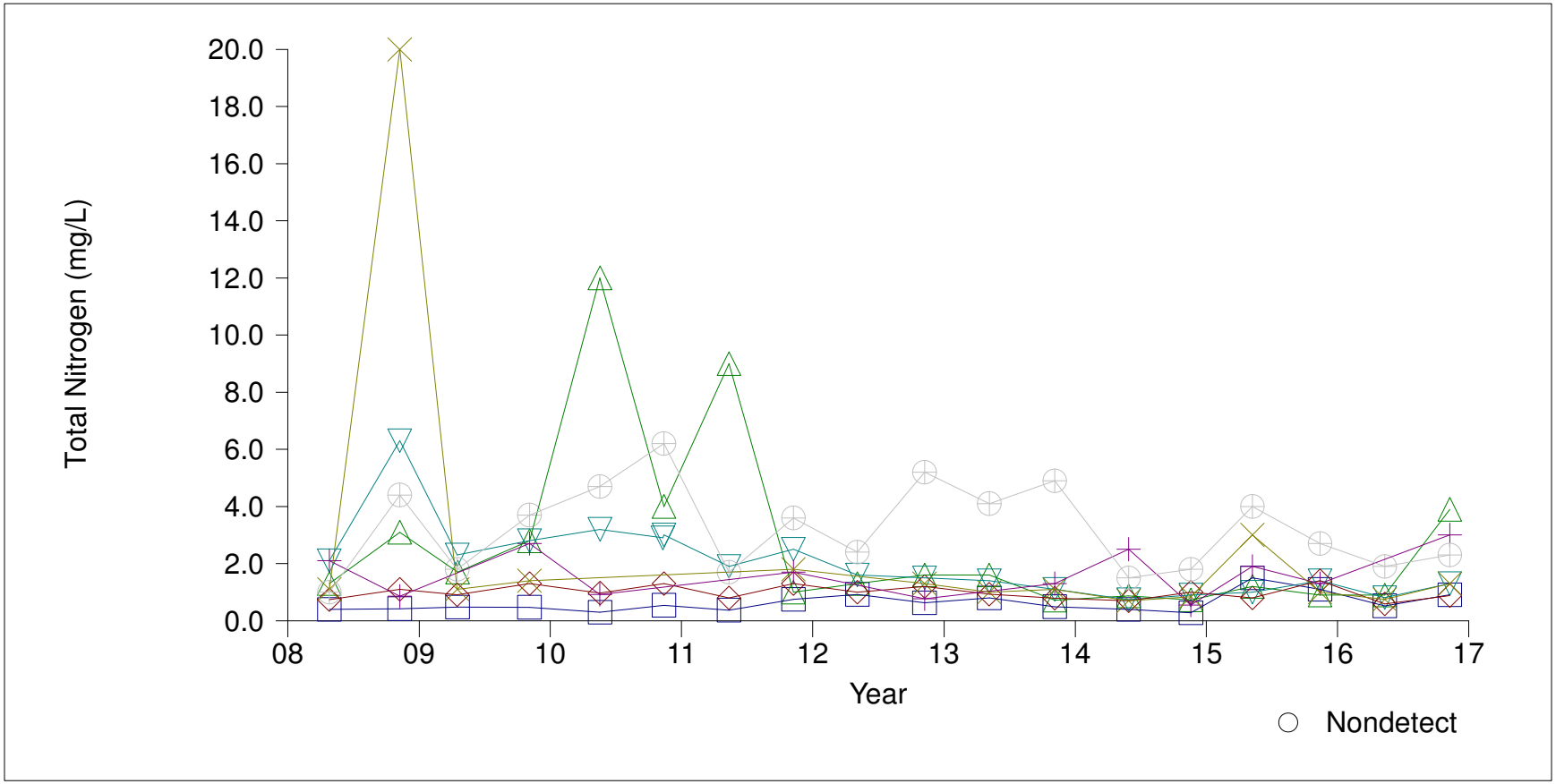
Time Series Plot for Nitrate-N - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

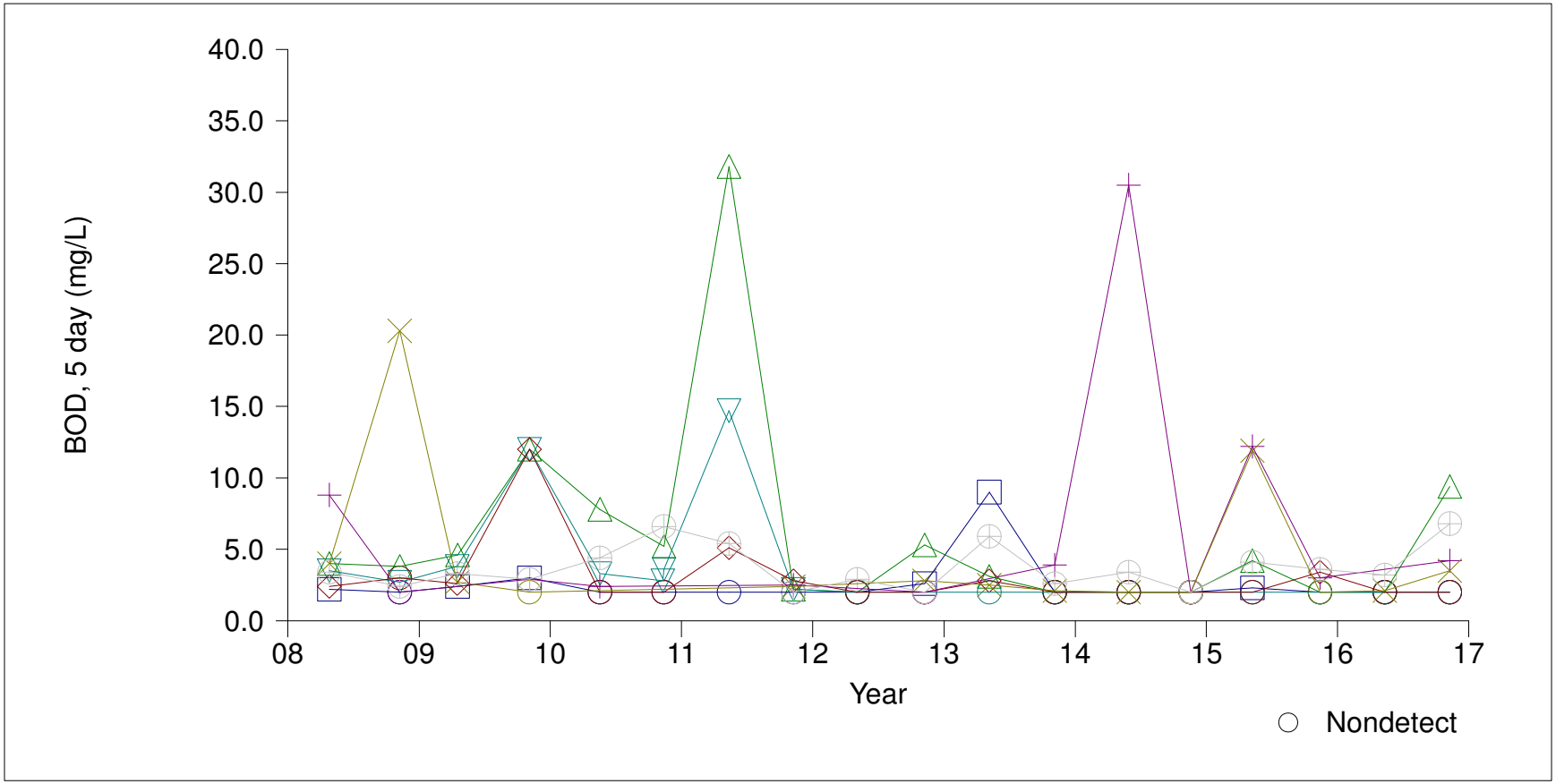
Time Series Plot for Total Nitrogen - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

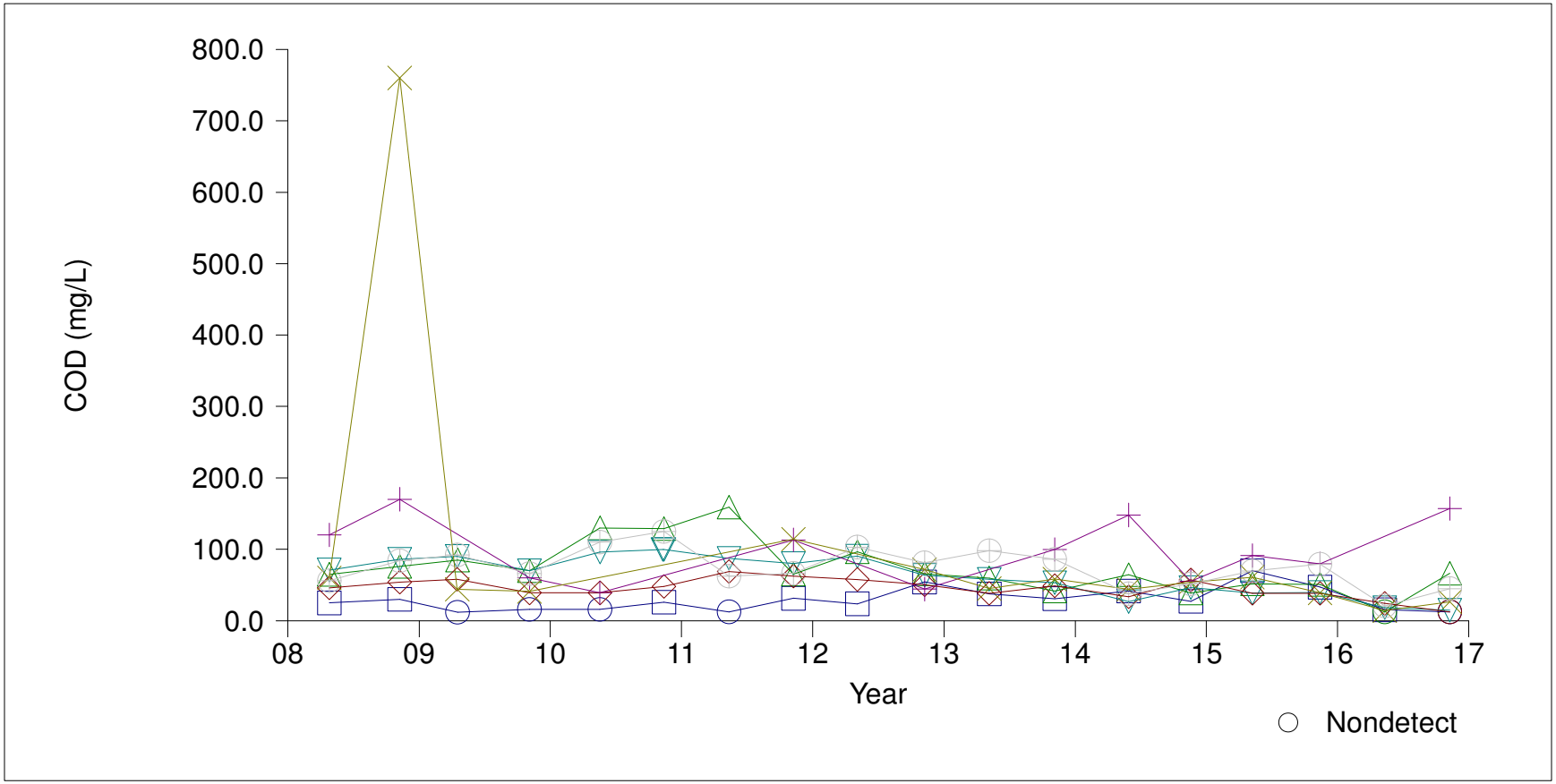
Time Series Plot for BOD, 5 day - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

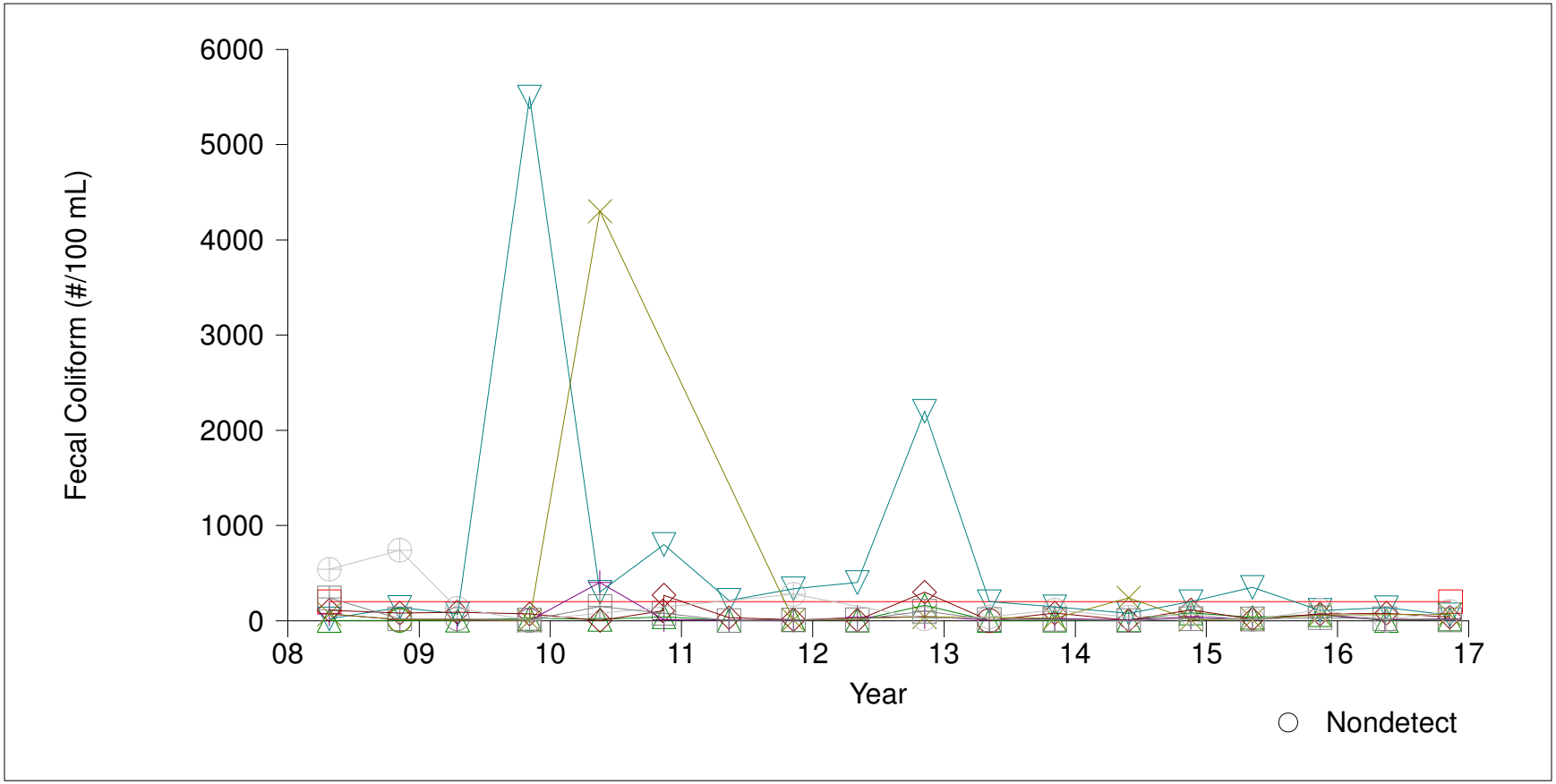
Time Series Plot for COD - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

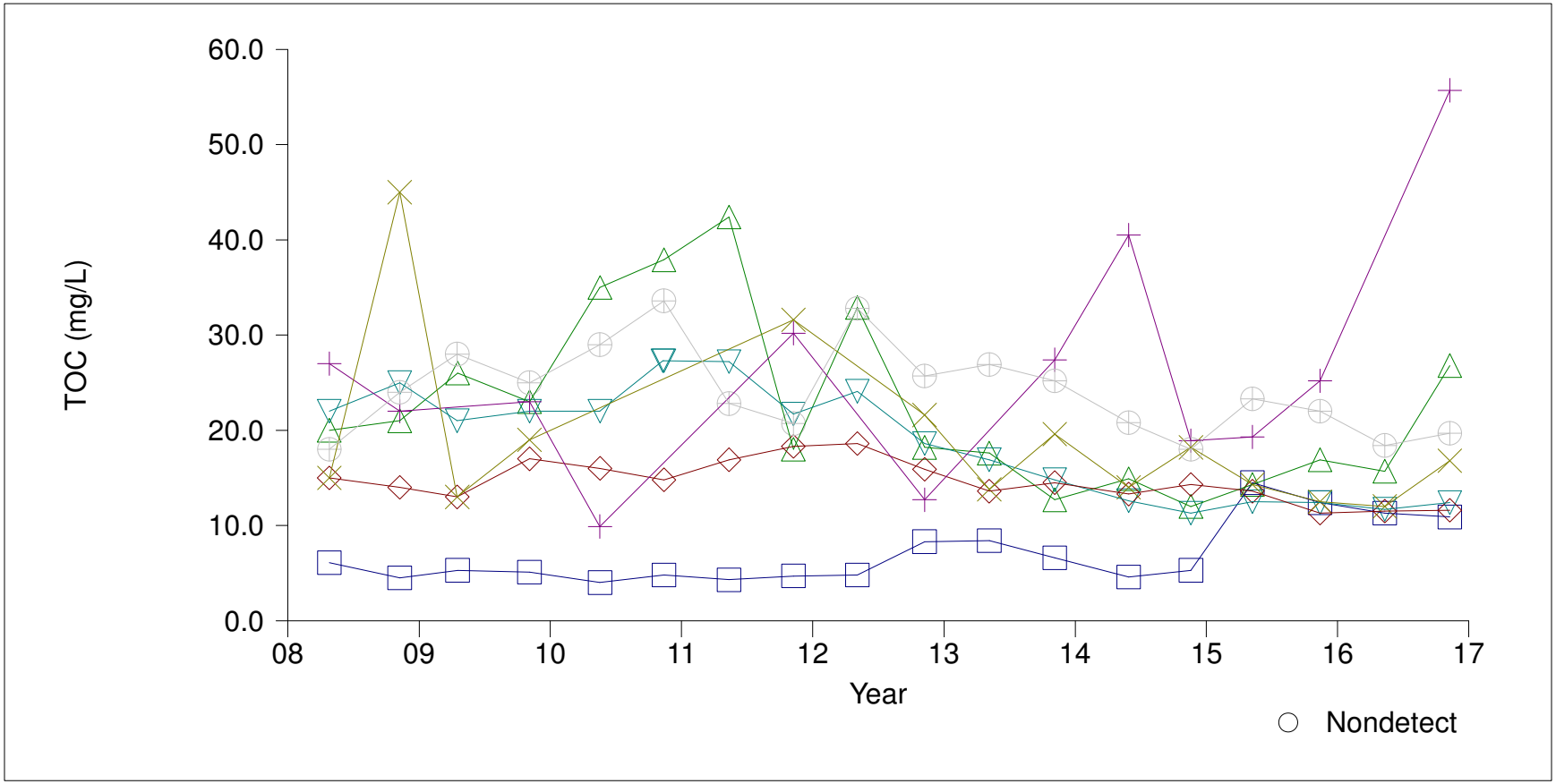
Time Series Plot for Fecal Coliform - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

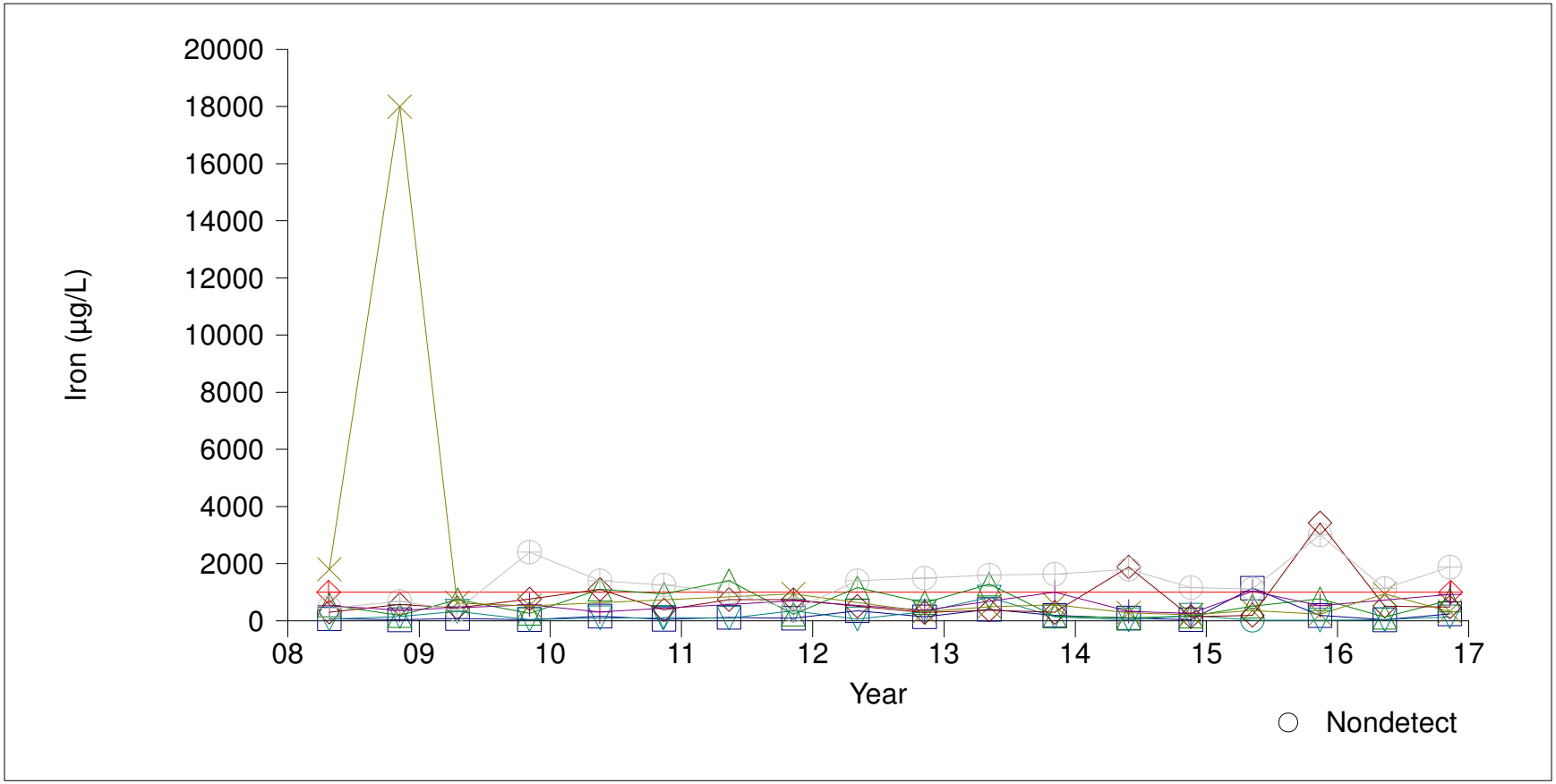
Time Series Plot for TOC - Surface Water



Prepared by: HDR Jacksonville

Tomoka Farms Road Landfill

Time Series Plot for Iron - Surface Water



Prepared by: HDR Jacksonville