FINAL REPORT

INTERIM REMEDIAL MEASURE PROGRAM

SEMI-ANNUAL PROGRESS REPORT
OCTOBER 2000 – MARCH 2001

FORMER GRIFFIN TECHNOLOGY FACILITY
TOWN OF FARMINGTON
ONTARIO COUNTY, NEW YORK
INDEX NO. (B8-315-90-01)

Prepared for
Diebold, Inc.
Canton, Ohio

June 11, 2001

URS Corporation

800 West St. Clair Avenue
Suite 500
Cleveland, Ohio 44113-1232
216-622-2400
Project No. 38-06E06191.03

INTERIM REMEDIAL MEASURE SEMI-ANNUAL PROGRESS REPORT

OCTOBER 2000 – MARCH 2001

GRIFFIN TECHNOLOGY, INC. FACILITY

TOWN OF FARMINGTON

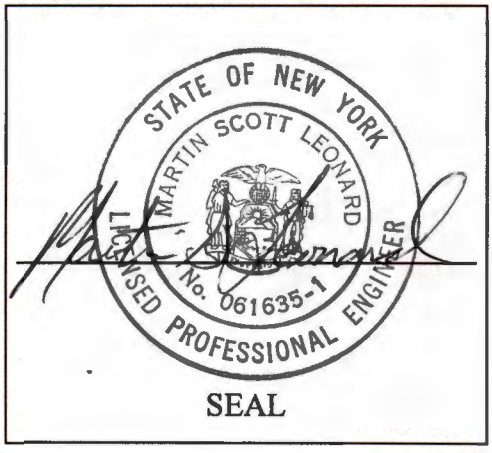
ONTARIO COUNTY, NEW YORK

The enclosed Semi-Annual Progress Report has been reviewed by the undersigned and has been found to be consistent with the requirements of the Order on Consent (Index No. B8-315-90-01), entered into by the New York State Department of Environmental Conservation and Griffin Technology, Inc.

Name: Martin S. Leonard, P.E.

Title: Consulting Professional Engineer

Date: June 14, 2001



SEAL

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

LIST OF APPENDICES

This report presents information collected by URS Corporation (URS) between October 2000 and March 2001 during the operation of the Interim Remedial Measure (IRM) system at the Griffin Technology, Inc. (GTI) site located at 6132 Victor-Manchester Road in the Farmington, Ontario County, New York. A general location map is included as Figure 1-1.

The IRM system consists of four wells equipped with groundwater extraction pumps, which have been plumbed to discharge groundwater into the local sanitary sewer system. The IRM system was proposed in the *IRM Work Plan* submitted to the New York State Department of Environmental Conservation (NYSDEC) on July 10, 1996. The Work Plan was prepared in accordance with the Order on Consent agreement (Index No. B8-315-90-01) entered into by GTI and the NYSDEC. Information supporting the selected IRM, such as the Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP), was included in the Work Plan.

On September 27, 1996, GTI submitted an *Interim Remedial Measure Program, Final Design Document* to the NYSDEC. This document contained the proposed layout and detail drawings for the IRM system and a copy of the letter approving the discharge of recovered groundwater into the local publicly owned treatment works (POTW) sanitary sewer. In addition, an implementation schedule to construct the system and a proposed two year sample collection and reporting schedule were included in the design document.

During December 1996 and January 1997, the IRM components were installed at the site. The components included three recovery wells and one deep monitoring well with the potential to be converted to a recovery well in the future. Following approval by the NYSDEC and the Canandaigua-Farmington Water and Sewer District to discharge recovery water into the sanitary sewer system, the system was placed on line with three recovery wells. The IRM system began operating on February 18, 1997. Between April and June 1999, one deep monitoring well (MW-2D) was converted to a recovery well (RW-4) and brought on line.

In April 1999, a subsurface soil investigation was conducted at the GTI site to evaluate current soil conditions west of the manufacturing building. The scope of work and results are detailed in the *Soil Investigation Report*, dated June 25, 1999.

Between December 1999 and March 2000, a new sanitary sewer main crossing was installed beneath Victor-Manchester Road to provide separate sanitary sewer service to the undeveloped western parcel of the former GTI site on which the recovery system is located. On April 7, 2000, the recovery system discharge was disconnected from the sanitary sewer on the central parcel of the GTI site and connected to the new sanitary sewer main crossing at the clean out on the western parcel.

The activities performed during this six-month period of operation are described in Section 2.0. Information collected during this period of operation is presented in Section 3.0. Conclusions and recommendations are presented in Section 4.0.

The Scope of Work for the IRM was presented in the Final Design Document presented to the NYSDEC on September 27, 1996. Implementation of the IRM consisted of the following elements:

- Installing an IRM system in the undeveloped parcel of land located downgradient of the source area. The IRM system consisted of installing three groundwater extraction wells, one bedrock monitoring well located in the source area which could potentially be used for additional recovery, two sets of nested piezometers located between each of the three extraction wells to monitor groundwater elevations between each well, a groundwater recovery and collection system to convey water to a central access vault, electrical power supply and controllers for each recovery pump, sample collection and flow monitoring appurtenances, and a force main sewer to discharge effluent from the access vault to a sanitary sewer located on the southeast portion of the site.
- Converting the deep bedrock monitoring well into a fourth recovery well.
- Installing a new sewer main crossing to provide sanitary sewer service to the undeveloped western parcel.
- Monitoring the quantity and quality of groundwater recovered from the system monthly and reporting this data to the local POTW.
- Monitoring the groundwater elevations in all on-site wells and piezometers to evaluate the effectiveness of the IRM as a groundwater extraction system and hydraulic barrier.
- Collecting groundwater samples from all wells located on and off site semi-annually beginning six months after initiation of the system. All groundwater samples collected during these semi-annual activities will be analyzed for volatile organic compounds (VOCs) by NYSDEC Test Method ASP 91-1 (now referenced as NYSDEC Test Method ASP 95-1).
- Preparing progress reports for submission to the NYSDEC. The reports should include data collected during the proceeding months of operation as well as information and activities to be performed during subsequent reporting periods.

2.1 IRM SYSTEM

The IRM installation activities were performed during December 1996 and January 1997. Operation of the IRM system was initiated on February 18, 1997. Modification of the IRM system was performed between April and June 1999. Between December 1999 and March 2000, a new sanitary sewer main crossing was installed beneath Victor-Manchester Road to provide separate service to the IRM system.

The layout of the IRM system, on-site groundwater monitoring wells and piezometers, and other pertinent features discussed in this report are shown in Figure 2-1. The system is currently in operation. The components comprising the IRM system are discussed in greater detail below.

2.1.1 IRM System Configuration

The IRM system originally consisted of a network of three groundwater recovery wells (designated as RW-01, RW-02 and RW-03). Between April and June 1999, one deep monitoring well (MW-2D) was converted to a recovery well (RW-4) and brought on line.

The four recovery wells are constructed with 20-foot screened intervals that straddle the contact between the overburden and the bedrock. The well depths range between approximately 27 and 33 feet below ground surface (bgs).

A Goulds Model 10GS electric, submersible pump was installed in each recovery well. Each pump is connected to a PumpTec® "Load-Sensor" type controller to automate the operation of the pump. The controllers are currently operating on 4-minute reset time intervals.

Underground piping and wiring connect the recovery wells to a Central Access Vault, located on the western side of the facility building. At the Central Access Vault, the individual groundwater conveyance pipe from each recovery well is connected to a manifold, which connects to a common header discharge pipe. Each individual conveyance pipe on the manifold is equipped with a shut-off valve, sample port, and totalizing flow meter to facilitate individual well monitoring. In addition, a shut-off valve, sample port, and totalizing flow meter are located on the common header pipe prior to discharge.

The extracted groundwater flows from the manifold and header in the Central Access Vault through a force main pipe and into a sanitary sewer where it is travels by gravity to the Canandaigua-Farmington Water and Sewer District for ultimate disposal. Prior to system start-up, it was necessary for the Canandaigua-Farmington Water and Sewer District to receive permission from the NYSDEC to receive this wastewater.

2.1.2 Completion of New Sanitary Sewer Connection

On April 7, 2000, the recovery system discharge was disconnected from the sanitary sewer on the central parcel of the GTI site (where the former GTI building is located). The recovery system discharge was then connected to the new sanitary sewer main crossing at the clean out on the western parcel. Operation of the groundwater remediation system was stopped for approximately 3 hours to complete the change over. The 1-inch diameter discharge piping that had been connected to the clean out on the central parcel was removed by pulling.

2.2 IRM SYSTEM MONITORING

During this six-month period of operation, groundwater elevation, discharge volume, and groundwater analytical data were collected to monitor the effectiveness of the IRM system. The data collected are discussed in the following subsections.

2.2.1 Hydraulic Head Measurement

Hydraulic head (groundwater elevation) measurements were collected from each groundwater well and piezometer located on site a minimum of once per month during routine site visits. During some visits, hydraulic head measurements were also collected from nearby monitoring

wells MW-6S and MW-6D. On March 8, 2001, prior to the collection of groundwater samples, the water level in each on-site and off-site groundwater monitoring well was measured and recorded to evaluate groundwater flow conditions. All groundwater measurements were collected using an electronic water level indicator capable of measuring the water elevation to the nearest 0.01 ft.

2.2.2 Groundwater Sampling and Analysis

During this six-month period of operation, composite effluent samples were collected monthly from the common header discharge in the Central Access Vault. These samples were submitted to Columbia Analytical Services, Inc. (CASI) of Rochester, New York for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 8260. The analytical results of these composite samples were used to report estimated loadings to the POTW.

On March 8, 2001, groundwater samples were collected to evaluate regional groundwater quality. Prior to sample collection, the static water level in each well was measured (Section 2.2.1). Using the static water level measurements, the volume of water contained in each well (the well volume) was calculated. The monitoring well was then purged of a minimum of three well volumes of water or until dry using a new, disposable, high density polyethylene (HDPE) bailer equipped with a nylon cord.

Groundwater samples were collected within 24 hours of purging from each groundwater monitoring well and recovery well. Samples were placed into laboratory supplied containers and placed into a cooler with ice for preservation until delivered to the laboratory for analysis. One duplicate sample was collected from monitoring well MW-04. Groundwater samples were submitted to CASI and analyzed for VOCs by NYSDEC Test Method ASP 95-1. Chain-of-custody procedures were observed throughout the sampling event.

The data collected during this six-month period of IRM system operation and the results of the March 2001 semi-annual groundwater sampling event are presented in the following subsections.

3.1 HYDRAULIC HEAD MEASUREMENT RESULTS

Hydraulic head measurements collected during this operating period from on-site and off-site groundwater monitoring wells and piezometers are presented in Table 3-1.

The elevation data were used to construct monthly groundwater contour maps of the site for the overburden water-bearing zone (Figures 3-1 through 3-7) and the bedrock water-bearing zone (Figures 3-8 through 3-14). Figure 3-6 is a contour map illustrating groundwater flow conditions in the vicinity of the site in the overburden water-bearing zone on March 8, 2001. Figure 3-13 is a contour map illustrating groundwater flow conditions in the vicinity of the site in the bedrock water-bearing zone on March 8, 2001.

The groundwater contour maps from the GTI site indicate that groundwater in the overburden water-bearing zone typically flows to the southwest. In the bedrock water-bearing zone, groundwater typically flows toward a groundwater low area near the southwest corner of the site, in the vicinity of RW-3.

The groundwater elevation data indicate that the IRM system is continuing to influence groundwater flow patterns at the GTI site. These results are consistent with previous observed site conditions.

3.2 EFFLUENT OPERATING DATA AND ANALYTICAL RESULTS

A summary of the IRM system operating data and effluent analysis collected from October 2000 – March 2001 is presented in Table 3-2. Due to low monthly discharge from October 2000 to December 2000, the sample volume was insufficient for laboratory submittal. No analytical results were available to report estimated loadings to the POTW; these months are marked as "NS" or not sampled on Table 3-2.

Results from January to March 20001, continue to indicate that groundwater containing chemicals of concern (COCs) is being removed from underneath the GTI site. The only COC detected in the effluent samples was trichloroethene (TCE). This is consistent with earlier results. Historically, TCE has been the compound with the highest reported concentration. The concentrations of TCE in the system effluent was higher at the beginning of this operating period and decreased toward the end of the operating period.

The quantity of water removed by the system steadily increased during this 6 month operating period. This appears to be related to lower seasonal groundwater elevations during fall and is similar to conditions observed during previous years. Laboratory data sheets for effluent samples collected during this period of operation are provided in Appendix A.

3.3 GROUNDWATER ANALYTICAL RESULTS

A summary of groundwater analytical data from wells sampled on March 8, 2001 is presented in Table 3-3. Table 3-3 also summarizes the data from previous sampling events. The laboratory

data sheets from CASI for this semi-annual groundwater sampling event are provided in Appendix B. A data validation report for this data, prepared by a QA/QC reviewer, is provided in Appendix C. Results of the validation indicate that the data are acceptable.

Groundwater analytical results obtained from the March 8, 2001 event showed that concentrations of COCs were generally lower than those reported for the previous (September 8, 2000) groundwater sampling event. Analytical results from the four recovery wells were generally higher than the most recently available data (March 28, 2000). The COCs detected in groundwater samples collected during March 2001 consisted of TCE, 1,1,1-TCA, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). The COCs are generally consistent with the results of earlier sampling events. TCE was consistently the compound with the highest reported concentration.

Based on the information collected during this six-month period of IRM system operation, the following summary has been developed regarding environmental conditions at the GTI site:

- Groundwater flow in the overburden and bedrock zones at the site is primarily to the southwest corner of the site. This is consistent with previous reports for the GTI site.
- The IRM system is influencing groundwater flow patterns in the vicinity of the GTI facility. The groundwater elevation data generally indicate the presence of a groundwater low in the bedrock water-bearing zone in the southwest portion of the site, in the immediate vicinity of the IRM system. The March 8, 2001 bedrock groundwater elevation data indicate the presence of a groundwater low southwest of the site in the vicinity of monitoring well RW-03, which has been observed previously.
- Groundwater elevations were at low levels at the beginning of the operating period and increased during the latter part of the operating period (February and March).
- The monthly quantity of groundwater removed by the IRM system increased during the latter months (February and March) of the operating period. The quantity of groundwater discharged by the system appears to correlate with seasonal changes in groundwater elevations, with lower discharge and groundwater elevations in late summer, fall, and early winter and higher discharge and groundwater elevations in late winter, spring, and early summer.
- The concentrations of COCs in the IRM system effluent were higher in the beginning of this operating period and lower toward the end of the operating period. The concentrations of COCs remained within historical levels throughout the operating period. TCE was consistently the COC reported at the highest concentration in the IRM system effluent.
- Groundwater analytical results for samples collected during the March 8, 2001 sampling event indicated that concentrations of COCs were generally lower than those reported for the previous (September 8, 2000) groundwater sampling event, and were within historical levels.
- The COC concentrations in the IRM system effluent and groundwater monitoring well samples appear to be higher during periods of lower groundwater elevations and lower during periods of higher groundwater elevations.

Data collection activities at the site will be continued in the same manner. Continued monitoring of the site will provide additional data to evaluate the long-term effectiveness of the IRM system.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-01	641.79	10/13/00	11.83	629.96
		11/02/00	12.85	628.94
		11/22/00	13.82	627.97
		12/01/00	12.45	629.34
		12/15/00	12.59	629.20
		12/29/00	8.61	633.18
		01/18/01	10.66	631.13
		01/31/01	6.22	635.57
		02/13/01	5.11	636.68
		03/02/01	5.21	636.58
		03/08/01	5.80	635.99
		03/16/01	3.72	638.07
		03/29/01	3.51	638.28
MW-02S	641.28	10/13/00	DRY	DRY
		11/02/00	DRY	DRY
		11/22/00	DRY	DRY
		12/01/00	DRY	DRY
		12/15/00	DRY	DRY
		12/29/00	15.19	626.09
		01/18/01	DRY	DRY
		01/31/01	12.42	628.86
		02/13/01	8.01	633.27
		03/02/01	8.17	633.11
		03/08/01	9.23	632.05
		03/16/01	5.40	635.88
		03/29/01	5.48	635.80
MW-2D	642.37	Monitoring well converted to recovery well RW-4.		

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-03	642.17	10/13/00	15.55	626.62
		11/02/00	16.02	626.15
		11/22/00	17.03	625.14
		12/01/00	14.99	627.18
		12/15/00	14.91	627.26
		12/29/00	11.73	630.44
		01/18/01	13.76	628.41
		01/31/01	7.76	634.41
		02/13/01	6.80	635.37
		03/02/01	7.33	634.84
		03/08/01	9.00	633.17
		03/16/01	4.59	637.58
		03/29/01	5.31	636.86
MW-04	641.75	10/13/00	17.88	623.87
		11/02/00	19.36	622.39
		11/22/00	18.92	622.83
		12/01/00	17.98	623.77
		12/15/00	18.98	622.77
		12/29/00	16.60	625.15
		01/18/01	17.97	623.78
		01/31/01	12.58	629.17
		02/13/01	10.03	631.72
		03/02/01	10.81	630.94
		03/08/01	12.45	629.30
		03/16/01	6.77	634.98
		03/29/01	6.86	634.89

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-05S	640.85	10/13/00	19.15	621.70
		11/02/00	19.92	620.93
		11/22/00	20.33	620.52
		12/01/00	DRY	DRY
		12/15/00	20.43	620.42
		12/29/00	17.87	622.98
		01/18/01	19.10	621.75
		01/31/01	17.01	623.84
		02/13/01	11.55	629.30
		03/02/01	11.91	628.94
		03/08/01	13.61	627.24
		03/16/01	7.92	632.93
		03/29/01	7.98	632.87
MW-05D	641.01	10/13/00	21.03	619.98
		11/02/00	21.61	619.40
		11/22/00	22.12	618.89
		12/01/00	21.88	619.13
		12/15/00	22.11	618.90
		12/29/00	20.12	620.89
		01/18/01	20.58	620.43
		01/31/01	19.63	621.38
		02/13/01	13.55	627.46
		03/02/01	16.54	624.47
		03/08/01	16.62	624.39
		03/16/01	10.48	630.53
		03/29/01	14.21	626.80

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-06S	636.61	10/13/00	14.21	622.40
		11/02/00	NM	NM
		11/22/00	15.55	621.06
		12/01/00	NM	NM
		12/15/00	15.48	621.13
		12/29/00	NM	NM
		01/18/01	13.83	622.78
		01/31/01	NM	NM
		02/13/01	6.93	629.68
		03/02/01	NM	NM
		03/08/01	8.38	628.23
		03/16/01	2.99	633.62
		03/29/01	NM	NM
MW-06D	636.83	10/13/00	14.42	622.41
		11/02/00	NM	NM
		11/22/00	15.85	620.98
		12/01/00	NM	NM
		12/15/00	15.71	621.12
		12/29/00	NM	NM
		01/18/01	14.12	622.71
		01/31/01	NM	NM
		02/13/01	7.18	629.65
		03/02/01	NM	NM
		03/08/01	8.61	628.22
		03/16/01	3.28	633.55
		03/29/01	NM	NM

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-07S	634.29	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	8.45	625.84
		03/16/01	NM	NM
		03/29/01	NM	NM
MW-07D	634.16	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	33.45	600.71
		03/16/01	NM	NM
		03/29/01	NM	NM

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-09S	630.16	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	10.24	619.92
		03/16/01	NM	NM
		03/29/01	NM	NM
MW-09D	630.29	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	31.53	598.76
		03/16/01	NM	NM
		03/29/01	NM	NM

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-10S	629.00	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	15.48	613.52
		03/16/01	NM	NM
		03/29/01	NM	NM
MW-10D	626.80	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	16.78	610.02
		03/16/01	NM	NM
		03/29/01	NM	NM

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
MW-11D	641.89	10/13/00	16.61	625.28
		11/02/00	17.33	624.56
		11/22/00	18.09	623.80
		12/01/00	17.58	624.31
		12/15/00	17.43	624.46
		12/29/00	14.64	627.25
		01/18/01	15.48	626.41
		01/31/01	12.77	629.12
		02/13/01	9.41	632.48
		03/02/01	9.36	632.53
		03/08/01	10.33	631.56
		03/16/01	6.10	635.79
		03/29/01	6.46	635.43
MW-13D	636.58	10/13/00	NM	NM
		11/02/00	NM	NM
		11/22/00	NM	NM
		12/01/00	NM	NM
		12/15/00	NM	NM
		12/29/00	NM	NM
		01/18/01	NM	NM
		01/31/01	NM	NM
		02/13/01	NM	NM
		03/02/01	NM	NM
		03/08/01	9.40	627.18
		03/16/01	NM	NM
		03/29/01	NM	NM

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
PZ-1S	640.50	10/13/00	DRY	DRY
		11/02/00	DRY	DRY
		11/22/00	DRY	DRY
		12/01/00	DRY	DRY
		12/15/00	DRY	DRY
		12/29/00	DRY	DRY
		01/18/01	DRY	DRY
		01/31/01	DRY	DRY
		02/13/01	9.66	630.84
		03/02/01	DRY	DRY
		03/08/01	DRY	DRY
		03/16/01	5.63	634.87
		03/29/01	5.72	634.78
PZ-1D	640.67	10/13/00	DRY	DRY
		11/02/00	DRY	DRY
		11/22/00	DRY	DRY
		12/01/00	DRY	DRY
		12/15/00	DRY	DRY
		12/29/00	DRY	DRY
		01/18/01	DRY	DRY
		01/31/01	14.54	626.13
		02/13/01	9.80	630.87
		03/02/01	10.33	630.34
		03/08/01	11.81	628.86
		03/16/01	5.77	634.90
		03/29/01	5.89	634.78

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-1
SUMMARY OF GROUNDWATER ELEVATIONS
OCTOBER 2000 - MARCH 2001
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Well ID	Top of Casing Elevation (ft)	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)
PZ-2S	639.73	10/13/00	DRY	DRY
		11/02/00	DRY	DRY
		11/22/00	DRY	DRY
		12/01/00	DRY	DRY
		12/15/00	DRY	DRY
		12/29/00	DRY	DRY
		01/18/01	DRY	DRY
		01/31/01	DRY	DRY
		02/13/01	12.39	627.34
		03/02/01	12.47	627.26
		03/08/01	13.53	626.20
		03/16/01	8.94	630.79
		03/29/01	8.84	630.89
PZ-2D	640.01	10/13/00	19.42	620.59
		11/02/00	19.94	620.07
		11/22/00	20.20	619.81
		12/01/00	19.96	620.05
		12/15/00	20.20	619.81
		12/29/00	18.51	621.50
		01/18/01	19.55	620.46
		01/31/01	17.96	622.05
		02/13/01	13.46	626.55
		03/02/01	13.53	626.48
		03/08/01	14.45	625.56
		03/16/01	10.28	629.73
		03/29/01	10.22	629.79

NOTES
NM indicates water elevation not measured.
DRY indicates well did not contain groundwater.

TABLE 3-2
SUMMARY OF EFFLUENT DISCHARGES TO POTW
GRIFFIN TECHNOLOGY FACILITY
FARMINGTON, NEW YORK

	DISCHARGE	CONCENTRATIONS				
MONTH	(GAL.)	TCE	1,1,1-TCA	Cis-1,2-DCE	2-BUTANONE	VINYL CHLORIDE
October 2000	85,271	NS	NS	NS	NS	NS
November 2000	55,510	NS	NS	NS	NS	NS
December 2000	79,350	NS	NS	NS	NS	NS
January 2001	93,400	410	ND	ND	ND	ND
February 2001	245,630	340	ND	ND	ND	ND
March 2001	360,490	220	ND	ND	ND	ND

Notes:

1. All results expressed in micrograms per liter (µg/l).
2. No other VOC compounds detected.
3. ND indicates not detected.
4. NS indicates no sample was detected due to low discharge.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
MW-01	12/19/94	ND	ND	ND	ND	ND	ND	ND
	5/21/96	ND	ND	ND	ND	ND	ND	ND
	8/13/97	ND	ND	ND	ND	ND	ND	ND
	3/18/98	ND	ND	ND	ND	ND	ND	ND
	9/2/98	ND	ND	ND	ND	ND	ND	ND
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/8/00	ND	ND	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND
MW-02S	12/19/94	850	ND	ND	ND	ND	ND	ND
	5/21/96	30	ND	1	ND	ND	ND	ND
	8/13/97	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/18/98	17,000	ND	ND	ND	ND	ND	ND
	9/2/98	18,000	210	ND	ND	ND	ND	ND
	3/18/99	28	ND	ND	ND	ND	ND	ND
	9/2/99	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/28/00	6	ND	ND	ND	ND	ND	ND
	9/8/00	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/8/01	9	ND	ND	ND	ND	ND	ND
MW-02D	8/13/97	450	23	42	ND	ND	ND	ND
	3/18/98	740	16	28	ND	ND	ND	ND
	9/2/98	680	25	39	ND	ND	ND	ND
	3/18/99	190	5	6	ND	ND	ND	ND
	Monitoring well converted to recovery well RW-4.							
MW-03	12/19/94	190	ND	ND	ND	ND	ND	ND
	5/21/96	120	ND	2	ND	ND	ND	ND
	8/13/97	150	ND	2	ND	ND	ND	ND
	3/18/98	88	ND	ND	ND	ND	ND	ND
	9/2/98	110	ND	ND	ND	ND	ND	ND
	3/18/99	45	ND	ND	ND	ND	ND	ND
	9/2/99	170	ND	ND	ND	ND	ND	ND
	3/28/00	93	ND	ND	ND	ND	ND	ND
	9/8/00	150	ND	ND	ND	ND	ND	ND
	3/8/01	96	ND	ND	ND	ND	ND	ND

Notes:
1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
MW-04	12/19/94	710	6.7	23	ND	ND	ND	ND
	5/21/96	16	ND	2	ND	ND	ND	ND
	8/13/97	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/18/98	59	ND	2	ND	ND	ND	ND
	9/2/98	450	7	20	ND	ND	ND	ND
	3/18/99	58	ND	1	ND	ND	ND	ND
	9/2/99	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/28/00	9	ND	ND	ND	ND	ND	ND
Duplicate	3/28/00	9	ND	ND	ND	ND	ND	ND
	9/8/00	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/8/01	130	ND	2	ND	ND	ND	ND
Duplicate	3/8/01	130	ND	2	ND	ND	ND	ND
MW-05S	12/19/94	580	15	ND	ND	ND	ND	ND
	5/21/96	350	16	ND	ND	ND	ND	ND
	8/13/97	760	31	4	ND	ND	ND	ND
	3/18/98	120	4	ND	1	ND	ND	ND
	9/2/98	390	14	ND	ND	ND	ND	ND
	3/18/99	95	3	ND	ND	ND	ND	ND
	9/2/99	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/28/00	140	4	ND	ND	ND	ND	ND
	9/8/00	550	22	ND	ND	ND	ND	ND
	3/8/01	330	9	ND	ND	ND	ND	ND
MW-05D	12/19/94	820	23	ND	ND	ND	ND	ND
	5/21/96	1,000	48	8	ND	ND	ND	ND
	8/13/97	250	7	2	ND	ND	ND	ND
	3/18/98	250	7	ND	ND	ND	ND	ND
	9/2/98	300	8	2	ND	ND	ND	ND
	3/18/99	200	7	2	ND	ND	ND	ND
	9/2/99	220	6	2	ND	ND	ND	ND
	3/28/00	190	4	ND	ND	ND	ND	ND
	9/8/00	160	3	ND	ND	ND	ND	ND
	3/8/01	160	3	ND	ND	ND	ND	ND

Notes:
1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
MW-06S	12/19/94	270	7.8	ND	ND	ND	ND	ND
	5/21/96	ND	2	ND	ND	ND	ND	ND
	8/13/97	140	9	3	ND	ND	ND	ND
	3/18/98	5	ND	ND	ND	ND	ND	ND
	9/2/98	140	8	2	ND	ND	ND	ND
	3/17/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	110	6	4	ND	ND	ND	ND
	3/28/00	3	ND	ND	ND	ND	ND	ND
	9/8/00	110	5	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND
MW-06D	12/19/94	190	7.5	ND	ND	ND	ND	ND
	5/21/96	240	10	ND	ND	ND	ND	ND
	8/13/97	150	10	2	ND	ND	ND	ND
	3/18/98	6	ND	ND	ND	ND	ND	ND
	9/2/98	140	8	2	ND	ND	ND	ND
	3/17/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	110	7	2	ND	ND	ND	ND
	3/28/00	89	5	1	ND	ND	ND	ND
	9/8/00	110	6	ND	ND	ND	ND	ND
Duplicate	9/8/00	110	6	ND	ND	ND	ND	ND
	3/8/01	95	5	ND	ND	ND	ND	ND
MW-07S	12/19/94	250	6.6	8	ND	ND	ND	ND
	5/21/96	310	7	6	ND	ND	ND	ND
	8/13/97	250	6	6	ND	ND	ND	ND
	3/18/98	3	ND	ND	ND	ND	ND	ND
	9/2/98	220	5	4	ND	ND	ND	ND
	3/17/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	220	4	4	ND	ND	ND	ND
	3/28/00	210	4	3	ND	ND	ND	ND
	9/8/00	210	ND	ND	ND	ND	ND	ND
	3/8/01	200	4	3	ND	ND	ND	ND
MW-07D	12/19/94	260	ND	7	ND	ND	ND	ND
	5/21/96	290	4	12	ND	ND	ND	ND
	8/13/97	180	2	13	ND	ND	ND	ND
	3/18/98	150	2	15	ND	ND	ND	ND
	9/2/98	200	2	15	ND	ND	ND	ND
	3/17/99	100	ND	8	ND	ND	ND	ND
	9/2/99	180	2	14	ND	ND	ND	ND
	3/28/00	130	ND	19	ND	ND	ND	4
	9/8/00	180	ND	13	ND	ND	ND	ND
	3/8/01	140	ND	20	ND	ND	ND	3

Notes:
1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
MW-08S	12/19/94	29	ND	ND	ND	ND	ND	ND
	Well abandoned.							
MW-08D	12/19/94	55	ND	ND	ND	ND	ND	ND
	Well abandoned.							
MW-09S	12/19/94	ND	ND	ND	ND	ND	ND	ND
	5/21/96	ND	ND	ND	ND	ND	ND	ND
	8/13/97	2	ND	ND	ND	ND	ND	ND
	3/18/98	3	ND	ND	ND	ND	ND	ND
	9/2/98	NS	NS	NS	NS	NS	NS	NS
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/8/00	ND	ND	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND
MW-09D	12/19/94	ND	ND	ND	ND	ND	ND	ND
	5/21/96	ND	ND	ND	ND	ND	ND	ND
	8/13/97	ND	ND	ND	ND	ND	ND	ND
	3/18/98	ND	ND	ND	ND	ND	ND	ND
	9/2/98	NS	NS	NS	NS	NS	NS	NS
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/8/00	ND	ND	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND
MW-10S	12/19/94	7.8	ND	ND	ND	ND	ND	ND
	5/29/96	30	1	ND	ND	ND	ND	ND
	8/13/97	15	ND	ND	ND	ND	ND	ND
	3/18/98	NS	NS	NS	NS	NS	NS	NS
	9/2/98	8	ND	ND	ND	ND	ND	ND
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	7	ND	ND	ND	ND	ND	ND
	3/28/00	1	ND	ND	ND	ND	ND	ND
	9/8/00	3	ND	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND

Notes:

1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
MW-10D	12/19/94	8.2	ND	ND	ND	ND	ND	ND
	5/29/96	8	ND	ND	ND	ND	ND	ND
	8/13/97	15	ND	ND	ND	ND	ND	ND
	3/18/98	NS	NS	NS	NS	NS	NS	NS
	9/2/98	9	ND	ND	ND	ND	ND	ND
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	7	ND	ND	ND	ND	ND	ND
	3/28/00	3	ND	ND	ND	ND	ND	ND
	9/8/00	6	ND	ND	ND	ND	ND	ND
	3/8/01	5	ND	ND	ND	ND	ND	ND
MW-11D	4/11/96	ND	ND	ND	ND	ND	ND	ND
	5/21/96	ND	ND	ND	ND	ND	ND	ND
	8/13/97	ND	ND	ND	ND	ND	ND	ND
	3/18/98	ND	ND	ND	ND	ND	ND	ND
	9/2/98	ND	ND	ND	ND	ND	ND	ND
	3/18/99	ND	ND	ND	ND	ND	ND	ND
	9/2/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/8/00	ND	ND	ND	ND	ND	ND	ND
	3/8/01	ND	ND	ND	ND	ND	ND	ND
MW-13D	4/11/96	610	5	4	ND	ND	ND	ND
	5/21/96	190	5	4	ND	ND	ND	ND
	8/13/97	160	4	4	ND	ND	ND	ND
	3/18/98	110	2	ND	ND	ND	ND	ND
	9/2/98	140	3	2	ND	ND	ND	ND
	3/17/99	120	2	2	ND	ND	ND	ND
	9/2/99	140	3	2	ND	ND	ND	ND
	3/28/00	85	2	ND	ND	ND	ND	ND
	9/8/00	140	ND	ND	ND	ND	ND	ND
	3/8/01	88	2	ND	ND	ND	ND	ND

Notes:

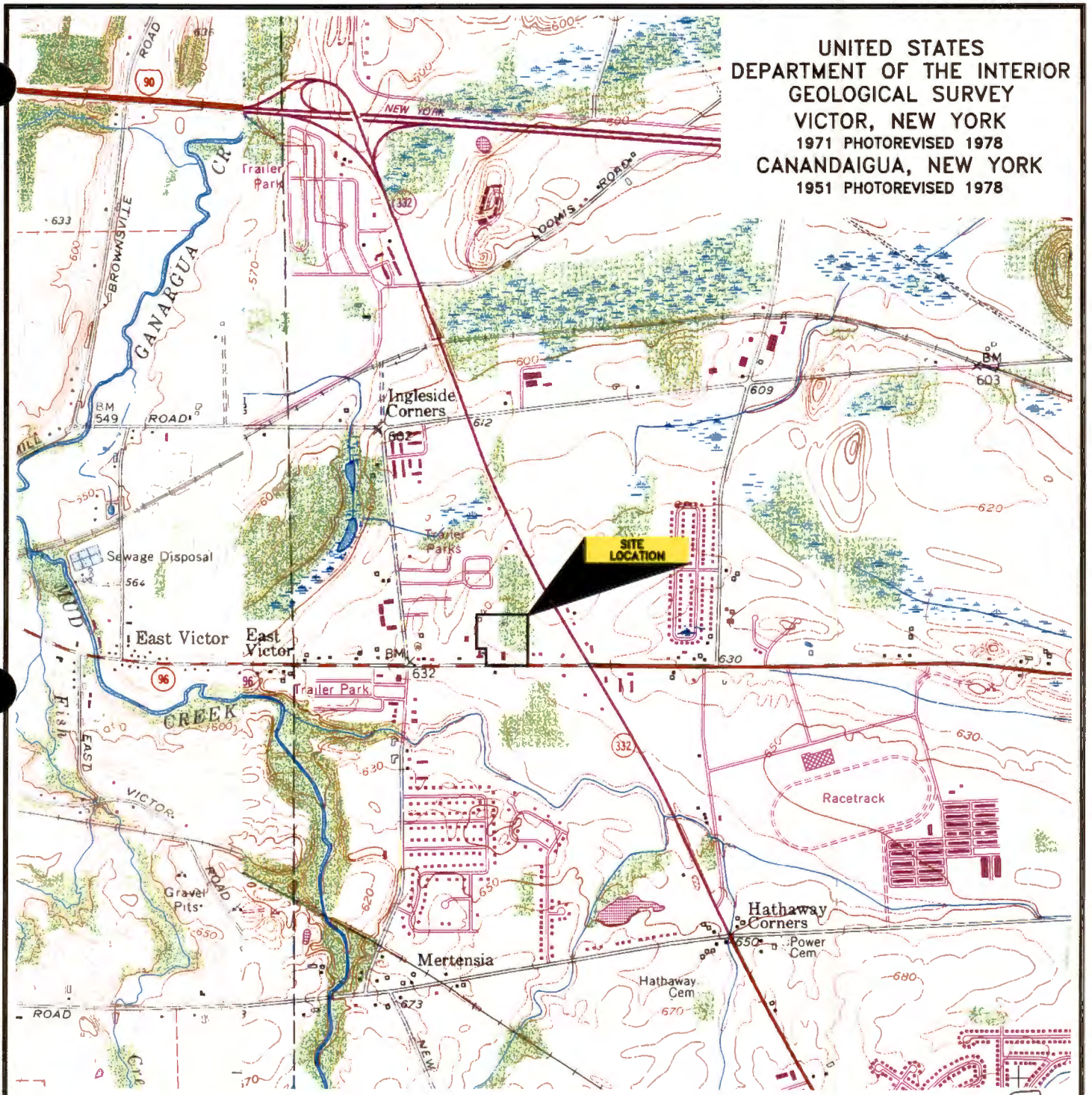
1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.

TABLE 3-3
SUMMARY OF MONITORING WELL GROUNDWATER ANALYTICAL RESULTS
GRIFFIN TECHNOLOGY, INC.
FARMINGTON, NEW YORK

Monitoring Well No.	Sample Date	TCE	1,1,1-TCA	CIS-1,2-DCE	XYLENES	1,1-DCE	ACETONE	VINYL CHLORIDE
RW-1	3/28/00	140	3	3	ND	ND	ND	ND
	9/8/00	No sample collected due to low discharge.						
	3/8/01	220	4	5	ND	ND	ND	ND
RW-2	3/28/00	100	2	ND	ND	ND	ND	ND
	9/8/00	No sample collected due to low discharge.						
	3/8/01	140	3	ND	ND	ND	ND	ND
RW-3	3/28/00	170	4	ND	ND	ND	ND	ND
	9/8/00	No sample collected due to low discharge.						
	3/8/01	180	4	ND	ND	ND	ND	ND
RW-4	3/28/00	1,000	22	11	ND	1	5	ND
	9/8/00	760	ND	ND	ND	ND	ND	ND
	3/8/01	840	16	8	ND	ND	ND	ND

Notes:

1. 12/19/94 data collected by Blasland, Bouck & Lee.
2. All results expressed in micrograms per liter (µg/l).
3. No other VOC compounds detected at method detection limit.
4. ND indicates not detected.
5. NS indicates no sample collected; unable to locate or access well.
6. DRY indicates well not sampled due to lack of water.
7. Data presented includes actual and estimated concentrations based on Level IV Data Validation Procedures. Refer to analyt data and data validation report for additional descriptions.



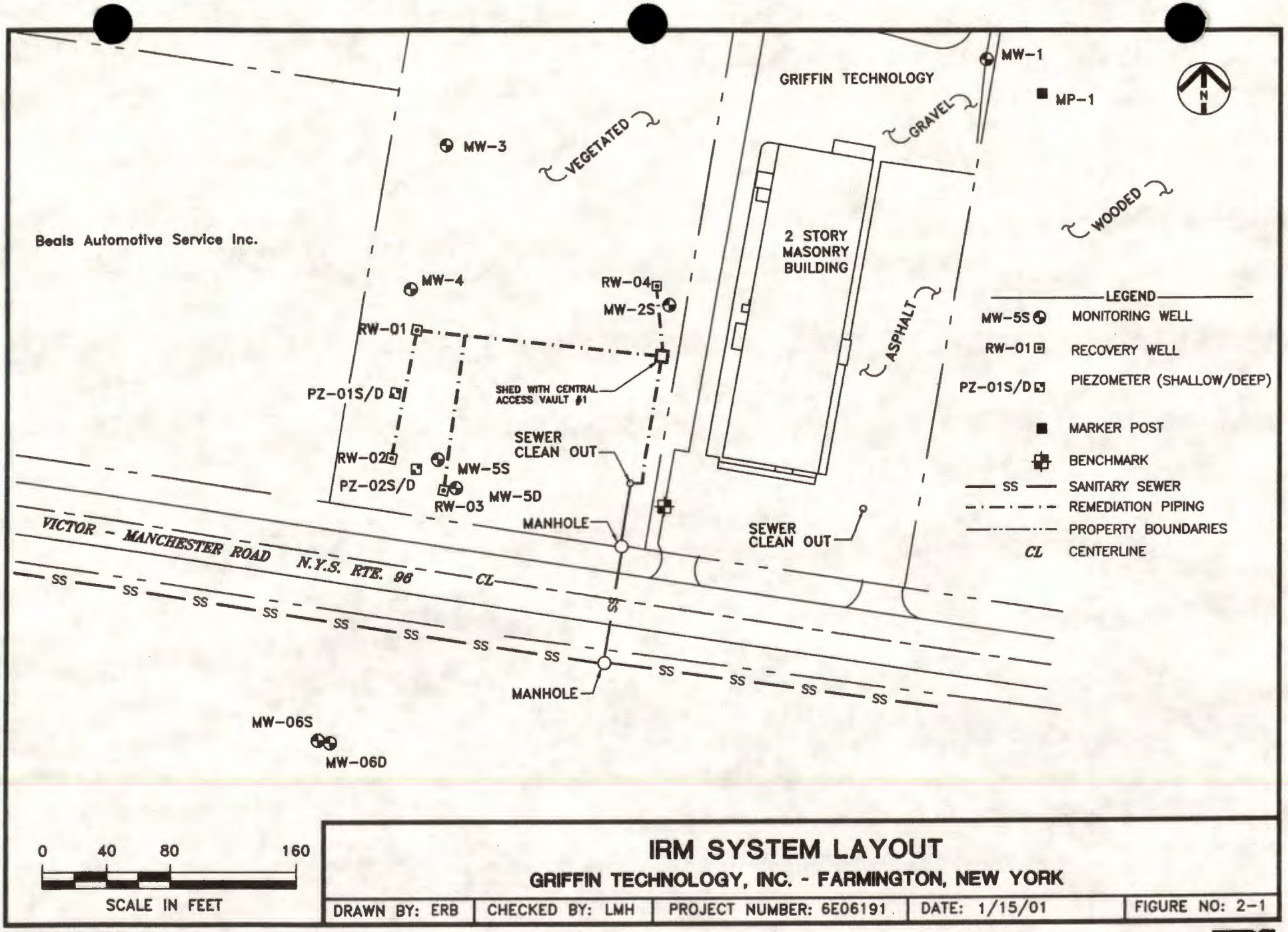
GENERAL LOCATION MAP

FORMER GRIFFIN TECHOLOGY INC. SITES - ONTARIO COUNTY - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 6/4/01	FIGURE NO: 1-1

Q:\...\6E06191\GLM2.DWG

URS



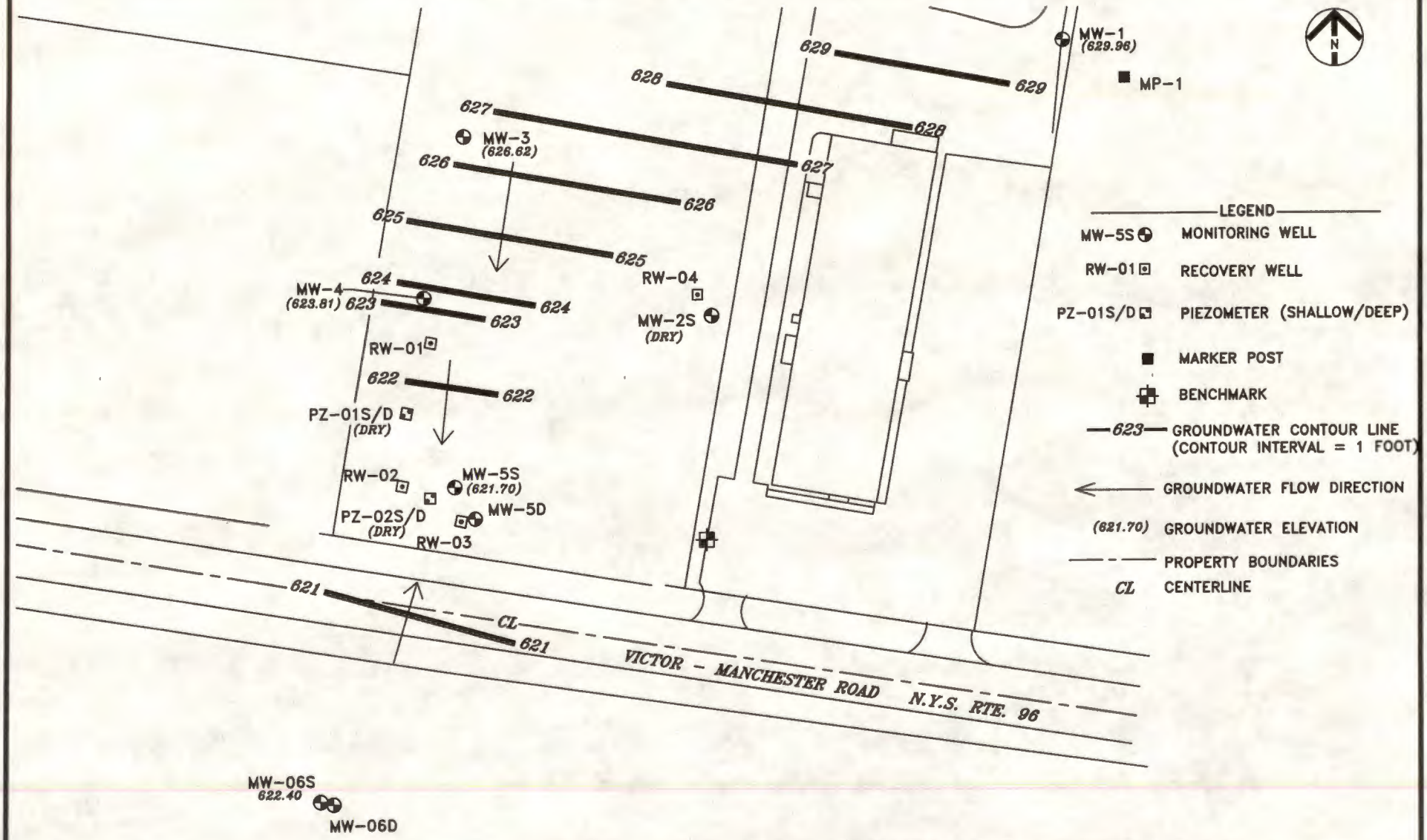
IRM SYSTEM LAYOUT

GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 1/15/01	FIGURE NO: 2-1

Q:\6E06191\BASEMAP4.DWG

URS

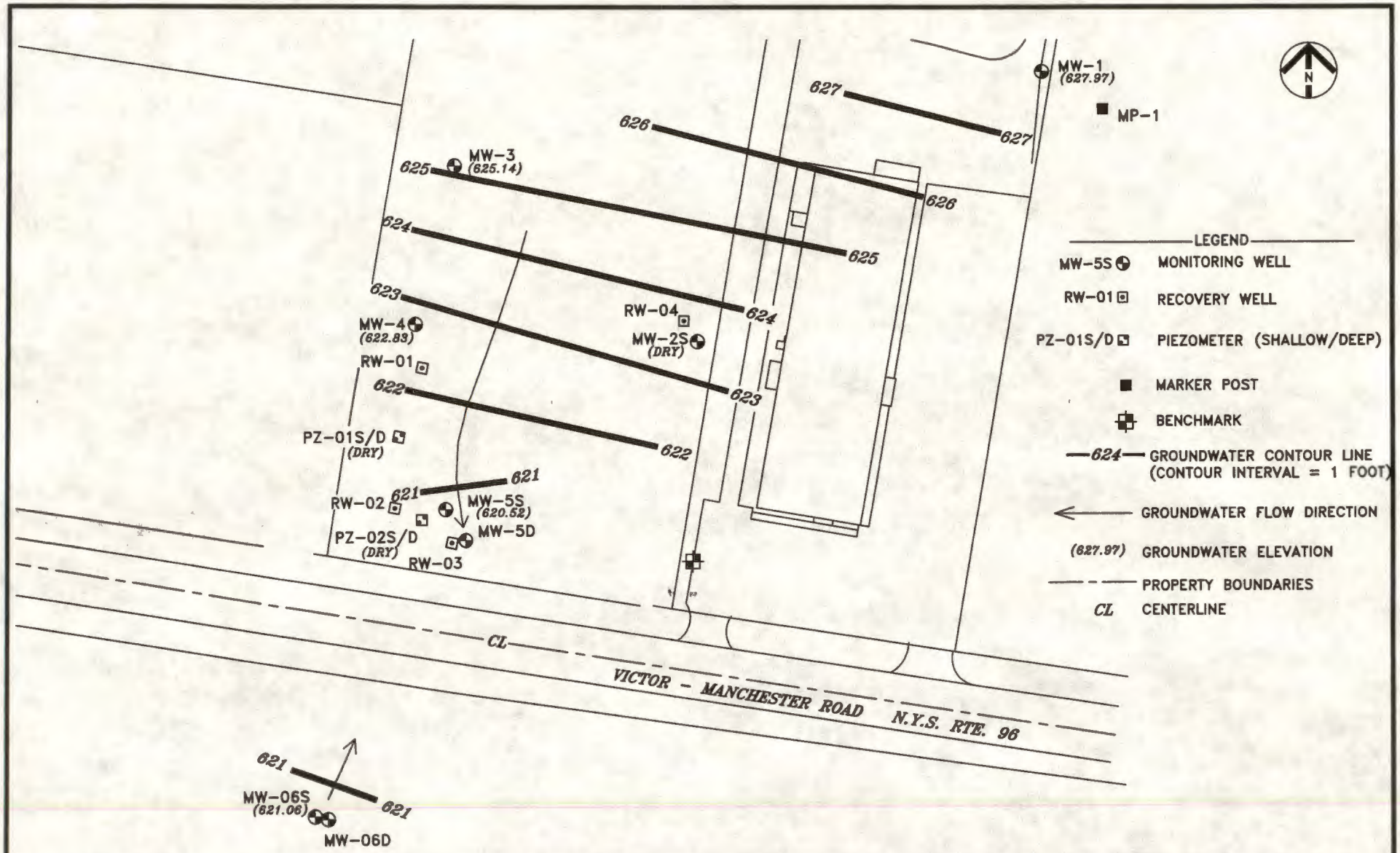


OVERBURDEN GROUNDWATER CONTOUR MAP
OCTOBER 13, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-1

Q:\DIEBOLD\6E06191\2000\Q2\OVBOCT13.DWG

URS

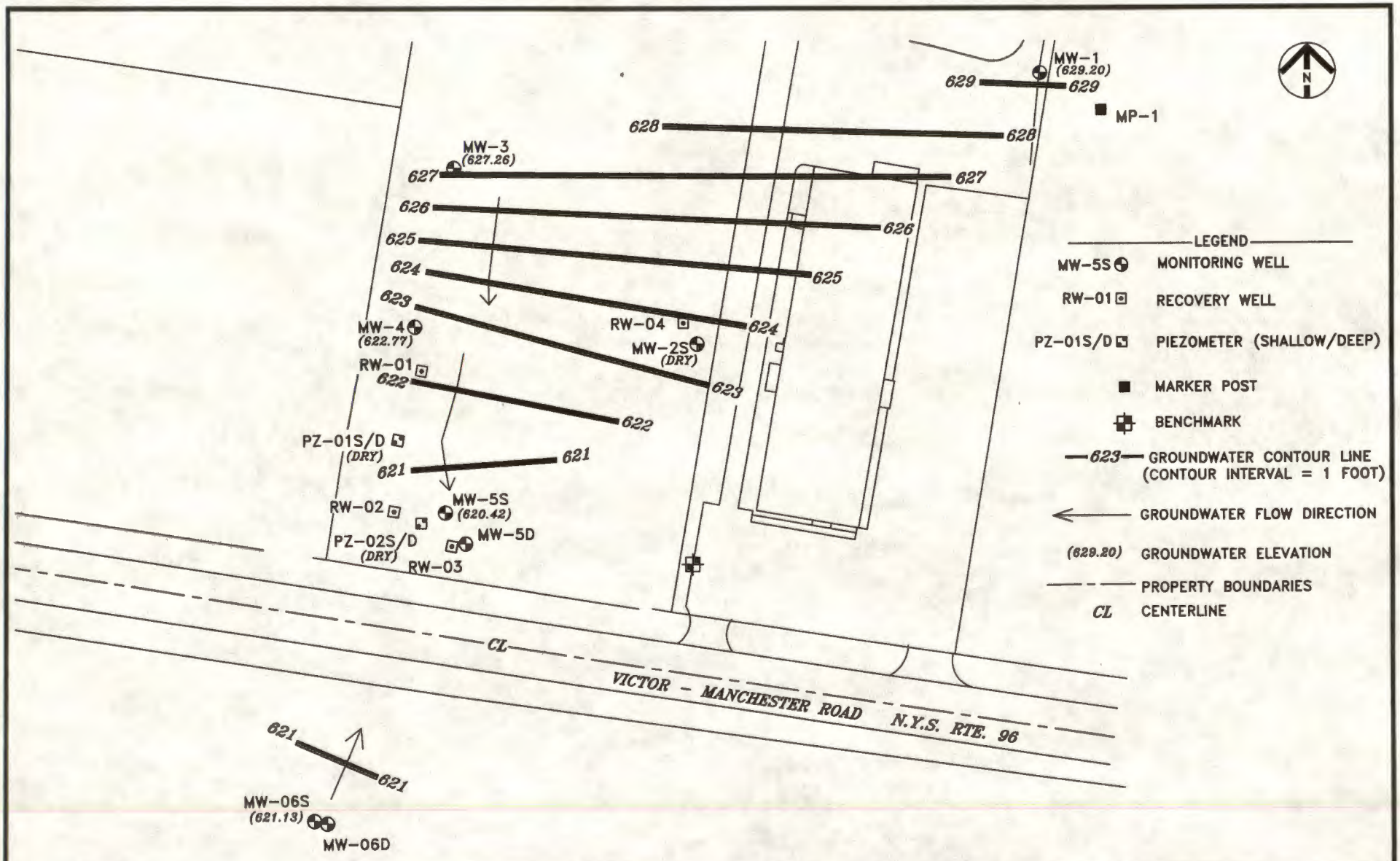


OVERBURDEN GROUNDWATER CONTOUR MAP
NOVEMBER 22, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-2

Q:\DIEBOLD\6E06191\2000\Q2\OVBNOV22.DWG

URS

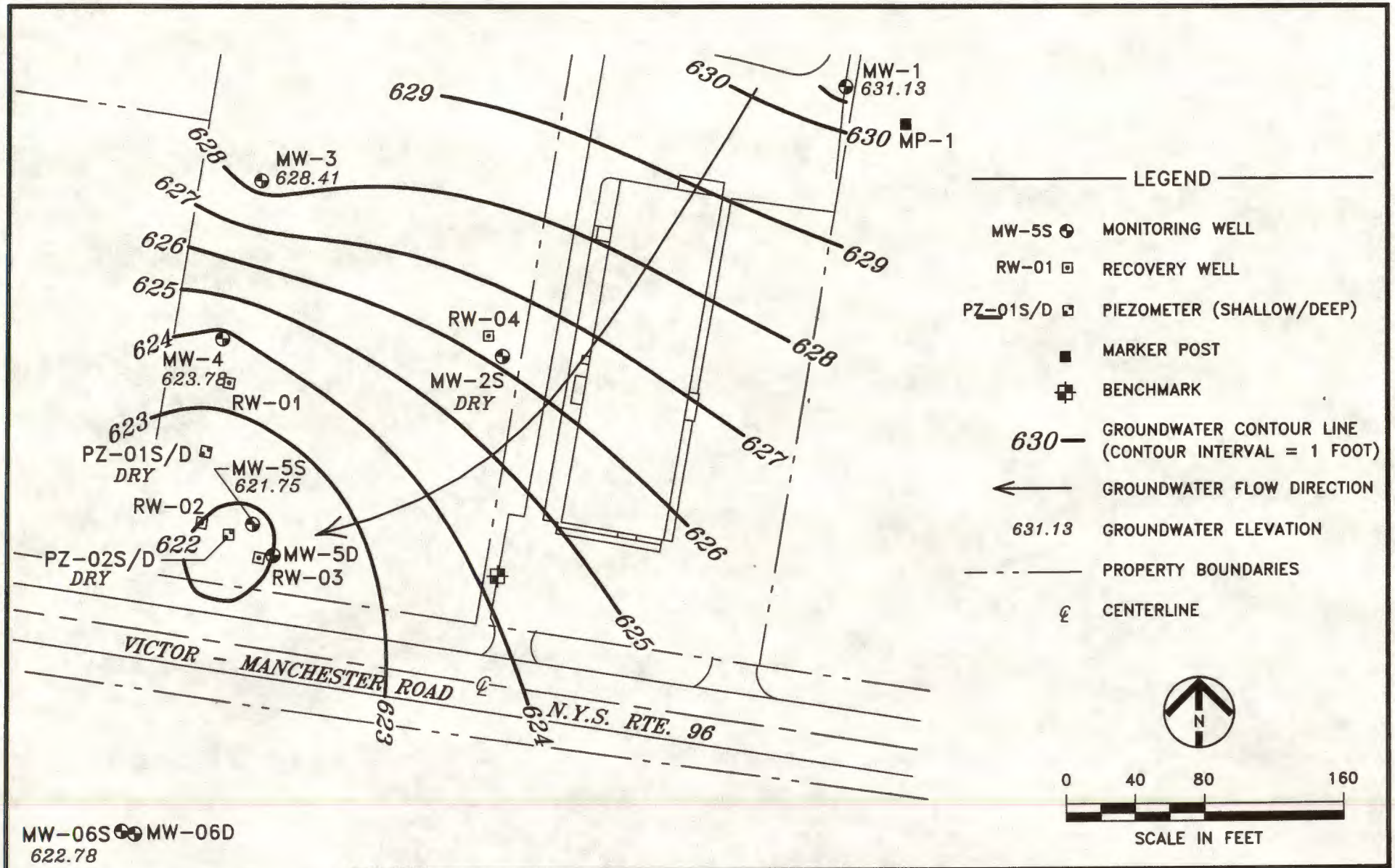


OVERBURDEN GROUNDWATER CONTOUR MAP
DECEMBER 15, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-3

Q:\DIEBOLD\6E06191\2000\Q2\OVBDEC15.DWG

URS

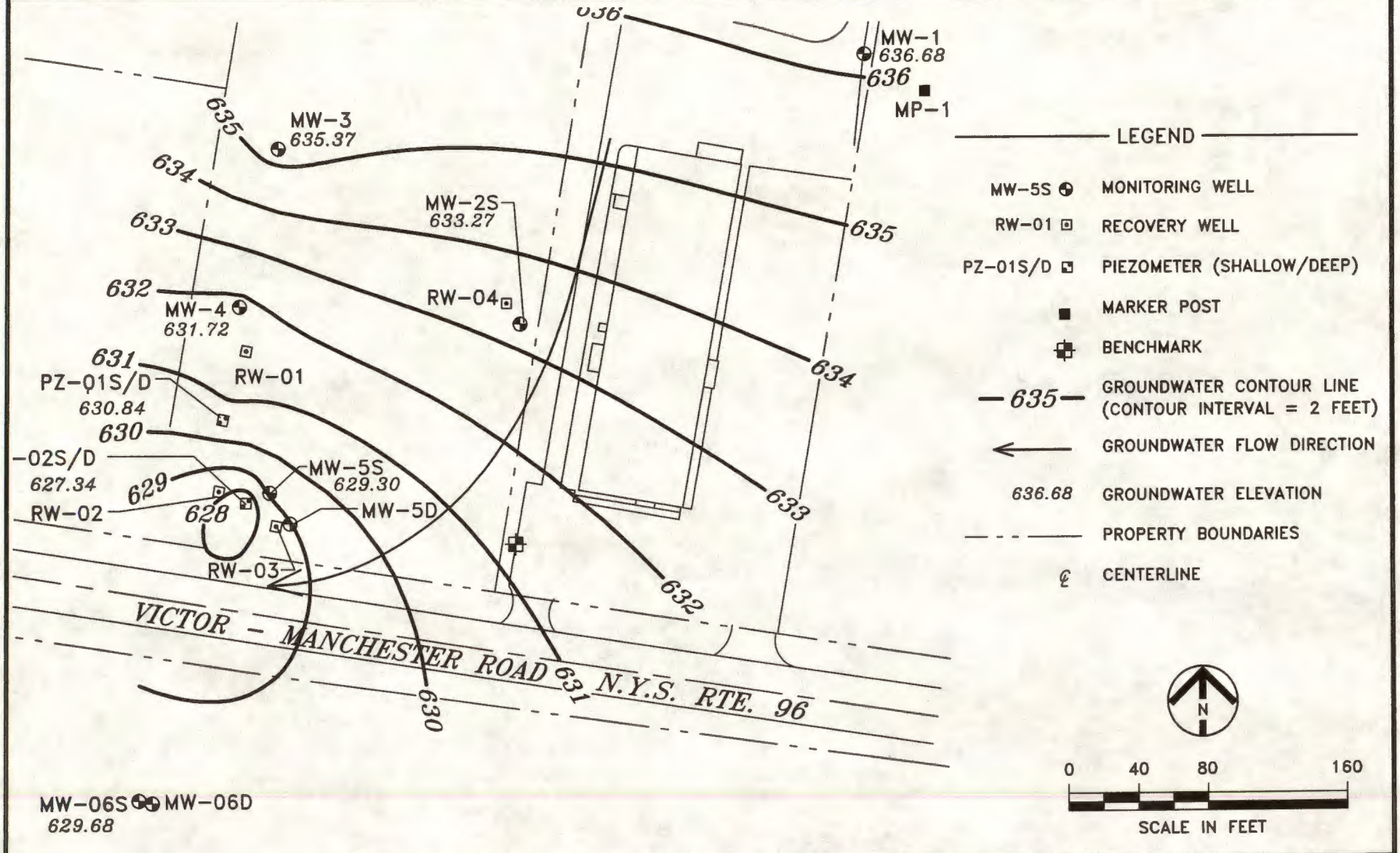


OVERBURDEN GROUNDWATER CONTOUR MAP
JANUARY 18, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-4

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\OVBJan18.DWG

URS

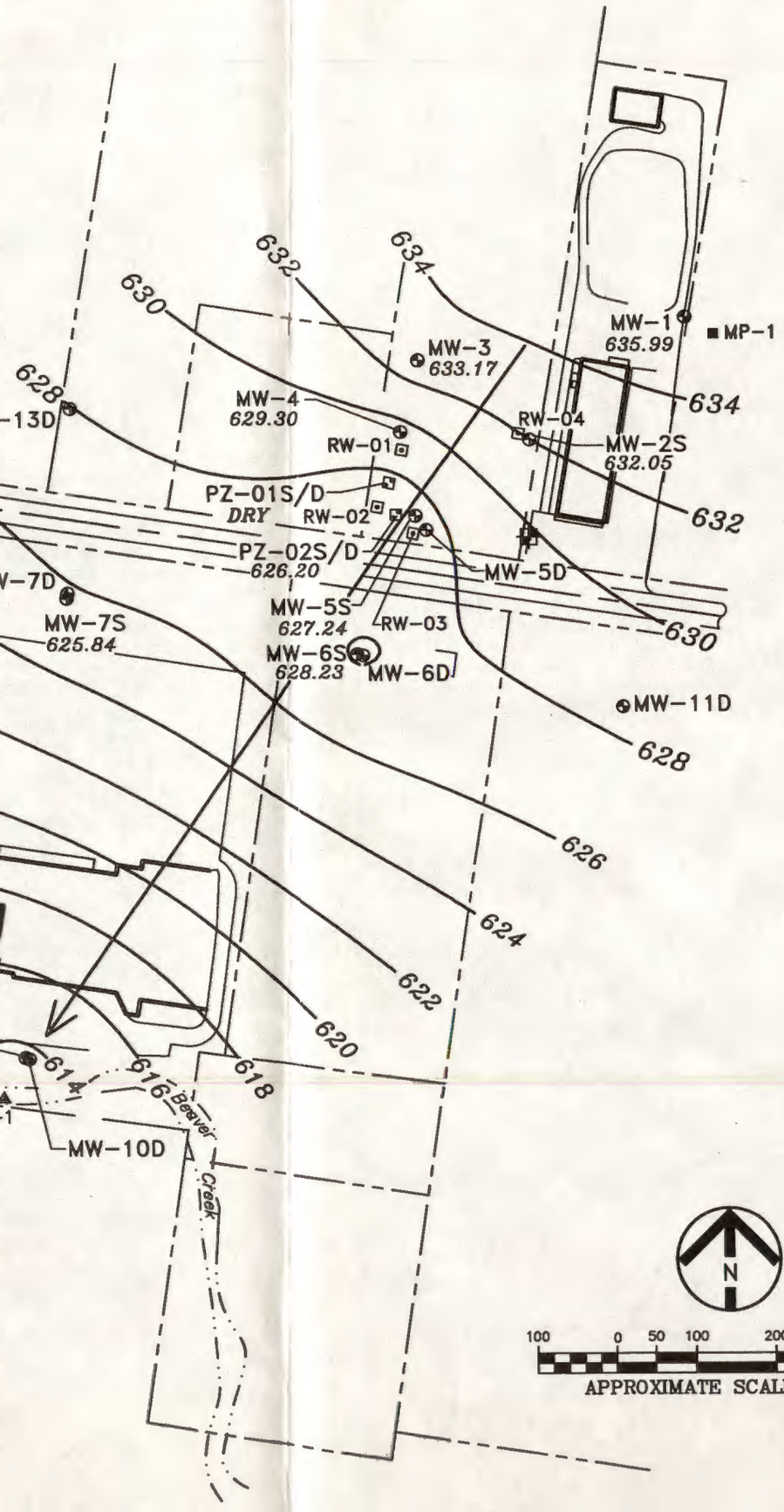


OVERBURDEN GROUNDWATER CONTOUR MAP
FEBRUARY 13, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-5

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\OVBfeb13.DWG

URS



LEGEND

MW-5S	MONITORING WELL
RW-01	RECOVERY WELL
PZ-01S/D	PIEZOMETER (SHALLOW/DEEP)
▲	STAFF GAUGE
■	MARKER POST
	BENCHMARK
628	GROUNDWATER CONTOUR LINE (CONTOUR INTERVAL = 2 FEET)
←	GROUNDWATER FLOW DIRECTION
635.99	GROUNDWATER ELEVATION

References:

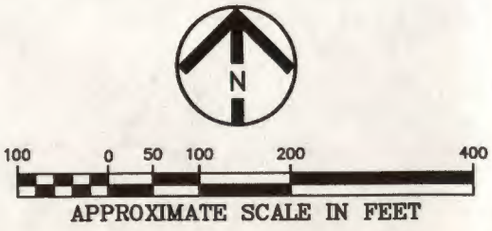
1.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "LANDS OF R.D. PRODUCTS INC." LAST DATED JUNE 17, 1983. JOB #83138.

2.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "GRIFFIN TECHNOLOGY 6132 VICTOR–MANCHESTER ROAD, SOIL BORINGS & MONITORING WELLS" LAST DATED JUNE 19, 1991. JOB #911767.

3.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "MAP SHOWING LANDS OF JAMES V. ALAIMO – ANTHONY S. ALAIMO, M.D. – STEPHEN L. ALAIMO, M.D. – SAMUEL R. ALAIMO & JOSEPH W. ALAIMO ESTATE TO BE CONVEYED" LAST DATED AUGUST 25 1993. JOB #932113.

4.) MAP PREPARED BY BLASLAND & BOUCK ENGINEERS, P.C. TITLED "GRIFFIN TECHNOLOGY INC. VICTOR, NEW YORK OFF–SITE GROUND–WATER EVALUATION PROGRAM – PROPOSED MONITORING WELL LOCATION" LAST DATED JULY 1993.

5.) MAP PREPARED BY CRANDALL SURVEYORS, TITLED "GRIFFIN TECHNOLOGY INC. – ON – SITE / OFF – SITE GROUND WATER EVALUATION PROGRAM – PART OF GRIFFIN TECHNOLOGY PROPERTY NORTH OF N.Y.S. ROUTE 96 & JOHN W. & JANE A. WADE PROPERTY SOUTH OF N.Y.S. ROUTE 96. LAST DATED 12–22–1994. JOB #942296



URS

800 W. ST. CLAIR AVE.
CLEVELAND, OHIO 44113

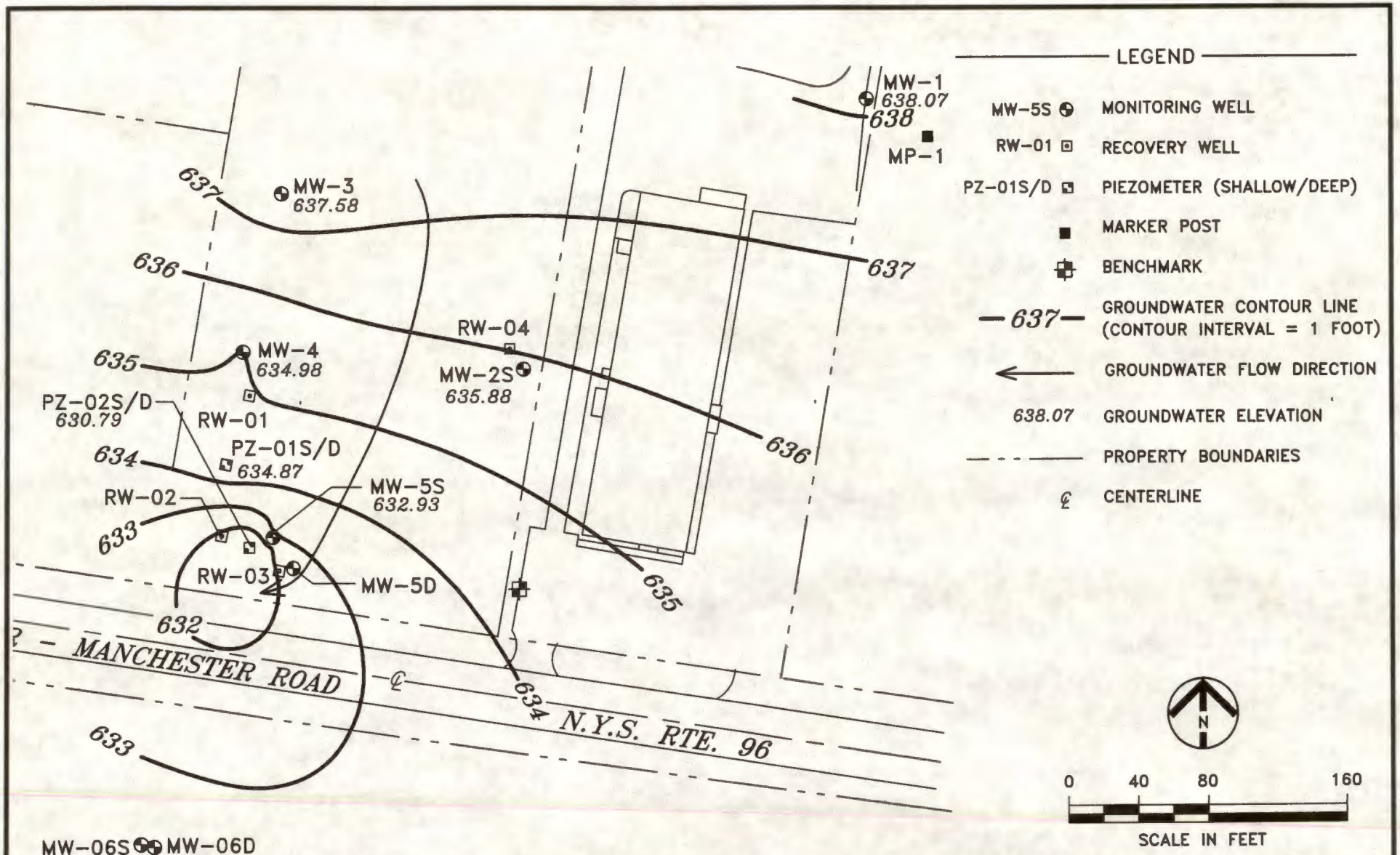
CLIENT: DIEBOLD, INC.

LOCATION: GRIFFIN TECHNOLOGY, INC., NEW YORK

OVERBURDEN GROUNDWATER CONTOUR MAP MARCH 8, 2001

DRAWN BY:	CHECKED BY:	PROJECT NO:	DATE:	FIGURE NO:
TBC	CAP	6E06191	5/30/01	3–6

S02SNWD1_PROJ3.Cleveland
Q:\Diebold\6E06191\2001\S1\OVBmar08.dwg

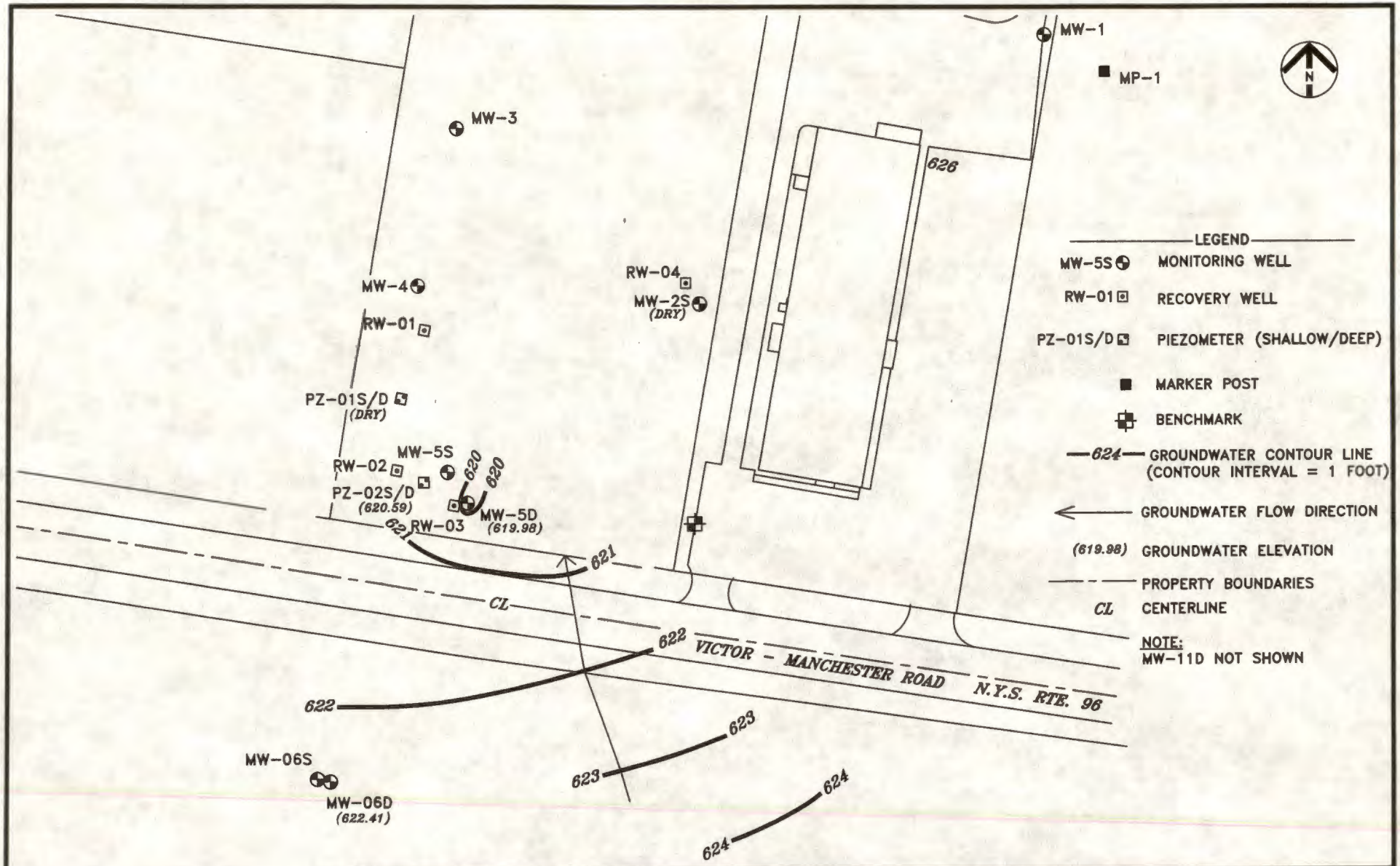


OVERBURDEN GROUNDWATER CONTOUR MAP
MARCH 16, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-7

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\OVBmar16.DWG

URS

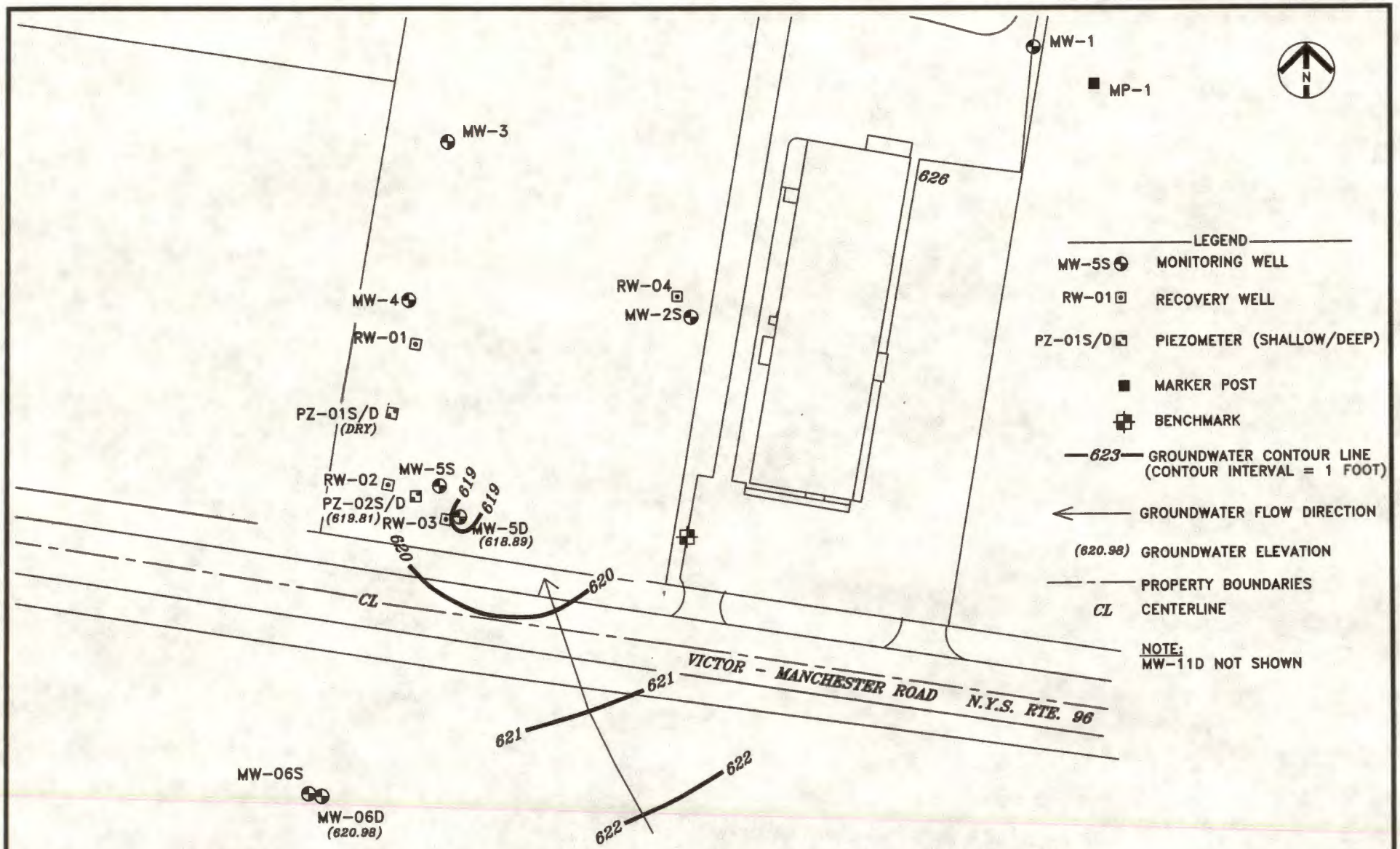


BEDROCK GROUNDWATER CONTOUR MAP
OCTOBER 13, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-8

Q:\DIEBOLD\6E06191\2000\Q2\BEDOCT13.DWG

URS

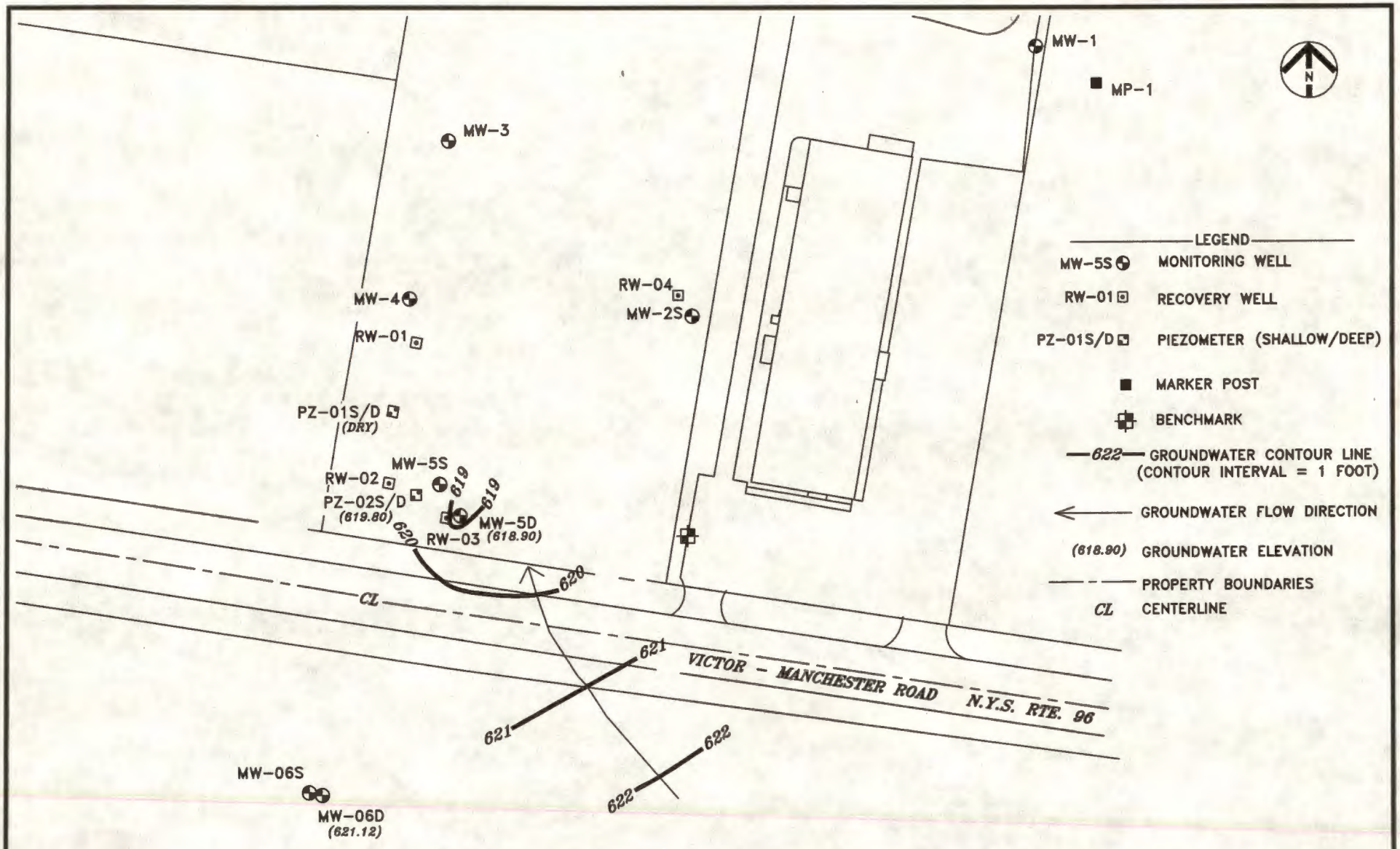


BEDROCK GROUNDWATER CONTOUR MAP
NOVEMBER 22, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-9

Q:\DIEBOLD\6E06191\2000\Q2\BEDNOV22.DWG

URS

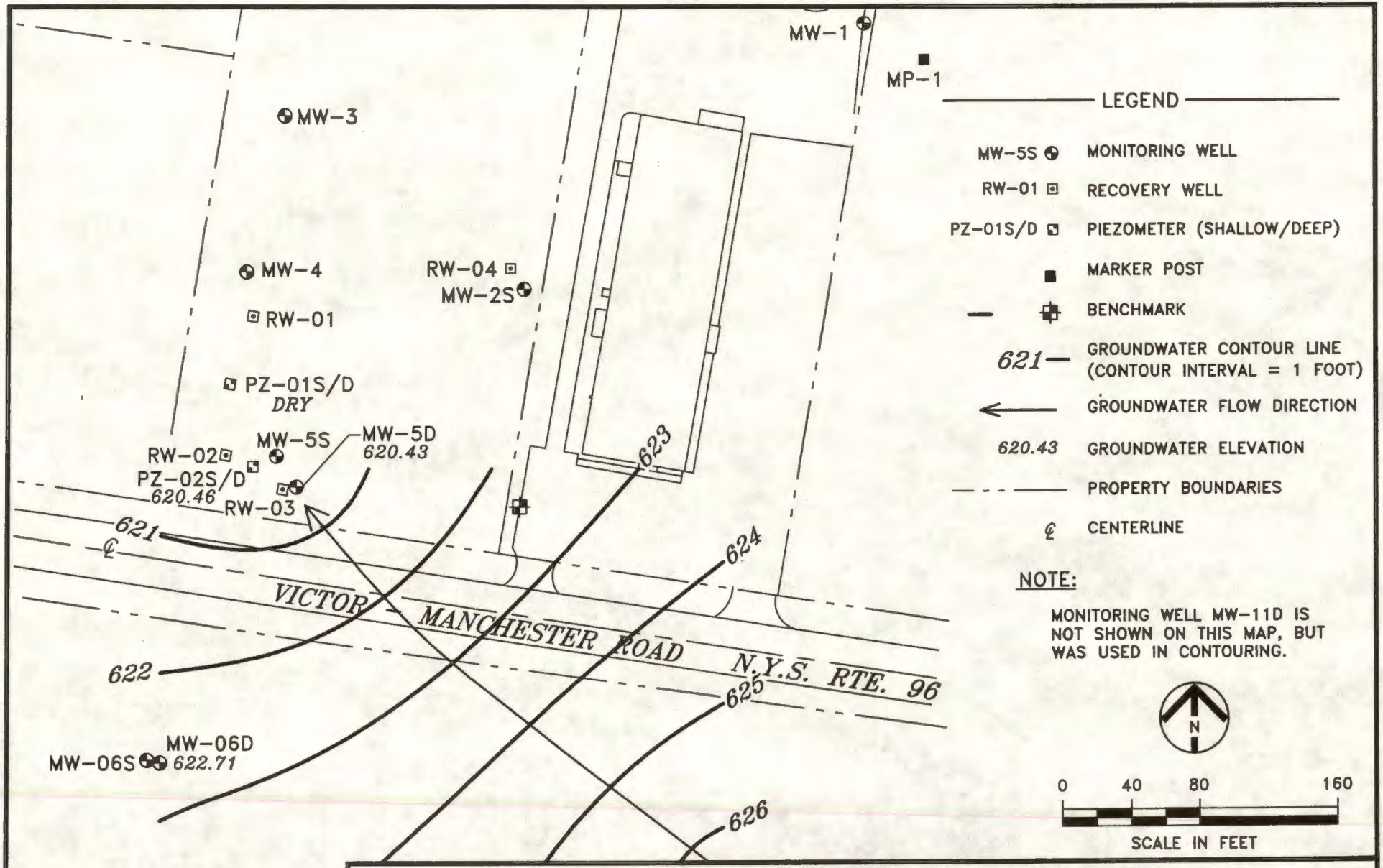


BEDROCK GROUNDWATER CONTOUR MAP
DECEMBER 15, 2000
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: ERB	CHECKED BY: LMH	PROJECT NUMBER: 6E06191	DATE: 5/14/01	FIGURE NO: 3-10

Q:\DIEBOLD\6E06191\2000\Q2\BEDDEC15.DWG

URS

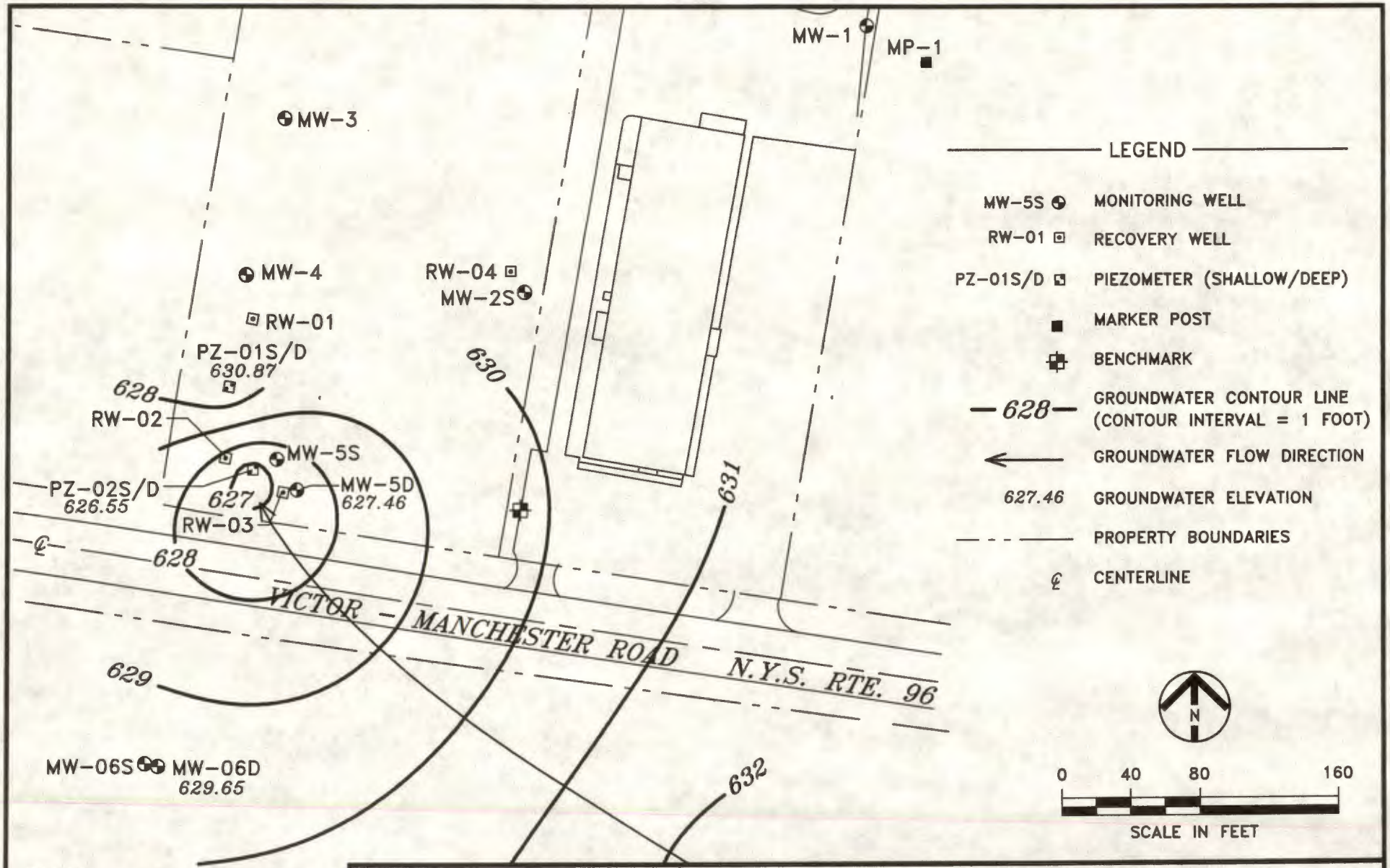


BEDROCK GROUNDWATER CONTOUR MAP
JANUARY 18, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-11

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\BEDjan18.DWG

URS



NOTE:

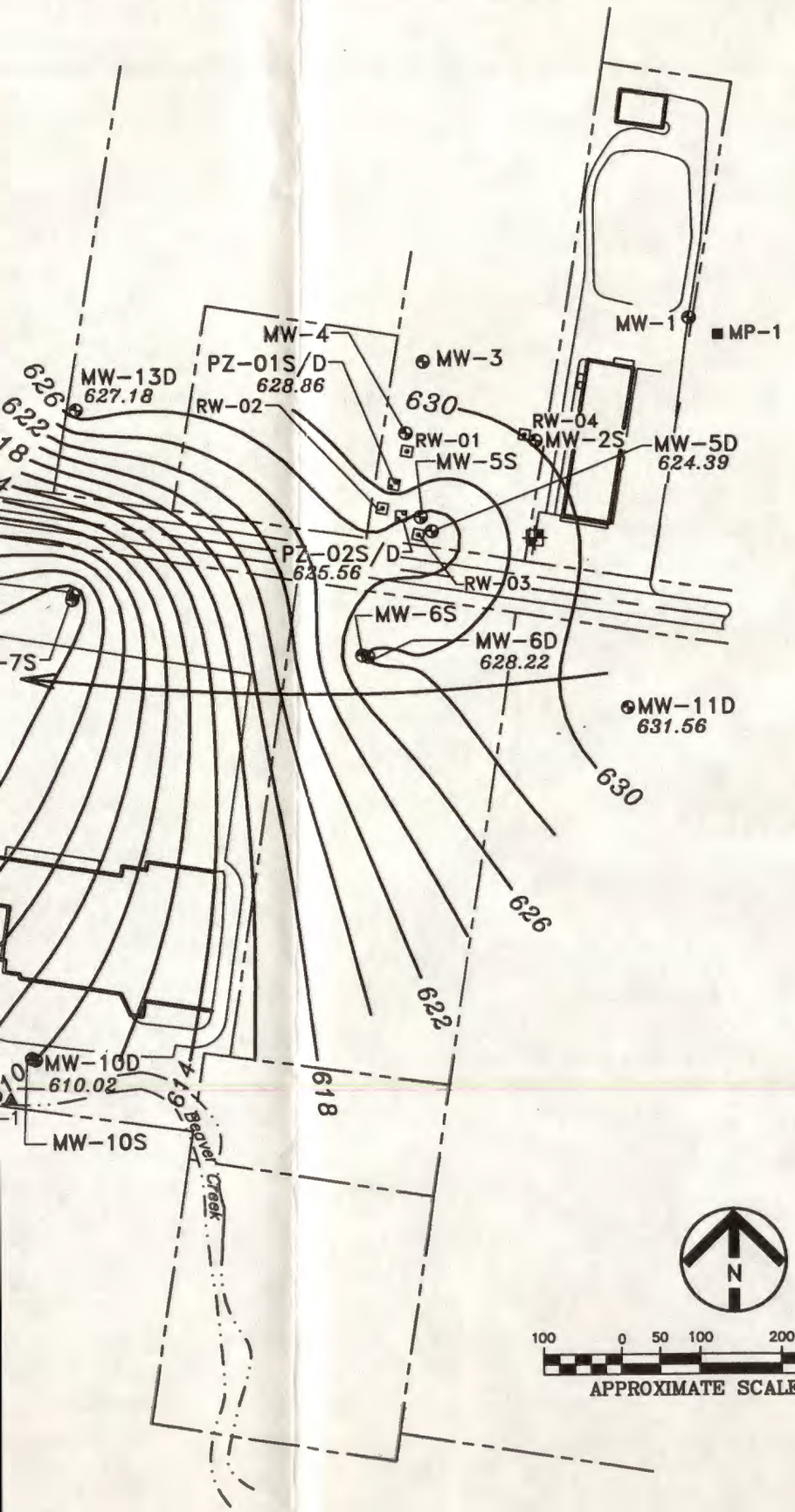
MONITORING WELL MW-11D IS NOT SHOWN ON THIS MAP, BUT WAS USED IN CONTOURING.

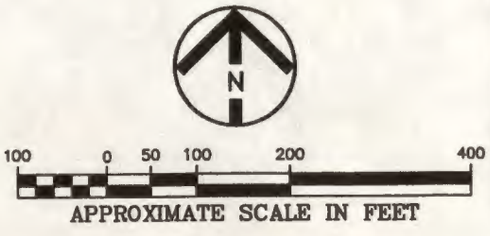
BEDROCK GROUNDWATER CONTOUR MAP
FEBRUARY 13, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-12

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\BEDfeb13.DWG

URS





LEGEND

MW-5S ⊕	MONITORING WELL
RW-01 ⊡	RECOVERY WELL
PZ-01S/D ⊡	PIEZOMETER (SHALLOW/DEEP)
▲	STAFF GAUGE
■	MARKER POST
⊞	BENCHMARK
628 —	GROUNDWATER CONTOUR LINE (CONTOUR INTERVAL = 4 FEET)
←	GROUNDWATER FLOW DIRECTION
631.56	GROUNDWATER ELEVATION

References:

1.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "LANDS OF R.D. PRODUCTS INC." LAST DATED JUNE 17, 1983. JOB #83138.

2.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "GRIFFIN TECHNOLOGY 6132 VICTOR-MANCHESTER ROAD, SOIL BORINGS & MONITORING WELLS" LAST DATED JUNE 19, 1991. JOB #911767.

3.) MAP PREPARED BY PAUL V. CRANDALL P.L.S. TITLED "MAP SHOWING LANDS OF JAMES V. ALAIMO - ANTHONY S. ALAIMO, M.D. - STEPHEN L. ALAIMO, M.D. - SAMUEL R. ALAIMO & JOSEPH W. ALAIMO ESTATE TO BE CONVEYED" LAST DATED AUGUST 25 1993. JOB #932113.

4.) MAP PREPARED BY BLASLAND & BOUCK ENGINEERS, P.C. TITLED "GRIFFIN TECHNOLOGY INC. VICTOR, NEW YORK OFF-SITE GROUND-WATER EVALUATION PROGRAM - PROPOSED MONITORING WELL LOCATION" LAST DATED JULY 1993.

5.) MAP PREPARED BY CRANDALL SURVEYORS, TITLED "GRIFFIN TECHNOLOGY INC. - ON - SITE / OFF - SITE GROUND WATER EVALUATION PROGRAM - PART OF GRIFFIN TECHNOLOGY PROPERTY NORTH OF N.Y.S. ROUTE 96 & JOHN W. & JANE A. WADE PROPERTY SOUTH OF N.Y.S. ROUTE 96. LAST DATED 12-22-1994. JOB #942296

URS

800 W. ST. CLAIR AVE.
CLEVELAND, OHIO 44113

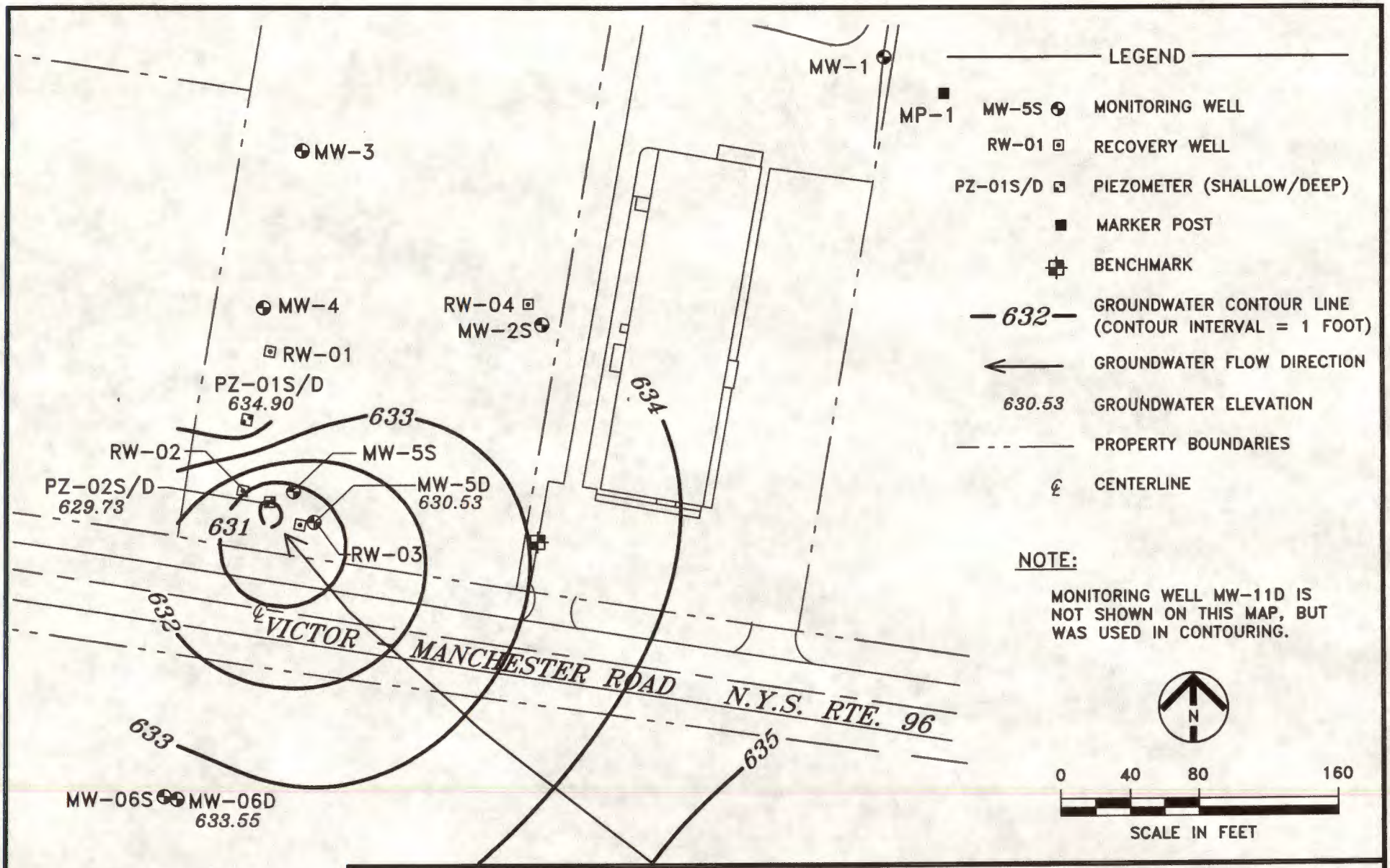
CLIENT: DIEBOLD, INC.

LOCATION: GRIFFIN TECHNOLOGY, INC., NEW YORK

BEDROCK GROUNDWATER CONTOUR MAP MARCH 8, 2001

DRAWN BY:	CHECKED BY:	PROJECT NO:	DATE:	FIGURE NO:
TBC	CAP	6E06191	5/30/01	3-13

S025NT01_PRCJ3.Cleveland
Q:\Diebold\6E06191\2001\S1\BEDmar08.dwg



BEDROCK GROUNDWATER CONTOUR MAP
MARCH 16, 2001
GRIFFIN TECHNOLOGY, INC. - FARMINGTON, NEW YORK

DRAWN BY: TBC	CHECKED BY: CAP	PROJECT NUMBER: 6E06191	DATE: 5/30/01	FIGURE NO: 3-14

S025NW01_PROJ3.Cleveland Q:\Diebold\6E06191\2001\S1\BEDmar16.DWG

URS

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

January 30, 2001

Mr. Ken Armstrong
URS Greiner Woodward Clyde
623 West St. Clair Ave
Cleveland, OH 44143

PROJECT:GRIFFIN IRM
Submission #:R2105489

Dear Mr. Armstrong

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.

1 Mustard St. - Suite 250 • Rochester, NY 14609 • Tele:(716)288-5380 • Fax:(716)288-8475

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Lab Submission # : R2105489
Reported : 01/30/01

Report Contains a total of 7 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

01

Columbia Analytical Services Inc.

CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2105489

Lab ID	Client ID
436927	EFF-1-18-01

All samples were received in good condition.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

02

Columbia Analytical Services Inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

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

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

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.

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

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
AIHA # in Rochester:	7889		

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/30/01

URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-1-18-01

Date Sampled : 01/18/01 **Order #:** 436927 **Sample Matrix:** WATER
Date Received: 01/19/01 **Submission #:** R2105489 **Analytical Run** 60166

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/24/01			
ANALYTICAL DILUTION: 2.50			
ACETONE	20	50 U	UG/L
BENZENE	5.0	13 U	UG/L
BROMODICHLOROMETHANE	5.0	13 U	UG/L
BROMOFORM	5.0	13 U	UG/L
BROMOMETHANE	5.0	13 U	UG/L
2-BUTANONE (MEK)	10	25 U	UG/L
CARBON DISULFIDE	10	25 U	UG/L
CARBON TETRACHLORIDE	5.0	13 U	UG/L
CHLOROBENZENE	5.0	13 U	UG/L
CHLOROETHANE	5.0	13 U	UG/L
CHLOROFORM	5.0	13 U	UG/L
CHLOROMETHANE	5.0	13 U	UG/L
DIBROMOCHLOROMETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHANE	5.0	13 U	UG/L
1,2-DICHLOROETHANE	5.0	13 U	UG/L
1,1-DICHLOROETHENE	5.0	13 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	13 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13 U	UG/L
1,2-DICHLOROPROPANE	5.0	13 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	13 U	UG/L
ETHYLBENZENE	5.0	13 U	UG/L
2-HEXANONE	10	25 U	UG/L
METHYLENE CHLORIDE	5.0	13 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	25 U	UG/L
STYRENE	5.0	13 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	13 U	UG/L
TETRACHLOROETHENE	5.0	13 U	UG/L
TOLUENE	5.0	13 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	13 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	13 U	UG/L
TRICHLOROETHENE	5.0	410	UG/L
VINYL CHLORIDE	5.0	13 U	UG/L
O-XYLENE	5.0	13 U	UG/L
M+P-XYLENE	5.0	13 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	100	%
TOLUENE-D8	(88 - 110 %)	107	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	104	%

C4

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 01/30/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled :
Date Received:
Order #: 438835
Submission #:
Sample Matrix: WATER
Analytical Run 60166

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/24/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	101	%
TOLUENE-D8	(88 - 110 %)	106	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	106	%

C5

Columbia Analytical Services, Inc.
An Employee-Owned Company
1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 1-18-01 PAGE 1 OF 1

PROJECT NAME Griffin IRM

PROJECT MANAGER/CONTACT Ken Armstrong

COMPANY/ADDRESS 30775 Bainbridge Rd.
Solon, Ohio

TEL (440) 349-2908 FAX (440) 349-1514

SAMPLER'S SIGNATURE Bob Fabian

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	pH > 12	Other
EFF-1-18-01	1-18-01	14:33	436727	WATER	2											X									

RELINQUISHED BY:
Signature Bob Fabian
Printed Name Bob Fabian
Firm URS
Date/Time 1-18-01 15:13

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time 1/18/01 1515

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #.
Bill To:

SAMPLE RECEIPT:
Shipping Via: client
Shipping #:
Temperature: 5
Submission No: R2/5484

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client _____ Submission Number R2-5469

Cooler received on 1/18/01 by: _____ COURIER: CAS UPS FEDEX CD&L (CLIENT)

1.	Were custody seals on outside of cooler?	YES (NO)				
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES) NO				
3.	Did all bottles arrive in good condition (unbroken)?	(YES) NO				
4.	Did any VOA vials have significant air bubbles?	YES NO (N/A)				
5.	Were Ice or Ice packs present?	(YES) NO				
6.	Where did the bottles originate?	(CAS/ROC) CLIENT				
7.	Temperature of cooler(s) upon receipt:	5				
	Is the temperature within 0° - 6° C?:	(Yes) ☐	Yes ☐	Yes ☐	Yes ☐	Yes ☐
	If No, Explain Below	No ☐	No ☐	No ☐	No ☐	No ☐

Date/Time Temperatures Taken: 1/18/01 1515

Thermometer ID: _____ Temp Blank Sample Bottle Cooler Temp. (IR Gun)

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date: 1/19/01 by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES) NO	
2.	Did all bottle labels and tags agree with custody papers?	(YES) NO	
3.	Were correct containers used for the tests indicated?	(YES) NO	
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

07

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

February 28, 2001

Mr. Ken Armstrong
URS Greiner Woodward Clyde
623 West St. Clair Ave
Cleveland, OH 44143

PROJECT:GRIFFIN IRM
Submission #:R2105806

Dear Mr. Armstrong

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.

Columbia Analytical Services, Inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Lab Submission # : R2105806
Reported : 02/28/01

Report Contains a total of 7 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

Columbia Analytical Services inc.

CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2105806

Lab ID	Client ID
441937	EFF-2-13-01

All samples were received in good condition.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

Columbia Analytical Services Inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

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

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

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.

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

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
AIHA # in Rochester:	7889		

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/28/01

URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-2-13-01

Date Sampled : 02/13/01 13:50 **Order #:** 441937 **Sample Matrix:** WATER
Date Received: 02/13/01 **Submission #:** R2105806 **Analytical Run** 61181

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/23/01			
ANALYTICAL DILUTION: 2.00			
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	340	UG/L
VINYL CHLORIDE	5.0	10 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	96	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	98	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/28/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 444516 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 61181

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/23/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	95	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	99	%

Columbia Analytical Services, Inc.
An Employee-Owned Company

1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 2-13-01 PAGE 1 OF 1

PROJECT NAME Griffin IRM
PROJECT MANAGER/CONTACT Ken Armstrong
COMPANY/ADDRESS 800 West St. Clair
Cleveland, OH 44113
TEL (216) 622-2400 FAX (216) 241-9083
SAMPLER'S SIGNATURE Bob Fabian

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other
EFF-2-13-01	2-13-01	13:50	44937	WATER	2											X									

RELINQUISHED BY:
Signature: Bob Fabian
Printed Name: Bob Fabian
Firm: URS
Date/Time: 2-13-01 14:27

RECEIVED BY: NE
Signature: Brian Gillen
Printed Name: Brian Gillen
Firm: CAS
Date/Time: 2/13/01 14:27

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #:
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 9
Submission No: 22/5806

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client URS Submission Number R2-5806

Cooler received on 2/13/01 by: BC COURIER: CAS UPS FEDEX CD&L (CLIENT)

1.	Were custody seals on outside of cooler?					(YES) NO
2.	Were custody papers properly filled out (ink, signed, etc.)?					(YES) NO
3.	Did all bottles arrive in good condition (unbroken)?					(YES) NO
4.	Did any VOA vials have significant air bubbles?					YES (NO) N/A
5.	Were Ice or Ice packs present?					(YES) NO
6.	Where did the bottles originate?					(CAS/ROC) CLIENT
7.	Temperature of cooler(s) upon receipt:	9				
	Is the temperature within 0° - 6° C?:	Yes ☐	Yes ☐	Yes ☐	Yes ☐	Yes ☐
	If No, Explain Below	No ☒	No ☐	No ☐	No ☐	No ☐

Date/Time Temperatures Taken: 2/13/01 1430

Thermometer ID: IR-Gun Temp Blank Sample Bottle Cooler Temp. (IR Gun)

If out of Temperature, Client Approval to Run Samples OK Same day delivery MW 2/14/01

Cooler Breakdown: Date: 2-14-01 by: JE

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

07

Other Comments:

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

April 2, 2001

Mr. Ken Armstrong
URS Greiner Woodward Clyde
623 West St. Clair Ave
Cleveland, OH 44143

PROJECT:GRIFFIN IRM
Submission #:R2106150

Dear Mr. Armstrong

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.

Columbia Analytical Services, Inc.
1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Lab Submission # : R2106150
Reported : 04/02/01

Report Contains a total of 7 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

Columbia Analytical Services Inc.

CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2106150

Lab ID	Client ID
448184	EFF-3-16-01

All samples were received in good condition.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

Columbia Analytical Services inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

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

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

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.

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

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032	NH ID # in Rochester:	294198-A
AIHA # in Rochester:	7889		

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 04/02/01

URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-3-16-01

Date Sampled : 03/16/01 10:15 **Order #:** 448184 **Sample Matrix:** WATER
Date Received: 03/16/01 **Submission #:** R2106150 **Analytical Run** 62475

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 03/20/01			
ANALYTICAL DILUTION: 2.00			
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	10 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	220	UG/L
VINYL CHLORIDE	5.0	10 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	105	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 04/02/01

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 451935 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 62475

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 03/20/01			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	99	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	106	%

Columbia Analytical Services, INC.
An Employee-Owned Company
1 Mustard St., Suite 250, Rochester, NY 14609-6925
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 3-16-01 PAGE 1 OF 1

PROJECT NAME Griffin IRM
PROJECT MANAGER/CONTACT Ken Armstrong
COMPANY/ADDRESS 634 St. Clair
Cleveland, Ohio 44113
TEL (216) 622-2400 FAX (216) 241-9083
SAMPLER'S SIGNATURE Bob Fabian

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	pH > 12	Other
EFF-3-16-01	3-16-01	10:15	448184	WATER	2											X									

RELINQUISHED BY:
Signature Bob Fabian
Printed Name Bob Fabian
Firm URS
Date/Time 3-16-01 11:00

RECEIVED BY:
Signature Brian Collon
Printed Name Brian Collon
Firm CAS
Date/Time 3/16/01 1100

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
X Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
X 1. Routine Report
X 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #:
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: X 8°C
Submission No: R2101150

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☒ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Columbia Analytical Services Inc.
Cooler Receipt And Preservation Check Form

Project/Client URS Submission Number R2106150

Cooler received on 3/16/01 by: BL COURIER: CAS UPS FEDEX CD&L (CLIENT)

1.	Were custody seals on outside of cooler?	YES (NO)
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES) NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES) NO
4.	Did any VOA vials have significant air bubbles?	YES (NO) N/A
5.	Were Ice or Ice packs present?	(YES) NO
6.	Where did the bottles originate?	(CAS/ROC) CLIENT
7.	Temperature of cooler(s) upon receipt:	8

Is the temperature within 0° - 6° C?:	Yes ☐	Yes ☐	Yes ☐	Yes ☐	Yes ☐
If No, Explain Below	No ☒	No ☐	No ☐	No ☐	No ☐

Date/Time Temperatures Taken: 3/16/01 11:00

Thermometer ID: _____ Temp Blank / Sample Bottle Cooler Temp. (IR Gun)

If out of Temperature, Client Approval to Run Samples Temp OK 4hr Rule YG 3/16/01

Cooler Breakdown: Date: 3/16/01 by: BL

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES) NO
2.	Did all bottle labels and tags agree with custody papers?	(YES) NO
3.	Were correct containers used for the tests indicated?	(YES) NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated	(N/A)

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-9*	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

007

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

April 3, 2001

Mr. Ken Armstrong
URS Greiner Woodward Clyde
623 West St. Clair Ave
Cleveland, OH 44143

PROJECT:GRIFFIN IRM
Submission #:R2106072

Dear Mr. Armstrong

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.

Columbia Analytical Services Inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : URS Greiner Woodward Clyde
Project Reference: GRIFFIN IRM
Lab Submission # : R2106072
Reported : 04/03/01

Report Contains a total of 116 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. Pace

CASE NARRATIVE

COMPANY: URS Greiner WCC
Griffin IRM
SUBMISSION #: R2006072

URS water samples were collected on 03/08/01 and received at CAS on 03/08/01 in good condition. See the CLP Batching Form for sample ID cross references.

VOLATILE ORGANICS

Water samples were analyzed for the Target Compound List (TCL) of Volatile Organics by Method 95-1 from the NYSASP 1995.

Sample MW-5D was analyzed for site specific QC. All matrix spike recoveries were within QC limits. All RPD were within limits except Trichloroethene.

All initial and continuing calibrations were compliant.

All blank spike recoveries were within QC limits.

All surrogate standard recoveries were within QC limits.

All Internal standard areas were within QC limits.

All samples were analyzed within the required holding times.

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

1 Mustard Street, Suite 250 ▪ Rochester, NY 14609-6925 ▪ Telephone (716) 288-5380 ▪ Fax (716) 288-8475

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

SDG #: MW-1
SUBMISSION R2106072
CLIENT: URS Greiner Woodward Clyde
CLIENT REP: Mark Wilson
PROJECT: GRIFFIN IRM

BATCH COMPLETE: __yes_____
DISKETTE REQUESTED: Y___ N__x__
DATE: 03/08/01
CUSTODY SEAL: PRESENT/ABSENT:
CHAIN OF CUSTODY: PRESENT/ABSENT:

DATE REVISED:
DATE DUE: 04/04/01
PROTOCOL: ASP-B
SHIPPING No.:

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS)	% SOLIDS	REMARKS SAMPLE CONDITION
446504	MW-1	WATER	95-1	3/8/01	3/8/01			
446505	MW-2S	WATER	95-1	3/8/01	3/8/01			
446506	MW-3	WATER	95-1	3/8/01	3/8/01			
446507	MW-4	WATER	95-1	3/8/01	3/8/01			
446508	MW-5S	WATER	95-1	3/8/01	3/8/01			
446509	MW-5D	WATER	QC 95-1	3/8/01	3/8/01			
446510	MW-6S	WATER	95-1	3/8/01	3/8/01			
446511	MW-6D	WATER	95-1	3/8/01	3/8/01			
446512	MW-7S	WATER	95-1	3/8/01	3/8/01			
446513	MW-7D	WATER	95-1	3/8/01	3/8/01			
446516	MW-9S	WATER	95-1	3/8/01	3/8/01			
446517	MW-9D	WATER	95-1	3/8/01	3/8/01			
446518	MW-10S	WATER	95-1	3/8/01	3/8/01			
446519	MW-10D	WATER	95-1	3/8/01	3/8/01			
446520	MW-11D	WATER	95-1	3/8/01	3/8/01			
446521	MW-13D	WATER	95-1	3/8/01	3/8/01			
446522	RW-01	WATER	95-1	3/8/01	3/8/01			
446523	RW-02	WATER	95-1	3/8/01	3/8/01			
446524	RW-03	WATER	95-1	3/8/01	3/8/01			
446525	RW-04	WATER	95-1	3/8/01	3/8/01			
446526	DUP	WATER	95-1	3/8/01	3/8/01			
446527	TRIP BLANK	WATER	95-1	3/8/01	3/8/01			
446691	FB - 3-8-01	water	95-1	3/8/01	3/8/01			
446624	Cooler Blank	water	95-1	3/8/01	3/8/01			

03

ORGANIC QUALIFIERS

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 is less than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, 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.

10/95

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

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* 95ASP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
MW-1	446504	X					
MW-2S	446505	X					
MW-3	446506	X					
MW-4	446507	X					
MW-5S	446508	X					
MW-5D	446509	X					
MW-6S	446510	X					
MW-6D	446511	X					
MW-7S	446512	X					
MW-7D	446513	X					
MW-9S	446516	X					
MW-9D	446517	X					
MW-10S	446518	X					
MW-10D	446519	X			FO		
MW-11D	446520	X					
MW-13D	446521	X					
RW-01	446522	X					
RW-02	446523	X					
RW-03	446524	X					
RW-04	446525	X					
DUP	446526	X					
TRIP BLANK	446527	X					
FB-3-8-01	446691	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
446504	WATER	03/08/01	03/08/01	LOW	03/03/01
446505	WATER	03/08/01	03/08/01	LOW	03/09/01
446506	WATER	03/08/01	03/08/01	LOW	03/09/01
446507	WATER	03/08/01	03/08/01	LOW	03/09/01
446508	WATER	03/08/01	03/08/01	LOW	03/13/01
446509	WATER	03/08/01	03/08/01	LOW	03/12/01
446510	WATER	03/08/01	03/08/01	LOW	03/12/01
446511	WATER	03/08/01	03/08/01	LOW	03/12/01
446512	WATER	03/08/01	03/08/01	LOW	03/09/01
446513	WATER	03/08/01	03/08/01	LOW	03/12/01
446516	WATER	03/08/01	03/08/01	LOW	03/12/01
446517	WATER	03/08/01	03/08/01	LOW	03/12/01
446518	WATER	03/08/01	03/08/01	LOW	03/12/01
446519	WATER	03/08/01	03/08/01	LOW	03/12/01
446520	WATER	03/08/01	03/08/01	LOW	03/12/01
446521	WATER	03/08/01	03/08/01	LOW	03/12/01
446522	WATER	03/08/01	03/08/01	LOW	03/12,13/01
446523	WATER	03/08/01	03/08/01	LOW	03/12/01
446524	WATER	03/08/01	03/08/01	LOW	03/13/01
446525	WATER	03/08/01	03/08/01	LOW	03/12,13/01
446526	WATER	03/08/01	03/08/01	LOW	03/13/01
446527	WATER	03/08/01	03/08/01	LOW	03/12/01
446691	WATER	03/08/01	03/08/01	LOW	03/13/01

NCF5 5/91

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
446504	WATER	95-1			1.0
446505	WATER	95-1			1.0
446506	WATER	95-1			1.0
446507	WATER	95-1			1.0
446508	WATER	95-1			2.0
446509	WATER	95-1			1.0
446510	WATER	95-1			1.0
446511	WATER	95-1			1.0
446512	WATER	95-1			2.0
446513	WATER	95-1			1.0
446516	WATER	95-1			1.0
446517	WATER	95-1			1.0
446518	WATER	95-1			1.0
446519	WATER	95-1			1.0
446520	WATER	95-1			1.0
446521	WATER	95-1			1.0
446522	WATER	95-1			1.0, 2.0
446523	WATER	95-1			1.0
446524	WATER	95-1			1.0
446525	WATER	95-1			1.0, 10
446526	WATER	95-1			1.0
446527	WATER	95-1			1.0
446691	WATER	95-1			1.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446504

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3221

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	UJ
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446504

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3221

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446504

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3221

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446505

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3222

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	UJ
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	9	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446505

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3222

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446505

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3222

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446506

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3223

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U J
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	96	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446506

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3223

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446506

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3223

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446507

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3224

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	2	J
78-93-3	2-Butanone (MEK)	10	UJ
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	130	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446507

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3224

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-4

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446507

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3224

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446508

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3277

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20	U
75-01-4	Vinyl Chloride	20	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	20	U
75-35-4	1,1-Dichloroethene	20	U
67-64-1	Acetone	20	UJ
75-15-0	Carbon Disulfide	20	U
75-09-2	Methylene Chloride	20	U
156-60-5	trans-1,2-Dichlorothene	20	U
75-34-3	1,1-Dichloroethane	20	U
156-59-4	cis-1,2-Dichloroethene	20	U
78-93-3	2-Butanone (MEK)	20	U
67-66-3	Chloroform	20	U
71-55-6	1,1,1-Trichloroethane	9	J
56-23-5	Carbon Tetrachloride	20	U
71-43-2	Benzene	20	U
107-06-2	1,2-Dichloroethane	20	U
79-01-6	Trichloroethene	330	J
78-87-5	1,2-Dichloropropane	20	U
75-27-4	Bromodichloromethane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
108-10-1	4-Methyl-2-Pentonone	20	U
108-88-3	Toluene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
79-00-5	1,1,2-Trichloroethane	20	U
127-18-4	Tetrachloroethene	20	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
1330-20-7	(m+p)Xylene	20	U
1330-20-7	o-Xylene	20	U
100-42-5	Styrene	20	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446508

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3277

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-5S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446508

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3277

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3244

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	160	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3244

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

MW-5D

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3244

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446510

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3242

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446510

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3242

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-6S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446510

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3242

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446511

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3243

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	5	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	95	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446511

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3243

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-6D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446511

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3243

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446512

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3219

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20	U
75-01-4	Vinyl Chloride	20	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	20	U
75-35-4	1,1-Dichloroethene	20	U
67-64-1	Acetone	20	UJ
75-15-0	Carbon Disulfide	20	U
75-09-2	Methylene Chloride	20	U
156-60-5	trans-1,2-Dichlorothene	20	U
75-34-3	1,1-Dichloroethane	20	U
156-59-4	cis-1,2-Dichloroethene	3	J
78-93-3	2-Butanone (MEK)	20	UJ
67-66-3	Chloroform	20	U
71-55-6	1,1,1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	20	U
71-43-2	Benzene	20	U
107-06-2	1,2-Dichloroethane	20	U
79-01-6	Trichloroethene	200	J
78-87-5	1,2-Dichloropropane	20	U
75-27-4	Bromodichloromethane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
108-10-1	4-Methyl-2-Pentonone	20	U
108-88-3	Toluene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
79-00-5	1,1,2-Trichloroethane	20	U
127-18-4	Tetrachloroethene	20	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
1330-20-7	(m+p) Xylene	20	U
1330-20-7	o-Xylene	20	U
100-42-5	Styrene	20	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446512

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3219

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-7S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446512

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3219

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.50	10	J
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.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446513

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3245

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	3	J
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	140	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446513

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3245

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

MW-7D

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446513

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3245

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446516

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3246

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446516

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3246

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446516

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3246

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446517

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3247

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446517

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3247

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446517

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3247

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446518

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3248

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446518

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3248

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446518

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3248

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446519

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3249

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	5	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446519

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3249

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446519

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3249

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446520

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3250

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446520

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3250

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-11D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446520

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3250

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446521

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3251

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	88	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13D

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446521

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3251

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

MW-13D

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446521

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3251

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3252

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		
74-87-3	Chloromethane	10	U	
75-01-4	Vinyl Chloride	10	U	
74-83-9	Bromomethane	10	U	
75-00-3	Chloroethane	10	U	
75-35-4	1,1-Dichloroethene	10	U	
67-64-1	Acetone	10	UJ	
75-15-0	Carbon Disulfide	10	U	
75-09-2	Methylene Chloride	10	U	
156-60-5	trans-1,2-Dichlorothene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
156-59-4	cis-1,2-Dichloroethene	5	J	
78-93-3	2-Butanone (MEK)	10	U	
67-66-3	Chloroform	10	U	
71-55-6	1,1,1-Trichloroethane	4	J	
56-23-5	Carbon Tetrachloride	10	U	
71-43-2	Benzene	10	U	
107-06-2	1,2-Dichloroethane	10	U	
79-01-6	Trichloroethene	~~240~~	~~E~~	220J
78-87-5	1,2-Dichloropropane	10	U	
75-27-4	Bromodichloromethane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
108-10-1	4-Methyl-2-Pentonone	10	U	
108-88-3	Toluene	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
127-18-4	Tetrachloroethene	10	U	
591-78-6	2-Hexanone	10	U	
124-48-1	Dibromochloromethane	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
1330-20-7	(m+p) Xylene	10	U	
1330-20-7	o-Xylene	10	U	
100-42-5	Styrene	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3252

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RW-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3252

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-01 DL

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3278

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20	U
75-01-4	Vinyl Chloride	20	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	20	U
75-35-4	1,1-Dichloroethene	20	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	20	U
75-09-2	Methylene Chloride	20	U
156-60-5	trans-1,2-Dichlorothene	20	U
75-34-3	1,1-Dichloroethane	20	U
156-59-4	cis-1,2-Dichloroethene	5	DJ
78-93-3	2-Butanone (MEK)	20	U
67-66-3	Chloroform	20	U
71-55-6	1,1,1-Trichloroethane	4	DJ
56-23-5	Carbon Tetrachloride	20	U
71-43-2	Benzene	20	U
107-06-2	1,2-Dichloroethane	20	U
79-01-6	Trichloroethene	220	D
78-87-5	1,2-Dichloropropane	20	U
75-27-4	Bromodichloromethane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
108-10-1	4-Methyl-2-Pentonone	20	U
108-88-3	Toluene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
79-00-5	1,1,2-Trichloroethane	20	U
127-18-4	Tetrachloroethene	20	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
1330-20-7	(m+p) Xylene	20	U
1330-20-7	o-Xylene	20	U
100-42-5	Styrene	20	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-01 DL

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3278

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U

FORM I VOA

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RW-01 DL

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446522

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3278

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 2.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-02

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446523

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3255

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	140	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-02

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446523

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3255

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RW-02

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446523

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3255

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-03

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446524

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3279

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	180	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-03

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446524

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3279

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RW-03

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446524

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3279

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-04

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3256

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
75-01-4	Vinyl Chloride	10	U	
74-83-9	Bromomethane	10	U	
75-00-3	Chloroethane	10	U	
75-35-4	1,1-Dichloroethene	10	U	
67-64-1	Acetone	10	UJ	
75-15-0	Carbon Disulfide	10	U	
75-09-2	Methylene Chloride	10	U	
156-60-5	trans-1,2-Dichlorothene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
156-59-4	cis-1,2-Dichloroethene	8	J	
78-93-3	2-Butanone (MEK)	10	U	
67-66-3	Chloroform	10	U	
71-55-6	1,1,1-Trichloroethane	16		
56-23-5	Carbon Tetrachloride	10	U	
71-43-2	Benzene	10	U	
107-06-2	1,2-Dichloroethane	10	U	
79-01-6	Trichloroethene	~~930~~	E	840J
78-87-5	1,2-Dichloropropane	10	U	
75-27-4	Bromodichloromethane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
108-10-1	4-Methyl-2-Pentonone	10	U	
108-88-3	Toluene	10	U	
10061-02-6	trans-1,3-Dichloropropene	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
127-18-4	Tetrachloroethene	10	U	
591-78-6	2-Hexanone	10	U	
124-48-1	Dibromochloromethane	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
1330-20-7	(m+p) Xylene	10	U	
1330-20-7	o-Xylene	10	U	
100-42-5	Styrene	10	U	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-04

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3256

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RW-04

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3256

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-04 DL

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3280

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
75-01-4	Vinyl Chloride	100	U
74-83-9	Bromomethane	100	U
75-00-3	Chloroethane	100	U
75-35-4	1,1-Dichloroethene	100	U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-09-2	Methylene Chloride	100	U
156-60-5	trans-1,2-Dichlorothene	100	U
75-34-3	1,1-Dichloroethane	100	U
156-59-4	cis-1,2-Dichloroethene	100	U
78-93-3	2-Butanone (MEK)	100	U
67-66-3	Chloroform	100	U
71-55-6	1,1,1-Trichloroethane	18	DJ
56-23-5	Carbon Tetrachloride	100	U
71-43-2	Benzene	100	U
107-06-2	1,2-Dichloroethane	100	U
79-01-6	Trichloroethene	840	D
78-87-5	1,2-Dichloropropane	100	U
75-27-4	Bromodichloromethane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
108-10-1	4-Methyl-2-Pentonone	100	U
108-88-3	Toluene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
79-00-5	1,1,2-Trichloroethane	100	U
127-18-4	Tetrachloroethene	100	U
591-78-6	2-Hexanone	100	U
124-48-1	Dibromochloromethane	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
1330-20-7	(m+p) Xylene	100	U
1330-20-7	o-Xylene	100	U
100-42-5	Styrene	100	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-04 DL

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3280

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U

1E

EPA SAMPLE NO.

RW-04 DL

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446525

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3280

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446526

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3281

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U J
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	2	J
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	130	J
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446526

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3281

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

DUP

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446526

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3281

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.51	5	J
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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446527

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3258

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446527

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3258

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446527

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3258

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

COOLER BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446624

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3283

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

COOLER BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446624

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3283

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

COOLER BLANK

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446624

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3283

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-3-8-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446691

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3282

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	UJ
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-3-8-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446691

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3282

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
75-25-2	Bromoform		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FB-3-8-01

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446691

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3282

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK#1	100	92	100		0
02	VBLK#1MS	100	94	100		0
03	MW-7S	100	92	100		0
04	MW-1	100	94	102		0
05	MW-2S	100	92	100		0
06	MW-3	100	92	100		0
07	MW-4	100	94	100		0
08	VBLK#2	100	92	98		0
09	VBLK#2MS	100	94	102		0
10	MW-6S	102	94	104		0
11	MW-6D	100	94	102		0
12	MW-5D	100	92	104		0
13	MW-7D	102	92	102		0
14	MW-9S	100	92	102		0
15	MW-9D	100	94	102		0
16	MW-10S	100	92	100		0
17	MW-10D	100	94	102		0
18	MW-11D	100	92	104		0
19	MW-13D	102	92	106		0
20	RW-01	100	92	104		0
21	MW-5DMS	100	92	104		0
22	MW-5DMSD	100	94	104		0
23	RW-02	100	92	104		0
24	RW-04	100	94	104		0
25	TRIP BLANK	100	94	104		0
26	VBLK#3	102	92	102		0
27	VBLK#3MS	100	94	102		0
28	MW-5S	102	92	104		0
29	RW-01 DL	102	94	102		0
30	RW-03	102	94	104		0

	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

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	RW-04 DL	102	94	104		0
02	DUP	102	94	104		0
03	FB-3-8-01	102	94	104		0
04	COOLER BLANK	102	92	106		0
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						

	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

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix Spike - EPA Sample No.: MW-5D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.0	54	108	61-145
Benzene	50	0.0	53	106	76-127
Trichloroethene	50	160	210	100	71-120
Toluene	50	0.0	53	106	76-125
Chlorobenzene	50	0.0	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	51	102	6	14	61-145
Benzene	50	52	104	2	11	76-127
Trichloroethene	50	200	80	22*	14	71-120
Toluene	50	51	102	4	13	76-125
Chlorobenzene	50	52	104	0	13	75-130

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

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: Sample Goes over range when spiked 4/3

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DMS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3253

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	54	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	53	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	210	E
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	53	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DMS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3253

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DMSD

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3254

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	51	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	52	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	200	E
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	51	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5DMSD

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 446509

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3254

Level: (low/med) LOW Date Received: 03/08/01

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix Spike - EPA Sample No.: VBLK#1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.0	52	104	61-145
Benzene	50	0.0	50	100	76-127
Trichloroethene	50	0.0	51	102	71-120
Toluene	50	0.0	52	104	76-125
Chlorobenzene	50	0.0	52	104	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: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#1MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3208

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

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	52	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	50	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	52	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#1MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3208

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

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix Spike - EPA Sample No.: VBLK#2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.0	52	104	61-145
Benzene	50	0.0	50	100	76-127
Trichloroethene	50	0.0	50	100	71-120
Toluene	50	0.0	50	100	76-125
Chlorobenzene	50	0.0	50	100	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: _____

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#2MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3241

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

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	52	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	50	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	50	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	50	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#2MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3241

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

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix Spike - EPA Sample No.: VBLK#3

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.0	54	108	61-145
Benzene	50	0.0	53	106	76-127
Trichloroethene	50	0.0	51	102	71-120
Toluene	50	0.0	53	106	76-125
Chlorobenzene	50	0.0	52	104	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: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#3MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3276

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

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	54	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	53	
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	51	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	53	
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#3MS

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLKMS

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3276

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

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	1	J

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK#1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID: Q3207 Lab Sample ID: VBLK

Date Analyzed: 03/09/01 Time Analyzed: 1041

GC Column: HP624 ID: 2 (mm) Heated Purge: (Y/N) N

Instrument ID: MS6

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK#1MS	VBLKMS	Q3208	1117
02	MW-7S	446512	Q3219	1734
03	MW-1	446504	Q3221	1842
04	MW-2S	446505	Q3222	1916
05	MW-3	446506	Q3223	1951
06	MW-4	446507	Q3224	2025
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:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3207

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

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3207

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

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK#1

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3207

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

% Moisture: not dec. _____ Date Analyzed: 03/09/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK#2

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID: Q3240 Lab Sample ID: VBLK

Date Analyzed: 03/12/01 Time Analyzed: 1105

GC Column: HP624 ID: 2 (mm) Heated Purge: (Y/N) N

Instrument ID: MS6

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK#2MS	VBLKMS	Q3241	1139
02	MW-6S	446510	Q3242	1213
03	MW-6D	446511	Q3243	1248
04	MW-5D	446509	Q3244	1322
05	MW-7D	446513	Q3245	1356
06	MW-9S	446516	Q3246	1430
07	MW-9D	446517	Q3247	1504
08	MW-10S	446518	Q3248	1538
09	MW-10D	446519	Q3249	1612
10	MW-11D	446520	Q3250	1647
11	MW-13D	446521	Q3251	1721
12	RW-01	446522	Q3252	1755
13	MW-5DMS	446509	Q3253	1829
14	MW-5DMSD	446509	Q3254	1904
15	RW-02	446523	Q3255	1938
16	RW-04	446525	Q3256	2012
17	TRIP BLANK	446527	Q3258	2121
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#2

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3240

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

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p) Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#2

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3240

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

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK#2

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3240

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

% Moisture: not dec. _____ Date Analyzed: 03/12/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(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.					

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK#3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID: Q3275 Lab Sample ID: VBLK

Date Analyzed: 03/13/01 Time Analyzed: 1251

GC Column: HP624 ID: 2 (mm) Heated Purge: (Y/N) N

Instrument ID: MS6

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VBLK#3MS	VBLKMS	Q3276	1325
02	MW-5S	446508	Q3277	1359
03	RW-01 DL	446522	Q3278	1434
04	RW-03	446524	Q3279	1508
05	RW-04 DL	446525	Q3280	1543
06	DUP	446526	Q3281	1617
07	FB-3-8-01	446691	Q3282	1651
08	COOLER BLANK	446624	Q3283	1726
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3275

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

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichlorothene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-4	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone (MEK)	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-Pentonone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	(m+p)Xylene	10	U
1330-20-7	o-Xylene	10	U
100-42-5	Styrene	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK#3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3275

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

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK#3

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: Q3275

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

% Moisture: not dec. _____ Date Analyzed: 03/13/01

GC Column: HP624 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(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.					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID (Standard): Q3205 Date Analyzed: 03/09/01

Instrument ID: MS6 Time Analyzed: 0932

GC Column: HP624 ID: 2.00 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (CBZ) AREA	#	RT	#
	12 HOUR STD	173495		7.22		1185066		8.92		1039594		13.73	
	UPPER LIMIT	346990		7.72		2370132		9.42		2079188		14.23	
	LOWER LIMIT	86748		6.72		592533		8.42		519797		13.23	
	EPA SAMPLE NO.												
01	VBLK#1	190649		7.21		1324094		8.92		1119307		13.73	
02	VBLK#1MS	184826		7.21		1288172		8.91		1099553		13.73	
03	MW-7S	176003		7.21		1182489		8.92		1010780		13.73	
04	MW-1	173968		7.22		1171357		8.92		998538		13.73	
05	MW-2S	174340		7.22		1172083		8.92		997126		13.74	
06	MW-3	174671		7.22		1190266		8.92		1012286		13.74	
07	MW-4	175606		7.21		1179693		8.92		998099		13.74	
08													
09													
10													
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 QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID (Standard): Q3238 Date Analyzed: 03/12/01

Instrument ID: MS6 Time Analyzed: 0957

GC Column: HP624 ID: 2.00 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	187164	7.21	1289321	8.91	1113238	13.73
	UPPER LIMIT	374328	7.71	2578642	9.41	2226476	14.23
	LOWER LIMIT	93582	6.71	644661	8.41	556619	13.23
	EPA SAMPLE NO.						
01	VBLK#2	186044	7.22	1258186	8.92	1068911	13.73
02	VBLK#2MS	173300	7.21	1199580	8.91	1029956	13.73
03	MW-6S	173893	7.22	1215443	8.91	1033381	13.73
04	MW-6D	177801	7.22	1216087	8.92	1040350	13.73
05	MW-5D	176560	7.22	1216334	8.91	1028676	13.73
06	MW-7D	174762	7.22	1198700	8.92	1010815	13.73
07	MW-9S	180148	7.21	1203065	8.92	1030983	13.74
08	MW-9D	174983	7.22	1171850	8.92	995916	13.74
09	MW-10S	170646	7.21	1174987	8.92	994030	13.74
10	MW-10D	174851	7.21	1192960	8.92	1011629	13.73
11	MW-11D	173326	7.22	1179967	8.92	1010399	13.73
12	MW-13D	172799	7.21	1175544	8.92	995388	13.74
13	RW-01	172214	7.22	1164691	8.92	999167	13.73
14	MW-5DMS	165780	7.22	1132799	8.91	971153	13.73
15	MW-5DMSD	150178	7.22	1004191	8.92	885048	13.73
16	RW-02	170036	7.22	1156854	8.92	988259	13.73
17	RW-04	169842	7.21	1159610	8.92	1001557	13.74
18	TRIP BLANK	165212	7.22	1103936	8.92	942865	13.74
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 QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COLUMBIA ANAYLTICAL SERVI Contract: URS

Lab Code: 10145 Case No.: R21-6072 SAS No.: SDG No.: MW-1

Lab File ID (Standard): Q3273 Date Analyzed: 03/13/01

Instrument ID: MS6 Time Analyzed: 1142

GC Column: HP624 ID: 2.00 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	149791	7.21	1017421	8.92	892980	13.74
	UPPER LIMIT	299582	7.71	2034842	9.42	1785960	14.24
	LOWER LIMIT	74896	6.71	508711	8.42	446490	13.24
	EPA SAMPLE NO.						
01	VBLK#3	151375	7.22	1020353	8.92	874752	13.73
02	VBLK#3MS	149001	7.22	1016002	8.92	878495	13.73
03	MW-5S	144226	7.22	975317	8.92	843046	13.73
04	RW-01 DL	148704	7.22	993846	8.92	849886	13.73
05	RW-03	144590	7.22	974508	8.92	835887	13.73
06	RW-04 DL	146362	7.22	974091	8.92	840728	13.74
07	DUP	148215	7.21	996952	8.92	848633	13.74
08	FB-3-8-01	145386	7.21	973340	8.92	835427	13.74
09	COOLER BLANK	144000	7.22	972830	8.92	840237	13.73
10							
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 QC limits with an asterisk.
* Values outside of QC limits.

ANALYTICAL DATA VALIDATION

GRIFFIN TECHNOLOGY SITE

SYSTEM OPERATION
SEMI-ANNUAL GROUNDWATER SAMPLING
FIRST ROUND 2001

INTRODUCTION

This appendix presents the findings of a validation of analytical data for samples collected in March 2001 at the Griffin Technology Inc. (GTI) Site. Sampling was conducted by URS Corporation (URS) and analytical services were provided by Columbia Analytical Services, Inc. (CASI) of Rochester, New York. Twenty groundwater samples and associated QC samples were collected and analyzed for volatile organic compounds (VOCs) in accordance with New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) Method 95-1.

The procedures for validation of the data followed guidance from the following documents:

1. Interim Remedial Measure Program Appendix B: Quality Assurance Project Plan (QAPP). July 1996. Prepared by Woodward-Clyde Consultants.

2. CLP Organics Data Review and Preliminary Review. S.O.P. No. HW-6, Revision 11, June 1996. Prepared by USEPA Region II.

The above "Guidelines" provided the criteria to review. Additional acceptance criteria are given in the analytical method.

The criteria evaluated included the following:

VOCs

Significant problems identified in case narrative
Results reported from secondary dilutions
Sample holding times
Instrument performance and calibration
Method blank and trip blank contamination
Surrogate spike recoveries
Laboratory control sample recoveries
Matrix spike/Matrix spike duplicate (MS/MSD) recoveries and relative percent difference (RPD) values
Internal standard areas and retention times

VOCs continued:

Field duplicate results

Compound identification and quantitation

Overall assessment of data

The following sections present the data validation.

SIGNIFICANT PROBLEMS IDENTIFIED IN CASE NARRATIVE

The MS/MSD analysis of sample MW-5D yielded one outlying relative percent difference (RPD) value. Further discussion is provided in the section entitled, "Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses".

RESULTS REPORTED FROM SECONDARY DILUTIONS

For samples that required dilutions, part of the validation process is to evaluate which set of results (initial or diluted) are considered to be most representative of the sample matrix. For this data set, four samples were analyzed at dilutions for VOCs.

- All VOC results for samples MW-5S and MW-7S were reported at a dilution factor of 2 since screening prior to final analysis indicated TCE concentrations above the instrument's linear calibration range. For these samples, the laboratory did not report results of undiluted analyses.

- For the initial VOC analysis of sample RW-01 analyzed at a dilution factor of 1, the corresponding TCE concentration exceeded the instrument's linear calibration range and the sample was reanalyzed at a dilution factor of 2. For this sample, the TCE concentration reported from the diluted analysis (220 µg/l) is considered to be most representative of the samples' concentration and was transcribed onto the data summary table, along with any appropriate qualifiers.

- For the initial VOC analysis of sample RW-04 analyzed at a dilution factor of 1, the corresponding TCE concentration exceeded the instrument's linear calibration range and the sample was reanalyzed at a dilution factor of 10. For this sample, the TCE concentration reported from the diluted analysis (840 µg/l) is considered to be most

representative of the samples' concentration and was transcribed onto the data summary table, along with any appropriate qualifiers.

SAMPLE HOLDING TIMES

The VOC holding time criterion established in the QAPP is seven days from receipt at the laboratory to analysis. All samples were analyzed within this time period.

GC/MS INSTRUMENT PERFORMANCE

GC/MS instrument performance checks are performed to ensure mass resolution, identification, and instrument sensitivity. Criteria for instrument performance checks included evaluation of possible transcription or calculation errors, adherence to instrument tuning frequency requirements, mass assignments, and ion abundance criteria. All criteria for bromofluorobenzene (BFB) for VOCs were met for this data set. Additionally, no transcription errors or calculation errors were noted during validation of the instrument performance data from this data set.

INITIAL AND CONTINUING CALIBRATION

Initial and continuing calibration criteria are established to ensure the instruments are capable of producing acceptable qualitative and quantitative data for VOCs. All initial and continuing calibrations were performed at the required frequency.

All VOC initial calibration relative response factor (RRF) values and all relative standard deviation (RSD) values between response factors met the acceptance criteria presented in the "Guidelines".

All VOC continuing calibration RRF values met the acceptance criterion presented in the "Guidelines". Three VOC continuing calibration analyses yielded a percent difference (%D) value for acetone significantly above the "Guidelines" acceptance criterion of 25 percent. Two of the three %D values were above 90% (95.6% and 91.8%), which, according to the "Guidelines", warrants rejection of associated data. However, a review of the raw data associated with the outlying %D values indicated an increased instrument response for acetone. Since an increased instrument response indicates a high bias in sample results, and the associated samples were reported as non-detected for acetone, qualification of the data as

estimated ("UJ" flag) was considered sufficient. All non-detected acetone results associated with the third outlying %D (86.5%) were also qualified as estimated ("UJ"), in accordance with the "Guidelines".

One VOC continuing calibration yielded a %D value for 2-butanone slightly above the 25 percent criterion (27.1%). All non-detected results for 2-butanone associated with this continuing calibration were qualified as estimated ("UJ"), in accordance with the "Guidelines". The affected samples were MW-1, MW-2S, MW-3, MW-4, and MW-7S.

The Continuing Calibration Check Summary submitted for one continuing calibration did not correspond to the raw data for that standard. The correct form was requested from the laboratory, and was received promptly. No other errors in calculations or transcription were noted during the validation of the calibration data.

LABORATORY METHOD BLANKS

Laboratory method blanks evaluate the existence and magnitude of contamination problems resulting from laboratory activities. VOC laboratory method blanks were analyzed at the prescribed method frequency.

All three VOC method blank samples were reported as non-detected for TCL-VOCs and tentatively identified compounds (TICs).

TRIP BLANK SAMPLES

Trip blank samples are used to assess VOC cross-contamination during shipment to the laboratory. Two trip blank sample, identified as "Trip Blank" and "Cooler Blank", were submitted with the cooler containing aqueous samples for VOC analyses.

Both trip blank samples were VOC-free, indicating that the potential for cross contamination of samples during shipping was minimal.

SURROGATE SPIKE RECOVERIES

Samples analyzed for VOCs are spiked with surrogate compounds prior to analysis. Surrogate compounds are used to evaluate overall laboratory performance for sample

preparation efficiency on a per sample basis. The "Guidelines" require that all VOC surrogate spike recoveries meet acceptance criteria.

All VOC surrogate spike recoveries were within the laboratory's established control limits, which indicated that the laboratory's preparation procedure was acceptable. Additionally, no errors in calculations or transcriptions were noted during the validation of the surrogate spike recoveries from this data set.

LABORATORY CONTROL SAMPLES

Laboratory control samples (LCS) are analyzed for VOCs and serve to monitor the overall performance of the steps in an analysis, including sample preparation.

All VOC LCS recoveries were within the laboratory's established control limits, indicating that the method was in control.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

Matrix effects on the analytical results are checked by analyzing matrix spike/matrix spike duplicate (MS/MSD) samples. MW-5D was analyzed as an MS/MSD sample for this data set.

All VOC MS/MSD recoveries were within the method established control limits, indicating that acceptable analytical accuracy was achieved for these analyses. All relative percent difference (RPD) values between MS/MSD recoveries were within control limits with the exception of one; this indicated satisfactory analytical precision was achieved. The TCE RPD value reported was 22 percent, which is above the method RPD control limit of 14 percent. As such, detected TCE results reported from this data set were qualified as estimated (data qualifier "J") based on the low precision exhibited from the MS/MSD analyses. TCE sample results requiring qualification as estimated included:

Associated Groundwater Samples: MW-2S, MW-3, MW-4, MW-5S, MW-5D, MW-6D, MW-7S, MW-7D, MW-10D, MW-13D, DUP, RW-01, RW-02, RW-03, and RW-04.

Additionally, no errors in calculations or transcriptions were noted during validation of the MS/MSD results from this data set.

INTERNAL STANDARDS

Internal standard (I.S.) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. Internal standard area counts may not vary by more than a factor of two (-50 percent to +100 percent) from the associated continuing calibration standard area counts. The retention times of the internal standards may not vary by more than ±30 seconds from the associated continuing calibration standard retention times.

All VOC analyses reported for the groundwater samples had acceptable internal standard area counts and retention times. Validation of the I.S. data also included verification of retention times and areas summarized on the Form-8s to those on the instrument chromatograms on a 10 percent basis; no anomalies were noted.

FIELD DUPLICATE RESULTS

Field duplicate results were used to evaluate representativeness. For aqueous samples, when analytes for both duplicate and sample values are greater than five times the quantitation limit, satisfactory representativeness is indicated by an RPD less than or equal to 50 percent. Where one or both of the analytes of a field duplicate pair are reported at less than five times the quantitation limit, satisfactory representativeness is indicated if the field duplicate results agree within 2.5 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory representativeness of the results.

One field duplicate sample pair, labeled as MW-4 and DUP, was collected with this sampling event. The results reported for the field duplicate sample pair are in agreement with the above criteria, thus indicating that the aggregate sampling and analytical precision was acceptable for this data set.

COMPOUND IDENTIFICATION AND QUANTITATION

Data for one or more detected compound/analytes were checked for potential identification errors and were recalculated from the raw data. No anomalies or transcription errors were noted during validation of the reported analyte identifications and quantitations.

OVERALL DATA ASSESSMENT

Based on the criteria outlined, it is recommended that the results reported for these analyses be accepted for their intended use. Acceptable levels of accuracy and precision (based on the MS/MSD results and field duplicate results) were achieved for this data set. In addition, completeness, defined to be the percentage of analytical results which are judged to be valid, including estimated ("J" or "UJ") values, was 100 percent for this data set. Sample results from this investigation required some qualification based on the minor deficiencies summarized below:

- The non-detected results for acetone in all samples were qualified as estimated ("UJ") due to outlying continuing calibration %Ds.

- The non-detected results for 2-butanone in samples MW-1, MW-2S, MW-3, MW-4, and MW-7S were qualified as estimated ("UJ") due to outlying continuing calibration %Ds.

- TCE results for fifteen samples were qualified as estimated ("J") based on low precision exhibited from the MS/MSD analyses. The affected samples included: MW-2S, MW-3, MW-4, MW-5S, MW-5D, MW-6D, MW-7S, MW-7D, MW-10D, MW-13D, DUP, RW-01, RW-02, RW-03, and RW-04.

No transcription errors or calculation errors were found during validation of the reported VOC results from this data set.