~~File on eDOCs~~ ____X____ ~~Yes~~ __________ No
~~Site Name~~ ____Enarc O____
Site No. ____826011____
County ____Kingston____
Town ____Lake____
Foilable __________ Yes __________ No
File Name ____report.hw.826011.1994-12.____
Scanned & eDOC ____RP_Progress#3.pdf____

ENARC-O (826019) - RI/FS - PROGRESS REPORT #3 12/94

H & A OF NEW YORK

Geotechnical Engineers &

Environmental Consultants

QUARTERLY PROGRESS REPORT NO. 3
2 SEPTEMBER TO 2 DECEMBER, 1994
ENARC-O MACHINE PRODUCTS, INC.
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
LIMA, NEW YORK
NYSDEC CONSENT ORDER NO. B8-0112-91-04

by

H&A of New York
Rochester, New York

for

Kaddis Manufacturing Corp.
Rochester, New York

File No. 70372-048
December 1994

Geotechnical Engineers &
Environmental Consultants

9 December 1994
File No. 70372-048

Ronald Iannucci, Sr., President
Kaddis Manufacturing Corporation
P.O. Box 92985
1100 Beahan Road
Rochester, New York 14692-9085

Subject: Quarterly Progress Report No. 3
Enarc-O Machine Products, Inc. RI/FS

Dear Mr. Iannucci:

H&A has prepared the attached Quarterly Report No. 3 for the Remedial Investigation/Feasibility Study (RI/FS) at the Enarc-O Machine Products site in Lima, New York. The report was prepared in accordance with requirements set forth by the New York State Department of Environmental Conservation in Order on Consent No. B8-0112-91-04 for the project.

The Progress Report provides a summary of work performed by H&A during the last quarter. H&A's work has been performed in accordance with the Work Plan for the project, dated 30 December 1993.

Briefly, work performed during the quarter on the project includes: 1) on-site monitoring well sampling; 2) residential well evaluation and preparation for geophysical logging/sampling events; 3) assessment of the number of and material contained in the drums staged on-site; 4) laboratory analysis of on-site groundwater samples; 5) monitoring of water levels in on-site monitoring wells and Honeoye Creek; and 6) a meeting attended by representatives from Kaddis Manufacturing, NYSDEC and H&A of New York.

Details on these tasks and preliminary results of laboratory analyses are included in the Progress Report. Copies of this report have been forwarded to NYSDEC (see below) as required by the Consent Order.

If you have any questions regarding the information in this report, please do not hesitate to contact us.

Sincerely yours,
H&A OF NEW YORK

RJMahoney

Robert J. Mahoney
Senior Env. Geologist

Vincent B. Dick
Vice President

c: A. Joseph White, Div. Haz. Waste Remed., NYSDEC (4 copies, one unbound)
Director, Bur. Environ. Exposure Investigation, NYSDOH (2 copies)
Peter Bush, Region 8 Director, NYSDEC
Glen R. Bailey, Esq., NYSDEC Div. Env. Enforcement
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I. INTRODUCTION

This report has been prepared to document recent project activities for the Remedial Investigation/Feasibility Study (RI/FS) being performed at the Enarc-O Machine Products, Inc. facility. The site is located in Lima, New York, as shown on Figure 1. This report is the third quarterly progress report to be prepared in accordance with the NYSDEC Order on Consent No. B-0112-91-04 for the site.

The site is owned by Kaddis Manufacturing Corporation (Kaddis) of Rochester, New York. The RI/FS is being performed for Kaddis by H&A of New York (H&A) of Rochester, New York.

This report presents results of field and laboratory investigations during the period 2 September through 2 December 1994.

II. ACTIONS TAKEN

Project activities conducted during the reporting period consisted of:

- assembly and tabulation of historic and recent analytical data;
- assessment of the soil and water generated during this and previous investigation phases and staged in drums on-site;
- quarterly on-site monitoring well sampling;
- off-site residential well evaluation and preparation for geophysical logging and sampling;
- water level measurement in Honeoye Creek and on-site monitoring wells;
- meeting at H&A of New York's office with NYSDEC, H&A and Kaddis Manufacturing.; and
- analytical data validation.

Each of these tasks is discussed below.

Analytical Data

H&A tabulated available historical and recent analytical data for both groundwater and soil on- and off-site. This data is presented in Tables 1 and 2.

Drum Assessment

H&A inventoried the amount and contents of drums of investigation-derived waste (IDW) stored on-site, in order to evaluate the cost of removal and disposal of the drummed material.

There are presently 70 drums of IDW in the staging area. There are 15 drums containing water and 55 drums of soil (drill cuttings). An evaluation of removal and disposal methods and contractors has been initiated.

On-site Monitoring Well Sampling

H&A conducted the second quarterly groundwater sampling of all on-site monitoring wells (except MW-201S, which was dry) on 2 November 1994 (see well locations on Figure 3). Samples were analyzed according to NYSDEC Method 91-1 Analytical Services Protocol. Results of the analyses are presented in Appendix A.

Off-site Residential Well Evaluation/Preparation

H&A has continued to evaluate residential wells to determine the feasibility of using these wells in the off-site residential well sampling program. H&A has conducted a review of existing data, including NYSDEC and LCHD Water Well Survey forms and driller's logs from selected wells, as well as contacted residents by phone and conducted visual inspections of the wells on their property.

NYSDEC comments on H&A's 12 August 1994 letter required H&A to locate additional downgradient residential wells immediately north of the Enarc-O facility. H&A located two additional wells at 7873 and 7880 Martin Road, using a subsurface metal detector, and proposed a final list of residential wells to be sampled in a 10 October 1994 letter to NYSDEC. Based on verbal approval by Mr. Gardiner Cross of this letter by NYSDEC, a final list of residential wells to be sampled was created (see Table 3 and Figure 2).

Pumps were then removed by Nothnagle Drilling Company Inc. as required. The pumps and water lines have been stored on the homeowner's property. All residential wells on the sampling list are ready for geophysical logging and/or sampling.

Arrangements are presently underway to 1) conduct geophysical logging on five of the domestic wells, in accordance with NYSDEC's 29 August letter, and 2) have the listed wells surveyed by a licensed surveyor for groundwater level measuring reference point elevations (See Figure 2). The geophysical logging had been scheduled for November 1994, however equipment malfunctions have necessitated the geophysical subcontractor to postpone the work to a later date, to be determined.

Stream and Groundwater Level Monitoring

A stream staff gauge was installed previously on the Honeoye Creek streambank to provide a fixed reference point from which to measure stream water levels. Water levels in the monitoring wells and Honeoye Creek were measured periodically during this quarter. Hydrographs depicting groundwater and stream level elevations over time are presented in Appendix B.

Meeting

A meeting was held at H&A of New York on 26 October 1994, attended by the following personnel:

- Vincent Dick, Robert Mahoney, Michael Beikirch, David Edwards - H&A
- Gardiner Cross, Martin Doyle - NYSDEC
- Ronald Iannucci, Sr. - Kaddis Manufacturing

Discussions included, but were not limited to, the following:

- potential problems with regard to data generated from a pump test conducted in the fractured rock setting at the site;
- substituting the pump test with slug tests conducted on selected residential wells; and
- postponing the pump test until the feasibility study phase of the project.

H&A summarized these concerns, and presented a formal request regarding postponement of the hydrogeologic testing until the feasibility study, in a letter to NYSDEC dated 14 November 1994. NYSDEC (Gardiner Cross) responded via telephone that pump test postponement would be allowed.

Data Validation

Data validation procedures performed as part of the Enarco Machine Products Remedial Investigation included the evaluation of each round of soil and groundwater sampling and analysis conducted. The evaluation included the review of each analytical data report and Chain of Custody (COC) record for compliance with regard to: 1) sample holding time requirements; 2) surrogate compound recoveries; 3) internal standard recoveries; and 4) method-specific quality control and quality assurance sample analyses. The data validation was performed with guidance provided from the "Functional Guidelines For Evaluating Organic and Inorganic Analyses", USEPA 1988.

Quality Assurance and Quality Control (QA/QC) analyses performed as part of the remedial investigation included field trip blanks (volatiles only), field duplicate samples, matrix spike and matrix spike duplicate analyses, laboratory control and method blank sample analysis. QA/QC samples were analyzed concurrently with project samples for each target analyte of the prescribed analytical methodology to assess the precision and accuracy of the field and laboratory procedures performed during the investigation.

The following observations were made relative to the QA/QC analyses performed.

- Holding time for the preparation and analysis of each project sample meet NYSDEC ASP method-specific requirements, without exception.
- Given the concentrations of the target compounds detected in each sample aliquot, the calculated precision and variability is acceptable and indicative of representative environmental samples.
- The recovery of each MS/MSD analyte falls within laboratory-specific quality control limits without exception. The data indicates the analyses were accurate and the results are representative of site conditions.
- Surrogate compound recoveries for organic analyses are within laboratory-specific quality control limits without exception.
- Target analytes were not detected above the practical quantitation limit (PQL) in laboratory method blank samples.

In summary, the QA/QC sample analyses performed as part of the Enarco Machine Products Remedial Investigation meet or exceed the accepted precision and accuracy requirements of high quality environmental analysis data. The field and laboratory QA/QC analyses performed indicate the data presented for the analysis of soil and groundwater is representative of site conditions at the time of sample collection.

Fish and Wildlife Impact Analysis

A draft copy of the Fish and Wildlife Impact Analysis report prepared by TPC Consulting for the site is included in Appendix C. Field work for this task was performed during the previous quarter.

The report identifies resources subject to possible evaluation subsequent to completion of the remaining field work (i.e. residential well sampling, etc.). The primary conclusions of the report are as follows:

- No significant habitats or habitats supporting endangered, threatened or rare species are present within a two-mile radius of the site.
- Honeoye Creek in the vicinity of the site is designated as a Class B stream by NYSDEC, indicating it is suitable for primary contact recreation such as swimming and wading. The creek appears also to be suitable for light fishing, in some of the deeper holes.
- The report presents a complete listing of possible floral and faunal communities in the study area.

III. DELIVERABLES

In accordance with the consent order requirements, Quarterly Report No. 2, for the reporting period 3 June to 2 September 1994, was mailed to NYSDEC and the consent order mailing list parties on 9 September 1994. No other deliverables were warranted during this quarter.

IV. FUTURE ACTIVITIES

It is anticipated that all remaining field work proposed in the work plan, with the exception of quarterly sampling, will be completed in the next quarter, including the following tasks:

- geophysical logging of off-site residential wells;
- residential well sampling (first quarter);
- hydrogeologic testing (pump test or alternate testing);
- additional stream gauge data collection; and
- survey of residential well elevations.

H&A will summarize results of the geophysical survey, and will provide proposed sampling intervals for each well based on the results, prior to initiating the sampling.

Upon completion of the field work and laboratory analyses, preparation of the RI report will begin. Based on the anticipated completion date of the field work and other tasks, completion of the RI report is expected to occur in the second quarter of 1995.

In addition, the following activities will be initiated during the next quarter:

- Environmental Risk Assessment (resource hazard evaluation);
- Health Risk Assessment;
- Focused IRM Feasibility Evaluation; and
- Additional Quarterly Sampling.

V. WORK SCHEDULE AND PERCENT COMPLETION

A project schedule and list of work tasks is shown in Figure 4. The following 12 work tasks as described in the work plan have been completed:

- site survey and base map preparation;
- on-site monitoring well installations;
- source area soil vapor study;
- delineation phase soil vapor study;
- stream staff gauge installation;
- off-site residential soil sampling;
- Enarc-O septic tank sampling;
- first two quarterly on-site monitoring well sampling events;
- on-site well permeability testing (rising head tests);
- ecological site evaluation portion of the environmental risk assessment;
- residential well field evaluation; and
- residential well preparation, including pump-pulling.

H&A estimates that the Remedial Investigation is more than half done, with approximately 12 of 21 estimated tasks completed (see Figure 4).

VI. WORK PLAN MODIFICATION

Modification to the work plan during this quarter consisted of additional data collection from the residential water wells. Due to a lack of available well construction data, NYSDEC has required downhole geophysical logging in five of the residential wells to evaluate well construction and hydrogeologic characterization of the bedrock for sampling depth(s) determination. NYSDEC suggested the additional data collection in a response letter sent to H&A on 29 August 1994.

H&A has since arranged for Gartner Lee, Inc. of Niagara Falls to conduct the geophysical logging, which should be completed early next quarter.

VII. CITIZEN PARTICIPATION PLAN ACTIVITIES

No Citizen Participation Plan activities (i.e. public meetings) were scheduled or conducted during the past quarter. None are currently scheduled for the next quarter.

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Tables

TABLE 1

ENARC-O MACHINE PRODUCTS

LIMA, NEW YORK

SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER

OFF - SITE

ADDRESS	RESIDENT	SAMPLED FROM	DATE	DETECTED COMPOUNDS – CONCENTRATION IN PARTS PER BILLION (PPB)														
				TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCE	1,1-DCA	MeCl2	PERC	CHLORO-FORM	BDCM	1,1,2,2-TCA	CARB. TET.	VINYL CHLORIDE	TOTAL VOCs
MARTIN RD.																		
7744	MILLER	WELL	10/31/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7750	CHAS. SWANGER	WELL	08/07/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7750	CHAS. SWANGER	WELL	01/25/94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7783	FESSLER	WELL	09/26/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7787	HARRY BUSH	WELL	08/07/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7796	SLADE	WELL	09/26/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7801	O'BRIEN	WELL	10/31/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7808	GHOSTLAW	WELL	09/26/85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7820	JOHNSON	WELL	07/24/85	31	--	4	--	--	--	--	--	--	--	--	--	--	--	35
7829	NEVERETT	WELL	10/31/85	2	--	--	--	--	--	--	--	--	--	--	--	--	--	2
7838	SAUNDERS	WELL	08/07/85	22	--	4	--	--	--	--	--	--	--	--	--	--	--	26
7852	HOPKINS	WELL	07/01/85	80	1	4	--	--	--	--	--	--	--	--	--	--	--	85
7859	BOONSTRA	WELL	07/01/85	20	--	4	--	--	--	--	--	--	--	--	--	--	--	24
7865	CAVALIER	WELL	07/01/85	22	1	2	--	--	--	--	--	--	--	--	--	--	--	25
7873	YEARS, R.	WELL	07/01/85	72	1	19	--	--	--	--	--	--	--	--	--	--	--	92
7873	YEARS, R.	SUMP	03/11/91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7873	YEARS, R.	SUMP	06/14/91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7873	YEARS, R.	SUMP	03/03/92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
7873	YEARS, R.	SUMP	01/25/94	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1
7880	ROGERS, L.	WELL	06/19/85	260	--	75	--	--	--	--	--	--	--	--	--	--	--	335
7880	ROGERS, L.	WELL	07/01/85	197	2	43	--	2	--	--	--	--	--	--	--	--	--	244
7883	GARVEY	WELL	06/19/85	290	8	75	--	--	--	--	--	--	--	--	--	--	--	373
7883	GARVEY	WELL	07/01/85	318	3	89	--	2	--	--	--	--	--	--	--	--	--	412
7883	GARVEY	SUMP	06/14/91	118	4	30	--	--	--	--	--	1	--	--	--	--	--	153
7883	GARVEY	SUMP	01/15/92	67	3	65	--	--	--	--	--	1	8	3	--	--	--	167
7883	GARVEY	SUMP	03/03/92	76	2	28	--	0.5	--	--	--	0.7	10	2	--	--	--	119.2
7883	GARVEY	SUMP	04/19/93	22	2.4	4.7	--	--	--	--	--	--	2.5	--	--	--	--	31.6
7883	GARVEY	SUMP	08/12/93	56	2	5	--	0.5	--	--	0.5	1	5	--	--	--	--	70
7883	GARVEY	SUMP	01/25/94	26	2.5	8.7	--	--	--	--	--	--	4.7	--	--	--	--	41.9
7886	VELLEKOOP	WELL	06/19/85	110	8	41	--	--	--	--	--	--	--	--	--	--	--	159
7886	VELLEKOOP	WELL	07/01/85	92	8	16	--	--	--	--	--	--	--	--	--	--	--	116

See notes on pg. 3

TABLE 1

ENARC-O MACHINE PRODUCTS

LIMA, NEW YORK

SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER

OFF - SITE

ADDRESS	RESIDENT	SAMPLED FROM	DATE	DETECTED COMPOUNDS - CONCENTRATION IN PARTS PER BILLION (PPB)														
				TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCE	1,1-DCA	MeCl2	PERC	CHLORO-FORM	BDCM	1,1,2,2-TCA	CARB. TET.	VINYL CHLORIDE	TOTAL VOCs
1167	SMITH	WELL	06/19/85	77	1	21	—	2	—	—	—	—	—	—	—	—	—	101
1167	SMITH	WELL	07/01/85	98	1	17	—	—	—	—	—	—	—	—	—	—	—	116
1175	ENARC-O	SUPP WEL	01/18/84	0.6	120	—	—	—	—	—	—	—	—	—	—	—	—	120.6
1175	ENARC-O	SUPP WEL	05/08/84	4	6.1	—	—	—	—	—	—	—	—	—	—	—	—	10.1
1175	ENARC-O	SUPP WEL	09/06/84	2	5	—	—	—	—	—	—	—	—	—	—	—	—	7
1175	ENARC-O	SUPP WEL	03/22/85	1800	370	—	—	—	—	—	—	—	—	—	—	—	—	2170
1175	ENARC-O	SUPP WEL	06/19/85	—	560	—	—	—	—	—	—	68	—	—	100	—	—	728
1175	ENARC-O	SUPP WEL	07/01/85	8	22	4	—	—	—	—	—	—	—	—	—	—	—	34
1191	ED TONDRYK	WELL	06/19/85	4	—	—	—	—	—	—	—	—	—	—	—	—	—	4
1191	ED TONDRYK	WELL	07/01/85	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3
1382	HORAN	WELL	07/24/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
IDESON RD.																		0
1081	MARY MILLER	WELL	07/24/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1090	COLAVITO	WELL	08/07/85	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2
1091	CHAMBERS	WELL	09/26/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1108	ENDICOTT	WELL	08/07/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1111	HART	WELL	07/24/85	19	1	5	—	—	—	1	—	—	—	—	—	—	—	26
1116	WM. MALOY	WELL	08/07/85	8	—	1	—	—	—	—	—	—	—	—	—	—	—	9
1121	PETER COOPER	WELL	07/24/85	24	1	8	—	—	—	1	—	—	—	—	—	—	—	34
1127	JOHNSON	WELL	07/24/85	19	—	3	—	—	—	—	—	—	—	—	—	—	—	22
1140	LOUISE SACKETT	WELL	08/07/85	29	1	5	—	—	—	—	—	—	—	—	—	—	—	35
1146	REANO	WELL	08/07/85	46	2	8	—	—	—	—	—	—	—	—	—	—	—	56
1147	FREEDMAN	WELL	07/24/85	49	1	8	—	—	—	—	—	—	—	—	—	—	—	58
1154	SHELMAN	WELL	08/07/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1155	TOMPKINS	WELL	08/07/85	11	2	3	—	—	—	—	—	—	—	—	—	—	—	16
ONTARIO ST.																		0
155	WM. STINSON	WELL	09/26/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
155	WM. STINSON	DEEP WELL	01/25/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
155	WM. STINSON	SHAL WELL	01/25/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
239	MANTEGNA	WELL	08/07/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1886	GEORGE	WELL	08/07/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
1897	WAGNER	WELL	07/24/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
BEAN HILL RD.																		0
9644	SELTZER	WELL	07/24/85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0

See notes on pg. 3

TABLE 1

ENARC-O MACHINE PRODUCTS

LIMA, NEW YORK

SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER

ON - SITE

DATE	MONITORING WELL NO.	SAMPLED BY	DETECTED COMPOUNDS – CONCENTRATION IN PARTS PER BILLION (PPB)														
			TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCE	1,1-DCA	MeCl2	PERC	CHLOROFORM	BDCM	1,1,2,2-TCA	CARB. TET.	VINYL CHLORIDE	TOTAL VOCs
01/07/91	MW-1	OBG	3	--	--	--	--	--	--	--	--	--	--	--	1	--	4
01/07/91		CDM-FPC	4	--	--	--	--	--	--	--	--	1	--	--	--	--	5
02/25/91		OBG	4	--	--	--	--	--	--	--	--	--	--	--	--	--	4
02/25/91		CDM-FPC	4	--	--	--	--	--	--	--	--	--	--	--	--	--	4
07/14/94		H&A	3J	--	--	--	--	--	--	--	--	--	--	--	--	--	0
11/02/94		H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
01/08/91	MW-2	OBG	3900	--	--	--	--	--	--	--	--	--	--	--	--	--	3900
02/26/91		OBG	3400	--	--	--	--	--	--	--	--	--	--	--	--	--	3400
07/14/94		H&A	1400	--	--	--	--	--	--	--	--	--	--	--	--	--	1400
11/02/94		H&A	420E	6J	29	--	--	--	--	--	--	--	--	--	--	--	449
11/02/94	(dilution)	H&A	500	--	31	--	--	--	--	--	--	--	--	--	--	--	531
01/07/91	MW-3	CDM-FPC	7900	990	130	--	1	28	27	--	150	2	--	--	--	--	9228
01/07/91		OBG	5600	470	--	--	--	--	--	--	--	--	--	--	--	--	6070
02/25/91		CDM-FPC	3800	370	70	--	--	9	11	--	75	--	--	--	--	--	4335
02/25/91		OBG	5300	420	--	--	--	--	--	--	--	--	--	--	--	--	5720
07/14/94		H&A	1100	130	--	--	--	--	--	--	17	--	--	--	--	--	1247
11/02/94		H&A	2700E	--	51J	--	--	--	--	13J	23J	--	--	--	--	--	2700
11/02/94	(dilution)	H&A	3200D	260D	58	--	--	--	--	--	28DJ	--	--	--	--	--	3518
01/08/91	MW-4	OBG	60	11	14	--	--	--	--	--	--	--	--	--	--	--	85
02/25/91		OBG	69	17	16	--	--	--	--	--	2	--	--	--	--	--	104
07/14/94		H&A	10	28	--	--	--	--	--	--	--	--	--	--	--	--	38
11/02/94		H&A	15	15	--	--	--	--	--	2J	--	--	--	--	--	--	30
01/08/91	MW-5	CDM-FPC	260	18	170	--	--	2	1	--	1	--	--	--	--	--	452
02/26/91		CDM-FPC	310	10	90	--	--	--	--	--	--	--	--	--	--	--	410
01/08/91		OBG	240	12	160	--	--	--	--	--	--	--	--	--	--	--	412
02/26/91		OBG	310	8	100	--	--	--	--	--	--	--	--	--	--	--	418
07/14/94		H&A	510	--	58	--	--	--	--	--	--	--	--	--	--	--	568
11/02/94		H&A	900E	55	72	--	5J	--	--	--	--	--	--	--	--	--	1027
11/02/94	(dilution)	H&A	1100D	63DJ	83DJ	--	--	--	--	--	--	--	--	--	--	--	1100
01/07/91	MW-6	OBG	1	--	--	--	--	--	--	--	--	--	--	--	3	--	4
02/25/91		OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
07/14/94		H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
11/02/94		H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
07/14/94	MW-201D	H&A	7400	--	1100	--	--	--	--	--	--	--	--	--	--	--	8500
11/02/94		H&A	4000	100J	830	--	--	--	--	--	61J	--	--	--	--	--	4830
07/14/94	MW-202	H&A	15	--	11	--	--	--	--	--	--	--	--	--	--	--	26
11/02/94		H&A	25	--	45	3J	--	--	--	--	--	--	--	--	--	7J	70

NOTES:

1. "--" indicates analyte not detected or not analyzed for.
2. Compound abbreviations: TCE: Trichloroethene; TCA: Trichloroethane; DCE: Dichloroethene; DCA: Dichloroethane; MeCl2: Methylene chloride; PERC: Perchloroethene; BDCM: Bromodichloromethane; TCA: Trichloroethane; TCE: Trichloroethene; CARB. TET.: Carbon Tetrachloride; VOCs: Volatile Organic Compounds.
3. OBG = O'Brien & Gere
   CDM-FPC = CDM Federal Programs Corporation
4. Modifiers for detected values: J: Estimated value, below quantitation limit; D: Diluted Sample; E: Exceeds calibration range of instrument.
5. J-values not included in Total VOC column values.

M98\WKS\70372\HISTOGW.WKS

TABLE 2
ENARC-O MACHINE PRODUCTS
LIMA, NEW YORK

SUMMARY OF ANALYTICAL RESULTS - SOIL

EXPLORATION LOCATION	DEPTH (ft.)	DATE	SAMPLED BY	COMPOUNDS DETECTED - CONCENTRATIONS IN PARTS PER BILLION														TOTAL VOCs
				TCE	1,1,1-TCA	1,2-DCE	1,2-DCA	1,1-DCE	1,1-DCA	ACETONE	PERC	CHLORO-FORM	ETHYL-BENZENE	XYLENE	1,1,2-TCA	2-BUTANONE	TOL.	
B-1	4-6	11/29/90	OBG	--	--	--	--	--	--	--	--	--	--	4700	--	--	210	4910
B-1	6-8	11/29/90	CDM-FPC	--	--	--	--	--	--	--	--	100	690	12000	--	--	--	12790
B-1	8-8	11/29/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-2	6-8	11/29/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-2	10-11	11/29/90	OBG	1200	--	200	--	--	--	--	30	--	--	--	--	--	--	1430
B-3	2-4	11/28/90	OBG	1700	880	480	--	76	--	--	490	--	--	--	--	--	29	3635
B-3	4-6	11/28/90	OBG	74	--	150	--	--	--	--	--	--	--	--	--	--	--	224
B-3	4-6	11/28/90	CDM-FPC	490	100	89	--	--	--	--	100	--	--	--	3	--	--	782
B-3	6-8	11/28/90	OBG	81	--	24	--	--	--	--	24	--	--	--	--	--	--	129
B-4	8-10	11/29/90	CDM-FPC	880	21	630	--	--	9	--	5	--	--	--	--	--	--	1545
B-4	8-8	11/29/90	OBG	--	--	--	--	--	--	--	13	--	--	--	--	--	--	13
B-4	8-10	11/29/90	OBG	1400	41	900	--	--	16	--	--	--	--	--	--	--	--	2357
B-5A	4-6	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5A	12-14	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5B	0-2	11/28/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5B	2-4	11/28/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5B	2-4	11/28/90	CDM-FPC	4	--	0.8	--	--	--	--	--	--	--	--	--	--	--	4.8
B-5C	6-8	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5C	14-16	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5D	0-2	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5D	10-12	11/27/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-5E	12-14	11/28/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-6	4-6	11/26/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
B-6	6-8	11/26/90	OBG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
INTERIOR SAMPLES																		
SS101	3.3-4.3	05/09/94	H&A	190	45	--	--	4	--	--	2	--	--	--	--	--	--	241
SS102	3.3-4.3	05/09/94	H&A	1500	670	8	27	130	83	--	59	--	--	--	--	--	--	2477
SS105	3.3-4.3	05/09/94	H&A	200	71	--	--	5	--	--	--	--	--	--	--	--	--	276
SS107	3.3-4.3	05/09/94	H&A	160	29	52	--	--	--	--	--	--	--	--	--	--	--	241
OFFSITE SAMPLES																		
SS1	0.5	05/31/94	H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
SS2	0.5	05/31/94	H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
SS3	0.5	05/31/94	H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
SS4	0.5	05/31/94	H&A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
SEPTIC TANK	--	05/31/94	H&A	--	--	--	--	--	--	14000	--	--	--	--	--	13000	14000	139000

NOTES:

1. "--" indicates analyte not detected or not analyzed for.
2. Compound abbreviations: TCE: Trichloroethene; TCA: Trichloroethane; DCE: Dichloroethene; DCA: Dichloroethane; PERC: Perchloroethene; TOL: Toluene; VOCs: Volatile Organic Compounds.
3. OBG = O'Brien & Gere
   CDM-FPC= CDM Federal Programs Corporation

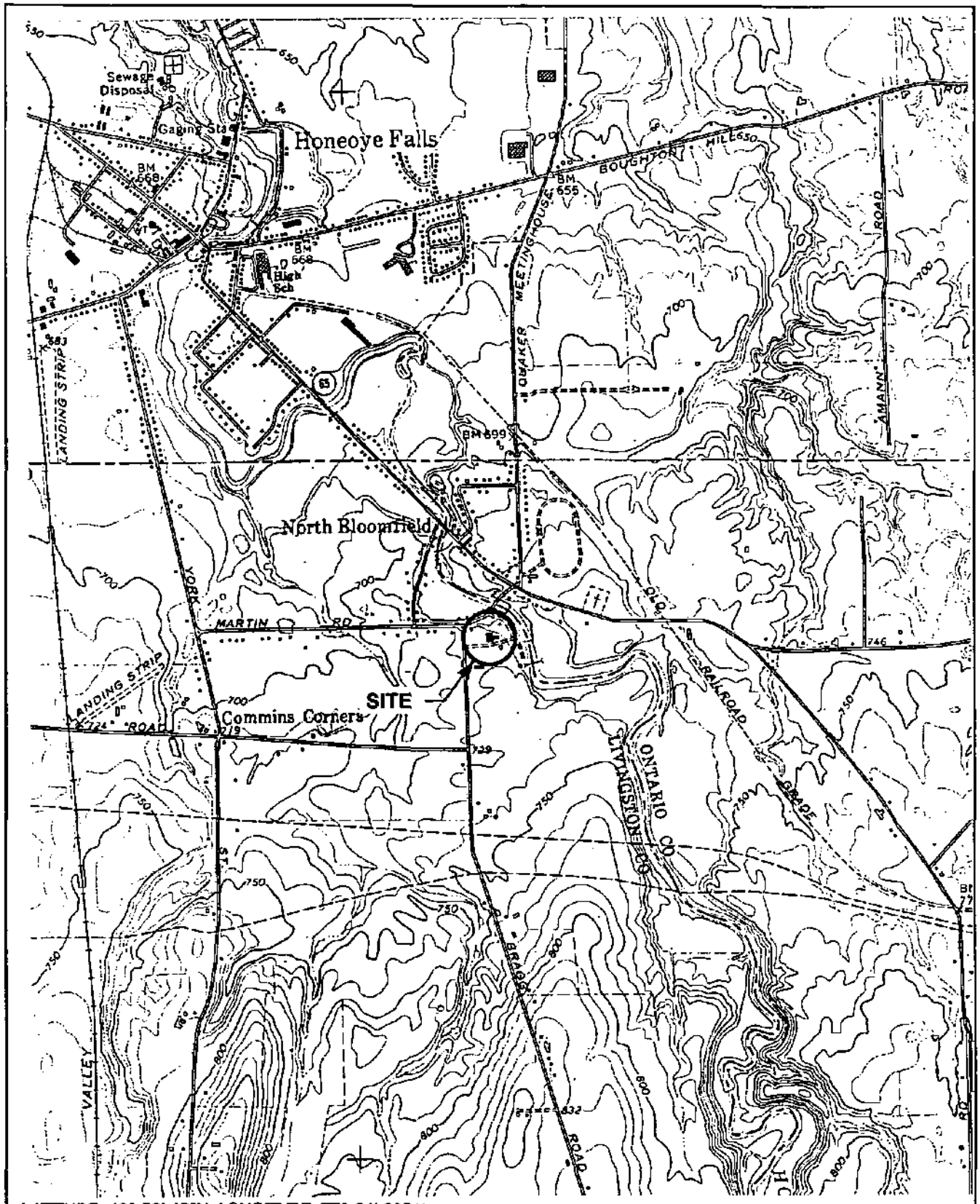
TABLE 3
ENARC-O MACHINE PRODUCTS, INC.
LIMA, NEW YORK
FINALIZED LIST OF RESIDENTIAL WELLS FOR SAMPLING

ADDRESS	OWNER	WELL IN USE	PUMP PRESENT	TOTAL DEPTH(FT.)	DEPTH TO WATER (FT.)	REMARKS
MARTIN RD.						
7750	CHAS. SWANGER	Y	Y	89		WATER LEVEL MONITORING ONLY
7820	LEO JOHNSON	N	N	125	72	WELL IS CLEAR, READY FOR SAMPLING/LOGGING
7852	ALLEN HOPKINS	N	N	140	25	WELL IS CLEAR, READY FOR SAMPLING
7873	RON YEARS	N	N	120	58	WELL IS CLEAR, READY FOR SAMPLING/LOGGING
7880	CATHY VILLARD	N	N			WELL IS CLEAR, READY FOR SAMPLING
BRAGG ST.						
1167	WILDMAN/HICKLING	N	N	130	84	WELL IS CLEAR, READY FOR SAMPLING
1175	ENARC-O PRODUCTS	N	N	130	73	WELL IS CLEAR, READY FOR SAMPLING/LOGGING
1191	EDWARD TONDRYK	N	N	77	25	WELL IS CLEAR, READY FOR SAMPLING
IDESON RD.						
1081	MARY MILLER	N	N	82	46	WELL IS CLEAR, READY FOR SAMPLING/LOGGING
1090	MICHAEL COLAVITO	N	N	122	60	WELL IS CLEAR, READY FOR SAMPLING
1116	WILLIAM MALOY	N	N	125	63	WELL IS CLEAR, READY FOR SAMPLING
1121	PETER COOPER	N	N	125	54	WELL IS CLEAR, READY FOR SAMPLING/LOGGING
1146	ROWLAND REANO	N	N	130		WELL IS CLEAR, READY FOR SAMPLING

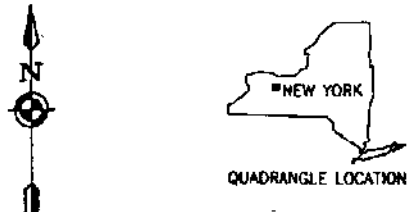
REVISED 12/05/94

Figures

159669



LATITUDE: 42° 56' 13"N LONGITUDE: 77° 34' 33"W



U.S.G.S. QUADRANGLE: HONEOYE FALLS, N.Y.

H&A OF NEW YORK

Geotechnical Engineers & Environmental Consultants

ENARC-O MACHINE PRODUCTS
LIMA, NEW YORK

PROJECT LOCUS

SCALE: 1 IN. = 2000 FT. FEBRUARY 1993

FILE NO. 70372-40

MAKEPEACE

FIGURE 1

ENARC-O MACHINE PRODUCTS, INC.
LIMA, NEW YORK
REMEDIAL INVESTIGATION QUARTERLY REPORT NO.3

PROJECT SCHEDULE

(revised 12/7/94)

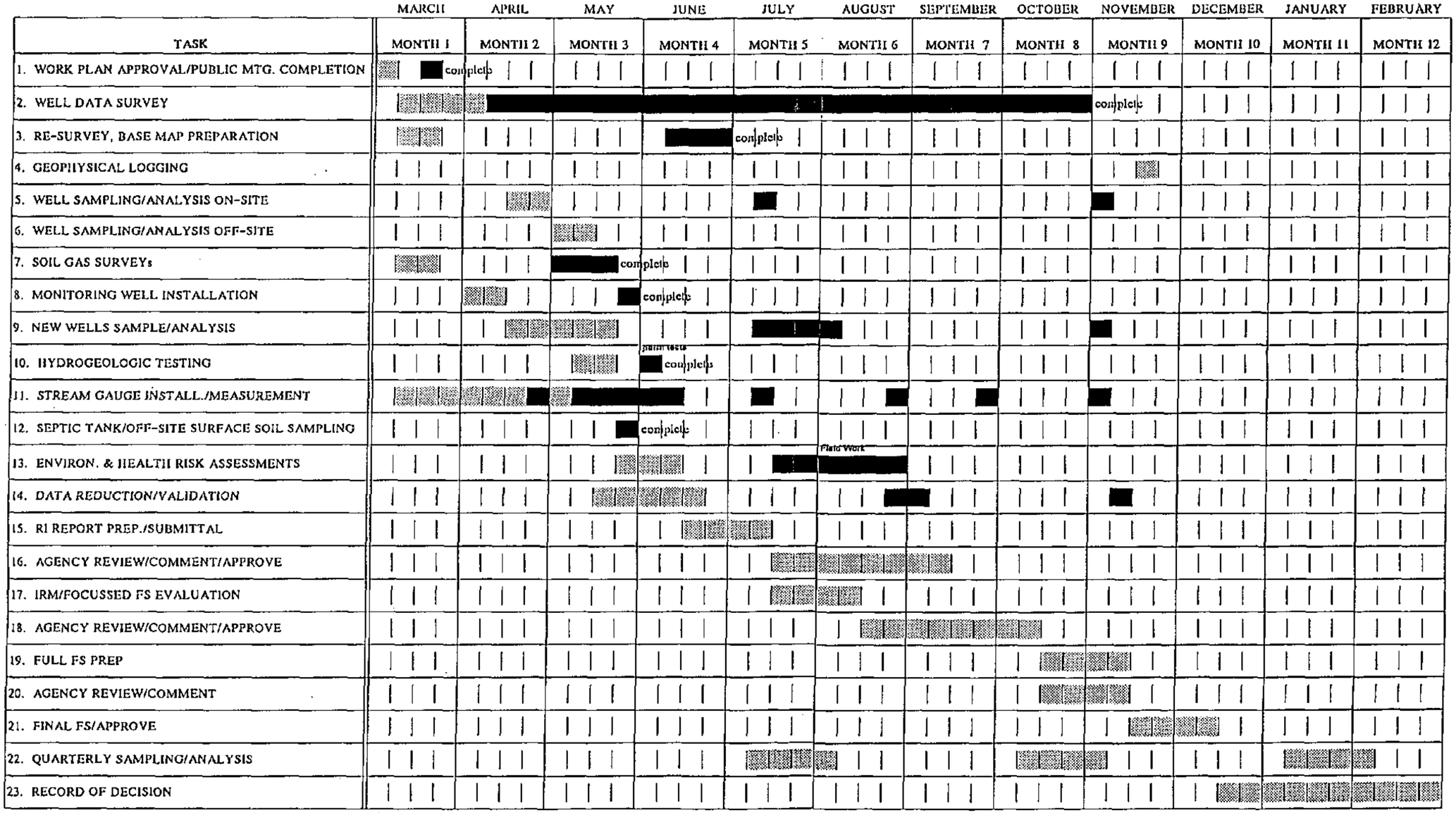
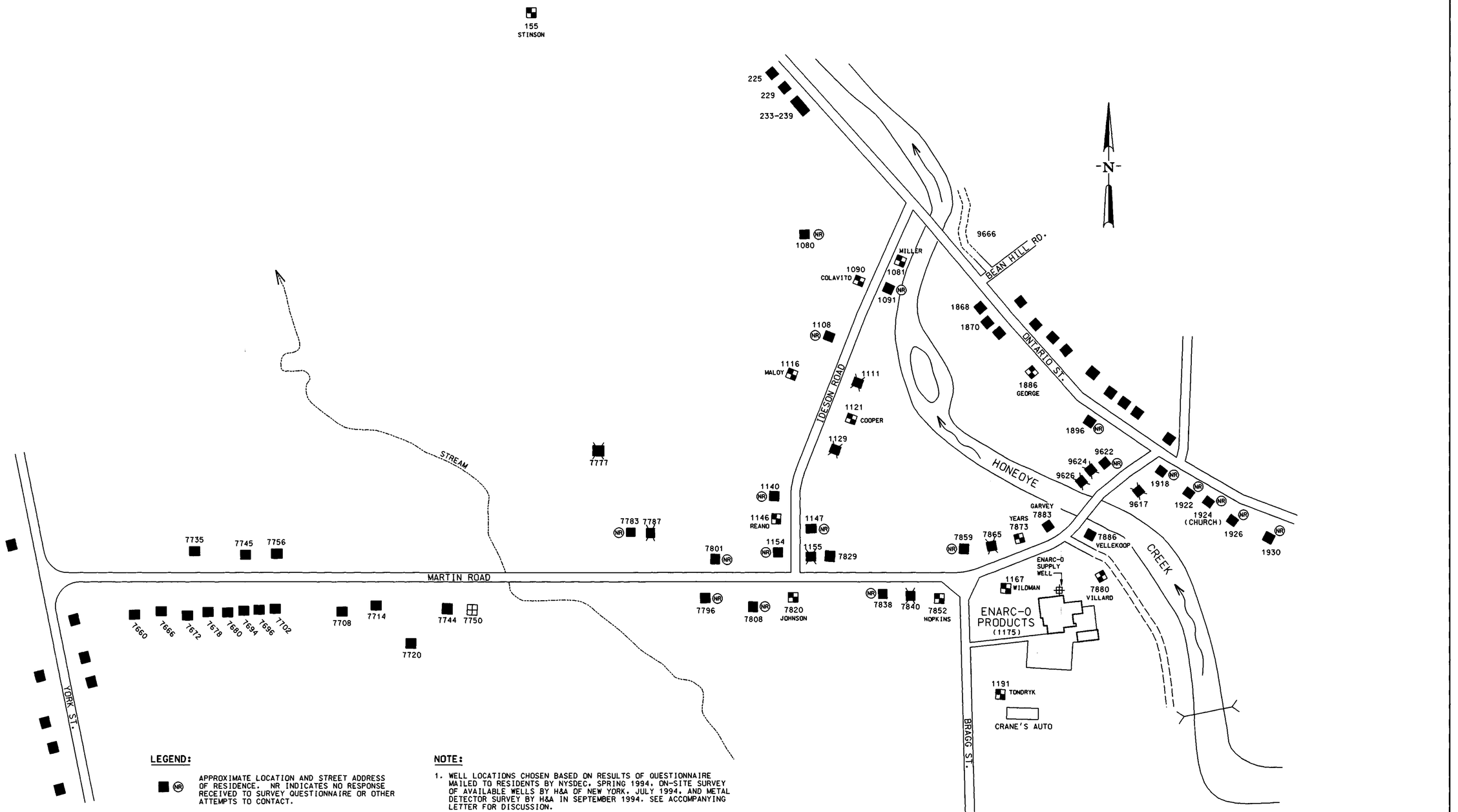


FIGURE 4



LEGEND:

- ■ (NR) — APPROXIMATE LOCATION AND STREET ADDRESS OF RESIDENCE. NR INDICATES NO RESPONSE RECEIVED TO SURVEY QUESTIONNAIRE OR OTHER ATTEMPTS TO CONTACT.
- ▪ — LOCATION OF RESIDENTIAL WELL PROPOSED FOR SAMPLING, WITH NAME OF HOMEOWNER
- ⊞ — LOCATION OF RESIDENTIAL WELL PROPOSED FOR WATER LEVEL READING ONLY
- ✕ — INDICATES WELL INACCESSIBLE DUE TO BEING BURIED, PLUGGED, LOST, ETC.

NOTE:

1. WELL LOCATIONS CHOSEN BASED ON RESULTS OF QUESTIONNAIRE MAILED TO RESIDENTS BY NYSDEC, SPRING 1994, ON-SITE SURVEY OF AVAILABLE WELLS BY H&A OF NEW YORK, JULY 1994, AND METAL DETECTOR SURVEY BY H&A IN SEPTEMBER 1994. SEE ACCOMPANYING LETTER FOR DISCUSSION.
2. THE WELLS AT 7883 AND 7886 MARTIN ROAD ARE BURIED. HOWEVER, THEIR APPARENT LOCATIONS HAVE BEEN DETERMINED WITH A METAL DETECTOR. THE ACTUAL CONDITION OF THE WELLS IS CURRENTLY UNKNOWN. IF ANY OF THE PROPOSED SAMPLING WELLS CANNOT BE SAMPLED DUE TO THEIR CONDITION, THESE TWO WELLS COULD BE EXCAVATED AND EVALUATED AS POTENTIAL SUBSTITUTE SAMPLING WELLS.
3. WELL LOCATED AT 1886 ONTARIO ST. WAS SAMPLED BY NYSDOH IN JUNE 1994. WELLS LOCATED AT 155 ONTARIO ST. WERE SAMPLED BY NYSDOH ON 8 FEBRUARY 1994. THESE WELLS WILL NOT BE RESAMPLED BY H& A OF NEW YORK.
4. WELLS LOCATED AT 7660 THROUGH 7756 MARTIN ROAD WERE EXCLUDED FROM THIS SURVEY, BASED ON HISTORICAL SAMPLING RESULTS BY NYSDOH. THE WELL AT 7750 MARTIN ROAD WILL BE USED FOR WATER LEVEL DETERMINATION ONLY.
5. GEOPHYSICAL LOGGING IS CURRENTLY PROPOSED FOR WELLS AT 7820 AND 7873 MARTIN RD., 1081 AND 1121 IDESON RD., AND THE ENARC-O SUPPLY WELL.

H & A OF NEW YORK

Geotechnical Engineers & Environmental Consultants

ENARC-O MACHINE PRODUCTS
LIMA, NEW YORK

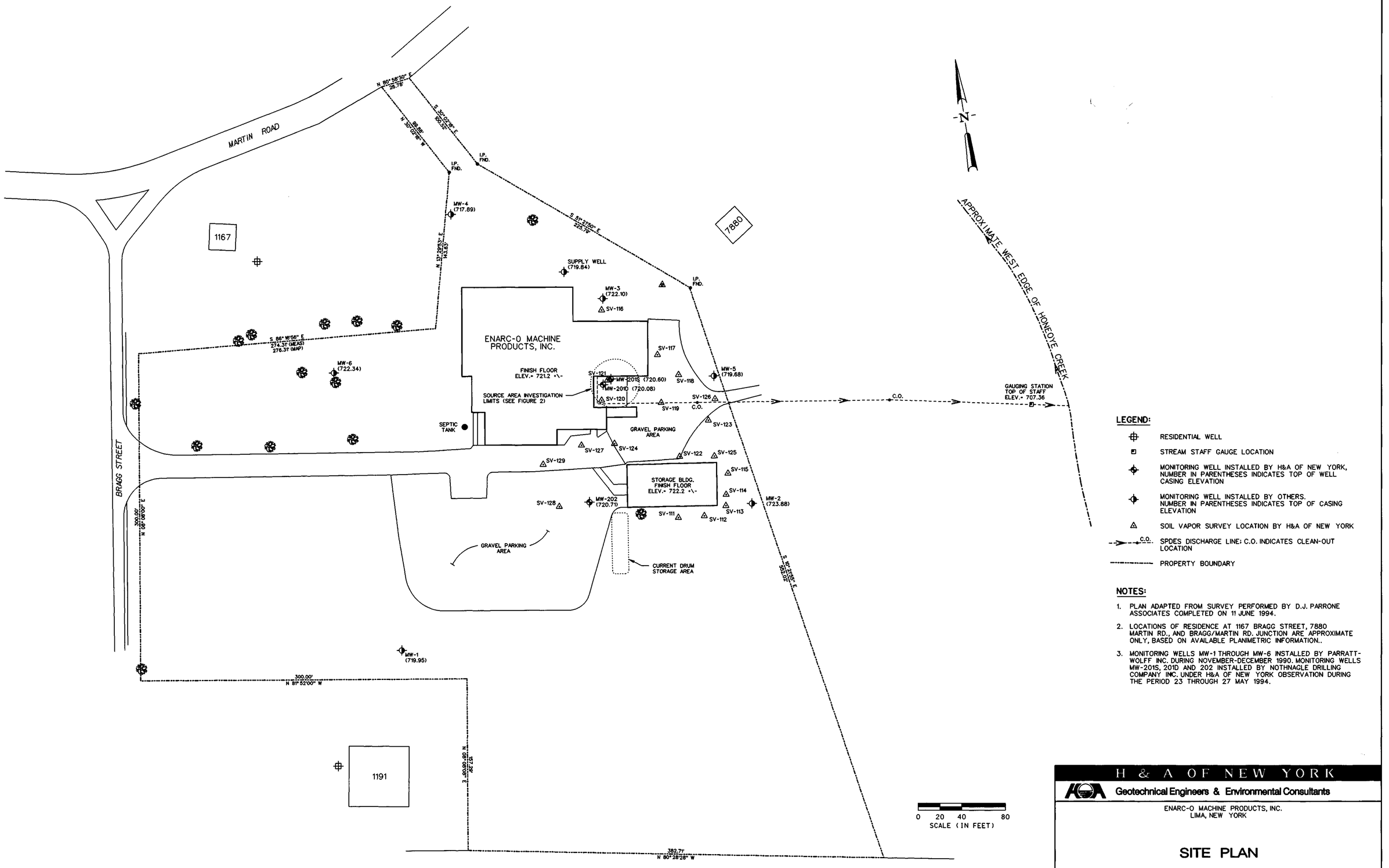
PROPOSED RESIDENTIAL WELL SAMPLING LOCATION PLAN

SCALE: AS SHOWN — DECEMBER 1994

FILENAME: 70372-042:SAW001D.DGN

FILE No. 70372-042

FIGURE 2



LEGEND:

- RESIDENTIAL WELL
- STREAM STAFF GAUGE LOCATION
- MONITORING WELL INSTALLED BY H&A OF NEW YORK, NUMBER IN PARENTHESES INDICATES TOP OF WELL CASING ELEVATION
- MONITORING WELL INSTALLED BY OTHERS. NUMBER IN PARENTHESES INDICATES TOP OF CASING ELEVATION
- SOIL VAPOR SURVEY LOCATION BY H&A OF NEW YORK
- C.O. SPDES DISCHARGE LINE; C.O. INDICATES CLEAN-OUT LOCATION
- PROPERTY BOUNDARY

NOTES:

1. PLAN ADAPTED FROM SURVEY PERFORMED BY D.J. PARRONE ASSOCIATES COMPLETED ON 11 JUNE 1994.
2. LOCATIONS OF RESIDENCE AT 1167 BRAGG STREET, 7880 MARTIN RD., AND BRAGG/MARTIN RD. JUNCTION ARE APPROXIMATE ONLY, BASED ON AVAILABLE PLANIMETRIC INFORMATION..
3. MONITORING WELLS MW-1 THROUGH MW-6 INSTALLED BY PARRATT-WOLFF INC. DURING NOVEMBER-DECEMBER 1990. MONITORING WELLS MW-201S, 201D AND 202 INSTALLED BY NOTHNAGLE DRILLING COMPANY INC. UNDER H&A OF NEW YORK OBSERVATION DURING THE PERIOD 23 THROUGH 27 MAY 1994.

FILE No. 70372-048

H & A OF NEW YORK

Geotechnical Engineers & Environmental Consultants

ENARC-O MACHINE PRODUCTS, INC.
LIMA, NEW YORK

SITE PLAN

SCALE: AS SHOWN

DECEMBER 1994

FILENAME: 70372-048:RIS005D.DGN

FIGURE 3

APPENDIX A

Analytical Data for Groundwater

On-site Monitoring Wells

General Testing Corporation

Job #: R94/04290

SAMPLE DATA SUMMARY PACKAGE

SECTION A: NYSDEC Data Package Summary Forms

SECTION B: SDG Narrative

SECTION C: Sample Data

SECTION D: Surrogate Summary

SECTION E: MS/MSD Data

SECTION F: Blank Data

000000

ORGANICS QUALIFIERS - 1991

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

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

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

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

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

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

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

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

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

X - As specified in Case Narrative.

General Testing Corporation

Job #: R94/04290

SECTION A

NYSDEC Data Package Summary Forms

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

Customer Sample Code	Laboratory Sample Code	Analytical Requirements* NYSDEC 1991 CLP PROTOCOL					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
HATB	R94/04290-1	X					
MW202D	R94/04290-2	X					
MW201D	R94/04290-3	X					
MW5	R94/04290-4	X					
HADUP	R94/04290-5	X					
MW4	R94/04290-6	X					
MW6	R94/04290-7	X					
MW2	R94/04290-8	X					
MW1	R94/04290-9	X					
MW3	R94/04290-10	X					

*Check Appropriate Boxes

000003

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
R94/04290-1	WATER	11/02/94	11/02/94	LOW	11/08/94
R94/04290-2	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-3	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-4	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-5	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-6	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-7	WATER	11/02/94	11/02/94	LOW	11/08/94
R94/04290-8	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-9	WATER	11/02/94	11/02/94	LOW	11/09/94
R94/04290-10	WATER	11/02/94	11/02/94	LOW	11/09/94

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
R94/04290-1	WATER	91-1			1.0
R94/04290-2	WATER	91-1			1.0
R94/04290-3	WATER	91-1			25
R94/04290-4	WATER	91-1			2.0, 10
R94/04290-5	WATER	91-1			2.0, 10
R94/04290-6	WATER	91-1			1.0
R94/04290-7	WATER	91-1			1.0
R94/04290-8	WATER	91-1			1.0, 5.0
R94/04290-9	WATER	91-1			1.0
R94/04290-10	WATER	91-1			10, 20

000003

General Testing Corporation

Job #: R94/04290

SECTION B

SDG NARRATIVE

CASE NARRATIVE

COMPANY: H & A of New York
Enarco Machine
JOB #: R94/04290
SDG#: HADUP

Volatile Organics

Water samples were analyzed for Target Compound List (TCL) volatile organics by Method 91-1 from the NYSDEC 1991 ASP. The following samples were analyzed with SDG# HADUP:

Client Sample ID	GTC Sample ID
HATB	R94/04290-1
MW202D	R94/04290-2
MW201D	R94/04290-3
MW5	R94/04290-4
MW5DL	R94/04290-4DL
HADUP	R94/04290-5
HADUPDL	R94/04290-5DL
MW4	R94/04290-6
MW6	R94/04290-7
MW2	R94/04290-8
MW2DL	R94/04290-8DL
MW1	R94/04290-9
MW3	R94/04290-10
MW3DL	R94/04290-10DL
VBLK1	METHOD BLANK
VBLK2	METHOD BLANK
VBLK1MS	BLANK SPIKE
MW6MS	R94/04290-7MS
MW6MSD	R94/04290-7MSD

All tuning criteria for BFB were within limits.

All Initial Calibration criteria were compliant.

All Continuing Calibration Check (CCC) criteria were compliant.

All surrogate compounds were within QC limits for recovery

All internal standard areas were within QC limits.

All matrix spiking compounds were within limits for recovery in the MS/MSD of MW6 and VBLK1MS. All %RPD were within limits in the MS/MSD of MW6.

Samples MW-5, HANDUP, MW-2, and MW-3 were reaanalyzed at dilutions to bring target analytes within the calibration range of the method.

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

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

Michael K. Perry
Laboratory Director

11/29/94
Date

General Testing Corporation

Job #:R94/04290

SECTION C

SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HADUP

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2256

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20.	U
74-83-9	Bromomethane	20.	U
75-01-4	Vinyl chloride	20.	U
75-00-3	Chloroethane	20.	U
75-09-2	Methylene chloride	20.	U
67-64-1	Acetone	20.	U
75-15-0	Carbon Disulfide	20.	U
75-35-4	1,1-Dichloroethene	3.	J
75-34-3	1,1-Dichloroethane	20.	U
156-60-5	trans-1,2-Dichloroethene	20.	U
67-66-3	Chloroform	20.	U
107-06-2	1,2-Dichloroethane	20.	U
78-93-3	2-Butanone	20.	U
156-59-2	cis-1,2-Dichloroethene	73.	
71-55-6	1,1,1-Trichloroethane	46.	
56-23-5	Carbon tetrachloride	20.	U
75-27-4	Bromodichloromethane	20.	U
78-87-5	1,2-Dichloropropane	20.	U
10061-01-5	cis-1,3-Dichloropropene	20.	U
79-01-6	Trichloroethene	850.	E
124-48-1	Dibromochloromethane	20.	U
79-00-5	1,1,2-Trichloroethane	20.	U
71-43-2	Benzene	20.	U
50061-02-6	trans-1,3-Dichloropropene	20.	U
75-25-2	Bromoform	20.	U
108-10-1	4-Methyl-2-Pentanone	20.	U
591-78-6	2-Hexanone	20.	U
127-18-4	Tetrachloroethene	9.	J
79-34-5	1,1,2,2-Tetrachloroethane	20.	U
108-88-3	Toluene	20.	U
108-90-7	Chlorobenzene	20.	U
100-41-4	Ethylbenzene	20.	U
100-42-5	Styrene	20.	U
108-38-3	(m+p)Xylene	20.	U
95-47-6	o-Xylene	20.	U

000010

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HADUP

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-5

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2256

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 2.0

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

Number TICs Found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	14.08	15.	J
2.					
3.					
4.					
5.					
6.					
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000011

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HADUPDL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-5DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2271

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100.	U
74-83-9	Bromomethane	100.	U
75-01-4	Vinyl chloride	100.	U
75-00-3	Chloroethane	100.	U
75-09-2	Methylene chloride	100.	U
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	100.	U
75-35-4	1,1-Dichloroethene	100.	U
75-34-3	1,1-Dichloroethane	100.	U
156-60-5	trans-1,2-Dichloroethene	100.	U
67-66-3	Chloroform	100.	U
107-06-2	1,2-Dichloroethane	100.	U
78-93-3	2-Butanone	100.	U
156-59-2	cis-1,2-Dichloroethene	78.	DJ
71-55-6	1,1,1-Trichloroethane	50.	DJ
56-23-5	Carbon tetrachloride	100.	U
75-27-4	Bromodichloromethane	100.	U
78-87-5	1,2-Dichloropropane	100.	U
10061-01-5	cis-1,3-Dichloropropene	100.	U
79-01-6	Trichloroethene	1000.	D
124-48-1	Dibromochloromethane	100.	U
79-00-5	1,1,2-Trichloroethane	100.	U
71-43-2	Benzene	100.	U
50061-02-6	trans-1,3-Dichloropropene	100.	U
75-25-2	Bromoform	100.	U
108-10-1	4-Methyl-2-Pentanone	100.	U
591-78-6	2-Hexanone	100.	U
127-18-4	Tetrachloroethene	100.	U
79-34-5	1,1,2,2-Tetrachloroethane	100.	U
108-88-3	Toluene	100.	U
108-90-7	Chlorobenzene	100.	U
100-41-4	Ethylbenzene	100.	U
100-42-5	Styrene	100.	U
108-38-3	(m+p)Xylene	100.	U
95-47-6	o-Xylene	100.	U

000012

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HADUPDL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-5DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2271

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HATB

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2252

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/08/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

000014

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

HATB

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2252

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/08/94

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

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

Number TICs Found: 0

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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-9

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2259

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	3.	J
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

000013

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-9

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2259

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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000017

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-8

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2258

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	29.	
71-55-6	1,1,1-Trichloroethane	6.	J
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	420.	E
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

000013

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW2

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-8

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2258

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	0	Unknown	14.06	10.	J
2.					
3.					
4.					
5.					
6.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-8DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2269

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50.	U
74-83-9	Bromomethane	50.	U
75-01-4	Vinyl chloride	50.	U
75-00-3	Chloroethane	50.	U
75-09-2	Methylene chloride	50.	U
67-64-1	Acetone	50.	U
75-15-0	Carbon Disulfide	50.	U
75-35-4	1,1-Dichloroethene	50.	U
75-34-3	1,1-Dichloroethane	50.	U
156-60-5	trans-1,2-Dichloroethene	50.	U
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	50.	U
156-59-2	cis-1,2-Dichloroethene	31.	DJ
71-55-6	1,1,1-Trichloroethane	50.	U
56-23-5	Carbon tetrachloride	50.	U
75-27-4	Bromodichloromethane	50.	U
78-87-5	1,2-Dichloropropane	50.	U
10061-01-5	cis-1,3-Dichloropropene	50.	U
79-01-6	Trichloroethene	500.	D
124-48-1	Dibromochloromethane	50.	U
79-00-5	1,1,2-Trichloroethane	50.	U
71-43-2	Benzene	50.	U
50061-02-6	trans-1,3-Dichloropropene	50.	U
75-25-2	Bromoform	50.	U
108-10-1	4-Methyl-2-Pentanone	50.	U
591-78-6	2-Hexanone	50.	U
127-18-4	Tetrachloroethene	50.	U
79-34-5	1,1,2,2-Tetrachloroethane	50.	U
108-88-3	Toluene	50.	U
108-90-7	Chlorobenzene	50.	U
100-41-4	Ethylbenzene	50.	U
100-42-5	Styrene	50.	U
108-38-3	(m+p)Xylene	50.	U
95-47-6	o-Xylene	50.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW2DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-8DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2269

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 5.0

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

Number TICs Found: 0

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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW201D

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2254

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 25.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	250.	U
74-83-9	Bromomethane	250.	U
75-01-4	Vinyl chloride	250.	U
75-00-3	Chloroethane	250.	U
75-09-2	Methylene chloride	250.	U
67-64-1	Acetone	250.	U
75-15-0	Carbon Disulfide	250.	U
75-35-4	1,1-Dichloroethene	250.	U
75-34-3	1,1-Dichloroethane	250.	U
156-60-5	trans-1,2-Dichloroethene	250.	U
67-66-3	Chloroform	250.	U
107-06-2	1,2-Dichloroethane	250.	U
78-93-3	2-Butanone	250.	U
156-59-2	cis-1,2-Dichloroethene	830.	
71-55-6	1,1,1-Trichloroethane	100.	J
56-23-5	Carbon tetrachloride	250.	U
75-27-4	Bromodichloromethane	250.	U
78-87-5	1,2-Dichloropropane	250.	U
10061-01-5	cis-1,3-Dichloropropene	250.	U
79-01-6	Trichloroethene	4000.	
124-48-1	Dibromochloromethane	250.	U
79-00-5	1,1,2-Trichloroethane	250.	U
71-43-2	Benzene	250.	U
50061-02-6	trans-1,3-Dichloropropene	250.	U
75-25-2	Bromoform	250.	U
108-10-1	4-Methyl-2-Pentanone	250.	U
591-78-6	2-Hexanone	250.	U
127-18-4	Tetrachloroethene	61.	J
79-34-5	1,1,2,2-Tetrachloroethane	250.	U
108-88-3	Toluene	250.	U
108-90-7	Chlorobenzene	250.	U
100-41-4	Ethylbenzene	250.	U
100-42-5	Styrene	250.	U
108-38-3	(m+p)Xylene	250.	U
95-47-6	o-Xylene	250.	U

000021

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW201D

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-3

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2254

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 25.0

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW202D

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2253

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	7.	J
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	3.	J
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	45.	
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	25.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW202D

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2253

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-10

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2260

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100.	U
74-83-9	Bromomethane	100.	U
75-01-4	Vinyl chloride	100.	U
75-00-3	Chloroethane	100.	U
75-09-2	Methylene chloride	13.	J
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	100.	U
75-35-4	1,1-Dichloroethene	100.	U
75-34-3	1,1-Dichloroethane	100.	U
156-60-5	trans-1,2-Dichloroethene	100.	U
67-66-3	Chloroform	100.	U
107-06-2	1,2-Dichloroethane	100.	U
78-93-3	2-Butanone	100.	U
156-59-2	cis-1,2-Dichloroethene	51.	J
71-55-6	1,1,1-Trichloroethane	250.	
56-23-5	Carbon tetrachloride	100.	U
75-27-4	Bromodichloromethane	100.	U
78-87-5	1,2-Dichloropropane	100.	U
10061-01-5	cis-1,3-Dichloropropene	100.	U
79-01-6	Trichloroethene	2700.	E
124-48-1	Dibromochloromethane	100.	U
79-00-5	1,1,2-Trichloroethane	100.	U
71-43-2	Benzene	100.	U
50061-02-6	trans-1,3-Dichloropropene	100.	U
75-25-2	Bromoform	100.	U
108-10-1	4-Methyl-2-Pentanone	100.	U
591-78-6	2-Hexanone	100.	U
127-18-4	Tetrachloroethene	23.	J
79-34-5	1,1,2,2-Tetrachloroethane	100.	U
108-88-3	Toluene	100.	U
108-90-7	Chlorobenzene	100.	U
100-41-4	Ethylbenzene	100.	U
100-42-5	Styrene	100.	U
108-38-3	(m+p)Xylene	100.	U
95-47-6	o-Xylene	100.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-10

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2260

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs Found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	14.10	67.	J
2.					
3.					
4.					
5.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-10DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2266

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 20.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	200.	U
74-83-9	Bromomethane	200.	U
75-01-4	Vinyl chloride	200.	U
75-00-3	Chloroethane	200.	U
75-09-2	Methylene chloride	200.	U
67-64-1	Acetone	200.	U
75-15-0	Carbon Disulfide	200.	U
75-35-4	1,1-Dichloroethene	200.	U
75-34-3	1,1-Dichloroethane	200.	U
156-60-5	trans-1,2-Dichloroethene	200.	U
67-66-3	Chloroform	200.	U
107-06-2	1,2-Dichloroethane	200.	U
78-93-3	2-Butanone	200.	U
156-59-2	cis-1,2-Dichloroethene	58.	DJ
71-55-6	1,1,1-Trichloroethane	260.	D
56-23-5	Carbon tetrachloride	200.	U
75-27-4	Bromodichloromethane	200.	U
78-87-5	1,2-Dichloropropane	200.	U
10061-01-5	cis-1,3-Dichloropropene	200.	U
79-01-6	Trichloroethene	3200.	D
124-48-1	Dibromochloromethane	200.	U
79-00-5	1,1,2-Trichloroethane	200.	U
71-43-2	Benzene	200.	U
50061-02-6	trans-1,3-Dichloropropene	200.	U
75-25-2	Bromoform	200.	U
108-10-1	4-Methyl-2-Pentanone	200.	U
591-78-6	2-Hexanone	200.	U
127-18-4	Tetrachloroethene	28.	DJ
79-34-5	1,1,2,2-Tetrachloroethane	200.	U
108-88-3	Toluene	200.	U
108-90-7	Chlorobenzene	200.	U
100-41-4	Ethylbenzene	200.	U
100-42-5	Styrene	200.	U
108-38-3	(m+p)Xylene	200.	U
95-47-6	o-Xylene	200.	U

000028

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-10DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2266

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 20.0

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

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2257

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	2.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	15.	
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	15.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW4

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-6

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2257

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

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

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2255

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20.	U
74-83-9	Bromomethane	20.	U
75-01-4	Vinyl chloride	20.	U
75-00-3	Chloroethane	20.	U
75-09-2	Methylene chloride	20.	U
67-64-1	Acetone	20.	U
75-15-0	Carbon Disulfide	20.	U
75-35-4	1,1-Dichloroethene	5.	J
75-34-3	1,1-Dichloroethane	20.	U
156-60-5	trans-1,2-Dichloroethene	20.	U
67-66-3	Chloroform	20.	U
107-06-2	1,2-Dichloroethane	20.	U
78-93-3	2-Butanone	20.	U
156-59-2	cis-1,2-Dichloroethene	72.	
71-55-6	1,1,1-Trichloroethane	55.	
56-23-5	Carbon tetrachloride	20.	U
75-27-4	Bromodichloromethane	20.	U
78-87-5	1,2-Dichloropropane	20.	U
10061-01-5	cis-1,3-Dichloropropene	20.	U
79-01-6	Trichloroethene	900.	E
124-48-1	Dibromochloromethane	20.	U
79-00-5	1,1,2-Trichloroethane	20.	U
71-43-2	Benzene	20.	U
50061-02-6	trans-1,3-Dichloropropene	20.	U
75-25-2	Bromoform	20.	U
108-10-1	4-Methyl-2-Pentanone	20.	U
591-78-6	2-Hexanone	20.	U
127-18-4	Tetrachloroethene	9.	J
79-34-5	1,1,2,2-Tetrachloroethane	20.	U
108-88-3	Toluene	20.	U
108-90-7	Chlorobenzene	20.	U
100-41-4	Ethylbenzene	20.	U
100-42-5	Styrene	20.	U
108-38-3	(m+p)Xylene	20.	U
95-47-6	o-Xylene	20.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW5

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-4

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2255

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 2.0

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

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	14.15	14.	J
2.					
3.					
4.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-4DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2270

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100.	U
74-83-9	Bromomethane	100.	U
75-01-4	Vinyl chloride	100.	U
75-00-3	Chloroethane	100.	U
75-09-2	Methylene chloride	100.	U
67-64-1	Acetone	100.	U
75-15-0	Carbon Disulfide	100.	U
75-35-4	1,1-Dichloroethene	100.	U
75-34-3	1,1-Dichloroethane	100.	U
156-60-5	trans-1,2-Dichloroethene	100.	U
67-66-3	Chloroform	100.	U
107-06-2	1,2-Dichloroethane	100.	U
78-93-3	2-Butanone	100.	U
156-59-2	cis-1,2-Dichloroethene	83.	DJ
71-55-6	1,1,1-Trichloroethane	63.	DJ
56-23-5	Carbon tetrachloride	100.	U
75-27-4	Bromodichloromethane	100.	U
78-87-5	1,2-Dichloropropane	100.	U
10061-01-5	cis-1,3-Dichloropropene	100.	U
79-01-6	Trichloroethene	1100.	D
124-48-1	Dibromochloromethane	100.	U
79-00-5	1,1,2-Trichloroethane	100.	U
71-43-2	Benzene	100.	U
50061-02-6	trans-1,3-Dichloropropene	100.	U
75-25-2	Bromoform	100.	U
108-10-1	4-Methyl-2-Pentanone	100.	U
591-78-6	2-Hexanone	100.	U
127-18-4	Tetrachloroethene	100.	U
79-34-5	1,1,2,2-Tetrachloroethane	100.	U
108-88-3	Toluene	100.	U
108-90-7	Chlorobenzene	100.	U
100-41-4	Ethylbenzene	100.	U
100-42-5	Styrene	100.	U
108-38-3	(m+p)Xylene	100.	U
95-47-6	o-Xylene	100.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW5DL

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-4DL

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2270

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/09/94

GC Column:RTX-502 ID: 0.53 (mm) Dilution Factor: 10.0

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-7

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2249

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/08/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW6

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix: (soil/water) WATER Lab Sample ID:4290-7

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2249

Level: (low/med) LOW Date Received:11/02/94

% Moisture: not dec. Date Analyzed:11/08/94

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

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

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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General Testing Corporation

Job #: R94/04290

SECTION D

SURROGATE SUMMARY

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:GENERAL TESTING Contract:H & A

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

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	HADUP	98	98	98		0
02	HADUPDL	100	100	96		0
03	HATB	98	96	96		0
04	MW1	94	98	98		0
05	MW2	98	98	96		0
06	MW201D	98	98	96		0
07	MW202D	100	104	94		0
08	MW2DL	100	100	82		0
09	MW3	98	102	106		0
10	MW3DL	102	104	92		0
11	MW4	102	98	100		0
12	MW5	98	98	98		0
13	MW5DL	100	102	92		0
14	MW6	102	98	94		0
15	MW6MS	100	100	92		0
16	MW6MSD	98	100	92		0
17	VBLK1	98	94	96		0
18	VBLK1MS	98	100	88		0
19	VBLK2	104	102	88		0
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	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

General Testing Corporation

Job #: R94/04290

SECTION E

MS/MSD

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix Spike - EPA Sample No.: MW6

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	54.	108	61-145
Trichloroethene	50.	0.	48.	96	71-120
Benzene	50.	0.	49.	98	76-127
Toluene	50.	0.	47.	94	76-125
Chlorobenzene	50.	0.	47.	94	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	50.	100	8	14	61-145
Trichloroethene	50.	49.	98	2	14	71-120
Benzene	50.	48.	96	2	11	76-127
Toluene	50.	47.	94	0	13	76-125
Chlorobenzene	50.	47.	94	0	13	75-130

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

* Values outside of QC limits

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

COMMENTS:

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WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:GENERAL TESTING Contract:H & A

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

Matrix Spike - EPA Sample No.: VBLK1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	62.	124	61-145
Trichloroethene	50.	0.	53.	106	71-120
Benzene	50.	0.	53.	106	76-127
Toluene	50.	0.	52.	104	76-125
Chlorobenzene	50.	0.	51.	102	75-130

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

* Values outside of QC limits

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

COMMENTS:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1MS

Lab Name:GENERAL TESTING Contract:H & A

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

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

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2248

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

% Moisture: not dec. Date Analyzed:11/08/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	62.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	53.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	53.	
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	52.	
108-90-7	Chlorobenzene	51.	
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

General Testing Corporation

Job #: R94/04290

SECTION F

BLANK DATA

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name:GENERAL TESTING Contract:H & A

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

Lab File ID:Q2247 Lab Sample ID:METHOD BLANK

Date Analyzed:11/08/94 Time Analyzed:2024

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

Instrument ID:MS5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	HADUP	4290-5	Q2256	0213
02	HATB	4290-1	Q2252	2349
03	MW1	4290-9	Q2259	0402
04	MW2	4290-8	Q2258	0326
05	MW201D	4290-3	Q2254	0101
06	MW202D	4290-2	Q2253	0025
07	MW3	4290-10	Q2260	0438
08	MW4	4290-6	Q2257	0250
09	MW5	4290-4	Q2255	0137
10	MW6	4290-7	Q2249	2144
11	MW6MS	4290-7MS	Q2250	2228
12	MW6MSD	4290-7MSD	Q2251	2313
13	VBLK1MS	BLANK SPIKE	Q2248	2104
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COMMENTS:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name:GENERAL TESTING Contract:H & A

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

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

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2247

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

% Moisture: not dec. Date Analyzed:11/08/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK1

Lab Name:GENERAL TESTING Contract:H & A

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

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

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2247

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

% Moisture: not dec. Date Analyzed:11/08/94

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

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name:GENERAL TESTING Contract:H & A

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

Lab File ID:Q2264 Lab Sample ID:METHOD BLANK

Date Analyzed:11/09/94 Time Analyzed:0927

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

Instrument ID:MS5

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	HADUPDL	4290-5DL	Q2271	1424
02	MW2DL	4290-8DL	Q2269	1313
03	MW3DL	4290-10DL	Q2266	1054
04	MW5DL	4290-4DL	Q2270	1348
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COMMENTS:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name:GENERAL TESTING Contract:H & A

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

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

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2264

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

% Moisture: not dec. Date Analyzed:11/09/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
50061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethylbenzene	10.	U
100-42-5	Styrene	10.	U
108-38-3	(m+p)Xylene	10.	U
95-47-6	o-Xylene	10.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name:GENERAL TESTING Contract:H & A

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

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

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: Q2264

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

% Moisture: not dec. Date Analyzed:11/09/94

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

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING Contract:H & A

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

Lab File ID (Standard):Q2246 Date Analyzed:11/08/94

Instrument ID:MS5 Time Analyzed:1935

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

	EPA SAMPLE NO.	IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	101151	9.99	444974	11.75	374273	18.24
	UPPER LIMIT	202302	10.49	889948	12.25	748546	18.74
	LOWER LIMIT	50576	9.49	222487	11.25	187137	17.74
01	VBLK1	97209	10.03	440283	11.78	378498	18.25
02	VBLK1MS	91419	10.04	397516	11.78	350167	18.30
03	MW6	94228	10.01	413464	11.76	347670	18.27
04	MW6MS	95686	9.98	415363	11.74	360564	18.27
05	MW6MSD	94428	9.97	415924	11.73	360045	18.25
06	HATB	91375	10.06	398403	11.83	348025	18.34
07	MW202D	90881	10.04	396130	11.79	333667	18.34
08	MW201D	90805	10.08	395874	11.83	348976	18.34
09	MW5	89293	10.06	398799	11.81	350080	18.29
10	HADUP	90049	10.08	405659	11.85	348104	18.34
11	MW4	84548	10.08	373708	11.85	319498	18.34
12	MW2	89172	10.08	379142	11.85	335804	18.35
13	MW1	88397	10.08	387126	11.83	343166	18.34
14	MW3	78764	10.09	358988	11.86	318211	18.34
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:GENERAL TESTING Contract:H & A

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

Lab File ID (Standard):Q2263 Date Analyzed:11/09/94

Instrument ID:MS5 Time Analyzed:0833

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

	IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD	89932	10.06	401699	11.83	347452	18.35
UPPER LIMIT	179864	10.56	803398	12.33	694904	18.85
LOWER LIMIT	44966	9.56	200850	11.33	173726	17.85
EPA SAMPLE NO.						
01 VBLK2	87685	9.94	362993	11.69	325999	18.23
02 MW3DL	81066	10.04	352335	11.78	307916	18.29
03 MW2DL	93267	9.94	347633	11.66	339842	18.22
04 MW5DL	82283	10.03	355307	11.78	310412	18.27
05 HADUPDL	85043	10.09	377162	11.85	329525	18.34
06						
07						
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22						

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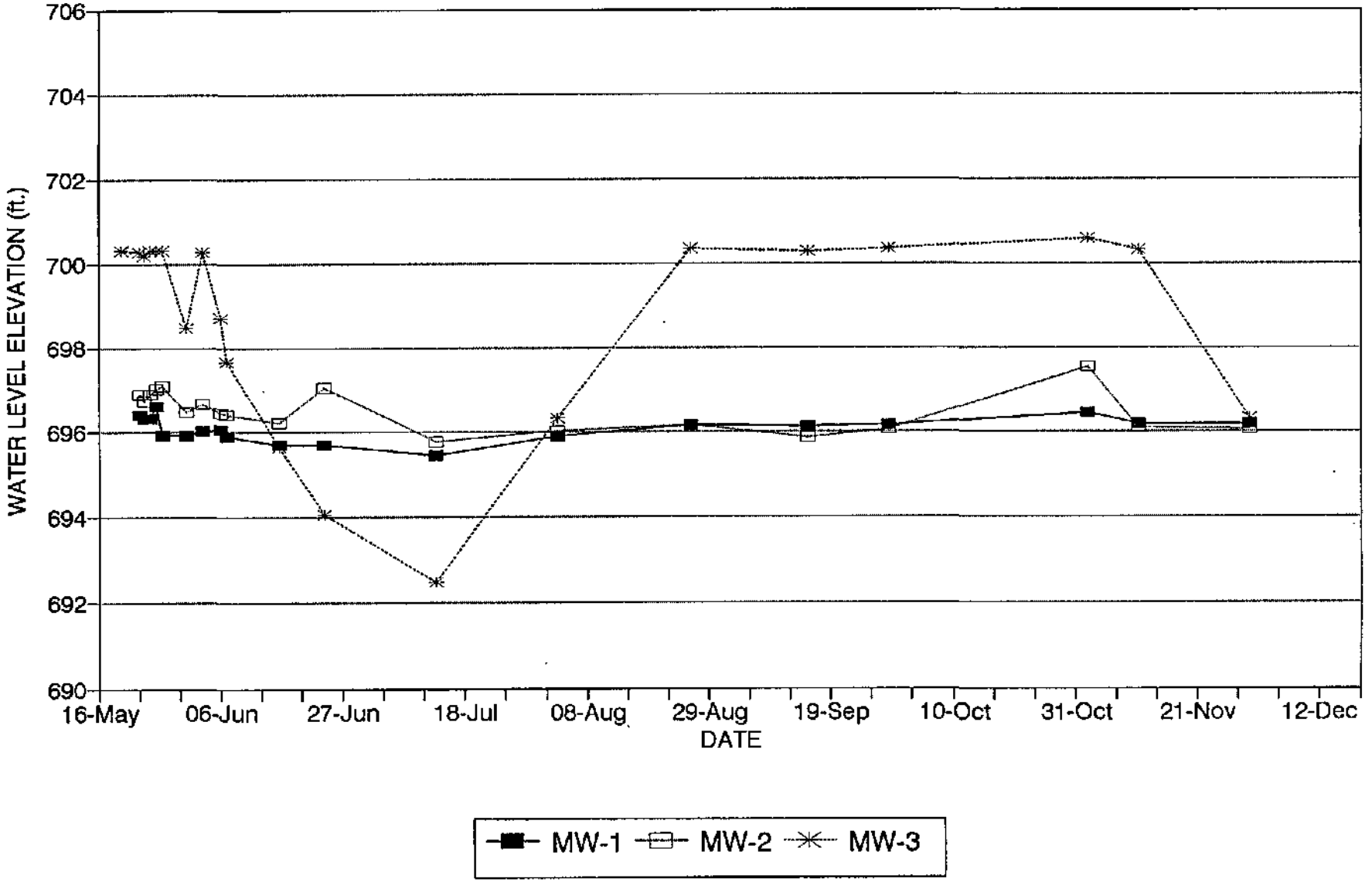
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

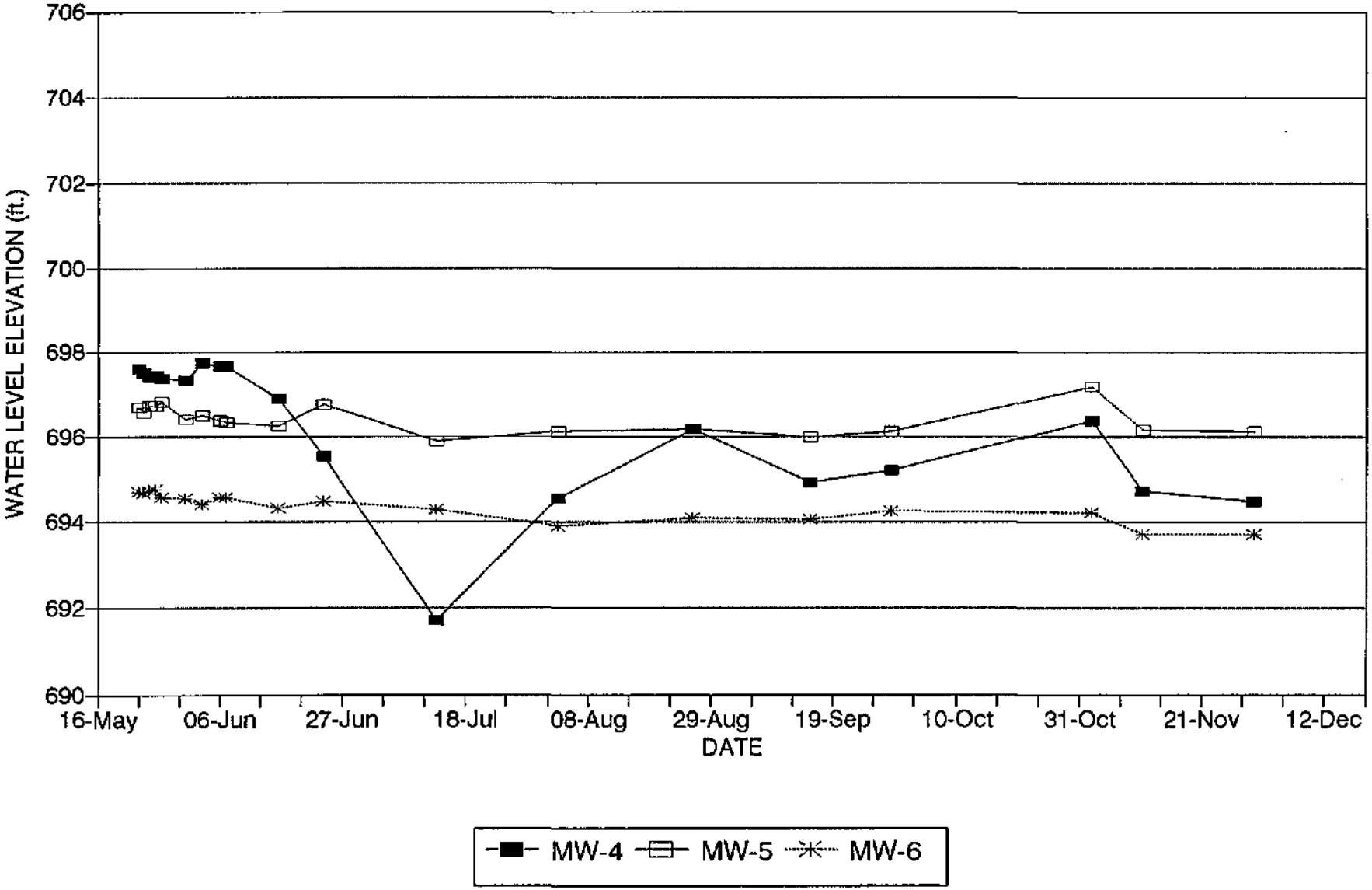
APPENDIX B

Hydrographs for Honeoye Creek and On-site Monitoring Wells

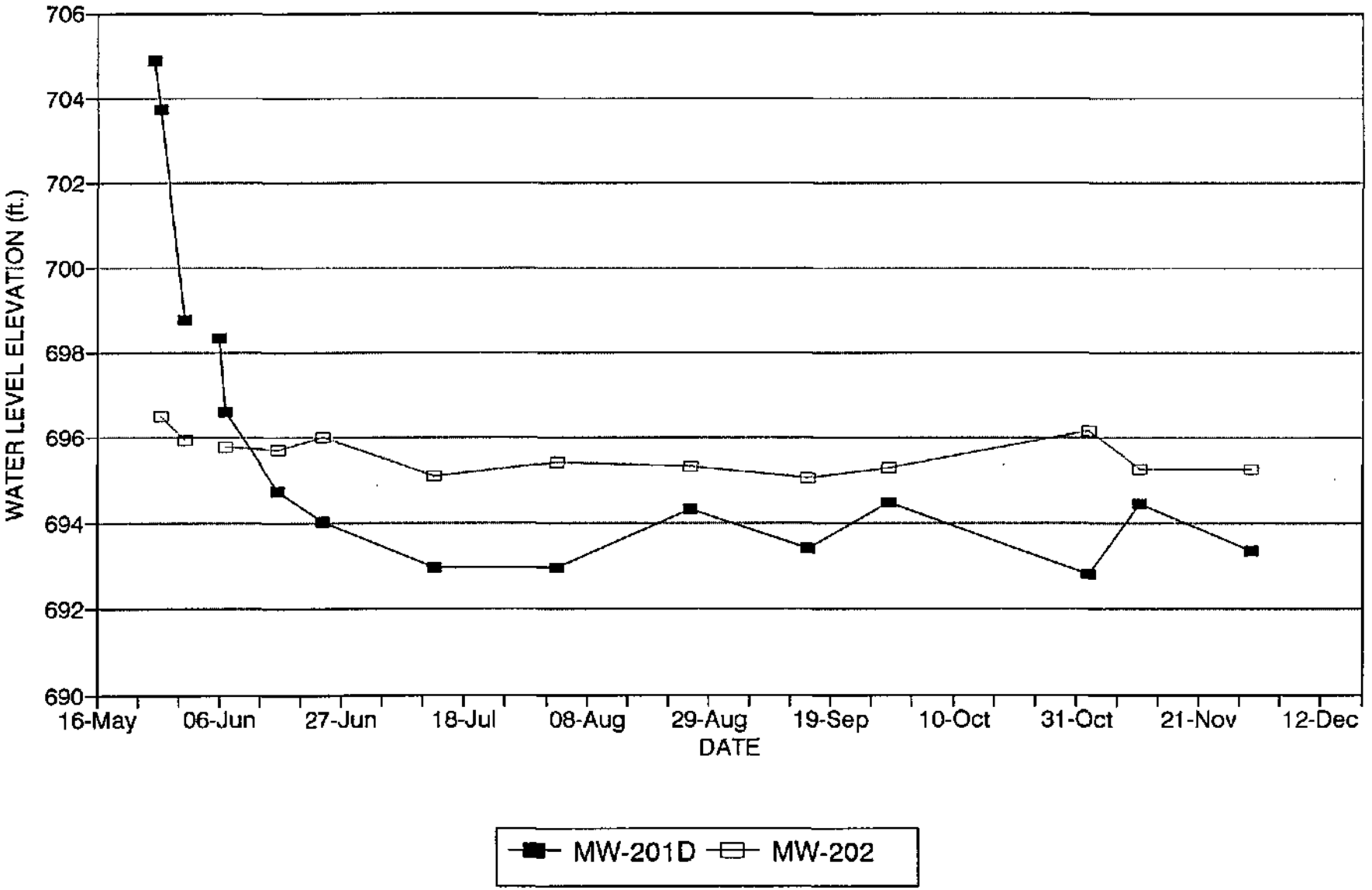
WELL HYDROGRAPHS
ENARC-O MACHINE PRODUCTS



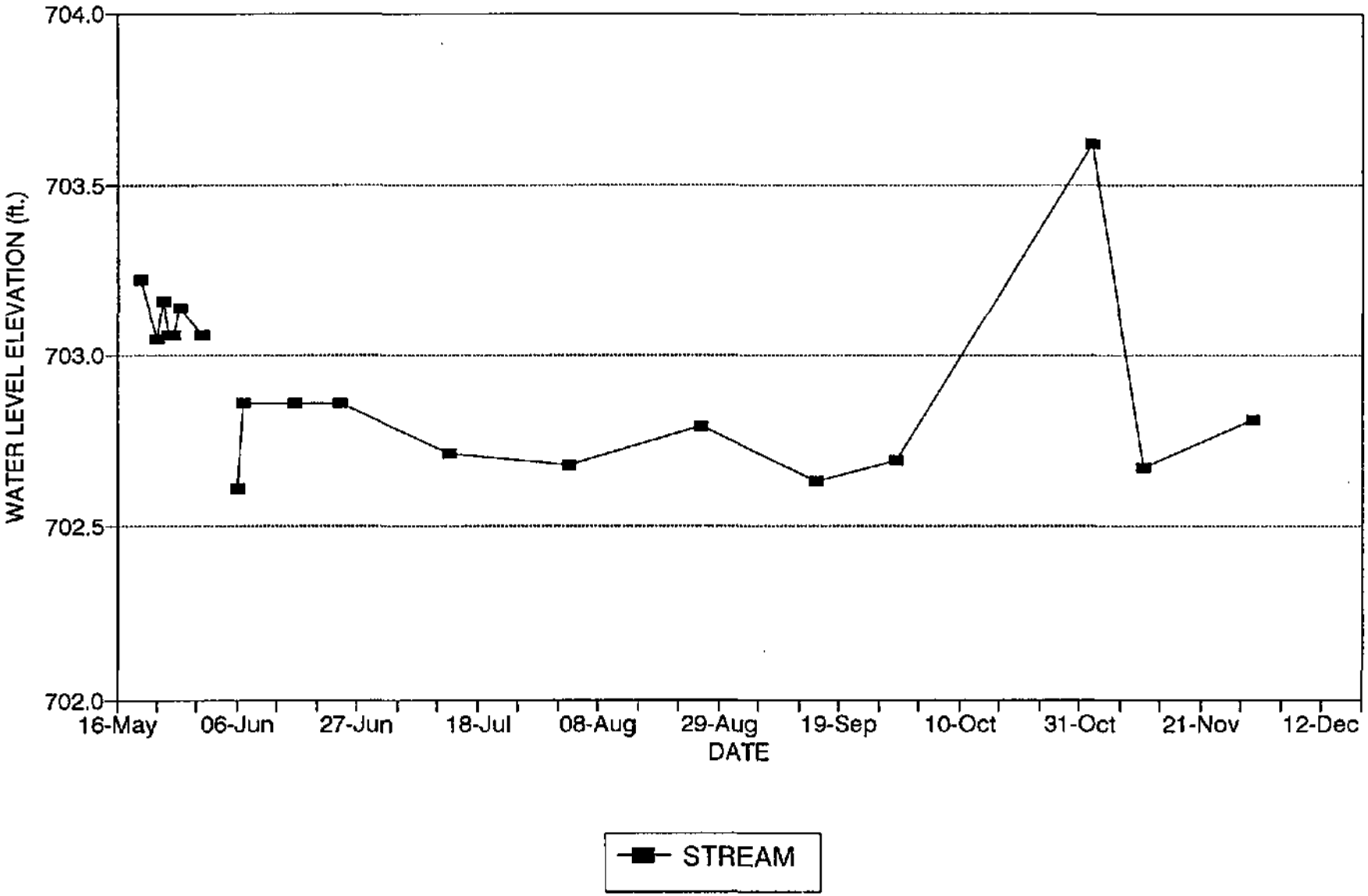
WELL HYDROGRAPHS
ENARC-O MACHINE PRODUCTS



WELL HYDROGRAPHS
ENARC-O MACHINE PRODUCTS



WELL HYDROGRAPHS
ENARC-O MACHINE PRODUCTS



APPENDIX C

Draft Fish and Wildlife Impact Analysis Report

Fish and Wildlife Impact Analysis

for the

Enarc-O Machine Products Site

DRAFT

Provided by: Thomas P. Connare, TPC Environmental Consulting

DRAFT

INTRODUCTION

This report presents a habitat-based analysis of fish and wildlife usage of the area surrounding the Enarc-O Machine Products site in Lima, Livingston County, New York. The analysis follows the guidelines established in Step One in the document prepared by the New York State Department of Environmental Conservation (NYSDEC) Division of Fish and Game entitled Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA), (1991). The objective of Step One of the FWIA is to identify fish and wildlife resources that may potentially be impacted by site-related contaminants. Step One requires such resource information be provided in the form of site maps and descriptions of site covertypes and utilization of site covertypes by fish and wildlife.

The analysis was conducted by TPC Environmental of Buffalo, New York. Site information was collected during both an on-site field investigation on July 24, 1994 and a review of NYSDEC files in Avon, New York. Historic aerial photography of the site was obtained at the Soil and Water Conservation District Office for Livingston County in Leicester, New York.

TOPOGRAPHIC MAP

A topographic map showing the site location and significant water resources and New York State regulated wetlands within a two mile radius of the site is presented as Figure 1. The village of Lima is located just over two miles southwest of the Enarc-O site. The Town of Honeoye Falls is located about one mile northwest of the site. Honeoye Creek flows northwesterly through the site area

and is located adjacent to the site to the east. Spring Brook is located approximately two miles west of the site.

New York State Natural Heritage Program maps indicate that there are no NYSDEC significant habitats or habitats supporting endangered, threatened or rare species within a two mile radius of the site. Similarly, there are no wild and scenic rivers located within two miles of the site.

NYSDEC freshwater wetland maps for Monroe, Livingston and Ontario Counties indicate that state regulated wetland HF-4 is located approximately one mile southwest of the site and state regulated wetland HF-1 is located approximately 7000 feet southwest of the site.

NYSDEC deer wintering maps for the same three counties indicate that the closest deer wintering area to the site is just over two miles north of the site, north of Cheese Factory Road and west of Quaker Meetinghouse Road.

COVERTYPE MAP

A covertype map of the study area is presented as Figure 2. The study area is the area described by a circle within a 0.5 mile radius of the site. The covertype map identifies the location of significant vegetative communities, agricultural fields and aquatic resources. Identification of significant covertypes and fish and

wildlife resources in the study area was made by Thomas P. Connare (biologist) during the on-site field investigation on July 24, 1994.

COVERTYPES AND FISH AND WILDLIFE RESOURCES

Most of the general area including the site study area has historically been a rural farming community. Much of the area is still being farmed. The site is actually located in the small township of North Bloomfield. The study area north of the Enarc-O site is largely residential, especially along Ideson Road, Bean Hill Road, Martin Road, Quaker Meetinghouse Road and State Route 65. Most of the study area south of the site is agricultural. At the time of the field investigation, the main crops being grown were beans, corn and wheat. An agricultural area east of the site and immediately north of Route 65 was in corn and wheat. The old race track grounds were being used for hay and pasture.

When land used for farming and pasture shifted to commercial and residential development, most of the abandoned fields began to undergo ecological succession. Ecological succession is a fairly predictable sequence where an area disturbed by farming or logging will revert back to the climax vegetative community characteristic of the area. This process is characterized by a series of developing plant communities in which various plant species populations are usually replaced by others over time.

Many of the vegetative communities present in the study area represent different stages in this process. Areas of poor drainage and areas along stream courses, hedgerows and boundary lines typically represent the most advanced stages of succession. These stages are dominated by woody vegetation including both trees and shrubs. Younger stages in the successional process are dominated by herbaceous annuals and perennials. Species composition of the developing stages will depend on moisture regime, drainage and seed source. Covertypes identified in the study area include both upland and wetland vegetative communities. Plant species identified in these communities during the field investigation are listed in Table 1. Wetland plant communities were only identified along the immediate banks of portions of Honeoye Creek. .

UPLAND COVERTYPES

OLD FIELD

The old field plant community is an early stage in succession where recently abandoned agricultural fields are being colonized by an aggressive pioneer herbaceous community and seedlings of woody shrubs and trees. Plant species identified as common in old field communities in the study area include the grasses tall fescue, timothy and hairgrass along with Canada goldenrod, Canada thistle, Virginia creeper, poison ivy, staghorn sumac and green ash.

SHRUBLAND

Shrublands represent old field communities typically greater than ten years old where woody vegetation including shrub and saplings have become dominant. Shrublands are typically patchy in appearance with large clumps of shrubs mixed with saplings and open areas of persistent herbaceous species. There were no significant shrublands observed in the study area. What shrub areas there were tended to be along the margins of woodlots. A small shrubland was identified between two woodlot areas immediately north of a large wheat field east of Bragg Road. Plant species common in this shrubland include staghorn sumac, tartarian honeysuckle, green ash, scotch pine, black walnut, reed canary grass, Virginia creeper and summer grape. Typical woodlot edge plant species common in the study area include arrowwood, dogwoods, staghorn sumac, poison ivy, Virginia creeper, pokeweed, Canada thistle, raspberry and grape.

WOODLOT

Woodlots common to the study area are of several different types. The most common woodlot type observed is an upland forest community representing an advanced stage of old field succession. Tree species common in these woodlots include shagbark hickory, basswood, box elder, green ash, sugar maple, hawthorn and buckhorn. Other species common in these communities include

tartarian honeysuckle, Virginia creeper, white avens, enchanter's nightshade and grape.

Older, mature forested areas were observed along the upper banks and sloping areas associated with much of Honeoye Creek. Tree species identified in these areas include black walnut, black locust, basswood, sugar maple and beech. Other species include honeysuckle, Virginia creeper, garlic mustard, mayapple and enchanter's nightshade.

A small woodlot in the southwest portion of the study area, immediately west of a large bean field is dominated by conifers. This woodlot was apparently planted by man and includes many mature specimens of Norway spruce, scotch pine and red pine as well as green ash, white oak, staghorn sumac, poison ivy, Virginia creeper and grape.

WETLAND COVERTYPES

No significant wetland areas were identified in the study area except immediately adjacent to Honeoye Creek. The wetter, less well drained sections of some of the woodlots in the study area had greater percentages of green ash, shagbark hickory and basswood.

The riparian wetlands bordering Honeoye Creek in the study area were mostly associated with the lower level of the bank close to the level of the creek bed. Tree species identified as common along the creek include black willow, green ash, eastern

cottonwood, basswood and box elder. Vegetation growing along the creek bottom and waters edge included lizard tail, cattail, buttonbush, joe pye weed, reed canary grass, green bulrush, Phragmites, white vervain, intermediate dogbane, silky dogwood and fowl manna grass.

AQUATIC HABITATS

Honeoye Creek is the only major aquatic resource in the study area. Honeoye Creek flows northwesterly through the study area, ultimately discharging into the Genesee River which flows to Lake Ontario.

Honeoye Creek, as observed in the study area, is a relatively wide and shallow, slow moving warm water stream. The primary substrate is sedimentary rock, principally limestone and shale. Throughout much of the summer and fall months, much of the stream bed lies above water except following heavy rains. A series of small falls are common along the stream's length and are typically associated with weathered joints in the bedrock. Deeper pool areas are found where sections of bedrock have weathered away in the vicinity of the falls. Algal growth is common along the shallower, slower moving sections of the creek. Beds of lizard tail, reed canary grass and cattail occur where suitable substrate is available.

No physical or chemical measurements were taken in the creek

during the site investigation. At that time the water level was low with much of the bedrock substrate exposed above the water level.

WILDLIFE USAGE

TERRESTRIAL BIOTA

The variety of covertypes in the study area support a diverse yet common wildlife community. The most common species in this community are those whose populations have flourished since human settlement. The proximity to active agricultural fields in the study area permits access to a readily available food source during much of the year for several wildlife species. The many woodlot habitats in the area provide ideal daily and seasonal cover for these species.

A list of mammal, reptile and amphibian species potentially present in the study area are presented in Tables 1-5. This species list was generated based on a field assessment of available wildlife habitat and on resource information indicating the mapped range for each species. During the field survey, several deer were observed in the agricultural fields. Numerous woodchuck burrows were also observed. Local residents indicated that red fox, eastern cottontail and raccoon are also common in the area including the site.

Bird species potentially breeding in the study area are listed in table 3. This list was generated based on a field

survey of suitable breeding habitat and on a recent breeding status report for New York State (1988). Birds display widespread migration and localized movement patterns and it would be difficult to assess passing versus territorial usage of the study area by different species. Birds observed during the field survey included migrant as well as permanent residents. Probable permanent resident species in the study area include American crow, starling, bluejay, black-capped chickadee, goldfinch, northern cardinal, house finch, house sparrow, song sparrow, brown creeper, white-breasted nuthatch, mourning dove, downy woodpecker, redtail hawk, American kestrel and dark sided junco. Other birds observed during the survey included northern flicker, redeyed vireo, eastern wood pewee, catbird, purple martin, barn swallow, kingfisher, pectoral sandpiper, great blue heron, killdeer, house wren, turkey vulture, northern oriole, robin, common grackle, cedar waxwing and indigo bunting.

The successional old field, shrubland and second growth woodlot covertypes in the study area, in combination with the agricultural fields and riparian corridor of Honeoye Creek, are patchy environments that provide ideal habitat for white tail deer, eastern cottontail, striped skunk, raccoon, woodchuck and numerous small rodents, especially gray and red squirrel, chipmunk and

meadow vole. Numerous bird species utilize these habitats on a year-round basis due to the bountiful supply of insects, berries and seeds common in the shrub and herbaceous vegetation. Predator species such as weasel, fox, shrew, redtail hawk, screech owl and American kestrel prey on the many small mammals and birds in these areas.

The more mature woodlots and wooded areas along portions of Honeoye Creek provide food, shelter and nesting sites for a variety of wildlife species including eastern gray squirrel, white tail deer, raccoon and small rodents such as deer mice, vole and chipmunk. Resident bird species utilizing these areas include bluejay, chickadee, brown creeper, white-breasted nuthatch, downy woodpecker, northern flicker, junco and American crow. Seasonal migrants commonly breeding here include northern oriole, eastern wood pewee, redeyed and warbling vireos, hooded warbler and wood thrush. The fragmentation of woodland habitat in most rural farming areas has resulted in the elimination or sharp reduction of many mammal and bird species that require forest interior habitat characteristic of large, unbroken tracts of woodland.

In addition to providing habitat for resident populations of mammals and birds, riparian habitat also serves as dispersal corridors for many species. Dispersal corridors provide long strips of protective habitat bordering relatively unsuitable habitat making it possible for species to colonize other fragmented

habitats. Honeoye Creek provides such a corridor.

AQUATIC BIOTA

Honeoye Creek is categorized as a warm water stream and as such is able to support a limited warm water fishery. Although no fish sampling has been conducted by NYSDEC fishery biologists in recent years, collections from the 1950's and the 1970's yielded the following species: northern hogsucker, rock bass, smallmouth bass, bluegill, pumpkinseed, black nose dace, common shiner, stoneroller, white sucker, creek chub, brown bullhead, several darters, logperch, golden shiner, crappie, carp, fat head minnow, redhorse and largemouth bass. A fishery biologist with the NYSDEC indicated that walleye and chain pickerel are resident in the Genesee River and may occasionally enter Honeoye Creek; he added that the creek does not provide a suitable environment for salmonids.

It is unlikely that Honeoye Creek supports a diverse fish community in the study area due to low water flow and the generally shallow nature of the creek in summer. Local residents indicated that some smallmouth bass are found in some of the deeper pool areas and that there is a good crayfish population in the creek.

In addition to a fishery, Honeoye Creek provides feeding and shelter habitat for a variety of mammal, reptile, amphibian and bird species. Raccoon, mink, muskrat and shrews would be expected

to feed here. Birds observed feeding in the creek during the survey included kingfisher, great blue heron, mallard, killdeer and pectoral sandpiper. A local resident observed that killdeer had nested on the dry creek bottom. Other species utilizing the creek habitat would include redwing blackbird, common grackle, swamp sparrow, marsh wren, common yellowthroat, song sparrow, green back heron, black crown night heron, eastern kingbird and several swallow species.

VALUE OF RESOURCES TO HUMANS

Human use of fish and wildlife resources within the study area include hunting, fishing and primary contact recreation in portions of Honeoye Creek. Local ordinances prohibit hunting within a specified distance of structures such as buildings, roads and railroad tracks. Deer are plentiful in the general region including the study area but it is not known if hunting actually occurs in the study area, given the proximity to residences and roads. Hunting of woodchuck, squirrel and certain bird species is possible within the study area.

Although sections of Honeoye Creek probably support a relatively diverse warm water fish community, fishing pressure is probably light within the study area. According to local residents, there is some fishing for smallmouth bass and perhaps sunfish and bullhead in a few of the deeper "holes" in the creek. Youths were

observed collecting crayfish in the creek during the field survey. Aside from these occasions of casual fishing, there probably is very little sport fishing in the creek in the study area.

Much of Honeoye Creek, especially in the areas of higher density human inhabitance, has been designated as Class B by New York State. Class B waters are classified as suitable for primary contact recreation such as swimming and wading. There was ample evidence during the stream survey that local residents utilize the creek for recreational activity such as wading, hiking and collecting.

DRAFT

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TABLE 1

COMMON AND SCIENTIFIC NAMES OF PLANT SPECIES
IDENTIFIED AT THE
ENARCO-O MACHINE PRODUCTS SITE

TREES	
COMMON NAME	SCIENTIFIC NAME
Green Ash	Fraxinus pennsylvanica
Black Locust	Robinia pseudoacacia
Black Willow	Salix nigra
Black Walnut	Juglans nigra
Eastern Cottonwood	Populus deltoides
Shagbark Hickory	Carya ovata
Sugar Maple	Acer saccharum
American Beech	Fagus grandifolia
American Basswood	Tilia americana
Box Elder	Acer negundo
Buckthorn	Rhamnus cathartica
Hawthorn	Crataegus sp.
Apple	Malus sp.
Black Cherry	Prunus serotina
American Elm	Ulmus americana
Red Maple	Acer rubrum
Scotch Pine	Pinus sylvestris
Red Pine	Pinus resinosa
Norway Spruce	Picea abies
Swamp White Oak	Quercus bicolor
SHRUBS AND VINES	
Silky Dogwood	Cornus amomum
Staghorn Sumac	Rhus typhina
Tartarian Honeysuckle	Lonicera tatarica
Northern Arrowwood	Viburnum dentatum

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TABLE 1-CONTINUED

COMMON AND SCIENTIFIC NAMES OF PLANT SPECIES
IDENTIFIED AT THE
ENARCO-O MACHINE PRODUCTS SITE

Buttonbush	Cephalanthus occidentalis
Multifloral Rose	Rosa multiflora
Raspberry	Rubus alleganiensis
Poison Ivy	Toxicodendron radicans
Virginia Creeper	Parthenocissus quinquefolia
Summer Grape	Vitis aestivalis
Currant	Ribes sp.
HERBACEOUS	
Lizardtail	Saururey cernuus
Joe-pye Weed	Eupatorium maculatum
Reed Canary Grass	Phalaris arundinacea
Pokeweed	Phytolacca americana
Tall Fescue	Fescue elatior
Timothy	Phleum pratense
Hairgrass	Deschampsia flexuosa
Canada Goldenrod	Solidago canadensis
Canada Thistle	Cirsium arvense
Garlic Mustard	Alliaris officinalis
Moneywort	Lyoimachin numularia
White Avens	Geum laciniatum
Touch-me-not	Impatiens capensis
Mayapple	Podophyllum peltatum
Wild Bergamot	Monarda fistulosa
Daisy Fleabane	Erigeron annuus
Wild Ginger	Asarum canadense
Lance-leaved Goldenrod	Euthamia graminifolia
Cattail	Typha latifolia
Enchanter's Nightshade	Circe quadrisulcata
Agrimony	Agrimonia sp.

TABLE 1-CONTINUED

COMMON AND SCIENTIFIC NAMES OF PLANT SPECIES
IDENTIFIED AT THE
ENARCO-O MACHINE PRODUCTS SITE

Green Bulrush	Scirpus atrovirens
Fowl Manna Grass	Glyceria striata
Intermediate Dogbane	Apocynum medium
Common Reed	Phragmites communis
White Vervain	Verbena urticifolia

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TABLE 2
MAMMAL SPECIES POTENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

COMMON NAME	SCIENTIFIC NAME
Northern water shrew	Sorex palustris
Masked shrew	Sorex cinereus
Short-tailed shrew	Blarina brevicauda
Least shrew	Crypototis parva
Hairy-tailed mole	Parascalops breweri
Star-nosed mole	Condylura cristata
Little brown bat	Myotis lucifugus
Big brown bat	Eptesicus fuscus
Eastern cottontail rabbit	Sylvilagus floridanus
Opossum	Didelphis virginiana
Eastern chipmunk	Tamias striatus
Woodchuck	Marmota monax
Gray squirrel	Sciurus carolinensis
Red squirrel	Tamiasciurus hudsonicus
Deer mouse	Peromyscus maniculatus
White-footed mouse	Peromyscus leucopus
Meadow vole	Microtus pennsylvanicus
Muskrat	Ondotra zibethica
Norway rat	Rattus norvegicus
House mouse	Mus musculus
Meadow jumping mouse	Zapus hudsonicus
Woodland jumping mouse	Napaeozapus insignis
Coyote	Canis latrans
Red fox	Vulpes fulva
Eastern raccoon	Procyon lotor
Ermine	Mustela erminea

DRAFT

TABLE 2 - CONTINUED
MAMMAL SPECIES POTENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

COMMON NAME	SCIENTIFIC NAME
Long-tailed weasel	Mustela frenata
Mink	Mustela vison
Striped skunk	Mephitis mephitis
White-tailed deer	Odocoileus virginianus

DRAFT

TABLE 3
BIRD SPECIES POTENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

Mallard duck	Wood thrush
Killdeer	Northern shrike
Upland sandpiper	Mockingbird
Northern harrier	Brown thrasher
Red-tailed hawk	Cedar waxwing
American kestrel	Starling
Ring-necked pheasant	Warbling vireo
Mourning dove	Blue-winged warbler
Yellow-billed cuckoo	golden-winged warbler
Great horned owl	Yellow warbler
Eastern screech owl	Chestnut-sided warbler
Common nighthawk	Belted kingfisher
Chimney swift	Common yellowthroat
Ruby-throated hummingbird	American redstart
Northern flicker	Rose-breasted grosbeak
Downy woodpecker	Northern cardinal
Red-headed woodpecker	Indigo bunting
Eastern kingbird	Rufous-sided towhee
Great crested flycatcher	Savannah sparrow
Eastern wood pewee	Song sparrow
Eastern phoebe	Field sparrow
Least flycatcher	Chipping sparrow
Tree swallow	Dark-sided junco
Barn swallow	Bobolink
Bluejay	Eastern meadowlark
American crow	Red-winged blackbird

TABLE 3 - CONTINUED
BIRD SPECIES POENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

Cooper's hawk	Sharp-shinned hawk
Common grackle	Brown-headed cowbird
Tufted titmouse	Orchard oriole
Black-capped chickadee	Northern oriole
White-breasted nuthatch	House sparrow
Brown creeper	American goldfinch
House wren	House finch
Eastern bluebird	American robin

DRAFT

TABLE 4
AMPHIBIAN SPECIES POTENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

COMMON NAME	SCIENTIFIC NAME
Newt	Notophthalmus viridescens
American toad	Bufo americanus
Northern spring peeper	Hyla crucifer
Western chorus frog	Pseudacris triseriata
Gray treefrog	Hyla versicolor
Bullfrog	Rana catesbeiana
Green frog	Rana clamitans
Pickerel frog	Rana palustris
Leopard frog	Rana pipiens
Wood frog	Rana sylvatica

TABLE 5
REPTILE SPECIES POTENTIALLY PRESENT AT THE
ENARC-O MACHINE PRODUCTS SITE

COMMON NAME	SCIENTIFIC NAME
Northern ring-neck snake	Diadophis punctatus
Eastern smooth green snake	Opheodrys vernalis
Milk snake	Lampropeltis triangulum
Water snake	Natrix sipedon
Northern brown snake	Storeria dekayi
Northern red-bellied snake	Storeria occipitomaculata
Northern ribbon snake	Thamnophis sauritus
Garter snake	Thamnophis sirtalis
Northern black racer	Coluber constrictor
Snapping turtle	Chelydra serpentina
Midland painted turtle	Chrysemys picta

KADDIS MANUFACTURING
ENARC-O MACHINE PRODUCTS
LIMA, NEW YORK

ENVIRONMENTAL RISK ASSESSMENT
STUDY AREA MAP

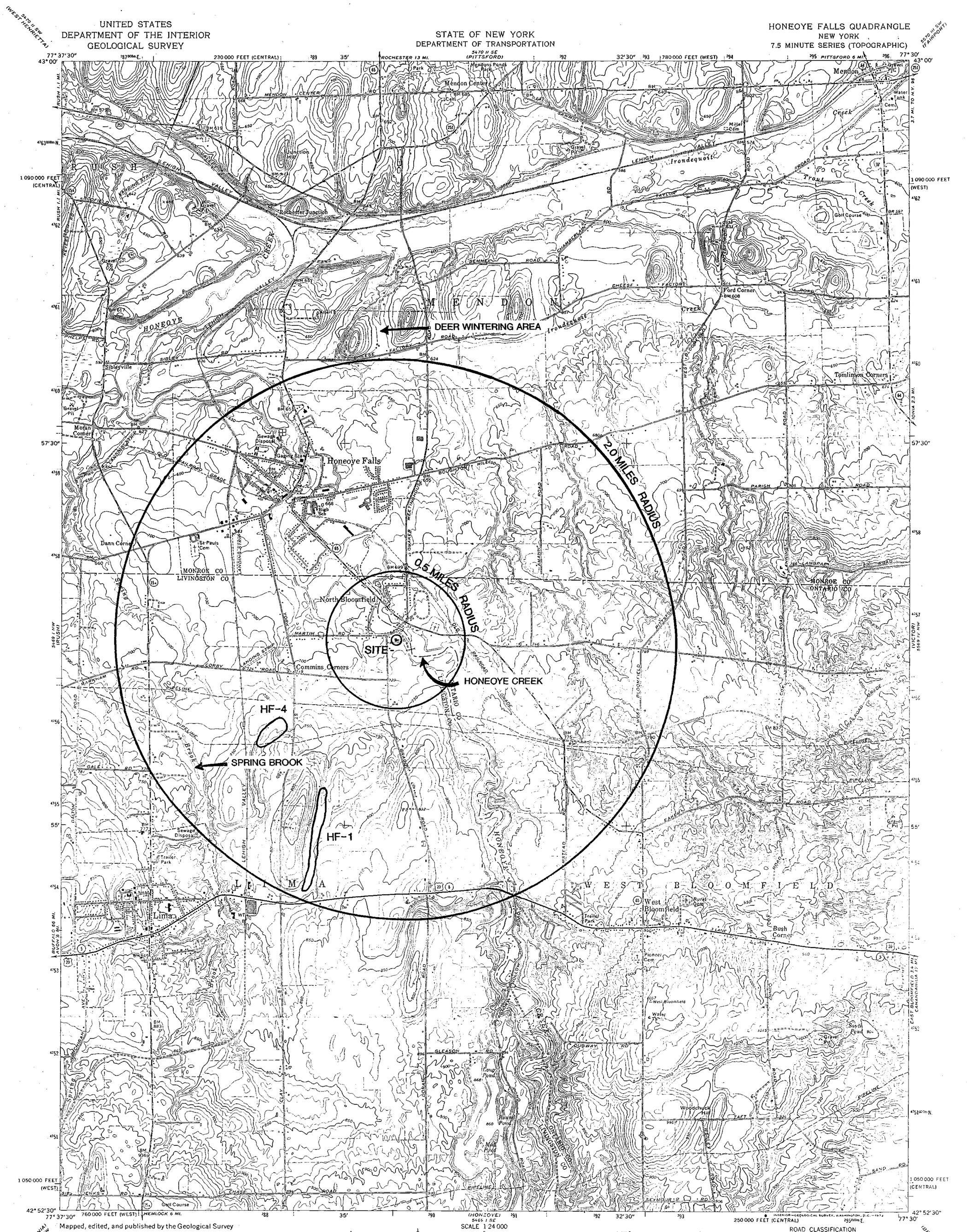

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FIGURE 1

KEY TO "COVER-TYPE" MAP

1. Agricultural (Ag) Field

2. Old Field

3. Shrubland

4 Woodlot

5. Riparian Wetland (follows Honeoye Creek - immediately adjacent to stream bank; a narrow strip of woodland)

Note: The remainder of the land area is residential and commercial.

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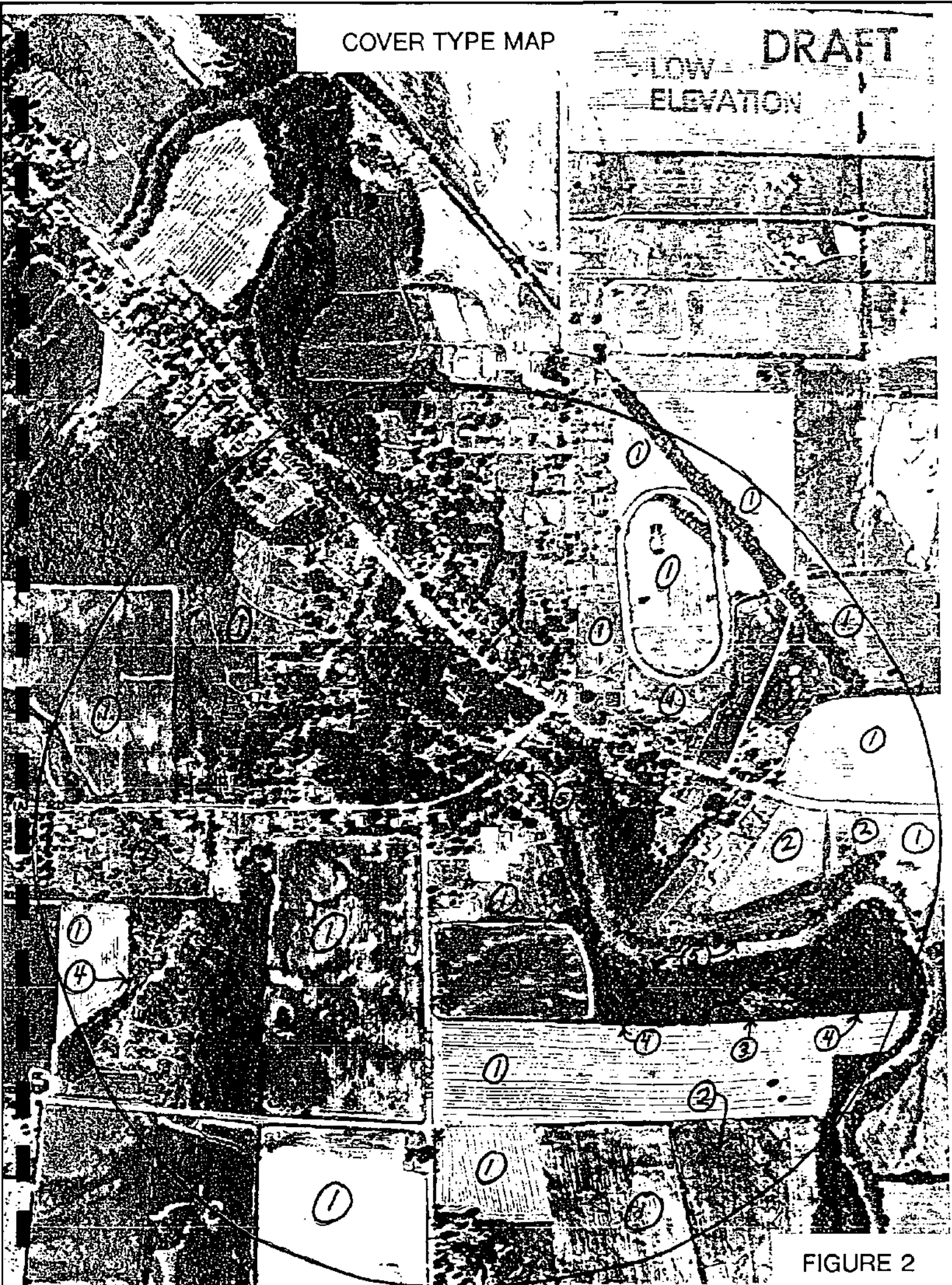

FIGURE 2