PARSONS ENGINEERING SCIENCE, INC.
290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570

September 7, 1995

Mr. James Craft
NYSDEC Regional Headquarters
Region 8 Office - DHWR
6274 East Avon-Lima Road
Avon, New York 14414-9519

RE: Immediate Investigation Work Assignment (No. D002478-31)
Modock Road Springs Site (NYSDEC No. 835013)
State Superfund Standby Contract

Dear Mr. Craft:

This letter provides a summary of the work conducted and the data generated during the Modock Road Springs Site (NYSDEC No. 835013) Immediate Investigation Work Assignment (IIWA), in Victor Township, Ontario County. Parsons Engineering Science, Inc. (Parsons ES) received "Notice to Proceed" with the investigation in a letter from the Department dated June 22, 1995. A technical work plan, prepared by NYSDEC, was attached to the letter. Parsons ES submitted a detailed budget to execute the work plan in a letter dated July 12, 1995. As directed by the NYSDEC, the work plan was modified substantially to consist of the work described below because field conditions differed from those anticipated. Field work was conducted during the weeks of July 31 and August 7, 1995. Data generated during the investigation are provided in attachments as follows:

- Attachment A - Site Sketch;
- Attachment B - Boring Logs;
- Attachment C - Laboratory Sample Data Summary Table;
- Attachment D - Groundwater Sampling Records;
- Attachment E - Water Level Measurements;
- Attachment F - Summary of Detected Compounds;
- Attachment G - Summary of Laboratory Analytical Results; and
- Attachment H - Laboratory Analytical Reports.

PROJECT SCOPE

The objective of the IIWA was to evaluate potential sources of volatile organic compounds (VOCs) that were detected in samples collected from springs located adjacent to Modock Road. The springs provided part of the Village of Victor public water supply until 1990, when trichloroethene, 1,1,1-trichloroethane, and 1,1-dichloroethane were detected in samples collected from the springs. Work conducted during the investigation consisted of: (1) subcontractor procurement, (2) health and safety plan preparation, (3) installation of seven temporary monitoring wells, (4) groundwater sampling, (5) groundwater sample analysis, and (6) preparation of deliverables. These activities are described below.

Subcontractor Procurement

Three subcontractors provided support services during the investigation:

- Parratt Wolff, Inc. of East Syracuse, New York provided drilling and monitoring well installation services;
- General Testing Corporation of Rochester, New York analyzed the groundwater samples; and
- Zebra Environmental Corporation of Inwood, New York provided and operated *Geoprobe* ™ sampling equipment.

Health and Safety Plan (HASP)

A site-specific health and safety plan (HASP) was prepared prior to initiation of field work. The HASP specified the procedures that were used by Parsons ES personnel and subcontractors to ensure personal safety while conducting the investigation.

Borings and Temporary Monitoring Well Installation

As specified in the work plan, a *Geoprobe* ™ sampling system was used to attempt to obtain groundwater samples on August 1. However, due to subsurface conditions, the *Geoprobe* ™ sampling system did not provide sufficient penetration to reach groundwater. Consequently, a CME-55 drill rig equipped with 3.25-inch (inside diameter) hollow-stem augers was used to install seven temporary monitoring wells (designated GW-1 through GW-7) from which groundwater samples could be obtained. The temporary wells were installed by Parratt Wolff, Inc. during the week of August 7, 1995. Approximate well locations are indicated in Attachment A.

Subsurface soil samples were collected with a 2-foot-long split-spoon sampler, in accordance with ASTM specification D-1586-84, during drilling for temporary monitoring wells to characterize the subsurface geology of the site. Generally, samples were collected at 5-foot depth intervals. Split-spoon samples were visually inspected for evidence of contamination, and a lithologic description was recorded in the project field book. In addition, each split-spoon sample was retained in an airtight jar and a headspace reading was obtained with a photoionization detector (PID). All of the borings were terminated in unconsolidated sediments. Boring depths ranged from 22.5 feet below grade to 71.0 feet below grade. Boring logs are provided in Attachment B. None of the subsurface soil samples were submitted to a laboratory for chemical analysis.

The temporary monitoring wells were constructed of 2-inch (inside diameter), threaded, flush-joint, Schedule 40, PVC riser casing and screen. Ten-foot-long screens with 0.010-inch screen slots were installed in each well and placed to intercept the water table or, in two wells (GW-3 and GW-5), submerged in the saturated zone with the top of the screen less than 6 feet below the water table. Screen depths ranged from 12.5 to 22.5 feet below grade in GW-5 to 64.5 to 74.5 feet below grade in GW-7. Sand packs were installed around the well screens in four of the wells (GW-1, 2, 3, and 5). Sand packs were not installed in the other wells to ensure that the augers could be withdrawn; "running" sand was encountered in these wells. Generally, the remaining annular space between the boring walls and well casings and screens was filled by allowing subsurface sediments to collapse around the casing and screen as the augers were withdrawn from the subsurface. Well GW-3 was an exception; a 12-foot interval in the well was filled with a 2-foot-thick bentonite seal and 10 feet of sand. Well construction diagrams are included on the boring logs provided in Attachment B.

As requested, the temporary wells were not abandoned after sampling so that confirmation samples could be obtained in the near future. We understand that NYSDEC will undertake abandonment at a future time.

Groundwater Sampling

Seven groundwater samples (GW-1 through GW-7) were collected from the temporary monitoring wells using dedicated, disposable, HDPE bailers. One groundwater sample was collected from each of the temporary wells. Monitoring wells GW-1 and GW-2 were sampled on August 8. Monitoring wells GW-3 through GW-7 were sampled on August 11. Water level measurements were obtained from all seven monitoring wells on August 11. Groundwater sample data are summarized in Attachment C. Groundwater sampling records are provided in Attachment D. The water level measurements are provided in Attachment E.

Prior to sampling, the wells were purged by withdrawing water using the dedicated disposable bailers. Immediately prior to collecting each sample, the temperature, pH, conductivity, and turbidity of groundwater obtained from each well was measured. Well water turbidity was reduced to less than 50 NTU in five of the seven wells; wells GW-1 and GW-2 were the exceptions. These measurements are provided in the groundwater sampling records (Attachment D).

Groundwater Sample Analysis

All seven groundwater samples were submitted to General Testing Corporation (GTC), and analyzed by USEPA Method 8010 (purge and trap) for nine VOCs:

- Chloroethane
- 1,1-Dichloroethane
- 1,1-Dichloroethene
- trans-1,2-Dichloroethene
- cis-1,2-Dichloroethene
- Tetrachloroethene
- 1,1,1-Trichloroethane
- Trichloroethene, and
- Vinyl Chloride.

GTC provided 24-hour turnaround of the results from samples GW-1 and GW-2, and one week turnaround of the results from the other five samples. Attachment F presents a summary of compounds detected in the samples. Attachment G presents a summary of the analytical results. Laboratory reports are provided in Attachment H.

If you have any questions or require additional information, please feel free to contact me at (315) 451-9560. In addition, please contact myself or Pete Petrone if Parsons ES may assist in any way with additional investigation or remedial work resulting from this work assignment.

Sincerely,

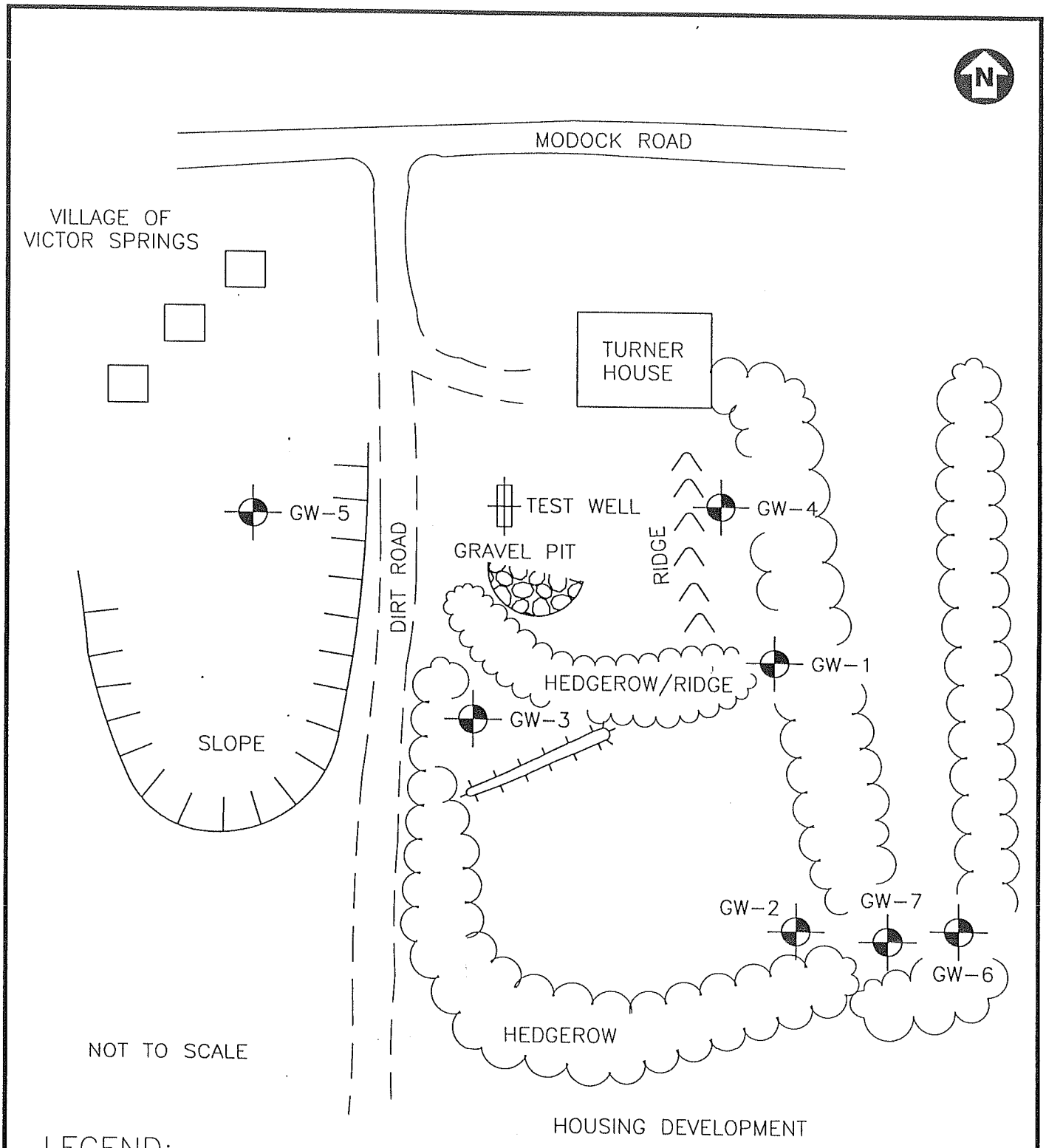
Thomas H. Abrams

Thomas H. Abrams
Project Manager

cc: File/726332.01
PMP
Mr. William Shaw (NYSDEC Central Office) w/o Attachments

ATTACHMENT A

SITE SKETCH



LEGEND:

TEST WELL — TURNER TEST WELL

GW-1 — TEMPORARY MONITORING WELL

DATE: 09/07/95 (SEH)
H:\CAD\726332\26332G01.DWG (NOT TO SPACE)

FIGURE 1

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
IMMEDIATE INVESTIGATION WORK ASSIGNMENT

MODOCK ROAD SPRINGS SITE SAMPLE LOCATION MAP

PARSONS ENGINEERING SCIENCE, INC.
DESIGN • RESEARCH • PLANNING
290 ELWOOD DAVIS ROAD • SUITE 312 • LIVERPOOL, N.Y. 13088 • 315/451-9560
OFFICES IN PRINCIPAL CITIES

ATTACHMENT B
BORING LOGS

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–1

Sheet 1 of 4
Location Description: On M. Turner property in gap between hedgerows southeast of house.

Location Plan
SEE SITE PLAN

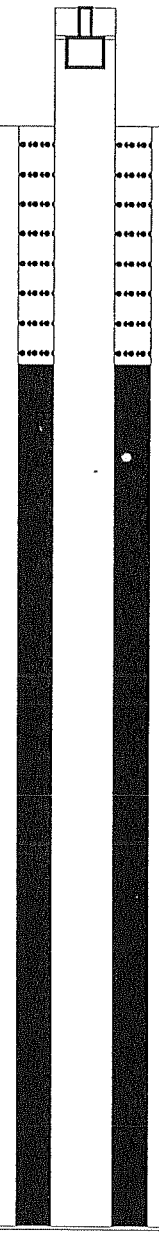
Weather Sunny, 80s
Date/Time Start August 7, 1995 / 1620
Date/Time Finish August 8, 1995 / 0900

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	52.32		
TEMP (deg. F)	55.2		
COND (uS/cm)	612		
pH	6.65		
TURB (Ntu)	> 200		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0		SS			
		4	75	2.3	SILT & FINE SAND, some pebbles, brown, dry
1		5			
		7			
2		9			
		A			
3		A			
		A			
4		A			
		A			
5		SS			
		10	62.5	2.6	5.5 feet
6		10			FINE SAND, brown, dry 6 feet
		9			FINE SAND, some silt, brown, damp
7		6			
		A			
8		A			
		A			
9		A			
		A			
10		SS			10 ft
		4	50	1.9	FINE–COARSE SAND, some fine gravel, dark brown, damp
11		4			
		12			
12		37			
		A			
13		A			
		A			
14		A			
		A			15 ft
15		SS			FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry
		9	75	2.8	contains gray siltstone and red sandstone
16		9			
		11			
17		13			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

LOCKING CAP

2 INCH I.D. PVC RISER
+1.25–49 FEET

BENTONITE SEAL
0–4 FEET

BOREHOLE COLLAPSE
4–45 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–1

Sheet 2 of 4
Location Description: On M. Turner property in gap between hedgerows southeast of house.

Location Plan

SEE SITE PLAN

Weather Sunny, 80s

Date/Time Start August 7, 1995 / 1620

Date/Time Finish August 8, 1995 / 0900

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	52.32		
TEMP (deg. F)	55.2		
COND (uS/cm)	612		
pH	6.65		
TURB (Ntu)	> 200		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
19		A			FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry		
		A			contains gray siltstone and red sandstone		2 INCH I.D. PVC RISER +1.25–49 FEET
20		SS					
		10	62.5	0.7			
21		12			little–some pebbles–cobbles		BOREHOLE COLLAPSE 4–45 FEET
		12					
22		19					
		A					
23		A					
		A					
24		A					
		A					
25		SS					
		16	75	1.9			
26		13					
		13					
27		14					
		A					
28		A					
		A					
29		A					
		A					
30		SS					
		16	50	4.4			
31		5					
		7					
32		12					
		A					
33		A					
		A					
34		A					
		A					
35		SS					
		14	62.5	0.6	damp		
36		18					
		36					
37		15					
		A					
38		A					
		A					
39		A					
		A					

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–1

Sheet 3 of 4
Location Description: On M. Turner property in gap between hedgerows southeast of house.

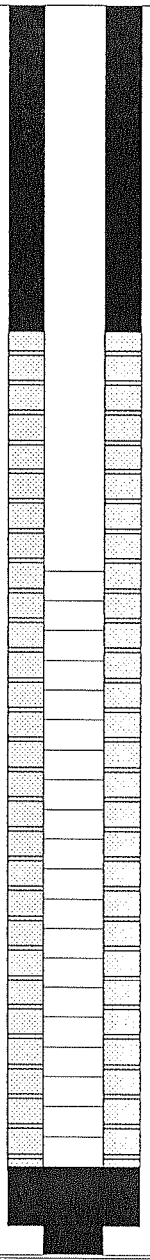
GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	52.32		
TEMP (deg. F)	55.2		
COND (uS/cm)	612		
pH	6.65		
TURB (Ntu)	> 200		

Weather Sunny, 80s
Date/Time Start August 7, 1995 / 1620
Date/Time Finish August 8, 1995 / 0900

Location Plan
SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
40		SS			
		53	83.3	8.6	FINE–MEDIUM SAND, some cobbles, trace silt, brown, dry
41		50/0.1			
		A			
42		A			
		A			
43		A			
		A			
44		A			
		A			
45		SS			
		25	62.5	5.2	
46		26			
		19			
47		34			
		A			
48		A			
		A			
49		A			
		A			
50		SS			
		19	50	2.3	moist
51		16			
		37			
52		27			
		A			
53		A			
		A			
54		A			
		A			
55		SS			
		12	62.5	2.1	FINE–MEDIUM SAND, some fine gravel–cobbles, brown, wet
56		12			
		15			
57		17			
		A			
58		A			
		A			
59		A			
		A			
60		SS			
		12	75	5.6	little silt, compact

SCHEMATIC



COMMENTS

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–1

Sheet 4 of 4
Location Description: On M. Turner property in gap between hedgerows southeast of house.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	52.32		
TEMP (deg. F)	55.2		
COND (uS/cm)	612		
pH	6.65		
TURB (Ntu)	> 200		

Weather Sunny, 80s
Date/Time Start August 7, 1995 / 1620
Date/Time Finish August 8, 1995 / 0900

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
61		14			FINE–MEDIUM SAND, some fine gravel–cobbles, little silt, brown,		
		17			compact, wet		BOREHOLE COLLAPSE
62		27					59–62 FEET
					Boring terminated at 62 feet.		
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff	**PARSONS ENGINEERING SCIENCE, INC.** **DRILLING RECORD**	**BORING/ WELL NO.** GW–2
Driller: Dick Walls	PROJECT NAME NYSDEC – Modock Road Springs	Sheet 1 of 3
Inspector: N.A. Smith	PROJECT NUMBER 726332.01000, Work Assignment # D002478–31	Location Description: In depression north–northwest of subdivision, south–southeast of GW–1.
Rig Type: CME–55, 3.25" HSA		

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	52.06		
TEMP (deg. F)	56.1		
COND (uS/cm)	649		
pH	6.43		
TURB (Ntu)	>200		

Weather: Mostly sunny, 65 degrees

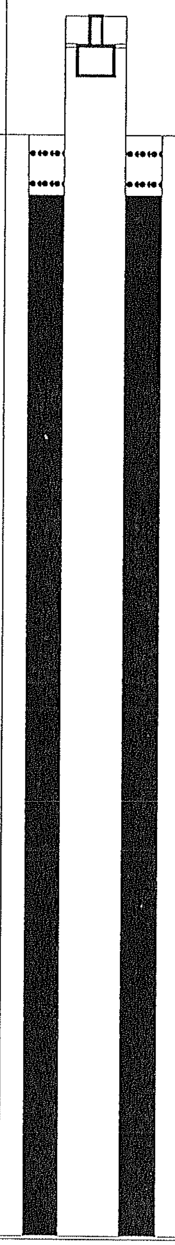
Date/Time Start: August 8, 1995 / 0950

Date/Time Finish: August 8, 1995 / 1330

Location Plan: SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0		SS			
		4	87.5	0.0	FINE SAND, some silt, trace cobble fragments, brown, dry
1		5			
		7			
2		9			
		A			
3		A			
		A			
4		A			
		A			
5		SS			
		65	100	0.0	
6		A			
		A			
7		A			
		A			
8		A			
		A			
9		A			
		A			
10		SS			---------- 10 ft
		18	62.5	0.0	FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry
11		17			contains gray siltstone and red sandstone
		23			
12		32			
		A			
13		A			
		A			
14		A			
		A			
15		SS			
		31	75	0.0	
16		31			
		20			
17		21			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

LOCKING CAP

2 INCH I.D. PVC RISER +1.86–48 FEET

BENTONITE SEAL 0–1 FEET

BOREHOLE COLLAPSE 1–46 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff Driller: Dick Walls Inspector: N.A. Smith Rig Type: CME–55, 3.25" HSA	**PARSONS ENGINEERING SCIENCE, INC.** **DRILLING RECORD**	**BORING/ WELL NO.** GW–2

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

Sheet 2 of 3
Location Description: In depression north–northwest of subdivision, south–southeast of GW–1.

Weather Mostly sunny, 65 degrees
Date/Time Start August 8, 1995 / 0950
Date/Time Finish August 8, 1995 / 1330

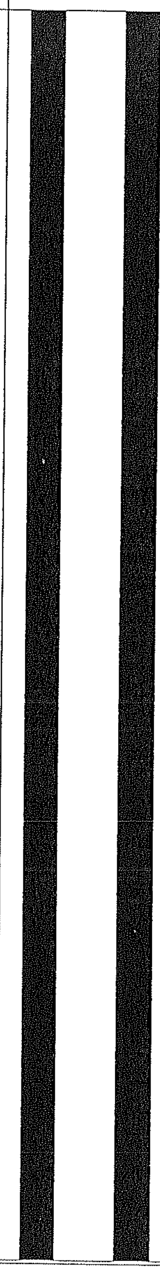
Location Plan

SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	52.06		
TEMP (deg. F)	56.1		
COND (uS/cm)	649		
pH	6.43		
TURB (Ntu)	>200		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
19		A			FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry	
		A			contains gray siltstone and red sandstone	2 INCH I.D. PVC RISER
20		SS				+1.86–48 FEET
		27	62.5	0.0	damp	
21		17				BOREHOLE COLLAPSE
		15				1–46 FEET
22		16				
		A				
23		A				
		A				
24		A				
		A				
25		SS				
		12	75	0.0	trace silt, dry	
26		12				
		13				
27		18				
		A				
28		A				
		A				
29		A				
		A				
30		SS				
		15	62.5	0.0	FINE–MEDIUM SAND, some fine gravel–pebbles, little cobbles,	
31		20			trace silt, brown, dry	
		17				
32		10				
		A				
33		A				
		A				
34		A				
		A				
35		SS			-- 35 ft	
		9	75	0.0	FINE–MEDIUM SAND, trace silt, gray, dry	
36		10				
		23				
37		19				
		A				
38		A				
		A				
39		A				
		A				

SCHEMATIC



SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–2

Sheet 3 of 3
Location Description: In depression north–northwest of subdivision, south–southeast of GW–1.

Location Plan

SEE SITE PLAN

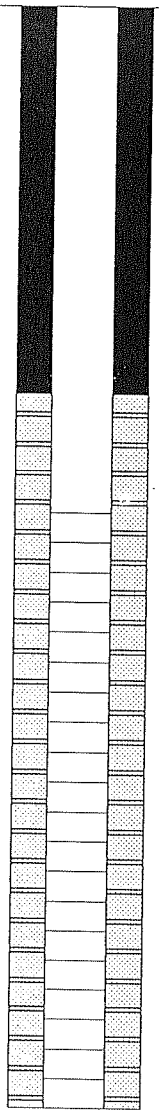
Weather Mostly sunny, 65 degrees
Date/Time Start August 8, 1995 / 0950
Date/Time Finish August 8, 1995 / 1330

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	52.06		
TEMP (deg. F)	56.1		
COND (uS/cm)	649		
pH	6.43		
TURB (Ntu)	>200		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
40		SS			FINE–MEDIUM SAND, trace silt, gray, dry
		2	87.5	0.0	40.5 ft
41		5			SILT, little clay, brown, moist 40.7 ft
		7			FINE–MEDIUM SAND,little fine gravel–pebbles,brown,damp 41.2 ft
42		11			SILT, little clay, brown, damp 41.4 ft
		A			FINE–MEDIUM SAND, little fine gravel, brown, damp
43		A			
		A			
44		A			
		A			
45		SS			
		12	62.5	0.0	little–some fine gravel–cobbles
46		15			
		15			
47		19			
		A			
48		A			
		A			
49		A			
		A			
50		SS			50 ft
		4	87.5	0.0	FINE–MEDIUM SAND, trace–little silt, brown, wet
51		6			
		7			
52		12			
		A			
53		A			
		A			
54		A			
		A			
55		SS			
		4	100	0.0	
56		5			
		12			56.5 ft
57		17			FINE–MEDIUM SAND, some fine gravel–pebbles, brown, wet
		A			
58		A			
					Boring terminated at 58 feet.
59					
60					

SCHEMATIC



COMMENTS

2 INCH I.D. PVC RISER
+1.86–48 FEET

BOREHOLE COLLAPSE
1–46 FEET

SAND PACK
46–58 FEET

2 INCH I.D. PVC SCREEN
48–58 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–3

Sheet 1 of 3
Location Description: On M. Turner property south of gravel pit and test well.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	44.90		
TEMP (deg. F)	55.3		
COND (uS/cm)	342		
pH	6.89		
TURB (Ntu)	199		

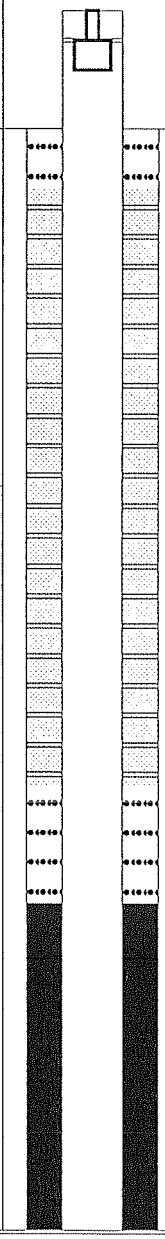
Weather Sunny, 81 degrees
Date/Time Start August 8, 1995 / 1425
Date/Time Finish August 8, 1995 / 1840

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0		SS			
		3	75	0.0	FINE SAND, some silt, brown, dry
1		7			
		7			
2		9			
		A			
3		A			
		A			
4		A			
		A			
5		SS			
		5	62.5	0.0	
6		9			6 ft
		50/0.2			FINE SAND, some silt and cobbles, brown, dry
7		A			
		A			
8		A			
		A			
9		A			
		A			
10		SS			
		9	25	3.9	
11		8			
		10			
12		5			
		A			
13		A			
		A			
14		A			
		A			
15		SS			
		13	25	0.0	
16		11			
		6			
17		12			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–3

Sheet 2 of 3
Location Description: On M. Turner property south of gravel pit and test well.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	44.90		
TEMP (deg. F)	55.3		
COND (uS/cm)	342		
pH	6.89		
TURB (Ntu)	199		

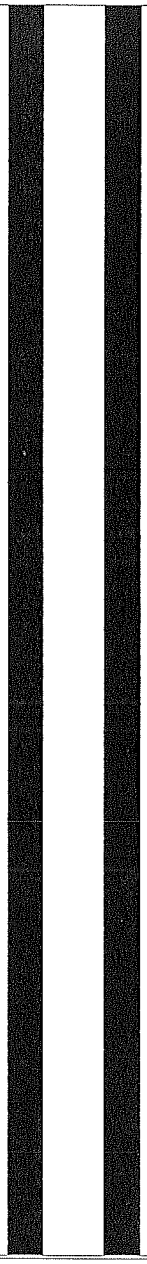
Weather Sunny, 81 degrees
Date/Time Start August 8, 1995 / 1425
Date/Time Finish August 8, 1995 / 1840

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
19		A			FINE SAND, some silt and cobbles, brown, dry
		A			
20		SS			20 ft
		7	75	0.0	FINE–MEDIUM SAND, some fine gravel–pebbles, brown, dry
21		8			21 ft
		6			FINE–MEDIUM SAND, little silt, light brown, damp
22		5			
		A			
23		A			
		A			
24		A			
		A			
25		SS			25 ft
		9	37.5	0.0	FINE–MEDIUM SAND, trace pebbles, light brown, dry
26		19			
		13			
27		11			
		A			
28		A			
		A			
29		A			
		A			
30		SS			
		4	44.1	0.0	no pebbles
31		6			
		8			
32		50/0.2			
		A			
33		A			
		A			
34		A			
		A			
35		SS			35 ft
		19	50	2.6	FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry
36		9			
		37			
37		27			
		A			
38		A			
		A			
39		A			
		A			

SCHEMATIC



COMMENTS

2 INCH I.D. PVC RISER +1.4–49 FEET

BOREHOLE COLLAPSE 13–45 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–3

Sheet 3 of 3
Location Description: On M. Turner property south of gravel pit and test well.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	44.90		
TEMP (deg. F)	55.3		
COND (uS/cm)	342		
pH	6.89		
TURB (Ntu)	199		

Weather Sunny, 81 degrees
Date/Time Start August 8, 1995 / 1425
Date/Time Finish August 8, 1995 / 1840

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
40		SS			FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry		
		9	25	0.0			2 INCH I.D. PVC RISER +1.4–49 FEET
41		11					
		19					
42		29					BOREHOLE COLLAPSE 13–45 FEET
		A					
43		A					
		A					
44		A					
		A					
45		SS			45 ft		
		7	87.5	0.0	FINE–MEDIUM SAND, some silt, gray, stiff, moist–wet		
46		10			46 ft		
		17			SILT, some clay, trace fine sand, gray, damp		SAND PACK 45–59 FEET
47		21					
		A					
48		A					
		A					
49		A					
		A					
50		SS			50 ft		2 INCH I.D. PVC SCREEN 49–59 FEET
		6	25	0.0	FINE SAND, little silt, gray, wet		
51		8					
		9					
52		12					
		A					
53		A					
		A					
54		A					
		A					
55		SS			55 ft		
		6	100	0.0	FINE SAND, some silt, trace clay partings, gray, wet		
56		7					
		9					
57		11					
		A					
58		A					
		A					
59		A					
					Boring terminated at 59 feet.		
60							

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt-Wolff	**PARSONS ENGINEERING SCIENCE, INC.** **DRILLING RECORD**	**BORING/ WELL NO.** GW-4
Driller: Dick Walls Inspector: N.A. Smith Rig Type: CME-55, 3.25" HSA	PROJECT NAME NYSDEC - Modock Road Springs PROJECT NUMBER 726332.01000, Work Assignment # D002478-31	Sheet 1 of 3 Location Description: In depression along hedgerow east of test well, southeast of house.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	42.05		
TEMP (deg. F)	57.6		
COND (uS/cm)	679		
pH	7.02		
TURB (Ntu)	65		

Weather Mostly sunny, 56 degrees

Date/Time Start August 9, 1995 / 0710

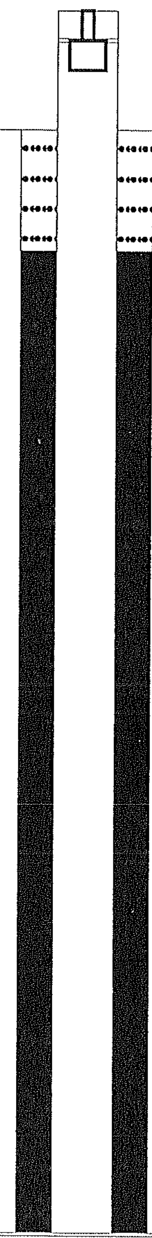
Date/Time Finish August 9, 1995 / 1220

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	COMMENTS
+2						
						LOCKING CAP
+1						
						2 INCH I.D. PVC RISER +1.64-41.5 FEET
0		SS				
		4	75	0.0	FINE SAND, little silt, trace pebbles, brown, dry	
1		5				BENTONITE SEAL 0-2 FEET
		5				
2		7				
		A				
3		A				
		A				
4		A				
		A				
5		SS				BOREHOLE COLLAPSE 2-53 FEET
		5	75	0.0		
6		4			6 ft	
		4			FINE-MEDIUM SAND, some silt, little fine gravel, dark brown, damp	
7		5				
		A				
8		A				
		A				
9		A				
		A				
10		SS			10 ft	
		4	0	N/A	FINE-MEDIUM SAND, some fine gravel-cobbles, brown, dry	
11		6				
		6				
12		7				
		A				
13		A				
		A				
14		A				
		A				
15		SS			15 ft	
		3	87.5	0.0	FINE-MEDIUM SAND, trace silt, light brown, dry-damp	
16		1				
		2				
17		3				
		A				
18		A				
		A				

SCHEMATIC



SAMPLING METHOD

SS = SPLIT SPOON

A = AUGER CUTTINGS

C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–4

Sheet 2 of 3
Location Description: In depression along hedgerow east of test well, southeast of house.

Location Plan

SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	42.05		
TEMP (deg. F)	57.6		
COND (uS/cm)	679		
pH	7.02		
TURB (Ntu)	65		

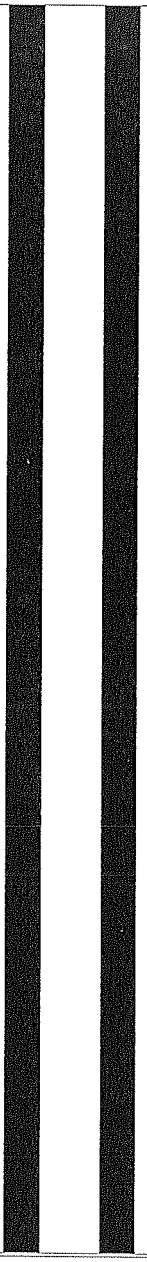
Weather Mostly sunny, 56 degrees

Date/Time Start August 9, 1995 / 0710

Date/Time Finish August 9, 1995 / 1220

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
19		A			FINE–MEDIUM SAND, trace silt, light brown, dry–damp
		A			
20		SS			20 ft
		11	83.3	0.0	FINE–MEDIUM SAND AND COBBLES, brown, dry
21		27			contains gray limestone and red sandstone
		50/0.2			
22		A			
		A			
23		A			
		A			
24		A			
		A			
25		SS			
		11	50	0.0	some fine gravel–cobbles
26		17			
		17			
27		28			
		A			
28		A			
		A			
29		A			
		A			
30		SS			
		29	71.4	1.8	
31		50/0.5			
		A			
32		A			
		A			
33		A			
		A			
34		A			
		A			
35		SS			
		63	80	1.6	
36		A			
		A			
37		A			
		A			
38		A			
		A			
39		A			
		A			

SCHEMATIC



COMMENTS

2 INCH I.D. PVC RISER
+1.6–41.5 FEET

BOREHOLE COLLAPSE
2–53 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff	PARSONS ENGINEERING SCIENCE, INC. DRILLING RECORD	BORING/ WELL NO. GW–4
Driller: Dick Walls	PROJECT NAME NYSDEC – Modock Road Springs	Sheet 3 of 3
Inspector: N.A. Smith	PROJECT NUMBER 726332.01000, Work Assignment # D002478–31	Location Description: In depression along hedgerow east of test well, southeast of house.
Rig Type: CME–55, 3.25" HSA		

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	42.05		
TEMP (deg. F)	57.6		
COND (uS/cm)	679		
pH	7.02		
TURB (Ntu)	65		

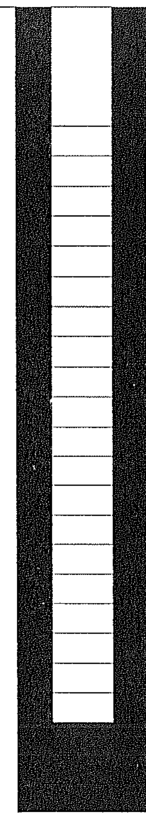
Weather Mostly sunny, 56 degrees

Date/Time Start August 9, 1995 / 0710

Date/Time Finish August 9, 1995 / 1220

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
40		SS			FINE–MEDIUM SAND, some fine gravel–cobbles, brown, dry		
		58	50	0.0			2 INCH I.D. PVC RISER
41		A					+1.64 – 51.5 FEET
		A					
42		A					BOREHOLE COLLAPSE
		A			wet		2–53 FEET
43		A					
		A					2 INCH I.D. PVC SCREEN
44		A					41.5–51.5 FEET
		A					
45		SS			-- 45 ft		
		12	75	0.0	FINE–MEDIUM SAND, little–some fine–medium gravel, brown, wet		
46		14					
		18					
47		22					
		A					
48		A					
		A					
49		A					
		A					
50		SS			-- 50 ft		
		9	100	0.0	FINE–MEDIUM SAND, trace–little fine gravel, gray, heaving, wet		
51		11					
		13					
52		17					
		A					
53		A					
					Boring terminated at 53 feet.		
54							
55							
56							
57							
58							
59							
60							

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/ WELL NO. GW-5

Contractor: Parratt-Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME-55, 3.25" HSA

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478-31

Sheet 1 of 2
Location Description: In sloping gulley in woods west of road and test well, northwest of Larson well.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	11.61		
TEMP (deg. F)	56.0		
COND (uS/cm)	664		
pH	6.76		
TURB (Ntu)	113		

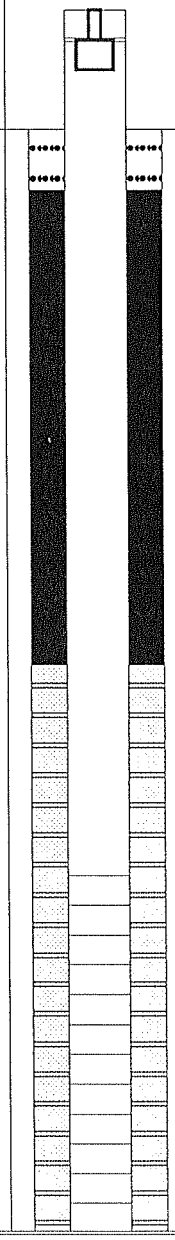
Weather Sunny, 80 degrees
Date/Time Start August 9, 1995 / 1340
Date/Time Finish August 9, 1995 / 1500

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0		SS			
		2	75	0.0	FINE SAND and SILT, brown, dry
1		2			
		3			
2		2			
		A			
3		A			
		A			
4		A			
		A			
5		SS			
		10	75	0.0	little cobbles
6		12			
		14			
7		14			
		A			
8		A			
		A			
9		A			
		A			
10		SS			10 ft
		15	75	0.0	FINE-MEDIUM SAND, some fine gravel-cobbles, brown, dry
11		18			
		16			
12		14			wet
		A			
13		A			
		A			
14		A			
		A			
15		SS			
		9	87.5	0.0	little cobbles
16		13			
		15			
17		19			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–5

Sheet 2 of 2
Location Description: In sloping gulley in woods west of road and test well, northwest of Larson well.

Location Plan

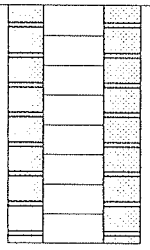
SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	11.61		
TEMP (deg. F)	56.0		
COND (uS/cm)	664		
pH	6.76		
TURB (Ntu)	113		

Weather Sunny, 80 degrees

Date/Time Start August 9, 1995 / 1340

Date/Time Finish August 9, 1995 / 1500

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
19		A			FINE–MEDIUM SAND, some fine–medium gravel,little cobbles, brown, wet		2 INCH I.D. PVC SCREEN 12.5–22.5 FEET
		A					
20		SS					SAND PACK 9–22.5 FEET
		4	100	0.0			
21		27					
		16			21.5 ft		
22		23			CLAY, trace silt, brown–gray, stiff, damp		
		A					
23					Boring terminated at 22.5 feet.		
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–6

Sheet 1 of 4
Location Description: Southeast corner of Turner field, east of GW–2, in line with GW–1 and Test Well.

Location Plan

SEE SITE PLAN

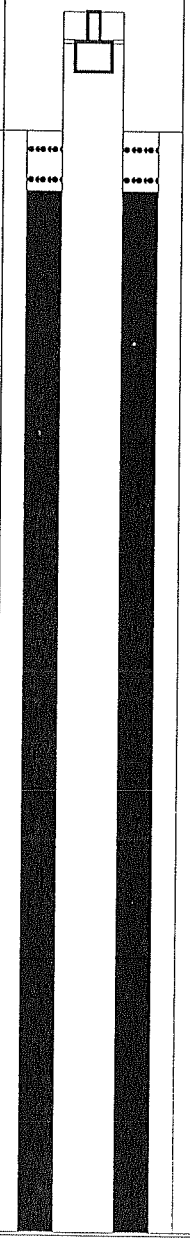
Weather Sunny, 90 degrees
Date/Time Start August 9, 1995 / 1645
Date/Time Finish August 10, 1995 / 1200

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	61.02		
TEMP (deg. F)	56.8		
COND (uS/cm)	798		
pH	6.55		
TURB (Ntu)	142		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0		SS			
		2	87.5	0.0	SILT & FINE SAND, light brown, dry
1		2			
		3			
2		5			
		A			
3		A			
		A			
4		A			
		A			
5		SS			
		3	100	0.0	trace silt
6		4			
		4			
7		3			
		A			
8		A			
		A			
9		A			
		A			
10		SS			
		8	62.5	0.0	10.5 ft
11		8			FINE–MEDIUM SAND, little fine gravel, gray, dry
		7			
12		7			
		A			
13		A			
		A			
14		A			
		A			15 ft
15		SS			FINE–MEDIUM SAND, gray, dry
		4	62.5	0.0	
16		5			
		3			
17		4			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

LOCKING CAP

2 INCH I.D. PVC RISER
+0.94 – 59 FEET

BENTONITE SEAL
0–1 FEET

BOREHOLE COLLAPSE
1–71 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/ WELL NO. GW-6

Contractor: Parratt-Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME-55, 3.25" HSA

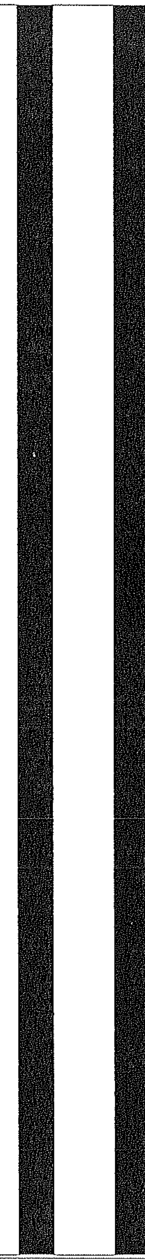
PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478-31

Sheet 2 of 4
Location Description: Southeast corner of Turner field, east of GW-2, in line with GW-1 and Test Well.
Location Plan

SEE SITE PLAN

Weather Sunny, 90 degrees
Date/Time Start August 9, 1995 / 1645
Date/Time Finish August 10, 1995 / 1200

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	61.02		
TEMP (deg. F)	56.8		
COND (uS/cm)	798		
pH	6.55		
TURB (Ntu)	142		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
19		A			FINE-MEDIUM SAND, gray, dry		
		A					2 INCH I.D. PVC RISER
20		SS			------------------------------------ 20 ft		+0.94 – 59 FEET
		4	37.5	0.0	FINE-MEDIUM SAND, little pebbles-cobbles, gray, dry		
21		7					BOREHOLE COLLAPSE
		13					1-71 FEET
22		11					
		A					
23		A					
		A					
24		A					
		A					
25		SS					
		14	50	0.0	little-some fine gravel-pebbles		
26		12					
		11					
27		12					
		A					
28		A					
		A					
29		A					
		A					
30		SS			------------------------------------ 30 ft		
		5	62.5	0.0	FINE-MEDIUM SAND, gray, damp		
31		5					
		9					
32		14					
		A					
33		A					
		A					
34		A					
		A					
35		SS					
		63	100	0.0	little cobbles, dry		
36		A					
		A					
37		A					
		A					
38		A					
		A					
39		A					
		A					

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/ WELL NO. GW–6

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

Sheet 3 of 4
Location Description: Southeast corner of Turner field, east of GW–2, in line with GW–1 and Test Well.

Weather Sunny, 90 degrees
Date/Time Start August 9, 1995 / 1645
Date/Time Finish August 10, 1995 / 1200

Location Plan

SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	61.02		
TEMP (deg. F)	56.8		
COND (uS/cm)	798		
pH	6.55		
TURB (Ntu)	142		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
40		SS			FINE–MEDIUM SAND, little cobbles, gray, dry
		68	50	5.6	
41		A			
		A			
42		A			
		A			
43		A			
		A			
44		A			
		A			
45		SS			
		11	62.5	0.0	little fine–medium gravel
46		17			
		21			
47		32			
		A			
48		A			
		A			
49		A			
		A			
50		SS			
		13	75	0.0	damp
51		12			
		14			
52		36			
		A			
53		A			
		A			
54		A			
		A			
55		SS			55 ft
		11	87.5	0.0	FINE–MEDIUM SAND, gray, damp
56		15			
		19			
57		18			
		A			
58		A			
		A			
59		A			
		A			
60		SS			
		14	75	0.0	wet

SCHEMATIC

COMMENTS

2 INCH I.D. PVC RISER
+0.94 – 59 FEET

BOREHOLE COLLAPSE
1 – 71 FEET

2 INCH I.D. PVC SCREEN
59 – 69 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/ WELL NO. GW-6

Contractor: Parratt-Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME-55, 3.25" HSA

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478-31

Sheet 4 of 4
Location Description: Southeast corner of Turner field, east of GW-2, in line with GW-1 and Test Well.

Weather Sunny, 90 degrees

Date/Time Start August 9, 1995 / 1645

Date/Time Finish August 10, 1995 / 1200

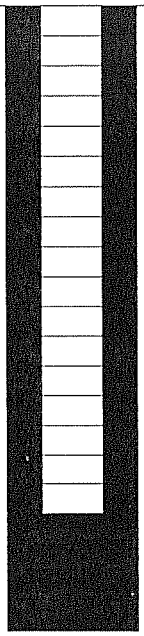
Location Plan

SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	61.02		
TEMP (deg. F)	56.8		
COND (uS/cm)	798		
pH	6.55		
TURB (Ntu)	142		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
61		27			FINE-MEDIUM SAND, gray, wet
		37			little fine gravel-pebbles
62		16			
		A			
63		A			
		A			
64		A			
		A			
65		SS			
		23	100	0.0	
66		59			
		A			
67		A			
		A			
68		A			
		A			
69		SS			
		6	100	0.0	
70		7			70 ft
		19			CLAY, some silt, trace fine sand & gravel, brown, wet 70.25 ft
71		28			CLAY, little silt, trace fine gravel, (till), gray, very stiff, damp
					Boring terminated at 71 feet.
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					

SCHEMATIC



COMMENTS

BOREHOLE COLLAPSE
1-71 FEET

2 INCH I.D. PVC SCREEN
59-69 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/ WELL NO. GW-7

Contractor: Parratt-Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME-55, 3.25" HSA

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478-31

Sheet 1 of 4
Location Description: Southern edge of Turner field, between GW-2 and GW-6.

Weather Partly sunny, humid, 80 degrees

Date/Time Start August 10, 1995 / 1240

Date/Time Finish August 10, 1995 / 1708

Location Plan

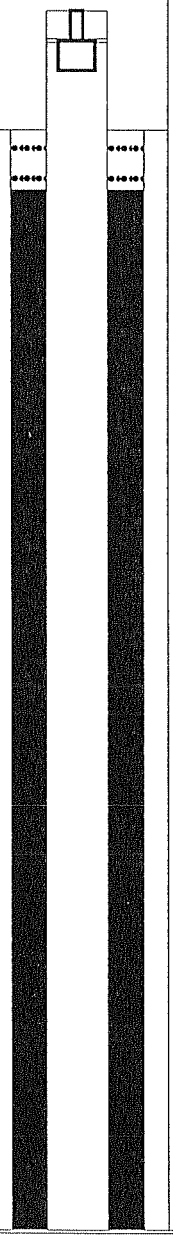
SEE SITE PLAN

GROUNDWATER OBSERVATIONS

DATE	8/11/95		
DTW (ft BGS)	64.75		
TEMP (deg. F)	58.1		
COND (uS/cm)	767		
pH	7.15		
TURB (Ntu)	57		

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
+2					
+1					
0					
		A			SILT & FINE SAND, brown, dry
1		SS			
		3	75	2.8	
2		5			
		8			
3		8			
		A			
4		A			
		A			
5		SS			
		6	37.5	14.5	trace silt and cobbles
6		11			
		14			
7		12			
		A			
8		A			
		A			
9		A			
		A			
10		SS			10 ft
		4	87.5	0.3	FINE-MEDIUM SAND, trace fine gravel-cobbles, brown, damp
11		5			
		7			
12		13			
		A			
13		A			
		A			
14		A			
		A			
15		SS			dry
		27	68.2	4.4	
16		21			
		50/0.1			
17		A			
		A			
18		A			
		A			

SCHEMATIC



COMMENTS

LOCKING CAP

2 INCH I.D. PVC RISER
+1.47 – 64.5 FEET

BENTONITE SEAL
0 – 1 FEET

BOREHOLE COLLAPSE
1 – 74.5 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

BORING/
WELL NO. GW–7

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

Sheet 2 of 4
Location Description: Southern edge of Turner field, between GW–2 and GW–6.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	64.75		
TEMP (deg. F)	58.1		
COND (uS/cm)	767		
pH	7.15		
TURB (Ntu)	57		

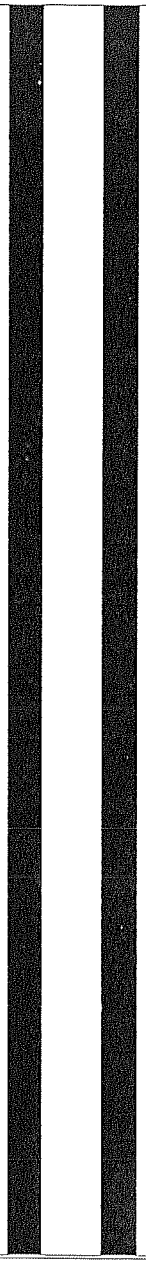
Weather Partly sunny, humid, 80 degrees
Date/Time Start August 10, 1995 / 1240
Date/Time Finish August 10, 1995 / 1708

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
19		A			FINE–MEDIUM SAND, trace fine gravel–cobbles, brown, damp
		A			
20		SS			20 ft
		2	75	0.0	FINE–MEDIUM SAND, light brown, dry
21		2			
		1			
22		2			
		A			
23		A			
		A			
24		A			
		A			
25		SS			
		41	35.7	15.1	some cobbles
26		27			
		50/0.4			
27		A			
		A			
28		A			
		A			
29		A			
		A			
30		SS			30 ft
		16	87.5	0.0	FINE SAND, light brown, dry
31		20			
		19			31.5 ft
32		18			FINE–MEDIUM SAND, light brown, dry
		A			
33		A			
		A			
34		A			
		A			
35		SS			35 ft
		21	100	0.0	FINE SAND, brown, damp–moist
36		16			
		11			
37		8			contains clay partings, wet
		A			
38		A			
		A			
39		A			
		A			

SCHEMATIC



COMMENTS

BOREHOLE COLLAPSE
1–74.5 FEET

2 INCH I.D. PVC RISER
+1.47–64.5 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–7

Sheet 3 of 4
Location Description: Southern edge of Turner field, between GW–2 and GW–6.

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	64.75		
TEMP (deg. F)	58.1		
COND (uS/cm)	767		
pH	7.15		
TURB (Ntu)	57		

Weather: Partly sunny, humid, 80 degrees
Date/Time Start: August 10, 1995 / 1240
Date/Time Finish: August 10, 1995 / 1708

Location Plan

SEE SITE PLAN

Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC	COMMENTS
40		SS			40 ft		
		19	100	0.0	FINE–MEDIUM SAND, little fine gravel, brown–gray, dry		BOREHOLE COLLAPSE 1–74.5 FEET
41		15					
		13					
42		13					2 INCH I.D. PVC RISER +1.47 –64.5 FEET
		A					
43		A					
		A					
44		A					
		A					
45		SS					
		68	100	0.0	little cobbles		
46		A					
		A					
47		A					
		A					
48		A					
		A					
49		A					
		A					
50		SS					
		51	60	4.4			
51		A					
		A					
52		A					
		A					
53		A					
		A					
54		A					
		A					
55		SS					
		29	83.3	0.0	gray, damp		
56		24					
		50/0.2					
57		A					
		A					
58		A					
		A					
59		A					
		A					
60		SS					
		50/0.4	100	0.0			

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

Contractor: Parratt–Wolff
Driller: Dick Walls
Inspector: N.A. Smith
Rig Type: CME–55, 3.25" HSA

PARSONS ENGINEERING SCIENCE, INC.
DRILLING RECORD

PROJECT NAME NYSDEC – Modock Road Springs
PROJECT NUMBER 726332.01000, Work Assignment # D002478–31

BORING/ WELL NO. GW–7

Sheet 4 of 4
Location Description: Southern edge of Turner field, between GW–2 and GW–6.

Weather Partly sunny, humid, 80 degrees
Date/Time Start August 10, 1995 / 1240
Date/Time Finish August 10, 1995 / 1708

Location Plan
SEE SITE PLAN

GROUNDWATER OBSERVATIONS			
DATE	8/11/95		
DTW (ft BGS)	64.75		
TEMP (deg. F)	58.1		
COND (uS/cm)	767		
pH	7.15		
TURB (Ntu)	57		

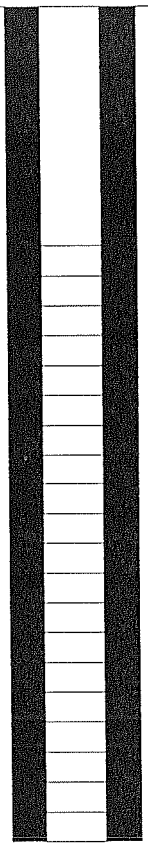
Sample Depth	Sample I.D.	SPT	% Rec.	PID Reading	FIELD IDENTIFICATION OF MATERIAL
61		A			FINE–MEDIUM SAND, little fine gravel–cobbles, gray, damp
		A			
62		A			
		A			
63		A			
		A			
64		A			
		A			
65		SS			
		6	100	0.0	FINE–MEDIUM SAND, trace fine gravel, gray, wet
66		10			
		13			
67		15			
		A			
68		A			
		A			
69		A			
		A			
70		SS			
		34	100	0.0	FINE–MEDIUM SAND, some fine gravel–cobbles, brown–gray, wet
71		43			
		58			
72		A			
		A			
73		A			
		A			
74		SS			
		50	100	0.0	
75					Boring terminated at 74.5 feet.
76					
77					
78					
79					
80					
81					

65 ft

70 ft

G.W. level - 60'-65' BGS

SCHEMATIC



COMMENTS

BOREHOLE COLLAPSE
1 – 74.5 FEET

2 INCH I.D. PVC RISER
+1.47 – 64.5 FEET

2 INCH I.D. PVC SCREEN
64.5 – 74.5 FEET

SAMPLING METHOD
SS = SPLIT SPOON
A = AUGER CUTTINGS
C = CORED

COMMENTS:

ATTACHMENT C
SAMPLE DATA SUMMARY

ATTACHMENT C

GROUNDWATER SAMPLE SUMMARY
MODOCK ROAD SPRINGS SITE (NYSDEC SITE NO. 835013)
ONTARIO COUNTY, NEW YORK

SAMPLE MATRIX	SAMPLE IDENTIFIER	WELL SCREEN DEPTH (FEET BGS)	SAMPLING DATE	ANALYTICAL METHOD	DESCRIPTION OF SAMPLE LOCATION
Groundwater	GW–1	49.0 – 59.0	08/08/95	USEPA 8010*	South–southeast of Turner house in gap between hedgerows.
Groundwater	GW–2	48.0 – 58.0	08/08/95	USEPA 8010	South–southeast of Turner house, south of GW–1.
Groundwater	GW–3	49.0 – 59.0	08/11/95	USEPA 8010	South–southwest of Turner house, gravel pit, and Turner test well.
Groundwater	GW–4	41.5 – 51.5	08/11/95	USEPA 8010	South–southeast of Turner house in depression adjacent to hedgerow.
Groundwater	GW–5	12.5 – 22.5	08/11/95	USEPA 8010	West–southwest of Turner house on slope adjacent to access road.
Groundwater	GW–6	59.0 – 69.0	08/11/95	USEPA 8010	South–southeast of Turner house, east of GW–7.
Groundwater	GW–7	64.5 – 74.5	08/11/95	USEPA 8010	South–southeast of Turner house, east of GW–2, west of GW–6.

* Reported compounds consisted of chloroethane: 1,1–DCA; 1,1–DCE; t–1,2–DCE; c–1,2–DCE; PCE; 1,1,1–TCA; TCE; and vinyl chloride.

ATTACHMENT D

GROUNDWATER SAMPLING RECORDS

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-1

Site Name: Modock Road Springs

Date: 8/8/95

Time: 1545

Samplers: NAS

of Parsons ES

Weather: Sunny, 81°F

Sample Location: [redacted]

Purge Water Disposition (e.g., contained): to ground

Sample Description:

Color: light brown

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 55.2° F

Ph: 6.65

Conductivity (uS/cm): 612

Turbidity (NTU): >200

PID (ambient): —

Comments: collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-2 Site Name: modock Road Springs

Date: 8/8/95 Time: 15 50

Samplers: NAS of Parsons ES

Weather: Sunny, 81°F

Sample Location: SSE of Turner house, S of GW-1, W of GW-7

Screen/Sample Depth: 48.0-58.0 ft. bgs

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 53.92 ft (8/11/95)

Volume Standing in Well:

2-Inch Casing:	4.1	Feet of Water x 0.16 Gallons/Foot =	0.7	Gallons
3-Inch Casing:		Feet of Water x 0.36 Gallons/Foot =		Gallons
4-Inch Casing:		Feet of Water x 0.65 Gallons/Foot =		Gallons

Volume of groundwater purged: well purged, volume not recorded

Purging Device: disposable bailer

Purge Water Disposition (e.g., contained): to ground

Sample Description:

Color: brown

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 56.1°F

Ph: 6.43

Conductivity (uS/cm): 649

Turbidity (NTU): >200

PID (ambient): —

Comments: collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-3 Site Name: Modock Road Springs

Date: 8/11/95 Time: 1310

Samplers: NAS of Parsons ES

Weather: Cloudy, 73°F

Sample Location: SSE of Turner house, gravel pit, and test well

Screen/Sample Depth: 49.0 - 59.0 ft. bgs

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 46.30 ft.

Volume Standing in Well:

2-Inch Casing:	12.7	Feet of Water x 0.16 Gallons/Foot =	2.0	Gallons
3-Inch Casing:		Feet of Water x 0.36 Gallons/Foot =		Gallons
4-Inch Casing:		Feet of Water x 0.65 Gallons/Foot =		Gallons

Volume of groundwater purged: 5 gals removed during development (8/9/95)

Purging Device: disposable bailers

Purge Water Disposition (e.g., contained): to ground

Sample Description: Cloudy

Color: Gray

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 55.3°F

Ph: 6.89

Conductivity (uS/cm): 342

Turbidity (NTU): 199

PID (ambient): —

Comments: collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-4 Site Name: Modoch Road: Springs

Date: 8/11/95 Time: 1325

Samplers: NAS of Parsons ES

Weather: Cloudy, 73°F

Sample Location: SSE of Turner house in depression adjacent to ledge.

Screen/Sample Depth: 41.5 - 51.5

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 43.69 ft.

Volume Standing in Well:

2-Inch Casing:	7.8	Feet of Water x 0.16 Gallons/Foot =	1.3	Gallons
3-Inch Casing:		Feet of Water x 0.36 Gallons/Foot =		Gallons
4-Inch Casing:		Feet of Water x 0.65 Gallons/Foot =		Gallons

Volume of groundwater purged: well purged, volume not recorded

Purging Device: disposable bailer

Purge Water Disposition (e.g., contained): to ground

Sample Description: clear

Color:

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 57.6°F

Ph: 7.02

Conductivity (uS/cm): 679

Turbidity (NTU): 65

PID (ambient): -

Comments: collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-5 Site Name: Modock Road Springs

Date: 8/11/95 Time: 1400

Samplers: NAS of Parsons ES

Weather: Cloudy, 73°F

Sample Location: WSW of Turner house on slope adjacent to access Rd.

Screen/Sample Depth: 12.5- 22.5 ft. bgs

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 13.72 ft.

Volume Standing in Well:

2-Inch Casing:	8.8	Feet of Water x 0.16 Gallons/Foot =	1.4	Gallons
3-Inch Casing:		Feet of Water x 0.36 Gallons/Foot =		Gallons
4-Inch Casing:		Feet of Water x 0.65 Gallons/Foot =		Gallons

Volume of groundwater purged: well purged, volume not recorded

Purging Device: disposable bailer

Purge Water Disposition (e.g., contained): to ground

Sample Description: Slightly cloudy

Color: Gray

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 56.0° F

Ph: 6.76

Conductivity (uS/cm): 664

Turbidity (NTU): 113

PID (ambient): —

Comments: collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-6 Site Name: Modoch Road Springs

Date: 8/11/95 Time: 1250

Samplers: NAS of Parsons ES

Weather: Cloudy, 73°F

Sample Location: SSE of Turner house, E of GW-7

Screen/Sample Depth: 59.0 - 69.0 ft. bgs

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 61.96 ft.

Volume Standing in Well:

2-Inch Casing: 7.1 Feet of Water x 0.16 Gallons/Foot = 1.1 Gallons

3-Inch Casing: ____ Feet of Water x 0.36 Gallons/Foot = ____ Gallons

4-Inch Casing: ____ Feet of Water x 0.65 Gallons/Foot = ____ Gallons

Volume of groundwater purged: well purged, volume not recorded

Purging Device: disposable bailer

Purge Water Disposition (e.g., contained): to ground

Sample Description:

Color: Light brown

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 56.8°F

Ph: 6.55

Conductivity (uS/cm): 798

Turbidity (NTU): 142

PID (ambient): -

Comments: Collected from temporary well

GROUNDWATER SAMPLING RECORD

Sample Identifier: GW-7 Site Name: Modock Springs Road

Date: 8/11/95 Time: 1310

Samplers: NAS of Parsons ES

Weather: Cloudy, 73°F

Sample Location: SSE of Turner house, E of GW-2, W of GW-6

Screen/Sample Depth: 64.5 - 74.5 ft. bgs

Sampling Device: Disposable HDPE bailer

Groundwater Purging:

Initial Static Water Level: 66.22 ft.

Volume Standing in Well:

2-Inch Casing:	8.3	Feet of Water x 0.16 Gallons/Foot =	1.3	Gallons
3-Inch Casing:		Feet of Water x 0.36 Gallons/Foot =		Gallons
4-Inch Casing:		Feet of Water x 0.65 Gallons/Foot =		Gallons

Volume of groundwater purged: well purged, volume not recorded

Purging Device: disposable bailer

Purge Water Disposition (e.g., contained): to ground

Sample Description: Clear

Color:

Odor:

Other:

Sample Analyzed for: EPA 8010, special list

QC Samples at this Location: none

QC Samples Analyzed for:

Field Tests:

Temperature (C/F): 58.1°F

Ph: 7.15

Conductivity (uS/cm): 767

Turbidity (NTU): 57

PID (ambient): —

Comments: collected from temporary well

ATTACHMENT E

WATER LEVEL MEASUREMENTS

ATTACHMENT E

WATER LEVEL MEASUREMENTS
MODOCK SPRINGS ROAD SITE (NYSDEC SITE NO. 835013)
ONTARIO COUNTY, NEW YORK

WELL IDENTIFIER	DEPTH BELOW TOP OF PVC CASING* (Feet)	HEIGHT OF TOP OF PVC CASING ABOVE GROUND* (Feet)	DEPTH BELOW GROUND SURFACE (Feet)
GW-1	53.57	1.25	52.32
GW-2	53.92	1.86	52.06
GW-3	46.30	1.40	44.90
GW-4	43.69	1.64	42.05
GW-5	13.72	2.11	11.61
GW-6	61.96	0.94	61.02
GW-7	66.22	1.47	64.75

* Measured on August 11, 1995.

ATTACHMENT F

SUMMARY OF DETECTED COMPOUNDS

ATTACHMENT F

SUMMARY OF DETECTED COMPOUNDS
GROUNDWATER SAMPLES
MODOCK ROAD SPRINGS SITE (NYSDEC SITE NO. 835013)
ONTARIO COUNTY, NEW YORK

		SAMPLE ID:	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7
		LAB ID:	33005	33006	33921	33920	33922	33918	33919
		SOURCE:	GTC	GTC	GTC	GTC	GTC	GTC	GTC
		RUN:	2667	2667	2863	2863	2863	2863	2863
		MATRIX:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		SAMPLED:	8/8/95	8/8/95	8/11/95	8/11/95	8/11/95	8/11/95	8/11/95
CAS NO	COMPOUND	UNITS:							
	USEPA METHOD 8010								
75-35-4	1,1-Dichloroethene	UG/L	7.2	1.0 U	1.0 U	6.9	1.0 U	1.2	1.4
71-55-6	1,1,1-Trichloroethane	UG/L	120	3.0	1.0 U	110	17	28	32
79-01-6	Trichloroethene	UG/L	240	1.0 U	1.0 U	160	20	27	92

U - Indicates compound was analyzed for but not detected.