39884

BIENNIAL WATER QUALITY MONITORING PLAN EVALUATION
SECOND HALF 1999 THROUGH SECOND HALF 2001
MANATEE COUNTY SOLID WASTE DIVISION
LENA ROAD LANDFILL
GMS ID NO: 4041C02025
PERMIT NO: 39884-001-SO
MANATEE COUNTY, FLORIDA

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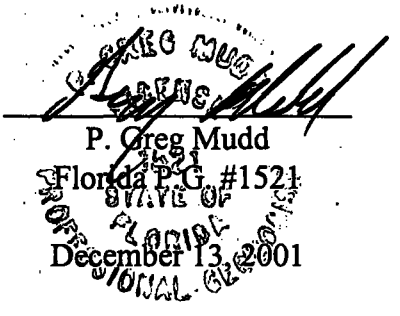

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December 13, 2001

EXECUTIVE SUMMARY

This Biennial Water Quality Monitoring Plan Evaluation presents the results of the water quality monitoring program at Manatee County's Lena Road Landfill (LRL) (GMS No. 4041C02025). The LRL facility operates under Permit Number 39884-001-SO, on file with the Florida Department of Environmental Protection (FDEP). This report presents the results of data from five semiannual sampling events, the Second Half, 1999, First and Second Halves, 2000, and the First and Second Halves, 2001. This report was prepared in accordance with Rule 62-701.510(9)(b) of the Florida Administrative Code (FAC). It was intended to evaluate the existing water quality network's effectiveness at monitoring water quality in the immediate vicinity of the LRL site, in compliance with Specific Condition Number 40 of the facility's operating permit.

The analytical results from the samples that were collected from the water quality monitoring network for this monitoring period indicate that the landfill continues to have minimal affect on the water quality. The only parameters that were regularly detected in the monitoring network at concentrations in excess of regulatory criteria were pH, TDS, turbidity, and iron. Sodium, chloride, and some of the trace metals, including arsenic, were detected at concentrations in excess of regulatory criteria on a less frequent basis. The exceedances in the leachate were limited primarily to iron and TDS, and, to a lesser extent, sodium and chloride. The only parameters that were regularly detected in the groundwater of the surficial aquifer at concentrations in excess of their respective MCL were pH, iron, TDS, and turbidity. Several inorganic parameters, including arsenic, cobalt, barium, lead, copper, zinc, nickel, and vanadium, were detected sporadically in the surficial aquifer at concentrations in excess of their respective MCLs. The same inorganic parameters, including the trace metals, were detected in the artesian aquifer but not at concentrations in excess of their respective MCLs. The only parameter that was consistently detected at concentrations in excess of its SWTCL in the surface water was iron. Some of the inorganic parameters, including arsenic, were also detected.

The type and concentrations of the parameters detected during this period were similar to that

reported for the previous monitoring period except for a slight reduction in the number of inorganic parameters that were detected.

The most significant detection during the monitoring period was arsenic. Arsenic was consistently detected at concentrations in excess of the MCL throughout the monitoring period at two of the shallow monitoring wells, and at lower concentrations at several other shallow wells during at least two of the sampling events. Most of the wells where the detections occurred are located on the west and northwest side of the landfill, and this evaluation was inconclusive as to a source of the arsenic. The arsenic concentration in the background wells was low throughout the monitoring period, but fluctuated at the some of the upgradient wells. One possible source may be the landfill, but arsenic was only detected once in the leachate during the monitoring period, and then only at a relatively low concentration. The detections may be a function of elevated turbidity levels but there appeared to be no direct correlation between turbidity and the arsenic detections.

The direction and rate of groundwater flow in both the surficial and artesian aquifers remained consistent during the monitoring period. Groundwater in both aquifers flows generally in a north-northwesterly direction at relatively low gradients. This pattern is consistent with that reported during the previous monitoring period. There was a large difference in the minimum and maximum water level elevation measured in both aquifers during the monitoring period because of a drought that affected the area.

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Section 1

INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES

This Biennial Water Quality Monitoring Plan Evaluation presents the results of the water quality monitoring program at Manatee County's Lena Road Landfill (LRL) (GMS No. 4041C02025). The LRL facility operates under Permit Number 39884-001-SO, on file with the Florida Department of Environmental Protection (FDEP).

This report presents the results of an evaluation of the data from five semiannual sampling events, the Second Half, 1999, First and Second Halves, 2000, and the First and Second Halves, 2001. This report was prepared in accordance with Rule 62-701.510(9)(b) of the Florida Administrative Code (FAC). It was intended to evaluate the existing water quality network's effectiveness at monitoring water quality in the immediate vicinity of the LRL site, in compliance with Specific Condition Number 40 of the facility's operating permit.

1.2 WATER QUALITY MONITORING PROGRAM

The LRL is constructed with three stages that are designated I, II, and III (Figure 1-1). The landfill is lined with a leachate collection system and a slurry wall. Specific Condition numbers 31, 32, and 35 of the permit require that the facility's water quality network involve monitoring of the leachate, surface water, and the groundwater in the surficial (or shallow) and artesian (deep) aquifers. The leachate samples are collected from the holding pond, and surface water samples are collected from two points (one upstream and one downstream) along the Cypress Strand. There are 26 wells that are used to monitor groundwater quality. Nineteen of the wells are used to monitor the quality of the groundwater of the surficial aquifer, and the other 7 wells are used to monitor the artesian (deep) aquifer. Wells GC-6 and SMR-1 are the designated background wells for the surficial aquifer; the well SMR-2 is the designated background well for the artesian aquifer. A summary of the components that comprise the water quality network is presented in Table 1-1.

Samples are collected from the facilty's water quality network on a semiannual basis. The facility's permit requires analysis for the parameters in the State guidelines for Solid Waste Management Facilities, Rule 62-701.510 (8)-62-701.510 (9) of the FAC. The leachate, groundwater, and surface water samples are analyzed for all of the parameters listed in Appendix I of 40 Code of Federal Regulations (CFR) Part 258. The leachate sample collected during one of the year's two sampling events is also analyzed for all of the parameters listed in Appendix II of CFR Part 258. P.A. LaMoreaux and Associates, Inc., Severn Trent Laboratory, and Savannah Laboratories provided the laboratory analytical services for this monitoring period. A copy of the certificates of laboratory reports for all of the sampling events are on file with the FDEP.

The monitoring wells are used in conjunction with 17 piezometers to monitor water level elevations on either side of the slurry wall. The monitoring wells are located outside of the landfill slurry wall and the piezometers are located inside the slurry wall. A summary of the components that comprise the water elevation network is presented in Table 1-2.

Section 2

WATER QUALITY ANALYTICAL AND ELEVATION DATA SUMMARY

A summary of the leachate, groundwater, and surface water analytical data, as well as the water elevation data, for the five sampling events is presented in this section. The analytical and elevation data are presented in table form in Tables 2-1 through 2-15. Please note in the tables that if the laboratory value or field value were not available, it is indicated by an "NA" in the appropriate column. Values below the laboratory detection limits are generally listed with a less than sign ("<") preceding the laboratory detection limit.

Any parameter detected in the groundwater at a concentration in excess of the Maximum Contaminant Level (MCL) is reflected with shading in the summary tables and described in detail below. The MCLs are promulgated by Chapter 62-550, FAC for Drinking Water Standards, Monitoring, and Reporting unless otherwise indicated. Note that some of the parameters with no detections are shaded because the detection limits exceed the MCL. The parameters with no MCL listed do not have an MCL. The groundwater MCLs do not apply to leachate or surface water. The MCLs were used during this evaluation, however, as reference criteria to identify any significant detections in the leachate. The Surface Water Cleanup Target Levels (SWCTLs) promulgated in Chapter 62-777 of the FAC were used as reference criteria for the surface water analytical results.

2.1 WATER QUALITY DATA SUMMARY

2.1.1 Leachate Analytical Data Summary

A listing of the parameters that were detected in the leachate at concentration in excess of their respective MCL during each sampling event is presented below. A complete summary of the leachate analytical results for each sampling event is presented in Tables 2-1 through 2-5.

Second Half, 1999

The following parameters were detected in excess of their respective MCL at the leachate sampling point during the Second Half of 1999 sampling event:

Iron	Total Dissolved Solids (TDS)

Barium and zinc were also detected, but at concentrations lower than their respective MCLs.

First Half, 2000

The following parameters were detected in excess of their respective MCL at the leachate sampling point during the First Half of 2000 sampling event:

Chloride	Iron
TDS	Sodium

Zinc was also detected, but at a concentration lower than its MCL.

Second Half, 2000

The following parameters were detected in excess of their respective MCL at the leachate sampling point during the Second Half of 2000 sampling event:

Iron	TDS
Sodium	

Barium, arsenic, and zinc were also detected but at concentrations lower than their respective MCLs.

First Half 2001

The following parameters were detected in excess of their respective MCL at the leachate sampling point during the First Half of 2001 sampling event:

Chloride	TDS
Iron	Sodium

Antimony, barium, cobalt, vanadium, and acetone were also detected but at concentrations lower than their respective MCLs.

Second Half 2001

The following parameters were detected in excess of their respective MCL at the leachate sampling point during the Second Half of 2001 sampling event:

Chloride	TDS
Iron	Sodium

Barium, chromium, cobalt, nickel, selenium, vanadium, benzene, chlorobenzene, para-dichlorobenzene, 1,1-dichloroethane (DCA), and xylene were also detected but at concentrations lower than their respective MCLs.

2.1.2 Groundwater Analytical Data Summary

A listing of the parameters that were detected in the groundwater at concentration in excess of their respective MCL during each sampling event is presented below. A complete summary of the groundwater analytical results for each sampling event is presented in Tables 2-6 through 2-10.

Second Half, 1999

The following parameters were detected at one or more of the shallow monitoring wells in excess of their respective MCL during the Second Half of 1999 sampling event:

pH	Chloride
TDS	Arsenic
Iron	Antimony

Turbidity

Several other inorganic parameters were also detected, but at concentrations lower than their respective MCLs. Turbidity and TDS were the only parameters that were detected in excess of its MCL in the artesian aquifer wells.

First Half, 2000

The following parameters were detected at one or more of the shallow monitoring wells in excess of their respective MCL during the First Half of 2000 sampling event:

pH	Arsenic
TDS	Chromium
Iron	Cobalt
Turbidity	

Several other inorganic parameters were also detected, but at concentrations lower than their respective MCLs. Iron and TDS were the only parameters detected in excess of their MCLs in the artesian aquifer wells.

Second Half, 2000

The following parameters were detected at one or more of the shallow monitoring wells in excess of their respective MCL during the Second Half of 2000 sampling event:

pH	Arsenic
TDS	Chromium
Iron	Turbidity

Several other inorganic parameters were also detected, but at concentrations lower than their respective MCLs. TDS and turbidity were the only parameters that were detected in excess of its MCL in the artesian aquifer wells.

First Half, 2001

The following parameters were detected at one or more of the shallow monitoring wells in excess of their respective MCL during the First Half of 2001 sampling event:

pH	Arsenic
TDS	Antimony
Iron	

Several other inorganic parameters were also detected, but at concentrations lower than their respective MCLs. TDS and turbidity were the only parameters that were detected in excess of their MCL in the artesian aquifer wells.

Second Half, 2001

The following parameters were detected at one or more of the shallow monitoring wells in excess of their respective MCL during the Second Half of 2001 sampling event:

pH	Arsenic
TDS	Nitrate
Iron	Cadmium

Several other inorganic parameters were also detected, but at concentrations lower than their respective MCLs. Iron, nitrate, and turbidity were the only parameters detected in excess of their MCLs in the artesian aquifer wells.

2.1.3 Surface Water Analytical Data Summary

A listing of the parameters that were detected in the surface water at concentration in excess of their respective SWCTLs during each sampling event is presented below. A complete summary of the surface water analytical results for each sampling event is presented in Tables 2-11 through 2-15.

Second Half, 1999

The only parameter that was detected in excess of its SWCTL in the surface water samples collected during the Second Half of 1999 sampling event was iron. Barium, copper, and zinc were also detected, but at concentrations lower than their respective SWCTLs.

First Half, 2000

The only parameter that was detected in excess of its SWCTL in the surface water sample collected during the First Half of 2000 sampling event (a sample was not collected at SW-1 because of dry conditions) was iron. Barium was also detected but at concentrations lower than its SWCTL.

Second Half, 2000

Iron was the only parameter that was detected in excess of its SWCTL in the surface water samples collected during the Second Half of 2000 sampling event. Arsenic, barium, and zinc were also detected, but at concentrations lower than their respective SWCTL s.

First Half, 2001

Iron was the only parameter that was detected in excess of its SWCTL in the surface water sample collected during the First Half of 2001 sampling event (a sample was not collected at SW-2 because of dry conditions). Barium was also detected but at concentrations lower than its SWCTL.

Second Half, 2001

The only parameter that was detected in excess of its SWCTL in the surface water samples collected during the Second Half of 2000 sampling event was iron. Arsenic, barium, chromium, copper, nickel, vanadium, and zinc were also detected but at concentrations lower than their respective SWCTLs.

Summary

The parameters that were regularly detected in the water quality network at concentrations in excess of the regulatory criteria were pH, TDS, turbidity, and iron, along with nitrate, and some of the trace metals, including arsenic. The exceedances in the leachate were limited primarily to iron and TDS, and, to a lesser extent, sodium and chloride. In the surficial aquifer, exceedances included pH, TDS,

turbidity, iron, arsenic, and some of the other inorganics. MCL exceedances in the artesian (deep) aquifer monitoring wells were limited primarily to TDS and iron, and included turbidity, nitrate, antimony, and cadmium. Iron is the only parameter that was consistently detected in the surface water at concentrations in excess of its SWCTL. Arsenic, barium, chromium, copper, nickel, vanadium, and zinc were detected sporadically in the surface water at concentrations lower than their respective SWCTLs.

2.2 WATER ELEVATION DATA SUMMARY

The groundwater elevation measurements for the five sampling events are presented in Tables 2-6 through 2-10 along with the analytical data. The water level elevation data for each event was combined with the water level measurements at the piezometers, and plotted and contoured to generate water level elevation contour maps. The maps are used to demonstrate the groundwater flow direction and gradient in both aquifers at the time of each sampling event. A description of the survey results is presented in Section 4.1

Section 3

WATER QUALITY EVALUATION

3.1 WATER QUALITY TRENDS

The analytical data was reviewed for general trend analysis and semiannual changes in groundwater quality. The evaluation also involved a correlation of related parameters, a comparison of the results at the upgradient and downgradient wells, and a comparison of the surficial and artesian aquifers. A summary of the water quality data trends is presented in Table 3-1.

3.1.1 Leachate

There were four parameters that were regularly detected in the leachate at concentrations in excess of their respective MCLs – TDS, iron, sodium, and chloride. The trend observed with each parameter is as follows:

- *TDS* - The TDS concentration fluctuated between 770 milligrams per liter (mg/L) and 2060 mg/L during the monitoring period. The MCL is 500 mg/L. There was a slightly upward trend in the concentration during the monitoring period.

- *Iron* - Iron also showed a definite upward trend in concentration during the monitoring period. The concentration of iron ranged from a low 1.8 mg/L during the first half of 2000 to a high of 1740 mg/L increased during the Second Half of 2001. The average was 8.1 mg/L. The MCL for iron is 0.3 mg/L.

- *Sodium* - The concentration of sodium was erratic during the period, ranging from 130 mg/L during the Second Half of 1999 to 18,000 mg/L during the First Half of 2000. The MCL for sodium is 160 mg/L. The sodium concentration averaged 3,800 mg/L, but the First Half of 2000 results skew the average.

- *Chloride* - The chloride concentration during the monitoring period was also erratic, in ranging from a low of 140 mg/L during the Second Half of 2000 to a high of 810 mg/L during the First Half of 2001. The average was 388 mg/L. The MCL for chloride is 250 mg/L.

Other parameters that were detected in the leachate during the monitoring period were arsenic, total ammonia-N, barium, benzene, chlorobenzene, para-dichloro-benzene, 1,1-DCA, toluene, and xylene. These parameters were detected on an infrequent basis, and none were detected at concentrations in excess of their respective MCL. Arsenic was detected once during the monitoring period, during the Second Half of 2000 sampling event at a concentration of 0.013 mg/L. The MCL for arsenic is 0.05 mg/L. Total ammonia-N and barium were detected at relatively low concentrations throughout monitoring. The other six parameters were only detected during the Second Half of 2001 sampling event, and none at concentrations in excess of their respective MCL .

3.1.2 Groundwater

3.1.2.1 Surficial Aquifer

Four parameters were regularly detected in the surficial aquifer wells at concentrations in excess of their MCLs – pH, iron, TDS, and arsenic. Turbidity, chloride, antimony, nitrate, and chromium were detected at concentrations in excess of their respective MCLs but only on an infrequent basis and at a limited number of well locations. Graphical representations of the trends of the pH, iron, TDS, and arsenic concentrations at each of the shallow monitoring wells are presented in Appendix A. A summary of the detection trends observed with these parameters is presented below.

- *pH* – The pH value measured lower than the prescribed MCL range (6.5-8.5 SU) at every well except CW-4, GC-1A, and GC-3 during every sampling event. A graphic representation of pH concentration at each well during the monitoring period is presented in Appendix A-1.

- *Iron* – The concentration of iron exceeded the MCL at every well during each sampling event. The iron concentrations were consistent throughout the monitoring period, and generally ranged between 10 and 100 times the MCL. Iron concentrations detected at the

background and upgradient wells was consistent with the concentrations detected at the other monitoring wells. The concentration of iron fluctuated during the period, in that they were generally higher during the sampling events during the second half of each year. A graphic representation of iron concentration at each well during the monitoring period is presented in Appendix A-2.

- *TDS* – The trend of TDS was erratic during the monitoring period. It was detected at a concentration in excess of the MCL once during the period at wells CW-4, MW-1, MW-2, CW-5A, and LRII-3 and twice at wells CW-4 and MW-2. Monitoring well CW-4 is located upgradient of the landfill to the south of Stage I. Monitoring well MW-2 is located on the west side of Stage I. The TDS concentration fluctuated between sampling events, with the concentrations being generally higher during the sampling events during the second half of each year. A graphic representation of TDS concentration at each well during the monitoring period is presented in Appendix A-3.

- *Arsenic* – The arsenic concentration consistently exceeded the MCL (0.05 mg/L) at two wells during the monitoring period, at MW-2 and GC-2. At MW-2 the arsenic concentration exceeded the MCL during four sampling events, and ranged from .098 mg/L to 0.21mg/L. The MCL was exceeded during four sampling events. At GC-2, the arsenic concentration exceeded the MCL during all five sampling events, and ranged from 0.06 mg/L to 0.082 mg/L. Monitoring well MW-2 is located on the west side of Stage I, and GC-2 is located north of Stage III. Arsenic was also detected at some of the other wells during the monitoring period, but at concentrations lower than the MCL. It was detected during two sampling events at monitoring wells GC-3 and GC-4; during four events at wells GC-1A, MW-2, and LRII-1; and during all five sampling events at well CW-4 (in addition to GC-2 and MW-2). Arsenic was not detected in the two background wells, GC-6 and SMR-1, during the monitoring period, but was detected at least once at the two surface water sampling points. A graphic representation of arsenic concentration at each well during this monitoring period is presented in Appendix A-4.

- *Turbidity* – Turbidity showed a decreasing trend during the monitoring period. It was detected at a concentration in excess of the MCL (20 NTU) at eight of the shallow wells during the first sampling event. That number dropped to three during the two ensuing sampling events, and to zero during the last two sampling events.

- *Antimony* – Antimony was detected at a concentration in excess of its MCL (0.006 mg/L) at wells CW-4 and CW-5A during the Second Half of 1999.

- *Chloride* – Chloride was detected at a concentration in excess of the MCL once during the monitoring period – at well MW-2 during the Second Half of 1999. The concentration at MW-2 and CW-4 was generally higher that all of the other wells during each sampling event. The chloride concentration at CW-4 and MW-2 averaged over 200 mg/L during the monitoring period, whereas at the other shallow wells the concentration was generally less than 50 mg/L.

- *Chromium* - Chromium's MCL – 0.01 mg/L – was exceeded in the sample collected at MW-6 during the Second Half of 2000 sampling event, and in the sample collected at SMR-1 during the First Half of 2000 sampling event.

In addition to these parameters, there were several inorganic parameters, including cobalt, barium, lead, copper, zinc, nickel, and vanadium, that were detected sporadically during the monitoring period but never at concentrations in excess of their respective MCLs. These detections were prevalent during the sampling events conducted during the second half of each year and most occurred in the samples collected at most of the shallow wells, including background well SMR-1. A similar trend was observed with these parameters during the previous monitoring period.

3.1.2.2 Artesian (Deep) Aquifer

Two parameters were detected more than once during the monitoring period at concentrations in excess of their MCLs in the samples collected at the artesian aquifer monitoring wells– iron and TDS. Turbidity, antimony, pH, and cadmium were detected at concentrations in excess of their

respective MCLs at least once during the monitoring period. A summary of the detection trends observed with these parameter is presented below. Graphical representations of the concentrations of these parameters at each of the deep monitoring wells are presented in Appendix A.

- *Iron* – The concentration of iron exceeded the MCL at two of the deep wells – SA-2 and SA-3. The MCL was exceeded twice at SA-3 (First Half, 2000 and Second Half, 2001) and once at well SA-2 (Second Half, 2001). The concentration trend showed a similar fluctuation between sampling events, with the concentrations generally being higher during the sampling events performed during the second half of each year. A graphic representation of iron concentration detected at each deep well during the monitoring period is presented in Appendix A-5.

- *TDS* – The concentration of TDS was relatively steady throughout the monitoring period. The TDS concentration was detected at a concentration in excess of the MCL at one well, SA-6, during the monitoring period. The TDS concentration at SA-6 exceeded the MCL during every sampling event but the Second Half 2001. A graphic representation of the TDS concentration at each deep well during the monitoring period is presented in Appendix A-6.

- *Turbidity* – The turbidity readings in the artesian wells was generally erratic during the period. It exceeded the MCL twice during the period at well SA-8 and once at well SA-2.

- *Antimony* – Antimony was detected only once at a concentration in excess of the MCL. It was detected at well SA-2 during the First Half of 2001 sampling event.

- *Cadmium* – Cadmium was also detected only once at a concentration in excess of the MCL. It was detected at well SA-6 during the Second Half of 2001 sampling event.

In addition to these parameters, some other inorganic parameters were detected in the artesian aquifer wells during the monitoring period, but at concentrations lower than their respective MCLs. Most of these parameters were also detected at the deep background well, SMR-2, throughout the

monitoring period.

3.1.3 Surface Water

The only parameter that was detected in the surface water at a concentration in excess of its SWCTL was iron. Iron was detected at concentrations ranging from approximately 3 to 30 times the SWCTL (1 mg/L) at both sampling points throughout the monitoring period. In addition, several of the inorganic parameters, including arsenic, chromium, barium, zinc, copper, nickel, selenium, and vanadium were detected at least once during the monitoring period, but at concentrations lower than their respective SWCTLs. Arsenic was detected at least once at both of the surface water sampling points during the monitoring period.

3.2 GROUNDWATER QUALITY CORRELATIONS

3.2.1 Related Parameter Correlation

The concentrations of arsenic and iron were graphed together with the turbidity readings at each monitoring well to evaluate whether there was any correlation. All of the shallow monitoring wells were used in the survey. The iron and arsenic graphs are provided in Appendices B-1 and B-2, respectively.

Iron vs. Turbidity

There was poor correlation between the concentration of iron versus turbidity at all of the well locations during each sampling event except at wells GC-1A, MW-2, MW-3, MW-6, and the background well SMR-1. The turbidity and iron concentrations at all of the wells decreased throughout the monitoring period except for a spike in concentrations during the First Half of 2000 sampling event. The graphs for all of these wells, including the background well, demonstrate that the iron concentration remained at elevated levels (higher than the MCL) even when the turbidity reading was relatively low, suggesting that the background iron concentrations in the area is high. Based on these findings, there does not appear to be any correlation between turbidity and iron.

Arsenic vs. Turbidity

There was poor correlation between the concentration of arsenic versus turbidity at all of the well locations during each sampling event, including the background well SMR-1. There were two wells where the arsenic concentration consistently exceeded the MCL – GC-2 and MW-2. At GC-2, the turbidity readings decreased throughout the monitoring period while the arsenic concentration remained relatively constant. At MW-2, the turbidity decreased significantly following the Second Half of 1999 sampling event, while the arsenic concentration increased slightly following that event and remained constant throughout the reminder of the monitoring period. At SMR-1, the turbidity was very low throughout the monitoring period except for the First Half of 2000 sampling event while the arsenic concentration remained very low throughout. Based on these findings, there does not appear to be any direct correlation between turbidity and arsenic.

3.2.2 Downgradient Correlation

In order to evaluate changes in groundwater quality in the direction of groundwater flow beneath the landfill, the concentrations of pH, iron, TDS, and arsenic were graphed. The wells were grouped together into their appropriate stages and arranged in order from upgradient to downgradient. The four monitoring wells located on the upgradient side of the landfill, MW-1, CW-4, CW-5A, and MW-6, and the background wells, GC-2 and SMR-1, were used as the upgradient wells. The graphs are presented in Appendices B-3 through B-6. A summary of the observations related to each parameter is presented below.

- *pH* – The pH concentrations showed a very consistent trend during each sampling event. The pH level at the upgradient wells had a wide range but was lower than the MCL. The trend downgradient was a generally decreasing pattern, especially in the wells around Stage II, but the levels fluctuate too much to discern a definite pattern.

- *Iron* – The concentration of iron showed a similar pattern as pH in that it was consistent between sampling events. The iron concentration in the upgradient wells was generally low throughout the monitoring period yet exceeded the MCL at each well. The iron

concentration fluctuated significantly at the downgradient wells. The concentration was highest at wells GC-2, MW-2, and LRII-1 throughout the monitoring period. These wells are located in the downgradient sides of Stages III, I, and II, respectively, but are located adjacent to other wells where the iron concentration was relatively low throughout the monitoring period.

- *TDS* – The TDS concentration was relatively low at all of the five upgradient wells except CW-4. At CW-4 the TDS concentration exceeded the MCL throughout the monitoring period. The TDS concentration in all of the downgradient wells was relatively low and consistent except for an upward spike in concentration at MW-2 during the Second Half of 1999 and at LRII-3 during the Second Half of 2000 sampling event.

- *Arsenic* – Arsenic was not detected in the two background wells, GC-6 and SMR-1, during the monitoring period. In the other upgradient wells, the concentration of arsenic was very low except at CW-4. At CW-4, the concentration never exceeded the MCL, but was higher than the detection limit during every sampling event. The three monitoring wells that consistently had the arsenic detections at concentration in excess of the MCL are located on the downgradient side of the landfill. Arsenic was also detected at least twice during the monitoring period at seven other wells located on the downgradient side of the landfill. Arsenic was also detected at least once at both surface water sampling points during the monitoring period.

Based on these results, the differences in groundwater quality on either side of the landfill are minimal. The only parameter that showed a significant change in the detection pattern across the landfill boundary was arsenic. The concentration in the downgradient wells was generally higher than the upgradient wells throughout the monitoring period.

3.2.3 Cross-Aquifer Correlation

There were significant differences in the detection patterns between the shallow and deep monitoring

wells. The shallow wells had consistent detections of pH, iron, TDS, turbidity, arsenic, and some trace metals at concentrations above or outside the MCL. None of these parameters were detected regularly at elevated concentrations in the deep wells. The same is true for the exceedances of the trace metals. These results indicate that there has not been any significant exchange of groundwater between the two aquifers at the LRL site.

Section 4

WATER ELEVATION DATA EVALUATION

4.1 GROUNDWATER ELEVATION DATA

Groundwater level elevation measurements were made regularly at each monitoring well during the monitoring period to monitor the groundwater flow patterns. A listing of the water level elevations measured during each sampling event is provided along with the groundwater analytical data on Tables 2-6 through 2-10. The water level elevation data collected on a monthly basis at the shallow and deep wells were plotted on line graphs to illustrate the trends in elevation during the monitoring period. The graphs are presented in Appendix C.

The water level elevation data was plotted and contoured to generate contour maps for the surficial and artesian aquifers for each sampling event. The contour plots are presented as Figures 4-1 through 4-10.

4.1.1 Surficial Aquifer

The groundwater elevation contour maps indicate that the groundwater within the surficial aquifer outside the boundary of the landfill flowed in a north-northwesterly direction at the time of each sampling event. The average horizontal gradient was 0.001 feet per foot (ft/ft).

The presence slurry wall and leachate collection systems create localized cells of groundwater flow within each stage. In general, groundwater flow within each landfill stage is outward from the center toward the leachate collection system surrounding the cell.

The hydrographs for the shallow wells were separated into stages, and are presented in Appendices C-1 through C-3. Based on an analysis of the hydrographs, the average fluctuation of the groundwater level (between maximum and minimum water levels) during the monitoring period at the shallow wells was over 8 feet. In comparison, the average fluctuation for the previous

monitoring period was approximately 2 feet. The general pattern in water level elevation during the period was a lowering trend with seasonal fluctuations. The area was in a drought throughout the monitoring period and the water levels reflect that condition.

4.1.2 Artesian (Deep) Aquifer

The groundwater elevation contour maps indicate that the groundwater within the artesian aquifer also flowed to the north-northwest at an average horizontal gradient was 0.006 ft/ft.

The water elevation data for the deep wells was separated into stages and plotted onto the hydrographs presented in Appendix C-4. There was an average fluctuation in the water level of over 10 feet at each well during the period. The pattern in elevation change was the same at each well. The water level pattern was similar to the graphs of the shallow wells except for the Second Half of 2001 sampling event where elevation of the deep wells was on an upward trend as opposed to the downward trend observed for that time in the surficial aquifer. The difference may reflect the differences in the sources of recharge between the two aquifers.

4.2 RAINFALL DATA

A summary of the rainfall measured on a monthly basis during the monitoring period at the LRL facility is provided in Table 4-1. The data is presented in graph form in Appendix D.

Section 5

SUMMARY AND CONCLUSIONS

The direction and rate of groundwater flow in both the surficial and artesian aquifers remained consistent during the monitoring period. Groundwater in both aquifers flows generally in a north-northwesterly direction at relatively low gradients. This pattern is consistent with that reported during the previous monitoring period. There was a large difference in the minimum and maximum water level elevation measured in both aquifers during the monitoring period because of a drought that affected the area.

The analytical results from the samples that were collected from the water quality monitoring network for this monitoring period indicate that the landfill continues to have minimal affect on the water quality. The only parameters that were regularly detected in the monitoring network at concentrations in excess of regulatory criteria were pH, TDS, turbidity, and iron. Sodium, chloride, and some of the trace metals, including arsenic, were detected at concentrations in excess of regulatory criteria on a less frequent basis. The exceedances in the leachate were limited primarily to iron and TDS, and, to a lesser extent, sodium and chloride. The only parameters that were regularly detected in the groundwater of the surficial aquifer at concentrations in excess of their respective MCL were pH, iron, TDS, and turbidity. Several inorganic parameters, including arsenic, cobalt, barium, lead, copper, zinc, nickel, and vanadium, were detected sporadically in the surficial aquifer at concentrations in excess of their respective MCLs. The same inorganic parameters, including the trace metals, were detected in the artesian aquifer but not at concentrations in excess of their respective MCLs. The only parameter that was consistently detected at concentrations in excess of its SWTCL in the surface water was iron. Some of the inorganic parameters, including arsenic, were also detected. The type and concentrations of the parameters detected during this period were similar to that reported for the previous monitoring period except for a slight reduction in the number of inorganic parameters that were detected.

The findings at the background wells suggest that elevated concentrations of pH, iron, TDS, and some of the inorganic parameters detected in the monitoring network reflects the natural chemistry

of the groundwater in this area. The detections of some of the inorganics, particularly arsenic, did not correlate consistently with the background conditions. The most significant detection during the monitoring period was arsenic. Most of the arsenic detections were at the shallow wells are located on the west and northwest side of the landfill, and this evaluation was inconclusive as to a source of the arsenic. One possible source may be the landfill, but arsenic was only detected once in the leachate during the monitoring period, and then only at a relatively low concentration. The exceedances detections may be a function of elevated turbidity levels although there appeared to be no direct correlation between turbidity and the arsenic detections.

PBS&J recommends that arsenic, as well as the other parameters consistently detected at elevated concentrations during this monitoring period, continue to be monitored closely for any developing trends. The elevated turbidity readings in the groundwater may be a result of inadequate filter packs at some the monitoring wells, and/or poor recharge conditions, and/or improper purging/sampling techniques. PBS&J also recommends that an evaluation of the sampling technique be performed to ensure that turbidity is minimized during future sampling events.

FIGURES

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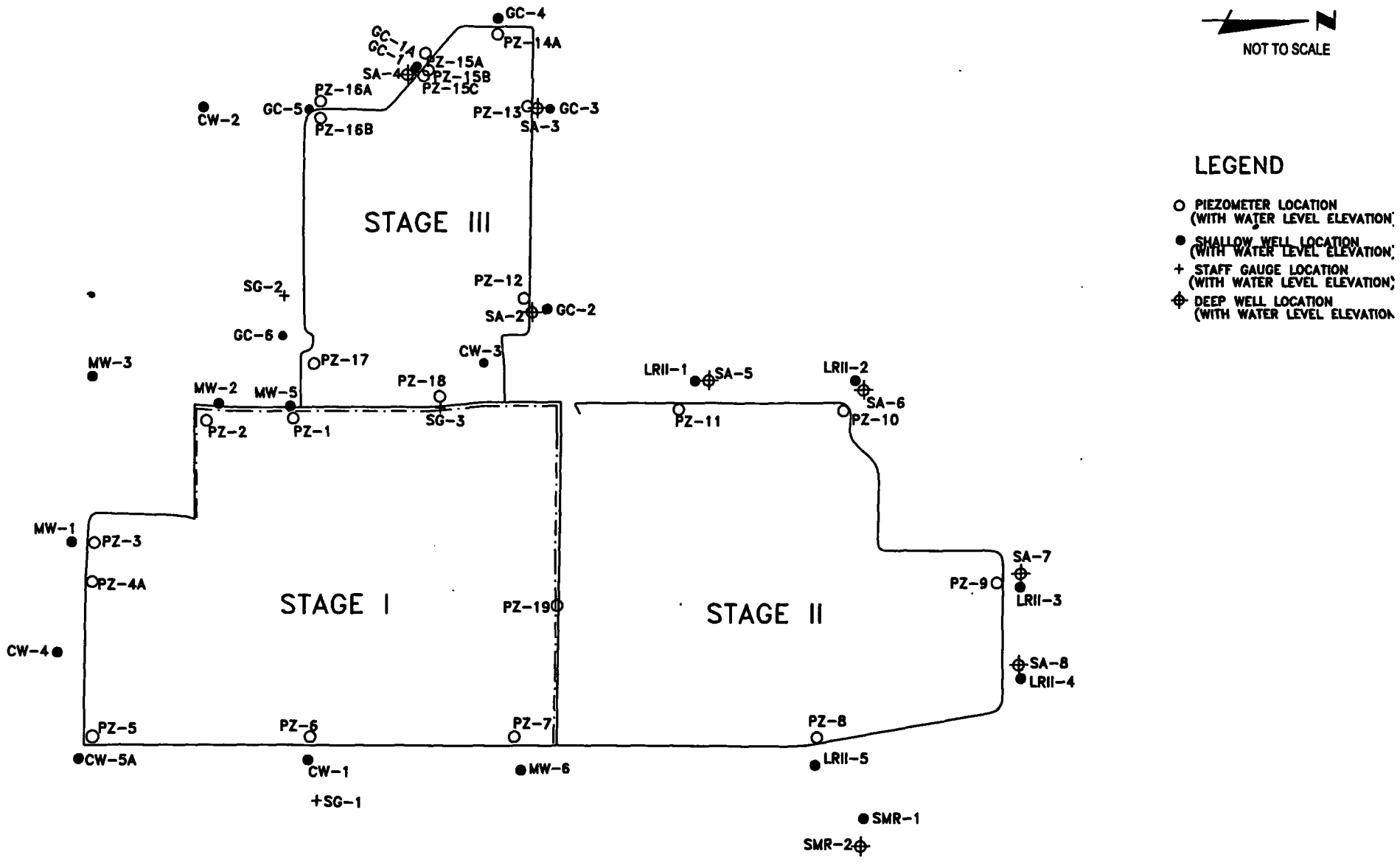

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	SITE MAP AND WATER QUALITY AND ELEVATION NETWORK MONITORING LOCATIONS	FIG. 1-1

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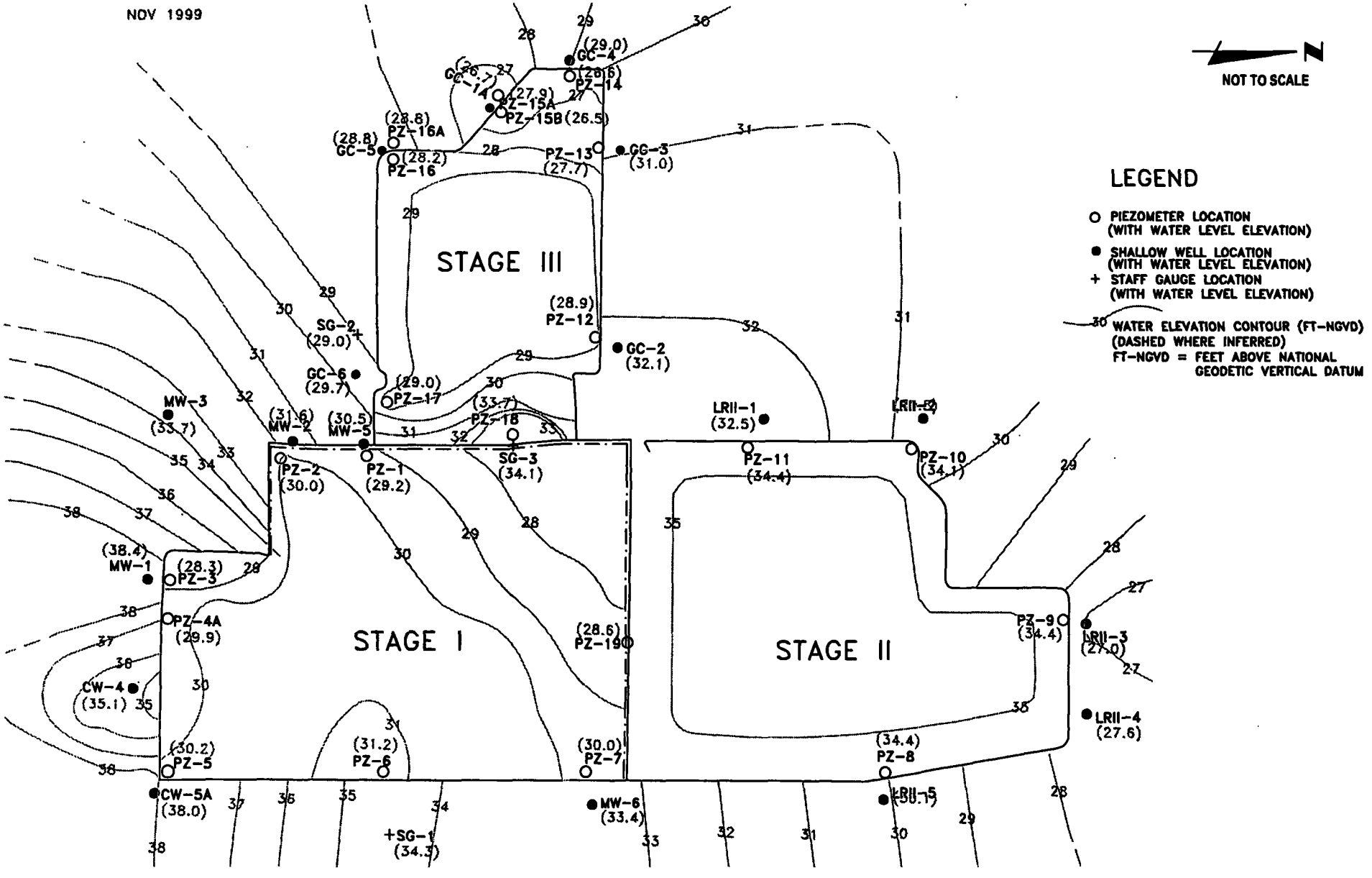

PBSJ	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, SURFICIAL AQUIFER – NOVEMBER 1999	FIG. 4-1

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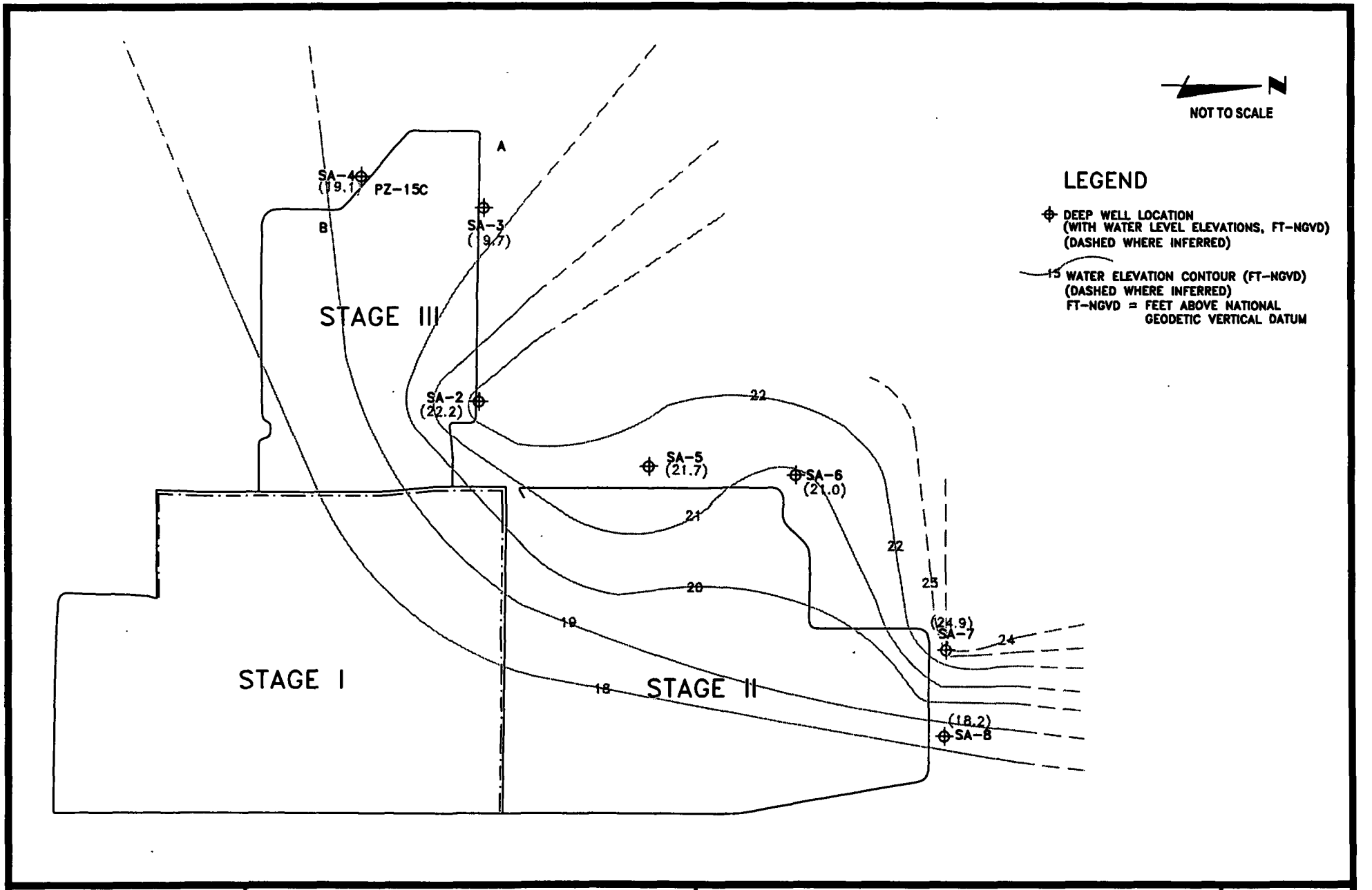

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, ARTESIAN (DEEP) AQUIFER -- NOVEMBER 1999	FIG. 4-2

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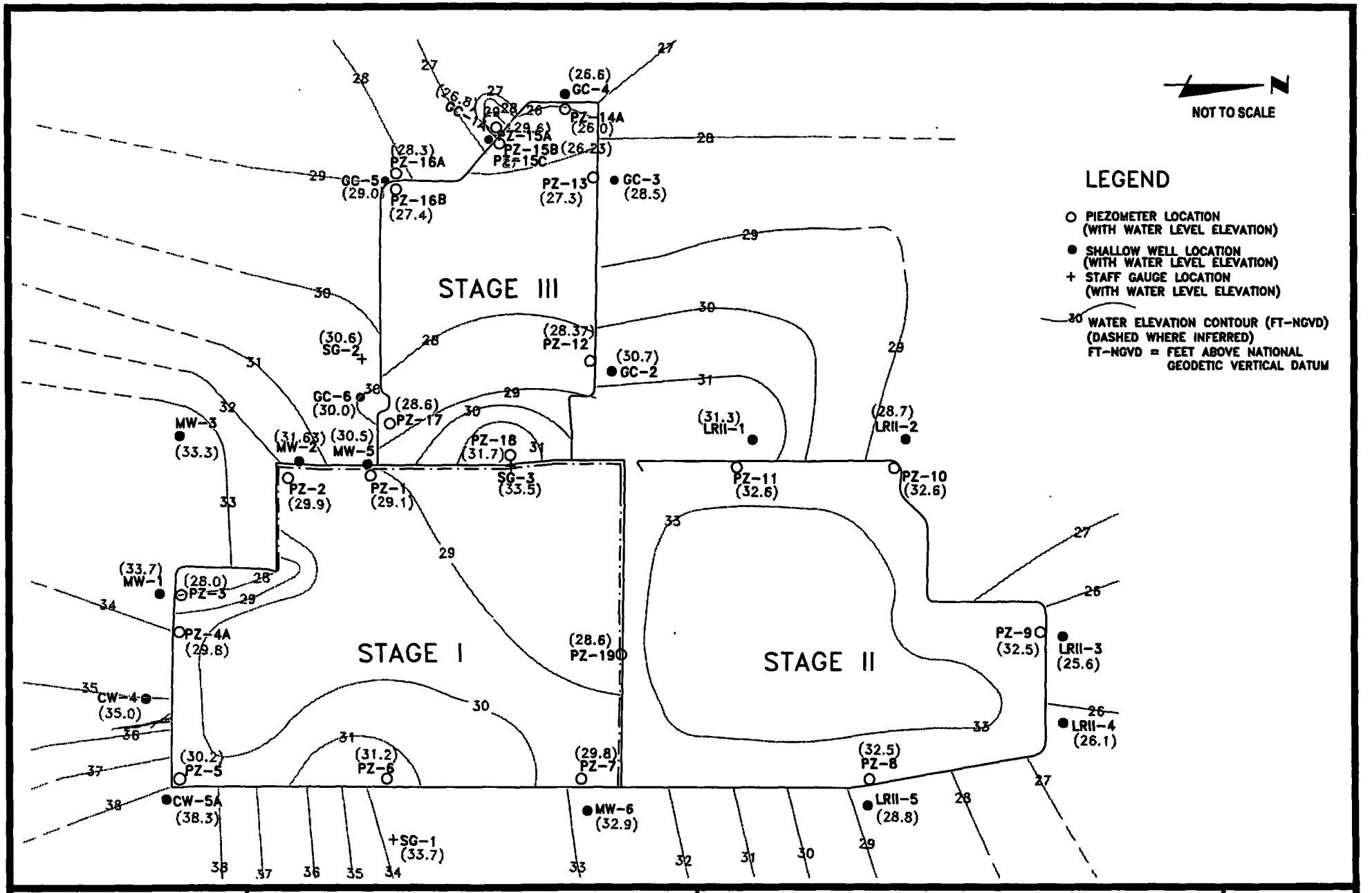

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, SURFICIAL AQUIFER – FEBRUARY 2000	FIG. 4-3

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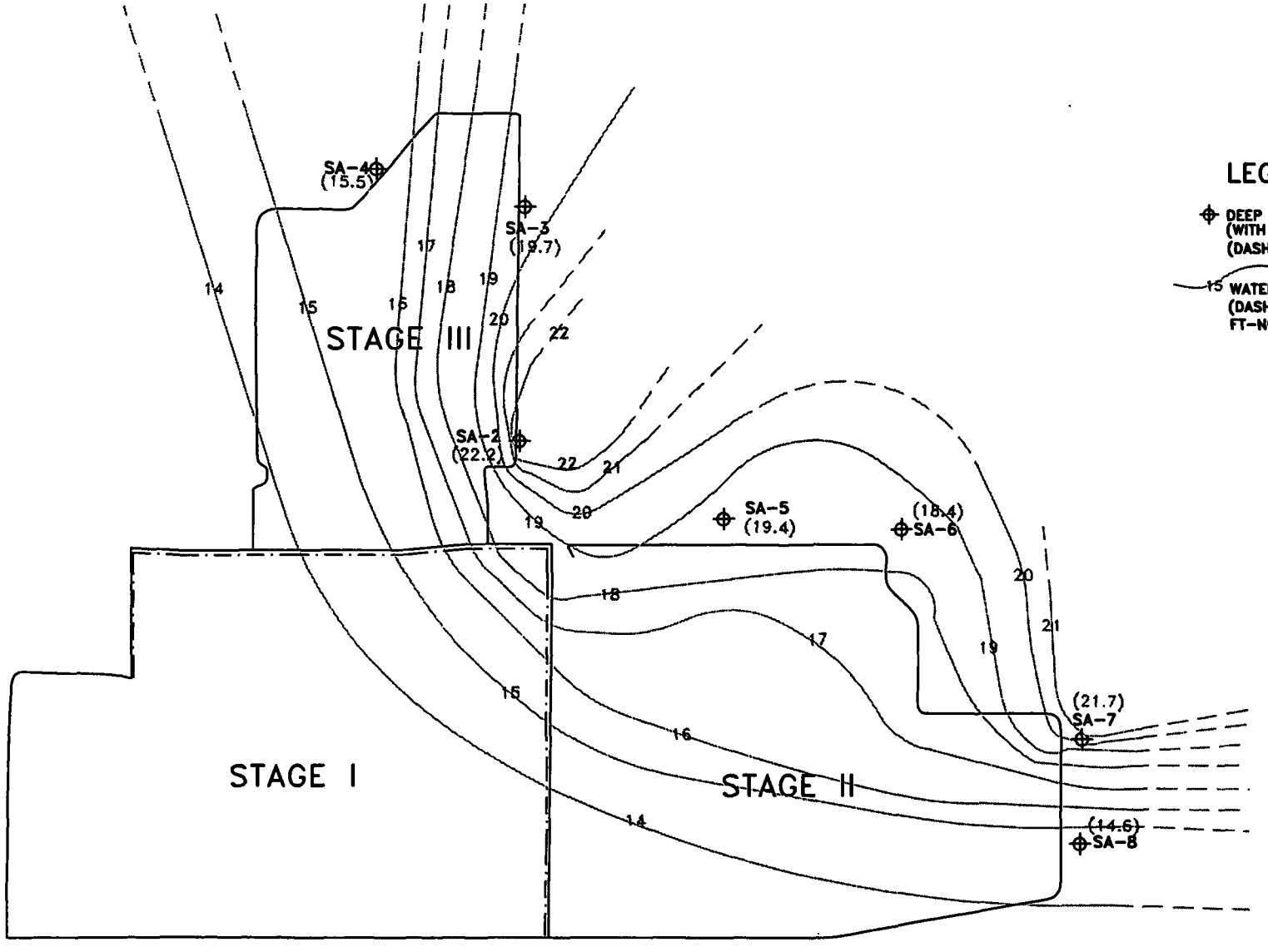

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, ARTESIAN (DEEP) AQUIFER – FEBRUARY 2000	FIG. 4-4

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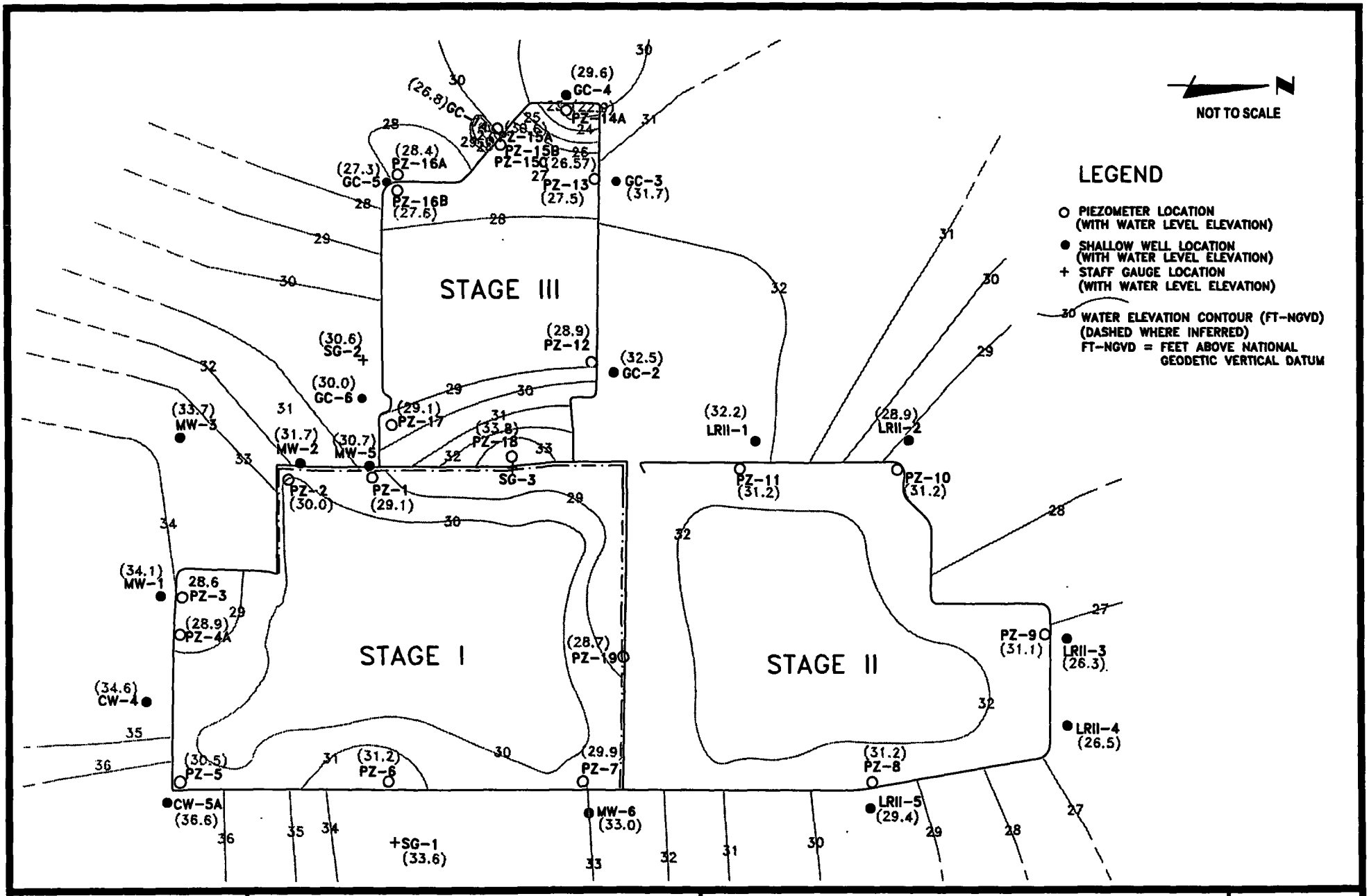

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, SURFICIAL AQUIFER -- AUGUST 2000	FIG. 4-5

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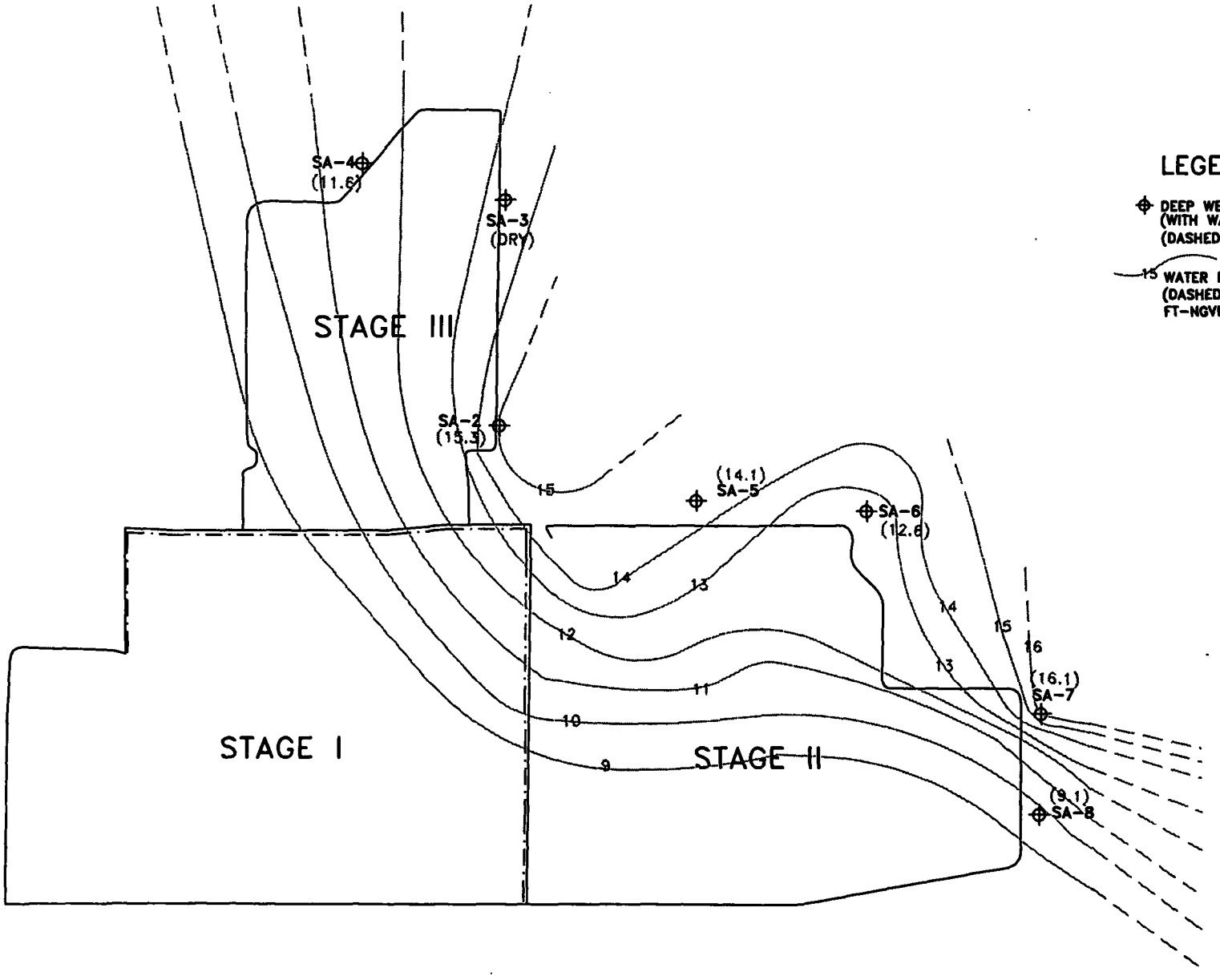

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, ARTESIAN (DEEP) AQUIFER -- AUGUST 2000	FIG. 4-6

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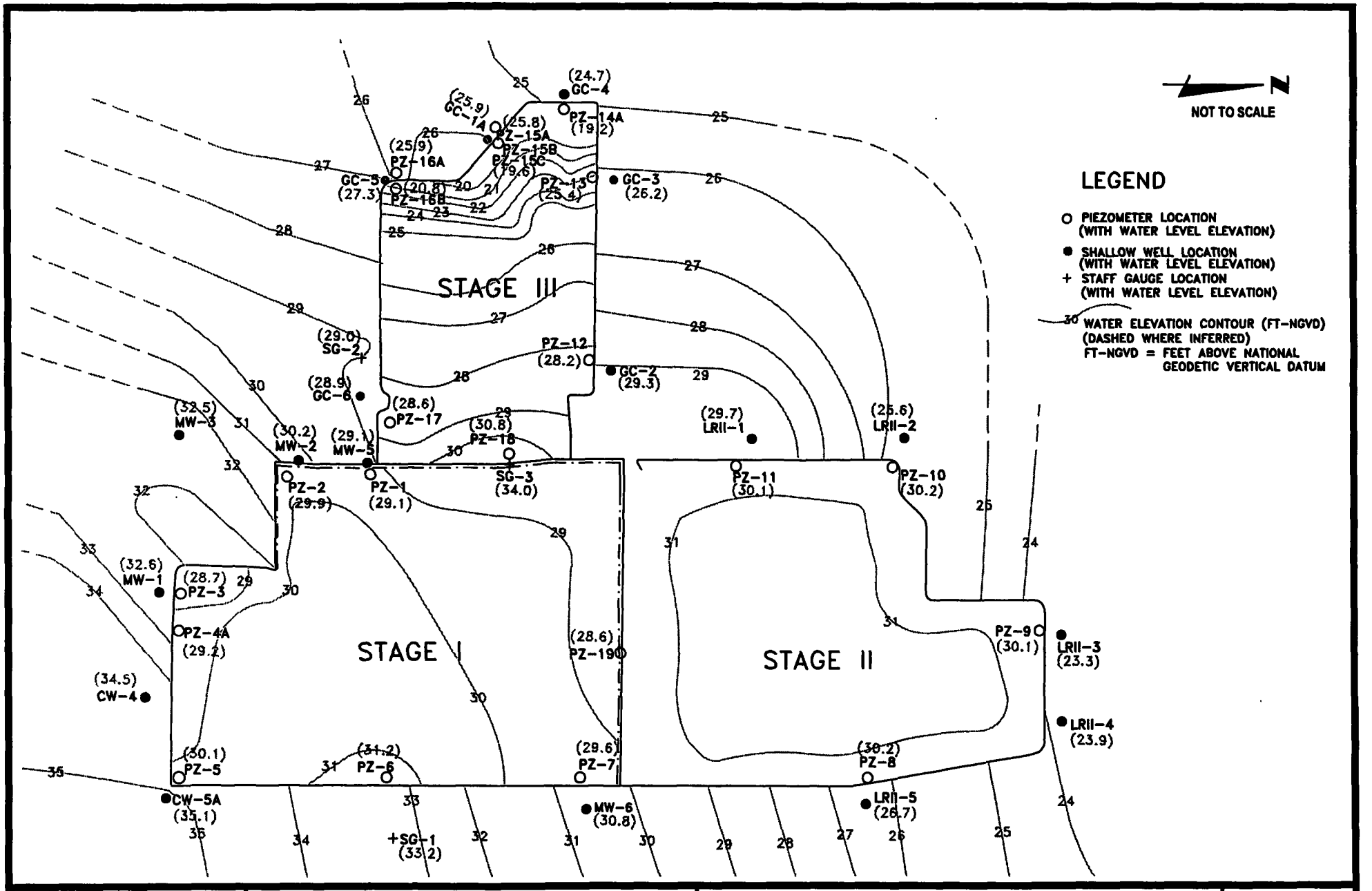

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, SURFICIAL AQUIFER – MARCH 2001	FIG. 4-7

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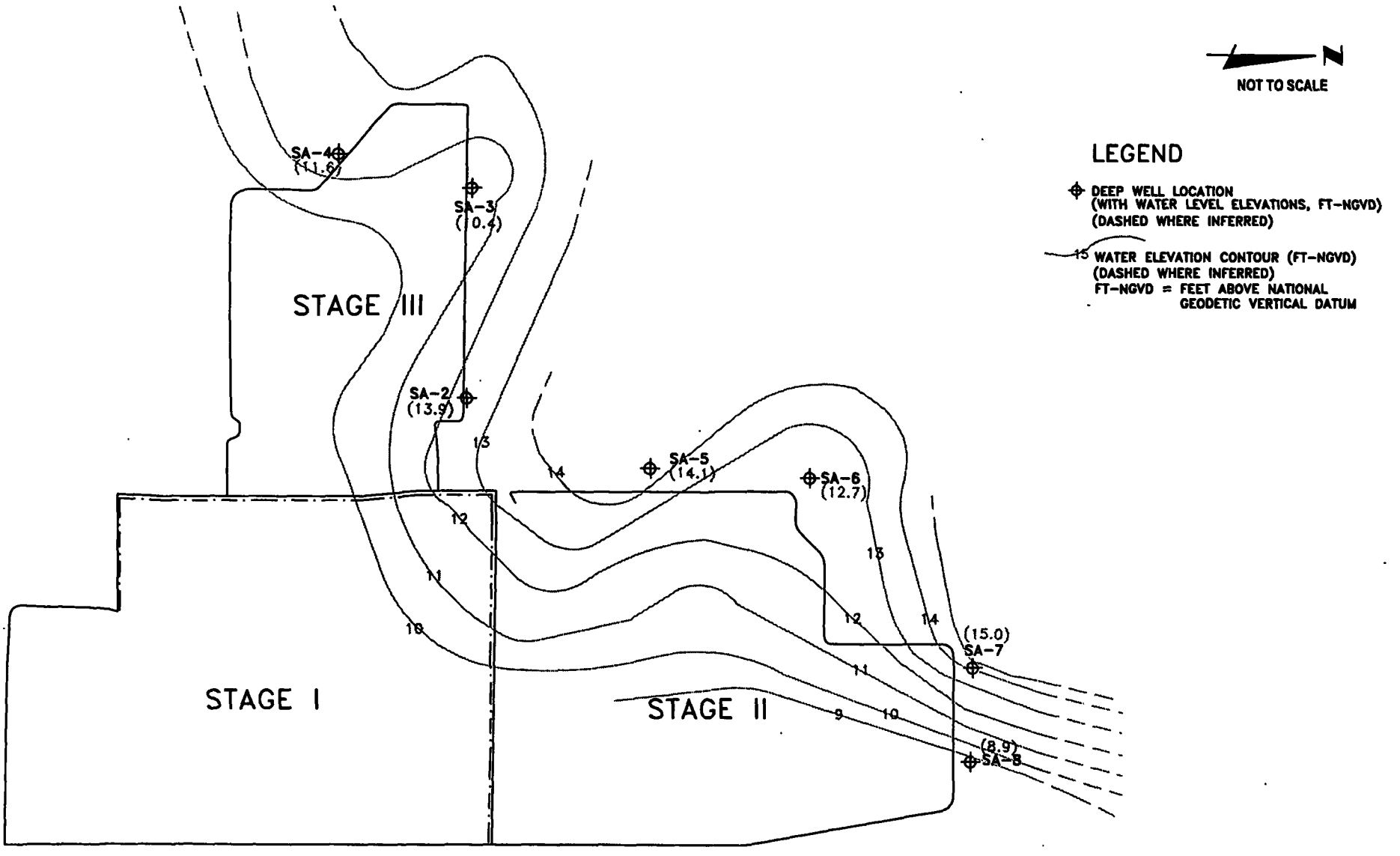

PBSJ	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, ARTESIAN (DEEP) AQUIFER -- MARCH 2001	FIG. 4-8

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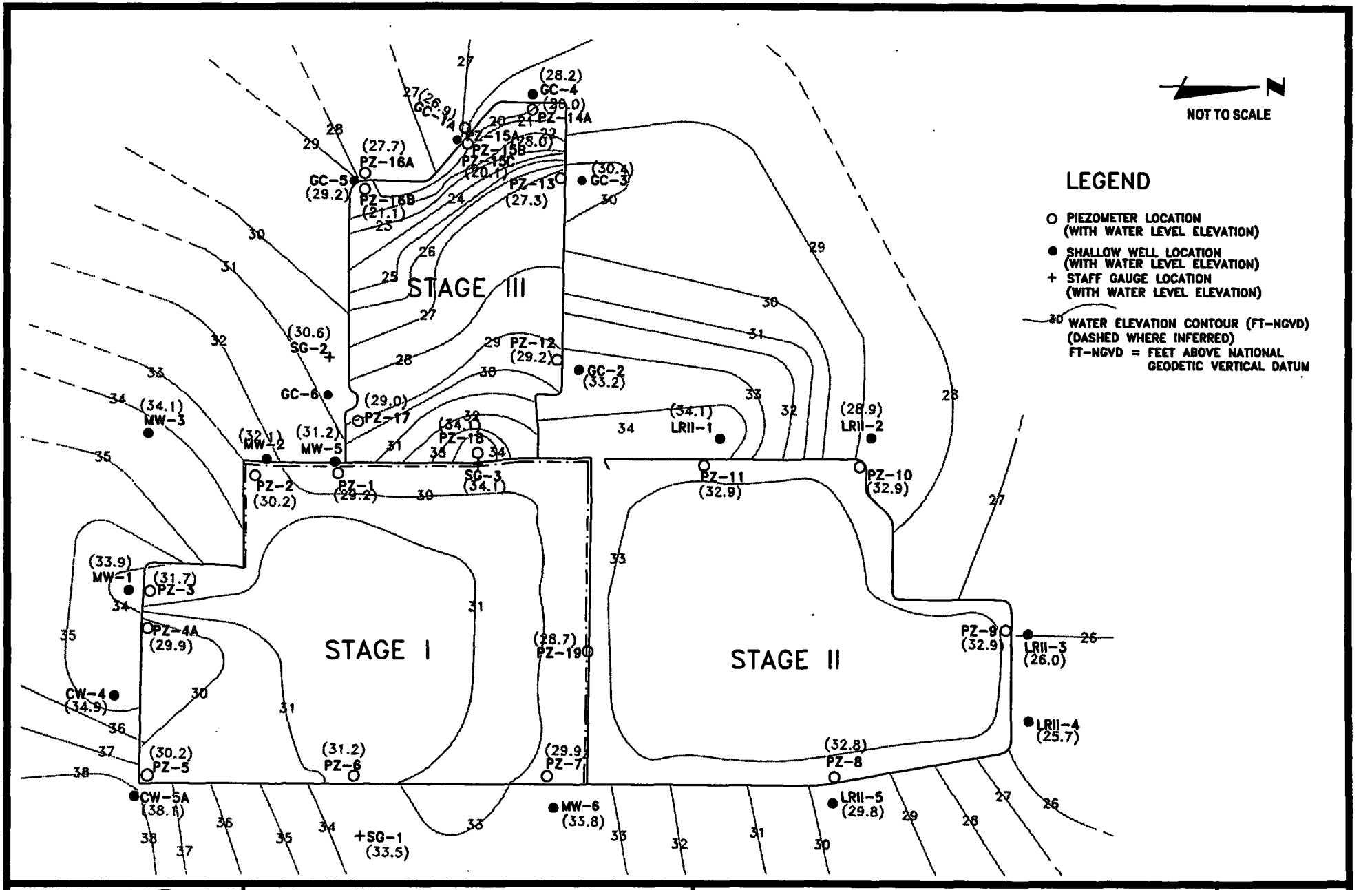

PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, SURFICIAL AQUIFER – JULY 2001	FIG. 4-9

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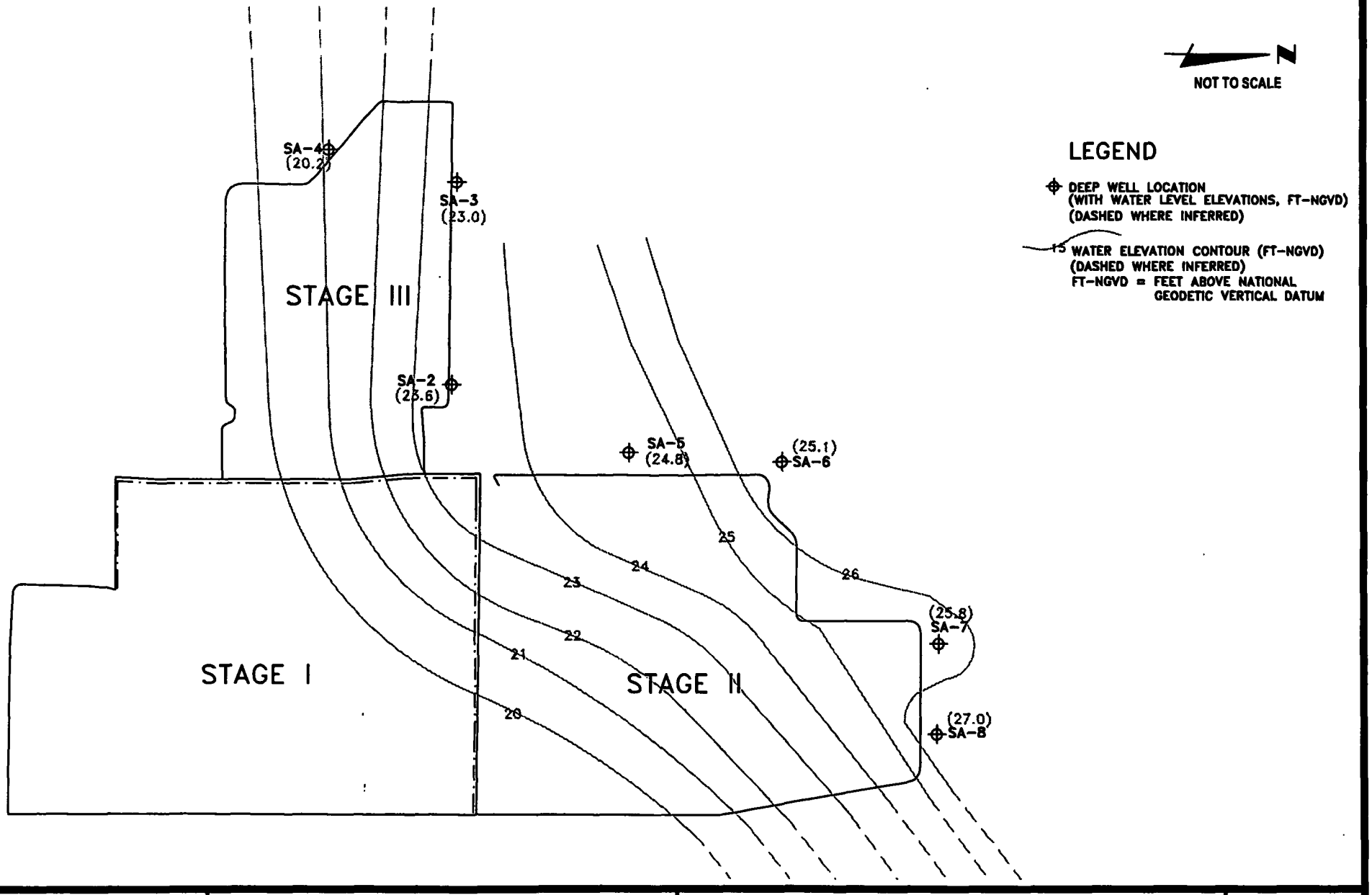


PBS&J	LENA ROAD LANDFILL 3333 LENA ROAD BRADENTON, MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP, ARTESIAN (DEEP) AQUIFER -- JULY 2001	FIG. 4-10

TABLES

TABLE 1-1

WATER QUALITY MONITORING NETWORK
LENA ROAD LANDFILL

Leachate Sampling Points		
Leachate Holding Pond		
Groundwater Sampling Points (Monitoring Wells)		
Location Identifier	Aquifer Monitored	Designation
LRII-1	Surficial	Detection/Compliance
LRII-2	Surficial	Detection/Compliance
LRII-3	Surficial	Detection/Compliance
LRII-4	Surficial	Detection/Compliance
LRII-5	Surficial	Detection/Compliance
MW-1	Surficial	Compliance
MW-2	Surficial	Detection/Compliance
MW-3	Surficial	Detection/Compliance
MW-4	Surficial	Detection/Compliance
MW-5	Surficial	Detection/Compliance
MW-6	Surficial	Detection/Compliance
CW-4	Surficial	Compliance
CW-5A	Surficial	Detection/Compliance
GC-1A	Surficial	Detection/Compliance
GC-2	Surficial	Detection/Compliance
GC-3	Surficial	Detection/Compliance
GC-4	Surficial	Detection/Compliance
GC-5	Surficial	Detection/Compliance
GC-6	Surficial	Background
SMR-1	Surficial	Background
SMR-2	Artesian (deep)	Background
SA-2	Artesian (deep)	Detection/Compliance
SA-3	Artesian (deep)	Detection/Compliance
SA-4	Artesian (deep)	Detection/Compliance
SA-5	Artesian (deep)	Detection/Compliance
SA-6	Artesian (deep)	Detection/Compliance
SA-7	Artesian (deep)	Detection/Compliance
SA-8	Artesian (deep)	Detection/Compliance
Surface Water Sampling Points		
SW-1 (Downstream)		
SW-2 (Upstream)		

TABLE 1-2

WATER ELEVATION MONITORING NETWORK
LENA ROAD LANDFILL

Location Identifier	Ground Surface Elevation (Ft-NGVD)	Top-of-Casing Elevation (Ft-NGVD)	Bottom-of-Casing Elevation (Ft-NGVD)	Screened Interval Elevation (Ft-NGVD)
Surficial Aquifer (Outside Slurry Wall)				
LRII-1	34.97	37.97	16.85	16.85-26.85
LRII-2	33.38	36.53	13.65	13.65-23.65
LRII-3	30.47	33.46	10.86	10.86-20.86
LRII-4	30.95	33.86	11.35	11.35-21.35
LRII-5	33.55	36.74	13.97	13.97-23.97
MW-1	40.85	42.63	25.89	25.89-35.89
MW-2	40.25	41.13	24.95	24.95-34.95
MW-3	39.44	39.94	23.12	23.12-33.12
MW-5	36.88	39.88	18.67	18.67-28.67
MW-6	38.19	39.29	16.59	16.59-17.59
CW-4	35.13	37.48	22.55	22.55-32.55
CW-5A	39.50	41.18	23.33	23.33-33.33
GC-1A	28.35	31.75	16.52	16.52-26.52
GC-2	35.15	38.15	19.73	19.73-29.73
GC-3	31.92	35.02	11.74	11.74-12.74
GC-4	30.15	33.90	11.50	11.50-12.50
GC-5	33.46	36.46	14.91	14.91-24.91
GC-6	36.00	39.02	17.67	17.67-27.67
SMR-1	33.35	36.60	15.25	15.25-25.25
Artesian (Deep) Aquifer				
SMR-2	33.62	36.22	-116.78	-116.78-(-66.78)
SA-2	35.90	37.97	-93.28	-93.49-(-43.28)
SA-3	32.46	35.12	-160.17	-160.17-(-110.17)
SA-4	28.11	31.21	-112.57	-112.57-(-72.57)
SA-5	35.70	37.87	-115.15	-115.15-(-65.15)
SA-6	34.23	36.53	-116.51	-116.51-(-66.51)
SA-7	37.43	39.83	-113.14	-113.14-(-63.14)
SA-8	31.69	34.44	-118.94	-118.94-(-68.94)

Abbreviations: Ft-NGVD = Feet above the National Geodetic Vertical Datum.

TABLE 1-2 (Con't)

WATER ELEVATION MONITORING NETWORK
LENA ROAD LANDFILL

Location Identifier	Elevation (Ft-NGVD)
PZ-1	42.55
PZ-2	42.47
PZ-3	44.90
PZ-4A	47.73
PZ-5	43.94
PZ-6	44.73
PZ-7	47.76
PZ-8	37.63
PZ-9	36.53
PZ-10	37.05
PZ-11	37.92
PZ-12	38.35
PZ-13	35.36
PZ-14	33.44
PZ-15A	39.79
PZ-15B	37.33
PZ-16	34.55
PZ-16A	39.05
PZ-17	40.57
PZ-18	40.18
Surface Water	
SG-1	*
SG-2	*
SG-3	*

Abbreviations: Ft-NGVD = Feet above the National Geodetic Vertical Datum.

* Staff gauges constructed to actual elevations.

TABLE 2-1

Leachate Analytical Summary
Second Half 1999

Table 2-1 - Leachate Analytical Summary, Second Half, 1999

	DATE OF TEST		SW PO 11/08/99
	Maximum Contaminant Level	UNITS	
Field			
pH, Field	6.5-8.5	STD	7.38
Cond, Field		umhos/cm	497
Dissolved Oxygen, Field		mg/l	11.59
Lab			
Bicarbonate			520
Chloride	250	mg/l	200
Iron	0.3	mg/l	4.9
Mercury	0.002	mg/l	<0.0002
Nitrate	1	mg/l	0.7
Sodium	160	mg/l	130
T. Ammonia-N		mg/l	52
TDS	500	mg/l	1000
CFR Part 258 Appendix I Inorganic:			
Arsenic	0.05	mg/l	<0.01
Antimony	0.006	mg/l	<0.006
Barium	2	mg/l	0.046
Beryllium	0.004	mg/l	<0.004
Cadmium	0.005	mg/l	<0.005
Chromium	0.1	mg/l	<0.01
Cobalt		mg/l	<0.01
Copper	1	mg/l	<0.01
Lead	0.015	mg/l	<0.005
Nickel	0.1	mg/l	<0.04
Selenium	0.05	mg/l	<0.01
Silver	0.1	mg/l	<0.01
Thallium	0.002	mg/l	<0.002
Vanadium		mg/l	<0.01
Zinc	5	mg/l	0.02
Organic:			
Acetone	700	ug/l	<25
Acrylonitrile	8	ug/l	<20
Benzene	1	ug/l	<1.0
Bromochloromethane		ug/l	<1.0
Bromodichloromethane	0.6	ug/l	<1.0
Bromoform	4	ug/l	<1.0
Carbon Disulfide	700	ug/l	<1.0
Carbon tetrachloride	3	ug/l	<1.0
Chlorobenzene		ug/l	<1.0
Chloroethane	140	ug/l	<1.0
Chloroform	6	ug/l	<1.0
Dibromochloromethane	1	ug/l	<1.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<1.0

Leachate Analytical Summary cont.	DATE OF TEST		SW-PO 11/08/99
	Maximum Contaminant Level	UNITS	
Ethylene dibromide		ug/l	<1.0
o-dichlorobenzene	600	ug/l	<1.0
Para-dichloro-benzene	75	ug/l	<1.0
trans-1,4-Dichloro-2-butene		ug/l	<2.0
1,1-Dichloroethane	700	ug/l	<1.0
1,2-Dichloroethane	3	ug/l	<1.0
1,1-Dichloroethene	7	ug/l	<1.0
cis-1,2-Dichloroethene	70	ug/l	<1.0
trans-1,2-Dichloroethene	100	ug/l	<1.0
1,2-Dichloropropane	5	ug/l	<1.0
cis-1,3-Dichloropropene		ug/l	<1.0
trans-1,3-Dichloropropene		ug/l	<1.0
Ethylbenzene	30	ug/l	<1.0
2-Hexanone		ug/l	<10
Methyl bromide	10	ug/l	<1.0
Chloromethane	2.7	ug/l	<1.0
Methylene bromide		ug/l	<1.0
Methylene chloride	5	ug/l	<5.0
2-butanone	4200	ug/l	<10
Methyl iodide		ug/l	<1.0
4-methlyl-2-pentanone	350	ug/l	<10
Styrene	100	ug/l	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<1.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<1.0
Tetrachloroethene	3	ug/l	<1.0
Toluene	40	ug/l	<1.0
1,1,1-trichloro-ethane	200	ug/l	<1.0
1,1,2-trichloro-ethane	5	ug/l	<1.0
Trichloroethene	3	ug/l	<1.0
Trichlorofluoromethane	2100	ug/l	<1.0
1,2,3-Trichloro-propane	42	ug/l	<1.0
Vinyl acetate	250	ug/l	<2
Vinyl chloride	1	ug/l	<1.0
Xylene	20	ug/l	<1.0

TABLE 2-2

Leachate Analytical Summary
First Half 2000

Table 2-2 - Leachate Analytical Summary, First Half, 2000

	DATE OF TEST		SW PO 02/14/00
	Maximum Contaminant Level	UNITS	
Field			
pH, Field	6.5-8.5	STD	NA
Cond, Field		umhos/cm	NA
Dissolved Oxygen, Field		mg/l	NA
Lab			
Bicarbonate			390
Chloride	250	mg/l	270
Iron	0.3	mg/l	1.8
Mercury	0.002	mg/l	<0.2
Nitrate	1	mg/l	<0.05
Sodium	160	mg/l	18000
T. Ammonia-N		mg/l	28
TDS	500	mg/l	1100
CFR Part 258 Appendix I Inorganic:			
Antimony	0.006	mg/l	<0.01
Arsenic	0.05	mg/l	<0.006
Barium	2	mg/l	NA
Beryllium	0.004	mg/l	NA
Cadmium	0.005	mg/l	NA
Chromium	0.1	mg/l	NA
Cobalt		mg/l	NA
Copper	1	mg/l	NA
Lead	0.015	mg/l	<0.05
Nickel	0.1	mg/l	<0.04
Selenium	0.05	mg/l	<0.01
Silver	0.1	mg/l	<0.01
Thallium	0.002	mg/l	<0.002
Vanadium		mg/l	<0.01
Zinc	5	mg/l	0.024
Organic:			
Acetone	700	ug/l	<25
Acrylonitrile	8	ug/l	<20
Benzene	1	ug/l	<1.0
Bromochloromethane		ug/l	<1.0
Bromodichloromethane	0.6	ug/l	<1.0
Bromoform	4	ug/l	<1.0
Carbon Disulfide	700	ug/l	<1.0
Carbon tetrachloride	3	ug/l	<1.0
Chlorobenzene		ug/l	<1.0
Chloroethane	140	ug/l	<1.0
Chloroform	6	ug/l	<1.0
Dibromochloromethane	1	ug/l	<1.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<1.0
Ethylene dibromide		ug/l	<1.0
o-dichlorobenzene	600	ug/l	<1.0
Para-dichloro-benzene	75	ug/l	<1.0
trans-1,4-Dichloro-2-butene		ug/l	<2.0
1,1-Dichloroethane	700	ug/l	<1.0
1,2-Dichloroethane	3	ug/l	<1.0
1,1-Dichloroethene	7	ug/l	<1.0
cis-1,2-Dichloroethene	70	ug/l	<1.0
trans-1,2-Dichloroethene	100	ug/l	<1.0
1,2-Dichloropropane	5	ug/l	<1.0
cis-1,3-Dichloropropene		ug/l	<1.0
trans-1,3-Dichloropropene		ug/l	<1.0
Ethylbenzene	30	ug/l	<1.0
2-Hexanone		ug/l	<10
Methyl bromide	10	ug/l	<1.0
Chloromethane	2.7	ug/l	<1.0
Methylene bromide		ug/l	<1.0
	5	ug/l	<5.0
2-butanone	4200	ug/l	<10
Methyl iodide		ug/l	<1.0

4-methlyl-2-pentanone	350	ug/l	<10
Styrene	100	ug/l	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<1.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<1.0
Tetrachloroethene	3	ug/l	<1.0
Toluene	40	ug/l	<1.0
1,1,1-trichloro-ethane	200	ug/l	<1.0
1,1,2-trichloro-ethane	5	ug/l	<1.0
Trichloroethene	3	ug/l	<1.0
Trichlorofluoromethane	2100	ug/l	<1.0
1,2,3-Trichloro-propane	42	ug/l	<1.0
Vinyl acetate	250	ug/l	<2.0
Vinyl chloride	1	ug/l	<1.0
Xylene	20	ug/l	<2.0
Appendix IX			
Acenaphthene		ug/l	<10
Acenaphthylene		ug/l	<10
Acetonitrile		ug/l	<200
Acetophenone		ug/l	<10
2-Acetylaminofluorene		ug/l	<10
Acrolein		ug/l	<20
Aldrin		ug/l	<0.5
Allyl chloride		ug/l	<1.0
4-Aminobiphenyl		ug/l	<10
Anthracene		ug/l	<10
Benzo(a)anthracene		ug/l	<10
Benzo(b)fluoranthene		ug/l	<10
Benzo(k)fluoranthene		ug/l	<10
Benzo(ghi)perylene		ug/l	<10
Benzo(a)pyrene		ug/l	<10
Benzyl alcohol		ug/l	<10
alpha-BHC		ug/l	<0.5
beta-BHC		ug/l	<0.5
delta-BHC		ug/l	<0.5
gamma-BHC		ug/l	<0.5
Bis(2-chloroethoxy)methane		ug/l	<10
Bis(2-chloroethyl)ether		ug/l	<10
Bis(2-chloro-1-methylethyl)ether		ug/l	<10
Bis(2-ethylhexyl)phthalate		ug/l	<10
4-Bromophenyl phenyl ether		ug/l	<20
Butyl benzyl phthalate		ug/l	<10
Chlodane		ug/l	<0.5
p-Chloroaniline		ug/l	<20
Chlorobenzilate		ug/l	<0.5
p-Chloro-m-cresol		ug/l	<10
2-Chloronaphthalene		ug/l	<10
2-Chlorophenol		ug/l	<10
4-Chlorophenyl phenyl ether		ug/l	<10
Chloroprene		ug/l	<1.0
Chrysene		ug/l	<10
m-Cresol		ug/l	<10
o-Cresol		ug/l	<10
p-Cresol		ug/l	<10
Cyanide		ug/l	0.02
2,4-D		ug/l	<0.5
4,4-DDD		ug/l	<0.10
4,4-DDE		ug/l	<0.10
4,4-DDT		ug/l	<0.10
Diallate		ug/l	<10
Dibenz(a,h)anthracene		ug/l	<10
Dibenzofuran		ug/l	<10
Di-n-butyl phthalate		ug/l	<10
m-Dichlorobenzene		ug/l	<10
3,3-Dichlorobenzidine		ug/l	<20
Dichlorodifluoromethane		ug/l	<1.0
2,4-Dichlorophenol		ug/l	<10
2,6-Dichlorophenol		ug/l	<10
1,3-Dichloropropane		ug/l	<1.0
2,2-Dichloropropane		ug/l	<1.0
1,1-Dichloropropene		ug/l	<1.0
Dieldrin		ug/l	<0.10

Diethyl phthalate		ug/l	<10
0,0-Diethyl 0-2-pyrazinyl		ug/l	<1.0
Dimethoate		ug/l	<2.0
p-(Dimethylamino)azobenzene		ug/l	<10
7,12-Dimethylbenz(a)anthracene		ug/l	<10
3,3-Dimethylbenzidine		ug/l	<10
2,4-Dimethylphenol		ug/l	<10
Dimethyl phthalate		ug/l	<10
m-Dinitrobenzene		ug/l	<50
4,6-Dinitro-o-cresol		ug/l	<50
2,4-Dinitrophenol		ug/l	<50
2,4-Dinitrotoluene		ug/l	<10
2,6-Dinitrotoluene		ug/l	<10
Dinoseb		ug/l	<10
Di-n-octyl phthalate		ug/l	<10
Diphenylamine		ug/l	<10
Disulfoton		ug/l	<2.0
Endosulfan I		ug/l	<0.5
Endosulfan II		ug/l	<0.1
Endosulfan sulfate		ug/l	<0.1
Endrin		ug/l	<0.1
Endrin aldehyde		ug/l	<0.1
Ethyl methacrylate		ug/l	<0.1
Ethyl methanesulfonate		ug/l	<10
Famphur		ug/l	<2.0
Fluoranthene		ug/l	<10
Fluorene		ug/l	<10
Heptachlor		ug/l	<0.050
Heptachlor epoxide		ug/l	<0.050
Hexachlorobenzene		ug/l	<10
Hexachlorobutadiene		ug/l	<10
Hexachlorocyclopentadiene		ug/l	<10
Hexachloroethane		ug/l	<10
Hexachloropropene		ug/l	<10
Indenol(1,2,3-cd)pyrene		ug/l	<10
Isobutyl alcohol		ug/l	<200
Isodrin		ug/l	<0.050
Isophorone		ug/l	<10
Isosafrole		ug/l	<10
Kepone		ug/l	<0.1
Mercury		mg/l	<0.2
Methacrylonitrile		ug/l	<20
Methapyrilene		ug/l	<2000
Methoxychlor		ug/l	<0.50
3-Methylcholanthrene		ug/l	<10
Methyl methacrylate		ug/l	<1.0
Methyl methanesulfonate		ug/l	<10
2-Methylnaphthalene		ug/l	<10
Methyl parathion		ug/l	<0.50
Naphthalene		ug/l	<10
1,4-Naphthoquinone		ug/l	<10
1-Naphthylamine		ug/l	<10
2-Naphthylamine		ug/l	<10
o-Nitroaniline		ug/l	<50
m-Nitroaniline		ug/l	<50
p-Nitroaniline		ug/l	<50
Nitrobenzene		ug/l	<10
o-Nitrophenol		ug/l	<10
p-Nitrophenol		ug/l	<50
N-Nitrosodi-n-butylamine		ug/l	<10
N-Nitrosodiethylamine		ug/l	<10
N-Nitrosodiphenylamine		ug/l	<10
N-Nitrosodipropylamine		ug/l	<10
N-Nitrosomethylethalamine		ug/l	<10
N-Nitrosopiperidine		ug/l	<10
N-Nitrosopyrrolidine		ug/l	<10
5-Nitro-o-toluidine		ug/l	<10
Parathion		ug/l	NA
Pentachlorobenzene		ug/l	<10
Pentachloronitrobenzene		ug/l	<10
Pentachlorophenol		ug/l	<1.0

Phenacetin		ug/l	<10
Phenanthrene		ug/l	<10
Phenol		ug/l	<10
p-Phenylenediamine		ug/l	<2000
Phorate		ug/l	<1.0
Polychlorinated biphenyls*		ug/l	<1.0
Pronamide		ug/l	<10
Propionitrile		ug/l	<20
Pyrene		ug/l	<10
Safrole		ug/l	<10
2,4,5-TP Silvex		ug/l	<0.5
Sulfide		mg/l	<1.0
2,4,5-Trichlorophenoxyacetic acid		ug/l	<0.5
1,2,4,5-Tetrachlorobenzene		ug/l	<10
2,3,4,6-Tetrachlorophenol		ug/l	<10
Tin		mg/l	<0.01
o-Toluidine		ug/l	<10
Toxaphene		ug/l	<3.0
1,2,4-Trichlorobenzene		ug/l	<10
2,4,5-Trichlorophenol		ug/l	<10
2,4,6-Trichlorophenol		ug/l	<10
0,0,0-Triethylphosphorothioate		ug/l	<10
sym-Trinitrobenzene		ug/l	<10

* PCB Aroclors' lab analysis calculated individually. Result denotes the greatest value for all Aroclors data provided.

TABLE 2-3

Leachate Analytical Summary
Second Half 2000

Table 2-3 - Leachate Analytical Summary - Second Half, 2000

	DATE OF TEST		SW PC 08/14/00
	Maximum Contaminant Level	UNITS	
Field			
pH, Field	6.5-8.5	STD	7.72
Cond, Field		umhos/cm	1490
Dissolved Oxygen, Field		mg/l	9.9
Lab			
Bicarbonate			470
Chloride	250	mg/l	140
Iron	0.3	mg/l	4.6
Mercury	0.002	mg/l	<0.0002
Nitrate	1	mg/l	0.26
Sodium	160	mg/l	220
T. Ammonia-N		mg/l	30
TDS	500	mg/l	770
CFR Part 258 Appendix I Inorganic:			
Antimony	0.006	mg/l	<0.006
Arsenic	0.05	mg/l	0.013
Barium	2	mg/l	0.096
Beryllium	0.004	mg/l	<0.004
Cadmium	0.005	mg/l	<0.005
Chromium	0.1	mg/l	<0.01
Cobalt		mg/l	<0.01
Copper	1	mg/l	<0.02
Lead	0.015	mg/l	<0.005
Nickel	0.1	mg/l	<0.04
Selenium	0.05	mg/l	<0.01
Silver	0.1	mg/l	<0.10
Thallium	0.002	mg/l	<0.002
Vanadium		mg/l	<0.01
Zinc	5	mg/l	0.022
Organic:			
Acetone	700	ug/l	<50
Acrylonitrile	8	ug/l	<100
Benzene	1	ug/l	<1.0
Bromochloromethane		ug/l	<5.0
Bromodichloromethane	0.6	ug/l	<5.0
Bromoform	4	ug/l	<5.0
Carbon Disulfide	700	ug/l	<5.0
Carbon tetrachloride	3	ug/l	<3.0
Chlorobenzene		ug/l	<5.0
Chloroethane	140	ug/l	<10

Table 2-3 - Leachate Analytical Summary - Second Half, 2000

	DATE OF TEST		SW-PO 08/14/00
	Maximum Contaminant Level	UNITS	
Chloroform	6	ug/l	<5.0
Dibromochloromethane	1	ug/l	<5.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<5.0
Ethylene dibromide		ug/l	<5.0
o-dichlorobenzene	600	ug/l	<5.0
Para-dichloro-benzene	75	ug/l	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10
1,1-Dichloroethane	700	ug/l	<5.0
1,2-Dichloroethane	3	ug/l	<3.0
1,1-Dichloroethene	7	ug/l	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0
1,2-Dichloropropane	5	ug/l	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0
Ethylbenzene	30	ug/l	<5.0
2-Hexanone		ug/l	<5.0
Methyl bromide	10	ug/l	<10
Chloromethane	2.7	ug/l	<1.0
Methylene bromide		ug/l	<5.0
Methylene chloride	5	ug/l	<10
2-butanone	4200	ug/l	<25
Methyl iodide		ug/l	<5.0
4-methlyl-2-pentanone	350	ug/l	<25
Styrene	100	ug/l	<5.0
1,1,1,2-tetra-chloroethane	1	ug/l	<5.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<5.0
Tetrachloroethene	3	ug/l	<3.0
Toluene	40	ug/l	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0
Trichloroethene	3	ug/l	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0
Vinyl acetate	250	ug/l	<10
Vinyl chloride	1	ug/l	<1.0
Xylene	20	ug/l	<10

TABLE 2-4

Leachate Analytical Summary
First Half 2001

Table 2-4 - Leachate Analytical Summary - First Half, 2001

	DATE OF TEST		SW PO 03/01/01
	Maximum Contaminant Level	UNITS	
Field			
pH, Field	6.5-8.5	STD	7.95
Cond, Field		umhos/cm	445
Dissolved Oxygen, Field		mg/l	5.7
Lab			
Bicarbonate		mg/l	1400
Chloride	250	mg/l	810
Iron	0.3	mg/l	12
Mercury	0.002	mg/l	<0.00020
Nitrate	1	mg/l	0.27
Sodium	160	mg/l	390
T. Ammonia-N		mg/l	200
TDS	500	mg/l	2000
CFR Part 258 Appendix I			
Inorganic:			
Arsenic	0.05	mg/l	<0.0100
Antimony	0.006	mg/l	0.012
Barium	2	mg/l	0.10
Beryllium	0.004	mg/l	<0.0040
Cadmium	0.005	mg/l	<0.0050
Chromium	0.1	mg/l	<0.010
Cobalt		mg/l	0.018
Copper	1	mg/l	<0.020
Lead	0.015	mg/l	<0.0050
Nickel	0.1	mg/l	<0.040
Selenium	0.05	mg/l	<0.010
Silver	0.1	mg/l	<0.010
Thallium	0.002	mg/l	<0.0020
Vanadium		mg/l	0.018
Zinc	5	mg/l	<0.020
Organic:			
Acetone	700	ug/l	53
Acrylonitrile	8	ug/l	<100
Benzene	1	ug/l	<1.0
Bromochloromethane		ug/l	<5.0
Bromodichloromethane	0.6	ug/l	<5.0
Bromoform	4	ug/l	<5.0
Carbon Disulfide	700	ug/l	<5.0
Carbon tetrachloride	3	ug/l	<3.0
Chlorobenzene		ug/l	<5.0
Chloroethane	140	ug/l	<10
Chloroform	6	ug/l	<5.0
Dibromochloromethane	1	ug/l	<5.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<10
Ethylene dibromide		ug/l	<5.0
o-dichlorobenzene	600	ug/l	<5.0
Para-dichloro-benzene	75	ug/l	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10
1,1-Dichloroethane	700	ug/l	<5.0
1,2-Dichloroethane	3	ug/l	<3.0
1,1-Dichloroethene	7	ug/l	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0
1,2-Dichloropropane	5	ug/l	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0
Ethylbenzene	30	ug/l	<5.0
2-Hexanone		ug/l	<25
Methyl bromide	10	ug/l	<10
Chloromethane	2.7	ug/l	<10
Methylene bromide		ug/l	<5.0
Methylene chloride	5	ug/l	<5.0
2-butanone	4200	ug/l	<25
Methyl iodide		ug/l	<5.0
4-methlyl-2-pentanone	350	ug/l	<25
Styrene	100	ug/l	<5.0
1,1,1,2-tetra-chloroethane	1	ug/l	<5.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<5.0

Tetrachloroethene	3	ug/l	<3.0
Toluene	40	ug/l	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0
Trichloroethene	3	ug/l	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0
Vinyl acetate	250	ug/l	<10
Vinyl chloride	1	ug/l	<1.0
Xylene	20	ug/l	<10
Appendix II			
Acenaphthene		ug/l	<10
Acenaphthylene		ug/l	<10
Acetonitrile		ug/l	<200
Acetophenone		ug/l	<10
2-Acetylaminofluorene		ug/l	<10
Acrolein		ug/l	<100
Aldrin		ug/l	<0.050
Allyl chloride		ug/l	<5.0
4-Aminobiphenyl		ug/l	<10
Anthracene		ug/l	<10
Benzo(a)anthracene		ug/l	<10
Benzo(b)fluoranthene		ug/l	<10
Benzo(k)fluoranthene		ug/l	<10
Benzo(ghi)perylene		ug/l	<10
Benzo(a)pyrene		ug/l	<4.0
Benzyl alcohol		ug/l	<10
alpha-BHC		ug/l	<0.050
beta-BHC		ug/l	<0.050
delta-BHC		ug/l	<0.050
gamma-BHC		ug/l	<0.050
Bis(2-chloroethoxy)methane		ug/l	<10
Bis(2-chloroethyl)ether		ug/l	<10
Bis(2-chloro-1-methylethyl)ether		ug/l	<10
Bis(2-ethylhexyl)phthalate		ug/l	<6.0
4-Bromophenyl		ug/l	<10
Butyl benzyl phthalate		ug/l	<10
Chlodane		ug/l	<0.50
p-Chloroaniline		ug/l	<20
Chlorobenzilate		ug/l	<0.50
p-Chloro-m-cresol		ug/l	<10
2-Chloronaphthalene		ug/l	<10
2-Chlorophenol		ug/l	<10
4-Chlorophenyl phenyl ether		ug/l	<10
Chloroprene		ug/l	<5.0
Chrysene		ug/l	<10
m-Cresol		ug/l	<10
o-Cresol		ug/l	<10
p-Cresol		ug/l	<10
Cyanide		ug/l	<0.010
2,4-D		ug/l	<50
4,4-DDD		ug/l	<0.10
4,4-DDE		ug/l	<0.10
4,4-DDT		ug/l	<0.10
Diallate		ug/l	<10
Dibenz(a,h)anthracene		ug/l	<10
Dibenzofuran		ug/l	<10
Di-n-butyl phthalate		ug/l	<10
m-Dichlorobenzene		ug/l	<10
3,3-Dichlorobenzidine		ug/l	<20
Dichlorodifluoromethane		ug/l	<5.0
2,4-Dichlorophenol		ug/l	<10
2,6-Dichlorophenol		ug/l	<10
1,3-Dichloropropane		ug/l	<5.0
2,2-Dichloropropane		ug/l	<5.0
1,1-Dichloropropene		ug/l	<5.0
Dieldrin		ug/l	<0.10
Diethyl phthalate		ug/l	<10
0,0-Diethyl 0-2-pyrazinyl		ug/l	<1.0
Dimethoate		ug/l	<2.0
p-(Dimethylamino)azobenzene		ug/l	<10
7,12-Dimethylbenz(a)anthracene		ug/l	<10
3,3-Dimethylbenzidine		ug/l	<20
2,4-Dimethylphenol		ug/l	<10

Dimethyl phthalate		ug/l	<10
m-Dinitrobenzene		ug/l	<10
4,6-Dinitro-o-cresol		ug/l	<50
2,4-Dinitrophenol		ug/l	<50
2,4-Dinitrotoluene		ug/l	<10
2,6-Dinitrotoluene		ug/l	<10
Dinoseb		ug/l	<10
Di-n-octyl phthalate		ug/l	<10
Diphenylamine		ug/l	<10
Disulfoton		ug/l	<2.0
Endosulfan I		ug/l	<0.050
Endosulfan II		ug/l	<0.10
Endosulfan sulfate		ug/l	<0.10
Endrin		ug/l	<0.10
Endrin aldehyde		ug/l	<0.10
Ethyl methacrylate		ug/l	<5.0
Ethyl methanesulfonate		ug/l	<10
Famphur		ug/l	<2.0
Fluoranthene		ug/l	<10
Fluorene		ug/l	<10
Heptachlor		ug/l	<0.050
Heptachlor epoxide		ug/l	<0.050
Hexachlorobenzene		ug/l	<4.0
Hexachlorobutadiene		ug/l	<10
Hexachlorocyclopentadiene		ug/l	<10
Hexachloroethane		ug/l	<10
Hexachloropropene		ug/l	<10
Indenol(1,2,3-cd)pyrene		ug/l	<10
Isobutyl alcohol		ug/l	<200
Isodrin		ug/l	<0.050
Isophorone		ug/l	<10
Isosafrole		ug/l	<10
Keptone		ug/l	<10
Mercury		mg/l	<0.0002
Methacrylonitrile		ug/l	<100
Methapyrilene		ug/l	<2000
Methoxychlor		ug/l	<0.50
3-Methylcholanthrene		ug/l	<10
Methyl methacrylate		ug/l	<5.0
Methyl methanesulfonate		ug/l	<10
2-Methylnaphthalene		ug/l	<10
Methyl parathion		ug/l	<0.50
Naphthalene		ug/l	<10
1,4-Naphthoquinone		ug/l	<10
1-Naphthylamine		ug/l	<10
2-Naphthylamine		ug/l	<10
o-Nitroaniline		ug/l	<50
m-Nitroaniline		ug/l	<50
p-Nitroaniline		ug/l	<50
Nitrobenzene		ug/l	<10
o-Nitrophenol		ug/l	<10
p-Nitrophenol		ug/l	<50
N-Nitrosodi-n-butylamine		ug/l	<10
N-Nitrosodiethylamine		ug/l	<10
N-Nitrosodiphenylamine		ug/l	<10
N-Nitrosodipropylamine		ug/l	<10
N-Nitrosomethylethalamine		ug/l	<10
N-Nitrosopiperidine		ug/l	<10
N-Nitrosopyrrolidine		ug/l	<10
5-Nitro-o-toluidine		ug/l	<10
Parathion		ug/l	NA
Pentachlorobenzene		ug/l	<10
Pentachloronitrobenzene		ug/l	<10
Pentachlorophenol		ug/l	<15
Phenacetin		ug/l	<10
Phenanthrene		ug/l	<10
Phenol		ug/l	<10
p-Phenylenediamine		ug/l	<2000
Phorate		ug/l	<1.0
Polychlorinated biphenyls*		ug/l	<1.0
Pronamide		ug/l	<10
Propionitrile		ug/l	<100
Pyrene		ug/l	<10
Safrole		ug/l	<10

2,4,5-TP Silvex		ug/l	<50
Sulfide		mg/l	<1.0
2,4,5-Trichlorophenoxyacetic acid		ug/l	<50
1,2,4,5-Tetrachlorobenzene		ug/l	<10
2,3,4,6-Tetrachlorophenol		ug/l	<10
Tin		ug/l	<0.50
o-Toluidine		ug/l	<10
Toxaphene		ug/l	<3.0
1,2,4-Trichlorobenzene		ug/l	<10
2,4,5-Trichlorophenol		ug/l	<10
2,4,6-Tricholorphenol		ug/l	<10
0,0,0-Triethylphosphorothioate		ug/l	<10
sym-Trinitrobenzene		ug/l	<10

* PCB Aroclors' lab analysis calculated individually. Result denotes the greatest value for all Aroclors data provided.

TABLE 2-5

Leachate Analytical Summary
Second Half 2001

Table 2-5 - Leachate Analytical Summary - Second Half, 2001

	DATE OF TEST		SW PG 07/18/01
	Maximum Contaminant Level	UNITS	
Field			
pH, Field	6.5-8.5	STD	6.91
Cond, Field		umhos/cm	4.45
Dissolved Oxygen, Field		mg/l	2.90
Lab			
Bicarbonate			1490
Chloride	250	mg/l	520
Iron	0.3	mg/l	17.4
Mercury	0.002	mg/l	<0.001
Nitrate	1	mg/l	<0.006
Sodium	160	mg/l	334
T. Ammonia-N		mg/l	169
TDS	500	mg/l	2060
CFR Part 258 Appendix I			
Inorganic:			
Arsenic	0.05	mg/l	<0.005
Antimony	0.006	mg/l	<0.002
Barium	2	mg/l	0.158
Beryllium	0.004	mg/l	<0.0004
Cadmium	0.005	mg/l	<0.0005
Chromium	0.1	mg/l	0.008
Cobalt		mg/l	0.013
Copper	1	mg/l	<0.003
Lead	0.015	mg/l	<0.005
Nickel	0.1	mg/l	0.011
Selenium	0.05	mg/l	0.022
Silver	0.1	mg/l	<0.001
Thallium	0.002	mg/l	<0.0004
Vanadium		mg/l	0.031
Zinc	5	mg/l	<0.0006
Organic:			
Acetone	700	ug/l	<2.5
Acrylonitrile	8	ug/l	<1.5
Benzene	1	ug/l	0.22
Bromochloromethane		ug/l	<5.0
Bromodichloromethane	0.6	ug/l	<0.8
Bromoform	4	ug/l	<0.12
Carbon Disulfide	700	ug/l	<4.1
Carbon tetrachloride	3	ug/l	<0.21
Chlorobenzene		ug/l	1.19
Chloroethane	140	ug/l	<0.1
Chloroform	6	ug/l	<0.03
Dibromochloromethane	1	ug/l	<0.05
1,2-Dibromo-3-chloropropane	0.2	ug/l	<0.01
Ethylene dibromide		ug/l	<0.01
o-dichlorobenzene	600	ug/l	<0.03
Para-dichloro-benzene	75	ug/l	0.13
trans-1,4-Dichloro-2-butene		ug/l	<10
1,1-Dichloroethane	700	ug/l	0.65
1,2-Dichloroethane	3	ug/l	<0.65
1,1-Dichloroethene	7	ug/l	<0.12
cis-1,2-Dichloroethene	70	ug/l	<0.1
trans-1,2-Dichloroethene	100	ug/l	<0.06
1,2-Dichloropropane	5	ug/l	<0.04

Table 2-5 - Leachate Analytical Summary - Second Half, 20

	DATE OF TEST		SW-PO 07/18/01
	Maximum Contaminant Level	UNITS	
Ethylene dibromide		ug/l	<0.01
o-dichlorobenzene	600	ug/l	<0.03
trans-1,4-Dichloro-2-butene		ug/l	<10
1,1-Dichloroethane	700	ug/l	0.65
1,2-Dichloroethane	3	ug/l	<0.65
1,1-Dichloroethene	7	ug/l	<0.12
cis-1,2-Dichloroethene	70	ug/l	<0.1
trans-1,2-Dichloroethene	100	ug/l	<0.06
1,2-Dichloropropane	5	ug/l	<0.04
cis-1,3-Dichloropropene		ug/l	<0.05
trans-1,3-Dichloropropene		ug/l	<0.04
Ethylbenzene	30	ug/l	<0.06
2-Hexanone		ug/l	<5.0
Methyl bromide	10	ug/l	<0.11
Chloromethane	2.7	ug/l	<0.13
Methylene bromide		ug/l	<0.3
Methylene chloride	5	ug/l	<0.03
2-butanone	4200	ug/l	<5.0
Methyl iodide		ug/l	<0.5
4-methlyl-2-pentanone	350	ug/l	<5.0
Styrene	100	ug/l	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<0.1
1,1,2,2-tetra-chloroethane	0.2	ug/l	<0.04
Tetrachloroethene	3	ug/l	<0.14
Toluene	40	ug/l	0.38
1,1,1-trichloro-ethane	200	ug/l	<0.04
1,1,2-trichloro-ethane	5	ug/l	<0.1
Trichloroethene	3	ug/l	<0.19
Trichlorofluoromethane	2100	ug/l	<0.08
1,2,3-Trichloro-propane	42	ug/l	<0.3
Vinyl acetate	250	ug/l	<10
Vinyl chloride	1	ug/l	<0.17
Xylene (Total Xylenes)	20	ug/l	3.22

TABLE 2-6

Groundwater Analytical Summary
Second Half 1999

Table 2-6 - Groundwater Analytical and Elevation Summary - Second Half, 1999

DATE OF TEST	Maximum Contaminant Level	UNITS	CW-4 11/4/1999	CW-5A 11/8/1999	GC-1A 11/4/1999	GC-2 11/6/1999	GC-3 11/4/1999	GC-4 11/8/1999	GC-5 11/4/1999	GC-6 11/6/1999	LRII-1 11/4/1999	LRII-2 11/8/1999	LRII-3 11/4/1999	LRII-4 11/6/1999	LRII-5 11/4/1999	MW-1 11/8/1999	MW-2 11/4/1999	MW-3 11/6/1999	MW-5 11/4/1999	MW-6 11/8/1999	SA-2 11/4/1999	SA-3 11/6/1999	SA-4 11/4/1999	SA-5 11/8/1999	SA-6 11/4/1999	SA-7 11/6/1999	SA-8 11/4/1999	SWR-1 11/8/1999	SWR-2 11/4/1999
Field																													
Ground Water Elevation		ft	34.96	38.25	26.72	32.63	31.81	31.11	29.56	30.79	32.87	30.93	27.36	27.99	30.58	34.55	28.92	34.07	30.71	33.61	22.24	19.71	19.13	21.65	20.97	24.89	18.15	30.46	18.69
Temp, Field		C	24.1	23.9	23.6	25	24.8	23.1	25.8	25.8	24.8	24.6	25.7	25.5	22.5	25.6	24.8	23.6	25.5	25.2	24.2	25	23.6	24	23.6	24.7	24	24.4	23.9
pH, Field	6.5-8.5	STD	6.45	6.2	6.83	6.04	6.53	6.05	5.93	6.32	6.43	5.61	5.52	5.94	5.61	4.51	4.74	5.55	5.92	5.16	7.12	7.17	6.83	7.26	7.09	6.84	6.57	5.79	7.48
Cond, Field		umhos/cm	751	574	497	428	630	349	244	392	430	147	261	451	411	333	780	427	463	220	390	452	551	284	567	465	480	249	418
Dissolved Oxygen, Field		mg/l	2.78	1.45	2.4	2.54	2.13	2.45	1.96	2.9	1.78	1.08	2.99	1.98	2.21	1.88	2.92	2.46	1.93	2.19	2.1	1.3	2.48	5.24	1.63	2.5	2.92	1.57	1.65
Turbidity, Field	20.0	NTU	0.21	2.2	24	33	62	2.4	65	>100	3	0.48	4.1	7.3	0.32	2	60	57	>100	5.2	0.65	1.2	0.325	0.13	0.45	0.43	0.65	7.6	0.3
Lab																													
Chloride	250	mg/l	150	84	24	22	31	15	16	10	40	12	41	27	40	62	1100	94	30	9	32	29	63	74	55	56	55	14	95
Iron	0.3	mg/l	18	6	72	51	41	19	6.1	6.9	50	10	75	6.7	5.6	6.6	52	9.2	0.4	0.8	0.13	0.15	<0.05	0.063	0.097	0.15	0.15	2.0	<0.05
Mercury	0.002	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nitrate	1	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05
Sodium	160	mg/l	76	48	17	21	21	14	13	5.7	19	5	20	22	13	20	64	52	24	8	34	39	63	62	47	44	43	14	65
T. Ammonia-N		mg/l	0.14	0.3	1.9	0.12	0.092	0.16	1.3	0.71	0.83	0.048	2.7	0.71	0.15	0.38	0.3	0.11	4.1	0.13	0.21	0.2	0.22	0.2	0.18	0.16	0.17	0.16	0.21
TDS	500	mg/l	1100	360	250	280	330	190	210	280	310	80	150	270	250	230	700	300	300	140	380	460	490	450	600	120	340	160	430
CFR Part 258 Appendix I Inorganic:																													
Arsenic	0.05	mg/l	0.03	<0.01	0.021	0.069	0.01	0.013	0.0445	<0.01	0.026	0.045	<0.01	<0.01	<0.01	<0.01	0.045	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	0.006	mg/l	0.0061	0.0076	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0098	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Barium	2	mg/l	0.25	0.042	0.033	0.013	0.015	0.11	0.051	0.036	0.11	0.051	0.039	<0.01	0.013	0.026	0.06	0.016	0.089	<0.01	<0.01	<0.01	0.018	0.02	0.022	0.048	0.01	<0.01	0.019
Beryllium	0.004	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Cadmium	0.005	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.1	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.027	<0.01	<0.01	<0.01
Cobalt		mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.036	<0.01	<0.01	0.036	<0.01	<0.01	<0.01	<0.01	0.048	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	1	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.0072	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nickel	0.1	mg/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Selenium	0.05	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	0.1	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Vanadium		mg/l	<0.01	0.051	0.046	0.016	0.01	0.024	0.04	0.03	0.011	<0.01	0.012	<0.01	<0.01	<0.01	0.092	0.02	0.039	0.044	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	5	mg/l	<0.02	<0.02	0.45	0.037	<0.02	<0.02	0.032	<0.02	0.059	0.069	0.099	<0.02	<0.02	<0.02	<0.02	0.024	<0.02	0.023	<0.02	<0.02	<0.02	<0.02	0.029	<0.02	<0.02	<0.02	<0.02
Organic:																													
Acetone	700	ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Acrylonitrile*	8	ug/l	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Benzene	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane*	0.6	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	4	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	700	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	140	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	6	ug/l	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane*	0.2	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylene dibromide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
o-dichlorobenzene	600	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Para-dichloro-benzene	75	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,4-Dichloro-2-butene		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	700	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	7	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	70	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	30	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Hexanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methyl bromide	10	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	2.7	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene bromide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene chloride	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-butanone	4200	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methyl iodide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-methlyl-2-pentanone	350	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetra-chloroethane*	0.2	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	40	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-trichloro-ethane	200	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloro-ethane	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	2100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloro-propane	42	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl acetate	250	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene	20	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

* Results highlighted due to excedence of detection limit

TABLE 2-7

Groundwater Analytical Summary
First Half 2000

Table 2-7 - Groundwater Analytical and Elevation Summary - First Half, 2000

DATE OF TEST			CW-1 2/16/2000	CW-2 2/16/2000	CW-3 2/16/2000	CW-4 2/16/2000	CW-5 2/16/2000	MW-1 2/16/2000	CW-6 2/16/2000	CW-7 2/16/2000	CW-8 2/16/2000	CW-9 2/16/2000	ACW-1 2/16/2000	ACW-2 2/16/2000	ACW-3 2/16/2000	ACW-4 2/16/2000	MW-2 2/16/2000	MW-3 2/16/2000	MW-4 2/16/2000	MW-5 2/16/2000	MW-6 2/16/2000	MW-7 2/16/2000	MW-8 2/16/2000	MW-9 2/16/2000	MW-10 2/16/2000	MW-11 2/16/2000	MW-12 2/16/2000	MW-13 2/16/2000	MW-14 2/16/2000	MW-15 2/16/2000	MW-16 2/16/2000	MW-17 2/16/2000	MW-18 2/16/2000
	Maximum Contaminant Level	UNITS																														
Field																																
Ground Water Elevation		ft	35.05	38.5	26.85	32.47	31.81	30.86	29.16	30.09	31.17	28.57	25.52	25.96	28.68	33.8	28.43	33.58	30.63	32.81	22.24	19.71	15.53	19.36	18.37	21.71	14.6	29.48	17.72			
Temp, Field		C	21.3	21.6	21.4	23.9	22.3	22.9	24	23.9	22.4	22.8	22.3	23.8	23.7	23.3	23.1	21.6	24	21.1	24.1	23.7	23.6	23.9	23.9	24.4	24.4	21.7	24.4			
pH, Field	6.5-8.5	STD	6.68	6.69	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.24	7.23	7.16	7.42	7.33	7.54	7.58	6.9	7.42			
Cond, Field		umhos/cm	1230	620	416	442	434	309	278	364	474	128	215	451	370	280	477	541	453	199	490	625	626	718	830	488	476	162	700			
Dissolved Oxygen, Field		mg/l	3.94	1.35	3.07	3.54	2.94	2.5	3.69	2.09	3.13	3.22	3.39	2.59	1.47	3.48	1.51	2.45	1.88	0.98	3.17	1.42	1.55	2.26	2.23	4.2	2.12	1.2	2.02			
Turbidity, Field	20.0	NTU	0.71	12	5	19.5	1.8	0.96	1.9	2.1	5	1.9	4	1.35	17	0.46	2.1	2.4	2.5	5	0.86	9.3	0.17	0.11	0.8	0.51	0.43	93	0.23			
Lab																																
Chloride	250	mg/l	180	86	25	31	29	27	23	11	73	52	31	32	40	58	47	120	16	17	41	24	64	14	52	57	55	14	94			
Iron	0.3	mg/l	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.24	0.3	0.071	0.1	0.092	<0.05	0.11	0.3	0.078			
Mercury	0.002	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
Nitrate	1	mg/l	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.39	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
Sodium	160	mg/l	69	49	17	20	16	14	12	6.6	19	5.3	18	21	12	16	41	60	19	13	33	36	64	59	45	41	43	19	62			
T. Ammonia-N		mg/l	0.13	0.29	18	0.096	0.12	0.097	1.6	0.45	0.54	0.035	1.2	1.7	0.15	0.23	0.2	0.091	3.6	0.1	0.18	0.16	0.017	0.18	0.13	0.16	0.16	0.13	0.21			
TDS	500	mg/l	1000	360	170	270	260	180	170	250	250	96	120	250	200	190	350	300	260	130	360	330	440	400	530	310	310	130	400			
CFR Part 258 Appendix I (Inorganic)																																
Arsenic	0.05	mg/l	0.025	<0.01	0.016	0.016	<0.01	<0.01	<0.01	<0.01	0.026	<0.01	0.02	<0.01	<0.01	<0.01	0.009	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Antimony	0.006	mg/l	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	NA	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	NA	NA	<0.006	NA	NA	<0.006	<0.006	<0.006	<0.006			
Barium	2	mg/l	0.19	0.03	0.025	<0.01	0.011	<0.01	0.018	0.015	0.013	<0.01	0.039	0.018	<0.01	0.015	0.044	0.018	0.049	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.025	0.38	0.034	0.015			
Beryllium	0.004	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004			
Cadmium	0.005	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Chromium	0.1	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01			
Cobalt		mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Copper	1	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0058	<0.005			
Nickel	0.1	mg/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04			
Selenium	0.05	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Silver	0.1	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Thallium	0.002	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Vanadium		mg/l	<0.02	0.024	0.025	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.02	0.076	<0.01	<0.01	0.094	<0.01	<0.01	0.024	<0.01	<0.01	<0.01	<0.01	0.073	<0.01			
Zinc	5	mg/l	<0.02	<0.02	0.25	<0.02	0.022	<0.02	<0.02	<0.02	<0.02	<0.02	0.024	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.033	<0.02	<0.02	<0.02	<0.02	<0.02	0.022	<0.02	0.033	<0.02			
Organic																																
Acetone	700	ug/l	<25	<5	<5	<25	<25	<25	<25	<25	<25	<25	<5.0	<5.0	<5.0	<25	<25	<25	<25	<5.0	<25	<25	<5.0	<25	<25	<5.0	<5.0	<5.0	<5.0			
Acrylonitrile*	8	ug/l	<20	<1.0	<1.0	<20	<10	<10	<10	<20	<20	<20	<1.0	<1.0	<1.0	<20	<20	<20	<20	<1.0	<20	<20	<1.0	<20	<20	<1.0	<1.0	<1.0	<1.0			
Benzene	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Bromochloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Bromodichloromethane*	0.6	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	56.0			
Bromoform	4	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Carbon Disulfide	700	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Carbon tetrachloride	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Chlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Chloroethane	140	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Chloroform	6	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Dibromochloromethane	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,2-Dibromo-3-chloropropane*	0.2	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Ethylene dibromide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
o-dichlorobenzene	600	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Para-dichloro-benzene	75	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
trans-1,4-Dichloro-2-butene		ug/l	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
1,1-Dichloroethane	700	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,2-Dichloroethane	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,1-Dichloroethene	7	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
cis-1,2-Dichloroethene	70	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
trans-1,2-Dichloroethene	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,2-Dichloropropane	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
cis-1,3-Dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
trans-1,3-Dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Ethylbenzene	30	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
2-Hexanone		ug/l	<10	<5	<5	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<5.0	<10	<10	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0			
Methyl bromide	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Chloromethane	2.7	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Methylene bromide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Methylene chloride	5	ug/l	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0			
2-butanone	4200	ug/l	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<1.0	<10	<10	<1.0	<10	<10	<1.0	<1.0	<1.0	<1.0			
Methyl iodide		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
4-methlyl-2-pentanone	350	ug/l	<1.0	<5	<5	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<5.0	<10	<10	<5.0	<10	<10	<5.0	<5.0	<5.0	<5.0			
Styrene	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,1,1,2-tetra-chloroethane	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,1,2,2-tetra-chloroethane*	0.2	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0			
Tetrachloroethene	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Toluene	40	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,1,1-trichloro-ethane	200	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,1,2-trichloro-ethane	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Trichloroethene	3	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Trichlorofluoromethane	2100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
1,2,3-Trichloro-propane	42	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Vinyl acetate	250	ug/l	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Xylene	20	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	NA	<1.0	<1.0	NA	NA	NA	NA			

* Results highlighted due to excedence of detection limit

TABLE 2-8

Groundwater Analytical Summary
Second Half 2000

Table 2-8 - Groundwater Analytical and Elevation Summary - Second Half, 2000

DATE OF TEST	Maximum Contaminant Level	UNITS	GW-1 8/16/2000	GW-2 8/16/2000	GW-3A 7/6/2000	GW-3 8/15/2000	GW-4 8/16/2000	GW-5 8/16/2000	GW-6 8/16/2000	GW-7 8/16/2000	GW-8 8/15/2000	GW-9 8/16/2000	GW-10 8/16/2000	GW-11 8/16/2000	GW-12 8/16/2000	GW-13 8/16/2000	GW-14 8/16/2000	GW-15 8/16/2000	GW-16 8/16/2000	GW-17 8/16/2000	GW-18 8/16/2000	GW-19 8/16/2000	GW-20 8/16/2000	GW-21 8/16/2000	GW-22 8/16/2000	GW-23 8/16/2000	GW-24 8/16/2000	GW-25 8/16/2000	GW-26 8/16/2000	GW-27 8/16/2000	GW-28 8/16/2000
Field																															
Ground Water Elevation		ft	34.99	37.35		34.05		31.41	30.7	30.73		29.34	26.71	26.66	29.79	32.69	28.51	35.37	30.99	33.92	15.34		11.64	14.12	12.63	16.05	9.12	30.9	11.44
Temp, Field		C	25.8	26.4	19.7	26.4	26.8	26.8	27.4	27.4	27.5	26.5	26.7	26.1	26.2	23.6	26.2	27	27	26.2	25.3	25.7	22.2	25.2	24.8	25.2	24.9	25.1	24.7
pH, Field	6.5-8.5	STD	6.53	NA																	7.14	7.58	7.22	7.47	7.16	7.59	7.71		7.31
Cond, Field		umhos/cm	1460	900	522	502	506	448	385	339	448	164.1	278	506	398	321	485	239	330	178.3	515	506	698	650	800	495	495	176	675
Dissolved Oxygen, Field		mg/l	3.41	1.58	1.53	2.04	1.64	1.29	2.14	0.94	2.48	0.99	1.55	1.06	1.49	1.78	5.18	1.56	1.45	1.29	1.06	1.41	1.53	2.65	2.55	3.31	3.28	1.49	2.47
Turbidity, Field	20.0	NTU	870	2	9.5	2.3	0.15	0.14	18	13	0	1.4	26	10	12	3.1	2.95	4.7	5.9	28	0.17	3.4	0.12	1.9	1.3	3.9	20	3.5	3.2
Lab																													
Chloride	250	mg/l	150	99	48	27	43	43	51	7.8	39	13	26	26	40	66	64	25	25	13	32	36	65	72	49	55	52	12	91
Iron	0.3	mg/l	65	0	0	25	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0.081	0.16	<0.05	0.068	0.064	0.086	0.076	54	<0.05
Mercury	0.002	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nitrate	1	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	0.086	<0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.76	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium	160	mg/l	73	73	21	19	18	21	17	4.9	16	4.9	23	19	14	17	37	27	16	8.9	34	32	58	58	43	38	38	14	56
T. Ammonia-N		mg/l	0.12	0.12	15	0.12	0.3	0.22	1.4	0.55	0.77	0.046	0.96	0.55	0.18	0.89	0.29	0.075	3	0.15	0.2	0.2	0.21	0.19	0.15	0.15	0.14	0.13	0.2
TDS	500	mg/l	1300	560	230	270	300	190	220	230	240	66	800	240	190	180	310	160	200	100	350	350	400	370	810	270	280	120	360
CFR Part 258 Appendix I																													
Inorganics																													
Antimony	0.006	mg/l	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Arsenic	0.05	mg/l	0.022	<0.01	0.01	0.013	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Barium	2	mg/l	0.2	0.09	0.016	<0.01	0.011	0.018	0.023	0.028	0.015	<0.01	0.059	0.01	0.019	0.022	0.073	0.016	0.036	0.027	<0.01	<0.01	0.017	0.016	0.02	<0.01	0.012	<0.01	0.012
Beryllium	0.004	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Cadmium	0.005	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	0.1	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt		mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Copper	1	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nickel	0.1	mg/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Selenium	0.05	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	0.1	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Vanadium		mg/l	0.017	0.017	<0.01	<0.01	<0.01	<0.01	0.012	0.014	0.012	<0.01	0.011	<0.01	<0.01	<0.01	0.067	0.03	0.01	0.052	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.019	0.019
Zinc	5	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.027	0.054	0.061	0.036	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.064	<0.02	<0.02	<0.02	<0.02	<0.02
Organics																													
Acetone	700	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	190	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Acrylonitrile*	8	ug/l	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane*	0.6	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Bromoform*	4	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Carbon Disulfide	700	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Chlorobenzene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	140	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	6	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane*	1	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2-Dibromo-3-chloropropane*	0.2	ug/l	<50	<0.02	<50	<0.02	<50	<50	<50	<0.02	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<0.02	<50	<50	<50	<50	<50	<50	<50
Ethylene dibromide		ug/l	<5.0	<5.0	<0.2	<5.0	<0.02	<5.0	<5.0	<5.0	<0.02	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.02	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
o-dichlorobenzene	600	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Para-dichloro-benzene	75	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	700	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,1-Dichloroethene	7	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	30	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone		ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methyl bromide	10	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane*	2.7	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methylene bromide		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-butanone	4200	ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methyl iodide		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-methlyl-2-pentanone	350	ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Styrene	100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1,2-tetra-chloroethane*	1	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,2,2-tetra-chloroethane*	0.2	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Toluene	40	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	250	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene	20	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

* Results highlighted due to excedence of detection limit

TABLE 2-9

Groundwater Analytical Summary
First Half 2001

Table 2-9 - Groundwater Analytical and Elevation Summary, First Half, 2001

LOCATION ID			MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25
	Maximum Contaminant Level	UNITS	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/4/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001	1/5/2001
Field																											
Ground Water Elevation		ft	34.87	35.73	16.78	29.59	26.41	26.00	15.27	18.00	16.56	25.87	23.42	23.80	26.41	26.23	21.96	32.85	18.85	31.25	13.87	10.40	11.64	14.12	12.68	15.06	8.93	28.35	12.02
Temp, Field		C	22.0	22.0	20.0	23.0	23.0	25.0	25.0	25.0	22.0	23.0	26.0	25.0	23.0	20.0	23.0	24.0	24.0	23.0	24.0	24.5	23.0	24.0	25.0	26.0	26.0	21.0	24.0
pH, Field	6.5-8.5	STD	6.66	6.45	6.90	6.90	6.52	6.26	6.90	6.91	6.91	6.91	6.90	6.90	6.90	6.90	6.90	6.90	6.90	6.90	7.35	7.28	7.34	7.39	7.43	8.01	6.91	6.91	7.49
Cond, Field		umhos/cm	1400	700	380	450	500	305	300	385	380	180	230	420	295	260	380	250	430	185	500	600	600	600	750	455	3.9	150	600
Dissolved Oxygen, Field		mg/l	1.25	1.18	1.53	1.40	1.47	1.26	1.34	0.93	1.87	1.26	0.99	1.08	1.45	1.45	1.25	1.45	1.76	1.42	2.16	1.03	1.19	1.68	1.30	1.45	1.99	1.32	2.11
Turbidity, Field	20.0	NTU	0.97	1.07	13.60	2.38	3.92	2.45	1.63	5.64	4.03	5.14	1.11	2.66	3.35	0.70	2.29	10.50	9.65	5.92	1.14	0.58	1.04	0.39	2.71	1.80	24.20	4.34	1.00
Lab																											
Chloride	250	mg/l	170	110	55	31	47	35	40	13	39	22	31	27	24	63	63	48	35	35	35	43	63	71	53	55	54	14	92
Iron	0.3	mg/l	0.10	0.60	0.20	0.060	0.30	5.00	4.40	8.50	28.00	4.50	5.20	5.00	4.0	7.10	10.00	0.40	9.40	0.20	0.08	0.07	<0.050	0.059	0.076	<0.050	<0.050	0.30	<0.050
Mercury	0.002	mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00023	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00022	0.00023	<0.00020	<0.00020
Nitrate	1	mg/l	<0.050	<0.050	0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.16	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium	160	mg/l	76	62	17	20	19	19	18	8.7	17	74	21	19	14	19	32	33	25	13	33	36	64	60	46	42	41	15	60
T. Ammonia-N		mg/l	0.15	0.21	11.00	0.16	0.28	0.41	1.20	0.43	0.73	<0.050	1.50	0.74	0.28	0.82	0.20	0.11	3.40	0.14	0.22	0.20	0.25	0.19	0.15	0.14	0.14	0.10	0.22
TDS	500	mg/l	630	370	190	250	280	160	190	230	210	140	130	230	230	580	270	150	250	120	320	390	410	380	650	300	290	140	410
CFR Part 258 Appendix I Inorganic																											
Arsenic	0.05	mg/l	0.019	<0.010	0.018	0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.070	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	2	mg/l	0.200	0.050	0.013	<0.010	0.011	0.016	0.020	<0.010	<0.010	<0.010	0.046	<0.010	<0.010	0.020	0.051	0.013	0.042	<0.010	<0.010	<0.010	0.015	0.130	0.190	0.013	0.024	<0.010	0.012
Cadmium	0.005	mg/l	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chromium	0.1	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	0.015	mg/l	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Selenium	0.05	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Silver	0.1	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	<0.010	<0.010	0.064	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	1	mg/l	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	5	mg/l	<0.020	<0.020	<0.010	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Antimony	0.006	mg/l	<0.0060	<0.0060	<0.0060	<0.0050	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Beryllium	0.004	mg/l	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium	0.002	mg/l	<0.0020	<0.0020	<0.0020	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cobalt		mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	0.1	mg/l	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Vanadium		mg/l	<0.010	0.020	<0.010	<0.020	<0.010	<0.010	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.042	0.011	<0.010	0.031	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.017	<0.010	
Organic																											
Acetone	700	ug/l	<50	<50	59	370	370	<50	<50	<50	220	<50	<50	500	<50	<50	<50	<50	<50	<50	<50	<50	220	<50	<50	<50	<50	<50	<50
Acrylonitrile*	8	ug/l	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane*	0.6	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Bromoform*	4	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Carbon Disulfide	700	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Chlorobenzene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	140	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	6	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromochloromethane*	1	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,2-Dibromo-3-chloropropane*	0.2	ug/l	<50	<50	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylene dibromide		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
o-dichlorobenzene	600	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Para-dichloro-benzene	75	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	700	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,1-Dichloroethene	7	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	30	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone		ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methyl bromide	10	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromsthane*	2.7	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methylene bromide		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-butanone	4200	ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Methyl iodide		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-methlyl-2-pentanone	350	ug/l	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Styrene	100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1,2-tetra-chloroethane*	1	ug/l	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,2,2-tetra-chloroethane*	0.2	ug/l	<50	<50	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Toluene	40	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	3	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	250	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	20	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

* Results highlighted due to excedence of detection limit

TABLE 2-10

Groundwater Analytical Summary
Second Half 2001

Table 2-10 - Groundwater Analytical and Elevation Summary - Second Half, 2001

MONITOR WELL / DATE OF TEST	Maximum Contaminant Level	UNITS	CW-4 7/18/2001	CW-5A 7/18/2001	GC-1A 7/16/2001	GC-2 7/16/2001	GC-3 7/16/2001	GC-4 7/16/2001	GC-5 7/18/2001	GC-6 7/18/2001	LRII-1 7/16/2001	LRII-2 7/16/2001	LRII-3 7/16/2001	LRII-4 7/16/2001	LRII-5 7/16/2001	MW-1 7/18/2001	MW-2 7/16/2001	MW-3 7/16/2001	MW-5 7/16/2001	MW-6 7/16/2001	SA-2 7/16/2001	SA-3 7/18/2001	SA-4 7/18/2001	SA-5 7/16/2001	SA-6 7/16/2001	SA-7 7/16/2001	SA-8 7/16/2001	SWR-1 7/18/2001	SWR-2 7/18/2001
Field																													
Ground Water Elevation		ft	2.41	3.02	3.15	5.15	2.28	5.97	7.32	5.18	4.15	7.55	7.40	8.02	6.89	8.55	9.07	5.86	8.69	5.40	23.61	23.03	20.18	24.84	25.08	25.75	26.99	5.66	21.03
Temp, Field		C	26.0	26.5	24.0	26.5	24.5	26.5	28.5	26.0	26.0	25.5	27.5	25.5	26.5	26.5	26.5	27.5	26.5	26.5	26.5	24.5	23.0	26.5	25.5	25.0	26.0	24.5	25.5
pH, Field	6.5-8.5	STD	6.66	6.61	6.57	6.45	6.51	6.04	6.10	6.24	6.32	5.63	5.62	6.20	5.85	5.39	5.57	5.28	5.93	5.98	7.48	6.23	7.56	7.50	7.41	7.69	8.02	5.57	7.50
Cond, Field		umhos/cm	1575	750	470	550	550	275	460	450	410	215	240	475	325	310	650	120	360	195	500	420	700	700	800	470	500	135	650
Dissolved Oxygen, Field		mg/l	1.22	3.62	2.04	1.09	1.05	1.07	2.38	1.28	0.81	0.82	1.41	1.26	1.63	2.16	1.92	2.63	1.36	2.35	1.21	3.84	3.27	1.31	1.12	1.81	3.99	0.90	1.48
Turbidity, Field	20.0	NTU	0.46	0.61	5.80	1.03	0.50	4.27	0.80	3.26	1.32	0.94	2.00	0.63	3.83	8.44	3.70	6.00	1.17	1.54	20.20	6.70	12.60	0.23	1.35	8.63	1.12	2.10	0.60
Lab																													
Chloride	250	mg/l	201.0	109.0	60.8	37.1	50.7	30.1	45.2	7.8	32.4	26.7	33.8	25.7	23.9	44.0	101.0	4.4	35.8	15.4	34.0	20.2	72.5	79.9	57.0	62.3	58.6	10.9	106.0
Iron	0.3	mg/l	16.630	4.450	11.700	31.800	3.160	3.720	7.770	2.440	22.900	17.300	2.100	6.910	6.010	6.740	6.630	7.170	27.610	16.970	0.456	1.610	0.067	0.007	0.034	0.039	0.039	5.690	0.004
Mercury	0.002	mg/l	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Nitrate	0.1	ug/l	<0.100	<0.006	0.010	<0.006	0.007	0.006	0.006	0.007	<0.006	<0.006	<0.006	0.012	0.003	<0.006	0.008	0.010	0.009	<0.006	<0.006	0.871	0.007	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	160	mg/l	72.7	52.7	22.1	19.8	19.6	17.1	18.6	4.25	15.9	8.71	18.9	18.3	12.9	18.6	60.6	8.49	20.6	12.3	30.3	20.1	61	56.6	44.9	39.5	40.4	12	59.1
T. Ammonia-N		mg/l	0.183	0.331	9.350	0.158	0.240	0.411	1.950	0.645	0.863	0.046	1.590	0.819	0.331	1.180	0.247	0.087	3.090	0.188	0.185	0.524	0.895	0.194	0.150	0.155	0.140	0.143	0.215
TDS	500	mg/l	1170	368	272	265	397	160	364	331	270	106	181	313	189	234	440	142	258	195	348	292	492	410	491	349	382	118	430
CFR Part 258 Appendix I Inorganic:																													
Arsenic	0.05	mg/l	0.02	<0.005	<0.005	0.082	0.007	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.173	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Barium	2	mg/l	0.195	0.03	0.013	0.009	0.01	0.017	0.031	0.027	0.006	0.003	0.045	0.006	0.008	0.035	0.09	0.009	0.051	0.006	0.005	0.035	0.034	0.012	0.02	0.008	0.026	0.005	0.01
Cadmium	0.005	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.008	<0.0006	<0.0005	<0.0005	<0.0005
Chromium	0.1	mg/l	0.001	0.001	<0.0006	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.005	0.004	0.002	0.0007	0.001	0.001	<0.0006	0.001	<0.0006	0.002	0.006	0.0007	0.001
Lead	0.015	mg/l	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	0.006	0.007	0.007	0.006	<0.005	<0.005	<0.005	0.005
Selenium	0.05	mg/l	0.013	<0.008	<0.008	0.038	<0.008	<0.008	<0.008	<0.008	0.019	<0.008	<0.008	<0.008	0.011	<0.008	0.017	<0.001	<0.008	0.011	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Silver	0.1	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	1	mg/l	<0.003	<0.003	<0.0007	<0.0007	<0.003	<0.003	<0.003	<0.0007	0.002	0.002	<0.003	<0.003	0.007	<0.003	<0.003	<0.003	<0.003	<0.003	0.011	0.001	0.001	0.002	0.002	<0.0007	<0.003	<0.003	<0.003
Zinc	5	mg/l	<0.0006	<0.0006	0.051	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.003	0.001	<0.0006	0.001	<0.0006	<0.0006	0.003	0.005	0.005	<0.0006	<0.0006	0.0006	<0.0006	<0.0006	<0.0006
Antimony	0.006	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Beryllium	0.004	mg/l	<0.0004	<0.0004	<0.0006	<0.0006	0.0007	0.0007	<0.0004	<0.0006	<0.0006	<0.0006	0.0009	<0.0004	<0.0004	<0.0004	0.0006	<0.0004	<0.0004	<0.0004	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0004	<0.0004	<0.0004
Thallium	0.002	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.0004	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Cobalt		mg/l	0.002	0.001	0.001	0.001	0.001	0.001	<0.0007	0.001	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.006	<0.0007	<0.0007	<0.0007	0.001	0.001	<0.0007	0.001	0.001	0.001	<0.0007	<0.0007	<0.0007
Nickel	0.1	mg/l	0.006	0.002	<0.0006	0.002	<0.0006	<0.0006	0.001	<0.0006	<0.0006	0.001	<0.0006	<0.0006	<0.0006	0.001	0.004	0.003	<0.0006	<0.0006	0.002	0.001	<0.0006	<0.0006	0.003	<0.0006	0.002	<0.0006	<0.0006
Vanadium		mg/l	0.002	0.011	0.002	0.005	0.003	0.005	0.008	0.01	0.008	0.004	0.004	0.002	0.006	0.014	0.042	0.011	0.01	0.031	0.002	0.001	<0.0005	<0.0005	<0.0005	0.001	0.001	0.019	0.0004
Organic:																													
Acetone	700	ug/l	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Acrylonitrile	8	ug/l	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
Benzene	1	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Bromochloromethane		ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.6	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Bromoform	4	ug/l	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Carbon Disulfide	700	ug/l	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1
Carbon tetrachloride	3	ug/l	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Chlorobenzene		ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chloroethane	140	ug/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	6	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Dibromochloromethane	1	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dibromo-3-chloropropane	0.2	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylene dibromide		ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o-dichlorobenzene	600	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Para-dichloro-benzene	75	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
trans-1,4-Dichloro-2-butene		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	700	ug/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichloroethane	3	ug/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,1-Dichloroethene	7	ug/l	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
cis-1,2-Dichloroethene	70	ug/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
trans-1,2-Dichloroethene	100	ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
1,2-Dichloropropane	5	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
cis-1,3-Dichloropropene		ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
trans-1,3-Dichloropropene		ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Ethylbenzene	30	ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
2-Hexanone		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl bromide	10	ug/l	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Chloromethane	2.7	ug/l	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Methylene bromide		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Methylene chloride	5	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
2-butanone	4200	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl iodide		ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methlyl-2-pentanone	350	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetra-chloroethane	0.2	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethene	3	ug/l	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
Toluene	40	ug/l	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
1,1,1-trichloro-ethane	200	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,1,2-trichloro-ethane	5	ug/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Trichloroethene	3	ug/l	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Trichlorofluoromethane	2100	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
1,2,3-Trichloro-propane	42	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Vinyl acetate	250	ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	1	ug/l	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene (Total Xylenes)	20	ug/l	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11

* Results highlighted due to excedence of detection limit

Table 2-11 - Surface Water Analytical Summary, Second Half, 1999

	DATE OF TEST		SW-1 11/03/99	SW-2 11/03/99
	Maximum Contaminant Level	UNITS		
Field				
Temp, Field		C	16.5	18.3
pH, Field	6.5-8.5	STD	6.65	6.63
Cond, Field		umhos/cm	5	6
Dissolved Oxygen, Field		mg/l	5.33	6.27
Turbidity, Field	1.0	NTU	26	8.5
Lab				
BOD		mg/l	2.8	2.1
Chloride	250	mg/l	NA	NA
Chlorophyll A		ug/l	1.24	0.52
COD		mg/l	28	20
Conductivity		umhos/cm	NA	NA
Fecal Coliform		col/100ml	2000	21000
Iron	0.3	mg/l	4.9	1.9
Mercury	0.002	mg/l	<0.0002	<0.0002
Nitrate	1	mg/l	0.24	0.15
pH	6.5-8.5	STD	NA	NA
Sodium	160	mg/l	NA	NA
T. Ammonia-N		mg/l	1.4	0.069
TDS	500	mg/l	410	260
TOC		mg/l	24	16
Total Hardness		mg/l	160	110
Total Nitrogen		mg/l	2.8	1.3
Total Phosphorous		mg/l	0.51	0.22
TSS		mg/l	12	<5.0
Unionized Ammonia		mg/l	0.0024	0.0001
CFR Part 258 Appendix I				
Inorganic:				
Antimony	0.006	mg/l	<0.006	<0.006
Arsenic	0.05	mg/l	<0.01	<0.01
Barium	2	mg/l	0.013	0.011
Beryllium	0.004	mg/l	<0.004	<0.004
Cadmium	0.005	mg/l	<0.005	<0.005
Chromium	0.1	mg/l	<0.01	<0.01
Cobalt		mg/l	<0.01	<0.01
Copper	1	mg/l	<0.01	0.024
Lead	0.015	mg/l	<0.005	<0.005
Nickel	0.1	mg/l	<0.04	<0.04
Selenium	0.05	mg/l	<0.01	<0.01
Silver	0.1	mg/l	<0.01	<0.01
Thallium	0.002	mg/l	<0.002	<0.002
Vanadium		mg/l	<0.01	<0.01
Zinc	5	mg/l	<0.02	0.07
Organic:				
Acetone	700	ug/l	<25	<25
Acrylonitrile	8	ug/l	<20	<20
Benzene	1	ug/l	<1.0	<1.0
Bromochloromethane		ug/l	<1.0	<1.0
Bromodichloromethane	0.6	ug/l	<1.0	<1.0
Bromoform	4	ug/l	<1.0	<1.0
Carbon Disulfide	700	ug/l	<1.0	<1.0
Carbon tetrachloride	3	ug/l	<1.0	<1.0
Chlorobenzene		ug/l	<1.0	<1.0
Chloroethane	140	ug/l	<1.0	<1.0
Chloroform	6	ug/l	<1.0	<1.0
Dibromochloromethane	1	ug/l	<1.0	<1.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<1.0	<1.0

Table 2-11 - Surface Water Analytical Summary, Second Half, 1999

DATE OF TEST			SW-1 11/3/99	SW-2 11/3/99
	Maximum Contaminant Level	UNITS		
Ethylene dibromide		ug/l	<1.0	<1.0
o-dichlorobenzene	600	ug/l	<1.0	<1.0
Para-dichloro-benzene	75	ug/l	<1.0	<1.0
trans-1,4-Dichloro-2-butene		ug/l	<2.0	<2.0
1,1-Dichloroethane	700	ug/l	<1.0	<1.0
1,2-Dichloroethane	3	ug/l	<1.0	<1.0
1,1-Dichloroethene	7	ug/l	<1.0	<1.0
cis-1,2-Dichloroethene	70	ug/l	<1.0	<1.0
trans-1,2-Dichloroethene	100	ug/l	<1.0	<1.0
1,2-Dichloropropane	5	ug/l	<1.0	<1.0
cis-1,3-Dichloropropene		ug/l	<1.0	<1.0
trans-1,3-Dichloropropene		ug/l	<1.0	<1.0
Ethylbenzene	30	ug/l	<1.0	<1.0
2-Hexanone		ug/l	<10	<10
Methyl bromide	10	ug/l	<1.0	<1.0
Chloromethane	2.7	ug/l	<1.0	<1.0
Methylene bromide		ug/l	<1.0	<1.0
Methylene chloride	5	ug/l	<5	<5
2-butanone	4200	ug/l	<10	<10
Methyl iodide		ug/l	<1.0	<1.0
4-methlyl-2-pentanone	350	ug/l	<10	<10
Styrene	100	ug/l	<1.0	<1.0
1,1,1,2-tetra-chloroethane	1	ug/l	<1.0	<1.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<1.0	<1.0
Tetrachloroethene	3	ug/l	<1.0	<1.0
Toluene	40	ug/l	<1.0	<1.0
1,1,1-trichloro-ethane	200	ug/l	<1.0	<1.0
1,1,2-trichloro-ethane	5	ug/l	<1.0	<1.0
Trichloroethene	3	ug/l	<1.0	<1.0
Trichlorofluoromethane	2100	ug/l	<1.0	<1.0
1,2,3-Trichloro-propane	42	ug/l	<1.0	<1.0
Vinyl acetate	250	ug/l	<2	<2
Vinyl chloride	1	ug/l	<1.0	<1.0
Xylene	20	ug/l	<1.0	<1.0

TABLE 2-12

Surface Water Analytical and Elevation Summary
First Half 2000

Table 2-12 - Surface Water Analytical Summary, First Half, 2000

	DATE OF TEST		SW-1 02/14/00	SW-2 02/14/00
	Maximum Contaminant Level	UNITS		
Field				
Temp, Field		C		20.8
pH, Field	6.5-8.5	STD		7.12
Cond, Field		umhos/cm		719
Dissolved Oxygen, Field		mg/l		5.93
Turbidity, Field	1.0	NTU		NA
Lab				
BOD		mg/l		<2.0
Chloride	250	mg/l		NA
Chlorophyll A		ug/l		NA
COD		mg/l		53
Conductivity		umhos/cm		NA
Fecal Coliform		col/100ml		730
Iron	0.3	mg/l		1.7
Mercury	0.002	mg/l		<0.0002
Nitrate	1	mg/l		0.17
pH	6.5-8.5	STD		NA
Sodium	160	mg/l		NA
T. Ammonia-N		mg/l		0.3
TDS	500	mg/l		390
TOC		mg/l		21
Total Hardness		mg/l		230
Total Nitrogen		mg/l		1.7
Total Phosphorous		mg/l		0.18
TSS		mg/l		7.6
Unionized Ammonia		mg/l		0.002
CFR Part 258 Appendix I Inorganics:				
Antimony	0.006	mg/l		NA
Arsenic	0.05	mg/l		<0.01
Barium	2	mg/l		0.02
Beryllium	0.004	mg/l		<0.004
Cadmium	0.005	mg/l		<0.005
Chromium	0.1	mg/l		<0.01
Cobalt		mg/l		<0.01
Copper	1	mg/l		<0.02
Lead	0.015	mg/l		<0.005
Nickel	0.1	mg/l		<0.04
Selenium	0.05	mg/l		<0.01
Silver	0.1	mg/l		<0.001
Thallium	0.002	mg/l		<0.002
Vanadium		mg/l		<0.01
Zinc	5	mg/l		<0.02
Organic:				
Acetone	700	ug/l		<25
Acrylonitrile	8	ug/l		<20
Benzene	1	ug/l		<1.0
Bromochloromethane		ug/l		<1.0
Bromodichloromethane	0.6	ug/l		<1.0
Bromoform	4	ug/l		<1.0
Carbon Disulfide	700	ug/l		<1.0
Carbon tetrachloride	3	ug/l		<1.0
Chlorobenzene		ug/l		<1.0
Chloroethane	140	ug/l		<1.0
Chloroform	6	ug/l		<1.0
Dibromochloromethane	1	ug/l		<1.0
1,2-Dibromo-3-chloropropane	0.2	ug/l		<1.0

Table 2-12 - Surface Water Analytical Summary, First Half, 2000

	DATE OF TEST		SW-1	SW-2 02/14/00
	Maximum Contaminant Level	UNITS		
Ethylene dibromide		ug/l		<1.0
o-dichlorobenzene	600	ug/l		<1.0
Para-dichloro-benzene	75	ug/l		<1.0
trans-1,4-Dichloro-2-butene		ug/l		<2.0
1,1-Dichloroethane	700	ug/l		<1.0
1,2-Dichloroethane	3	ug/l		<1.0
1,1-Dichloroethene	7	ug/l		<1.0
cis-1,2-Dichloroethene	70	ug/l		<1.0
trans-1,2-Dichloroethene	100	ug/l		<1.0
1,2-Dichloropropane	5	ug/l		<1.0
cis-1,3-Dichloropropene		ug/l		<1.0
trans-1,3-Dichloropropene		ug/l		<1.0
Ethylbenzene	30	ug/l		<1.0
2-Hexanone		ug/l		<10
Methyl bromide	10	ug/l		<1.0
Chloromethane	2.7	ug/l		<1.0
Methylene bromide		ug/l		<1.0
Methylene chloride	5	ug/l		<5
2-butanone	4200	ug/l		<10
Methyl iodide		ug/l		<1.0
4-methlyl-2-pentanone	350	ug/l		<10
Styrene	100	ug/l		<1.0
1,1,1,2-tetra-chloroethane	1	ug/l		<1.0
1,1,2,2-tetra-chloroethane	0.2	ug/l		<1.0
Tetrachloroethene	3	ug/l		<1.0
Toluene	40	ug/l		<1.0
1,1,1-trichloro-ethane	200	ug/l		<1.0
1,1,2-trichloro-ethane	5	ug/l		<1.0
Trichloroethene	3	ug/l		<1.0
Trichlorofluoromethane	2100	ug/l		<1.0
1,2,3-Trichloro-propane	42	ug/l		<1.0
Vinyl acetate	250	ug/l		<2
Vinyl chloride	1	ug/l		<1.0
Xylene	20	ug/l		<1.0

TABLE 2-13

Surface Water Analytical and Elevation Summary
Second Half 2000

Table 2-13 - Surface Water Analytical Summary, Second Half, 200

	DATE OF TEST		SW-1 08/14/00	SW-2 08/14/00
	Maximum Contaminant Level	UNITS		
Field				
Temp, Field		C	27.7	26.7
pH, Field	6.5-8.5	STD	6.27	6.46
Cond, Field		umhos/cm	482	546
Dissolved Oxygen, Field		mg/l	4.42	4.27
Turbidity, Field	1.0	NTU	NA	NA
Lab				
BOD		mg/l	<2	<2
Chloride	250	mg/l	NA	NA
Chlorophyll A		ug/l	6.12	2.34
COD		mg/l	170	96
Conductivity		umhos/cm	NA	NA
Fecal Coliform		col/100ml	>6000	>6000
Iron	0.3	mg/l	1.2	9.3
Mercury	0.002	mg/l	<0.0002	0.00078
Nitrate	1	mg/l	0.057	0.76
pH	6.5-8.5	STD	NA	NA
Sodium	160	mg/l	NA	NA
T. Ammonia-N		mg/l	0.39	0.3
TDS	500	mg/l	320	320
TOC		mg/l	29	32
Total Hardness		mg/l	120	130
Total Nitrogen		mg/l	1.6	2.4
Total Phosphorous		mg/l	0.24	0.62
TSS		mg/l	<5	16
Unionized Ammonia		mg/l	0.0006	0.00067
CFR Part 258 Appendix I Inorganic:				
Antimony	0.006	mg/l	<0.006	<0.006
Arsenic	0.05	mg/l	<0.01	0.016
Barium	2	mg/l	0.018	0.062
Beryllium	0.004	mg/l	<0.004	<0.004
Cadmium	0.005	mg/l	<0.005	<0.005
Chromium	0.1	mg/l	<0.01	<0.01
Cobalt		mg/l	<0.01	<0.01
Copper	1	mg/l	<0.02	<0.02
Lead	0.015	mg/l	<0.005	<0.005
Nickel	0.1	mg/l	<0.04	<0.04
Selenium	0.05	mg/l	<0.01	<0.01
Silver	0.1	mg/l	<0.01	<0.01
Thallium	0.002	mg/l	<0.002	<0.002
Vanadium		mg/l	<0.01	<0.01
Zinc	5	mg/l	<0.02	0.024
Organics:				
Acetone	700	ug/l	<50	<50
Acrylonitrile	8	ug/l	<100	<100
Benzene	1	ug/l	<1.0	<1.0
Bromochloromethane		ug/l	<5.0	<5.0
Bromodichloromethane	0.6	ug/l	<5.0	<5.0
Bromoform	4	ug/l	<5.0	<5.0
Carbon Disulfide	700	ug/l	<5.0	<5.0
Carbon tetrachloride	3	ug/l	<3.0	<3.0
Chlorobenzene		ug/l	<5.0	<5.0
Chloroethane	140	ug/l	<10	<10
Chloroform	6	ug/l	<5.0	<5.0
Dibromochloromethane	1	ug/l	<5.0	<5.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<5.0	<5.0

Table 2-13 - Surface Water Analytical Summary, Second Half, 200

DATE OF TEST	Maximum Contaminant Level	UNITS	SW-1 08/14/00	SW-2 08/14/00
Ethylene dibromide		ug/l	<5.0	<5.0
o-dichlorobenzene	600	ug/l	<5.0	<5.0
Para-dichloro-benzene	75	ug/l	<5.0	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10	<10
1,1-Dichloroethane	700	ug/l	<5.0	<5.0
1,2-Dichloroethane	3	ug/l	<3.0	<3.0
1,1-Dichloroethene	7	ug/l	<5.0	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0	<5.0
1,2-Dichloropropane	5	ug/l	<5.0	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0	<5.0
Ethylbenzene	30	ug/l	<5.0	<5.0
2-Hexanone		ug/l	<25	<25
Methyl bromide	10	ug/l	<10	<10
Chloromethane	2.7	ug/l	<10	<10
Methylene bromide		ug/l	<5.0	<5.0
Methylene chloride	5	ug/l	<5.0	<5.0
2-butanone	4200	ug/l	<25	<25
Methyl iodide		ug/l	<5.0	<5.0
4-methlyl-2-pentanone	350	ug/l	<25	<25
Styrene	100	ug/l	<5.0	<5.0
1,1,1,2-tetra-chloroethane	1	ug/l	<5.0	<5.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<5.0	<5.0
Tetrachloroethene	3	ug/l	<3.0	<3.0
Toluene	40	ug/l	<5.0	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0	<5.0
Trichloroethene	3	ug/l	<3.0	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0	<5.0
Vinyl acetate	250	ug/l	<10	<10
Vinyl chloride	1	ug/l	<1.0	<1.0
Xylene	20	ug/l	<10	<10

TABLE 2-14

Surface Water Analytical and Elevation Summary
First Half 2001

Table 2-14 - Surface Water Analytical Summary, First Half, 200

	DATE OF TEST		SW-1 03/06/01	SW-2 DRY
	Maximum Contaminant Level	UNITS		
Field				
Temp, Field		C	24.5	NA
pH, Field	6.5-8.5	STD	7.16	NA
Cond, Field		umhos/cm	500	NA
Dissolved Oxygen, Field		mg/l	4.85	NA
Turbidity, Field	1.0	NTU	NA	NA
Lab				
BOD		mg/l	<2.0	NA
Chloride	250	mg/l	NA	NA
Chlorophyll A		ug/l	NA	NA
COD		mg/l	77	NA
Conductivity		umhos/cm	NA	NA
Fecal Coliform		col/100ml	5900	NA
Iron	0.3	mg/l	1.4	NA
Mercury	0.002	mg/l	<0.0002	NA
Nitrate	1	mg/l	<0.05	NA
pH	6.5-8.5	STD	NA	NA
Sodium	160	mg/l	NA	NA
T. Ammonia-N		mg/l	0.078	NA
TDS	500	mg/l	330	NA
TOC		mg/l	22	NA
Total Hardness		mg/l	160	NA
Total Nitrogen		mg/l	0.86	NA
Total Phosphorous		mg/l	0.31	NA
TSS		mg/l	13	NA
Unionized Ammonia		mg/l	0.00058	NA
CFR Part 258 Appendix I Inorganic:				
Antimony	0.006	mg/l	<0.006	NA
Arsenic	0.05	mg/l	<0.01	NA
Barium	2	mg/l	0.014	NA
Beryllium	0.004	mg/l	<0.004	NA
Cadmium	0.005	mg/l	<0.005	NA
Chromium	0.1	mg/l	<0.01	NA
Cobalt		mg/l	<0.01	NA
Copper	1	mg/l	<0.02	NA
Lead	0.015	mg/l	<0.005	NA
Nickel	0.1	mg/l	<0.04	NA
Selenium	0.05	mg/l	<0.01	NA
Silver	0.1	mg/l	<0.01	NA
Thallium	0.002	mg/l	<0.002	NA
Vanadium		mg/l	<0.01	NA
Zinc	5	mg/l	<0.02	NA
Organic:				
Acetone	700	ug/l	<50	NA
Acrylonitrile	8	ug/l	<100	NA
Benzene	1	ug/l	<1.0	NA
Bromochloromethane		ug/l	<5.0	NA
Bromodichloromethane	0.6	ug/l	<5.0	NA
Bromoform	4	ug/l	<5.0	NA
Carbon Disulfide	700	ug/l	<5.0	NA
Carbon tetrachloride	3	ug/l	<3.0	NA
Chlorobenzene		ug/l	<5.0	NA
Chloroethane	140	ug/l	<10	NA
Chloroform	6	ug/l	<5.0	NA
Dibromochloromethane	1	ug/l	<5.0	NA
1,2-Dibromo-3-chloropropane	0.2	ug/l	<5.0	NA

Table 2-14 - Surface Water Analytical Summary, First Half, 200

	DATE OF TEST		SW-1 03/06/01	SW-2 DRY
	Maximum Contaminant Level	UNITS		
Ethylene dibromide		ug/l	<5.0	NA
o-dichlorobenzene	600	ug/l	<5.0	NA
Para-dichloro-benzene	75	ug/l	<5.0	NA
trans-1,4-Dichloro-2-butene		ug/l	<10	NA
1,1-Dichloroethane	700	ug/l	<5.0	NA
1,2-Dichloroethane	3	ug/l	<3.0	NA
1,1-Dichloroethene	7	ug/l	<5.0	NA
cis-1,2-Dichloroethene	70	ug/l	<5.0	NA
trans-1,2-Dichloroethene	100	ug/l	<5.0	NA
1,2-Dichloropropane	5	ug/l	<5.0	NA
cis-1,3-Dichloropropene		ug/l	<5.0	NA
trans-1,3-Dichloropropene		ug/l	<5.0	NA
Ethylbenzene	30	ug/l	<5.0	NA
2-Hexanone		ug/l	<25	NA
Methyl bromide	10	ug/l	<10	NA
Chloromethane	2.7	ug/l	<10	NA
Methylene bromide		ug/l	<5.0	NA
Methylene chloride	5	ug/l	<5.0	NA
2-butanone	4200	ug/l	<25	NA
Methyl iodide		ug/l	<5.0	NA
4-methlyl-2-pentanone	350	ug/l	<25	NA
Styrene	100	ug/l	<5.0	NA
1,1,1,2-tetra-chloroethane	1	ug/l	<5.0	NA
1,1,2,2-tetra-chloroethane	0.2	ug/l	<5.0	NA
Tetrachloroethene	3	ug/l	<3.0	NA
Toluene	40	ug/l	<5.0	NA
1,1,1-trichloro-ethane	200	ug/l	<5.0	NA
1,1,2-trichloro-ethane	5	ug/l	<5.0	NA
Trichloroethene	3	ug/l	<3.0	NA
Trichlorofluoromethane	2100	ug/l	<5.0	NA
1,2,3-Trichloro-propane	42	ug/l	<5.0	NA
Vinyl acetate	250	ug/l	<10	NA
Vinyl chloride	1	ug/l	<1.0	NA
Xylene	20	ug/l	<10	NA

TABLE 2-15

Surface Water Analytical and Elevation Summary
Second Half 2001

Table 2-15 - Surface Water Analytical Summary, Second Half, 20

	DATE OF TEST		SW-1 07/16/01	SW-2 07/16/01
	Maximum Contaminant Level	UNITS		
Field				
Temp, Field		C	24.5	26.5
pH, Field	6.5-8.5	STD	7.16	6.79
Cond, Field		umhos/cm	500	470
Dissolved Oxygen, Field		mg/l	4.85	4.55
Turbidity, Field	1.0	NTU	NA	NA
Lab				
BOD		mg/l	<2.0	<2.0
Chloride	250	mg/l	NA	NA
Chlorophyll A		ug/l	NA	NA
COD		mg/l	87.7	97.2
Conductivity		umhos/cm	NA	NA
Fecal Coliform		col/100ml	535	430
Iron	0.3	mg/l	2.88	2.51
Mercury	0.002	mg/l	<0.1	<0.1
Nitrate	1	mg/l	0.062	0.025
pH	6.5-8.5	STD	NA	NA
Sodium	160	mg/l	NA	NA
T. Ammonia-N		mg/l	0.121	0.06
TDS	500	mg/l	380	333
TOC		mg/l	34.4	37
Total Hardness		mg/l	138	138
Total Nitrogen		mg/l	1.8	1.88
Total Phosphorous		mg/l	0.589	0.388
TSS		mg/l	3	5
Unionized Ammonia		mg/l	0.001	0.0003
CFR Part 258 Appendix I				
Inorganic:				
Antimony	0.006	mg/l	<0.002	<0.002
Arsenic	0.05	mg/l	0.007	0.005
Barium	2	mg/l	0.021	0.016
Beryllium	0.004	mg/l	<0.0004	<0.0004
Cadmium	0.005	mg/l	<0.0005	<0.0005
Chromium	0.1	mg/l	0.003	0.002
Cobalt		mg/l	<0.0007	<0.0007
Copper	1	mg/l	<0.003	0.004
Lead	0.015	mg/l	<0.005	<0.005
Nickel	0.1	mg/l	0.002	0.001
Selenium	0.05	mg/l	<0.008	0.008
Silver	0.1	mg/l	<0.001	<0.001
Thallium	0.002	mg/l	<0.0004	<0.0004
Vanadium		mg/l	0.005	0.002
Zinc	5	mg/l	0.002	0.006
Organic:				
Acetone	700	ug/l	<50	<50
Acrylonitrile	8	ug/l	<100	<100
Benzene	1	ug/l	<1.0	<1.0
Bromochloromethane		ug/l	<5.0	<5.0
Bromodichloromethane	0.6	ug/l	<5.0	<5.0
Bromoform	4	ug/l	<5.0	<5.0
Carbon Disulfide	700	ug/l	<5.0	<5.0
Carbon tetrachloride	3	ug/l	<3.0	<3.0
Chlorobenzene		ug/l	<5.0	<5.0
Chloroethane	140	ug/l	<10	<10
Chloroform	6	ug/l	<5.0	<5.0
Dibromochloromethane	1	ug/l	<5.0	<5.0
1,2-Dibromo-3-chloropropane	0.2	ug/l	<5.0	<5.0

Table 2-15 - Surface Water Analytical Summary, Second Half, 20

DATE OF TEST			SW-1 07/16/01	SW-2 07/16/01
	Maximum Contaminant Level	UNITS		
Ethylene dibromide		ug/l	<5.0	<5.0
o-dichlorobenzene	600	ug/l	<5.0	<5.0
Para-dichloro-benzene	75	ug/l	<5.0	<5.0
trans-1,4-Dichloro-2-butene		ug/l	<10	<10
1,1-Dichloroethane	700	ug/l	<5.0	<5.0
1,2-Dichloroethane	3	ug/l	<3.0	<3.0
1,1-Dichloroethene	7	ug/l	<5.0	<5.0
cis-1,2-Dichloroethene	70	ug/l	<5.0	<5.0
trans-1,2-Dichloroethene	100	ug/l	<5.0	<5.0
1,2-Dichloropropane	5	ug/l	<5.0	<5.0
cis-1,3-Dichloropropene		ug/l	<5.0	<5.0
trans-1,3-Dichloropropene		ug/l	<5.0	<5.0
Ethylbenzene	30	ug/l	<5.0	<5.0
2-Hexanone		ug/l	<25	<25
Methyl bromide	10	ug/l	<10	<10
Chloromethane	2.7	ug/l	<10	<10
Methylene bromide		ug/l	<5.0	<5.0
Methylene chloride	5	ug/l	<5.0	<5.0
2-butanone	4200	ug/l	<25	<25
Methyl iodide		ug/l	<5.0	<5.0
4-methlyl-2-pentanone	350	ug/l	<25	<25
Styrene	100	ug/l	<5.0	<5.0
1,1,1,2-tetra-chloroethane	1	ug/l	<5.0	<5.0
1,1,2,2-tetra-chloroethane	0.2	ug/l	<5.0	<5.0
Tetrachloroethene	3	ug/l	<3.0	<3.0
Toluene	40	ug/l	<5.0	<5.0
1,1,1-trichloro-ethane	200	ug/l	<5.0	<5.0
1,1,2-trichloro-ethane	5	ug/l	<5.0	<5.0
Trichloroethene	3	ug/l	<3.0	<3.0
Trichlorofluoromethane	2100	ug/l	<5.0	<5.0
1,2,3-Trichloro-propane	42	ug/l	<5.0	<5.0
Vinyl acetate	250	ug/l	<10	<10
Vinyl chloride	1	ug/l	<1.0	<1.0
Xylene	20	ug/l	<10	<10

TABLE 3-1

SUMMARY OF WATER QUALITY DATA TRENDS

Analytes Of Note	Trend in Concentration	Comments
Leachate		
TDS	Upward	Increased from approximately 2 to 4 times the MCL during the monitoring period.
Iron	Upward	Increased from approximately 15 to 60 times the MCL during the monitoring period.
Sodium	Erratic	Concentration exceeded the MCL during 4 of 5 sampling events.
Total Ammonia-N	Erratic	Ranged from approximately 50 to 200 mg/L during monitoring period.
Chloride	Erratic	Exceeded MCL during several sampling events.
Barium	Steady	Detected at concentration lower than MCL throughout monitoring period.
Benzene Chlorobenzene Para-dichloro-Benzene 1,1-DCA Toluene Xylene	Erratic	All analytes detected once (Second Half, 2001) during monitoring. None detected at concentrations in excess of respective MCL.

TABLE 3-1 (Con't)

SUMMARY OF WATER QUALITY DATA TRENDS

Analytes Of Note	Trend in Concentration	Comments
Groundwater – Surficial Aquifer		
pH	Steady	Measured at levels outside of the prescribed MCL range at most wells throughout monitoring period.
Iron	Steady	Measured at levels significantly higher than MCL at most wells throughout monitoring period.
TDS	Erratic	Concentration was consistently higher than the MCL at wells MW-2 and CW-4 throughout most of monitoring period, but only occasionally at several other wells.
Arsenic	Erratic	Concentration was consistently higher than the MCL at wells CW-4, MW-2, and GC-2 throughout most of monitoring period, and occasionally at several other wells.
Turbidity	Erratic	Detected at concentrations in excess of MCL several times, especially early during the monitoring period.
Antimony	Erratic	Detected at concentrations in excess of MCL several times during the monitoring period. No pattern to location of exceedances.
Chloride	Erratic	Detected at a concentration in excess of MCL at only one well (MW-2) during one sampling period.
Chromium	Erratic	Detected at concentrations in excess of MCL once (Second Half, 2000) during monitoring period. Detected at only one well.
Cobalt	Erratic	Detected at concentrations in excess of MCL once (Second Half, 2000) during monitoring period. Detected at only one well.

TABLE 3-1 (Con't)

SUMMARY OF WATER QUALITY DATA TRENDS

Analytes Of Note	Trend in Concentration	Comments
Groundwater – Artesian (deep) Aquifer		
pH	Erratic	Detected outside of the prescribed MCL range at one (SA-8) once (First Half, 2001) during the monitoring period.
Iron	Erratic	Detected twice during monitoring period at wells SA-2 and SA-3 at concentrations in excess of the MCL.
TDS	Steady	Detected consistently at one well, SA-6, at a concentration in excess of the MCL.
Turbidity	Erratic	Detected at concentrations in excess of the MCL once at well SA-2 and twice at SA-8 during the monitoring period.
Antimony	Erratic	Detected at concentrations in excess of the MCL at wells SA-2 once (First Half, 2001) during the monitoring period.
Cadmium	Erratic	Detected at concentrations in excess of the MCL at wells SA-6 once (Second Half, 2001) during the monitoring period.
Surface Water		
Iron	Steady	Measured at levels ranging 3 to 30 times higher than the surface water standard at both sampling points throughout monitoring period.

TABLE 4-1

MONTHLY MONITORING RAINFALL DATA DURING THE MONITORING PERIOD

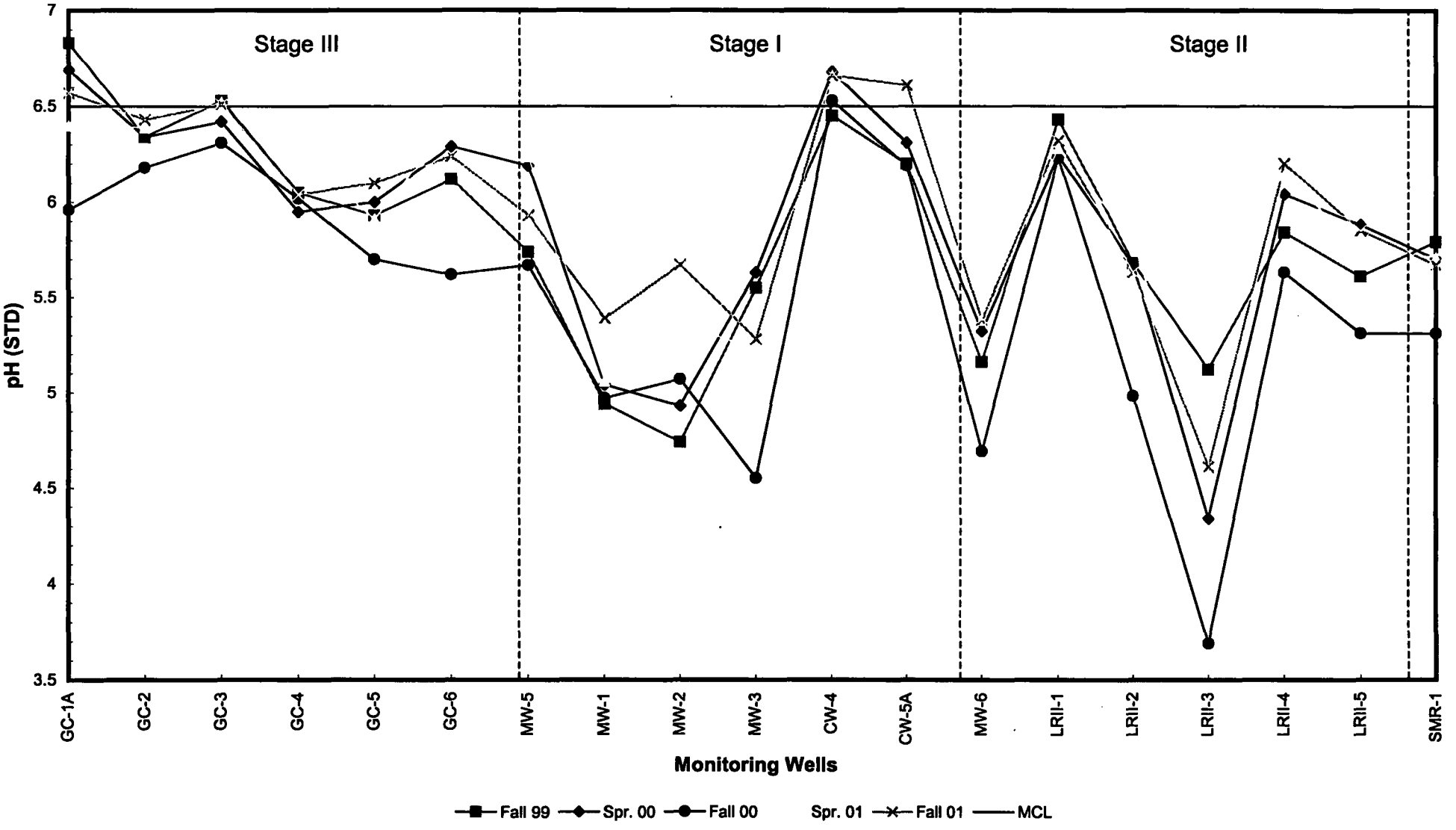
Date	Rainfall (Inches)
Year 2000	
January	0.69
February	1.11
March	3.55
April	1.17
May	0.64
June	4.79
July	10.29
August	6.02
September	6.73
October	0.14
November	1.77
December	0.78
Total:	**37.68**
Year 2001	
January	0.21
February	0.01
March	9.95
April	0.00
May	0.92
June	9.60
July	14.83
August	5.35
September	13.85
October	2.17
November	NA
December	NA
Total (Partial):	**56.89**

APPENDIX A

PARAMETER TREND ANALYSIS GRAPHS

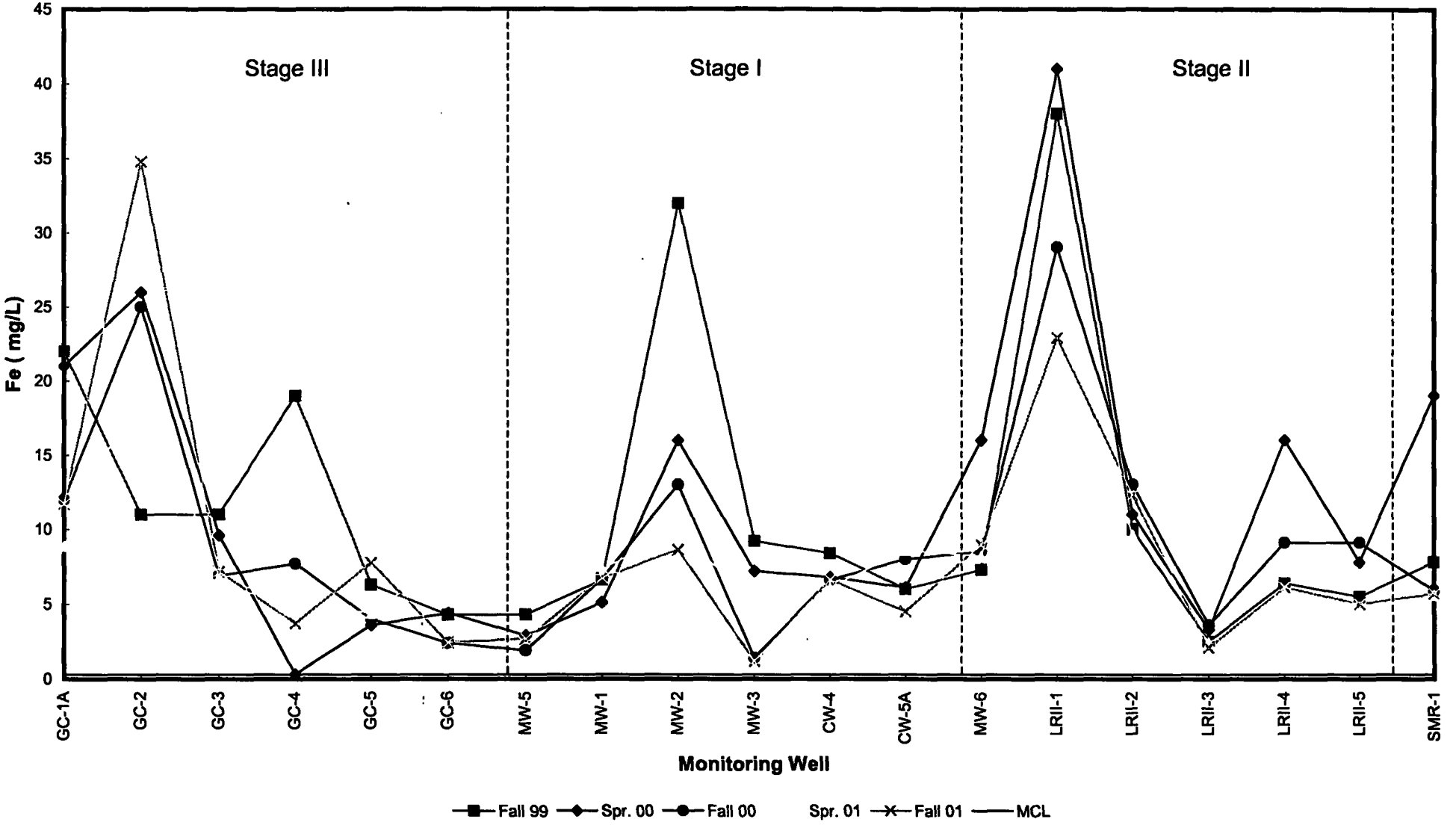
A-1 – pH Trend Analysis Graph, Shallow Wells

pH Trend Analysis; Shallow Wells



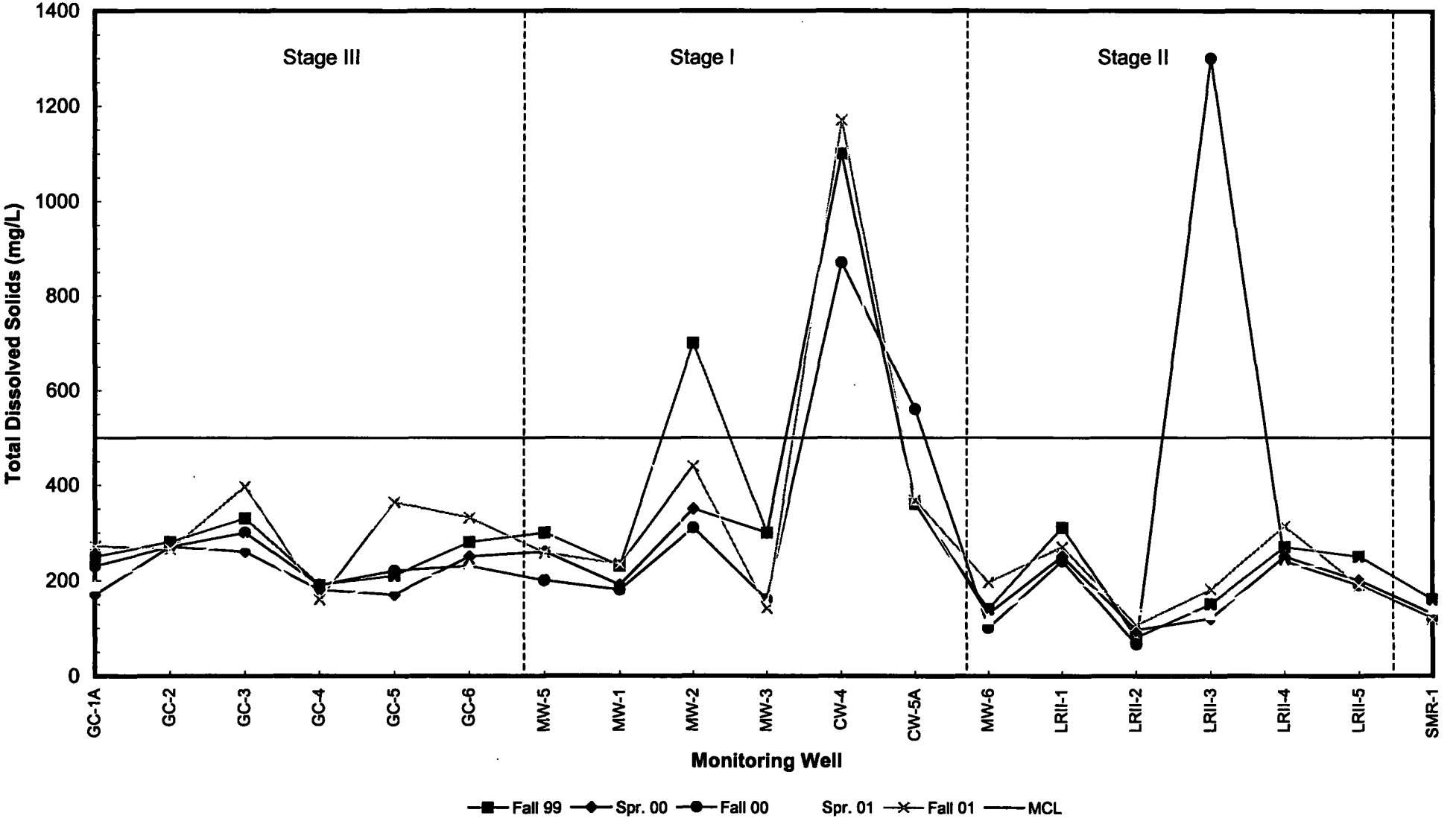
A-2 – Iron Trend Analysis Graph, Shallow Wells

Iron Trend Analysis; Shallow Wells



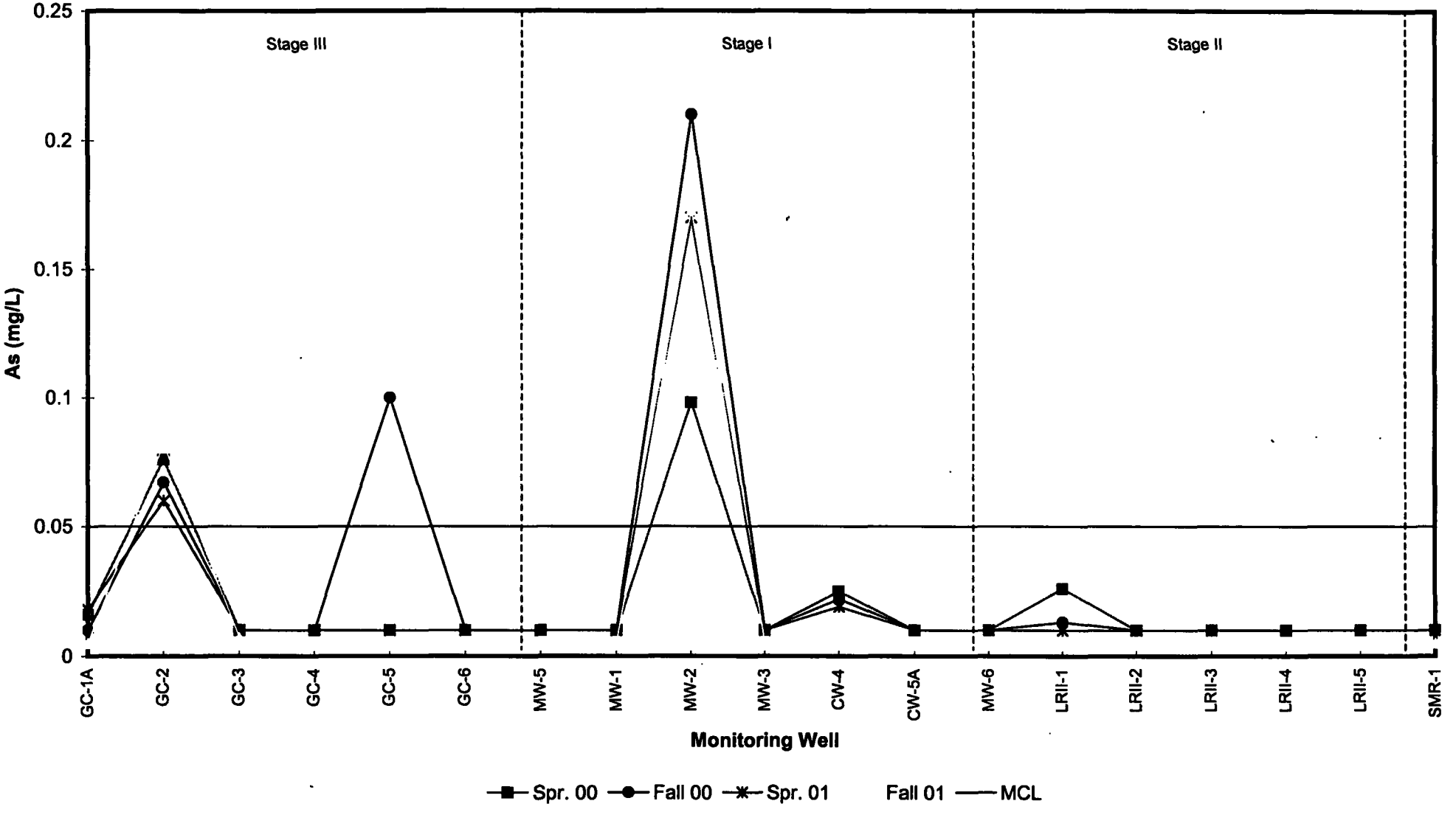
A-3 – Total Dissolved Solids Trend Analysis Graph, Shallow Wells

Total Dissolved Solids Trend Analysis; Shallow Wells



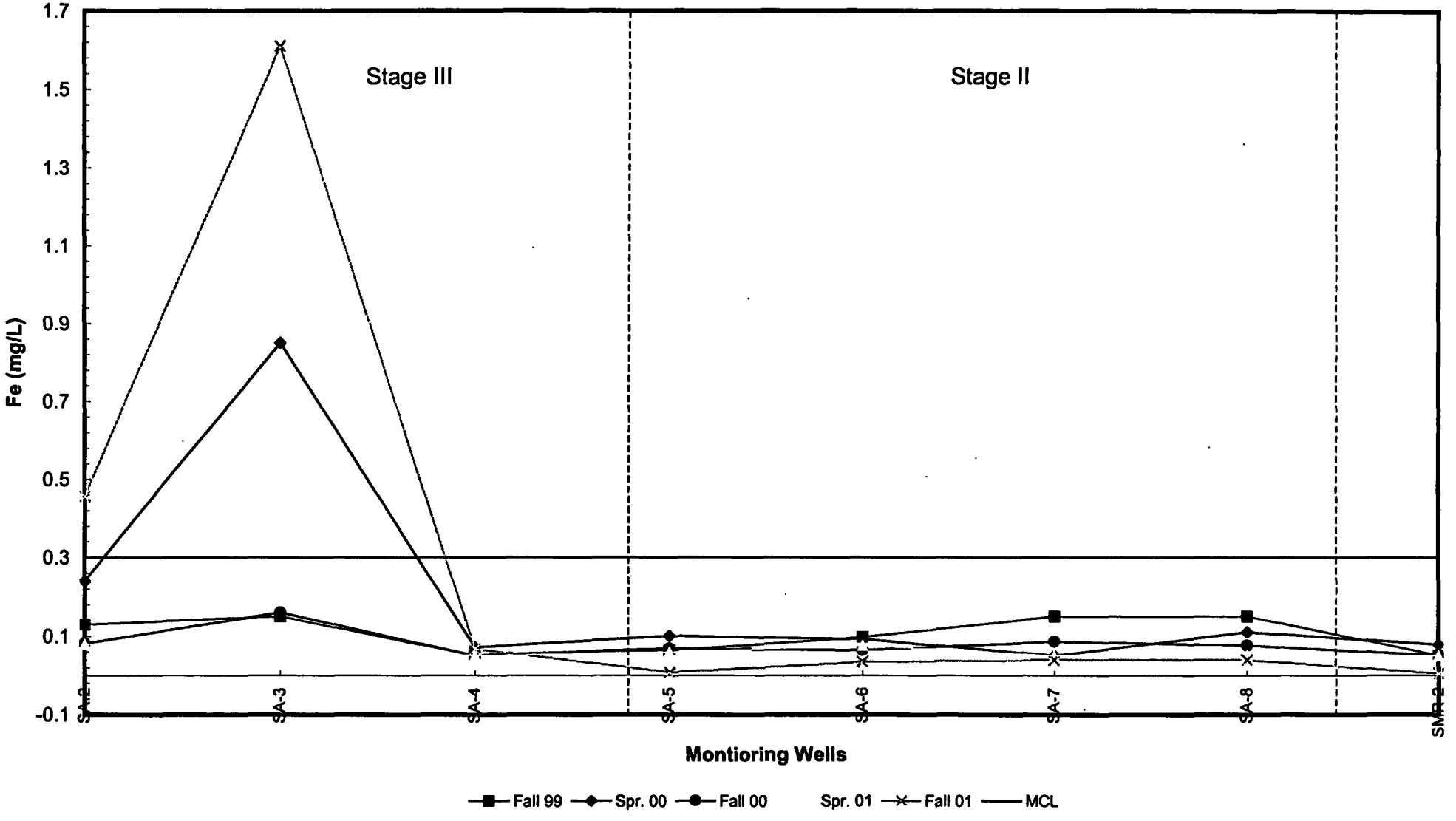
A-4 – Arsenic Analysis Graph, Shallow Wells

Arsenic Trend Analysis; Shallow Wells



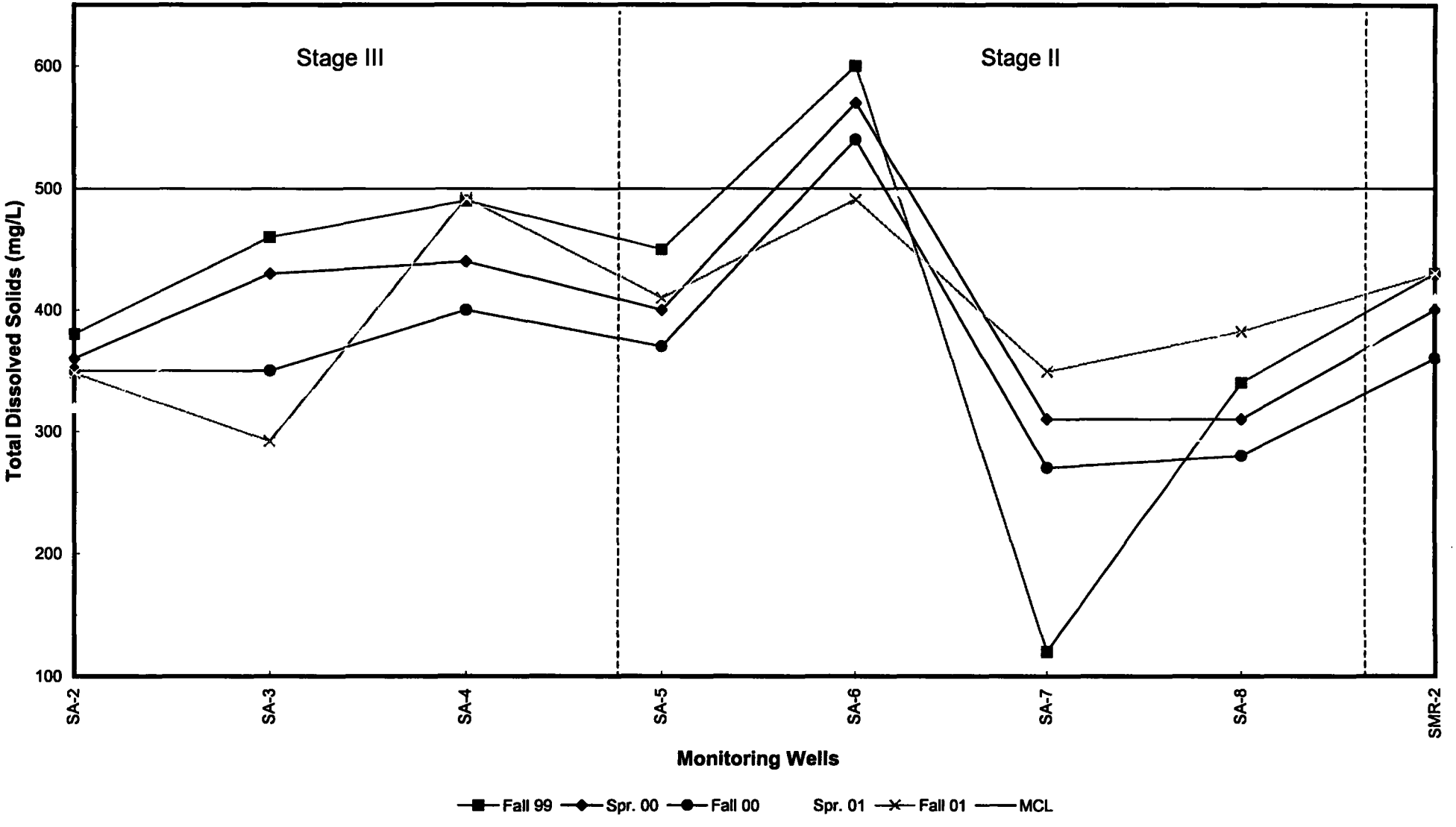
A-5 – Iron Concentration Graph, Deep Wells

Iron Trend Analysis; Deep Wells



A-6 – Total Dissolved Solids Concentration Graphs, Deep Wells

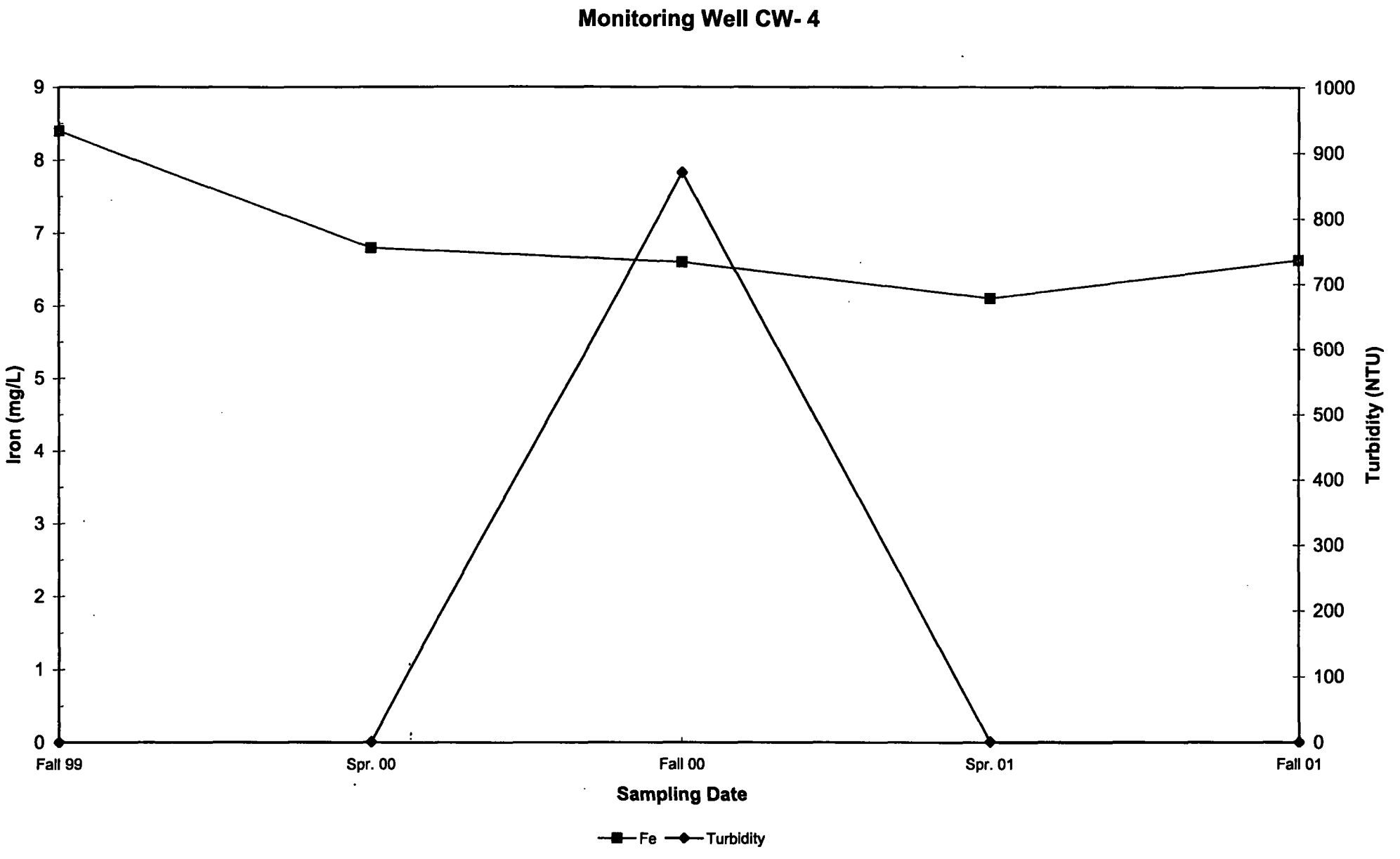
Total Dissolved Solids Trend Analysis; Deep Wells



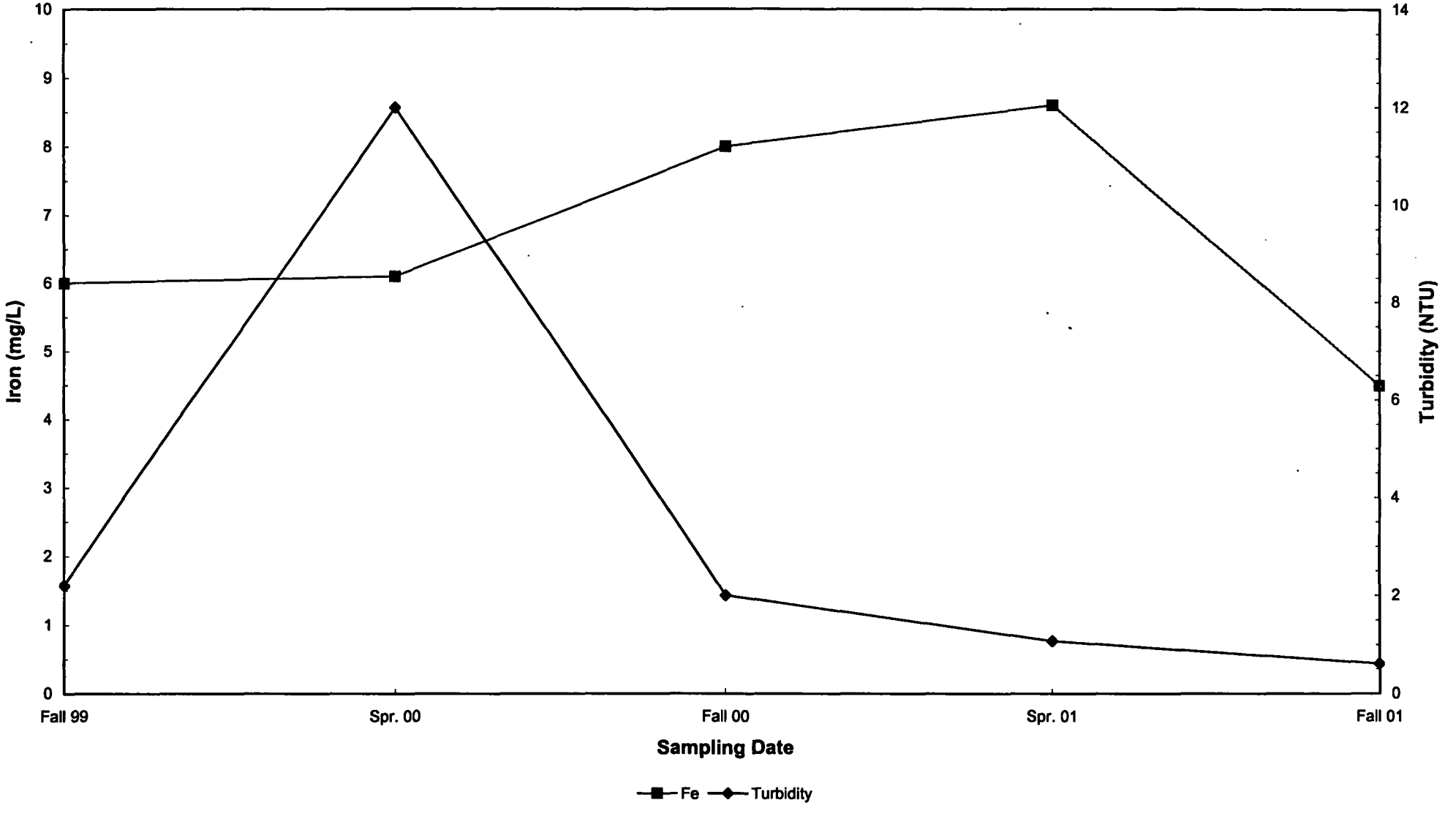
APPENDIX B

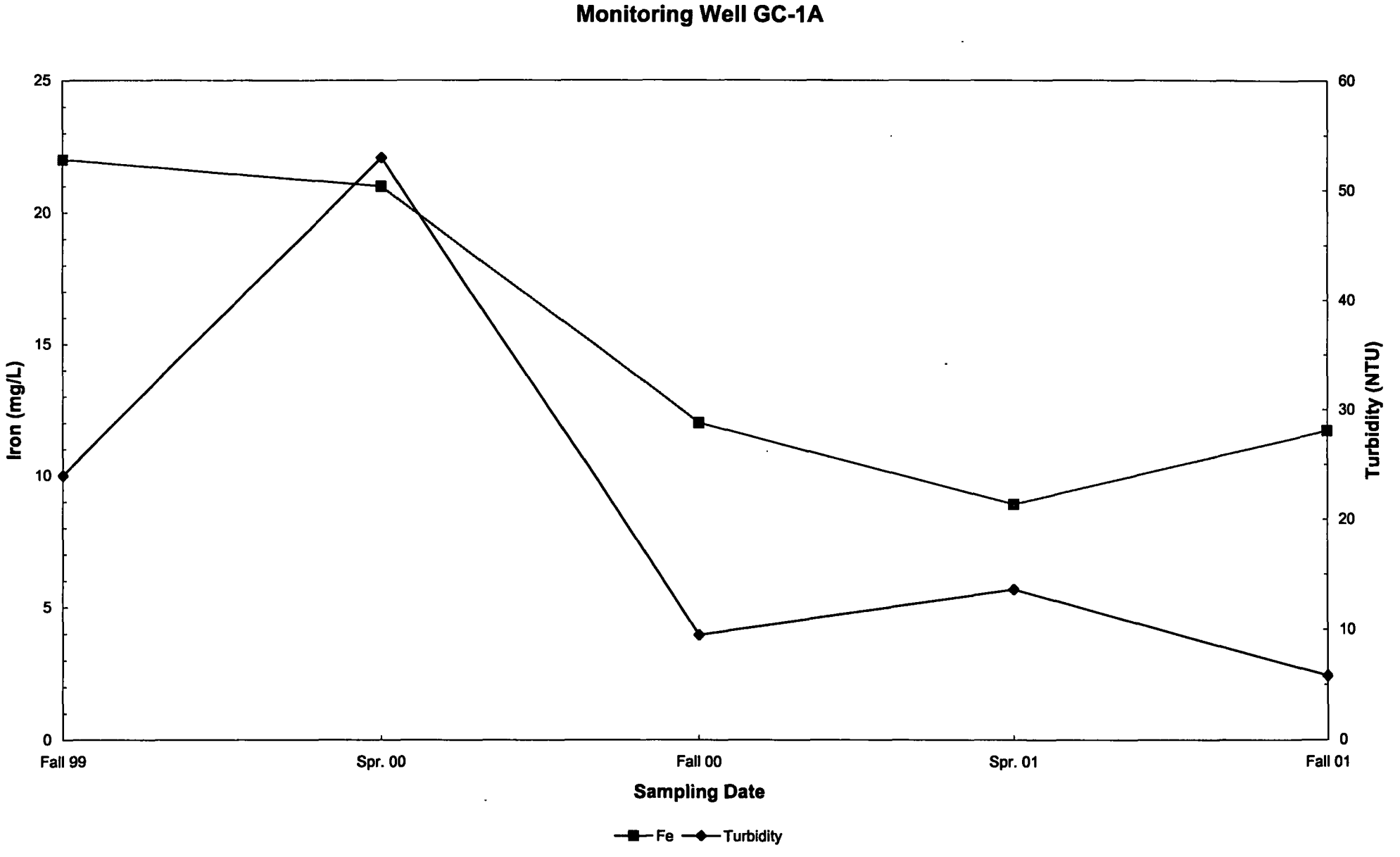
RELATED PARAMETER CORRELATION GRAPHS

B-1 – Iron versus Turbidity, Shallow Wells

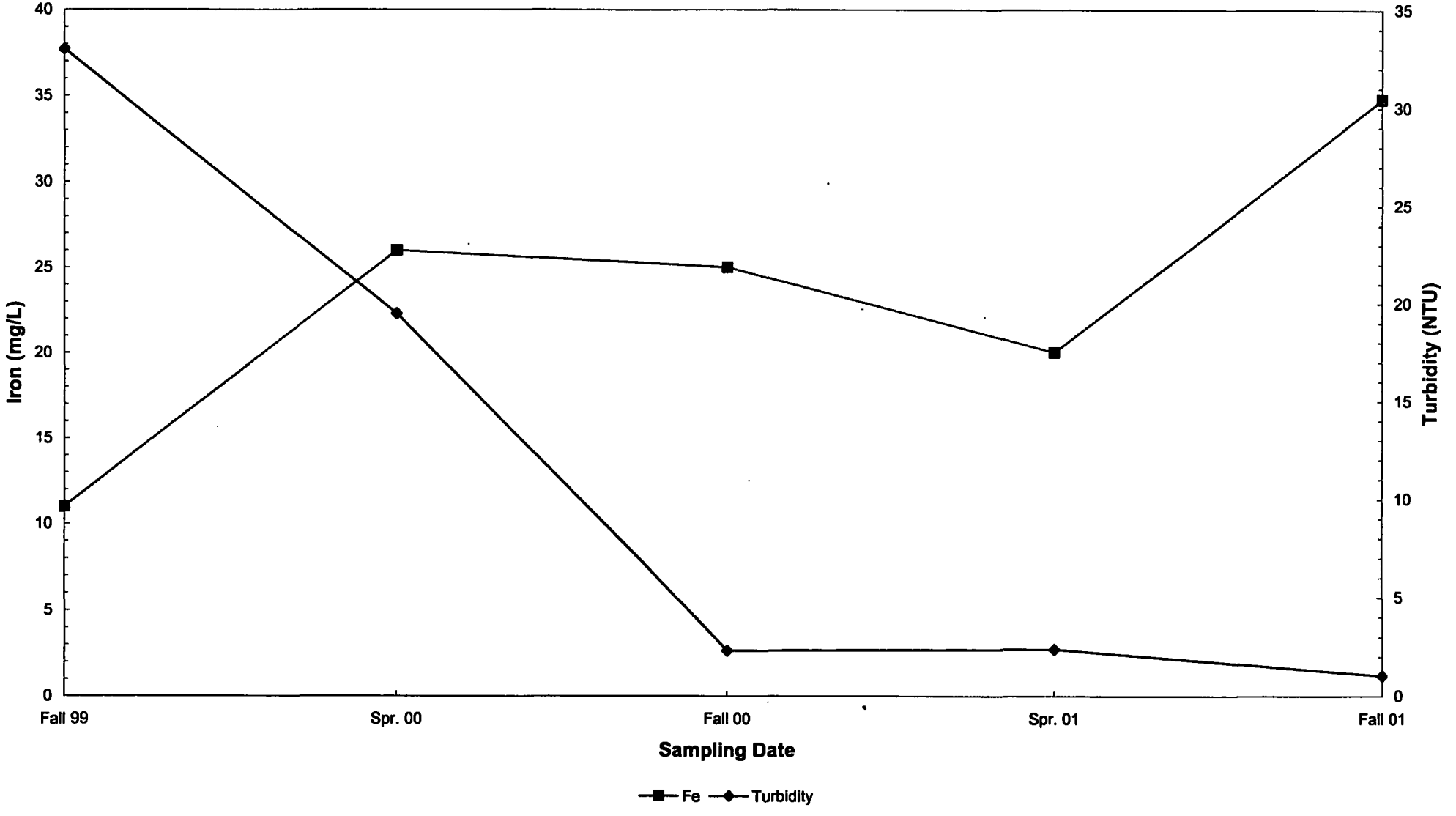

Monitoring Well CW- 4
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
0
100
200
300
400
500
600
700
800
900
1000
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

Monitoring Well CW- 5A

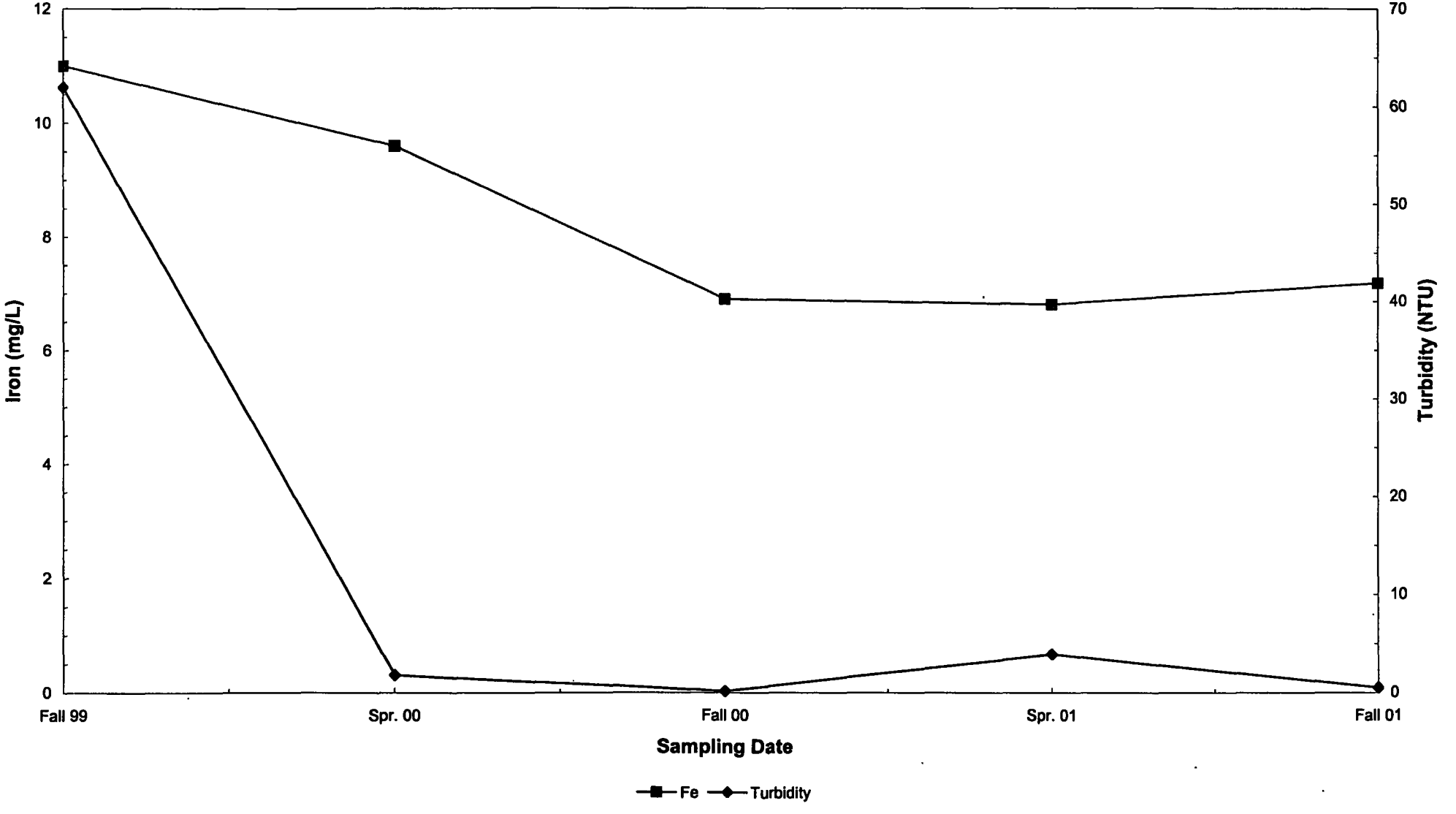


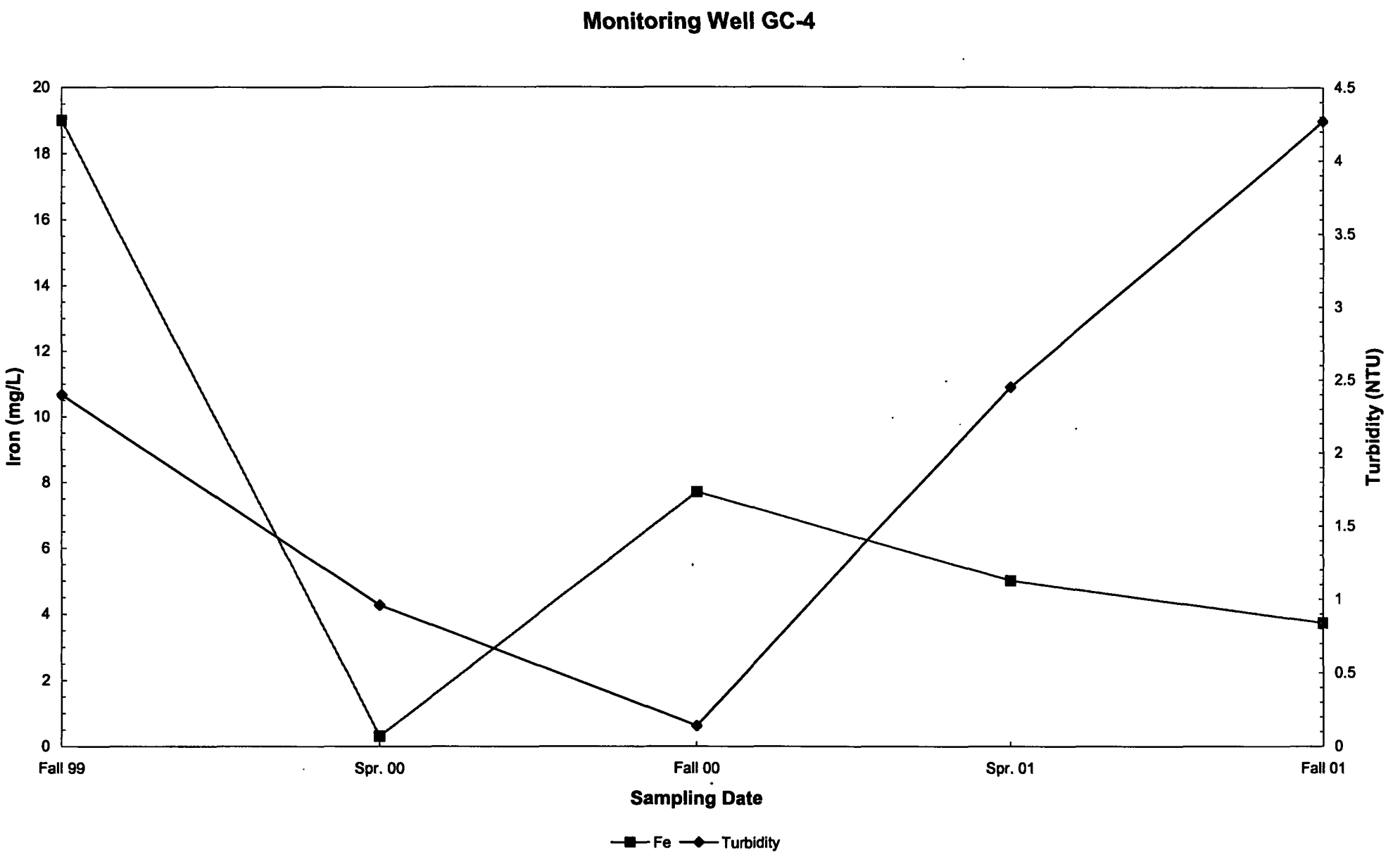

Monitoring Well GC-1A
Iron (mg/L)
Turbidity (NTU)
25
20
15
10
5
0
60
50
40
30
20
10
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

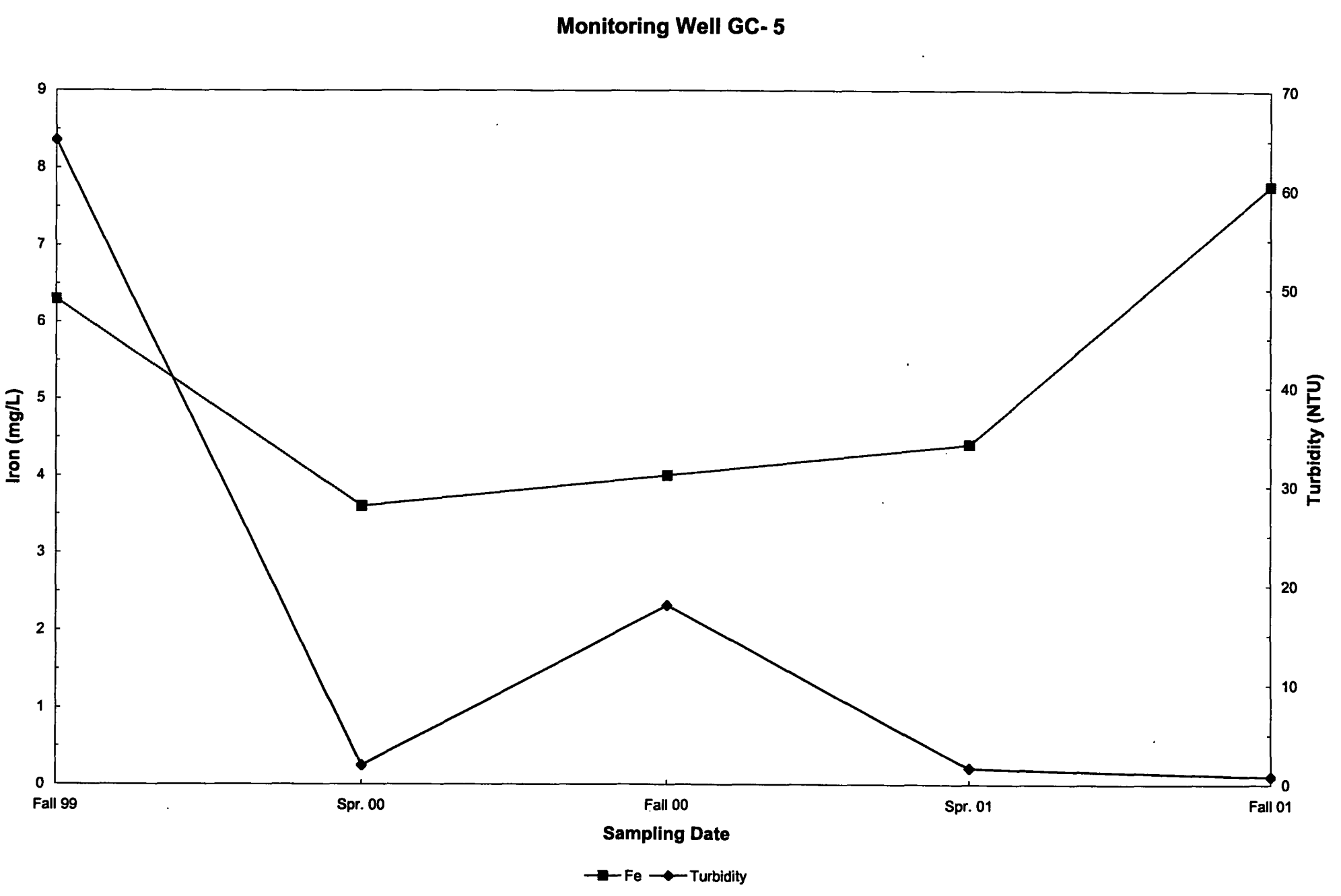
Monitoring Well GC-2



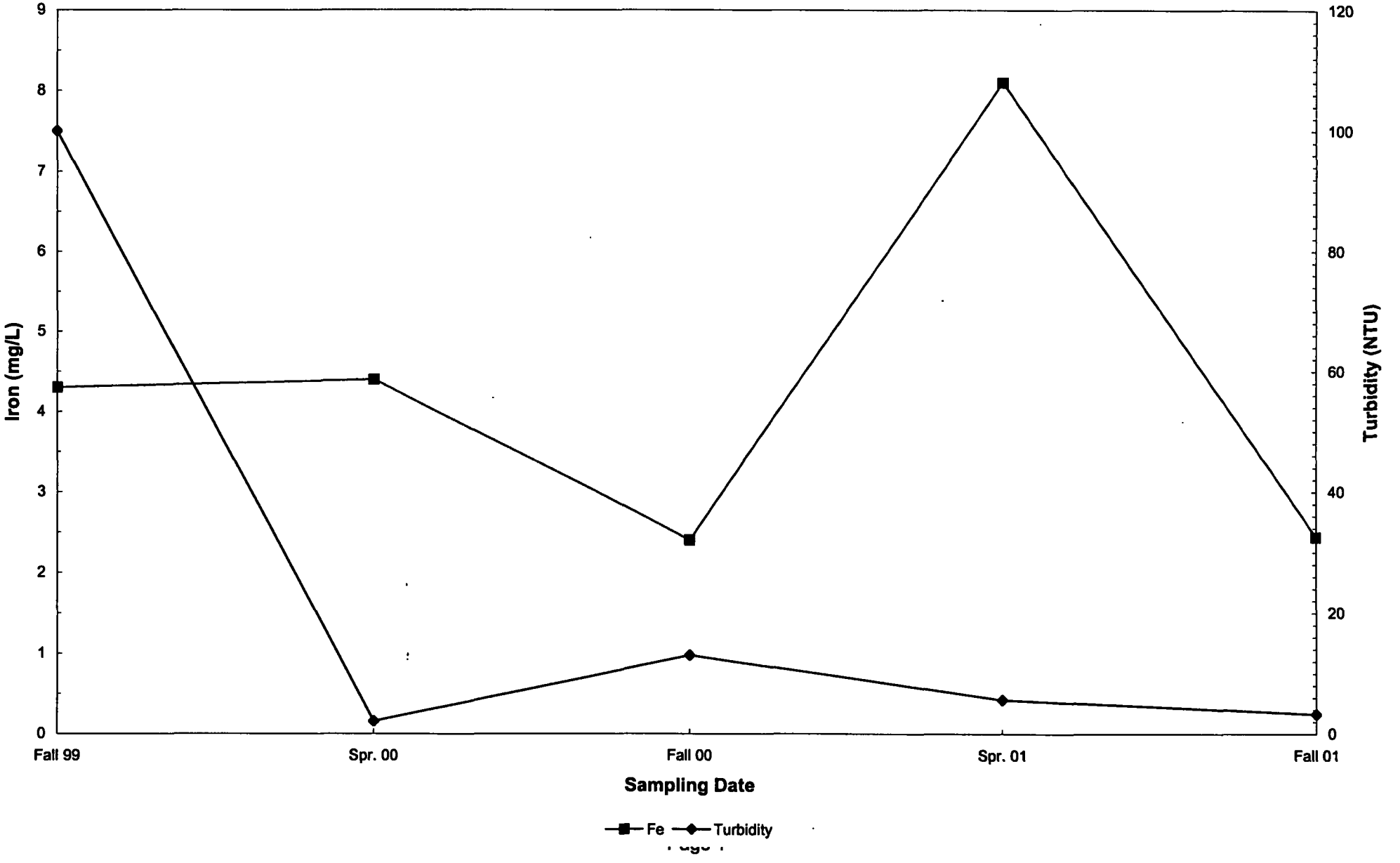
Monitoring Well GC-3

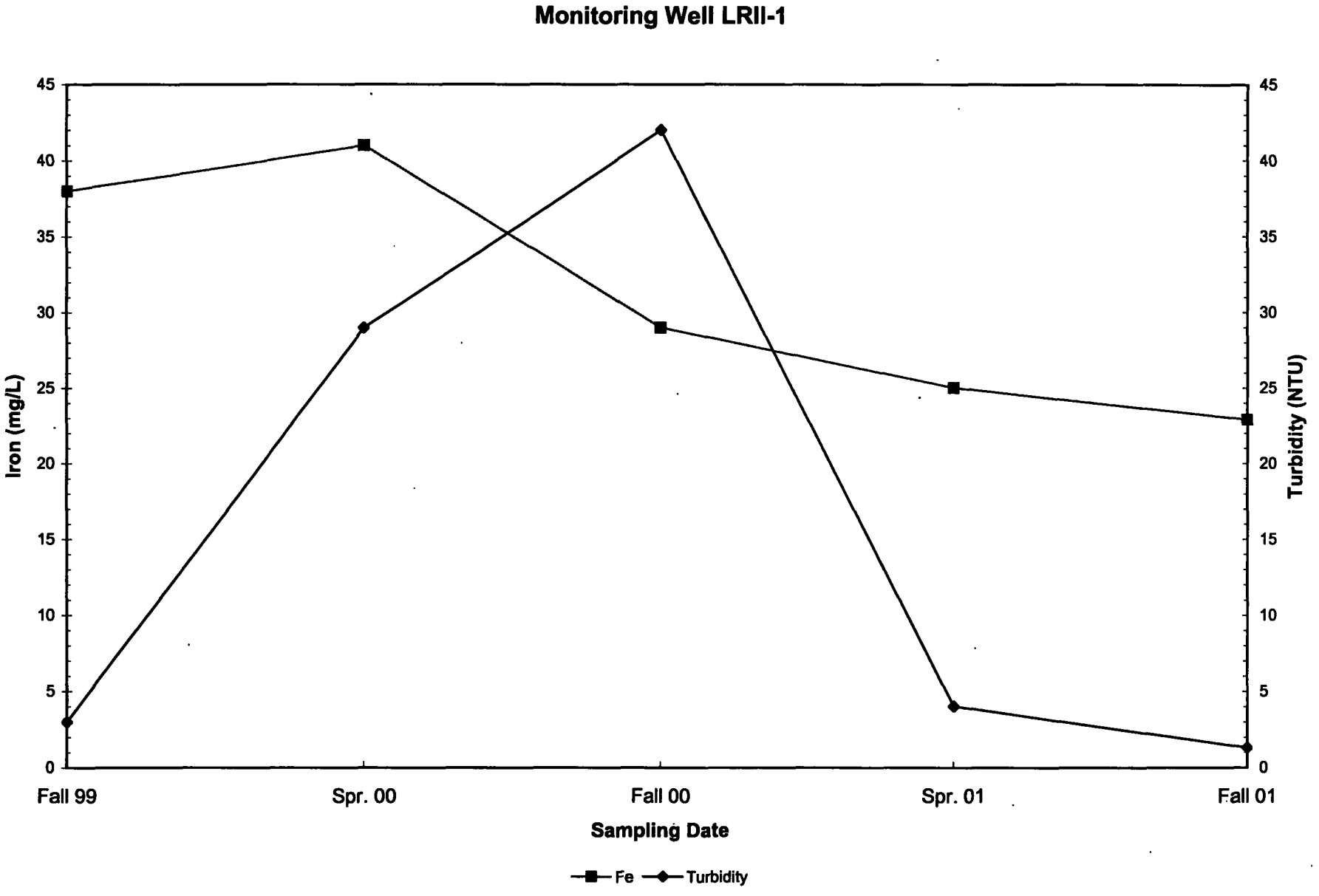


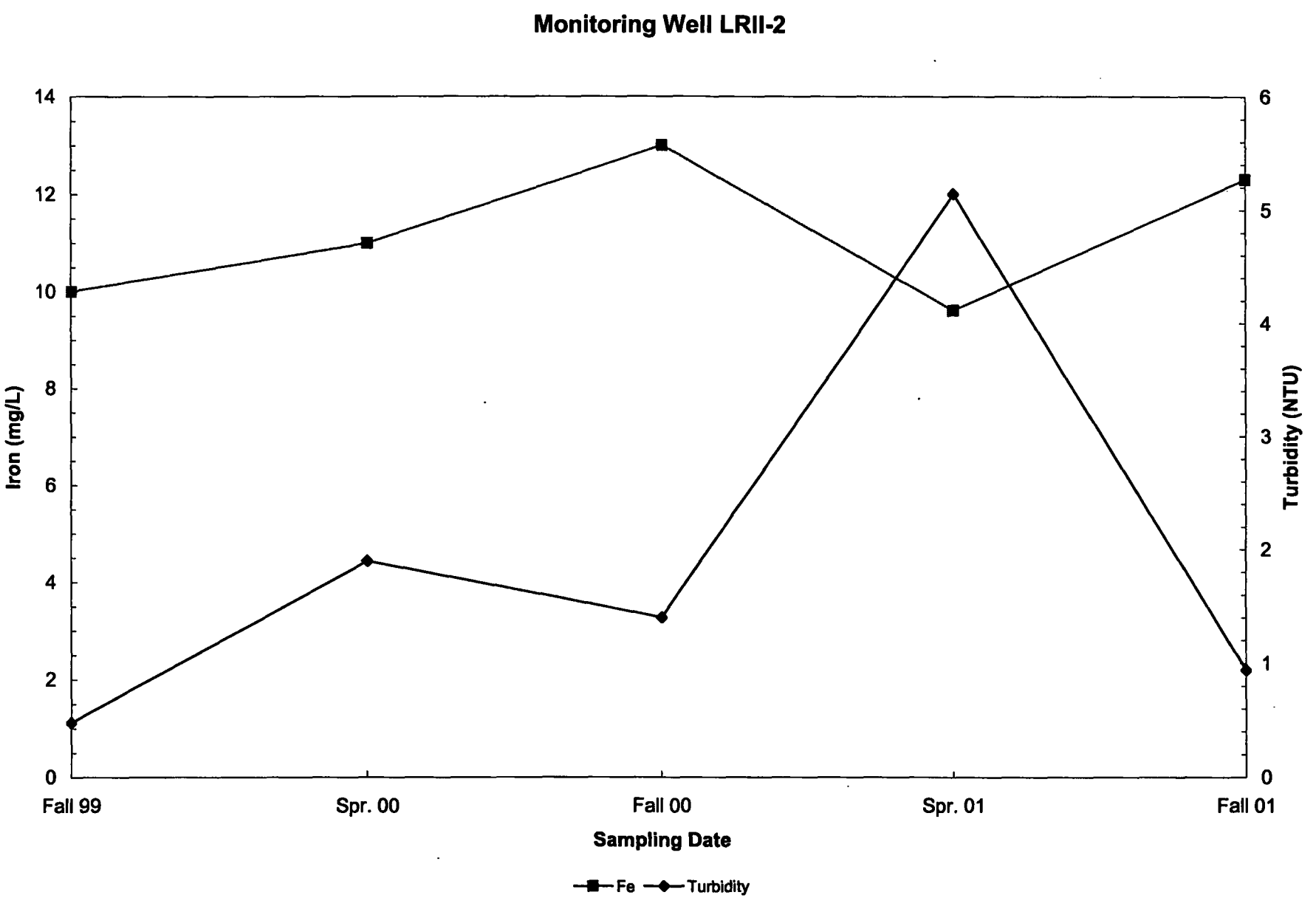

Monitoring Well GC-4
Iron (mg/L)
Turbidity (NTU)
0
2
4
6
8
10
12
14
16
18
20
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

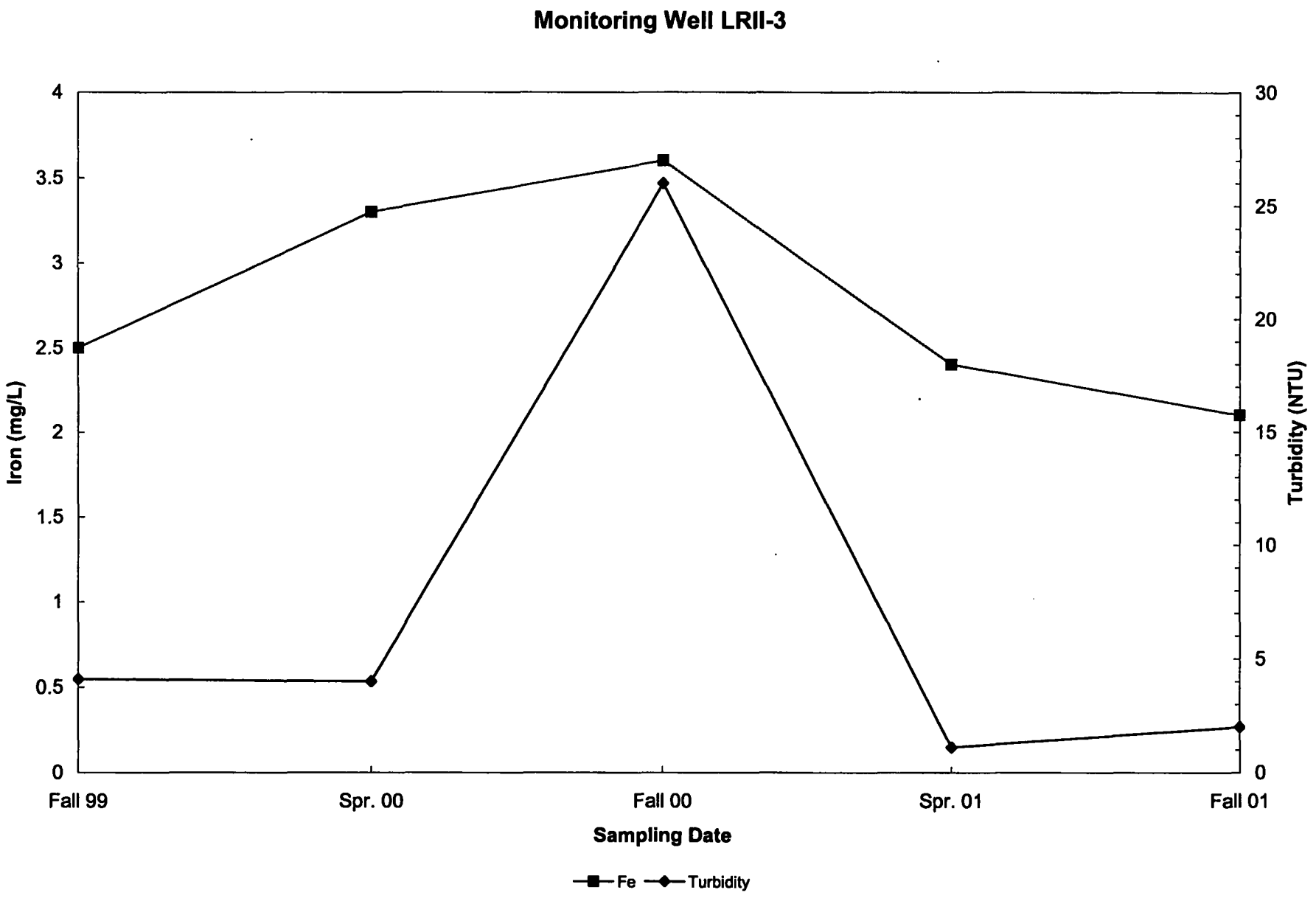

Monitoring Well GC- 5
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
0
10
20
30
40
50
60
70
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

Monitoring Well GC-6

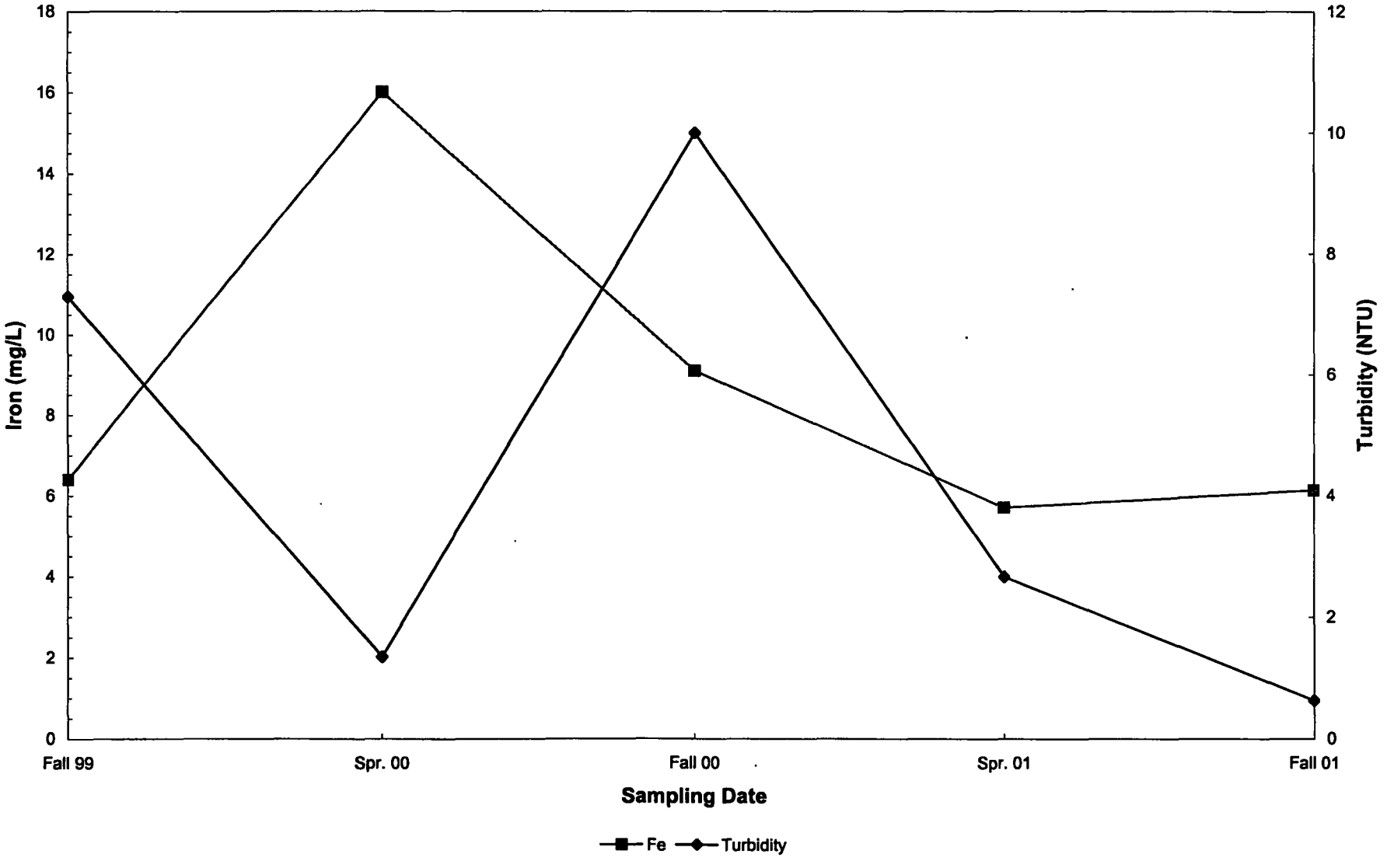


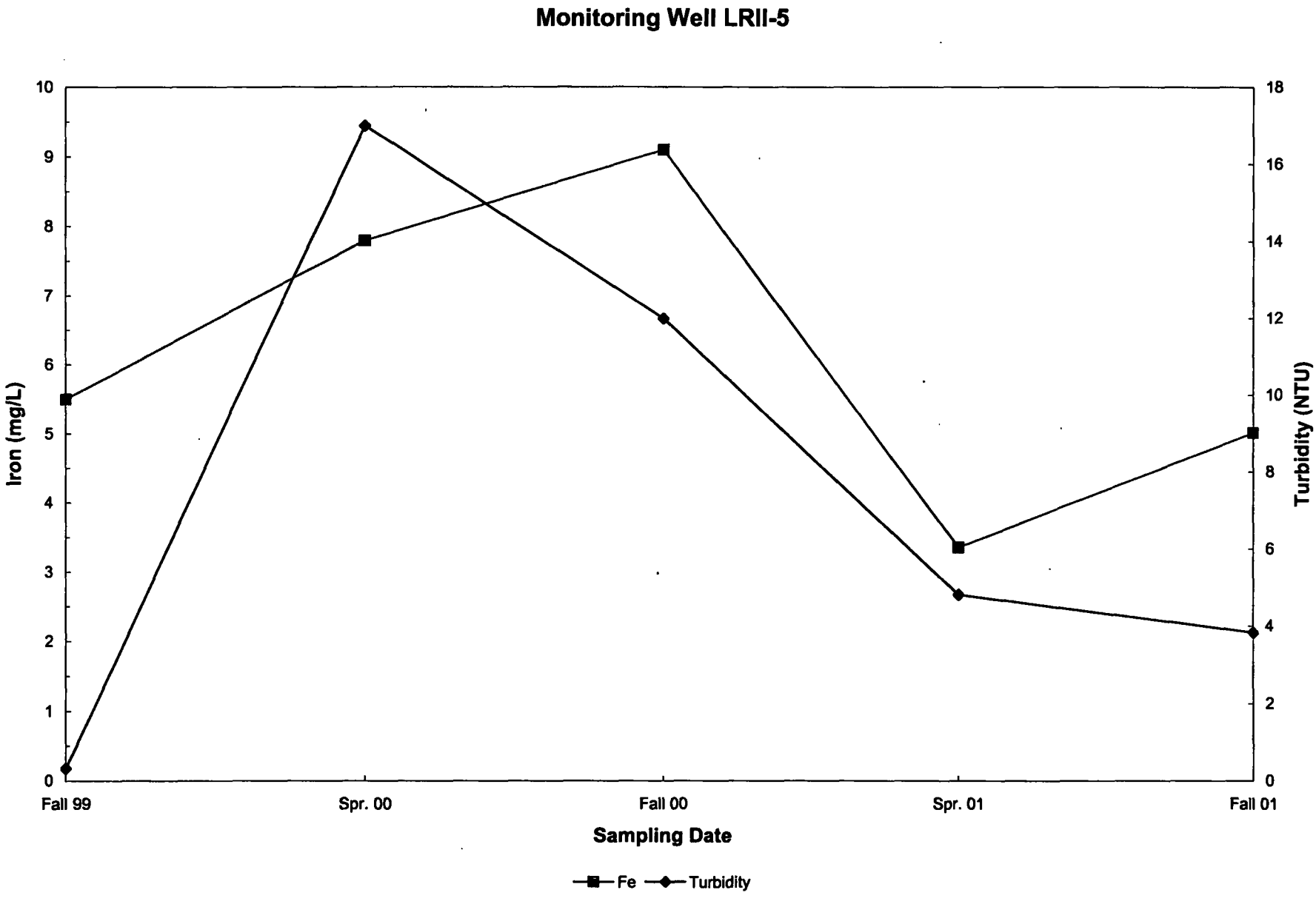

Monitoring Well LRII-1
Iron (mg/L)
Turbidity (NTU)
0
5
10
15
20
25
30
35
40
45
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

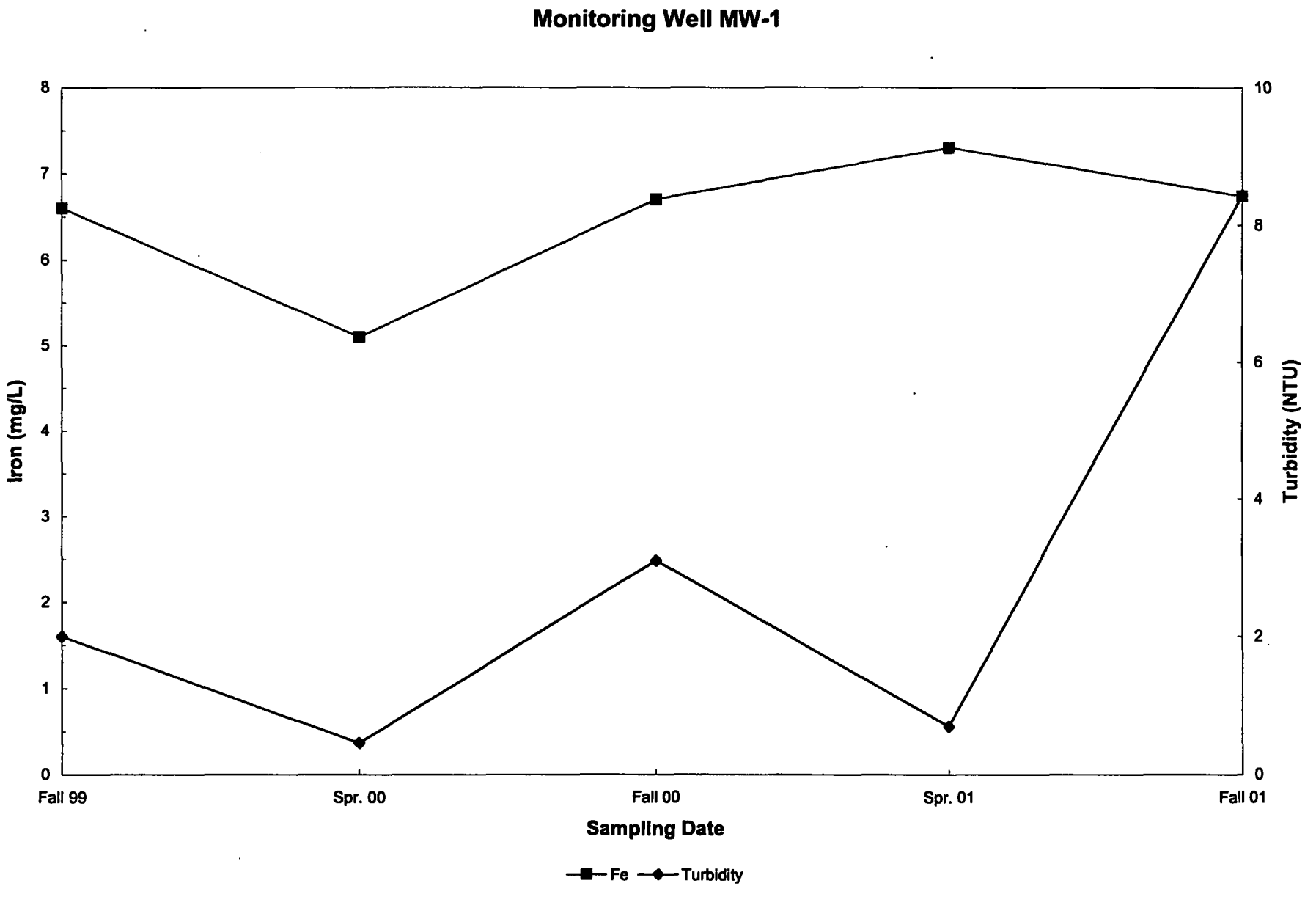

Monitoring Well LRII-2
Iron (mg/L)
Turbidity (NTU)
14
12
10
8
6
4
2
0
6
5
4
3
2
1
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

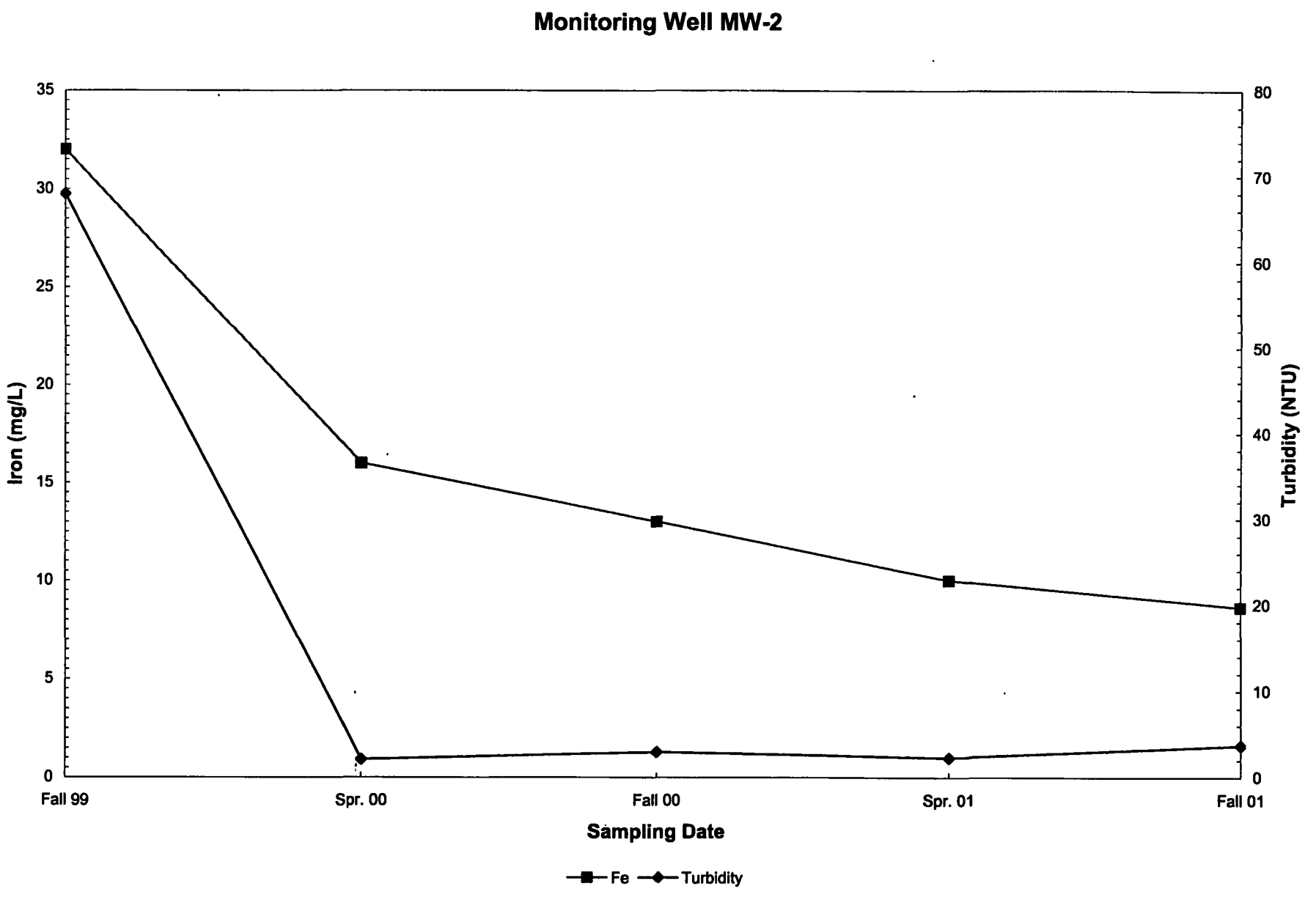

Monitoring Well LRII-3
Iron (mg/L)
Turbidity (NTU)
0
0.5
1
1.5
2
2.5
3
3.5
4
0
5
10
15
20
25
30
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

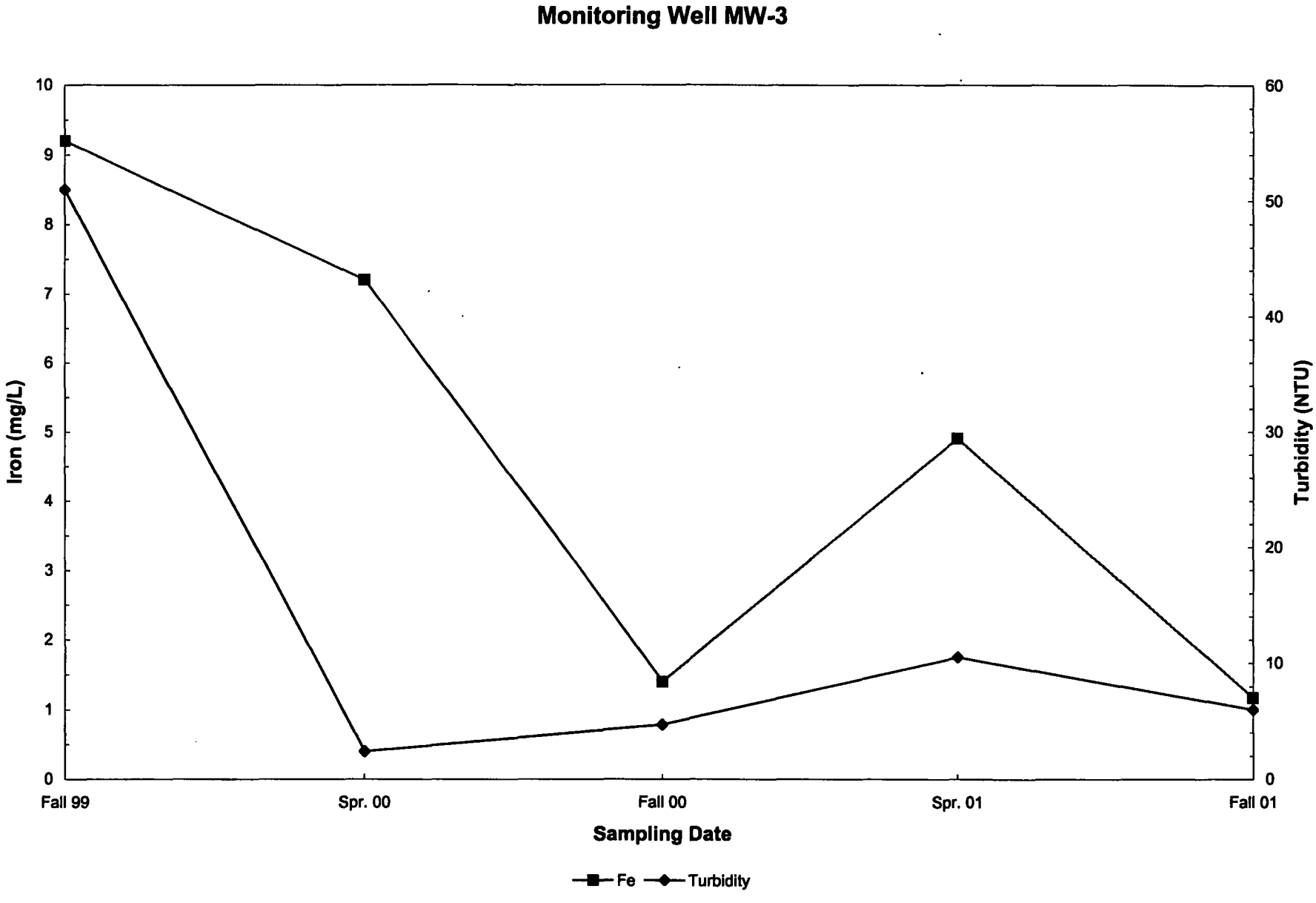
Monitoring Well LRII-4

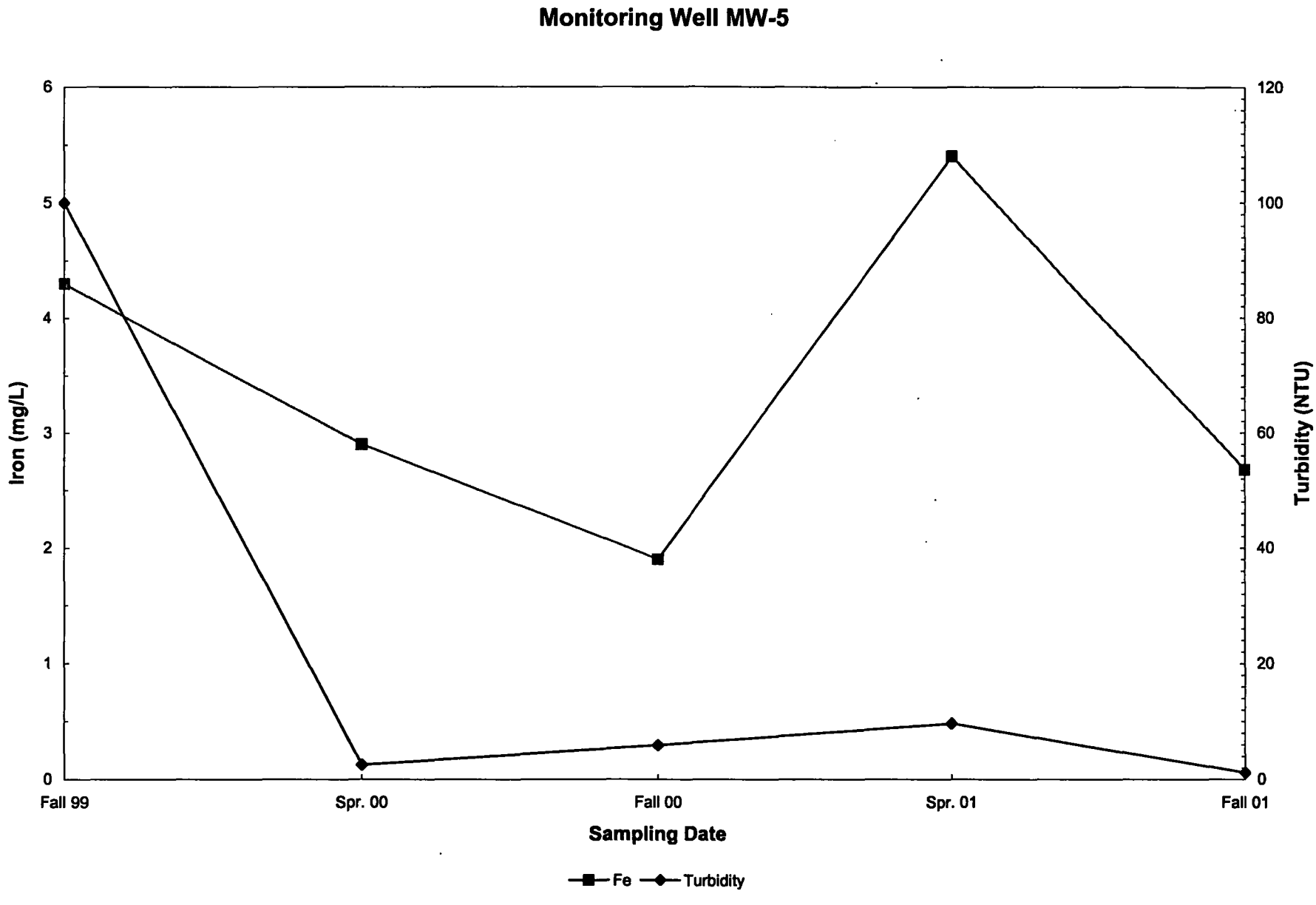


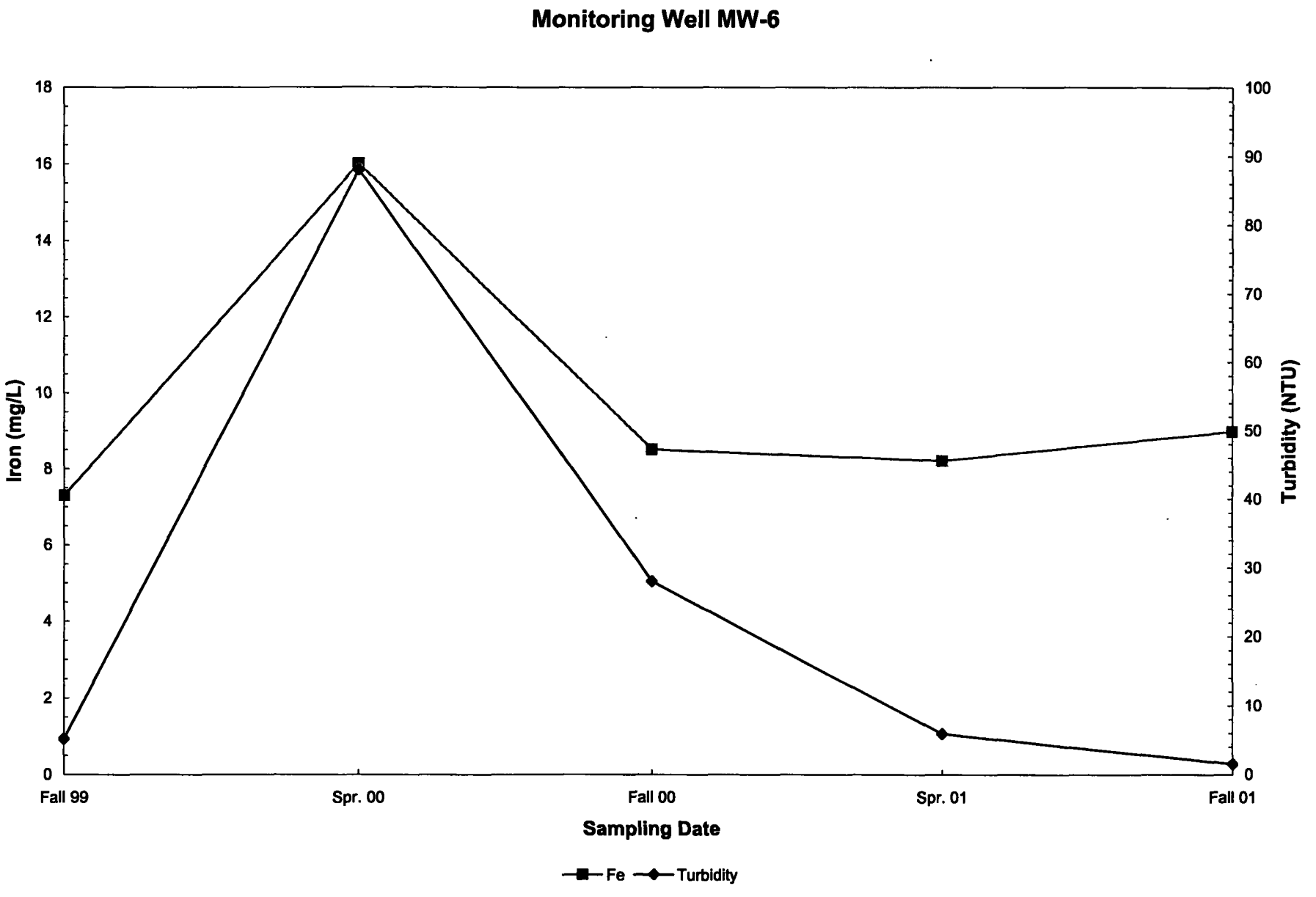

Monitoring Well LRII-5
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
0
2
4
6
8
10
12
14
16
18
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity


Monitoring Well MW-1
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
10
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

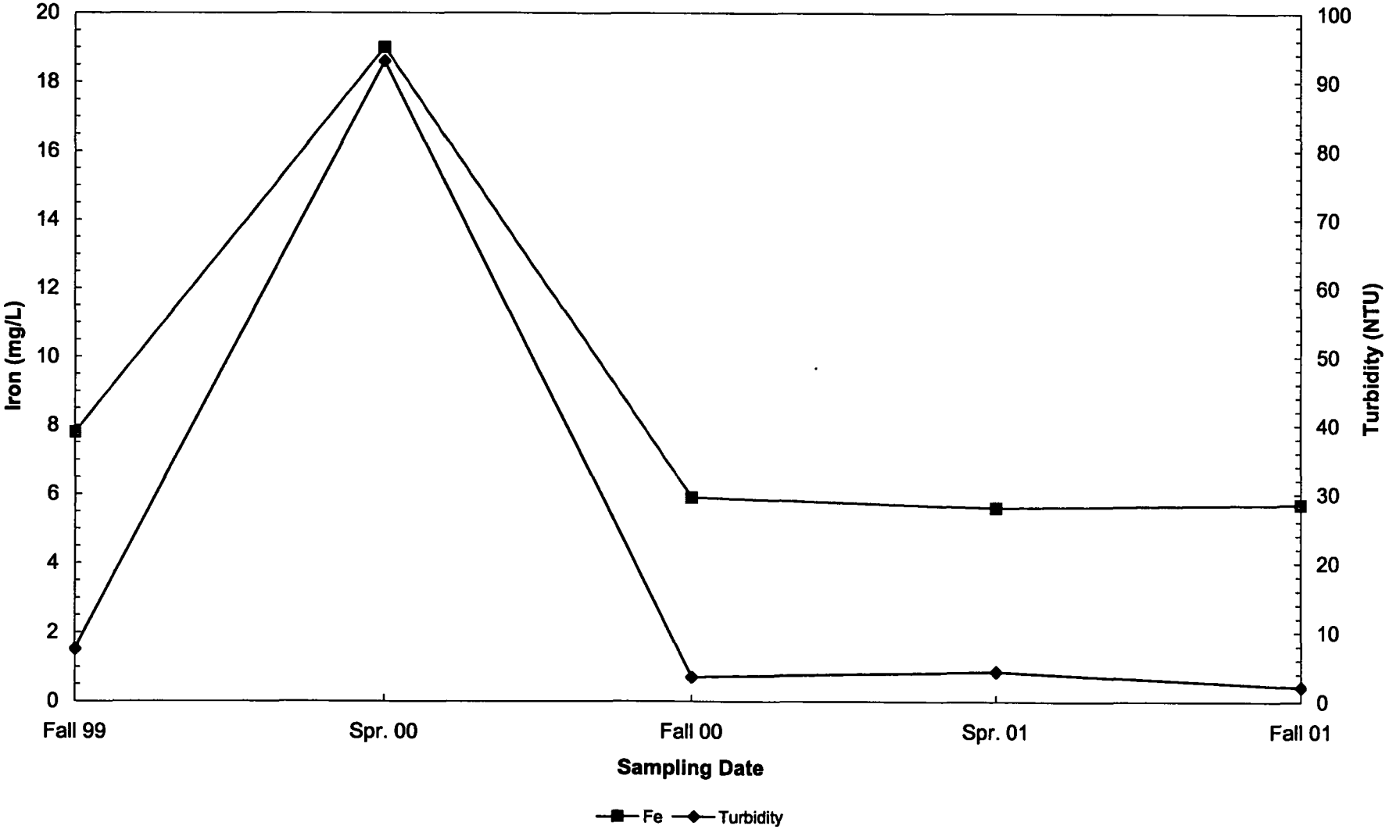

Monitoring Well MW-2
Iron (mg/L)
Turbidity (NTU)
0
5
10
15
20
25
30
35
0
10
20
30
40
50
60
70
80
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity


Monitoring Well MW-3
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
0
10
20
30
40
50
60
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

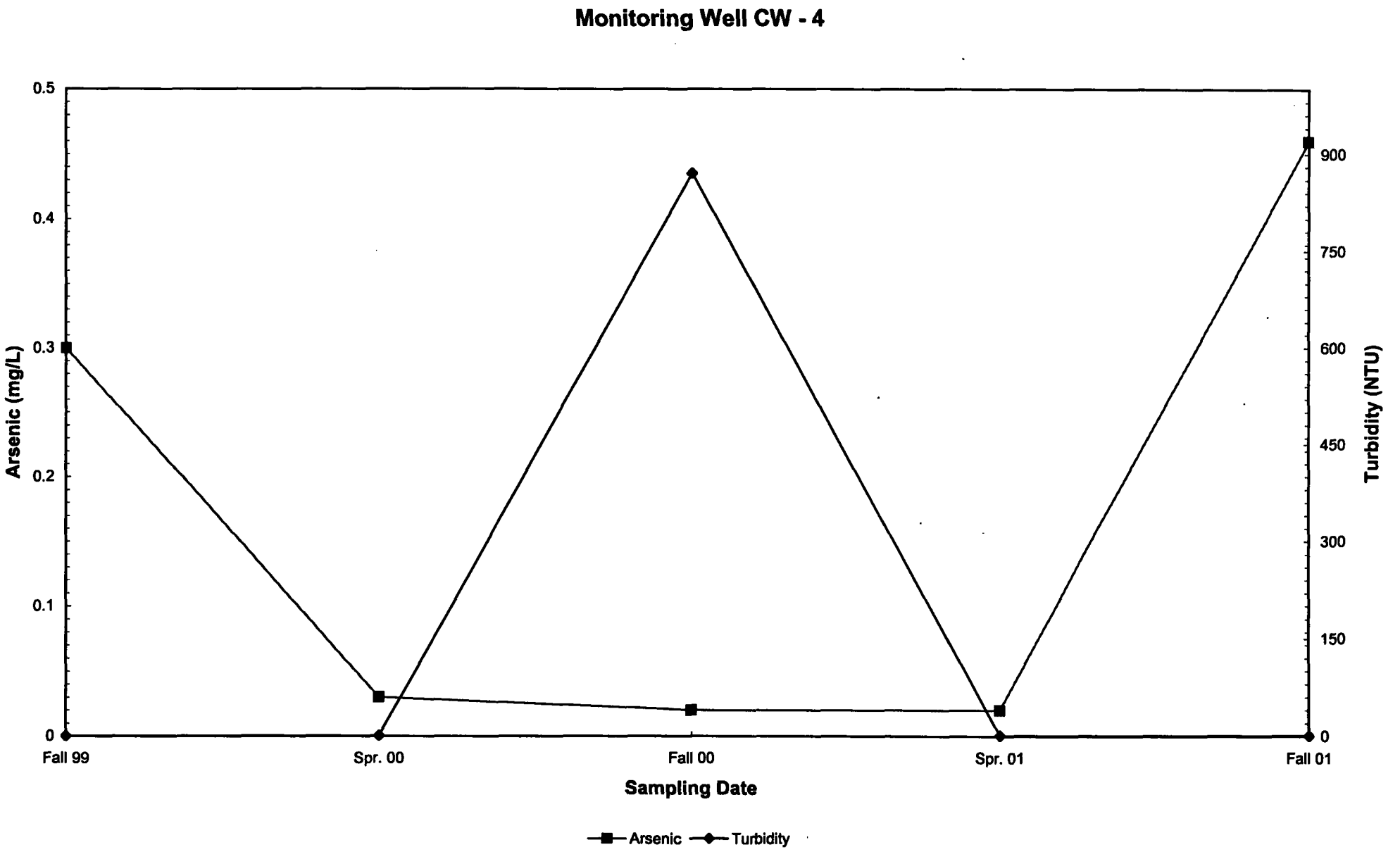

Monitoring Well MW-5
Iron (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
0
20
40
60
80
100
120
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

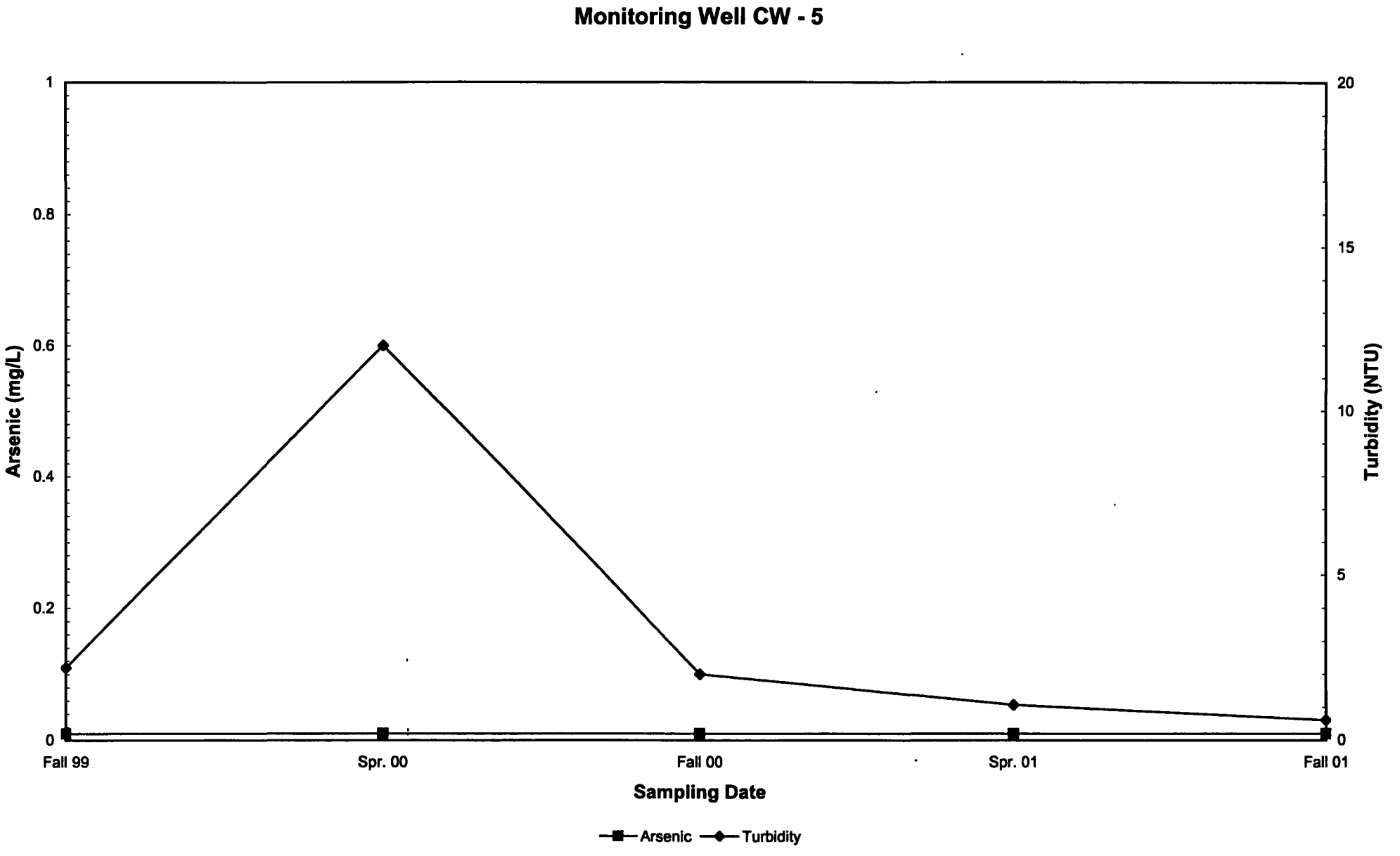

Monitoring Well MW-6
Iron (mg/L)
Turbidity (NTU)
0
2
4
6
8
10
12
14
16
18
0
10
20
30
40
50
60
70
80
90
100
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Fe
Turbidity

Monitoring Well SMR-1

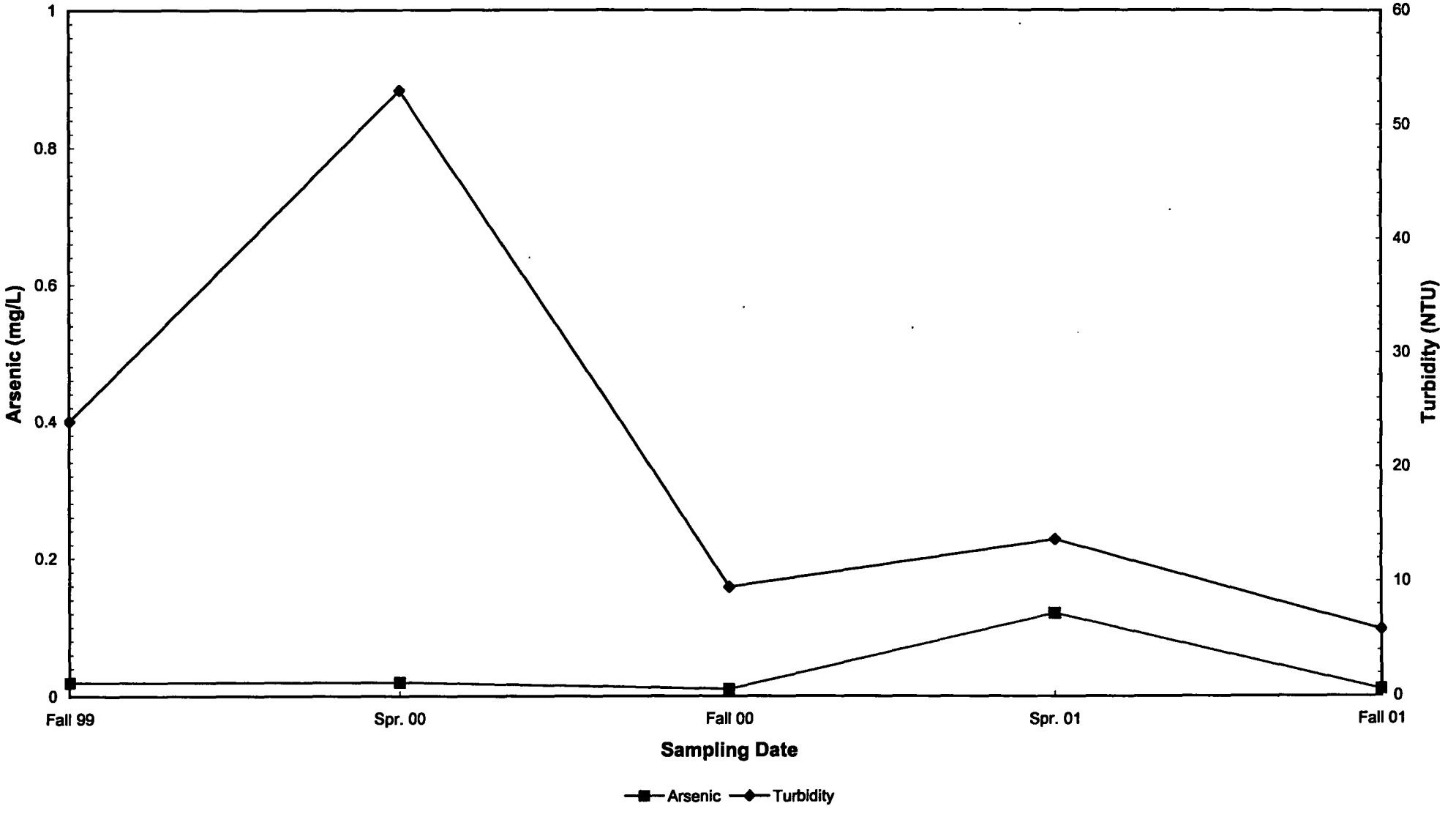


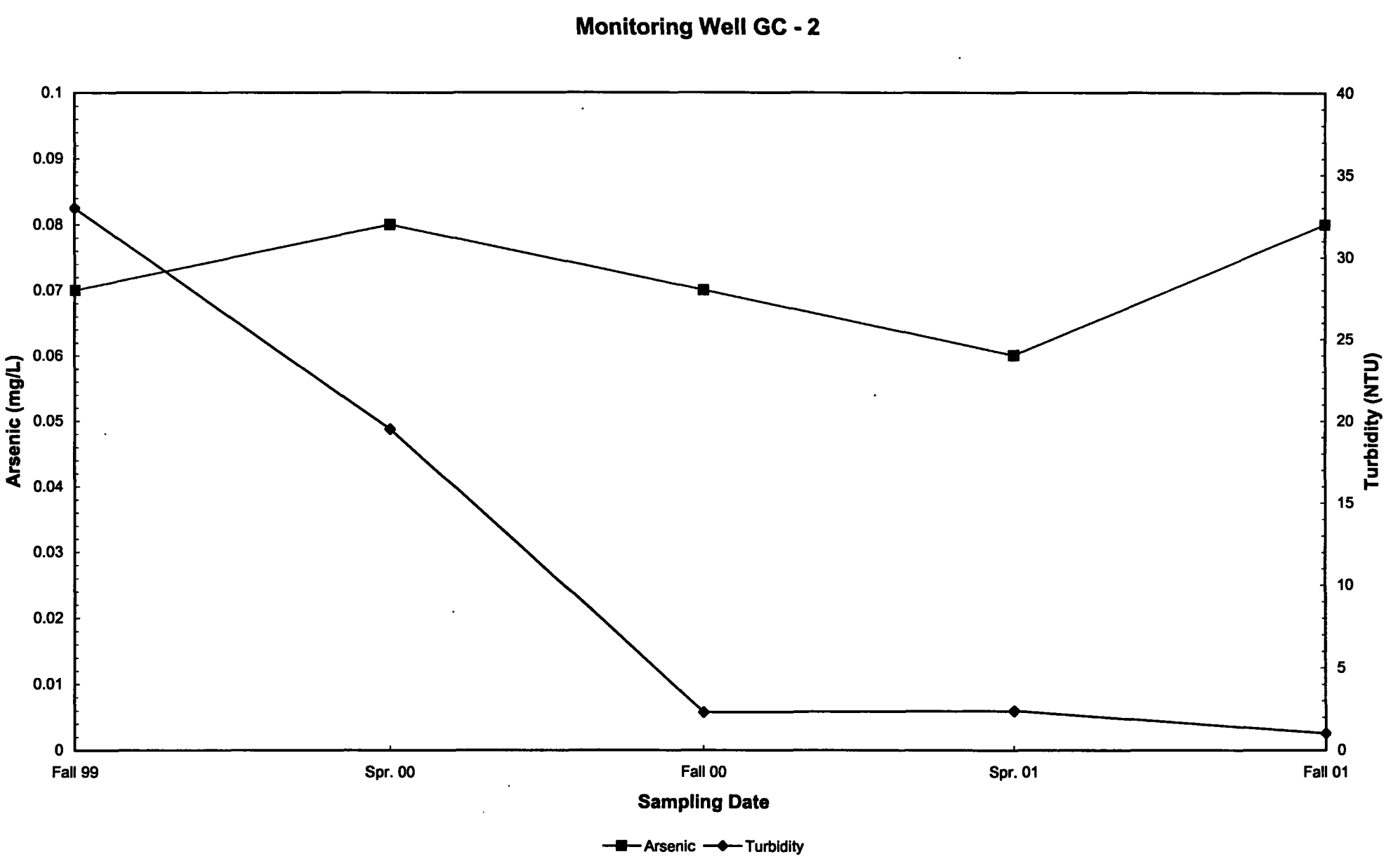
B-2 – Arsenic versus Turbidity, Shallow Wells


Monitoring Well CW - 4
0.5
0.4
0.3
0.2
0.1
0
Arsenic (mg/L)
900
750
600
450
300
150
0
Turbidity (NTU)
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

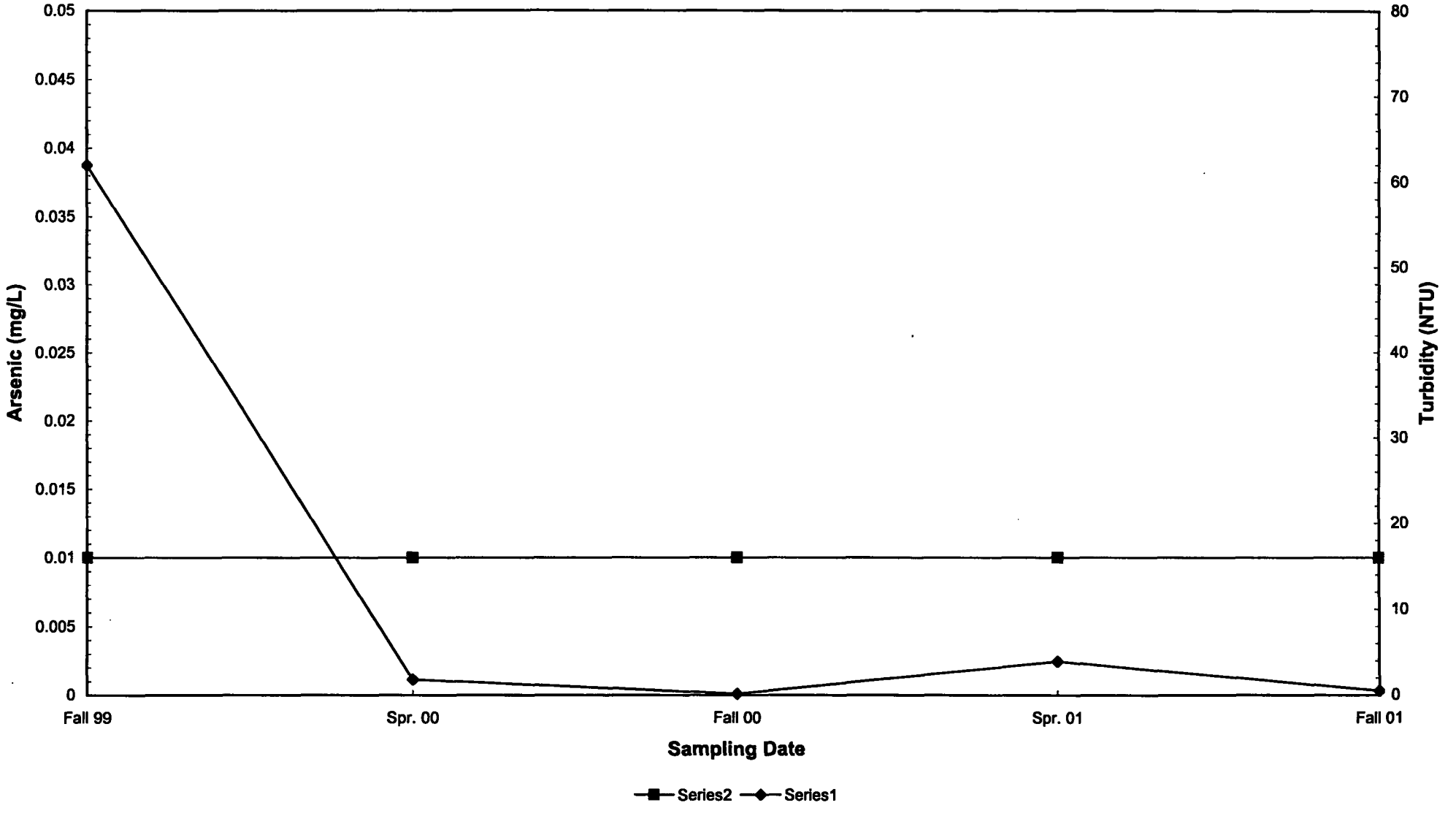

Monitoring Well CW - 5
Arsenic (mg/L)
Turbidity (NTU)
1
0.8
0.6
0.4
0.2
0
20
15
10
5
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

Monitoring Well GC - 1A

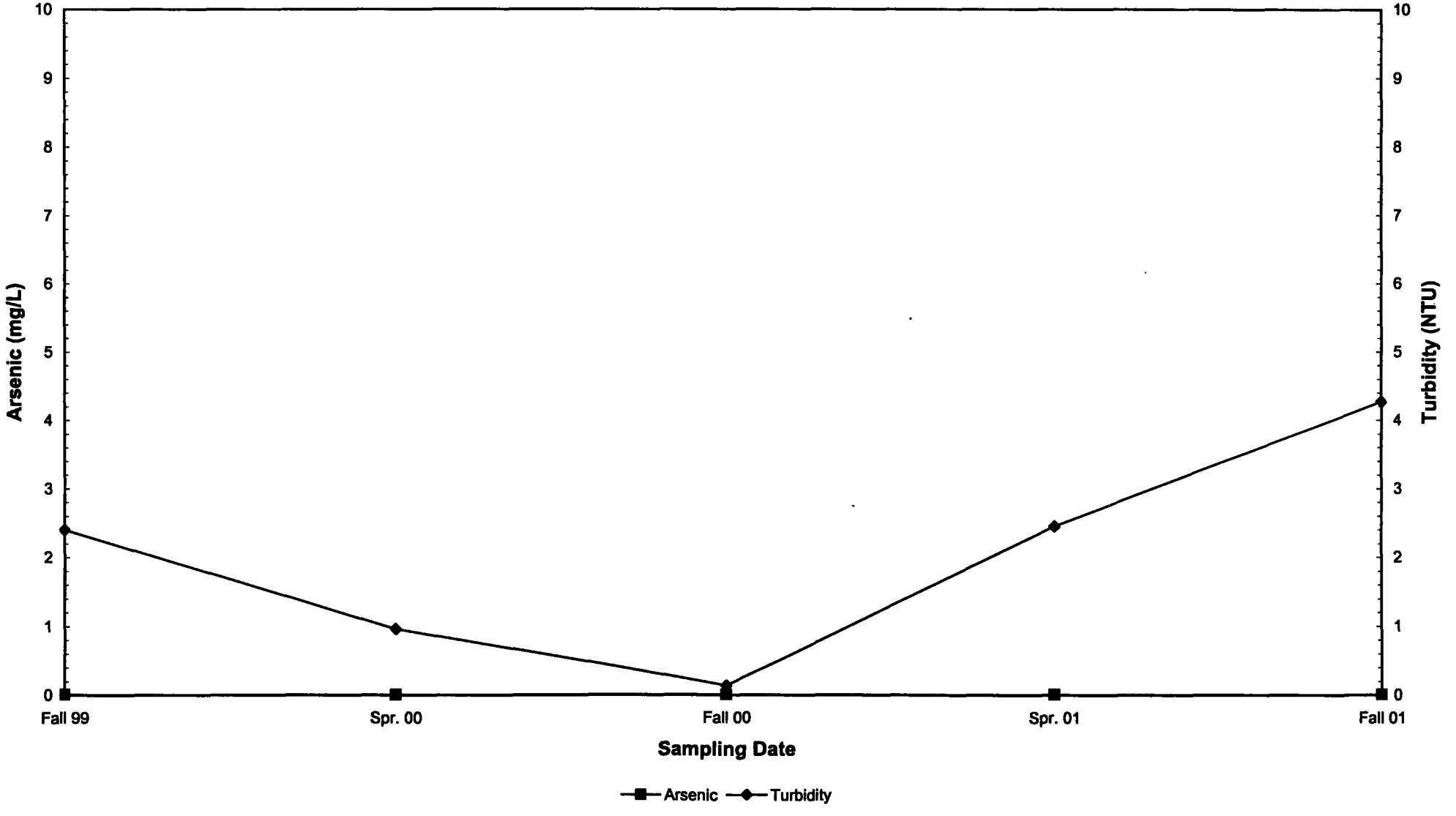



Monitoring Well GC - 2
Arsenic (mg/L)
Turbidity (NTU)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
40
35
30
25
20
15
10
5
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

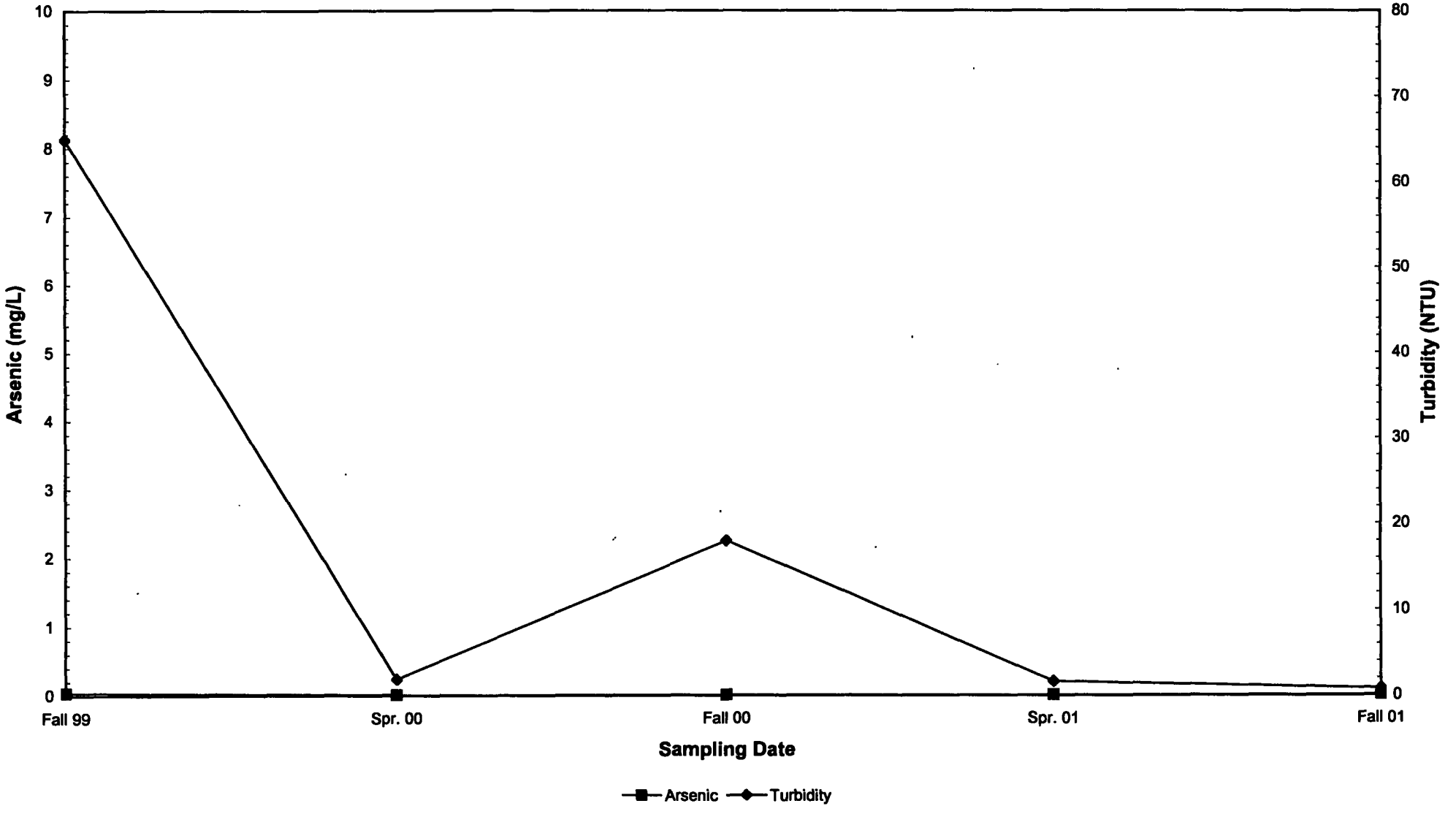
Monitoring Well GC - 3

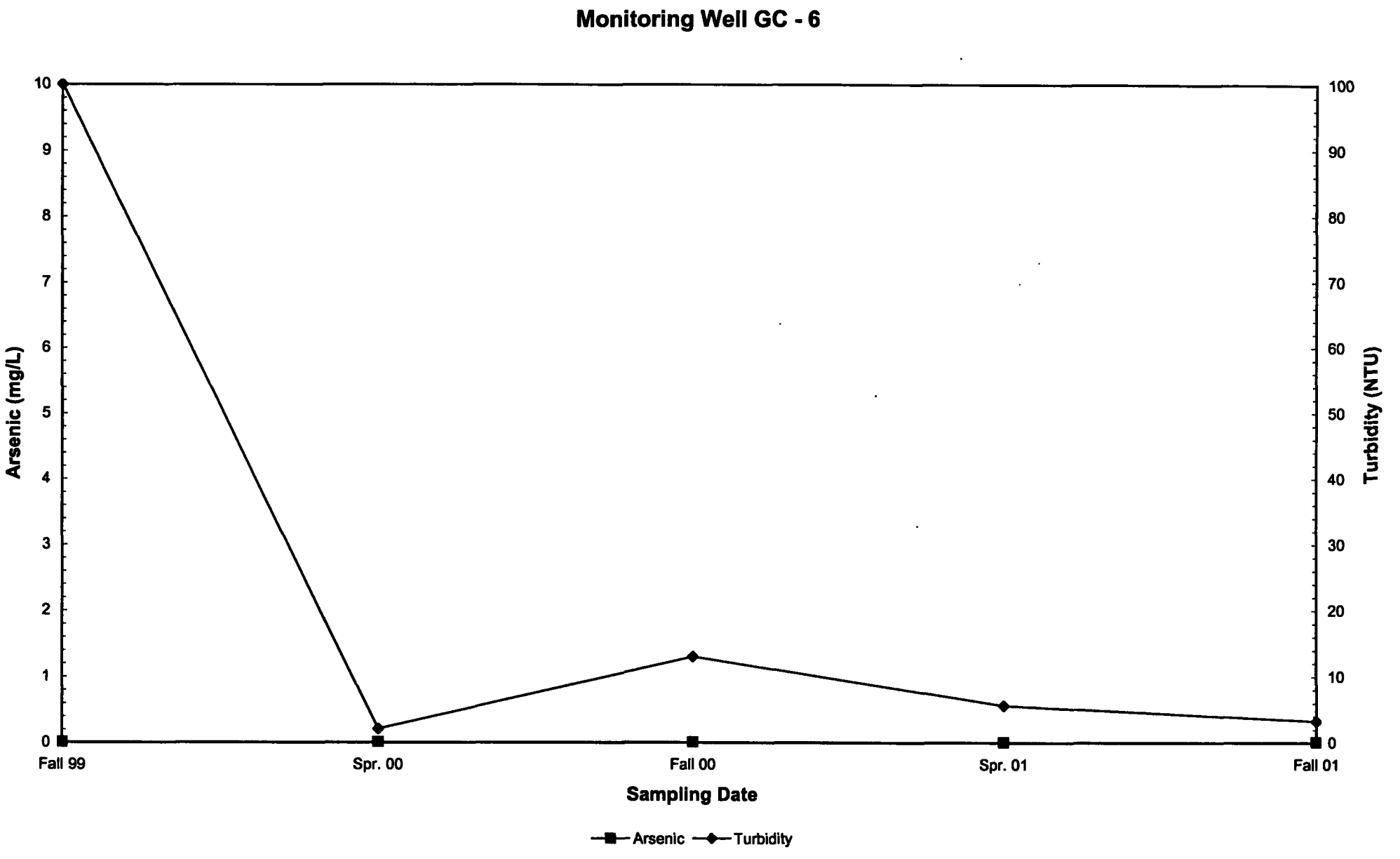


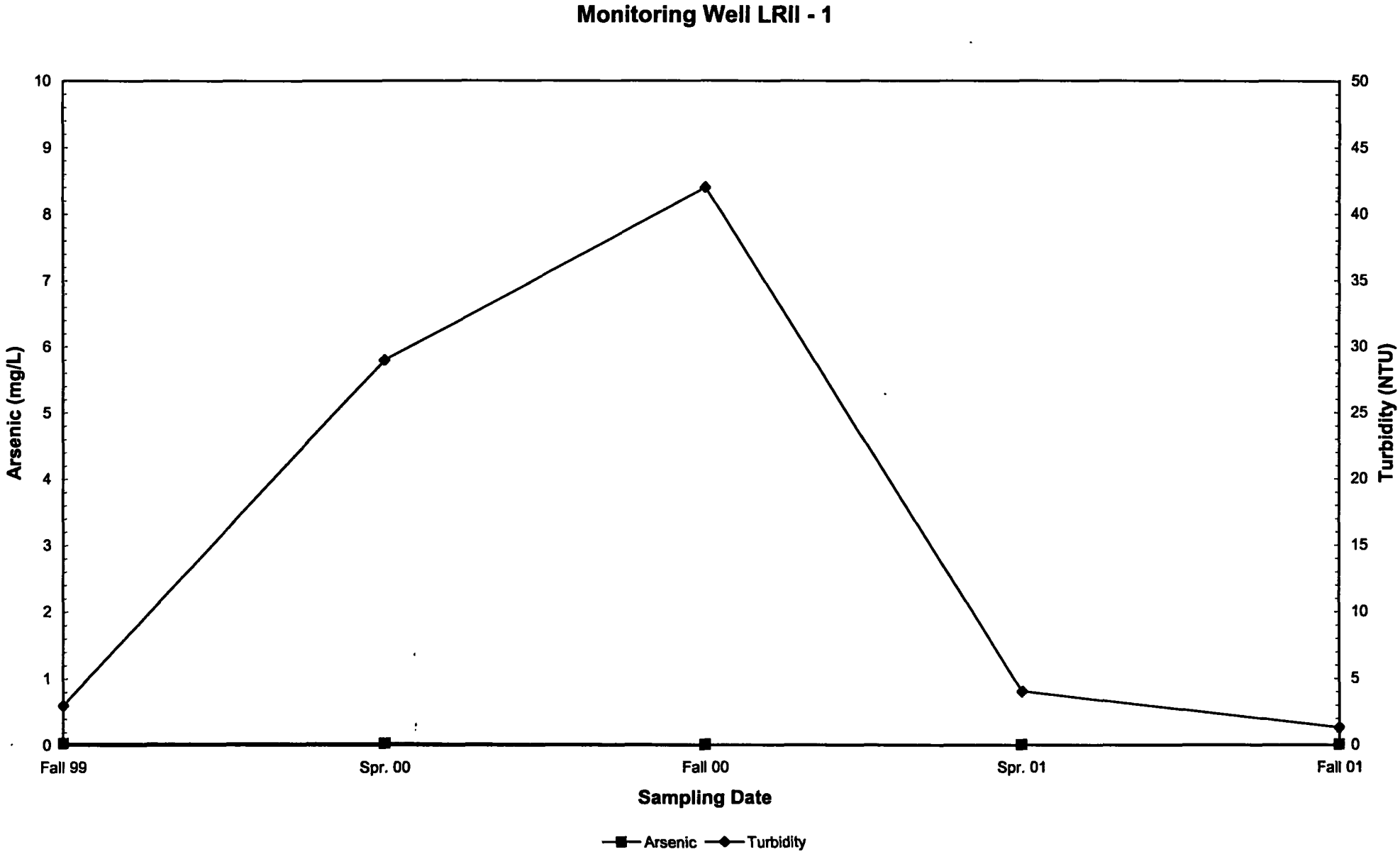
Monitoring Well GC - 4



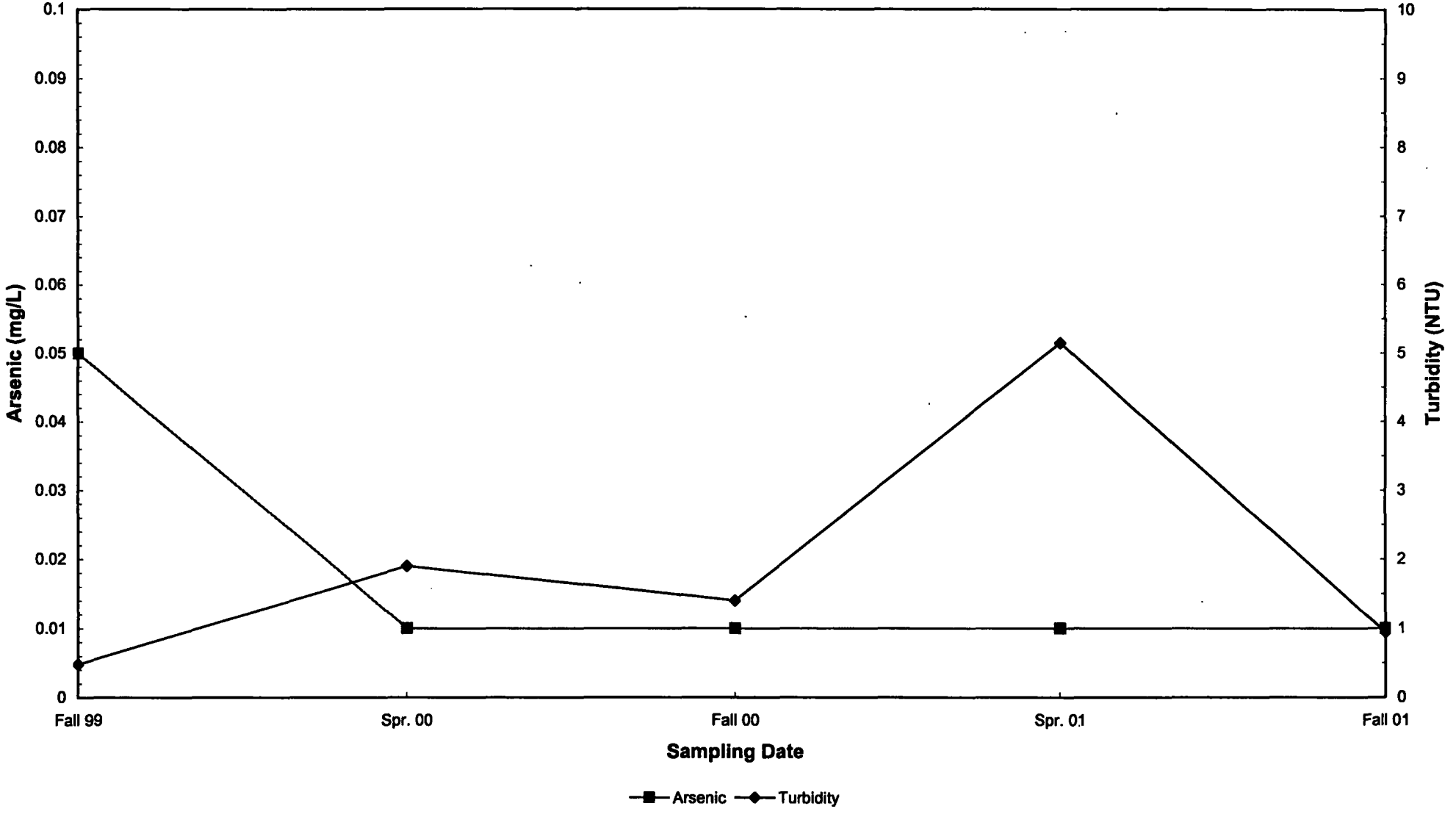
Monitoring Well GC - 5

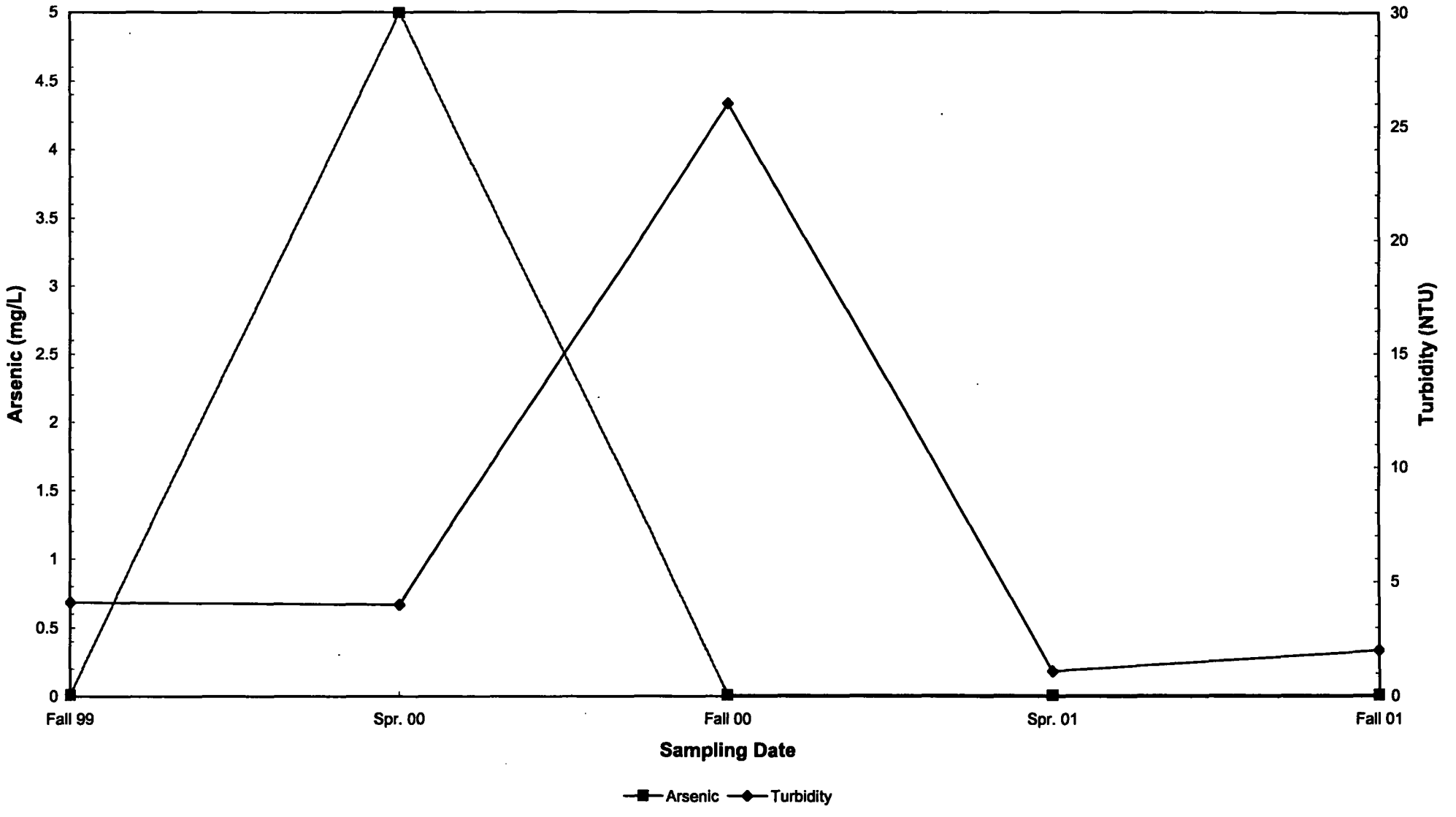


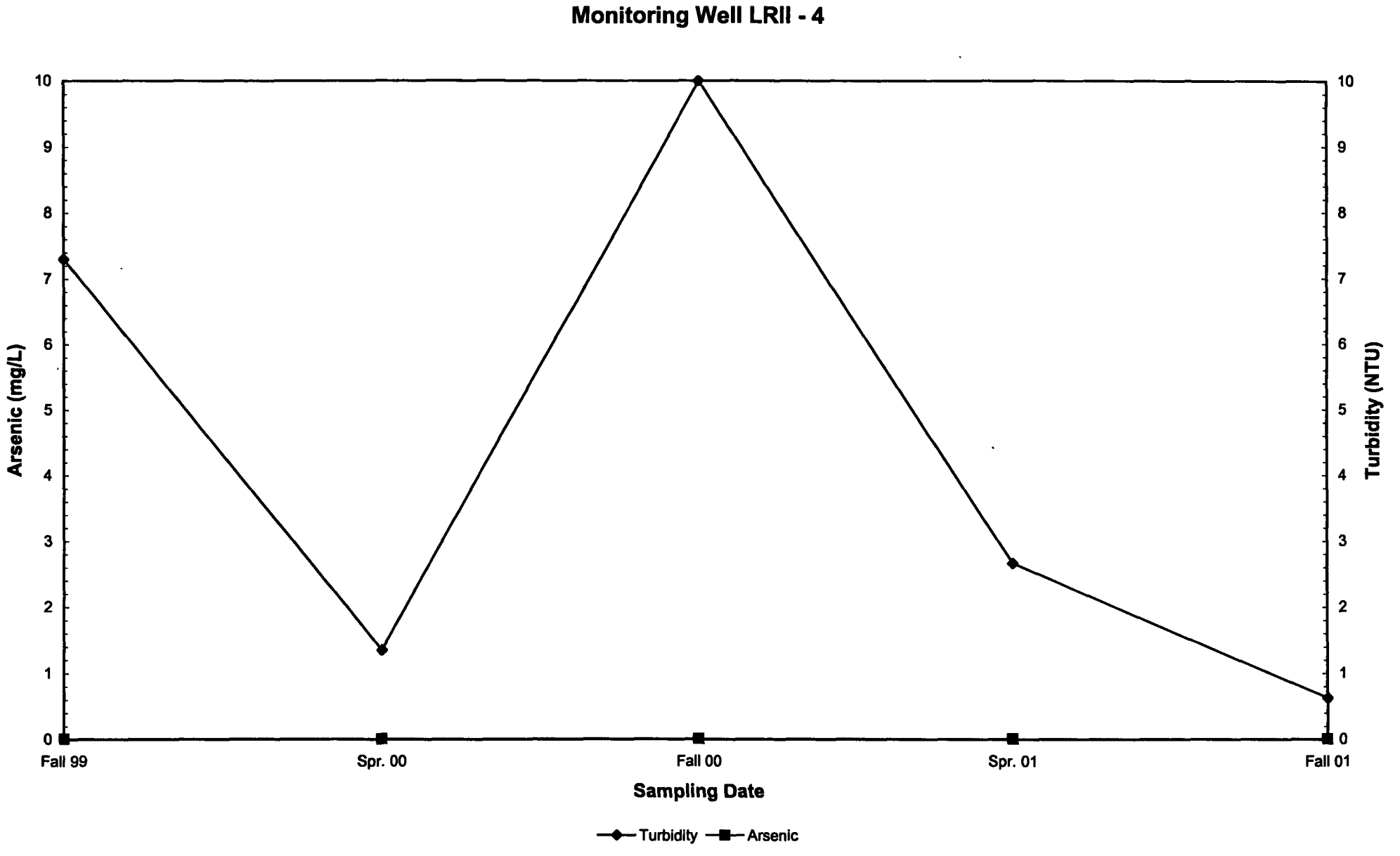

Monitoring Well GC - 6
Arsenic (mg/L)
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
100
90
80
70
60
50
40
30
20
10
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity


Monitoring Well LRII - 1
Arsenic (mg/L)
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
50
45
40
35
30
25
20
15
10
5
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

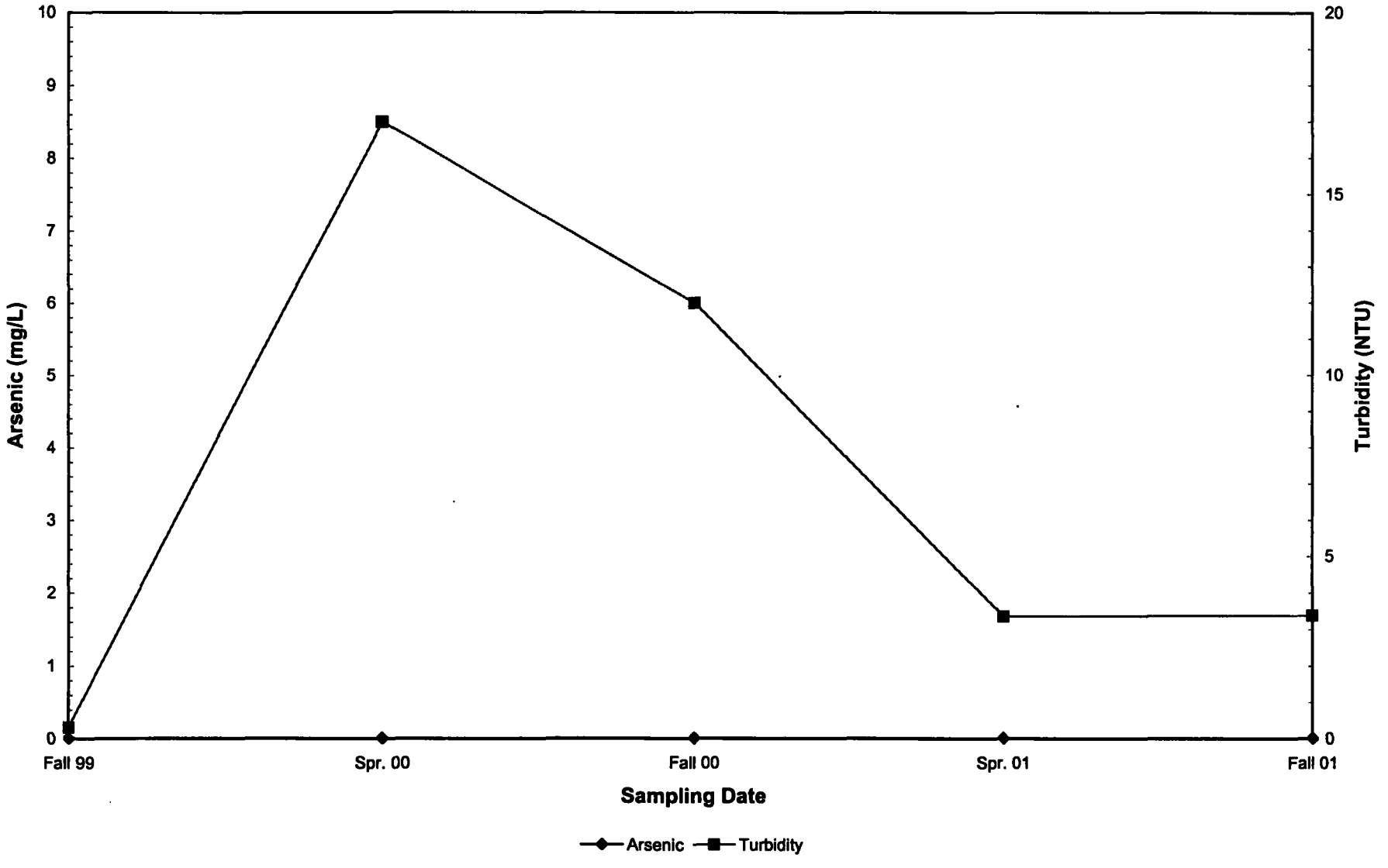
Monitoring Well LRII - 2

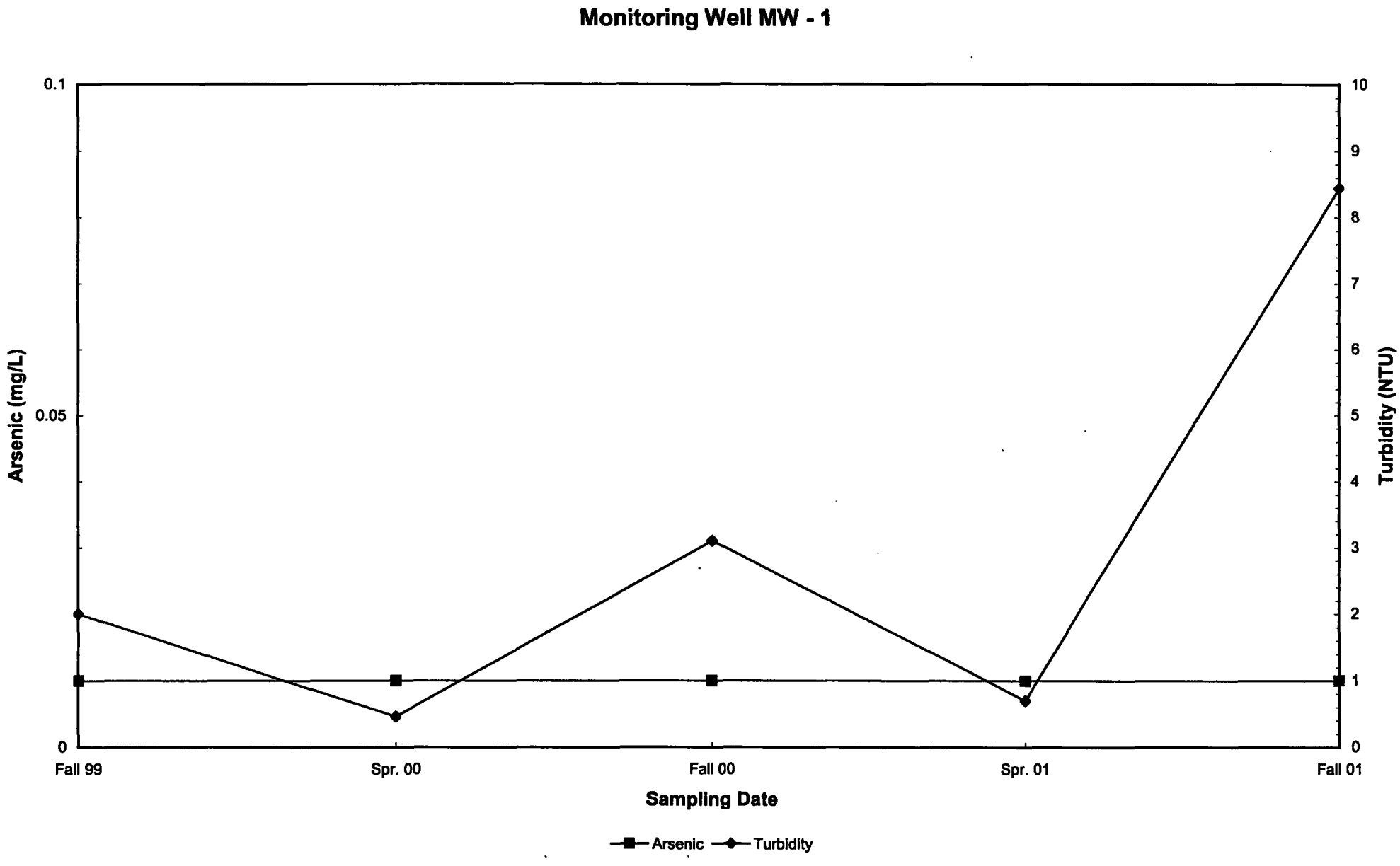



Monitoring Well LRII - 3
Arsenic (mg/L)
Turbidity (NTU)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
30
25
20
15
10
5
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

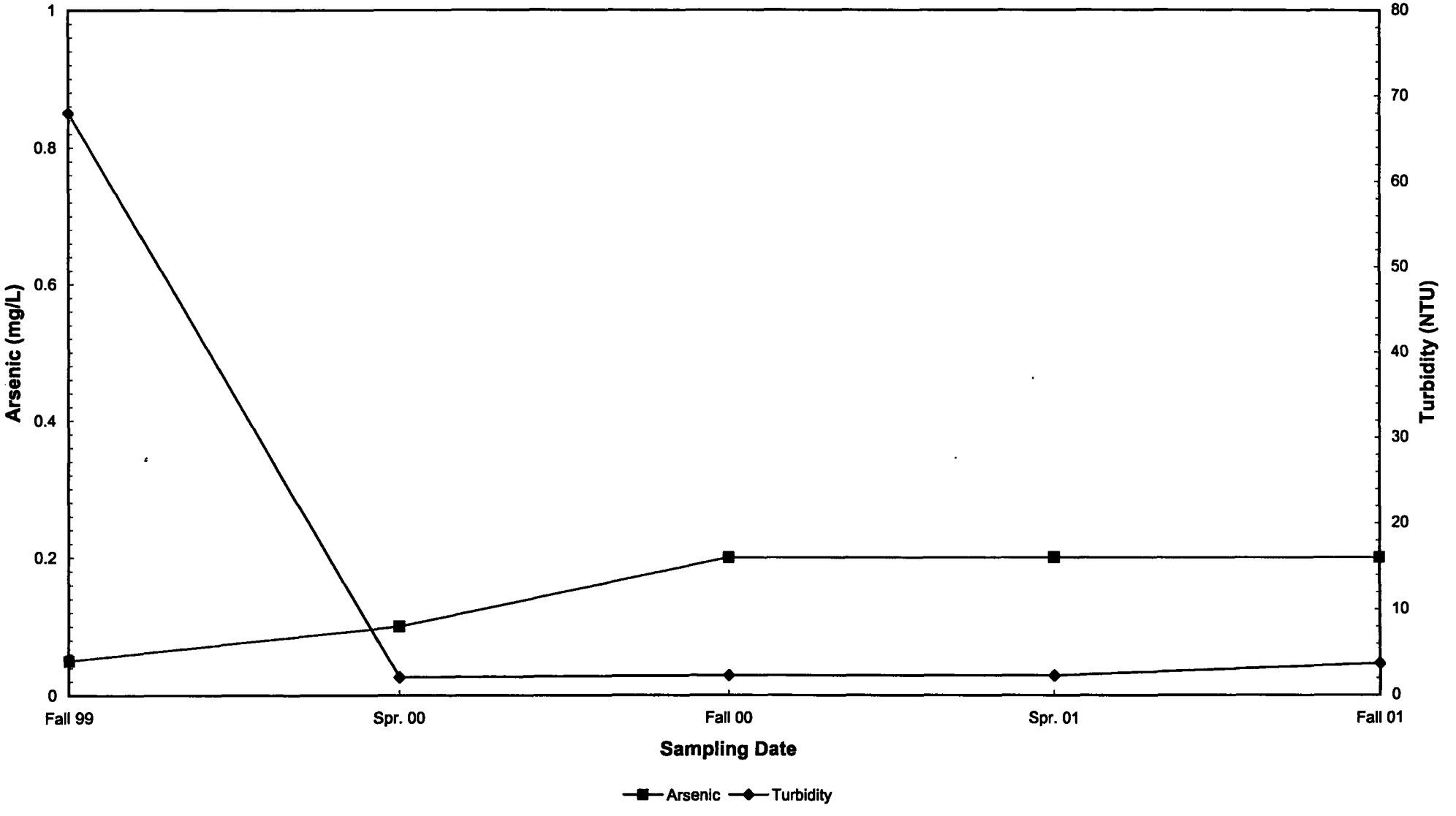

Monitoring Well LRII - 4
Arsenic (mg/L)
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Turbidity
Arsenic

Monitoring Well LRII - 5

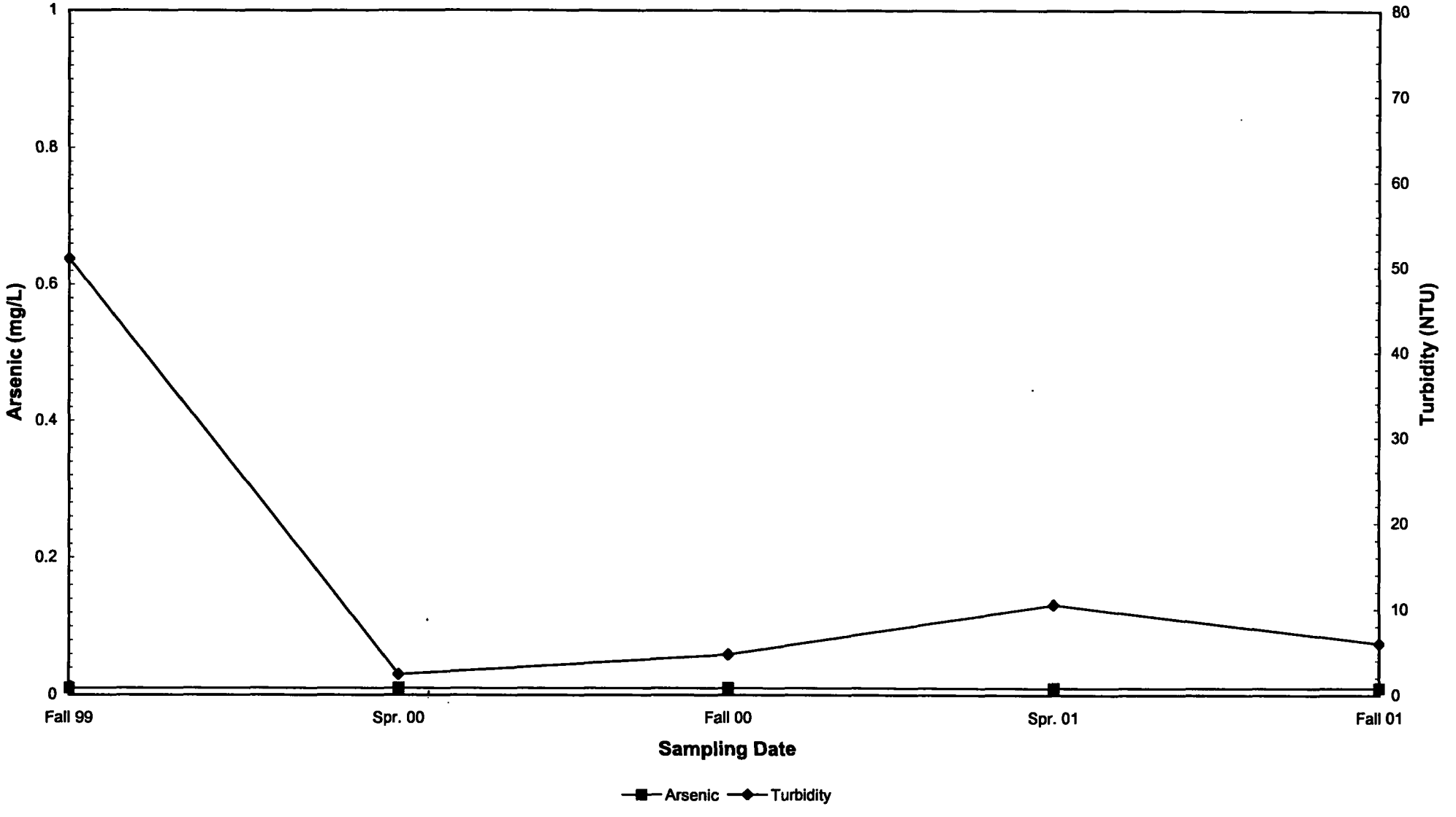



Monitoring Well MW - 1
Arsenic (mg/L)
0.1
0.05
0
Turbidity (NTU)
10
9
8
7
6
5
4
3
2
1
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

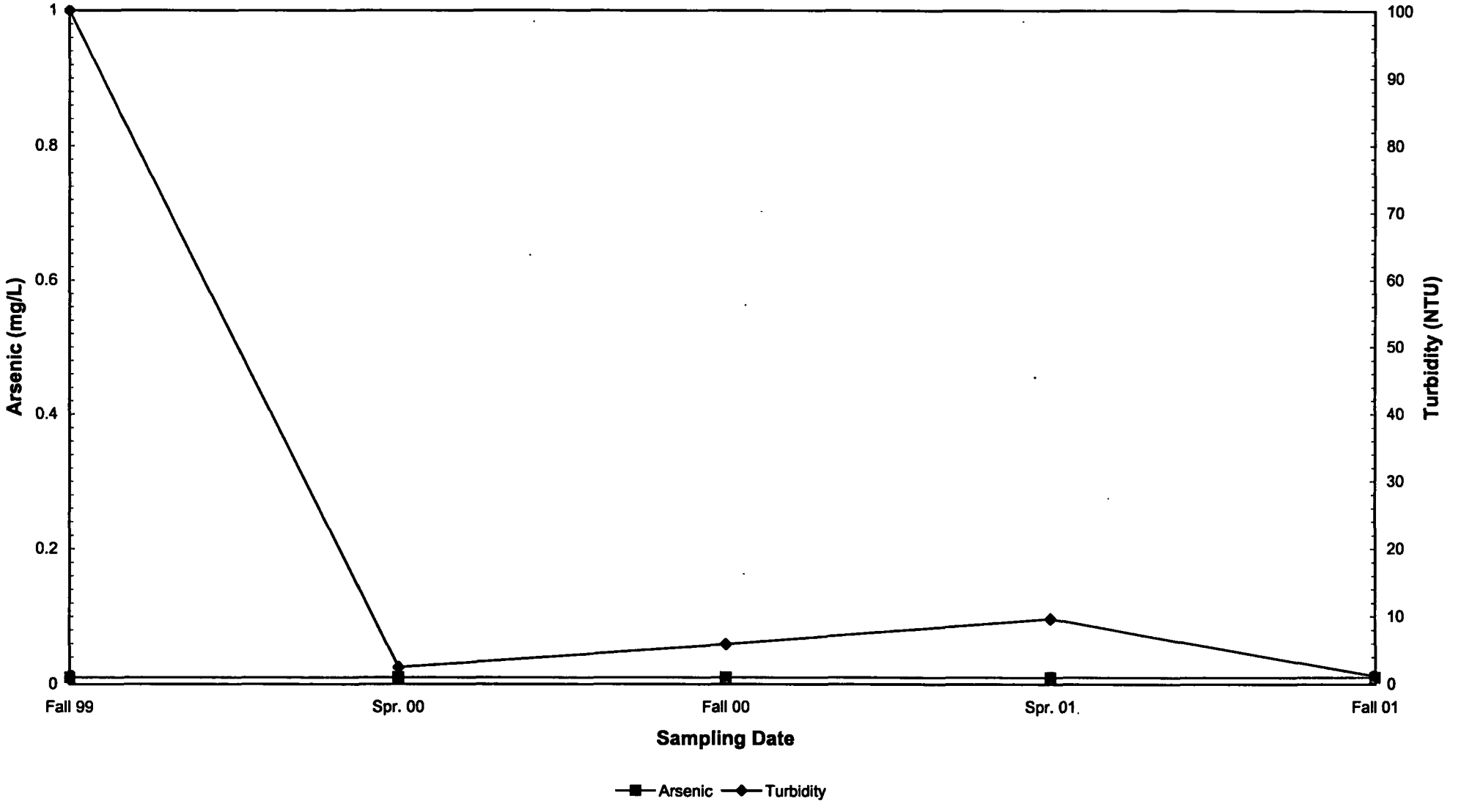
Monitoring Well MW - 2



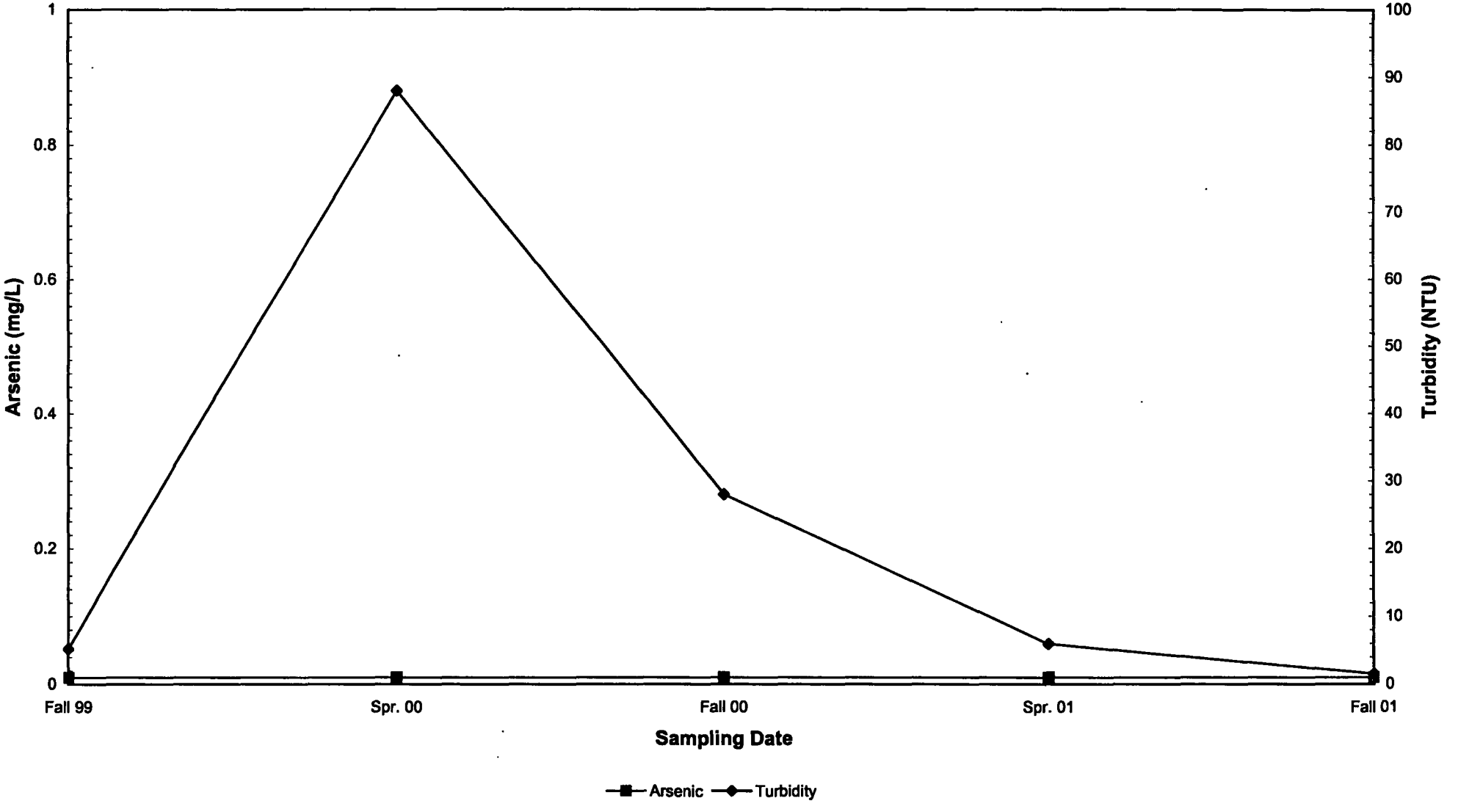
Monitoring Well MW - 3

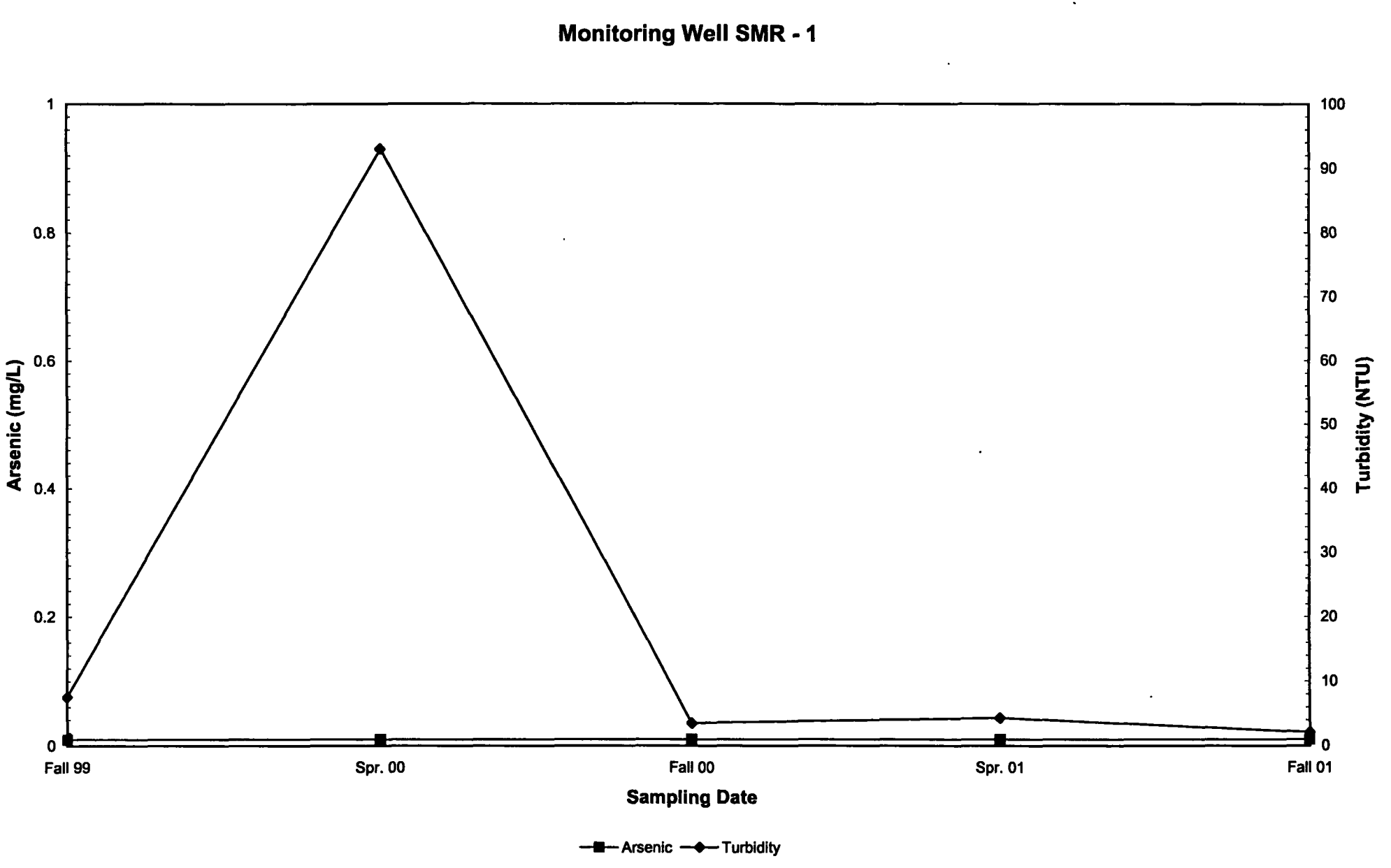


Monitoring Well MW - 5



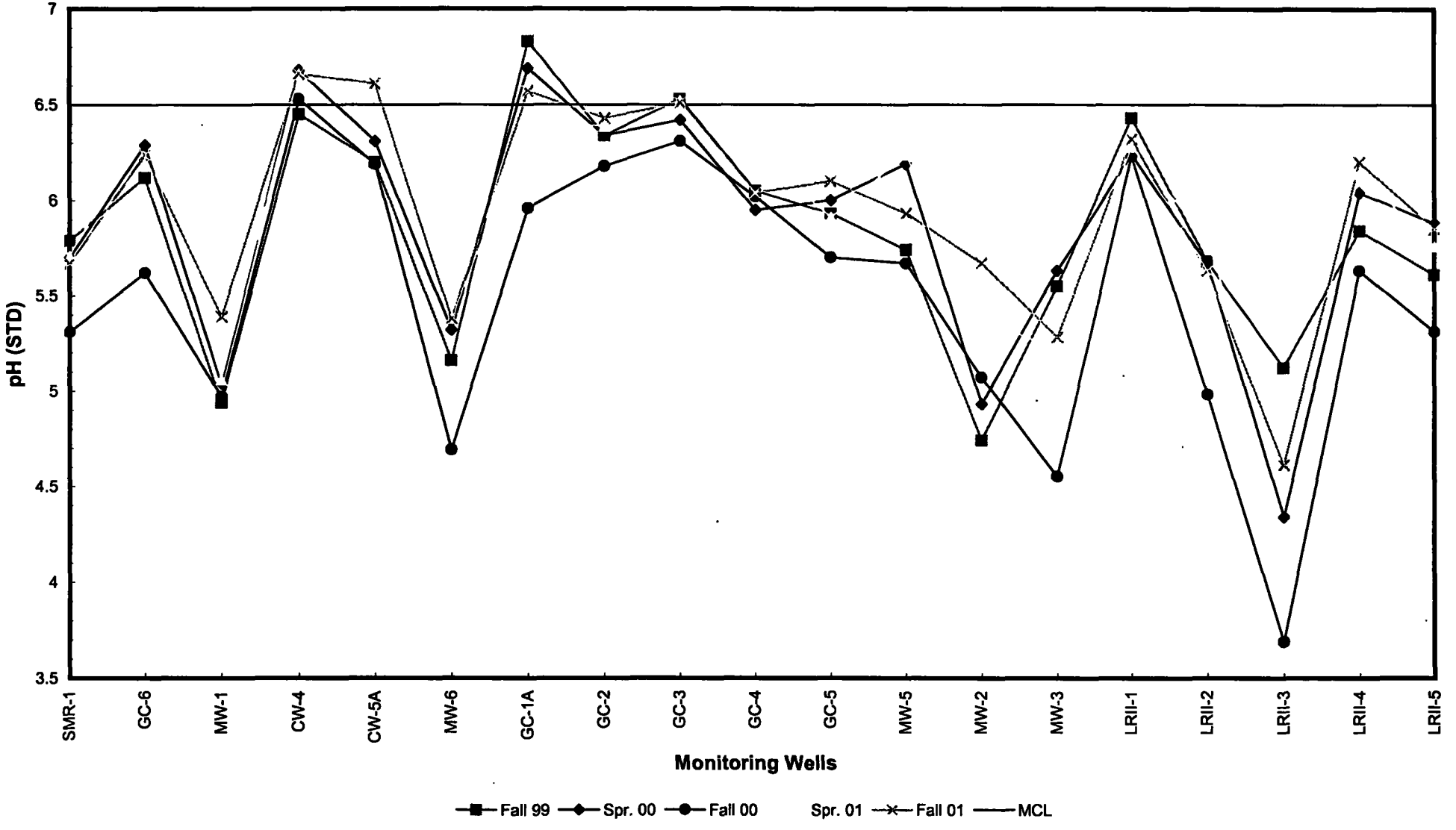
Monitoring Well MW - 6




Monitoring Well SMR - 1
Arsenic (mg/L)
Turbidity (NTU)
1
0.8
0.6
0.4
0.2
0
100
90
80
70
60
50
40
30
20
10
0
Fall 99
Spr. 00
Fall 00
Spr. 01
Fall 01
Sampling Date
Arsenic
Turbidity

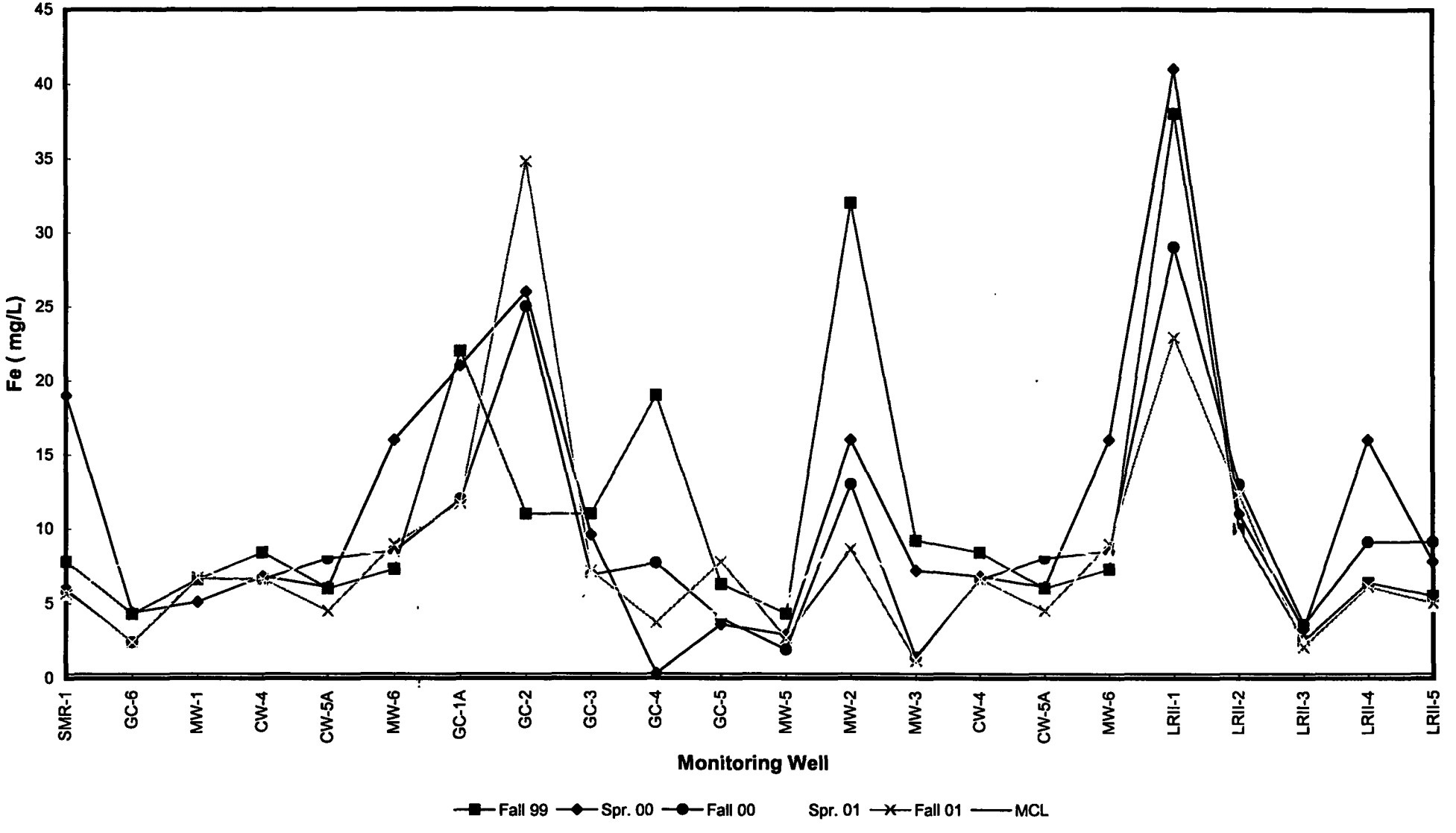
B-3 – pH Downgradient Trend Analysis

pH Downgradient Trend Analysis



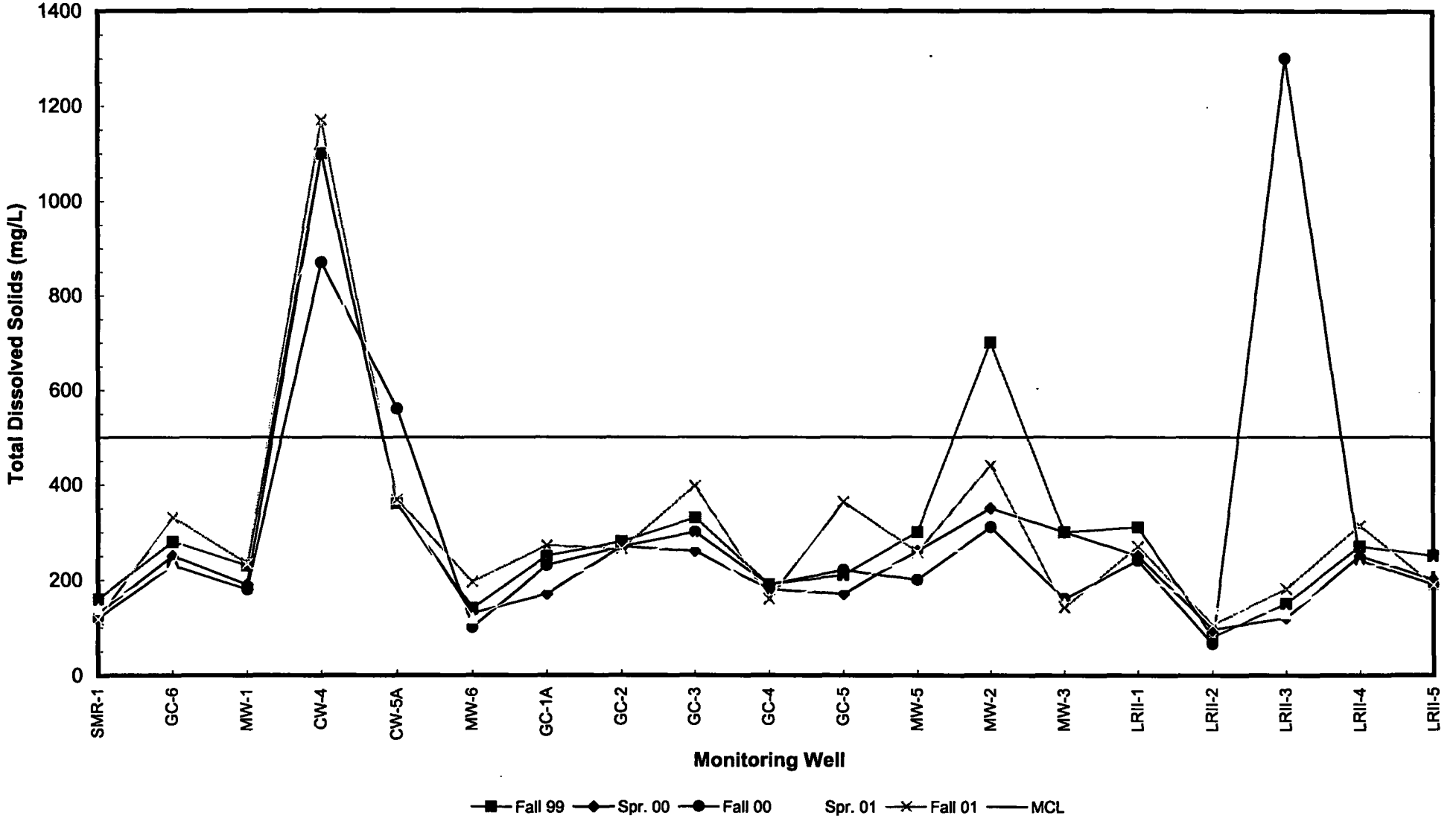
B-4 – Iron Downgradient Trend Analysis

Iron Downgradient Trend Analysis



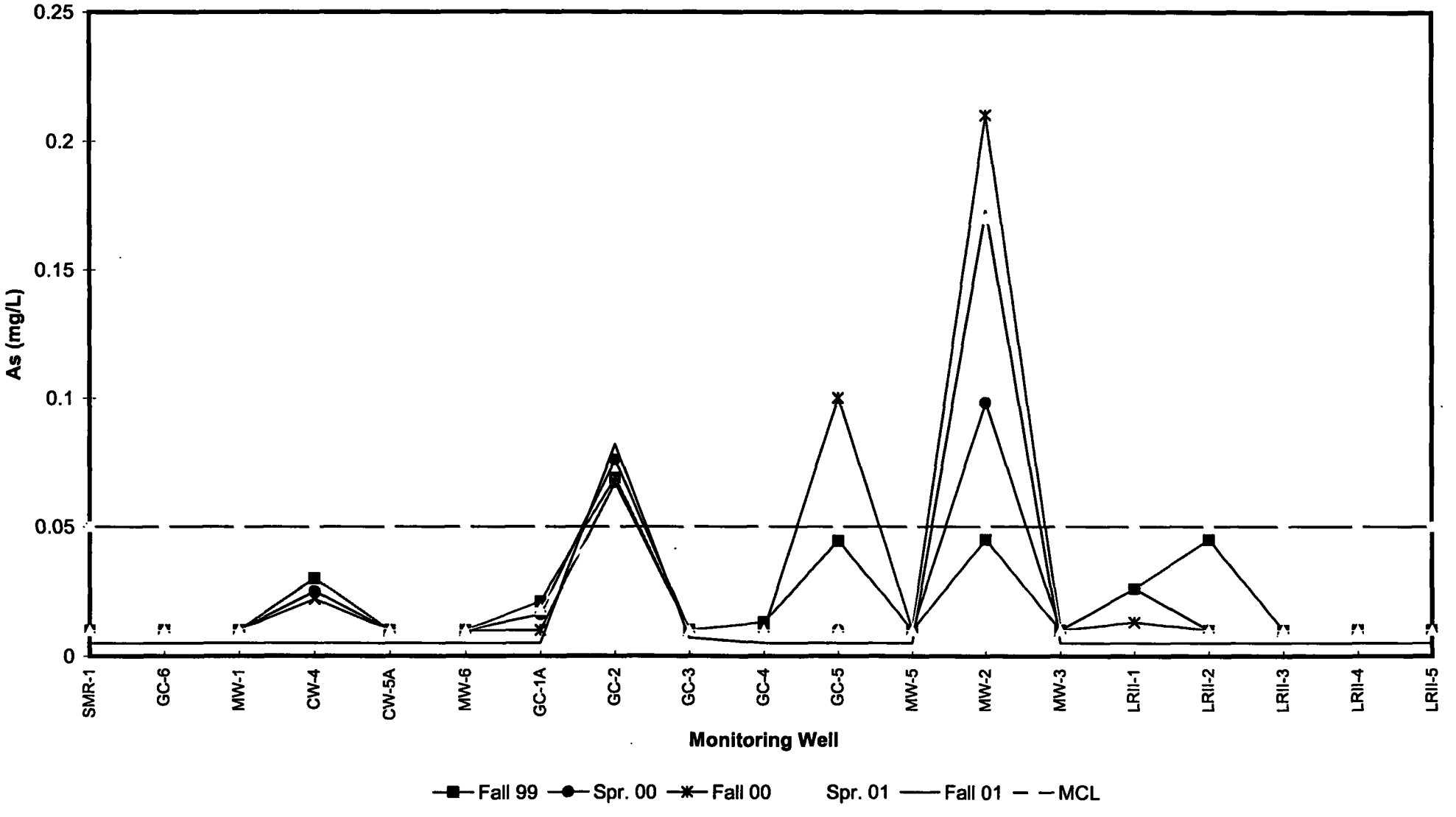
B-5 – TDS Downgradient Trend Analysis

TDS Downgradient Trend Analysis



B-6 – Arsenic Downgradient Trend Analysis

Arsenic Downgradient Trend Analysis

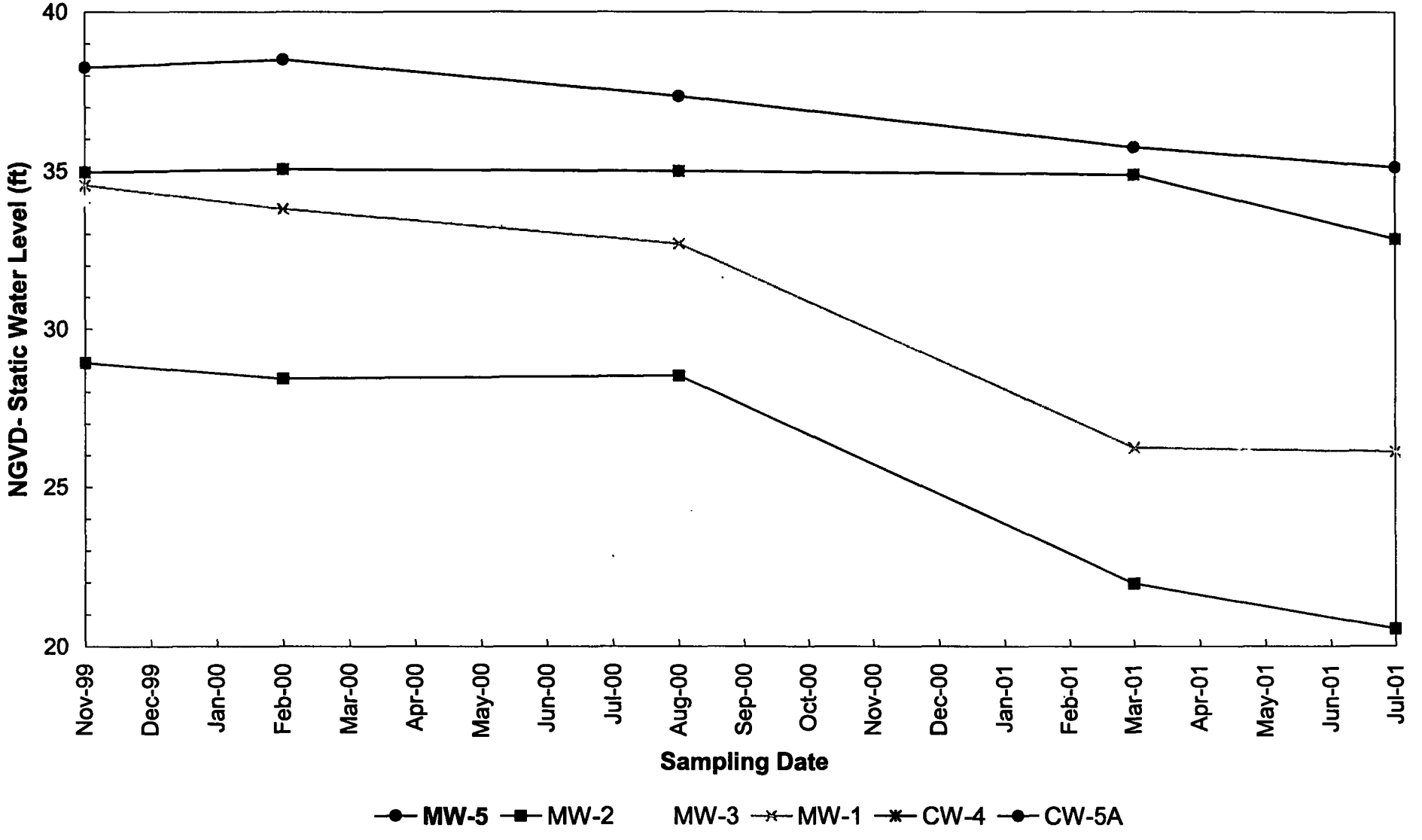


APPENDIX C

GROUNDWATER ELEVATION HYDROGRAPHS

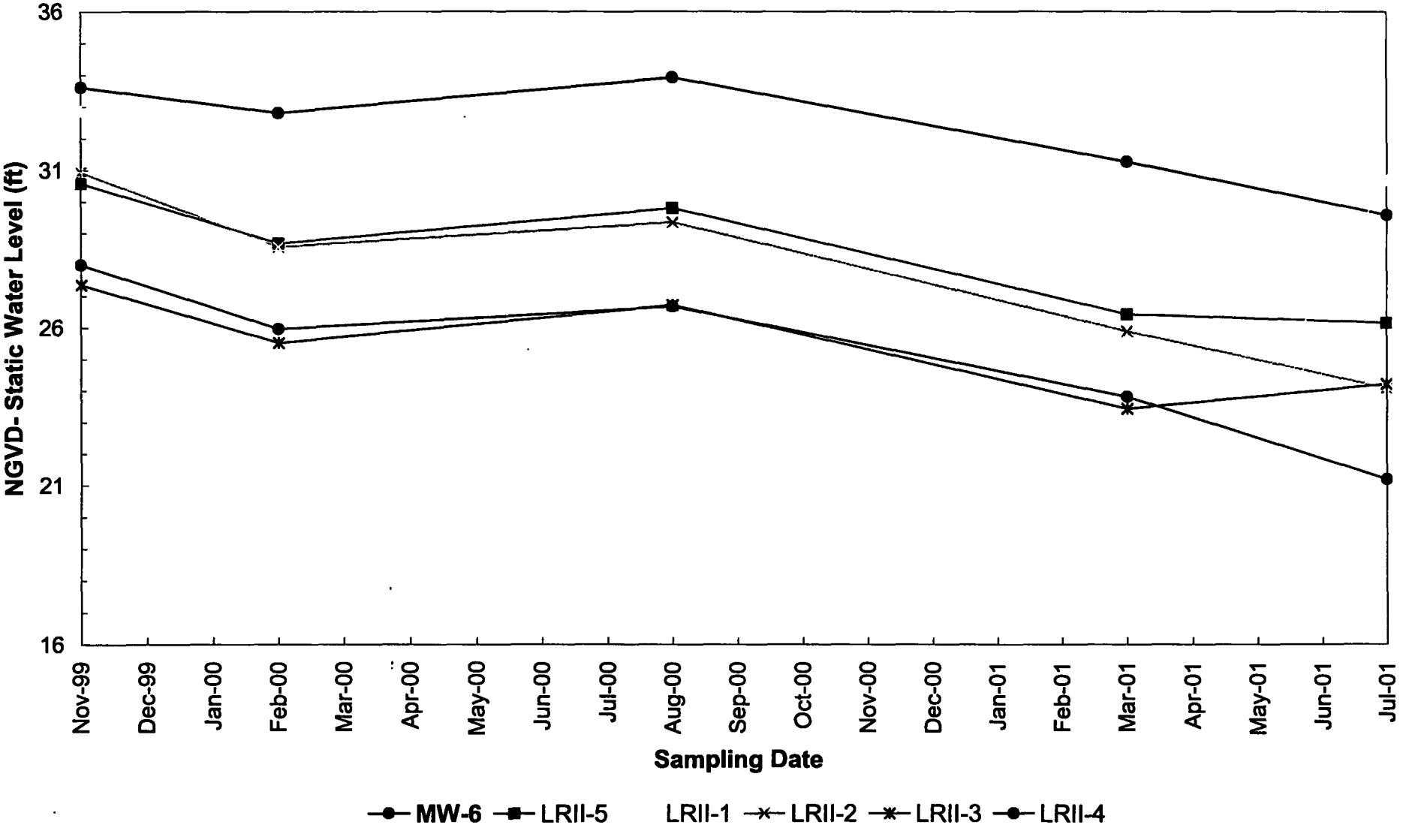
C-1 – Stage One Shallow Monitoring Wells

Stage One Groundwater Elevation



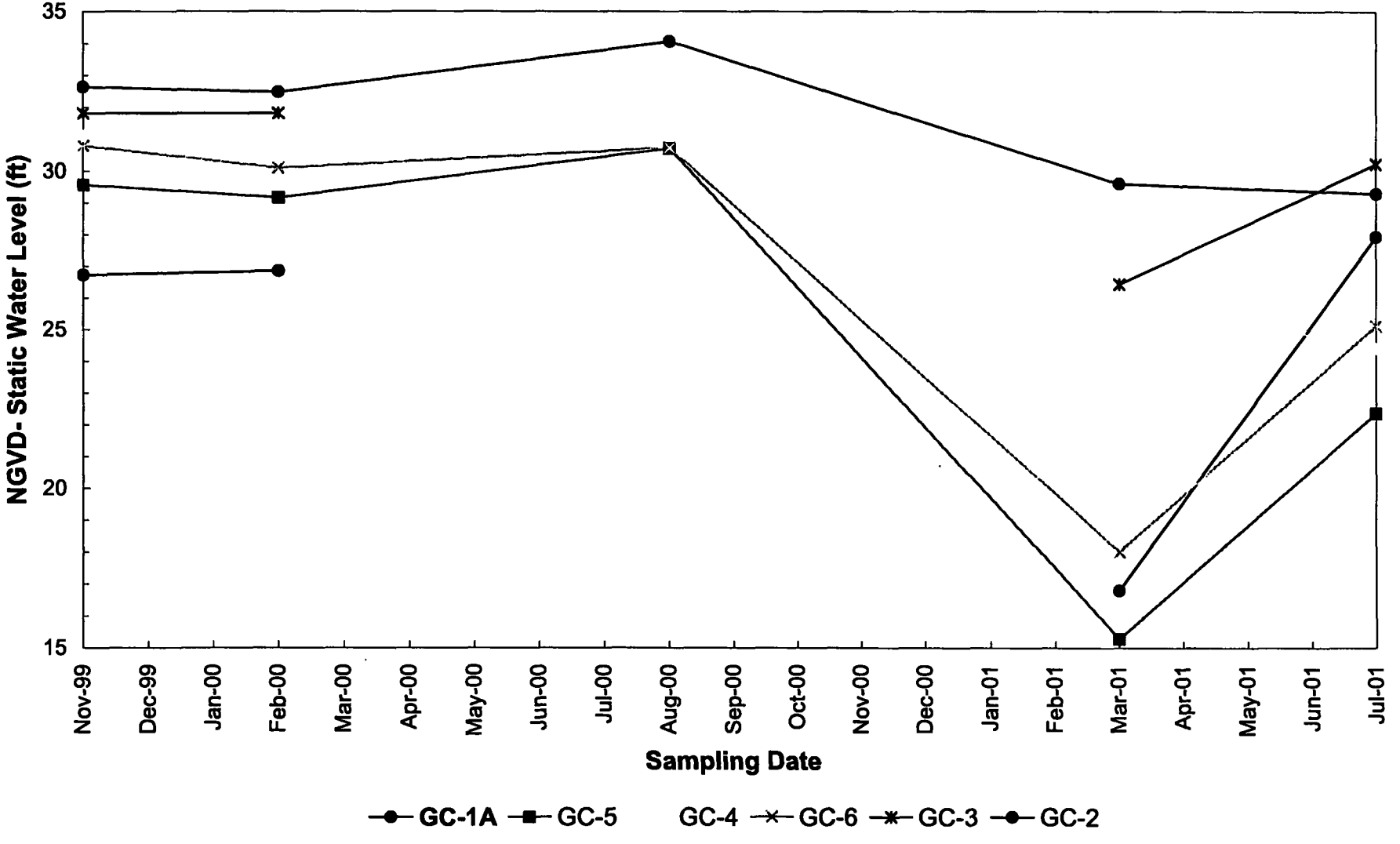
C-2 – Stage Two Shallow Monitoring Wells

Stage Two Groundwater Elevation



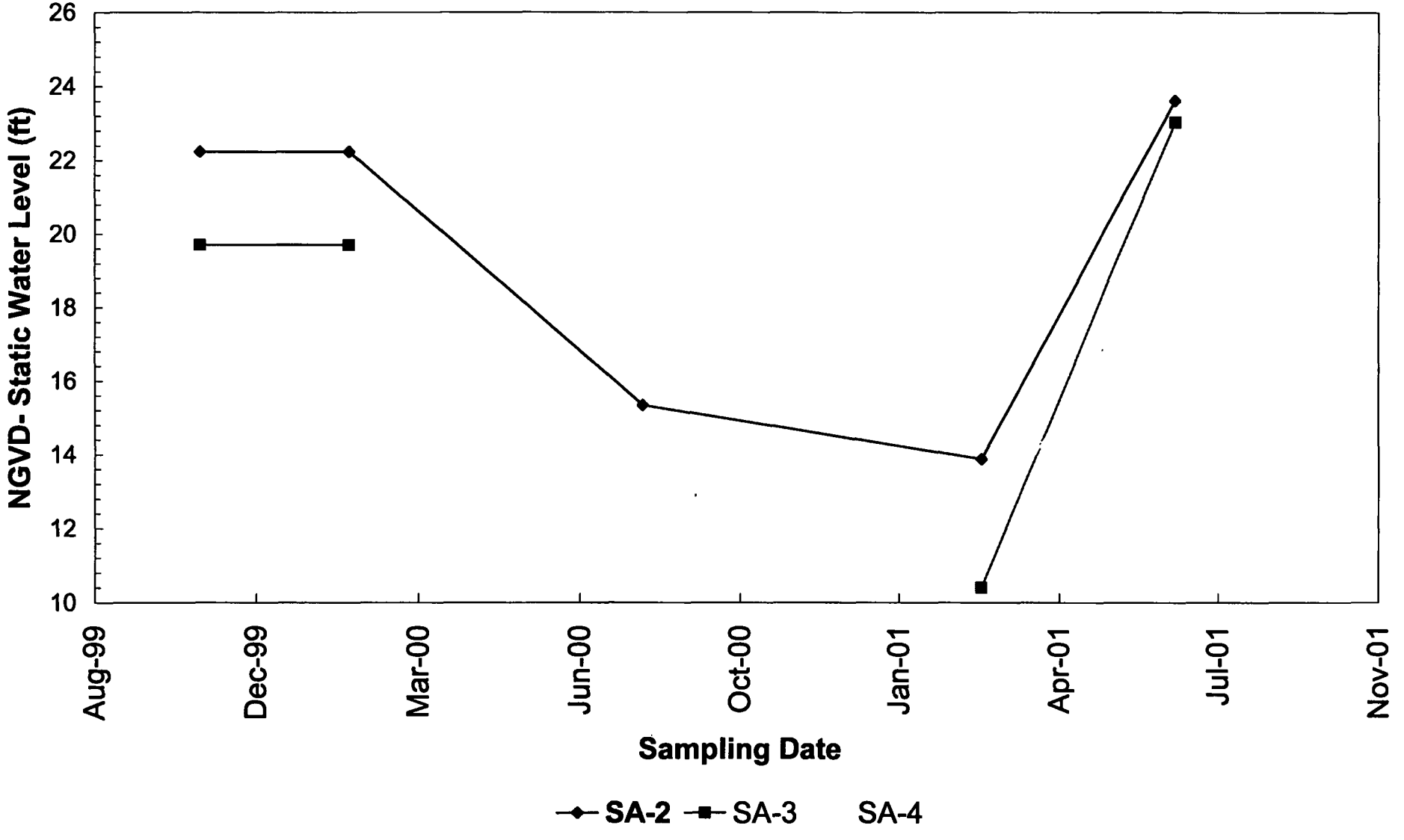
C-3 – Stage Three Shallow Monitoring Wells

Stage Three Groundwater Elevation

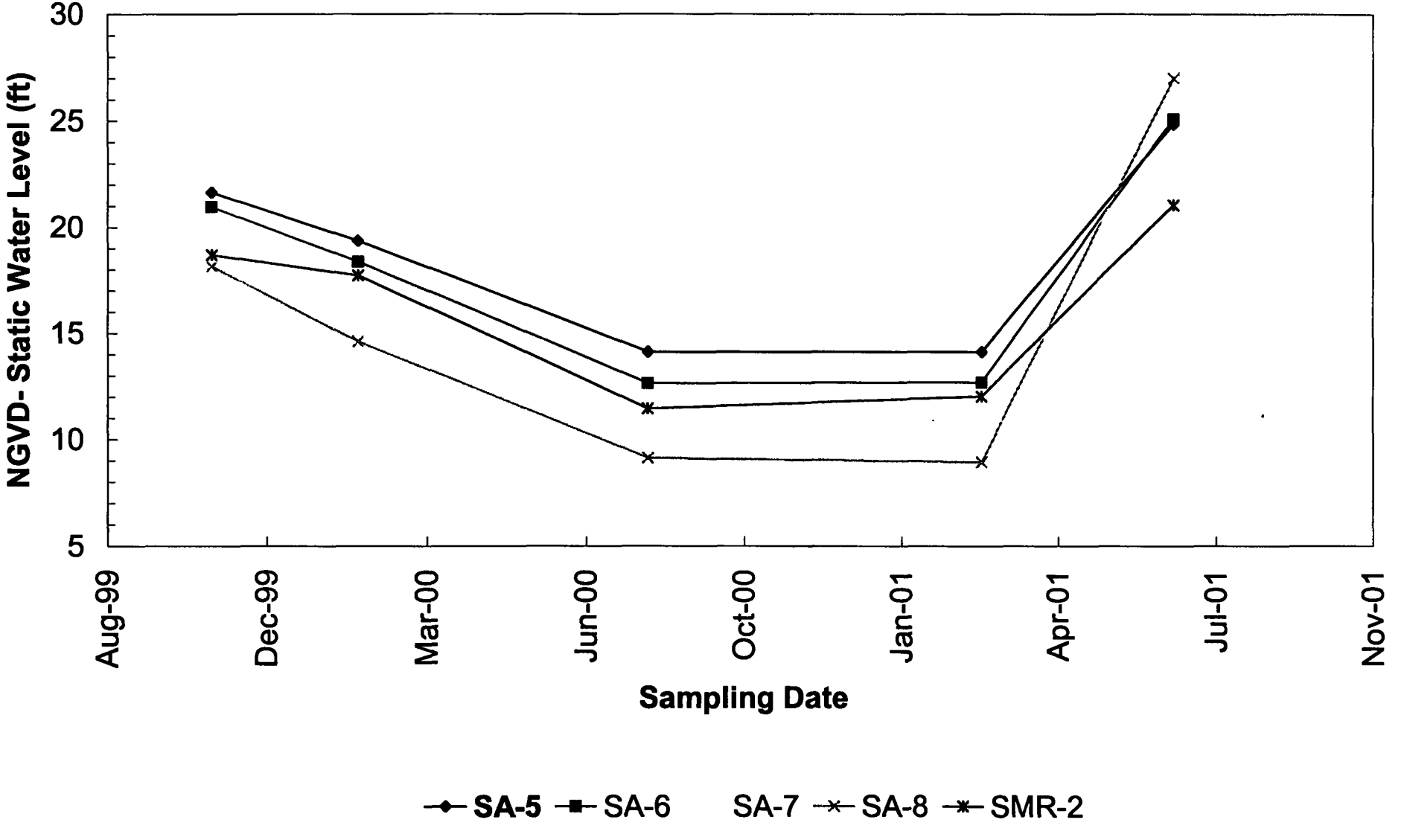


C-4 – Artesian (deep) Aquifer Monitoring Wells

Stage II Groundwater Elevation

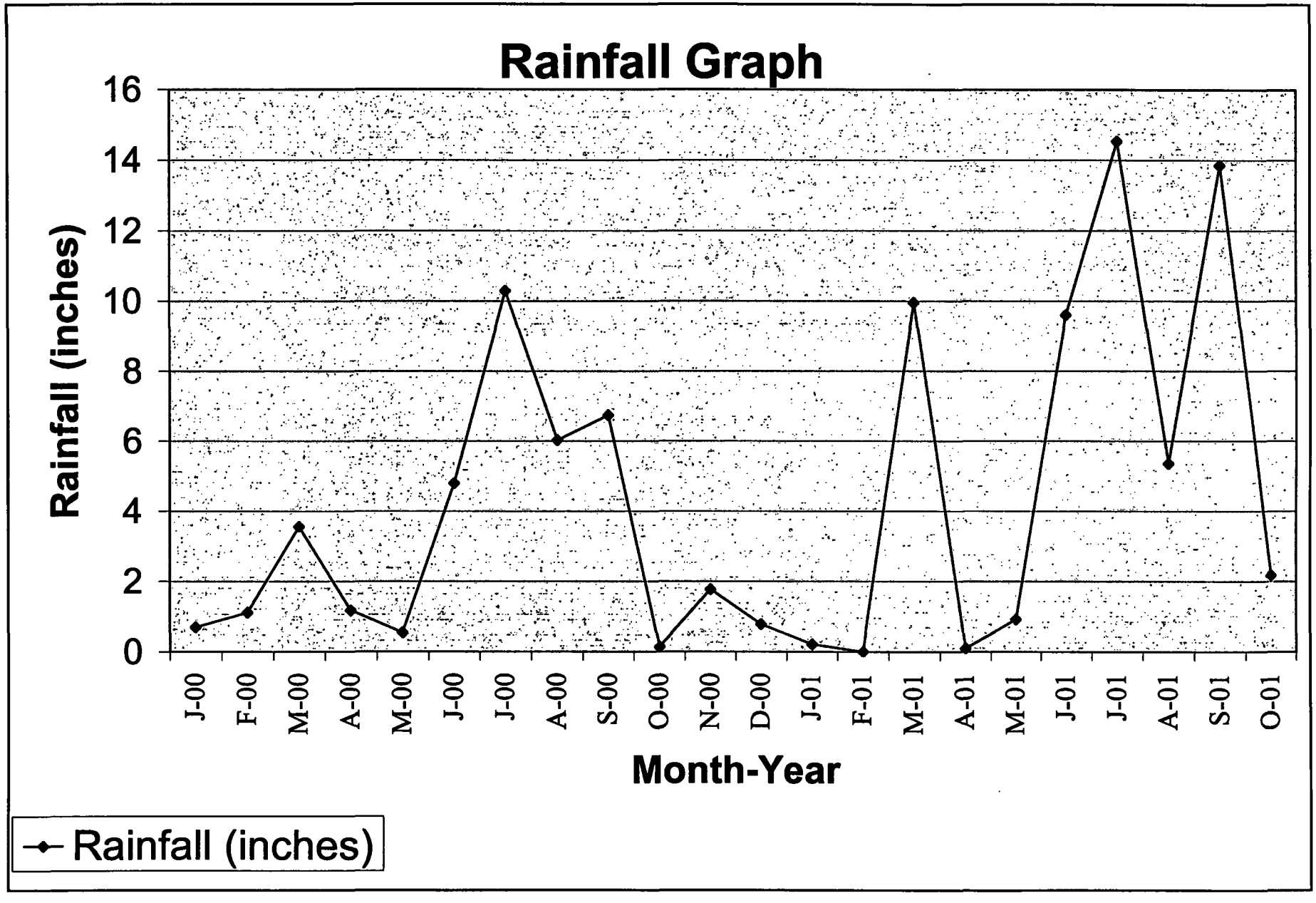


Stage III Groundwater Elevation



APPENDIX D

RAINFALL GRAPH


Rainfall Graph
Rainfall (inches)
16
14
12
10
8
6
4
2
0
J-00
F-00
M-00
A-00
M-00
J-00
J-00
A-00
S-00
O-00
N-00
D-00
J-01
F-01
M-01
A-01
M-01
J-01
J-01
A-01
S-01
O-01
Month-Year
Rainfall (inches)