PRELIMINARY SITE ASSESSMENT REPORT
ONEIDA LTD. SILVERSMITHS FACILITY
SHERRILL, NEW YORK
NYSDEC SITE NOS. 633004 AND 633005

by

H&A of New York
Rochester, New York
An affiliate of Haley & Aldrich, Inc.

for

Oneida Ltd.
Sherrill, New York

File No. 70295-40
September 1993

H & A OF NEW YORK

Geotechnical Engineers &
Environmental Consultants

22 September 1993
File No. 70295-40

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
50 Wolf Road, Room 220
Albany, New York 12203-7010

Attention: Thomas A. Reamon,
Environmental Engineer III

Subject: Oneida Ltd., Sherrill, New York
PSA Report, Sites 633004 and 633005

Dear Mr. Reamon:

On behalf of Oneida Ltd. Silversmiths and in accordance with Item III of the 2 July 1992 Order on Consent between the NYSDEC and Oneida Ltd., this letter transmits our report of Preliminary Site Assessment (PSA) performance and results for the above-referenced sites.

Summary

Subsurface exploration, sampling, and investigation was performed at the locations described by the approved PSA Work Plan, dated September 1992. No volatile or semivolatile compounds attributable to the listed sites were detected. Metals results were elevated in total (unfiltered) groundwater samples only and were not elevated in dissolved phase (filtered) samples. Evaluation of results indicate sample turbidity affected the total results and metals levels do not appear to reflect groundwater degradation from the sites.

Based on the PSA results and prior evaluations of Sites 633004 and 633005, hazardous waste constituents do not appear to be migrating from either site, and asphalt or soil caps cover each site. Accordingly, potential threat to health and the environment appear to be negligible and reclassification recommendations are included in the PSA for both sites.

Certification

In accordance with Item III D.4 of the Order on Consent, the undersigned state we had primary responsibility for the day-to-day performance of the PSA. Activities that comprised the PSA were performed in accordance with the approved PSA Work Plan prepared by H&A of New York, dated September 1992. This report is an accurate compilation and summary of the data and activities associated with the PSA.

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Please contact us if you have questions or require additional information.

Sincerely,
H&A OF NEW YORK

David J. Vicarel
Senior Env. Geologist

For Vincent B. Dick
Vice President

xc: Arthur Keller, Oneida Ltd.
Martin Tyksinski, Corporate Counsel, Oneida Ltd.
Director, Bureau of Environmental Exposure Investigation, NYSDOH
Darrell Sweredoski, NYSDEC Region 6
Rob Davies, Division of Environmental Enforcement, NYSDEC

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I. INTRODUCTION

This report presents the findings of a Preliminary Site Assessment (PSA) of two inactive hazardous waste disposal sites at the Oneida Ltd. Silversmiths facility in Sherrill, New York (Oneida). The location of the Oneida facility is shown on Figure 1. The PSA was performed by H&A of New York (H&A), on behalf of Oneida, to satisfy Item II of the 2 July 1992 Order on Consent between Oneida and the New York State Department of Environmental Conservation (NYSDEC).

The PSA work was completed in accordance with H&A's September 1992 Work Plan. The Work Plan was prepared to satisfy the requirements of 1) the NYSDEC Division of Hazardous Waste Remediation Technical/Administrative Guidance Memorandum HWR-88-4007, dated 9 May 1988 and entitled "Phase II Investigation Generic Work Plan" (TAGM 4007), and 2) the requirements of the NYSDEC TAGM HWR-88-4008, dated 21 November 1988 and entitled "Phase II Investigation Oversight Guidance" (TAGM 4008). The Work Plan was approved by NYSDEC in a letter dated 17 February 1993.

The two inactive hazardous waste disposal sites at the Oneida facility are identified by the NYSDEC as Site No. 633004 and Site No. 633005. The locations of the sites are shown on Figure 2. Site 633004 is comprised of two components, a solid waste landfill and a sludge drying bed. Site 633005 is a former wastewater treatment lagoon.

II. BACKGROUND

The reader is referred to H&A's July 1992 "Preliminary Site Assessment Work Plan" and H&A's July 1992 "Background Summary Report" for detailed site historical information, for descriptions of activities conducted at Sites 633004 and 633005 in the past, and for the results of previous environmental investigation of the Oneida facility in general, and Site 633005 in particular. This information is summarized in the following paragraphs.

Site 633005 received effluent from the plant's wastewater treatment system between 1941 and 1953, and was subsequently backfilled and paved over. This site is presently a paved parking lot designated a "Class 2a" site by the NYSDEC, signifying that additional data are needed to determine whether it poses a potential threat to human health or the environment. The findings of several investigations that have been completed at Site 633005 in the recent past are detailed in H&A's 31 July 1992 Background Summary Report, and are summarized below:

1. In 1984, the NYSDEC contracted Ecological Analysts, Inc. of Middletown, New York (EAI) to perform a Phase I investigation. EAI concluded the potential for directly contacting waste related to the site was insignificant.

2. In 1986, the U.S. Environmental Protection Agency (USEPA) contracted NUS Corporation of Edison, New Jersey (NUS) to conduct a site inspection and develop a hazard ranking. The inspection involved the collection of sediment, soil, and surface water samples at and downgradient of the site. NUS concluded the potential for directly contacting waste related to the site, and the potential that these wastes would ignite or explode, were insignificant.

3. In 1990, Stearns & Wheeler of Cazenovia, New York (S&W) collected soil and groundwater samples from Site 633005; the Stearns & Wheeler well related to this site is designated as MW-4 on Figure 2. Analysis of the soil and groundwater samples, and of aqueous extracts derived from the soil samples by the Toxicity Characteristic Leachate Procedure, did not indicate the presence of volatile organic compounds (VOCs) or metals in concentrations exceeding USEPA or New York State standards or guidelines.

4. In July 1992, H&A re-sampled the S&W wells. Analysis of the samples corroborated the results obtained by S&W.

In summary, the previous investigations indicate Site 633005 does not threaten public health or the environment. Accordingly, no further evaluation of Site 633005 was required under the September 1992 PSA Work Plan which was approved by the NYSDEC in a letter dated 17 February 1993. Site 633005, therefore, was not investigated during this PSA.

Site 633004 is an approximately 2-acre landfill constructed over a natural lagoon and used for disposal of general plant solid waste and buffing dust until October 1981; it is not known when disposal of the waste and dust was begun. The approximately 0.5-acre sludge drying bed was used to dry metal hydroxide sludge from the plant's wastewater treatment system between the mid-1940's and the early 1950's. H&A understands that approximately 450 dry-tons of metal hydroxide sludge

was routed to the sludge drying bed in the years that the drying bed was used. The site was closed in 1980, and has been designated a "Class 3" site by the NYSDEC, signifying that remedial action may be deferred as there is no imminent threat to human health or the environment. H&A also understands that, prior to this PSA, neither soil nor groundwater samples from Site 633004 have been collected for laboratory analysis. The general purpose of this investigation is to characterize hazardous wastes related to the site that may threaten public health or the environment.

Site 633004, then, is the focus of this PSA. Hereafter, the term "the site" refers to Site 633004 only.

III. OBJECTIVES AND SCOPE OF WORK

As stated in TAGM 4007, the general objective of PSA-type investigations "...is to determine if contaminants are leaving an inactive hazardous waste site with a resulting impact on human health and the environment".

The 2 July 1992 Order on Consent states that the objective of the PSA is to "...gather data to enable the [NYSDEC] to characterize hazardous wastes which are or may be present at the two Sites and to enable the [NYSDEC] to determine whether such wastes constitute a significant threat to public health or the environment". The information which indicates that the site does not constitute a significant threat to public health or the environment is summarized in Section II.

Until this PSA, sampling had not been performed on Site 633004. To accomplish the PSA objectives, therefore, H&A developed a technical approach in consideration of the following:

1. The foreseeable future use of the site does not differ from the present use.
2. The landfill has been capped for approximately 11 years.
3. The sludge drying bed has been capped for approximately 30 years.
4. The only potentially threatened receptor is Sconondoa Creek, which is approximately 650 feet north of the site.

H&A's technical approach was designed to gather sample data to evaluate whether the site poses a significant threat to public health or the environment. In view of the above-listed considerations, the approach developed in the approved Work Plan was based on the presumption that the site could be shown to pose a significant threat to public health or the environment only if it could be shown that:

1. Groundwater quality at the site has been degraded by past activities associated with the landfill and sludge drying bed.
2. Degraded groundwater is migrating toward Sconondoa Creek.
3. Sediment and/or water in Sconondoa Creek has been impacted by groundwater-borne chemical contaminants attributable to Oneida.

To evaluate groundwater quality at the site, H&A installed temporary groundwater monitoring wells at four locations adjacent to, and at the presumed downgradient margin of, the former landfill and sludge drying bed, collected groundwater samples from the wells, and submitted the samples for laboratory analysis. Soil is not a medium of environmental concern in view of the fact that the site has been capped for approximately 11 years and has been inactive since that time. Sediment and water in nearby Sconondoa Creek are media of potential environmental concern, contingent upon whether site groundwater has been degraded and whether the groundwater is migrating toward the creek. If the PSA determined that groundwater has not been degraded by former activities at the site then the creek could not be impacted by the migrating groundwater. Therefore, the approved PSA Work Plan called for sediment sampling only if groundwater degradation was evident from new well sample analysis.

It was anticipated that a layer comprised of relatively low-permeability metal hydroxide sludge would be encountered in the shallow subsurface at the new Site 633004 well locations, and that this layer,

if present, would influence the migration of groundwater and dissolved-phase chemical contaminants. Accordingly, the Work Plan called for installation of one well above the sludge layer (if groundwater was encountered above the sludge layer) and one well below the sludge layer at each of the monitoring well locations. The multi-level installations would enable the calculation of the direction of vertical hydraulic gradients across the sludge layer.

IV. TOPOGRAPHIC AND HYDROGEOLOGIC SETTING

As shown on Figure 1, the Oneida facility is situated in a relatively flat-lying area between Sconondoa Creek, which is approximately 650 feet to the north, and Taylor Creek, which is approximately 1,000 feet to the south. Both creeks flow westward, joining Oneida Creek several miles west of the site. Topography within several miles north of the site consists of relatively gentle slopes, whereas topography within several miles to the south consists of steeper slopes.

Bedrock beneath and near the facility includes Silurian carbonates (Lockport Group, Sconondoa Formation) and Silurian shales (Salina Group, Vernon Formation) (New York State Museum and Science Service, Map and Chart Series No. 15, Geologic Map of New York--Finger Lakes Section, 1970). These shales typically contain oxides and sulfides of metals such as iron, manganese, and lead, and weather to form clays that are rich in these metals as well as other metals such as sodium, aluminum, potassium, and magnesium.

The layout of the Oneida facility is shown on Figure 2. Site 633004 is bounded to the north by Sconondoa Creek, to the east by the Oneida plant, to the south by East Seneca Street, and to the west by undeveloped land.

Based on a review of the U.S. Geological Survey topographic quadrangle map of the area (Vernon, N.Y., 1955), H&A anticipated that, on a regional basis, groundwater in the site area flowed generally westward toward Oneida Creek. Based on field observation, however, H&A anticipated that groundwater beneath Site 633004 flowed generally northeastward toward Sconondoa Creek due to the presence of an approximately 40-foot high embankment sloping north-northeast and including the landfill. H&A presumed, therefore, that areas north-northeast of the former landfill and sludge drying bed were hydraulically downgradient of these features, and the four temporary groundwater monitoring wells installed during this investigation were located accordingly.

As discussed in Section 5-06, the results of the wellhead elevation survey indicate groundwater beneath Site 633004 appears to flow generally northward.

V. SUBSURFACE EXPLORATION, SAMPLING, AND ANALYTICAL PROGRAMS

Test borings were completed and temporary groundwater monitoring wells were installed during this PSA in areas adjacent to, and generally downgradient of, the former landfill and sludge drying bed that comprise Site 633004. Groundwater samples were collected from each well and analyzed using NYSDEC ASP protocols by General Testing Corporation in Rochester, New York (GTC). Details of the exploration, sampling, and analytical programs are described in this section. Fieldwork activities were performed in accordance with the approved Work Plan, and were observed over several days by a NYSDEC on-site monitor.

5-01. TEST BORINGS AND GROUNDWATER MONITORING WELL INSTALLATIONS

Four test borings were completed between 5 April and 7 April 1993, and a temporary groundwater monitoring well was installed in each boring. Test borings and well constructions were monitored by an H&A geologist and viewed by a NYSDEC on-site monitor. Test boring locations are shown on Figure 2. Drilling and well installation services were provided by Parratt-Wolff, Inc. or Syracuse, New York (PWI), and monitored by an H&A field geologist. These activities were performed using Level D health and safety protocols. Air quality in the workers' breathing zone was monitored for volatile organic compounds (VOCs) using a Photovac Microtip photoionization detector; detectable VOC concentrations were not encountered. Drilling and well installation equipment was steam cleaned upon arriving at the site, after completing each boring, and before leaving the site.

The locations of test borings B-101, B-102, and B-103 were selected to assess groundwater conditions adjacent to and downgradient of the former landfill. The location of test boring B-104 was selected to assess groundwater conditions adjacent to and downgradient of the former sludge drying bed.

The borings were performed using a truck-mounted rotary drill rig and standard hollow-stem auger techniques. The borings were advanced using 6.25-inch diameter hollow stem augers, and split-spoon soil samples were collected continuously (i.e., in 2-foot intervals) by the performance of Standard Penetration Tests in accordance with ASTM Method D1586-87. The soil samples were classified in the field by H&A's geologist and viewed by a NYSDEC on-site monitor; descriptions of the soils are provided on the test boring reports in Appendix A, and are discussed in Section 6-01. Fluids were not used to assist drilling. Auger cuttings and steam cleaning water generated during drilling were contained in 55-gallon steel drums and stored at the site. A label was affixed to each drum, displaying the date the drum was filled, the contents of the drum, and the H&A project number.

The temporary groundwater monitoring wells were constructed of a 10-foot section of 2-inch diameter slotted Schedule 40 PVC wellscreen attached to an appropriate length of solid PVC riser pipe. All PVC attachments were made without the use of solvents or glue. The wellscreen spanned the water table encountered during drilling. Clean quartz sand was placed in the annular space around the wellscreen from the base of the screen to approximately one foot above the screen. A minimum 6-inch thick bentonite pellet seal was placed above the sand pack. Cement/bentonite grout was placed from the top of the bentonite seal to ground surface. The PVC riser pipe was capped, and temporary protective casings were installed. Well construction details are shown on the Overburden Groundwater Monitoring Well Reports attached as Appendix B.

The temporary groundwater monitoring wells are intended to be removed at the completion of this investigation, or before the onset of winter. PWI will be contracted to overdrill and remove the wells, and to fill the resulting borehole to ground surface with a cement/bentonite grout.

5-02. GROUNDWATER SAMPLING

As required by the Work Plan, groundwater samples were collected from each of the newly-installed temporary groundwater monitoring wells in two separate sampling rounds, on 15 April and 18 May 1993, using dedicated disposable bailers. The samples were placed in an ice-filled cooler, sealed, and transported to GTC for analysis. The samples were collected, preserved, stored, and shipped in accordance with SW-846 protocols and chain-of-custody procedures.

Prior to collecting groundwater samples, each well was developed and purged. The wells were developed to promote hydraulic communication with the aquifer. A relatively small volume of water needed to be extracted from the wells because water was not used to assist drilling, and bailing was deemed an appropriate method for developing the wells. Development was performed using dedicated disposable bailers, and was terminated when the groundwater was observed to be relatively clear. Each well was purged of a minimum of three times the volume of standing water in the well to promote the collection of a representative groundwater sample. The wells were purged using dedicated plastic bailers. Water generated during well development and purging was stored in a 55-gallon steel drum, labelled in the manner described in Section 5-01.

5-03. GROUNDWATER ANALYSES

GTC analyzed the groundwater samples collected on 15 April 1993 for the following:

1. Target Compound List (TCL) volatiles in accordance with New York State Analytical Services Protocol Method 91-1.

2. TCL semivolatiles in accordance with USEPA Method 8270.

3. Total and dissolved Target Analyte List (TAL) metals in accordance with USEPA Methods 6010/7000.

The results of the initial round of analysis (see Section 6-02) indicated only low concentrations (1.0 ppb estimated) of two semivolatiles in one well. Based on the requirements of the PSA Work Plan and these results, it was deemed appropriate to forego the TCL semivolatiles analysis on the groundwater samples collected on 18 May 1993.

The results of the analyses are discussed in Section VI.

5-04. QUALITY ASSURANCE/QUALITY CONTROL SAMPLING

The field quality assurance/quality control (QA/QC) samples consisted of a duplicate and a trip blank. During the 15 April 1993 sampling round, the field duplicate was collected at well MW-102.

During the 18 May 1993 sampling round, the field duplicate was collected at well MW-101. A trip blank was prepared for both sampling rounds. The field duplicates and trip blanks were submitted for the same analyses as the groundwater samples.

The laboratory QA/QC samples consisted of a laboratory matrix spike duplicate, a site-specific matrix spike/matrix spike duplicate, and laboratory control samples. The laboratory matrix spike duplicate sample and site-specific matrix spike/matrix spike duplicate samples were prepared from the sample from well MW-101. The laboratory control samples were prepared for representative volatiles, semivolatiles, and metals.

5-05. RISING-HEAD HYDRAULIC CONDUCTIVITY TESTING

Rising-head hydraulic conductivity tests were performed at each of the newly-installed wells. At each well, a static water level was obtained and then a volume was "instantaneously" withdrawn from the well with a bailer. During the test, the depth to water was recorded at specific time intervals during recovery to the static level.

As specified in the approved Work Plan, hydraulic conductivity values were calculated from the rising-head test data using the method of Hvorslev (1951) and the equation shown on the test summary reports in Appendix D. The hydraulic conductivity values derived from rising-head hydraulic conductivity testing are listed on Table 1, and discussed in Section 6-04.

5-06. WELLHEAD ELEVATION SURVEY AND WATER LEVEL MONITORING

On 23 April 1993 a wellhead elevation survey was performed by Myers & Associates, P.C. of Canastota, New York (M&A). M&A calculated the top-of-riser elevation at each of the newly-installed temporary groundwater monitoring wells and the top-of-casing elevation at existing well MW-4, and generated a "Plan Showing Monitor Well Locations" (refer to Figure 3).

As shown on Figure 3, the top-of-riser and top-of-casing elevations are relative to a U.S. Geological Survey benchmark, and the monitoring well locations are based on northings and eastings relative to this benchmark. The benchmark is approximately 1,000 feet south of the site, and is shown on Figure 1.

H&A measured the depth to groundwater in the newly-installed wells on 9 April, 15 April, and 10 August 1993. The groundwater elevation in each of the newly-installed wells was calculated by subtracting the groundwater depth from the top-of-riser elevation. The groundwater depths and resulting groundwater elevations are listed on Table 1. Groundwater Level Monitoring Reports are attached as Appendix D. The groundwater elevations were calculated to enable H&A to contour the groundwater potentiometric surface (refer to Figure 4).

VI. RESULTS

This section presents the results of the fieldwork activities and laboratory analysis performed during the course of this PSA. Soil conditions are described in Section 6-01, the results of analysis of the groundwater and QA/QC samples are discussed in Sections 6-02 and 6-03, respectively, and groundwater flow is discussed in Section 6-04.

6-01. SOIL CONDITIONS

The four test borings were terminated at depths ranging from twenty to twenty-four feet below ground surface. Groundwater was encountered at depths ranging from approximately 6.5 to 9.5 feet below ground surface.

Detailed soil descriptions are provided on the Test Boring Reports attached as Appendix A. In general, the soils encountered during the test boring program contained a high percentage of fines (i.e., silt and clay). Three soil types were observed consistently:

1. Fill. This material comprised the upper seven to ten feet of soil. At each boring, the fill was observed to be a fine sand or silty sand with trace amounts (i.e., approximately 10%) of clay and/or refuse material. Upon visual inspection, the clay content was relatively high at B-104. Traces of organic material (i.e., root fibers and plant material) were detected at B-103 and B-104. Coal particles were observed near ground surface at B-102.

2. Glaciolacustrine silt and clay. This material was encountered in two layers: the "upper" layer was encountered immediately beneath the fill at each boring, and thinned to the south; and the "lower" layer was encountered beneath the outwash (see below) at each boring. The "upper" layer was approximately four-foot thick at B-101 but less than one foot thick at B-104. This material consisted of silt or silty clay with a trace of fine sand and/or organic material. Upon visual inspection, the clay content of this material appeared to be relatively high at B-104. Each boring except B-103 was terminated in this material.

3. Glacial outwash sand and gravel. This material was encountered beneath the "upper" glaciolacustrine layer at each boring, and was observed to thicken southward. Approximately four feet of outwash was encountered at boring B-101, but eight feet of the material was encountered at B-104. The soil consisted of sandy gravel with a trace of silt at each boring except B-104, where the soil was gravelly sand. Traces of organic material were present at each boring except B-101.

In addition to these soil types, till was encountered beneath the lower portion of the glaciolacustrine layer at B-103. The till was a mottled sand with up to approximately 30% silt and a trace of clay.

It also appears that the soil at B-103 contains a relatively high content of natural gases. During development of well MW-103, groundwater was observed to flow freely from the well and to contain gas bubbles. On 10 August 1993, H&A's field technician discerned an odor of sulfur upon removing

the cap from the well, and observed that the water level in the well rose fairly rapidly, indicating the likelihood that trapped gas had locally altered the water table elevation. For this reason, the groundwater table elevation in that well was not included as a data point during the construction of the potentiometric surface plan attached as Figure 4.

In addition, the metal hydroxide sludge layer was not observed to be present at the four boring locations shown on Figure 2. None of the records provided H&A contained a description of the sludge. However, discussion with Oneida representatives and experience viewing similar material suggested that the sludge could typically be differentiated from natural soil on the basis of color and/or texture. Sludge was not encountered within the fill layer at any of the four borings, nor was sludge encountered beneath the fill layer. Therefore, each of the newly-installed wells at the site were terminated at approximately the same depth.

6-02. GROUNDWATER QUALITY

GTC analytical data sheets from analysis of groundwater samples collected on 15 April 1993 are attached as Appendix E, and data sheets from analysis of samples collected on 18 May 1993 are attached as Appendix F. The results of the metals analysis performed on the two sets of groundwater samples are shown on Table 2, and the results of the volatiles analyses performed on the two sets of samples are shown on Table 3. The results of the analyses are discussed in the following paragraphs.

TCL volatiles were not detected in groundwater samples during either round of analysis.

TCL semivolatiles were not detected in groundwater samples from wells MW-101, MW-103, or MW-104. Two semivolatiles, di-n-butyl phthalate and bis(2-ethylhexyl) phthalate, were detected in the groundwater sample from well MW-102 at an estimated concentration of 1.0 part per billion (ppb). The water quality standard for these compounds is 50 ppb. These compounds are common plasticizers. H&A believes the compounds are likely attributable to PVC fragments introduced into the well during construction of well MW-102.

The soluble metals iron, magnesium, manganese, and aluminum and the insoluble metals chromium, lead, and antimony were detected in each unfiltered groundwater sample at concentrations exceeding the New York State standards for Class GA waters that are specified in the NYSDEC Water Quality Standards, 6NYCRR Part 703, revised November 1991. However, elevated concentrations of the site-specific metals nickel, chromium, and lead were detected in unfiltered samples only, suggesting they were introduced into groundwater by the soil particles or colloids to which they were adsorbed. None of the six site-specific metals (barium, chromium, lead, nickel, silver, or zinc) were detected in filtered samples at concentrations exceeding the aforementioned NYSDEC Water Quality Standards.

To evaluate this relationship, H&A compared total metals concentrations (i.e., concentrations in unfiltered samples) to dissolved metals concentrations (i.e., concentrations in filtered samples) for each of the groundwater samples from the newly-installed wells. The concentrations of the soluble metals are not dependent upon turbidity, and, therefore, the concentrations of these metals in filtered samples would be expected to be similar to the concentrations in unfiltered samples. However, the concentrations of the insoluble metals are affected by turbidity, and, therefore, the

concentrations of these metals would be expected to be higher in unfiltered samples. Figures 5 through 8 graphically illustrate this relationship between the metals concentrations in filtered samples versus unfiltered samples. The graphs show that the concentrations of the soluble metals (those to the left side of the figures) are independent of turbidity; elevated total and dissolved concentrations were detected. Figures 7 and 8 show that the concentrations of the insoluble metals are related to turbidity; total metals concentrations exceeded NYSDEC Water Quality Regulations, but dissolved metals concentrations did not. It is H&A's opinion that the results of analysis of the filtered samples more accurately reflect the concentrations of metals in groundwater at the site than the results of analysis of the unfiltered samples. If groundwater degradation were occurring due to leaching of metals from the waste, dissolved-phase concentrations (i.e., concentrations in filtered samples) would have been expected to be higher, relative to the concentrations in unfiltered samples, than was observed.

6-03. QUALITY ASSURANCE/QUALITY CONTROL SAMPLE ANALYSIS

Validation of data was performed in accordance with NYSDEC ASP protocols, and included a check of field QA/QC samples (duplicate and trip blank) and laboratory QA/QC samples (laboratory matrix spike duplicate, site-specific matrix spike/matrix spike duplicate, and laboratory control samples).

In the field duplicate samples, the calculated replicate percent difference (RPD) for each chemical compound detected at a concentration exceeding the practical quantitation limit was less than 16%, indicating the samples are representative of site conditions.

An estimated 3.0 ppb of chloroform was detected in the trip blank prepared during the 15 April 1993 sampling round. As this compound was not detected in any of the groundwater samples, its detection in the trip blank appears to be attributable to laboratory contamination.

The calculated RPD for the laboratory matrix spike duplicate sample ranged from 17% (chromium) to 0% (silver), confirming that the precision of the analysis was within the laboratory quality control limits.

The volatiles analysis performed on the site-specific matrix spike and matrix spike duplicate samples revealed that the CPR for each compound ranged from 102% (1,1-dichloroethene) to 110% (benzene). The calculated RPD for each spiked compound ranged from 4% (trichloroethene) to 8% (1,1-dichloroethene). These results indicate that matrix problems did not develop during analysis of the samples, and that the data are useable and representative of site conditions.

The volatiles and semivolatiles analyses performed on the laboratory control samples indicated that the calculated percent recovery (CPR) for each compound was within laboratory-established control limits, with the exception that the semivolatile 4-nitrophenol exhibited a CPR of 87%, which slightly exceeded the laboratory-established control limit of 80%. Given that this compound was not detected in any of the groundwater samples, this exceedance does not appear to compromise the validity of the data.

6-04. GROUNDWATER FLOW

As discussed in Section IV, H&A's review of topographic quadrangle maps of the area and field observation suggested that groundwater beneath Site 633004 flowed toward the northeast, away from an embankment and a topographic high located west of the site. As shown on Figure 4, however, groundwater elevation contours indicate that flow is generally to the north.

The results of the rising-head hydraulic conductivity tests performed at each of the newly-installed wells are provided in Appendix D and summarized on Table 1. The values ranged from 2.35 feet/day at well MW-101 to 14.70 feet/day at well MW-102. The geometric mean was 8.1 feet/day.

The horizontal hydraulic gradient was calculated by dividing the groundwater elevation difference between two points aligned parallel to the direction of groundwater flow by the horizontal distance between the two points, and found to be approximately 0.004 feet/foot.

The velocity of groundwater flow was calculated according to the following equation:

$$v=Ki/n, \text{ where}$$

v	=	groundwater flow velocity in feet/day,
K	=	hydraulic conductivity in feet/day,
i	=	horizontal hydraulic gradient in feet/foot, and
n	=	porosity.

Assuming an average hydraulic conductivity of 8.1 feet/day, a horizontal hydraulic gradient of 0.004 feet/foot, and a porosity of 50% (approximate value for unconsolidated silt or clay obtained from literature), the groundwater flow velocity was calculated to be 0.06 feet/day. Given this velocity, it would take approximately nine years for groundwater to migrate from Site 633004 to the downgradient property line.

VII. SUMMARY AND CONCLUSIONS

This section presents the findings of the PSA investigation completed for the Oneida Ltd. Silversmiths facility in Sherrill, New York (NYSDEC Site No. 633004), and provides conclusions regarding the potential threat to human health and the environment posed by the site in its present condition.

The findings of the PSA are summarized below:

1. A metal hydroxide sludge layer was not encountered at the four borings completed adjacent to, and downgradient of, the former landfill and sludge drying bed that comprise NYSDEC Site No. 633004. As described in the PSA Work Plan, it was anticipated that such a layer may be present since the explored area was formerly occupied by a water treatment lagoon. Given the wide distribution of borings it appears unlikely that such sludges are located elsewhere in the former lagoon.

2. The site is underlain by a fill material that is a fine sand, and by natural glaciolacustrine, glacial outwash, and glacial till deposits. All of the materials encountered, with the exception of the outwash, contained a relatively high proportion of "fines" (i.e., silt and clay).

3. The geometric mean hydraulic conductivity of the overburden material was found to be 8.1 feet/year. Groundwater in the area of Site 633004 appears to be migrating northward toward Sconondoa Creek at a velocity of approximately 0.06 feet per year. Given the geologic materials encountered beneath the site, it is anticipated the outwash material is the primary zone in which groundwater flows.

4. Volatiles were not detected in the groundwater samples collected from each of four wells installed adjacent to, and downgradient of, the site.

5. An estimated 1 ppb of the semivolatiles di-n-butyl phthalate and bis(2-ethylhexyl) phthalate were detected in one well sample; these compounds are common plasticizers and are believed to have been introduced into groundwater during construction of the PVC monitoring well.

6. While metals were detected in groundwater at each of the four wells, no metals in filtered samples were detected at concentrations exceeding the standards. Total metals concentrations in unfiltered samples were higher than soluble metals concentrations in filtered samples. Metals concentrations exceeded NYSDEC ambient groundwater standards in unfiltered samples only.

   To evaluate this relationship (see Section 6-02), H&A compared total metals concentrations (i.e., concentrations in unfiltered samples) to dissolved metals concentrations (i.e., concentrations in filtered samples) for relatively soluble versus insoluble metals. If groundwater degradation were occurring due to leaching of metals from the waste, dissolved-phase concentrations (i.e., concentrations in filtered samples) would have been expected to be higher, relative to the concentrations in

unfiltered samples, than was observed. Based on this comparison, it is concluded that the elevated metals concentrations are related to sample turbidity, not groundwater degradation.

Based on these findings, H&A concludes:

1. The concentrations of metals in filtered groundwater samples more closely reflects groundwater quality at the site than the concentrations in unfiltered samples.

2. Groundwater sampled from the area adjacent to, and downgradient of, the former landfill and sludge drying bed that comprise NYSDEC Site No. 633004 does not appear to have been degraded by past activities associated with these two areas.

3. Given the groundwater quality conditions at the site, the relatively slow groundwater flow velocity, and the natural processes of attenuation and dispersion, site groundwater does not pose a significant threat to water or sediment in Sconondoa Creek.

4. Site 633004, in its present condition, does not pose a significant threat to human health or the environment as defined in 6NYCRR Part 375-1.4, given that a) the former landfill and sludge drying bed have been capped for a minimum of approximately eleven years, b) both the landfill and sludge drying bed have been inactive since being capped, and c) groundwater concentrations at sample locations immediately downgradient of these features do not indicate generation or migration of metal, volatile, or semivolatile hazardous constituents.

5. In 1984 and 1986 NYSDEC and USEPA investigations of Site 633005 concluded the potential for direct contact exposure to waste, and risk of fire or explosion were negligible. soil and groundwater sampling by Stearns & Wheeler in 1990 at Site 633005 did not detect volatiles or metals in concentrations exceeding either NYSDEC or USEPA standards or guidelines. Site 633005 is a paved parking lot. Based on the above, Site 633005, in its present condition, does not pose a "significant threat to human health or the environment.

Based on the findings and conclusions listed above, it is H&A's opinion that it would be appropriate for Oneida Ltd. to petition the NYSDEC to downgrade the classifications of Sites 633004 and 633005 from "Class 3" and "Class 2a", respectively, to "Class 5" (which signifies that the site has been properly closed and does not require continued operation, maintenance, and/or monitoring).

TABLE 1

SUMMARY OF HYDROGEOLOGIC DATA

PRELIMINARY SITE ASSESSMENT
ONEIDA LTD., SHERRILL, NEW YORK

	SURVEY DATA							DEVELOPMENT		
WELL	GROUND SURFACE	TOP OF CASING	NORTHING	EASTING	TOTAL DEPTH	DEPTH TO TOP OF SCREEN	DEPTH TO BOTTOM OF SCREEN	GALLONS REMOVED	METHOD	HYDRAULIC CONDUCTIVITY (FT/DAY)
MW-101	468.63	470.83	1770.155	1432.885	24.0	10.0	23.5	165	BAILED AND PUMPED	2.35
MW-102	466.60	468.70	1732.602	1284.198	20.0	10.0	20.0	165	BAILED AND PUMPED	14.70
MW-103	467.08	469.08	1612.904	1163.525	22.0	10.0	22.0	5 *	BAILED	9.64
MW-104	467.38	469.48	1420.940	1034.954	20.0	10.0	20.0	55	BAILED AND PUMPED	10.49

	WATER LEVEL DATA							
	7 APRIL 1993		9 APRIL 1993		15 APRIL 1993		10 AUGUST 1993	
WELL	DEPTH TO WATER	GROUNDWATER ELEVATION	DEPTH TO WATER	GROUNDWATER ELEVATION	DEPTH TO WATER	GROUNDWATER ELEVATION	DEPTH TO WATER	GROUNDWATER ELEVATION
MW-101	9.61	461.22	9.78	461.05	9.65	461.18	10.22	460.61
MW-102	6.68	462.02	6.68	462.02	6.40	462.30	7.72	460.98
MW-103	8.66	460.42	8.66	460.42	9.40	459.68	11.64	457.44
MW-104	6.60	462.88	6.60	462.88	5.71	463.77	NA	--

NOTE:

1. * WELL FLOWED FREELY FOR SEVERAL HOURS AFTER INITIAL 5 GALLONS WERE REMOVED.
2. ALL ELEVATIONS AND DEPTHS ARE IN FEET, RELATIVE TO A U.S.G.S.BENCHMARK LOCATED APPROXIMATELY 1,000 FEET SOUTH OF THE SITE (REFER TO FIGURE 1).

TABLE 2

SUMMARY OF METALS DETECTED IN GROUNDWATER

PRELIMINARY SITE ASSESSMENT
ONEIDA LTD., SHERRILL, NEW YORK

LOCATION	MW-101		MW-101	MW-101	MW-102		MW-102		MW-102	MW-103		MW-103	MW-104		MW-104	WATER
SAMPLE DATE	15 APRIL		18 MAY	18 MAY (DUP.)	15 APRIL		15 APRIL (DUP.)		18 MAY	15 APRIL		18 MAY	15 APRIL		18 MAY	QUALITY STANDARD
METALS (UG/L)	TOTAL	DISSOLVED	TOTAL	TOTAL	TOTAL	DISSOLVED	TOTAL	DISSOLVED	TOTAL	TOTAL	DISSOLVED	TOTAL	TOTAL	DISSOLVED	TOTAL	TOTAL
ALUMINUM			*1480*	*22300*	*28500*	ND	*24300*	ND	*29000*			*78700*			*18600*	*100*
ANTIMONY			*108*	*132*	ND	ND	ND	ND	1130			*259*			*115*	*3*
ARSENIC			13.2	11.7	16	8.4	14.7	2.2	15.4			15.1			14.5	25
BARIUM	463	414	467	615	658	495	638	507	637	459	268	735	642	503	694	1000
BERYLLIUM			ND	ND	ND	ND	ND	ND	ND			ND			ND	3
CADMIUM			ND	3.4B	ND	ND	ND	ND	3.1B			7.3			5.5	10
CALCIUM			133000	184000	159000	115000	158000	117000	255000			441000			219000	-
CHROMIUM	*240*	5.9	*79.3*	*63.7*	*50.4*	ND	53.6	ND	142	186	5	456	61.9	5.7	71.0	*50*
COBALT			8.9B	29.2B	*15.1*	ND	ND	ND	40.4B			*94.4*			25.6B	*5*
COPPER			179	79.4	52.5	ND	53.2	ND	131			*770*			264	*200*
IRON			*19300*	*53300*	*45700*	*17500*	*43600*	*18400*	*67100*			*165000*			*55200*	*300*
LEAD	*46.4*	ND	*30.6*	*32.0*	17	ND	15.1	ND	*49.5*	*33.2*	ND	*186*	15	ND	24.8	*25*
MAGNESIUM			32700	*105000*	*107000*	*85500*	*106000*	*87600*	*133000*			*266000*			*100000*	*35000*
NICKEL	71.5	24.7	25.0B	70.9	28.8	ND	23.3	ND	90.3	146	21	446	82	14.9	109	-
POTASSIUM			10800	32900	36100	28700	35100	29400	33200			45800			19200	-
SELENIUM			ND	ND	ND	ND	ND	ND	ND			ND			ND	10
SILVER	19	ND	14.1	5.1B	8	4	8	ND	4.0B	25	6	*87.2*	23	4	49.6	*50*
SODIUM			*7770*	*72300*	*85500*	*83000*	*83500*	*84800*	*69000*			*41200*			*67500*	*20000*
THALLIUM			ND	ND	ND	ND	ND	ND	ND			ND			ND	4
VANADIUM			ND	49.0B	30.4	ND	29.3	ND	59.6			146			39.4B	-
ZINC	232	96.5	99.9	104	75.7	8.6	73	7.6	149	151	6.5	571	130	9	176	300
CYANIDE	ND	NA	ND	ND	ND	NA	ND	NA	ND	11	NA	ND	10	NA	ND	100

Notes:

1. Water quality standards were taken from NYSDEC 6NYCRR Part 703, "Water Quality Regulations for Surface and Groundwaters" 1 September 1991. Exceedances of the water quality standards are shown in italics.
2. B - Analyte detected below the practical quantitation limit (PQL) and above the instrument detection limit (IDC).
3. NA - Not analyzed for this parameter.
4. ND - Not detected above the method detection/limit.
5. Samples were analyzed by General Testing Corporation of Rochester, New York.

djv:123:70295-40:GWQInorg

TABLE 3

SUMMARY OF VOLATILES DETECTED IN GROUNDWATER

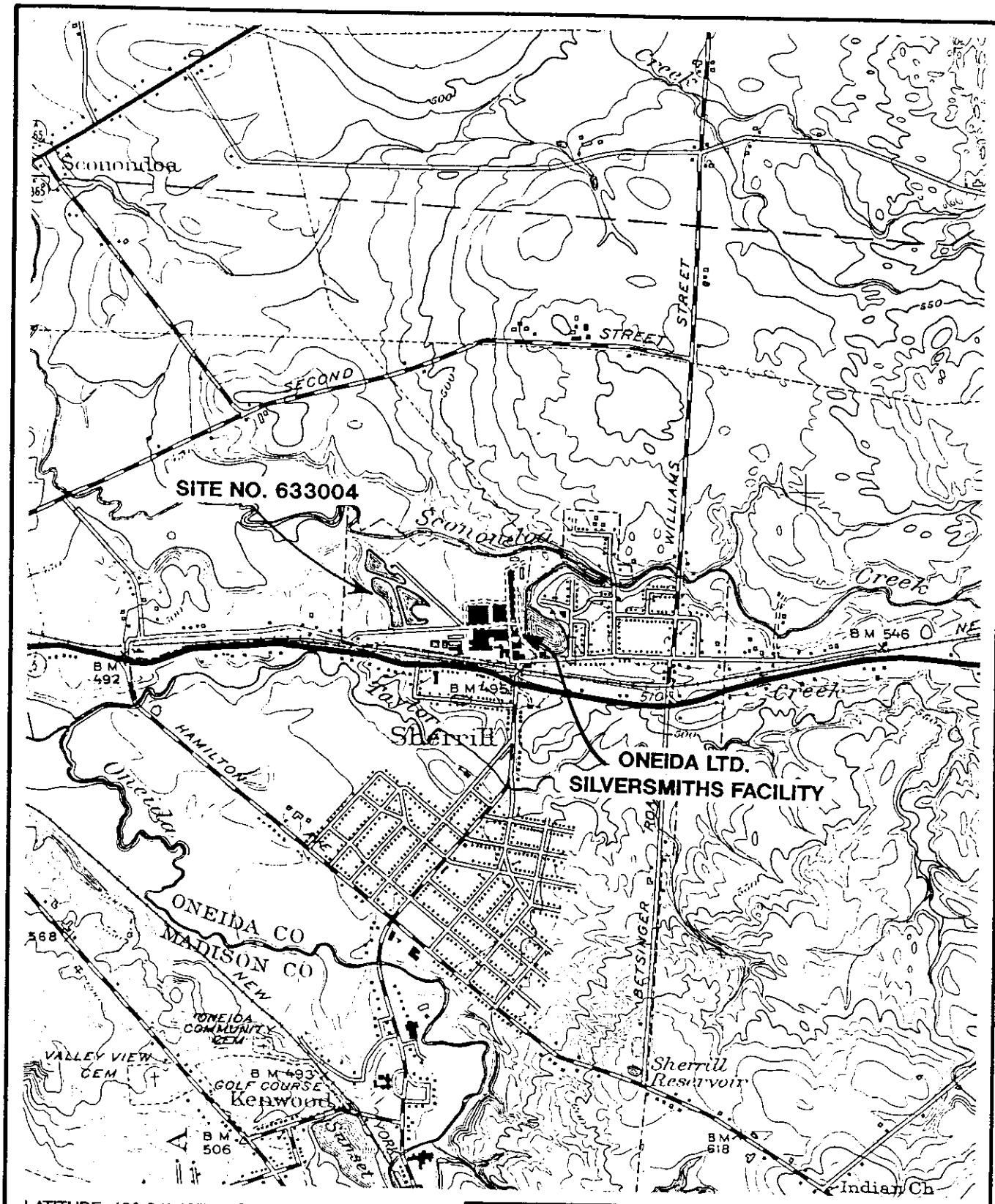
PRELIMINARY SITE ASSESSMENT
ONEIDA LTD., SHERRILL, NEW YORK

LOCATION SAMPLE DATE	MW-101 15 APRIL	MW-101 18 MAY	MW-101 18 MAY (DUP.)	MW-102 15 APRIL	MW-102 15 APRIL (DUP.)	MW-102 18 MAY	MW-103 15 APRIL	MW-103 18 MAY	MW-104 15 APRIL	MW-104 18 MAY	WATER QUALITY STANDARD
VOLATILES (ug/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SEMI-VOLATILES (ug/L)	NA	NA	NA			NA	NA	NA	NA	NA	
DI-N-BUTYL PHTHALATE				1.0J							50
BIS(2 ETHYLHEXYL)PHTHALATE					1.0J						50

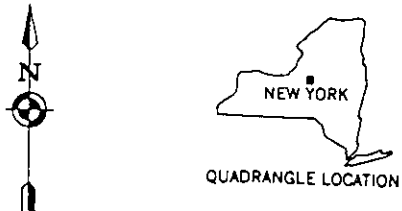
Notes:

1. Water quality standards were taken from NYSDEC 6NYCRR Part 703, "Water Quality Regulations for Surface and Groundwaters" 1 September 1991.
2. NA - Not analyzed for this parameter.
3. ND - Not detected above the method detection/limit.
4. Samples were analyzed by General Testing Corporation of Rochester, New York.

DJV:\123\70295-40\GWVOA.WK1



LATITUDE: 43° 04' 40"N LONGITUDE: 75° 36' 18"W



U.S.G.S. QUADRANGLE: VERNON, N.Y.

H & A of New York
Consulting Geotechnical Engineers, Geologists and Hydrogeologists

ONEIDA LTD.
SHERRILL, NEW YORK

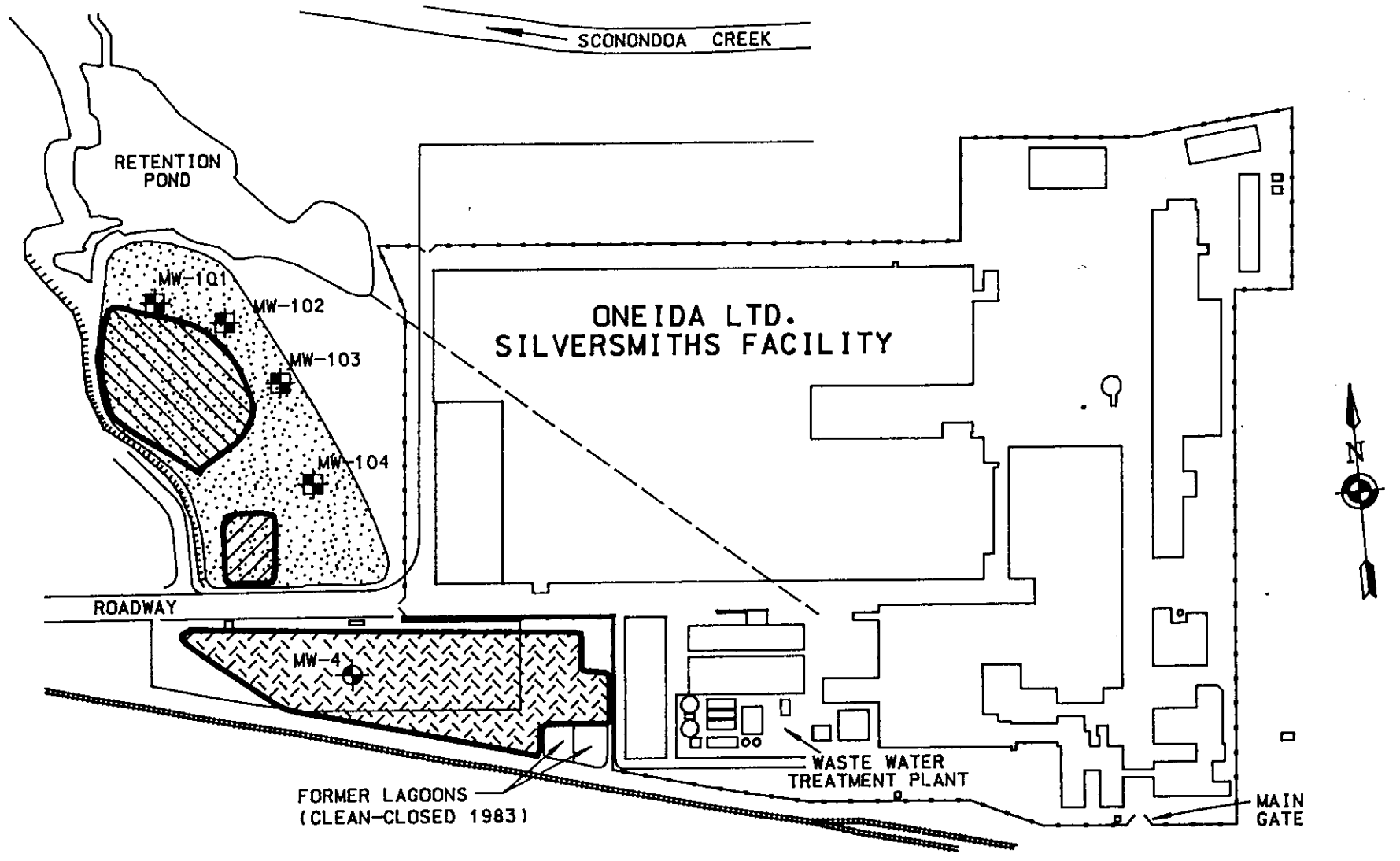
PROJECT LOCUS

SCALE: 1 IN. = 2000 FT. SEPTEMBER 1993

FILE NO. 70295-40

CHARRETTE

FIGURE 1



LEGEND:

- FORMER LAGOON
- FORMER LANDFILL (CLOSED OCTOBER 1980) — NYSDEC SITE 633004 (CLASS 3)
- FORMER SLUDGE DRYING BED — NYSDEC SITE 633004 (CLASS 3)
- FORMER WASTEWATER TREATMENT LAGOON (INACTIVE SINCE 1953) — NYSDEC SITE 633005 (CLASS 2a)
- MW-103 — MONITORING WELL INSTALLED IN APRIL 1993 DURING PRELIMINARY SITE ASSESSMENT BY H&A OF NEW YORK
- MW-4 — MONITORING WELL INSTALLED IN 1990 DURING PHASE I INVESTIGATION BY STEARNS & WHEELER OF CAZENOVIA, NEW YORK
- BURIED UTILITY CONDUIT
- CHAIN LINK FENCE
- TOP OF EMBANKMENT

NOTES:

1. BASE PLAN PROVIDED BY ONEIDA, LTD., ORIGINAL DATE DECEMBER 1968, REVISED 1977 AND 1980.
2. LOCATIONS OF H&A WELLS TAKEN FROM "PLAN SHOWING MONITOR WELL LOCATIONS" PREPARED BY MYERS AND ASSOCIATES, P.C. OF CANASTOTA, NEW YORK, DATED 4/23/93, ORIGINAL SCALE: 1" = 100' (REFER TO FIGURE 3).
3. LOCATIONS OF FORMER SITE FEATURES ARE APPROXIMATE.

0 150 300 600
SCALE (IN FEET)

H & A OF NEW YORK
Geotechnical Engineers & Environmental Consultants

ONEIDA LTD.
SHERRILL, NEW YORK

EXPLORATION LOCATION PLAN

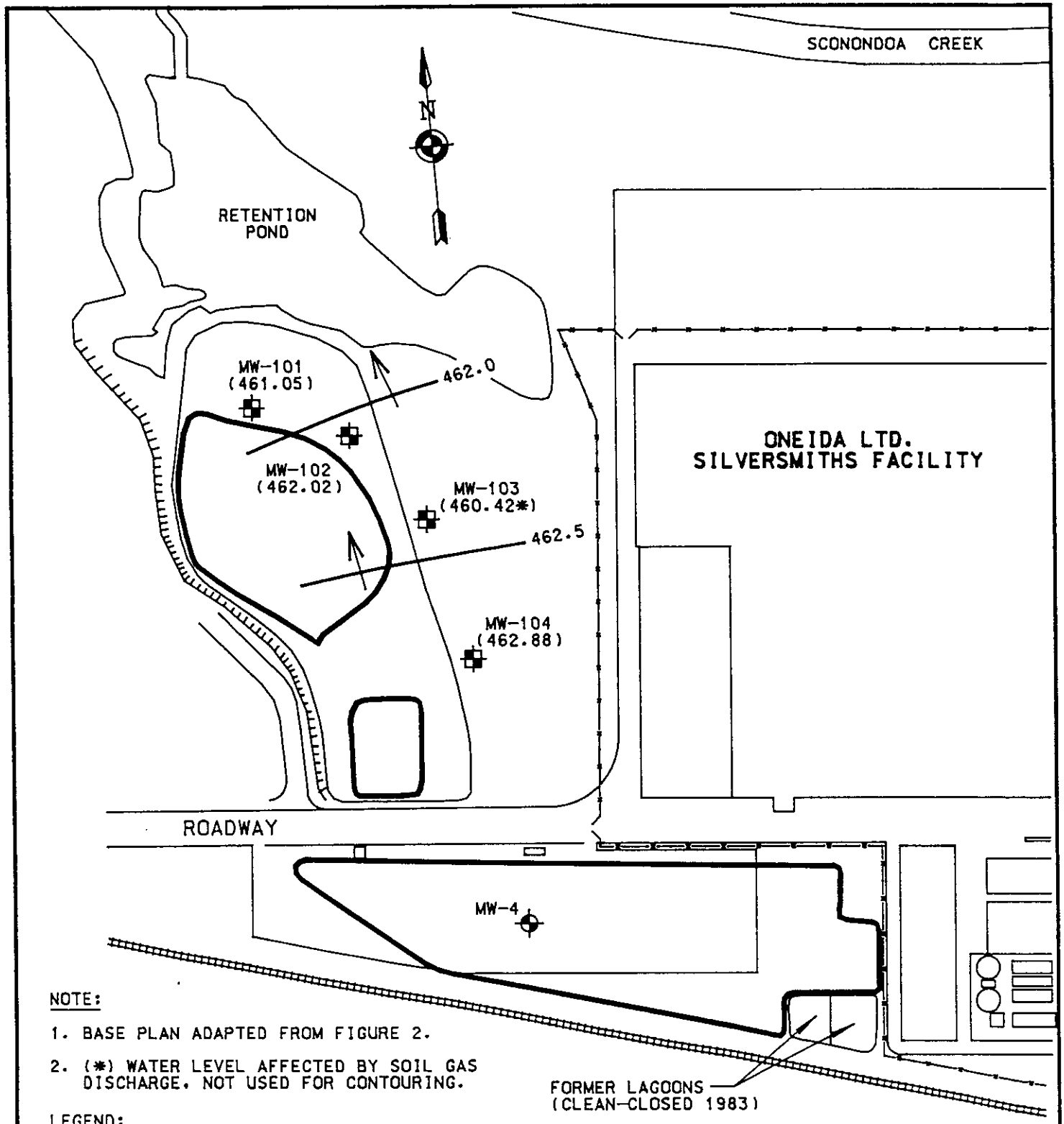
SCALE: 1" = 300'

SEPTEMBER 1993

FILE No. 70295-40

FILENAME: FIG2.DGN

FIGURE 2



NOTE:

1. BASE PLAN ADAPTED FROM FIGURE 2.
2. (*) WATER LEVEL AFFECTED BY SOIL GAS DISCHARGE. NOT USED FOR CONTOURING.

LEGEND:

MW-104 MONITORING WELL INSTALLED IN APRIL 1993 DURING PRELIMINARY SITE ASSESSMENT BY H&A OF NEW YORK

MW-4 MONITORING WELL INSTALLED IN 1990 DURING PHASE I INVESTIGATION BY STEARNS & WHEELER OF CAZENOVIA, NEW YORK

(462.88) POTENTIOMETRIC SURFACE ELEVATION

POTENTIOMETRIC SURFACE ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

H & A OF NEW YORK
Geotechnical Engineers & Environmental Consultants

ONEIDA LTD.
SHERRILL, NEW YORK

POTENTIOMETRIC SURFACE APRIL 1993

SCALE: 1" = 200'

SEPTEMBER 1993

FILE No. 70295-40

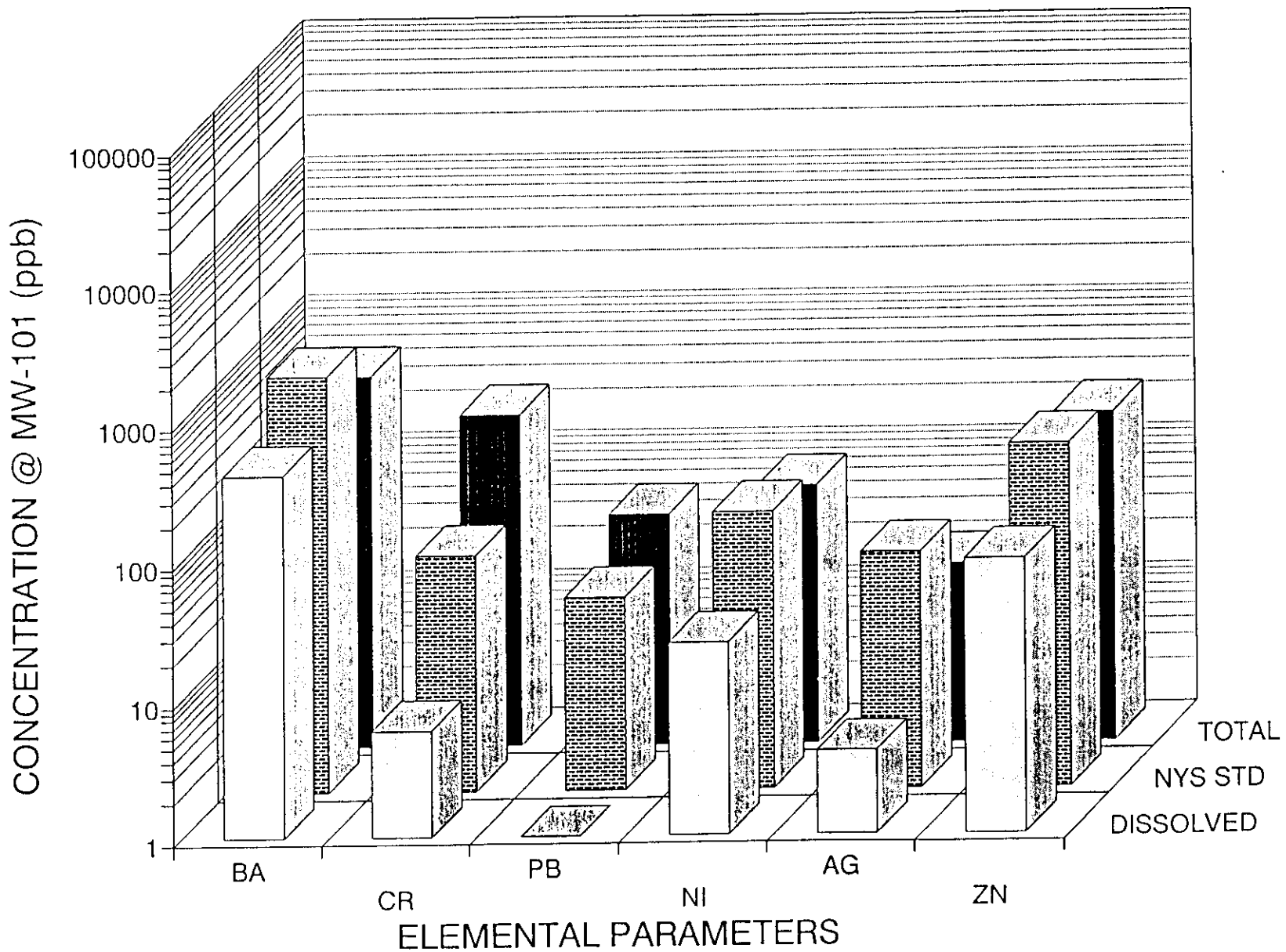
FILENAME: FIG4P.DGN

FIGURE 4

FILE NO. 70295-40

ONEIDA LTD.

COMPARISON OF TOTAL/DISSOLVED METALS



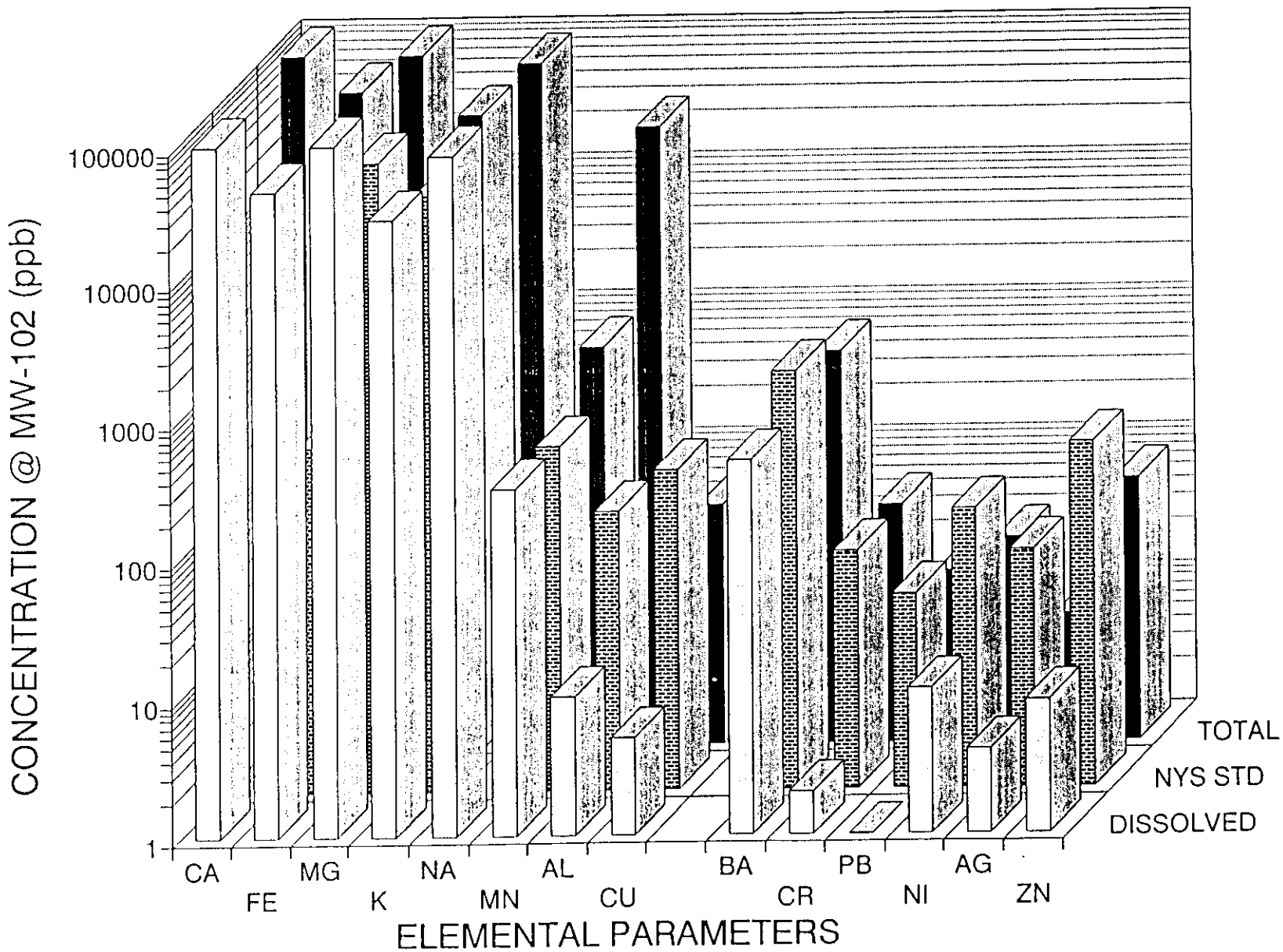
H & A OF NEW YORK
ROCHESTER, NEW YORK

FIGURE 5

FILE NO. 70295-40

ONEIDA LTD.

COMPARISON OF TOTAL/DISSOLVED METALS



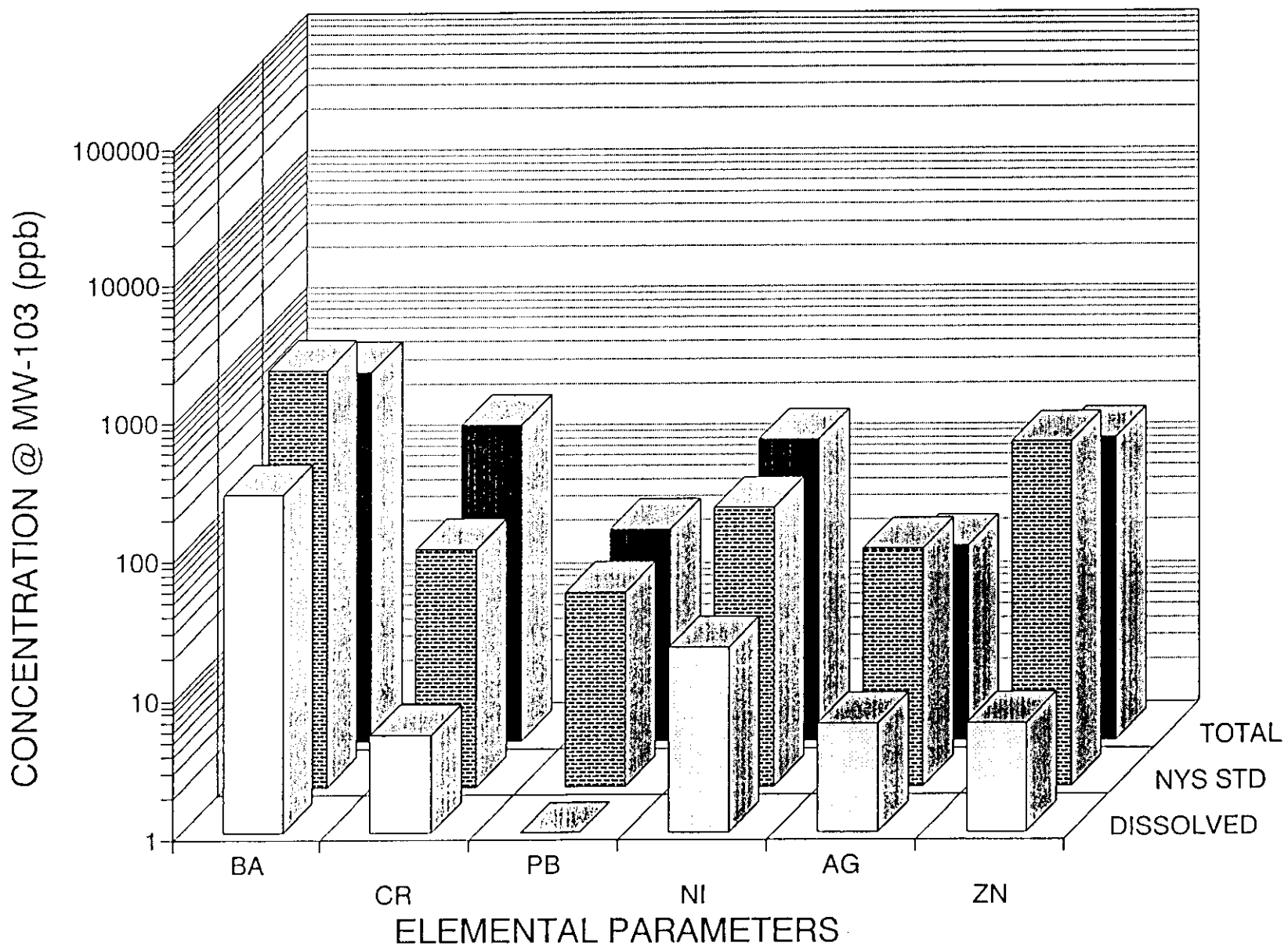
H & A OF NEW YORK
ROCHESTER, NEW YORK

FIGURE 6

FILE NO. 70295-40

ONEIDA LTD.

COMPARISON OF TOTAL/DISSOLVED METALS



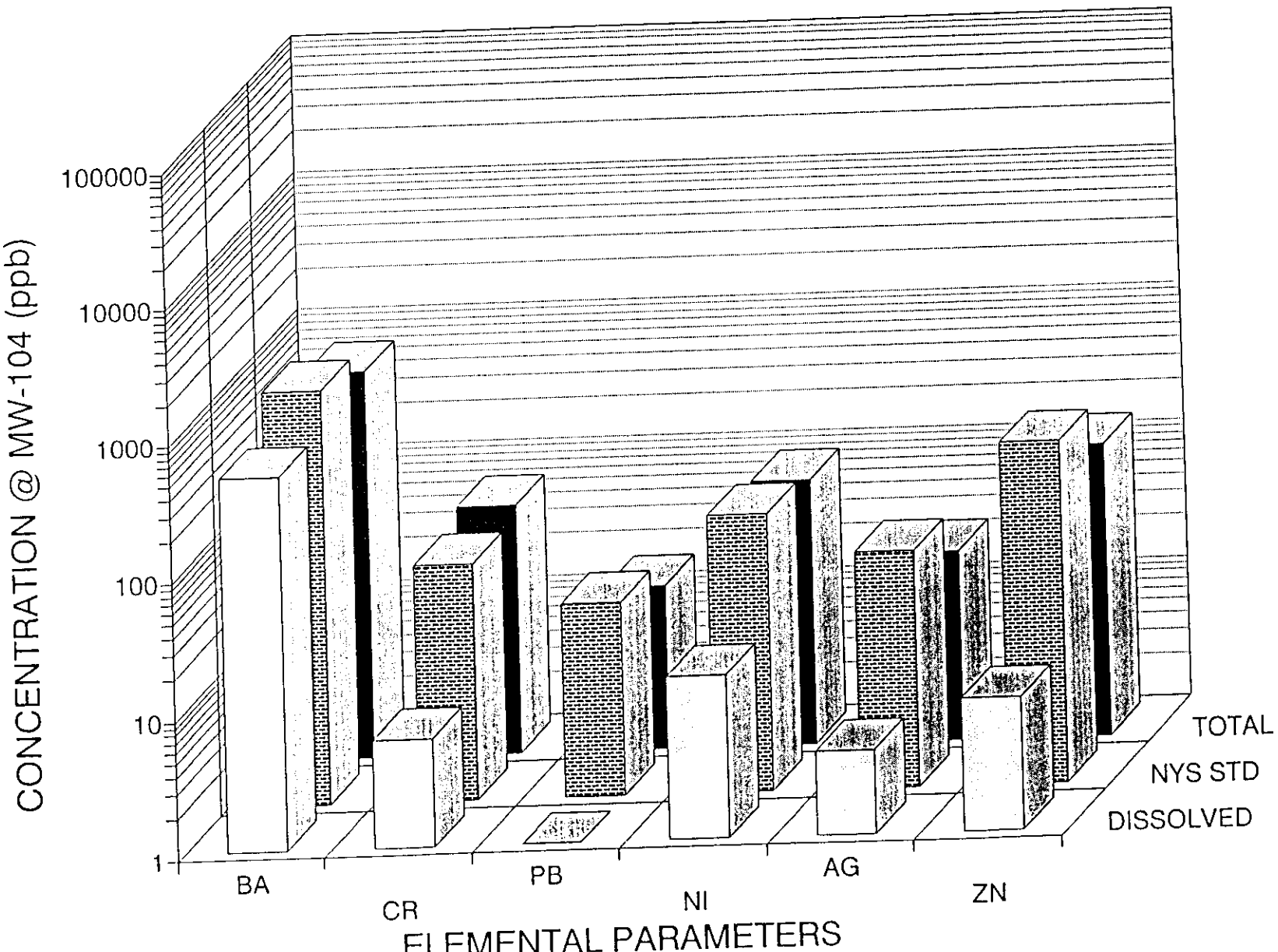
H & A OF NEW YORK
ROCHESTER, NEW YORK

FIGURE 7

FILE NO. 70295-40

ONEIDA LTD.

COMPARISON OF TOTAL/DISSOLVED METALS



H & A OF NEW YORK
ROCHESTER, NEW YORK

FIGURE 8

APPENDIX A

TEST BORING REPORTS

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B101

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF INC.

FILE NO. 70295-40
SHEET NO. 1 OF 1
LOCATION: N 1770.155
E 1432.885
ELEVATION: 468.63
DATUM: NGVD
START: 5 April 1993
FINISH: 5 April 1993
DRILLER: G. Lansing
H&A REP: E. Reckentine

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	Auger	SS	---
INSIDE DIAMETER (IN)	6-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: 75 CME, Track Mounted
BIT TYPE:
DRILL MUD: ---
OTHER: Advanced augers to 24.0 ft. Installed monitoring well at 23.5 ft.

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		1 1 1 1	S1 24"/24"	0.0 2.0	0.5	Very soft brown fine sandy SILT, little clay, moist. -FILL-
		1 2 2 2	S2 24"/24"	2.0 4.0		Very loose gray fine sand, trace refuse material, moist. -FILL- Same.
5		W O H	S3 24"/24"	4.0 6.0		Same. -FILL-
		W O H	S4 24"/24"	6.0 8.0		Same.
		W O H	S5 12"/24"	8.0 10.0		Same.
10		WOH 3 5 5	S6 24"/24"	10.0 12.0	10.0	-LACUSTRINE- Stiff brown silty CLAY, moist to wet.
		5 5 4 5	S7 24"/24"	12.0 14.0		Stiff brown silty CLAY, moist to wet.
15		3 9 9 5	S8 6"/24"	14.0 16.0	14.0	-OUTWASH- Medium dense brown coarse to fine sandy GRAVEL, trace silt, wet.
		8 7 7 15	S9 6"/24"	16.0 18.0		Medium dense brown coarse to fine sandy fine GRAVEL, trace silt, wet.
		7 12 13 15	S10 18"/24"	18.0 20.0	18.0	-LACUSTRINE- Very stiff red-brown SILT, little fine sandy trace clay, moist.
20		8 13 14 20	S11 24"/24"	20.0 22.0		Very stiff red-brown SILT, little clay, trace fine sand, moist. -LACUSTRINE-
		16 19 24 25	S12 24"/24"	22.0 24.0		Hard red-brown silty fine SAND, trace clay moist.
25						Bottom of Boring at 24.0 ft.

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	24.0
ROCK CORED (LIN FT):	---
SAMPLES:	12S
BORING NO.	B101

H&A OF NEW YORK, ROCHESTER, NEW YORK
Consulting Geotechnical Engineers,
Geologists and Hydrogeologists

TEST BORING REPORT

BORING NO. B102

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF INC.

FILE NO. 70295-40
SHEET NO. 1 OF 1
LOCATION: N 1732.602
E 1284.198
ELEVATION: 466.60
DATUM: NGVD
START: 1 April 1993
FINISH: 6 April 1993
DRILLER: G. Lansing
H&A REP: E. Reckentine

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	Auger	SS	---
INSIDE DIAMETER (IN)	6-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: 75 CME, Track Mounted
BIT TYPE: ---
DRILL MUD: ---
OTHER: Advanced augers to 20.0 ft. Installed monitoring well at 20.3 ft.

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		1 3 6 22	S1 6"/24"	0.0 2.0	0.2	Soft brown clayey SILT, little medium to fine sand, wet. -FILL-
		10 7 6 5	S2 6"/24"	2.0 4.0		Medium dense black coal particles, moist. Medium dense black coal particles with interbedded brown clayey SILT, moist.
5		W O H	S3 6"/24"	4.0 6.0	4.0	Very loose gray fine SAND, trace refuse material, wet. -FILL-
		W O H 1	S4 24"/24"	6.0 8.0	7.5	Very loose gray fine SAND, trace refuse material, wet. -FILL-
		W O H	S5 12"/24"	8.0 10.0		Very soft brown silty CLAY, trace fine sand, moist. -LACUSTRINE-
10		WOH 1 2 3	S6 24"/24"	10.0 12.0		Very soft brown silty CLAY, trace organic material, trace shell fragements, moist. Soft brown mottled black silty CLAY, trace organic material, trace fine sand, wet.
		3 1 2 1	S7 12"/24"	12.0 14.0	12.0	Loose brown coarse to fine sandy GRAVEL, trace silt, wet. -OUTWASH-
		2 4 6 7	S8 6"/24"	14.0 16.0	14.0	Stiff brown silty CLAY, trace fine sand, wet. -LACUSTRINE-
15		7 12 11 11	S9 24"/24"	16.0 18.0		Very stiff brown silty CLAY, trace fine sand, moist.
		5 5 7 7	S10 12"/24"	18.0 20.0		Stiff brown silty CLAY, trace fine sand, moist. -LACUSTRINE-
20						Bottom of Boring at 20.0 ft.
25						

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	20.0
ROCK CORED (LIN FT):	---
SAMPLES:	10S
BORING NO.	B102

H&A OF NEW YORK, ROCHESTER, NEW YORK
Consulting Geotechnical Engineers,
Geologists and Hydrogeologists

TEST BORING REPORT

BORING NO. B103

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF INC.

FILE NO. 70295-40
SHEET NO. 1 OF 1
LOCATION: N 1612.914
E 1163.525
ELEVATION: 467.08
DATUM: NGVD
START: 6 April 1993
FINISH: 6 April 1993
DRILLER: G. Lansing
H&A REP: E. Reckentine

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	Auger	SS	---
INSIDE DIAMETER (IN)	6-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: 75 CME, Track Mounted
BIT TYPE: ---
DRILL MUD: ---
OTHER: Advanced augers to 22.0 ft. Installed monitoring well at 22.0 ft.

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		1 1 2 3	S1 24"/24"	0.0 2.0	2.0	-FILL- Soft brown mottled red, black clayey SILT, some coarse to fine sand, trace organic material, moist.
		2 1 2 2	S2 18"/24"	2.0 4.0		Very loose gray fine SAND, trace refuse material, wet. -FILL-
5		2 1 1 1	S3 3"/24"	4.0 6.0		Same.
		W O H 2	S4 4"/24"	6.0 8.0		Same. -FILL-
		1 3 3 3	S5 24"/24"	8.0 10.0	8.0	Medium stiff brown mottled red silty CLAY, trace fine sand, trace organic material, moist. -LACUSTRINE-
10		6 6 9 8	S6 6"/24"	10.0 12.0		Medium dense brown gray coarse to fine sandy GRAVEL, trace silt, wet. -OUTWASH-
		7 6 5 6	S7 18"/24"	12.0 14.0	13.5	Same. -LACUSTRINE-
15		4 4 6 7	S8 18"/24"	14.0 16.0		Medium stiff red-brown silty CLAY, moist.
		6 9 10 10	S9 24"/24"	16.0 18.0		Medium stiff red-brown silty CLAY, trace fine sand, moist. Stiff red-brown silty CLAY, trace fine sand, moist.
		2 4 4 7	S10 24"/24"	18.0 20.0	18.0	Medium stiff red-brown fine sandy SILT, some clay, moist. -LACUSTRINE-
20		5 7 12 18	S11 24"/24"	20.0 22.0	21.0	Same. Medium dense brown mottled gravelly coarse to fine SAND, little silt, trace clay, moist. -TILL-
25						Bottom of Boring at 22.0 ft.

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT): 22.0
ROCK CORED (LIN FT): ---
SAMPLES: 11S
BORING NO. B103

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B104

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF INC.

FILE NO. 70295-40
SHEET NO. 1 OF 1
LOCATION: N 1420.940
E 1034.954
ELEVATION: 467.38
DATUM: NGVD
START: 7 April 1993
FINISH: 7 April 1993
DRILLER: G. Lansing
H&A REP: E. Reckentine

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	Auger	SS	---
INSIDE DIAMETER (IN)	6-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: 75 CME, Track Mounted
BIT TYPE: ---
DRILL MUD: ---
OTHER: Advanced augers to 20.0 ft. Installed monitoring well at 20.0 ft.

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		1 2 3 4	S1 12"/24"	0.0 2.0		-FILL- Medium stiff brown mottled black silty CLAY, trace fine sand, trace organic material, wet.
		2 2 2 2	S2 12"/24"	2.0 4.0		Soft black silty fine SAND, little clay, trace organic material, moist.
5		2 3 3 3	S3 6"/24"	4.0 6.0		Medium stiff brown silty CLAY, trace fine sand, moist. -FILL-
		WOH 1 3	S4 24"/24"	6.0 8.0	7.0 7.8 8.0	Very soft brown silty medium to fine sand, some clay, wet. Very soft black fine SAND, little silt, trace clay, wet. -FILL-
		4 5 5 6	S5 12"/24"	8.0 10.0		Soft brown silty CLAY, trace fine sand, wet. -LACUSTRINE-
10		3 2 2 1	S6 12"/24"	10.0 12.0	12.0	Medium dense brown gray gravelly coarse to fine SAND, little silt, wet. Soft brown silty fine SAND, some fine gravel, little clay, trace organic material. -OUTWASH-
		3 2 4 4	S7 12"/24"	12.0 14.0		Loose brown gravelly coarse to fine SAND, little silty, trace clay, moist. -OUTWASH- Same.
15		5 3 3 3	S8 12"/24"	14.0 16.0	16.0	
		5 6 7 9	S9 18"/24"	16.0 18.0		Stiff red-brown CLAY, some silt, trace fine sand, moist. -LACUSTRINE- Same.
		3 5 7 9	S10 10"/24"	18.0 20.0		
20						Bottom of Boring at 20.0 ft.
25						

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	DEPTH (FT) TO: BOTTOM OF HOLE	DEPTH (FT) TO: WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	20.0
ROCK CORED (LIN FT):	---
SAMPLES:	10S
BORING NO.	B104

APPENDIX B

OVERBURDEN GROUNDWATER MONITORING WELL REPORTS

H&A OF NEW YORK
CONSULTING GEOTECHNICAL ENGINEERS
GEOLOGISTS AND HYDROGEOLOGISTS

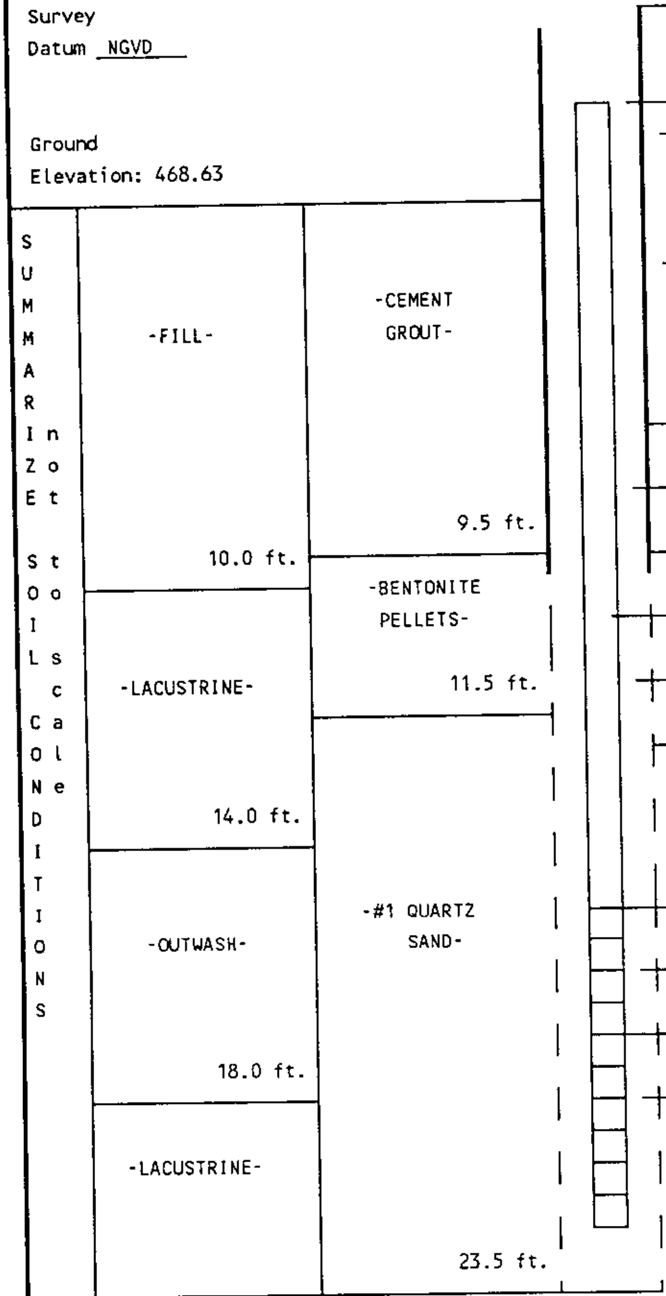
OVERBURDEN GROUNDWATER MONITORING WELL REPORT

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
LOCATION: SHERRILL, NEW YORK
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF, INC.
DRILLER: G. Lansing RIG TYPE: 75 CME, Truck Mounted
INSTALLATION DATE: 7 April 1993

FILE NO.: 70295-40
WELL NO.: MW-101
LOCATION: N 1770.155
E 1432.885
SHEET: 1 OF 1
INSPECTOR: E. Reckentine

Survey
Datum NGVD

Ground
Elevation: 468.63



Stickup above ground surface of protective casing.	---
Stickup above ground surface of riser pipe.	2.2 ft.
Thickness of Surface Seal	9.5 ft.
Type of Surface Seal [indicated all seals showing depth, thickness and type]	Cement Grout
Type of Protective Casing	---
Inside Diameter of Protective Casing	---
Depth of Bottom of Protective Casing	---
Inside Diameter of Riser Pipe	2.0 in.
Type of Backfill Around Riser	Bentonite Pellets
Diameter of Borehole	10.0 in.
Type of coupling (threaded, welded, etc.)	Threaded
Depth of Bottom of Riser	10.0 ft.
Type of Wellscreen	Slotted PVC
Screen Slot Size	.010 in.
Diameter of Wellscreen	2.0 in.
Type of Backfill Around Wellscreen	#1 Quartz Sand
Depth of Bottom of Wellscreen	23.5 ft.
Depth of Bottom of Borehole	24.0 ft.

Remarks:

Well No. MW-101

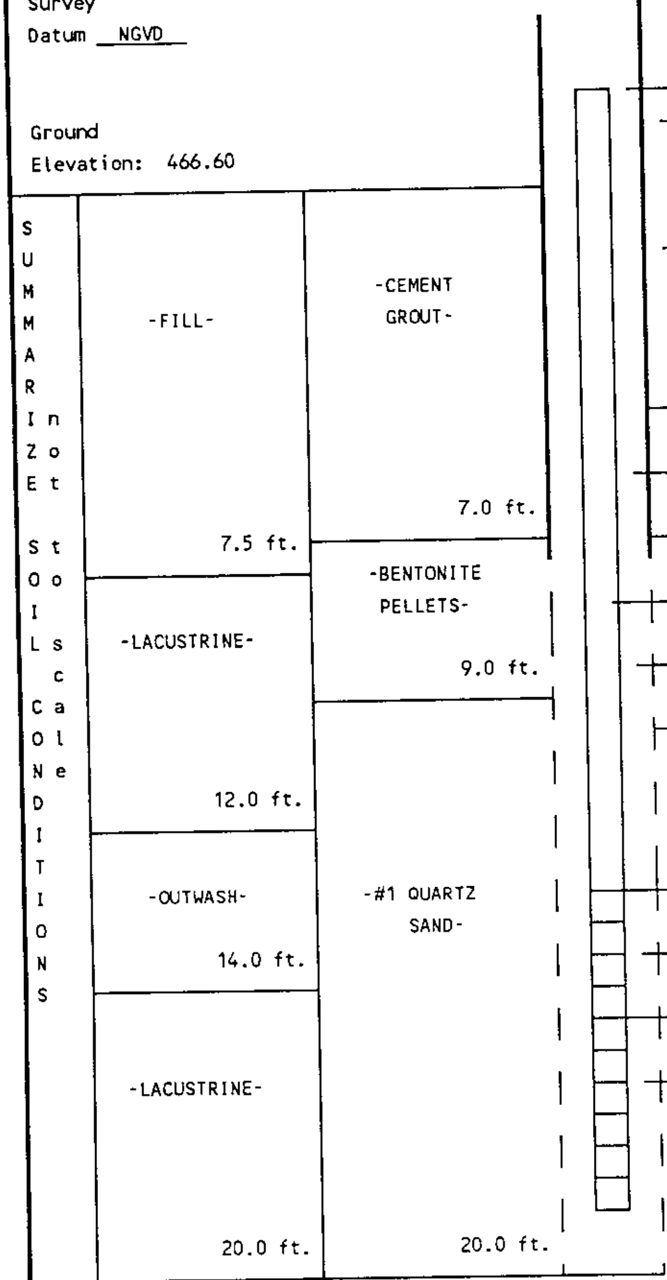
H&A OF NEW YORK
CONSULTING GEOTECHNICAL ENGINEERS
GEOLOGISTS AND HYDROGEOLOGISTS

OVERBURDEN GROUNDWATER MONITORING WELL REPORT

PROJECT:	ONEIDA LIMITED SITE ASSESSMENT	FILE NO.:	70295-40
LOCATION:	SHERRILL, NEW YORK	WELL NO.:	MW-102
CLIENT:	ONEIDA LIMITED	LOCATION:	N 1732.602
CONTRACTOR:	PARRATT WOLFF, INC.		E 1284.198
DRILLER:	G. Lansing RIG TYPE: 75 CME, Truck Mounted	SHEET:	1 OF 1
INSTALLATION DATE:	6 April 1993	INSPECTOR:	E. Reckentine

Survey Datum NGVD

Ground Elevation: 466.60



Stickup above ground surface of protective casing.	---
Stickup above ground surface of riser pipe.	2.1 ft.
Thickness of Surface Seal	7.0 ft.
Type of Surface Seal [indicated all seals showing depth, thickness and type]	Cement Grout
Type of Protective Casing	---
Inside Diameter of Protective Casing	---
Depth of Bottom of Protective Casing	---
Inside Diameter of Riser Pipe	2.0 in.
Type of Backfill Around Riser	Bentonite Pellets
Diameter of Borehole	10.0 in.
Type of coupling (threaded, welded, etc.)	Threaded
Depth of Bottom of Riser	10.0 ft.
Type of Wellscreen	Slotted PVC
Screen Slot Size	.010 in.
Diameter of Wellscreen	2.0 in.
Type of Backfill Around Wellscreen	#1 Quartz Sand
Depth of Bottom of Wellscreen	20.0 ft.
Depth of Bottom of Borehole	20.3 ft.

Remarks:

Well No. MW-102

H&A OF NEW YORK
CONSULTING GEOTECHNICAL ENGINEERS
GEOLOGISTS AND HYDROGEOLOGISTS

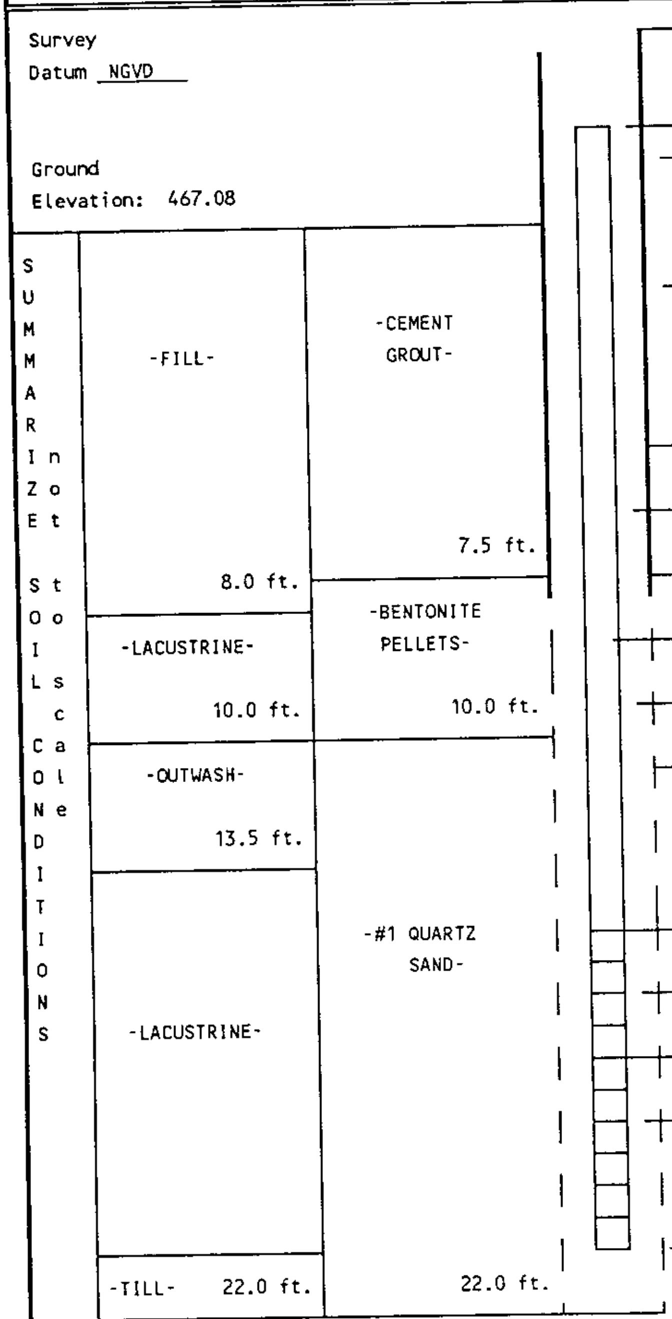
OVERBURDEN GROUNDWATER MONITORING WELL REPORT

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
LOCATION: SHERRILL, NEW YORK
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF, INC.
DRILLER: G. Lansing RIG TYPE: 75 CME, Truck Mounted
INSTALLATION DATE: 6 April 1993

FILE NO.: 70295-40
WELL NO.: MW-103
LOCATION: N 1612.914
E 1163.525
SHEET: 1 OF 1
INSPECTOR: E. Reckentine

Survey
Datum NGVD

Ground
Elevation: 467.08



Stickup above ground surface of protective casing.	---
Stickup above ground surface of riser pipe.	2.0 ft.
Thickness of Surface Seal	7.5 ft.
Type of Surface Seal [indicated all seals showing depth, thickness and type]	Cement Grout
Type of Protective Casing	---
Inside Diameter of Protective Casing	---
Depth of Bottom of Protective Casing	---
Inside Diameter of Riser Pipe	2.0 in.
Type of Backfill Around Riser	Bentonite Pellets
Diameter of Borehole	10.0 in.
Type of coupling (threaded, welded, etc.)	Threaded
Depth of Bottom of Riser	10.0 ft.
Type of Wellscreen	Slotted PVC
Screen Slot Size	.010 in.
Diameter of Wellscreen	2.0 in.
Type of Backfill Around Wellscreen	#1 Quartz Sand
Depth of Bottom of Wellscreen	22.0 ft.
Depth of Bottom of Borehole	22.0 ft.

Remarks:

Well No. MW-103

H&A OF NEW YORK
CONSULTING GEOTECHNICAL ENGINEERS
GEOLOGISTS AND HYDROGEOLOGISTS

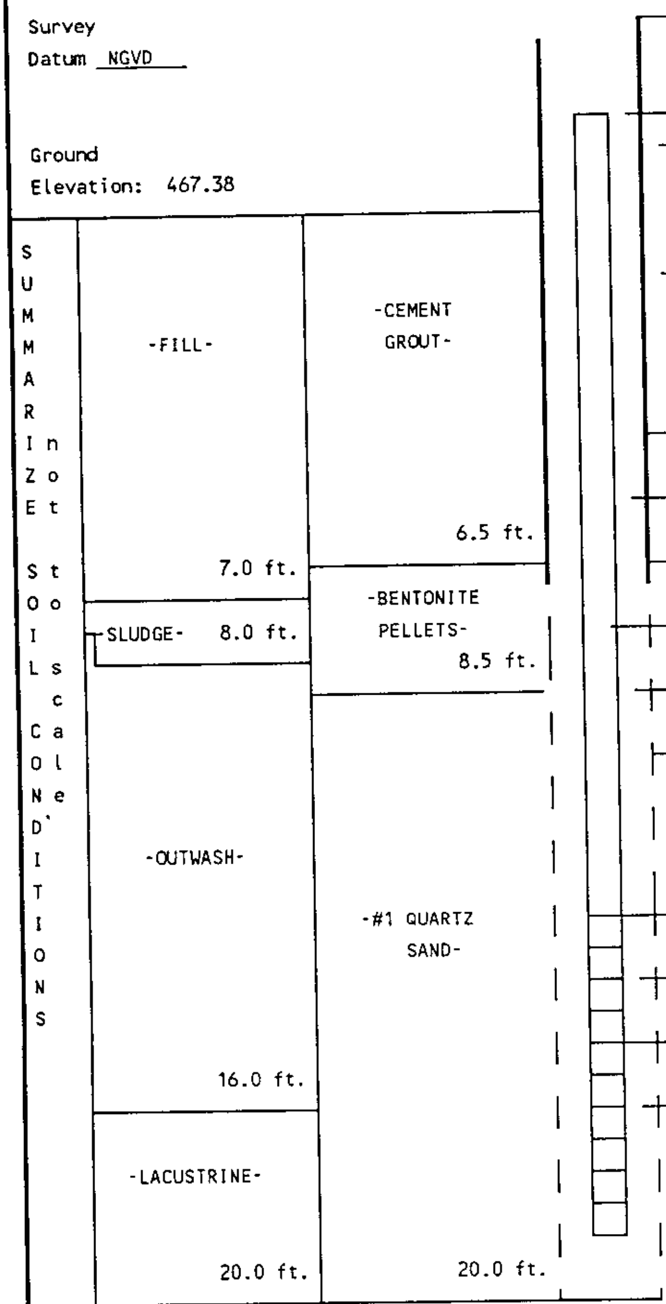
OVERBURDEN GROUNDWATER MONITORING WELL REPORT

PROJECT: ONEIDA LIMITED SITE ASSESSMENT
LOCATION: SHERRILL, NEW YORK
CLIENT: ONEIDA LIMITED
CONTRACTOR: PARRATT WOLFF, INC.
DRILLER: G. Lansing RIG TYPE: 75 CME, Truck Mounted
INSTALLATION DATE: 5 April 1993

FILE NO.: 70295-40
WELL NO.: MW-104
LOCATION: N 1420.940
E 1034.954
SHEET: 1 OF 1
INSPECTOR: E. Reckentine

Survey Datum NGVD

Ground Elevation: 467.38



Stickup above ground surface of protective casing.	---
Stickup above ground surface of riser pipe.	2.1 ft.
Thickness of Surface Seal	6.5 ft.
Type of Surface Seal [indicated all seals showing depth, thickness and type]	Cement Grout
Type of Protective Casing	---
Inside Diameter of Protective Casing	---
Depth of Bottom of Protective Casing	---
Inside Diameter of Riser Pipe	2.0 in.
Type of Backfill Around Riser	Bentonite Pellets
Diameter of Borehole	10.0 in.
Type of coupling (threaded, welded, etc.)	Threaded
Depth of Bottom of Riser	10.0 ft.
Type of Wellscreen	Slotted PVC
Screen Slot Size	.010 in.
Diameter of Wellscreen	2.0 in.
Type of Backfill Around Wellscreen	#1 Quartz Sand
Depth of Bottom of Wellscreen	20.0 ft.
Depth of Bottom of Borehole	20.0 ft.

Remarks:

Well No. MW-104

APPENDIX C

GROUNDWATER LEVEL MONITORING REPORTS

H&A OF NEW YORK CONSULTING GEOTECHNICAL ENGINEERS GEOLOGISTS AND HYDROGEOLOGISTS	GROUNDWATER LEVEL MONITORING REPORT

WELL NUMBER: MW-101	GROUND/TOP OF CASING ELEVATION:	FILE NO. 70295-40 PAGE NO. 1 OF 1

DATE	TIME	ELAPSED TIME	DEPTH OF WATER FROM T.O.R	ELEVATION OF WATER	REMARKS	READ BY
4/5/93	1800		9.6 ft.			ER
4/7/93	1800		9.61 ft.			ER
4/9/93	0930		9.78 ft.		Development - 165 gallons purged 8 - 9 April 1993.	ER

H&A OF NEW YORK CONSULTING GEOTECHNICAL ENGINEERS GEOLOGISTS AND HYDROGEOLOGISTS	GROUNDWATER LEVEL MONITORING REPORT

WELL NUMBER: MW-102	GROUND/TOP OF CASING ELEVATION:	FILE NO. 70295-40 PAGE NO. 1 OF 1

DATE	TIME	ELAPSED TIME	DEPTH OF WATER FROM T.O.R	ELEVATION OF WATER	REMARKS	READ BY
4/7/93	1800		6.6 ft.			ER
4/9/93			6.68 ft.		165 gallons developed 8 - 9 April 1993.	ER

H&A OF NEW YORK CONSULTING GEOTECHNICAL ENGINEERS GEOLOGISTS AND HYDROGEOLOGISTS	GROUNDWATER LEVEL MONITORING REPORT

WELL NUMBER: MW-103	GROUND/TOP OF CASING ELEVATION:	FILE NO. 70295-40 PAGE NO. 1 OF 1

DATE	TIME	ELAPSED TIME	DEPTH OF WATER FROM T.O.R	ELEVATION OF WATER	REMARKS	READ BY
4/7/93	1800		9.01 ft.			ER
4/9/93			8.66 ft.		Not developed. Self developed.	ER

H&A OF NEW YORK CONSULTING GEOTECHNICAL ENGINEERS GEOLOGISTS AND HYDROGEOLOGISTS	GROUNDWATER LEVEL MONITORING REPORT

WELL NUMBER: MW-104

GROUND/TOP OF CASING ELEVATION:

FILE NO. 70295-40
PAGE NO. 1 OF 1

DATE	TIME	ELAPSED TIME	DEPTH OF WATER FROM T.O.R	ELEVATION OF WATER	REMARKS	READ BY
4/9/93	0930		6.6 ft.		55 gallons developed 9 April 1993.	ER

APPENDIX D

RISING-HEAD TEST SUMMARY REPORTS

RISING HEAD TEST SUMMARY

WELL NAME: MW101

DATE OF TEST: 9-APRIL-93

Rising Head Permeability Calculation

Hvorslev Method

$Kh = [((d*d)\ln((2*m*L)/D))\ln(H1/H2)] / 8L(t2-t1)$

Test Section Diameter (D), in ft.:	0.83
Casing Diameter (d), in ft.:	0.17
Test Length Section (L),in ft.:	12
m = (Kh/Kv)**0.5:	1
t1 in min.:	0.5
t2 in min.:	1.25
H1:	0.37
H2:	0.11
Kh (cm/sec) =	8.3E-04
Kh (ft/min) =	1.6E-03
Kh (ft/day) =	2.4E+00

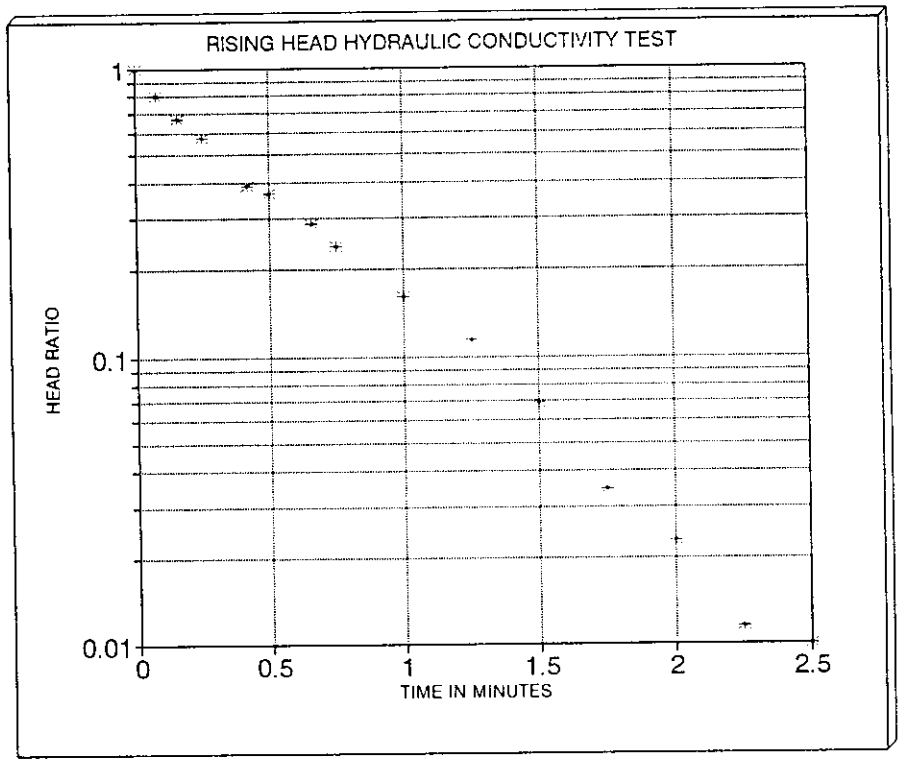
NOTES

1. m is the square root of the ratio of horizontal to vertical permeability.
2. Test Section Diameter (D) is equal to the borehole diameter.
3. Method taken from Hvorslev, 1951.

Rising Head Test Field Data

Static Water 9.78

Depth Water (ft)	Elapsed Time (min)	Head Ratio	Residual Head (ft)
10.65	0.0	1.00	0.87
10.48	0.08	0.80	0.70
10.36	0.16	0.67	0.58
10.28	0.25	0.57	0.50
10.12	0.42	0.39	0.34
10.10	0.5	0.37	0.32
10.03	0.66	0.29	0.25
9.99	0.75	0.24	0.21
9.92	1	0.16	0.14
9.88	1.25	0.11	0.10
9.84	1.5	0.07	0.06
9.81	1.75	0.03	0.03
9.80	2	0.02	0.02
9.79	2.25	0.01	0.01
9.78	2.5	0.00	0.00



JWL\QPRO\70295-40\MW101.WQ1

RISING HEAD TEST SUMMARY

WELL NAME: MW102

DATE OF TEST: 9-APRIL-93

Rising Head Permeability Calculation

Hvorslev Method

Kh=[((d*d)ln((2*m*L)/D))ln(H1/H2)] / 8L(t2-t1)

Test Section Diameter (D), in ft.:	0.83
Casing Diameter (d), in ft.:	0.17
Test Length Section (L),in ft.:	11.5
m = (Kh/Kv)**0.5:	1
t1 in min.:	0.083
t2 in min.:	0.25
H1:	0.31
H2:	0.06
Kh (cm/sec) =	5.2E-03
Kh (ft/min) =	1.0E-02
Kh (ft/day) =	1.5E+01

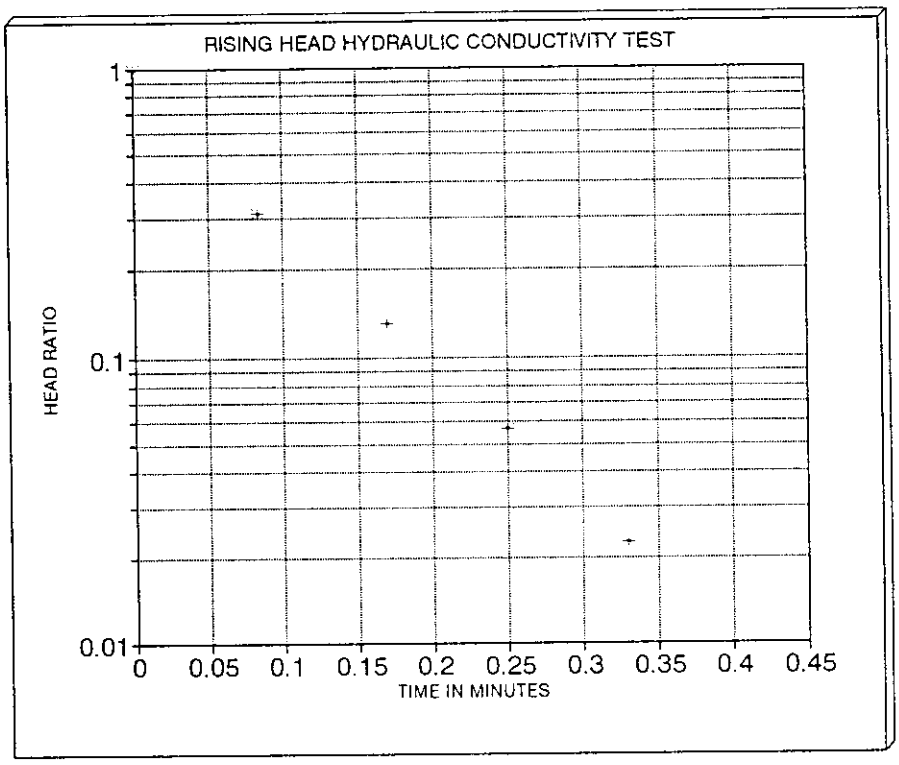
Rising Head Test Field Data

Static Water 6.68

Depth Water (ft)	Elapsed Time (min)	Head Ratio	Residual Head (ft)
8.44	0.0	1.00	1.76
7.23	0.083	0.31	0.55
6.91	0.17	0.13	0.23
6.78	0.25	0.06	0.10
6.72	0.33	0.02	0.04
6.69	0.42	0.01	0.01

NOTES

1. m is the square root of the ratio of horizontal to vertical permeability.
2. Test Section Diameter (D) is equal to the borehole diameter.
3. Method taken from Hvorslev, 1951.



JWL\QPRO\70295-40\MW102.WQ1

RISING HEAD TEST SUMMARY

WELL NAME: MW103
DATE OF TEST: 15-APRIL-93

Rising Head Permeability Calculation

Hvorslev Method

$Kh=[((d*d)\ln((2*m*L)/D))\ln(H1/H2)] / 8L(t2-t1)$

Test Section Diameter (D), in ft.:	0.83
Casing Diameter (d), in ft.:	0.17
Test Length Section (L),in ft.:	12
m = (Kh/Kv)**0.5:	1
t1 in min.:	0.33
t2 in min.:	0.5
H1:	0.25
H2:	0.08
Kh (cm/sec) =	3.4E-03
Kh (ft/min) =	6.8E-03
Kh (ft/day) =	9.8E+00

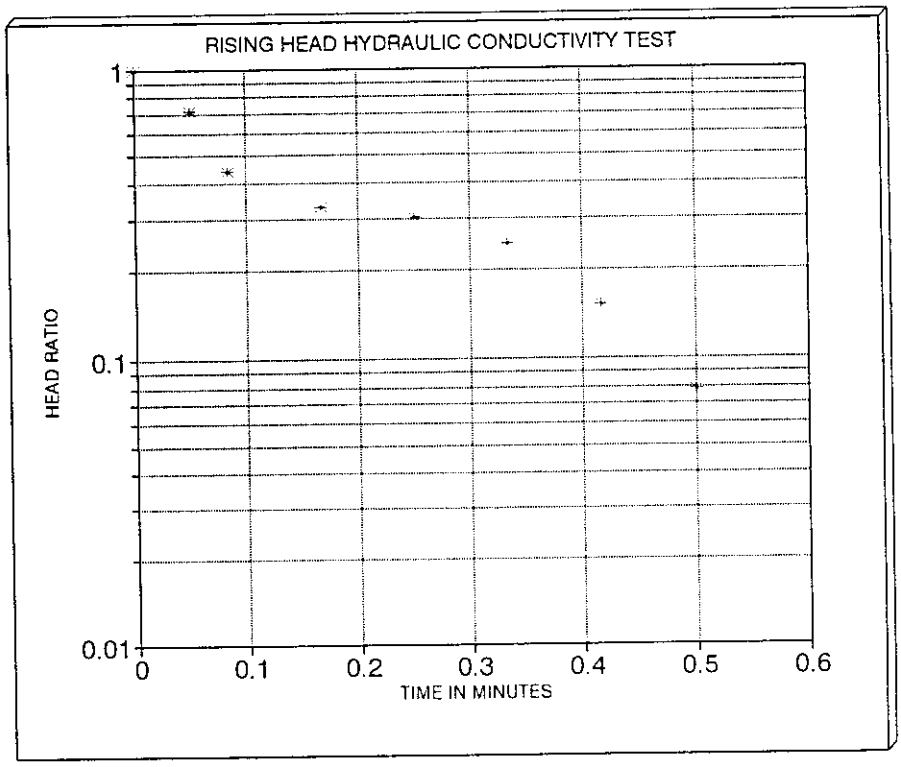
Rising Head Test Field Data

Static Water 9.4

Depth Water (ft)	Elapsed Time (min)	Head Ratio	Residual Head (ft)
10.26	0.00	1.00	0.861
10.02	0.05	0.72	0.62
9.78	0.08	0.44	0.38
9.68	0.17	0.33	0.284
9.66	0.25	0.31	0.263
9.61	0.33	0.25	0.213
9.53	0.42	0.15	0.131
9.47	0.50	0.08	0.068
9.40	0.58	0.00	0.003

NOTES

1. m is the square root of the ratio of horizontal to vertical permeability.
2. Test Section Diameter (D) is equal to the borehole diameter.
3. Method taken from Hvorslev, 1951.



JWL\QPRO\70295-40\MW103.WQ1

RISING HEAD TEST SUMMARY

WELL NAME: MW104

DATE OF TEST: 15-APRIL-93

Rising Head Permeability Calculation

Hvorslev Method

Kh=[((d*d)ln((2*m*L)/D))ln(H1/H2)] / 8L(t2-t1)

Test Section Diameter (D), in ft.:	0.83
Casing Diameter (d), in ft.:	0.17
Test Length Section (L),in ft.:	11.5
m = (Kh/Kv)**0.5:	1
t1 in min.:	0.2
t2 in min.:	0.3
H1:	0.30
H2:	0.15
Kh (cm/sec) =	3.7E-03
Kh (ft/min) =	7.2E-03
Kh (ft/day) =	1.0E+01

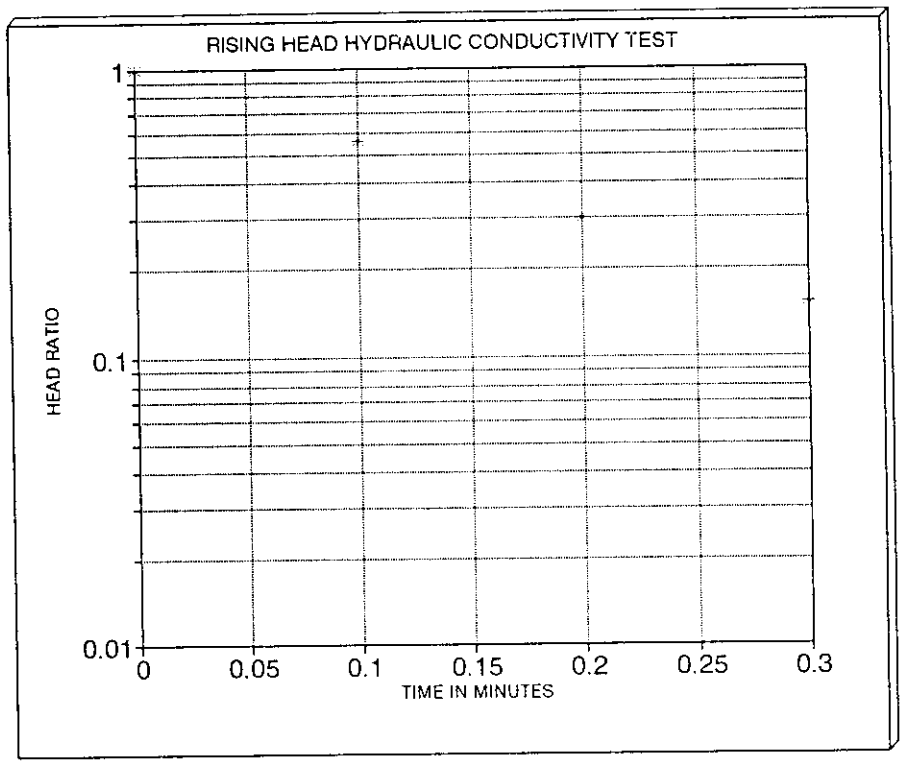
Rising Head Test Field Data

Static Water 5.71

Depth Water (ft)	Elapsed Time (min)	Head Ratio	Residual Head (ft)
6.43	0.0	1.00	0.715
6.11	0.1	0.56	0.4
5.93	0.2	0.30	0.215
5.82	0.3	0.15	0.11

NOTES

1. m is the square root of the ratio of horizontal to vertical permeability.
2. Test Section Diameter (D) is equal to the borehole diameter.
3. Method taken from Hvorslev, 1951.



JWL\QPRO\70295-40\MW104.WQ1

APPENDIX E

ANALYTICAL DATA SHEETS--
GROUNDWATER SAMPLES COLLECTED 15 APRIL 1993

General Testing Corporation

A Full Service Environmental Laboratory

May 13, 1993

Mr. Denis Conley
H&A of New York
189 North Water Street
Rochester, New York 14604

Re: Project #70295-40 - R93/1494, SDG#MW101

Dear Mr. Conley:

Enclosed you will find a report for the above referenced site. The samples were received at General Testing on 04/16/93. Three (3) samples were analyzed for Volatiles, Cyanide, Metals (total and soluble): Barium, Chromium, Lead, Nickel, Silver and Zinc. Two (2) samples for Volatiles, Cyanide and total and soluble TAL Metals. The trip blank was analyzed for Volatiles.

A detailed case narrative is enclosed identifying any difficulties encountered during analysis. Please review and submit any questions in hardcopy to me. These will be answered promptly by our QA officer.

Thank you for your continued business.

Sincerely,

GENERAL TESTING CORPORATION

Cindy Toomey

Cindy Toomey
Customer Service Representative

Enc.

710 Exchange Street • Rochester, NY 14608 • Tele: (716) 454-3760 • (716) 454-1245
85 Trinity Place • Hackensack, NJ 07601 • Tele: (201) 488-5242 • Fax: (201) 488-6386
435 Lawrence Bell Drive • Amherst, NY 14221 • Tele: (716) 634-0454 • Fax: (716) 634-9019

General Testing Corporation

Job #: R93/01494

SAMPLE DATA SUMMARY PACKAGE

SECTION A:	NYSDEC Data Package Summary Forms
SECTION B:	SDG Narrative
SECTION C:	Sample Data
SECTION D:	Surrogate Summary
SECTION E:	MS/MSD Data
SECTION F:	Blank Data

General Testing Corporation

Job #: R93/01494

SECTION A

NYSDEC Data Package Summary Forms

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* NYSDEC 199[illegible] CLP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
MW101	R93/01494-1	X					X
MW102	R93/01494-2	X	X				X
MWFD	R93/01494-3	X	X				X
MW103	R93/01494-4	X					X
MW104	R93/01494-5	X					X
MWTB	R93/01494-6	X					
MW101A	R93/01494-7						X
MW102A	R93/01494-8						X
MWFDA	R93/01494-9						X
MW103	R93/01494-10						X
MW104	R93/01494-11						X

*Check Appropriate Boxes
*CLP, Non-CLP
*HSL, Priority Pollutant
NCF1

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	LOW LEVEL MED LEVEL	DATE ANALYZED
R93/01494-1	WATER	04/15/93	04/16/93	LOW	04/20/93
R93/01494-2	WATER	04/15/93	04/16/93	LOW	04/20/93
R93/01494-3	WATER	04/15/93	04/16/93	LOW	04/20/93
R93/01494-4	WATER	04/15/93	04/16/93	LOW	04/20/93
R93/01494-5	WATER	04/15/93	04/16/93	LOW	04/20/93
R93/01494-6	WATER		04/16/93	LOW	04/20/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
R93/01494-1	WATER	91-1			1.0
R93/01494-2	WATER	91-1			1.0
R93/01494-3	WATER	91-1			1.0
R93/01494-4	WATER	91-1			1.0
R93/01494-5	WATER	91-1			1.0
R93/01494-6	WATER	91-1			1.0

NCF2

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
R93/01494-2	WATER	04/15/93	04/16/93	04/19/93	04/21/93
R93/01494-3	WATER	04/15/93	04/16/93	04/19/93	04/21/93

NCF4

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
R93/01494-2	WATER	91-2			1.0
R93/01494-3	WATER	91-2			1.0

NCF2

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	Al,Ba,Be,Cr,Co,Cu,Fe Mg,Mn,Ni,Zn	04/16/93	04/20/93
R93/01494-3	WATER	Al,Ba,Be,Cr,Co,Cu,Fe Mg,Mn,NI,Zn	04/16/93	04/20/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	Al,Ba,Be,Cr,Co,Cu,Fe Mg,Mn,Ni,Zn	04/16/93	04/20/93
R93/01494-9	WATER	Al,Ba,Be,Cr,Co,Cu,Fe Mg,Mn,Ni,Zn	04/16/93	04/20/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	K,Na,V,Cd,Ca	04/16/93	04/20/93
R93/01494-3	WATER	K,Na,V,Cd,Ca	04/16/93	04/20/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	K,Na,V,Cd,Ca	04/16/93	04/20/93
R93/01494-9	WATER	K,Na,V,Cd,Ca	04/16/93	04/20/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
P93/01494-1	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93
R93/01494-2	WATER	Sb	04/16/93	04/21/93
R93/01494-3	WATER	Sb	04/16/93	04/21/93
R93/01494-4	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93
R93/01494-5	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93
R93/01494-8	WATER	Sb	04/16/93	04/21/93
R93/01494-9	WATER	Sb	04/16/93	04/21/93
R93/01494-10	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93
R93/01494-11	WATER	Ba,Cr,Ni,Zn	04/16/93	04/21/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	AS	04/16/93	04/19/93
R93/01494-3	WATER	AS	04/16/93	04/19/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	AS	04/16/93	04/19/93
R93/01494-9	WATER	AS	04/16/93	04/20/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER	Cyanide	04/16/93	04/27/93
R93/01494-2	WATER	Cyanide	04/16/93	04/27/93
R93/01494-3	WATER	Cyanide	04/16/93	04/27/93
R93/01494-4	WATER	Cyanide	04/16/93	04/27/93
R93/01494-5	WATER	Cyanide	04/16/93	04/27/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	Hg	04/16/93	04/22/93
R93/01494-3	WATER	Hg	04/16/93	04/22/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	Hg	04/16/93	04/22/93
R93/01494-9	WATER	Hg	04/16/93	04/22/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER	Pb	04/16/93	04/20/93
R93/01494-2	WATER	Pb	04/16/93	04/20/93
R93/01494-3	WATER	Pb	04/16/93	04/20/93
R93/01494-4	WATER	Pb	04/16/93	04/20/93
R93/01494-5	WATER	Pb	04/16/93	04/20/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER	Pb	04/16/93	04/20/93
R93/01494-8	WATER	Pb	04/16/93	04/20/93
R93/01494-9	WATER	Pb	04/16/93	04/20/93
R93/01494-10	WATER	Pb	04/16/93	04/20/93
R93/01494-11	WATER	Pb	04/16/93	04/20/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
P93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	Se	04/16/93	04/19/93
R93/01494-3	WATER	Se	04/16/93	04/19/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	Se	04/16/93	04/19/93
R93/01494-9	WATER	Se	04/16/93	04/19/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER		04/16/93	
R93/01494-2	WATER	Tl	04/16/93	04/20/93
R93/01494-3	WATER	Tl	04/16/93	04/20/93
R93/01494-4	WATER		04/16/93	
R93/01494-5	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
P93/01494-7	WATER		04/16/93	
R93/01494-8	WATER	Tl	04/16/93	04/20/93
R93/01494-9	WATER	Tl	04/16/93	04/20/93
R93/01494-10	WATER		04/16/93	
R93/01494-11	WATER		04/16/93	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-1	WATER	Ag	04/16/93	04/19/93
R93/01494-2	WATER	Ag	04/16/93	04/19/93
R93/01494-3	WATER	Ag	04/16/93	04/19/93
R93/01494-4	WATER	Ag	04/16/93	04/19/93
R93/01494-5	WATER	Ag	04/16/93	04/19/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES
TAL METALS

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
R93/01494-7	WATER	Ag	04/16/93	04/19/93
R93/01494-8	WATER	Ag	04/16/93	04/19/93
R93/01494-9	WATER	Ag	04/16/93	04/19/93
R93/01494-10	WATER	Ag	04/16/93	04/19/93
R93/01494-11	WATER	Ag	04/16/93	04/19/93

General Testing Corporation

Job #: R93/01494

SECTION B

SDG NARRATIVE

CASE NARRATIVE

COMPANY: H & A
JOB #: R93/01494

VOLATILE ORGANICS

Six (6) water samples were analyzed for Target Compound List volatile organics by NYSDEC 1991 CLP protocol and reported by 91 ASP deliverables. The following samples are associated with SDG# MW101:

EPA Sample ID	Laboratory ID Number
MWFD	R92/01494-003
MWTB	-004
MW101	-001
MW102	-002
MW103	-004
MW104	-005
VBLK01	METHOD BLANK
VBLK01MS	BLANK SPIKE
MW101MS	R93/01494-001MS
MW101MSD	-001MSD

No analytical or QC problems were encountered with these analyses.

SEMIVOLATILE ORGANICS

Two water samples were analyzed for target compound list semivolatile organics by NYSDEC 1991 CLP protocol, and reported by 91 ASP deliverables. The following samples are associated with SDG# MW101:

EPA Sample ID	Laboratory ID Number
MW102	R93/01494-2
MWFD	-3
SBLK01	METHOD BLANK
SBLK01MS	BLANK SPIKE

The spiking compound 4-Nitrophenol was outside limits for recovery in sample SBLK01MS (R93/1494-BLANK SPIKE). Recovery was 87% and the limits are 10-80%. Liquid-liquid extraction yields better recoveries on Phenols than Separatory Funnel extraction which these limits were based on.

As per client no MS/MSD was performed.

No other analytical or QC problems were encountered with these analyses.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Michael K. Perry
Laboratory Director

5/17/93
Date

ENVIROFORMS/INORGANIC CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

SOW No.: 7/88

Sample No.	Lab Sample ID.
MW101A	1494-7
MW101AD	1494-7D
MW101AS	1494-7S
MW101	1494-1
MW101 D	1494-1D
MW101 S	1494-1S
MW102A	1494-8
MW102	1494-2
MW103A	1494-10
MW103	1494-4
MW104A	1494-11
MW104	1494-5
MWFDA	1494-9
MWFD	1494-3

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes, were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K Perry Name: Michael K. Perry

Date: 5/10/93 Title: Laboratory Director

General Testing Corporation

Job #: R93/01494

SECTION C

SAMPLE DATA

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWFD

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4171

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MWFD

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4171

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	20.03	7.	J
2.		Unknown	24.33	7.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWTB

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4174

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	3.	J
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MWTB

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4174

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.54	7.	J
2.					
3.					
4.					
5.					
6.					
7.					
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9.					
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27.					
28.					
29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW101

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4167

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW101

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4167

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW103

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4172

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW103

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4172

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.61	5.	J
2.					
3.					
4.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW104

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4173

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW104

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4173

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWFD

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-3

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA019

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(-2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(-2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethyl Phthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWFD

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-3

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA019

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-Butylphthalate	1.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butyl benzyl phthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)Anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1.	J
117-84-0	Di-n-octyl phthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)Fluoranthene	10.	U
50-32-8	Benzo(a)Pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)Perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MWFD

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-3

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA019

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 13

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.45	3.	J
2.		Unknown	8.05	2.	J
3.		Unknown	8.60	41.	J
4.		Unknown	11.95	2.	J
5.		Unknown	12.77	2.	J
6.		Unknown	12.93	3.	J
7.		U-Propanol, 1-ethoxy-	13.86	12.	J
8.		Unknown	14.56	3.	J
9.		Unknown	15.43	3.	J
10.		Unknown acid type	19.91	4.	J
11.		Unknown	20.45	3.	J
12.		Unknown	24.55	3.	J
13.		Unknown	30.14	3.	JB
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW102

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-2

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA018

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(-2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(-2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethyl Phthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW102

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-2

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA018

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butyl benzyl phthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)Anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1.	J
117-84-0	Di-n-octyl phthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)Fluoranthene	10.	U
50-32-8	Benzo(a)Pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)Perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW102

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:1494-2

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA018

Level: (low/med) LOW Date Received: 4/16/93

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.46	4.	J
2.		Unknown	8.61	49.	J
3.		Unknown	12.93	3.	J
4.		Unknown	13.36	3.	J
5.		Unknown	13.87	12.	J
6.		Unknown	14.56	4.	J
7.		Unknown	15.48	3.	J
8.		Unknown acid type	16.82	2.	J
9.		Unknown acid type	19.94	11.	J
10.		Unknown acid type	22.69	5.	J
11.		Unknown	24.33	3.	J
12.		Unknown	24.55	4.	J
13.		Unknown acid type	25.27	4.	J
14.		Unknown acid type	27.64	3.	J
15.		Unknown	29.64	4.	J
16.		Unknown	30.15	7.	JB
17.		Unknown	32.33	4.	J
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ENVIROFORMS/INORGANIC CLP

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW101A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-7

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	414			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	5.9	B	*	P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	24.7	B		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	3.8	U		A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	96.5			P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW101_

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-1

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	463			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	240			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	46.4			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	71.5			P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	19.0			A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	232			P
	Cyanide	3.7	U		AS

olor Before: BROWN Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLOUDY Artifacts:

mments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW102A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-8

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	48.9	U		P
7440-36-0	Antimony	40.1	U		P
7440-38-2	Arsenic	8.4	B		F
7440-39-3	Barium	495			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	115000			P
7440-47-3	Chromium	1.9	U	*	P
7440-48-4	Cobalt	8.8	U		P
7440-50-8	Copper	6.5	U		P
7439-89-6	Iron	17500			P
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium	85500			P
7439-96-5	Manganese	313			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	11.4	U		P
7440-09-7	Potassium	28700			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	4.0	B		A
7440-23-5	Sodium	83000			P
7440-28-0	Thallium	1.7	U		F
7440-62-2	Vanadium	13.6	U		P
7440-66-6	Zinc	8.6	B		P
	Cyanide				

olor Before: COLORLESS Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

uments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW102_

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-2

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	28500			P
7440-36-0	Antimony	40.1	U		P
7440-38-2	Arsenic	16.0			F
7440-39-3	Barium	658			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	159000			P
7440-47-3	Chromium	50.4			P
7440-48-4	Cobalt	15.1	B		P
7440-50-8	Copper	52.5			P
7439-89-6	Iron	45700			P
7439-92-1	Lead	17.0			F
7439-95-4	Magnesium	107000			P
7439-96-5	Manganese	714			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	28.8	B		P
7440-09-7	Potassium	36100			P
7782-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	8.0	B		A
7440-23-5	Sodium	85500			P
7440-28-0	Thallium	1.7	U		F
7440-62-2	Vanadium	30.4	B		P
7440-66-6	Zinc	75.7			P
	Cyanide	3.7	U		AS

olor Before: BROWN Clarity Before: CLOUDY Texture:

olor After: BROWN Clarity After: CLOUDY Artifacts:

mments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW103A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-10

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	268			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	5.0	B	*	P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	21.0	B		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	6.0	B		A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	6.5	B		P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW103_

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-4

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	459			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	186			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	33.2			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	146			P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	25.0			A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	151			P
	Cyanide	11.0			AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW104A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-11

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	503			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	5.7	B	*	P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	14.9	B		P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	4.0	B		A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	9.0	B		P
	Cyanide				

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

mments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW104_

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-5

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium	642			P
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium	61.9			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	15.0			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel	82.0			P
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver	23.0			A
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc	130			P
	Cyanide	10.0			AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MWFDA_

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-9

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	48.9	U		P
7440-36-0	Antimony	40.1	U		P
7440-38-2	Arsenic	2.2	B	W	F
7440-39-3	Barium	507			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	117000			P
7440-47-3	Chromium	1.9	U	*	P
7440-48-4	Cobalt	8.8	U		P
7440-50-8	Copper	6.5	U		P
7439-89-6	Iron	18400			P
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium	87600			P
7439-96-5	Manganese	326			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	11.4	U		P
7440-09-7	Potassium	29400			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	3.8	U		A
7440-23-5	Sodium	84800			P
7440-28-0	Thallium	1.7	U		F
7440-62-2	Vanadium	13.6	U		P
7440-66-6	Zinc	7.6	B		P
	Cyanide				

olor Before: COLORLESS Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

mments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MWFD__

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Lab Sample ID: 1494-3

Level (low/med): LOW Date Received: 04/16/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24300			P
7440-36-0	Antimony	40.1	U		P
7440-38-2	Arsenic	14.7			F
7440-39-3	Barium	638			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.8	U		P
7440-70-2	Calcium	158000			P
7440-47-3	Chromium	53.6			P
7440-48-4	Cobalt	8.8	U		P
7440-50-8	Copper	53.2			P
7439-89-6	Iron	43600			P
7439-92-1	Lead	15.1			F
7439-95-4	Magnesium	106000			P
7439-96-5	Manganese	693			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	23.3	B		P
7440-09-7	Potassium	35100			P
7782-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	8.0	B		A
7440-23-5	Sodium	83500			P
7440-28-0	Thallium	1.7	U		F
7440-62-2	Vanadium	29.3	B		P
7440-66-6	Zinc	73.0			P
	Cyanide	3.7	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

General Testing Corporation

Job #: R93/01494

SECTION D

SURROGATE SUMMARY

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	MW101	100	100	92		0
02	MW101MS	102	100	92		0
03	MW101MSD	100	100	94		0
04	MW102	100	100	92		0
05	MW103	100	100	92		0
06	MW104	100	98	92		0
07	MWFD	100	100	92		0
08	MWTB	100	100	92		0
09	VBLK01	102	98	94		0
10	VBLK01MS	102	98	94		0
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	MW102	72	70	54	68	65	85	64	68	0
02	MWFD	62	62	44	60	57	75	56	58	0
03	SBLK01	68	66	72	63	61	75	60	64	0
04	SBLK01MS	74	72	68	67	67	77	65	72	0
05										
06										
07										
08										
09										
10										
11										
12										
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25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

000061

General Testing Corporation

Job #: R93/01494

SECTION E

MS/MSD

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix Spike - EPA Sample No.: MW101

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	51.	102	61-145
Trichloroethene	50.	0.	51.	102	71-120
Benzene	50.	0.	52.	104	76-127
Toluene	50.	0.	52.	104	76-125
Chlorobenzene	50.	0.	52.	104	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	55.	110	8	14	61-145
Trichloroethene	50.	53.	106	4	14	71-120
Benzene	50.	55.	110	6	11	76-127
Toluene	50.	55.	110	6	13	76-125
Chlorobenzene	50.	54.	108	4	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix Spike - EPA Sample No.: VBLK01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	54.	108	61-145
Trichloroethene	50.	0.	53.	106	71-120
Benzene	50.	0.	55.	110	76-127
Toluene	50.	0.	55.	110	76-125
Chlorobenzene	50.	0.	54.	108	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	~~50.~~	0.	~~0*~~	~~200*~~	14	61-145
Trichloroethene	~~50.~~	0.	~~0*~~	~~200*~~	14	71-120
Benzene	~~50.~~	0.	~~0*~~	~~200*~~	11	76-127
Toluene	~~50.~~	0.	~~0*~~	~~200*~~	13	76-125
Chlorobenzene	~~50.~~	0.	~~0*~~	~~200*~~	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: ~~0~~ 0 out of ~~0~~ 0 outside limits

Spike Recovery: ~~5~~ 0 out of ~~10~~ 5 outside limits

COMMENTS:

MW 5/5/93

FORM III VOA-1 3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01MS

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:BLANK SPIKE

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4166

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	54.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	53.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	55.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	55.	
108-90-7	Chlorobenzene	54.	
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix Spike - EPA Sample No.: SBLK01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75.	0.	50.	67	12-110
2-Chlorophenol	75.	0.	57.	76	27-123
1,4-Dichlorobenzene	50.	0.	37.	74	36- 97
N-Nitroso-di-n-prop.(1)	50.	0.	40.	80	41-116
1,2,4-Trichlorobenzene	50.	0.	36.	72	39- 98
4-Chloro-3-methylphenol	75.	0.	55.	73	23- 97
Acenaphthene	50.	0.	41.	82	46-118
4-Nitrophenol	75.	0.	65.	87*	10- 80
2,4-Dinitrotoluene	50.	0.	44.	88	24- 96
Pentachlorophenol	75.	0.	66.	88	9-103
Pyrene	50.	0.	39.	78	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	0.	0.	0*	0	42	12-110
2-Chlorophenol	0.	0.	0*	0	40	27-123
1,4-Dichlorobenzene	0.	0.	0*	0	28	36- 97
N-Nitroso-di-n-prop.(1)	0.	0.	0*	0	38	41-116
1,2,4-Trichlorobenzene	0.	0.	0*	0	28	39- 98
4-Chloro-3-methylphenol	0.	0.	0*	0	42	23- 97
Acenaphthene	0.	0.	0*	0	31	46-118
4-Nitrophenol	0.	0.	0*	0	50	10- 80
2,4-Dinitrotoluene	0.	0.	0*	0	38	24- 96
Pentachlorophenol	0.	0.	0*	0	50	9-103
Pyrene	0.	0.	0*	0	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of ~~11~~ 0 outside limits
Spike Recovery: ~~12~~ 1 out of ~~22~~ 11 outside limits

COMMENTS:

MW 5/2/93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01MS

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:BLANK SPIKE

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA017

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	50.	
111-44-4	bis(-2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	57.	
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	37.	
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	40.	
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(-2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	36.	
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	55.	
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethyl Phthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	41.	

ENVIROFORMS/INORGANIC CLP

6
DUPLICATES

SAMPLE NO.

MW101_D

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium	200.0	463.3000		460.5667		0.6		P
Beryllium								
Cadmium								
Calcium								
Chromium		240.3667		201.9333		17.4		P
Cobalt								
Copper								
Iron								
Lead	3.0	46.4000		49.3000		6.1		F
Magnesium								
Manganese								
Mercury								
Nickel	40.0	71.5333		73.6333		2.9		P
Potassium								
Selenium								
Silver	10.0	19.0000		19.0000		0.0		A
Sodium								
Thallium								
Vanadium								
Zinc		231.8333		233.6333		0.8		P
Cyanide		3.7000	U	3.7000	U			AS

FORM VI - IN

ENVIROFORMS/INORGANIC CLP

6
DUPLICATES

SAMPLE NO.

MW101AD

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium	200.0	414.0667		419.7667		1.4		P
Beryllium								
Cadmium								
Calcium								
Chromium	10.0	5.8667	B	34.8000		142.3	*	P
Cobalt								
Copper								
Iron								
Lead		0.8000	U	0.8000	U			F
Magnesium								
Manganese								
Mercury								
Nickel		24.7333	B	25.2000	B	1.9		P
Potassium								
Selenium								
Silver		3.8000	U	3.8000	U			A
Sodium								
Thallium								
Vanadium								
Zinc	20.0	96.5000		92.5333		4.2		P
Cyanide								

ENVIROFORMS/INORGANIC CLP

5A
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW101_S

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium	75-125	2461.6667		463.3000		2000.00	99.9		P
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium	75-125	403.7000		240.3667		200.00	81.7		P
Cobalt									NR
Copper									NR
Iron									NR
Lead	75-125	64.8750		46.4000		20.00	92.4		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel	75-125	568.4333		71.5333		500.00	99.4		P
Potassium									NR
Selenium									NR
Silver	75-125	80.0000		19.0000		50.00	122.0		A
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc	75-125	732.9000		231.8333		500.00	100.2		P
Cyanide	75-125	97.3000		3.7000	U	100.00	97.3		AS

Comments:

000671

ENVIROFORMS/INORGANIC CLP

5A
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW101AS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium	75-125	2457.6667		414.0667		2000.00	102.2		P
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium	75-125	226.9000		5.8667	B	200.00	110.5		P
Cobalt									NR
Copper									NR
Iron									NR
Lead	75-125	17.9100		0.8000	U	20.00	89.6		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel	75-125	517.4000		24.7333	B	500.00	98.5		P
Potassium									NR
Selenium									NR
Silver	75-125	50.0000		3.8000	U	50.00	100.0		A
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc	75-125	608.8667		96.5000		500.00	102.5		P
Cyanide									NR

Comments:

ENVIROFORMS/INORGANIC CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.
MW101_A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium		2424.00		463.30		2000.0	98.0		P
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		445.90		240.37		200.0	102.8		P
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel		560.40		71.53		500.0	97.8		P
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc		717.60		231.83		500.0	97.2		P
Cyanide									NR

Comments:

ENVIROFORMS/INORGANIC CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW101AA

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium		2462.00		414.07		2000.0	102.4		P
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		224.53		5.87	B	200.0	109.3		P
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel		526.87		24.73	B	500.0	100.4		P
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc		609.90		96.50		500.0	102.7		P
Cyanide									NR

Comments:

General Testing Corporation

Job #: R93/01494

SECTION F

BLANK DATA

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Lab File ID:E4165 Lab Sample ID:METHOD BLANK

Date Analyzed: 4/20/93 Time Analyzed:1538

GC Column:RTX-502 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID:MS5

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW101	1494-1	E4167	1713
02	MW101MS	1494-1MS	E4168	1747
03	MW101MSD	1493-1MSD	E4169	1821
04	MW102	1494-2	E4170	1855
05	MW103	1494-4	E4172	2002
06	MW104	1494-5	E4173	2037
07	MWFD	1494-3	E4171	1929
08	MWTB	1494-6	E4174	2111
09	VBLK01MS	BLANK SPIKE	E4166	1619
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 4/20/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Lab File ID:DA016 Lab Sample ID:METHOD BLANK

Instrument ID:MS#4 Date Extracted: 4/19/93

Matrix: (soil/water) WATER Date Analyzed: 4/21/93

Level:(low/med) LOW Time Analyzed: 0957

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MW102	1494-2	DA018	4/21/93
02	MWFD	1494-3	DA019	4/21/93
03	SBLK01MS	BLANK SPIKE	DA017	4/21/93
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA016

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(-2-Chloroethyl)Ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-Di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(-2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethyl Phthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: DA016

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 4/19/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 4/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-Butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butyl benzyl phthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)Anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10.	U
117-84-0	Di-n-octyl phthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)Fluoranthene	10.	U
50-32-8	Benzo(a)Pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)Perylene	10.	U

(1) - Cannot be separated from Diphenylamine

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	48.9	U	48.9	U	48.9	U			48.900	U	P
Antimony	40.1	U	40.1	U	40.1	U			40.100	U	P
Arsenic	1.4	U	1.4	U	1.4	U			1.400	U	F
Barium	1.1	U	1.1	U	1.7	B			1.100	U	P
Beryllium	1.2	U	1.2	U	1.5	B			1.200	U	P
Cadmium	1.8	U	1.8	U	1.8	U			1.800	U	P
Calcium	79.4	U	79.4	U	83.7	B			79.400	U	P
Chromium	1.9	U	1.9	U	1.9	U			1.900	U	P
Cobalt	8.8	U	-13.3	B	8.8	U			-11.333	B	P
Copper	6.5	U	6.6	B	7.0	B			6.500	U	P
Iron	-6.4	B	19.6	B	25.5	B			5.300	U	P
Lead	-1.0	B	-0.9	B	-1.0	B	-0.8	B	0.800	U	F
Magnesium	129.0	U	129.0	U	129.0	U			129.000	U	P
Manganese	1.0	U	1.0	U	1.0	U			1.000	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel	-12.0	B	11.4	U	11.4	U			-11.467	B	P
Potassium	205.0	U	-284.1	B	205.0	U			205.000	U	P
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Silver	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	A
Sodium	96.1	U	96.1	U	96.1	U			96.100	U	P
Thallium	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	F
Vanadium	24.6	B	35.7	B	21.9	B			23.633	B	P
Zinc	2.8	U	2.8	U	2.8	U			2.800	U	P
Cyanide	7.4	U	7.4	U	7.4	U	7.4	U	7.400	U	AS

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			-1.1	B	-1.0	B					F
Magnesium											
Manganese											
Mercury			0.1	U	0.1	U					CV
Nickel											
Potassium											
Selenium											
Silver			8.0	B							A
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide			7.4	U	7.4	U	7.4	U			AS

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide			7.4	U							AS

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	-1.5	B	1.4	U	-1.4	B	1.4	U			F
Barium	1.1	U	1.1	U	1.1	U	1.1	U			P
Beryllium											
Cadmium											
Calcium											
Chromium	4.9	B	5.6	B	3.4	B	2.6	B			P
Cobalt											
Copper											
Iron											
Lead	-0.9	B	-0.8	B	-0.8	B	-0.8	B			F
Magnesium											
Manganese											
Mercury											
Nickel	15.1	B	11.4	U	15.8	B	17.5	B			P
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc	-3.6	B	-2.8	B	2.8	U	2.8	U			P
Cyanide											

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium			1.1	U							P
Beryllium											
Cadmium											
Calcium											
Chromium			4.9	B							P
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel			12.0	B							P
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc			2.8	U							P
Cyanide											

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: MW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	1.4	U	1.4	U	1.4	U					F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	-0.9	B	-0.8	B	-1.0	B					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING CORP Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Lab File ID (Standard):E4161 Date Analyzed: 4/20/93

Instrument ID:MS5 Time Analyzed:1240

GC Column:RTX-502 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	98986	10.24	459022	11.97	367844	18.35
	UPPER LIMIT	197972	10.74	918044	12.47	735688	18.85
	LOWER LIMIT	49493	9.74	229511	11.47	183922	17.85
	EPA SAMPLE NO.						
01	VBLK01	99454	10.24	455124	11.97	356865	18.41
02	VBLK01MS	107397	10.24	500232	11.97	397889	18.38
03	MW101	104638	10.28	492542	12.00	390902	18.37
04	MW101MS	109942	10.28	503199	12.00	399079	18.41
05	MW101MSD	107670	10.24	502877	11.97	398623	18.37
06	MW102	99058	10.27	459826	12.00	366250	18.40
07	MWFD	108328	10.24	496401	11.97	394159	18.37
08	MW103	104961	10.28	486118	12.00	388367	18.41
09	MW104	106213	10.24	504398	11.93	403745	18.34
10	MWTB	106752	10.24	498186	11.97	406996	18.37
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside of QC limits with an asterisk.
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Lab File ID: (Standard):DA014 Date Analyzed: 4/21/93

Instrument ID:MS#4 Time Analyzed:0725

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	24923	10.71	98829	14.15	57120	19.25
	UPPER LIMIT	49846	11.21	197658	14.65	114240	19.75
	LOWER LIMIT	12462	10.21	49415	13.65	28560	18.75
	EPA SAMPLE NO.						
01	SBLK01	23393	10.70	90492	14.14	50429	19.24
02	SBLK01MS	22079	10.70	86094	14.15	49057	19.24
03	MW102	24357	10.70	94095	14.14	53263	19.24
04	MWFD	25171	10.71	99213	14.14	55127	19.23
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside of QC limits with an asterisk.
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING Contract:H & A

Lab Code:10145 Case No.: SAS No.: SDG No.:MW101

Lab File ID: (Standard):DA014 Date Analyzed: 4/21/93

Instrument ID:MS#4 Time Analyzed:0725

	EPA SAMPLE NO.	IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	108525		23.65		99813		31.36		113157		37.22	
	UPPER LIMIT	217050		24.15		199626		31.86		226314		37.72	
	LOWER LIMIT	54263		23.15		49907		30.86		56579		36.72	
01	SBLK01	94108		23.64		92460		31.33		99973		37.19	
02	SBLK01MS	91960		23.64		91907		31.33		98758		37.19	
03	MW102	97525		23.64		102521		31.34		122005		37.21	
04	MWFD	102953		23.64		109737		31.34		132175		37.21	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside of QC limits with an asterisk.
* Values outside of QC limits.

APPENDIX F

ANALYTICAL DATA SHEETS--
GROUNDWATER SAMPLES COLLECTED 18 MAY 1993

General Testing Corporation

A Full Service Environmental Laboratory

July 6, 1993

Mr. Denis Conley
H & A of New York
189 North Water Street
Rochester, New York 14604

Re: 70295-40 - SDG# DMW-101

Dear Mr. Conley,

Enclosed you will find a report covering the analysis of 6 waters. The samples were received at General Testing on 05/19/93. The analysis specified was Volatile Organics, TAL metals and cyanide by 1991 ASP.

A detailed case narrative is enclosed identifying any difficulties encountered during analysis. Please review this carefully, and submit any questions in hardcopy to me. These will be answered promptly by our QA officer.

I hope you will find all in order. Thank you for your continued use of our services.

Sincerely,

GENERAL TESTING CORPORATION

Sue Lochner

Sue Lochner
Customer Service Representative

Enc.

710 Exchange Street • Rochester, NY 14608 • Tele: (716) 454-3760 • (716) 454-1245
85 Trinity Place • Hackensack, NJ 07601 • Tele: (201) 488-5242 • Fax: (201) 488-6386
435 Lawrence Bell Drive • Amherst, NY 14221 • Tele: (716) 634-0454 • Fax: (716) 634-9019

General Testing Corporation

Job #: R93/1921

SAMPLE DATA SUMMARY PACKAGE

SECTION A: NYSDEC Data Package Summary Forms

SECTION B: SDG Narrative

SECTION C: Sample Data

SECTION D: Surrogate Summary

SECTION E: MS/MSD Data

SECTION F: Blank Data

INORGANICS QUALIFIERS - 1991

- C (Concentration) qualifier -- Enter "B" if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" must be entered.

- Q qualifier -- Specified entries and their meanings are as follows:

  E - The reported value is estimated because of the presence of intereference.

  M - Duplicate injection precision not met.

  N - Spiked sample recovery not within control limits.

  S - The reported value was determined by the Method of Standard Additions (MSA).

  W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

  * - Duplicate analysis not within control limits.

  + - Correlation coefficient for the MSA is less than 0.995.

- M (Method) qualifier -- Enter:

  - "P" for ICP
  - "A" for Flame AA
  - "F" for Furnace AA
  - "PM" for ICP when Microwave Digestion is used
  - "AM" for Flame AA when Microwave Digestion is used
  - "FM" for Furnace M when Microwave Digestion is used
  - "CV" for Manual Cold Vapor AA
  - "AV" for Automated Cold Vapor AA
  - "CA" for Midi-Distillation Spectrophotometric
  - "AS" for Semi-Automated Spectrophotometric
  - "C" for Manual Spectrophotometric
  - "T" for Titrimetric
  - " " where no data has been entered
  - "NR" if the analyte is not required to be analyzed.

ORGANICS QUALIFIERS - 1991

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result isless than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is only used for tenatively identified compound, where the identification is based on a mass spectral library search.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC.MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - As specified in Case Narrative.

General Testing Corporation

Job #: R93/1921

SECTION A

NYSDEC Data Package Summary Forms

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* NYSDEC 1991 CLP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
HMW101	R93/1921-1	X				X	
HMW102	R93/1921-2	X				X	
HMW103	R93/1921-3	X				X	
HMW104	R93/1921-4	X				X	
DMW102	R93/1921-5	X				X	
HTRIPB	R93/1921-6	X					

*Check Appropriate Boxes
*CLP, Non-CLP
*HSL, Priority Pollutant
NCF1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	LOW LEVEL MED LEVEL	DATE ANALYZED
R93/1921-1	WATER	05/18/93	05/19/93	LOW	05/26/93
R93/1921-2	WATER	05/18/93	05/19/93	LOW	05/26/93
R93/1921-3	WATER	05/18/93	05/19/93	LOW	05/26/93
R93/1921-4	WATER	05/18/93	05/19/93	LOW	05/26/93
R93/1921-5	WATER	05/18/93	05/19/93	LOW	05/26/93
R93/1921-6	WATER	05/18/93	05/19/93	LOW	05/26/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
R93/1921-1	WATER	91-1			1.0
R93/1921-2	WATER	91-1			1.0
R93/1921-3	WATER	91-1			1.0
R93/1921-4	WATER	91-1			1.0
R93/1921-5	WATER	91-1			1.0
R93/1921-6	WATER	91-1			1.0

NCF2

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	CN	06/19/93	05/26/93
HMW101	WATER	CN	06/19/93	05/26/93
HMW102	WATER	CN	06/19/93	05/26/93
HMW103	WATER	CN	06/19/93	05/26/93
HMW104	WATER	CN	06/19/93	05/26/93

NCF6 9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	HG	06/19/93	06/03/93
HMW101	WATER	HG	06/19/93	06/03/93
HMW102	WATER	HG	06/19/93	06/03/93
HMW103	WATER	HG	06/19/93	06/03/93
HMW104	WATER	HG	06/19/93	06/03/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	TL	06/19/93	06/07/93
HMW101	WATER	TL	06/19/93	06/07/93
HMW102	WATER	TL	06/19/93	06/07/93
HMW103	WATER	TL	06/19/93	06/07/93
HMW104	WATER	TL	06/19/93	06/07/93

NCF6

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	SE	06/19/93	06/08/93
HMW101	WATER	SE	06/19/93	06/08/93
HMW102	WATER	SE	06/19/93	06/08/93
HMW103	WATER	SE	06/19/93	06/08/93
HMW104	WATER	SE	06/19/93	06/08/93

NCF6

9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	PB	06/19/93	06/10/93
HMW101	WATER	PB	06/19/93	06/10/93
HMW102	WATER	PB	06/19/93	06/09/93
HMW103	WATER	PB	06/19/93	06/09/93
HMW104	WATER	PB	06/19/93	06/10/93

NCF6 9/89

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	AS	06/19/93	06/11/93
HMW101	WATER	AS	06/19/93	06/16/93
HMW102	WATER	AS	06/19/93	06/11/93
HMW103	WATER	AS	06/19/93	06/11/93
HMW104	WATER	AS	06/19/93	06/11/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	CD,AG,AL,CR,SB	06/19/93	06/30/93
HMW101	WATER	CD,AG,AL,CR,SB	06/19/93	06/30/93
HMW102	WATER	CD,AG,AL,CR,SB	06/19/93	06/30/93
HMW103	WATER	CD,AG,AL,CR,SB	06/19/93	06/30/93
HMW104	WATER	CD,AG,AL,CR,SB	06/19/93	06/30/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	MN,NI,K,NA,V,ZN	06/19/93	06/30/93
HMW101	WATER	MN,NI,K,NA,V,ZN	06/19/93	06/30/93
HMW102	WATER	MN,NI,K,NA,V,ZN	06/19/93	06/30/93
HMW103	WATER	MN,NI,K,NA,V,ZN	06/19/93	06/30/93
HMW104	WATER	MN,NI,K,NA,V,ZN	06/19/93	06/30/93

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE ANALYZED
DMW101	WATER	BA,BE,CA,CO,CU,FE,MG	06/19/93	06/30/93
HMW101	WATER	BA,BE,CA,CO,CU,FE,MG	06/19/93	06/30/93
HMW102	WATER	BA,BE,CA,CO,CU,FE,MG	06/19/93	06/30/93
HMW103	WATER	BA,BE,CA,CO,CU,FE,MG	06/19/93	06/30/93
HMW104	WATER	BA,BE,CA,CO,CU,FE,MG	06/19/93	06/30/93

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9/89

General Testing Corporation

Job #: R93/1921

SECTION B

SDG NARRATIVE

CASE NARRATIVE H & A of New York R93/1921
SDG: DMW101

Volatile Organics

Six (6) water samples were analyzed for target compound list volatile organics by method 91-1 from the NYSASP 1991. The following were included in SDG# DMW101:

EPA Sample#	GTC Sample#
DMW102	R93/1921-05
HMW101	-01
HMW102	-02
HMW103	-03
HMW104	-04
HTRIPB	-06
VBLK01	METHOD BLANK
VBLK01MS	BLANK SPIKE

All surrogate compounds were within QC limits for recovery.

All matrix spiking compounds were within QC limits for recovery in the blank spike VBLK01MS. As per client request no MS/MSD was performed with this SDG.

All Tuning criteria for BFB were within limits.

All initial and continuing calibration criteria were met.

All internal standard areas were within QC limits.

No other analytical or QC problems were encountered during the analysis of this SDG.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Michael K. Perry
Laboratory Director

7/6/93
Date

000017

ENVIROFORMS/INORGANIC CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

SOW No.: 7/88

Sample No.	Lab Sample ID.
DMW101	1921-5
HMW101	1921-1
HMW102	1921-2
HMW103	1921-3
HMW104	1921-4

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes, were raw data generated before application of background corrections?	Yes/No	NO

Comments: See next page.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K. Perry Name: Michael K. Perry 000018

Date: 7/2/97 Title: Laboratory Director

Comments-R93/01921

All Aluminum results have been flagged with an "E" since the serial dilution (13%) was outside the 10% limit.

No matrix spike recoveries or precision data were required by the client.

The Selenium furnace analyses was reanalyzed at a 1/10 dilution due to the post digest spike recoveries being less than 40% recovery for sample HMW103 (R93/01921-03)

The Thallium furnace analyses was flagged with a "W" due to the post digest spike being outside the 85-115% recovery range but greater than 40% recovery for sample HMW104 (R93/01921-004).

Lead furnace analysis on samples DMW101 (R93/01921-01), HMW101 (R93/01921-02), and HMW104 (R93/01921-04) and the Arsenic furnace analysis on sample HMW101 (R93/01921-002) were flagged with a "S" indicating that the sample analysis was performed using the Methods of Standard Additions.

General Testing Corporation

Job #: R93/1921

SECTION C

SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DMW102

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4702

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DMW102

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4702

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HMW101

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4698

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HMW101

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4698

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HMW102

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4699

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HMW102

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4699

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HMW103

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4700

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HMW103

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4700

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HMW104

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4701

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HMW104

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4701

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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28.					
29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HTRIPB

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4703

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HTRIPB

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:1921-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4703

Level: (low/med) LOW Date Received: 5/19/93

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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30.					

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

DMW101

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Lab Sample ID: 1921-5

Level (low/med): LOW Date Received: 05/19/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22300		E	P
7440-36-0	Antimony	132			P
7440-38-2	Arsenic	11.7			F
7440-39-3	Barium	615			P
7440-41-7	Beryllium	2.5	U		P
7440-43-9	Cadmium	3.4	B		P
7440-70-2	Calcium	184000			P
7440-47-3	Chromium	63.7			P
7440-48-4	Cobalt	29.2	B		P
7440-50-8	Copper	79.4			P
7439-89-6	Iron	53300			P
7439-92-1	Lead	32.0		S	F
7439-95-4	Magnesium	105000			P
7439-96-5	Manganese	975			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	70.9			P
7440-09-7	Potassium	32900			P
7782-49-2	Selenium	2.1	U		F
7440-22-4	Silver	5.1	B		P
7440-23-5	Sodium	72300			P
7440-28-0	Thallium	1.8	U		F
7440-62-2	Vanadium	49.0	B		P
7440-66-6	Zinc	104			P
	Cyanide	0.90	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

HMW101

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Lab Sample ID: 1921-1

Level (low/med): LOW Date Received: 05/19/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1480		E	P
7440-36-0	Antimony	108			P
7440-38-2	Arsenic	13.2		S	F
7440-39-3	Barium	467			P
7440-41-7	Beryllium	2.5	U		P
7440-43-9	Cadmium	3.1	U		P
7440-70-2	Calcium	133000			P
7440-47-3	Chromium	79.3			P
7440-48-4	Cobalt	8.9	B		P
7440-50-8	Copper	179			P
7439-89-6	Iron	19300			P
7439-92-1	Lead	30.6		S	F
7439-95-4	Magnesium	32700			P
7439-96-5	Manganese	1170			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	25.0	B		P
7440-09-7	Potassium	10800			P
7782-49-2	Selenium	2.1	U		F
7440-22-4	Silver	14.1			P
7440-23-5	Sodium	7770			P
7440-28-0	Thallium	1.8	U		F
7440-62-2	Vanadium	12.4	U		P
7440-66-6	Zinc	99.9			P
	Cyanide	0.90	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

mments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

HMW102

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Lab Sample ID: 1921-2

Level (low/med): LOW Date Received: 05/19/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29000		E	P
7440-36-0	Antimony	1130			P
7440-38-2	Arsenic	15.4			F
7440-39-3	Barium	637			P
7440-41-7	Beryllium	2.5	U		P
7440-43-9	Cadmium	3.1	B		P
7440-70-2	Calcium	255000			P
7440-47-3	Chromium	142			P
7440-48-4	Cobalt	40.4	B		P
7440-50-8	Copper	131			P
7439-89-6	Iron	67100			P
7439-92-1	Lead	49.5			F
7439-95-4	Magnesium	133000			P
7439-96-5	Manganese	1460			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	90.3			P
7440-09-7	Potassium	33200			P
7782-49-2	Selenium	2.1	U		F
7440-22-4	Silver	4.0	B		P
7440-23-5	Sodium	69000			P
7440-28-0	Thallium	1.8	U		F
7440-62-2	Vanadium	59.6			P
7440-66-6	Zinc	149			P
	Cyanide	0.90	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

HMW103

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Lab Sample ID: 1921-3

Level (low/med): LOW Date Received: 05/19/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	78700		E	P
7440-36-0	Antimony	259			P
7440-38-2	Arsenic	15.1			F
7440-39-3	Barium	735			P
7440-41-7	Beryllium	2.5	U		P
7440-43-9	Cadmium	7.3			P
7440-70-2	Calcium	441000			P
7440-47-3	Chromium	456			P
7440-48-4	Cobalt	94.4			P
7440-50-8	Copper	770			P
7439-89-6	Iron	165000			P
7439-92-1	Lead	186			F
7439-95-4	Magnesium	266000			P
7439-96-5	Manganese	3120			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	446			P
7440-09-7	Potassium	45800			P
7782-49-2	Selenium	21.0	U		F
7440-22-4	Silver	87.2			P
7440-23-5	Sodium	41200			P
7440-28-0	Thallium	1.8	U		F
7440-62-2	Vanadium	146			P
7440-66-6	Zinc	571			P
	Cyanide	0.90	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

HMW104

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Lab Sample ID: 1921-4

Level (low/med): LOW Date Received: 05/19/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18600		E	P
7440-36-0	Antimony	115			P
7440-38-2	Arsenic	14.5			F
7440-39-3	Barium	694			P
7440-41-7	Beryllium	2.5	U		P
7440-43-9	Cadmium	5.5			P
7440-70-2	Calcium	219000			P
7440-47-3	Chromium	71.0			P
7440-48-4	Cobalt	25.6	B		P
7440-50-8	Copper	264			P
7439-89-6	Iron	55200			P
7439-92-1	Lead	24.8		S	F
7439-95-4	Magnesium	100000			P
7439-96-5	Manganese	1530			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	109			P
7440-09-7	Potassium	19200			P
7782-49-2	Selenium	2.1	U		F
7440-22-4	Silver	49.6			P
7440-23-5	Sodium	67500			P
7440-28-0	Thallium	1.8	U	W	F
7440-62-2	Vanadium	39.4	B		P
7440-66-6	Zinc	176			P
	Cyanide	0.90	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts:

mments:

General Testing Corporation

Job #: R93/1921

SECTION D

SURROGATE SUMMARY

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	DMW102	102	100	98		0
02	HMW101	102	100	98		0
03	HMW102	104	100	102		0
04	HMW103	102	100	100		0
05	HMW104	104	100	98		0
06	HTRIPB	104	98	96		0
07	VBLK01	102	102	102		0
08	VBLK01MS	98	102	98		0
09						
10						
11						
12						
13						
14						
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16						
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27						
28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

General Testing Corporation

Job #: R93/1921

SECTION E

MS/MSD

WATER VOLATILE MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENERAL TESTING CORP. Contract: H&A

Lab Code: 10145 Case No.: --- SAS No.: --- SDG No.: DMW101

Matrix Spike - EPA Sample No.: VBLK01

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENT. (ug/l)	MS CONCENT. (ug/l)	MS % REC #	QC LIMITS % REC.
1,1-Dichloroethene	50	0	52	104	61-145
Trichloroethene	50	0	46	92	71-120
Benzene	50	0	51	102	76-127
Toluene	50	0	48	96	76-125
Chlorobenzene	50	0	51	102	75-130

COMPOUND	SPIKE ADDED (ug/l)	MSD CONCENT. (ug/l)	MSD % REC #	% RPD #	QC LIMITS RPD	%REC
1,1-Dichloroethene					14	61-145
Trichloroethene					14	71-120
Benzene					11	76-127
Toluene					13	76-125
Chlorobenzene					13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits.
Spike Recovery: 0 out of 5 outside limits.

COMMENTS: _____

_____

FORM III VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01MS

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:BLANK SPIKE

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4697

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	52.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	46.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	51.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	48.	
108-90-7	Chlorobenzene	51.	
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

ENVIROFORMS/INORGANIC CLP

5A
SPIKE SAMPLE RECOVERY

SAMPLE NO.

HMW104S

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

ENVIROFORMS/INORGANIC CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

HMW104A

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

ENVIROFORMS/INORGANIC CLP

6
DUPLICATES

SAMPLE NO.

HMW104D

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

General Testing Corporation

Job #: R93/1921

SECTION F

BLANK DATA

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Lab File ID:E4696 Lab Sample ID:METHOD BLANK

Date Analyzed: 5/26/93 Time Analyzed:1903

GC Column:RTX-502 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID:MS5

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	DMW102	1921-5	E4702	2228
02	HMW101	1921-1	E4698	2016
03	HMW102	1921-2	E4699	2049
04	HMW103	1921-3	E4700	2125
05	HMW104	1921-4	E4701	2156
06	HTRIPB	1921-6	E4703	2300
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4696

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Matrix: (soil/water) WATER Lab Sample ID:METHOD BLANK

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E4696

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 5/26/93

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	8.10	7.	J
2.					
3.					
4.					
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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING CORP. Contract:H&A

Lab Code:10145 Case No.: SAS No.: SDG No.:DMW10

Lab File ID (Standard):E4695 Date Analyzed: 5/26/93

Instrument ID:MS5 Time Analyzed:1812

GC Column:RTX-502 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	83678		10.32		400876		12.04		331805		18.49	
	UPPER LIMIT	167356		10.82		801752		12.54		663610		18.99	
	LOWER LIMIT	41839		9.82		200438		11.54		165903		17.99	
	EPA SAMPLE NO.												
01	VBLK01	66688		10.35		326352		12.04		265337		18.48	
02	VBLK01MS	68810		10.32		329822		12.04		283267		18.48	
03	HMW101	69877		10.35		337078		12.04		275599		18.48	
04	HMW102	65979		10.35		324350		12.07		261919		18.48	
05	HMW103	69116		10.32		330087		12.04		274895		18.48	
06	HMW104	65995		10.35		308940		12.07		252920		18.48	
07	DMW102	75340		10.32		359093		12.04		293708		18.51	
08	HTRIPB	80705		10.32		371989		12.04		307164		18.48	
09													
10													
11													
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18													
19													
20													
21													
22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside of QC limits with an asterisk.
* Values outside of QC limits.

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	33.6	B	53.9	B	42.2	B	30.5	B	30.400	U	P
Antimony	53.2	U	53.2	U	53.2	U	53.2	U	53.200	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Barium	0.8	U	0.8	U	-1.1	B	-1.3	B	-1.000	B	P
Beryllium	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Cadmium	3.1	U	3.1	U	-3.2	B	3.1	U	3.100	U	P
Calcium	58.9	U	239.8	B	58.9	U	58.9	U	58.900	U	P
Chromium	1.9	U	1.9	U	2.0	B	1.9	U	1.900	U	P
Cobalt	8.9	U	8.9	U	8.9	U	8.9	U	8.900	U	P
Copper	2.9	U	2.9	U	2.9	U	-3.2	B	-4.933	B	P
Iron	10.1	U	97.9	B	10.1	U	10.1	U	10.100	U	P
Lead	-1.7	B	-1.5	B	-1.6	B	-1.5	B	-1.610	B	F
Magnesium	62.9	U	254.8	B	62.9	U	62.9	U	62.900	U	P
Manganese	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel	9.3	U	9.3	U	9.3	U	9.3	U	9.300	U	P
Potassium	250.0	U	250.0	U	250.0	U	250.0	U	250.000	U	P
Selenium	2.1	U	2.1	U	2.1	U	2.1	U	2.100	U	F
Silver	3.9	B	3.4	U	3.4	U			3.400	U	P
Sodium	91.8	U	91.8	U	91.8	U	91.8	U	91.800	U	P
Thallium	1.8	U	1.8	U	1.8	U	1.8	U	1.800	U	F
Vanadium	12.4	U	12.4	U	12.4	U	12.4	U	12.400	U	P
Zinc	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Cyanide	1.8	U	1.8	U	1.8	U	1.8	U	1.800	U	AS

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			-1.6	B							F
Magnesium											
Manganese											
Mercury			0.1	U	0.1	U	0.1	U			CV
Nickel											
Potassium											
Selenium			2.1	U							F
Silver											
Sodium											
Thallium			1.8	U							F
Vanadium											
Zinc											
Cyanide											

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	2.0	U	2.0	U	2.0	U					F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	1.3	U	-1.4	B	1.3	U	1.3	U			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	2.1	U	2.1	U	2.1	U					F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

ENVIROFORMS/INORGANIC CLP

3
BLANKS

Lab Name: GENERAL TESTING CORP. Contract: H & A

Lab Code: 10145 Case No.: SAS No.: SDG No.: DMW101

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	1.3	U			1.3	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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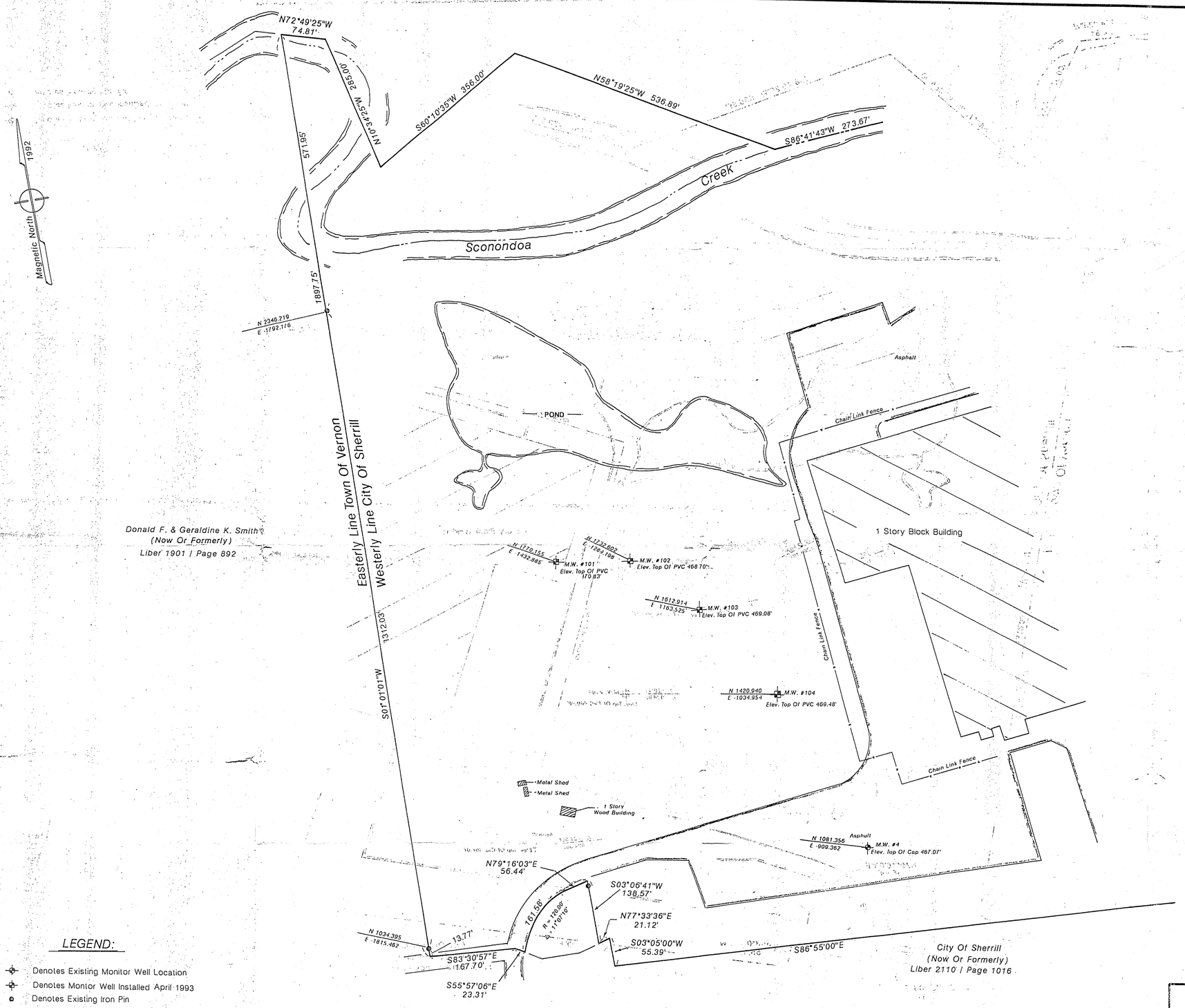

NOTES:

(1) Boundaries of Oneida Ltd., Inc. property shown on this map plotted from survey map entitled "Portion Of The Lands Of ONEIDA, LTD. MAIN PLANT Seneca Street" Dated November 30, 1992 By: Myers and Associates, P.C.

(2) VERTICAL DATUM: U.S.G.S.

(3) HORIZONTAL DATUM: Assumed coordinates (Magnetic North)

LEGEND:

M.W. ⊕ Denotes Existing Monitor Well Location

M.W. ⊕ Denotes Montor Well Installed April 1993

o Denotes Existing Iron Pin

SCALE: 1" = 100 Feet

FILE NO. 93-47

DRAWING BY: rm

CHECKED BY: bs

I, is hereby certified that this map was made from an actual field survey dated APRIL 23, 1993 and that both map and survey are correct.

Frederick W. Myers, Jr. L.S. #49229

STATE OF NEW YORK · FREDERICK W. MYERS JR. · 49229 · LICENSED LAND SURVEYOR

PLAN SHOWING
MONITOR WELL LOCATIONS
ONEIDA LTD., INC.
SENECA STREET
City Of Sherrill - Oneida County
STATE OF NEW YORK

REVISIONS

DATE OF DRAWING: 04/23/1993

Myers and Associates, P.C.
127 South Peterboro Street
Canastota, New York 13032

H.H SULLIVAN, INC 552700