MALCOLM PIRNIE

MR. C'S DRY CLEANERS SITE
LIMITED SITE DATA DOCUMENT – REMEDIAL DESIGN

SITE NO. 9-15-157

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF ENVIRONMENTAL REMEDIATION

OCTOBER 2000

MALCOLM PIRNIE, INC.

P. O. Box 1938
Buffalo, New York 14219

0266-336/LSD

MALCOLM PIRNIE

LIMITED SITE DATA

MR. C'S DRY CLEANERS

VILLAGE OF EAST AURORA, ERIE COUNTY, NEW YORK

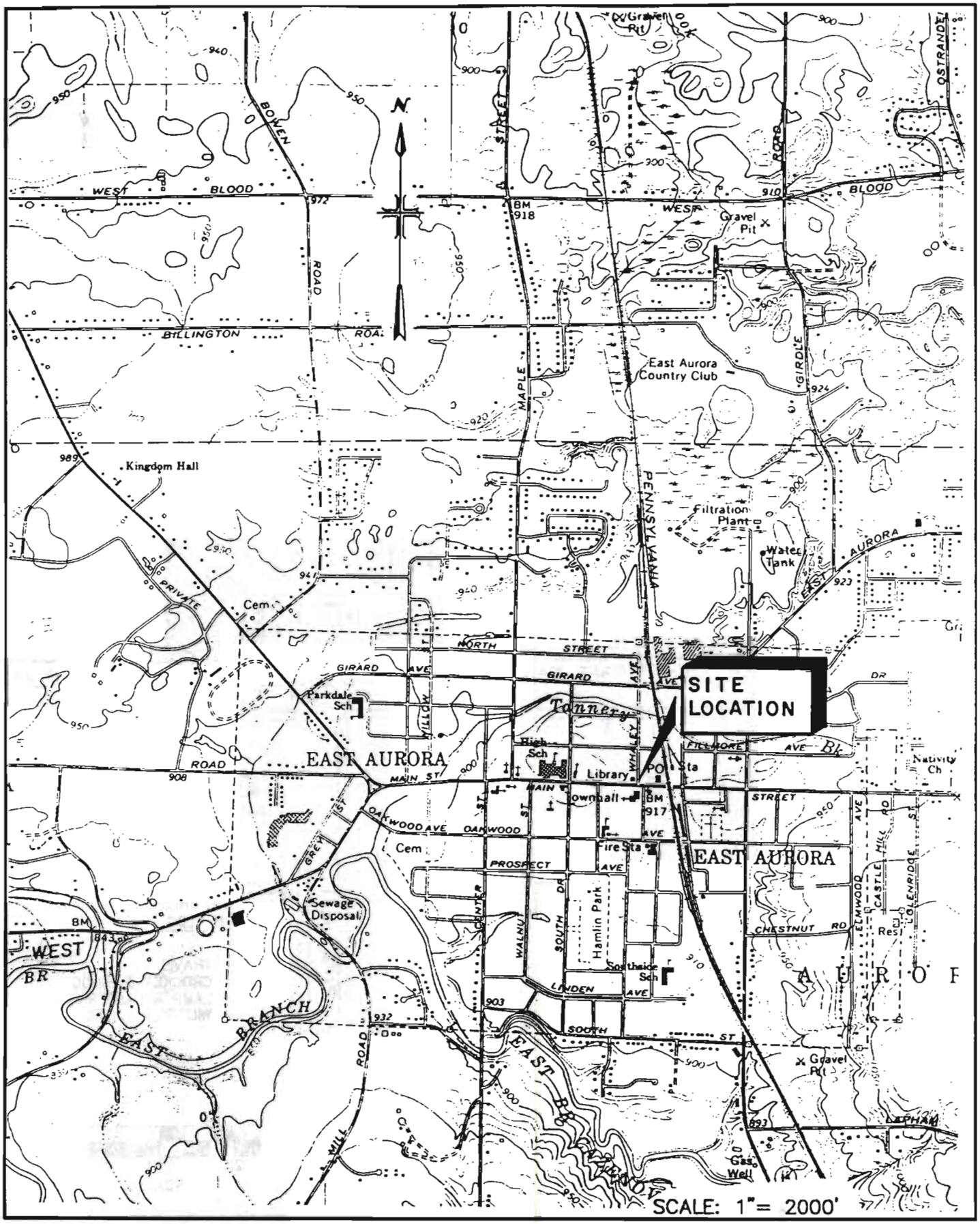
SITE No. 9-15-157

These documents that follow are **NOT** part of the Contract Documents for the remedial work at the Mr. C's Dry Cleaners Site. The Department neither represents that the Site conditions will be the same as in the attached documents nor considers the attached documents as being comprehensive and an actual description of the site conditions. The Contractor shall be responsible for performing the remediation work based on the existing conditions at the Site.

OCTOBER 2000

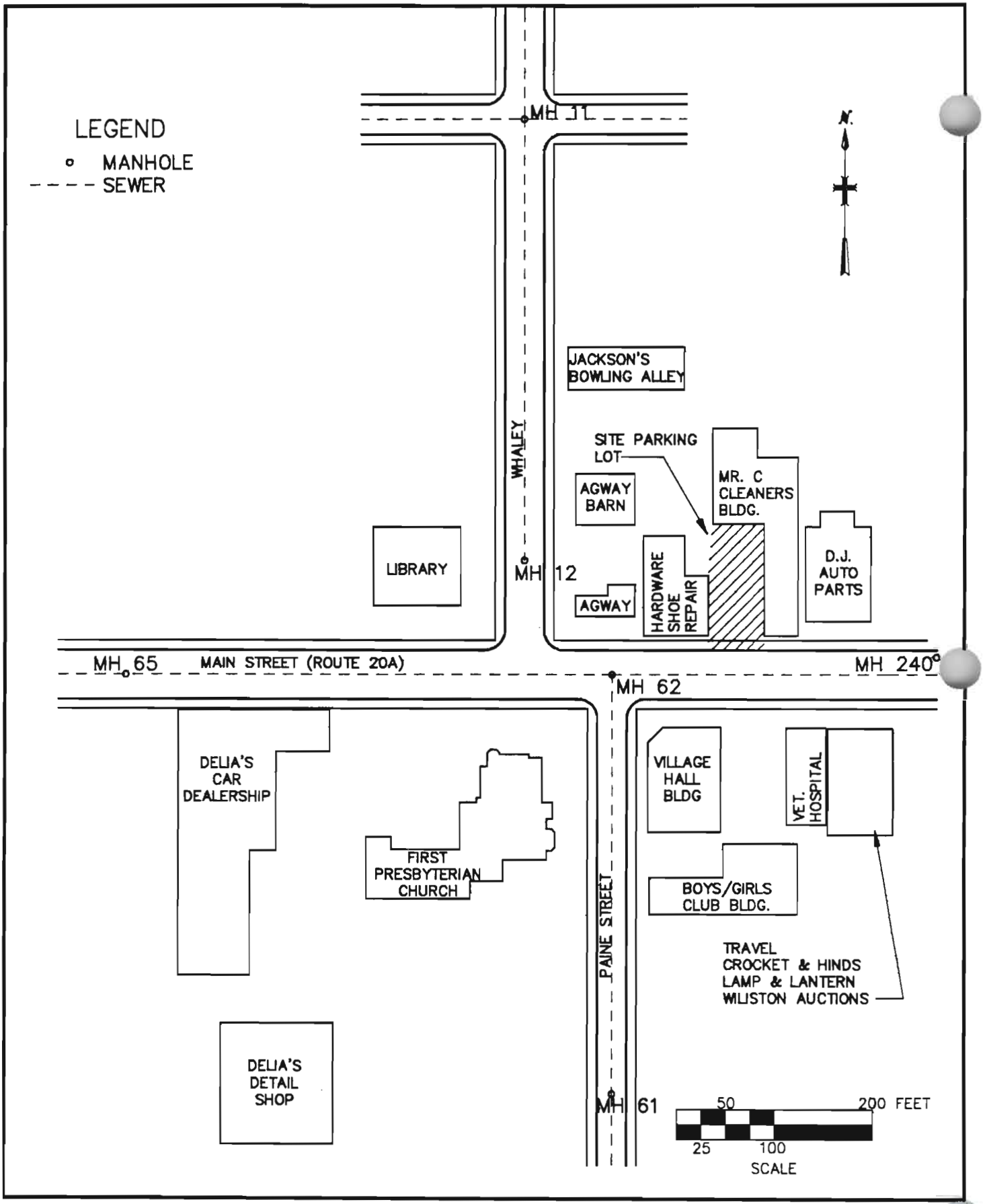
MALCOLM PIRNIE

TABLE OF CONTENTS



MALCOLM PIRNIE

MR. C DRY CLEANER
NYSDEC STANDBY CONTRACT
SITE LOCATION MAP



MALCOLM PIRNIE

MR C CLEANERS
REMEDIAL INVESTIGATION REPORT
SITE VICINITY MAP

TABLE 2-1

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

RESIDENTIAL WELL SURVEY SUMMARY

	House Number	Well On Property	Comments					
			Depth	Diam.	Method of Water Removal	Approx. Location	Use	Approx. Date Installed
Fillmore Avenue	517	Yes	17′	1.5″	pump	behind garage	none	1988
	518	Yes	11′	1.5″	pump	basement	car washing watering lawn kids playwater	June 1990
	524	Yes	unknown	approx. 2″	pump	behind garage	garden	unknown
	531	Yes	15′-18′	3″	jet pump	30′ behind house	garden watering lawn car washing	
	542	No						
	498	No						
Whaley Avenue	31	No						
	35	No						

TABLE 3-1

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

HISTORIC SAMPLING EVENTS

Matrix	Sampling Date	Sampling Location	Source of Data
Indoor Air	12/02/91	Church Basement	EA-FPC
	12/06/91	Church Basement	EA-FPC
	12/19/91	Church Basement	NYSDEC/AES
	01/14/92	Church Basement	NYSDEC/AES
	02/28/92	Church Basement	NYSDEC/AES
Sewer Flow	01/14/92	MH61, MH62, MH65	NYSDEC/AES
	02/21/92	MH56, MH61, MH62, MH64, MH65	NYSDEC/AES
	03/27/92	MH11, MH61, MH62, MH64, MH65	NYSDEC/AES
Groundwater	01/28/92	Agway Wells	NYSDEC/AES
	05/21/92	ESI Wells/Agway Wells/Cumberland Farms	Huntingdon
	11/09/92	Agway Wells & Airstripper	Marcor
	12/29/92	Agway Wells	Marcor
	01/19/93	ESI Wells	NYSDEC/Recra
	10/01/93	Agway Wells	Matrix

Notes:

EA-FPC	=	East Aurora - First Presbyterian Church
ESI	=	Empire Soils Investigation
NYSDEC/AES	=	NYSDEC/Advanced Environmental Services
Marcor	=	Marcor of New York, Inc.
Huntingdon	=	Huntingdon Analytical Services
Matrix	=	Matrix Environmental Technologies

MALCOLM PIRNIE

TABLE 3-2

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

PREVIOUS INDOOR AIR SAMPLE RESULTS [1]

Sampling Date	Sampling Location	EPA 8240 Parameter	Concentration	
			$\mu g/m^3$	ppm
01/14/92	Closet Area A	Methylene Chloride	38	
		Tetrachloroethene	130	.019
	Closet Area B	Tetrachloroethene	1900	.28
		Trans 1,2 Dichloroethene	140	
		Trichloroethene	99	
		1,2 Dichloropropane	28	
		Toluene	21	
02/28/92	Room 114	Tetrachloroethene	110	.016
		Benzene	280	
		Toluene	280	
		Ethylbenzene	7.5	
	Hallway (adj. to Rms 112, 113, 114)	Tetrachloroethene	67	.0099
		Benzene	120	
		Toluene	130	
	Old Section	Tetrachloroethene	26	.0038
		Benzene	13	
		Toluene	16	
12/19/91	Closet	Tetrachloroethene	400	.059
	Room 113	Tetrachloroethene	57	.0084

Note (1): All samples collected from basement of the East Aurora First Presbyterian Church.

MALCOLM PIRNIE

TABLE 3-3

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
SUMMARY OF HISTORIC SEWER SAMPLING RESULTS

Compound (ug/l)[2] Date of Sampling	MH 11	MH 56	MH[1] 61A	MH[1] 61B	MH 61	MH[1] 62A	MH[1]- 62B	MH 62E	MH 62W	MH 64	MH[1] 65A	MH[1] 65B	MH 65
Methylene Chloride													
1/14/92	–	–	539	110	–	ND	522	–	–	–	ND	11.9	–
2/21/92	–	23.2	–	–	18.7	–	–	ND	111	208	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	5.46	75	–	–	ND
Trans 1,2 Dichloroethene													
1/14/92	–	–	12.7	499	–	ND	12.6	–	–	–	ND	ND	–
2/21/92	–	ND	–	–	ND	–	–	ND	ND	ND	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	ND	ND	–	–	ND
Chloroform													
1/14/92	–	–	ND	ND	–	ND	ND	–	–	–	16.8	11.9	–
2/21/92	–	4.74	–	–	5.58	–	–	6.15	5.37	4.91	–	–	6.96
3/27/92	4.53	–	–	–	5.00	–	–	3.07	8.52	4.18	–	–	15.5
1,1,1 Trichloroethane													
1/14/92	–	–	ND	ND	–	5.5	ND	–	–	–	ND	ND	–
2/21/92	–	7.78	–	–	5.18	–	–	4.04	8.01	6.82	–	–	3.53
3/27/92	ND	–	–	–	ND	–	–	ND	6.53	ND	–	–	ND
Trichloroethene													
1/14/92	–	–	5.37	142	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	1.34	–	–	1.19	–	–	3.43	ND	ND	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	ND	ND	–	–	ND
Vinyl Chloride													
1/14/92	–	–	ND	38.6	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	ND	–	–	ND	–	–	ND	ND	ND	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	ND	ND	–	–	ND
1,1,2,2 Tetrachloroethane													
1/14/92	–	–	ND	61.8	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	ND	–	–	ND	–	–	ND	ND	ND	–	–	ND
3/27/92	ND	ND	–	–	ND	–	–	ND	ND	ND	–	–	ND
Tetrachloroethene													
1/14/92	–	–	287	1,910	–	ND	106	–	–	–	ND	ND	–
2/21/92	–	18.9	–	–	16.8	–	–	203	16.2	7.61	–	–	3.11
3/27/92	ND	–	–	–	22.4	–	–	21.6	16.0	ND	–	–	ND

TABLE 3-3

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
SUMMARY OF HISTORIC SEWER SAMPLING RESULTS

MALCOLM PIRNIE

Compound (ug/l)[2] / Date of Sampling	MH 11	MH 56	MH[1] 61A	MH[1] 61B	MH 61	MH[1] 62A	MH[1]- 62B	MH 62E	MH 62W	MH 64	MH[1] 65A	MH[1] 65B	MH 65
1,1 Dichloroethene													
1/14/92	–	–	ND	ND	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	ND	–	–	1.59	–	–	1.48	ND	ND	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	ND	ND	–	–	ND
Bromodichloromethane													
1/14/92	–	–	ND	ND	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	3.43	–	–	3.49	–	–	ND	5.95	8.16	–	–	3.07
3/27/92	1.66	–	–	–	1.11	–	–	ND	1.03	1.10	–	–	7.63
Dibromochloromethane													
1/14/92	–	–	–	–	–	–	–	–	–	–	–	–	–
2/21/92	–	1.20	–	–	1.30	–	–	ND	ND	ND	–	–	1.59
3/27/92	ND	–	–	–	1.48	–	–	1.16	1.38	ND	–	–	2.74
1,2 Dichloropropane													
1/14/92	–	–	ND	ND	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	119	–	–	106	–	–	27.8	381	97.2	–	–	ND
3/27/92	ND	–	–	–	ND	–	–	ND	ND	ND	–	–	ND
M/P Xylene													
1/14/92	–	–	ND	ND	–	ND	9.02	–	–	–	ND	ND	–
2/21/92	–	–	–	–	–	–	–	–	–	–	–	–	–
3/27/92	–	–	–	–	–	–	–	–	–	–	–	–	–
Toluene													
1/14/92	–	–	9.24	ND	–	66.1	ND	–	–	–	ND	ND	–
2/21/92	–	–	–	–	–	–	–	–	–	–	–	–	–
3/27/92	–	–	–	–	–	–	–	–	–	–	–	–	–
Ethylbenzene													
1/14/92	–	–	ND	ND	–	ND	ND	–	–	–	ND	ND	–
2/21/92	–	–	–	–	–	–	–	–	–	–	–	–	–
3/27/92	–	–	–	–	–	–	–	–	–	–	–	–	–

Notes:

(1) Sample designated "A" collected prior to flushing the sewer line.
Sample designated "B" collected after flushing the sewer line.

(2) 1/14/92 samples analyzed by EPA SW-846 Method 8240.
2/21/92 and 3/27/92 samples analyzed by EPA Method 601.

– Not sampled, or flushing procedure not used.
ND Analyzed for but Not Detected.

MALCOLM PIRNIE

TABLE 3-4

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

RESULTS OF HISTORIC GROUNDWATER SAMPLING AT AGWAY

Compound (ug/l) Date of Sampling	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	Infl. (1)
Vinyl Chloride											
01/28/92	–				–	–	–	–	–	–	–
05/21/92					810	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	244
12/29/92					3,300	–	–	–	–	–	310
10/01/93	ND	–	–	ND	1,350	ND	ND	ND	ND		–
1,1, Dichloroethane											
01/28/92	–				–	–	–	–	–	–	–
05/21/92						–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	
12/29/92						–	–	–	–	–	
10/01/93	ND	–	–	ND	ND	ND	ND	ND	ND	ND	–
1,1,1 Trichloroethane											
01/28/92	–				–	–	–	–	–	–	–
05/21/92						–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	5
12/29/92	8	6		5		–	–	–	–	–	28
10/01/93	6	–	–	ND	ND	ND	6	ND	ND	ND	–
1,1, Dichloroethene											
01/28/92	–				–	–	–	–	–	–	–
05/21/92		2	3	16	45	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	
12/29/92	5	1				–	–	–	–	–	
10/01/93	ND	–	–	ND	ND	ND	ND	ND	ND	ND	–
1,2 Dichloroethene (T)											
01/28/92	–				–	–	–	–	–	–	–
05/21/92					6,700	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	1,870
12/29/92					12,800	–	–	–	–	–	2,010
10/01/93	4.5	–	–	6	191	ND	1	15	14	14	–
Trichloroethene											
01/28/92					–	–	–	–	–	–	
05/21/92	150	5		34	1,100	–	–	–	–	–	
11/09/92			–	–	–	–	–	–	–	–	153
12/29/92	68	5		32	182	–	–	–	–	–	284
10/01/93	54	–	–	ND	ND	0.6	5	23	ND	ND	–

MALCOLM PIRNIE

TABLE 3-4

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

RESULTS OF HISTORIC GROUNDWATER SAMPLING AT AGWAY

Compound (ug/l) Date of Sampling	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	Infl. (1)
Tetrachloroethene											
01/28/92	–	348	–		–	–	–	–	–	–	
05/21/92	3200	270	2	4400	450	–	–	–	–	–	
11/09/92	–	–	–	–	–	–	–	–	–	–	303
12/29/92	5500	245	–	86		–	–	–	–	–	285
10/01/93	1360	–	–	ND	ND	23	711	980	13	193	
Acetone											
01/28/92	–				–	–	–	–	–	–	–
05/21/92					76	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	
12/29/92						–	–	–	–	–	
10/01/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	–
Benzene											
01/28/92	–		278		–	–	–	–	–	–	–
05/21/92		4	290	34	700	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	340
12/29/92			380			–	–	–	–	–	442
10/01/93	0.5	–	–	48	752	55	0.8	0.9	369	27	
Toluene											
01/28/92	–		194		–	–	–	–	–	–	
05/21/92			160		81	–	–	–	–	–	
11/09/92	–	–	–	–	–	–	–	–	–	–	31
12/29/92			110			–	–	–	–	–	33
10/01/93	1	–	–	6	88	9	ND	3	21	53	–
Ethylbenzene											
01/28/92	–		101		–	–	–	–	–	–	–
05/21/92		0.9	12		870	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	230
12/29/92			59			–	–	–	–	–	217
10/01/93	ND	–	–	ND	ND	ND	ND	ND	51	321	–
Xylenes (T)											
01/28/92	–		601		–	–	–	–	–	–	–
05/21/92		0.7	360	21	1,300	–	–	–	–	–	–
11/09/92	–	–	–	–	–	–	–	–	–	–	392
12/29/92		–				–	–	–	–	–	NR
10/01/93	0.5		–	62	1,213	424			78	1,070	

Notes: – = Not sampled ND = Parameter analyzed for, but not detected. (1) Air stripper influent

MALCOLM PIRNIE

TABLE 3-6

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF SOIL GAS SURVEY RESULTS (APRIL 1992)

Sample Location	Concentration (ppb)		Notes
	Toluene	PCE	
1	ND	ND	Church
2	ND	ND	Church
3	ND	ND	Church
4	ND	ND	Church
5	1.9	104.3	Church
6	2.25	130.8	Church
7	ND	12.56	Church
8	ND	ND	Church
9	ND	ND	Church
10	ND	ND	Church
11	ND	ND	Church
12	ND	ND	Church
13	ND	ND	Church
14	ND	ND	Village Hall
15	ND	ND	Village Hall
16	ND	ND	Village Hall
17	ND	14.6	Shoe Repair
18	ND	ND	Church
19	ND	ND	Church
20	ND	ND	Church
21	ND	ND	Church
22	ND	ND	Church
23	ND	ND	Church
24	ND	ND	Church
25	ND	10.17	Church
26	ND	11.03	Library
27	9.15	1585	Mr. C Cleaner
28	ND	160.3	Mr. C Cleaner
29	ND	6.42	Mr. C Cleaner
30	ND	ND	Mr. C Cleaner
31	ND	ND	D.J.Auto Parts
32	ND	746.2	Mr. C Cleaner
33	ND	18.39	Mr. C Cleaner
34	ND	94.59	Village Hall
35	ND	3.91	Village Hall
36	10.25	565.4	Agway
37	ND	10.5	Church
38	ND	ND	Travel Agency

ND = Not Detected PCE = Tetrachloroethylene

MALCOLM PIRNIE

TABLE 3-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

PREVIOUS SAMPLING RESULTS FROM ESI WELLS

Parameter (ug/l)	Date	Upgradient		Mr. C	Paine Street		Church
		ESI-1	ESI-2	ESI-3	ESI-4	ESI-5	ESI-6
1,2 Dichloroethene (T)	5/21/92 1/19/93	2J 2J		2J	16 5J	14	44J 53
Trichloroethene	5/21/92 1/19/93	2J 3J		6J 42J	6J 3J	28 2J	14J 17J
Tetrachloroethene	5/21/92 1/19/93	2J 0.9J	1J	5600E 9800	91 44	15 13	570 580
1,1 Dichloroethene	5/21/92 1/19/93			2J			
Vinyl Chloride	5/21/92 1/19/93						6J
1,1 dichloroethane	5/21/92 1/19/93			2J			
Toluene	5/21/92 1/19/93			0.8J 63J	0.5J	0.3J	
Ethylbenzene	5/21/92 1/19/93			4J			
Total Xylenes	5/21/92 1/19/93			20			
Benzene	5/21/92 1/19/93			55J			
1,1,1 Trichloroethane	5/21/92 1/19/93				5J		

J = Estimated.
E = Exceeded calibration range of instrument
Blanks = Parameter not detected.

MALCOLM PIRNIE

TABLE 4-1

MR. C CLEANERS SUPERFUND SITE
PHASE I REMEDIAL INVESTIGATION REPORT

SOIL GAS ANALYTES

Methylene Chloride
Vinyl Chloride

1,2-Dichloroethene
1,1-Dichloroethene

1,1,1-Trichloroethane
1,1,2-Trichloroethane

Trichloroethene
Tetrachloroethene

1,2 Dichloropropane
Chloroform

Benzene
Toluene
Xylenes (Total)
Ethylbenzene

MALCOLM PIRNIE

TABLE 4-2

MR. C CLEANERS SUPERFUND SITE
PHASE I REMEDIAL INVESTIGATION REPORT

SOIL GAS SURVEY RESULTS

Location	Sample No.	Analyte Detected	mg/m³	PPB
INITIAL SURVEY February 8-10, 1994				
East of Village Hall	39	PCE	9.8	1300
	40	PCE	5.2	700
		1,1,1 TCA	1.5	280
Church	41		ND	–
	42		ND	–
	43		ND	–
	44		ND	–
	45		ND	–
	46		ND	–
	47		ND	–
	48		ND	–
	49		ND	–
	50		ND	–
	41		ND	–
	52		ND	–
Library	53		ND	–
	54		ND	–
	55		ND	–
	56		ND	–
North and East of Agway Storage Barn	57	PCE	86	12,000
		TCE	3.1	520
	58	PCE	7.3	990
	59	PCE	0.90	110
	60	Toluene	3.1	750
		Ethylbenzene	3.0	630
		Total Xylenes	37	7,600
	61	PCE	11	1,500
	62	PCE	23	3,100
Mr. C Cleaners	63	PCE	91	12,000
	64	PCE	94	13,000
	65	PCE	27	3,600
	66	PCE	0.33	44
	67		ND	–
	68	PCE	0.44	59
	69	PCE	11	1,500

MALCOLM PIRNIE

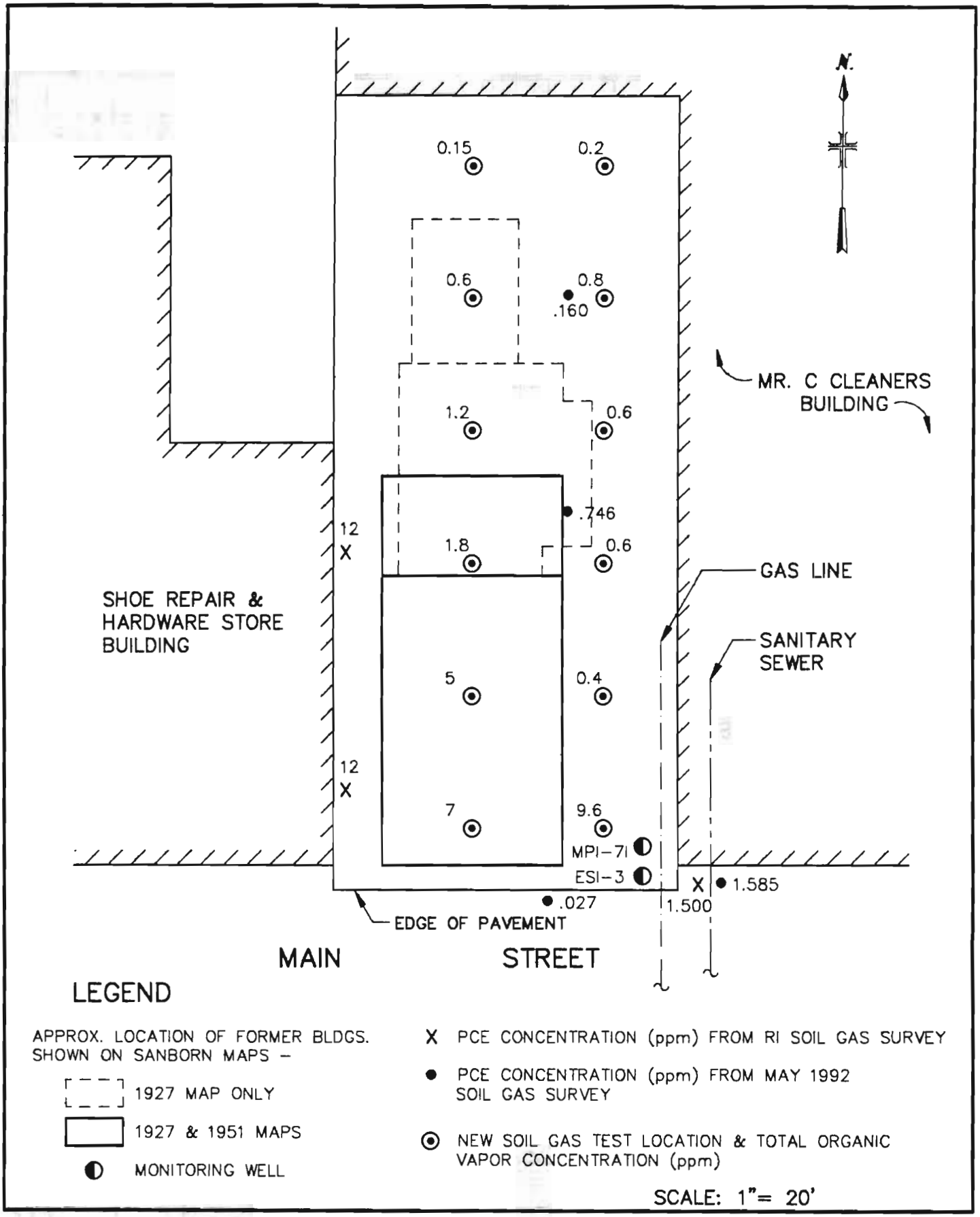
TABLE 4-2

MR. C CLEANERS SUPERFUND SITE
PHASE I REMEDIAL INVESTIGATION REPORT

SOIL GAS SURVEY RESULTS

Location	Sample No.	Analyte Detected	mg/m³	PPB
Sewers	MH-12		ND	–
	MH-61	Total Xylenes	0.12	25
	MH-62	PCE	0.20	28
		Ethylbenzene	0.30	63
		Total Xylenes	8.2	1,700
SUPPLEMENTAL SURVEY - March 7-8, 1994				
Center of Whaley Ave.	71	PCE	11	1,500
	72	PCE	13	1,800
	86	PCE	0.16	22
	87	PCE	3.4	460
	90	PCE	0.14	19
		Toluene	0.09	22
	91	PCE	0.18	24
	78		ND	–
	MH-11		ND	–
East of Whaley Ave.	70	PCE	92	12,000
		TCE	0.6	100
		1,1,1 TCA	1.8	300
	79		ND	–
	80		ND	–
	81		ND	–
	82		ND	–
	83		ND	–
West of Whaley Ave.	73		ND	–
	74	PCE	0.19	26
	75	PCE	1.0	130
	76		ND	–
	77		ND	–
	78		ND	–
	84		ND	–
	85		ND	–

Legend: PPB = Parts Per Billion
PCE = Tetrachloroethene
1,1,1 TCA = 1,1,1 Trichloroethane
TCE = Trichloroethene



MALCOLM PIRNIE

MR. C CLEANERS
REMEDIAL INVESTIGATION REPORT
PARKING LOT SOIL GAS SURVEY

MALCOLM PIRNIE

TABLE 4-3

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

WELL CONSTRUCTION SUMMARY

Well No.	Ground Elev.	PVC Riser Elev.	Borehole Diam./ Well Diam. (in.)	DEPTHS (ft below grade)					Type of Sand Pack	Screen Slot Size	Installation Date
				Top of Seal	Top of Sand Pack	Top of Screen	Screen Bottom	Bottom of Sand Pack			
ESI-1	917.24	916.80	8.25/2	4.5	7.0	8.0	18.0	20.0	#0 Morie	0.010	5/92
ESI-2	918.05	917.79	8.25/2	6.0	8.0	9.0	19.0	20.0	#0 Morie	0.010	5/92
ESI-3	916.41	915.85	8.25/2	4.1	6.0	7.0	17.0	18.0	#0 Morie	0.010	5/92
ESI-4	913.56	913.25	8.25/2	2.0	4.0	5.0	15.0	16.0	#0 Morie	0.010	5/92
ESI-5	912.90	912.64	8.25/2	2.0	4.0	5.0	15.0	16.0	#0 Morie	0.010	5/92
ESI-6	914.92	914.48	8.25/2	3.8	6.0	7.0	17.0	18.0	#0 Morie	0.010	5/92
MW-1	915.48	915.12	10.5/2	9.0	10.6	12.0	22.0	22.0	#2	.010	6/88
MW-4	914.47	914.02	12.5/4	4.7	6.6	7.3	17.3	18.0	#2	–	1/89
MW-5	914.84	914.50	10.5/2	–	–	10.0	15.0	–	–	–	5/84
MW-6	915.05	914.68	8.0/2	3.0	–	5.0	14.5	15.0	–	0.020	9/93
MW-7	916.34	915.96	8.0/2	3.0	–	5.0	14.5	15.0	–	0.020	9/93
MW-8	915.97	915.62	8.0/2	3.0	–	5.0	14.5	15.0	–	0.020	9/93
MW-9	916.99	916.64	8.0/2	3.0	–	5.0	14.5	15.0	–	0.020	9/93
MW-10	914.85	914.54	8.0/2	2.0	–	4.0	13.5	14.0	–	0.020	9/93
MPI-1S	915.38	915.08	12.0/2	5.3	7.2	9.0	19.0	19.5	#0 Morie	0.010	3/94
MPI-1I	913.53	913.23	12.0/2	2.0	29.2	31.0	41.0	41.5	#00 Morie	0.006	3/94
MPI-2S	917.34	917.10	12.0/2	3.8	6.0	8.0	18.0	18.5	#0 Morie	0.010	3/94
MPI-3S	914.79	914.40	12.0/2	3.7	5.7	8.0	18.0	18.5	#0 Morie	0.010	3/94
MPI-4S	915.12	914.82	12.0/2	6.8	8.8	11.0	21.0	21.5	#0 Morie	0.010	3/94
MPI-4I	916.12	915.66	12.0/2	4.0	29.8	32.0	42.0	42.5	#00 Morie	0.006	3/94
MPI-5S	916.78	916.45	12.0/2	3.9	5.9	8.0	18.0	18.4	#0 Morie	0.010	3/94
MPI-5I	916.78	916.43	12.0/2	8.0	30.0	32.0	42.0	42.5	#00 Morie	0.006	3/94
MPI-6S	915.35	915.03	12.0/2	7.9	10.0	12.3	22.3	23.0	#0 Morie	0.010	3/94
MPI-7I	916.42	916.14	12.0/2	5.3	27.1	29.5	39.5	40.0	#00 Morie	0.006	3/94
MPI-8S	915.01	914.64	12.0/2	4.0	6.0	8.0	18.0	18.5	#0 Morie	0.010	3/94
MPI-9S	915.24	914.88	12.0/2	4.5	6.5	8.0	18.0	18.5	#0 Morie	0.010	3/94

– = unknown

TABLE 4-3 (Continued)

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

WELL CONSTRUCTION SUMMARY

Well No.	Ground Elev.	PVC Riser Elev.	Borehole Diam./ Well Diam. (in.)	DEPTHS (ft below grade)					Type of Sand Pack	Screen Slot Size	Installation Date
				Top of Seal	Top of Sand Pack	Top of Screen	Screen Bottom	Bottom of Sand Pack			
MPI-10B	916.07	915.68	12.0/2	11.0	13.0	16.5	31.5	32.0	#00 Morie	.010	12/94
MPI-11B	913.58	913.15	12.0/2	8.5	13.0	15.0	30.0	30.5	#00 Morie	.010	12/94
MPI-12B	911.44	911.19	12.0/2	11.5	15.0	20.0	35.0	35.0	#00 Morie	.010	12/94
MPI-13B	913.49	913.25	12.0/2	10.0	15.0	17.0	32.0	32.0	#00 Morie	.010	1/95
MPI-14B	913.68	913.18	12.0/2	8.5	11.0	15.0	30.0	30.0	#00 Morie	.010	1/95
MPI-4D	915.97	915.70	6.0/2	60.0	63.9	66.0	76.0	76.0	#00 Morie	.010	1/95

MALCOLM PIRNIE

TABLE 4-4
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF FIELD MEASUREMENTS FOR RI WELL DEVELOPMENT[1]

Location	Date Developed	Volume of Water In Casing (gal.)	Total Volume of Water Purged (gal.)	Temp. (°C)	pH (units)	Specific Conductance umhos/cm[2]	Turbidity (NTU)	Recharge Rate	Appearance/ Odor
MPI-1S	3/21/94	1.6	105	9.6	7.32	2520	48	slow/moderate	slt sheen/clear/no odor
MPI-1I	3/25/94	5.7	110	11.8	7.29	1645	20	moderate	clear/no odor
MPI-2S	3/28/94	1.1	85	11.7	7.32	1491	11	fast	clear/solvent
MPI-3S	3/21/94	1.4	60	11.3	7.26	1720	29	slow/moderate	clear/no odor
MPI-4S	3/22/94	1.9	65	12.6	7.65	1572	31	slow	clear/no odor
MPI-4I	3/22/94	5.5	110	10.8	7.52	1576	30	moderate	clear/no odor
MPI-5S	3/15/94	1.2	95	8.3	7.34	1620	15	fast	clear/no odor
MPI-5I	3/21494	5.0	70	10.3	7.26	1684	10	fast	clear/no odor
MPI-6S	3/15/94	2.0	85	9.6	7.07	1684	14	moderate	clear/no odor
MPI-7I	3/22/94	5.0	130	11.6	7.35	1813	16	moderate	clear/no odor
MPI-8S	3/25/94	1.5	65	4.7	7.42	1737	32	slow	clear/no odor
MPI-9S	3/25/94	1.5	80	5.4	7.43	1851	40	moderate	slt sheen/clear/no odor
ESI-1	3/15/94	1.1	90	9.6	7.32	1145	41	fast	clear/no odor
ESI-3	3/17/94	1.1	145	9.9	7.33	1912	49	fast	clear/no odor
ESI-4	3/16/94	1.1	55	8.7	7.21	7290	8	fast	clear/no odor
ESI-5	3/17/94	1.2	25	6.9	7.42	1182	8	slow	clear/no odor
ESI-6	3/18/94	1.1	185	10.7	7.14	1920	9	fast	clear/slt solvent
MW-4	3/16/94	6.1	48	7.0	6.95	2840	30	slow	sheen/clear/slt solvent
MW-5	3/16/94	0.8	7.0	6.0	6.82	2014	>100	moderate	sheen/cloudy/solvent

TABLE 4-4 (Continued)
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF FIELD MEASUREMENTS FOR PHASE II RI WELL DEVELOPMENT[1]

Location	Date Developed	Volume of Water In Casing (gal.)	Total Volume of Water Purged (gal.)	Temp. (°C)	pH (units)	Specific Conductance umhos/cm[2]	Turbidity (NTU)	Recharge Rate	Appearance/ Odor
MPI-10B	1/20/95	3.46	50.0	10.9	7.74	1083	>200	moderate	opaque, silty
MPI-11B	1/20/95	3.18	60.0	10.3	8.42	995	>200	moderate	opaque, silty w/fine sand
MPI-12B	1/23/95	4.43	70.0	9.6	9.1	2110	>200	moderate	Viscous and silty
MPI-13B	1/19/95	3.66	80.0	10.4	7.49	1340	>200	moderate	opaque
MPI-14B	1/23/95	3.39	60.0	7.4	8.31	960	184	moderate	silty
MPI-4D	1/20/95 1/24/95	10.70	67.5	9.7	7.61	305	>200	(3)	very opaque

Notes:
(1) All measurements are readings obtained from last volume of water.
(2) Conductance corrected to 25°C.
(3) Developed to dryness on 1/20/95 and 1/24/95 after 37.5 and 27.5 gallons were removed.

MALCOLM PIRNIE

TABLE 4-5

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

PHYSICAL SOIL TESTING SUMMARY

Boring No. (ft.)	Depth (ft.)	Moisture Content %	Gravel %	Sand %	Silt %	Clay %	Classif. USCS	Liquid Limit %	Plasticity Index	Hydraulic Conductivity (cm/s)	Organic Content %
MPI-1D	66-68	26.1	0.0	1.1	59.2	39.7	CL	30	11	4.7×10^{-8}	0.7
MPI-4D	46-48	20.8	0.0	3.8	72.9	23.3	CL-ML	22	6	5.8×10^{-8}	0.6
MPI-5D	54-56	21.3	0.0	2.4	61.6	36.0	CL	29	10	4.4×10^{-8}	0.8
MPI-7D	58-60	27.6	0.0	1.2	58.9	39.9	CL	32	13	4.3×10^{-8}	1.0
MPI-3S	8-14		43.7	41.1	15.2*						
MPI-3S	14-18		3.0	35.6	60.5	0.9					
MPI-5D	8-14		29.3	54.0	16.7*						
MPI-5D	14-18		0.0	68.4	31.6	0.0					
MPI-1D	30-40		0.0	47.5	52.5	0.0					
MPI-5D	32-42		0.0	41.1	58.2	0.7					
MPI-6S	12-18		27.8	54.6	17.6*						
	18-24		0.0	71.3	24.6	4.1					
MPI-7D	12-20		48.2	38.9	12.9*						
	20-26		47.9	38.2	13.9*						
	26-28		0.0	85.9	14.1*						

* Presented as percent silt and clay combined.
Blank space indicates that testing was not required.

MALCOLM PIRNIE

TABLE 4-6

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

IN SITU HYDRAULIC CONDUCTIVITY TEST RESULTS[1]

SHALLOW WELLS[2]						INTERMEDIATE & DEEP WELLS[3]		BASE OF OUTWASH[4]	
Location	K (cm/s)	Location	K (cm/s)	Location	K (cm/s)	Location	K (cm/s)	Location	K (cm/s)
MPI-1S	4.1 E-3	ESI-1	2.0 E-2	MW-1	1.8 E-3	MPI-1I	4.9 E-4	MPI-10B	4.2 E-3
MPI-2S	1.1 E-2	ESI-3	9.0 E-2	MW-4	8.2 E-4	MPI-4I	1.5 E-4	MPI-11B	5.6 E-4
MPI-3S	6.0 E-3	ESI-4	4.8 E-2	MW-5	3.0 E-2	MPI-5I	3.9 E-4	MPI-12B	6.7 E-2
MPI-4S	1.1 E-3	ESI-5	4.9 E-3	MW-6	E-2*	MPI-7I	2.0 E-4	MPI-13B	1.2 E-2
MPI-5S	2.6 E-2	ESI-6	2.2 E-2	MW-7	4.4 E-2	MPI-4D**	8.8 E-6	MPI-14B	5.5 E-4
MPI-6S	8.5 E-3			MW-8	2.5 E-2				
MPI-8S	9.9 E-4			MW-9	1.8 E-3				
MPI-9S	8.5 E-3			MW-10	1.8 E-3				

Notes:

(1) All tests analyzed by Method of Bouwer and Rice (1976).
(2) Geometric mean of 21 shallow wells = 8.6 E-3 cm/s.
(3) Geometric mean of 4 intermediate wells = 2.8 E-4 cm/s.
(4) Geometric mean of 5 base of outwash wells = 4.0 E-3 cm/s.
* Estimated minimum value. Well recovery too rapid to collect analyzable data.
** Deep well.

MALCOLM PIRNIE

TABLE 4-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF WATER LEVELS FROM TOP OF RISER

Well No.	Ref. Elev. (amsl)	4/5/94		4/13/94		4/20/94		4/27/94	
		Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)
MPI-1S	915.08	9.48	905.60	9.21	905.87	9.44	905.64	9.69	905.39
MPI-1I	913.23	7.63	905.60	7.34	905.89	7.56	905.67	7.82	905.41
MPI-2S(6)	916.81	10.92	906.18	10.71	906.39	10.91	906.19	11.20	905.90
MPI-3S	914.40	9.63	904.77	9.31	905.09	9.58	904.82	9.79	904.61
MPI-4S	914.82	9.16	905.66	8.97	905.85	9.13	905.69	9.42	905.40
MPI-4I	915.66	10.15	905.51	9.96	905.70	10.10	905.56	10.38	905.28
MPI-4D	915.70	(3)							
MPI-5S	916.45	10.58	905.87	10.25	906.20	10.51	905.94	10.81	905.64
MPI-5I	916.43	10.62	905.81	10.34	906.09	10.52	905.91	10.86	905.57
MPI-6S	915.03	10.10	904.93	9.79	905.24	10.02	905.01	10.28	904.75
MPI-7I	916.14	9.95	906.19	9.71	906.43	9.91	906.23	10.21	905.93
MPI-8S	914.64	9.33	905.31	9.19	905.45	9.03	905.61	9.29	905.35
MPI-9S	914.88	9.31	905.57	9.01	905.87	9.25	905.63	9.54	905.34
MPI-10B(3)	915.68								
MPI-11B(3)	913.15								
MPI-12B(3)	911.19								
MPI-13B(3)	913.25								
MPI-14B(3)	913.18								
MW-1	915.12	9.30	905.82	9.04	906.08	9.26	905.86	9.57	905.55
MW-4	914.02	8.26	905.76	7.99	906.03	8.16	905.86	8.50	905.52
MW-5	914.50	8.70	905.80	8.40	906.10	8.66	905.84	8.96	905.54
MW-6	914.68	8.66	906.02	8.44	906.24	8.66	906.02	8.99	905.69
MW-7	915.96	8.66	906.02	8.44	906.24	8.66	906.02	8.99	905.69
MW-8	915.62	9.95	906.01	9.64	906.32	(1)	–	10.22	905.74
MW-9	916.64	9.97	905.65	9.64	905.98	9.91	905.71	10.20	905.42
MW-10	914.54	8.57	905.97	8.29	906.25	8.54	906.00	8.84	905.70
ESI-1	916.80	10.53	906.27	10.31	906.49	10.45	906.35	10.79	906.01
ESI-2	917.79	11.62	906.17	11.36	906.43	11.58	906.21	11.90	905.89
ESI-3	915.85	9.68	906.20	9.43	906.45	9.64	906.24	9.95	905.93
ESI-4	913.25	7.49	905.76	7.23	906.02	7.50	905.75	7.75	905.50
ESI-5	912.64	7.47	905.17	7.23	905.41	7.51	905.13	7.63	905.01
ESI-6	914.48	9.79	904.69	9.47	905.01	9.75	904.73	9.95	904.53
Fillmore #531(4)	913.96								
Fillmore #524(4)	916.61								
Fillmore #517(4)	914.45								

Notes:
(1) Not able to obtain water level measurements.
(2) New riser elevation.
(3) Installed 12/94 through 1/95.
(4) Residential irrigation wells.
(5) From ground surface.
(6) Flushmount casing & top of riser were destroyed 1/4/95 and repaired prior to sampling. MPI-2S top of riser was re-surveyed after repair. The new elevation is presented for Ref. Elev.

MALCOLM PIRNIE

TABLE 4-7 (Continued)

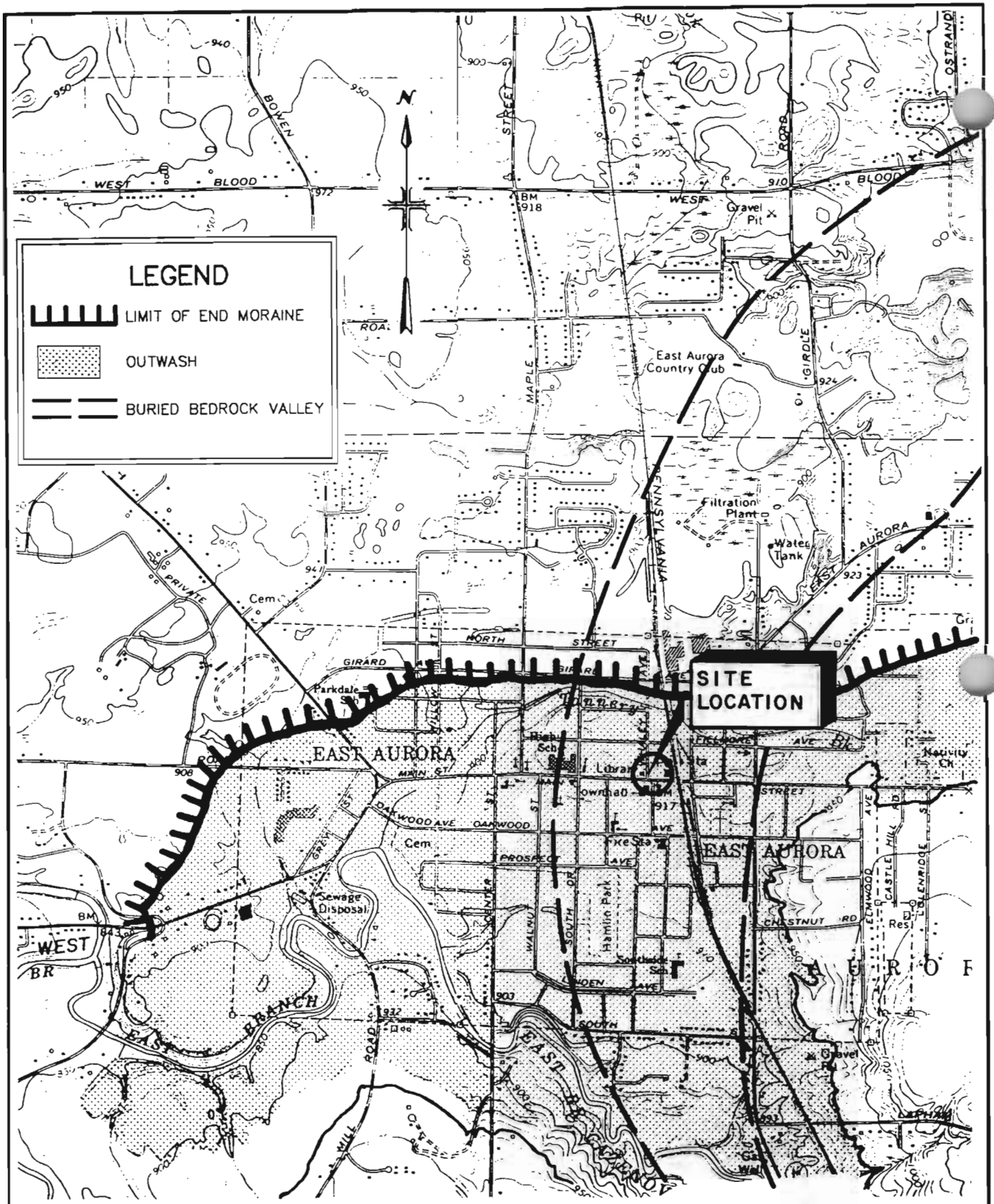
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF WATER LEVELS FROM TOP OF RISER

Well No.	Ref. Elev. (amsl)	6/15/94		9/21/94		12/14/94		1/18 & 19/95[7]	
		Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)	Depth (ft.)	Elev. (ft.)
MPI-1S	915.08	10.25	904.83	10.80	904.28	NA	–	10.75[8]	904.33[8]
MPI-1I	913.23	8.37	904.86	8.92	904.31	NA	–	7.93	905.30
MPI-2S	916.81	11.83	905.27	12.36	904.74	NA	–	11.07(6)	905.74
MPI-3S	914.40	10.19	904.21	10.65	903.75	10.13	904.27	9.79	904.61
MPI-4S	914.82	10.00	904.82	10.35	904.47	9.92	904.90	9.51	905.31
MPI-4I	915.66	10.93	904.73	11.38	904.28	10.20	905.46	10.42	905.24
MPI-4D	915.70	(3)	–					9.82	905.88
MPI-5S	916.45	11.45	905.00	11.98	904.47	NA	–	10.99	905.46
MPI-5I	916.43	11.48	904.95	11.99	904.44	NA	–	11.13	905.30
MPI-6S	915.03	10.80	904.23	11.49	903.54	10.75	904.28	10.41	904.62
MPI-7I	916.14	10.88	905.26	11.34	904.80	NA	–	10.46	905.68
MPI-8S	914.64	9.88	904.76	10.41	904.23	NA	–	9.43	905.21
MPI-9S	914.88	(1)	–	10.65	904.23	10.05	904.83	9.70	905.18
MPI-10B[3]	915.68							10.13	905.55
MPI-11B[3]	913.15							8.59	904.56
MPI-12B[3]	911.19							6.78	904.41
MPI-13B[3]	913.25							8.63	904.62
MPI-14B[3]	913.18							8.53	904.65
MW-1	915.12	10.15	904.97	10.80	904.32	NA	–	9.73	905.39
MW-4	914.02	9.09	904.93	9.72	904.30	NA	–	8.50	905.52
MW-5	914.50	9.57	904.93	10.17	904.33	NA	–	9.11	905.39
MW-6	914.68	9.62	905.06	10.20	904.48	NA	–	9.08	905.60
MW-7	915.96	9.62	905.06	11.45	904.51	10.83	905.13	10.40	905.56
MW-8	915.62	10.85	905.11	11.42	904.20	NA	–	10.31	905.31
MW-9	916.64	10.73	904.89	12.00	904.64	NA	–	11.31	905.33
MW-10	914.54	9.47	905.07	10.04	904.50	NA	–	9.08	905.46
ESI-1	916.80	11.51	905.29	11.81	904.99	10.49	906.31	11.02	905.78
ESI-2	917.79	12.60	905.19	12.91	904.88	NA	–	12.14	905.65
ESI-3	915.85	10.62	905.26	10.96	904.89	10.60	905.25	10.17	905.68
ESI-4	913.25	8.36	904.89	8.77	904.48	8.24	905.01	7.83	905.42
ESI-5	912.64	8.01[2]	904.69	8.42	904.22	7.90	904.74	7.75	904.89
ESI-6	914.48	10.33	904.15	10.97	903.51	10.90	903.58	9.93	904.55
Fillmore #531[4]	913.96					9.30(5)	903.78	9.34	904.62
Fillmore #524[4]	916.61					10.50(5)	904.07	12.20	904.41
Fillmore #517[4]	914.45					9.50(5)	904.08	9.86	904.59

Notes:
(1) Not able to obtain water level measurements.
(2) New riser elevation.
(3) Installed 12/94 through 1/95.
(4) Residential wellpoints.
(5) From ground surface.
(6) Flushmount casing & top of riser were destroyed 1/4/95 and repaired prior to sampling. MPI-2S top of riser was re-surveyed after repair.
(7) Obtained by Lu Engineers.
(8) Water level elevation at MPI-1S was not used to contour the groundwater surface due to a probable incorrect reading of the water level.

FIGURE 4-2



MALCOLM PIRNIE

MR. C CLEANERS
REMEDIAL INVESTIGATION REPORT
REGIONAL GEOLOGY

DEC-31-MAP NYSDEC JULY 1994

MALCOLM PIRNIE

TABLE 4-8

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF GEOLOGIC UNITS

Well Bore #	Ground Surface Elev.	Fill Mat'l Ft.Below Grade/ Top Elev.	Till Ft. Below Grade/ Top Elev.	Gravel Outwash Ft. Below Grade/ Top Elev.	Medium, Coarse Sand Outwash Ft. Below Grade/ Top Elev.	Fine, Very Fine Sand Outwash Ft. Below Grade/ Top Elev.	Lacustrine Deposit Ft. Below Grade/ Top Elev.	Stratified Till Deposits Ft. Below Grade/ Top Elev.
1D	913.95	–	0.5 - 6.0 913.45	6.0 - 11.0 907.95	–	11.0 - 27.0 902.95	27.0 - 40.5 886.95	40.5 - 90.0 873.45
1S	915.38	–	1.0 - 8.0 914.38	–	–	8.0 - 20.0 907.38		
2S	917.34	0 - 1.0 917.34	1.0 - 5.5 916.34	–	5.5 - 10.0 911.84	10.0 - 20.0 907.34		
3S	914.79	–	0.4 - 6.0 914.39	6.0 - 14.5 908.79	–	14.5 - 18 900.29		
4D	916.14	1.0 - 5.0 915.14	5.0 - 11.0 911.14	11.0 - 14.0 905.14	–	14.0 - 27.5 902.14	27.5 - 42.0 888.64	42.0 - 78.0 874.14
5D	916.49	0.0 - 2.0 916.49	2.0 - 8.0 914.49	8.0 - 12.5 908.49	12.5 - 14.0 903.99	14.0 - 28.0 902.49	28.0 - 42.5 888.49	42.5 - 64.0 873.99
6S	915.35	0.0 - 3.5 915.35	3.5 - 8.5 911.85	* 8.5 - 12.5 906.85	12.5 - 17.5 902.85	17.5 - 24.0 897.85		
7D	916.67	0.0 - 11.0 916.67	–	11.0 - 26.5 905.67	26.5 - 29.0 890.17	–	29.0 - 40.5 887.67	40.5 - 60.0 876.17
8S	915.01	0.0 - 4.0 915.01	4.0 - 9.6 911.01	* 9.6 - 14.0 905.41	14.0 - 18.0 901.01	18.0 - 20.0 897.01		
9S	915.24	0.0 - 4.0 915.24	4.0 - 8.0 911.24	8.0 - 12.4 907.24	12.4 - 20.0 902.84	–		

Notes:

* Lacustrine Unit

– Indicates that the unit was not encountered.

Blank space indicates that the boring was completed prior to the expected geologic unit.

TABLE 4-8 (Continued)

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF GEOLOGIC UNITS

Well Bore #	Ground Surface Elev.	Fill Mat'l Ft. Below Grade/ Top Elev.	Till Ft. Below Grade/ Top Elev.	Gravel Outwash Ft. Below Grade/ Top Elev.	Medium, Coarse Sand Outwash Ft. Below Grade/ Top Elev.	Fine, Very Fine Sand Outwash Ft. Below Grade/ Top Elev.	Lacustrine Deposit Ft. Below Grade/ Top Elev.	Stratified Till Deposits Ft. Below Grade/ Top Elev.
MPI-10B	916.07	0 - 10.4 916.07	–	–	10.4 - 14.0 905.67	14.0 - 30.6 902.07	30.6 - ? 885.47	
MPI-11B	913.58	0 - 0.3 913.58	0.3 - 8.0(1) 913.28	8.0 - 22.0 905.58	–	22.0 - 26.3 891.58	26.3 - ? 887.28	
MPI-12B	911.44	0 - 4.0 911.44	4.0 - 8.0 907.44	8.0 - 34.0 903.44	–	34.0 - 36.0 877.44	36.0 - ? 875.44	
MPI-13B	913.49	0 - 2.8 913.49	2.8 - 8.0 910.69	16.0 - 18.0 897.49	8.0 - 10.0 905.49 *10.0 - 16.0 903.49 16.0 - 28.0 897.49	–	28.0 - ? 885.49	
MPI-14B	913.68	0 - 6.0 913.68	*6.0 - 8.8 907.68	9.1 - 12.2 904.58	16.0 - 23.0 897.68	12.2 - 16.0 901.48	23.0 - ? 890.68	

Notes:
(1) Includes layer of topsoil from 0.3 - 2.0′ bgs.
* Lacustrine Unit
– Indicates that the unit was not encountered.
Blank space indicates that the boring was completed prior to the expected geologic unit.

MALCOLM PIRNIE

MALCOLM PIRNIE

TABLE 4-9

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

THICKNESS OF STRATIFIED TILL AND SAND LAYERS

Boring No.	Thickness of Till Layers		% of Total Unit Thickness Drilled	Thickness of Sand Layers		% of Total Unit Thickness Drilled
	Range	Average		Range	Average	
MPI-1D	0.08-6'	1.34'	81	0.02-3'	0.31'	19
MPI-4D	0.01-11'	0.59'	78	0.006-1.4'	0.20'	22
MPI-5D	0.25-6'	2.43'	79	0.25-1.5'	0.75'	21
MPI-7D	0.02-5'	0.19'	61	0.02-3'	0.14'	39

MALCOLM PIRNIE

TABLE 4-10

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

HYDROSTRATIGRAPHIC UNIT TABLE

Hydrostratigraphic Unit	Geologic Units
Outwash Aquifer	Outwash Sand and Gravel
Lacustrine Aquifer	Lacustrine Sandy Silt
Confining Layer	Stratified Till

MALCOLM PIRNIE

TABLE 4-11

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF VERTICAL HYDRAULIC GRADIENTS

	Screen Midpoint Elevation	Elev. Water 4/13/94	Vertical Gradient ft./ft.	Elev. Water 6/15/94	Vertical Gradient ft./ft.	Elev. Water 1/18,19/95	Vertical Gradient ft./ft.
MPI-4I	879.12	905.70		904.73		905.24	
MPI-4S	899.12	905.85	−.008	904.82	−.005	905.31	−.004
MPI-4D	844.70	(1)	(1)	(1)	(1)	905.88	
MPI-4I	879.12					905.24	+.019
MPI-1I	877.53	905.89		904.86		905.30	
ESI-4	903.56	906.02	−.005	904.89	−.001	905.42	−.005
MPI-7I	881.72	906.43		905.26		905.68	
ESI-3	904.41	906.45	−.001	905.26	0	905.68	0
MPI-5I	879.78	906.09	−.005	904.95		905.30	
MPI-5S	903.78	906.20		905.00	−.002	905.46	−.007

Note:
− indicates downward vertical gradient.
(1) MPI-4D was installed in January 1995.

MALCOLM PIRNIE

TABLE 4-12

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SUMMARY OF HYDROGEOLOGIC PROPERTIES

Hydrostratigraphic Unit	Geologic Unit	Physical Properties			Groundwater Flow Properties		
		Saturated Thickness (ft.)[1][4]	Hydraulic Conductivity (cm/s)[3]	Effective Porosity[2]	Principal Flow Direction	Horizontal Gradient[1] (ft./ft.)	Flow Velocity[1] (ft./day)
Overburden Water-Bearing Zone:							
Outwash Aquifer	Outwash (north of Main St.)	17.8	8.6×10^{-3}	.25	NW	.003	.29
	Outwash (south of Main St.)	18.3	8.6×10^{-3}	.25	SW	.004	.39
Lacustrine Aquifer	Lacustrine Sandy Silt	13.0	2.8×10^{-4}	.35	SW/NW	.003	.007

Notes:
(1) Groundwater level data from 4/13/94.
(2) Effective porosity values are estimated from the low end of a range of total porosity values provided in the literature (Freeze and Cherry, 1979 and Fetter, 1980).
(3) Geometric Mean.
(4) Average Value.

MALCOLM PIRNIE

TABLE 5-1

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

ANALYTICAL PARAMETERS

Matrix	Parameter	Method
Groundwater[1]	Volatile Organics	ASP 91-1
	Semi-Volatile Organics	ASP 91-2
	Pesticides/PCBs	ASP 91-3
	Target Analyte List Metals	ASP 12/91 D-V-1 through D-V-149
	Cyanide	335.2
	Remediation Assessment Parameters:	
	Soluble Iron	200.7
	Soluble Manganese	243.1
	Hardness	130.2
	Alkalinity	310.1
	Total Suspended Solids	160.2
	Total Dissolved Solids	160.1
	pH	Field
	Turbidity	Field
	Specific Conductivity	Field
	eH	Field
Wastewater	Volatile Organics	ASP 91-1
Air	Tetrachloroethene	NYSDOH 311-7

Note:

(1) 3 groundwater samples were analyzed for the full parameter list during Phase I.
22 additional groundwater samples were analyzed for volatile organics only during Phase I.
22 groundwater samples were analyzed for volatile organic compounds during Phase II.

MALCOLM PIRNIE

TABLE 5-2

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

GROUNDWATER SAMPLING LOCATIONS

Groundwater Sampling Locations in April 1994:

Outwash Aquifer			Lacustrine Aquifer
MPI-1S	MW-1	ESI-1	MPI-1I
MPI-2S	MW-4	ESI-3	MPI-4I
MPI-3S	MW-5	ESI-4	MPI-5I
MPI-4S	MW-6	ESI-5	MPI-7I
MPI-5S	MW-7	ESI-6	
MPI-6S	MW-8		
MPI-8S	MW-9		
MPI-9S	MW-10		

Groundwater Sampling Locations in January 1995:

Outwash Aquifer			Lacustrine Aquifer
MPI-1S	MPI-10B	ESI-3	MPI-1I
MPI-2S	MPI-11B	ESI-4	MPI-4I
MPI-3S	MPI-12B	ESI-5	MPI-5I
MPI-4S	MPI-13B	ESI-6	MPI-7I
MPI-5S	MPI-14B		Stratified Till Unit
MPI-6S			
MPI-8S			MPI-4D
MPI-9S			

MALCOLM PIRNIE

TABLE 5-3

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

SAMPLING LOCATIONS

SEWER SAMPLING LOCATIONS:	
Sample No.	**Manhole Location**
MH-11	Intersection of Whaley & Fillmore Ave.
MH-61	Paine St.
MH-62E	Intersection of Main & Paine Sts.
MH-62W	Intersection of Main & Paine Sts.
MH-64	Near corner of Main & Elm St. on the sidewalk
MH-65	Main St. in front of Delia's car dealership

INDOOR AIR SAMPLING LOCATIONS:	
Sample No.(1)	**Sample Location(2)**
BG-1/BG-2	Boys/Girls Club, 16 Paine St. - NE corner of basement
BA-1/BA-2 (Phase I)	Jackson's Bowling Alley, 30 Whaley Ave. - SE corner of basement
#1, #2 - Bowling Alley (Phase II)	
C-1/C-2 (Phase I)	First Presbyterian Church, 9 Paine St. - Classroom #114 (center of room) in NW corner of former day-care center.
#1, #2 - 1st Pres.Church (Phase II)	
VH-1/VH-2	Village Hall, 571 Main St. - NE corner of basement (records room)
OB	Outdoor Background - SE corner of First Presbyterian Church
#1 - 31 Whaley #2 - 31 Whaley	31 Whaley Avenue - Northern edge of basement, middle
#1 - 34 Whaley #2 - 34 Whaley	34 Whaley Avenue - Northeast corner of basement
#1 - 517 Fillmore #2 - 517 Fillmore	517 Fillmore Avenue - Northeast corner of basement
#1 - 531 Fillmore #2 - 531 Fillmore	531 Fillmore Avenue - center of basement toward western edge

Notes:
(1) Samples collected in duplicate except for OB.
(2) All samples collected at floor or ground level.

TABLE 5-4
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
SUMMARY OF FIELD MEASUREMENTS FOR PHASE I RI SAMPLING[1]

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Eh (mV)	Conductance (umhos/cm)[2]	Turbidity[3] (NTU)	Sample Appearance/Odor
MPI-1S	4/4/94	14:14	9.2	7.45	+82	2220	>100	clear/no odor
MPI-1I	4/6/94	10:36	8.8	7.35	+151	1531	9	clear/no odor
MPI-2S	4/4/94	15:33	10.2	7.38	+101	1522	>100	clear/no odor
MPI-3S	4/4/94	14:48	8.4	7.29	+55	1657	>100	clear/no odor
MPI-4S	4/4/94	12:28	8.2	7.46	+82	1933	>100	clear/no odor
MPI-4I	4/4/94	12:15	11.0	7.45	+81	1619	16	clear/no odor
MPI-5S[4]	4/6/94	12:18	6.2	7.48	+5	1650	35	clear/no odor
MPI-5I	4/6/94	12:08	9.6	7.44	+49	1598	6	clear/no odor
MPI-6S	4/4/94	14:40	8.5	7.21	+53	1691	98	clear/no odor
MPI-7I[4]	4/7/94	10:10	8.7	8.01	+68	1820	6	clear/no odor
MPI-8S	4/4/94	10:58	7.9	7.27	+148	1915	12	clear/no odor
MPI-9S	4/4/94	11:08	10.2	7.07	+141	2140	>100	turbid/no odor
ESI-1	4/5/94	15:27	9.8	7.52	+78	1080	>100	turbid/no odor
ESI-3[4]	4/7/94	10:50	9.6	7.77	+55	1934	>100	turbid/no odor
ESI-4	4/6/94	10:43	5.9	7.44	+139	3360	64	clear/no odor
ESI-5	4/6/94	10:50	6.3	7.68	+145	481	>100	clear/no odor
ESI-6	4/4/94	14:56	10.7	7.60	+70	2920	>100	milky/no odor
MW-1	4/5/94	10:36	8.3	7.41	+23	2130	21	clear/no odor
MW-4	4/5/94	13:28	9.9	7.15	-47	3260	6	clear/petroleum
MW-5	4/5/94	12:45	8.2	7.06	-90	1744	45	clear/petroleum
MW-6	4/5/94	10:54	6.3	12.61	-122	2120	>100	clear/slt solvent
MW-7	4/5/94	11:05	7.9	7.66	+20	1126	>100	clear/no odor
MW-8	4/5/94	11:15	7.7	7.44	+60	1280	>100	clear/no odor
MW-9	4/5/94	13:05	11.0	7.26	-70	1414	>100	clear/petroleum
MW-10	4/5/94	14:36	8.2	7.17	-36	1293	73	clear/petroleum

Notes:
(1) Except where noted, all measurements are readings obtained from first bailer of water.
(2) Conductance corrected to 25C.
(3) Turbidity and Sample Appearance based on first bailer measurements only (i.e., undisturbed groundwater).
(4) Measurements are averages of readings obtained from first and last bailers of water.

MALCOLM PIRNIE

TABLE 5-4
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
SUMMARY OF FIELD MEASUREMENTS FOR PHASE II RI SAMPLING[1]

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Eh (mV)	Conductance (umhos/cm)[2]	Turbidity[3] (NTU)	Sample Appearance/Odor
MPI-1S	1/31	11:50	9.3	7.8	-1	1980	29.1	clear
MPI-1I	1/31	10:50	11.2	7.8	-48	1580	3.3	clear
MPI-2S	1/25	15:36	9.1	7.7	+130	1390	57.0	clear
MPI-3S	1/30	11:57	8.1	7.4	-38	3560	>200	orange colored silt
MPI-4S	1/30	16:26	7.9	7.4	-22	5600	>200	silty
MPI-4I	1/31	16:35	9.4	7.4	-41	152	60	clear
MPI-4D	1/31	15:33	8.8	8.2	+1	210	>200	slightly silty
MPI-5S	1/27	14:15	9.2	7.6	+50	2830	71	bacterial growth in water
MPI-5I	1/27	15:17	9.4	7.3	-40	3610	1.7	clear
MPI-6S	1/26	14:52	7.4	7.8		1515	28.1	clear
MPI-7I	1/26	11:38	7.2	6[4]	+9	1222	1.6	clear
MPI-8S	1/27	11:25	9.3	7.6	+12	4720	9.6	clear
MPI-9S	1/27	10:00	10.0	8.0	+51	2930	93.0	silty
MPI-10B	1/25	16:54	8.8	7.5	+112	1008	170	silty
MPI-11B	1/26	16:05	6.7	8.1		1112	32	clear
MPI-12B	1/25	14:40	6.4	6.2	+128	1611	>200	silty, opague
MPI-13B	1/25	11:20	6.7	5.7	+150	1331	>200	silty, opague
MPI-14B	1/25	9:51	7.8	5.9	+113	1130	6.3	clear
ESI-3	1/26	9:45	8.6	6[4]	+78	678	158	slightly silty
ESI-4	1/31	9:41	8.4	6.0	0	3040	<200	orange brown silty
ESI-5	1/30	15:02	7.2	8.0	+52	765	189	silty
ESI-6	1/30	14:01	11.0	7.5	-1	4310	<200	silty

Notes:
(1) Except where noted, all measurements are readings obtained from first bailer of water.
(2) Conductance corrected to 25C.
(3) Turbidity and Sample Appearance based on first bailer measurements only (i.e., undisturbed groundwater).
(4) Measurements are averages of readings obtained from first and last bailers of water.

MALCOLM PIRNIE

TABLE 5-5
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
PHASE I (APRIL 1994) GROUNDWATER SAMPLING RESULTS[1]

Parameter[2] (ug/l)	MPI 1S	MPI 1I	MPI 2S	MPI 3S	MPI 4S	MPI 4I	MPI 5S	MPI 5I	MPI 6S	MPI 7I	MPI 8S	MPI 8S[3]	MPI 9S	GWQ Stds[4]
vinyl chloride							9J							2
methylene chloride	10UJ		10UJ	10UJ	10UJ	10UJ			20UJ	10UJ	10UJ	10UJ	10UJ	5
acetone		11				91		41		39				50**
1,1-dichloroethene									19J					5
1,2-dichloroethene (T)	20				2J		39		24J		16J	15J	24	5
chloroform					3J					2J				7
2-butanone														
1,1,1 trichloroethane			14											5
bromodichloromethane														
trichloroethene	10J					10J	12		110		22J	23J	22	5
benzene					12									0.7
tetrachloroethene	290	3J			59	350	56	1J	1600	140	500	530	350	5
toluene														5
ethylbenzene														5
xylene (T)														5

Notes:

(1) Only compounds detected above the Analytical Detection Limit in one or more samples are shown here. Blank space means the compound was not detected above the Analytical Detection Limit.

(2) Analyzed by ASP Method 91-1.

(3) Duplicate Sample.

(4) NYSDEC Class GA Groundwater Quality Standards.

** Guidance Value

J = estimated value due to limitations identified during quality control review.

UJ = Estimated Detection Limit

MALCOLM PIRNIE

TABLE 5-5
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
PHASE I (APRIL 1994) GROUNDWATER SAMPLING RESULTS[1]

Parameter[2] (ug/l)	ESI-1	ESI-3	ESI-4	ESI-5	ESI-6	MW-1	MW-1[3]	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	GWQ Stds[4]
vinyl chloride									240				8J		2
methylene chloride	10UJ				10UJ	61J	120J	10UJ	54J	10UJ	10UJ	11J	10UJ	27UJ	5
acetone										46					50**
1,1-dichloroethene															5
1,2-dichloroethene (T)			2J		62			24	45J			6J	27	1J	5
chloroform															7
2-butanone															
1,1,1 trichloro-ethane			4J												5
bromodichloro-methane															50**
trichloroethene	3J		1J		16J	37J	64J	46				26J	2J		5
benzene								55	3200	3J			110	28J	0.7
tetrachloroethene		8,200	32	2J	390	3100	4400	220			120	390		36J	5
toluene								3J	740	2J			6J	10J	5
ethylbenzene								30	430	3J			47	230	5
xylene (T)								41	1900	6J			37	410	5

Notes:
(1) Only compounds detected above the Analytical Detection Limit in one or more samples are shown here. Blank space means the compound was not detected above the Analytical Detection Limit.
(2) Analyzed by ASP Method 91-1.
(3) Duplicate sample
(4) NYSDEC Class GA Groundwater Quality Standards
** Guidance Value

J = Estimated value due to limitations identified during quality control review.
UJ = Estimated Detection Limit.

TABLE 5-5
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

PHASE II (JANUARY 1995) GROUNDWATER SAMPLING RESULTS[1]

Parameter (ug/l)	MPI-1S	MPI-2S	MPI-3S	MPI-4S	MPI-5S	MPI-6S	MPI-8S	MPI-9S	MPI-10B	MPI-11B	MPI-12B	GWQ Stds[3]
Methylene Chloride						10UJ			10UJ		10UJ	5
Acetone				5J								50**
2-Butanone				5J	10UJ		10UJ	10UJ				
1,1,1-Trichloroethane		12										5
Trichloroethene	6J			3J	5J	280	16	14	4J	4J		5
Tetrachloroethene	170			36	16	1800	630	190	1700			5
1,2-Dichloroethene	13			4J	19	28	13	15	4J		3J	5
1,1-Dichloroethene						14				2J		5
Vinyl Chloride					6J							2
Benzene		2J		4J	1J	1J		1J		4J	2J	0.7
Toluene										4J		5
Chlorobenzene										3J		
1,2-Dichloropropane						3J						
Chloroform										1J		7

Parameter (ug/l)	MPI-13B	MPI-14B	ESI-3	ESI-4	ESI-5	ESI-6	MPI-1I	MPI-4I	MPI-5I	MPI-7I	MW-4D	GWQ Stds[3]
Methylene Chloride	10UJ	10UJ	10UJ							10UJ		5
Acetone				3J	2J	14J	3J	14J	10		5J	50**
2-Butanone												
1,1,1-Trichloroethane			4J	4J								5
Trichloroethene			3J	2J		20J		59				5
Tetrachloroethene	2J		3600	36	2J	520		460		130		5
1,2-Dichloroethene			12	2J		82		5J				5
1,1-Dichloroethene												5
Vinyl Chloride												2
Benzene	1J				1J							0.7
Toluene												5
Chlorobenzene												
1,2-Dichloropropane												
Chloroform												7

Notes:
(1) Only compounds detected above the Analytical Detection Limit in one or more samples are shown. Blank space means compound was not detected above the Analytical Detection Limit.
(2) Analyzed by ASP Method 91-1.
(3) NYSDEC Class GA Groundwater Quality Standards

J = Estimated value due to limitations identified during quality control review.
UJ = Estimated Detection Limit
** = Guidance Value

MALCOLM PIRNIE

Printed on Recycled Paper

MALCOLM PIRNIE

TABLE 5-6
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

MAY 1994 GROUNDWATER SAMPLING RESULTS – ADDITIONAL PARAMETERS

Parameter (ug/l)	ESI-3	MPI-7I	MPI-5S	MPI-7I[1]	GWQ Stds[3]
Target Compound List - Semi-Volatile Organics:					
bis(2-ethylhexyl)phthalate	10J	3J		12	50
Butylbenzylphthalate	8J			6J	50**
Diethylphthalate	75			2J	50**
Di-n-butylphthalate	2J				
Target Compound List - Inorganics:					
Aluminum	6200	200UJ	792	200UJ	
Barium	220	117J	214	114J	1000
Calcium	189,000	175,000	126,000	169,000	
Cobalt	16.1J				
Copper	44.1		25UJ		200
Iron	21,200		4,480		300
Lead	11.9		7.4J		25
Magnesium	35,800	37,800	20,700	35,200	35,000**
Manganese	792	814	944	784	300
Mercury	0.21				2
Nickel	40UJ				
Potassium	7,230	5,530	7,380	5,220	
Silver			10UJ		50
Sodium	205,000	157,000	192,000	152,000	250
Vanadium	50UJ		50UJ		
Zinc	104	20UJ	20UJ		300
Soluble Iron			1,090		
Soluble Managanese	130	782J	734J	130J	
Remediation Assessment Parameters: (mg/l)					
Alkalinity, Total	276	299	356		
Hardness	503	578	377		
Total Cyanide			0.02		0.10
Total Dissolved Solids	1,180	1,100	930		
Total Suspended Solids	1,090	1	70		

Notes: (1) Only compounds detected above the Analytical Detection Limit in one or more samples are shown here. Blank space means the compound was not detected above the Analytical Detection Limit.
(2) Duplicate Sample
(3) NYSDEC Class GA Groundwater Quality Standards
J = Estimated value due to limitations identified during quality control review.
UJ = Estimated Detection Limit.

MALCOLM PIRNIE

TABLE 5-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

MOBILE LABORATORY RESULTS

Area	Location No.	Type	Depth	Analyte Detected	Result (ug/l)	Detection Limit (ug/l)
Fillmore Avenue	H-1(1)	HP	14-17'	None	ND	1.0
	H-1(2)	HP	25-27'	None	ND	1.0
	H-2(1)	HP	11-13'	None	ND	1.0
	H-2(2)	HP	25-27'	None	ND	1.0
	H-3(1)	HP	12-15'	PCE	33	1.0
	H-3(2)	HP	25-27'	PCE	3.7	1.0
				Toluene	BQL	
	#517	PW	15'	PCE	100	10
				TCE	BQL	
	#524	PW	14'	PCE	2.6	1.0
	#531	PW	17'	PCE	210	10
				TCE	17	
				C-1,2 DCE	BQL	
	H-10(1)	HP	12-14'	Toluene	BQL	1.0
				M&P Xylene	BQL	
	H-10(2)	HP	26-28'	Toluene	BQL	1.0
	H-10(3)	HP	40-42'	Toluene	1.5	1.0
				M&P Xylene	1.2	
Whaley Avenue	H-4(1)	HP	12-14'	None	ND	1.0
	H-4(2)	HP	26-28'	None	ND	1.0
	MPI-6S	MW	12.3-22.3	PCE	2,000	100
				TCE	260	
	H-11(1)	HP	26-28'	PCE	8,700	1000
	H-11(2)	HP	40-42'	PCE	11	1.0
	MPI-4D(1)	HP	12-14'	VC	2J	10
				MC	1J	
				1,2 DCE	9J	
				TCE	10	
				1,1,1 TCA	2J	
				Benzene	4J	
				PCE	450	50
	MPI-4D(2)	HP	26-28'	1,2 DCE	5J	10
				PCE	12	
	MPI-4D(3)	HP	40.5-42'	None	ND	10

MALCOLM PIRNIE

TABLE 5-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

MOBILE LABORATORY RESULTS

Area	Location No.	Type	Depth	Analyte Detected	Result (ug/l)	Detection Limit (ug/l)
Agway	H-9(1) (*)	HP	26-28'	PCE 1,2 DCE (**) TCE (**) 1,1,1 TCA (**) Toluene	400 3J 3J 1J 12	10
	MW-7	MW	5-14.5	PCE	1,800	100
	H-14(1) H-14(2)	HP HP	14-16' 26-28'	PCE PCE	880 920	100 100
	H-15(1)	HP	13-15'	PCE t-1,2 DCE Benzene Toluene Ethylbenzene M&P-Xylene O-Xylene	2.2 BQL 20 1.5 10 11 1.8	1.0
	HP-15(2)	HP	26-28'	PCE TCE C-1,2 DCE t-1,2 DCE	22 5 5 BQL	1.0
Mr. C. Cleaners	H-12	HP	26-28'	PCE TCE C-1,2 DCE t-1,2 DCE	9.7 1.6 2.2 BQL	1.0
	SB-1	SOIL	6-8' 8-10'	PCE PCE	48,000(ug/kg) 6,400(ug/kg)	1000 1000
	SB-2(H-13)	SOIL	8-10'	PCE	12,000(ug/kg)	1000
	H-13 (*)	HP	13-15'	PCE 1,2 DCE (**) TCE (**) 1,1,1 TCA (**)	4,700 11 6J 2J	1000
Church	H-5(1)	HP	13-15'	Toluene Ethylbenzene M&P-Xylene O-Xylene	BQL 1,400 4,300 440	100
	H-5(2)	HP	26-28'	C-1,2 DCE Toluene Ethylbenzene M&P-Xylene O-Xylene	BQL 1.6 11 42 4.4	1.0

MALCOLM PIRNIE

TABLE 5-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

MOBILE LABORATORY RESULTS

Area	Location No.	Type	Depth	Analyte Detected	Result (ug/l)	Detection Limit (ug/l)
Church (Continued)	H-6(1)	HP	12-14'	VC	3.9	1.0
				C-1,2 DCE	1.9	
				Benzene	93	10
				Toluene	37	
				Ethylbenzene	410	
				M&P-Xylene	70	
				O-Xylene	17	
	H-6(2)	HP	26-28'	C-1,2 DCE	34	10
				Benzene	15	
				Toluene	44	
				Ethylbenzene	120	
				M&P-Xylene	500	
				O-Xylene	170	
	H-7(1)	HP	12-14'	VC	BQL	1.0
				C-1,2 DCE	BQL	
				Benzene	390	100
				Toluene	210	
				Ethylbenzene	880	
				M&P-Xylene	3,400	
				O-Xylene	920	
	H-7(2)	HP	26-28'	VC	13	1.0
				t-1,2 DCE	BQL	
				1,1 DCA	BQL	
				C-1,2 DCE	62	
				1,1,1 TCA	BQL	
				TCE	7.1	
				PCE	7.9	
				Benzene	19	
				Toluene	1.1	
				Ethylbenzene	1.9	
				M&P-Xylene	5.9	
				O-Xylene	1.7	

MALCOLM PIRNIE

TABLE 5-7

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

MOBILE LABORATORY RESULTS

Area	Location No.	Type	Depth	Analyte Detected	Result (ug/l)	Detection Limit (ug/l)
Church (Continued)	H-8(1)	HP	26-28'	M&P-Xylene	BQL	1.0
	H-8(2)	HP	40-42'	None	ND	1.0
	MPI-3S	MW	8-14' 14-18'	None	ND	1.0

HP	Hydropunch Sample	PCE	Tetrachloroethene
PW	Private Irrigation Well Sample	TCE	Trichloroethene
MW	Monitoring Well Sample	DCE	Dichloroethene
BQL	Detected Below Quantitation Limit	DCA	Dichloroethane
ND	Not Detected	TCA	Trichloroethane
(*)	Duplicate Sample analyzed by Nytest	VC	Vinyl Chloride
		MC	Methylene Chloride
(**)	Results obtained by NYTEST		

MALCOLM PIRNIE

TABLE 5-8

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

GROUNDWATER CONTAMINANTS

Parameter	Concentration Range Detected (ug/l)
Tetrachloroethene	1J - 8200
Potential Degradation Products/Contaminants of Tetrachloroethene:	
• Trichloroethene	1J - 280
• 1,2 Dichloroethene	1J - 82
• 1,1 Dichloroethene	2J - 19J
• Vinyl Chloride	6J - 240
Petroleum Hydrocarbons:	
• Benzene	1J - 3200
• Toluene	3J - 740
• Ethylbenzene	3J - 430
• Xylene	6J - 1900
• Chlorobenzene	3J
Other Parameters:	
• 1,1,1 Trichloroethane	4J - 14
• Acetone	5J - 91
• Chloroform	1J - 3J
• Methylene Chloride	1J - 120J
• 2-Butanone	5J - 10UJ
• 1,2-Dichloropropane	3J

MALCOLM PIRNIE

TABLE 5-9
MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT
***APRIL 1994 SEWER SAMPLING RESULTS*[1]**

Parameter[2] (ug/l)	MH-11	MH-61	MH-62E	MH-62E[3]	MH-62W	MH-64	MH-65	GWQ Stds[4]
vinyl chloride								2
methylene chloride	10UJ	10UJ	10UJ	10UJ	10UJ	10UJ	10UJ	5
acetone	10	21J	19J	17J	84J	20J	38J	50**
1,1-dichloroethene								5
1,2-dichloroethene (T)		3J						5
chloroform	6J	5J	6J	6J	9J	5J	16	7
2-butanone					15J			
1,1,1 trichloroethane								5
bromodichloromethane		2J	2J	2J	1J	2J	3J	50**
trichloroethene								5
benzene								0.7
tetrachloroethene		4J	1J					5
toluene					10			5
ethylbenzene					2J			5
xylene (T)					21			5

Notes:
(1) Only compounds detected above the Analytical Detection Limit in one or more samples are shown here. Blank space means the compound was not detected above the Analytical Detection Limit.
(2) Analyzed by ASP Method 91-1.
(3) Duplicate Sample.
(4) NYSDEC Class GA Groundwater Quality Standards
** Guidance Value
J Estimated value due to limitations identified during quality control review. UJ = Estimated Detection Limit

MALCOLM PIRNIE

TABLE 5-10

MR. C CLEANERS SUPERFUND SITE
REMEDIAL INVESTIGATION REPORT

INDOOR AIR MONITORING RESULTS

Location	Phase	Sample No.	Tetrachloroethene Concentration	
			ug/m³	ppm
Boys/Girls Club	I	BG-1 BF-2	1.7U 1.8	0.00025U 0.00026
Jackson's Bowling Alley	I	BA-1 BA-2	220 130	0.032 0.019
	II	#1-Bowling Alley #2 Bowling Alley	153 133	0.023 0.020
–	II	Trip Blank	2.5U	0.00037U
First Presbyterian Church	I	C-1 C-2	16 9.4	0.002 0.001
	II	#1-1st Pres. Church #2-1st Pres. Church	28 9	0.0041 0.0014
Village Hall	I	VH-1 VH-2	1.7 1.7U	0.00025 0.00025U
Outside of First Presbyterian Church	I	Outside background (OB)	1.7U	0.00025U
–	I	Trip Blank (TB)	1.7U	0.00025U
31 Whaley Avenue	II	#1-31 Whaley #2-31 Whaley	2.5U 43	0.00037U 0.0064
34 Whaley Avenue	II	#1-34 Whaley #2-34 Whaley	2.5U 2.5U	0.00037U 0.00037U
517 Fillmore Avenue	II	#1-517 Fillmore #2-517 Fillmore	5 2.5U	0.00079 0.00037U
531 Fillmore Avenue	II	#1-531 Fillmore #2-531 Fillmore	2.5U 2.5U	0.00037U 0.00037U
–	II	Trip Blank	2.5U	0.00037U

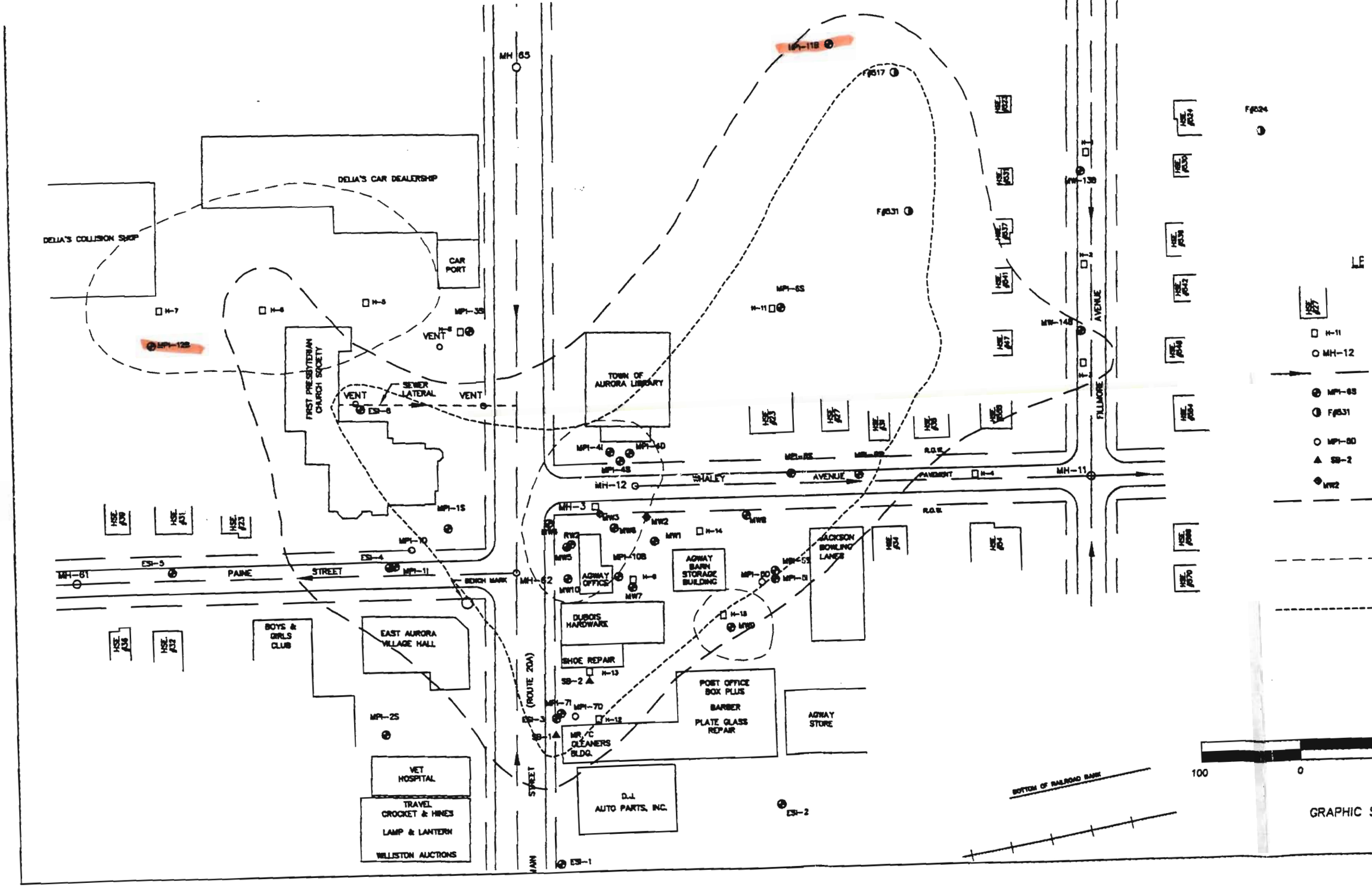
NOTE: Phase I Air Monitoring was performed in March 1994.
Phase II Air Monitoring was performed in April 1995.

MALCOLM PIRNIE

SECTION 2
REMEDIAL INVESTIGATION REPORT – APPENDIX A – JUNE 1995

Table 1 Groundwater Monitoring Locations

This section also provides borehole logs for boreholes MPI-1D, MPI-5D, MPI-7D, SB-1 and SB-2. It also provides borehole logs/well construction details for monitoring wells MPI-1S and I; MPI-2S; MPI-3S; MPI-4S, I and D; MPI-5S and I; MPI-6S; MPI-7I; MPI-8S; MPI-9S; MPI-10B through MPI-14B; ESI-1 through ESI-6; AG-1 through AG-10; and MW-1 through MW-5; and RW.


DELIA'S CAR DEALERSHIP
DELIA'S COLLISION SHOP
CAR PORT
FIRST PRESBYTERIAN CHURCH SOCIETY
VENT
SEWER LATERAL
TOWN OF AURORA LIBRARY
FILLMORE AVENUE
HALEY AVENUE
PAVEMENT
R.O.W.
MH-65
MH-12
MH-11
MH-3
MH-61
MH-62
MH-71
PAINE STREET
BENCH MARK
AGWAY OFFICE
AGWAY BARN STORAGE BUILDING
JACKSON BOWLING LANES
DUBOIS HARDWARE
SHOE REPAIR
POST OFFICE BOX PLUS
BARBER
PLATE GLASS REPAIR
AGWAY STORE
MR. C CLEANERS BLDG.
EAST AURORA VILLAGE HALL
BOYS & GIRLS CLUB
VET HOSPITAL
TRAVEL
CROCKET & HINES
LAMP & LANTERN
WILLISTON AUCTIONS
D.J. AUTO PARTS, INC.
MAIN STREET (ROUTE 20A)
BOTTOM OF RAILROAD BANK
100
0
GRAPHIC

MALCOLM PIRNIE

TABLE 1

GROUNDWATER MONITORING LOCATIONS
MR. C CLEANERS SITE

Well No.	Location
ESI-1	East of former Post Office
ESI-3	Adjacent to Mr. C
ESI-4	Paine St. near Church
ESI-5	Paine St.
ESI-6	Church lawn
AG-1	South of Agway Barn
AG-4	Corner of Whaley & Main St.
AG-5	South of Agway
AG-6	South of Agway office, near southeast corner
AG-7	North of Agway office, near northwest corner
AG-8	North of Agway office, near northeast corner
AG-9	Northwest of northwest corner of Agway Barn
AG-10	Between Agway Barn and P.O. Box Plus, north
MPI-1	Corner of Main & Paine Sts. on church property
MPI-1I	Paine St. near church/ESI-4
MPI-2	Village Hall parking lot
MPI-3	Church lawn near Main St.
MPI-4	Library - east side
MPI-4I	Library - east side
MPI-5	North of Agway Barn
MPI-5I	North of Agway Barn
MPI-6	Library parking lot
MPI-7I	Mr. C Parking lot near Main St.
MPI-8	Whaley St.
MPI-9	Whaley St.

BOREHOLE LOG MPI-1S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/17/94 - 03/18/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JPH/RHO
SURFACE ELEVATION: 815.38ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	814.38	TOPSOIL Dark brown CLAYEY SILT, trace fine sand, grass rootlets		1 SS	1 2 3 3	0.8	5						JHS=0.1 ppm
2	813.38	TILL Light-moderate brown CLAYEY SILT, little clay, little subangular fine gravel, firm, CL		2 SS	2 4 8 8	0.8	13						JHS=0.2 ppm
3	812.38	Light brown-olive moist CLAYEY SILT, some fine-coarse sand, little fine shale subangular gravel, blocky texture, stiff, CL											
4	811.38												JHS=0.1 ppm
5	810.38	Grayish brown moist CLAYEY SILT, w/iron staining & mottling, trace-little clay, some plastisity, little subrounded gravel to 3/4" dia., little fine-course sand, stiff, CL		3 SS	3 7 4 11	1.8	11						
6	809.38												JHS=0.3
7	808.38	Moderate olive-brown moist SANDY SILT, little-some fine gravel, numerous black shale clasts to 1/4" thick x 1" dia., trace-little clay, some coarse-very fine sand, loose, SM		4 SS	4 5 5 5	1.2	10						
8	807.38												JHS=0.1 ppm
9	806.38	Moderate brown wet v.fine-fine SAND, trace silt, loose, SP-SM		5 SS	2 2 2 3	0.3	4						
10	805.38	Moderate brown wet mostly fine, trace v.fine SAND w/faint bedding fabric as lighter, finer sand partings<1/4" thickness, liquifies when disturbed, loose, SP-SM w/SAND layer w/trace fine round gravel to 1/4" from 13.7-13.9' and brown wet SILTY SAND layer w/mostly v.fine sand, trace fine, liquifies when disturbed, compact, SP-SM, from 13.8-14.0'											JHS=0.2 ppm
11	804.38			6 SS	2 2 3 4	1.3	5						
12	803.38												JHS=0.5 ppm
13	802.38			7 SS	5 6 6 12	2.0	12						
14	801.38												JHS=0.8 ppm
15	800.38	Moderate gray wet v.fine SAND, trace-occ.fine gravel, trace-little silt, liquifies when disturbed, compact, SM		8 SS	1 5 5 5	1.8	10						
16	898.38	SILT & v.fine SAND, light brown-tan											JHS=0.8 ppm
17	898.38	Brown wet v.fine-fine SAND, trace medium, w/very fine sand partings as bedding fabric, liquifies when disturbed, loose, SP-SM		9 SS	WR WR 3 8	2.0	3						
18	897.38												
19	896.38	Brownish gray wet v.fine-fine SAND, trace silt&v.fine sand as bedding fabric, loose, SM		10 SS	3 4 4 5	1.4	8						
20	895.38	Boring complete at 20'. Set well.											

BOREHOLE LOG MPI-1D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: New York State Survey Grid

CLIENT: NYSDEC
DRILLING DATES: 02/18/94 - 2/22/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.85ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
0		TOPSOIL moist dark brown SILT LOAM, soft, fine size roots, ML		1 SS	1 2 3 5	1.2	5						JHS=0.2 ppm
1	912.95	TILL Brown moist CLAYEY SILT, with 15-40% subrounded to subangular gravel, trace-little sand, blocky, Firm, CL											
2	911.95	becoming stiff at 2.0'		2 SS	5 5 6 8	1.1	11						JHS=0.3 ppm
3	910.95												
4	909.95			3 SS	3 4 5 6	1.1	9						JHS=0.1 ppm
5	908.95												
6	907.95	no recovery, stiff		SS	5 4 4 3	0	8						JHS=-- ppm
7	906.95												
8	905.95	no recovery, very loose		SS	2 2 2 2	0	4						JHS=-- ppm
9	904.95												
10	903.95	STRATIFIED Brown moist SILTY SANDY GRAVEL w/60-80% gravel, little sand and silt, loose when disturbed, GM		4 SS	6 5 4 5	1.5	9						JHS=0.1 ppm
11	902.95												
12	901.95	Brown wet SILTY SAND, mostly fine, little very fine sand, trace iron staining in layers, occasional silt lenses ~1/4" thick, loose, liquifies when disturbed, SM		5 SS	3 5 5 6	1.0	10						JHS=0.3 ppm
13	900.95												
14	899.95			6 SS	4 4 6 4	0.8	10						JHS=0.2 ppm
15	898.95	Brown wet SILTY SAND, mostly fine-little medium and very fine sand, loose, liquifies when disturbed, SM											
16	897.95			7 SS	2 4 8 13	1.4	12						JHS=0.1 ppm
17	896.95	Brown wet SILTY SAND, mostly fine, little very fine sand, compact, liquifies when disturbed, SM											
18	895.95	occasional coarse Gravel (~1" in diameter)		8 SS	7 5 6 9	1.4	11						JHS=0.1 ppm
19	894.95												
20	893.95												

BOREHOLE LOG MPI-1D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: New York State Survey Grid

CLIENT: NYSDEC
DRILLING DATES: 02/18/94 - 2/22/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.95ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	892.95	STRATIFIED Brown wet SAND, trace-little Silt, medium-fine sand, compact, liquifies when disturbed, SP-SM		9 SS	3 5 8 7	1.3	13						JHS=0.1 ppm
22	891.95	Becoming loose at 22'											JHS=0.1 ppm
23	890.95			10 SS	2 3 8 8	0.4	9						
24	888.95	Becoming very loose at 24'											JHS=0.1 ppm
25	888.95			11 SS	WH 1 2 3	0.8	3						
26	887.95												JHS=0.5 p
27	888.95			12 SS	1 2 4 5	1.0	6						
28	885.95	Brownish gray wet SILTY SAND, mostly very fine sand, little fine, trace-no medium size, loose, readily liquifies when disturbed, SM											JHS=0.5 ppm
29	884.95			13 SS	4 8 8 9	1.2	16						
30	883.95	Alternating grayish brown to brownish gray wet SILTY SAND, with Silt partings ~8-10 layers per 1/2" thick, mostly fine and very fine sand, some silt, compact, liquifies when disturbed, SM											JHS=0.5 ppm
31	882.95			14 SS	5 7 8 8	1.6	15						
32	881.95	Grayish brown wet SAND, mostly fine and medium sand, trace silt, compact, loose when disturbed, SP-SM											JHS=0.5 ppm
33	880.95	Brownish gray wet SAND, mostly fine-medium sand, trace-no silt, occasional silt lenses, compact, loose when disturbed, SP		15 SS	WH WH 2 3	1.3	2						
34	878.95												JHS=0.4 ppm
35	878.95	Brownish gray wet SANDY SILT, mostly silt, some very fine sand and little fine sand, occasional clayey silt lenses, very soft, liquifies when disturbed, ML		16 SS	6 4 5 6	1.5	9						
36	877.95												JHS=0.5 ppm
37	876.95	becoming stiff at 34'		17 SS	2 2 3 3	0.9	5						
38	875.95	becoming loose at 38'											JHS=0.4 ppm
39	874.95			18 SS	3 3 3 3	1.3	6						
40	873.95												

BOREHOLE LOG MPI-1D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: New York State Survey Grid

CLIENT: NYSDEC
DRILLING DATES: 02/18/94 - 2/22/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.95ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
41	872.95	LAMINATED Gray wet CLAYEY SILT, with little fine sand, silt lenses ~1/8" thick, an occasional SAND lenses ~1/4-1" thick, soft, CL		19 SS	3 2 2 3	1.4	4						JHS=0.5 ppm
42	871.95	becoming firm at 42'											
43	870.95			20 SS	3 3 3 3	1.2	6						JHS=0.5 ppm
44	869.95												JHS=0.4 ppm
45	868.95			21 SS	3 3 2 3	1.3	5						
46	867.95												JHS=0.5 ppm
47	866.95	Gray extremely moist SILTY CLAY with little-some silt, trace sand, stiff, CL		22 SS	2 3 6 8	1.3	9						
48	865.95												JHS=0.5 ppm
49	864.95	Gray wet SAND, mostly medium sand, little fine, trace coarse, compact, loose when disturbed, SP		23 SS	2 6 11 11	1.2	17						
50	863.95												JHS=0.4 ppm
51	862.95			24 SS	6 5 7 8	1.8	12						
52	861.95	Gray extremely moist SILTY CLAY, with little-some silt, trace sand, stiff, CL											JHS=0.5 ppm
53	860.95			25 SS	2 4 5 6	1.8	9						
54	859.95	occasional medium SAND lenses ~2" thick, becoming firm at 54'											JHS=0.5 ppm
55	858.95			26 SS	1 2 4 5	1.8	6						
56	857.95	Occasional gray extemely moist medium SAND lenses ~1-3" thick at 56.5', 57', 57.5', 59', and 59.5'											JHS=0.5 ppm
57	856.95			27 SS	2 2 3 3	1.8	5						
58	855.95	becoming stiff at 58'											JHS=0.8 ppm
59	854.95			28 SS	WH 2 5 5	1.7	7						
60	853.95												

BOREHOLE LOG MPI-1D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: New York State Survey Grid

CLIENT: NYSDEC
DRILLING DATES: 02/18/94 - 2/22/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.85ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
61	852.85	Gray extremely moist SILTY CLAY with little-some silt, trace sand, stiff, CL, with gray medium SAND partings approx 1-3" thick at 60', 60.5', 61', 62', and 62.5'		29 SS	3 4 6 8	1.6	10						JHS=0.5 ppm
62	851.85	becoming firm at 62', medium SAND from 62-62.5'											JHS=0.5 ppm
63	850.85	thinner SAND lenses at 63'		30 SS	WH WH 5 5	1.5	5						
64	849.85	thin medium sand partings at 64.9', 65', 65.1'.											JHS=0.5 ppm
65	848.85			31 SS	1 2 4 5	1.8	6						
66	847.85	3" medium SAND lenses											JHS=-- pp
67	846.85			ST		2.0							
68	845.85	3" medium SAND lenses. Gray moist-extremely moist SILTY CLAY, little-some silt, occasional silt partings,											JHS=0.5 ppm
69	844.85	soft, CL		32 SS	WH WH 2 6	1.6	2						
70	843.85	Gray moist SAND from 70-70.5', mostly medium sand, loose, SP											JHS=0.7 ppm
71	842.85	Gray wet SAND at 71.5, SP		33 SS	1 2 5 8	1.9	7						
72	841.85	Interlayered gray moist SILTY CLAY ~4-6" thick, w/little-some silt, soft, CL &											JHS=0.8 ppm
73	840.85	SILTY SAND w/ little silt, mostly fine sand, very loose, liquifies when disturbed, SM		34 SS	WH 1 2 3	2.0	3						
74	839.85	Gray moist SILTY CLAY, little silt, soft, CL											JHS=0.7 ppm
75	838.85			35 SS	WH 1 3 9	2.0	4						
76	837.85	Gray moist SILTY SAND, very fine sand, compact, liquifies when disturbed, SM											JHS=0.8 ppm
77	836.85	Gray moist CLAYEY SILT,some clay, occ v. thin fine sand partings,v.stiff,CL		36 SS	8 9 8 9	2.0	17						
78	835.85	Gray moist SILTY SAND,some silt,mostly fine & very fine sand, compact,liquifies											JHS=0.5 ppm
79	834.85	when disturbed,SM-ML		37 SS		1.7							
80	833.85	Gray wet SILTY CLAY,little silt, v. soft,CL											

BOREHOLE LOG MPI-1D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: New York State Survey Grid

CLIENT: NYSDEC
DRILLING DATES: 02/18/94 - 2/22/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.95ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
81	832.95			38 SS	WR WH WH 1	2.0	0						JHS=0.7 ppm
82	831.95	Gray wet SANDY SILT, trace clay, some fine sand, occasional clayey silt parting ~1/4-1/2" thick, loose, liquifies when disturbed, SM		39 SS	1 2 2 2	1.7	4						JHS=0.5 ppm
83	830.95												
84	829.95	Gray wet CLAYEY SILT tending toward SILTY CLAY, some clay, very soft, CL		40 SS	WR WR 1 5	2.0	1						JHS=0.5 ppm
85	828.95												
86	827.95	6-10 SILT partings ~0.2' in length.		41 SS	WR WR WH 3	2.0	0						JHS=0.5 ppm
87	826.95	Laminated SILT parting											
88	825.95			42 SS	WR WR WH 1	2.0	0						JHS=0.5 ppm
89	824.95												
90	823.95	Gray wet SILT with little very fine sand, liquifies when disturbed, ML											
91	822.95	Boring complete at 90.0'. Grouted hole with cement bentonite grout. Moved rig feet. Installed MPI-1I.											
92	821.95												
93	820.95												
94	819.95												
95	818.95												
96	817.95												
97	816.95												
98	815.95												
99	814.95												
100	813.95												

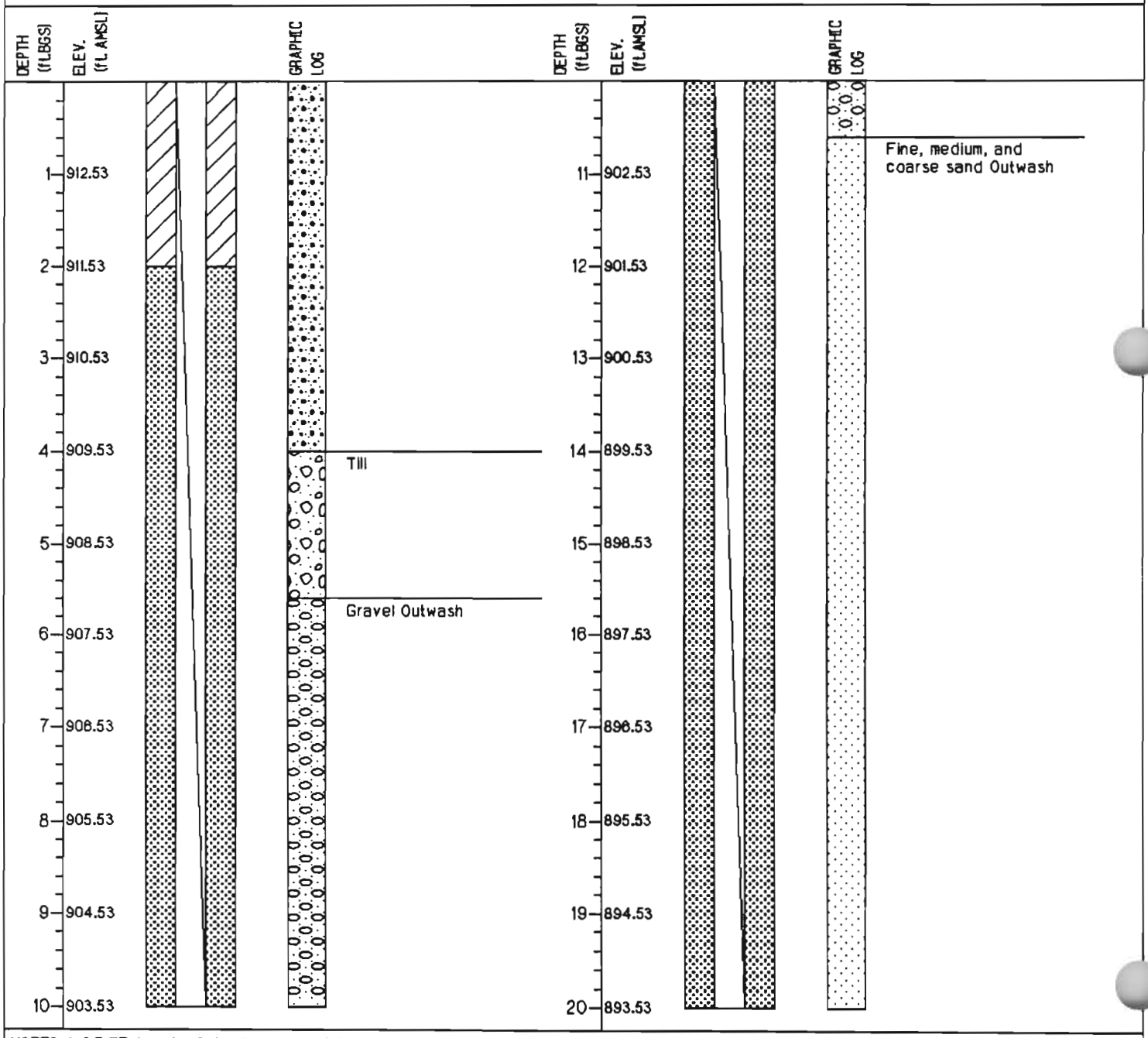
WELL/BOREHOLE MPI-1I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/84
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.53ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 2.0 feet
- BENTONITE SLURRY SEAL, 2.0 to 29.2 feet
- NORIE #00 SAND PACK, 29.2 to 41 feet
- 2-INCH DIAMETER SLOTTED (0.008")SCREEN, 31.0 to 41.0 feet
- 4-INCH DIAMETER CASING, 0 feet
- 2-INCH DIAMETER RISER, 0 to 31.0 Feet
- 8-INCH DIAMETER BOREHOLE, 0 feet
- 4-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-1D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

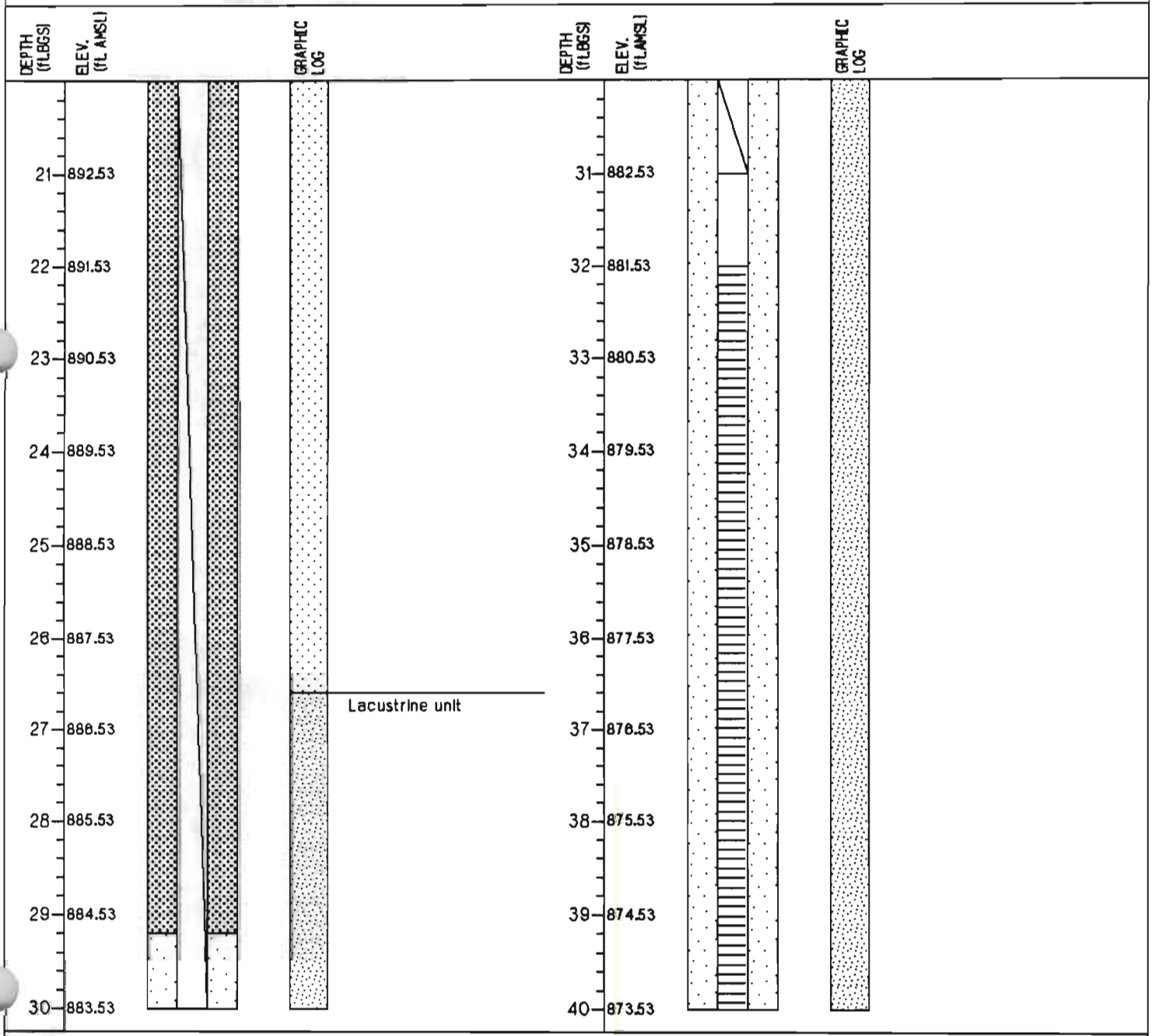
WELL/BOREHOLE MPI-1I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.53ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 2.0 feet
- BENTONITE SLURRY SEAL 2.0 to 29.2 feet
- NORIE #00 SAND PACK 29.2 to 41 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN 31.0 to 41.0 feet
- 4-INCH DIAMETER CASING 0 feet
- 2-INCH DIAMETER RISER 0 to 31.0 Feet
- 6-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-1D for a complete description



NOTES: 1. 0.7 FT. long by 6-in. diameter curb box extends to 0.5 ft. BGS.

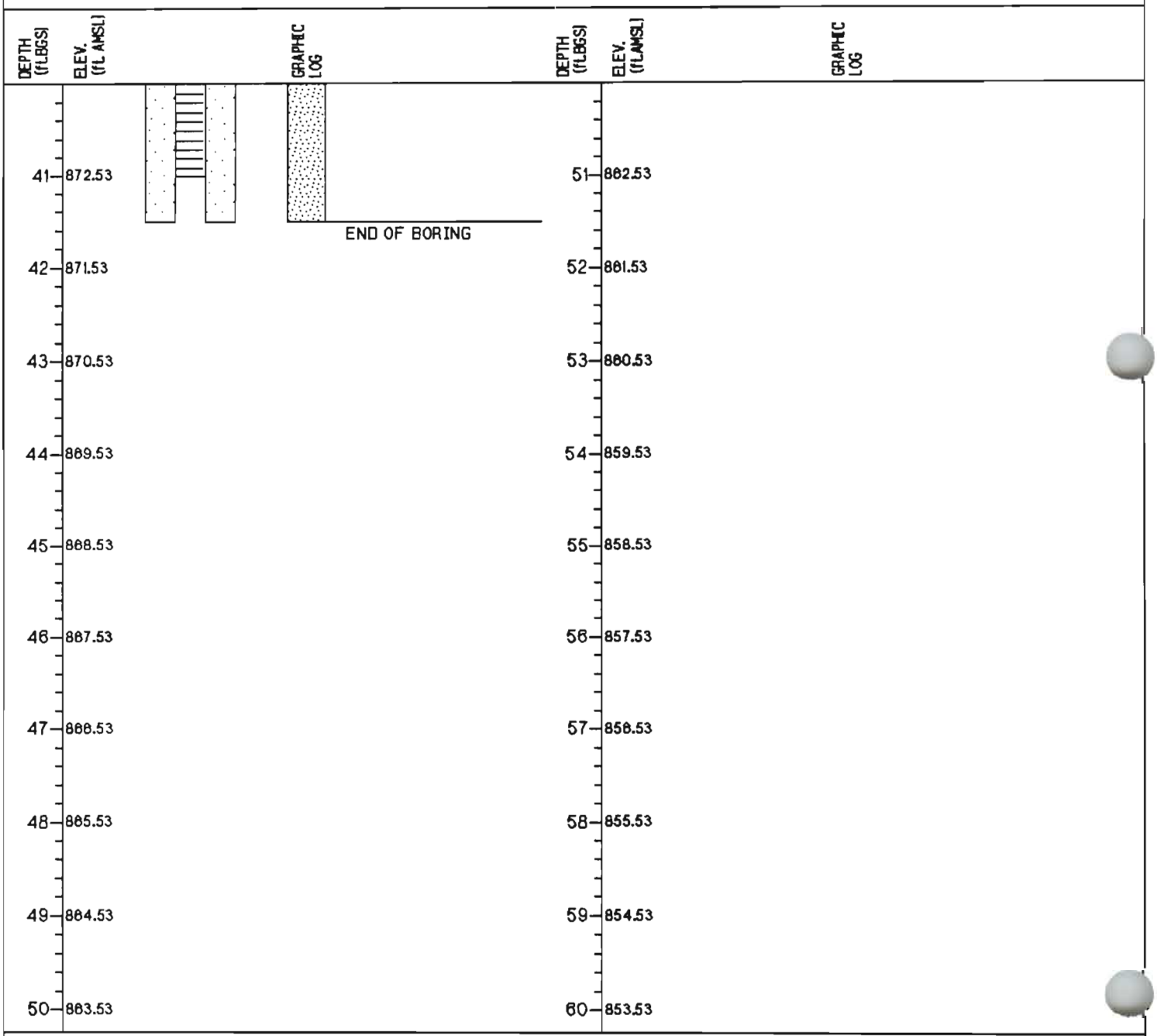
WELL/BOREHOLE MPI-1I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.53ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 2.0 feet
- BENTONITE SLURRY SEAL, 2.0 to 29.2 feet
- NORIE #00 SAND PACK, 29.2 to 41 feet
- 2-INCH DIAMETER SLOTTED (0.006" SCREEN, 31.0 to 41.0 feet
- 4-INCH DIAMETER CASING, 0 feet
- 2-INCH DIAMETER RISER, 0 to 31.0 Feet
- 8-INCH DIAMETER BOREHOLE, 0 feet
- 4-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-1D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

BOREHOLE LOG MPI-2S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/14/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 917.34ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
0		BLACKTOP											JHS=0.3 ppm
1	916.34	Light gray crystaline material (Salty) with low specific gravity		1 SS	6 7 4	1.0	13						
2	915.34	TOPSOIL dark brown frozen loam w/white specks											JHS=0.3 ppm
3	914.34	TILL, brown moist CLAYEY SILT, little-some sand, little gravel, firm, CL		2 SS	1 2 3 3	0.6	5						
4	913.34												JHS=0.3 ppm
5	912.34	Brown moist CLAYEY SILT, some sand, 25-40% gravel, stiff, CL		3 SS	4 6 4 4	0.8	10						
6	911.34	STRATIFIED brown moist SILTY SAND, mostly coarse sand, trace-little silt, loose when disturbed, loose, SM											JHS=0.3 ppm
7	910.34			4 SS	3 4 6 8	0.4	10						
8	909.34												JHS=0.3 ppm
9	908.34	Brown moist SAND, mostly fine-medium sand, trace coarse, trace-no silt, loose when disturbed, very loose, SP-SM		5 SS	1 1 1 3	1.1	2						
10	907.34												JHS=0.2 ppm
11	906.34	Brown moist becoming wet at 11.0 SAND, mostly fine, little very fine sand, trace silt, liquifies when disturbed, loose, SP		6 SS	1 1 3 3	1.5	4						
12	905.34												JHS=0.2 ppm
13	904.34	Brown wet SAND, mostly fine-medium sand, trace silt & gravel, gravel mostly subrounded and subangular, loose when disturbed, loose,SP		7 SS	3 3 5 6	1.6	8						
14	903.34												JHS=0.3 ppm
15	902.34	Brown wet SILTY SAND, mostly fine & very fine sand, trace medium size, little silt, liquifies when disturbed, loose, SP-SM occasional Cobbles at 14.5'		8 SS	1 12 14 17	1.1	26						
16	901.34												JHS=0.2 ppm
17	900.34			9 SS	1 2 5 5	1.2	7						
18	899.34												JHS=0.3 ppm
19	898.34			10 SS	2 3 5 7	1.4	8						
20	897.34	Boring complete at 20' w/augers at 18.5'. Set well											

BOREHOLE LOG MPI-3S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/18/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JPH/RHO
SURFACE ELEVATION: 814.79ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	813.79	TOPSOIL dark brown moist gray CLAYEY SILTY,trace fine gravel, trace-little clay		1 SS	1 1 2 1	1.2	3						JHS=0.1 ppm
2	812.79	TILL brown ext. moist SANDY SILT,little fine-coarse sand trace-little gravel shale clasts,trace clay,blocky,v.loose,SM											
3	811.79	Light brown moist SANDY SILT, trace-little black shale gravel clasts, little very fine-coarse sand & trace clay, soft, ML		2 SS	1 1 1 1	0.8	2						JHS=0.1 ppm
4	810.79												JHS=0.2 ppm
5	808.79	Light brown-olive moist SILTY SAND,w/iron stained mottling,little-some fine gravel to 1/4" diameter,little very fine-coarse sand,compact,SP-SM		3 SS	1 4 7 8	1.1	11						
6	808.79	No Recovery		4 SS	4 3 2 4	0	5						
7	807.79												
8	806.79	Grayish brown wet Sandy Gravel,fine-coarse sand,w/gravel, trace silt,mottled,iron stained, black shale gravel clasts to 1/2" dia.,thin light gray silt parting to 1/2",loose when disturbed,compact,GW-GM		5 SS	2 4 8 12	1.0	13						JHS=0.8 ppm
9	805.79												
10	804.79	Grayish brown wet GRAVEL,w/fine-coarse sand, little silt,black shale gravel clasts to 1/2" dia., lgt gray silt partings to 1/2",compact,GW-GM		6 SS	4 10 9 15	0.5	19						JHS=1.8 ppm
11	803.79												
12	802.79	Grayish brown wet fine-coarse GRAVEL w/1" diameter, some very fine-coarse sand,mottled,iron stains throughout,trace silt,compact,GW-GM		7 SS	10 12 14 19	1.4	26						JHS=1.2 ppm
13	801.79												
14	800.79	Gravel,subrounded to 1/4" diameter,compact,GP		8 SS	6 6 5 4	1.8	11						JHS=0.1 ppm
15	798.79	Orange-brown wet SAND,iron stained,v.fine-fine sand,trace-little silt,liquifies when disturbed,compact,SM											
16	798.79	Gray wet SAND,v.fine-fine sand,trace-little silt, liquifies when disturbed,compact,SM		9 SS	WR 2 2 2	0.8	4						JHS=0.1 ppm
17	797.79												
18	796.79	Gray wet SAND,v.fine sand,trace-little silt,occ. silty clay parting to 1/4" thick as bedding fabric,liquifies when disturbed,compact,SM											
19	795.79												
20	794.79	Boring complete at 18'. Set Well											

BOREHOLE LOG MPI-4D

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 2/15/94& 12/29/94 through 1/6/95
DRILLING METHOD: BOREHOLE FOR WELL, 10.25"HSA-43.5',8" CASING
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.97ft.NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
– Sampler Refusal

JHS HNU reading in jar headspace

x---x Penetration Resistance ('N' Blows/1 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
0	915.97	TOPSOIL dark brown (frozen from 0-.2), moist SILT LOAM, little sand, some roots, stiff, (CL-ML)		1 SS	3 4 7 7	0.3	11						JHS=.1
1	914.97												
2	913.97			SS	3 3 3 3	0.0	6						JHS=1.2
3	912.97												
4	911.97	no recovery, firm											JHS=0
5	910.97	FILL, dark brown moist CLAYEY SILT with trace ang to subang gravel and sand, noticed one piece brick frag, firm, (CL)		2 SS	2 3 3 8	1.0	6						
6	909.97	TILL, brown moist CLAYEY SILT with little sand and gravel, trace roots, stiff, (CL)		3 SS	5 7 7 8	0.5	14						JHS=0.2
7	908.97	TILL, grayish brown moist CLAYEY SILT with 15-40% mostly angular shale gravel, trace to little sand, stiff, (CL)											
8	907.97			4 SS	4 5 6 6	0.2	11						JHS=0.1
9	906.97												
10	905.97			5 SS	2 3 4 4	0.9	7						JHS=0.1
11	904.97	STRATIFIED, Dark brown moist-extremely moist SILTY SANDY GRAVEL W40- 60% mostly subrounded gravel, little shale frag, little-some medium to coarse sand, little silt, trace clay, loose, (GM)											
12	903.97			6 SS	2 3 3 4	0.8	6						JHS=0.2
13	902.97	becoming wet at 12'											
14	901.97	Brown wet SAND, mostly fine sand with trace medium, liquifies when disturbed, loose, (SP-SM)		7 SS	2 2 4 4	1.1	6						JHS=0.1
15	900.97												
16	899.97	becoming compact at 16'		8 SS	5 5 7 8	1.3	12						JHS=0.1
17	898.97												
18	897.97	Grayish brown wet SAND, mostly fine sand with trace very fine, liquifies when disturbed, compact, contains occasional lenses of SAND, mostly medium w/some fine sand, loose, (SP)		9 SS	2 3 5 5	1.4	8						JHS=0.1
19	896.97												
20	895.97												

BOREHOLE LOG MPI-4D

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 2/15/94& 12/29/94 through 1/6/95
DRILLING METHOD: BOREHOLE FOR WELL, 10.25"HSA-43.5',8" CA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.97ft.NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace

x---x Penetration Resistance ('N' Blows/1 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	894.97	continued from page 1		10 SS	2 3 5 7	2.0	8						JHS=0.1
22	893.97												JHS=0.1
23	892.97			11 SS	1 5 5 7	1.0	10						
24	891.97												JHS=0.8
25	890.97	Brownish gray wet SAND, mostly very fine and fine size sand, trace silt, compact, liquifies when disturbed, (SP)		12 SS	2 4 2 3	0.9	6						
26	889.97												JHS=1.0
27	888.97			13 SS	2 3 5 6	2.0	8						
28	887.97	Gray wet SAND, mostly very fine size, little silt, liquifies when disturbed, loose, (SM)											JHS=0.5
29	886.97	Brownish gray wet SAND, mostly fine to medium size sand, little silt, trace to no gravel, liquifies when disturbed, very loose, (SP-SM)		14 SS	1 2 2 4	2.0	4						
30	885.97												JHS=0.2
31	884.97	Gray wet SAND, mostly very fine to fine size sand, little to some silt, trace to few clay, liquifies when disturbed, compact, (SM) two clayey silt lenses at 31.0', approximately 1/8" thick one clayey silt lenses at 32.5'		15 SS	4 8 15 18	1.3	23						
32	883.97												JHS=0
33	882.97			16 SS	3 4 6 10	1.4	10						
34	881.97												JHS=0
35	880.97			17 SS	3 4 5 5	1.5	9						
36	879.97												JHS=0
37	878.97			18 SS	6 6 5 5	1.3	11						
38	877.97												JHS=0.1
39	876.97			19 SS	6 8 8 7	1.6	16						
40	875.97												

BOREHOLE LOG MPI-4D

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0268-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 2/15/94& 12/29/94 through 1/6/95
DRILLING METHOD: BOREHOLE FOR WELL, 10.25"HSA-43.5',8" CASING
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.97ft.NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace

x---x Penetration Resistance ('N' Blows/1 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
41	874.97	continued from page 2		20 SS	4 5 6 8	1.7	11						JHS=0
42	873.97	LAMINATED, Brownish gray wet SANDY SILT, w/mostly very fine -fine sand,occasional silty clay lenses approx.1/8" thick, sandy silt liquifies when disturbed, loose (ML)		21 SS	2 3 4 4	1.8	7						JHS=0.1
43	872.97												
44	871.97			22 SS	1 1 2 2	1.4	3						JHS=0
45	870.97	Brownish gray wet CLAYEY SILT w/little fine sand, firm, CL											
46	869.97	Brownish gray wet SANDY SILT w/mostly v.fine-fine sand, alternating w/CLAYEY SILT, w/little clay, approx 6-8 layers per inch, sandy silt liquifies when disturbed, very loose SM and CL		ST	- - - -	2.0	-						JHS= -
47	868.97												
48	867.97	-SILTY SAND .1' thick,mostly v.fine sand -SILTY SAND .3' thick,mostly v.fine sand		23 SS	5 8 8 9	1.8	14						JHS=0.1
49	866.97	Gray extremely moist CLAYEY SILT w/occ. v.fine size sand parting, CL											
50	865.97	Gray ext.moist CLAYEY SILT tending toward SANDY SILT, v.thin fine sand partings making clayey silt lenses app. 1/2" thick, CL		24 SS	3 5 7 8	1.4	12						JHS=0.1
51	864.97												
52	863.97	Brownish gray wet alternating layers SANDY SILT & CLAYEY SILT app. 1/16"-1/4" thick, sandy silt layers liquify when disturbed, 2-1" sandy silt layers @ 49.0'&49.5'		25 ST	- - - -	2.0	-						JHS=0
53	862.97												
54	861.97	Gray ext. moist SILTY CLAY w/an occasional very thin silt parting, stiff, CL		26 SS	WH 2 4 4	1.5	6						JHS=0.1
55	860.97												
56	859.97	Grey ext.moist SANDY SILT w/v.fine-fine sand, liquifies when disturbed,SM, w/occ. lenses of ext. moist SILTY CLAY, CL		27 SS	1 4 4 8	2.0	8						JHS=0.2
57	858.97												
58	857.97	Gray wet SAND,mostly med. size,loose when disturbed, SP w/ gray ext. moist SILTY CLAY, soft, CL from 54-54.5'		28 SS	2 3 4 4	2.0	7						JHS=0.1
59	856.97												
60	855.97												

BOREHOLE LOG MPI-4D

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 2/15/94& 12/29/94 through 1/6/95
DRILLING METHOD: BOREHOLE FOR WELL, 10.25"HSA-43.5',8" CA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.97ft.NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace

x---x Penetration Resistance ('N' Blows/1 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
61	854.97	Becoming stiff at 60.0'.		29 SS	2 4 6 8	2.0	10						JHS=0.1
62	853.97												JHS=0.1
63	852.97			30 SS	1 5 4 8	1.8	11						
64	851.97												JHS=0.1
65	850.97	Gray ext.moist CLAYEY SILT,thin sand partings throughout, med.consist,CL		1 SS	1 8 8 8	2.0	12						
66	849.97	Gray wet SILT,trace v.fine sand,liquifies when dist., muck like consistency,loose,ML											JHS=0
67	848.97	Gray wet CLAYEY SILT,sand partings of fine & med sand throughout,1 larger seam 0.5" thick @ 67.7', hard, CL		2 SS	18 22 23 25	1.9	45						
68	847.97	Gry ext moist SILTY CLAY,CL											JHS=0.1
69	846.97			3 SS	3 5 8 10	2.0	13						
70	845.97	Gray wet CLAYEY SANDY SILT,some f.sand & silt,trc- little clay,CL											JHS=0.1
71	844.97	Gray wet SILT,trace v.fine sand,liquifies when disturbed,firm, ML		4 SS	8 5 5 8	1.4	10						
72	843.97	Gray wet CLAYEY SILT w/3 silty sand seams 0.1' thick @70.3,70.5,& 70.9,occ v. thin sand partings throughout, med. consist, CL											JHS=0.1
73	842.97			5 SS	6 7 7 9	2.0	14						
74	841.97	Gray wet med SAND 0.7' thick,trace silt,loose,SP/ Gray wet SILTY CLAY from 72.9-74.2', med consist,CL											JHS=0.1
75	840.97	Gray wet SAND,mostly f.sand,trace silt,liquifies when disturbed, firm, SP		6 SS	7 9 10 10	2.0	19						
76	839.97	Gray wet SILTY CLAY, stiff, CL											JHS=0.1
77	838.97				4 4 6 9	2.0	10						
78	837.97	Borhole complete @77.5'. Borelog is a compilation of MPI-4D from 1994 data. MPI-4D-95 boring approx 10'from MPI-4D-94. Borehole was adv. w/10.25" augers to 43.5'. Permanent 8" casing installed to 43.5'. 8" casing adv. to 78.5'. Monitoring well installed @78.5'.											
79	836.97												
80	835.97												

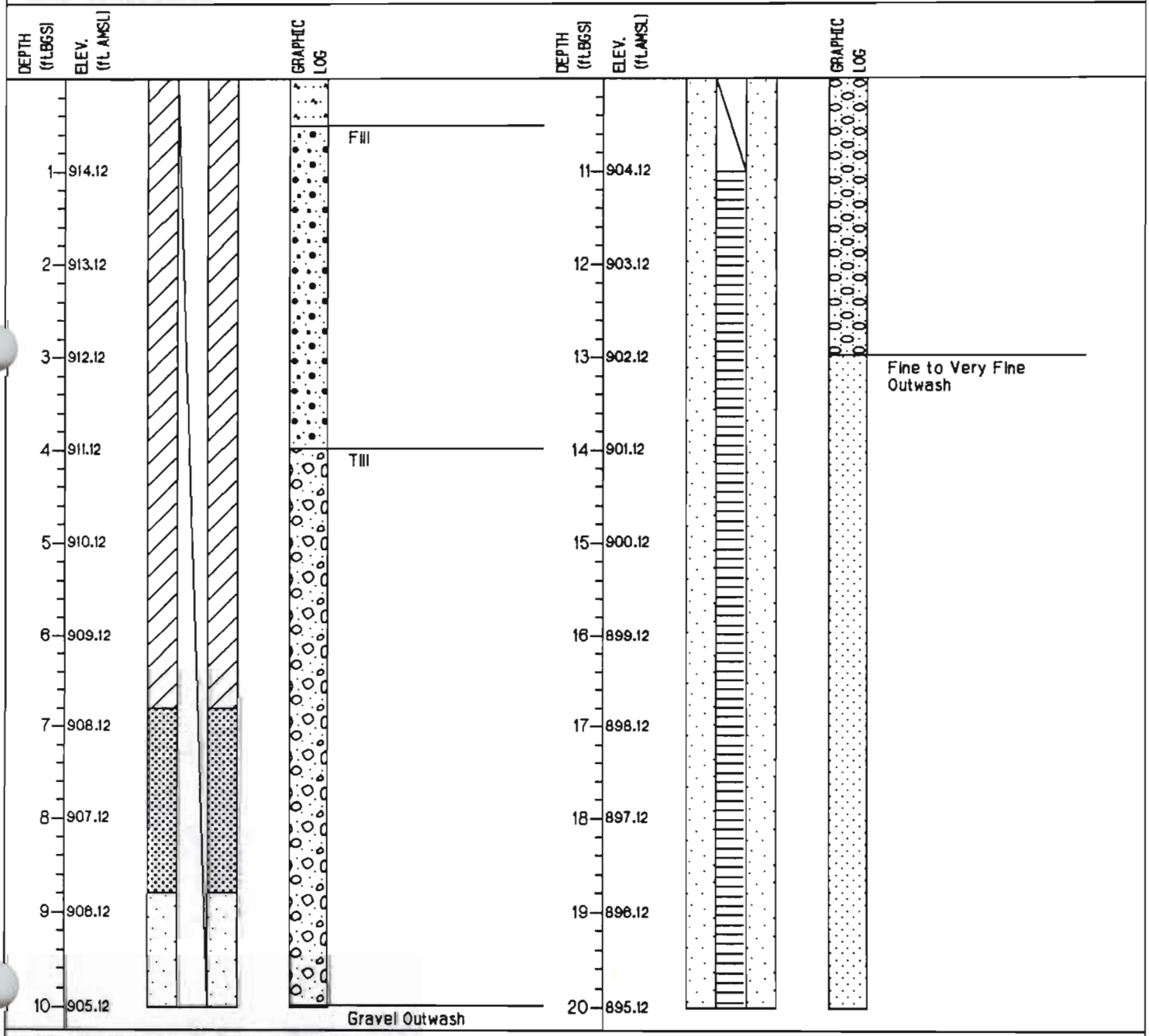
WELL/BOREHOLE MPI-4S CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/16/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.12ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 5.5 feet
- BENTONITE PELLET SEAL, 5.5 to 6.5 feet
- NORIE #0 BAND PACK, 6.5 to 21.5 feet
- 2-INCH DIAMETER SLOTTED (0.01") SCREEN, 11.0 to 21.0 feet
- 2-INCH DIAMETER RISER, 0 to 11.0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-4D for a complete description



NOTES: 1. 0.7 ft. long by 8-in. diameter curb box extends to approx .7 ft BGS.

WELL/BOREHOLE MPI-4S CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/18/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.12ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 5.8 feet
- BENTONITE PELLET SEAL 5.8 to 6.8 feet
- NORIE #0 SAND PACK 6.8 to 21.5 feet
- 2-INCH DIAMETER SLOTTED (0.01")SCREEN 11.0 to 21.0 feet
- 2-INCH DIAMETER RISER 0 to 11.0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-4D for a complete description

DEPTH (ftBGS)	ELEV. (ft AMSL)	GRAPHIC LOG
21	894.12	
22	893.12	
23	892.12	
24	891.12	END OF BORING
25	890.12	
26	889.12	
27	888.12	
28	887.12	
29	886.12	
30	885.12	
31	884.12	
32	883.12	
33	882.12	
34	881.12	
35	880.12	
36	879.12	
37	878.12	
38	877.12	
39	876.12	
40	875.12	

NOTES: 1. 0.7 ft. long by 8-in. diameter curb box extends to approx .7 ft BGS.

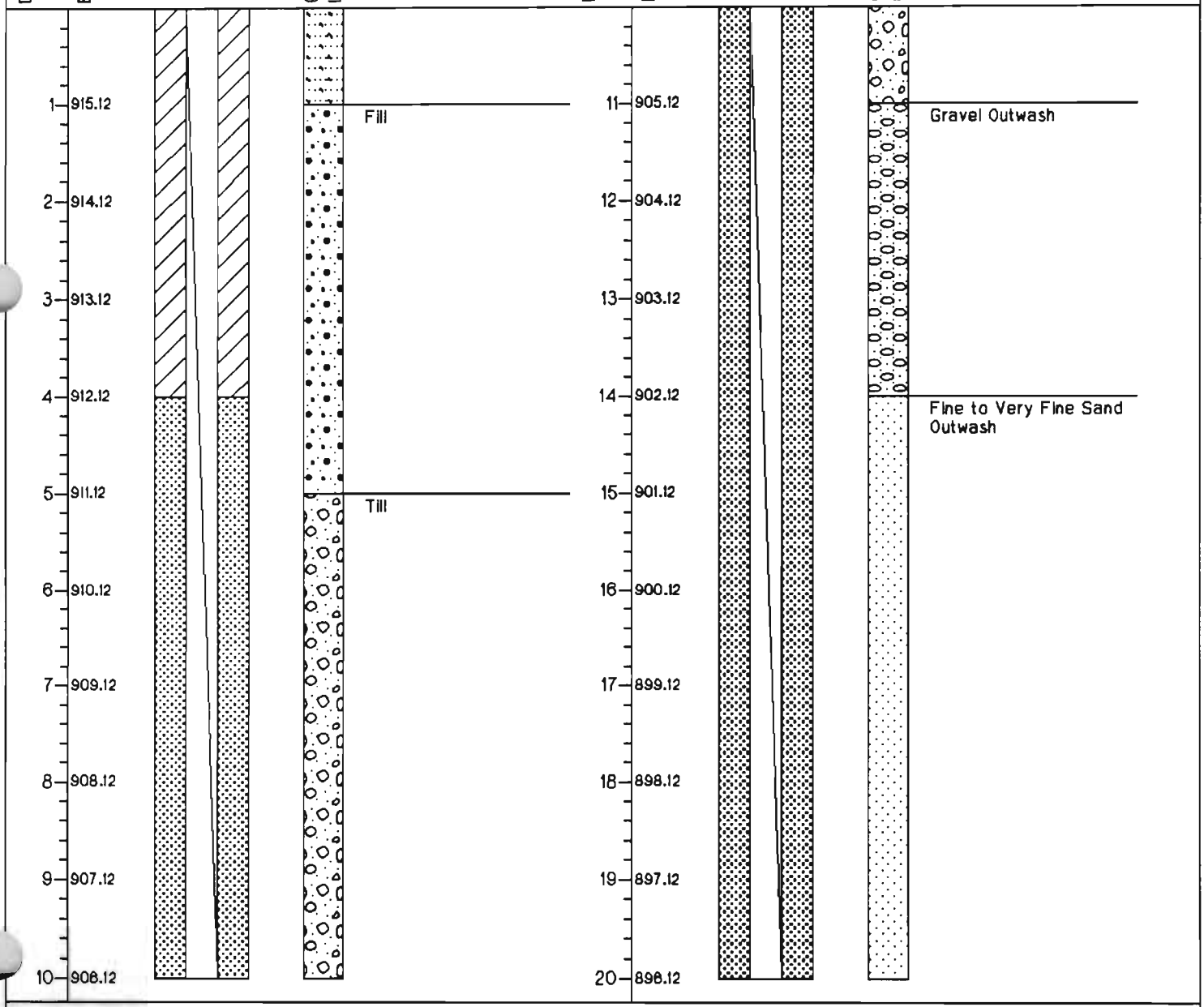
WELL/BOREHOLE MPI-4I CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.12ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 4.0 feet
- BENTONITE SLURRY SEAL 4.0 to 29.8 feet
- MORIE #00 SAND PACK 29.8 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING
- 2-INCH DIAMETER RISER 0 to 32.0 feet
- 8-INCH DIAMETER BOREHOLE
- 4-INCH DIAMETER BOREHOLE
- GRAPHIC LOG refer to BOREHOLE LOG MPI-4D for a complete description



NOTES: 1. 0.7 ft. long by 6-in. diameter curb box extends to 0.5 ft. BGS.

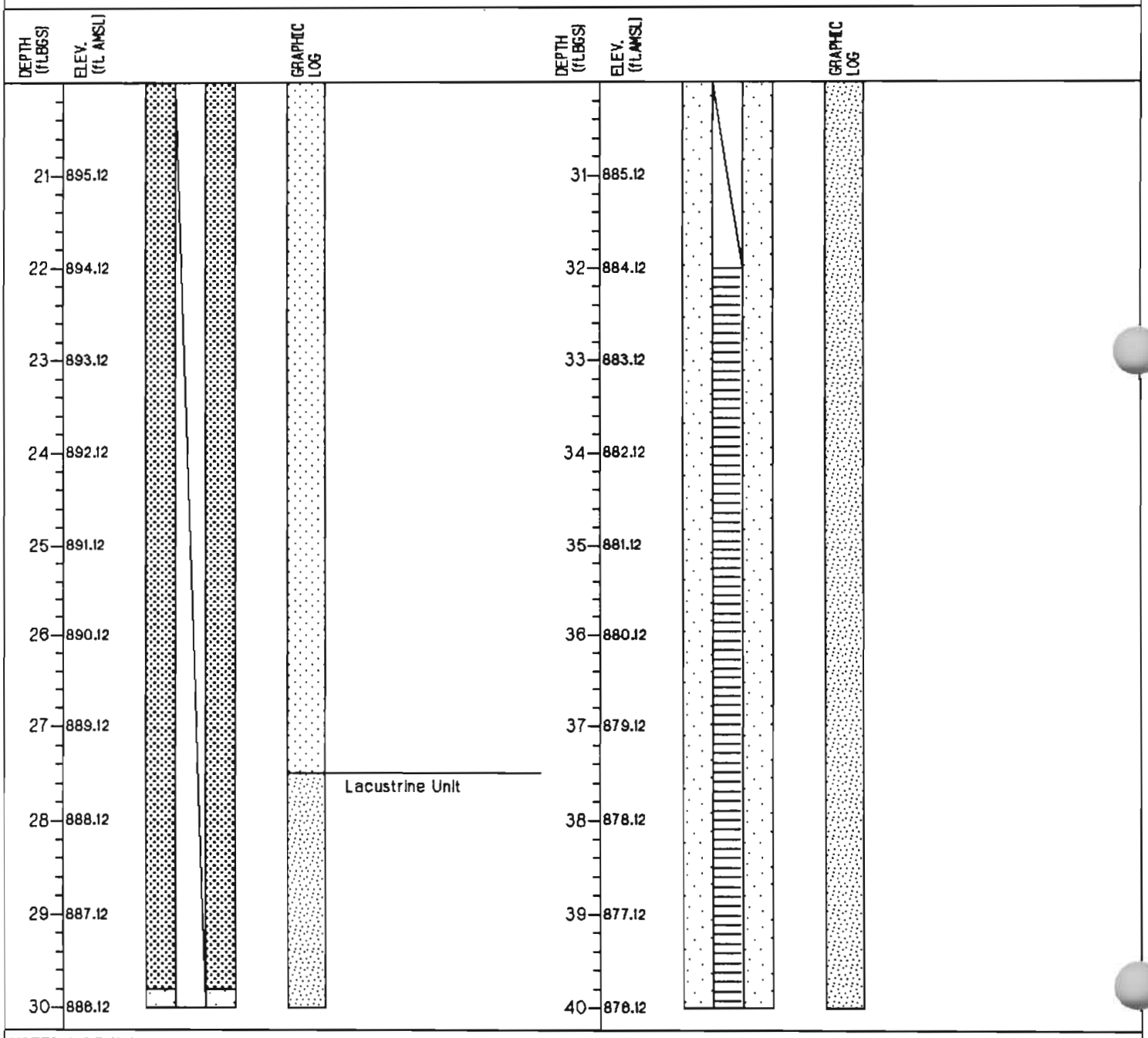
WELL/BOREHOLE MPI-4I CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/84
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 918.12ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 4.0 feet
- BENTONITE SLURRY SEAL 4.0 to 29.8 feet
- NORIE #00 SAND PACK 29.8 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006") SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING
- 2-INCH DIAMETER RISER 0 to 32.0 feet
- 8-INCH DIAMETER BOREHOLE
- 4-INCH DIAMETER BOREHOLE
- GRAPHIC LOG refer to BOREHOLE LOG MPI-4D for a complete description



NOTES: 1. 0.7 ft. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

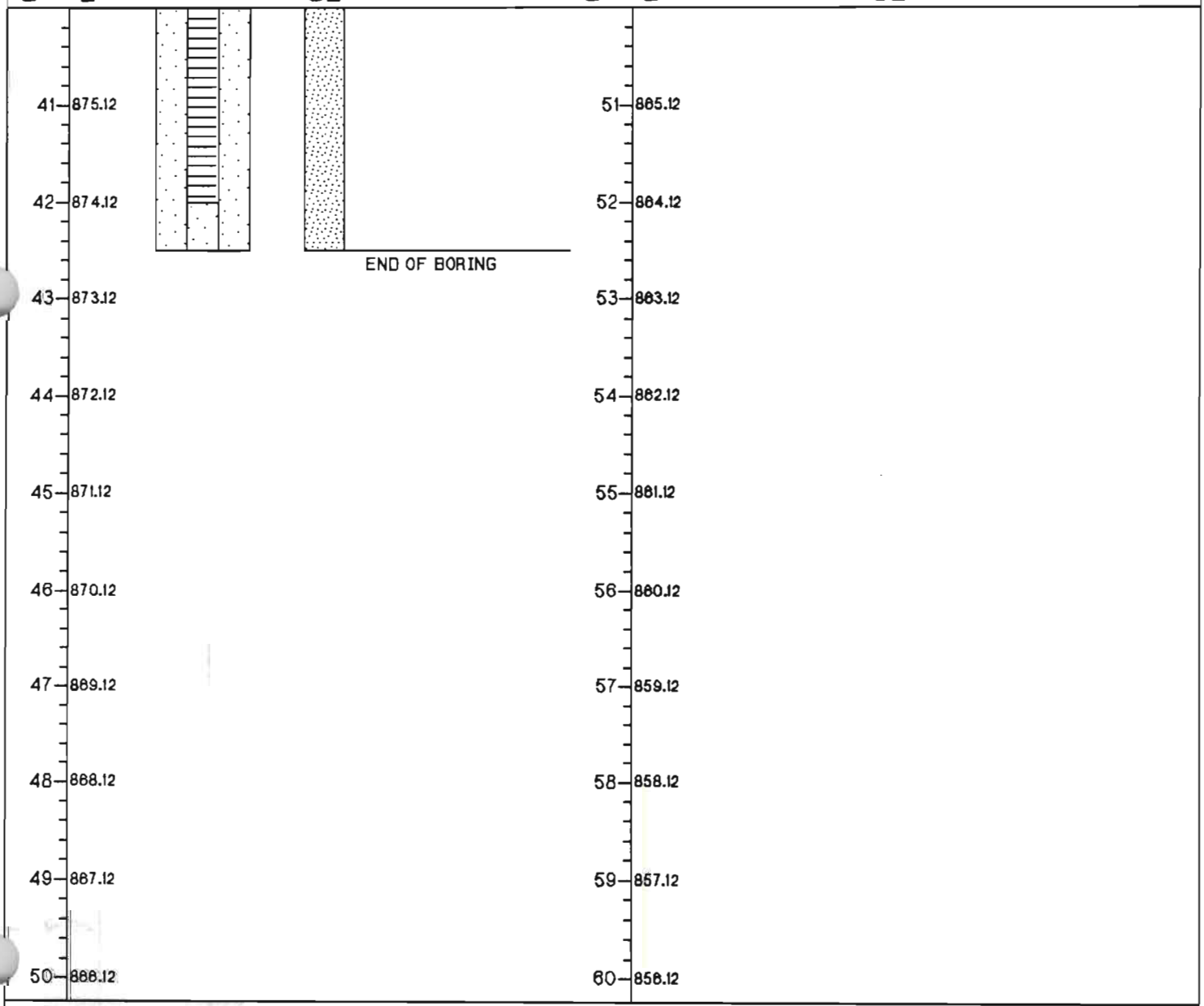
WELL/BOREHOLE MPI-4I CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/84
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.12ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 4.0 feet
- BENTONITE SLURRY SEAL 4.0 to 29.8 feet
- MORIE #00 SAND PACK 29.8 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING
- 2-INCH DIAMETER RISER 0 to 32.0 feet
- 8-INCH DIAMETER BOREHOLE
- 4-INCH DIAMETER BOREHOLE
- GRAPHIC LOG refer to BOREHOLE LOG MPI-4D for a complete description



NOTES: 1. 0.7 ft. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

BOREHOLE LOG MPI-5D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 02/23/94 - 2/25/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 816.49ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	815.49	Drilled to 0.5', FILL Grayish Brown slightly moist GRAVEL, some sand, little silt, trace clay, GM		1 SS	18 33 21	1.8	49						JHS=0.3 ppm
2	814.49	Brown slightly moist CLAYEY SILTY GRAVEL, 15-40% gravel, some sand and silt, trace clay, trace foundry sand, hard, GM		2 SS	17 25 20 22	1.7	45						JHS=0.5 ppm
3	813.49												
4	812.49	TILL, Brown slightly moist CLAYEY SILT w/25-40% gravel, little fine-coarse sand,massive w/trace laminations, hard becoming stiff at 4.0', CL		3 SS	6 7 7 7	1.7	14						JHS=0.4 ppm
5	811.49												
6	810.49			4 SS	6 7 3 2	0.6	10						JHS=0.8 ppm
7	809.49												
8	808.49	STRATIFIED grayish brown moist GRAVELLY SAND, 40-60% mostly fine gravel, mostly coarse sand, loose, GP		5 SS	4 3 6 8	0.8	9						JHS=0.8 ppm
9	807.49												
10	806.49	becoming compact at 10.0'		6 SS	8 12 14 12	0.1	26						JHS=0.7 ppm
11	805.49												
12	804.49			7 SS	5 4 5 6	1.3	9						JHS=2.2 ppm
13	803.49	Gray wet SAND, mostly medium-coarse sand, little fine, trace subangular and subround gravel, petroleum odor, loose, SP											
14	802.49			8 SS	4 3 4 4	1.0	7						JHS=0.3 ppm
15	801.49	Brown wet SAND, mostly fine, some very fine sand, loose, liquifies when disturbed, SP-SM											
16	800.49			9 SS	3 4 5 5	1.8	9						JHS=0.3 ppm
17	799.49												
18	798.49	Brown wet mostly v.fine SAND,trace v.fine sand trace-little silt,liquifies when disturbed,loose,SP-SM		10 SS	6 4 5 7	1.2	9						JHS=0.1 ppm
19	797.49												
20	796.49	Brown wet SAND, trace-no silt, mostly medium sand, little fine, loose, SP											

BOREHOLE LOG MPI-5D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 02/23/84 - 2/25/84
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.49ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
HR Height of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	895.49			11 SS	3 3 4 5	1.0	7						JHS=0.2 ppm
22	894.49	STRATIFIED brown wet SILTY SAND, some silt, mostly very fine sand, compact, liquifies when disturbed, SM		12 SS	5 8 7 8	1.1	15						JHS=0.1 ppm
23	893.49												
24	892.49	becoming loose at 24.0'		13 SS	5 4 5 7	1.0	9						JHS=0.2 ppm
25	891.49												
26	890.49	Brownish gray wet SAND, trace-little silt, mostly fine sand, trace medium and very fine sand, compact, liquifies when disturbed, SM		14 SS	7 8 8 7	1.5	12						JHS=0.2 ppm
27	889.49												
28	888.49	Brownish gray wet SAND, mostly very fine sand, little fine sand, trace to little silt, very dense, liquifies when disturbed, SM		15 SS	18 35 34	1.1	69						JHS=0.2 ppm
29	887.49												
30	886.49	becoming compact at 30'		16 SS	5 5 6 6	1.1	11						JHS=0.1 ppm
31	885.49												
32	884.49	becoming loose at 32'		17 SS	5 3 3 3	1.2	6						JHS=0.1 ppm
33	883.49												
34	882.49			18 SS	3 4 5 6	1.1	9						JHS=0.1 ppm
35	881.49												
36	880.49			19 SS	5 4 4 3	1.0	8						JHS=0.1 ppm
37	879.49												
38	878.49			20 SS	4 3 4 5	1.1	7						JHS=0 ppm
39	877.49												
40	876.49												

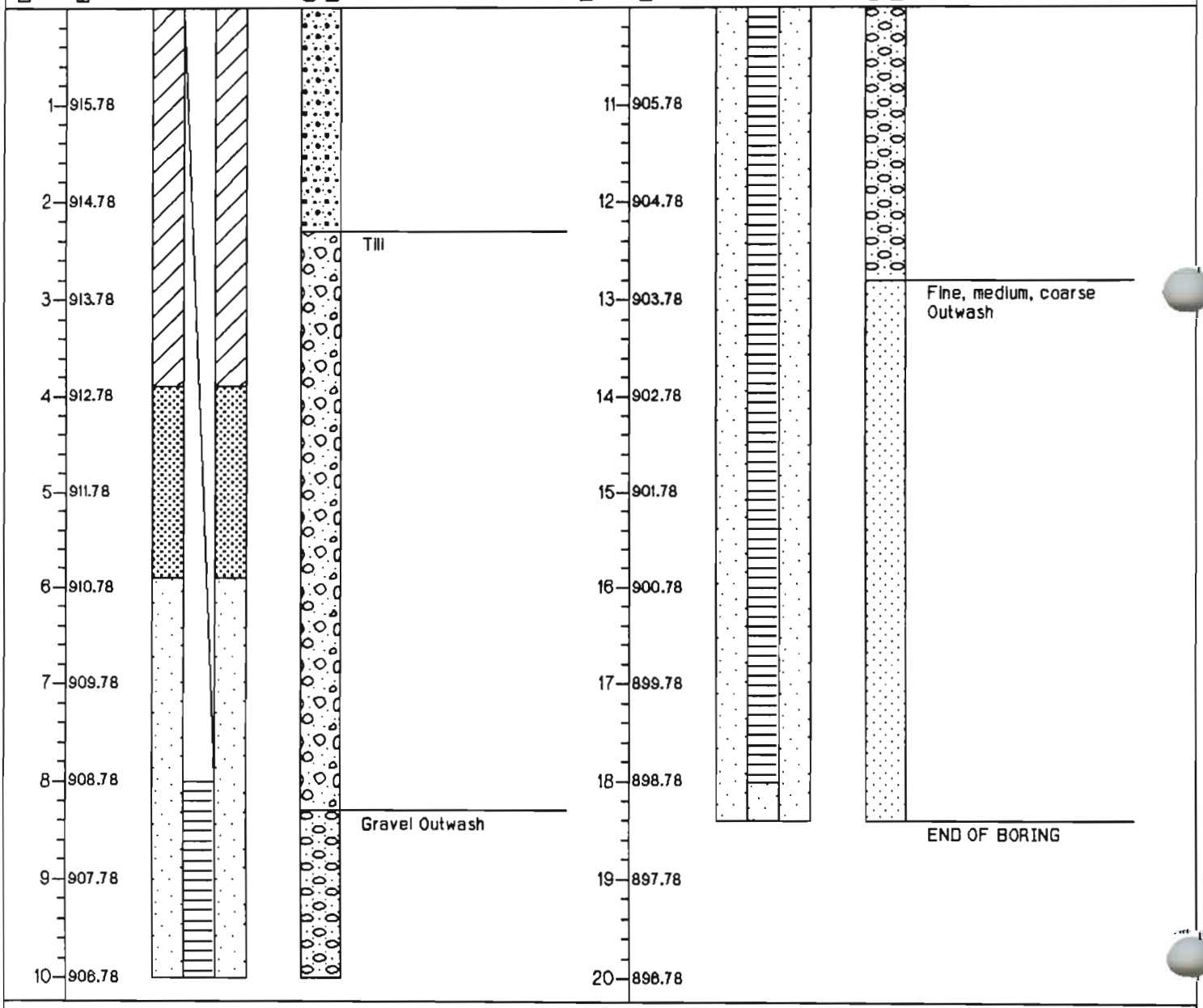
WELL/BOREHOLE MPI-5S CONSTRUCTION DETAILS

PROJECT: MR. C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 918.78ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 3.9 feet
- BENTONITE PELLET SEAL, 3.9 to 5.9 feet
- NORIE #0 SAND PACK, 5.9 to 18.4 feet
- 2-INCH DIAMETER SLOTTED (0.01") SCREEN, 8.0 to 18.0 feet
- 4-INCH DIAMETER CASING
- 2-INCH DIAMETER RISER, 0 to 8.0 feet
- 8-INCH DIAMETER BOREHOLE
- 4-INCH DIAMETER BOREHOLE
- GRAPHIC LOG refer to BOREHOLE LOG MPI-5D for a complete description



NOTES: 1. 0.7 ft. long by 8-in. diameter curb box extends to 0.7 ft. BGS.

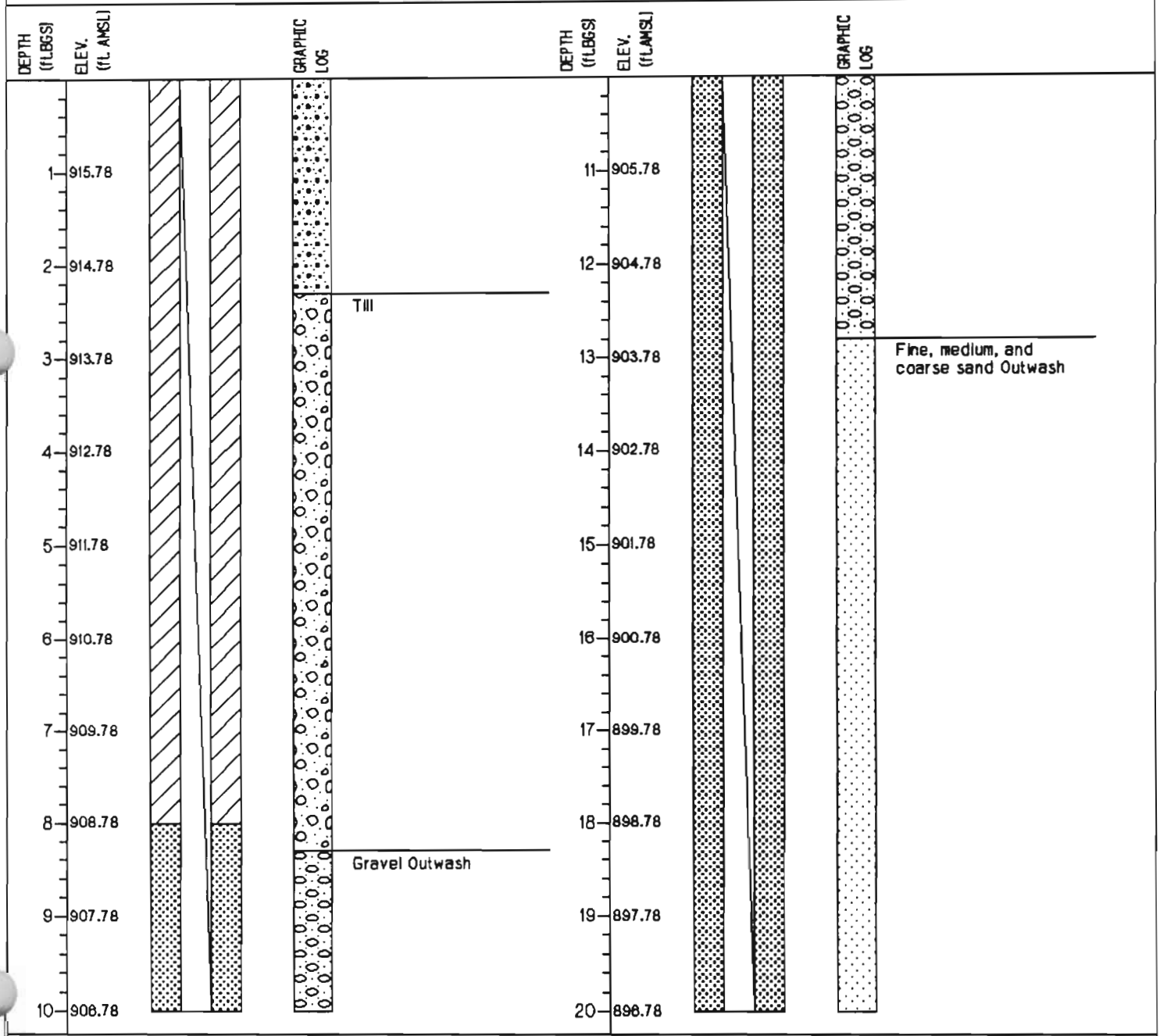
WELL/BOREHOLE MPI-5I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.78ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 6.0 feet
- BENTONITE SLURRY SEAL, 6.0 to 30 feet
- NORIE #00 SAND PACK, 30 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN, 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING, 0 feet
- 2-INCH DIAMETER RISER, 0 to 32.0 Feet
- 6-INCH DIAMETER BOREHOLE, 0 feet
- 4-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-5D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

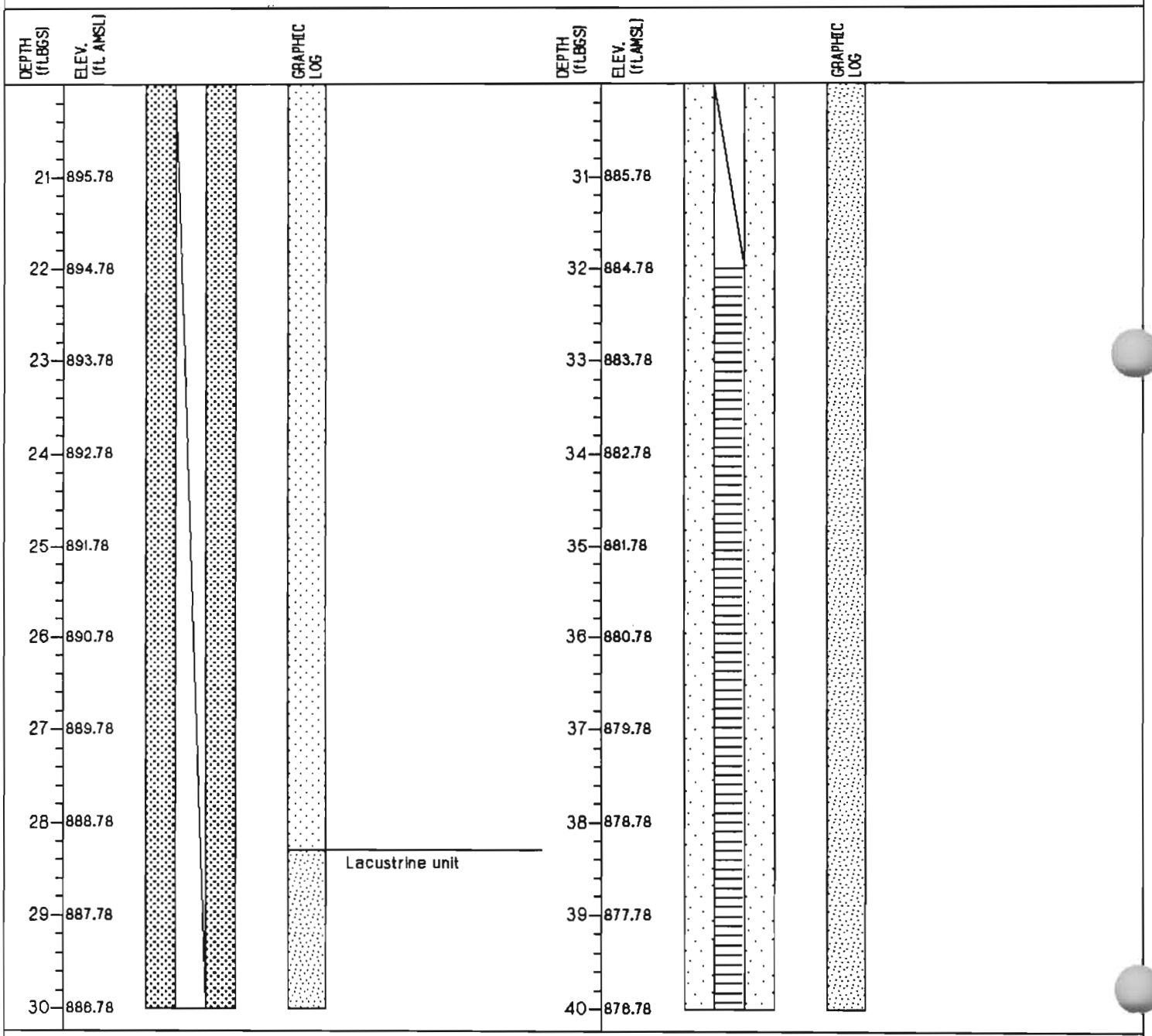
WELL/BOREHOLE MPI-5I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.78ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 6.0 feet
- BENTONITE SLURRY SEAL 6.0 to 30 feet
- MORIE #00 SAND PACK 30 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006" SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING 0 feet
- 2-INCH DIAMETER RISER 0 to 32.0 Feet
- 8-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-5D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

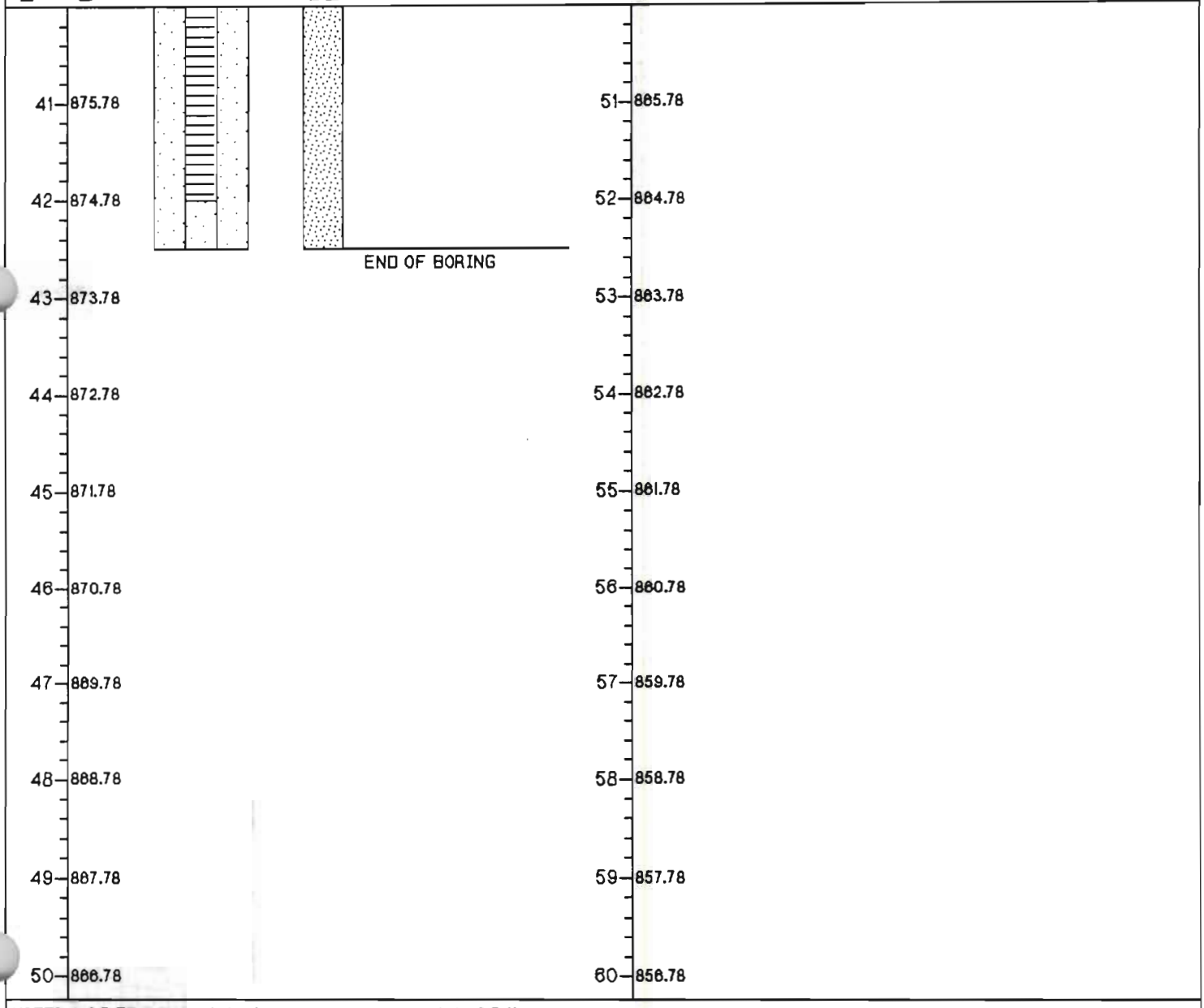
WELL/BOREHOLE MPI-5I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.78ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 8.0 feet
- BENTONITE SLURRY SEAL, 8.0 to 30 feet
- MORIE #00 SAND PACK, 30 to 42.5 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN, 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING, 0 feet
- 2-INCH DIAMETER RISER, 0 to 32.0 Feet
- 8-INCH DIAMETER BOREHOLE, 0 feet
- 4-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-5D for a complete description



NOTES: 1. 0.7 FT. long by 6-in. diameter curb box extends to 0.5 ft. BGS.

BOREHOLE LOG MPI-6S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/10/84
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.35ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	914.35	FILL olive gray moist SANDY GRAVEL, some sand, 40-60% gravel, mostly angular, little silt,compact,GM		1 SS	12 8 6 4	1.5	14						JHS=0.4 ppm
2	913.35	Black moist SILTY SAND,little silt,trace gravel,little organic matter,compact,SM											JHS=0.3 ppm
3	912.35	Dark brown moist CLAYEY SILT,little clay & gravel, trace roots,stiff,CL		2 SS	4 6 4 4	1.3	10						
4	911.35	Brown moist SILTY SAND,some fine sand,trace v.fine,medium & coarse sand,trace gravel,loose,SM											JHS=0.2 ppm
5	910.35			3 SS	8 21 11 14	0.8	32						
6	909.35	TILL,brown moist CLAYEY SILT,little clay & sand, trace gravel & roots, root channels filled w/gray clay,hard,CL											JHS=0.2
7	908.35	STRATIFIED Brown ext moist to wet SILTY GRAVEL, some silt, little sand,mostly angular fine gravel, trace clay,loose,GM		4 SS	3 5 4 6	0.5	9						
8	907.35												JHS=0.3 ppm
9	906.35	becoming wet at 8.0'		5 SS	4 7 8 7	0.7	15						
10	905.35	LAMINATED,Brown moist SILTY SAND,some sand & silt, mostly fine sand,compact,SM											JHS=0.2 ppm
11	904.35	LAMINATED Brown moist SANDY SILT,w/clayey silt interbeds ~1" thick,sandy silt layers w/little clay,firm,loose,SM		6 SS	3 4 3 6	1.0	7						
12	903.35												JHS=0.3 ppm
13	902.35	STRATIFIED Brownish gray wet medium SAND,little fine sand,little fine angular shale gravel,compact,SP		7 SS	6 7 13 10	1.0	20						
14	901.35												JHS=1.8 ppm
15	900.35	Grayish brown wet SAND,mostly coarse,some medium sand,trace silt,little subangular and subrounded gravel,compact,SP		8 SS	3 5 7 11	1.2	12						
16	899.35												JHS=13.4 ppm
17	898.35			9 SS	3 8 13 18	1.1	21						
18	897.35	Brown ext. moist SANDY SILT, w/fine, medium, & coarse sand, little-some silt, trace fine gravel,compact,SM											JHS=0.2 ppm
19	896.35			10 SS	1 3 6 7	1.1	9						
20	895.35	Gray wet SILTY SAND, little silt, mostly fine sand, little very fine sand, liquifies when disturbed, loose, SM											

BOREHOLE LOG MPI-6S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/10/84
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 915.35ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	894.35	Gray wet SILTY SAND, little silt, mostly fine sand, little very fine sand, liquifies when disturbed, loose, SM		11 SS	1 2 5 5	1.0	7						JHS=112 ppm
22	893.35												JHS=0.3 ppm
23	892.35			12 SS	1 2 6 7	1.0	8						
24	891.35	Sampled to 24', with augers at 23'. Set Well											
25	890.35												
26	889.35												
27	888.35												
28	887.35												
29	886.35												
30	885.35												
31	884.35												
32	883.35												
33	882.35												
34	881.35												
35	880.35												
36	879.35												
37	878.35												
38	877.35												
39	876.35												
40	875.35												

BOREHOLE LOG MPI-7D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 02/28/94
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.87ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
0		Augered to 1.0' through pavement and hard fill											JHS=3.5 ppm
1	915.87	FILL Brown frozen becoming moist to 2.2', CLAYEY SILT, with little sand and silt, w/10-25% subangular, subrounded and angular gravel, hard, CL		1 SS	19 22	1.0	>19						
2	914.87	becoming very stiff at 2.0'		2 SS	9 10 10 10	1.2	20						JHS=7.0 ppm
3	913.87												
4	912.87			3 SS	43 16 12 11	0.2	28						JHS=4.2 ppm
5	911.87												
6	910.87	Brown moist CLAYEY SILTY GRAVEL, some sand, 40-60% gravel, trace brick remnants, loose, GM		4 SS	2 2 2 2	0.2	4						JHS=18.8
7	909.87												
8	908.87			5 SS	3 5 4 4	0.2	9						JHS=2.9 ppm
9	907.87												
10	906.87			6 SS	8 9 10 12	1.0	19						JHS=18.8 ppm
11	905.87	Brown wet SILTY GRAVEL, mostly subangular and subrounded gravel, mostly 1/8-1/4" (some 1/2") gravel, little silt, some sand, compact, loose when disturbed, GM											
12	904.87			7 SS	5 6 7 5	0.6	13						JHS=9.5 ppm
13	903.87												
14	902.87	becoming loose at 14.0'		8 SS	4 3 2 4	0.7	5						JHS=1.2 ppm
15	901.87												
16	900.87	becoming compact at 16.0'		9 SS	4 6 8 8	0.9	14						JHS=0.8 ppm
17	899.87	STRATIFIED Brown moist SILTY SAND, some silt, 25-40% gravel, mostly subangular gravel, compact, SM											
18	898.87	Brown wet SILTY GRAVEL, with little sand, little silt, compact, loose when disturbed, GM		10 SS	6 6 4 8	0.3	10						JHS=3.4 ppm
19	897.87												
20	896.87												

BOREHOLE LOG MPI-7D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 02/28/94
DRILLING METHOD: 4.25-Inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.67ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.5in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	895.67	STRATIFIED brown wet SILTY GRAVEL, with some medium and course sand, 40-60% gravel, little silt, compact, loose when disturbed, GM		11 SS	4 8 6 7	0.6	14						JHS=1.8 ppm
22	894.67												JHS=2.0 ppm
23	893.67	occasional sandstone cobble		12 SS	12 12 9 9	0.5	21						
24	892.67												JHS=0.9 ppm
25	891.67			13 SS	13 9 8 8	0.6	17						
26	890.67												JHS=0.2 ppm
27	889.67	Brown wet SAND, mostly fine, little medium sand, trace-no silt, compact, loose when disturbed, SP		14 SS	7 5 5 5	1.1	10						
28	888.67												JHS=0.1 ppm
29	887.67	Gray wet SAND, mostly fine, little medium sand, compact, loose when disturbed, SP		15 SS	6 5 8 8	1.3	13						
30	886.67	Gray wet SILTY SAND, with little silt, mostly fine sand, compact, liquifies when disturbed, SM											JHS=0.2 ppm
31	885.67			16 SS	7 9 7 7	0.3	16						
32	884.67	becoming loose at 32.0'											JHS=0.1 ppm
33	883.67			17 SS	3 3 3 4	2.0	6						
34	882.67												JHS=0.1 ppm
35	881.67			18 SS	4 3 3 3	2.0	6						
36	880.67												JHS=0.3 ppm
37	879.67			19 SS	3 3 4 5	2.0	7						
38	878.67	Gray wet SAND, mostly fine, trace very fine sand, loose, liquifies when disturbed, SP											JHS=0.1 ppm
39	877.67	Gray wet SILTY SAND, some silt, mostly very fine sand, loose, liquifies when disturbed, SM		20 SS	3 2 3 5	2.0	5						
40	876.67												

BOREHOLE LOG MPI-7D

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 02/28/84
DRILLING METHOD: 4.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 918.87ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
													JHS=0.2 ppm
41	875.87	LAMINATED Gray wet CLAYEY SILT, with little-some clay, CL, alternating with SILTY SAND, with little- some silt, SM, each layer~1/4" thick, firm		21 SS	3 2 3 4	2.0	5						
42	874.87												JHS=0.1 ppm
43	873.87	Gray moist CLAYEY SILT, with little-some clay, firm, CL		22 SS	1 2 3 3	2.0	5						
44	872.87	Gray wet SILTY SAND, some silt, mostly very fine sand, loose, liquifies when disturbed, SM											JHS=0.1 ppm
45	871.87			23 SS	1 2 3 4	2.0	5						
46	870.87	Gray wet CLAYEY SILT, with little-some clay, CL alternating with SILTY SAND, with little- some silt, clay layer~1/3" thick interbedded, SM sand layer 1/8-1/16" thick, firm											JHS=0
47	869.87			24 SS	2 4 4 7	2.0	8						
48	868.87	thicker Clayey Silt lenses ~1" thick one thicker Sand lense ~1" thick											JHS=0.1 ppm
49	867.87	Gray wet SAND, mostly medium sand, trace fine, loose, liquifies when disturbed, SP-SM		25 SS	3 4 5 5	2.0	9						
50	866.87												JHS=0.1 ppm
51	865.87	Gray extremely moist SANDY SILT, with thin layers of clayey sandy silt ~1/8" thick, loose, SM		26 SS	3 4 5 8	2.0	9						
52	864.87	Gray extremely moist SILTY CLAY, with some silt, occasional very thin sand lenses, stiff, CL											JHS=0.1 ppm
53	863.87			27 SS	3 6 6 8	2.0	12						
54	862.87	Gray wet SAND, mostly fine, trace medium, little very fine sand, compact, SP											JHS=0.1 ppm
55	861.87	Gray alternating layers of extremely moist SILTY SAND and SANDY SILT, with thin clay layers ~1/8" thick, stiff, SM and ML		28 SS	4 5 6 8	2.0	11						
56	860.87												JHS=0.1 ppm
57	859.87	Gray extremely moist SILTY CLAY, with some silt, stiff, CL		29 SS	3 4 6 8	2.0	10						
58	858.87												
59	857.87			ST		2.0							
60	856.87	Boring complete at 60' with augers at 58'. Grouted hole with cement/bentonite grout at completion.											

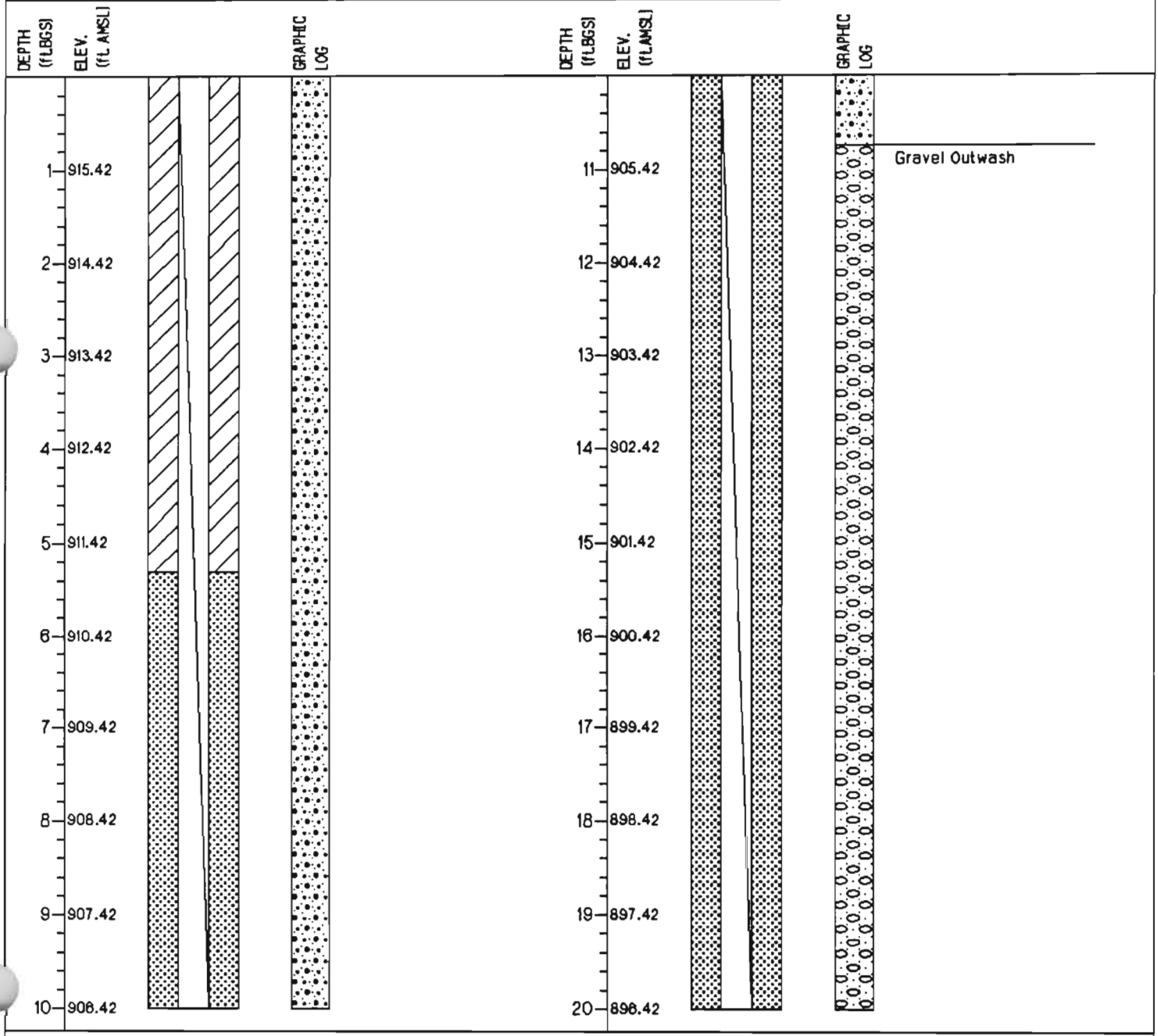
WELL/BOREHOLE MPI-7I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.42ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 5.3 feet
- BENTONITE SLURRY SEAL 5.3 to 27.1 feet
- NORIE #00 SAND PACK 27.1 to 40 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING 0 feet
- 2-INCH DIAMETER RISER 0 to 29.5 Feet
- 8-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-7D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

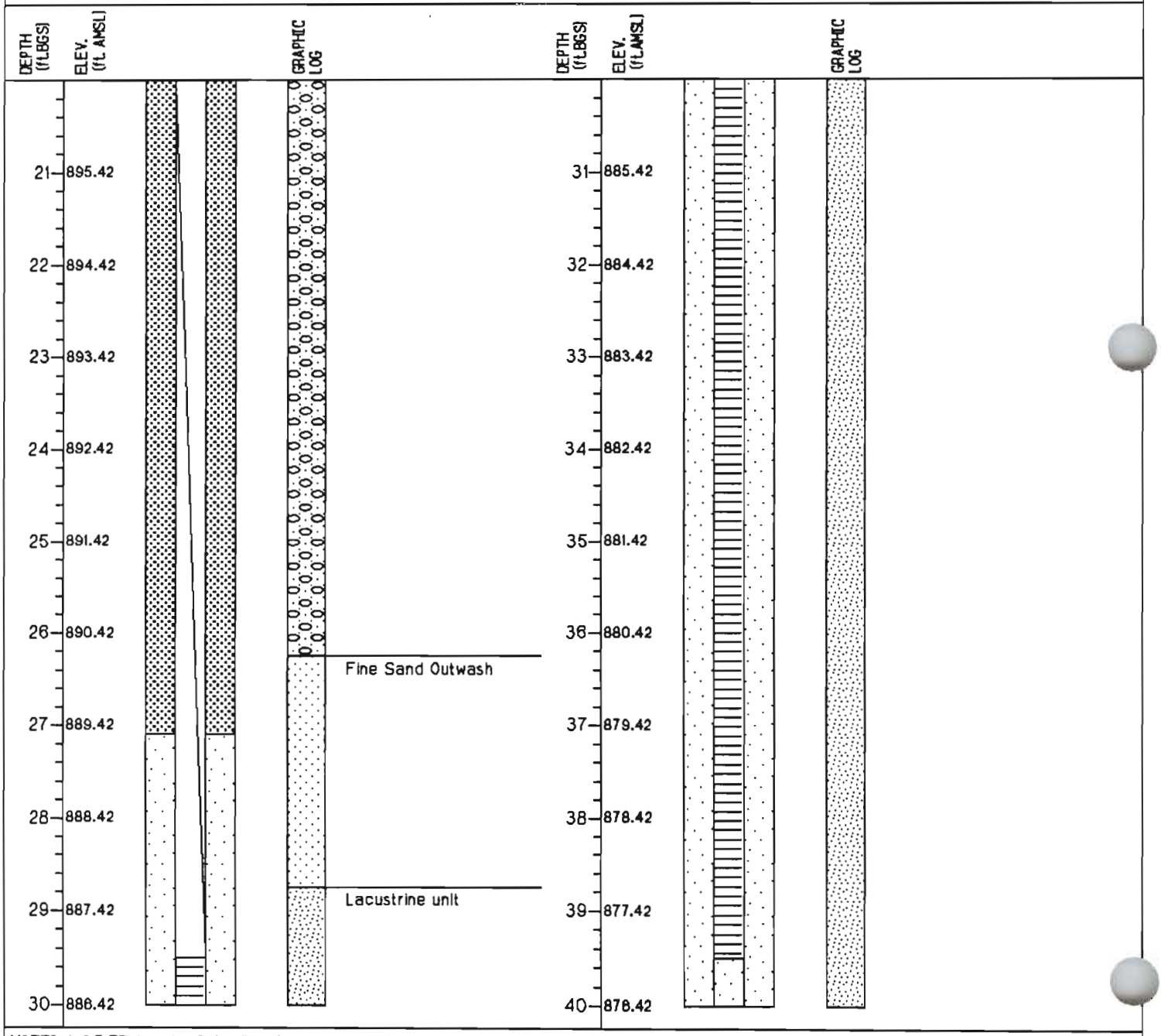
WELL/BOREHOLE MPI-7I CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 3/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.42ft.

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 5.3 feet
- BENTONITE SLURRY SEAL 5.3 to 27.1 feet
- NORIE #00 SAND PACK 27.1 to 40 feet
- 2-INCH DIAMETER SLOTTED (0.006")SCREEN 32.0 to 42.0 feet
- 4-INCH DIAMETER CASING 0 feet
- 2-INCH DIAMETER RISER 0 to 29.5 Feet
- 6-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG refer to BOREHOLE LOG MPI-7D for a complete description



NOTES: 1. 0.7 FT. long by 8-in. diameter curb box extends to 0.5 ft. BGS.

BOREHOLE LOG MPI-8S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/21/94
DRILLING METHOD: 6.25-inch ID HSA
LOGGED/CHECKED BY: JPH/RHO
SURFACE ELEVATION: 915.01ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
0		Augered 1' through asphalt, pavement, and concrete											
1	914.01	FILL dark brown moist CLAY and SILT, little course sand and fine gravel, CL		1 SS	4 4	0.7							JHS=0.8 ppm
2	913.01	Brownish yellow moist SAND, fine-medium sand, trace-little fine gravel,compact,SP		2 SS	3 3 10 5	0.8	13						JHS=1.3 ppm
3	912.01	Moderate-dark brown moist GRAVELLY SILT, little-some subround gravel (shale) to 3/4" diameter, trace-little sand, trace clay, few Brick fragments,compact,GM											
4	911.01			3 SS	8 10 12 18	0.5	22						JHS=0.7 ppm
5	910.01												
6	909.01	TILL, SILTY SANDY GRAVEL, to 3/4" diameter, little- some brown-orange silt and fine-medium sand. compact, GM											JHS=1.1 ppm
7	908.01	Dark gray moist SANDY GRAVEL, with trace silt and some medium to course sand, fine gravel to 3/4" dia., loose when disturbed,compact,GW-GM		4 SS	13 8 9 14	0.8	18						
8	907.01												JHS=5.8 ppm
9	906.01			5 SS	3 4 4 4	1.2	8						
10	905.01	SILT light brown, bedded laminae, trace sand, moist, stiff											JHS=2.2 ppm
11	904.01	GRAVEL, to 1/4" diameter, little fine-medium sand, trace-little silt, loose, GM		6 SS	4 4 4 3	1.1	8						
12	903.01	Wet SILTY SAND, w/little silt,heavily stained iron/siderite contact with laminae very fine-medium sand, liquifies when disturbed, loose, SM											JHS=0.4 ppm
13	902.01			7 SS	3 3 5 5	1.4	8						
14	901.01	Dark gray wet SAND, mostly medium, fine-course sand, well drained, loose,w/very fine grained laminae as bedding fabric,loose,SP											JHS=3.4 ppm
15	900.01			8 SS	2 4 5 6	1.1	9						
16	899.01												JHS=3.2 ppm
17	898.01			9 SS	2 3 3 4	1.0	6						
18	897.01	Dark gray wet SAND, very fine-fine sand, trace silt as thin laminated bedding fabric,loose,SM											JHS=8.2 ppm
19	896.01			10 SS	1 2 5 5	1.1	7						
20	895.01	Boring complete at 20'. Set well											

BOREHOLE LOG MPI-9S

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 03/23/94
DRILLING METHOD: 8.25-inch ID HSA
LOGGED/CHECKED BY: JPH/RHO
SURFACE ELEVATION: 815.24ft.

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	814.24	Advanced augers through asphalt and concrete to 1' prior to sampling		1 SS	3 6	1.0							JHS=0.2 ppm
2	813.24	Dark brown moist SILTY SAND, w/fine, medium, coarse sand, little silt, little-some shale clasts as gravel, trace clay, SM											JHS=0.7 ppm
3	812.24	Light gray-brown moist SANDY SILT, fine,medium, and coarse sand, some silt, little-some subangular gravel to 1/2" diameter as Shale clasts, SM		2 SS	4 2 3 4	0.5	5						
4	811.24												JHS=0.9 ppm
5	810.24	Brown moist SILTY SAND, little silt, medium-course sand, little subround gravel to 1/2" diameter, loose w/cobbles>3",SP-SM		3 SS	3 9 9 8	0.7	18						
6	809.24												JHS=0.4 p
7	808.24	GRAVEL and SAND with Cobbles >3"		4 SS	12 9 7 8	0.2	16						
8	807.24												JHS=1.2 ppm
9	806.24	Brown wet SANDY GRAVEL, subround fine gravel w/ shale clasts to 3/4", medium-course sand, trace silt, loose when disturbed, compact, GP-GM		5 SS	3 5 6 5	1.1	11						
10	805.24												JHS=1.0 ppm
11	804.24	Wet GRAVEL and SAND, loose when disturbed		6 SS	2 6 7 7	1.2	13						
12	803.24												JHS=0.8 ppm
13	802.24	Light orange to brown wet SANDY SILT, little-some gravel, trace clay, grading to course gray sand at 13.1'		7 SS	18 14 9 4	1.3	23						
14	801.24												JHS=1.6 ppm
15	800.24	Grayish brown wet SAND, mostly medium, trace coarse, some bedding fabric as sorted laminae, loose, SP		8 SS	4 3 4 5	1.6	7						
16	799.24	Gray wet SAND, mostly medium, trace coarse, loose, SP											JHS=1.6 ppm
17	798.24	Gray wet SAND, mostly medium, trace coarse, fine subrounded gravel to 1/2" diameter, loose, SP		9 SS	1 3 6 7	1.3	9						
18	797.24												JHS=1.8 ppm
19	796.24	Grayish brown wet SAND,mostly medium,trace coarse, subrounded gravel to 1/2" dia.,unsorted, loose, SP		10 SS	WH 2 2 5	1.1	4						
20	795.24	Boring complete at 20'. Set well											

BOREHOLE LOG MPI-10B

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/22/94 - 12/23/94
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 918.07ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x----x Penetration Resistance ('N' Blows/1.0 ft.)
o----o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	915.07	FILL, gray and brown moist SAND AND GRAVEL, loose when disturbed, firm, GP		1 SS	7 8 4 12	0.8	13						JHS=0.2 ppm
2	914.07	Brown CLAYEY SILTY GRAVEL, firm becoming loose @ 4', GC-GM		2 SS	15 12 9 8	1.2	21						JHS=0.2 ppm
3	913.07												
4	912.07												JHS=0.9 ppm
5	911.07			3 SS	2 3 3 5	0.5	6						
6	910.07	Brown moist GRAVELLY CLAYEY SILT, some fine - coarse sand,little silt, little clay, little gravel, loose, CL											JHS=0 ppm
7	909.07			4 SS	2 3 4 4	1.1	7						
8	908.07	Brown moist SANDY CLAYEY SILT, little fine - medium sand, little sand, trace clay, little silt, little gravel, loose when disturbed, medium consistency, SM											JHS=0.3 ppm
9	907.07			5 SS	2 3 4 4	1.0	7						
10	906.07												JHS=0.4 ppm
11	905.07	STRATIFIED, Brown wet SAND, mostly fine and medium, trace coarse trace silt, loose when disturbed, loose, stratified, SP		6 SS	2 4 3 4	0.8	7						
12	904.07	Occasional gravel											JHS=0.8 ppm
13	903.07			7 SS	3 3 4 6	1.1	7						
14	902.07												JHS=8.0 ppm
15	901.07	Brown wet SAND, mostly fine size sand, trace medium and coarse sand, liquifies when disturbed, loose, (running sands), SP		8 SS	2 2 3 3	1.0	5						
16	900.07												JHS=7.2 ppm
17	899.07	Brown wet SILTY SAND, mostly very fine with occasional finer stratifications, liquifies when disturbed, firm, SP-SM		9 SS	4 4 8 8	1.3	12						
18	898.07												JHS=8.2 ppm
19	897.07			10 SS	2 3 4 4	1.0	7						
20	896.07												

BOREHOLE LOG MPI-10B

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/22/94 - 12/23/94
DRILLING METHOD: 6-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 916.07ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
3SS Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x----x Penetration Resistance ('N' Blows/1.0 ft.)
o----o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	895.07	Brown wet SAND, mostly fine size sand, little medium sand, trace silt, liquifies when disturbed, loose, SP		11 SS	1 2 3 7	1.1	5						~~JHS=11.0 ppm~~
22	894.07												JHS=12.8 ppm
23	893.07			12 SS	6 8 7 7	1.0	13						
24	892.07	more numerous fine sand stratifications, firm											JHS=9.8 ppm
25	891.07	Brown wet SAND, fine, medium & coarse sand, little gravel, (increasing amount of silt in bottom of spoon), firm, SP		13 SS	4 5 6 9	0.8	11						
26	890.07												JHS=4.8
27	889.07	Brown wet SAND, mostly fine, little medium sand, trace silt, occasional fine sand lenses up to .03' in length, loose, SP		14 SS	2 2 3 10	1.0	5						
28	888.07												JHS=3.4 ppm
29	887.07	Brown wet SAND, mostly fine, little medium, trace silt, loose, SP		15 SS	2 2 3 10	1.5	5						
30	886.07												JHS=2.3 ppm
31	885.07	LAMINATED, Fine sand lenses at 30.8 and 30.7 (.5" -.75" in length)		16 SS	2 3 6 10	0.9	9						
32	884.07	Brown wet SANDY SILT, liquifies when disturbed, loose											
33	883.07	Boring complete at 32'. Installed well.											
34	882.07												
35	881.07												
36	880.07												
37	879.07												
38	878.07												
39	877.07												
40	876.07												

BOREHOLE LOG MPI-11B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/27/94
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: RHO
SURFACE ELEVATION: 913.581t.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	912.58	FILL, SILT, SAND AND GRAVEL, slag fill, moist,		1 SS	5 2 2 2	1.0	4						JHS= ppm
2	911.58	TOPSOIL, Dark brown moist SILTY FINE SAND, some medium sand, trace gravel, trace organic vegetation, loose, SM		2 SS	3 5 7 8	1.5	12						JHS= ppm
3	910.58	TILL, Brown moist fine SAND, little silt, little medium sand, trace rounded gravel, trace veg. fragments, firm, SM											
4	909.58	Brown moist SILT AND SAND, some gravel, gravel is fragments of black shale, greengray siltstone, loose, SM		3 SS	3 3 3 3	1.5	6						JHS= ppm
5	908.58												
6	907.58	Brown wet SILT AND fine SAND, some gravel, gravel fragments of black shale, greengray siltstone, weathered, loose, SM		4 SS	2 2 2 2	0.7	4						JHS= ppm
7	906.58												
8	905.58	STRATIFIED Brown wet SAND, mostly fine sand, liquifies when disturbed, loose, SP		5 SS	WH	0.6	4						JHS= ppm
9	904.58	Brown wet GRAVEL, mostly rounded gravel in a fine sand matrix, loose, GP											
10	903.58	Brown wet GRAVEL, mostly med size gravel, rounded, trace shale, some silt and fine sand, firm, GM		6 SS	8 7 8 8	0.5	15						JHS= ppm
11	902.58												
12	901.58	Brown wet SAND & GRAVEL, fine to medium gravel, medium sand, trace fine sand, gravel-rounded, fine gravel in shale fragments, medium gravel is sandstone/siltstone, very compact, SW or GW		7 SS	48 41 13 8	1.0	54						JHS= ppm
13	900.58												
14	899.58			8 SS	4 5 4 5	0.8	9						JHS= ppm
15	898.58	Brown wet SAND & GRAVEL, fine-medium gravel, medium-coarse sand, trace silt, gravel-well rounded & well washed, loose, SW or GW											
16	897.58			9 SS	7 7 8 12	1.8	15						JHS= ppm
17	896.58	Brown wet SAND, medium-coarse sand, trace fine sand, little fine gravel, trace medium gravel, trace silt, gravel-well rounded & well washed, firm, SW											
18	895.58			10 SS	17 12 10 12	1.2	22						JHS= ppm
19	894.58	Brown wet GRAVELLY SAND, medium-coarse sand, some fine-medium gravel, trace fine sand, thin stratified medium sand layers, firm, SW											
20	893.58												

BOREHOLE LOG MPI-11B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/27/94
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: RHO
SURFACE ELEVATION: 813.58ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
– Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ("N" Blows/1.0 ft.)
o---o Moisture Content ("N" %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	"N"-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	892.58	Brown wet SANDY SILT, some fine sand, firm, ML		11 SS	4 6 5 6	0.8	11						JHS= ppm
22	891.58	Black SHALE FRAGMENTS											
23	890.58	Brown wet SAND, mostly fine sand, trace to little silt, liquifies when disturbed, loose, SP-SM		12 SS	2 4 4 7	1.8	8						JHS= ppm
24	889.58	Grayish brown wet SAND, mostly fine, some medium, trace silt, loose, SP		13 SS	WR 1 2 3	1.0	3						JHS= ppm
25	888.58												
26	887.58												JHS= ppm
27	886.58	LAMINATED, Gray wet SILT and SAND, mostly very fine, liquifies when disturbed, loose, SM		14 SS	3 3 4 7	1.5	7						
28	885.58	Gray wet SAND, mostly medium, little fine, loose, SP											JHS= ppm
29	884.58	Gray wet SAND, mostly fine sand, little silt, loose, SM		15 SS	WR 3 4 3	1.0	7						
30	883.58	Gray wet SILT and very fine SAND, loose, ML											JHS= ppm
31	882.58	Gray wet fine SAND, little silt, loose, SM											
32	881.58	Boring complete at 30'. Installed well.											
33	880.58												
34	879.58												
35	878.58												
36	877.58												
37	876.58												
38	875.58												
39	874.58												
40	873.58												

BOREHOLE LOG MPI-12B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/28/84
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: RHO
SURFACE ELEVATION: 911.44ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	910.44	FILL, Asphalt, subbase, gravel, sand to cobbles in cuttings firm		1 SS	- 5 8 8	0.7	12						JHS=0 ppm
2	909.44												JHS=0 ppm
3	908.44	Silty fine sand, slightly moist		2 SS	4 5 6 8	0.7	11						
4	907.44	TILL, brown moist CLAYEY SILT, some gravel (fine to cobbles), moderate-extremely weathered till, medium consistency, CL		3 SS	5 6 8 10	0.7	12						JHS=0 ppm
5	906.44												
6	905.44	Brown wet GRAVELLY CLAYEY SILT, black shale and greenish gray siltstone, clayey silt mottled reddish brown, medium consistency, CL		4 SS	5 3 3 2	0.5	6						JHS=0 ppm
7	904.44												
8	903.44	STRATIFIED, brown wet SANDY GRAVEL, little fine to medium sand, gravel-well rounded, loose, SW		5 SS	1 2 3 6	0.2	5						JHS=0.8 ppm
9	902.44												
10	901.44			6 SS	1 3 5 3	0.3	8						JHS=7.0 ppm
11	900.44												
12	899.44			7 SS	5 6 5 5	1.0	11						JHS=5.5 ppm
13	898.44	Brown wet SAND & GRAVEL, little silt, firm, SM or GM											
14	897.44	Brown wet SANDY GRAVEL, little medium to coarse sand, loose, GW		8 SS	2 3 3 4	0.7	6						JHS=7.8 ppm
15	896.44												
16	895.44	Brown wet SILTY SAND, mostly medium to fine sand, some medium-coarse gravel, gravel loose w/occasional layers of firm fine matrix, firm, SM		9 SS	7 5 7 7	1.0	12						JHS=4.5 ppm
17	894.44												
18	893.44	Brown wet SANDY GRAVEL, some fine to medium sand, cobbles to fine gravel, trace silt, firm, GW		10 SS	5 8 13 9	1.0	19						JHS=1.0 ppm
19	892.44												
20	891.44												

BOREHOLE LOG MPI-12B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/28/94
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: RHO
SURFACE ELEVATION: 911.44ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	890.44			11 SS	2 5 7 11	1.0	12						JHS=0.3 ppm
22	889.44												JHS=0.8 ppm
23	888.44			12 SS	17 27 10 11	0.8	37						
24	887.44	no recovery											JHS=0 ppm
25	886.44			13 SS	3 9 10 11	NR	19						
26	885.44												
27	884.44			14 SS	12 8 8 10	0.5	12						
28	883.44	Brown wet SAND and GRAVEL, fine gravel, coarse sand, some fine sand trace silt, firm, SW or GW											JHS=0.4 ppm
29	882.44			15 SS	3 3 7 8	0.5	10						
30	881.44												JHS=0.3 ppm
31	880.44			16 SS	4 7 9 7	0.5	16						
32	879.44	Becoming Gray at 32.5'											JHS=0.2 ppm
33	878.44			17 SS	7 9 9 7	1.0	18						
34	877.44	Gray wet, fine SAND, some fine gravel and medium sand, trace to little silt, loose, SM											JHS=0 ppm
35	876.44			18 SS	3 6 4 3	0.3	10						
36	875.44	LAMINATED, brownish gray wet SILTY CLAY, some silt, occasional round gravel, consistence, CL											JHS=0.1 ppm
37	874.44			19 SS	3 3 4 5	0.7	7						
38	873.44	Boring complete at 38'. Installed well to 35.0 feet.											
39	872.44												
40	871.44												

BOREHOLE LOG MPI-13B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 1/10/95
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.88ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	912.88	FILL, Asphalt to 0.2' and concrete to 1.0, fill to 2.0 feet		-	-	-	-						
2	911.88												JHS=0 ppm
3	910.88	Brown moist SANDY SILT, little fine to coarse sand, trace fine gravel, blocky, loose, reworked soil		1 SS	1 3 3 1	1.3	6						
4	909.88	TILL,yellowish brown moist CLAYEY SANDY SILT, little f-c sand,trace clay & gravel,trace roots,blocky,loose,ML		2 SS	2 5 7 7	1.3	12						JHS=0.3 ppm
5	908.88												
6	907.88	Brown w/gray mottling moist CLAYEY SILT, w/15-25% mostly shale gravel, massive, medium consistence, CL		3 SS	9 5 5 5	0.9	10						JHS=0.4 ppm
7	906.88	Brown wet SILTY GRAVELLY SAND, w/mostly coarse sand, little fine to medium, little silt, little gravel, exhibits some cohesion, medium consistency, SM											
8	905.88			4 SS	WR 1 1 1	0.8	2						JHS=0.2 ppm
9	904.88	STRATIFIED,Brown wet SAND,mostly coarse sand,little med. sand, trace-little silt & grav,loose when disturbed,loose,SP-SM											
10	903.88			5 SS	WR 1 2 2	0.7	3						JHS=0.1 ppm
11	902.88	LAMINATED,brown wet SAND, mostly very fine and fine sand, trace-little silt, liquifies when disturbed, loose, SP-SM											
12	901.88			6 SS	4 3 4 3	1.4	7						JHS=0.1 ppm
13	900.88	Gray wet v fine & fine SAND,little silt,liq. when dist,loose,SP-SM											
14	899.88	Gray wet CLAYEY SILT,w/some v.fine&fine sand,CL		7 SS	1 1 2 3	0.9	3						JHS=0.1 ppm
15	898.88	Gray wet SANDY SILT,some v.fine&fine sand,2 clay seams @ 14.3'1/8"thick,liq.when dist,loose,ML											
16	897.88			8 SS	10 10 10 10	0.2	20						JHS=0.1 ppm
17	896.88	STRAT.Brown wet GRAV. coarse SAND,trace silt,some grav, loose when dist,firm,SP											
18	895.88			9 SS	2 4 8 10	1.2	12						JHS=0.1 ppm
19	894.88	Gray wet f-c SAND,med sand layer 0.1' thick @ 18.0',f.sand layer 18.1-18.2',m-c layer 18.2- 18.5,loose when dist,firm,SW											
20	893.88	Brown wet GRAV SAND,f-c sand,some gray,trace silt, loose when dist,loose,SW											

BOREHOLE LOG MPI-13B

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 1/10/95
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.68ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	892.68			10 SS	2 5 7 9	0.9	12						JHS=0.8 ppm
22	891.68	Brown wet SANDY GRAVEL, some medium - coarse sand, fine gravel, trace silt, loose when disturbed, firm, GW		11 SS	7 5 9 9	1.4	14						JHS=0.4 ppm
23	890.68												
24	889.68	Brown wet medium-coarse SAND, trace to little gravel, loose when disturbed, firm, SP		12 SS	5 9 7 9	1.0	16						JHS=-- ppm
25	888.68												
26	887.68	Brown wet SAND, medium sand, trace gravel, loose when disturbed, firm, SP		13 SS	8 12 10 12	1.4	22						JHS=0.3
27	886.68	Brown wet GRAVEL and SAND, medium to coarse sand, fine subrounded gravel, loose when disturbed, SP											
28	885.68	LAMINATED,gray wet SAND, mostly fine, liquifies when disturbed, loose, SP		14 SS	WR WR 3 4	1.3	<4						JHS=0 ppm
29	884.68												
30	883.68			15 SS	5 6 5 6	1.4	11						JHS=0 ppm
31	882.68												
32	881.68			18 SS	WR WR 1 2	0.3	<2						JHS=0 ppm
33	880.68												
34	879.68	Boring complete at 34'. Installed well @ 32.3'.											
35	878.68												
36	877.68												
37	876.68												
38	875.68												
39	874.68												
40	873.68												

BOREHOLE LOG MPI-14B

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 1/11/95
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.49ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SAMPLE NO. / RUN NO.	BLOWS / 6"	RECOVERY (in)	'N'-VALUE	ROCK DATA: FROM/TO	DRILL RATE MIN./FT.	% REC.	% RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	912.49	FILL, Asphalt, concrete, over gravel fill, advanced augers to 2 feet w/out sampling		-	-	-	-						
2	911.49	FILL, brown moist CLAYEY SILT, w/little fine to coarse sand, little gravel, medium consistency		1 SS	2 4 5 3	1.2	9						JHS=0.1 ppm
3	910.49												
4	909.49	Brown moist SILTY SAND, with medium to coarse sand, some silt, little to some gravel, loose		2 SS	1 2 1 2	0.7	3						JHS=0.1 ppm
5	908.49												
6	907.49	LAMINATED, brown wet SANDY SILT, little very fine sand, liquifies when disturbed, noticed fabric texture, loose, ML		3 SS	2 2 3 6	1.4	5						JHS=0 ppm
7	906.49												
8	905.49	Gray wet CLAYEY SILT (.15'), SANDY SILT (.15'), SILT (.1') SANDY SILT (.4'), sandy silt seams liquify when disturbed, soft		4 SS	2 4 4 6	1.4	8						JHS=0.1 ppm
9	904.49												
10	903.49	STRATIFIED, Brown wet SILTY SAND, liquifies when disturbed, grades to drier silt, loose, SM		5 SS	3 6 6 12	1.2	12						JHS=0.5 ppm
11	902.49												
12	901.49	Brown wet GRAVEL and SAND, trace to little silt, fine to coarse sand, loose when disturbed, loose, SW or GW		6 SS	12 8 6 8	1.4	14						JHS=0.3 ppm
13	900.49	Brown wet SAND, mostly very fine to fine sand, trace silt, firm, SP											
14	899.49	Brown wet SAND, mostly fine sand, loose when disturbed, firm, SP		7 SS	2 3 6 6	0.3	9						JHS=0.2 ppm
15	898.49												
16	897.49	Brown wet SAND, mostly medium and fine sand, loose when disturbed, loose, SP		8 SS	6 5 5 4	1.2	10						JHS=1.0 ppm
17	896.49	Brown wet GRAVEL and SAND, trace to little silt, mostly medium to coarse sand, loose when disturbed, loose, SW or GW											
18	895.49	one 0.05' silt seam @ 18.8' BGS		9 SS	2 4 4 6	1.2	8						JHS=0.9 ppm
19	894.49												
20	893.49												

BOREHOLE LOG MPI-14B

PROJECT: MR. C CLEANERS RI
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 1/11/95
DRILLING METHOD: 8-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION: 913.49ft.FT. ABOVE NGVD

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	892.49	no recovery		10 SS	2 4 4 5	NR	8						JHS=3.0 ppm
22	891.49	Brown wet GRAVELLY SAND, mostly coarse sand, little gravel, little silt, loose when disturbed, loose, SW											JHS=3.0 ppm
23	890.49			11 SS	4 6 4 8	1.3	10						
24	889.49	Gray wet GRAVELLY SAND, fine to coarse sand, little gravel, little silt, loose, SW											JHS=0.1 ppm
25	888.49	LAMINATED, gray wet SANDY SILT, some very fine sand, liquifies when disturbed, loose, ML		12 SS	1 4 4 5	1.2	8						
26	887.49	Gray wet fine SAND, liquifies when disturbed, loose, SP											JHS=0 pp
27	886.49			13 SS	4 5 5 5	0.5	10						
28	885.49	Gray wet SILTY SAND, little silt, very fine and fine sand, liquifies when disturbed, loose, SM											JHS=0 ppm
29	884.49	Gray wet SILTY SAND, w/little to some silt, very fine sand liquifies when disturbed, loose, SM		14 SS	1 - 3 2	1.0	4						
30	883.49	Boring complete at 30'. Installed well.											
31	882.49												
32	881.49												
33	880.49												
34	879.49												
35	878.49												
36	877.49												
37	876.49												
38	875.49												
39	874.49												
40	873.49												

BOREHOLE LOG SB-1

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/14/94
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	-1	FILL Concrete to 0.5 feet TILL, Brown moist SANDY SILT, with little gravel, trace clay, loose, ML		1 SS	1 2 3 5	0.2	5						JHS=0.1 ppm
2	-2												
3	-3	Brown moist CLAYEY SANDY SILT, with little gravel, trace to little clay, moist, medium consistence, ML		2 SS	2 5 7 8	0.8	12						JHS=0.3 ppm
4	-4												
5	-5	Brown moist SANDY GRAVELLY SILT, trace clay, gravel up to 1.5", fine to coarse sand, firm, massive, SM		3 SS	3 8 5 8	0.7	13						JHS=0.7 ppm
6	-6												
7	-7	Brown extremely moist SANDY GRAVEL W/SILT, little silt, loose, GM		4 SS	3 3 3 2	1.0	6						JHS=1.2 ppm
8	-8												
9	-9	STRATIFIED Brown wet SAND, with trace to little silt, mostly medium sand, trace coarse sand, loose, SP-SM		5 SS	2 3 4 4	1.0	7						JHS=200 ppm SSLA
10	-10												
11	-11			6 SS	2 2 4 4	1.0	6						JHS=220 ppm SSLA
12	-12												
13	-13	Boring complete at 12'. Advanced augers to 10' BGS. Backfilled borehole with drill cuttings and cement.											
14	-14												
15	-15												
16	-16												
17	-17												
18	-18												
19	-19												
20	-20												

BOREHOLE LOG SB-2

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0288-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 12/15/94
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JMA/RHO
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery
- Sampler Refusal

JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('N' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
0		FILL, Asphalt to 0.5 feet											JHS=0.6 ppm
1	-1	Dark gray moist SILT with sand and gravel, loose, SM		1 SS	1 3 4 4	1.0	7						
2	-2	TILL, Brown moist CLAYEY SILT, with little gravel and sand, medium consistence, CL											JHS=0.6 ppm
3	-3			2 SS	2 5 7 8	1.3	12						
4	-4	Brown moist CLAYEY SILTY SAND, with little shale gravel, loose when disturbed, loose, SM											JHS=1.4 ppm
5	-5			3 SS	2 6 7 9	1.1	13						
6	-6												JHS=2.0
7	-7			4 SS	3 5 6 9	1.2	13						
8	-8	STRATIFIED Brown moist GRAVELLY SAND, w/15-40% gravel, mostly coarse sand, little medium, trace silt, loose, SP											JHS=14.3 ppm SSLA
9	-9			5 SS	9 5 5 5	0.7	10						
10	-10	Boring complete at 10'. Collected water sample at 13' w/ Hydropunch sampler. Advanced augers to 10' BGS. Borehole backfilled with drill cuttings and cement.											
11	-11												
12	-12												
13	-13												
14	-14												
15	-15												
16	-16												
17	-17												
18	-18												
19	-19												
20	-20												

EARTH DIMENSIONS, INC.
Soil Investigations and Natural Resource Assessments
Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • (716) 655-1717

MONITORING WELL
HOLE NO. 1-88 (MW-1)

SURF. ELEV. _____

PROJECT 4F88 F882 — Monitoring well installation, Agway Petroleum Station, East Aurora, NY
LOCATION North side of station
CLIENT AGWAY PETROLEUM CORPORATION
DATE STARTED 6/20/88 COMPLETED 6/20/88

DEPTH	SAMPLE NO	BLOWS ON SAMPLER (0-6 / 6-12 / 12-18 / 18-24 / N)	DESCRIPTION & CLASSIFICATION	WELL	WATER TABLE & REMARKS
	1	100/4	Moist brown very gravelly (SILTY-SAND) fill with 40 to 60% gravel and concrete debris, fine to coarse size sand, little silt, loose when disturbed		Mostly sand and gravel fill with concrete debris with little silt to 2.0 feet over silty possible soil fill with some gravel to 4.0 feet over either water sorted and deposited or fill consisting of silt with some gravel, little sand to 10.0 feet over water sorted and deposited sand to end of boring.
		3 2 4 6			
	2	5 10 13 23			
		31			
	3	11 14 9 23			
5		7			
	4	4 6 6 12			
		3			
	5	2 3 3 6			
10		4			
	6	1 3 6 9			
		5			
	7	WH 4 4 2 8			
		1			
15		2 4 5 6			
	9	WH 2 3 5 5			
	10	2 4 5 9			
20		5			

2.0 — grades downward to — 4.0 — grades downward to — 10.0 — grades downward to — 12.0

Moist highly mottled olive brown shaly (CLAYEY-SILT) with 15 to 40% mostly flat, sharp edged shale fragments, very stiff, possible fill

Moist distinctly mottled olive brown shaly (CLAYEY-SILT) with 15 to 40% mostly flat, sharp edged shale fragments, little fine to coarse size sand, weakly stratified or possible fill

Wet black to 10.5 feet, distinctly mottled olive brown below, (SAND), fine to coarse size sand, trace silt, loose, thinly bedded

Wet gray (SAND), fine to medium size, loose, thinly bedded

WELL: Two (2) inch inside diameter PVC riser pipe; Cement bentonite grout; (1); #10 two (2) inch slotted screen; #2 size sand

9.0
10.6
12.0

(1) Bentonite seal.

WH-Sampler penetration with weight of rods and hammer.

Continued on sheet 2.

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb. WT. FALLING 30 " PER BLOW.

LOGGED BY Donald W. Owens/Soil Scientist from collected soil samples

SHEET 1 OF 2

EARTH DIMENSIONS, INC.
Soil Investigations and Natural Resource Assessments
Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • (716) 655-1717

MONITORING WELL
HOLE NO. 1-88 continued (MW-1)

SURF. ELEV. _____

PROJECT 4F88 F882 — Monitoring well installation, Agway Petroleum Station, East Aurora, NY
LOCATION North side of station
CLIENT AGWAY PETROLEUM CORPORATION
DATE STARTED 6/20/88 COMPLETED 6/20/88

DEPTH feet	SAMPLE NO	BLOWS ON SAMPLER (0/6 / 6/12 / 12/18 / 18/24)	DESCRIPTION & CLASSIFICATION	WELL (1)	(2)	WATER TABLE & REMARKS
	1	1 2	Wet gray (SAND), fine to medium size, loose, thinly bedded			
		2 4 6				
		5	22.0			22.0
			Boring completed at 22.0 feet.			
25						
30						
35						
40						

(1) Two (2) inch PVC slotted screen, #10.

(2) #2 size sand.

Down hole drilling and split spoon sampling equipment, and PVC monitoring well supplies were steam cleaned prior to use and installation.

Monitoring well secured with locking cap and metal protective casing.

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb. WT. FALLING 30 " PER BLOW.

LOGGED BY Donald W. Owens/Soil Scientist from collected soil samples

SHEET 2 OF 2

Parratt Wolff inc

TEST BORING LOG

FISHER ROAD
EAST SYRACUSE N.Y. 13057

PROJECT — Agway Petroleum Corporation
LOCATION — Bulk Plant, East Aurora, New York
DATE STARTED — 5/1/84 DATE COMPLETED — 5/1/84

HOLE NO B-2 (MW-2)
SURF EL.
JOB NO. 8461
GROUND WATER DEPTH
WHILE DRILLING 10.0'
BEFORE CASING REMOVED 12.5'
AFTER CASING REMOVED 9.5'

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ # HAMMER FALLING
"/OR — % CORE RECOVERY

CASING TYPE - HOLLOW STEM AUGER

SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
						CONCRETE	1.0'
						Brown moist stiff SILT, some fine gravel, little fine to coarse sand	
5.0							
	5.0'-6.5'	1		7/7 5	12		
10.0 ▼ WL							10.0'
	10.0'-11.5'	2		7/6 6	12	Brown wet medium dense fine to coarse SAND, trace silt	
15.0							
	15.0'-16.5'	3		6/4 4	8		
						Bottom of Boring	16.5'
20.0						Note: Installed 2" P.V.C. screen 15.0' to 10.0', riser to surface with roadway box cover.	

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • (716) 655-[illegible]

MONITORING WELL HOLE NO 1-89 (MW-3)

SURF ELV _____

PROJECT Monitoring well installation

LOCATION Approx. 21.0 feet west of NW corner of building on Whaley Road

4F88b Main & Whaley Sts., East Aurora, NY

CLIENT AGWAY PETROLEUM CORPORATION

DATE STARTED 1/26/89 COMPLETED 1/27/89

DEPTH FEET	SAMPLE NO	BLOWS ON SAMPLER (0/6 6/12 12/18 15/24)	N	DESCRIPTION & CLASSIFICATION	WELL	WATER TABLE & REMARKS
	1			Concrete 0.4		Concrete to 0.4 feet over crush gravel fill to 1.0 feet ove. possible silty fill with some gravel to 6.0 feet over water sorted and deposited or fill consisting of silt with some gravel, little sand to 9.0 feet over water sorted and deposited sand to end of boring.
		13 12 7	25	Extremely moist gray crush gravel fill with 20 to 40% mostly concrete gravel, very fine to coarse sand size, compact, loose when disturbed 1.0		
	2	5 4 5 12	9	Extremely moist distinctly mottled olive gray shaly (CLAYEY-SILT) with 20 to 40% mostly flat shale gravel, very stiff becoming firm below 4.0 feet, noticed one (1) apparent concrete chunk at 3.8 feet	Four (4) inch inside diameter PVC riser pipe (1)	
5	3	3 4 8	7	- - - - grades downward to - - 6.0	(2)	3.7
	4	5 5 8	10	Extremely moist distinctly mottled olive gray shaly (CLAYEY-SILT) with 20 to 40% mostly shale gravel, little fine to coarse size sand, stiff weakly stratified or possible fill		6.1
	5	10 5 7 10	12	- - - - clear transition to - - 9.0		7.0
10	6	5 7 8 9	15	Extremely moist distinctly mottled olive gray and gray (SAND) with fine to medium size sand, trace silt, compact, loose when disturbed, thinly bedded	Four (4) inch PVC slotted screen #2 size sand	Water level at 9.9 feet below ground surface with 8¼ inch hollow stem augers at 14.0 feet.
	7	3 5 4 7	9	- - - - grades downward to - - 10.0		Advanced jack hammer through 0.4 feet of concrete.
	8	3 7 8 9	15	Wet faintly mottled olive gray and dark gray (SAND) with very fine to coarse size sand, trace silt, compact tends to liquify when disturbed, thinly bedded, noticed occasional rounded to subrounded fine size gravel, noticed petroleum sheen and odor		(1) Cement bentonite grout.
15	9	4 6 7 10	13	- - - - grades downward to - - 12.0		(2) Bentonite pellet seal.
				Wet faintly mottled gray (SAND) with very gravelly fine to fine size sand loose, thinly bedded, noticed petroleum sheen and odor		17.0
20				- - - - grades downward to - - 14.0		18.0

Continued on sheet 2.

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 LB WT FALLING 30 PER BLOW

LOGGED BY Dale M. Granza/Geologist

SHEET 1 OF 2

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • [illegible]

ONITORING WELL
OLE NO 1-89 continued (MW-3)

SURF ELV _____

ROJECT Monitoring Well installation

F88b Main & Whaley Sts., East Aurora, NY

LOCATION Approx. 21.0 feet west of NW corner of building on Whaley Road

LIENT AGWAY PETROLEUM CORPORATION

DATE STARTED 1/26/89 COMPLETED 1/27/89

DEPTH FEET	SAMPLE NO	BLOWS ON SAMPLER	DESCRIPTION & CLASSIFICATION	WATER TABLE & REMARKS
			Wet grayish brown (SAND) with very fine to fine size sand, compact, readily liquifies when disturbed, thinly bedded with occasional thin coarse silt lenses 1/16 to 1/8 inch thick, slight petroleum odor 18.0	
			Boring completed at 18.0 feet.	
25				
30				
35				

OVM Readings

Sample #	Interval	ppm Reading
1	0.0 - 2.0	0
2	2.0 - 4.0	2.0
3	4.0 - 6.0	17.5
4	6.0 - 8.0	1.7
5	8.0 - 10.0	27.0
6	10.0 - 12.0	49.5
7	12.0 - 14.0	47.0
8	14.0 - 16.0	16.0
9	16.0 - 18.0	4.0

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb WT FALLING 30 PER BLOW

LOGGED BY Dale M. Gramza/Geologist

SHEET 2 OF 2

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • (716) 655-[illegible]

MONITORING WELL (MW-4)
HOLE NO 2-89

SURF ELV _____

PROJECT Monitoring well installation

LOCATION Approx. 10.0 feet south of SW corner of pump island

4F88b Main & Whaley Sts., East Aurora, NY

CLIENT AGWAY PETROLEUM CORPORATION

DATE STARTED 1/27/89 COMPLETED 1/27/89

DEPTH FEET	SAMPLE NO	BLOWS ON SAMPLER (0/6 / 6/12 / 12/18 / 18/24)	N	DESCRIPTION & CLASSIFICATION	WELL	WATER TABLE & REMARKS
	1	5 / 5	10	Concrete 0.4 Extremely moist gray crush gravel fill with 20 to 40% mostly concrete gravel, very fine to coarse sand size, loose 0.9	Four (4) inch inside diameter PVC riser pipe. Cement Bentonite Grout	Concrete to 0.4 feet over crush gravel fill to 0.9 feet over silty fill with some gravel to 2.5 feet over silty soil fill with little gravel trace to little sand to 4.0 feet over water sorted and deposited silt with some gravel to 8.0 feet over water sorted and deposited sand and gravel with some silt to 11.0 feet over water sorted and deposited sand to end of boring
	2	6 / 4 / 3 / 4	7	Extremely moist dark gray shaly silt loam (CLAYEY-SILT) fill with 15 to 40% shale gravel, stiff 2.5 - - - - grades downward to - - - -		
5	3	8 / 14 / 14 / 12	26	Extremely moist olive brown silt loam (CLAYEY-SILT) fill with 5 to 15% gravel, trace to little very fine size sand, firm 4.0		
	4	7 / 6 / 7 / 4	13	Extremely moist distinctly mottled olive brown to olive gray shaly (CLAYEY-SILT) with 15 to 40% mostly shale gravel, very stiff becoming stiff below 6.0 feet, weakly stratified, noticed one (1) wet olive brown (SAND) lens between 4.1 to 4.2 feet 8.0 - - - - grades downward to - - - -		
10	5	10 / 12 / 13 / 12	25			
	6	27 / 20 / 19 / 18	39	Extremely moist highly mottled olive gray very gravelly (SILTY-SAND) with 40 to 60% mostly subangular gravel, very fine to coarse size sand, some silt, compact, weakly stratified, noticed distinct petroleum odor, 11.0 - - - - clear transition to - - - -	Four (4) inch PVC slotted screen #2 size sand	
	7	1 / 4 / 7 / 9	11			
15	8	11 / 12 / 11 / 14	23	Wet alternating olive brown and gray (SAND) very fine to medium size sand, dense, tends to liquify when disturbed, thinly bedded with coarse silt lenses, noticed distinct petroleum odor with some oil sheen 12.0 - - - - grades downward to - - - -		
	9	6 / 7 / 11 / 11	18			
20						

(1) Bentonite pellet seal.

Advanced jack hammer through concrete to 0.4 feet.

Water level at 13.4 feet below ground surface with 8¼ inch hollow stem augers at 18.0 feet.

4.7 6.6 7.3 17.3 18.0

Continued on sheet 2.

N = NUMBER OF BLOWS TO DRIVE 2 SPOON 12 " WITH 140 lb WT FALLING 30 " BELOW

LOGGED BY Dale M. Gramza/Geologist

SHEET 1 OF 2

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

Roycroft Campus, 31 S. Grove St. • East Aurora, NY 14052 • (716) 655-1717

MONITORING WELL
HOLE NO 2-89 Continued (MW-4)

SURF ELV _____

PROJECT Monitoring well installation

LOCATION Approx. 10.0 feet south of SW corner of pump island

F88b Main & Whaley Sts., East Aurora, NY

CLIENT AGWAY PETROLEUM CORPORATION

DATE STARTED 1/27/89 COMPLETED 1/27/89

DEPTH FEET	SAMPLE NO	BLOWS ON SAMPLER	DESCRIPTION & CLASSIFICATION	WATER TABLE & REMARKS
			Wet gray (SAND) with fine to coarse size sand, compact, loose when disturbed, thinly bedded with occasional subrounded gravel fragment 15.0	
			Wet faintly mottled brown (SAND) with very fine to fine size sand, trace silt, compact, tends to liquify when disturbed, thinly bedded 18.0	
25			Boring completed at 18.0 feet.	
30				
35				

OVM Readings

Sample#	Interval	ppm
1	0.0 - 2.0	0
2	2.0 - 4.0	0
3	4.0 - 6.0	0
4	6.0 - 8.0	11
5	8.0 - 10.0	165
6	10.0 - 12.0	227
7	12.0 - 14.0	174
8	14.0 - 16.0	4.6
9	16.0 - 18.0	4.1

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb WT FALLING 30 PER BLOW

LOGGED BY Dale M. Gramza/Geologist

SHEET 2 OF 2

TEST BORING LOG

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT: Agway Petroleum Corporation
Bulk Plant

LOCATION: East Aurora, New York

DATE STARTED: 5/1/84 DATE COMPLETED: 5/1/84

HOLE NO. B-4 (MW-5)

SURF EL.

JOB NO. 8461

GROUND WATER DEPTH
WHILE DRILLING 10.0'

BEFORE CASING REMOVED 10.0'

AFTER CASING REMOVED 12.0'

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ # HAMMER FALLING
"/OR — % CORE RECOVERY

CASING TYPE - HOLLOW STEM AUGER

SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
						CONCRETE	1.3'
						Brown moist stiff SILT, little fine to coarse sand	
5.0							
	5.0'-6.5'	1		8/9 6	15		
10.0 ▼ WL							10.0'
	10.0'-11.5'	2		12/13 13	26	Brown wet very stiff SILT, little fine to coarse gravel, little fine to coarse sand	13.0'
15.0						Brown wet medium dense fine to medium SAND, trace silt	
	15.0'-16.5'	3		8/8 5	13		
						Bottom of Boring	16.5'
20.0						Note: Installed 2" P.V.C. screen 15.0' to 10.0', riser to surface with roadway box cover.	

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

RECOVERY WELL
BOREHOLE NO. 1-90 (RW)

SURF ELV

PROJECT Continuous soil sampling and installation of new 6 inch recovery well, Agway Petroleum Products, East Aurora, NY
4F88

LOCATION 1.9 feet northwest of MW A

CLIENT AGWAY PETROLEUM PRODUCTS

DATE STARTED 12/14/90 COMPLETED 12/14/90

DEPTH FEET	SAMPLE NO.	BLOWS ON SAMPLER (0/6 6/12 12/18 18/24 N)	DESCRIPTION & CLASSIFICATION	WELL	WATER TABLE & REMARKS
			Cement pavement 0.45		Concrete to 0.45 feet over sand and gravel sub-base fill to 1.0 feet over silty soil fill with little gravel to 4.0 feet over coarse silty to silty soil fill with little gravel to 5.0 feet over apparent clayey soil fill with little gravel to 8.5 feet over apparent water sorted and deposited (possible fill) sand with little gravel and silt to 9.5 feet over apparent coarse silty glacial drift (possible fill) to 11.0 feet over water sorted and deposited sand with little gravel, little to some silt to 13.0 feet over water sorted and deposited sand with trace silt to end of boring.
	1	1 2	Moist to extremely moist dark brown gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to fine size sand, little silt, compact in place, loose when disturbed 1.0	Cement bentonite grout	
		2 2 4			
5		2 2 4			
	2	2 2 4			
	3	3 2 5 7 12	Moist to extremely moist faintly mottled dark brown gravelly silt loam (CLAYEY-SILT) fill with 15 to 30% mostly shale gravel, little clay, soft		
			- - - - grades downward to - - - 4.0		
	4	4 3 3 3 6	Extremely moist to wet light olive gray gravelly silt loam (SANDY-SILT) tending toward silt loam (CLAYEY-SILT) fill with 15 to 30% mostly subangular shale gravel, little very fine size sand, trace to little clay, very loose and soft	6" PVC Riser pipe	
			- - - - clear transition to - - - 5.0		
10	5	5 2 5 10 15	Extremely moist faintly mottled light gray shaly silty clay loam (CLAYEY-SILT) fill with 15 to 40% mostly angular to subangular shale gravel, some clay, stiff to firm 8.5	Bentonite pellet seal	
	6	6 8 13 13 26			
	7	7 1 3 5 8	Wet dark gray gravelly sandy loam (SILTY-SAND) with 15 to 30% subrounded gravel, very fine to medium size sand, little silt, loose 9.5		
15		6			
	8	8 2 3 4 5 7	Moist to extremely moist mixed dark gray and light olive gray gravelly silt loam (SANDY-SILT) with 15 to 30% mostly subangular gravel, little very fine to fine size sand, compact 11.0	6" PVC screen #10 slot	#2 size sand
	9	9 2 3 3 4 6	Extremely moist to wet dark gray gravelly sandy loam (SILTY-SAND) with 15 to 30% mostly subrounded to subangular gravel, very fine to medium size sand, little to some silt, compact, stratified, (noticed oil sheen on water)		
20	10	10 2 3 4 7	- - - - clear transition to - - - 13.0		

(1) 550 fine size sand

* Jack hammer and shovel down without sampling to 1.0 feet

Continued on sheet 1A.

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WT. 140 lb WT FALLING 30 " PER BLOW

LOGGED BY Dale M. Gramza/Geologist - Greg H. Gill/Geologist

SHEET 1 OF 1A

EARTH DIMENSIONS, INC.

Soil Investigations and Monitoring Well Installations

1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

RECOVERY WELL
HOLE NO. 1-90 continued (RW)

SURF ELV _____

PROJECT Continuous soil sampling and installation of new 6 inch recovery well, Agway Petroleum Products, East Aurora, NY
4F88

LOCATION 1.9 feet northwest of MW A

CLIENT AGWAY PETROLEUM PRODUCTS

DATE STARTED 12/14/90 COMPLETED 12/14/90

DEPTH FEET	SAMPLE NO.	BLOWS ON SAMPLER 0/6 6/12 12/18 18/24	N	DESCRIPTION & CLASSIFICATION
	1	2	4	
		2 2		
		3		
	2	2		
		2 2	4	See previous sheet.
5		4		
	3	2		
		5 7	12	
		6		
	4	3		
		3 3	6	
		3		
	5	2		
10		5 10	15	
		13		
	6	8		
		13 13	26	
		11		
	7	1		clear transition to 13.0
		3 5	8	
15		6		
	8	2		
		1 4	5	Wet brown loamy sand (SAND) with very fine to fine size sand, trace silt, loose soil material tends to liquefy when disturbed, thinly bedded (noticed oil sheen on ground water) 20.0
	9	2		
		3 3	6	
		4		
	10	2		
20		3		Boring completed at 20.0 feet.

WELL

6" PVC riser pipe
Cement bentonite grout
4.2
Bentonite pellet seal
7.2
(1) 7.7
6" PVC screen #10 slot
#2 size sand
9.2
19.2
20.

WATER TABLE & REMARKS

OVM Readings

Interval	ppm
1.0-3.0	0.0
3.0-5.0	1.9
5.0-7.0	1.2
at 6.0	4.0
7.0-9.0	62.4
9.0-11.0	256.0
11.0-13.0	259.4
13.0-15.0	57.1
15.0-17.0	14.9
17.0-19.0	7.1
19.0-20.0	6.0

(1) 550 fine size sand

Water level at 11.5 feet below ground surface at completion.

N = NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb WT FALLING 30 " PER BLOW

LOGGED BY Dale M. Gramza/Geologist - Greg H. Gill/Geologist

SHEET 1A OF 1A

DATE
STARTED: 5-7-92
FINISHED: 5-7-92

EMPIRE
SOILS INVESTIGATIONS INC.

SUBSURFACE LOG
BTA-92-100

BORING NO.: ESI-1
SURF. ELEV.: 917.2 ±
SHEET 1 OF 1

PROJECT: Spill No. 9109437
CLIENT: NYSDEC Pin No. SP91343

LOCATION: First Presbyterian Church
East Aurora, New York

DEPTH-FT.	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	P.I.D.	SYMBOL	SOIL OR ROCK CLASSIFICATION	NOTES
0		1	1	4	3	6	7	BG-2.2		3.5" TOPSOIL Brown Clayey SILT, Some Sand, trace glass, trace roots (Moist, FILL)	
		2	10	7	7	6	14	BG-2.3			
5		3	5	3	3	4	6	BG		Brown fine - coarse SAND and Silt, little fine Gravel (Moist, FILL) Contains trace brick	
		4	8	6	6	7	12	BG			
		5	5	4	6	5	10	BG		Brown fine - coarse SAND, little Silt, little Gravel (Moist-Wet, Loose) Contains trace silt, trace gravel (Wet) (Firm)	Driller Notes Water at Approximately 11-feet
10		6	21	5	5	6	10	BG			
		7	8	7	7	5	14	BG			
15		8	5	6	6	6	12	BG			Driller Notes "Running Sands" at 16-feet
		9	7	7	7	7	14	BG			
			AU	G	E	R					Auger from 18.0' to 20.0'
20										Boring Complete at 20.0' Ground Water Monitoring Well Installed at Boring Completion Well Tip Set at 18' below ground surface. Refer to Well Installation Diagram for Details	Free Standing Water Measured at 11' at Boring Completion P.I.D. = Organic vapor measurements taken with a Photoionization Detector (PID). Measurements recorded in parts per million (ppm). BG = Background PID measurements = 1.5 - 1.8 ppm
25											
30											
35											
40											

DRILLER: Ken Fuller
DRILL RIG: Acker ADII
METHOD OF INVESTIGATION: ASTM D-1586 Using 4 - 1/4" Hollow Stem Augers
WEATHER: Sunny, Warm
CLASSIFIED BY: L.A. Zimmerman

DATE STARTED: 5-7-92
FINISHED: 5-7-92

EMPIRE
SOILS INVESTIGATIONS INC.

SUBSURFACE LOG
BTA-92-100

BORING NO.: ESI-2
SURF. ELEV.: 918.1 ±
SHEET 1 OF 1

PROJECT: Spill No. 9109437
CLIENT: NYSDEC Pin No. SP91343

LOCATION: First Presbyterian Church
East Aurora, New York

DEPTH-FT.	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	P.I.D.	SYMBOL	SOIL OR ROCK CLASSIFICATION	NOTES
0		1	4	4	5	6	9	BG		Black - Brown Sandy SILT, Some Cinders, trace slag (Moist, Fill)	
		2	4	4	6	11	10	BG		Brown Clayey SILT, Little Shale Rock Fragment (Moist, Medium)	
5		3	4	12	9	10	21	BG-2.8			
		4	7	7	8	6	15	BG		Contains occasional Medium Sand Lense (Moist - Wet) Contains Little Sand	
		5	6	4	3	4	7	2.5-3.0			
10		6	4	4	5	8	9	BG-2.5		Brown Fine -Coarse SAND, Some Clayey Silt, trace gravel (Moist, Loose)	Driller Notes Water at Approximately 12-feet
		7	6	7	8	9	15	BG-3.0		Contains "AND" Fine - Coarse Gravel (Wet, Firm)	
15		8	22	13	13	15	26	BG		Contains Occasional Shale Rock Fragment	
		9	10	12	10	10	22	BG		Contains Little Silt, trace gravel	Driller Notes "Running Sands" at Bottom of Hole
		10	10	4	7	7	11	BG		(Loose)	
20										Boring Complete at 20.0'	Free Standing Water Measured at 16.2' at Boring Completion
										Ground Water Monitoring Well Installed at Boring Completion Well Tip Set at 19' below ground surface Refer to Well Installation Diagram for Details	P.I.D. = Organic vapor measurements taken with a Photoionization Detector (PID). Measurements recorded in parts per million (ppm). BG = Background PID Measurements = 1.8 - 2.4 ppm
25											
30											
35											
40											

DRILLER: Ken Fuller
DRILL RIG: Acker ADII
METHOD OF INVESTIGATION: ASTM D-1586 Using 4 - 1/4" Hollow Stem Augers
WEATHER: Sunny, Warm
CLASSIFIED BY: L.A. Zimmerman

DATE STARTED: 5-11-92
FINISHED: 5-11-92

EMPIRE
SOILS INVESTIGATIONS INC.

SUBSURFACE LOG
BTA-92-100

BORING NO.: ESI-3
SURF. ELEV.: 916.4 ±
SHEET 1 OF 1

PROJECT: Spill No. 9109437
CLIENT: NYSDEC Pin No. SP91343

LOCATION: First Presbyterian Church
East Aurora, New York

DEPTH-FT.	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	P.I.D.	SYMBOL	SOIL OR ROCK CLASSIFICATION	NOTES
0			AU	G	E	R				1' ASPHALTIC CONCRETE	
		1	7	7	8	6	15	BG-1.2		Brown Clayey SILT, Little Fine - Coarse Sand, trace gravel, trace broken rock fragment, trace brick (Moist, FILL)	
5		2	5	5	5	3	10	BG-1.8			
		3	4	4	4	34	8	7.0-8.0		Brown Clayey SILT, Little Sand, occasional broken rock fragment (Moist, Medium)	PID reading 10.5 - 11 ppm inside augers with augers set at 10' Driller Notes Water at Approximately 10-feet
		4	7	5	5	5	10	13.7-14			
10		5	11	5	3	4	8	9.5-10		Brown Fine - Coarse SAND, Little fine Gravel, Little Silt (Wet, Loose)	
		6	5	7	12	8	19	2.5-3.0		Contains "AND" Fine - Medium Gravel, trace silt (Firm)	
15		7	6	8	10	14	18	2.5-3.0			
		8	19	16	12	14	28	1.5-1.8			
20										Boring Complete at 18'	Free Standing Water measured at 15.5' at Boring Completion
										Ground Water Monitoring Well Installed at Boring Completion Well Tip Set at 17' below ground surface Refer to Well Installation Diagram for Details	P.I.D = Organic vapor measurements taken with a Photoionization Detector (PID). Measurements recorded in parts per million (ppm). BG = Background PID measurements = 0.8 - 1.0 ppm
25											
30											
35											
40											

DRILLER: Ken Fuller
DRILL RIG: Acker ADII
METHOD OF INVESTIGATION: ASTM D-1586 Using 4 - 1/4" Hollow Stem Augers
WEATHER: Sunny, Warm
CLASSIFIED BY: L.A. Zimmerman

DATE
STARTED: 5-8-92
FINISHED: 5-8-92

EMPIRE
SOILS INVESTIGATIONS INC.

SUBSURFACE LOG
BTA-92-100

BORING NO.: ESI-6
SURF. ELEV.: 914.9 ±
SHEET 1 OF 1

PROJECT: Spill No. 9109437
CLIENT: NYSDEC Pin No. SP91343

LOCATION: First Presbyterian Church
East Aurora, New York

DEPTH-FT.	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	P.I.D.	SYMBOL	SOIL OR ROCK CLASSIFICATION	NOTES
0		1	8	6	5	5	11	BG		3" TOPSOIL Brown Clayey SILT, Little Sand, trace roots, trace cinders, trace brick (Moist, FILL)	
		2	4	3	3	5	6	BG			
5		3	16	17	19	17	36	BG		Brown Fine - Medium SAND and Silt, trace gravel, trace clay (Moist, Loose)	Poor Recovery Sample #3
		4	10	10	9	6	19	BG		(Compact)	
		5	3	4	12	21	16	BG		Becomes Mottled (Firm) Contains Little Broken Shale Rock Fragments	
10		6	13	7	7	13	14	BG		(Moist - Wet)	Driller Notes Water at Approximately 10-feet
		7	16	11	13	13	24	BG		Contains "AND" fine Gravel, trace silt (Wet, Firm)	
15		8	30	88	16	14	104	BG		(Very Compact)	Driller notes "Running Sands" at bottom of hole
		9	10	9	10	7	19	BG			
20										Boring Complete at 18' Ground Water Monitoring Well Installed at Boring Completion Well Tip Set at 17' below ground surface Refer to Well Installation Diagram for Details	Free Standing Water measured at 10' at Boring Completion P.I.D. = Organic vapor measurements taken with a Photoionization Detector (PID). Measurements recorded in parts per million (ppm). BG = Background PID measurements = 1.5 - 2.0 ppm
25											
30											
35											
40											

DRILLER: [illegible]
DRILL RIG: [illegible]

METHOD OF INVESTIGATION: ASTM D-1586 Using 4 - 1/4" Hollow Stem Augers
WEATHER: Sunny, Warm
CLASSIFIED BY: L.A. Zimmerman

Matrix Environmental Technologies Inc.

SUBSURFACE LOG

PROJECT/LOCATION: AGWAY/Main Street, East Aurora, NY
PROJECT #: 93-065
CLIENT: Agway Energy
WELL/BORING #: MW5 A-2
DATE STARTED: 2/12/93 DATE COMPLETED: 9/24/93
RECORDED BY: EAP MW10
GROUNDWATER DEPTH WHILE DRILLING: AFTER COMPLETION:
WEATHER: Sunny 55° DRILL RIG: Mobil D-40 (track) DRILLERS: Buffalo Drilling
DRILL TYPE/SIZE: 3 3/4 Auger SAMPLER HAMMER: WEIGHT FALL

SAMPLE NO.	OVA/HNU READING	DEPTH OF SAMPLE (FEET) FROM	TO	SAMPLE TYPE	BLOWS ON SAMPLER PER 6"	N	AMOUNT	MATERIAL CLASSIFICATION (BURMISTER SYSTEM)
								f-fine m-medium c-coarse; "and" = 35 - 50%, "some" = 20 - 35%, "little" = 10 - 20%, "trace" = 0 - 10%
S1	0.0	4	6	SS	8-6-4-4	10	50%	Brown fm SILT and CLAY some fm GRAVEL Mosit no odor
S2	193.2	9	11	SS	11-6-6-5	12	50%	Gray SILT and SAND Wet slight petro odor
S3	12.7	14	16	SS	1-6-11-15	17	100%	Brown fm SAND Wet no odor

REMARKS:

*SS-SPLIT SPOON SAMPLE U-UNDISTURBED TUBE P-PISTON TUBE C-CORE

Matrix Environmental Technologies Inc.

SUBSURFACE LOG

PROJECT/LOCATION: AGWAY/Main Street, East Aurora, NY
PROJECT #: 93-065
CLIENT: Agway Energy
WELL/BORING #: MW6 A(-7
DATE STARTED: 2/12/93
DATE COMPLETED: 9/24/93
RECORDED BY: EAP
GROUNDWATER DEPTH WHILE DRILLING:
AFTER COMPLETION:
WEATHER: Sunny 55°
DRILL RIG: Mobil D-40 (track)
DRILLERS: Buffalo Drilling
DRILL TYPE/SIZE: 3 3/4 Auger
SAMPLER HAMMER: WEIGHT _____ FALL _____

SAMPLE NO.	OVA/HNU READING	DEPTH OF SAMPLE (FEET) FROM	TO	SAMPLE TYPE	BLOWS ON SAMPLER PER 6"	N	AMOUNT	MATERIAL CLASSIFICATION (BURMISTER SYSTEM)
								f-fine, m-medium, c-coarse; "and" = 35 - 50%, "some" = 20 - 35%, "little" = 10 - 20%, "trace" = 0 - 10%
S1	0.0	4	6	SS	18-13-16-16	29	25%	Brown fm SAND and SILT some mc GRAVEL Damp no odor
S2	94.3	9	11	SS	1-2-3-2	5	25%	Brown mc GRAVEL Wet slight petro odor
S3	12	15	17		WOR 5-10-6	15	100%	Brown fm SAND Wet slight petro odor
								WATER @ 11.5'

REMARKS:

*SS-SPLIT SPOON SAMPLE U-UNDISTURBED TUBE P-PISTON TUBE C-CORE

Matrix Environmental Technologies Inc.

SUBSURFACE LOG

PROJECT/LOCATION: AGWAY/Main Street, East Aurora, NY
PROJECT #: 93-065
CLIENT: Agway Energy
WELL/BORING #: MW7 AG 2
DATE STARTED: 2/12/93 DATE COMPLETED: 9/24/93
RECORDED BY: EAP
GROUNDWATER DEPTH WHILE DRILLING: AFTER COMPLETION:
WEATHER: Sunny 55° DRILL RIG: Mobil D-40 (track) DRILLERS: Buffalo Drilling
DRILL TYPE/SIZE: 3 3/4 Auger SAMPLER HAMMER: WEIGHT FALL

SAMPLE NO.	OVA/HNU READING	DEPTH OF SAMPLE (FEET) FROM	TO	SAMPLE TYPE	BLOWS ON SAMPLER PER 6"	N	AMOUNT	MATERIAL CLASSIFICATION (BURMISTER SYSTEM)
								f-fine m-medium c-coarse "and" = 35 - 50% "some" = 20 - 35% "little" = 10 - 20% "trace" = 0 - 10%
S1	0.0	4	6	SS	10-6-4-3	10	50%	Brown SILT and CLAY Dry no odor
S2	0.0	9	11	SS	4-6-10-8	16	75%	Brown fm SAND Damp no odor
S3	11.3	15	17	SS	5-8-7-12	15	75%	Brown mf SAND Wet no odor

REMARKS:

*SS-SPLIT SPOON SAMPLE U-UNDISTURBED TUBE P-PISTON TUBE C-CORE

Matrix Environmental Technologies Inc.

SUBSURFACE LOG

PROJECT/LOCATION: AGWAY/Main Street, East Aurora, NY
PROJECT #: 93-065
CLIENT: Agway Energy
WELL/BORING #: MW8 AG-9
DATE STARTED: 2/12/93 DATE COMPLETED: 9/24/93
RECORDED BY: EAP
GROUNDWATER DEPTH WHILE DRILLING: AFTER COMPLETION:
WEATHER: Sunny 55° DRILL RIG: Mobil D-40 (track) DRILLERS: Buffalo Drilling
DRILL TYPE/SIZE: 3 3/4 Auger SAMPLER HAMMER: WEIGHT FALL

SAMPLE NO.	OVA/HNU READING	DEPTH OF SAMPLE (FEET) FROM	TO	SAMPLE TYPE	BLOWS ON SAMPLER PER 6"	N	AMOUNT	MATERIAL CLASSIFICATION (BURMISTER SYSTEM)
								f-fine m-medium c-coarse "and" = 35 - 50% "some" = 20 - 35% "little" = 10 - 20% "trace" = 0 - 10%
S1	0.0	4	6	SS	14-12-14-9	26	50%	Brown SILT and CLAY trace m GRAVEL (shale) Dry no odor
S2	0.0	9	11	SS	7-8-7-8	15	25%	Brown SILT and CLAY trace GRAVEL Moist no odor
S3	72.3	15	17	SS	2-5-7-5	12	100%	Brown SAND Wet slight petro odor

REMARKS:

*SS-SPLIT SPOON SAMPLE U-UNDISTURBED TUBE P-PISTON TUBE C-CORE

Matrix Environmental Technologies Inc.

SUBSURFACE LOG

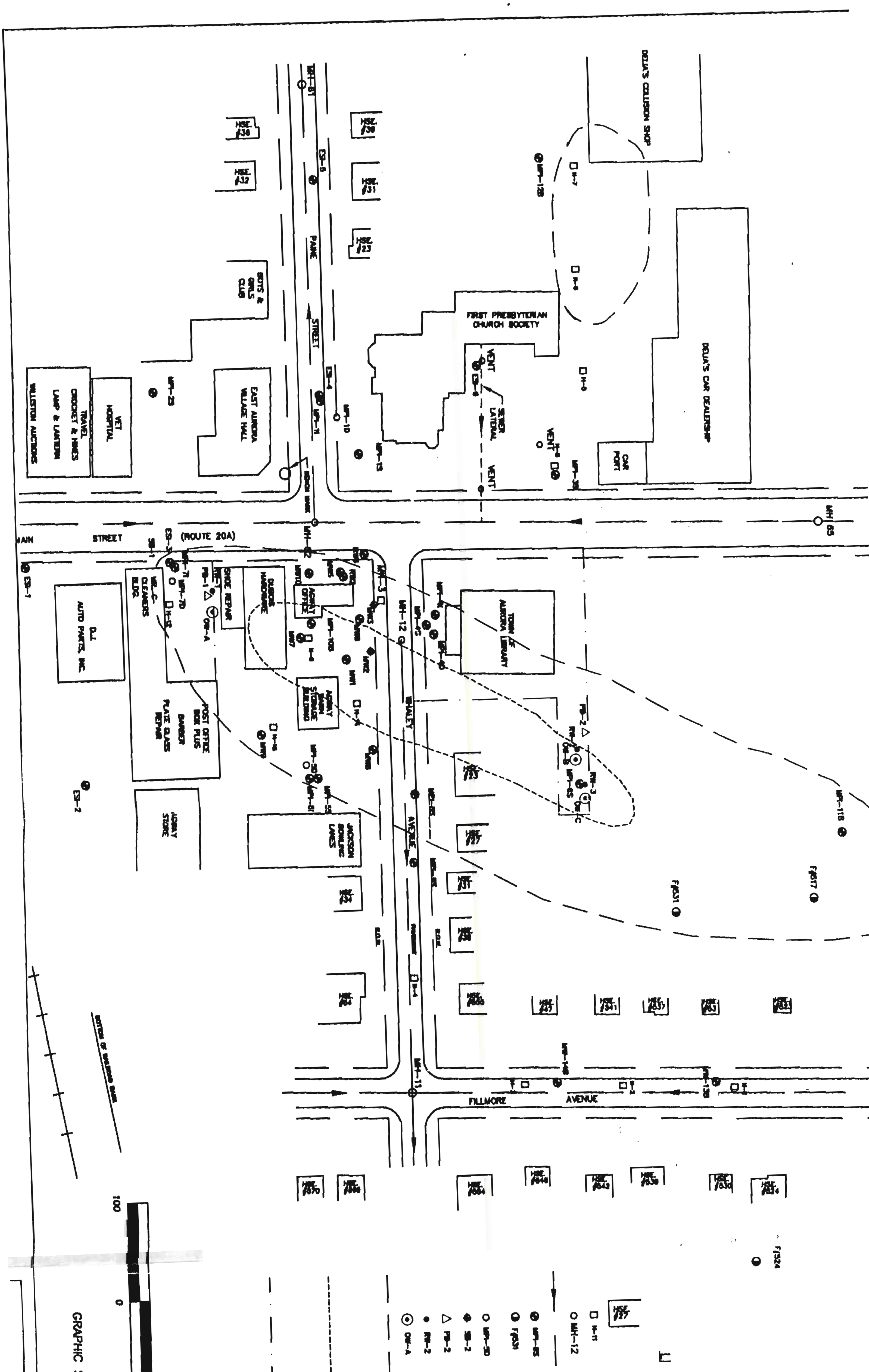
PROJECT/LOCATION: AGWAY/Main Street, East Aurora, NY
PROJECT #: 93-065
CLIENT: Agway Energy
WELL/BORING #: MW9 A(5)0
DATE STARTED: 2/12/93 DATE COMPLETED: 9/24/93
RECORDED BY: EAP
GROUNDWATER DEPTH WHILE DRILLING: AFTER COMPLETION:
WEATHER: Sunny 55° DRILL RIG: Mobil D-40 (track) DRILLERS: Buffalo Drilling
DRILL TYPE/SIZE: 3 3/4 Auger SAMPLER HAMMER: WEIGHT FALL

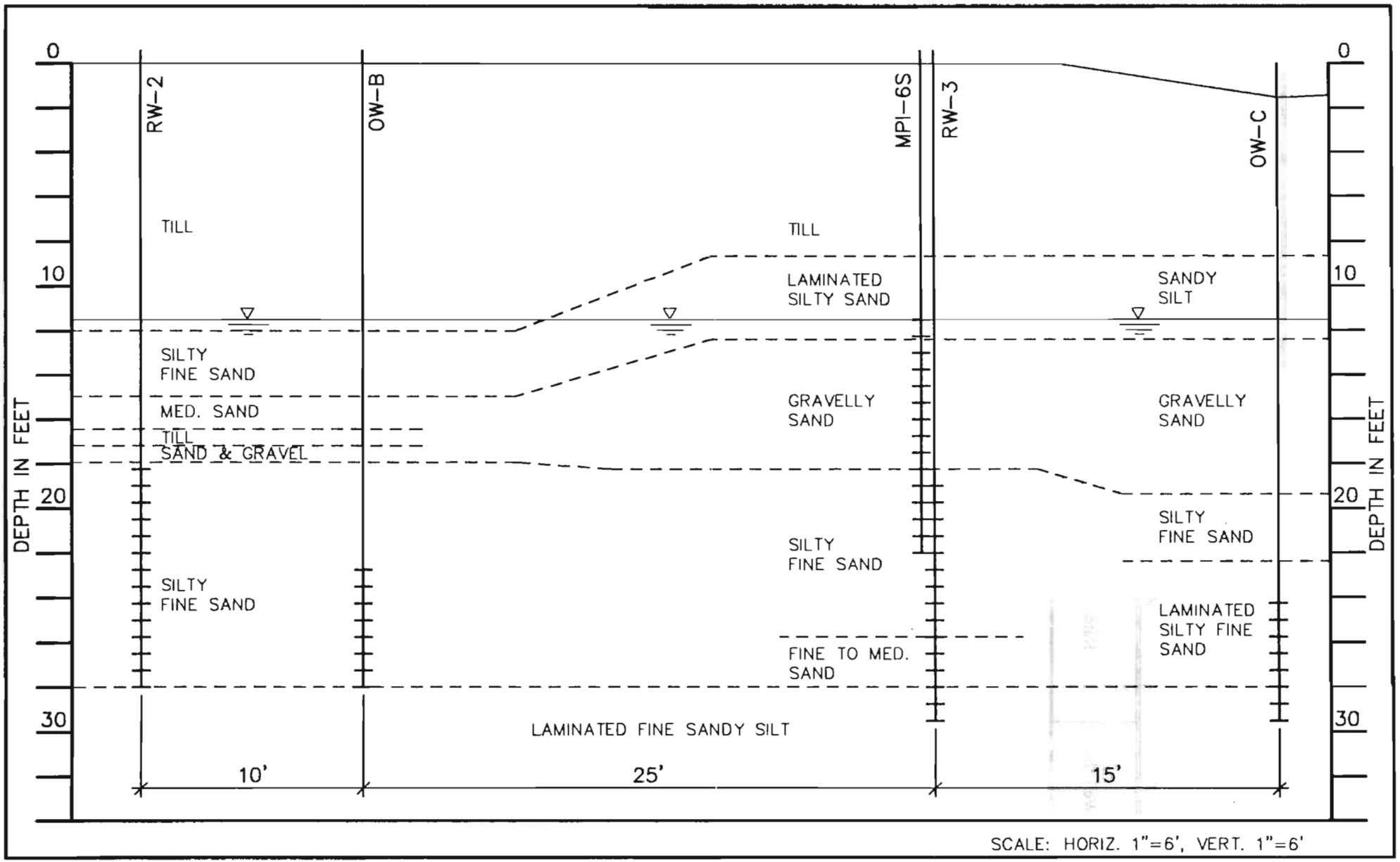
SAMPLE NO.	OVA/HNU READING	DEPTH OF SAMPLE (FEET) FROM	TO	SAMPLE TYPE	BLOWS ON SAMPLER PER 6"	N	AMOUNT	MATERIAL CLASSIFICATION (BURMISTER SYSTEM)
								f-fine, m-medium, c-coarse; "and" = 35 - 50%, "some" = 20 - 35%, "little" = 10 - 20%, "trace" = 0 - 10%
S1	140.3	4	6	SS	4-5-10-9	15	75%	Gray fm SILT and CLAY trace m GRAVEL Damp petro odor
S2	140.6	9	11	SS	6-7-11-18	18	75%	Gray fm SILT and GRAVEL Damp petro odor
S3	49.5	15	17	SS	3-5-8-9	13	75%	Gray mc SAND Wet petro odor
								WATER @ 12'10"

REMARKS:

*SS-SPLIT SPOON SAMPLE U-UNDISTURBED TUBE P-PISTON TUBE C-CORE

This section also includes borehole logs for boreholes PB-1 and PB-2, and borehole logs/well construction details for monitoring wells RW-1, RW-2, RW-3, OW-A, OW-B, and OW-C.


MAIN STREET (ROUTE 20A)
PAINE STREET
WHALEY AVENUE
FILLMORE AVENUE
FIRST PRESBYTERIAN CHURCH SOCIETY
DELIA'S COLLISION SHOP
DELIA'S CAR DEALERSHIP
CAR PORT
EAST AURORA VILLAGE HALL
VET HOSPITAL
TRAVEL CROCKET & HIKES LAMP & LANTERN
WILLISTON AUCTIONS
BOYS & GIRLS CLUB
TOWN OF AURORA LIBRARY
JACKSON BOWLING LANES
POST OFFICE BOX PLUS
BARBER
PLATE GLASS REPAIR
D.J. AUTO PARTS, INC.
DUBOIS HARDWARE
SHOE REPAIR
AGWAY OFFICE
AGWAY BARN STORAGE BUILDING
AGWAY STORE
SEWER LATERAL
VENT
GRAPHIC
100
0



LEGEND

GEOLOGIC CONTACT

WELL RISER

WELL SCREEN

WATER TABLE

MALCOLM PIRNIE

DEC-31-GXS

MR. C CLEANERS
AQUIFER TESTING REPORT

GEOLOGIC CROSS-SECTION AT TEST ZONE B

NYSDEC NOVEMBER 1995

FIGURE 4-1

MALCOLM PIRNIE

TABLE 4-1

MR. C CLEANER SUPERFUND SITE
AQUIFER TESTING PROGRAM

AQUIFER PARAMETERS - TEST ZONE B

Well No.	Rate	Transmissivity (gpd/ft)	Horiz. Hydraulic Conductivity (cm/s)	Ratio of Horiz/Vert. Hydraulic Conductivity
OW-B	4.3 gpm Recovery	1109	2.9E-3	4.8
	5.0 gpm Pumping	1129	3.0E-3	4.8
	5.0 gpm Recovery	1181	3.1E-3	4.8
OW-C	4.3 gpm Recovery	832	2.2E-3	1.7
	5.0 gpm Pumping	886	2.1E-3	1.7
	5.0 gpm Recovery	819	2.3E-3	1.8

MALCOLM PIRNIE

TABLE 4-2

MR. C CLEANER SUPERFUND SITE
AQUIFER TESTING PROGRAM

GROUNDWATER SAMPLING RESULTS [1, 2]

Parameter	RW-1	RW-2 (PW-B)	OW-B	MP1-6S	OW-C	RW-3 Infl. #1	RW-3 Infl. #2	RW-3 Effluent
Volatile Organic (ug/l)								
Methylene Chloride	2 JB	3 JB	<10	3 JB	11 B	2 JB	2 JB	3 JB
1,1 Dichloroethene	<10	<10	<10	12	6 J	<10	2 J	<10
1,2 Dichloroethene	8 J	<10	9 J	26	26	16	20	<10
1,1,1 Trichloroethane	3 J	<10	<10	<10	<10	<10	<10	<10
1,2 Dichloropropane	<10	<10	<10	2 JB	<10	<10	<10	<10
Trichloroethene	3 J	18	110	360 J	180 J	290 J	340 J	<10
Tetrachloroethene	680	66	3000	1700	2100	18,000	18,000	<10
Chlorobenzene	4 J	<10	<10	<10	<10	<10	<10	<10
Metals (ug/l)								
Aluminum	—	—	—	—	—	130 B	136 B	1325 B
Calcium	—	—	—	—	—	152,000	157,000	156,000
Copper	—	—	—	—	—	44	<4.6	<4.6
Iron (total)	—	—	—	—	—	1650	1740	<75
Iron (dissolved)	—	—	—	—	—	1640	1700	—
Lead	—	—	—	—	—	44.6	<3.1	<3.1
Magnesium	—	—	—	—	—	25,400	26,200	25,900
Manganese (total)	—	—	—	—	—	386	359	379
Manganese (dissolved)	—	—	—	—	—	386	360	—
Mercury	—	—	—	—	—	<0.20	<0.20	<0.20
Zinc	—	—	—	—	—	24	4.6 B	<1.8
Cyanide	—	—	—	—	—	<10	<10	<10
Other (mg/l)								
Alkalinity	—	—	—	—	—	317	288	—
Hardness	—	—	—	—	—	494	515	—
Oil & Grease	—	—	—	—	—	—	—	1
Sulfate	—	—	—	—	—	41	49	—
Total Dissolved Solids	—	—	—	—	—	—	—	2580
Total Suspended Solids	—	—	—	—	—	22	4	6

Notes: *(1) Only parameters detected above the analytical detection limit in more than one sample are listed.*
(2) J = Estimated Value
B = Parameter detected in laboratory blank.
(—) Not Analyzed

BOREHOLE LOG PB-1

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 07/21/95
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JB/RHO
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % ROD.	WELL DIAGRAM	COMMENTS (USCS)
1	-1	Logging begins at 10.0'											
		For 0.0-10.0' description see MPI-7D											
2	-2												
3	-3												
4	-4												
5	-5												
6	-6												
7	-7												
8	-8												
9	-9												
10	-10	Brown SILTY CLAY, w/ some sandy gravel, till		SS	8 8 8 7	0.8	16						JHS=32 ppm
11	-11												JHS=220 ppm
		STRATIFIED Brown moist SAND, w/ some gravel											
12	-12												JHS=42 ppm
		Brown wet medium SAND, with little to some gravel		SS	4 3 3 4	1.3	6						
13	-13												
14	-14	Increasing moisture											JHS=38 ppm
15	-15			SS	3 3 4 6	1.3	7						
16	-16												JHS=72 ppm
		Brown wet medium SAND, some f sand, trace silt, SP											JHS=1.0 ppm
17	-17			SS	6 10 8 6	1.5	18						
		Brown wet SILTY SAND with fine GRAVEL											
18	-18												JHS=5.0 ppm
		Wet GRAVEL and SAND, mostly medium sand											
19	-19			SS	7 4 4 6	0.8	8						
20	-20												

BOREHOLE LOG PB-1

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 07/21/95
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JB/RHO
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

\- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	-21	Brown wet SANDY GRAVEL		SS	10 9 13 8	0.7	22						JHS=13 ppm
22	-22	Brown becoming gray wet SAND with gravel											JHS=9.0 ppm JHS=18 ppm
23	-23	Brown wet SILTY SAND and GRAVEL		SS	12 8 7 8	1.0	15						JHS=7 ppm
24	-24	Brown wet SANDY GRAVEL No Recovery											
25	-25			SS	12 11 12 11	0.0	23						
26	-26	Brown wet SANDY GRAVEL, firm to loose, coarse and medium sand											JHS=9 ppm
27	-27			SS	12 13 9 10	1.0	22						
28	-28	Boring complete @ 28'. Borehole filled with drill cuttings.											
29	-29												
30	-30												
31	-31												
32	-32												
33	-33												
34	-34												
35	-35												
36	-36												
37	-37												
38	-38												
39	-39												
40	-40												

BOREHOLE LOG PB-2

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 07/15/95
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JMA/BCH
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	-1	Logging begins @ 10.0'											
		For 0.0-10.0' description see MPI-6S.											
10	-10	Brown moist SANDY GRAVEL, ang. gravel, loose when disturbed, massive, till		SS	11 10 8 9	1.1	18						JHS=0.5 ppm
11	-11	Olive brown moist GRAVELLY SAND, loose when dist., massive, till											JHS=0.5 ppm
12	-12	STRATIFIED Brown wet SILTY fine SAND		SS	3 3 8 8	0.1	11						JHS=0.8 ppm
14	-14	Brown wet SILTY f SAND, little silt, mostly f & med. sand, liquifies when dist.		SS	3 3 5 12	1.4	8						JHS=0.2 ppm
15	-15	Brown wet SAND, tr silt, mostly med w/ some f sand											JHS=0.2 ppm
17	-17	Brown moist GRAVELLY SAND, large cobble in silt-f sand matrix, massive, till		SS	20 22 15 7	2.0	37						JHS=0.5 ppm
		STRATIFIED Brown GRAVEL w/ sand											JHS=0.5 ppm
18	-18	Brown wet SANDY SILT, little f sand, liq. when dist.											JHS=0.7 ppm
19	-19	Gray wet SILTY f SAND, little silt, mostly f, tr-little med., liq. when dist.		SS	3 6 9 10	2.0	15						JHS=0.7 ppm
20	-20	Gray wet f SAND, little silt, liq. when dist.											JHS=0.0 ppm

BOREHOLE LOG PB-2

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 07/15/95
DRILLING METHOD: 2-1/4" HSA
LOGGED/CHECKED BY: JMA/BCH
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	-21	Gray wet SILTY f SAND, some vf sand, little-some silt, liq. when dist.		SS	1 3 4 8	1.1	7						JHS=0.3 ppm JHS=0.6 ppm
22	-22												JHS=0.7 ppm
23	-23	Gray wet f SAND, little vf, tr-little silt, liq. when dist.		SS	4 5 8 8	2.0	13						
24	-24												JHS=0.4 ppm
25	-25	Gray wet SAND, tr silt, mostly f sand, tr medium, liq. slightly when dist.		SS	2 4 3 6	1.5	7						
26	-26												JHS=0.8 ppm
27	-27	Gray CLAYEY SILT, laminated		SS	2 6 6 6	1.8	12						JHS=0.6 ppm JHS=0.5 ppm
28	-28	Gray wet SAND, tr silt, mostly f, tr vf-medium, liq. when dist.											
29	-29	Advanced augers to 24' BGS. Sampled to 28' BGS. Borehole backfilled with drill cuttings.											
30	-30												
31	-31												
32	-32												
33	-33												
34	-34												
35	-35												
36	-36												
37	-37												
38	-38												
39	-39												
40	-40												

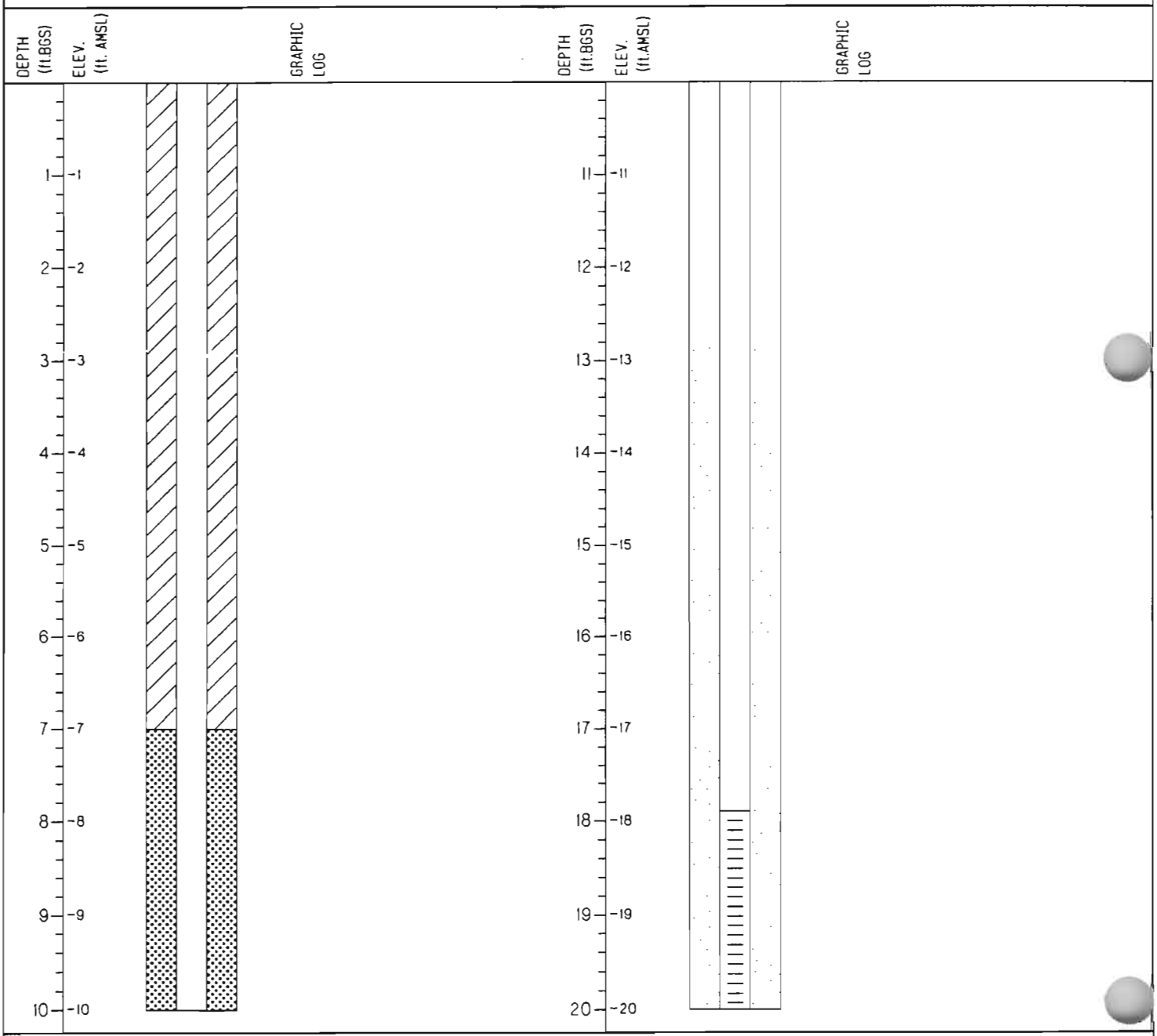
WELL/BOREHOLE RW-1 CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 08/14/95 - 08/15/95
DRILLING METHOD: 10 1/4" HSA
LOGGED/CHECKED BY: JPH
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 7.0 feet
- BENTONITE SLURRY SEAL, 7.0 to 10.0 feet
- MORIE #3 SAND PACK, 10.0 to 30.0 feet
- 6-INCH DIAM. CONTINUOUS SLOT (0.080") SCREEN, 17.9 to 27.9 feet
- 4-INCH DIAMETER CASING, 0 feet
- 6-INCH DIAMETER RISER, 0.0 to 17.9 Feet
- 8-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG



NOTES:

WELL/BOREHOLE RW-1 CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 08/14/95 - 08/15/95
DRILLING METHOD: 10 1/4" HSA
LOGGED/CHECKED BY: JPH
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

BENTONITE-CEMENT SEAL
0 to 7.0 feet

BENTONITE SLURRY SEAL
7.0 to 10.0 feet

MORIE #3 SAND PACK
10.0 to 30.0 feet

6-INCH DIAM. CONTINUOUS SLOT (0.060") SCREEN
17.9 to 27.9 feet

4-INCH DIAMETER CASING
0 feet

6-INCH DIAMETER RISER
0.0 to 17.9 Feet

6-INCH DIAMETER BOREHOLE
0 feet

GRAPHIC LOG

DEPTH (ft.BGS)	ELEV. (ft. AMSL)	GRAPHIC LOG	DEPTH (ft.BGS)	ELEV. (ft.AMSL)	GRAPHIC LOG
21	-21		31	-31	
22	-22		32	-32	
23	-23		33	-33	
24	-24		34	-34	
25	-25		35	-35	
26	-26		36	-36	
27	-27		37	-37	
28	-28		38	-38	
29	-29		39	-39	
30	-30		40	-40	

NOTES:

WELL/BOREHOLE RW-2 CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 08/15/95
DRILLING METHOD: 8 1/4" HSA
LOGGED/CHECKED BY: JRB
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

BENTONITE-CEMENT SEAL
0.0 to 8.0 feet

BENTONITE SLURRY SEAL
8.0 to 10.0 feet

MORIE #0 SAND PACK
10.0 to 28.0 feet

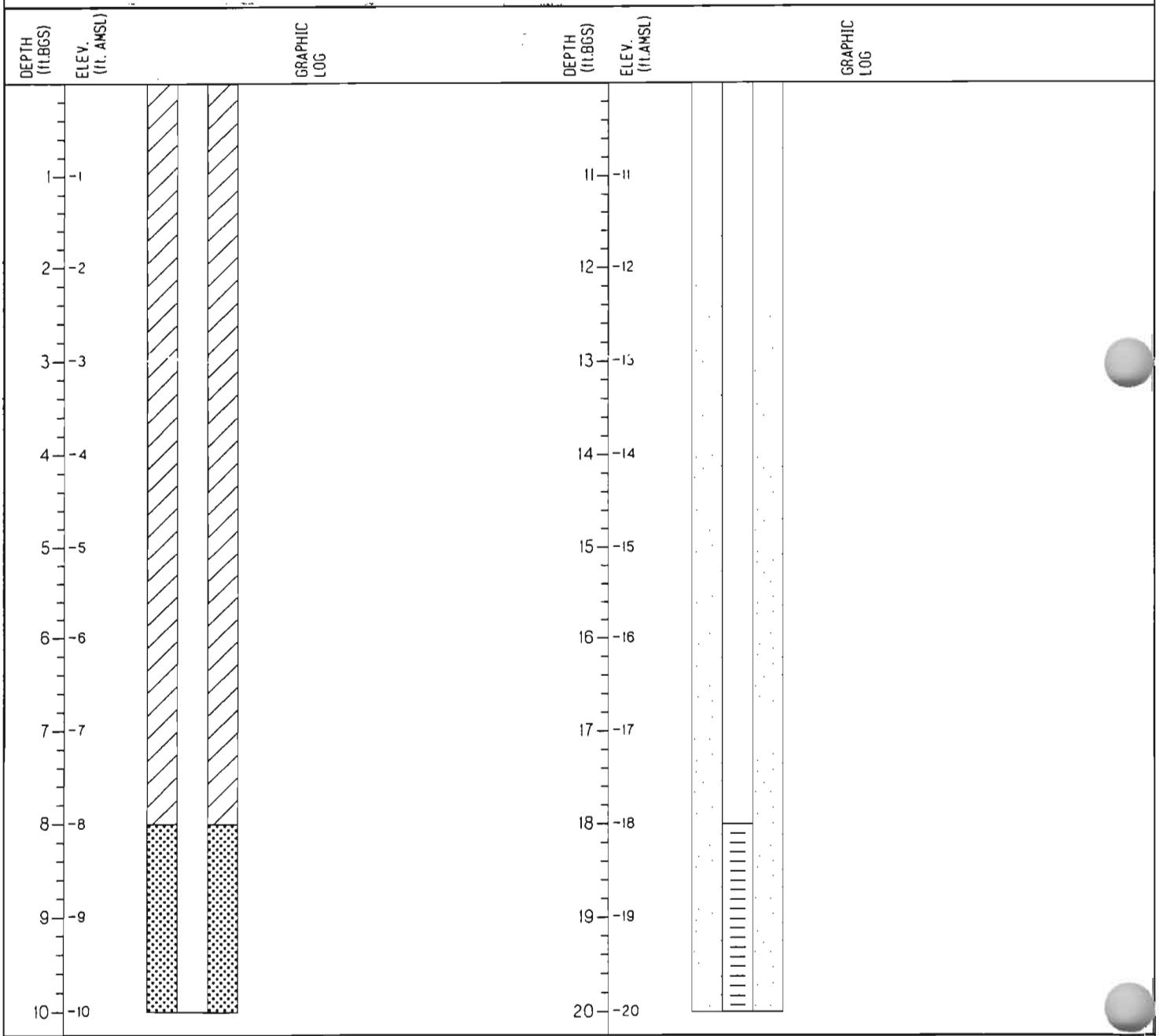
4-INCH DIAMETER SLOTTED (0.010")SCREEN
18.0 to 28.0 feet

4-INCH DIAMETER CASING
0.0 feet

4-INCH DIAMETER RISER
0.0 to 18.0 Feet

8-INCH DIAMETER BOREHOLE
0 feet

GRAPHIC LOG



NOTES:

WELL/BOREHOLE RW-2 CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 08/15/95
DRILLING METHOD: 8 1/4" HSA
LOGGED/CHECKED BY: JRB
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0.0 to 8.0 feet
- BENTONITE SLURRY SEAL 8.0 to 10.0 feet
- MORIE #0 SAND PACK 10.0 to 28.0 feet
- 4-INCH DIAMETER SLOTTED (0.010")SCREEN 18.0 to 28.0 feet
- 4-INCH DIAMETER CASING 0.0 feet
- 4-INCH DIAMETER RISER 0.0 to 18.0 Feet
- 8-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG

DEPTH (ft.BGS)	ELEV. (ft. AMSL)	GRAPHIC LOG	DEPTH (ft.BGS)	ELEV. (ft.AMSL)	GRAPHIC LOG
21	-21		31	-31	
22	-22		32	-32	
23	-23		33	-33	
24	-24		34	-34	
25	-25		35	-35	
26	-26		36	-36	
27	-27		37	-37	
28	-28		38	-38	
29	-29		39	-39	
30	-30		40	-40	

NOTES:

BOREHOLE LOG RW-3

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 09/07/95
DRILLING METHOD: 6-1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	-1	Logging begins at 10.0'											
		For 0-10' description see MPI-6S.											
2	-2												
3	-3												
4	-4												
5	-5												
6	-6												
7	-7												
8	-8												
9	-9												
10	-10	LAMINATED Brown moist SILTY SAND, mostly fine & very fine sand, some silt, SM		SS	2 2 5 6	1.7	7						JHS=0.0 ppm
11	-11	Grey brown moist SILTY CLAYEY SAND											
12	-12	Grey wet SILTY SAND, mostly f & vf, some silt, t-little clay, SM		SS	11 10 12 10	2.0	22						JHS=6.0 ppm
13	-13	Brown SILTY SAND, mostly f & vf, some silt, t clay, 1.125 in. layer of c sand-oxidized @ 11.1'											
14	-14	STRATIFIED Brown wet SAND, f-c sand		SS	3 4 7 10	0.5	11						JHS=60 ppm
15	-15	Brown ext moist SANDY SILT, w/ little vf sand, sharp boundary @ 12.3 ft., .5 in. thick-gray sand											
16	-16	Brown wet SANDY SILT, w/ little vf sand		SS	8 8 10 12	0.6	18						JHS=162 ppm
17	-17	STRATIFIED,Brown wet SAND, f-c sand											
18	-18	Wet SAND and GRAVEL, rounded and black shale, f-c sand, compact becoming sand & gravel @ 14.0'		SS	2 8 11 6	1.1	19						JHS=220 ppm
19	-19	Grey GRAVELLY SAND, black shale, compact, f-c sand											
20	-20	Grey wet SILTY SAND, mostly f and vf sand, little silt											

BOREHOLE LOG RW-3

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 09/07/95
DRILLING METHOD: 6-1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SSJ Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
21	-21	Grey brown SAND, f-c, trace f gravel, loose when disturbed		SS	- - 2 5	1.5	2						JHS=230 ppm
22	-22	Grey SAND, f-m sand, loose when disturbed											
23	-23	Grey SILTY SAND, little-some silt, vf sand, liq. when disturbed		SS	2 2 3 4	1.9	5						JHS=28 ppm
24	-24	Grey wet SAND, trace silt, mostly f-m sand, occ. gravel, liq. when disturbed											
25	-25	Grey wet SAND, mostly medium, little fine, loose when disturbed		SS	WR WH 1 3	1.1	1						JHS=180 ppm
26	-26	Encountered running sands											
27	-27			SS	5 8 5 6	2.0	13						JHS=260 ppm
28	-28												
29	-29												
30	-30	Sampled to 28.0'. Boring complete @ 30.0'. Installed Pumping well. Natural sands filled borehole to 29.3' while installing well. Well bottom at 29.3'.											
31	-31												
32	-32												
33	-33												
34	-34												
35	-35												
36	-36												
37	-37												
38	-38												
39	-39												
40	-40												

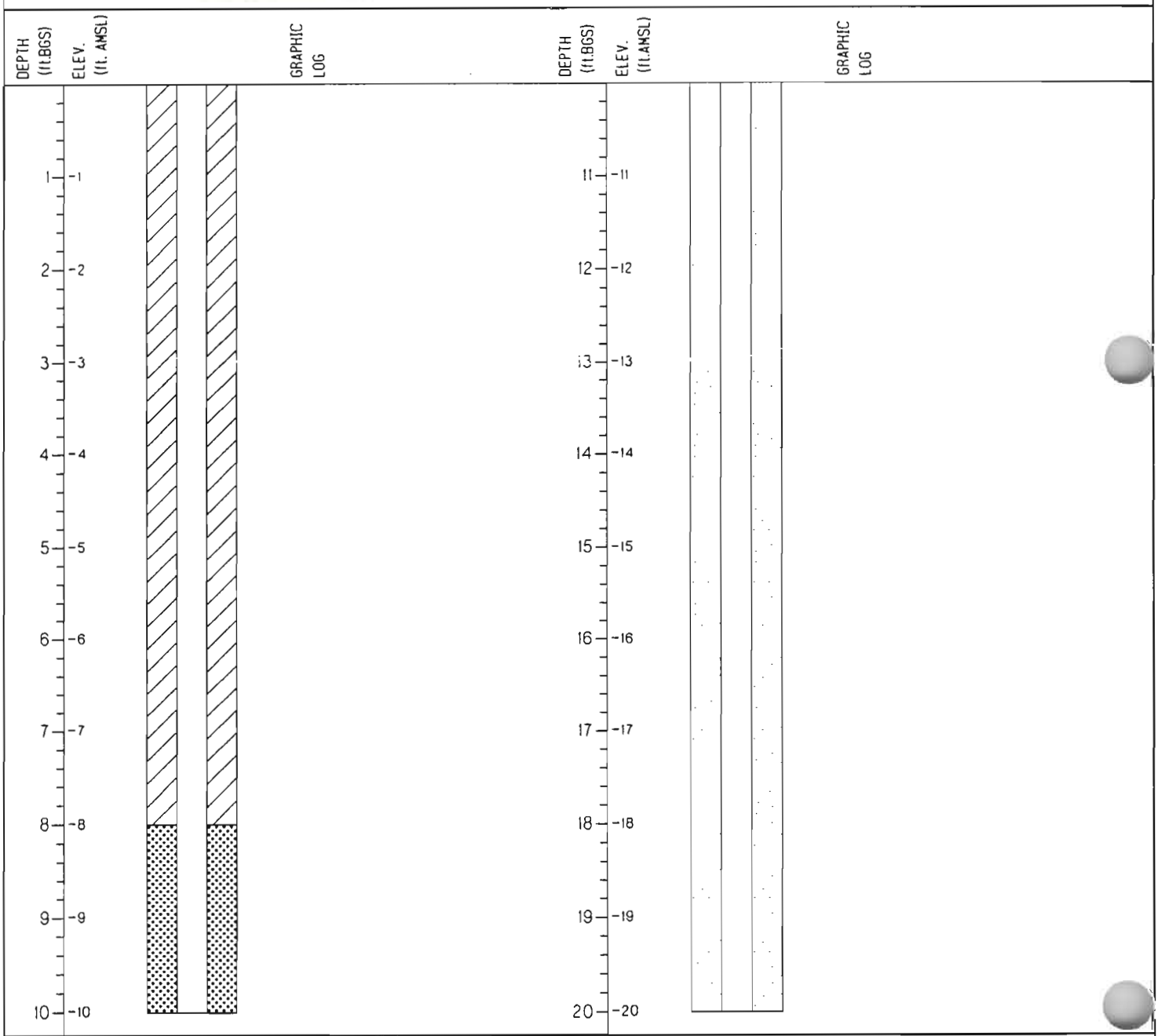
WELL/BOREHOLE OW-A CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 07/21/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JRB
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0.0 to 8.0 feet
- BENTONITE SLURRY SEAL 8.0 to 10.0 feet
- MORIE #0 SAND PACK 10.0 to 28.0 feet
- 2-INCH DIAMETER SLOTTED (0.010")SCREEN 23.0 to 28.0 feet
- 4-INCH DIAMETER CASING 0.0 feet
- 2-INCH DIAMETER RISER 0.0 to 23.0 Feet
- 8-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG



NOTES:

WELL/BOREHOLE OW-A CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 07/21/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JRB
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

BENTONITE-CEMENT SEAL
0.0 to 8.0 feet

BENTONITE SLURRY SEAL
8.0 to 10.0 feet

MORIE #0 SAND PACK
10.0 to 28.0 feet

2-INCH DIAMETER SLOTTED (0.010")SCREEN
23.0 to 28.0 feet

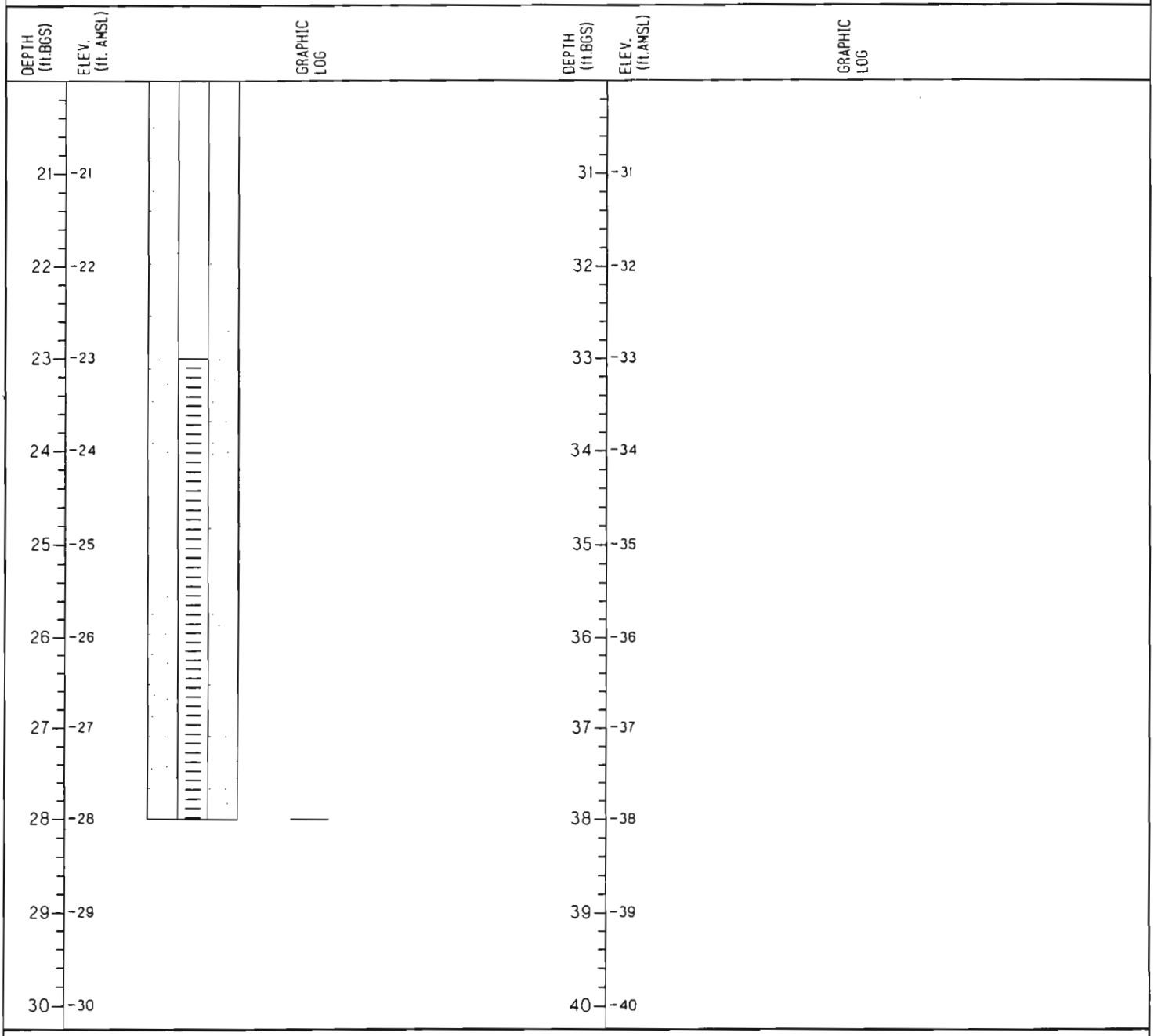
4-INCH DIAMETER CASING
0.0 feet

2-INCH DIAMETER RISER
0.0 to 23.0 Feet

8-INCH DIAMETER BOREHOLE
0 feet

4-INCH DIAMETER BOREHOLE
0 feet

GRAPHIC LOG



NOTES:

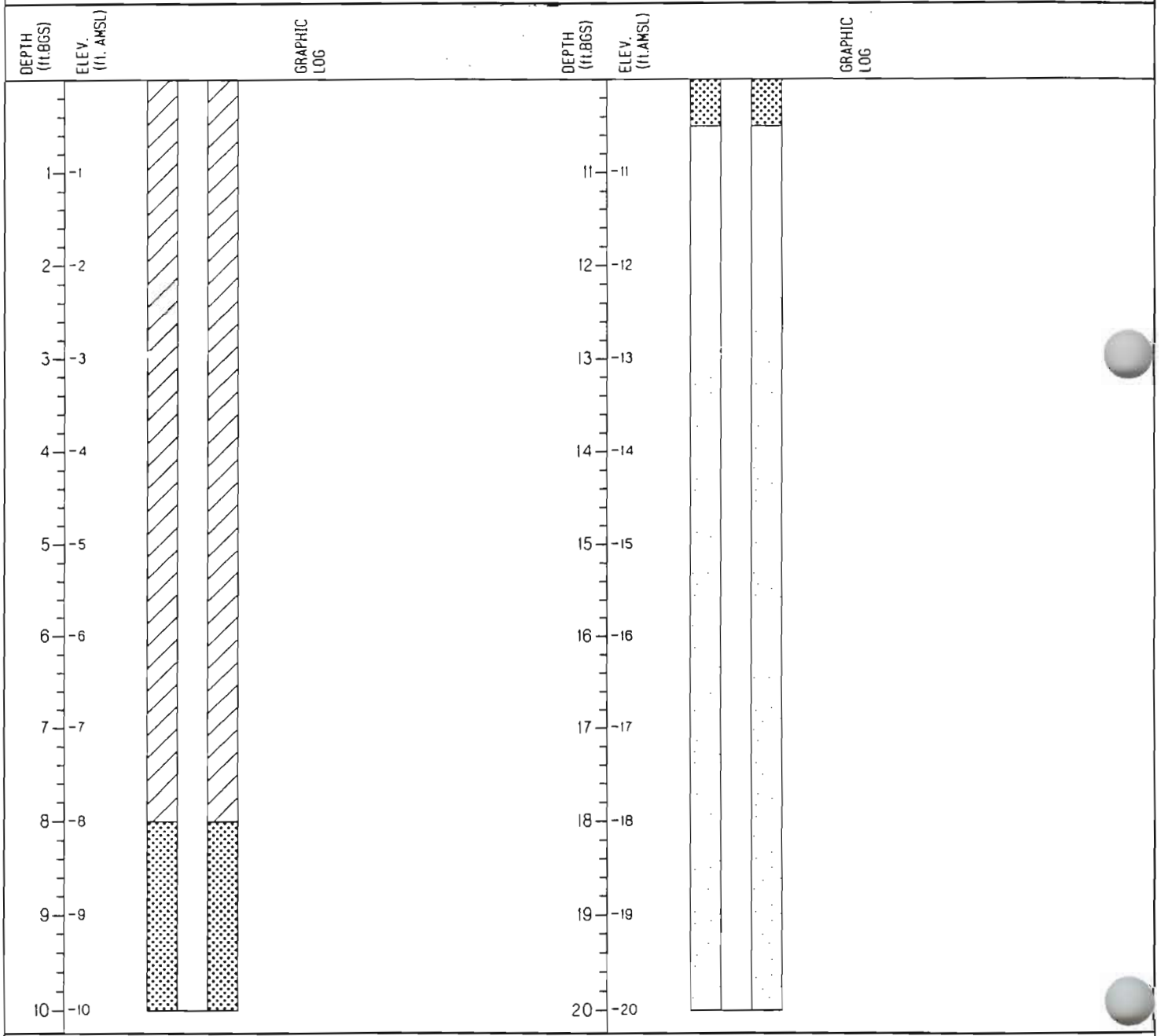
WELL/BOREHOLE OW-B CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 07/15/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL 0 to 8.0 feet
- BENTONITE SLURRY SEAL 8.0 to 10.5 feet
- MORIE #0 SAND PACK 10.5 to 27.5 feet
- 2-INCH DIAMETER SLOTTED (0.010")SCREEN 8.0 to 10.5 feet
- 4-INCH DIAMETER CASING 0 feet
- 2-INCH DIAMETER RISER 0 to 32.0 Feet
- 8-INCH DIAMETER BOREHOLE 0 feet
- 4-INCH DIAMETER BOREHOLE 0 feet
- GRAPHIC LOG



NOTES:

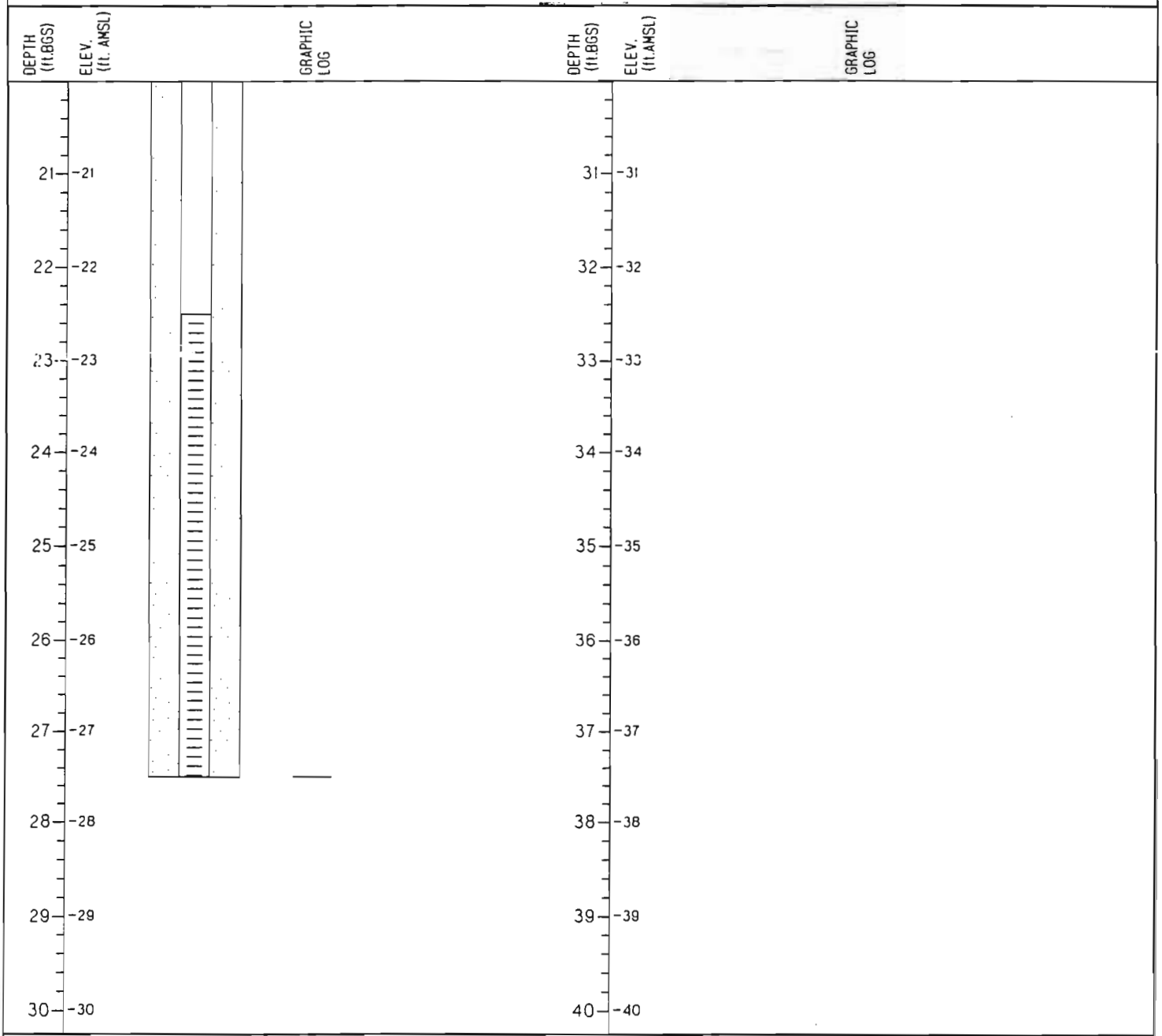
WELL/BOREHOLE OW-B CONSTRUCTION DETAILS

PROJECT: MR C CLEANERS
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM: NEW YORK STATE SURVEY GRID

CLIENT: NYSDEC
DRILLING DATES: 07/15/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

- BENTONITE-CEMENT SEAL, 0 to 8.0 feet
- BENTONITE SLURRY SEAL, 8.0 to 10.5 feet
- MORIE #0 SAND PACK, 10.5 to 27.5 feet
- 2-INCH DIAMETER SLOTTED (0.010")SCREEN, 8.0 to 10.5 feet
- 4-INCH DIAMETER CASING, 0 feet
- 2-INCH DIAMETER RISER, 0 to 32.0 Feet
- 8-INCH DIAMETER BOREHOLE, 0 feet
- 4-INCH DIAMETER BOREHOLE, 0 feet
- GRAPHIC LOG



NOTES:

BOREHOLE LOG OW-C

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 09/08/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % RQD.	WELL DIAGRAM	COMMENTS (USCS)
1	-1	Logging begins at 10.0' For 0.0-10.0' description see MPI-6S											
2	-2												
3	-3												
4	-4												
5	-5												
6	-6												
7	-7												
8	-8												
9	-9												
10	-10	Grey wet SILT and SAND w/ fine and v. fine size, laminated		SS	3 3 4 9	1.4	7						JHS=0.0 ppm
11	-11	STRATIFIED Grey wet SAND w/ trace silt, mostly fine sand, little medium and v. fine, stratified											JHS=11.5 ppm
12	-12	Wet SAND and GRAVEL, subrounded and subangular, f-c sand		SS	11 11 10 4	1.2	21						
13	-13	Brown wet GRAVELLY f-c SAND, some f gravel											JHS=198 ppm
14	-14	Wet m-c SAND & GRAVEL, subround & subang.		SS	8 7 9 11	1.2	16						
15	-15	Wet GRAVELLY SAND, subrounded & subang., f-c sand											JHS=340 ppm
16	-16	Brown wet f-m SAND, little gravel & c sand		SS	12 13 11 10	1.2	24						
17	-17	Brown wet SAND & GRAVEL, f-c sand, subrounded & subang., compact											JHS=230 ppm
18	-18	Grey wet SAND & GRAVEL, f-c sand, subround gravel		SS	25 10 5 3	0.9	15						
19	-19	Grey wet SANDY SILT, v. fine sand, liquifies when disturbed											
20	-20	Gray wet SILTY f SAND, little silt											

BOREHOLE LOG OW-C

PROJECT: MR. C CLEANERS REMEDIAL INVESTIGATION
PROJECT NO.: 0266-31-4
LOCATION: EAST AURORA, NEW YORK
SURVEY COORDINATES:
SURVEY DATUM:

CLIENT: NYSDEC
DRILLING DATES: 09/08/95
DRILLING METHOD: 4 1/4" HSA
LOGGED/CHECKED BY: JMA
SURFACE ELEVATION:

SYMBOLS AND DEFINITIONS

SS Split Spoon (2in.ID)
SS3 Split Spoon (3in.ID)
ST Shelby Tube (2.8in.ID)
WR Weight of Rods
WH Weight of Hammer
NR No Recovery

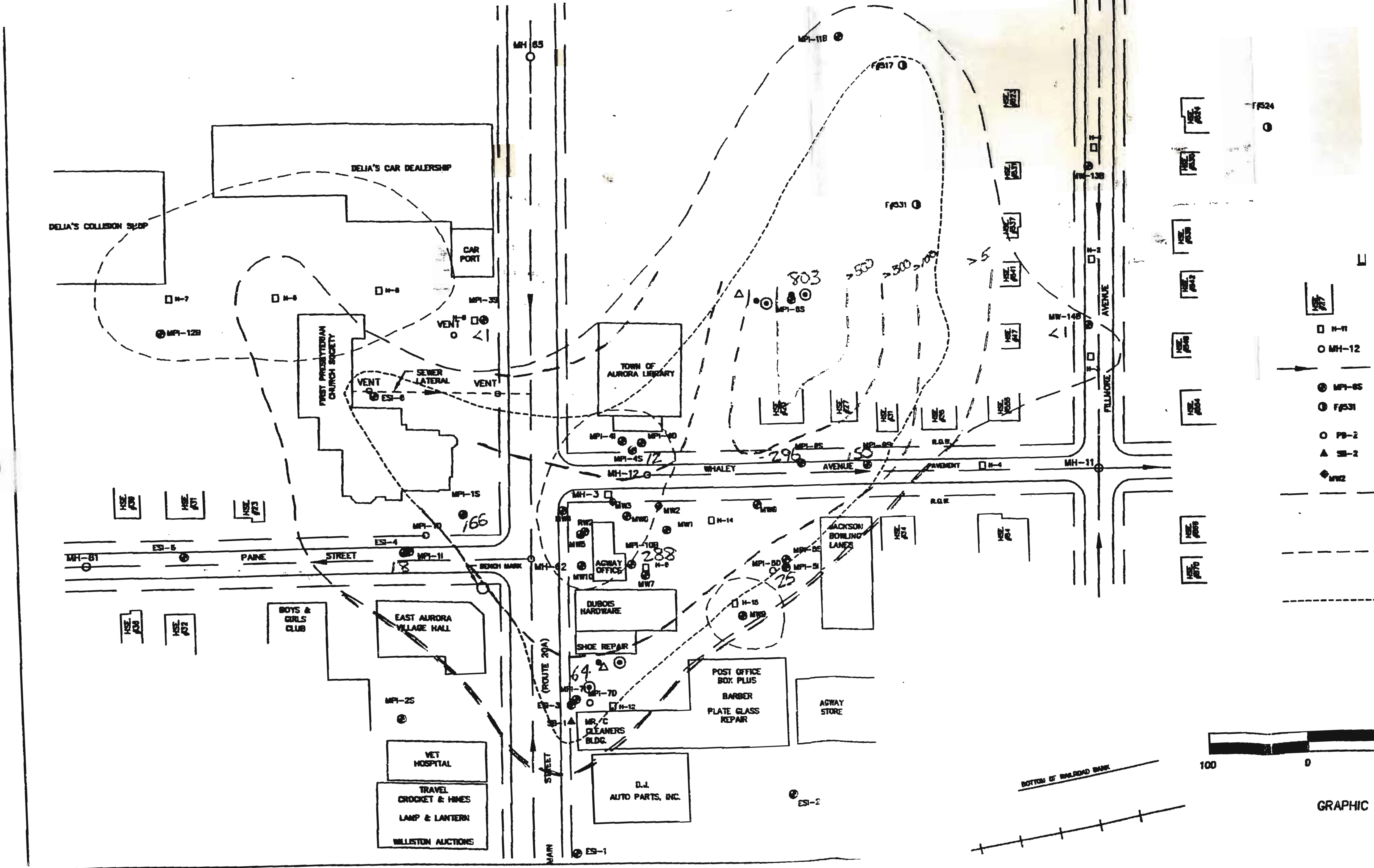
- Sampler Refusal
JHS HNU reading in jar headspace
GAS Combustible Gas reading in augers
SSLA Sample submitted for laboratory analysis

x---x Penetration Resistance ('N' Blows/1.0 ft.)
o---o Moisture Content ('M' %)

DEPTH (ft.BGS)	ELEVATION (ft AMSL)	SOIL/ROCK DESCRIPTION	SOIL DATA: GRAPHIC LOG	SOIL DATA: SAMPLE NO. / RUN NO.	SOIL DATA: BLOWS / 6"	SOIL DATA: RECOVERY (in)	SOIL DATA: 'N'-VALUE	ROCK DATA: FROM/TO	ROCK DATA: DRILL RATE MIN./FT.	ROCK DATA: % REC.	ROCK DATA: % ROD.	WELL DIAGRAM	COMMENTS (USCS)
21	-21	Brown wet SILTY SAND, vf-m sand, little silt, trace gravel		SS	3 2 3 3	2.0	5						JHS=210 ppm
22	-22	Gray wet SILTY SAND, vf-f sand, tr-little silt											JHS=210 ppm
23	-23	Gray wet SILTY SAND, vf sand, tr f, little silt		SS	1 1 2 2	1.3	3						
24	-24	Gray wet SILTY SAND, vf-f sand, tr-little silt											JHS=190 ppm
25	-25	Gray wet SILTY SAND, vf sand, tr fine, little-some silt, trace laminations		SS	4 4 5 6	2.0	9						
26	-26	Gray wet SILTY SAND, f sand, little vf, little silt, slightly laminated											JHS=120 ppm
27	-27	LAMINATED Gray wet SILT and SAND, vf sand, liquid when disturbed		SS	4 5 7 7	2.0	12						
28	-28	Gray wet SILTY SAND, tr-little sand, mostly f, little med and vf, stratified											
29	-29	Gray wet SILTY SAND, m-c, tr f gravel											
30	-30	Gray wet SILTY SAND, some silt, mostly vf, laminated											
31	-31	Sampled to 28.0' bgs. Natural sands filled borehole to 28.0' while installing well. Well bottom at 28.0'. Boring completed at 29.0'. Installed observation well.											
32	-32												
33	-33												
34	-34												
35	-35												
36	-36												
37	-37												
38	-38												
39	-39												
40	-40												

MALCOLM PIRNIE

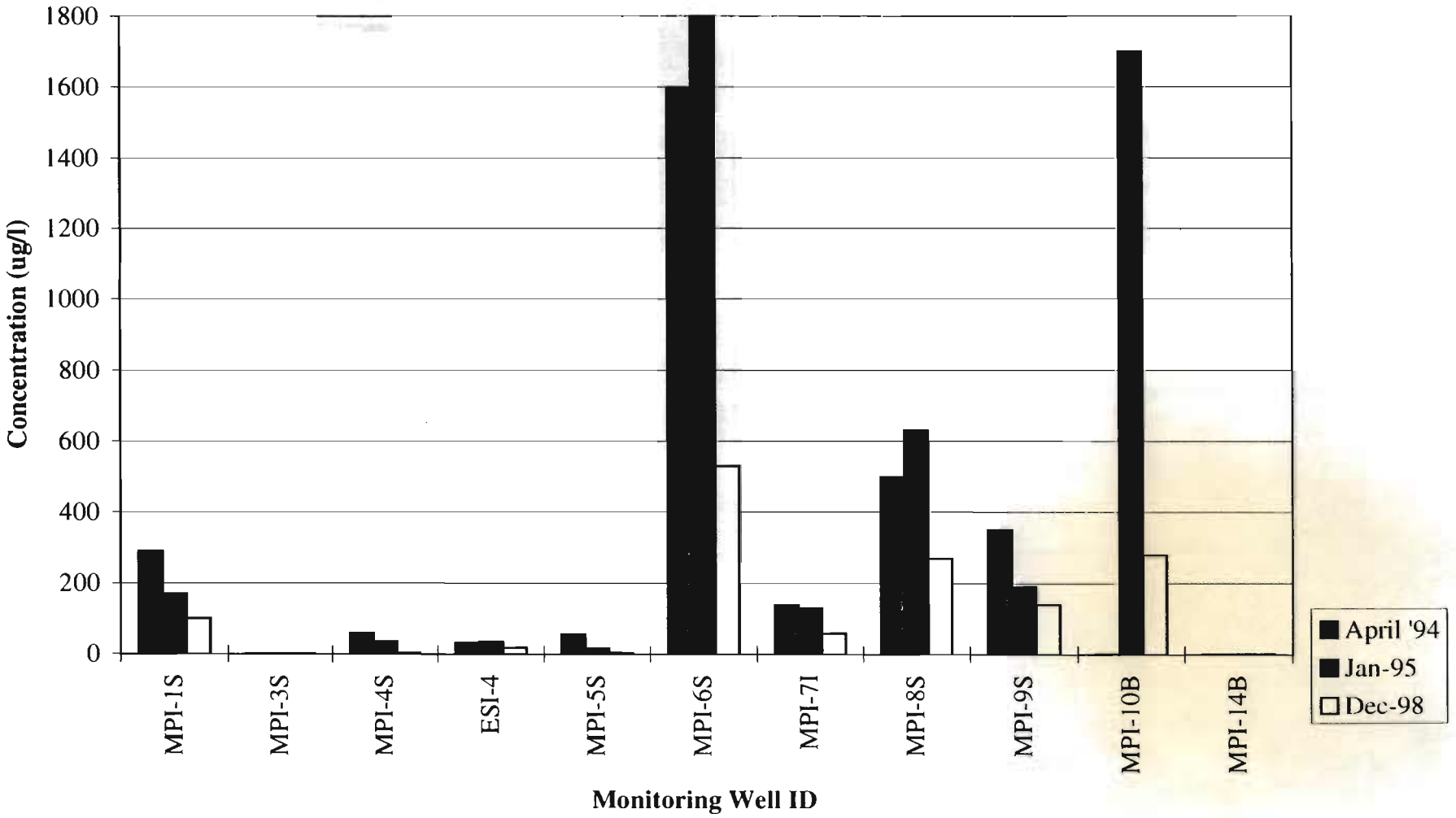
SECTION 4
PRE-DESIGN INVESTIGATION – DECEMBER 1998



DELIA'S COLLISION SHOP
DELIA'S CAR DEALERSHIP
CAR PORT
FIRST PRESBYTERIAN CHURCH SOCIETY
SEWER LATERAL
VENT
TOWN OF AURORA LIBRARY
PAINE STREET
MAIN STREET (ROUTE 20A)
WHALEY AVENUE
FILLMORE AVENUE
BOYS & GIRLS CLUB
EAST AURORA VILLAGE HALL
VET HOSPITAL
TRAVEL CROCKET & HINES
LAMP & LANTERN
WILLISTON AUCTIONS
DUBOIS HARDWARE
SHOE REPAIR
AGWAY OFFICE
MR. C CLEANERS BLDG.
POST OFFICE BOX PLUS
BARBER
PLATE GLASS REPAIR
AGWAY STORE
D.J. AUTO PARTS, INC.
JACKSON BOWLING LANES
BENCH MARK
PAVEMENT
R.O.W.
BOTTOM OF RAILROAD BANK
MH-65
MH-81
MH-62
MH-3
MH-12
MH-11
MW-14B
MW-13B
MPI-11B
MPI-12B
MPI-3S
MPI-1S
MPI-1D
MPI-11
MPI-2S
MPI-4S
MPI-4D
MPI-6S
MPI-10B
MPI-5S
MPI-5D
MPI-7D
ESI-1
ESI-2
ESI-3
ESI-4
ESI-5
ESI-6
F#517
F#531
F#524
100
0
GRAPHIC
H-11
MH-12
MPI-6S
F#531
PB-2
SB-2
MW2

Figure 2

Comparison of PCE Concentrations Over Time



Mr. C's Dry Cleaners
#0266-336

2/16/99

Figure 3

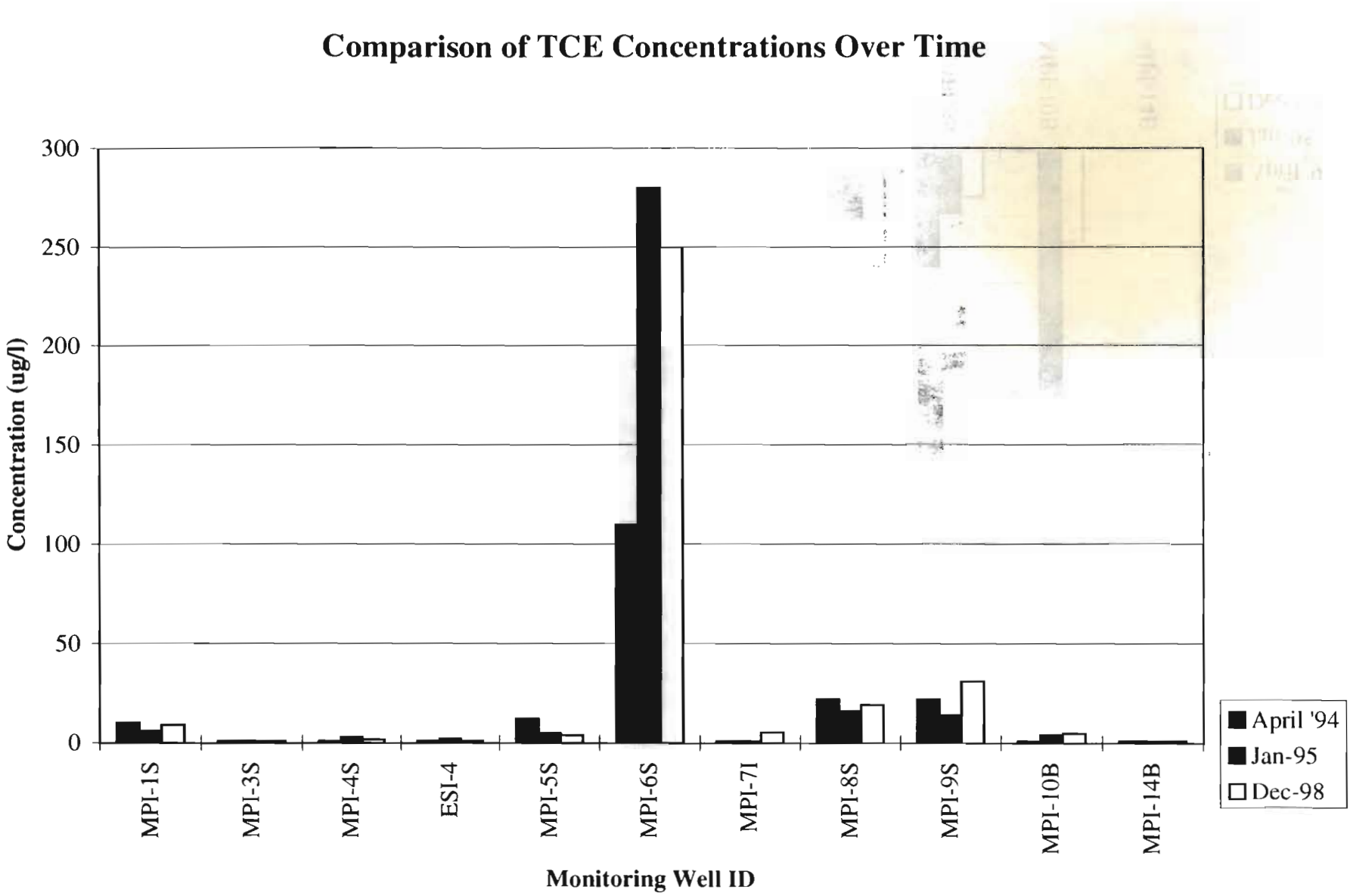
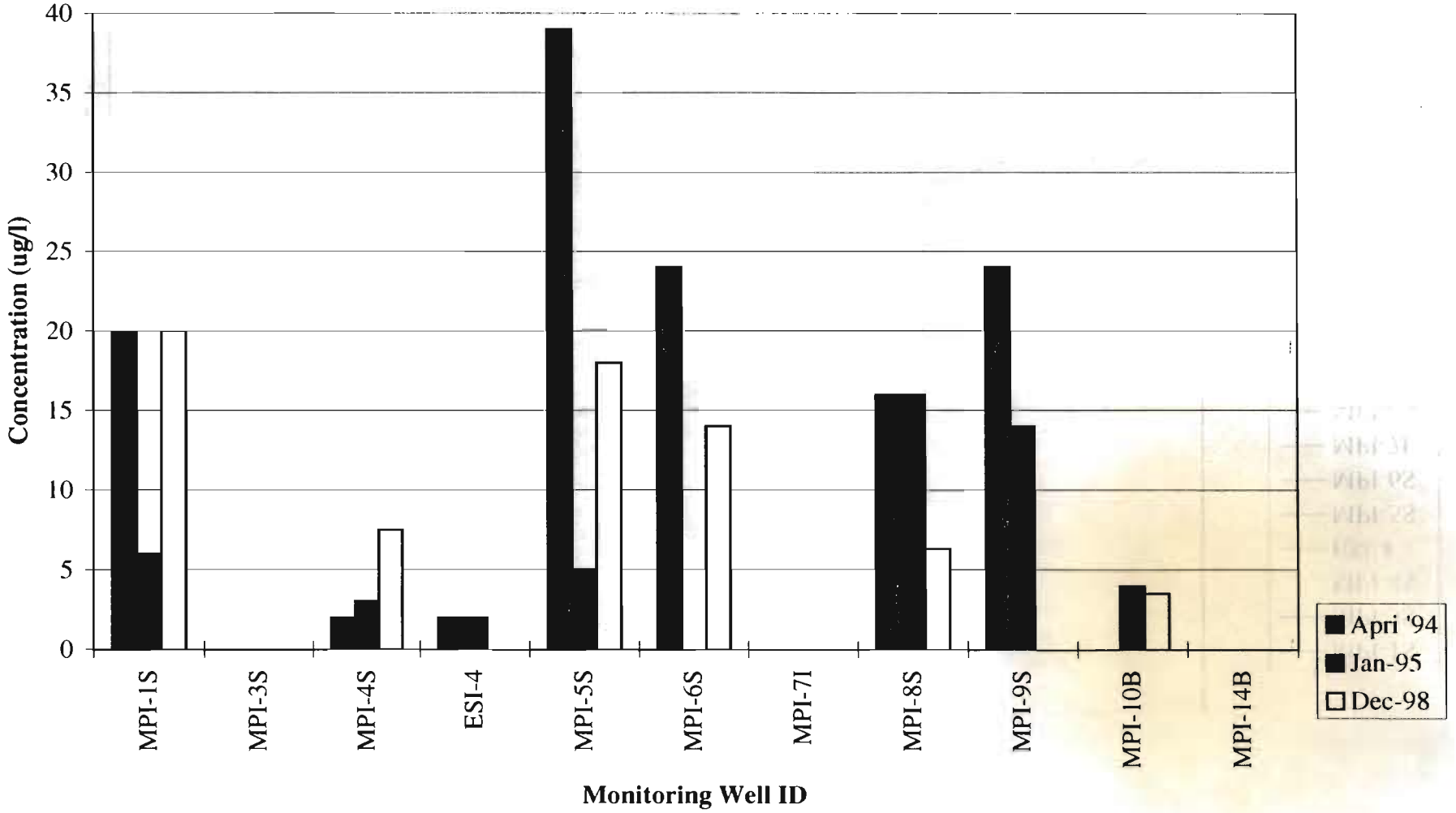

Comparison of TCE Concentrations Over Time
Concentration (ug/l)
300
250
200
150
100
50
0
MPI-1S
MPI-3S
MPI-4S
ESI-4
MPI-5S
MPI-6S
MPI-7I
MPI-8S
MPI-9S
MPI-10B
MPI-14B
Monitoring Well ID
April '94
Jan-95
Dec-98

Figure 4

Comparison of 1,2-DCE Concentrations Over Time



Mr. C's Dry Cleaners
#0266-336

2/16/99

Figure 5

Comparison of Redox Values Over Time

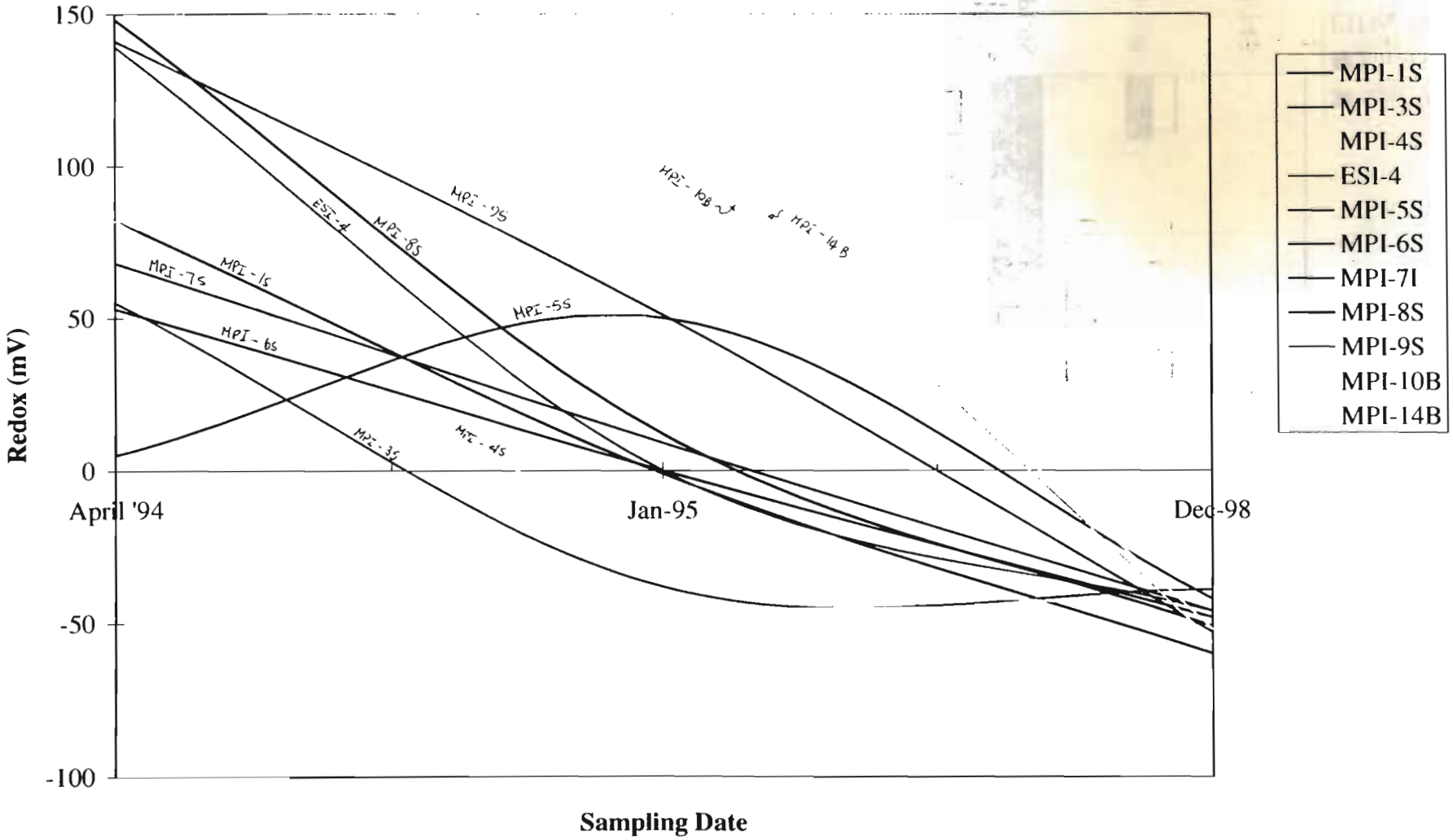
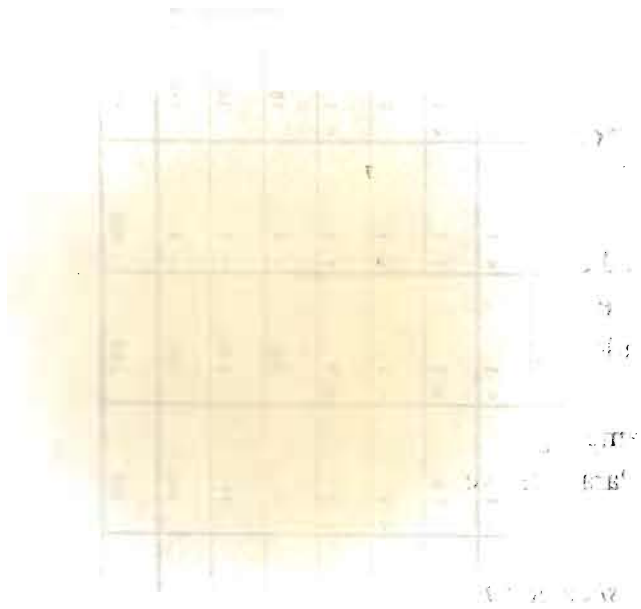


TABLE 1
MR. C'S DRY CLEANERS
PRE-DESIGN INVESTIGATION GROUNDWATER SAMPLING RESULTS
DECEMBER 9-10, 1998

WELL NUMBER	MPI-1S	MPI-3S	MPI-4S	ESI-4	MPI-5S	MPI-6S	MPI-7	MPI-8S	MPI-9S	MPI-10B	MPI-14B	MPI-15B
pH	7.43	7.03	7.17	7.18	7.14	7.22	7.12	7.26	7.33	7.32	7.26	NA
INORGANICS (mg/L)												
Iron	1.79	2.00	6.58	4.18	2.74	6.97	1.55	0.56	18.30	7.54	1.06	6.16
Alkalinity as $CaCO_3$	362	322	340	308	248	318	312	288	228	240	288	332
VOLATILE ORGANICS (ug/L)												
Methylene Chloride	< 2	< 2	1.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Bromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	25	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	5.4	0.9	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	8.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5.6	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3.2	< 1	< 1	< 1	< 1	25	< 1	11	< 1	10	< 1	35
Ethylbenzene	< 1	< 1	5.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	37	< 1	< 1	< 1	9.4	< 1	< 1	< 1	5.9	< 1	< 1	< 1
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1	6.7	< 1	< 1	< 1	< 1	< 1	9
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	11	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	20	< 1	7.5	< 1	18	14	< 1	6.3	< 1	3.5	< 1	18
Trichloroethene	9.1	< 1	1.7	< 1	3.9	250	5.4	19	31	4.8	< 1	340
Tetrachloroethene	100	< 1	2.8	18	2.8	530	59	270	140	280	< 1	710
Total - PCE and Breakdown Products	166	ND	12	18	45	801	64	296	150	288	ND	1077

Notes:

1. Analytical results are listed for only those compounds present at a concentration greater than the instrument detection limit in at least one well.
2. The sample designated as MPI-15B is a duplicate of sample of MPI-6S.



MALCOLM PIRNIE

SECTION 5
PRE-DESIGN INVESTIGATION – APRIL 1999

This section also includes a monitoring well sheet for monitoring well MPI-15B.

Table 1
Mr. C's Dry Cleaners Site - East Aurora, NY
Summary of Groundwater Sampling Results for April 1999 Sampling Event

WELL NUMBER	ESI-3	HP-1-99	HP-2-99	MPI-4S	MPI-4I	MPI-4D	MPI-5S	MPI-5I	MPI-6S[1]
INORGANICS (mg/L)									
Iron	22.8	78.9	189	3.5	1.74	4.17	1.55	1.96	5.81
Alkalinity as CaCO3	214	438	350	300	282	150	217	293	300
VOLATILE ORGANICS (ug/L)									
1,1-Dichloroethane	1.3			1.4					
Benzene				7.8			1.1		0.7 J
Toluene		0.6 J		0.9					
Ethylbenzene				6.4					
m&p-Xylenes		0.5 J		1.7					
Vinyl Chloride							19		
1,1-Dichloroethene									12
trans-1,2-Dichloroethene							5.8		1.4
cis-1,2-Dichloroethene	5.8		3.5	8	8.6		13		27
Trichloroethene	2.2			3.4	57 D		5.8		350
Tetrachloroethene	1300 D	0.8 J	1.2	17	210 D	3.6	6.6		9200 E
Total - PCE and Breakdown Products	1308	0.8	4.7	28.4	275.6	3.6	50.2	0	9590.4

Notes:
Blank space indicates parameter was not detected.
Analytical results are listed for only those compounds present at concentrations greater than the instrument detection limit in at least one well.
(1) Diluted results for tetrachloroethene in MPI-6S in the December 1998 and April 1999 sampling events were 10600 and 9200 ug/L, respectively.

WELL NUMBER	MPI-7	MPI-8S	MPI-9S	MPI-10B	MPI-13B	MPI-14B	MPI-15B	OW-B	OW-A
INORGANICS (mg/L)									
Iron	2.35	0.231	1.69	2.79	12.5	0.248	126	7.03	19
Alkalinity as CaCO3	277	242	237	191	362	247	475	316	252
VOLATILE ORGANICS (ug/L)									
1,1-Dichloroethane				0.6 J					
Benzene			0.8 J						
Toluene									
Ethylbenzene									
m&p-Xylenes									
Vinyl Chloride			10			0.8 J			
1,1-Dichloroethene								1.3	
trans-1,2-Dichloroethene		2.7	10						0.8 J
cis-1,2-Dichloroethene		7.2	26	4.2		1.4		4.7 E	3
Trichloroethene	5.5	16	33 D	4.2	0.5 J			4.3 JD	3.6
Tetrachloroethene	53 E	470 D	230 D	610 D	4.2	2.1	2.2	63 D	67 E
Total - PCE and Breakdown Products	58.5	495.9	309	618.4	4.7	4.3	2.2	73.3	74.4

Notes:
Blank space indicates parameter was not detected.
Analytical results are listed for only those compounds present at concentrations greater than the instrument detection limit in at least one well.

Table 2
Mr. C's Dry Cleaners Site - East Aurora, NY
Summary of Bioattenuation Parameter Results for April 1999 Groundwater Sampling Event

WELL NUMBER	ESI-3	HP-1-99	HP-2-99	MPI-4S	MPI-4I	MPI-4D	MPI-5S	MPI-5I	MPI-6S[1]
Total Organic Carbon	13.7	27.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	15.6	< 10.0
Chloride	219	195	244	778.0	303	< 5	125	338	333
Biochemical Oxygen Demand	12	21	24	12	7	10	7	9	24
Chemical Oxygen Demand	160	77	108	18	12	24	18	35	26
Sulfate	16.3	< 1.0	< 1.0	32.7	76.2	10.3	19.[illegible]	103.0	73.5

Notes:
Blank space indicates parameter was not detected.
Results are in mg/L unit unless otherwise specified.
Analytical results are listed for only those compounds present at concentrations greater than the instrument detection limit in at least one well.

WELL NUMBER	MPI-7I	MPI-8S	MPI-9S	MPI-10B	MPI-13B	MPI-14B	MPI-15B	OW-6N	OW-7N
Total Organic Carbon	25.6	14.5	< 10.0	< 10.0	< 10.0	< 10.0	36.1	< 10.0	12.5
Chloride	374	248	170	113	230	662	241	226	255
Biochemical Oxygen Demand	6	8	7	9	21	7	21	9	22
Chemical Oxygen Demand	17	6	8	12	38	16	160	22	139
Sulfate	130.0	64.8	44.9	19.8	74.4	70.9	103.0	53.9	51.3

Notes:
Blank space indicates parameter was not detected.
Results are in mg/L unit unless otherwise specified.
Analytical results are listed for only those compounds present at concentrations greater than the instrument detection limit in at least one well.

PIRNIE

MONITORING WELL SHEET

PROJECT MR C's Supplemental Inv. START DATE 4/6/91 END DATE 4/6/91

PROJECT NO. 0266-336 FIELD GEOLOGIST J.P. Hillos

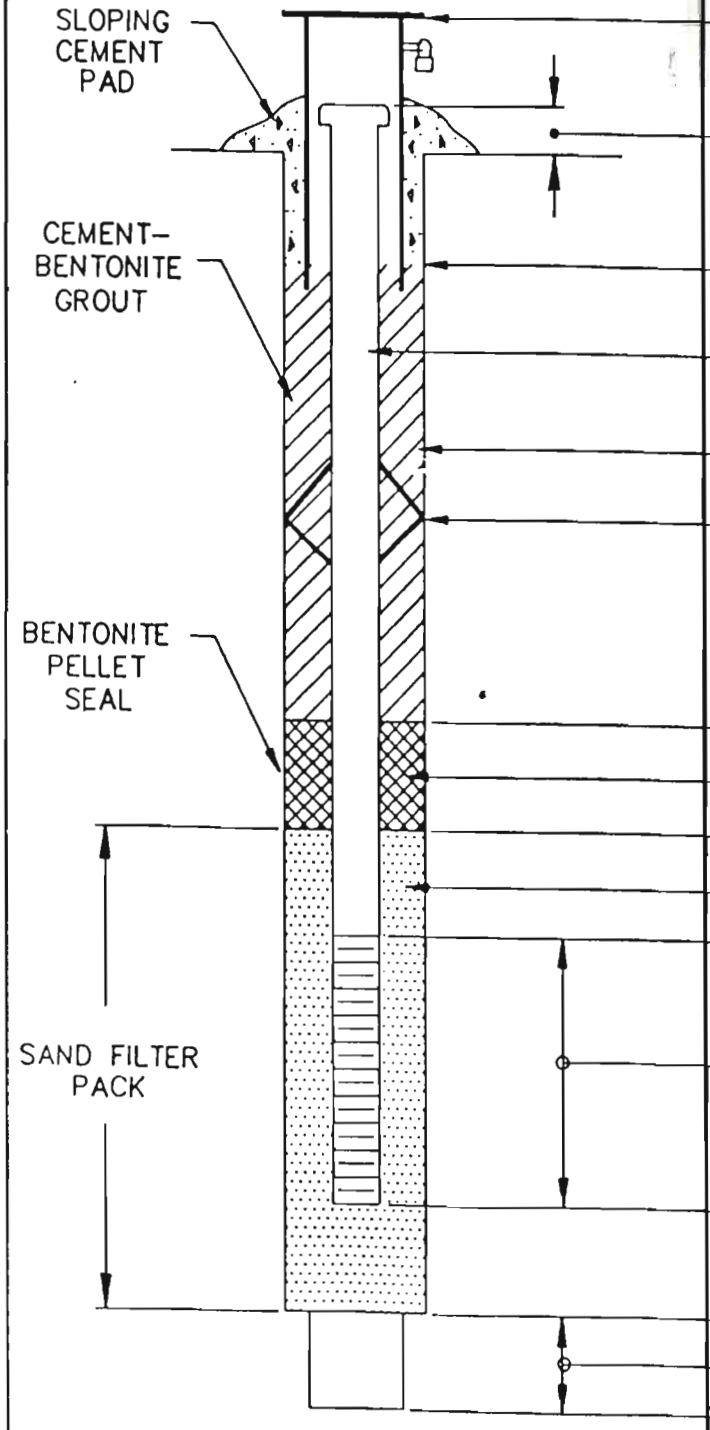
LOCATION East Aurora

DRILLING CO. Maxim Tech

DRILLER(S) Ron Brown

DRILLING METHOD(S) 4 1/4" HSA

DEVELOPMENT METHOD(S)



SIZE AND LENGTH OF LOCKABLE PROTECTIVE STEEL CASING 9" dia Steel Roadbox

LOCKED? X YES ___ NO

STICK-UP (bgs)

DEPTH TO TOP OF GROUT/ BOTTOM OF CEMENT Grade

RISER DIAMETER AND MATERIAL 2" Sch 40 PVC

BOREHOLE DIAMETER 8.5"

DEPTH TO CENTRALIZERS NA

DEPTH 15.0'

PELLET SIZE Med Chips

DEPTH 18.0'

SAND SIZE

DEPTH 19.5

SCREEN DIAMETER, SLOT SIZE, AND MATERIAL 2" .020 Sch 40 PVC

DEPTH 29.5

DEPTH 30.0

BACKFILL MATERIAL NA

BOTTOM OF BOREHOLE 30.0

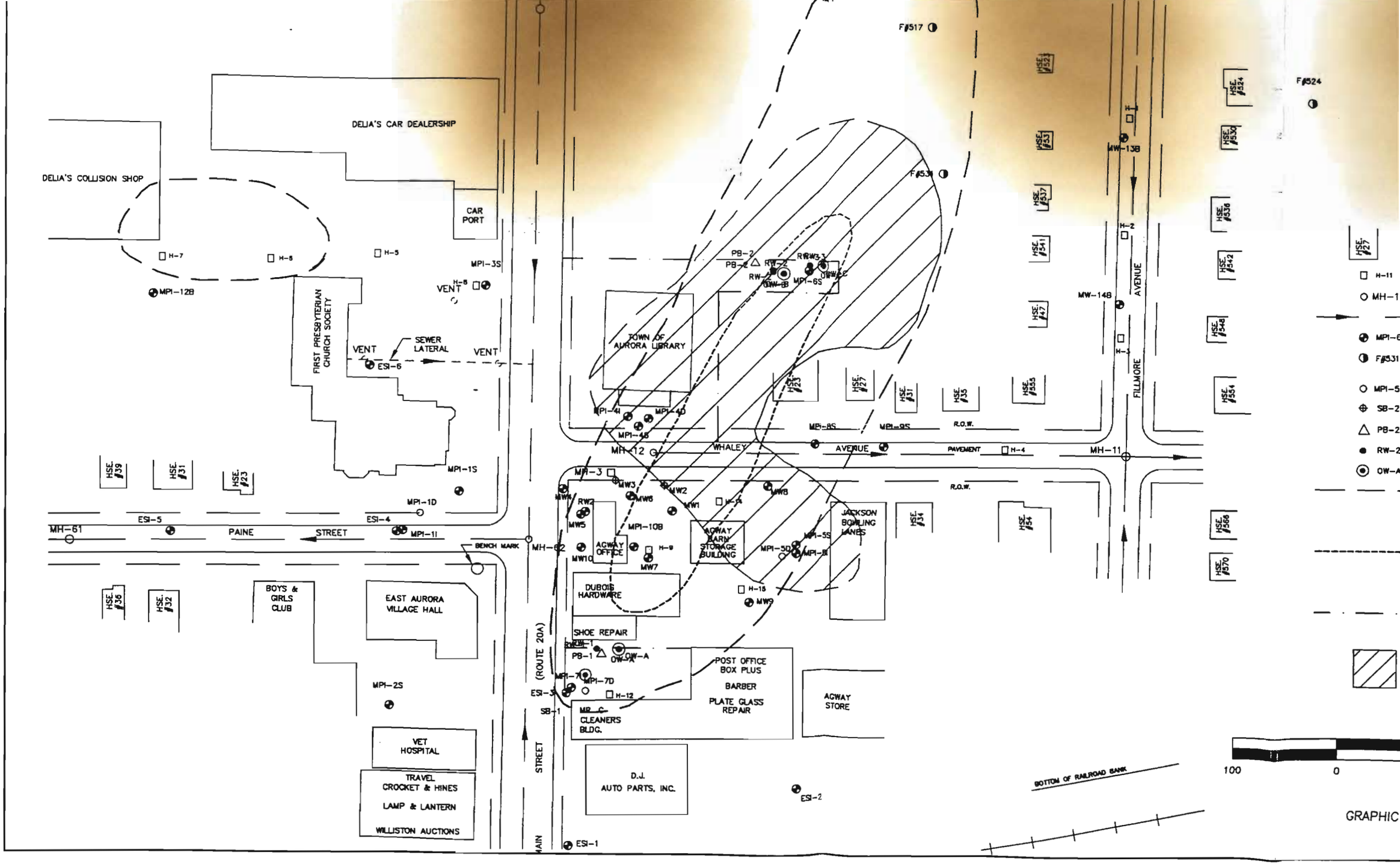
NOTE: DEPTHS ARE FEET BELOW GRADE

OMWSHEET.DWG 9-20-90

8108 0336062200 I:\ACAD\PROJ\02663362\DEC314\LARSEN\FIG6-1 Scale: 1:1i Date: 07/23/1999 Time: 12:45

8108 0266336200 I:\ACAD\PROJ\02663362\DEC314\LARSEN\FIG6-2 Scale: 1:1i Date: 07/22/1999 Time: 08:00

GRAPHIC



8108 0266336200 I:\ACAD\PROJ\02663362\DEC314\LARSEN\file-3 Scale: 1:1i Date: 07/22/1999 Time: 07:59