International Business Machines Corporation

9600 Godwin Drive
Manassas, VA 20110

April 16, 1999

Mr. Edwin Dassatti
New York State
Department of Environmental Conservation
Bureau of Eastern Hazardous Waste Programs
Division of Hazardous Substances Regulations
50 Wolf Road
Albany, New York 12233-7251

Re: IBM Kingston Facility, Part 373 Permit No. 3-5154-0067/000090
Transmittal of Former Industrial Waste Sludge Lagoon RCRA Facility Investigation

Dear Mr. Dassatti:

The purpose of this letter is to transmit the referenced document in compliance with the *RCRA Facility Investigation (RFI) Work Plan - Former Industrial Waste Sludge Lagoon*, dated May 20, 1998. This work plan was approved in a letter from Mr. Gary Casper, dated July 10, 1998 and received by IBM on July 17, 1998. Based on the proposed schedule of completion presented in this work plan, the due date for this report is April 17, 1999.

One objective of this RFI was to investigate and evaluate upgradient and downgradient relationships in the former Industrial Waste Sludge Lagoon (IWSL) area. As these investigations and subsequent evaluations were critical to the application of the permit-required statistical evaluations, Ms. Michele West of IBM contacted Mr. Gary Casper of NYSDEC on March 12, 1999 and requested these statistical evaluations be presented the IWSL RFI report instead of the *1998 Annual Groundwater Monitoring Report*. Based on this telephone conversation, it was agreed that these evaluations be presented in the IWSL RFI report.

After reviewing the information provided in this transmittal, should you have any questions please call Michele J. West at (914) 894-5536.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
International Business Machines Corporation

M. E. Meyers

Mitchell E.Meyers,
Manager, Corporate Environmental Engineering

MEM:db

cc: Rod Aldrich, NYSDEC Region 3
Gary Casper (additional transmittal copy to the Commissioner), NYSDEC Albany
James Reidy, USEPA

Kingston, New York

RCRA Facility Investigation
Former Industrial Waste Sludge Lagoon

Prepared for:
IBM Corporate Environmental Engineering
Manassas, Virginia

April 16, 1999

Prepared by:

Groundwater Sciences Corporation

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1 INTRODUCTION

This report has been prepared by Groundwater Sciences Corporation (GSC) at the request of the International Business Machines Corporation (IBM) for its former Kingston, New York site. Figure 1-1 shows the location of the site. This report has been prepared to present the findings of the RCRA Facility Investigation (RFI) conducted at the former Industrial Waste Sludge Lagoon (IWSL) according to the *RCRA Facility Scope of Work* (RFI SOW) document presented to the NYSDEC for review and approval on May 20, 1998. IBM received written approval from the NYSDEC to proceed with the RFI on July 17, 1998. According to the schedule presented in the RFI SOW document, this report is due on April 17, 1999.

1.1 Facility Background

The former Industrial Waste Sludge Lagoon (IWSL) is located in the northwestern section of the former IBM-Kingston facility, approximately 600 feet from Esopus Creek and 100 to 200 feet east of the wetlands associated with the creek's flood plain, as shown on Figure 1-2. The IWSL was part of the former industrial waste treatment facility (IWTF), which is situated in a relatively low-lying area with a land surface sloping gently to the west, toward Esopus Creek.

The IWSL was rectangular in shape with steeply sloping sides and was approximately 60 feet wide, 155 feet long, and 10 feet deep. The IWSL was constructed in 1955 and periodically dredged at approximately 10-year intervals. The final dredging and cleanout was performed in 1984, when the lagoon was closed.

The IWTF is underlain by assorted fill material and fine sands and silts. The water-bearing zones are found in fill and natural sediments, primarily sand, which lie above a lacustrine silt and clay unit. Although the silt/clay is saturated, it is not considered a significant water-bearing unit due to its low hydraulic conductivity. The sand is perennially saturated. The overall direction of groundwater flow in the vicinity of the IWTF is from east to west from the area of the treatment plant (Building 036) toward Esopus Creek, which lies west of the area shown on Figure 1-2.

Three features in the vicinity of the IWSL have a significant impact on groundwater flow. The first is an area to the east of the IWSL beneath Building 036 (B036) and a former filtration tank, where the sand aquifer is not perennially saturated. The thickness of the saturated sand aquifer diminishes between MW-612S, and MW-501S, such that well MW-501S is typically dry, except during periods of high overall groundwater levels.

The second feature is the former lagoon itself. The lagoon has been backfilled in such a way that a layer of crushed limestone, which likely has a hydraulic conductivity significantly greater than the surrounding finer materials is present below the water table. It is expected that groundwater elevations everywhere within this area backfilled with crushed stone are essentially identical as can be seen in the flattening of contours around the former lagoon footprint.

The third feature affecting groundwater flow in the IWSL area is the interceptor trench installed in the late 1970s in conjunction with the lining of the IWSL. This trench served to control groundwater infiltration into the IWSL excavation during construction activities and is still in place, as shown on Figure 1-2. The interceptor trench starts at the northern end of the former lagoon at an invert elevation of approximately 141 feet. According to the plans for this trench, it reaches the drainage swale south of the former IWSL at an elevation of approximately 139 feet. In 1993, the catch basin at the southern end of the interceptor trench was removed and the trench was plugged. This action appears to have changed the dynamics of groundwater flow in the vicinity of the former interceptor trench such that wells identified as downgradient prior to the plugging of the trench may now be upgradient with regard to the former IWSL. In particular, compliance monitoring well MW-802, on the opposite side of the former interceptor trench from background monitoring well MW-612S, now appears to be upgradient from the former IWSL and exhibits groundwater elevations identical to those in well MW-612S.

1.2 Regulatory History

1997 was the first year of compliance monitoring under the site's most recent Part 373 permit. Concentrations of constituents detected in the four compliance monitoring wells during 1997 were evaluated using the methods described in the Quality Assurance Project Plan (QAPjP) for the former IWSL. These evaluations included the establishment of baseline and background concentrations, and

the use of statistical methods to evaluate potential groundwater impacts from the former IWSL. Details are discussed in the 1997 Annual Groundwater Monitoring Report.

Based on these evaluations, it was determined that the following volatile organic compounds (VOCs) and metals exceeded background concentrations:

1,1-Dichloroethane	1,2-Dichloroethene (total)	Tetrachloroethene	Arsenic (dissolved)
1,1-Dichloroethene	1,2,3-Trichloropropane	Trichloroethene	Cadmium (dissolved)
1,1,1-Trichloroethane	1,2-Dichlorobenzene	Vinyl chloride	
1,2-Dichloroethane	Chlorobenzene	Lead (dissolved)	

Analytical results for the compliance wells were also compared to the Groundwater Protection Concentration (GPCs) specified in the site's Part 373 Permit, Table V-2. Based on these comparisons, it was determined that the following hazardous constituents exceeded GPC in compliance monitoring wells:

1,1,1-Trichloroethane	1,2-Dichloroethene	Vinyl chloride
1,1-Dichloroethane	Trichloroethene	Arsenic (dissolved)

With the exception of 1,1-dichloroethane, concentrations of these hazardous constituents were also exceeded in background monitoring well MW-612S. These exceedances resulted in this RFI to further investigate upgradient and downgradient groundwater flow and chemistry in the vicinity of the former lagoon.

1.3 Purpose and Scope

The purpose of this RFI was threefold. First, monitoring wells were installed to investigate groundwater flow and chemistry upgradient from the IWSL. These wells augmented the existing monitoring well network and attempt to confirm the existence of any as yet unidentified upgradient sources in the vicinity of B036. Second, monitoring wells were installed to resolve upgradient/downgradient relationships and associated chemistry in the vicinity of the former interceptor trench. Finally, several newly installed groundwater monitoring wells were used to assess groundwater quality and groundwater flux from the IWSL to the wetlands that lies to the west and the small stream that lies to the south of the IWSL. In

addition to these groundwater quality samples, surface water impacts were also assessed with the collection of surface water quality samples downgradient from the IWSL in the wetlands to the west and the small stream to the south.

The following sections of this report include information relating to the data gathering, interpretation and conclusions of this RFI. Section 2 presents a summary of the field activities and discusses the results of the investigation activities. Section 3 presents interpretations of these results and Section 4 presents recommendations for further study at the IWSL. Section 5 includes references to this report.

2 DATA COLLECTION

This section reports on the activities and results associated with this RFI. As noted previously, the purpose of this RFI was threefold: investigation of groundwater flow and chemistry upgradient of the IWSL; resolution of upgradient / downgradient relationships and associated chemistry in the vicinity of the former interceptor trench and; assessment of impacts to surface water through determination of groundwater flux to and observed surface water quality in both the wetland and onsite stream downgradient from the IWSL.

2.1 Monitoring Well Installation

As shown on Figure 2-1, the former IWSL is located in a fenced enclosure at an elevation of approximately 150 to 155 feet above mean sea level (amsl). The wetlands lie at an elevation of approximately 138 feet amsl. The topographic contours on Figure 2-1 also show that the ground surface between the IWSL and the wetland slopes steeply toward the wetland below an elevation of 145 feet amsl on the western side of the IWSL and below an elevation of 149 feet amsl on the southern side. This topography limited the areas of drilling rig access for monitoring well installation.

In total, fourteen monitoring wells were installed using hollow-stem auger methods, with continuous soil sampling below a depth of 6 feet, according to the protocol specified in Appendix K-G of the QAPjP. Boring logs and monitoring well construction details can be found in Appendix A of this report. Review of these logs indicates that most wells were installed between 11 and 31 feet below ground surface (bgs). As per the site's QAPjP, soil samples were collected using a split spoon sampler and field screened using a Photo Ionization Detector (PID). If field screening indicated elevated concentrations of VOCs in the sample, then a portion of the sample was collected for jar headspace analysis according to the procedure described in Appendix K-H of the QAPjP.

Table 2-1 lists the location and purpose for each of the 14 installed monitoring wells, which are shown on Figure 2-1.

Table 2-1. IWSL RFI Soil Monitoring Wells		
Well	**Location**	**Purpose**
810	northwest of IWSL outside fence on south side of utility berm	perimeter monitoring of groundwater flux away from former lagoon*
811S	west of IWSL outside fence at top of slope; west of MW-207S	perimeter monitoring of groundwater flux away from former lagoon*
811D	west of IWSL outside fence at top of slope; west of MW-207S	deep soil, perimeter monitoring of groundwater flux away from former lagoon*
812	west of IWSL outside fence at top of slope; west of MW-211S	perimeter monitoring of groundwater flux away from former lagoon*
813	south of IWSL inside fence at top of slope on north side of storm sewer line	perimeter monitoring of groundwater flux away from former lagoon*; determine current upgradient and downgradient relationships
814	south of IWSL inside fence and south of former interceptor trench catch basin	perimeter monitoring of groundwater flux away from former lagoon*; determine current upgradient and downgradient relationships
815	east of former interceptor trench catch basin	determine current upgradient/downgradient relationships
816	east of former interceptor trench in paved area; southwest of B/036	determine current upgradient/downgradient relationships; investigate possible source upgradient from IWSL
817	east of former interceptor trench in paved area; southwest of B/036	determine current upgradient/downgradient relationships; investigate possible source upgradient from IWSL
818	west side of B/036	investigate possible source upgradient from IWSL
819	between IWSL and B/036, north of MW-501S	investigate possible source upgradient from IWSL
820	north of IWSL	investigate possible source upgradient from IWSL
821	east side of former interceptor trench at north end	investigate possible source upgradient from IWSL, determine current upgradient/downgradient relationships
822	center of former IWSL	evaluate effect of crushed limestone layer on metals mobility in closed lagoon; investigate possible VOC source
* Together with existing well MW-210S.		

2.2 Groundwater and Surface Water Sampling

The following subsections discuss the field activities and results of the investigations with regard to groundwater and surface water quality in the former IWSL area.

2.2.1 Field Activities

The following subsections discuss sample collection methods for groundwater and surface water samples collected as part of this RFI.

2.2.1.1 Groundwater Sampling Activities

Following completion, each new monitoring well was developed as specified in Appendix K-I of the QAPjP. Appendix B contains copies of well development sheets for each of the monitoring wells installed as part of this RFI. It should be noted that monitoring well 818 was dry and therefore could not be fully developed.

Following development, three rounds of characterization samples were collected and sent to the laboratory for analysis. Appendix C contains a summary printout of these sampling results together with the associated field quality assurance and quality control data . Each well was sampled according to the protocols presented in the most recent and approved Groundwater Monitoring Plan (GMP) for the Kingston facility. As per the GMP, temperature, pH, and specific conductance were measured in the field following the collection of each sample. Table 2-2 summarizes the sampling activities conducted as part of this RFI. It should be noted that during each sampling event, well 818 was confirmed to be dry and therefore no water quality data was obtained from this location. Samples from all other wells installed as part of this RFI were analyzed for the parameters specified in Table 2-2. As noted in this table, other monitoring wells in the vicinity of the IWSL that are routinely monitored as part of the GMP were sampled concurrently with the third RFI characterization sampling round. Appendix C contains a printout of these results together with the associated field quality assurance and quality control data The parameters for these wells are specified in Table 2-2.

Table 2-2. Summary of Groundwater and Surface Water Quality Sampling Activities			
Field Activity	**Dates Sampled**	**Sampling Locations**	**Parameter List**
First Characterization Sampling Event	10/29-30/98	RFI wells (810-822) and Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E)	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb
Second Characterization Sampling Event	11/18-20/98	RFI wells (810-822) and Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E)	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb
Concurrent field activities: Third Characterization Sampling Event (RFI wells) and routine Groundwater Quality Monitoring as per site's GMP	12/10-15/98	RFI wells (810-822); Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E) and Routine GMP compliance and background monitoring locations (MW-106S, MW-205S, MW-612S, MW-206S, MW-208S, MW-802)	RFI wells: VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb Routine GMP wells: VOCs by SW-846 Method 8021
Upgradient / Downgradient Sampling Event	2/16/98	MW-210S plus MW-206S, MW-817, MW-821 and MW-125S, MW-1R	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb Total metals: As, Sb, Ba, Cd, Cr, Cu, Hg, Pb, Se, Ag Total inorganics: cyanide, phenolics MW-125S and MW-1R: VOCs by SW-846 Method 8021 plus dissolved As only

2.2.1.2 Surface Water Sampling Activities

The RFI SOW required surface water sampling at four locations. During the field staking of these locations, it was noted that water was seeping from the stream bank at the location shown as SW-E on Figure 2-1. As can be seen from this figure, the location of this seep coincides with the outlet of the relocated pipe associated with the former IWSL interceptor trench discussed in Section 1.1 of this report. After discussion with the NYSDEC, this surface water sampling location was incorporated into the sampling and analysis plan for this RFI. Results for this location and all other surface water sample locations together with associated field quality assurance and quality control data are presented in Appendix C of this report.

As can be seen from Figure 2-1 and as discussed in the RFI SOW, surface water sample locations SW-A and SW-B are also located in the drainage swale south of the former IWSL. SW-A is situated upstream from the former outfall from the interceptor trench and SW-B lies downstream from the former outfall from the interceptor trench at the point of discharge into the wetland. SW-E, as noted above, lies between these two originally proposed points. Both SW-C and SW-D are located west of the former IWSL, along eastern bank of the wetland.

Table 2-1 summarizes the sampling and analysis plan for each of the five surface water sampling locations. Appendix C contains printouts of surface water sampling results and the associated field QA/QC data.

2.2.2 Groundwater and Surface Water Sampling Results

Upon completion of data validation, groundwater and surface water quality results were tabulated and compared with the site specific Groundwater Protection Concentration (GPC) values presented in the site's Part 373 Permit, Table V-2 for the Waste Management Area. Table 2-3 contains a listing of the parameters detected in either groundwater, surface water or both during this RFI. In total, thirty-one parameters were detected in water quality samples collected as part of this RFI. Twenty-five of these have a site specific GPC, six do not. Validated sample results were compared with the site specific GPC, where applicable. For parameters where a GPC does not exist, these parameters were compared with New York State Groundwater Quality Standards for Class GA waters presented in TOGS 1.1.1 (June 1998 revision) (NYSGQS). Table 2-3 highlights which of these parameters are present at concentrations that exceed the site specific GPC or NYSGQS value.

Table 2-3. Summary of Parameters Detected in Groundwater and / or Surface Water		
Parameters Detected with Groundwater Protection Concentration*		**Parameters Detected without Groundwater Protection Concentration***
Arsenic, dissolved	1,2-Dichlorobenzene	1,3-Dichlorobenzene
Arsenic, total	1,4-Dichlorobenzene	1,2,3-Trichloropropane
Barium, dissolved	***1,1,1-Trichloroethane***	Benzyl Chloride
Barium, total	***1,1-Dichloroethane***	***Chlorobenzene***
Cadmium, dissolved	1,1-Dichloroethene	Ethylbenzene
Cadmium, total	1,2-Dichloroethane	***Xylenes (total)***
Chromium, dissolved	***1,2-Dichloroethene (total)***	
Chromium, total	Chloroethane	
Copper, dissolved	Chloroform	
Copper, total	Toluene	
Lead, dissolved	***Trichloroethene***	
Lead, total	***Vinyl Chloride***	
Selenium, total		
* Groundwater Protection Concentration (Table V-2, Part 373 Permit)		
Parameters in bold and italicized text were detected in concentrations that exceed Groundwater Protection Concentration if applicable, or the NYSGQS value.		

It should be noted that of the six parameters detected where a site specific GPC does not exist, none of these parameters were confirmed to be present at concentrations that exceed the Practical Quantification Limit (PQL), and therefore, no notification under the site's Part 373 Permit, Module V Condition G.5(a) is required.

2.2.3 Spatial Variations

The results of the groundwater and surface water sampling results from the third characterization sampling event were posted on maps of the IWSL area. A figure was prepared for each parameter where sampling results exceed either the GPC or the NYSGQS with the exception of Barium and Arsenic (total). Sampling results posted for each map are from the third characterization sampling event

which was conducted concurrent with the final fourth quarter sampling round for the routine IWSL Compliance Monitoring Program specified in the GMP.

2.2.3.1 Trichloroethene-Series Parameters

Figure 2-2 presents Trichloroethene (TCE) concentrations for this sampling period. As can be seen from this figure, TCE concentrations are much higher upgradient from the IWSL, with the maximum TCE concentration of 180 ug/l detected at MW-817. In MW-816, also upgradient to the former IWSL, TCE was detected at a concentration of 110 ug/l. TCE was detected at SW-E at an average concentration of 9.85 ug/l. Other locations show TCE values that exceed the GPC including MW-612S and MW-802. TCE was also detected in monitoring wells adjacent to the sanitary sewer line located north of the former IWSL (monitoring locations MW-106S and MW-820) at concentrations that do not exceed the GPC.

Figure 2-3 presents 1,2-Dichloroethene (total) (12-DCE) concentrations for this sampling period. As can be seen from this figure, 12-DCE concentrations are much higher upgradient from the IWSL, and show a similar spatial distribution to TCE detections. This is consistent with the fact that 12-DCE is a degradation product of TCE. The maximum 12-DCE concentration for this sampling round at 26 ug/l was detected in well MW-820, north of the former IWSL and adjacent to the sanitary sewer line, as noted above. 12-DCE was also detected at concentrations that exceed the GPC at MW-106S, MW-821, MW-210S, MW-817, MW-816 and MW-813. It should be noted that 12-DCE was not detected at surface water sampling location SW-E.

Figure 2-4 presents Vinyl Chloride (VC) concentrations for this sampling period. The maximum VC for this sampling round is 20 ug/l found at MW-210S. VC was also detected at concentrations exceeding the GPC at MW-813, MW-820 and MW-106S. Although VC was detected in upgradient well MW-817 where the highest TCE concentration was found, VC is predominantly detected in monitoring wells downgradient from the IWSL.

2.2.3.2 Trichloroethane-Series Parameters

Figure 2-5 presents spatial distribution of 1,1,1-Trichloroethane (111-TCA) for this sampling period. As can be seen by this figure, the maximum concentration of 22 ug/l for 111-TCA was found at MW-817

with detections at MW-802, MW-816, MW-612S and SW-E. As with TCE, 111-TCA is detected upgradient from the former IWSL and the detection at SW-E appears to be associated with this upgradient source and is unrelated to the former IWSL.

Figure 2-6 presents the distribution of 1,1-Dichloroethane (11-DCA) for this sampling period. The maximum concentration for 11-DCA (5.7 ug/l) is found at MW-822 and MW-210S . 11-DCA was also detected at ten other wells and one surface sampling location (SW-E).

2.2.3.3 Other Parameters

Figure 2-7 shows the distribution of Xylenes (total) (XYL) in the vicinity of the former IWSL during the third characterization sampling event. This figure shows one groundwater (MW-822) and one surface water sampling location (SW-A) detected XYL at concentrations above the reporting level. The maximum XYL value was detected at MW-822 with a value of 14 ug/l.

Figure 2-8 presents the dissolved Arsenic concentrations for groundwater and surface water monitoring locations. Arsenic was found at four locations to exceed the site specific GPC, downgradient (MW-210S), upgradient (MW-821), and also cross-gradient to the former IWSL (MW-810 and MW-205S).

2.3 Groundwater Elevation Survey

Following installation, the new wells and the surface water sample locations were surveyed by a New York State licensed surveyor. A copy of the survey information is presented in Appendix D of this report.

A comprehensive round of water levels was measured in the new and existing monitoring wells on February 3, 1999. This static water level information together with the calculated groundwater elevation data is presented in Appendix E. This data was used to construct a current contour map of shallow groundwater elevations, which is presented as Figure 2-9. As can be seen by this figure, the general flow of groundwater is from east to west. Groundwater flows from the upgradient MW-816 and MW-817 locations to MW-210S. As noted in the introduction, the lagoon has been backfilled beneath the water

table with crushed limestone which likely has a hydraulic conductivity significantly greater than the surrounding finer materials. It is expected that groundwater elevations everywhere within this area backfilled with crushed stone are essentially identical, as can be seen in the flattening of contours within the former lagoon area (MW-822 groundwater elevation 144.81; MW-208S groundwater elevation 144.16; MW-206S groundwater elevation 144.19; MW-209S groundwater elevation 144.70).

2.4 Pulse Tests

Following the completion, development, and characterization sampling of each new monitoring well, *in situ* hydraulic conductivity tests (pulse tests) were performed according to the protocol presented in Appendix K-J of the QAPjP. The purpose of these pulse tests was to establish values of hydraulic conductivity which were used to calculate chemical flux in the groundwater and to estimate groundwater flow velocities in the vicinity of the former IWSL. Summary tables presenting the results of this testing are included in Appendix F.

In general, hydraulic conductivities are on the order of one to ten feet per day. Hydraulic conductivity for MW-822 and MW-811S were determined to be 26.6 and 33.1 feet per day, respectively.

3 DATA ANALYSIS AND INTERPRETATION

Based on the results of groundwater and surface water sampling, several theories regarding the distribution of VC in the former IWSL area have been considered and are discussed in the following sections. Also discussed in this section are upgradient and downgradient relationships based on the groundwater elevation data interpretations and annual statistical evaluations as required by the site's Part 373 Permit. In addition, groundwater flux to surface water evaluations are also presented.

3.1 Hydrogeochemical Considerations TCE-Series Compounds

To better understand the relationship between the TCE-series compound spatial distribution and possible impacts to groundwater from the former IWSL, concentrations of TCE transformation products 12-DCE and VC were normalized to TCE and added to the actual TCE concentration to create a TCE-series value for each monitoring location for the combined third characterization and routine groundwater monitoring sampling event. These TCE-series values were contoured and are presented on Figure 3-1. A review of this figure shows two discrete plumes, both originating upgradient from the IWSL: one crossing the southern portion of the former IWSL; and the second associated with the sanitary sewer north of the former IWSL.

3.1.1 Southern Plume

For the southernmost plume, TCE is the dominant constituent for locations upgradient of the former IWSL (refer to Figure 2-2, MW-817 and MW-816) and VC is the dominant constituent downgradient of the former IWSL (refer to Figure 2-4, MW-210S and MW-813). The VC found at these downgradient locations appear to be a result of reductive dehalogenation of the upgradient TCE source and not associated with a release of VC from the IWSL. It should be noted that the dominant constituent at surface water sampling location SW-E is TCE and VC is not detected at this location. The transformation from TCE to VC has not occurred at SW-E, and would suggest that chemistry found at this sampling point is associated with this upgradient source and not related to the former IWSL. This is consistent with the source of flow at SW-E being related to the abandoned interceptor trench that passes along the upgradient side of the IWSL. Other than the obvious presence of VC and 12-DCE as

a transformation products of TCE, other geochemical data to support the existence of conditions conducive to these transformations are lacking at this time.

The distribution of TCE and its degradation products for this plume indicate that the transformation of TCE is occurring as groundwater passes beneath the former IWSL. When concentrations are normalized to TCE the highest concentrations are found in areas upgradient of the former IWSL and therefore whatever the source is for these constituents, it lies upgradient of the former IWSL. Therefore, the apparent increase in VC concentrations from upgradient to downgradient is believed to be due to transformation of TCE and not a net add from the former IWSL.

With regard to the TCE source for this plume, IBM has previously investigated at the B036 Annex with a soil gas survey (*RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996) and was unable to detect any sources in the vicinity of this building. Other possibilities for the source of this plume are the utility lines that pass beneath Enterprise Drive from the area of the North Parking Lot Area plume and the underlying bedrock. If the source of this TCE plume is the utility lines, the installation of the barrier wall during mid-1995 and the discontinuation of the use of these utility lines would cut-off this source and over time, source concentrations would be eliminated or dissipate. To determine whether or not the source is the bedrock, a modification to the Bedrock Investigation Scope of Work must be made to include a shallow bedrock monitoring well to be installed in the vicinity of soil monitoring well MW-816.

3.1.2 Northern Plume

For the northern plume, all three TCE-series constituents (TCE, 12-DCE and VC) are detected, with 12-DCE being the dominant constituent. The general location of this plume area had been previously investigated as part of the RCRA Facility Assessment of the Former Fire Training Area, SWMU AD. The results of this investigation were presented in the report entitled *RCRA Facility Assessments of Newly Identified Solid Waste Management Units,* dated March 14, 1997. A brief review of the findings of the RFA for this unit follows. Two soil borings and six monitoring wells were installed to assess this SWMU. The locations of borings and monitoring wells coincide with former locations of elements associated with this unit (e.g. former burn basin locations, former holding tank). Soil samples were

collected from depths near the surface and at the water table. Split-spoon screening and jar headspace analysis indicated responses and as a result additional soil samples were submitted for laboratory analysis. All soil samples were analyzed for Method 8240 VOCs, ethyl acetate, 8270 SVOCs and PCBs. In total, nineteen soil samples were collected and analyzed for VOCs, ketones, SVOCs and PCBs. Two compounds were detected at concentrations that exceed the 1994 TAGM cleanup guidance values and included benzo(a)anthracene and benzo(a)pyrene. Three rounds of groundwater samples were collected from each of the six wells installed under this assessment program. Five VOCs, two semivolatile organic compounds and one PCB were detected in these groundwater samples. None of these detections exceed the NYSGQS. It should be noted that of the five VOCs detected in groundwater were: 111-TCA; 11-DCA; PCE; TCE; and TCM. With the exception of TCM, the maximum detected value for all of these compounds was less than 1 ug/l.

Based on the findings of the RFA, a more probable source for this northern plume is the sanitary sewer line. This sewer line originates across Enterprise Drive, passes through the North Parking Lot Area (NPLA) plume, is piped under Enterprise Drive through pipe-trenches, runs through B036 and out to the town sanitary sewer line adjacent to the Esopus (Figure 3-2). As part of investigations required by the site's original Part 373 Permit, the underground sewer systems were evaluated, including the sanitary sewers. A report on the findings of these evaluations was entitled *Sewer Systems Evaluations*, dated March 1, 1994. As an outcome of these evaluations, IBM sampled the sanitary sewer lines and reported on the results of these sampling events in a report entitled *RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996. Additional samples were collected from these lines during 1996 and were presented in the *1996 Annual Groundwater Monitoring report.* These sampling results indicate that the water conveyed in the sanitary sewer line contained VOCs (111-TCA, 11-DCA, 11-DCE, TCE, 12-DCE, TCM). Some of these same VOCs have been detected in groundwater in the wells (MW-810, MW-103S, MW-106S) which are located adjacent to this sewer as it leaves B036 and runs westward.

In order to further evaluate this potential source, additional sanitary sewer sampling will be conducted from upstream of B036 to downstream of this plume area. If this sampling shows no VOC

contamination exists, then the plume is most likely related to historical releases from this sewer and associated desorption of VOCs from the soil.

3.2 Upgradient and Downgradient Determinations

A review of the groundwater elevation contour map (Figure 2-9) shows upgradient and downgradient relationships. As can be seen by this figure, groundwater monitoring well MW-802, previously determined to be a downgradient compliance monitoring well is upgradient from the former IWSL. The status of MW-612S as an upgradient well has not changed nor has the status of compliance wells MW-206S, MW-208S and MW-210S as downgradient wells. This figure also indicates the newly installed RFI wells MW-816 and MW-817 are upgradient of the former IWSL.

3.3 Statistical Comparisons

As indicated in the recently submitted 1998 Annual Groundwater Monitoring Report, annual statistical evaluations would be presented in this report following upgradient and downgradient determinations. Based on the groundwater elevation relationships and chemical relationships, the basis for statistical comparisons as presented in the site's Post-closure Permit application and the Quality Assurance Project Plan have been revised as follows. Background wells have been defined as MW-612S, MW-802, MW-816 and MW-817. Chemistry found at MW-106S is side-gradient from and unrelated to the former IWSL and therefore was removed from these statistical comparisons. MW-205S likewise appears to be unrelated to the former IWSL and therefore it too was removed from these statistical comparisons, except as it's chemistry is relevant to the occurrence of arsenic in groundwater at locations that are not impacted by the IWSL.

Overall, therefore, the list of compliance wells (baseline) have been redefined to be MW-206S, MW-208S and MW-210S. The upgradient (background) well list has been redefined to include: MW-612S, MW-802, MW-816 and MW-817. The revised listing is presented in Table 3-1.

Table 3-1. Revised Compliance (Baseline) and Upgradient (Background) Listing	
Compliance Wells (Baseline)	*Upgradient Wells (Background)*
MW-206S	MW-612S
MW-208S	MW-802
MW-210S	MW-816
	MW-817

3.3.1 Evaluation of Compliance Monitoring Data

Concentrations of constituents detected in the compliance monitoring network, as redefined in Section 3.3 of this report, during the previous annual period were evaluated following the methods presented in the Quality Assurance Project Plan (QAPjP) for the Former Industrial Waste Sludge Lagoon (IWSL). These evaluations included determination of baseline and background concentrations and statistical evaluations to determine evidence of impact from the former IWSL.

3.3.1.1 Determination of Baseline and Background Concentrations

Background values were determined for each hazardous constituent detected during the previous annual period at the wells sampled as part of the routine Compliance Monitoring Program and the groundwater RFI (MW-612S and MW-802, MW-816 and MW-817). The determination of baseline and background concentrations followed the procedures set forth in the QAPjP for the Former IWSL.

Background water quality for each hazardous constituent was determined following eight independent sampling events from the wells which are included in the permit as background wells (MW-612S and MW-802) and from the three characterization sampling events for the two wells installed as part of this groundwater RFI (MW-816 and MW-817), by calculating the clipped mean of all sampling results from these wells as a group. The calculated background values are presented in Table 3-2 as the clipped mean. Parameters selected for inclusion in these comparisons include all parameters detected in the samples collected as part of the groundwater RFI or the routine monitoring conducted as part of the GMP.

Baseline water quality for each hazardous constituent was determined at each compliance monitoring well defined in the site's permit (MW-206S, MW-208S and MW-210S) as revised, by calculating the clipped mean of sampling results for the eight independent sampling events. The calculated baseline values are presented in Table 3-2 as the clipped mean.

As directed in the QAPjP, on an annual basis, a comparison was made between the established baseline and background concentrations for each hazardous constituent. Table 3-2 presents the results of these comparisons. Where a baseline concentration exceeds the background concentration for that same constituent, the baseline value is presented in bold and italicized text in the table. If the baseline value equals, or is less than the background concentration, the baseline value is presented in regular text.

Based on these comparisons, in summary, the following constituents exceed background concentrations: 1,2-Dichlorobenzene (12-DCBZ); 1,1-Dichloroethane (11-DCA); Chlorobenzene (CBZ); 1,2-Dichloroethene (12-DCE); Vinyl Chloride; Arsenic (AS dissolved); Cadmium (CD dissolved); Lead (PB dissolved) and; Silver (AG dissolved).

TCE-series was included in this comparison to address the theory that although the concentration of VC in downgradient well MW-210S exceeds the background value, as discussed previously, transformations are occurring in the vicinity of the IWSL which cause the high upgradient TCE concentrations to be transformed to VC detected in the downgradient wells. Comparison of TCE-series concentrations for upgradient (background) and downgradient (baseline) wells shows that there is no net add of TCE-series compounds from the former IWSL.

Table 3-2 Summary of Background and Baseline Concentration Comparisons

Monitoring Location	Measurement of Central Tendency	Constituent									
		Phenols (total) mg/l	12-DCBZ ug/l	14-DCBZ ug/l	111-TCA ug/l	11-DCA ug/l	11-DCE ug/l	12-DCA ug/l	CBZ ug/l	CEA ug/l	TCM ug/l
Background wells as a group	*clipped mean*	0.00	0.00	0.00	8.58	3.79	0.55	0.53	0.00	0.00	0.40
Compliance Wells:											
MW-206-S	*clipped mean*	0.00	***0.60***	0.00	0.00	2.15	0.00	0.00	0.00	0.00	0.00
MW-208-S	*clipped mean*	0.00	***0.18***	0.00	0.00	0.18	0.00	0.00	***6.37***	0.00	0.00
MW-210-S	*clipped mean*	0.00	0.00	0.00	0.00	***5.64***	0.00	0.00	0.00	0.00	0.00

Monitoring Location	Measurement of Central Tendency	Constituent									
		DCM ug/l	PCE ug/l	TCE ug/l	12-DCE (tot) ug/l	VC ug/l	TCE Series ug/l	AS (dissolved) mg/l	CD (dissolved) mg/l	PB (dissolved) mg/l	AG (dissolved) mg/l
Background wells as a group	*clipped mean*	0.00	0.41	49.79	3.19	0.25	54.66	0.0018	0.0002	0.0004	0.0003
Compliance Wells:											
MW-206-S	*clipped mean*	0.00	0.00	0.00	0.00	0.00	0.00	***0.0075***	0.0000	0.0003	0.0000
MW-208-S	*clipped mean*	0.00	0.00	0.00	0.00	0.00	0.00	***0.0151***	0.0001	***0.0005***	0.0000
MW-210-S	*clipped mean*	0.00	0.00	0.00	***7.38***	***17.58***	46.96	***0.0766***	***0.0004***	***0.0009***	***0.0004***

3.3.2 Comparison to Groundwater Protection Standards

As noted in the recently submitted *1998 Annual Groundwater Monitoring report*, the annual comparison to groundwater protection standards would be reported in this RFI report. In compliance with the site's Part 373 Permit Module IV, Condition D. and 6NYCRR 373-2.6(j)(9)(i), a comparison of analytical results for compliance wells to the Groundwater Protection Standard (GPS) as specified in the site's Part 373 Permit was conducted. This annual comparison was made in accordance with the method presented in the site's QAPjP, with the included well lists revised based on the results of this RFI.

This evaluation indicates that the measure of central tendency (clipped mean) for the following hazardous constituents exceeds the groundwater protection standard in compliance wells: AS, 1,1-DCA; 1,2-DCE (total) and VC. Based on these comparisons, a notification letter has been prepared and is submitted to the NYSDEC concurrently with this report in accordance with the site's Part 373 Permit Module IV, Condition D and 6NYCRR 373-2.6(j)(9)(i).

In addition the measure of central tendency for CBZ, a constituent not listed in the site-specific GPS (Table V-2 of the site's Part 373 Permit), exceeded the NYSGQS. IBM notified the NYSDEC of the confirmed detection of CBZ in the Waste Management Area on March 30, 1998.

3.3.2.1 Statistical Evaluation of Differences in Baseline and Background Concentrations

Concentrations of constituents detected in the compliance monitoring network during the previous annual period were evaluated following the statistical methods presented in the QAPjP for the former IWSL. The groundwater monitoring data for each detected compound was evaluated using an analysis of variance based on rank, also known as the Wilcoxon Rank Sum Test. Analysis of variance based on ranks requires two data sets to identify statistically significant evidence of differences between each compliance well's median and the background median levels for each constituent. One data set consisted of background levels (as defined in Section 3.3) for each constituent and the other data set consisted of the compliance well values (as defined in Section 3.3) for each constituent. The statistical test will determine whether measurements from the background concentration population as redefined by this IWSL RFI (MW-612S, MW-802, MW-816 and MW-817 as a group) tend to be consistently larger or

smaller than those from each individual compliance well concentration population as redefined by this RFI (MW-206S, MW-208S and MW-210S, individually).

The use of non-parametric methods for statistical analysis for this groundwater chemistry data is supported by a test of underlying distribution of the data. The determination that the data are not normally distributed was accomplished by calculating a coefficient of variation for each constituent. For all constituents subjected to the Wilcoxon Rank Sum Test for these evaluations, the use of a non-parametric test is supported.

Table 3-3 summarizes the results of these evaluations. Included in Table 3-3 are four columns for each constituent at each compliance monitoring location. These values include the Wilcoxon rank statistic, the significance level for the Wilcoxon statistic and the Seasonal Hodges-Lehman Median Estimate. As indicated in the table, the Seasonal Hodges-Lehman median estimate is an estimate of the differences in medians between the two populations compared, in this case the background population and the values for each of the individual compliance wells, as individual populations. Also included in this table is a column which indicates which constituents exceed the background concentrations at each of the compliance wells.

Based on these statistical comparisons, in summary, the following constituents exceed background concentrations: 12-DCE (reported as total); 12-DCBZ; CBZ; VC and; AS (dissolved).

Table 3-3 Evaluation of Compliance Monitoring Data
Summary of Statistical Results

Well ID:	MW-206S				MW-208S			
Parameter	Wilcoxon Rank *	Sig* *	Seasonal Hodges ***	Baseline greater than background	Wilcoxon Rank	Sig	Seasonal Hodges	Baseline greater than background
1,1-Dichloroethane	1.325	80%	-0.600	No	2.366	95%	-2.850	No
1,1-Dichloroethene	2.375	95%	-0.575	No	2.375	95%	-0.575	No
1,1,1-Trichloroethane	2.366	95%	-8.425	No	2.366	95%	-8.425	No
1,2-Dichloroethane	1.473	80%	0	No	1.841	90%	-0.325	No
1,2-Dichlorobenzene	-2.207	95%	0.60	Yes	-1.841	90%	0.075	Yes
1,2-Dichloroethene (tot)	2.366	95%	-2.100	No	2.366	95%	-2.100	No
1,4-Dichlorobenzene	NA	NA	NA	---	-1.342	80%	0	No
Chlorobenzene	0.447	Not Sig	0	---	-2.366	95%	6.450	Yes
Chloroethane	NA	NA	NA	---	NA	NA	NA	---
Methylene Chloride	0.447	Not Sig	0	---	NA	NA	NA	---
Tetrachloroethene	2.207	95%	-0.400	No	2.207	95%	-0.400	No
Trichloroethene	2.366	95%	-25.5	No	2.366	95%	-25.5	No
Chloroform	2.032	95%	-0.300	No	2.032	95%	-0.300	No
Vinyl Chloride	1.826	90%	-0.250	No	1.826	90%	-0.250	No
Lead, dissolved	-0.405	Not Sig	0	---	0.135	Not Sig	0	---
Silver, dissolved	1.069	Not Sig	0	---	1.604	80%	0	No
Arsenic, dissolved	-2.366	95%	0.005	Yes	-2.366	95%	0.012	Yes
Cadmium, dissolved	1.461	80%	0	No	-1.572	80%	0	No
NA	Not analyzed. Data set for background and compliance well were all ND.							
Wilcoxon Rank	Wilcoxon Rank Sum Test Statistic							
Sig	Significance level							
Seasonal Hodges	Seasonal Hodges-Lehman Median Estimate (Estimate of Differences in Medians)							

Table 3-3 Evaluation of Compliance Monitoring Data (continued) Summary of Statistical Results				
Well ID:	MW-210S			
Parameter	Wilcoxon Rank	Sig	Seasonal Hodges	Baseline greater than background
1,1-Dichloroethane	-0.845	Not Sig	3.400	Yes
1,1-Dichloroethene	2.375	95%	-0.575	No
1,1,1-Trichloroethane	2.366	95%	-8.425	No
1,2-Dichloroethane	1.841	90%	-0.325	No
1,2-Dichlorobenzene	NA	NA	NA	—
1,2-Dichloroethene (total)	-2.366	95%	3.900	Yes
1,4-Dichlorobenzene	NA	NA	NA	—
Chlorobenzene	NA	NA	NA	—
Chloroethane	-1.342	80%	0	No
Methylene Chloride	NA	NA	NA	—
Tetrachloroethene	2.207	95%	-0.400	No
Trichloroethene	2.366	95%	-25.5	No
Chloroform	2.032	95%	-0.300	No
Vinyl Chloride	-2.366	95%	19.00	Yes
Lead, dissolved	-0.730	Not Sig	0	—
Silver, dissolved	-1.069	Not Sig	0	—
Arsenic, dissolved	-2.366	95%	0.071	Yes
Cadmium, dissolved	1.214	Not Sig	0	No
NA	Not analyzed. Data set for background and compliance well were all ND			
Wilcoxon	Wilcoxon Rank Sum Test Statistic			
Sig	Significance level			
Seasonal Hodges	Seasonal Hodges-Lehman Median Estimate (Estimate of Differences in Medians)			

3.4 Groundwater Flux to Surface Water

This subsection combines the results of the groundwater chemistry characterization with the groundwater flow characterization to assess the chemical flux from groundwater to surface water, including the wetlands to the west of the former IWSL. As such, this section satisfies the requirements of the IWSL RFI work plan. This assessment is presented in two subsections which follow. The first

of these deals with flux to the wetlands from groundwater sources. The second subsection assesses the impact of these combined groundwater chemical fluxes to the wetlands.

3.4.1 Surface Water Flux to the Wetlands

As can be seen on Figure 3-1, there is no TCE flux to the onsite stream at location SW-A. However, as discussed previously, there is a TCE flux to this stream at SW-E which is influenced by the upgradient TCE source. Also shown on this figure the surface water sampling location downgradient of SW-E, SW-B, does not detect TCE-series compounds. Location SW-B was originally selected to be sampled as part of this RFI as the discharge point of this onsite stream to the wetlands.

3.4.2 Direct Groundwater Flux to the Wetlands

As discussed previously and as shown on Figure 3-1, there are two plumes which discharge to the wetlands. These are the TCE plume associated with the upgradient source in the southern portion of the former IWSL and the second TCE plume associated with the sanitary sewer lines, north of the former IWSL.

The IWSL RFI work plan calls for the calculation of groundwater chemical flux to the wetlands. In making these flux calculations, flux within the saturated soil units has been assessed on the basis of hydraulic conductivity data derived from pulse tests conducted as part of this RFI, as well as measurements of groundwater gradients. The initial step in this process has been to divide up the wetlands edge into four segments, as shown on Figure 3-3.

The northernmost of these segments corresponds to the groundwater-surface water boundary across which the flow from the vicinity of the sanitary sewer north of the former IWSL occurs. As shown in Table 3-4, this segment length is 54 feet. The second and third of these segments are 61 and 75 feet long, respectively. Flux from the northern portion of the former IWSL area occurs across these segments. The final segment is a 86 feet long. Flux from the plume associated with an upgradient TCE source area occurs across this segment.

The second step in the groundwater calculation was to determine the transmissivity that corresponds to an individual foot of each of these wetland shoreline segments. Hydraulic conductivities measured for the RFI wells along this segment varies from 0.6 feet per day at MW-210S to 33.1 feet per day at MW-811S. Transmissivities were calculated for each segment by multiplying the hydraulic conductivity by the aquifer thickness. A summary of these calculations is presented in Table 3-4. To achieve the most conservative estimate, maximum aquifer thickness values were used in the transmissivity calculations. These correspond to 25 feet for segment 1, 11 feet for segment 2, 7 feet for segment 3 and 9 feet for segment 4.

The final parameter for these groundwater flow calculations is the hydraulic gradient. Within each segment, the gradient was calculated based on the groundwater elevation difference between monitoring wells. For the first segment, the gradient between MW-205S and MW-103S is 0.095. For the second segment, the gradient was calculated between wells MW-106S and MW-810; MW-207S and MW-811S and also between MW-206S and MW-811S. These calculated values were 0.013, 0.014 and 0.011, respectively.

For the third segment, the gradient was calculated between wells MW-211S and MW-812 and also wells MW-208S and MW-812. These gradients were calculated as 0.0475 and 0.0438, respectively. The gradient was calculated at 0.0586 for the fourth segment, between wells MW-804 and MW-210S.

The calculated flow across each of these shoreline segments used transmissivity and width of the wetland shoreline segment. Each set of assumptions for the flow calculations is also given in Table 3-4. These flow values have then been used to calculate the estimated range in groundwater chemical flux across each of these segments for each of the hazardous constituents associated with the two plume areas (segments 1 and 4) and downgradient of the former IWSL (segments 2 and 3).

Table 3-4 Parameters used in Groundwater Flow Calculations				
Shoreline Segment	**Parameters**			**Calculated Flow Value (gpd)**
	Gradient	Length of Shoreline (ft)	Transmissivity (gpd/ft)	
Segment 1	0.095	54	860	4379
Segment 2	0.013	61	2723	2148
	0.014			2313
	0.011			1817
Segment 3	0.0475	75	565	977
	0.0438			1051
Segment 4	0.0586	86	40.4	826

Table 3-5 lists each of the segments and the monitoring locations used to calculate average concentrations of each of the hazardous constituents associated with flux in that segment. These wells are shown on Figure 3-3. In calculating the average concentrations of each constituent, the arithmetic average of the concentrations was used. The results of the detailed flux calculations are presented in Appendix G. The summary of these flux calculations is presented in Table 3-6, which totals the groundwater chemical flux for each individual compound from the combined segment along the wetland shoreline and the contribution from the onsite stream. As shown on this table, the total groundwater chemical flux to the wetlands is 0.00032 pounds per day.

Table 3-5 Monitoring Locations Used for Flux Calculations	
Area of Investigation	**Wells / Sampling Location**
Segment 1	MW-810
Segment 2	MW-811S
Segment 3	MW-812
Segment 4	MW-210S

Table 3-6 Summary of Chemical Flux to Wetlands	
Parameter	**Overall Flux (lbs / day)**
Phenols (total)	0.0000086
12-Dichlorobenzene	0.0000093
14-Dichlorobenzene	0.0000004
Arsenic, dissolved	0.0000029
Arsenic, total	0.0000001
Cadmium, dissolved	0.0000000
Cadmium, total	0.0000000
Lead, dissolved	0.0000000
Lead, total	0.0000000
Silver, dissolved	0.0000000
Silver, total	0.0000000
111-Trichloroethane	0.0000000
11-Dichloroethane	0.0000466
11-Dichloroethene	0.0000000
12-Dichloroethane	0.0000000
12-Dichloroethene, total	0.0000027
Chlorobenzene	0.0000446
Chloroethane	0.0000223
Chloroform	0.0000000
Methylene Chloride	0.0000000
Tetrachloroethene	0.0000000
Trichloroethene	0.0000511
Vinyl Chloride	0.0001334
All Parameters	***0.00032198***

As can be seen by the flux calculations, these fluxes are insignificant. As discussed previously, these estimates are conservative. Although several compounds (TCA, 11-DCA, TCE, TCM, XYL, As (dissolved) and Lead (dissolved)) were detected in surface water sampling locations, none of these compounds exceed the NYS Part 703 surface water standards. In fact, these detections are at much lower levels than these standard values and therefore demonstrate that there are no surface water impacts. Even while higher concentrations have been detected at SW-E (the weep in the stream bank influenced by the upgradient TCE source), these concentrations are not evident at downstream location SW-B (discharge point of the onsite stream to the wetlands).

4 RECOMMENDATIONS

The following sections discuss recommendations for modification to previously submitted work plans, proposed additional sampling and proposed modifications to the GMP.

4.1 Revision to Deep Bedrock Investigation

As discussed in section 3.1.1 of this report, the distribution of TCE and its degradation products for the southern plume in the former IWSL area, indicate that the transformation of TCE is occurring as groundwater passes beneath the former IWSL. As shown on Figure 3-1, when concentrations are normalized to TCE the highest concentrations are found in areas upgradient of the former IWSL and, therefore ,whatever the source is for these constituents, it lies upgradient of the former IWSL. Therefore, the apparent increase in VC concentrations from upgradient to downgradient is due to transformation of TCE and rather than leaching of VC from the former IWSL or associated soils.

As discussed earlier in this report, with regard to the TCE source for this plume, IBM has previously investigated the B036 Annex with a soil gas survey (*RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996) and was unable to detect any sources in the vicinity of this building. Other possibilities for this plume are the utility lines that pass beneath Enterprise Drive from the North Parking Lot Area plume and the underlying bedrock. If the source of this TCE plume is the utility lines, the installation of the barrier wall during mid-1995 and the discontinuation of the use of these utility lines would cut-off this source and over time, plume concentrations would be eliminated or dissipate.

To identify any contribution from the bedrock to this plume, a modification to the Bedrock Investigation Scope of Work is proposed to include a shallow bedrock monitoring well in the vicinity of soil monitoring well MW-816. This well would be installed using air-rotary drilling methods and would be sampled for VOCs and arsenic (dissolved and total).

4.2 Additional Geochemical Monitoring

To further address the distribution of arsenic in the former IWSL area, IBM proposes to sample soil and bedrock groundwater monitoring wells across the site for arsenic (dissolved and total). In total, 20 wells will be sampled, including those wells in which arsenic has been detected previously on the main site: (MW-122S, MW-124S, MW-125S, MW-204S and MW-102R) and in the former IWSL area (MW-205S, MW-820, MW-106S, MW-810, MW-811S, MW-206S, MW-210S, MW-815, MW-813, MW-208S, MW-802, MW-612S).

IBM also proposes to sample groundwater monitoring wells in the IWSL area where arsenic is consistently detected at concentrations that exceed the GPC (MW-206S, MW-208S and MW-210S) for the following geochemical monitoring parameters: iron (dissolved, total and ferrous); manganese (dissolved and total); dissolved oxygen; ammonia; chloride; nitrate; nitrite; sulfate; sulfide and total organic carbon. These geochemical monitoring parameters can be used to indicate geochemical conditions favoring transformations (e.g. TCE to 12-DCE to VC) as well as conditions which could cause the mobilization of arsenic from naturally-occurring minerals in the soil.

In addition to groundwater sampling, soil sampling is proposed to be conducted in the vicinity of the IWSL and in specific areas across the main plant site to be analyzed for arsenic. These soil sampling activities will focus on those areas where filling has occurred, as has been done in the former IWSL area.

A work plan will be prepared to detail this additional monitoring following review by NYSDEC of the RFI findings and recommendations.

4.3 Proposed Additional Sanitary Sewer Monitoring

As discussed in Section 3.1 of this report, a review of Figure 3-1, TCE-series concentration contour map, shows two discrete plumes, both originating upgradient from the IWSL: one crossing the southern portion of the former IWSL; and the second associated with the sanitary sewer north of the former IWSL. In order to further evaluate the sanitary sewer as a potential source for this northern plume, additional sanitary sewer sampling will be conducted from upstream of B036 to downstream of this

plume area. If this sampling shows no VOC contamination exists, then the plume is most likely related to historical releases from this sewer and associated desorption of VOCs from the soil.

4.4 Revision to Groundwater Monitoring Plan

Based on the results of this RFI, the following changes are proposed for the Compliance Monitoring Program specified in the current approved Groundwater Monitoring Plan. These changes include removing and abandoning previous GMP well MW-803 from the program. Static water levels determined in this well are inconsistent with immediately adjacent well MW-612S and associated groundwater elevation interpretations. Furthermore, water level information obtained from this well appears to be affected by the bedding materials of the former IWSL cutoff trench and are therefore unreliable for water table contouring.

Review of the water table contour map prepared from data obtained during this RFI indicate that upgradient and downgradient relationships have changed since preparation of the Post-closure Permit application with proposed Compliance Monitoring Program that was subsequently adopted in the site's Part 373 Permit and also the current approved GMP. On the basis of the more current upgradient and downgradient interpretations, GMP compliance well MW-802 should be considered an upgradient (background) location. In addition, MW-816 and MW-817 should be included as additional upgradient (background locations).

Upon review of TCE-series concentration postings, two plumes were determined to exist in the former IWSL area. One appears to be associated with the sanitary sewer lines and not associated with the former IWSL. Two wells associated with this area (MW-106S and MW-205S) were previously included in the Compliance Monitoring Program as background wells. These two wells should be deleted from the GMP as background wells.

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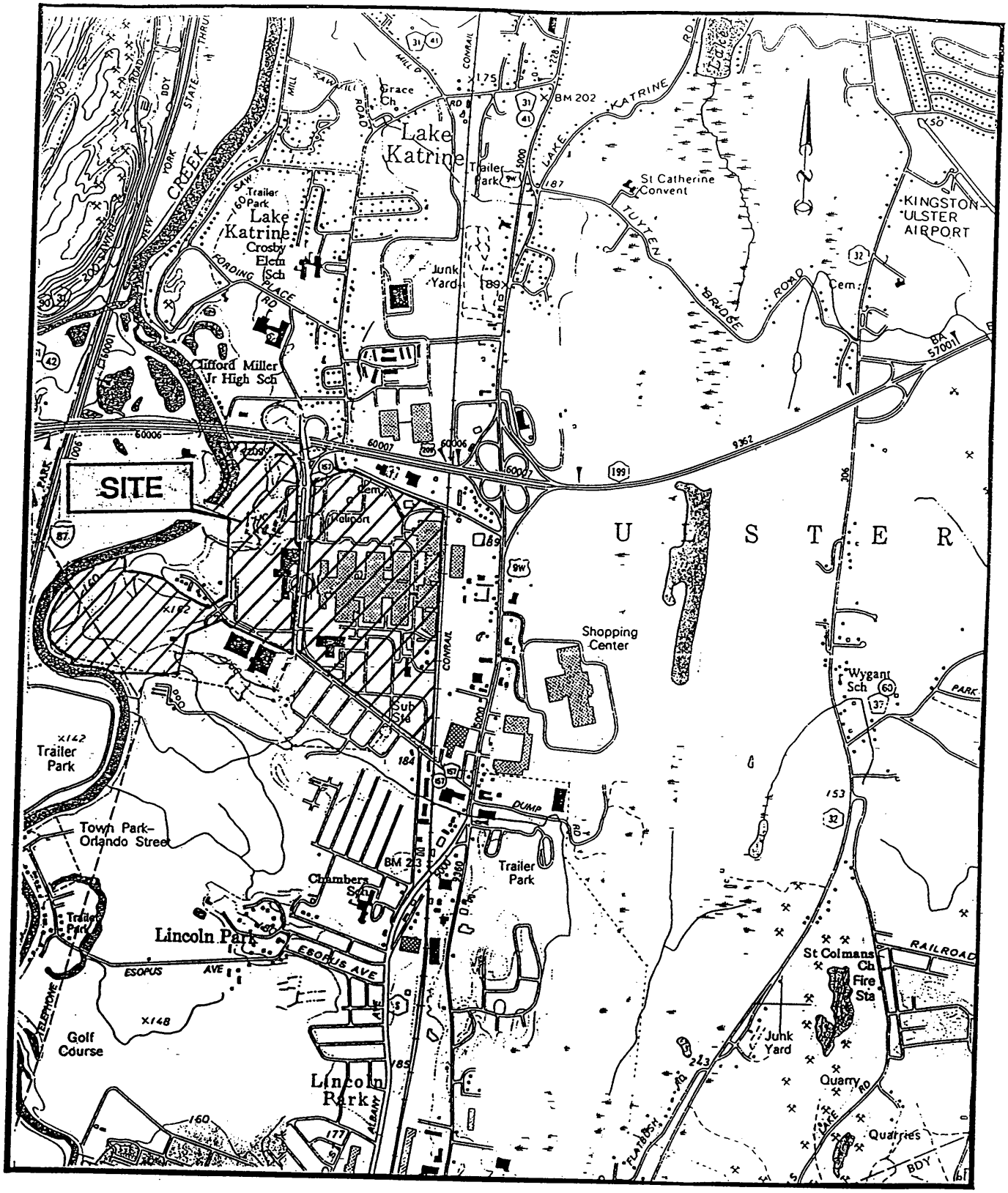


0 1000 2000

Scale 1 inch = 2,000 feet

Figure 1-1

Site Location Map
Portions of the Kingston West
and Kingston East 7.5 Minute Quadrangles

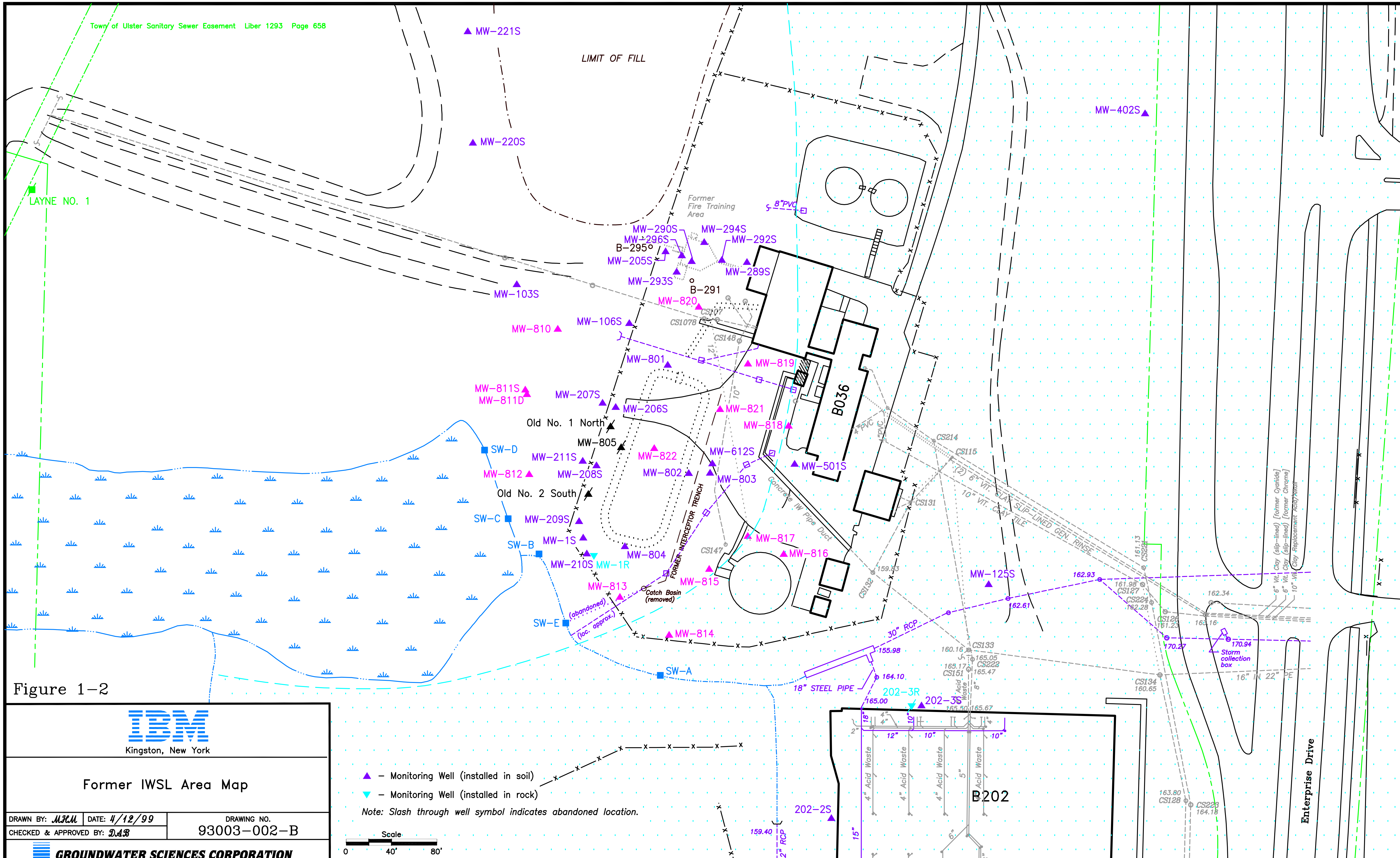

Town of Ulster Sanitary Sewer Easement Liber 1293 Page 658
LIMIT OF FILL
LAYNE NO. 1
MW-221S
MW-220S
MW-103S
MW-402S
Former Fire Training Area
MW-290S
MW-296S
B-295
MW-205S
MW-294S
MW-292S
MW-289S
MW-293S
B-291
MW-820
MW-810
MW-106S
MW-801
MW-819
MW-811S
MW-811D
MW-207S
MW-206S
MW-821
MW-818
Old No. 1 North
MW-805
MW-822
MW-612S
MW-211S
MW-812
MW-208S
MW-802
MW-803
MW-501S
Old No. 2 South
MW-209S
MW-1S
MW-210S
MW-1R
MW-804
MW-817
MW-816
MW-813
MW-815
MW-814
MW-125S
B036
B202
SW-D
SW-C
SW-B
SW-E
SW-A
FORMER INTERCEPTOR TRENCH
Catch Basin (removed)
(abandoned)
(loc. approx.)
Concrete IW Pipe Duct
30" RCP
18" STEEL PIPE
42" RCP
202-3R
202-3S
202-2S
Storm collection box
Enterprise Drive
IBM
Kingston, New York
Former IWSL Area Map
DRAWN BY: MHM
DATE: 4/12/99
DRAWING NO.
93003-002-B
CHECKED & APPROVED BY: DAB
GROUNDWATER SCIENCES CORPORATION
▲ – Monitoring Well (installed in soil)
▼ – Monitoring Well (installed in rock)
Note: Slash through well symbol indicates abandoned location.
Scale
0
40'
80'

Figure 1-2

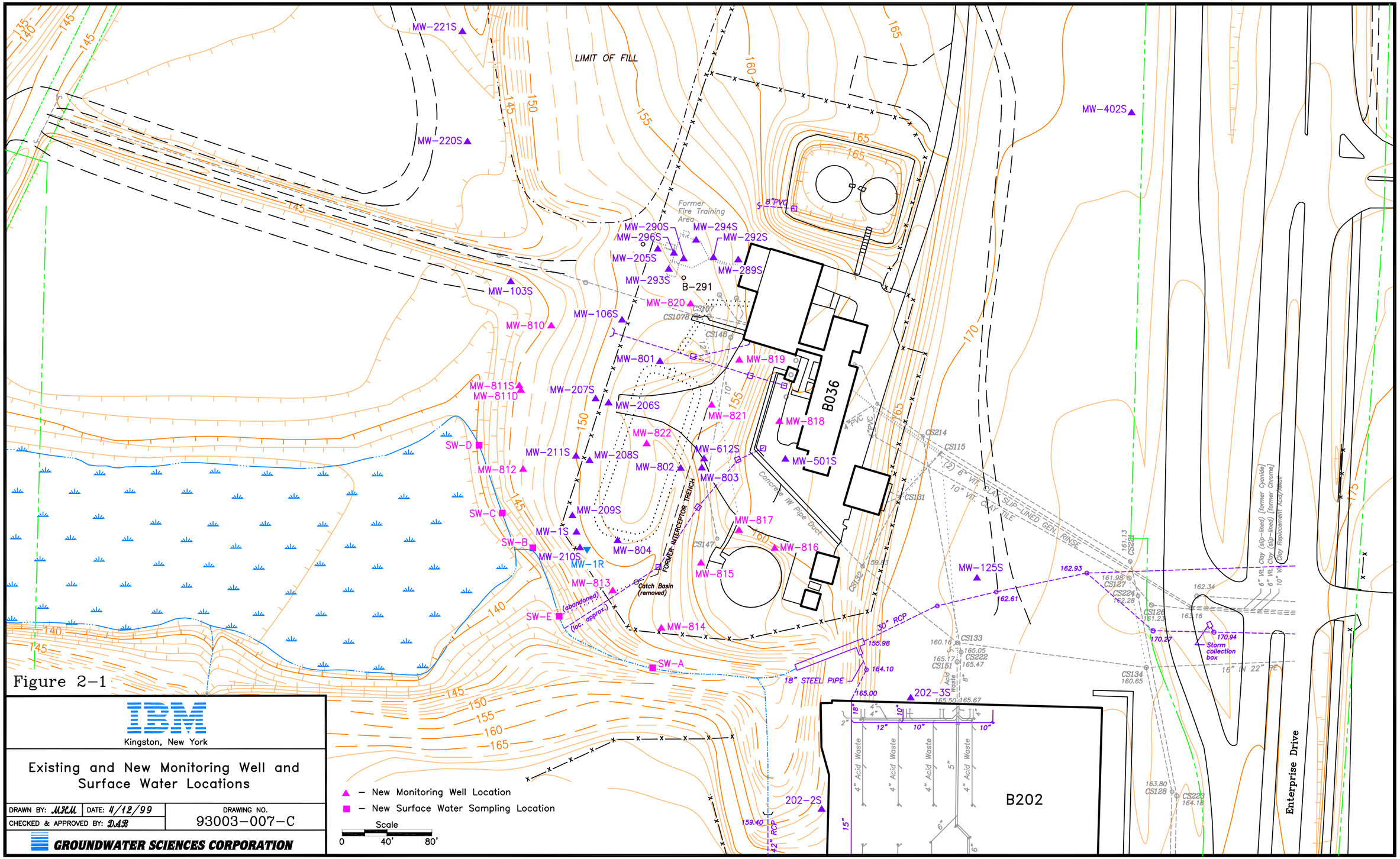


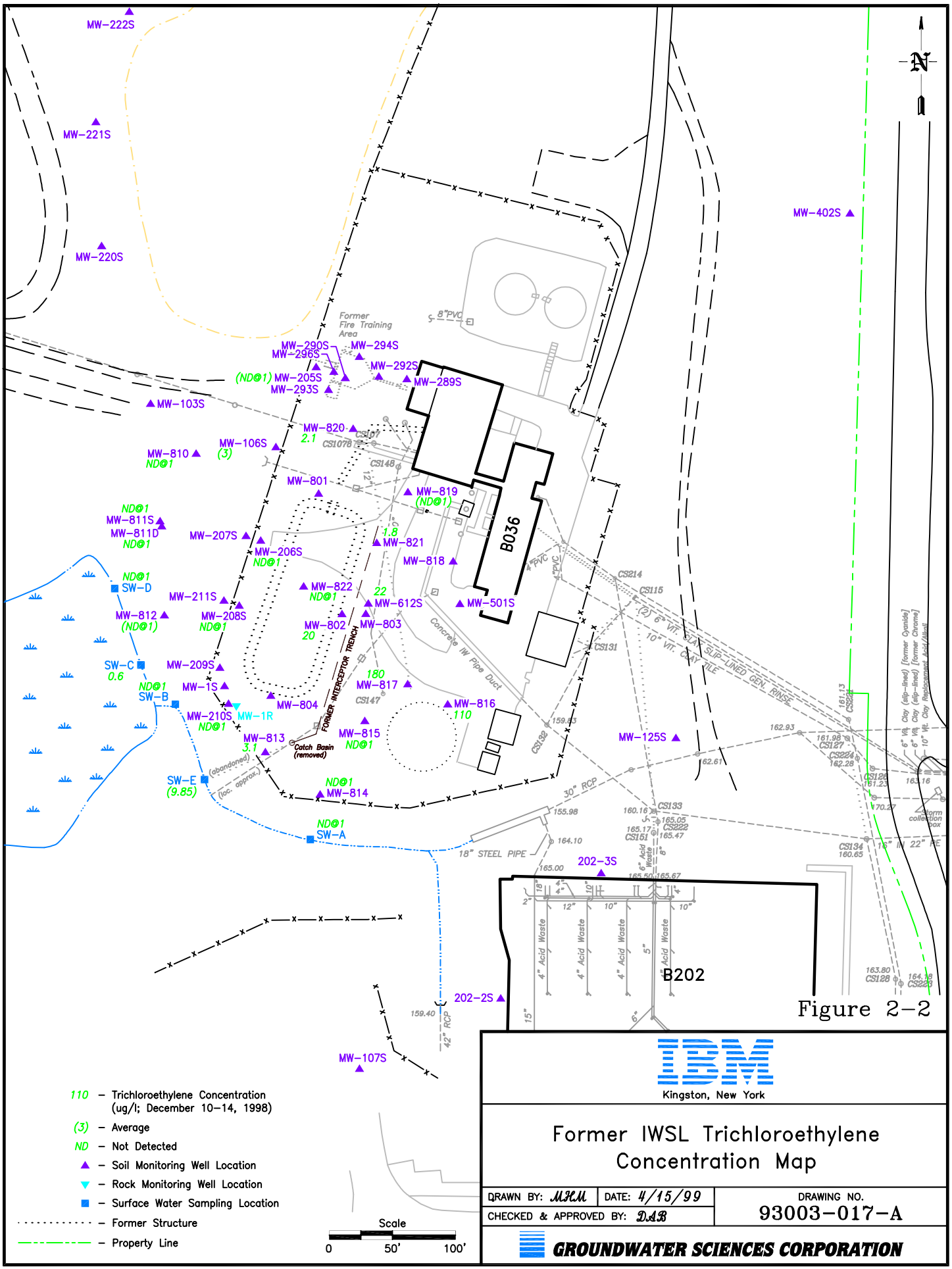
Figure 2-1

IBM
Kingston, New York

Existing and New Monitoring Well and Surface Water Locations

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO.
CHECKED & APPROVED BY: DAB		93003-007-C

GROUNDWATER SCIENCES CORPORATION



110 – Trichloroethylene Concentration (ug/l; December 10–14, 1998)
(3) – Average
ND – Not Detected
▲ – Soil Monitoring Well Location
▼ – Rock Monitoring Well Location
■ – Surface Water Sampling Location
– Former Structure
– Property Line

Scale
0 50' 100'

Figure 2-2

IBM
Kingston, New York

Former IWSL Trichloroethylene Concentration Map

DRAWN BY: MJM	DATE: 4/15/99	DRAWING NO. 93003-017-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

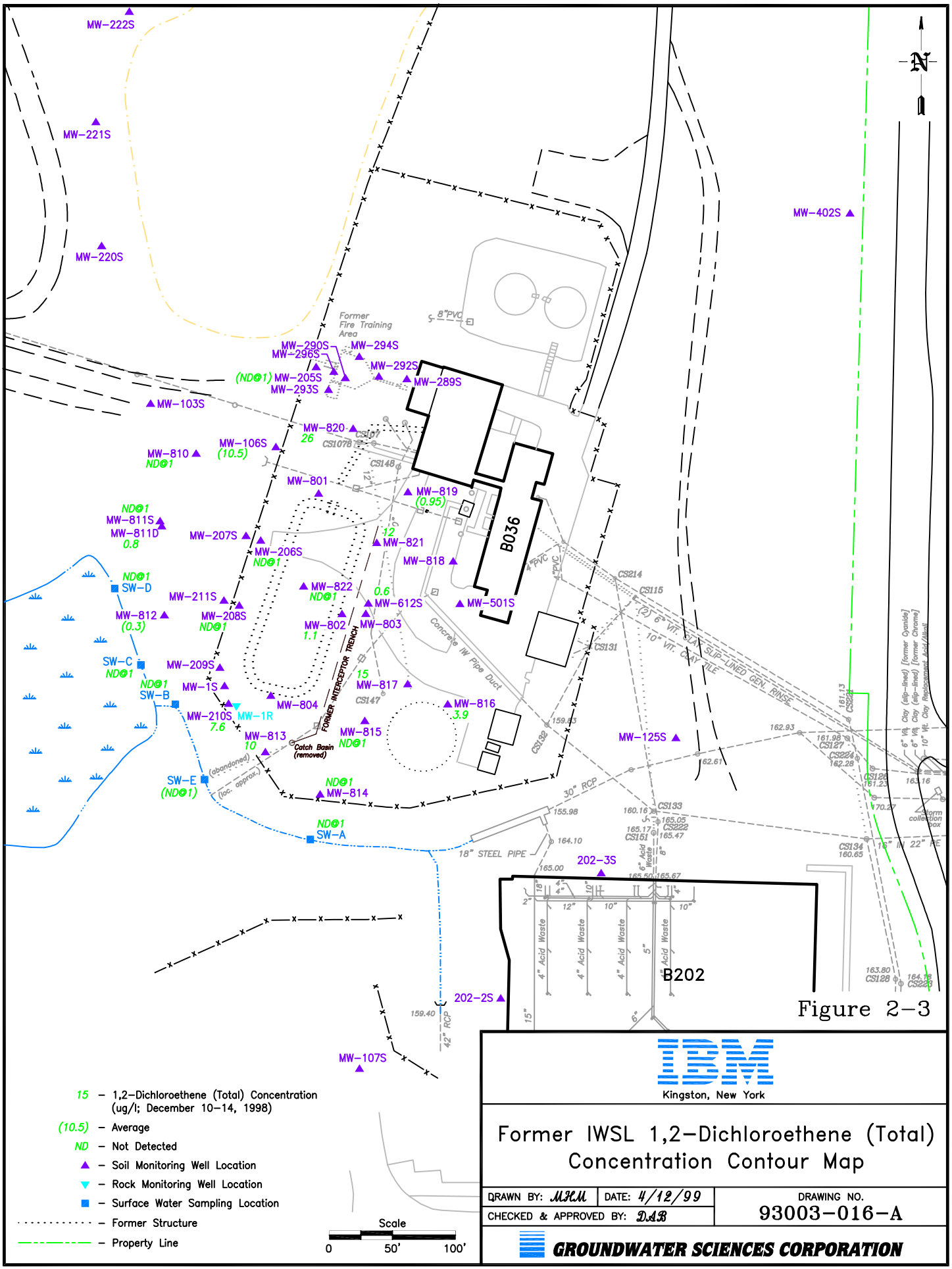


Figure 2-3

IBM
Kingston, New York

Former IWSL 1,2-Dichloroethene (Total) Concentration Contour Map

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO. 93003-016-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

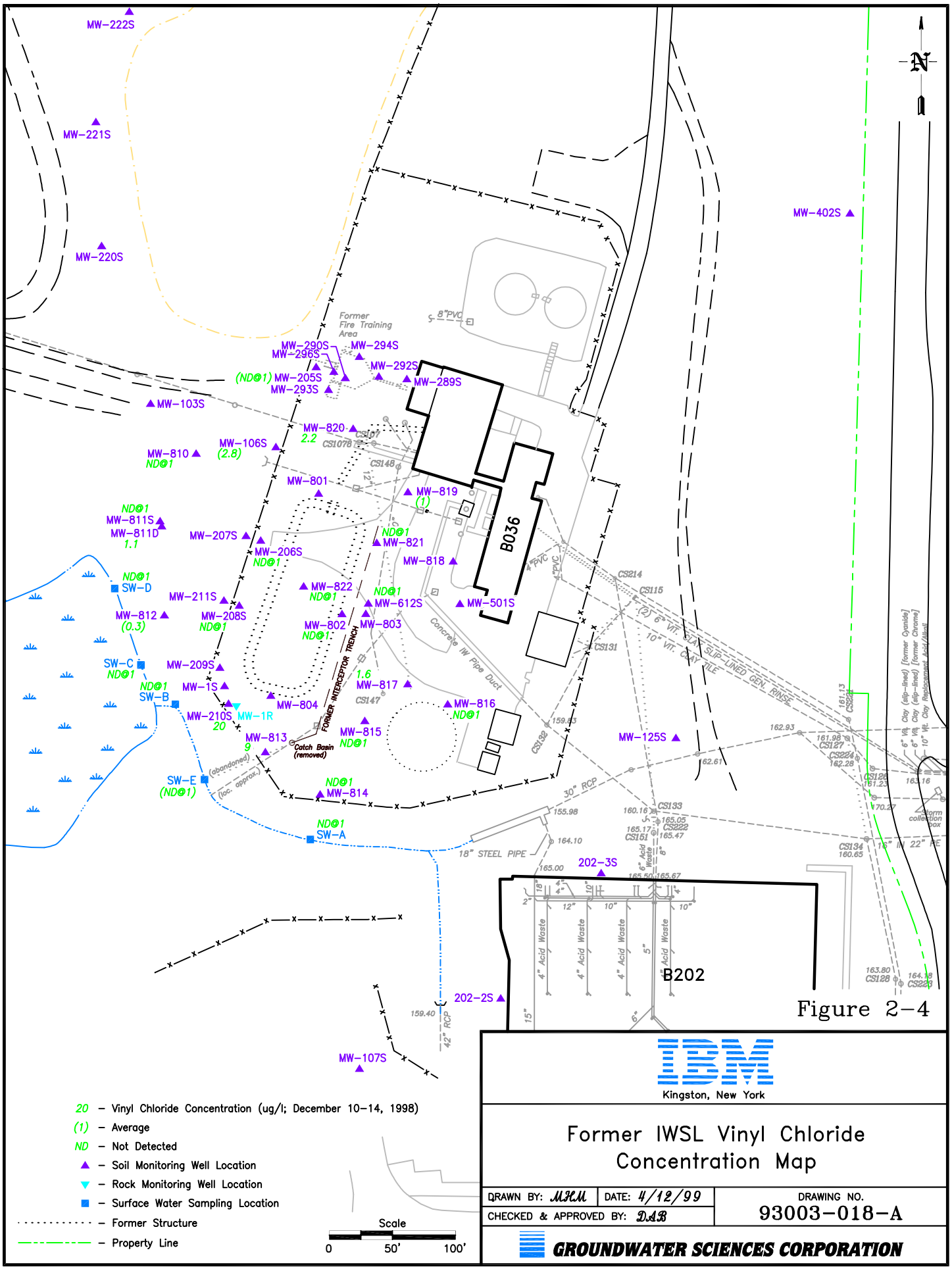


Figure 2-4

IBM
Kingston, New York

Former IWSL Vinyl Chloride Concentration Map

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO. 93003-018-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

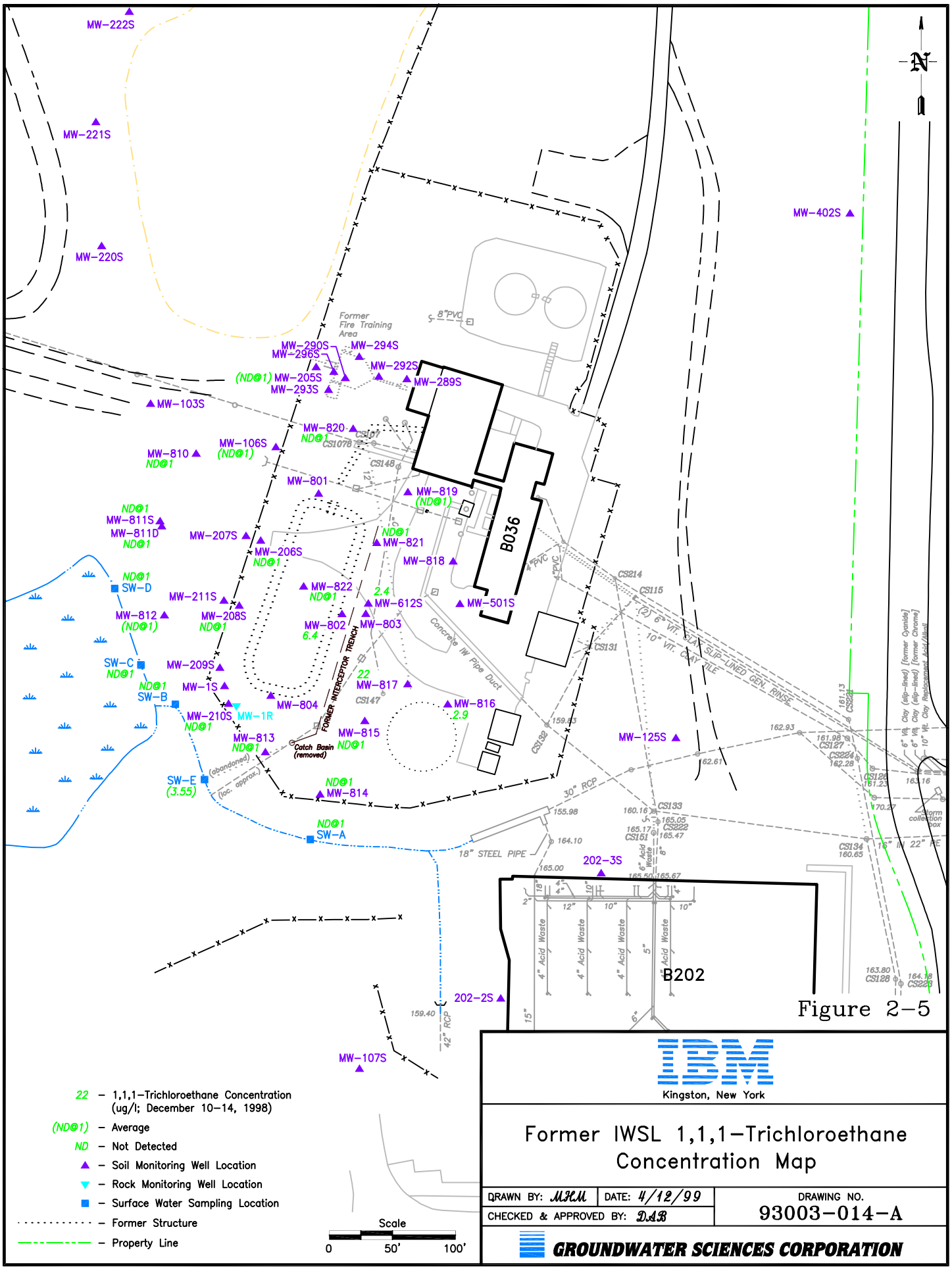


Figure 2-5

IBM
Kingston, New York

Former IWSL 1,1,1-Trichloroethane Concentration Map

DRAWN BY: MHM	DATE: 4/12/99	DRAWING NO. 93003-014-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

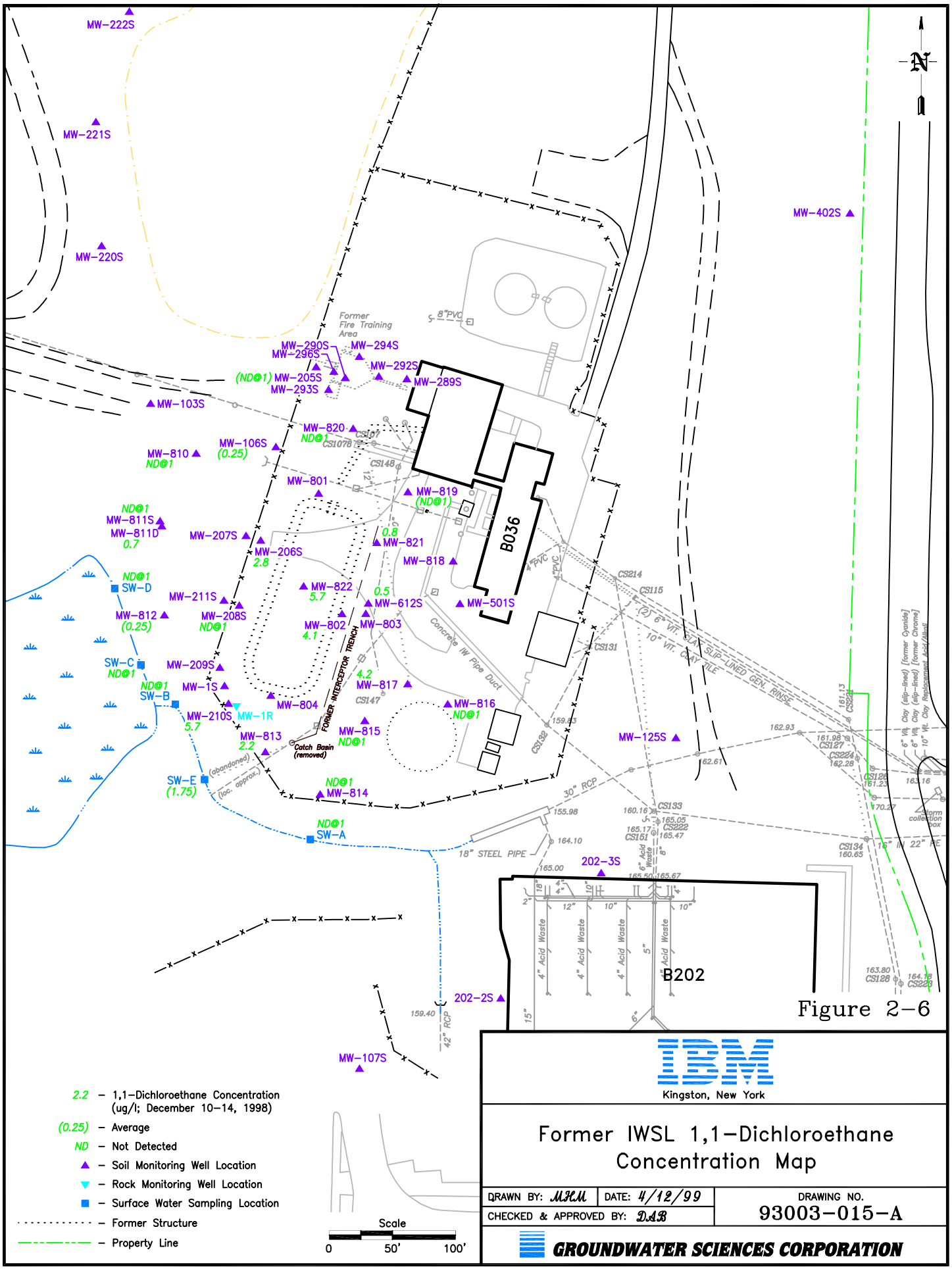


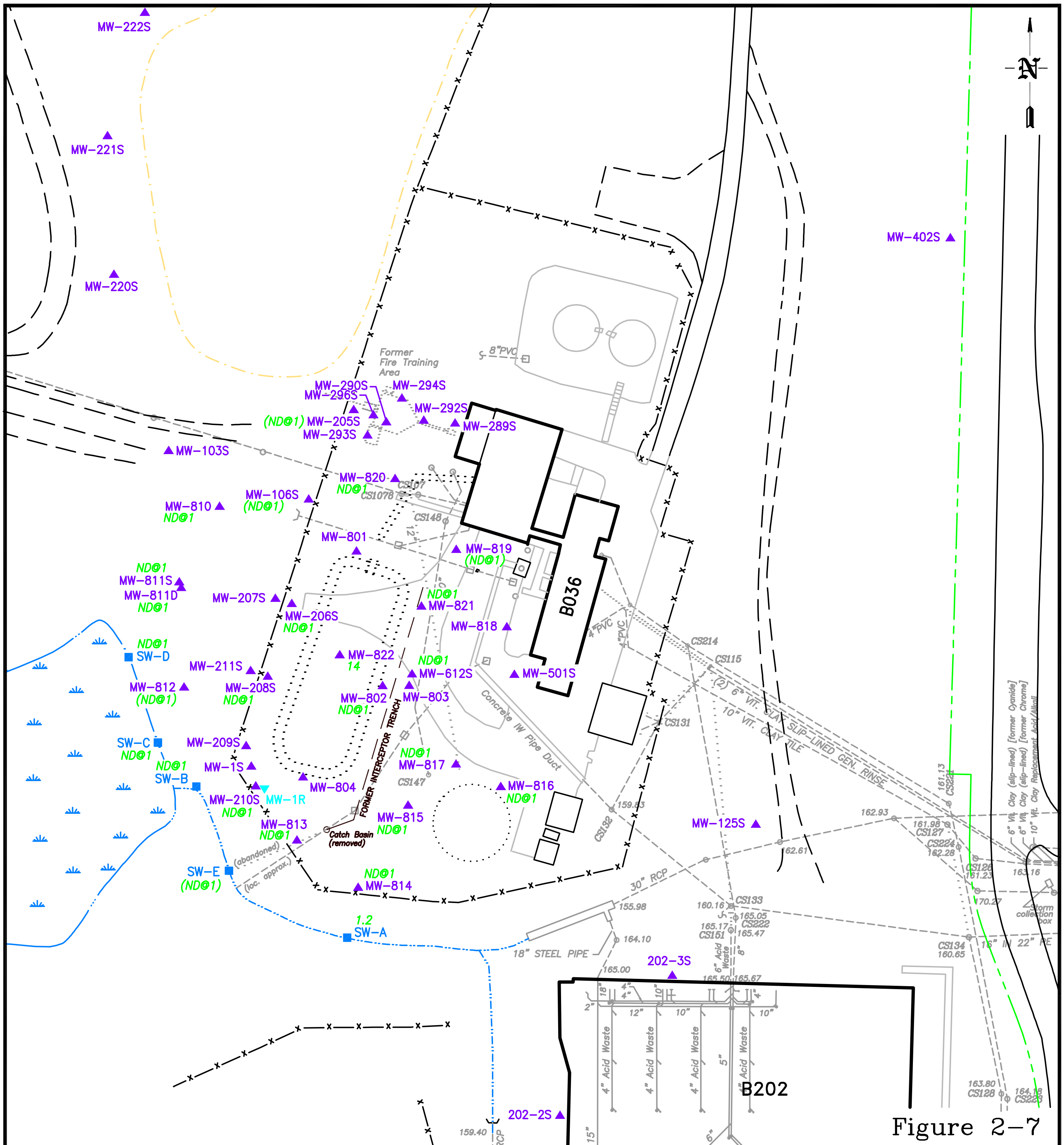
Figure 2-6

IBM
Kingston, New York

Former IWSL 1,1-Dichloroethane Concentration Map

DRAWN BY: MHM	DATE: 4/12/99	DRAWING NO. 93003-015-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION



14 – Xylenes (Total) Concentration (ug/l; December 10-14, 1998)
(ND@1) – Average
ND – Not Detected
▲ – Soil Monitoring Well Location
▼ – Rock Monitoring Well Location
■ – Surface Water Sampling Location
······ – Former Structure
–·–·– – Property Line

Scale: 0, 50', 100'

IBM
Kingston, New York

Former IWSL Xylenes (Total) Concentration Map

DRAWN BY: MHM | DATE: 4/12/99 | DRAWING NO. 93003-019-A
CHECKED & APPROVED BY: DAB

GROUNDWATER SCIENCES CORPORATION

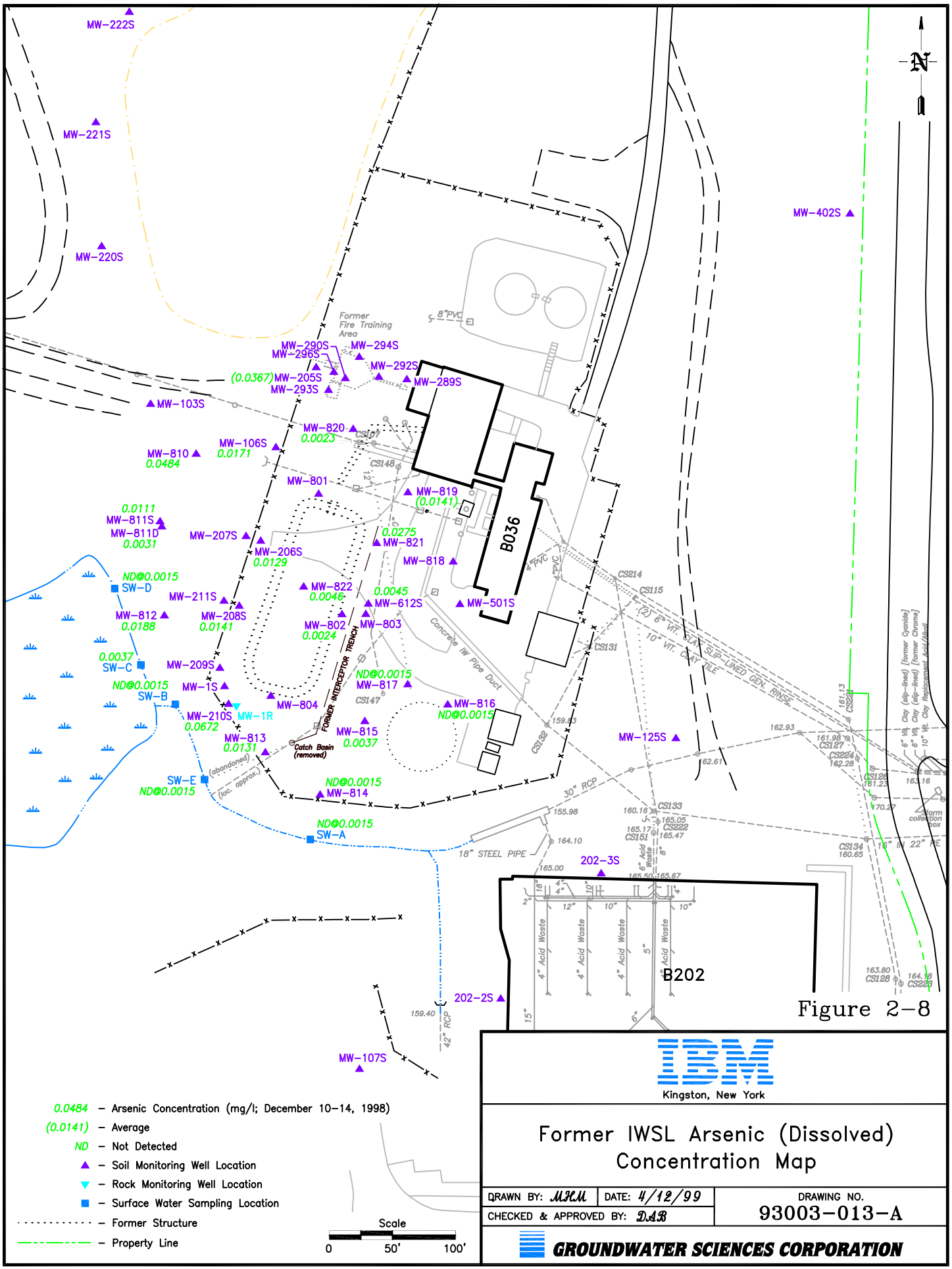


Figure 2–8

IBM
Kingston, New York

Former IWSL Arsenic (Dissolved) Concentration Map

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO. 93003-013-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

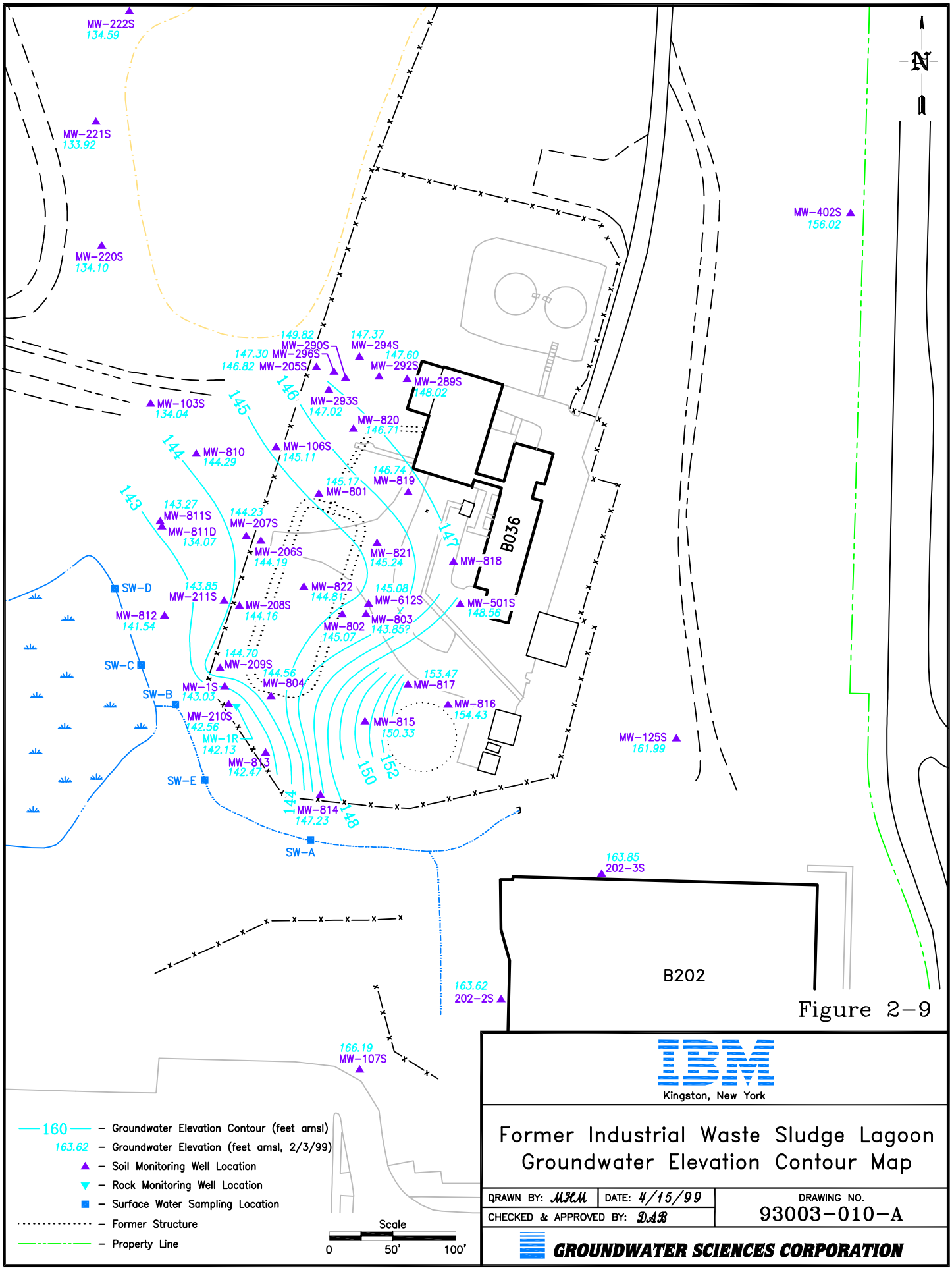


Figure 2-9

IBM
Kingston, New York

Former Industrial Waste Sludge Lagoon Groundwater Elevation Contour Map

DRAWN BY: MHM	DATE: 4/15/99	DRAWING NO. 93003-010-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

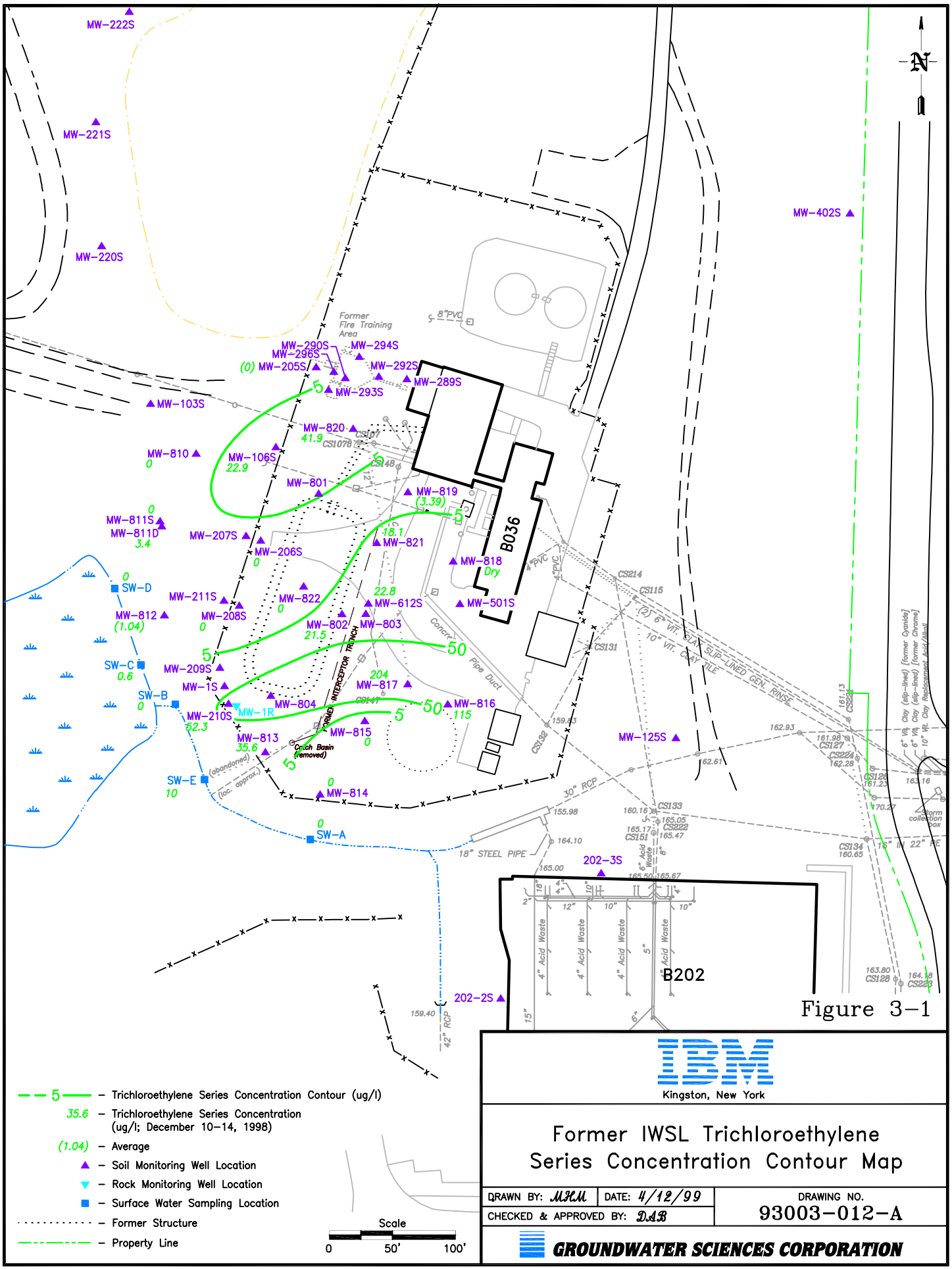


Figure 3–1

IBM
Kingston, New York

Former IWSL Trichloroethylene Series Concentration Contour Map

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO. 93003-012-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

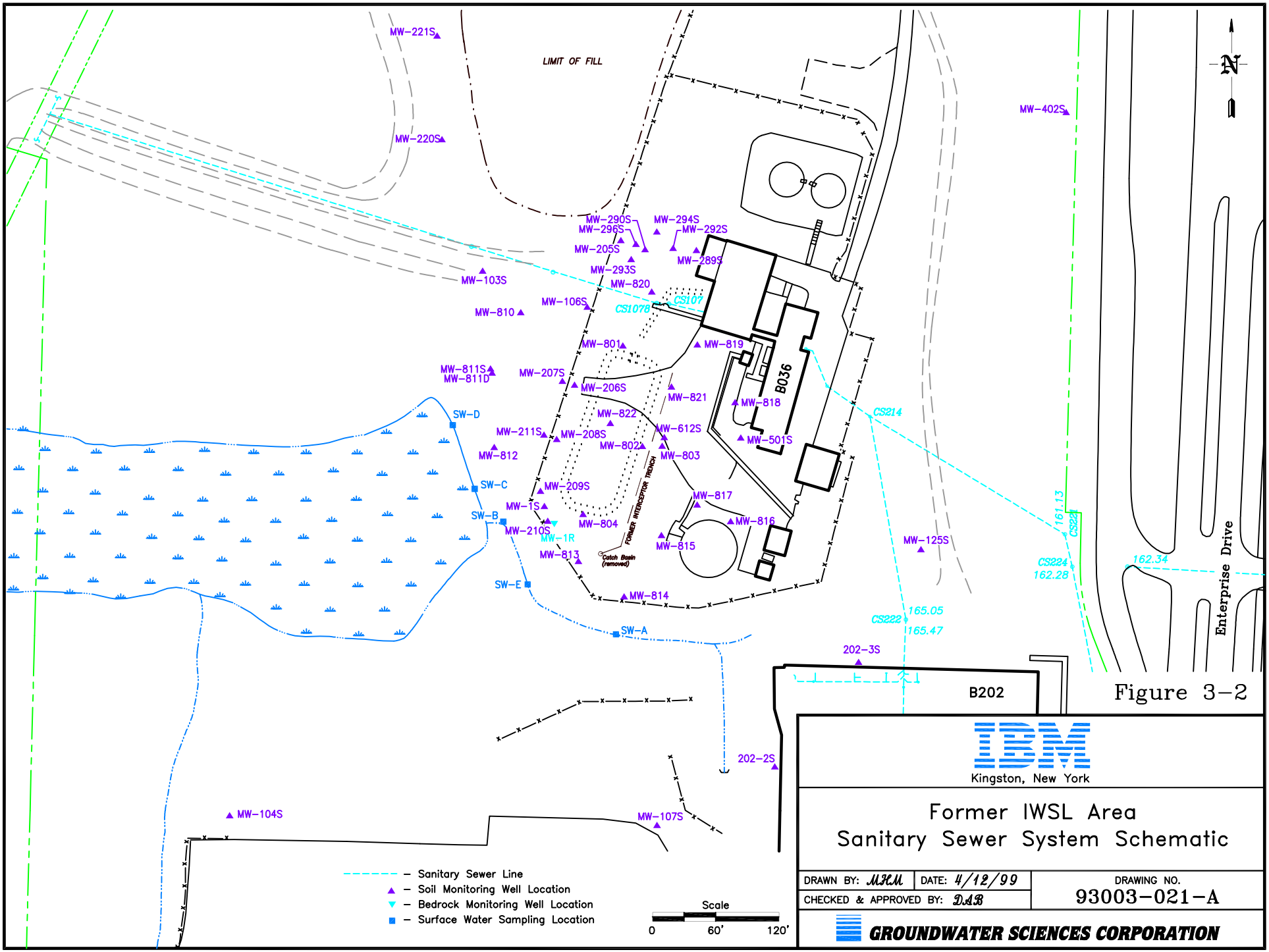


Figure 3-2

IBM
Kingston, New York

Former IWSL Area
Sanitary Sewer System Schematic

DRAWN BY: MHM	DATE: 4/12/99	DRAWING NO. 93003-021-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

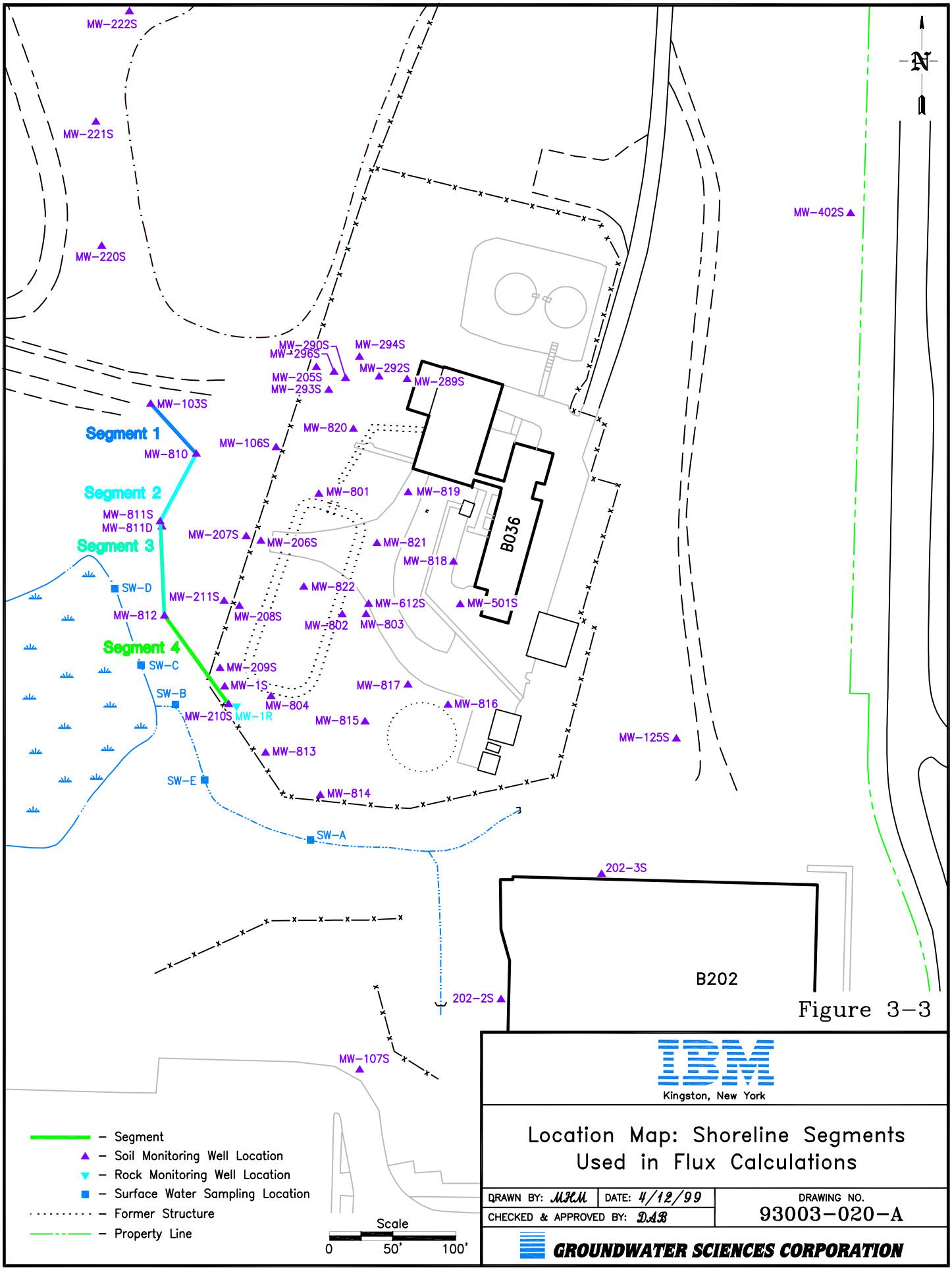


Figure 3-3

IBM
Kingston, New York

Location Map: Shoreline Segments Used in Flux Calculations

DRAWN BY: MJM	DATE: 4/12/99	DRAWING NO. 93003-020-A
CHECKED & APPROVED BY: DAB		

GROUNDWATER SCIENCES CORPORATION

Appendix A

Boring Logs and Monitoring Well Construction Details

Soil Auger Drilling Log

Client: IBM Mid-Hudson Valley, Kingston IWSL

Project No. 93003.05

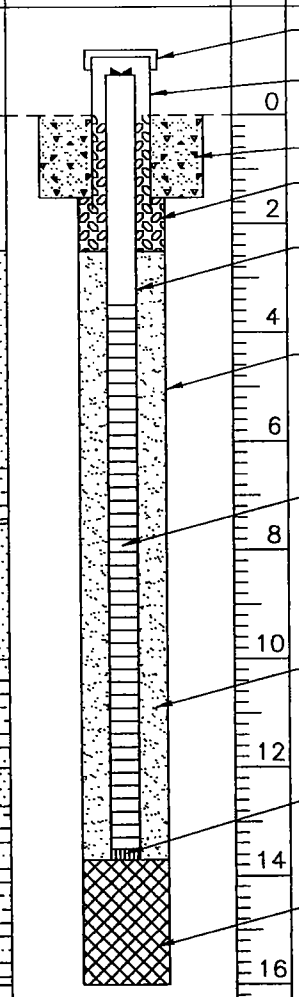
Boring No. MW-810

Location Northwest of former IWSL lagoon

TOC Elev. 147.63'

GS Elev. 145.03'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED			FILL: dark brown, loamy sand, metal debris at 2.5'. SAND: light brown, m-c, loose, dry.	FILL
4					
6					
8	1-2-2-3	0.5	24"	: as above (0-6"), transitions to grayish brown f sand (6-9"). SILTY CLAY: brown, mostly clay w/tr sit (9-20"). SAND: brownish gray, med, loose, sl moist (20-24").	
10	1-2-2-1	0	19"	: as above w/silty clay lams (1/4-1/2" thick) at 9", 12", 14".	
12	1/1'-1/1'	0	19"	SILTY CLAY: brown w/ roots at top of spoon.	
14	1-1-1-1	0	15"	SAND: brownish gray, f-m, loose, saturated (0-8"). SILTY CLAY: brown, varved, soft w/tr roots, organic material throughout (8-15").	
16	1-1-1-2	0	17"	SILTY CLAY: as above, varved w/organics throughout.	
18				Total Depth: 16.0'.	
20					



Well Construction Details

- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 2" Sch 40 PVC riser
- 8-1/4" HSA borehole
- 2" Sch 40 10-slot PVC screen (3.5'-13.5') [141.53'-131.53']
- No. 00 sand
- Bottom end cap
- Collapsed/swelled formation

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-25-98
Drilling Completed: 8-25-98
Well Construction: 8-25-98
Well Developed: 9-25-98
Well Coords.: N718819.49
E590095.57

Notes:

*Instrument reading denotes volatile scan of split spoon.

SWL 5.65' (9/25/98,14:48; from TOC).

GROUNDWATER SCIENCES CORPORATION

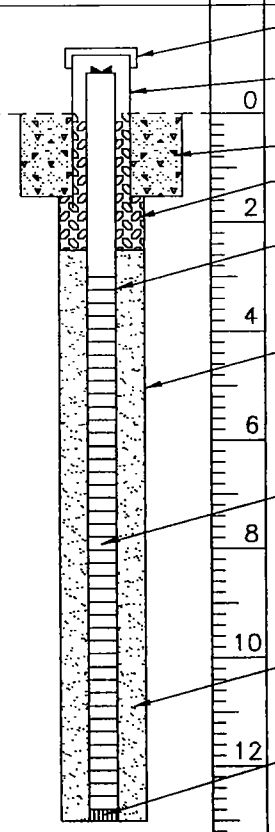
Well Log: MW-810

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-811S
Location West of former IWSL lagoon

TOC Elev. 147.53'
GS Elev. 144.93'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED			FILL: brown loamy sand with gravel and debris.	FILL
4				SAND: gray, m, saturated.	
6				: as above w/metal debris at 5", wood chips at 6".	
8	2-2-2-2	0	9"	: as above w/wood at base of spoon (10-14").	
10	7-4-2-1	0.2	14"	: as above with wood.	
12	2-2-3-3	0	3"	: as above; gray silty clay at base of spoon.	
14	2-2	NA	0"	Total Depth: 13.0'.	
16					
18					
20					



Well Construction Details
- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 2" Sch 40 PVC riser
- 8-1/4" HSA borehole
- 2" Sch 40 10-slot PVC screen (3.0'-13.0') [141.93'-131.93']
- No. 00 sand
- Bottom end cap

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-27-98
Drilling Completed: 8-27-98
Well Construction: 8-27-98
Well Developed: 9-25-98
Well Coords.: N718765.99
E590066.94

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL ~2.5' below grade until augers penetrated borehole to 9'. Water level declined to ~12'.
SWL 5.17' (9/25/98, 15:07; from TOC).

GROUNDWATER SCIENCES CORPORATION

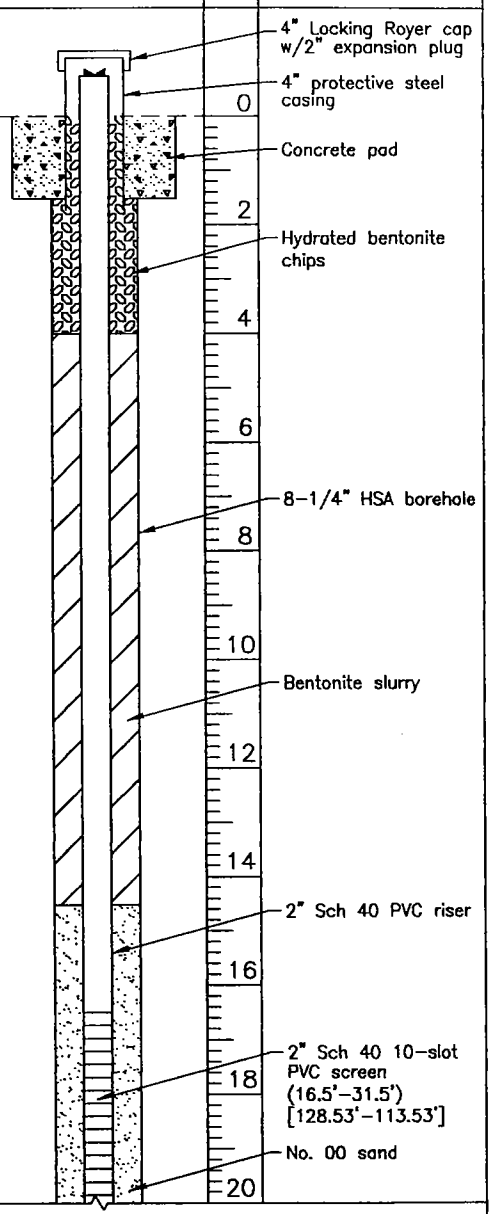
Well Log: MW-811S

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-811D
Location Northwest of former IWSL lagoon

TOC Elev. 147.39'
GS Elev. 145.03'

Depth Feet	Blow Counts	*FID (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED & AUGERED			FILL: brown loamy sand w/brick, concrete, clinker, tile and iron debris; 6-wire galvanized steel cable at 4'.	FILL
4					
6	2-3-2-1	0	7"	SAND & GRAVEL.	
8	2-7-2-2	NA	0"	: large wood chip lodged in shoe of spoon.	?
10	2-2-2-2	NA	0"		
12	3-3-3-3	0	17"	SILT: gray w/tr f sand, saturated (0-15"). SILTY CLAY: grayish pink, v soft (15-17").	
14	2-2-3-3	0	11"	: as above w/wood chips and roots throughout.	
16	4-4-6-6	0	19"	: as above, large wood chip at 13" (0-15"). SAND: gray, c, loose, saturated.	
18	3-2-2-3	0	15"	: as above.	
20	4-4	0	2"	: as above.	



Well Construction Details

- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 8-1/4" HSA borehole
- Bentonite slurry
- 2" Sch 40 PVC riser
- 2" Sch 40 10-slot PVC screen (16.5'-31.5') [128.53'-113.53']
- No. 00 sand

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-25-98
Drilling Completed: 8-25-98
Well Construction: 8-25-98
Well Developed: 9-28-98
Well Coords.: N718761.95
E590068.37

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL ~1.1 below grade until drilled through silty clay unit in shallow section (12.5-16.5'). Water level declined to 12'.
SWL 12.72' (9/28/98, 11:41; from TOC).

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-811D

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

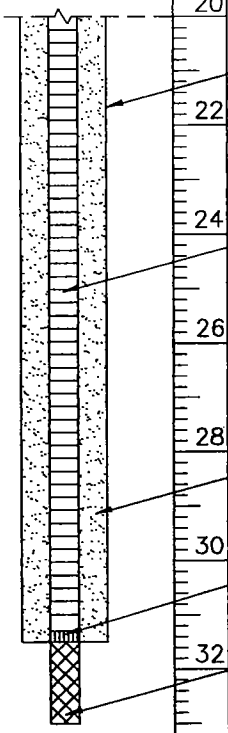
Boring No. MW-811D
Location West of former IWSL lagoon

TOC Elev. 147.39'
GS Elev. 145.03'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
20				
	3-3			: as above.
22	3-3-3-3	0	9"	: as above.
24	4-4-3-4	0	8"	: as above (0-6"). SILTY CLAY: brownish gray (6-10"). SAND: grayish brown, c w/some vc, clay lam (1/2" thick) at 13" (10-14").
26	4-4-4-4	0	14"	SAND: grayish brown, c, loose, saturated.
28	3-4-5-4	0	12"	: as above.
30	2-3-4-5	0	11"	: as above (0-5"). SILTY CLAY: grayish brown with pink laminations.
32	5-8-8-10	0	18"	Total Depth: 33.0'.
34				
36				
38				
40				

Graphic

Well Construction Graphic



Depth Feet

Depth Feet	Well Construction Details
20	
22	8-1/4" HSA borehole
24	2" Sch 40 10-slot PVC screen (16.5'-31.5') [128.53'-113.53']
26	
28	No. 00 sand
30	Bottom end cap
32	Collapsed/swelled formation
34	
36	
38	
40	

GROUNDWATER SCIENCES CORPORATION

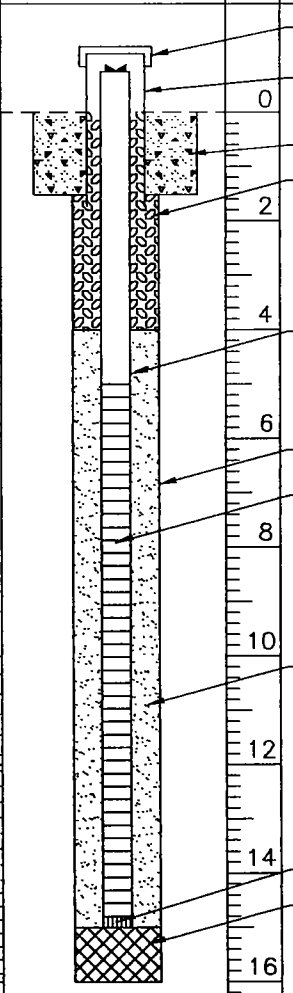
Well Log: MW-811D

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-812
Location West of former IWSL lagoon

TOC Elev. 149.31'
GS Elev. 146.73'

Depth Feet	Blow Counts	*FID (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED & AUGERED			FILL; brown, silty sand (loamy), loose w/tile frags. and gravel, dry.	FILL
4					
6					
8	44-15-12-8	0	15"	: as above.	
10	4-4-8-8	0	11"	: as above, large wood chip at 6", large cobble at base of shoe.	
12	5-11-12-11	0	0"	SILTY SAND: saturated and running.	
14	14-15-12-11	0	11"	SAND: grayish brown, m, v loose w/grayish brown silty clay lams (~1/2-1" thick) w/organics (roots, wood chips) at 6" and 10", saturated.	
16	12-8-7-8	0	13"	SAND: grayish brown, m, v loose, soft (0-2"). SILTY CLAY: brown, soft (2-13"), varved.	
18				Total Depth: 16.0'.	
20					



Well Construction Details

- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 2" Sch 40 PVC riser
- 8-1/4" HSA borehole
- 2" Sch 40 10-slot PVC screen (5.0'-15.0') [141.73'-131.73']
- No. 00 sand
- Bottom end cap
- Collapsed/swelled formation

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-26-98
Drilling Completed: 8-26-98
Well Construction: 8-26-98
Well Developed: 9-28-98
Well Coords.: N718691.45
E590070.42

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL 7.71' (9/28/98, 13:20; from TOC).

GROUNDWATER SCIENCES CORPORATION

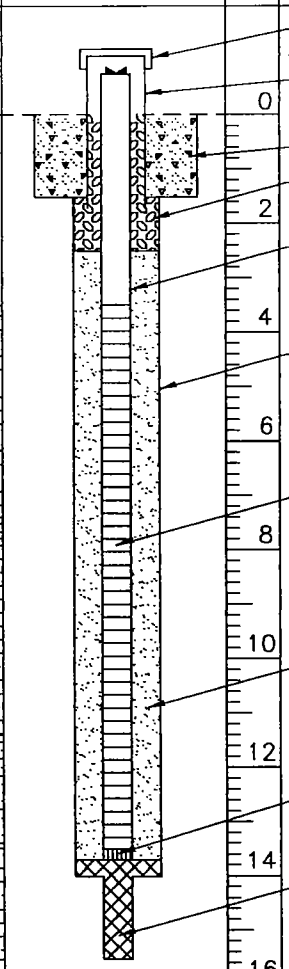
Well Log: MW-812

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston ISWL
Project No. 93003.05

Boring No. MW-813
Location South of former IWSL lagoon

TOC Elev. 151.79'
GS Elev. 149.4'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED			FILL: mix of sand, silt, clay & gravel, tr laminated clay.	FILL
4				GRAVEL/SILTY CLAY: at 3.5' to 6'.	
6	AUGERED				
8	3-3-3-3	0	10"	: as above (0-3"). SAND/SILTY CLAY: f sand w/silty clay lams (3-6"). SILTY CLAY: brown, mostly silt w/tr clay, organics throughout, saturated (6-10").	
10	2-2-3-2	0	14"	: as above, saturated.	
12	2-3-3-2	0	10"	: as above, saturated (0-6"). SAND/SILTY CLAY: brown, f sand w/silty clay lams (1/4-1/2" thick) saturated (6-10").	
14	3-2-2-3	0	15"	: as above (0-12"). SILTY CLAY: gray w/pink laminations (12-15").	
16	3-4-45	0	6"	: as above.	
18				Total Depth: 15.5'.	
20					



Well Construction Graphic

Well Construction Details

- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 2" Sch 40 PVC riser
- 8-1/4" HSA borehole
- 2" Sch 40 10-slot PVC screen (3.5'-13.5') [145.90'-135.90']
- No. 00 sand
- Bottom end cap
- Collapsed/swelled formation

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-26-98
Drilling Completed: 8-26-98
Well Construction: 8-26-98
Well Developed: 9-25-98
Well Coords.: N718583.17
E590150.33

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL 10.24' (9/25/98, 09:48; from TOC).

GROUNDWATER SCIENCES CORPORATION

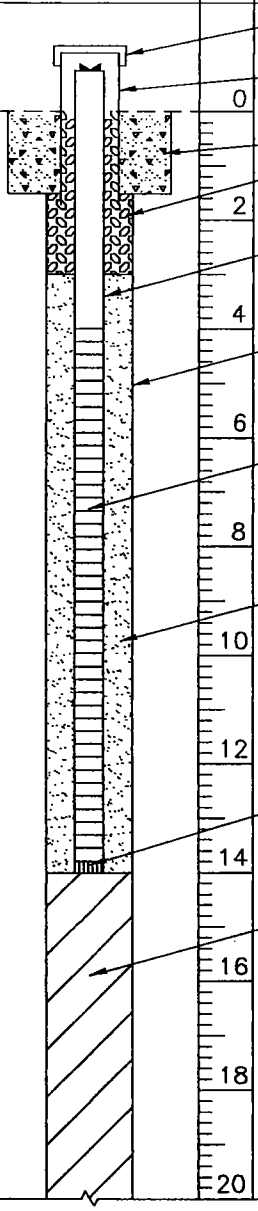
Well Log: MW-813

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-814
Location South of former IWSL lagoon

TOC Elev. 154.10'
GS Elev. 151.7'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED & AUGERED			FILL: brown loamy sand with gravel (0-2"). : laminated silty clay (2-3"). : f-m sand and silty clay (3-6").	FILL
4					
6					
8	2-2-2-2	0	17"	: as above (top 2"). SAND/SILTY CLAY: brownish gray f sand w/silty clay laminations (2-5"). SILTY CLAY: grayish brown, laminated (5-17").	
10	2-2-2-2	NA	12"	: as above.	
12	2-2-2-2	NA	12"	: as above.	
14	1-1-2-2	0	9"	: as above.	
16	1-1-1-2	0	13"	: as above.	
18	1-2-1-2	0	14"	: as above.	
20	2-1-2-1	0	13"	: as above.	



Well Construction Graphic

Well Construction Details

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-26-98
Drilling Completed: 8-27-98
Well Construction: 8-27-98
Well Developed: 9-25-98
Well Coords.: N718549.60
E590068.37

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL 9.84' (9/25/98, 09:26; from TOC).

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-814

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-814
Location South of former IWSL lagoon

TOC Elev. 154.10'
GS Elev. 151.7'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
20				
22	2-2-2-2	0	14"	: as above.
24	2-2-1-1	0	18"	: as above.
26	3-2-3-3	0	14"	: as above.
28	3-2-3-3	0	8"	: as above.
30	1-1-1-1	0	16"	: as above.
32	3-3-2-2	0	16"	: as above.
34	3-2-2-2	0	14"	: as above.
36	3-3-4-4	0	8"	: as above.
38	2-3-3-3	0	10"	: as above.
40	2-3-2-3	0	12"	: as above.

Graphic

Well Construction Graphic

Depth Feet: 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40

Well Construction Details

Abandoned original borehole with bentonite slurry.

Moved 4' to east to drill and set well.

Total Depth: 40.0'.

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-814

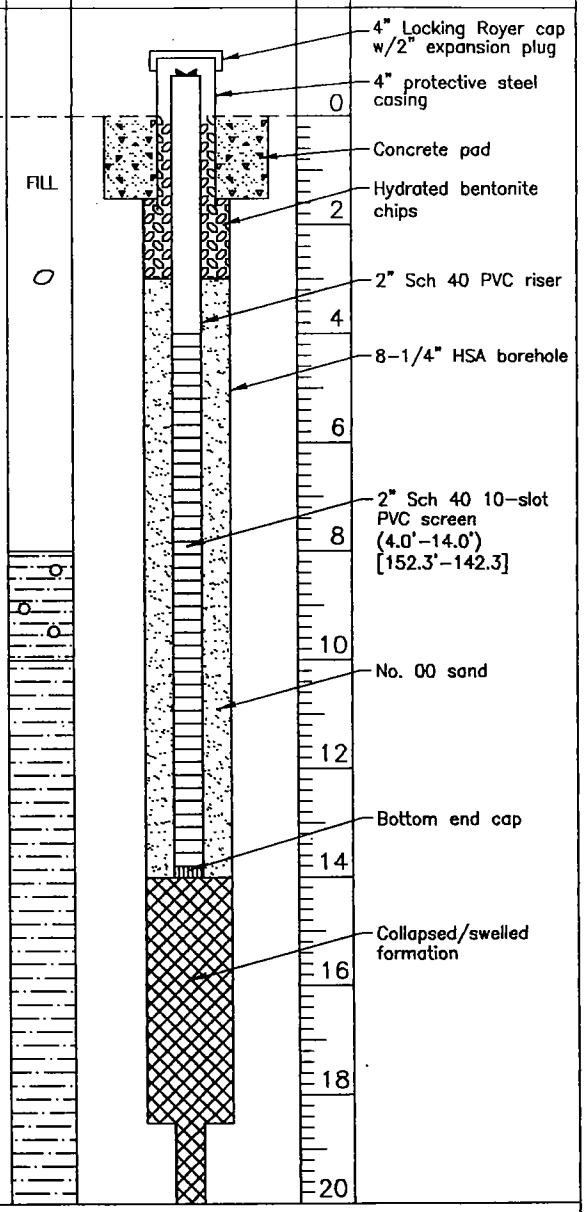
Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-815
Location Southeast of former IWSL lagoon

TOC Elev. 158.65'
GS Elev. 156.3'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			FILL: loamy silty sand with gravel.
4				: large cobble at 3'.
6				
8	1-2-2-2	0	16"	: as above, with wood chip at base.
10	2-4-3-3	0.2	7"	SILTY CLAY/SILTY SAND: brownish gray silty clay and silty sand with gravel.
12	2-3-3-2	0	7"	SILTY CLAY: brownish gray w/m sand laminations (1/2" thick) dry.
14	2-2-2-1	0	7"	: as above, saturated at base of spoon.
16	WOH/1'-1-2	NA	0"	
18	1-1-2-2	0	12"	SILTY CLAY: gray w/pink laminations, saturated.
20	1-2-2-1	0	11"	: as above.

Graphic



Well Construction Graphic

Well Construction Details

Total Depth: 20.0'.

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-27-98
Drilling Completed: 8-27-98
Well Construction: 8-27-98
Well Developed: 9-25-98
Well Coords.: N718607.77
E590229.10

Notes:
*Instrument reading denotes volatile scan of split spoon.

WOH = Weight of Hammer

SWL 12.72' (9/25/98, 09:06; from TOC).

GROUNDWATER SCIENCES CORPORATION

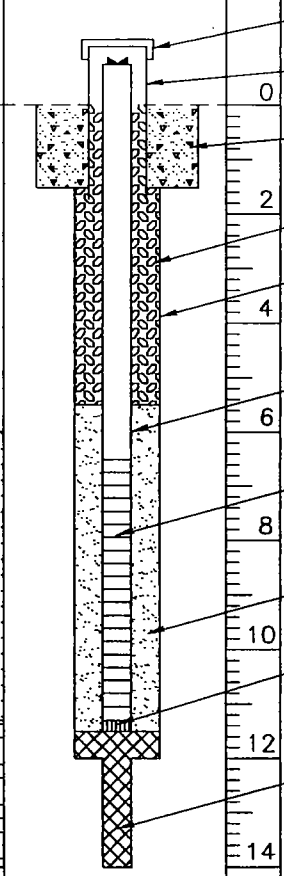
Well Log: MW-815

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-816
Location East of former IWSL lagoon

TOC Elev. 163.97'
GS Elev. 161.4'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED			FILL: brown to brownish orange loamy sand with gravel and cobbles.	FILL
4					
6					
8	7-11-19-14	0	15"	SAND: brown to brownish orange, c, loamy w/tr clay throughout, tr gravel. (probably fill).	
10	11-7-7-4	0	10"	: as above w/cobble at top (0-5"). SAND: brown, m, loose, dry (5-10").	
12	2-2-2-3	0	12"	: as above, (0-7") saturated. SILTY CLAY: gray, laminated (7-12").	
14	2-3-3-4	0	7"	: as above.	
16				Total Depth: 14.0'.	
18					
20					



Well Construction Graphic

Well Construction Details

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 9-1-98
Drilling Completed: 9-1-98
Well Construction: 9-1-98
Well Developed: 10-30-98
Well Coords.: N718620.96
E590294.79

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL 13.04' (10/30/98, 10:38; from TOC).

GROUNDWATER SCIENCES CORPORATION

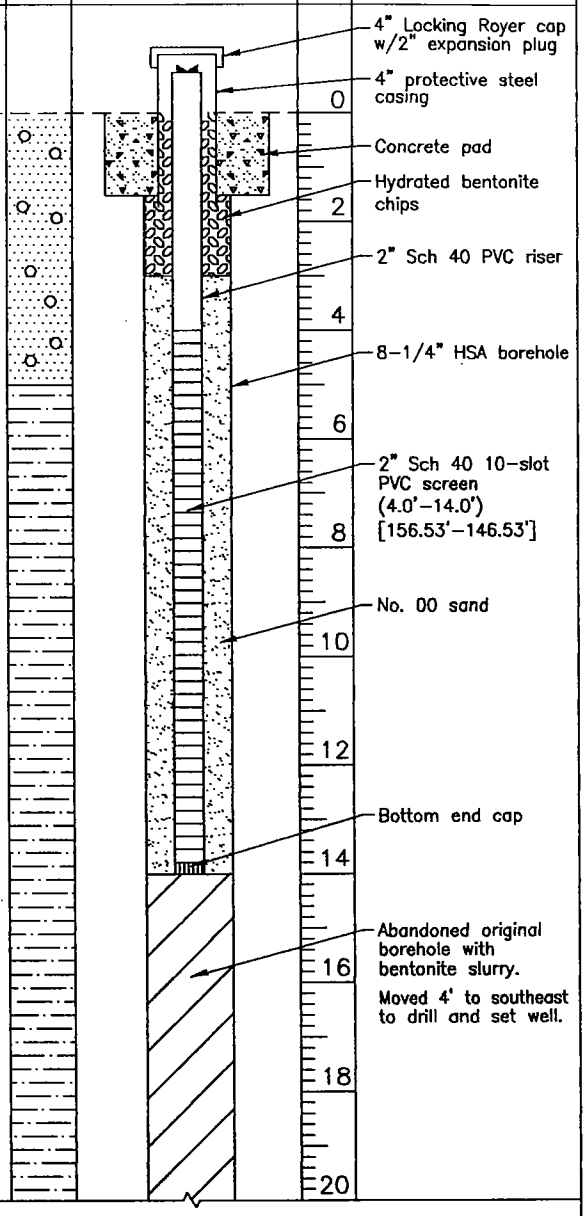
Well Log: MW-816

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-817
Location East of former IWSL lagoon

TOC Elev. 162.72'
GS Elev. 160.53'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			SAND: brown to dark brown, m w/gravel throughout.
4				
6				SILTY CLAY: gray, soft (5-6').
8	1-2-2-2	0	3"	: as above, varved, saturated.
10	2-2-2-3	0	9"	: as above.
12	1-1-1-2	0	12"	: as above with orange staining (7-8").
14	1-2-2-2	0	12"	: as above.
16	1-2-1-1	0	11"	: as above.
18	2-2-2-2	0	12"	: as above.
20	1-2-1-2	0	14"	: as above.



Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 9-1-98
Drilling Completed: 9-1-98
Well Construction: 9-1-98
Well Developed: 9-25-98
Well Coords.: N718636.88
E590263.03

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL 13.83' (9/25/98, 08:44; from TOC).

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-817

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

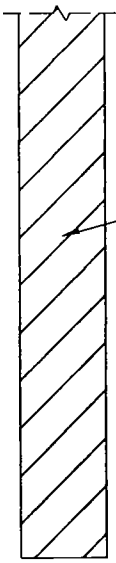
Boring No. MW-817
Location East of former IWSL lagoon

TOC Elev. 162.72'
GS Elev. 160.53'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
20				
22	2-2-2-2	0	12"	: as above.
24	1-2-1-2	0	12"	: as above.
26	3-2-1-2	0	12"	: as above.
28	3-3-2-2	0	8"	: as above.
30	3-2-3-3	0	6"	: as above.
				Total Depth: 30.0'.
32				
34				
36				
38				
40				

Graphic

Well Construction Graphic



Depth Feet: 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40

Well Construction Details

Abandoned original borehole with bentonite slurry.

Moved 4' to southeast to drill and set well.

GROUNDWATER SCIENCES CORPORATION

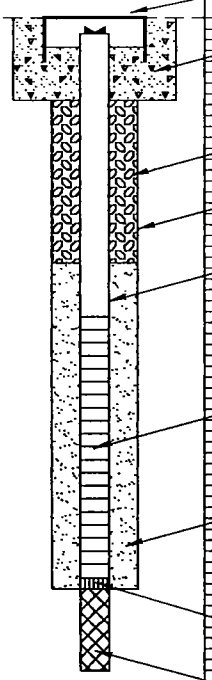
Well Log: MW-817

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-818
Location East of former IWSL lagoon

TOC Elev. 160.94'
GS Elev. 161.31'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic
0	Ground Surface				
2	HAND AUGERED			FILL: brown sand, m, loose w/occ cobbles, cinder fragments, dry.	FILL
4					
6					?
8	4-4-4-7	0	12"	SAND: brown, m, loose, dry.	
10	5-6-4-6	0	18"	: as above.	
12	1-2-2-2	0	14"	: as above (0-4"). SILTY CLAY: brown, soft, laminated.	
14				Total Depth: 12.0'.	
16					
18					
20					



Well Construction Graphic

Well Construction Details

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 9-1-98
Drilling Completed: 9-1-98
Well Construction: 9-1-98
Well Developed: NA
Well Coords.: N718734.05
E590299.03

Notes:
*Instrument reading denotes volatile scan of split spoon.

SWL: Dry.

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-818

Soil Auger Drilling Log

Client: IBM Mid-Hudson Valley, Kingston IWSL

Project No. 93003.05

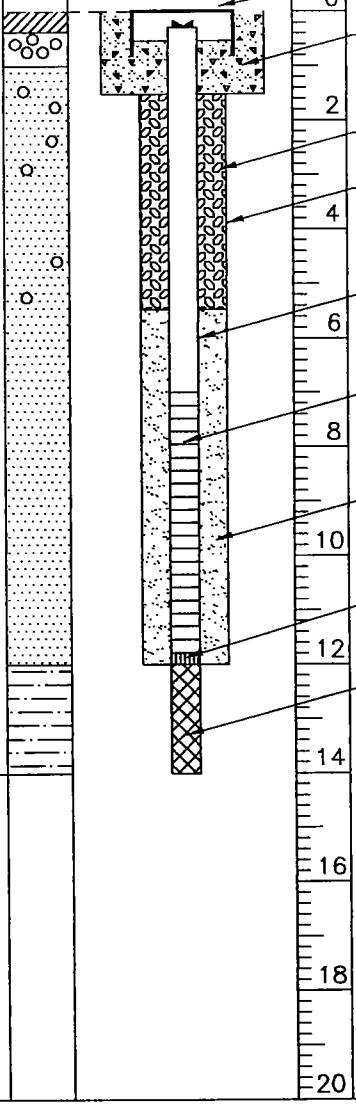
Boring No. MW-819

Location Northeast of former IWSL lagoon

TOC Elev. 154.24'

GS Elev. 154.79'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			Asphalt (0-0.3'). Cobble subbase (0.3-1.0'). SAND: brown, m, loose w/gravel, dry.
4				
6				
8	2-2-3-9	0	13"	: as above without gravel, moist.
10	6-12-12-12	0	12"	: as above, saturated.
12	6-5-4-3	0	13"	: as above.
14	2-3-3-3	0	15"	SILTY CLAY: brownish gray, laminated.
16				Total Depth: 14.0'.
18				
20				



Well Construction Details

- Flushmount completion with 2" watertight sealing cap
- Concrete pad
- Hydrated bentonite chips
- 8-1/4" HSA borehole
- 2" Sch 40 PVC riser
- 2" Sch 40 10-slot PVC screen (7.0'-12.0') [147.79'-142.79']
- No. 00 sand
- Bottom end cap
- Collapsed/swelled formation

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-28-98
Drilling Completed: 8-28-98
Well Construction: 8-28-98
Well Developed: 9-25-98
Well Coords.: N718788.90
E590263.25

Notes:

*Instrument reading denotes volatile scan of split spoon.

SWL 8.22' (9/25/98, 13:59; from TOC).

GROUNDWATER SCIENCES CORPORATION

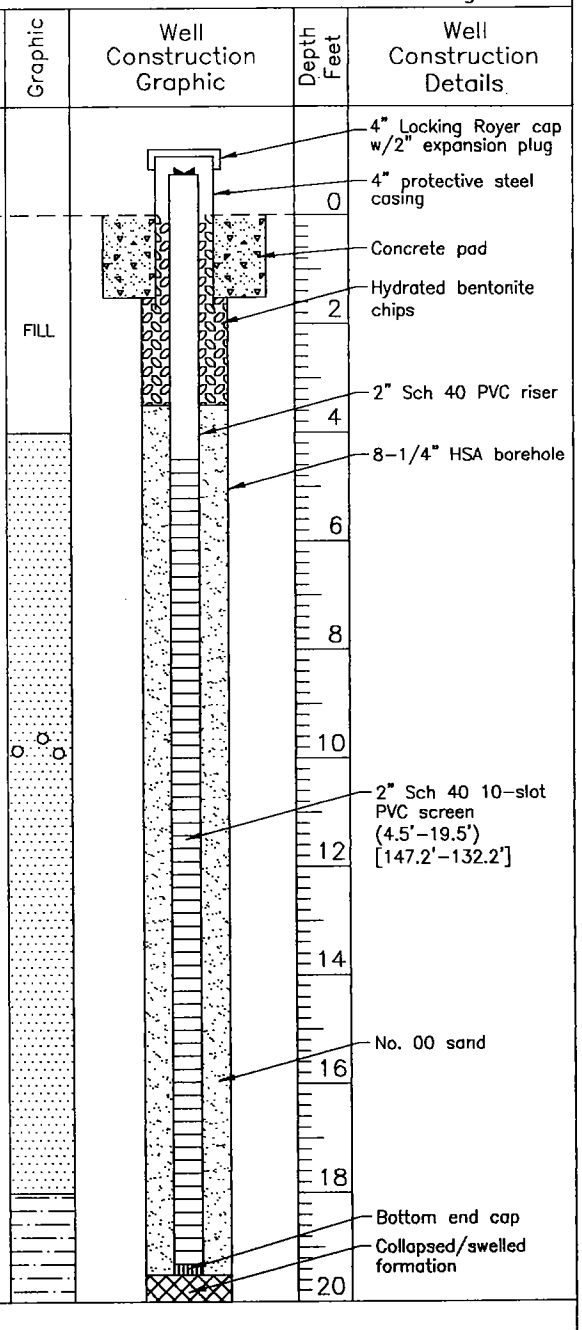
Well Log: MW-819

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-820
Location North of former IWSL lagoon

TOC Elev. 153.97'
GS Elev. 151.7'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			FILL: brown clayey loam w/gravel and cobbles; brick fragment at 2'.
4				SAND: brown, f-m w/some silt, soft, loose.
6				
8	1-2-1-2	0	16"	: as above, black wood chip at 12", moist at base of spoon.
10	1-1-2-2	0	9"	: as above with gravel fragments at base of spoon, thin lens of clay (1/2" thick) at 5", moist.
12	1-1-1-1	0	8"	: as above, saturated.
14	1-2-2-2	0	10"	: as above w/gravel fragment at base, silty clay lens (1/2" thick) at 6".
16	2-4-4-5	0	13"	: as above with large black wood chip at base of spoon.
18	3-2-1-2	0	4"	: as above.
20	2-3-4-5	0	7"	SILTY CLAY: dark gray, soft.



Total Depth: 20.0'.

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-25-98
Drilling Completed: 8-25-98
Well Construction: 8-25-98
Well Developed: 9-25-98
Well Coords.: N718839.06
E590219.88

Notes:

*Instrument reading denotes volatile scan of split spoon.

WOH = Weight of Hammer

SWL 7.32' (9/25/98, 10:45; from TOC).

GROUNDWATER SCIENCES CORPORATION

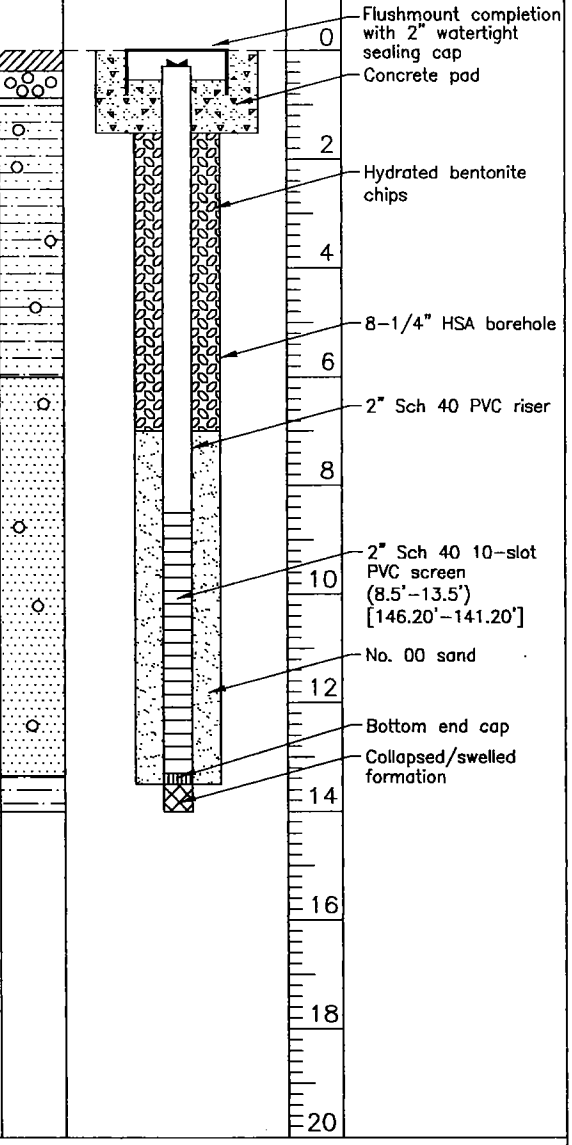
Well Log: MW-820

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-821
Location East of former IWSL lagoon

TOC Elev. 154.37'
GS Elev. 154.70'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			Asphalt (0-0.3'). Cobble subbase (0.3-0.8'). SAND/SANDY SILT: brown, mostly sand w/some sandy silt, loose, tr gravel, sl moist.
4				
6				
8	3-4-4-4	0	24"	SAND: brown, m w/tr gravel, 1/4"-thick silty clay lamination at 15".
10	3-3-4-4	0	12"	: as above, saturated at base.
12	1-1-1-1	0	8"	: as above, saturated.
14	2-3-4-3	0	14"	: as above, 0-10", with wood at 6" and 9". SILTY CLAY: brown w/organics (10-14").
16				Total Depth: 14.0'.
18				
20				



Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-28-98
Drilling Completed: 8-28-98
Well Construction: 8-28-98
Well Developed: 9-25-98
Well Coords.: N718748.77
E590238.59

Notes:

*Instrument reading denotes volatile scan of split spoon.

SWL 9.31' (9/25/98, 13:44; from TOC).

GROUNDWATER SCIENCES CORPORATION

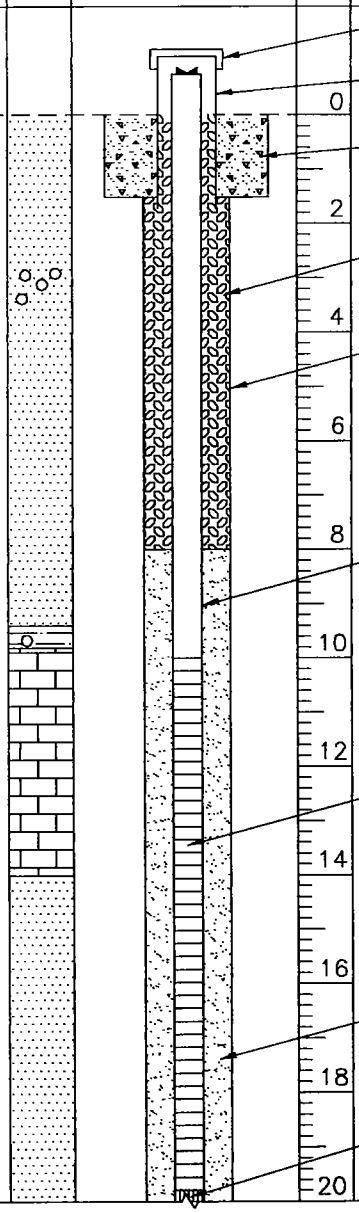
Well Log: MW-821

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-822
Location Within boundary of former IWSL lagoon

TOC Elev. 154.84'
GS Elev. 152.5'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description
0	Ground Surface			
2	HAND AUGERED			Silty sandy loam. brown, loose, dry (0-1.5'). SAND: brown, f loose, dry.
4				: trace gravel 3-3.5'.
6				
8	8-12-14-14	0 / NA	16"	: as above.
10	14-19-18-30	0 / NA	19"	: as above (0-15") w/gray silty clay lam (1/2" thick) at 8.5". SILTY SAND/SILTY CLAY: grayish brown with gravel (15-19").
	AUGERED			LIMESTONE: gray, crushed.
12	10-12-10	0 / NA	8"	: as above, saturated.
14	8-9-7-12	0 / NA	13"	: as above (0-6").
16	8-10-5-7	4** / 7	10"	SAND: gray-black, f-m, odor.
18	2-3-4-3	1 / 1	11"	: as above (0-7"), large wood chip 6-7". SAND: grayish black, m, loose.
20	3-3-6-5	1.5 / 1	12"	: as above w/roots & wood (0-7") and 1/4"-thick silty clay lamination at 10".



Well Construction Details:
- 4" Locking Royer cap w/2" expansion plug
- 4" protective steel casing
- Concrete pad
- Hydrated bentonite chips
- 8-1/4" HSA borehole
- 2" Sch 40 PVC riser
- 2" Sch 40 10-slot PVC screen (10.0'-20.0') [142.5'-132.5']
- No. 00 sand
- Bottom end cap

Driller: Northstar Drilling, Inc.
Logged by: D. Muriceak, GSC
Drilling Started: 8-27-98
Drilling Completed: 8-27-98
Well Construction: 8-27-98
Well Developed: 9-25-98
Well Coords.: N718714.27
E590180.61

Notes:
*Top no. is volatile scan of split spoon; bottom no. is jar headspace scan measurement.
** At base of spoon in sandy unit.

SWL 11.11' (9/25/98, 10:19; from TOC).

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-822

Soil Auger Drilling Log
Client: IBM Mid-Hudson Valley, Kingston IWSL
Project No. 93003.05

Boring No. MW-822
Location Within boundary of former IWSL lagoon

TOC Elev. 162.72'
GS Elev. 152.5'

Depth Feet	Blow Counts	FID* (ppm)	Recovery	Overburden/Lithologic Description	Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
20							20	
22	1-1-1-1	0 / NA	11"	SILTY CLAY: brown, soft, varved.			22	Collapsed/swelled formation
				Total Depth: 22.0'.				
24							24	
26							26	
28							28	
30							30	
32							32	
34							34	
36							36	
38							38	
40							40	

GROUNDWATER SCIENCES CORPORATION

Well Log: MW-822

Appendix B

Field Documentation

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW810 Date: 10 / 30 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: 14:51	Stop: 1509
Measured Depth to Bottom (DTBm)	15.77 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	5.25 ft.	Well Yields:	☐ Yes ☐ No
Target Volume:	5.14 gal.	Water Contained:	☐ Yes ☒ No
Actual Volume:	5.25 gal.	DTW After Purge:	14.69 ft.

PID: Background: | Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	0.29 gpm	Ded. Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 0 8 1 0 3 0 G

Sample Time: Start: 15:17 Stop: 1527

Duplicate ID: N A

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW810 Date: 10 / 30 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ 8260, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1526	13.3	6.78	740us		Clear

COMMENTS:

00191

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: B10 Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	16.00 ft.	Start: 11:08	Stop: 11:29
Measured Depth to Bottom (DTBm)	15.76 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	5.78 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	4.88 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	5.00 gal.	DTW After Purge:	15.25 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 0 8 1 1 1 8 E

Sample Time: Start: 11.40 Stop: 1152

Duplicate ID: K 0 0 8 1 0 8 1 1 1 8 X

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Date: 11/19/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: B10 Date: 11/18/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	1151	11.5	6.65	762.45		

COMMENTS:

000197

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW810 Date: 12/10/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	16.00 ft.	Start: 948	Stop: 1008
Measured Depth to Bottom (DTBm)	15.79 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	5.55 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	5.00 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	5.00 gal.	DTW After Purge:	14.95 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.25 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 0 8 1 2 1 0 G

Sample Time: Start: 1024 Stop: 1031

Duplicate ID: — — — — — W A — — — — —

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Chris Shannon Date: 12/10/98 QA/QC Review: [illegible] Date: [illegible]

IBM
Kingston, New York

Analysis Request Form

Well Number: MW810 Date: 12/10/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1030	10.6	6.69	761 us		Clear

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW 811R Date: 10 / 29 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: 1332	Stop: 1341
Measured Depth to Bottom (DTBm)	33.79 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	13.62 ft.	Well Yields: ☒ Yes ☐ No	
Target Volume:	9.82 gal.	Water Contained: ☐ Yes ☐ No	
Actual Volume: 10.00	~~13.69~~ gal. CJS	DTW After Purge:	13.64 ft.

PID: Background: Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	1.1 lpm	Ded Equip.
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 1 1 R 8 1 0 2 9 G

Sample Time: Start: 1349 Stop: 1401

Duplicate ID: N A

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/29/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW811R Date: 10 / 29 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 29 98	1400	12.9	6.65	1100us		Cloudy - Brown

COMMENTS:

000179

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: B11R Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 33.86 ft.	Start: 12:09	Stop: 12:19	
Measured Depth to Bottom (DTBm) 33.52 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 13.00 ft.	Well Yields:	☑ Yes	☐ No
Target Volume: 10.20 gal.	Water Contained:	☐ Yes	☑ No
Actual Volume: 10.5 gal.	DTW After Purge:	13.10 ft.	

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0B111R811118G

Sample Time: Start: 12:22 Stop: 12:33

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nahler Date: 11/18/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: B11R Date: 11/18/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	12:29	13.3	6.61	822uS		

COMMENTS:

000198

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 811D Date: 12/10/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	33.61 ft.	Start: 1059	Stop: 1110
Measured Depth to Bottom (DTBm)	33.87 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	14.76 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	9.34 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	9.50 gal.	DTW After Purge:	14.78 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.863gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 1 1 D 8 1 2 1 0 G

Sample Time: Start: 1113 Stop: 1122

Duplicate ID: N A

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJ Shaw Date: 12/10/98 QA/QC Review: DMB Date: 2/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 811S Date: 12/10/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-10-98	1121	10.9	6.75	7485		Cloudy

COMMENTS:

000230

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW811S Date: 10 / 29 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: 12:50	Stop: 12:54	
Measured Depth to Bottom (DTBm)	15.29	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	5.09	ft.	Well Yields:	☒ Yes	☐ No
Target Volume:	4.90	gal.	Water Contained:	☐ Yes	☒ No
Actual Volume:	5.0	gal.	DTW After Purge:	8.19	ft.

PID: | Background: | Purging: | ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	1.25gpm	Ded Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 1 1 S 8 1 0 2 9 G

Sample Time: Start: 1304 Stop: 1319

Duplicate ID: K 0 8 1 1 S 8 1 0 2 9 X

Sampling Method:
☒ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Chr Shannon Date: 10/29/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW811S Date: 10 / 29 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☒ Other: Split to IEA

ANALYSES REQUESTED:

☐ 8010, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: 8021 repl-2DCE total Freon 13, Freon 22

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.29.98	13:17	14.1	7.00	949 us		Silty

COMMENTS:

000178

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 811S Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	15.50 ft.	Start: 12:43	Stop: 12:47
Measured Depth to Bottom (DTBm)	15.29 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	5.37 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	4.95 gal.	Water Contained: ☑ Yes ☑ No	
Actual Volume:	5 gal.	DTW After Purge:	9.13 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 1 1 S 8 1 1 1 8 G

Sample Time: Start: 12:50 Stop: 12:59

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrea F. Nichols Date: 11/18/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 811S Date: 11/18/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	12:55	12.4	7.04	962 uS		

COMMENTS:

000199

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 811S Date: 12 / 10 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	15.50 ft.	Start: 10:38	Stop: 1042
Measured Depth to Bottom (DTBm)	15.29 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	5.50 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	4.78 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	5.00 gal.	DTW After Purge:	7.71 ft.

PID: Background: Purging: ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	1.25 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 1 1 S 8 1 2 1 0 G

Sample Time: Start: 1046 Stop: 1054

Duplicate ID: N A

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJShaw Date: 12/10/98 QA/QC Review: [illegible] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 811D Date: 12 / 10 / 98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ 8010, Freon 113, Freon 123a
- ☑ Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121099	1053	11.7	7.0	967us		clear

COMMENTS:

00291

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW812 Date: 10/29/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: 14:11	Stop: 14:16
Measured Depth to Bottom (DTBm)	17.48 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	7.96 ft.	Well Yields:	☒ Yes ☐ No
Target Volume:	4.65 gal.	Water Contained:	☐ Yes ☒ No
Actual Volume:	5.00 gal.	DTW After Purge:	14.11 ft.

PID: | *Background:* | *Purging:* | ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	1.0 gpm	Ded. Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 2 8 1 0 2 9 G

Sample Time: Start: 1424 Stop: 14:32

Duplicate ID: — — — — N A — — — — —

Sampling Method:
☒ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Chris Shamm Date: 10/29/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW812 Date: 10/29/98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.29.98	14:31	12.6	6.94	761us		

COMMENTS:

000180

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 812 Date: 11/18/98 Personnel: BFN

PURGING:

Reference Depth To Bottom (DTBr)	17.48 ft.	Start: 13:12	Stop: 13:17
Measured Depth to Bottom (DTBm)	17.47 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.11 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	4.58 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	5 gal.	DTW After Purge:	14.49 ft.

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 2 8 1 1 1 8 G

Sample Time: Start: 13:21 Stop: 1328

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nagel Date: 11/18/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: B12 Date: 11/18/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	1327	11.4	6.76	781 µS		

COMMENTS:

000000

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 812 **Date:** 12/10/98 **Personnel:** CJS

PURGING:

Reference Depth To Bottom (DTBr)	17.40 ft.	Start: 11:33	Stop: 11:38
Measured Depth to Bottom (DTBm)	17.45 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.52 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	4.36 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	4.5 gal.	DTW After Purge:	14.33 ft.

PID: *Background:* *Purging:* ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.9 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K00812812106G

Sample Time: Start: 1144 Stop: 1151

Duplicate ID: K0081281210ØX

Sampling Method: ☑ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: CuShar Date: 12/10/98 QA/QC Review: DPP Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 812 **Date:** 12/10/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☑ Other: Split to IEA

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33

☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1150	10.9	6.93	766us		clear

COMMENTS:

0002292

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW813 Date: 10/29/98 Personnel: CJG

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: 1553	Stop: 1603	
Measured Depth to Bottom (DTBm) 15.98 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 10.31 ft.	Well Yields:	☒ Yes	☐ No
Target Volume: 2.77 gal.	Water Contained:	☐ Yes	☒ No
Actual Volume: 3.00 gal.	DTW After Purge: 14.96 ft.		

PID: *Background:* | *Purging:* ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	0.30 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0081381029G

Sample Time: Start: 1610 Stop: 1623

Duplicate ID: K0081381029D

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/29/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW 813 Date: 10/29/98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.29.98	16:22	14.0	6.94	1045us		Clear

COMMENTS:

000182

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 813 Date: 11/13/98 Personnel: GFN

PURGING:

Reference Depth To Bottom (DTBr)	15.89 ft.	Start: 14:09	Stop: 14:20
Measured Depth to Bottom (DTBm)	15.94 ~~15.75~~ ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	10.26 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	2.75 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	3 gal.	DTW After Purge:	15.36 ft.

PID: *Background:* | *Purging:* ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K008138/1/1/8G

Sample Time: Start: 14:23 Stop: 1430

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nuckols Date: 11/13/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 813 Date: 11/13/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	14:28	12.3	6.72	1078		

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 813 Date: 12/10/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	15.89 ft.	Start: 13:33	Stop: 13:46
Measured Depth to Bottom (DTBm)	15.98 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	10.29 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	2.78 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	3.0 gal.	DTW After Purge:	15.42 ft.

PID: Background: | Purging: ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.23 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 3 8 1 2 1 0 G

Sample Time: Start: 1352 Stop: 1400

Duplicate ID: N A

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Cj Shaw Date: 12/10/98 QA/QC Review: DMD Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 813 Date: 12/10/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1359	11.9	6.86	106705		

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW314 **Date:** 10/30/98 **Personnel:** CJC

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	**Start:** 1356	**Stop:** 1408
Measured Depth to Bottom (DTBm)	16.50 ft.	***Note: Use Reference Depth to Bottom for calculations***	
Depth to Water (DTW):	9.02 ft.	**Well Yields:** ☒ *Yes* ☐ *No*	
Target Volume:	3.65 gal.	**Water Contained:** ☐ *Yes* ☒ *No*	
Actual Volume:	3.75 gal.	**DTW After Purge:**	15.90 ft.

PID: ***Background:*** ***Purging:*** ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	0.312gpm	Ded Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0081481030G

Sample Time: Start: 14:15 Stop: 1425

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJShann **Date:** 10/30 **QA/QC Review:** MWR **Date:** 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW314 **Date:** 10/30/98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☐ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1424	13.9	6.72	752us		

COMMENTS:

000190

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 814 Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	16.30 ft.	Start: 14:41	Stop: 14:55
Measured Depth to Bottom (DTBm)	16.49 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	9.10 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	3.52 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	3.75 gal.	DTW After Purge:	16.20 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K008148111 8G

Sample Time: Start: 1502 Stop: 1514

Duplicate ID: K008148111 8D

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nuhfer Date: 11/18/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 814 Date: 11/19/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ 8021 ~~8010~~, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	1513	11.1	6.60	782		

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 814 Date: 12 /10 /98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	16.30 ft.	Start: 1407	Stop: 1422
Measured Depth to Bottom (DTBm)	16.48 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.82 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	3.74 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	3.75 gal.	DTW After Purge:	16.00 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer	0.25gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 4 8 1 2 1 0 G

Sample Time: Start: 1430 Stop: 1439

Duplicate ID: W A

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/10/98 QA/QC Review: [signature] Date: [illegible]

IBM
Kingston, New York

Analysis Request Form

Well Number: 814 Date: 12 /10 /98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☑ Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1438	10.9	6.72	739us		Cloudy

COMMENTS:

000297

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW815 Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: 10:14	Stop: 1150
Measured Depth to Bottom (DTBm)	16.32 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	13.21 ft.	Well Yields:	☒ Yes ☐ No
Target Volume:	1.52 gal.	Water Contained:	☐ Yes ☒ No
Actual Volume:	1.0 gal.	DTW After Purge:	16.19 ft.

PID: *Background:* *Purging:* ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	0.01 gpm	Ded Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K008158103OG

Sample Time: Start: 1337 Stop: 1349

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Cunningham Date: 10/30/98 QA/QC Review: MW2 Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW815 Date: 10/30/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☒ 8010, Freon 113, Freon 123a (8021)
- ☐ Phenols (total) (EPA 420.1)
- ☒ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☒ Arsenic (EPA 206.2 or 7060A)
- ☒ Cadmium (EPA 7131)
- ☒ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1347	15.4	6.77	7475		Clear

COMMENTS:

000186

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 815 Date: 11/20/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	16.25 ft.	Start: 1003	Stop: 1026
Measured Depth to Bottom (DTBm)	16.31 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	12.51 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	1.82 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	2.0 gal.	DTW After Purge:	16.22 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0081581120G

Sample Time: Start: 12:23 Stop: 1230

Duplicate ID:

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nelson Date: 11/20/98 QA/QC Review: MMR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 815 Date: 11/20/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1229	12.4	6.80	7625		

COMMENTS:

000219

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 815 **Date:** 12/11/98 **Personnel:** CJS

PURGING:

Reference Depth To Bottom (DTBr)	16.25 ft.	**Start:** 1003	**Stop:** 1203
Measured Depth to Bottom (DTBm)	16.29 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	12.54 ft.	**Well Yields:**	☐ Yes ☑ No
Target Volume:	1.83 gal.	**Water Contained:**	☐ Yes ☑ No
Actual Volume:	1.75 gal.	**DTW After Purge:**	16.19 ft.

PID: *Background:* *Purging:* ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		Dcd Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 5 8 1 2 1 1 G

Sample Time: Start: 1320 Stop: 1333

Duplicate ID: NA

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] **Date:** 12/11/98 **QA/QC Review:** [signature] **Date:** 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 815 **Date:** 12/11/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other:

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12.11.98	1332	10.8	6.92	738us		clear

COMMENTS: Duplicate not collected due to insufficient amount of water in well
CJK

000302

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW816 Date: 10 /30 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: 12:56	Stop:	1435
Measured Depth to Bottom (DTBm)	14.10	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	13.04	ft.	Well Yields:	☒ Yes	☐ No
Target Volume:	1.72	gal.	Water Contained:	☐ Yes	☒ No
Actual Volume:	2.0	gal.	DTW After Purge:		13.76 ft.

PID: | *Background:* | *Purging:* | ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	0.02 Lpm	D-D. Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 6 8 1 6 3 6 G

Sample Time: Start: 1633 Stop: 1641

Duplicate ID: N A

Sampling Method:
☒ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW816 Date: 10 /30 /98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1639	15.8	6.73	829us		Clear

COMMENTS:

000187

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 816 Date: 11 12 98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 13.97 ft.	Start: 8:48	Stop: 8:59	
Measured Depth to Bottom (DTBm) 14.10 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 13.68 ft.	Well Yields:	☑ Yes	☐ No
Target Volume: 0.14 gal.	Water Contained:	☐ Yes	☑ No
Actual Volume: 0.25 gal.	DTW After Purge:	13.98 ft.	

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 6 8 1 1 2 0 G

Sample Time: Start: 10:42 Stop: 10:58

Duplicate ID:

Sampling Method: ☑ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: Andrew F. Nuhfer Date: 11/12/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 816 Date: 11 12 98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8020, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	10:54	13.5	6.70	827uS		

COMMENTS:

000216

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 816 Date: 12 / 11 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	13.97 ft.	Start: 902	Stop: 927
Measured Depth to Bottom (DTBm)	1408 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	1343 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	0.32 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	0.50 gal.	DTW After Purge:	13.93 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0-02gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 6 8 1 2 1 1 G

Sample Time: Start: 1057 Stop: 1106

Duplicate ID: — — — — N A — — — —

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/11/98 QA/QC Review: [signature] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 816 Date: 12 / 11 / 98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8021 8010, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12/11/98	1105	12.5	6.76	774us		Clear

COMMENTS:

000000

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW817 Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: 12:26	Stop: 12:48	
Measured Depth to Bottom (DTBm) 16.35 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 12.87 ft.	Well Yields:	☒ Yes	☐ No
Target Volume: 1.70 gal.	Water Contained:	☐ Yes	☒ No
Actual Volume: 1.75 gal.	DTW After Purge:	16.14 ft.	

PID: Background: | Purging: ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☒ Bailer	0.0875 gpm	Ded. Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K008178103OG

Sample Time: Start: 1317 Stop: 13:28

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW817 Date: 10/30/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☒ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☒ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☒ Arsenic (EPA 206.2 or 7060A)
- ☒ Cadmium (EPA 7131)
- ☒ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 30 98	1327	16.4	6.91	933us		Clear

COMMENTS:

000189

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 817 Date: 11 120 198 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 16.09 ft.	Start: 9:08	Stop: 9:31	
Measured Depth to Bottom (DTBm) 16.33 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 13.40 ft.	Well Yields:	☑ Yes	☐ No
Target Volume: 1.31 gal.	Water Contained:	☐ Yes	☑ No
Actual Volume: 1.5 gal.	DTW After Purge:	16.23 ft.	

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 7 8 1 1 2 0 G

Sample Time: Start: 9:40 Stop: 9:52

Duplicate ID:

Sampling Method: ☑ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: Andrew F. Nichols Date: 11/20/98 QA/QC Review: MWS Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 817 Date: 11/20/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	9.48	13.9	6.87	871uS		

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 817 Date: 12 / 11 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	16.09 ft.	Start: 930	Stop: 951
Measured Depth to Bottom (DTBm)	16.36 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	13.20 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	1.55 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	1.75 gal.	DTW After Purge:	16.20 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer	0.08 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 7 8 1 2 1 1 G

Sample Time: Start: 1115 Stop: 1122

Duplicate ID: N A

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Cj Shan Date: 12/11/98 QA/QC Review: DMB Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 817 Date: 12 / 11 / 98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	11:21	13.1	6.97	941us		Clear

COMMENTS:

000301

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW817 Date: 2/16/99 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	16.09 ft.	Start: 9:38	Stop: 1000
Measured Depth to Bottom (DTBm)	16.35 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	10.16 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	3.02 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	3.25 gal.	DTW After Purge:	16.07 ft.

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		DCA Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 7 9 0 2 1 6 G

Sample Time: Start: 1055 Stop: 1105

Duplicate ID: M A

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJShaw Date: 2/16/99 QA/QC Review: DRB Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 817 Date: 2/16/99

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☑ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☐ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: Cyanide, special metals list

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2-16-99	1104	9.7	7.12	557us		clear

COMMENTS:

11.90 at 1053

000317

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW819 Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: 9:21	Stop: 1006	
Measured Depth to Bottom (DTBm)	11.72	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	8.30	ft.	Well Yields:	☒ Yes	☐ No
Target Volume:	1.67	gal.	Water Contained:	☐ Yes	☐ No
Actual Volume:	1.75	gal.	DTW After Purge:	11.55	ft.

PID: | Background: | Purging: | ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	0.038 gpm	Ded Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 9 8 1 0 3 0 G

Sample Time: Start: 1101 Stop: 1112

Duplicate ID: N A

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWK Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW819 Date: 10/30/98

LABORATORY:

☒ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1110	17.5	6.43	838us		Clear

COMMENTS:

000184

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 819 Date: 11/20/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	11.75 ft.	Start: 11:15	Stop: 11:38
Measured Depth to Bottom (DTBm)	11.71 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.85 ft.	Well Yields:	☑ Yes ☐ No
Target Volume:	1.41 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	1.5 gal.	DTW After Purge:	11.53 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0B198112OG

Sample Time: Start: 12:59 Stop: 1304

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nuhfer Date: 11/20/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 819 Date: 11/20/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ 8021 ~~8010~~, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1303	14.6	6.29	878us		

COMMENTS:

000221

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 819 **Date:** 12 / 11 / 98 **Personnel:** CJS

PURGING:

Reference Depth To Bottom (DTBr) 11.75 ft.	**Start:** 8:25	**Stop:** 850	
Measured Depth to Bottom (DTBm) 11.71 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 8.98 ft.	**Well Yields:** ☑ Yes ☐ No		
Target Volume: 1.33 gal.	**Water Contained:** ☐ Yes ☑ No		
Actual Volume: 1.50 gal.	**DTW After Purge:** 11.64 ft.		

PID: *Background:* *Purging:* ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.06gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 1 9 8 1 2 1 1 G

Sample Time: Start: 10:25 Stop: 10:38

Duplicate ID: K 0 0 8 1 9 8 1 2 1 1 D

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] **Date:** 12/11/98 **QA/QC Review:** DHB **Date:** 3/1/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 819 **Date:** 12 / 11 / 98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other:

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☑ Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (μmhos/cm)	Turbidity (NTU)	Notes
12-11-98	1036	13.0	6.38	862us		Clear

COMMENTS:

000298

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW82D Date: 10 / 30 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: 934	Stop: 941	
Measured Depth to Bottom (DTBm)	22.03	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	7.63	ft.	Well Yields:	☒ Yes	☐ No
Target Volume:	7.04	gal.	Water Contained:	☐ Yes	☒ No
Actual Volume:	7.25	gal.	DTW After Purge:	14.92 ft.	

PID: Background: Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	1.035gpm	Ded. Equip.
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0082081030G

Sample Time: Start: 945 Stop: 956

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: C J Shannon Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW82D Date: 10 / 30 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☐ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30-98	~~954~~	~~14.0~~	~~5.20~~	~~765us~~	CJS	Clear
	954	14.9	6.61	704us	CJS	

COMMENTS:

000187

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 820 Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 21.77 ft.		Start: 15:27	Stop: 15:33
Measured Depth to Bottom (DTBm) 22.00 ft.		*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW): 8.00 ft.		Well Yields:	☐ Yes ☐ No
Target Volume: 6.73 gal.		Water Contained:	☐ Yes ☑ No
Actual Volume: 7 gal.		DTW After Purge: 15.71 ft.	

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 8 2 0 B 1 1 1 8 G

Sample Time: Start: 15:36 Stop: 1544

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nordyke Date: 11/18/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 820 Date: 11/18/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	1543	13.1	6.57	706us		

COMMENTS:

C00203

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 820 Date: 12/10/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	21.77 ft.	Start: 1241	Stop: 1249
Measured Depth to Bottom (DTBm)	22.07 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	820 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	6.78 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	7.0 gal.	DTW After Purge:	15.12 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.875 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 2 0 8 1 2 1 0 G

Sample Time: Start: 1252 Stop: 1259

Duplicate ID: N A

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/10/98 QA/QC Review: [signature] Date: 3/10/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 820 Date: 12/10/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8021 8010, Freon 113, Freon 123a
☑ CLS Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1258	12.4	6.67	712us		Cloudy

COMMENTS:

000294

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW821 Date: 10 / 29 / 98 Personnel: CJC

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: 1455	Stop: 1526	
Measured Depth to Bottom (DTBm)	13.16	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	9.47	ft.	Well Yields:	☒ Yes	☐ No
Target Volume:	1.80	gal.	Water Contained:	☐ Yes	☒ No
Actual Volume:	2.0	gal.	DTW After Purge:	12.55	ft.

PID: | Background: | Purging: | ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	0.065 gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K00821810296

Sample Time: Start: 15:31 Stop: 15:40

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJ Shannon Date: 10/29/98 QA/QC Review: MJR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW821 Date: 10 / 29 / 98

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☒ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☒ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☒ Arsenic (EPA 206.2 or 7060A)
- ☒ Cadmium (EPA 7131)
- ☒ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.29.98	15:36	15.4	6.70	1152uS		Cloudy

COMMENTS:

000182

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 821 Date: 11 120198 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 13.29 ft.	Start: 11:52	Stop: 12:28	
Measured Depth to Bottom (DTBm) 13.15 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 9.62 ft.	Well Yields: ☑ Yes ☐ No		
Target Volume: 1.79 gal.	Water Contained: ☐ Yes ☑ No		
Actual Volume: 2 gal.	DTW After Purge: 11.62 ft.		

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K0D821811201G

Sample Time: Start: 1241 Stop: 1248

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F Nichol Date: 11/20/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: E82-1 Date: 11 120198

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ 8021 8010, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1247	13.9	6.58	1186 us		

COMMENTS: slight sheen present in purge water.

000222

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 821 Date: 12 / 11 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr) 13.29 ft.	Start: 855	Stop: 10:19	
Measured Depth to Bottom (DTBm) 13.14 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 9.69 ft.	Well Yields:	☑ Yes	☐ No
Target Volume: 1.69 gal.	Water Contained:	☐ Yes	☑ No
Actual Volume: 1.75 gal.	DTW After Purge: 13.09 ft.		

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.02gpm	Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 2 1 8 1 2 1 1 G

Sample Time: Start: 1045 Stop: 1052

Duplicate ID: NA

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/11/98 QA/QC Review: [signature] Date: 3/1/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 821 Date: 12 / 11 / 98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other:

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a	☐ Antimony (EPA 200.7 or 6010A)
~~☑~~ CJS Phenols (total) (EPA 420.1)	☑ Arsenic (EPA 206.2 or 7060A)
☐ Metals are Filtered	☑ Cadmium (EPA 7131)
☐ Metals are Unfiltered	☑ Lead (EPA 239.2 or 7421)
☐ Modified Appendix 33	☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121198	1051	13.2	6.62	1294us		Clear

COMMENTS:

000299

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW 821 Date: 2 / 16 / 99 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	13.29	ft.	Start: 845	Stop: 857	
Measured Depth to Bottom (DTBm)	13.15	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	9.04	ft.	Well Yields:	☑ Yes	☐ No
Target Volume:	2.0	gal.	Water Contained:	☐ Yes	☑ No
Actual Volume:	2.0	gal.	DTW After Purge:	12.65	ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K Q 0 8 2 1 9 0 2 1 6 G

Sample Time: Start: 1030 Stop: 1043

Duplicate ID: K Q 0 8 2 1 9 0 2 1 6 X

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJ Shaw Date: 2/16/99 QA/QC Review: [illegible] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 821 Date: 2 / 16 / 99

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: TEA

ANALYSES REQUESTED:

☑ 8021, 8010, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☑ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☐ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: Cyanide

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2-16-99	1042	9.0	6.61	676us		Clea

COMMENTS:

9.13 at 1028

000315

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW822 Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: 1140	Stop: 11:51	
Measured Depth to Bottom (DTBm) 22.36 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 10.97 ft.	Well Yields: ☒ Yes ☐ No		
Target Volume: 5.56 gal.	Water Contained: ☐ Yes ☒ No		
Actual Volume: 5.75 gal.	DTW After Purge: 19.35 ft.		

PID: Background: Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☒ Bailer	0.522gpm	Ded Equipment
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 2 2 8 1 0 ~~2~~ 3 0 G (CJS)

Sample Time: Start: 1200 Stop: 1211

Duplicate ID: NA

Sampling Method: ☒ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW822 Date: 10/30/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other:

ANALYSES REQUESTED:

- ☐ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☒ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☒ Arsenic (EPA 206.2 or 7060A)
- ☒ Cadmium (EPA 7131)
- ☒ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30-98	1209	14.7	6.69	993.45		

COMMENTS:

000188

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 822 Date: 11/18/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) 22.24 ft.	Start: 15:54	Stop: 16:03	
Measured Depth to Bottom (DTBm) 22.44 ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): 11.40 ft.	Well Yields:	☑ Yes	☐ No
Target Volume: 5.30 gal.	Water Contained:	☐ Yes	☑ No
Actual Volume: 5.5 gal.	DTW After Purge:	20.24	ft.

PID: *Background:* | *Purging:* ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 2 2 9 1 1 1 8 G

Sample Time: Start: 16:07 Stop: 1614

Duplicate ID:

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Amber F. Nuhfer Date: 11/19/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 822 Date: 11/18/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	10:12	13.3	6.93	914us		

COMMENTS:

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 822 Date: 12 /10 /98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr) 22.44 ft.		Start: 1305	Stop: 1314
Measured Depth to Bottom (DTBm) 22.43 ft.		*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW): 11.41 ft.		Well Yields: ☑ Yes ☐ No	
Target Volume: 5.38 gal.		Water Contained: ☐ Yes ☑ No	
Actual Volume: 5.50 gal.		DTW After Purge: 18.32 ft.	

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer	0.611 gpm	DCA Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 0 8 2 2 8 1 2 1 0 G

Sample Time: Start: 1317 Stop: 13:24

Duplicate ID: WA

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/10/98 QA/QC Review: [signature] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 822 Date: 12 /10 /98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☑ 625 Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1323	12.1	7.0	902us		Clear

COMMENTS:

000295

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW1R Date: 2/16/99 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	91.61 ft.	Start: 12:31	Stop: 13:18
Measured Depth to Bottom (DTBm)	91.62 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.80 ft.	Well Yields: ☐ Yes ☑ No	
Target Volume:	162.22 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	24.0 gal.	DTW After Purge:	42.85 ft.

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☑ Submersible		Non Ded.

SAMPLING:

Sample ID: K0061R902166

Sample Time: Start: 1351 Stop: 1407

Duplicate ID: MA

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Cughan Date: 2/16/99 QA/QC Review: [illegible] Date: 2/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 1R Date: 2/16/99

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2-16-99	1406	11.5	7.92	418us		Cloud

COMMENTS:

49125 Start
49149 stop

Obstruction in well at ~~44~~ 43.55 Unable to get pump by

43.55 at 1350

000320

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW125S Date: 2/16/99 Personnel: CJB

PURGING:

Reference Depth To Bottom (DTBr)	1406 ft.	Start: 912	Stop: 1018
Measured Depth to Bottom (DTBm)	1413 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	11.89 ft.	Well Yields:	☐ Yes ☑ No
Target Volume:	2.46 gal.	Water Contained:	☐ Yes ☑ No
Actual Volume:	1.5 gal.	DTW After Purge:	1409 ft.

PID: Background: Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☑ Bailer		Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K01259021 6G

Sample Time: Start: 1151 Stop: 1204

Duplicate ID: NA

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJ Shan Date: 2/16/99 QA/QC Review: [illegible] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 125S Date: 2/16/99

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8021 8010, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☒ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: collected both dissolved + total metals

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (umhos/cm)	Turbidity (NTU)	Notes
2-16-99	1203	9.8	7.12	428us		Clear

COMMENTS:

000316

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW206S Date: 2/16/99 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	17.18 ft.	Start: 1115	Stop: 1120
Measured Depth to Bottom (DTBm)	17.13 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	8.34 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	9.73 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	10.0 gal.	DTW After Purge:	8.67 ft.

PID: Background: | Purging: ☑ Not Applicable

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K020659021 6G

Sample Time: Start: 11:25 Stop: 11:40

Duplicate ID: K020659021 6D

Sampling Method: ☑ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJShaw Date: 2/16/99 QA/QC Review: [illegible] Date: 3/1/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 206S Date: 2/16/99

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 6021, Freon 113, Freon 123a
- ☑ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☑ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☐ Arsenic (EPA 206.2 or 7060A)
- ☐ Cadmium (EPA 7131)
- ☐ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: Cyanide, special metals list

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2.16.99	1139	10.4	6.79	644us		clear

COMMENTS:

000319

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW210S Date: 2/16/99 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	17.09 ft.	Start: 1258	Stop: 13:14
Measured Depth to Bottom (DTBm)	16.93 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	9.60 ft.	Well Yields: ☑ Yes ☐ No	
Target Volume:	8.24 gal.	Water Contained: ☐ Yes ☑ No	
Actual Volume:	8.50 gal.	DTW After Purge:	16.43 ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☑ Bailer		Ded Equip
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K 0 2 1 0 S 9 9 2 1 6 G

Sample Time: Start: 1328 Stop: 1340

Duplicate ID: N A

Sampling Method:
☑ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJSghan Date: 2/16/99 QA/QC Review: DPM Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: 210S Date: 2/16/99

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8010, Freon 113, Freon 123a (8021)
☑ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☑ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☐ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: Cyanide, special metals list

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2-16 99	1339	9.4	6.75	650us		Clear

COMMENTS:

13.79 at 1327

000318

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SL A Date: 10 / 30 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm)	NA	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	NA	ft.	Well Yields:	☐ Yes NA ☐ No	
Target Volume:	NA	gal.	Water Contained:	☐ Yes NA ☐ No	
Actual Volume:	NA	gal.	DTW After Purge:	NA	ft.

PID: *Background:* | *Purging:* ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump	NA	NA
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K S L 0 0 A 8 1 0 3 0 S

Sample Time: Start: 1536 Stop: 1549

Duplicate ID: NA

* *Sampling Method:*
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: Chris Shann Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: S.L.A Date: 10 / 30 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a	☐ Antimony (EPA 200.7 or 6010A)
☐ Phenols (total) (EPA 420.1)	☒ Arsenic (EPA 206.2 or 7060A)
☒ Metals are Filtered	☒ Cadmium (EPA 7131)
☐ Metals are Unfiltered	☒ Lead (EPA 239.2 or 7421)
☐ Modified Appendix 33	☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1548	15.8	7.01	6574S		Clear

COMMENTS:

* Sample Method: grab

000192

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SW-A Date: 11/19/98 Personnel: AFW

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm) NA ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): NA ft.	Well Yields: ☐ Yes ☐ No		
Target Volume: NA gal.	Water Contained: ☐ Yes ☐ No		
Actual Volume: NA gal.	DTW After Purge: NA ft.		

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID: K00SWA81119S

Sample Time: Start: 1620 Stop: 1629

Duplicate ID:

Sampling Method: grab ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nuckel Date: 11/19/98 QA/QC Review: MMS Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SW A Date: 11/19/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8021 ~~8010~~, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	1626	13.9	8.40	628.45		

COMMENTS:

000214

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLA   Date: 12/11/98   Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	ft.	Note: Use Reference Depth to Bottom for calculations	
Depth to Water (DTW):	ft.	Well Yields: ☐ Yes ☐ No	
Target Volume:	gal.	Water Contained: ☐ Yes ☐ No	
Actual Volume:	gal.	DTW After Purge:	ft.

N/A

PID: Background: | Purging: | ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer		
☐ Peristaltic Pump	N	A
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K S W 0 0 A 8 1 2 1 1 $

Sample Time: Start: 1248   Stop: 1254

Duplicate ID: N A

Sampling Method: ☐ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: CJ Shaw   Date: 12/11/98   QA/QC Review: DPB   Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: SLA   Date: 12/11/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other:

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a	☐ Antimony (EPA 200.7 or 6010A)
☐ Phenols (total) (EPA 420.1)	☑ Arsenic (EPA 206.2 or 7060A)
☐ Metals are Filtered	☑ Cadmium (EPA 7131)
☐ Metals are Unfiltered	☑ Lead (EPA 239.2 or 7421)
☐ Modified Appendix 33	☐ Silver (EPA 7761)

Other:

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	1253	12.8	7.00	614us		Clear

COMMENTS:

000304

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLB2 Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	NA ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	NA ft.	Well Yields: NA ☐Yes ☐No	
Target Volume:	NA gal.	Water Contained: NA ☐Yes ☐No	
Actual Volume:	NA gal.	DTW After Purge: NA ft.	

PID: Background: | Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer		
☐ Peristaltic Pump	N	A
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: F S L 0 B 2 0 1 0 3 0 8

Sample Time: Start: 1615 Stop: 1620

Duplicate ID: N A

Sampling Method: * ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Chris Sham Date: 10/30/98 QA/QC Review: MMR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SLB2 Date: 10/30/98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☒ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	16:19	11.4	7.00	1181us		

COMMENTS:

Sample methodology

000194

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SW-B2 Date: 11/19/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm) NA ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW): NA ft.	Well Yields:	☐ Yes	☐ No
Target Volume: NA gal.	Water Contained:	☐ Yes	☐ No
Actual Volume: NA gal.	DTW After Purge:	NA ft.	

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID: K O S W B 2 B 1 1 1 9 S

Sample Time: Start: 15:54 Stop: 16:03

Duplicate ID:

Sampling Method: grab ☐ Bailer ☐ American Sigma ☐ Well Wizard ☐ Tap

COMMENTS:

Signature: Andrew F. Nahlen Date: 11/19/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SW B2 Date: 11/19/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	15:58	6.1	7.77	1508 µS		

COMMENTS:

G00212

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SL B3 Date: 12/14/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	ft.	Well Yields: ☐ Yes	☐ No
Target Volume:	gal.	Water Contained: ☐ Yes	☐ No
Actual Volume:	gal.	DTW After Purge:	ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: KSWGB3812145

Sample Time: Start: 1204 Stop: 1209

Duplicate ID: NA

Sampling Method: ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/14/98 QA/QC Review: [signature] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: SL B3 Date: 12/14/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8010, Freon 113, Freon 123a (8021)
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12.14.98	1208	9.0	7.00	637us		Clear

COMMENTS:

000306

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLC Date: 10 / 30 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	NA ft.	*Notes Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	NA ft.	Well Yields: NA	☐ Yes ☐ No
Target Volume:	NA gal.	Water Contained: NA	☐ Yes ☐ No
Actual Volume:	NA gal.	DTW After Purge: NA	ft.

PID: *Background:* *Purging:* ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: KSLOOC810305

Sample Time: Start: 1652 Stop: 1658

Duplicate ID: NA

*Sampling Method:** ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SLC Date: 10 / 30 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☐ 8010, Freon 113, Freon 123a (601)
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
103098	1657	12.3	7.00	700uS		Cloudy

COMMENTS:

* Sample method: grab

000195

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SWC Date: 11/19/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm) NA ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW): NA ft.	Well Yields: ☐ Yes ☐ No	
Target Volume: NA gal.	Water Contained: ☐ Yes ☐ No	
Actual Volume: NA gal.	DTW After Purge: NA ft.	

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID: K00SWC811195

Sample Time: Start: 16:54 Stop: 1657

Duplicate ID:

Sampling Method: grab ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Norkut Date: 11/19/98 QA/QC Review: MMR Date: 12/3/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SW-C Date: 11/19/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8260~~ 8021/~~8010~~, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☑ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	16~~:55~~ 55 AFN	7.1	8.03	651/45		

COMMENTS:

000215

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLC2 Date: 12/14/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	ft.	Well Yields:	☒ Yes ☐ No
Target Volume:	gal.	Water Contained:	☐ Yes ☐ No
Actual Volume:	gal.	DTW After Purge:	ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: KSWQC2812145

Sample Time: Start: 1147 Stop: 1152

Duplicate ID: NA

Sampling Method:
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/14/98 QA/QC Review: [signature] Date: 2/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: SLC2 Date: 12/14/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-14-98	1151	8.6	7.00	649us		cloudy

COMMENTS:

000307

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLD Date: 10/30/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	NM ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	NA ft.	Well Yields: NA ☐Yes ☐No	
Target Volume:	NA gal.	Water Contained: NA ☐Yes ☐No	
Actual Volume:	NA gal.	DTW After Purge: NA ft.	

PID: Background: | Purging: ☒ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: KSL00D01030S

Sample Time: Start: 1703 Stop: 1710

Duplicate ID: NA

*Sampling Method:** ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Cj Shann Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SLD Date: / /

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☐ ~~8010~~ 502, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☒ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☒ Arsenic (EPA 206.2 or 7060A)
- ☒ Cadmium (EPA 7131)
- ☒ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (umhos/cm)	Turbidity (NTU)	Notes
10.30.98	1707	11.6	7.00	6.95uc		

COMMENTS:

* Sample method gear

000196

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SWD Date: 11/19/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr) NA ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm) NA ft.	Note: Use Reference Depth to Bottom for calculations		
Depth to Water (DTW): NA ft.	Well Yields: ☑ Yes ☐ No		
Target Volume: NA gal.	Water Contained: ☐ Yes ☑ No		
Actual Volume: NA gal.	DTW After Purge: NA ft.		

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID: K005WD811195

Sample Time: Start: 16:34 Stop: 16:45

Duplicate ID:

Sampling Method: grab ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Arthur F. Nurlund Date: 11/19/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SWL-D Date: 11/19/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	16:41	7.8	7.13	655uS		

COMMENTS:

000218

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SL D2 Date: 12 / 14 / 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	ft.	Well Yields:	☐ Yes ☐ No
Target Volume:	gal.	Water Contained:	☐ Yes ☐ No
Actual Volume:	gal.	DTW After Purge:	ft.

PID: *Background:* *Purging:* ☐ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: K S W 0 D 2 8 1 2 1 4 S

Sample Time: Start: 1132 Stop: 1144

Duplicate ID: N A

Sampling Method:
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/14/98 QA/QC Review: DMB Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: SL D2 Date: 12 / 14 / 98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ 8010, Freon 113, Freon 123a (8021)
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-14-98	11:43	4.5	6.88	641us		cloudy

COMMENTS:

000305

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLE Date: 10 / 30 98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm)	NA	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	NA	ft.	Well Yields:	☐ Yes NA ☐ No	
Target Volume:	NA	gal.	Water Contained:	☐ Yes NA ☐ No	
Actual Volume:	NA	gal.	DTW After Purge:	NA	ft.

PID: Background: Purging: ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: S S L 0 0 E 8 1 0 3 0 S

Sample Time: Start: 1604 Stop: 1609

Duplicate ID: NA

✝ *Sampling Method:*
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: CJSharm Date: 10/30/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: S.L.E Date: 10 / 30 / 98

LABORATORY:

☐ IBM - East Fishkill
☒ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☐ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☒ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☒ Arsenic (EPA 206.2 or 7060A)
☒ Cadmium (EPA 7131)
☒ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30.98	1604	14.4	6.99	799us		

COMMENTS:

✝ sample method: grab

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SW-E Date: 11/19/98 Personnel: RFN

PURGING:

Reference Depth To Bottom (DTBr)	NA ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	NA ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	NA ft.	Well Yields: ☐ Yes ☐ No	
Target Volume:	NA gal.	Water Contained: ☐ Yes ☐ No	
Actual Volume:	NA gal.	DTW After Purge: NA ft.	

PID: Background: | Purging: ☑ Not Applicable

Purge Method	Rate	Equipment ID
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID: K00SWEB111198

Sample Time: Start: 16:06 Stop: 16:17

Duplicate ID:

Sampling Method: grab ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F Nuckel Date: 11/19/98 QA/QC Review: MWK Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: SW-E Date: 11/19/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☑ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☑ ~~8010~~ 8021, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☑ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☑ Arsenic (EPA 206.2 or 7060A)
- ☑ Cadmium (EPA 7131)
- ☑ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	1613	12.6	6.91	804uS		

COMMENTS:

000213

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: SLE Date: 12/11/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	ft.	Well Yields:	☐ Yes ☐ No
Target Volume:	gal.	Water Contained:	☐ Yes ☐ No
Actual Volume:	gal.	DTW After Purge:	ft.

PID: | *Background:* | *Purging:* | ☑ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: KSW00E81211S

Sample Time: Start: 1230 Stop: 1238

Duplicate ID: KSW00E81211D

Sampling Method:
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/11/98 QA/QC Review: [signature] Date: 3/11/99

IBM
Kingston, New York

Analysis Request Form

Well Number: SLE Date: 12/11/98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☑ Arsenic (EPA 206.2 or 7060A)
☑ Cadmium (EPA 7131)
☑ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	1237	13.0	6.97	774µs		

COMMENTS:

000303

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 818 Date: 12 /10 /98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	10.23 ft.	Start:	Stop:
Measured Depth to Bottom (DTBm)	9.89 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	ft.	Well Yields:	☐ Yes ☐ No
Target Volume:	gal.	Water Contained:	☐ Yes ☐ No
Actual Volume:	gal.	DTW After Purge:	ft.

PID: | *Background:* | *Purging:* | ☐ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump	N	A
☐ Well Wizard		
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: NA

Sample Time: Start: N Stop: A

Duplicate ID: NA

Sampling Method:
☐ Bailer ☐ Well Wizard
☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 12/10/98 QA/QC Review: [signature] Date: [illegible]

IBM
Kingston, New York

Analysis Request Form

Well Number: 818 Date: 12 /10 /98

LABORATORY:

☐ IBM - East Fishkill
☑ EnviroTest
☐ Other: _____

ANALYSES REQUESTED:

☑ ~~8010~~ 8021, Freon 113, Freon 123a
☑ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☐ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes

COMMENTS:

Well is dry - verified w/ Mscope -

000293

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: 8/8 Date: 11/20/98 Personnel: AFN

PURGING:

Reference Depth To Bottom (DTBr)	10.23 ft.	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	9.90 ft.	*Note: Use Reference Depth to Bottom for calculations*	
Depth to Water (DTW):	Dry ft.	Well Yields:	☐ Yes ☐ No
Target Volume:	NA gal.	Water Contained:	☐ Yes ☐ No
Actual Volume:	NA gal.	DTW After Purge:	NA ft.

PID: Background: NA Purging: NA ☐ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer	NA	
☐ Peristaltic Pump	NA	
☐ Well Wizard	NA	
☐ American Sigma	NA	
☐ Bladder Pump	NA	
☐ Submersible	NA	

SAMPLING:

Sample ID:

Sample Time: Start: NA Stop: NA

Duplicate ID:

Sampling Method: ☐ Bailer ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: Andrew F. Nulty Date: 11/20/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: 8/8 Date: 11/20/98

LABORATORY:

☐ IBM - East Fishkill
☐ EnviroTest
☐ Other: NA

ANALYSES REQUESTED:

☐ 8010, Freon 113, Freon 123a
☐ Phenols (total) (EPA 420.1)
☐ Metals are Filtered
☐ Metals are Unfiltered
☐ Modified Appendix 33
☐ Antimony (EPA 200.7 or 6010A)
☐ Arsenic (EPA 206.2 or 7060A)
☐ Cadmium (EPA 7131)
☐ Lead (EPA 239.2 or 7421)
☐ Silver (EPA 7761)

Other: NA

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
NA	NA	NA	NA	NA	NA	

COMMENTS:

Well is dry. Verified with water level indicator.

000220

IBM
Kingston, New York

Field Sampling Data Sheet

GENERAL INFORMATION:

Well No: MW818 Date: 10/29/98 Personnel: CJS

PURGING:

Reference Depth To Bottom (DTBr)	NA	ft.	Start: NA	Stop: NA	
Measured Depth to Bottom (DTBm)	9.91	ft.	*Note: Use Reference Depth to Bottom for calculations*		
Depth to Water (DTW):	Dry	ft.	Well Yields: NA	☐ Yes	☐ No
Target Volume:	NA	gal.	Water Contained: NA	☐ Yes	☐ No
Actual Volume:	NA	gal.	DTW After Purge:		ft.

PID: | *Background:* | *Purging:* | ☒ *Not Applicable*

Purge Method	*Rate*	*Equipment ID*
☐ Bailer		
☐ Peristaltic Pump		
☐ Well Wizard	NA	NA
☐ American Sigma		
☐ Bladder Pump		
☐ Submersible		

SAMPLING:

Sample ID: NA

Sample Time: Start: N Stop: A

Duplicate ID: NA

Sampling Method: ☐ Bailer NA ☐ Well Wizard ☐ American Sigma ☐ Tap

COMMENTS:

Signature: [signature] Date: 10/29/98 QA/QC Review: MWR Date: 12/8/98

IBM
Kingston, New York

Analysis Request Form

Well Number: MW818S Date: 10/29/98

LABORATORY:

- ☐ IBM - East Fishkill
- ☒ EnviroTest
- ☐ Other: _____

ANALYSES REQUESTED:

- ☐ 8010, Freon 113, Freon 123a
- ☐ Phenols (total) (EPA 420.1)
- ☐ Metals are Filtered
- ☐ Metals are Unfiltered
- ☐ Modified Appendix 33
- ☐ Antimony (EPA 200.7 or 6010A)
- ☐ Arsenic (EPA 206.2 or 7060A)
- ☐ Cadmium (EPA 7131)
- ☐ Lead (EPA 239.2 or 7421)
- ☐ Silver (EPA 7761)

Other: _____

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
NA	NA	NA	NA	NA	NA	NA

COMMENTS:

000181

IBM - Kingston, New York
Equipment Blank Index

Sample ID	Date	Personnel	Sample Time	Equipment ID
KEQ8@821WLID	8/21/98	CJS	918	25765
KEQ8@824WLID	8/24/98	CJS	1023	25765
KEQ8@824WLID	8/24/98	CJS	12:39	25765
KEQ8@824WLID	8/24/98	CJS	14:12	25765 - IEA
KEQ8@825WLID	8/25/98	CJS	1022	25765 IEA
KEQ8@825WLID	8/25/98	CJS	1250	25765 - EnvTest
KEQ8@924WLID	9/24/98	CJS	908	25765
KEQ8@924WLID	9/24/98	CJS	1249	25765
KEQ8@924WLID	9/24	CJS	1405	25765 IEA
KEQ81@29WLID	10/29/98	CJS	1246	14774 IEA
KEQ81@30WLID	10/30/98	CJS	1129	14774
KEQ81118WLID	11-18-98	AFN	11:00	25765
KEQ81119WLID	11-19-98	AFN	12:40	25765
KEQ81119WLID (IEA)	11-19-98	AFN	14:05	25765
KEQ81120WLID	11-20-98	AFN	11:45	25765
KEQ812@1WLID	12-1-98	CJS	1339	25765
KEQ812@2WLID	12-2-98	CJS	11:11	25765
KEQ812@3WLID	12-3 98	CJS	1404	25765
KEQ812@3WLID	12-3-98	CJS	1430	25765-IEA

IBM - Kingston, New York
Equipment Blank Index

Sample ID	Date	Personnel	Sample Time	Equipment ID
KEQ81210WLID	12/10/98	CJS	11:29	WLND A
KEQ81211WLID	12/11/98	CJS	8:20	WLID A
KEQ81214WLID	12/14/98	CJS	15:33	WLID A
KEQ81214WLID	12/14/98	CJS	1607	WLID A
KEQ90216WLID	2-16-99	CJS	840	WLID A- IEA
KEQ90216PUMP	2-16-99	CJS	12:22	Pump
KEQ90302WLID	3-2-99	CJS	1408	WLID C
KEQ90303WLID	3-3-99	CJS	1157	WLID C
KEQ90303WLID	3-3-99	CJS	1228	WLID C
KEQ90303WLID	3-3-99	CJS	13:29	WLID C
KEQ90304WLID	3-4-99	CJS	1003	WLID C
KEQ90216WLID	2-16-99	CJS	10:55	WLID A (DRNO)

IBM - Kingston, New York
Trip Blank Index

Sample ID	Date	Personnel	Comments
KTC8@8210822	8/21 - 8/22	CJS	
KTCA@8240825	8/24 - 8/25	CJS	
KTCB@8240825	8/24 - 8/25	CJS	IEA Lab
KTCA@8250826	8/25 - 8/26	CJS	
KTCB@8250826	8/25 - 8/26	CJS	IEA Lab
KTCA@9240924	9/24 - 9/24 (DRM)	CJS	
KTCB@9240924	9/24 - 9/24 (DRM)	CJS	
KTCC@9240925	9/24 - 9/25	CJS	IEA Lab
~~KTCA@1029@1030~~	~~10/29 - 10/30~~	~~CJS~~	~~EnviroTest~~ CJS
KTCB1@291@30	10/29 - 10/30	CJS	IEA *
KTC81@301@31	10/30 - 10/31	CJS	Envirotest
KTAB1118 1119	11-18-98/11-19-98	AFN	IEA
KTAA1118 1119	11-18-98/11-19-98	AFN	Envirotest
KTAA1119 1120	11-19-98/11-20-98	AFN	Envirotest
KTAB1119 1120	11-19-98/11-20-98	AFN	IEA Lab
KTAC1119 1120	11-19-98/11-20-98	AFN	Envirotest
KTC8120 1202	12-1-98/12-2-98	CJS	Envirotest
KTC8120 1203	12-2-98/12-3-98	CJS	EnviroTest
KTCA1203 1204	12-3-98/12-4-98	CJS	Envirotest
KTCB1203 1204	12-3-98/12/4-98	CJS	IEA

* Sample frozen when received by laboratory. Not analyzed. (DRM)

IBM - Kingston, New York
Trip Blank Index

Sample ID	Date	Personnel	Comments
KTCA121201211	12/10 - 12/11	CJS	Envirotest
KTCB121201211	12/10 - 12/11	CJS	IEA
KTC8121111211	12/10 - 12/11	CJS	Envirotest
KTCA121412215	12/14 - 12/15	CJS	Envirotest
KTCB121412215	12/14 - 12/15	CJS	Envirotest
KTCA021600217	2/16 - 2/17	CJS	Envirotest
KTCB021600217	2/16 - 2/17	CJS	IEA
KTB9030200303	3/2 - 3/3	CJS	Envirotest
KTBA030300304	3/3 - 3/4	CJS	Envirotest
KTBB030300304	3/3 - 3/4	CJS	IEA
KTBC030300304	3/3 - 3/4	CJS	EnviroTest
KTCC121412215	12/14 - 12/15	CJS	IEA DRM

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: Groundwater Sciences Corp

PROJECT ID: G67370-IBM

STL PROJECT MGR: Stephanie Plunkett

RUSH ☐ YES ☑ NO | DUE DATE

TEST	GENERAL REMARKS
8021 rep 1,2 DCE total From 113 From 1230	

BOTTLE TYPE AND PRESERVATION	
40 ml HCl	

FIELD FILTERED (CIRCLE Y OR N)								
Y / (N)	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
2								
3								
2								

ITEM	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX		
1	KEQ81029WLID	10-29-98 / 12:46	AQ		
2	KQ811581029X	10-29-98 / 1304	AQ		
3	KTCB10291030	10/29/98 - 10/30/98	AQ		

MATRIX CODE

A - AIR	S - SOIL
AQ - AQUEOUS	SL - SLUDGE
C - COMPLEX	W - WIPE
D - DRUM WASTE	O - OTHER
OI - OIL	FB - FIELD BLANK
	TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME 10/28/98 18:00	BOTTLES REC'D BY	DATE / TIME 10/29/98 930
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY Chris Shannon	DATE / TIME 10/29/98 17:10	RECEIVED IN LAB BY	DATE / TIME
SIGNATURE Chris Shannon		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SJL
Committed To Your Success

CHAIN OF CUSTODY

315 F[illegible]ton Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D Bergmann PHONE NO. 8960288
PROJECT LOCATION: Kingston IBM
PROJECT NUMBER / PO NO.: 93003106 Non Routine

REPORT TYPE
STANDARD ☐ ISRA ☒
NYASP A ☐ B ☐ CLP ☐
OTHER ______

TURNAROUND
☒ NORMAL ______
☐ QUICK ______
☐ VERBAL ______

REPORT # (Lab Use Only)
[redacted]

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	SAMPLING DATE	TIME AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic Nitric	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	10/29/98	1300		X	AQ	K00811581029G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a As (dissolved), Cd (dissolved) Pb (dissolved)
	10/29/98	1345		X	AQ	K00811881029G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a, As (dissolved, Cd (dissolved) Pb (dissolved)
	10/29/98	1424		X	AQ	K00812881029G	4	3							1				8021 rep 1 2 DCE total Freon 113, Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
CJS	~~10/29/98~~				~~AQ~~	~~KTC81029110300~~	~~3~~	~~3~~											8021 rep 1.2 DCE total Freon 113 Freon 123a
	10/29/98	1531		X	AQ	K00082181029G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
	10/29/98	1010		X	AQ	K00081381029G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a, As (dissolved) Cd (dissolved) Pb (dissolved)
	10/29/98	1010		X	AQ	K00081381029D	4	3							1				8021 rep 1 2 DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
	10/30/98	1101		X	AQ	K00081981030G	4	3							1				8021 rep 1-2 DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
	10/30/98	945		X	AQ	K00082081030G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
	10/30/98	1337		X	AQ	K00081581030G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)
	10/30/98	1129		X	AQ	KFQ81030WLID	3	3											8021 rep 1 2 DCE total Freon 113 Freon 123a
	10/30/98	1200		X	AQ	K00082281030G	4	3							1				8021 rep 1-2DCE total Freon 113 Freon 123a As (dissolved) Cd (dissolved) Pb (dissolved)

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	SJL	10/29/98	1:48	C. Shannon	GSC	10/29/98	745
[signature]	CJS				CJS		
C. [signature]	GSC	10/31/98	930	[signature]	SJL	10/31/98	9:30

COMMENTS: IBM Hudson Valley Special Deliverables Package, see attached list
ALL SAMPLES RECEIVED INTACT & IN GOOD CONDITION WITH A TEMP OF 1.2° JPM 10/31/98 9:30

STL
Committed To Your Success

CHAIN OF CUSTODY

315 I[illegible]ton Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct. Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D. Bergmann PHONE NO. 896 0288
PROJECT LOCATION: Kingston TBM
PROJECT NUMBER / PO NO.: 9300305 Non Routine

REPORT TYPE
STANDARD ☐ ISRA ☒ SK
NYASP A ☐ B ☐ CLP ☐
OTHER ____

TURNAROUND
☒ NORMAL ____
☐ QUICK ____
☐ VERBAL ____

REPORT # (Lab Use Only)
[redacted]

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	Sampling Date	Time AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	10/30/98	1317		X	AQ	K00817810300G	4	3							1				8021 rpl 2DCE total Freon113 Freon123a A (dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1033		X	AQ	K00816810300G	4	3							1				8021 rpl 2DCE total Freon113 Freon123a A (dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1415		X	AQ	K00814810300G	4	3							1				8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1517		X	AQ	K00810810300G	4	3							1				8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1530		X	AQ	KSL00A810300S	4	3							1				8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1604		X	AQ	KSL00E810300S	4	3							1				8021 rpl 1,2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1615		X	AQ	KSL0B2810300S	4	3							1				8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1652		X	AQ	KSL00C810300S	4	3							1				8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	—			AQ	KTC8103001031	3	3											8021 rpl 2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)
	10/30/98	1703		X	AQ	KSL00D810300S	4	3							1				8021 rpl 1,2DCE total Freon113 Freon123a As(dissolved) Cd(dissolved) Pb(dissolved)

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	STL	10/29/98	7:48	[signature]	GSC	10/29/98	745
[signature]	GSC			CJS			
[signature]	GSC	10/31/98	930	[signature]	STL	10/31/98	9:30

COMMENTS: [illegible] Hudson Valley Special Deliverables Package, see attached list
All samples received intact & in good condition with a temp of 1.7°C JM 10/31/98 9:30

STL Committed To *Your* Success

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GWS

PROJECT ID: IBM

STL PROJECT MGR: SNP

RUSH [ ] YES [X] NO | DUE DATE

TESTS								GENERAL REMARKS
~~VOA-5242~~- mix		8021, Freon 113, Freon 123a, ppm 1,2 DCE Total.						+ 2 extra VOA vials
BOTTLE TYPE AND PRESERVATION								
HCL VOAVIAL								

BOTTLE SET ID	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	[illegible]	[illegible]	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
01	K0081081118G	11-18-98 / 11:40	W		N	3		3						
02	KEQ81118WLID	11-18-98 / 11:00	FB		N	3		3						W7 FB H2O
03	KTAB1118111 9	11-18-98 / 11-19-98	TB		N	3		3						

FIELD FILTERED (CIRCLE Y OR N)

MATRIX CODE

- A - AIR
- AQ - AQUEOUS
- C - COMPLEX
- D - DRUM WASTE
- OI - OIL
- S - SOIL
- SL - SLUDGE
- W - WIPE
- O - OTHER
- FB - FIELD BLANK
- TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
	11/16/98 15:40	Andrew F. Nadell	11-16-98 / 15:00
SIGNATURE: [signature]		SIGNATURE: Andrew F. Nadell	
SAMPLES COLLECTED BY	**DATE / TIME**	**RECEIVED IN LAB BY**	**DATE / TIME**
Andrew F. Nadell	11-18-98 16:30		
SIGNATURE: Andrew F. Nadell		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLES INTACT
- [ ] CUSTODY SEALS
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] CHILLED
- [ ] SEE REMARKS

CHAIN OF CUSTODY

Committed To Your Success

315 F[illegible]on Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: [illegible] Environmental Services L.P.
ADDRESS: 2 Summit Ct Suite 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D Brennan PHONE NO.: 914 896-0288 x 14
PROJECT LOCATION: IBM Hudson Valley - Tivoli
PROJECT NUMBER / P.O. NO.: 7300-05

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER ☐

TURNAROUND
☑ NORMAL
☐ QUICK
☐ VERBAL

REPORT # (Lab Use Only)
TEMP BLANK
ICE CHECK
REVIEWED BY

NY PUBLIC WATER SUPPLIES
SOURCE ID
ELRP TYPE
FEDERAL ID

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	SAMPLING DATE	SAMPLING TIME AM/PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic 1:1 Nitric Acid 125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	11/6/98	11:14		✓	AQ	K00810311113G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	11:22		✓	AQ	K00811R31113G	4	3							1			8021 From 113, From 1230 report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	11:30		✓	AQ	K00811531113G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	11:37		✓	AQ	K00812331113G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	11:43		✓	AQ	K00813931113G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	11:53		✓	AQ	K00814331113G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	12:02		✓	AQ	K00814831113D	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	12:07		✓	AQ	K00819081118G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	12:07		✓	AQ	K00822781118G	4	3							1			8021 From 113, From 1230, report 1,2 DCE Total Arsenic, Lead, Cadmium
	11/6/98	9/6/98		✓	AQ	KTNA1131119	3	3										8021 From 113, From 1230, report 1,2 DCE Total

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	SL	11/17/98	16:00	[signature]	[illegible]	11-17-98	16:00
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]			AFM	[signature]			AFM
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	[illegible]	11.19.98	8:20	[signature]	SL	11/19/98	8:20

COMMENTS: [illegible] RECEIVED SAMPLES IN GOOD CONDITION WITH A TEMP OF 2.1°C ppm 11/19/98 8:20
IBM Hudson Valley Tivoli site Deliverable: Data requested. See attached list.

Committed To Your Success

CHAIN OF CUSTODY

315 F[illegible]ton Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: [illegible] Services Corp
ADDRESS: 2 [illegible] Suite 204
CITY, STATE ZIP: Fishkill NY 12524
NAME OF CONTACT: D. [illegible] PHONE NO. 914-896-0288 x14
PROJECT LOCATION: IBM Kingston [illegible]
PROJECT NUMBER / PO NO. 93003.05

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER ______

TURNAROUND
☑ NORMAL ______
☐ QUICK ______
☐ VERBAL ______

REPORT # (Lab Use Only)
[redacted]
TEMP BLANK Y___ N___
pH CHECK Y___ N___
REVIEWED BY

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___ ___

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	Sampling Date	Time AM PM	Comp	Grab	Matrix	Client I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic Nitric Acid	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	Analysis Requested
	11/19/98	15:54		✓	AQ	K0SWB2811195	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/19/98	1606		✓	AQ	K00SWE811195	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/19/98	1620		✓	AQ	K00SWA811195	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/19/98	1654		✓	AQ	K00SWC811195	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic
	11/19/98	1634		✓	AQ	K00SWD811195	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic
	11/19/98	11/20/98		✓	AQ	KTAC111911200	3	3											8021, Freon 113, Freon 123a, report 1,2 DCE Total
	11/20/98	9:40		✓	AQ	K00B17811200G	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/20/98	12:23		✓	AQ	K00B15811200G	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/20/98	11:42		✓	AQ	K00B16811200G	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/20/98	12:59		✓	AQ	K00B19811200G	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.
	11/20/98	11:45		✓	AQ	KEQB11200W1ID	3	3											8021, Freon 113, Freon 123a, report 1,2 DCE Total
	11/20/98	12:41		✓	AQ	K00B21811200G	4	3							1				8021, Freon 113, Freon 123a, report 1,2 DCE Total Lead, Cadmium, Arsenic.

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	SR	11/17/98	10:00	[signature]	[illegible]	11-17-98	[illegible]
[signature]	[illegible]	11-20-98	14:35	[signature]	SR	11/20/98	14:35

COMMENTS: All samples received intact and in good condition with a temp. of 2.7°C [initials] 11/20/98 14:35
IBM Hudson Valley Kingston site. Deliverable package requested. See attached list.

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
(203) 261-4458
Fax: (203) 268-5346

Committed To Your Success

CHAIN OF CUSTODY RECORD

PAGE ___ OF ___ | NO. ___

STL JOB #:

CLIENT: Groundwater Sciences Corp

PROJECT ID: Kingston IWSL 93003.05

STL PROJECT MGR: S. Plunkett

RUSH: YES / ☑ NO | DUE DATE

TESTS: 8021 rep 1,2DCE total Freon 113 Freon 123

BOTTLE TYPE AND PRESERVATION: 3 40ml HCL

FIELD FILTERED - CIRCLE Y OR N: Y / (N)

Bottles	Sample ID	Date/Time Collected	Matrix			8021 rep 1,2DCE total Freon 113 Freon 123								Sample Remarks
4	K[illegible]81210WLID	12/10/98 - 11:29	AQ			3								
7	K[illegible]1210I211	12/10/98 —	AQ			2								
5	K000128121 0X	12/10/98 1144				3								

GENERAL REMARKS:

MATRIX CODE

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE / TIME: 11/25/98 900
SIGNATURE: [signature]

SAMPLES COLLECTED BY: Chris Shannon — DATE / TIME: 12-10-98 15:15
SIGNATURE: [signature]

BOTTLES REC'D BY: Chris Shannon — DATE / TIME: 11/26/98 1400
SIGNATURE: [signature]

RECEIVED IN LAB BY — DATE / TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CHAIN OF CUSTODY

315 Fullerton Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

Committed To Your Success

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: A Bergmann PHONE NO.: 8960288
PROJECT LOCATION: Kingston
PROJECT NUMBER / PO NO.: 9300305 ROUTINE

REPORT TYPE
STANDARD ☐ ISRA ☒
NYASP A ☐ B ☐ CLP ☐
OTHER Special Deliverables IBM Hudson Valley Packag See List

TURNAROUND
☒ NORMAL
☐ QUICK
☐ VERBAL

REPORT # (Lab Use Only)
TEMP BLANK Y N C
PH CHECK Y N
REVIEWED BY

NY PUBLIC WATER SUPPLIES
SOURCE ID
ELRP TYPE
FEDERAL ID

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY STE#	SAMPLING DATE	TIME AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic Nitric	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	12/10/98	1024		X	GW	K00810812101G	4	3							1				8021 repl 1 2 DCE total Freon 113 Freon 123a, total xylenes Arsenic Lead Cadmium
	12/10/98	1046		X	GW	K00811581210G	4	3							1				8021 repl 1 2 DCE total Freon 113 Freon 123a, total xylenes Arsenic Lead Cadmium
	12/10/98	1059		X	GW	K00811081210G	4	3							1				8021 repl 1 2 DCE total Freon 113 Freon 123, total xylenes Arsenic Lead Cadmium
	12/10/98	—	—		AQ	KTCA1210121I	3	3											8021 repl 1 2 DCE total Freon 113 Freon 123 total xylenes
	12/10/98	1144		X	GW	K00812812101G	4	3							1				8021 repl 1 2 DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/10/98	1252		X	GW	K00820812101G	4	3							1		8021		~~8010~~ repl 1 2 DCE total ~~Cl~~ Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/10/98	1317		X	GW	K00822812101G	4	3							1		8021		~~8010~~ repl 1 2 DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/10/98	1392		X	GW	K00813812101G	4	3							1		8021		~~8010~~ repl 1 2 DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/10/98	1430		X	GW	K00814812101G	4	3							1		8021		~~8010~~ repl 1 2 DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
	SJL	12/10/98	8:20		GSC	12/10/98	820
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
	GSC				CJS		
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
	GSC	12-10-98	1620		SJL	12/10/98	16:20

COMMENTS: All Samples Received Intact & In Good Condition With A Temp. Of 1.2°C JPM 12/10/98 16:20

Modified per SJL D. Rohl 12/14/98

SIL
Committed To Your Success

CHAIN OF CUSTODY

315 Fulle...n Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D Bergmann PHONE NO. 8960288
PROJECT LOCATION: Kingston
PROJECT NUMBER / PO NO.: 93003.05

REPORT TYPE
STANDARD ☐ ISRA ☒
NYASP A☐ B☐ CLP☐
OTHER: IBM Hudson Valley Special Deliverables Package see List

TURNAROUND
☒ NORMAL
☐ QUICK
☐ VERBAL

REPORT # (Lab Use Only)
[redacted]

NY PUBLIC WATER SUPPLIES
SOURCE ID
ELRP TYPE
FEDERAL ID

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	SAMPLING DATE	TIME AM-PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic Nitric	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	12/11/98	1025		X	GW	K0081981211G	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	820		X	AQ	KFQ81211WL1D	3	3											8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes
	12/11/98	1025		X	GW	K0081981211D	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	—			AQ	KTC812111211	3	3											8021 rep 1.2DCE total Freon 113 Freon 123a Total xylenes
	12/11/98	1045		X	GW	K0082181211G	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	1051		X	GW	K0081681211G	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	1115		X	GW	K0081781211G	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	1320		X	GW	K0081581211G	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Arsenic Lead Cadmium
	12/11/98	1230		✓	GW	KSW00E81211S	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Lead Cadmium Arsenic
	12/11/98	1230		✓	GW	KSW00E81211D	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Lead Cadmium Arsenic
	12/11/98	1240		✓	GW	KSW00A81211S	4	3							1				8021 rep 1.2DCE total Freon 113 Freon 123a total xylenes Lead Cadmium Arsenic

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	SIL	12/10/98	8:20	[signature]	GSC	12-10-98	820
[signature]	GTS			[signature]	GTS		
[signature]	GSC	12.11.98	15:30	[signature]	SIL	12/11/98	15:30

COMMENTS: All samples received intact & in good condition with a temp. of 1.2°C JMM 12/11/98 15:30

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN OF CUSTODY RECORD

PAGE | OF | NO.

STL JOB #:

CLIENT: Groundwater Science Corp

PROJECT ID: REV/TOOSL

STL PROJECT MGR: SNP

RUSH ☐ YES ☑ NO   DUE DATE

TESTS: 8010 rep, 1,2DCE, total Freon 113, Freon 123a, Total Xylenes by 524.2

BOTTLE TYPE AND PRESERVATION: 40 ml HCl

FIELD FILTERED - CIRCLE Y or N

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	[illegible]
1	KEG81214WLID	16:07/12-14-98	AQ			3								
0	KTCC1214121S	12-14-98	AQ			3								
3	K0106581214X	12/14/98 / 16:25	AQ			3								

MATRIX CODES

A - AIR   S - SOIL
AQ - AQUEOUS   SL - SLUDGE
C - COMPLEX   W - WIPE
D - DRUM WASTE   O - OTHER
OI - OIL   FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME 12/9/98	BOTTLES REC'D BY Chris Shannon	DATE / TIME 12/10/98
SIGNATURE [signature]	1500	SIGNATURE [signature]	1400
SAMPLES COLLECTED BY Chris Shannon	DATE / TIME 12/14/98	RECEIVED IN LAB BY	DATE / TIME
SIGNATURE [signature]	17:30	SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT   ☐ CUSTODY SEALS
☐ PRESERVED   ☐ SEALS INTACT
☐ CHILLED   ☐ SEE REMARKS

SAMPLE [illegible] COPY

CHAIN OF CUSTODY

315 F[illegible]n Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

Committed To Your Success

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct. Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D Bergmann
PHONE NO.: 8960288
PROJECT LOCATION: Kingston
PROJECT NUMBER / PO NO.: 93003.06 - Routine

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER Special Deliverables IBM Hudson Valley Package - see list

TURNAROUND
☑ NORMAL _____
☐ QUICK _____
☐ VERBAL _____

REPORT # (Lab Use Only)
TEMP BLANK: Y [illegible] °C
PC CHECK: Y [illegible]
REVIEWED BY:

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	SAMPLING DATE	TIME AM/PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	1 Liter Amber Sulfuric Acid	1 Liter Amber Organic Washed	1 Liter Plastic Nitric Acid	1 Liter Plastic Sodium Hydroxide	1 Liter Plastic	1 Liter Plastic Sulfuric Acid	250ml Plastic	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	12/14/98	1132		✓	GW	KSW@D2812146	4	3							1				8021 rep 1-2 DCE total From 113 From 1230 Arsenic Lead Cadmium
	12/14/98	1147		✓	GW	KSW@C2812146	4	3							1				8021 rep 1-2 DCE total From 113 From 1230 Arsenic Lead Cadmium
	12/14/98	1204		✓	GW	KSW@B3812146	4	3							1				8021 rep 1-2 DCE total From 113 From 1230 Arsenic Lead Cadmium
	12/14/98	____			AQ	KTCA1214 1215	3	3											8021 rep 1-2 DCE total From 113 From 1239

	COMPANY	DATE	TIME		COMPANY	DATE	TIME
RELINQUISHED BY	GSC	12/10/98	8:00	RECEIVED BY Chris Shannon	GSC	12-10-98	820
RELINQUISHED BY	CJS	DATE	TIME	RECEIVED BY CJS	COMPANY	DATE	TIME
RELINQUISHED BY	GSC	12:15:98	1000	RECEIVED BY	STC	12-15-98	10:00 AM

COMMENTS: All samples received in tact and in good cond. temp blanks at 2.8°C

STL Committed To Your Success

CHAIN OF CUSTODY

315 F[illegible]on Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct St 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D Bosman PHONE NO. 8960288 x14
PROJECT LOCATION: Kingston Tech City
PROJECT NUMBER / PO NO.: 93003.05

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER ______

TURNAROUND
☐ NORMAL ______
☑ QUICK Po Reagan (Email) ~~Full Report~~
☐ VERBAL 3.5.99

REPORT # (Lab Use Only)
[redacted]

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

LAB USE ONLY

STE#	SAMPLING DATE	TIME AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic Nitric	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
01	2/16/99	1030		✓	AQ	K0082190216G	6	3	1			1			1				8021 rep 1-2DCE total Freon 113 Fr 123a Metals, Cyanide total xylenes Phenols
02	2/16/99	1030		✓	AQ	K0082190216G	1								1				Dissolved Metals
03	2/16/99	1055		✓	AQ	KFQ90216WL1D	3	3											8021 rep 1.2DCE total Fr 113 Fr 123a total xylenes
04	2/16/99	1151		✓	AQ	K01255902116G	6	3	1			1			1				8021 rep 1.2 DCE total Fr 113 Fr 123a Metals ~~Cyanide~~ total xylene Phenols → Arsenic
05	2/16/99	1151		✓	AQ	K01255902116G	1								1				Dissolved Metals (Arsenic)
06	2/16/99	1125		✓	AQ	K0206S90216G	6	3	1			1			1				8021 rep 1-2DCE total Fr 113 Fr 123a, Metals Cyanide Phenols total xylenes
07	2/16/99	1125		✓	AQ	K0206S90216G	1								1				Dissolved Metals
08	2/16/99	1125		✓	AQ	K0206S90216D	4	3							1				8021 rep 1.2 DCE total Fr 113 Fr 123a Metals total xylenes
09	2/16/99	1125		✓	AQ	K0206S90216D	1								1				Dissolved Metals
10	2/16/99	1351		✓	AQ	K0001R90216G	4	3							1				8021 rep 1.2DCE total Fr 113 Fr 123a total xylenes Arsenic total
11	2/16/99	1351		✓	AQ	K0001R90216D	1								1				Dissolved Arsenic
12	2/16/99	1328		✓	AQ	K0210S90216G	6	3	1			1			1				8021 rep 1-2DCE total Fr 113 Fr 123a total xylenes Cyanide Phenols Metals
13	2/16/99	1328		✓	AQ	K0210S90216G	1	1							1				Dissolved Metals

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	STL	2/12/99	9:00	[signature]	GSC	2.12.99	9:00
CJS				CJS			
[signature]	GSC	2.16.99	1610	[signature]	STL	2/16/99	16:10

COMMENTS: ALL SAMPLES RECEIVED INTACT & IN GOOD CONDITION WITH A TEMP OF .3°C JPM 2/16/99 16:10

NYSDOH 10142 NJDEP 73015 CT PH-0554 EPA NY049 M-NY049 PA 68-378

STL — Committed To Your Success

CHAIN OF CUSTODY

315 F[illegible]n Avenue
Newburgh, NY 12550
TEL (914) 562-0890
FAX (914) 562-0841

CUSTOMER NAME: Groundwater Sciences Corp
ADDRESS: 2 Summit Ct Ste 204
CITY, STATE, ZIP: Fishkill NY 12524
NAME OF CONTACT: D. Bozman PHONE NO. 8960284
PROJECT LOCATION: Kingston Tech City
PROJECT NUMBER / PO NO. 93003.05 Non Routine

REPORT TYPE
STANDARD ☐ ISRA ☑
NYASP A ☐ B ☐ CLP ☐
OTHER ______

TURNAROUND
☐ NORMAL ______
☑ QUICK P. Ron Bayer (Email) ~~Full Report~~ 3-5-99
☐ VERBAL ______

REPORT # (Lab Use Only)
[redacted]

NY PUBLIC WATER SUPPLIES
SOURCE ID ___ ___ ___
ELRP TYPE ___ ___ ___
FEDERAL ID ___ ___ ___ ___ ___ ___ ___

DW = DRINKING WATER S = SOIL
WW = WASTE WATER SL = SLUDGE GW = GROUND WATER

LAB USE ONLY

STE#	SAMPLING DATE	TIME AM PM	COMP	GRAB	MATRIX	CLIENT I.D.	Total Number of Containers	40ml Glass HCL	Liter Amber Sulfuric Acid	Liter Amber Organic Washed	Liter Plastic Nitric Acid	Liter Plastic Sodium Hydroxide	Liter Plastic	Liter Plastic Sulfuric Acid	250ml Plastic	125ml Plastic Sterile	250ml Amber	2 oz. Qorpak	ANALYSIS REQUESTED
	2/16/99	———			AQ	KTCA@216@217	3	3											8021 rep 1-2 DCE total Freon 113 Fr 123a ~~total xylenes~~
	2/16/99	1222		✓	AQ	KEQ9@216 PUMP	3	3											8021 rep 1-2 DCE total Fr 113 Fr 123a total xylenes
	2/16/99	1055		✓	AQ	K@0817902166	6	3	1			1			1				8021 rep 1-2 DCE total Fr 113 Fr 123a Metals Cyanide Phenol
	2/16/99	1055		✓	AQ	K@0817902166	1								1				Dissolved Metals
	2/16/99																		

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	GSC	2/12/99	9:00	[signature]	GSC	2-12-99	9:00
[signature]	CJS			[signature]	CJS		
[signature]	GSC	2/16/99	16:10	[signature]	STL	2/16/99	16:10

COMMENTS: ISRA - Hudson Valley Special Deliverables Package
All samples received intact & in good condition with a temp of 3°C JPM 2/16/99 16:10

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

Committed To Your Success

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #: 9300305 Non Routine

CLIENT: Groundwater Sciences Corp

PROJECT ID: G67370-IBM

STL PROJECT MGR: Stephanie Pinkett

RUSH ☐ YES ☑ NO | DUE DATE

TESTS	GENERAL REMARKS
8021 rep + 2 OCE total Fr 113 FR 123 Xylenes total 8021B by FBTEX	

BOTTLE TYPE AND PRESERVATION
HCL 40 ml VOA

#	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	# OF CONT.	FIELD FILTERED (CIRCLE Y OR N)								SAMPLE REMARKS
					Y / (N)	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
2	KEQ902160NLID	2-16-99/840	AQ		3								
1	K000821902160X	2-16-99/1030	AQ		3								
3	KTCB02160217	2-16-99 - 2-17-99	AQ		3								

MATRIX CODES:
A - AIR, AQ - AQUEOUS, C - COMPLEX, D - DRUM WASTE, OI - OIL, S - SOIL, SL - SLUDGE, W - WIPE, O - OTHER, FB - FIELD BLANK, TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
	2/12/99		2-15-99
SIGNATURE	14:00	SIGNATURE	12:00
SAMPLES COLLECTED BY	DATE / TIME	RECEIVED IN LAB BY	DATE / TIME
SIGNATURE		SIGNATURE	

REMARKS ON SAMPLE RECEIPT
☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SAMPLE CONTROL COPY

Groundwater Sciences Corporation

2601 Market Place Street, Suite 310
Harrisburg, PA 17110

Well Development Field Data Sheet

Well 810 Site Kingston IBM

Development Personnel AfN EJS Pump Type Bailer

Casing Diameter 2.0" DTW 5.65 DTB 16.61

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 1.79 (10.96)

x 3 = 5.37

x 10 = 17.90

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH units~~ TEMP	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	14:48	5.65							
stop	1500	1505						4.0g	silty
	1533	6.95							
stop	1536	15.08						5.75g	silty
9/28/98	14:10	5.61							
stop	14:15	15.00						9.25gal	silty
9.29.98	852	5.75							
stop	902	14.77						12.75	slightly silty
	1258	5.87							
stop	1302	13.40		6.83	15.2	529us		14.75	silty
	1307	8.11							
stop	13:11	14.82		6.88	14.1	519us		16.25g	Lite silty
	1317	10.43							
stop	13:23	15.00		6.90	13.9	514us		18.0g	Lite silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 17.90 / 18.0
9: 16.11 / 16.25
8: 14.32 / 14.50
7: 12.53 / 12.75

Groundwater Sciences Corporation

2601 Market Place Street, Suite 310
Harrisburg, PA 17110

Well Development Field Data Sheet

Well 811S Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 5.17 DTB 15.37

Well Volume = 0.163 gal/ft* x (DTB 10.20 - DTW) = 1.66

x 3 = 4.98

x 10 = 16.60

Date	Time	WL (ft)	Flow Rate	pH	~~ΔRh (units)~~ Temp	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	1507	5.17							
stop	15:17	11.51						11.75	silty + stinks
	15:19	6.40							
stop	15:21	11.48		7.26	14.5	689us		13.50	silty
	1523	6.30							
stop	1525	8.20		7.24	14.1	681us		15.0	silty
	1528	6.14							
stop	1531	8.65		7.26	14.1	684us		16.75	silty+stinks

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 16.60 - 16.75
9: 14.94 - 15.0
8: 13.20 - 13.5
7: 11.62 - 11.75

Groundwater Sciences Corporation

2601 Market Place Street, Suite 310
Harrisburg, PA 17110

Well Development Field Data Sheet

Well 811D Site IBM Kingston

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 12.72 DTB 33.88

Well Volume = 0.163 gal/ft* x (DTB 21.16 - DTW) = 3.45

x 3 = 10.35

x 10 = 34.50

Date	Time	WL (ft)	Flow Rate	pH	Temp. ~~Δ pH (units)~~	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.28.98	11:41	12.72							
stop	12:14	12.85						24.5 gal	silty
	12:18	12.77							
stop	12:21	12.79		6.74	12.2	822us		28.00	silty
	12:26	12.77							
stop	12:31	12.80		6.77	12.4	807us		31.50	silty
	12:35	12.77							
stop	12:40	12.80		6.76	11.9	829us		34.50	silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 34.50 : 34.50

9: 31.05 31.50

8: 27.60 28.00

7: 24.15 : 24.50

Groundwater Sciences Corporation

2601 Market Place Street, Suite 310
Harrisburg, PA 17110

Well Development Field Data Sheet

Well 812 Site Kingston-IBM

Development Personnel AFN CJS Pump Type Baller

Casing Diameter 2.0" DTW 7.71 DTB 17.54

Well Volume = 0.163 gal/ft* x (DTB 9.83 - DTW) = 1.60

x 3 = 4.80

x 10 = 16.0

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH (units)~~ Temp	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.28	13:20							11.50	Silty
stop	13:24	14.82		7.05	13.4	520us		13.00	Silty
	13:27	11.21							
stop	13:36	14.18		7.11	13.1	512us		14.50	Silty
	13:35	10.51							
stop	13:39	14.01		7.10	13.3	512us		16.0	Silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

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Harrisburg, PA 17110

Well Development Field Data Sheet

Well 813 Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 10.24 DTB 16.06

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 0.949
5.82

x 3 = 2.847

x 10 = 9.49

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH (units)~~ Temp.	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	9:48	10.24							
Stop	1009	14.97						6.75 gall	silty
	1218	10.25							
Stop	12:20	14.25		7.10	15.2	563us		7.75	silty
	12:23	10.69							
Stop	1226	13.91		7.12	15.1	571us		8.75	silty
	12:30	10.16							
Stop	12:32	14.63		7.11	15.0	579us		9.75	silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 9.49 / 9.5
9 8.54 / 8.75
8 7.59 / 7.75
7: 6.64 / 6.75

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Well Development Field Data Sheet

Well 814 Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 9.84 DTB 16.57

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 1.097
6.73

x 3 = 3.291

x 10 = 10.97

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH (units)~~ Temp	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	9:26	9.84							
stop	9:41	16.02						3.75gal	silty
	12:08	11.41							
stop	12:15	16.02						5.75g	silty
	1555	10.85							
stop	1558	15.83						7.25g	silty
9.28.98	15:17	9.79							
	15:19							8.0 g	silty
stop	15:24	15.94		6.91	15.9	742us		9.0g	silty
9.29.98	1026	9.87							
stop	1028	15.31		6.88	14.5	686us		10.0g	clearer
	1032	12.34							
stop	1036	15.85		6.96	14.2	689us		11.0g	clearer

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 10.97/ 11.0
9: 9.873/ 10.0
8: 8.776/ 9.0
7: 7.67/ 8.0

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Well Development Field Data Sheet

Well 815 Site Kingston - IBM

Development Personnel CJS, AFN Pump Type Bailer

Casing Diameter 2.0" DTW 12.72 DTB 16.38

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 0.597

x 3 = 1.791

x 10 = 5.97

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH~~ (units)	Temp Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	906	12.72							
Stop	917	15.71						1.75g.	Silty
	1158	13.91							
Stop	1204	15.91						2.50g	Silty
	1603	13.19							
Stop	1604	15.90						2.75g	Silty
9.28.98	1535	13.33							
Stop	1543	15.92						3.75g	Silty
9.29.98	1047	13.27							
Stop	1052	16.00						4.50g	Liter Silty
	1344	14.94							
Stop	1349	16.14		6.95	15.8	559us		5.0g	lite Brown
10.29.98	12:20	12.36							
Stop	12:25	16.02		6.90	14.9	794us		5.75g	lite Brown
	16:28	13.13							
Stop	16:39	16.21		6.98	14.3	779us		6.50	Lite Brown

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

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Well Development Field Data Sheet

Well 816 Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 14.00 (13.04) DTB 14.16 (14.10)

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 0.027 (0.166) (0.172)
(1.06)
x 3 = 0.081 (0.516)
x 10 = 0.27 (1.72)

7: 1.25
8: 1.37
9 1.541
10 1.72

1.25
1.50
1.75

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH (units)~~ TEMP	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98									
10.30.98	10:38	13.04							
stop	10.51	13.70						0.75g	Clear
	12.15	12.94							
stop	12:25	13.73						1.25g	clear
	12:56	13.93							
stop	1301	13.78		6.69	17.3	835us		1.50g	Clear
	1307	13.58							
stop	13:21	13.85		6.71	17.1	829us		1.75g	Clear
	1429	13.15							
stop	1435	13.76	CJS	[illegible]	[illegible]	[illegible]		2.0	clear
				6.78	16.1	828us			

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

* Not Enough Water in well

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Well Development Field Data Sheet

Well 817 Site Kingston-

Development Personnel AFN Pump Type Bailer

Casing Diameter 2.0" DTW 13.83 DTB ~~18.41~~ 16.41
~~4.58~~

Well Volume = 0.163 gal/ft* x (DTB - DTW) = ~~0.746~~ 0.421
2.58

x 3 = ~~2.23~~ 1.263

x 10 = ~~7.46~~ 4.21

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH (units)~~ TEMP	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	8:44	13.83							
Stop	9:00	16.15						1.25gal	Slightly silty
	1144	14.14							
stop	11:55	16.23						2.25g	Silty
	1607	13.95							
stop	1612	16.12						3.0gal	Silty
9.28.98	15:50	13.80							
stop	15:58	16:13		7.06	15.9	648uS		3.5g	slightly silty
9.29.98	1100	13.76							
stop	1103	16.00		6.99	16.0	642uS		4.0	Lighter
	1109	15.18							
stop	1117	16.22		6.99	16.7	650uS		4.5g	Lighter

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 4.21 / 4.25

9: 3.789 / 4.0

8: 3.360 / 3.5

7: 2.94 / 3.0

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Well Development Field Data Sheet

Well 818 Site Kingston - IBM

Development Personnel AFN CJS Pump Type NA

Casing Diameter 2.0" DTW Dry DTB 9.99

Well Volume = 0.163 gal/ft* x (DTB - DTW) = NA

x 3 = NA

x 10 = NA

Date	Time	WL (ft)	Flow Rate	pH	Δ ph (units)	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

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Well Development Field Data Sheet

Well 819 Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 8.22 DTB 12.77

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 0.742
4.55

x 3 = 2.23

x 10 = 7.42

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH~~ (~~units~~) TEMP	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	1359	8.22							
stop	14:13	11.29						2.0gall	Chocolate Brown
	15:40	8.29							
stop	1551	11.31						3.0gall	Chocolate Brown
9.28.98	14:57	8.27							
stop	1503	11.44						4.0gall	BROWN
9.29.98	1003	8.31							
stop	1016	11.53						5.25	Lighter Brown
	12:11	8.34							
stop	12:16	11.16		6.60	19.7	630us		6.0g	Lite Brown
	1220	10.38							
stop	1230	11.32		6.56	20.3	626us		6.75g	Lite Brown
	12:38	10.11							
stop	12:45	11.56		6.61	21.0	626us		7.50gall	BROWN

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 7.42 / 7.50

9: 6.68 / 6.75

8: 5.94 / 6.0

7: 5.194 / 5.25

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Well Development Field Data Sheet

Well 82Φ Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 7.32 DTB 22.90

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 2.54
15.58

x 3 = 7.62

x 10 = 25.40

Date	Time	WL (ft)	Flow Rate	pH	~~Δ ph~~ (~~units~~)	Temp. Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	10:45	7.32							
stop	11 08	14.54						18.0 gall	silty
	11:15	8.38							
stop	11:18	14.67		7.11	14.2	638us		20.5	silty
	11:22	9.11							
stop	11:26	14.30		7.15	14.6	658us		23.0	silty
	1130	9.31							
stop	1133	14.61		7.16	14.1	637us		25.50	silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 25.40 / 25.50

9: 22.86 / 23.0

8: 20.32 / 20.5

7: 17.78 / 18.0

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Well Development Field Data Sheet

Well 821 Site Kingston IBM

Development Personnel AFN CJS Pump Type Bailer

Casing Diameter 2.0" DTW 9.31 DTB 13.18

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 3.87 = 0.631

x 3 = 1.893

x 10 = 6.31

Date	Time	WL (ft)	Flow Rate	pH	~~Δ pH~~ (units)	Temp Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	13:44	9.31							
Stop	13:50	12.57						1.75gall	Chocolate Brown
	1542	9.34							
Stop	1544	12.02						2.75g	Brown
9.28.98	14:40	9.33							
stop	1449	12.77						3.75g	Silty
9.29.98	9:40	9.37							
stop	9:42	12.83						4.50g	Silty
	11:32	9.37							
stop	1136	12.75		6.77	18.6	885us		5.25g	clearer
	1141	10.10							
stop	1145	12.82		6.72	18.9	932us		6.0	slightly silty
	1149	11.13							
stop	1159	12.17		6.71	19.0	870us		6.75g	Silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 6.31 / 6.50
9 5.679 / 5.75
8 5.048 / 5.25
7 4.417 / 4.50

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Well Development Field Data Sheet

Well 822 Site Kingston - IBM

Development Personnel AFN - CJS Pump Type Bailer

Casing Diameter 2.0" DTW 11.11 DTB 23.56
12.45

Well Volume = 0.163 gal/ft* x (DTB - DTW) = 2.03

x 3 = 6.09

x 10 = 20.30

Date	Time	WL (ft)	Flow Rate	pH	~~Δ ph (units)~~ TEMP	Cond.	Δ Cond. (%)	Total Volume	Remarks & Clarity
9-25-98	10:19	11.11							
Stop	10:34	20.0						8.0 gall	Silty
	12:37	11.14							
Stop	12:49	19.88						14.25	Silty
	1418	11.13							
Stop	14:20	17.16		6.90	14.4	763us		16.25	Silty
	14:27	12.00							
Stop	14:30	18.65		7.09	14.7	710us		18.50	Silty
	14.34	12.82							
Stop	14:37	19.43		7.27	15.0	675us		20.50	Silty

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 20.30 / 20.50

9: 18.27 / 18.50

8: 16.24 / 16.25

7: 14.21 / 14.25

Appendix C

Groundwater and Surface Water Quality Data (includes Field QA/QC data)

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Groundwater and Surface Water Data Report

SAMPLE LOCATION		810	810	810	810	811-D
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/18/98	11/18/98	12/10/98	10/29/98
LABORATORY SAMPLE I.D.		194632-15	195472-01	982507A-01	196471-01	194632-02
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1J	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.78	6.65	NA	6.69	6.65
SPECIFIC CONDUCTANCE	umhos/cm	740	762	NA	761	1100
TEMPERATURE	C	13.3	11.5	NA	10.6	12.9
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0565	0.0498	NA	0.0484	0.0101
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	0.0007 B	0.0006 B	NA	0.0009 B	0.0005 B
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	NA	0.0016 B	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Groundwater and Surface Water Data Report

SAMPLE LOCATION		810	810	810	810	811-D
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/18/98	11/18/98	12/10/98	10/29/98
LABORATORY SAMPLE I.D.		194632-15	195472-01	982507A-01	196471-01	194632-02
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	0.4J	ND@1	1.3
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	0.3J	ND@1	1.1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1J	ND@1	ND@1	ND@1	ND@1J
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1J	ND@1J
ETHYLBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	0.6J	ND@1	NA	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		810	810	810	810	811-D
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/18/98	11/18/98	12/10/98	10/29/98
LABORATORY SAMPLE I.D.		194632-15	195472-01	982507A-01	196471-01	194632-02
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	0.2J	ND@1	1J
XYLENE, TOTAL	ug/l	ND@1	ND@1	NA	ND@1	ND@1

SAMPLE LOCATION		811-D	811-D	811-S	811-S	811-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		11/18/98	12/10/98	10/29/98	10/29/98	11/18/98
LABORATORY SAMPLE I.D.		195472-02	196471-03	194632-01	982330A-02	195472-03
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	0.6J	0.6J
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.61	7.0	7.00	NA	7.04
SPECIFIC CONDUCTANCE	umhos/cm	822	967	949	NA	962
TEMPERATURE	C	13.3	11.7	14.1	NA	12.4
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0094 B	0.0031 B	0.0136	NA	0.0115
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	0.0005 B	ND@0.0003	0.0005 B	NA	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	0.0016 B	ND@0.0015	NA	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

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SAMPLE LOCATION		811-D	811-D	811-S	811-S	811-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		11/18/98	12/10/98	10/29/98	10/29/98	11/18/98
LABORATORY SAMPLE I.D.		195472-02	196471-03	194632-01	982330A-02	195472-03
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	0.8J	0.7J	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	0.5J	0.8J	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1J	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	0.6J	1.7	1.6
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	0.8J	ND@1	1.3
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1J	ND@1J	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	NA	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	1.4	NA	1.9
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		811-D	811-D	811-S	811-S	811-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		11/18/98	12/10/98	10/29/98	10/29/98	11/18/98
LABORATORY SAMPLE I.D.		195472-02	196471-03	194632-01	982330A-02	195472-03
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	0.9J	1.1	ND@1	2.4	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	NA	ND@1

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SAMPLE LOCATION		811-S	812	812	812	812
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/18/98	12/10/98	12/10/98
LABORATORY SAMPLE I.D.		196471-02	194632-03	195472-04	982706A-03	196471-05
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	0.5J	0.8J	0.6J
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	0.1J	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	0.3J	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.75	6.94	6.76	NA	6.93
SPECIFIC CONDUCTANCE	umhos/cm	748	761	781	NA	766
TEMPERATURE	C	10.9	12.6	11.4	NA	10.9
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0111	0.0234	0.0201	NA	0.0188
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	0.0003 B	ND@0.0003	0.0005 B	NA	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	0.0017 B	ND@0.0015	ND@0.0015	NA	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

SAMPLE LOCATION		811-S	812	812	812	812
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/18/98	12/10/98	12/10/98
LABORATORY SAMPLE I.D.		196471-02	194632-03	195472-04	982706A-03	196471-05
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	0.7J	0.6J	ND@1	0.5
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	0.6J	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1J	ND@1	0.9J	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	1.8	0.9J	1.8	1.2	1.8
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	1.4	ND@1	ND@1	1	0.6J
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1J	ND@1J	ND@1	ND@1	ND@1J
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	0.8J	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		811-S	812	812	812	812
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	REPLICATE	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/18/98	12/10/98	12/10/98
LABORATORY SAMPLE I.D.		196471-02	194632-03	195472-04	982706A-03	196471-05
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	0.9J	ND@1	0.6J	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		813	813	813	813	814
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/29/98	10/29/98	11/18/98	12/10/98	10/30/98
LABORATORY SAMPLE I.D.		194632-06	194632-05	195472-05	196471-08	194632-14
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1 J
INDICATOR PARAMETERS						
PH	pH	NA	6.94	6.72	6.86	6.72
SPECIFIC CONDUCTANCE	umhos/cm	NA	1045	1078	1067	752
TEMPERATURE	C	NA	14.0	12.3	11.9	13.9
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0127	0.0133	0.011	0.0131	0.0058 B
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	0.0004 B	0.0004 B	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0005	ND@0.0015	ND@0.0015	0.0026 B	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

SAMPLE LOCATION		813	813	813	813	814
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/29/98	10/29/98	11/18/98	12/10/98	10/30/98
LABORATORY SAMPLE I.D.		194632-06	194632-05	195472-05	196471-08	194632-14
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,1-TRICHLOROETHANE	ug/l	1.4	0.6J	NDa1	NDa1	NDa1
1,1,2,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHANE	ug/l	1	1.3	2	2.2	NDa1
1,1-DICHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2,3-TRICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	2.5	5.1	11	10	NDa1
1,2-DICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1-CHLOROHEXANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
4-CHLOROTOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BENZYL CHLORIDE	ug/l	NDa1J	NDa1J	NDa1	NDa1	NDa1J
BROMOBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMODICHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMOFORM	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CARBON TETRACHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLORODIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROFORM	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
DIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
DICHLORODIFLUOROMETHANE	ug/l	NDa1J	NDa1J	NDa1	NDa1J	NDa1
ETHYLBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
METHYLENE CHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TETRACHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TRANS-1,3-DICHLOROPROPENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1

SAMPLE LOCATION		813	813	813	813	814
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/29/98	10/29/98	11/18/98	12/10/98	10/30/98
LABORATORY SAMPLE I.D.		194632-06	194632-05	195472-05	196471-08	194632-14
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	6.5	3.8	3.8	3.1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	1.1	3	8.3	9	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		814	814	814	815	815
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/18/98	11/18/98	12/10/98	10/30/98	11/20/98
LABORATORY SAMPLE I.D.		195472-07	195472-06	196471-09	194632-09	195591-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	NA	6.60	6.72	6.77	6.80
SPECIFIC CONDUCTANCE	umhos/cm	NA	784	739	747	762
TEMPERATURE	C	NA	11.1	10.9	15.4	12.4
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0021 B	ND@0.0015	ND@0.0015	0.0051 B	0.0026 B
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	0.0005 B	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

SAMPLE LOCATION		814	814	814	815	815
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/18/98	11/18/98	12/10/98	10/30/98	11/20/98
LABORATORY SAMPLE I.D.		195472-07	195472-06	196471-09	194632-09	195591-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1J	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1J	ND@1J	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		814	814	814	815	815
SAMPLE DESCRIPTION		DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/18/98	11/18/98	12/10/98	10/30/98	11/20/98
LABORATORY SAMPLE I.D.		195472-07	195472-06	196471-09	194632-09	195591-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		815	816	816	816
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/11/98	10/30/98	11/20/98	12/11/98
LABORATORY SAMPLE I.D.		196556-08	194632-13	195591-09	196556-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	6.92	6.73	6.70	6.76
SPECIFIC CONDUCTANCE	umhos/cm	738	829	827	774
TEMPERATURE	C	10.8	15.8	13.5	12.5
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0037 B	ND@0.0015	ND@0.0015	ND@0.0015
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	0.0018 B	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA

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SAMPLE LOCATION		815	816	816	816
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/11/98	10/30/98	11/20/98	12/11/98
LABORATORY SAMPLE I.D.		196556-08	194632-13	195591-09	196556-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,1-TRICHLOROETHANE	ug/l	NDa1	3.4	2.8	2.9
1,1,2,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2,3-TRICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	NDa1	5.4	4.3	3.9
1,2-DICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1-CHLOROHEXANE	ug/l	NDa1	NDa1	NDa1	NDa1
4-CHLOROTOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1
BENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
BENZYL CHLORIDE	ug/l	NDa1	NDa1J	NDa1	NDa1
BROMOBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMODICHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOFORM	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CARBON TETRACHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLORODIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROFORM	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
DIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
DICHLORODIFLUOROMETHANE	ug/l	NDa1J	NDa1J	NDa1	NDa1J
ETHYLBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
METHYLENE CHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1
TETRACHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
TOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1
TRANS-1,3-DICHLOROPROPENE	ug/l	NDa1	NDa1	NDa1	NDa1

SAMPLE LOCATION		815	816	816	816
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/11/98	10/30/98	11/20/98	12/11/98
LABORATORY SAMPLE I.D.		196556-08	194632-13	195591-09	196556-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	ND@1	91D	120D	110D
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		817	817	817	817	819
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/20/98	12/11/98	02/16/99	10/30/98
LABORATORY SAMPLE I.D.		194632-12	195591-07	196556-07	199115-16	194632-07
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	ND@10	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.91	6.87	6.97	7.12	6.43
SPECIFIC CONDUCTANCE	umhos/cm	933	871	941	557	838
TEMPERATURE	C	16.4	13.9	13.1	9.7	17.5
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	ND@0.01	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	ND@0.0023	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	ND@0.0023	NA
ARSENIC, DISSOLVED	mg/l	0.0023 B	ND@0.0015	ND@0.0015	ND@0.0012	0.0171
ARSENIC, TOTAL	mg/l	NA	NA	NA	ND@0.0012	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	0.696	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	0.0453 B	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0002	0.0004 B
CADMIUM, TOTAL	mg/l	NA	NA	NA	0.0019 B	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	ND@0.0006	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	ND@0.0006	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	0.0046 B	NA
COPPER, TOTAL	mg/l	NA	NA	NA	0.0039 B	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	0.003	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	0.0026 B	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	ND@0.0002	NA

SAMPLE LOCATION		817	817	817	817	819
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/20/98	12/11/98	02/16/99	10/30/98
LABORATORY SAMPLE I.D.		194632-12	195591-07	196556-07	199115-16	194632-07
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	ND@0.0002	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	ND@0.0016	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	0.0018 B	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	ND@0.0038 NJ	NA
SILVER, TOTAL	mg/l	NA	NA	NA	ND@0.0038 NJ	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	19	22	22	15	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	4	3.2	4.2	1.8	0.6J
1,1-DICHLOROETHYLENE	ug/l	2.3	1.9	2.4	0.6J	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	3.9	3.7	3.7	2.4	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	14	14	15	2.3	2.6
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1J	ND@1	ND@1	ND@1	ND@1J
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	2.7	2.9	2.7	1.8	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1J	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1J	ND@1	ND@1J	ND@1J	ND@1J
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		817	817	817	817	819
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		10/30/98	11/20/98	12/11/98	02/16/99	10/30/98
LABORATORY SAMPLE I.D.		194632-12	195591-07	196556-07	199115-16	194632-07
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	**UNITS**					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	150D	170D	180D	70D	1.3
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	2	1J	1.6	ND@1J	0.8J
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		819	819	819	820	820
SAMPLE DESCRIPTION		GROUNDWATER	DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/20/98	12/11/98	12/11/98	10/30/98	11/18/98
LABORATORY SAMPLE I.D.		195591-10	196556-03	196556-01	194632-08	195472-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.29	NA	6.38	6.61	6.57
SPECIFIC CONDUCTANCE	umhos/cm	878	NA	862	704	706
TEMPERATURE	C	14.6	NA	13.0	14.9	13.1
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0122	0.0129	0.0152	0.0037 B	0.0023 B
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	0.0006 B	0.0007 B	0.0009 B	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	0.0018 B	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

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SAMPLE LOCATION		819	819	819	820	820
SAMPLE DESCRIPTION		GROUNDWATER	DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/20/98	12/11/98	12/11/98	10/30/98	11/18/98
LABORATORY SAMPLE I.D.		195591-10	196556-03	196556-01	194632-08	195472-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	0.6J
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	1.1	1	0.9J	10	8.3
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1J	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1J	ND@1J	ND@1J	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		819	819	819	820	820
SAMPLE DESCRIPTION		GROUNDWATER	DUPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		11/20/98	12/11/98	12/11/98	10/30/98	11/18/98
LABORATORY SAMPLE I.D.		195591-10	196556-03	196556-01	194632-08	195472-08
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	2.2	1.9
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	0.6J	0.9J	1.1	1.4	1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		820	821	821	821	821
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/20/98	12/11/98	02/16/99
LABORATORY SAMPLE I.D.		196471-06	194632-04	195591-12	196556-05	199115-01
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	ND@10
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.67	6.70	6.58	6.62	6.61
SPECIFIC CONDUCTANCE	umhos/cm	712	1152	1186	1294	676
TEMPERATURE	C	12.4	15.4	13.9	13.2	9.0
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	ND@0.01
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	ND@0.0023
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	ND@0.0023
ARSENIC, DISSOLVED	mg/l	0.0023 B	0.0307	0.0269	0.0275	0.0244
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	0.0317
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	1.19
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	0.0492 B
CADMIUM, DISSOLVED	mg/l	ND@0.0003	0.0005 B	0.0007 B	0.001 B	0.0003 B
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	0.0018 B
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	0.0012 B
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	0.0029 B
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	0.0057 B
COPPER, TOTAL	mg/l	NA	NA	NA	NA	0.0058 B
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	0.002 B	0.0051
LEAD, TOTAL	mg/l	NA	NA	NA	NA	0.0059 B
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	ND@0.0002

SAMPLE LOCATION		820	821	821	821	821
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/20/98	12/11/98	02/16/99
LABORATORY SAMPLE I.D.		196471-06	194632-04	195591-12	196556-05	199115-01
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	ND@0.0002
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	ND@0.0016
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	ND@0.0016
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	ND@0.0038 NJ
SILVER, TOTAL	mg/l	NA	NA	NA	NA	ND@0.0038 NJ
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	0.9J	0.8J	0.8J	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	4	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	26	11	12	12	9.1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1J	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1J	ND@1J	ND@1	ND@1J	ND@1J
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		820	821	821	821	821
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		12/10/98	10/29/98	11/20/98	12/11/98	02/16/99
LABORATORY SAMPLE I.D.		196471-06	194632-04	195591-12	196556-05	199115-01
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	**UNITS**					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	2.1	3.9	3.3	1.8	1.8
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	2.2	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		821	822	822	822
SAMPLE DESCRIPTION		REPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		02/16/99	10/30/98	11/18/98	12/10/98
LABORATORY SAMPLE I.D.		990304A-02	194632-11	195472-09	196471-07
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	1.2	0.6J	1.2
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	NA	6.69	6.93	7.0
SPECIFIC CONDUCTANCE	umhos/cm	NA	993	914	902
TEMPERATURE	C	NA	14.7	13.3	12.1
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	NA	0.0058 B	0.0033 B	0.0046 B
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	NA	ND@0.0004 B	0.0009 B	0.0006 B
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	NA	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA

SAMPLE LOCATION		821	822	822	822
SAMPLE DESCRIPTION		REPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		02/16/99	10/30/98	11/18/98	12/10/98
LABORATORY SAMPLE I.D.		990304A-02	194632-11	195472-09	196471-07
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,1-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHANE	ug/l	0.5J	5	5.7	5.7
1,1-DICHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2,3-TRICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	7	NDa1	NDa1	NDa1
1,2-DICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1-CHLOROHEXANE	ug/l	NDa1	NDa1	NDa1	NDa1
4-CHLOROTOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1
BENZENE	ug/l	NA	NDa1	NDa1	NDa1
BENZYL CHLORIDE	ug/l	NDa1	NDa1J	NDa1	NDa1
BROMOBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMODICHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOFORM	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CARBON TETRACHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROBENZENE	ug/l	NDa1	0.5J	1.5	1.8
CHLORODIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROFORM	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
DIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
DICHLORODIFLUOROMETHANE	ug/l	NDa1	NDa1J	NDa1	NDa1J
ETHYLBENZENE	ug/l	NA	0.6J	NDa1	1.9
METHYLENE CHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1
TETRACHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
TOLUENE	ug/l	NA	NDa1	NDa1	1.4
TRANS-1,3-DICHLOROPROPENE	ug/l	NDa1	NDa1	NDa1	NDa1

SAMPLE LOCATION		821	822	822	822
SAMPLE DESCRIPTION		REPLICATE	GROUNDWATER	GROUNDWATER	GROUNDWATER
SAMPLE DATE		02/16/99	10/30/98	11/18/98	12/10/98
LABORATORY SAMPLE I.D.		990304A-02	194632-11	195472-09	196471-07
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	2	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	2.6	0.6J	14

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SAMPLE LOCATION		MW-001-R	MW-125-S	MW-206-S	MW-206-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	DUPLICATE	GROUNDWATER
SAMPLE DATE		02/16/99	02/16/99	02/16/99	02/16/99
LABORATORY SAMPLE I.D.		199115-10	199115-04	199115-08	199115-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	**UNITS**				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	ND@10
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	0.9J	0.8J
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	7.92	7.12	NA	6.79
SPECIFIC CONDUCTANCE	umhos/cm	418	428	NA	644
TEMPERATURE	C	11.5	9.8	NA	10.4
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	ND@0.01
METALS					
ANTIMONY, DISSOLVED	mg/l	NA	NA	ND@0.0023	ND@0.0023
ANTIMONY, TOTAL	mg/l	NA	NA	ND@0.0023	ND@0.0023
ARSENIC, DISSOLVED	mg/l	ND@0.0012	ND@0.0012	0.0067 B	0.0054 B
ARSENIC, TOTAL	mg/l	0.0116	ND@0.0012	0.0103	0.0122
BARIUM, DISSOLVED	mg/l	NA	NA	0.426	1.27
BARIUM, TOTAL	mg/l	NA	NA	0.122 B	0.129 B
CADMIUM, DISSOLVED	mg/l	NA	NA	ND@0.0002	ND@0.0002
CADMIUM, TOTAL	mg/l	NA	NA	ND@0.0002	ND@0.0002
CHROMIUM, DISSOLVED	mg/l	NA	NA	ND@0.0006	ND@0.0006
CHROMIUM, TOTAL	mg/l	NA	NA	0.0018 B	0.0021 B
COPPER, DISSOLVED	mg/l	NA	NA	0.0036 B	0.0034 B
COPPER, TOTAL	mg/l	NA	NA	0.0069 B	0.0071 B
LEAD, DISSOLVED	mg/l	NA	NA	0.003	0.0026 B
LEAD, TOTAL	mg/l	NA	NA	0.0084	0.0086
MERCURY, DISSOLVED	mg/l	NA	NA	ND@0.0002	ND@0.0002

SAMPLE LOCATION		MW-001-R	MW-125-S	MW-206-S	MW-206-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	DUPLICATE	GROUNDWATER
SAMPLE DATE		02/16/99	02/16/99	02/16/99	02/16/99
LABORATORY SAMPLE I.D.		199115-10	199115-04	199115-08	199115-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	NA	NA	ND@0.0002	ND@0.0002
SELENIUM, DISSOLVED	mg/l	NA	NA	ND@0.0016	ND@0.0016 W
SELENIUM, TOTAL	mg/l	NA	NA	ND@0.0016	ND@0.0016
SILVER, DISSOLVED	mg/l	NA	NA	ND@0.0038 NJ	ND@0.0038 N
SILVER, TOTAL	mg/l	NA	NA	ND@0.0038 NJ	ND@0.0038 NJ
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	1.8	1.8
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	0.8J	0.7J
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1J	ND@1J	ND@1J	ND@1J
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		MW-001-R	MW-125-S	MW-206-S	MW-206-S
SAMPLE DESCRIPTION		GROUNDWATER	GROUNDWATER	DUPLICATE	GROUNDWATER
SAMPLE DATE		02/16/99	02/16/99	02/16/99	02/16/99
LABORATORY SAMPLE I.D.		199115-10	199115-04	199115-08	199115-06
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		MW-210-S	SW-A	SW-A	SW-A
SAMPLE DESCRIPTION		GROUNDWATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		02/16/99	10/30/98	11/19/98	12/11/98
LABORATORY SAMPLE I.D.		199115-02	194632-16	195591-03	196556-11
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	ND@10	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1J	ND@1	ND@1
INDICATOR PARAMETERS					
PH	pH	6.75	7.00	8.40	7.00
SPECIFIC CONDUCTANCE	umhos/cm	650	659	628	614
TEMPERATURE	C	9.4	15.8	13.9	12.8
INORGANICS					
CYANIDE, TOTAL	mg/l	ND@0.01	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/l	ND@0.0023	NA	NA	NA
ANTIMONY, TOTAL	mg/l	ND@0.0023	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0745	ND@0.0015	ND@0.0015	ND@0.0015
ARSENIC, TOTAL	mg/l	0.0551	NA	NA	NA
BARIUM, DISSOLVED	mg/l	0.985	NA	NA	NA
BARIUM, TOTAL	mg/l	0.142 B	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0002	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	0.0002 B	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	ND@0.0006	NA	NA	NA
CHROMIUM, TOTAL	mg/l	ND@0.0006	NA	NA	NA
COPPER, DISSOLVED	mg/l	0.0044 B	NA	NA	NA
COPPER, TOTAL	mg/l	ND@0.0043 B	NA	NA	NA
LEAD, DISSOLVED	mg/l	0.0058	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	0.0041	NA	NA	NA
MERCURY, DISSOLVED	mg/l	ND@0.0002	NA	NA	NA

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SAMPLE LOCATION		MW-210-S	SW-A	SW-A	SW-A
SAMPLE DESCRIPTION		GROUNDWATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		02/16/99	10/30/98	11/19/98	12/11/98
LABORATORY SAMPLE I.D.		199115-02	194632-16	195591-03	196556-11
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	ND@0.0002	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	ND@0.0016 W	NA	NA	NA
SELENIUM, TOTAL	mg/l	ND@0.0016	NA	NA	NA
SILVER, DISSOLVED	mg/l	ND@0.0038	NA	NA	NA
SILVER, TOTAL	mg/l	ND@0.0038 NJ	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	5	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	5.6	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1 J	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	2.3	2.6	3.4
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1 J	ND@1	ND@1	ND@1 J
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1

SAMPLE LOCATION		MW-210-S	SW-A	SW-A	SW-A
SAMPLE DESCRIPTION		GROUNDWATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		02/16/99	10/30/98	11/19/98	12/11/98
LABORATORY SAMPLE I.D.		199115-02	194632-16	195591-03	196556-11
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	15	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	1.2

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SAMPLE LOCATION		SW-B2	SW-B2	SW-B3	SW-C
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		10/30/98	11/19/98	12/14/98	10/30/98
LABORATORY SAMPLE I.D.		194632-18	195591-01	196635-03	194632-19
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1J	ND@1	ND@1	ND@1J
INDICATOR PARAMETERS					
PH	pH	7.00	7.77	7.00	7.00
SPECIFIC CONDUCTANCE	umhos/cm	1181	1508	637	706
TEMPERATURE	C	11.4	6.1	9.0	12.8
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	0.0038 B	0.0023 B	ND@0.0015	ND@0.0015
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	0.0003 B	0.0044	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA

SAMPLE LOCATION		SW-B2	SW-B2	SW-B3	SW-C
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		10/30/98	11/19/98	12/14/98	10/30/98
LABORATORY SAMPLE I.D.		194632-18	195591-01	196635-03	194632-19
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1J	ND@1	ND@1	ND@1J
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	2.2	0.8J
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1J	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SW-B2	SW-B2	SW-B3	SW-C
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		10/30/98	11/19/98	12/14/98	10/30/98
LABORATORY SAMPLE I.D.		194632-18	195591-01	196635-03	194632-19
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SW-C	SW-C2	SW-D	SW-D
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		11/19/98	12/14/98	10/30/98	11/19/98
LABORATORY SAMPLE I.D.		195591-04	196635-02	194632-21	195591-05
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1J	ND@1
INDICATOR PARAMETERS					
PH	pH	8.03	7.00	7.00	7.18
SPECIFIC CONDUCTANCE	umhos/cm	651	649	695	655
TEMPERATURE	C	7.1	8.6	11.6	7.8
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	ND@0.0015	0.0037 B	0.0016 B	ND@0.0015
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA

SAMPLE LOCATION		SW-C	SW-C2	SW-D	SW-D
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		11/19/98	12/14/98	10/30/98	11/19/98
LABORATORY SAMPLE I.D.		195591-04	196635-02	194632-21	195591-05
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL	mg/l	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,1-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1J	NDa1
1,1-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2,3-TRICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1
1-CHLOROHEXANE	ug/l	NDa1	NDa1	NDa1	NDa1
4-CHLOROTOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1
BENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
BENZYL CHLORIDE	ug/l	NDa1	NDa1	NDa1J	NDa1
BROMOBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMODICHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOFORM	ug/l	NDa1	NDa1	NDa1	NDa1
BROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CARBON TETRACHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLORODIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CHLOROFORM	ug/l	NDa1	1.2	0.7J	NDa1.2
CHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
DIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1
DICHLORODIFLUOROMETHANE	ug/l	NDa1	NDa1J	NDa1	NDa1
ETHYLBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1
METHYLENE CHLORIDE	ug/l	NDa1	NDa1	NDa1J	NDa1
TETRACHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1
TOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1
TRANS-1,3-DICHLOROPROPENE	ug/l	NDa1	NDa1	NDa1	NDa1

SAMPLE LOCATION		SW-C	SW-C2	SW-D	SW-D
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		11/19/98	12/14/98	10/30/98	11/19/98
LABORATORY SAMPLE I.D.		195591-04	196635-02	194632-21	195591-05
SAMPLE RUN NUMBER		01	01	01	01
SAMPLE COMMENT CODES					
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE	ug/l	ND@1	0.6J	ND@1	0.5J
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1

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SAMPLE LOCATION		SW-D2	SW-E	SW-E	SW-E	SW-E
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		12/14/98	10/30/98	11/19/98	12/11/98	12/11/98
LABORATORY SAMPLE I.D.		196635-01	194632-17	195591-02	196556-10	196556-09
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1J	ND@1	ND@1	ND@1
INDICATOR PARAMETERS						
PH	pH	6.88	6.99	6.91	NA	6.97
SPECIFIC CONDUCTANCE	umhos/cm	641	799	804	NA	774
TEMPERATURE	C	4.5	14.4	12.6	NA	13.0
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED	mg/l	NA	NA	NA	NA	NA
ANTIMONY, TOTAL	mg/l	NA	NA	NA	NA	NA
ARSENIC, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015
ARSENIC, TOTAL	mg/l	NA	NA	NA	NA	NA
BARIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
BARIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CADMIUM, DISSOLVED	mg/l	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0003	ND@0.0003
CADMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
CHROMIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
CHROMIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
COPPER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
COPPER, TOTAL	mg/l	NA	NA	NA	NA	NA
LEAD, DISSOLVED	mg/l	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015	ND@0.0015
LEAD, TOTAL	mg/l	NA	NA	NA	NA	NA
MERCURY, DISSOLVED	mg/l	NA	NA	NA	NA	NA

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SAMPLE LOCATION		SW-D2	SW-E	SW-E	SW-E	SW-E
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		12/14/98	10/30/98	11/19/98	12/11/98	12/11/98
LABORATORY SAMPLE I.D.		196635-01	194632-17	195591-02	196556-10	196556-09
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL	mg/l	NA	NA	NA	NA	NA
SELENIUM, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SELENIUM, TOTAL	mg/l	NA	NA	NA	NA	NA
SILVER, DISSOLVED	mg/l	NA	NA	NA	NA	NA
SILVER, TOTAL	mg/l	NA	NA	NA	NA	NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,1-TRICHLOROETHANE	ug/l	NDa1	2.4	2.7	3.7	3.4
1,1,2,2-TETRACHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1,2-TRICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,1-DICHLOROETHANE	ug/l	NDa1	0.9J	1.1	1.8	1.7
1,1-DICHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2,3-TRICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,2-DICHLOROPROPANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1-CHLOROHEXANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
4-CHLOROTOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BENZYL CHLORIDE	ug/l	NDa1	NDa1J	NDa1	NDa1	NDa1
BROMOBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMODICHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMOFORM	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
BROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CARBON TETRACHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLORODIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CHLOROFORM	ug/l	0.6J	NDa1	NDa1	NDa1	NDa1
CHLOROMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
CIS-1,3-DICHLOROPROPYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
DIBROMOMETHANE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
DICHLORODIFLUOROMETHANE	ug/l	NDa1J	NDa1	NDa1	NDa1J	NDa1J
ETHYLBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
METHYLENE CHLORIDE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TETRACHLOROETHYLENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TOLUENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
TRANS-1,3-DICHLOROPROPENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1

SAMPLE LOCATION		SW-D2	SW-E	SW-E	SW-E	SW-E
SAMPLE DESCRIPTION		SURF WATER	SURF WATER	SURF WATER	SURF WATER	SURF WATER
SAMPLE DATE		12/14/98	10/30/98	11/19/98	12/11/98	12/11/98
LABORATORY SAMPLE I.D.		196635-01	194632-17	195591-02	196556-10	196556-09
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE	ug/l	ND@1	10	9.4	10	9.7
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

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EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X
BMRL@X	Below Minimum Reporting Limit of X

CODE	EXPLANATION
^	Non-Standard Measurement Unit
B	The reported value is greater than the Contract Required Detection Limit (CRDL), but less than the Instrument Detection Limit (IDL) (Metals)
D	Compounds identifed at a secondary dilution factor (Volatiles)
J	Estimated Value (Volatiles)

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SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
SAMPLE DESCRIPTION		WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
SAMPLE DATE		10/29/98	10/30/98	11/18/98	11/20/98	12/10/98	12/11/98
LABORATORY SAMPLE I.D.		982330A-01	194632-10	982507A-02	195591-11	982706A-01	196556-02
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	0.3J	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	ND@1	NA	ND@1	NA	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1J	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1J	ND@1	ND@1	ND@1	ND@1J
ETHYLBENZENE	ug/l	NA	ND@1	NA	ND@1	NA	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	0.8J	ND@1	0.5JB	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	ND@1	NA	ND@1	NA	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

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Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
SAMPLE DESCRIPTION		WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
SAMPLE DATE		10/29/98	10/30/98	11/18/98	11/20/98	12/10/98	12/11/98
LABORATORY SAMPLE I.D.		982330A-01	194632-10	982507A-02	195591-11	982706A-01	196556-02
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	ND@1	NA	ND@1	NA	ND@1

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Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		SUB PUMP	WTR LVL IND	WTR LVL IND	10/30-31/98	11/18-19/98
SAMPLE DATE		02/16/99	02/16/99	02/16/99	10/30/98	11/18/98
LABORATORY SAMPLE I.D.		199115-15	199115-03	990304A-01	194632-20	195472-10
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1 J	ND@1
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1 J	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1 J	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1 J	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1 J	ND@1	ND@1	ND@1
ETHYLBENZENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	ND@1	0.6J	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	ND@1	ND@1	NA	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		SUB PUMP	WTR LVL IND	WTR LVL IND	10/30-31/98	11/18-19/98
SAMPLE DATE		02/16/99	02/16/99	02/16/99	10/30/98	11/18/98
LABORATORY SAMPLE I.D.		199115-15	199115-03	990304A-01	194632-20	195472-10
SAMPLE RUN NUMBER		01	01	01	01	01
SAMPLE COMMENT CODES						
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1J	ND@1	NA	ND@1	ND@1

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		11/18-19/98	11/19-20/98	12/10-11/98	12/10-11/98	12/11/98	12/14-15/98
SAMPLE DATE		11/18/98	11/19/98	12/10/98	12/10/98	12/11/98	12/14/98
LABORATORY SAMPLE I.D.		982507A-03	195591-06	982706A-02	196471-04	196556-04	196635-04
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BENZENE	ug/l	NA	ND@1	NA	ND@1	ND@1	ND@1
BENZYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1J	ND@1J	ND@1J
ETHYLBENZENE	ug/l	NA	ND@1	NA	ND@1	ND@1	ND@1
METHYLENE CHLORIDE	ug/l	ND@1	ND@1	0.5JB	ND@1	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TOLUENE	ug/l	NA	ND@1	NA	ND@1	ND@1	ND@1
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		11/18-19/98	11/19-20/98	12/10-11/98	12/10-11/98	12/11/98	12/14-15/98
SAMPLE DATE		11/18/98	11/19/98	12/10/98	12/10/98	12/11/98	12/14/98
LABORATORY SAMPLE I.D.		982507A-03	195591-06	982706A-02	196471-04	196556-04	196635-04
SAMPLE RUN NUMBER		01	01	01	01	01	01
SAMPLE COMMENT CODES							
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1	ND@1	ND@1	ND@1	ND@1
XYLENE, TOTAL	ug/l	NA	ND@1	NA	ND@1	ND@1	ND@1

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		02/16-17/98	02/16-17/98
SAMPLE DATE		02/16/99	02/16/99
LABORATORY SAMPLE I.D.		199115-14	990304A-03
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
BASE/NEUTRAL EXTRACTABLES			
1,2-DICHLOROBENZENE	ug/l	ND@1	ND@1
1,3-DICHLOROBENZENE	ug/l	ND@1	ND@1
1,4-DICHLOROBENZENE	ug/l	ND@1	ND@1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	ND@1
VOLATILE ORGANICS			
1,1,1,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1
1,1,1-TRICHLOROETHANE	ug/l	ND@1	ND@1
1,1,2,2-TETRACHLOROETHANE	ug/l	ND@1	ND@1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1
1,1,2-TRICHLOROETHANE	ug/l	ND@1	ND@1
1,1-DICHLOROETHANE	ug/l	ND@1	ND@1
1,1-DICHLOROETHYLENE	ug/l	ND@1	ND@1
1,2,3-TRICHLOROPROPANE	ug/l	ND@1	ND@1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	ND@1	ND@1
1,2-DICHLOROETHANE	ug/l	ND@1	ND@1
1,2-DICHLOROETHYLENE, TOTAL	ug/l	ND@1	ND@1
1,2-DICHLOROPROPANE	ug/l	ND@1	ND@1
1-CHLOROHEXANE	ug/l	ND@1	ND@1
4-CHLOROTOLUENE	ug/l	ND@1	ND@1
BENZENE	ug/l	ND@1	NA
BENZYL CHLORIDE	ug/l	ND@1	ND@1
BROMOBENZENE	ug/l	ND@1	ND@1
BROMODICHLOROMETHANE	ug/l	ND@1	ND@1
BROMOFORM	ug/l	ND@1	ND@1
BROMOMETHANE	ug/l	ND@1	ND@1
CARBON TETRACHLORIDE	ug/l	ND@1	ND@1
CHLOROBENZENE	ug/l	ND@1	ND@1
CHLORODIBROMOMETHANE	ug/l	ND@1	ND@1
CHLOROETHANE	ug/l	ND@1	ND@1
CHLOROFORM	ug/l	ND@1	ND@1
CHLOROMETHANE	ug/l	ND@1	ND@1
CIS-1,3-DICHLOROPROPYLENE	ug/l	ND@1	ND@1
DIBROMOMETHANE	ug/l	ND@1	ND@1
DICHLORODIFLUOROMETHANE	ug/l	ND@1J	ND@1
ETHYLBENZENE	ug/l	ND@1	NA
METHYLENE CHLORIDE	ug/l	ND@1	ND@1
TETRACHLOROETHYLENE	ug/l	ND@1	ND@1
TOLUENE	ug/l	ND@1	NA
TRANS-1,3-DICHLOROPROPENE	ug/l	ND@1	ND@1
TRICHLOROETHYLENE	ug/l	ND@1	ND@1

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

SAMPLE LOCATION		TRIP BLANK	TRIP BLANK
SAMPLE DESCRIPTION		02/16-17/98	02/16-17/98
SAMPLE DATE		02/16/99	02/16/99
LABORATORY SAMPLE I.D.		199115-14	990304A-03
SAMPLE RUN NUMBER		01	01
SAMPLE COMMENT CODES			
PARAMETER	UNITS		
VOLATILE ORGANICS (Continued)			
TRICHLOROFLUOROMETHANE	ug/l	ND@1	ND@1
VINYL CHLORIDE	ug/l	ND@1	ND@1
XYLENE, TOTAL	ug/l	ND@1	NA

Former Industrial Waste Sludge Lagoon
RCRA Facility Investigation
Field Quality Assurance / Quality Control Data

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X
BMRL@X	Below Minimum Reporting Limit of X

CODE	EXPLANATION
^	Non-Standard Measurement Unit
B	The reported value is greater than the Contract Required Detection Limit (CRDL), but less than the Instrument Detection Limit (IDL) (Metals)
D	Compounds identifed at a secondary dilution factor (Volatiles)
J	Estimated Value (Volatiles)

Appendix D

Survey Data

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TOPOGRAPHIC SURVEYS

NEW MONITORING WELL LOCATIONS & ELEVATIONS AT BUILDING 036 13 OCTOBER 1998

WELL NO.	LOCATION		ELEVATION
816	N 718620.96	590294.79 E	163.97
Ground			161.4
817	N 718636.88	590263.03 E	162.72
Ground			160.53
815	N 718607.77	590229.10 E	158.65
Ground			156.3
814	N 718549.60	590193.74 E	154.10
Ground			151.7
813	N 718583.17	590150.33 E	151.79
Ground			149.4
822	N 718714.27	590180.61 E	154.84
Ground			152.5
820	N 718839.06	590219.88 E	153.97
Ground			151.7
819	N 718788.90	590263.25 E	154.24
Pavement			154.79
821	N 718748.77	590238.59 E	154.37
Pavement			154.70
818	N 718734.05	590299.03 E	160.94
Pavement			161.31
810	N 718819.49	590095.57 E	147.63
Ground			145.03
811-S	N 718765.99	590066.94 E	147.53
Ground			144.93
811-D	N 718761.95	590068.37 E	147.39
Ground			145.03
812	N 718691.45	590070.42 E	149.31
Ground			146.73
Ground @ SW-D	N 718712.79	590031.05 E	141.93
Ground @ SW-C	N 718652.28	590051.85 E	142.53
Ground @ SW-B	N 718621.20	590079.05 E	141.73
Ground @ SW-A	N 718514.14	590185.97 E	146.43

Appendix E

Groundwater Elevation Data Summary

IBM Kingston
Former Industrial Waste Sludge Lagoon Area
RCRA Facility Investigation

Well	TOC Elevation	02/03/99	
		Static Water Level (ft)	Groundwater Elevation (ft amsl)
MW-001-R	150.93	8.80	142.13
MW-001-S	151.17	8.14	143.03
MW-103-S	146.26	12.22	134.04
MW-106-S	152.00	6.89	145.11
MW-107-S	173.53	7.34	166.19
MW-125-S	173.88	11.89	161.99
MW-205-S	153.64	6.82	146.82
MW-206-S	152.42	8.23	144.19
MW-207-S	151.97	7.74	144.23
MW-208-S	152.31	8.15	144.16
MW-209-S	152.02	7.32	144.70
MW-210-S	151.99	9.43	142.56
MW-211-S	152.11	8.26	143.85
MW-220-S	145.50	11.40	134.10
MW-221-S	144.90	10.98	133.92
MW-222-S	140.54	5.95	134.59
MW-289-S	156.98	8.96	148.02
MW-290-S	154.83	5.01	149.82
MW-292-S	155.68	8.08	147.60
MW-293-S	154.46	7.44	147.02
MW-294-S	155.82	8.45	147.37
MW-296-S	154.69	7.39	147.30
MW-402-S	173.94	17.92	156.02
MW-501-S	162.60	14.04	148.56
MW-612-S	156.22	11.14	145.08
MW-801-S	152.27	7.10	145.17
MW-802-S	153.42	8.35	145.07
MW-803-S	158.32	14.47	143.85
MW-804-S	152.74	8.18	144.56
MW-810	147.63	3.34	144.29
MW-811-S	147.53	4.26	143.27
MW-811-D	147.39	13.32	134.07
MW-812	149.31	7.77	141.54
MW-813	151.79	9.32	142.47
MW-814	154.10	6.87	147.23
MW-815	158.65	8.32	150.33
MW-816	163.97	9.54	154.43
MW-817	162.72	9.25	153.47
MW-819	154.24	7.50	146.74
MW-820	153.97	7.26	146.71
MW-821	154.37	9.13	145.24
MW-822	154.84	10.03	144.81
MW-202-2	175.47	11.85	163.62
MW-202-3S	175.38	11.53	163.85

Appendix F

Pulse Test Results

IBM Kingston
Former Industrial Waste Sludge Lagoon RFI
Slug Test Calcuations: Bouwer and Rice Method

Well	Test Type	K (ft/min)	K (ft/day)
MW-810	Insertion	0.0032	4.6
	Withdrawal	0.0024	3.5
MW-811S	Insertion	0.0230	33.1
MW-811D	Insertion	Inconclusive	
	Withdrawal	Inconclusive	
MW-812	Withdrawal	0.0075	10.8
MW-813	Withdrawal	0.0068	9.8
MW-814	Withdrawal	0.0044	6.3
MW-815	Withdrawal	0.0078	11.3
	Withdrawal	0.0013	1.8
MW-816	---	Well not Tested - Insufficient water column	
MW-817	Withdrawal	0.0031	4.4
MW-818	---	Well not Tested - Well was Dry	
MW-819	---	Well not Tested - Insufficient water column	
MW-820	Withdrawal	0.0056	8.1
MW-821	---	Well not Tested - Well inaccessible	
MW-822	Insertion	0.0185	26.6
	Withdrawal	0.0076	10.9
MW-210	Withdrawal	0.0004	0.6

Appendix G

Flux Calculations

Appendix G
Detailed Flux Calculations

Section 1

Flow = 4370 gpd
Constituent Concentrations

Well ID	Phenols (tot)	12-DCBZ	14-DCBZ	AS (diss)	AS (tot)	CD (diss)	CD (tot)	PB (diss)	PB (tot)	AG (diss)	AG (tot)	111-TCA	11-DCA	11-DCE	12-DCA	12-DCE(tot)	CBZ	CEA	TCM	DCM	PCE	TCE	VC
810	nm	0.000	0.000	0.0516	nm	0.0007	nm	0.0005	nm	nm	nm	0.000	0.067	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.033
average conc (ug/l)	0.000	0.000	0.000	0.0516	0.0000	0.0007	0.0000	0.0005	0.0000	0.0000	0.0000	0.000	0.067	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.033
Flux lbs/day (LE) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Overall Flux 0.0000074 lbs/day

Section 2

Flow = 2313 gpd
Constituent Concentrations

Well ID	Phenols (tot)	12-DCBZ	14-DCBZ	AS (diss)	AS (tot)	CD (diss)	CD (tot)	PB (diss)	PB (tot)	AG (diss)	AG (tot)	111-TCA	11-DCA	11-DCE	12-DCA	12-DCE(tot)	CBZ	CEA	TCM	DCM	PCE	TCE	VC
811	nm	0.300	0.000	0.0121	nm	0.0003	nm	0.0006	nm	nm	nm	0.000	0.000	0.000	0.000	0.000	1.517	1.033	0.000	0.000	0.000	0.000	0.400
average conc (ug/l)	0.000	0.300	0.000	0.0121	nm	0.0003	nm	0.0006	nm	nm	nm	0.000	0.000	0.000	0.000	0.000	1.517	1.033	0.000	0.000	0.000	0.000	0.400
Flux lbs/day (LE) =	nm	0.000	0.000	0.0000	nm	0.0000	nm	0.0000	nm	nm	nm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Overall Flux 0.0000629 lbs/day

Section 3

Flow = 1051 gpd
Constituent Concentrations

Well ID	Phenols (tot)	12-DCBZ	14-DCBZ	AS (diss)	AS (tot)	CD (diss)	CD (tot)	PB (diss)	PB (tot)	AG (diss)	AG (tot)	111-TCA	11-DCA	11-DCE	12-DCA	12-DCE(tot)	CBZ	CEA	TCM	DCM	PCE	TCE	VC
812	nm	0.400	0.050	0.0208	nm	0.0002	nm	0.0000	nm	nm	nm	0.0000	0.5167	0.0000	0.0000	0.1000	1.4000	0.2667	0.0000	0.0000	0.0000	0.0000	0.4000
average conc (ug/l)	0.000	0.400	0.050	0.0208	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5167	0.0000	0.0000	0.1000	1.4000	0.2667	0.0000	0.0000	0.0000	0.0000	0.4000
Flux lbs/day (LE) =	nm	0.000	0.000	0.0000	nm	0.0000	nm	0.0000	nm	nm	nm	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Overall Flux 0.0000278 lbs/day

Section 4

Flow = 826 gpd
Constituent Concentrations

Well ID	Phenols (tot)	12-DCBZ	14-DCBZ	AS (diss)	AS (tot)	CD (diss)	CD (tot)	PB (diss)	PB (tot)	AG (diss)	AG (tot)	111-TCA	11-DCA	11-DCE	12-DCA	12-DCE(tot)	CBZ	CEA	TCM	DCM	PCE	TCE	VC
MW-210S	1.250	0.000	0.000	0.0809	0.0093	0.0005	0.0001	0.0013	0.0002	0.0041	0.0009	0.000	5.750	0.000	0.000	0.000	0.444	0.000	0.000	0.000	0.000	7.413	17.563
average conc (ug/l)	1.250	0.000	0.000	0.0809	0.0093	0.0005	0.0001	0.0013	0.0002	0.0041	0.0009	0.000	5.750	0.000	0.000	0.000	0.444	0.000	0.000	0.000	0.000	7.413	17.563
Flux lbs/day (LE) =	0.000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Overall Flux 0.0002241 lbs/day