REMEDIAL INVESTIGATION
AND FEASIBILITY STUDY

PHASE I/PHASE II REMEDIAL INVESTIGATION REPORT, QUALITATIVE HEALTH RISK ASSESSMENT AND PRELIMINARY FEASIBILITY STUDY

River Road Site, Town of Tonawanda
Erie County, New York
(Site Registry No. 9-15-031)

APPENDICES

Dvirka and Bartilucci

Consulting Engineers

SEPTEMBER 1993

RIVER ROAD SITE

PHASE I/PHASE II REMEDIAL INVESTIGATION REPORT, QUALITATIVE HEALTH RISK ASSESSMENT AND PRELIMINARY FEASIBILITY STUDY

APPENDICES

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS
SYOSSET, NEW YORK

SEPTEMBER 1993

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RIVER ROAD SITE
PHASE I/PHASE II REMEDIAL INVESTIGATION REPORT, QUALITATIVE HEALTH RISK ASSESSMENT AND PRELIMINARY FEASIBILITY STUDY

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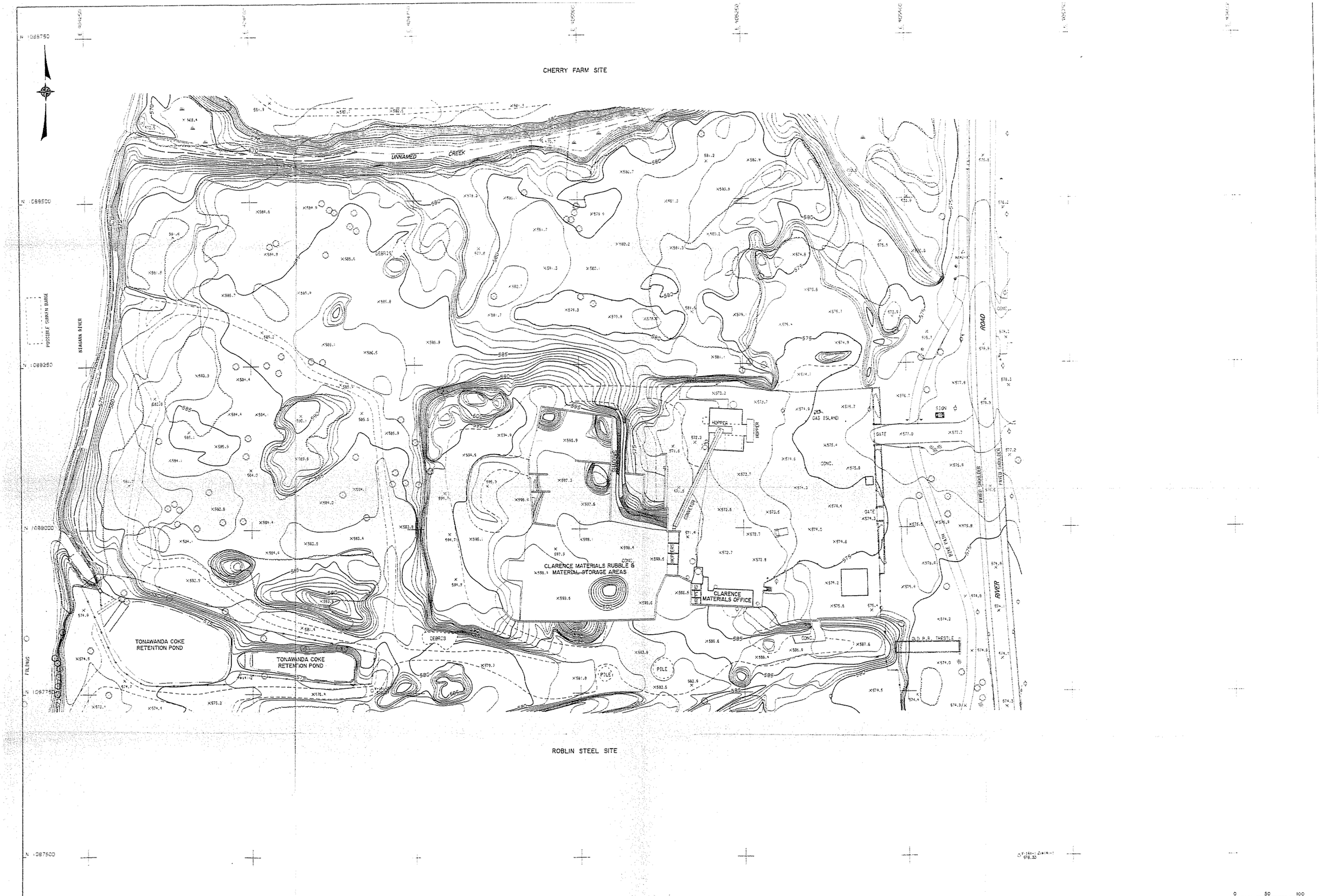
Appendix A

APPENDIX A

Aerial Photograph and Topographic Map of Site

CHERRY FARM SITE



ROBLIN STEEL SITE

0 50 100

Appendix B

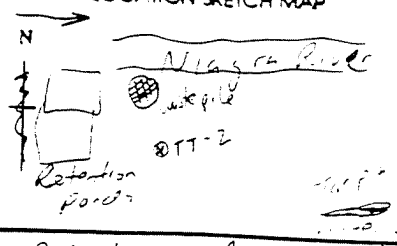
APPENDIX B

Test Pit Logs

AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-2	
PROJECT NO./NAME 1150-020 River Road	LOCATION North of the Retention pond, east side of Niagra River
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe, Mark (EPS)	
INSPECTOR/OFFICE Keith Robins / ED Santoro	START/FINISH DATE 3/25/92 - 3/25/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT FAIR
REMARKS: Soil sample from test pit for laboratory analysis TCL+30	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0-1/2	0	Grass, Roots, leaves	No buried drums noted during excavati.
1	1/2-1	0	Black fine-silty Sand, boiler slag with metal (iron) and bricks	
2	1-2	.5	SAME AS Above	
3	2'-4'	2-2.3	Brown very fine Sand, soft with concrete slag, cobbles At 4' Slag mixed with excesive bricks and cobbles (1-2' insize)	Pulled up steel cable at(2') and garden hose
4				
5	4-6'	2	Black-Redish fine-coarse Sand, little Silt, angular gravel Loose, poorly sorted, trace glass fragments. At (6') Light brown-black C-F Sand, some angular gravel, mixed with slag	Stability of sides of walls weak, caving in, noted wire and metal
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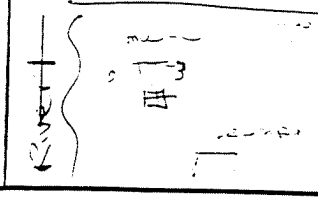
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP

N



TEST PIT NO. TP-03	
PROJECT NO./NAME 1150 RIVER ROAD, RI/FS	LOCATION TONOWANDA NY
EXCAVATOR/EQUIPMENT/OPERATOR Kamatsu Backhoe	
INSPECTOR/OFFICE E. Gidner / Sysnest	START/FINISH DATE 3/24/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Crumbling
REMARKS: Dense slag @ 4'	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0		2-4 ppm	0-5 Fill. Alternating layers of slag and cinders. At least 5 layers of slag and four layers of cinders ~5'.	Chemical sample collected @ 4'
1	3-1 Composite sample			up to 125 ppm off of ground surface
2		2.4 ppm		
3		20 ppm		
4		48-52 ppm		
5			5' Refusal @ 5' on hard slag	
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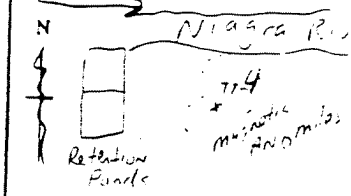
DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-4	
PROJECT NO./NAME 1150-02A River Road	LOCATION East side along Niagara River, in area of magnetic Anomalies (mound)
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe, Mark (EPS)	
INSPECTOR/OFFICE Keith Robins, Ed Santoro	START/FINISH DATE 3/25/ - 3/25/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT fair
REMARKS: No soil sample taken from this test pit	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0 - 1/2'	—	Brown fine sand, roots and grass	No Drums were Recovered.
1	1/2 - 1 1/2	1.3	Black clayey silt, soft, slightly plastic, with slag fragments, bricks, wood, foundry sands.	
2	1.5-2'	3.5-5.5	Brown-dark brown medium-coarse sand, with foundry sands and fragments, very loose, poorly sorted	Wire cable at 1.5' appears to be continuous, Noted wood twigs and wooden parts.
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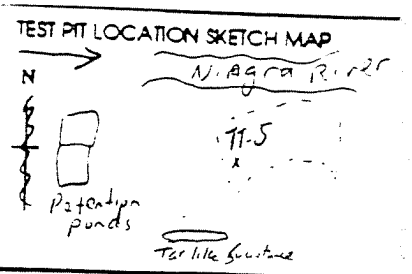
NJDEPTPL

DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-5	
PROJECT NO./NAME 1150-02A River Road	LOCATION East of Niagra River, in area of Magnetic Anomalies
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe / Mark (EPS)	
INSPECTOR/OFFICE Keith Robins / Ed Santoro	START/FINISH DATE 3/25/92 - 3/25/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Good
REMARKS: Soil sample obtained at 4.5 feet, Laboratory analysis for TCL + 30, RERA, TCLP / EP TOX	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0 - 1/2'	0	Roots and grass	No Buried drums noticed during excavation
1	1/2 - 1'	0	Black clayey silt with slag	
2	1' - 1 1/2'	.3 - .4	Black fine silty Sand, some clay, concrete + cinders	
3	1 1/2 - 2 1/2'	2	Building Rubble (bricks, and wood)	
4	2 1/2 - 3 1/2'	5-6	Fine-medium Sand, little silt, foundry sands mixed with slag	steel pipe sticking up out of ground
5	3 1/2 - 4 1/2'	15-16	Dark Black silty fine Sand, little clay, mixed with slag, concrete	
6	4 1/2 - 5	6-7	SAME AS ABOVE	
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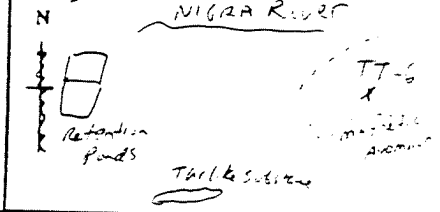
DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-6	
PROJECT NO./NAME 1150-02A River Road	LOCATION East of Nigra River, in area of Magnetic Anomilies
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe, Mark (EPS)	
INSPECTOR/OFFICE Keith Robins / Ed Santoro	START/FINISH DATE 3/25/92 - 3/25/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Good
REMARKS: Soil sample collected at (7.5'), laboratory analysis on sample TCL+30, RCCA, TCLP/EP TOX	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	1/2 - 1	.8 - 1	Brown Sandy Clay, roots and grass	No buried drums Revealed.
1, 2	1' - 3'	.2 - .8	Brown clay, some Brown medium - fine Sand	
3, 4, 5, 6	3' - 6.5'	.2	Dark Black - brown very fine Sand, some silt, trace gravel	
7	6.5 - 7.5	5.3 - 12.4	Black fine Sand, little silt, some roots and wood slight (Red = tint)	
8, 9	7.5 - 9'	2.3 - 3.8	Black very fine Sand, some Brown clay, slightly plastic, some slag	
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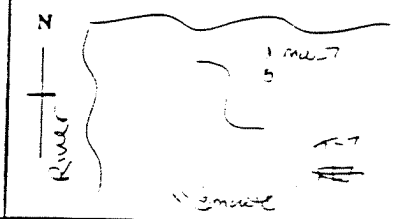
DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. 11-C7	
PROJECT NO./NAME 1150 RIVER ROAD, RI/FS	LOCATION TONOWANDA NY
EXCAVATOR/EQUIPMENT/OPERATOR Karnatz Backhoe	
INSPECTOR/OFFICE E Aldrich / Sygosset	START/FINISH DATE 3/25/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Fair
REMARKS: 3 drums located at Ground Surface - 3 have burnt timber	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	S-1	0ppm	0-6½' Fill. Brown-gray-black F-C sands, with Silt to clayey Silt, w/ plastic, wood, Brick, moist, loose to dense	Water Seep in pit @ 5' BG at SW corner
1				
2	S-2			Chem. Sample Collected at 6'
3	S-3			
4				Trench is 23' long
5				
6			@ 6' hard Slag 0.5'	
7			Refusal at 6½' on Slag	
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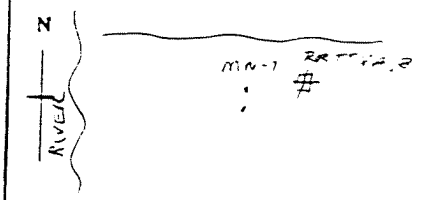
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TP-02A+B	
PROJECT NO./NAME 1150 RIVER ROAD, RI/FS	LOCATION Tonawanda NY
EXCAVATOR/EQUIPMENT/OPERATOR Kamatsu Backhoe	
INSPECTOR/OFFICE E. Aldrich / Syosset	START/FINISH DATE 3/10/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Stable
REMARKS: TP-02A+B equals 28.5' long	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	S-1	0.3 ppm	0-4' Topsoil Dark Brown fine Sand Some fine Angular Gravel, trace Brick fragments + hole bricks roots, leaves, stems - moist.	55 gallon drum w/ red paste like material encountered in trench 3.5' along with 2 paint cans
1		0 "		
2	S-2	0 "	4"-4' Fill Gray fine SAND, Some Gray Slag Gravel, trace bricks, steel.	Drum found at 2.5' - 10-14 ppm Sample collected for chem. Cumulus @ 2½'
3		0.2 "		
4		0 "	4" Refusal at 4' on slag	
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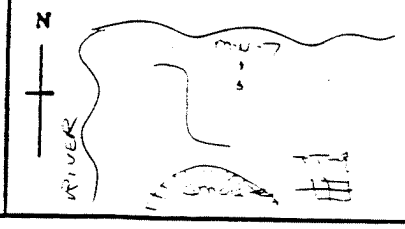
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-TT-09

PROJECT NO./NAME: 1150 RIVER ROAD, RI/FS

LOCATION: TONOWANDA NY

EXCAVATOR/EQUIPMENT/OPERATOR: KAMATSU Backhoe

INSPECTOR/OFFICE: E. Aldrich. Syosset

START/FINISH DATE: 3/10/92

ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)

CONDITION OF PIT: Stable

REMARKS: TT-9 located near fill area

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	S-1	0 - 0.4ppm	0-4' Fill Dark Brown Sand with Silt + brick frag.	Chemical Sample Collected at ~ 5'
1			4'-5' Slag, Hard, gray (like Cemented Sand?)	
2				
3				
4	S-2			
5			5' Refusal @ 5' on hard slag	
6				
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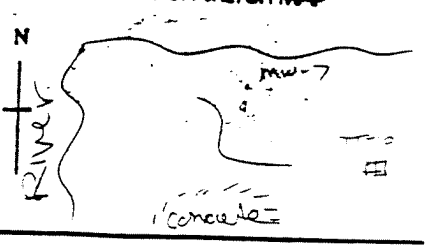
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-TT-10	
PROJECT NO./NAME 1150 RIVER ROAD, RI/FS	LOCATION Tonowanda NY
EXCAVATOR/EQUIPMENT/OPERATOR KAMATSU Backhoe	
INSPECTOR/OFFICE E. Aldred / S. Yasset	START/FINISH DATE 3/23/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Fair

REMARKS: ~~TT-10~~ located in fill area w/ much sm brush + trees
TT-10 32' long.

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0		0 PPM	0-2.5' Fill, dark brown sand and silt, roots,	Chemical Sample Collected @ 5½' from North end of Pit.
1			2.5-5' Fill, gray, brown sand, slag fragments, silt, brick,	
2				
3			@5 hard slag.	
4				
5			6'	
6			Refusal @ 6'	
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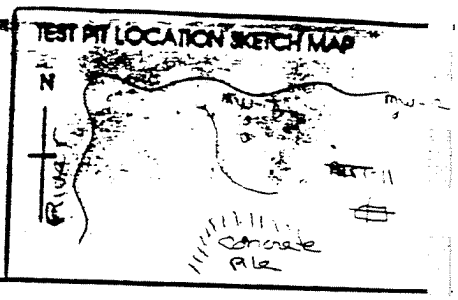
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-TT-11 A[redacted]	
PROJECT NO./NAME: 1150 RIVER ROAD, RI/FS	LOCATION: TONOWANDA NY
EXCAVATOR/EQUIPMENT/OPERATOR: KAMATSU Backhoe	
INSPECTOR/OFFICE: E. Aldrich / S. ASSET	START/FINISH DATE: 3/10/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT: Fair Stable - no failure
REMARKS: Empty 55 Gallon drums at Ground Surface.	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	S1	0 ppm	0-3' Dark brown fm ang. SAND. little silt, organic rich, veg. matter (ie) roots, leaves ..fill	
1			@3' Become light grey fine Sand — fill	
2			@5 Become red brown Sand Fill	
3			@6' Dense hard grey Slag.	
4	S2			
5				
6			6½'	
7			Refusal @ 6½' - hard slag.	
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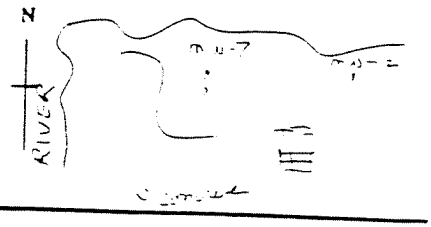
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-TI-11 B	
PROJECT NO./NAME 1150 River Road RI/FS	LOCATION Tonawanda N.Y.
EXCAVATOR/EQUIPMENT/OPERATOR Hamaton Backhoe	
INSPECTOR/OFFICE E. Aiken / Sunset	START/FINISH DATE 8/10/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Stable
REMARKS: Empty drums at Groundsurface.	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0		0.8	Fill 0-2.7' Plastic, wood, Fabric, bricks Some Sandy Soil - metal	Sample for Chemical Analysis taken at 2.7'
1				
2		12 ppm	2.7'	
3		150 ppm	Refusal @ 2.7' - Inspector instruction	
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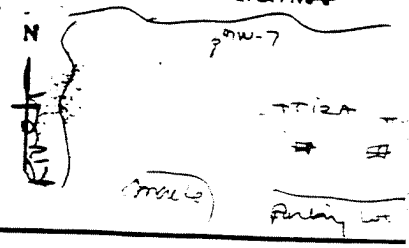
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-TT-12A	
PROJECT NO./NAME: 1150 RIVER ROAD, RI/FS	LOCATION: TONOWANDA NY
EXCAVATOR/EQUIPMENT/OPERATOR: KAMATSU Backhoe	
INSPECTOR/OFFICE: E. Albrecht / Sigsbee	START/FINISH DATE: 3/24/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT: Slight + failure
REMARKS: drum @ groundsurface at west end	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	S-1	6ppm	0-5.5 Fill - Brown, gray BLK Sand, Silt and Clayey Silt loose, wet-moist.	Sample for Chemical analysis collected @ 3' @ East end of pit
1				
2	S-2			Water @ 4.4' BG
3			@3' Red Brown Silt and Sand	Slag ledge @ west edge of pit ~ 4'
4		1.5ppm @ 3.5'		
5			5.5'	
6			Refusal due to Water.	
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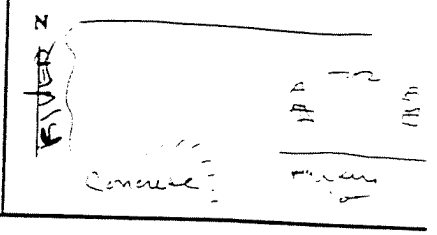
DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. RR-T-12B	
PROJECT NO./NAME: RIVER ROAD - 1150	LOCATION: Tonawanda
EXCAVATOR/EQUIPMENT/OPERATOR: Kamatsu Backhoe	
INSPECTOR/OFFICE: E. Aldrich / Syracuse	START/FINISH DATE: 9/24/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT: Stable

REMARKS: Pit excavated on full area. Test trench is 20' long

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	none Collected	0ppm	0-3'10" at west side of pit 0-4.5' at east end of pit Fill Brown clayey silt w/ Tan + gray lenses of silt + sand, occ metal + fabric moist	
1				
2				
3				
4				
5			3'10" 4.5' Refusal on slag.	
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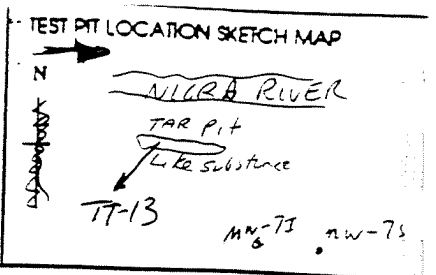
TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-13	
PROJECT NO./NAME 1150-02A RIVER Road	LOCATION Taken along side tar pit like substance
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe, Mark (EPS)	
INSPECTOR/OFFICE Keith Robins / Ed Santoro	START/FINISH DATE 3/26 - 3/26/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT N/A Just scraped the surface
REMARKS: Excavated tar pit like substance, approximately (2-3" thick) NO samples were taken	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0-1'	0	0-2½" Black frozen tar like substance 2"-1' Black clayey silt	TAR like material is only 2½" thick at surface.
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TEST PIT LOCATION SKETCH MAP

N

NIGRA RIVER

TEST PIT LOG

TEST PIT NO. TP-14	
PROJECT NO./NAME 1150-02A River Road	LOCATION ?
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe - Mark (EPS)	
INSPECTOR/OFFICE Keith Robins, Ed Santoro	START/FINISH DATE 3/26 - 3/26/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Fair - poor
REMARKS: OVA recorded >1000 ppm, soil sample obtained and sent to laboratory for analysis (TCL+30/RCRA/TCLP/EPTOX	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0 - 1/2'	2	Rip Rap + metal	
1	1/2 - 2 1/2'	>1000	Slag, bricks, and concrete unstable and loose material with gray cinder material	Noted orange like substance (paint) in ground that was identified in previous excavations
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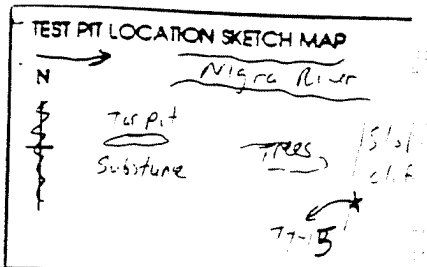
DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-15	
PROJECT NO./NAME 1150-02A River Road	LOCATION Along side the slup cliff
EXCAVATOR/EQUIPMENT/OPERATOR Back-hoe Mark (EPS)	
INSPECTOR/OFFICE Keith Robins, Ed Santoro	START/FINISH DATE 3/26/- 3/26/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Fair-poor unstable
REMARKS: Excavated one buried drum with orange paint like substance. No soil sample obtained from this test pit	

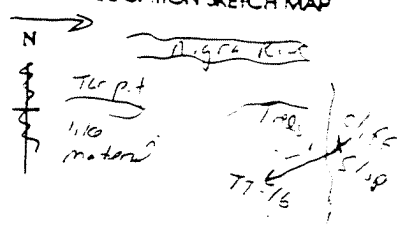
DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0-2'	0	Metal pieces with word, mixed with slag debrie	Excavated drum 1/2 buried and 1/2 exposed with orange paint, substance in it, and inside test pit
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

NJDEPTPL

DYKKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TP-16	
PROJECT NO./NAME 1150 / River Road	LOCATION Along slide of slop cliff
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe - Mark (EPS)	
INSPECTOR/OFFICE Keith Robins / Ed Santoro	START/FINISH DATE 3/26/92 - 3/26/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT NOT SEEN OVER side of slope

REMARKS: Dug up (excavated) Buried rusted drum, sample obtained for laboratory analysis (TCL+30)

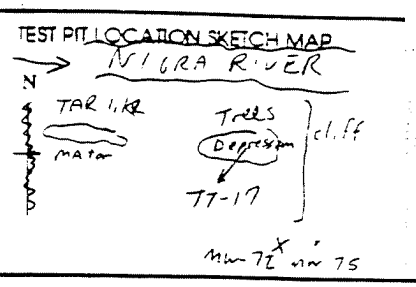
DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0-2	0	Slag material, with foundry sands, wood, metal sand casts, concrete, cobbles mixed with silty fine sand, soft.	Excavated buried Rusted drum (empty)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

NJDEPTPL

DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-17	
PROJECT NO./NAME 1150-02A River Road	LOCATION AREA/west of cliff (dression) in Tree Area.
EXCAVATOR/EQUIPMENT/OPERATOR Backhoe, MARK (EPS)	
INSPECTOR/OFFICE Keith Robins/ED Santoro	START/FINISH DATE 3/26/92 - 3/26/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Fair
REMARKS: Soil sample obtained under drum with unknown liquid, Laboratory analysis performed on sample. (TCL+30)	

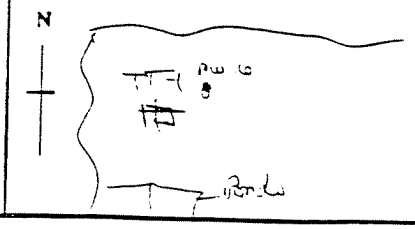
DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0	0-2'	0	Black very fine Sand, some silt, mixed with angular gravel, damp	Recovered plastic drum with liquid running out of it, unknown chemical + amount, Also pieces of rusted drums dug up. No signs of apparent stressed vegetation.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

NJDEPTPL

DVIRKA AND BARTILUCCI

TEST PIT LOG

TEST PIT LOCATION SKETCH MAP



TEST PIT NO. TT-01	
PROJECT NO./NAME 1150 RIVER ROAD, RI/FS	LOCATION Tonawanda NY
EXCAVATOR/EQUIPMENT/OPERATOR Hamaton Backhoe	
INSPECTOR/OFFICE E. Albrecht / Syosset	START/FINISH DATE 3/24/92
ELEVATION OF: GROUND SURFACE/BOTTOM OF PIT (FT. ABOVE MSL)	CONDITION OF PIT Poor - Crumbling
REMARKS: TT-01 ~ 21 feet long	

DEPTH	SAMPLE INTERVAL	OVA SCREEN	DESCRIPTION OF MATERIALS	REMARKS
0		spon	0-7'4" Fill Hard dense slag from groundwater to 7'4" - grey - 1" Thick seam Rage @ 1' in slag, dry hard, crumbly	north side of pit was failed during excavation Chemical Sample taken @ ~7'
1				
2	S-1			
3	Hon & Sample			
4				
5				
6				
7			7.4"	
8			refusal @ 7.4" on hard slag.	
9				
10				
11				
12				
13				
14				
15				

NJDEPTPL

Appendix C

APPENDIX C

Well Construction Diagrams

C-1 Phase I Well Construction Diagrams
C-2 Phase II Well Construction Diagrams

APPENDIX C-1

Phase I Well Construction Diagrams

Dvirka and Bartilucci Consulting Engineers

WELL CONSTRUCTION LOG

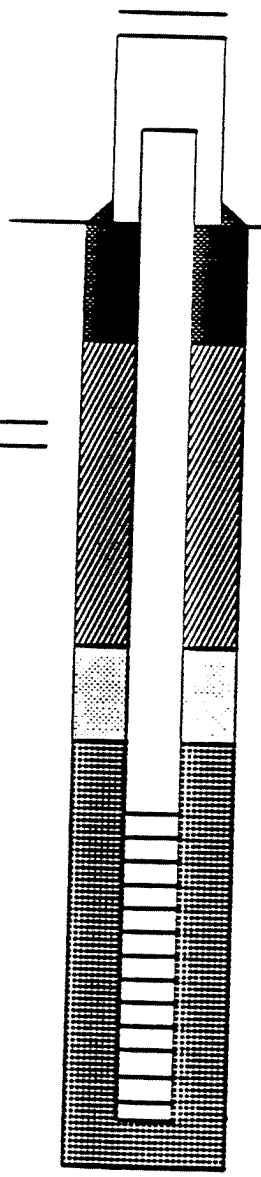
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-3S

TOTAL DEPTH 30 SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) 17.6/800 AM DATE INSTALLED 3/20/92

RISER	DIA 2"	MATERIAL PVC	LENGTH 17		
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 15	SLOT SIZE .010"	
PROT CSG	DIA 4"	MATERIAL Steel	LENGTH 5		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Portland Cement

3 Bottom Surface Seal

Grout Type Grout/Gravel Mix/Cement

11 Top Seal

Seal Type Bentonite Pellets

13 Top Sand Pack

15 Top Screen

Sand Pack Type Morie Gravel
Size Number ONE

30 Bottom Screen

31 Total Depth of Boring

Dvirka and Bartilucci Consulting Engineers

WELL CONSTRUCTION LOG

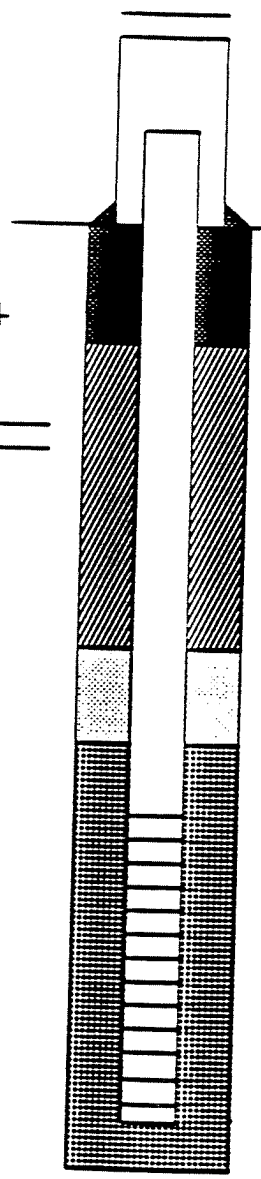
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-43

TOTAL DEPTH 23 SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 4/1/92

RISER	DIA 2"	MATERIAL PVC	LENGTH		
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 15	SLOT SIZE .010	
PROT CSG	DIA 4"	MATERIAL Steel	LENGTH 5		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Portland cement

2½ Bottom Surface Seal

Grout Type Grout/Grand mix cement

4 Top Seal

Seal Type Bentonite Pellets

6 Top Sand Pack

8 Top Screen

Sand Pack Type Morie Grand
Size Number one

23 Bottom Screen

23 Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

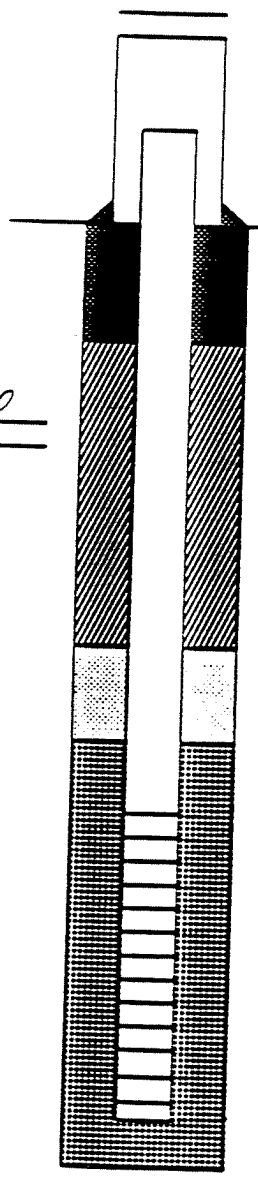
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-5 I

TOTAL DEPTH 52'' SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 3/30/92

RISER	DIA 2''	MATERIAL PVC	LENGTH		
SCREEN	DIA 2''	MATERIAL PVC	LENGTH 10'	SLOT SIZE .010	
PROT CSG	DIA 4''	MATERIAL Steel	LENGTH 5		

SCHEMATIC



3½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Portland Cement

3 Bottom Surface Seal

Grout Type Grout/Gravel mix/cement

35 Top Seal

Seal Type Bentonite slurry

37 Top Sand Pack

39 Top Screen

Sand Pack Type Morie Gravel
Size Number one

49 Bottom Screen

52 Total Depth of Boring

Dvirka and Bartilucci Consulting Engineers

WELL CONSTRUCTION LOG

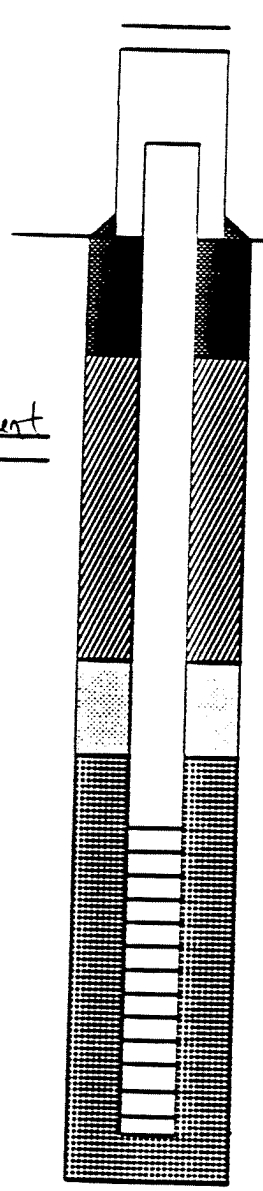
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-5S

TOTAL DEPTH 26' SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) 15.1/at 6 00 pm DATE INSTALLED 3/26

RISER	DIA 2"	MATERIAL PVC	LENGTH 13'		
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 15'	SLOT SIZE .010"	
PROT CSG	DIA 4"	MATERIAL Steel	LENGTH 5'		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Portland Cement

3 Bottom Surface Seal

Grout Type Bentonit/Cement Grout mix

7 Top Seal

Seal Type Bentonite Pellets

9 Top Sand Pack

11 Top Screen

Sand Pack Type Morie Gravel

Size # ONE

26 Bottom Screen

27 Total Depth of Boring

Dvirka and Bartilucci Consulting Engineers

WELL CONSTRUCTION LOG

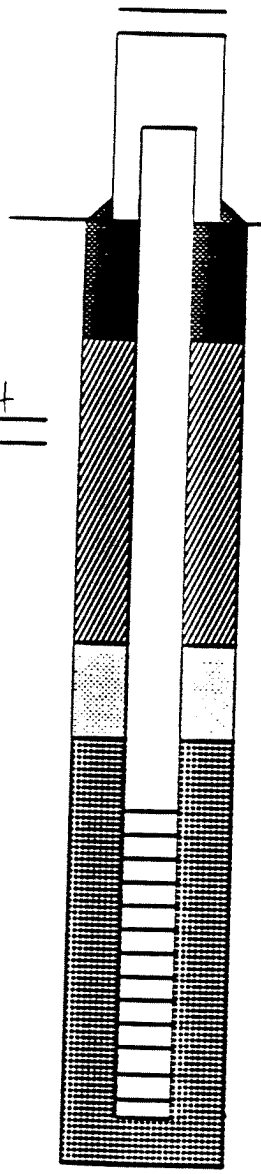
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-65C

TOTAL DEPTH 25 SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 3/24/92

RISER	DIA 2"	MATERIAL PVC	LENGTH 12'		
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 15'	SLOT SIZE 1010"	
PROT CSG	DIA 4"	MATERIAL Steel	LENGTH 5'		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Concrete mix

4 Bottom Surface Seal

Grout Type Bentonite/Cement mixture

6 Top Seal

Seal Type Bentonite pellets

8 Top Sand Pack

16 Top Screen

Sand Pack Type Morie Gravel
Size Number ONE

25 Bottom Screen

26 Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-7SI

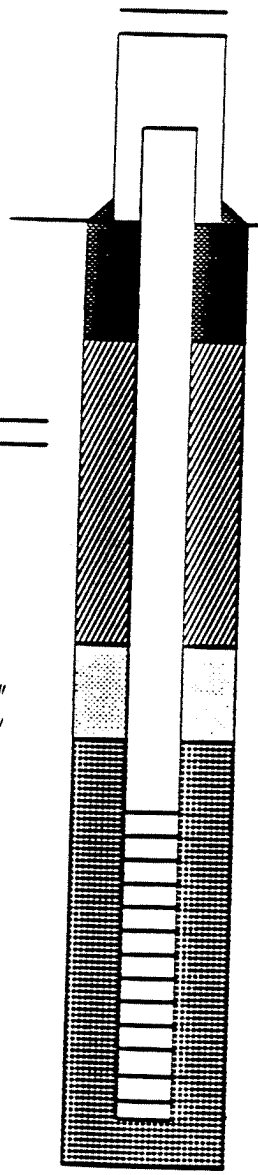
TOTAL DEPTH 48 SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) 3/23 (11:00) DATE INSTALLED 3/23/92

RISER	DIA 2"	MATERIAL PVC	LENGTH 40'
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 10'
PROT CSG	DIA 4"	MATERIAL Steel	LENGTH 5'

SLOT SIZE #10 Slot

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

2½ Bottom Surface Seal

32 Top Seal

36 Top Sand Pack

38 Top Screen

48 Bottom Screen

52 Total Depth of Boring

Surface Seal Type Concrete grout mix

Grout Type Cement bentonite Grout

Seal Type Bentonite Pellets 6" Bentonite Slurry 3½'

Sand Pack Type Qtz SAND

Size #1 grade

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WELL CONSTRUCTION LOG

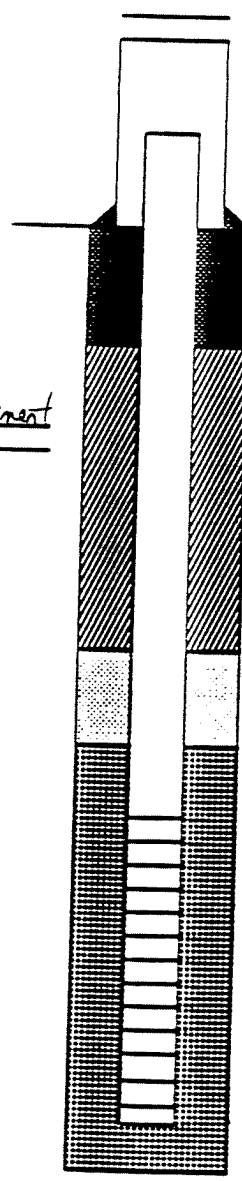
SITE RIVER ROAD RI/FS JOB NO. 1150 WELL NO. MW-77S

TOTAL DEPTH 24 SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 3/18/92

RISER	DIA 2"	MATERIAL PVC	LENGTH 11		
SCREEN	DIA 2"	MATERIAL PVC	LENGTH 15	SLOT SIZE .010"	
PROT CSG	DIA 4"	MATERIAL steel	LENGTH 5		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Gravel mix/ cement

2½ Bottom Surface Seal

Grout Type Bentonite/cement mixture

5 Top Seal

Seal Type Bentonite pellets

7 Top Sand Pack

9 Top Screen

Sand Pack Type Morie Gravel
Size Number ONE

24 Bottom Screen

25 Total Depth of Boring

APPENDIX C-2

Phase II Well Construction Diagrams

Dvirka and Bartilucci
CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

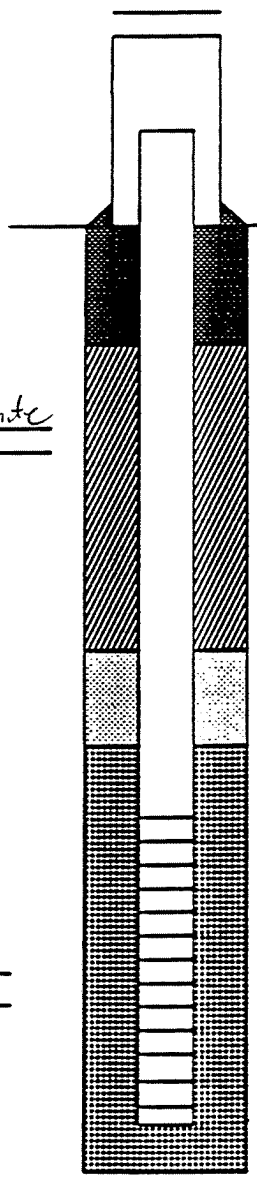
SITE River Road Phase II JOB NO. 1150 WELL NO. MW-8S

TOTAL DEPTH 27' SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 11/18/92

RISER	DIA 2	MATERIAL PVC	LENGTH 12		
SCREEN	DIA 2	MATERIAL "	LENGTH 15	SLOT SIZE 0.010-inch	
PROT CSG	DIA 4	MATERIAL Steel	LENGTH 5'		

SCHEMATIC



2½ Prot. Csg Stickup

2 Riser Stickup

Ground Surface

Surface Seal Type Concrete

3 Bottom Surface Seal

Grout Type Cement Bentonite

6 Top Seal

Seal Type Bentonite Pellets

8 Top Sand Pack

10 Top Screen

Sand Pack Type #0 grade
Size _____

25 Bottom Screen
27 Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

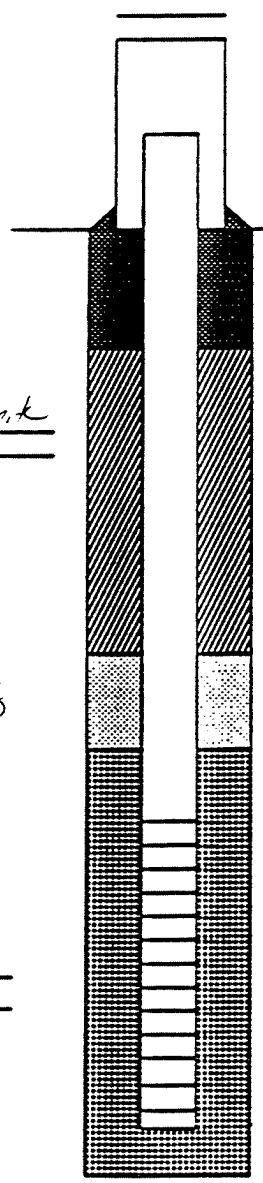
SITE River Road Phase II. JOB NO. 1150 WELL NO. MW-9S

TOTAL DEPTH 27' SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) _____ DATE INSTALLED 11/17/92

RISER	DIA 2	MATERIAL PVC	LENGTH 13			
SCREEN	DIA 2	MATERIAL "	LENGTH 15	SLOT SIZE 0.010 inch		
PROT CSG	DIA 4	MATERIAL Steel	LENGTH 5			

SCHEMATIC



2½ Prot. Csg Stickup

2' Riser Stickup

Ground Surface

Surface Seal Type Concrete

3 Bottom Surface Seal

Grout Type Cement-Bentonite

7' Top Seal

Seal Type Bentonite Pellets

9' Top Sand Pack

11' Top Screen

Sand Pack Type #0 grade

Size _____

26' Bottom Screen

27' Total Depth of Boring

Appendix D

APPENDIX D

Boring Logs

D-1 Phase I Boring Logs
D-2 Phase II Boring Logs

APPENDIX D-1

Phase I Boring Logs

BORING LOG

Dvirka and Bartilucci

Project No.: 1150 02A
Project Name: RIVER ROAD

Well/Boring No.: MW-35
Sheet 1 of 2
By: SMA/KR Date: 3/19/92
Chk'd: _____ Date: _____

Drilling Contractor: Demerick Drilling
Driller: Frank Dorn
Drill Rig: Demerick D 50
Sample Spoon I.D.: 3"
Date Started: 3/17
Geologist: E. Aldrich / R. Coons
Drilling Method: 4 1/2" HSA
Drive Hammer Wt.: 140 #
Date Completed: 3/20/92

Borehole Completion Depth: 32'
Borehole Diameter: 8 1/2"
Ground Surface El: _____

SPILT SPOON INFO. SAMPLE NO.	RECOV. (In.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
S-1	23	2			S-1 0-13 lite gray Silty Clay, wet, trace				Fill
		7	1		trace Angular fm Gravel - Slightly plastic				mostly Concrete
		27			13-23' Dark Blk Br Silty fine Sand, tr.	0	0		w/layers of Sand,
		79	2		C. Angular Gravel - comp. Slight				Silt + clay.
					petrol. odor				
			3						
			4						
			5						
S2	9"	11			S2 0-9" Reddish gray Gravel, some Sand				
		10	6		little Clayey Silt, comp. (Concrete)	0	0		
		100/3							
			7						
			8						
			9						
			10						
S3	0	100/1"			S3 no Recovery				
			11			0	0		
			12						
S4	18	43			S4. 0-4" Black Silt w/ fine Angular Gravel				
		73	13		4-18" Lite gray Brown Stag/Concrete	0	0		
		90			trace Silt w/ C. ang. gravel moist				
		100/3	14						
			15		S5 - No Recovery	0	0		
S5	0	50/2½			- Spoon returns wet.				
			16						

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150 02A
Project Name: RIVER ROAD

Well/Boring No.: MW-35
Sheet 2 of 2
By: EMA / KR Date: 3/19/92
Chk'd: Date:

Drilling Contractor: Kenbrick Drilling Inc
Driller: Paul Doty
Drill Rig: Bearcat D 30
Sample Spoon I.D.: 2"
Date Started: 3/19/92

Geologist: E Aldrich, K. Robins
Drilling Method: 4¼" ID HSA
Drive Hammer Wt.: 140#
Date Completed: 3/20/92

Borehole Completion Depth: 32'
Borehole Diameter: 6½"
Ground Surface El:

SPLIT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
			17						Concrete fill
			18 2						
			19 3						
			20 4						
S6	18	2	21 5		S-6 0-9" Black Silt and fc Sand trace gravel				~20'
		2			9-11" Black Silty fine Sand				alluvial deposits
		3			11-18 Dark gray Black Clayey Silt with fine laminations - peat and cinnamon - wet	0	0		
		5	22 6						
			23 7						
			24 8						
S7	24	1	25 9		S7 0-4" Black Clayey Silt w/ Some ang. gravel and coarse Sand				
		3			4'-18 24" Black dark gray Silt gradually coarsing to V. fine Sand and Silt wet				
		5	26 10			0	0		
		7							
			27 11						
			28 12						
			29 13						
			30 14		S8 0-24" Alternating layers of dark gray fine Sand, little Silt, little fine gravel (subrnd) to fine Sand - Coarse Sand - gravel on tip				
S8	24	WR/2 3	31 15						
		3							
		5	32 16			0	0		
		10							

NOTES AND COMMENTS:

Dvirka and Bartilucci

BORING LOG

Project No.: 1150 02A
Project Name: River Road RI/FS

Well/Boring No.: MW-4S
Sheet 1 of 2
By: FT
Date: 4/4/92
Chk'd:
Date:

Drilling Contractor: Kendrick drilling
Driller: Paul Doty
Drill Rig: Diedrick D50
Sample Spoon I.D.: 2"
Date Started: 3/31/92
Geologist: Fran Tooher
Drilling Method: 4 1/4 IDHSA
Drive Hammer Wt.: 140 lbs
Date Completed: 4/1/92

Borehole Completion Depth: 22
Borehole Diameter: 4 1/2
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
4-1	15"	2			(0-2') 0-15" Black silt & fine sand and organic material				Fill Material
		30	1		trace red-~~tt~~ Brown sand	0	0		
		18							
		22	2		dry				
			3						
			4						
4-2	10	4							
		16	5		(5-7) 0-10" Black silt & some med & lgr sand	0	0		
		12							
		32	6						
			7		dry				
			8						
			9						
			10						
		45			(10-12) 0-20'				
	20"	25	11		Black-gr. silt mixed with Cement pebbles	0	0		Hit water table at 10 ft.
		35							
		36	12		wet				
			13						
			14						~135
		8							alluvial deposits
	15"	5	15		(15-17) 0-15" Black-dark gray silt some fine sand trace gravel	0	0		
		5							
		5	16		wet				

NOTES AND COMMENTS:

Dvirka and Bartilucci

BORING LOG

Project No.: 1150 02A
Project Name: River Road RI/FS

Well/Boring No.: MW-4S
Sheet 2 of 2
By: Fran Tooher Date:
Chk'd: Date:

Drilling Contractor: Kendric K Drilling Inc
Driller: Paul Doty
Drill Rig: Dir Dirk D-50
Sample Spoon I.D.: 2"
Date Started: 3/31/92
Geologist: Fran Tooher
Drilling Method: 4 1/4 ID HSA
Drive Hammer Wt.: 140
Date Completed: 4/1/92

Borehole Completion Depth:
Borehole Diameter:
Ground Surface El:

SPILT SPOON INFO.						VOC READ			
SAMPLE NO.	RECOV. (In.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	BKGD (PPM)	SAMP (PPM)	WELL	GEOLOGIC LOG
	10	2			(20-22') 0-10" Dark Gray Silt and Fine sand. wet				
		7	21						
		11							
		9	22			0	0		
			23						
			24						
			25						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						

NOTES AND COMMENTS:

Dvirka and Bartilucci

BORING LOG

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-55
Sheet 1 of 1
By: KR Date: 3/26/92
Chk'd: Date:

Drilling Contractor: Cendrick Drilling
Driller: Paul Dutty
Drill Rig: DIEDRICK D50
Sample Spoon I.D.: NA
Date Started: 3/26/92
Geologist: Peter Robins
Drilling Method: 4 1/4" HSA
Drive Hammer Wt.: 140 lbs
Date Completed: 3/26/92

Borehole Completion Depth: 27'
Borehole Diameter: 6 1/2 inch
Ground Surface El:

SPLIT SPOON INFO. SAMPLE NO.	RECOV. (In.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
			1		0-7' Black fine-medium Sand, little silt, trace angular gravel (soft), damp				Fill material
			2						
			3						
			4						
			5						
			6						
			7						
			8		7'-12' Dark Black silty, very fine Sand, trace angular gravel moist				
			9						
			10						
			11						
			12						
			13		12'-15' Difficulty in Drilling, (Chatter), drill into slag MATERIAL				
			14						
			15						≈ 15 feet
			16		15'-25' (See following boring log page for soil classification				alluvial deposits

NOTES AND COMMENTS: No split spoons were obtained, boring log represents visuall log from drill cuttings

Dvirka and Bartilucci

BORING LOG

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-5S
Sheet 1 of 2
By: LR Date: 3/26/92
Chk'd: Date:

Drilling Contractor: Kendricks Drilling
Driller: Paul Doty
Drill Rig: DIEDRICK D-50
Sample Spoon I.D.: N/A
Date Started: 3/26/92
Geologist: Keith Robins
Drilling Method: 4 1/4" HSA
Drive Hammer Wt.: 140 lbs
Date Completed: 3/26/92

Borehole Completion Depth: 27'
Borehole Diameter: 6 1/2 inch
Ground Surface El:

SPLIT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
			17		15'-25' Black silty, fine Sand, moist-wet				
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						

NOTES AND COMMENTS: water level measured for MW-5S, (15.1')

BORING LOG

Dvirka and Bartilucci

Project No.: 1150 02A
Project Name: River Road RI/FS

Well/Boring No.: MW-5I
Sheet 1 of 1
By: RR/EA Date: 3/27/92
Chk'd: Date:

Drilling Contractor: KenDrick Drilling Inc
Driller: Paul Dotts
Drill Rig: Diedrich D-50
Sample Spoon I.D.: 2"
Date Started: 3/28/92
Geologist: Keith Robins
Drilling Method: 4¼" ID HSA
Drive Hammer Wt.: 140 lbs
Date Completed: 3/30/92

Borehole Completion Depth: 52'
Borehole Diameter: 6 1/2
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
S-1	10"	1, 3, 4, 2	1, 2		0-2" Black fine sand, grass roots 2"-6" Black silty fine Sand, Trace angular gravel 6"-10" Brown-Reddish fine Sand in alt. layers, moist	0	0		Fill Material
			3, 4						
			5						
S-2	15"	9, 10, 14, 10	6, 7		0-15" Gray-Black fine Sand, some silt, with wood chips and foundry sands throughout, moist	0	0		
			8						
			9, 10						
S-3	17"	14, 21, 14, 12	11, 12		0-17" Black-Brown fine Sand, little silt, Trace angular gravel with foundry sands at (6"-9"), moist	0	2		
			13, 14						≈ 14 ft
			15						Alluvial Deposits
S-4	5"	9, 15	16		0-5" Dark Black silty Sand, with foundry sand, wood chips, and fine-Coarse angular gravel Saturated	0	0		

NOTES AND COMMENTS: Soil sample S-3 collected from depth of (10-12') was selected for Chemical analysis.

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-2A
Project Name: River Road RI/FS

Well/Boring No.: MW 5I
Sheet 1 of 2
By: KR/EA Date: 3/27/12
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Paul Dotey
Drill Rig: DiEDrick B-50
Sample Spoon I.D.: 2 inch
Date Started: 3/27
Geologist: Keith Robbins / Ed Aldrich
Drilling Method:
Drive Hammer Wt.: 140 lbs
Date Completed: 3/28

Borehole Completion Depth: 37
Borehole Diameter: 6 1/2"
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
S-4	5"	8			Soil description on previous page				
		3	17			0	0		alluvial Deposits
			18						
			19						
			20						
S-5	18"	7			0-3" Black medium-course Sand, some silt, Trace angular gravel				
		4	21						
		5			3"-18" Gray silty, very fine Sand, trace clay, trace angular gravel slightly plastic, cohesive moist - saturated	0	4		
		6	22						
			23						
			24						
			25						
S-6	13"	5			0-13" Black-Gray very fine sandy Silt, very slightly plastic saturated				
		4	26			0	4-8		
		7							
		5	27						
			28						
			29						
			30						
S-7	9"	6			0-9" Gray fine Sand, some silt cohesive, saturated				
		7	31			0	4		
		11							
		13	32						

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-5I
Sheet 1 of 3
By: KR/EA Date: 3/27/92
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Paul Doty
Drill Rig: DIEDrick D-50
Sample Spoon I.D.: 2 inch
Date Started: 3/27/92
Geologist: Keith Robins / Ed Aldrich
Drilling Method: 4¼ HSA
Drive Hammer Wt.: 140 lbs
Date Completed:

Borehole Completion Depth: 52'
Borehole Diameter: 6½
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
			33						Alluvial Deposits
			34						
S-8	18"	5, 8, 12, 17	35, 36		0-18" Gray-Black fine Sand, some silt, trace fine-course angular gravel, saturated	0	0		
			37, 38						
			39, 40						
S-9	22	22, 100/6, 100/1	41, 42		(40-42) 0"-21½" Gray fine sand; 21½"-22" Gray silt	0	0		
			43, 44						
	7"	3, 3, 3, 5	45, 46		(45-47) 0-7" Brown-gray silty clay some fine gray sand	0	0		
	10"	100/4, 50/1	47, 48		(50-52) 0-10 Gray angular sand & gravel fill some silty clay mixed.	0	1.5		Glacial Till

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-6SA
Sheet 1 of 1
By: KR Date: 3/20
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Paul Dotey
Drill Rig: DIE Drill D-50
Sample Spoon I.D.: 2 inch
Date Started: 3/20
Geologist: Keith Robins / Ed Aldrich
Drilling Method: 4 1/4" HSA
Drive Hammer Wt.: 140 lb
Date Completed: N.A.

Borehole Completion Depth: NA
Borehole Diameter: NA
Ground Surface El:

SPLIT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
S-1	21"	1	1		0-2" Snow with grass, roots, mixed with Black fine Sand frozen/moist	0	0		Fill material
		22							
		27							
		18	2		2"-7" Black - Lt Brown very fine subrounded sand, little silt, trace fine gravel				
			3						
			4		7"-21" Dark Brown - Black very fine Sand, trace silt, some course angular gravel with wood chips at (17") damp - moist				
			5						
		50/3	6						
S-2	3"		7		0-2" Black very fine Sand, trace fine gravel, trace roots, moist	0	0		
			8		2"-3" slag + concrete				
			9						
			10						
		50/0	11		NO Recovery in split spoon				
S-3			12						
			13						
			14						
			15						
			16						

NOTES AND COMMENTS: Driller had difficulty in drilling through slag material
MW-6SA was abondened by grout from 10' to Land Surface.

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW 6SB
Sheet 1 of 1
By: KR Date: 3/23/92
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Paul Doty
Drill Rig: DIE Drill D-50
Sample Spoon I.D.: 2 inch
Date Started: 3/23/92
Geologist: Keith Robins
Drilling Method: 4 1/4" HSA
Drive Hammer Wt.: 140 lbs
Date Completed: —

Borehole Completion Depth: NA
Borehole Diameter: NA
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
S-1	23"	2, 3, 5, 6	1, 2		0-23" Black very fine Sand, little silt, with grass and roots at (1"-3") Light brown slag with trace fine gravel at 17-19", damp.	0	0		Fill material
			3, 4						
			5						
S-2	1"	50/1	6		Black fine Sand, little silt, mixed with coarse concrete and gravel	0	0		
			7, 8						Hit slag
			9, 10						
			11, 12						
			13, 14						
			15, 16						

NOTES AND COMMENTS: Driller unable to penetrate through slag material. MW-6SB was abandoned by grouting from 7' to land surface

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-55C
Sheet 1 of 1
By: KR/EA Date: 3/24/92
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Bill Curry
Drill Rig: DIEDRICK D-50
Sample Spoon I.D.: 2 inch
Date Started: 3/24/92

Geologist: Keith Rawlins
Drilling Method: 4 1/4 HSA
Drive Hammer Wt.: 140/65
Date Completed: 3/24/92

Borehole Completion Depth: 26'
Borehole Diameter: 6 1/2 inch
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
S-1	17"	2, 10, 18, 41	1, 2		0-5" Black very fine Sand, little silt, with grass and roots (moist) 7"-17" Dark Black-Brown fine Sand, with slag, and cement fragments, moist	0	0		Fill material
			3, 4						
			5						
S-2	16"	12, 37, 41, 100/5	6, 7		0-16" Dark Black fine Sand, little silt, trace angular gravel, concrete slag at (16"-17") moist	0	17-20		
			8						
			9, 10						
S-3	12"	11, 15, 14, 13	11, 12		0-12" Dark Black very fine Sand, some silt, mixed with Lt brown foundry sands moist	0	2		
			13, 14						
			15						
S-4		50/1, 25/0	16		No Recovery, Due to slag and fill material				≈ 17 feet alluvium

NOTES AND COMMENTS: Soil sample S-2, collected from depth of (5-7) was selected for chemical analysis

BORING LOG

Dvirka and Bartilucci

Project No.: 1150-02A
Project Name: River Road RI/FS

Well/Boring No.: MW-65C
Sheet 1 of 2
By: KR/EA Date:
Chk'd: Date:

Drilling Contractor: Kendrick Drilling
Driller: Paul Doty
Drill Rig: Diedrick D-50
Sample Spoon I.D.: 2 inch
Date Started: 3/24/92

Geologist: Keith Robins, Ed Aldrich
Drilling Method: 4¼ HSA
Drive Hammer Wt.: 140/65
Date Completed: 3/24/92

Borehole Completion Depth: 26'
Borehole Diameter: 6½
Ground Surface El:

SPLIT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
			17						Alluvial Deposits
			18						
			19						
			20						
S-5	24"	38 / 8 / 12 / 11	21		0-21" Fine-coarse Gray angular gravel, some coarse-fine Sand, little clayey Silt	0	2-10		
			22		21"-24" Dark Gray clayey Silt, with Reeds, fine roots, and twigs, moist-wet.				
			23						
			24						
			25						
S-6	24"	2 / 2 / 3 / 5	26		0-24" Gray very fine Silt, little clay, with roots throughout, Cohesive, moist-wet	0	0		
			27						
			28						
			29						
			30						
			31						
			32						

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150 02A
Project Name: RIVER ROAD RI/FS

Well/Boring No.: MW-7S
Sheet 1 of 3
By: KR/EA Date: 3/17/92
Chk'd: Date:

Drilling Contractor: KENDRICK DRILLING INC.
Driller: PAUL DOTY
Drill Rig: DIEDRICK D-50
Sample Spoon I.D.: 2"
Date Started: 3/17/92

Geologist: KEITH ROBINS, ED ALBRIGHT
Drilling Method: 4 1/4" ID HSA
Drive Hammer Wt.: 140 #
Date Completed: 3-19-92

Borehole Completion Depth: 49
Borehole Diameter: 6 1/2
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
S1	15'	1 1 1 1	1 2		0-15" Dark Gray/Brown Clayey SILT, Trace fine angular Sand, Trace fine angular Gravel, roots throughout, soft, slightly plastic, cohesive, moist, Fill	0	0		FILL MATERIAL Dark Gray to Clayey SILT to Dark Br-Blk SAND, CINDERS? occasionally MIXED WITH LOOSE well SORTED fine SAND
		~~1~~ ~~41~~ ~~64~~ ~~10~~	3 4						
			5		0-4" Dark Br/Blk fine SAND, little Silt moist, slight cohesive				
S2	16"	1 41 64 100	6 7		4"-8 Br. fine SAND, little Silt, moist 8"-11" Blk CINDERS. (odor petro) 11-16" Gray, white, blk f. SAND well sorted loose dry		40		
			8						
			9						
			10		0-8" Dark Blk fine SAND, Some Silt, ~~wet~~				
S3	22"	5 5 7 12	11 12		8-12" Brown (Cinders?) Some fine Subrnd Sand 12-22" Dark Blk fine SAND, Some Silt, trace (Cinders?) Slightly Cohesive, wet. Petro? odor		500	SCREENED ZONE	
			13						
			14						~13.5'
			15		0-6" DARK Gray/Blk fine SAND, ~~little~~ SOME Clay Silt, ~~little Angular Some Fine Sand~~ wet.				Alluvium
S4	24"	10 12	16				400		

NOTES AND COMMENTS:

VOC readings collected with OVA (Methane filter not used)

Sample S-2 (5-7') was selected for Chemical analysis - TCL+30 - RCRA Char.

Water level @ 14.4 ft below grade

BORING LOG

Dvirka and Bartilucci

Project No.: 1150
Project Name: RIVER ROAD RIFS

Well/Boring No.: MW-7S
Sheet 2 of 3
By: KR/EA Date: 3/17-19/92
Chk'd: Date:

Drilling Contractor: KENDRICK DRILLING
Driller: PAUL DOTY
Drill Rig: CIEGRICH D-50 ATV
Sample Spoon I.D.: 2"
Date Started: 3/17/92

Geologist: KR/EA
Drilling Method: 4 1/4" HSA
Drive Hammer Wt.: 140#
Date Completed: 3/19/92

Borehole Completion Depth: 49'
Borehole Diameter: 6 1/2"
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
S4	24	34 / 50	17		6-24" Blk fmc SAND, little silt trace angular gravel, trace glass frag, roots + twigs	0	400	SCREENED ZONE	Alluvium
			18						
			19						
			20						
S5	14	2 / 2 / 3 / 6	21		Dark Gray to lite Blk Clayey SILT trace C. Sand, trace gravel, Soft, Slightly plastic - moist-wet.		250		
			22						
			23						
			24						
			25						
S6	24	1 / 2 / 4 / 6	26		0-24" Dark gray SILT to CLAYEY SILT, Soft, Trace fine sand, non plastic to V. slightly plastic, cohesive, WET.		200		
			27						
			28						
			29						
			30						
S7	0	17 / 13 / 10 / 10	31		NO RECOVERY		—		
			32						

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150
Project Name: RIVER ROAD RI/FS

Well/Boring No.: MW-7S
Sheet 3 of 3
By: KRI EMA Date: 3/17/92
Chk'd: Date:

Drilling Contractor: KENDRICK DRILLING INC.
Driller: PAUL DORY
Drill Rig: DIEDRICK D-50
Sample Spoon I.D.: 2"
Date Started: 3/17/92
Geologist: KEITH ROBINS, ED Aldrich
Drilling Method: 4¼" ID HSA
Drive Hammer Wt.: 140 #
Date Completed: 3/19/92

Borehole Completion Depth:
Borehole Diameter:
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (in.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	VOC READ WELL	GEOLOGIC LOG
			33						alluvium
			34		0-6" Dark Gray Brown fmc (poorly Sorted) Subrnd qtz, sandstone, other SAND, trace fine Subrnd Gravel, occ. @ 1/2" Silt balls in Sand				
			35						
S8	24	WR 3	36				2-4		
		10 14	37		6"-8" Gray Silty CLAY, VF laminations				
			38		8-22" Dark Gray Brown fmc (poorly Sorted) qtz. SAND, loose, occ. 1/2" Silt Clay balls				
			39		22-24 Gray Silty CLAY w/ V.F. laminations wet.				
			40						
S9	24	WR 1 3 5	41		0-18" Dark gray fine, poorly Sorted, Sub-rnd qtz SAND, trace fine Subrnd gravel.		2		
			42						
			43		18-24" Gray Silty CLAY w/ fine laminations highly plastic, Cohesive				
			44						
			45		0-6" Dark gray Clayey SILT, soft, Slightly Plastic, Cohesive				
S10	24"	3 2 4 7	46		6-24" Dark gray fine, Subrnd, qtz SAND, Some Clayey Silt, wet		2		
			47						
			48						

NOTES AND COMMENTS:

BORING LOG

Dvirka and Bartilucci

Project No.: 1150 02A
Project Name: RIVER ROAD

Well/Boring No.: MW-7I
Sheet 1 of 1
By: EMA Date: 3/17/92
Chk'd: Date:

Drilling Contractor: Kendrick Drilling Inc
Driller: Paul Dorty
Drill Rig: Kedrick D-50
Sample Spoon I.D.: 3"
Date Started: 3/23/92
Geologist: E Abron, K Robins
Drilling Method: 4 1/4 I.D. HSA
Drive Hammer Wt.: 140 #
Date Completed: 3/24/92

Borehole Completion Depth:
Borehole Diameter: 10 1/2
Ground Surface El:

SPILT SPOON INFO. SAMPLE NO.	RECOV. (In.)	DEPTH per 6"	DEPTH	STRATA	SOIL DESCRIPTION	VOC READ BKGD (PPM)	VOC READ SAMP (PPM)	WELL	GEOLOGIC LOG
			1		SEE Log of MW-7S for description of soils from the groundsurface to 47' Below grade.				
			2						
			3						
			4	9					
S1	4"	6	5		0-4' Dark Gray Clayey Silt, wood, wet		120		
		3	6	11	resample from 10-11' w/ 1" recovery, metal + Dark gray Clayey Silt				
			7						
			8						
			9						
			10	15					
S2	15	WR/1	11		0-3" Br-gr Clayey Silt, fine laminations trace fine-med Subrnd qtz Sand				
		3			2-2½ fine Sand little-Some Silt				
		4	12	47	2½-9½ Gray Br clayey Silt to fin Sand				48.5
					9½-9¾ sand Br-gr little-Some Silt				Glacial Till
			13		10-11" Gray Br clayey Silt to fin Sand				
			14		11-15" Br gr clayey Silt lamination to Sand - plastic - coarse wet				
			15	50					50.6'
									Bed Rock
S3	4	12	15		0-4" Gray angular to Subrnd fc Qtz, limestone and shale Sand; arg. tomy shale gravel - gravels mixture				
		100/3							
			16						

NOTES AND COMMENTS:

Depth Scale is not to Scale
hard drilling from 9-10
@ 13' rig Chatter
@ 15' 70-80 PPM in hole
@ 20 80 ppm in borehole
@ 25 0 1" above hole
@ 35 0 ppm in borehole
@ 48.5' Rig Chatter

APPENDIX D-2

Phase II Boring Logs

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-8S
Sheet 1 of 3
By: JMA Date: 11/17
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Grimm
Geologist: E. Aldrich F. Tooher
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/17
Date Completed: 11/18

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-						0.-.5' Dark Gray Clayey SILT, to fine-coarse Sand. Wet, little Organic Material
-1-	S-1	0-2	1-2 5-6	1.2'	0PPM	.5-.6 Tan-Br. f. SAND, Concrete Gravel
-2-						.6-1.2 Dark Brown Silt and f Sand Damp
-3-						
-4-						
-5-						
-6-	S-2	5-7	1.5	36-35 17-29	1.5-1.9 ppm	0.-.5' Br-Gr. fine SAND, little Silt .5-1.5' Blk f. SAND, little Silt Coke fines?
-7-						
-8-						
-9-						
-10						

Remarks: S-2 Sent to lab for analysis TCL+30

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-8S
Sheet 2 of 3
By: TMA Date: 11/17
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Gruner
Geologist: E. Aldrich F. Tooker
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/17
Date Completed: 11/18

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
1-0-						
1-1-	S3	10-12	5-8 9-13	1.3'	0PPM	0-1.3 Br, Blk tan speckled fine SAND, little SILT. Bright purple spot (1/4" dia) on sample
1-2-						
1-3-						
1-4-						
1-5-						
1-6-	S4	15-17	2'	100/2	~~0~~	0-2" concrete fill
1-7-	S4A	16'-17'	.8'	98-100/2	—	0-8" concrete fill
						water @ 16'
1-8-						
1-9-						
2-0						

Remarks: S3 Sample sent to lab TCL+30

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-8S
Sheet 3 of 3
By: JMA Date: 11/18
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Gunner
Geologist: E. Aldrich F Tooker
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/17
Date Completed: 11/18

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
20-						
21-	S-5	20-22	0.6'	21-5 7-10	—	0-6" olive Green/Gray fine SAND little Silt, wet
22-						
23-						
24-						
25-						
26-	S-6	25-27	1.5	2-4 7-9		0-1.5 Brown, gray alternating layers ~ 1/10 ft thick of fine SAND and Silt wet
27-						
28-						
29-						
30						End of Boring @ 27'

Remarks: TOX, EXP reading @ 0% at 21'

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-9S
Sheet 1 of 3
By: SMA Date: 11/18
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Gruner
Geologist: E. Aldrich F. Tooher
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/19
Date Completed: 11/19

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-						0-1.4' Dark Gray SILT, little fine Sand tr. C. angular Gravel, moist, roots to 0.5
-1-	S-1	0-2	1.6	1-2 1-5	0 PPM	1.4-1.6' Br. f. SAND, little + Some Silt (cinders?) w/ Thin band of white Sand 1/100" Thick
-2-						
-3-						
-4-						
-5-						0-.5 Br. f. SAND, little + Some Silt (cinders?).
-6-	S-2	5-7	2'	9-11 10-37	0 PPM	.5-2' Black cinders? SAND w/ 1/2-1' thick band of Silt
-7-						
-8-						
-9-						
-10						

Remarks: S-2 Slight Petro Odor, - Cinders? Coke fines?
S-2 Sent to lab for analysis
TCL + 30

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-9S
Sheet 2 of 3
By: JMA Date: 11/18
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Grimm
Geologist: E. Aldrich F. Tooker
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/18
Date Completed: 11/18

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
1.0						0-.4' Dk Gray/Br. fine SAND, little Silt.
1.1	S-3	10-12	2'	5-5 8-11	0PPM	.4-1.55 Dk Gray/Br Clayey Silt, little f Sand
1.2						1.55-2.0 Dk Gray/Br. f SAND. w/ Br ½" band of Sand @ 1.9'
1.3						
1.4						
1.5						
1.6	S-4	15-17	1.5	44-76 62-73	4PPM	0-1.4 Black fM SAND, little Silt 1.4-1.5 Fill?, Brick, concrete, tan, red orange.
1.7						
1.8						
1.9						
2.0						

Remarks:
S-4. Petro odor. - Sample sent to lab
TCL+30

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1150
Project Name: RIVER ROAD

Well/Boring No.: MW-9S
Sheet 3 of 3
By: EMA Date: 11/18
Chk'd: _____ Date: _____

Drilling Contractor: Buffalo Drilling
Driller: Wally Gunn
Geologist: E. Aldrich F Tooker
Drill Rig: Diedrich D-50
Drilling Method: 4 1/4" ID HSA
Sample Spoon I.D.: 2"
Drive Hammer Wt.: 140#
Date Started: 11/18
Date Completed: 11/18

Borehole Completion Depth: 27
Borehole Diameter: 6 inches
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
20-						
21-	S-5	20-22	1.3	34-31 10-10	0PPM	0-.4 Br-purple tint f. SAND. little S.t. (cinder like) .4-.9 Slag fragments .9-1.3 Br. laminated S.t. tr. f. Sand. occ veg matter recay odor wet
22-						
23-						
24-						
25-						
26-	S-6	25-27	2'	1-2 1-4		0-2' Green-gray w/ Brown S.t. w/ large 1" Bands of dense S.t. tr. v. fine Sand occ veg matter, (roots, twigs) wet Recay odor
27-						
28-						
29-						
30						End of Boring @ 27'

Remarks:

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

Appendix E

APPENDIX E

Data Usability Report

E-1 Phase I Data Usability Report
E-2 Phase II Data Usability Report

APPENDIX E-1

Phase I Data Usability Report

RIVER ROAD PHASE I DATA USABILITY SUMMARY

All data resulting from the River Road Site sampling program were analyzed for Target Compound List plus 30 (TCL+30) substances. Six test trench samples were also analyzed for TCLP and RCRA Characteristics. Groundwater samples were also analyzed for hexavalent chromium. Data was validated according to the 1991 New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) by C.C. Johnson and Malhotra, a subcontractor to Dvirka and Bartilucci Consulting Engineers (D&B). As a result of this data validation, 8 of 46 samples were found not to be in complete compliance with the ASP Quality Assurance and Quality Control (QA/QC) requirements due to exceeding holding time requirements, failing to perform GPC cleanup and noncompliant semivolatile blanks.

The purpose of this report is to highlight the findings of the data validation by C.C. Johnson and Malhotra with the discussion that follows being for samples with analytical problems. A listing of all the Phase I samples showing which results are contractually compliant or not for each chemical fraction analyzed (volatiles [VOA], base neutrals/acids [BNA], pesticides/PCBs [Pest/PCB], metals [MET], TCLP, RCRA and hexavalent chromium, can be found in Table 1. The data validation reports for each data package from C.C. Johnson and Malhotra are enclosed as Attachment 1 of this document. The Phase I data advisories resulting from data validation/usability findings are listed in Table 2 of this report.

When a sample was extracted and/or analyzed twice, somewhat different findings resulted although none of the differences were sufficient enough to alter the basic outcome regarding environmental conditions/contamination assessment, or to influence the recommended investigative/remedial action for the project. Some variation in the analytical results are expected due to the non-homogenous nature of the matrices at the site (soil/water) and possible differences in laboratory conditions and equipment between the initial sample extraction and analysis. Only the results determined to be the most accurate and/or those in compliance with the ASP will be used for the presentation/discussion of the data.

Table 4-__

DATA VALIDATION SUMMARY
(Contractual Compliance with 1991 NYSDEC ASP)

Group	Sample Number	Matrix	VOA	BNA	Pest/PCBs	Metals	TCLP	RECRA	Hexavalent Chromium
Groundwater	RRMW1	Water	OK	OK	OK	OK	NA	NA	
	RRMW2	Water	OK	OK	OK	OK	NA	NA	
	RRMW3S	Water	OK	OK	OK	OK	NA	NA	
	RRMW4S	Water	OK	OK	OK	OK*	NA	NA	
	RRMW5S	Water	OK	OK	OK	OK*	NA	NA	
	RRMW5I	Water	OK	OK	OK	OK	NA	NA	
	RRMW6S	Water	OK	OK	OK	OK	NA	NA	
	RRMW7S	Water	OK	OK	OK	OK	NA	NA	
	RRMW7I	Water	OK	OK	OK	OK	NA	NA	
	RRMWCM	Water	OK	OK	OK	OK	NA	NA	
	CW102	Water	OK	OK	OK	OK	NA	NA	
	RRMWFB	Water	OK	OK	OK	OK	NA	NA	
	RRMWTB	Water	OK	NA	NA	NA	NA	NA	NA
	TRIP Blank	Water	OK	NA	NA	NA	NA	NA	NA
Surface Soil	RRSS01	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS02	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS03	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS04	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS05	Soil	OK	NO	OK	OK	NA	NA	NA
	RRSS06	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS07	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS08	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS09	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSS10	Tar	OK	OK	OK	OK	NA	NA	NA
	RRSS11	Soil	OK	NO	OK	OK	NA	NA	NA
	RRSS12	Soil	OK	OK	OK	OK	NA	NA	NA
	RRSSFB	Water	OK	OK	OK	OK	NA	NA	NA

*Samples required dissolved metals analysis due to turbidity dissolved analysis has prefix D - for sample i.d.

Table 4-__

DATA VALIDATION SUMMARY
(Contractual Compliance with 1991 NYSDEC ASP)

Group	Sample Number	Matrix	VOA	BNA	Pest/PCBs	Metals	TCLP	RECRA	Hexavalent Chromium
Monitoring Well Soil*	RRMW4S	Soil							NA
	RRMW5IAS	Soil							NA
	RRMW6S	Soil							NA
	RRMW7IA	Soil							NA
	RRMWFBS	Water							NA
Test Trench	RRTT01	Soil	OK	NO*	NO*	OK	NA	NA	NA
	RRTT02	Soil	OK	OK	OK	OK	NA	NA	NA
	RRTT03	Soil	OK	NO*	OK	OK	OK, met	OK	NA
	RRTT05	Soil	OK	OK	NO*	OK	OK, met	OK	NA
	RRTT06	Soil	OK	OK	OK	OK	OK, met	OK	NA
	RRTT07	Soil	OK	OK*	OK*	OK	OK, met	NA	NA
	RRTT08	Soil	NO*	NO*	OK	OK	OK, met	OK	NA
	RRTT09	Soil	OK	OK*	OK*	OK	NA	NA	NA
	RRTT10	Soil	OK	OK	OK	OK	NA	NA	NA
	RRTT11	Soil	OK	NO*	OK	OK	OK, met	OK	NA
	RRTT12	Soil	OK	NO*	NO*	OK	NA	NA	NA
	RRTT14	Soil				OK	OK, met	OK	NA
	RRTT16	Soil				OK	NA	NA	NA
	RRTT17	Soil				OK	NA	NA	NA

*Samples did not require formal validation due to collection method.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRSS01	Soil		Metals Antimony, Arsenic, Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
RRSS02	Soil		Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Chromium, Cobalt, Nickel, Lead, Sodium, Zinc		Estimated, possibly biased high.	Potential interference effects.
RRSS03	Soil	Sonication/GPC	Semivolatile All results except bis(2ethylhexyl phthalate)	Initial		
			bis(2ethylhexyl phthalate)	Diluted		
			Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Chromium, Cobalt, Nickel, Lead, Sodium, Zinc		Estimated, possibly biased high.	Potential interference effects.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRSS04	Soil		Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Cobalt, Nickel, Lead, Sodium		Estimated, possibly biased high.	Potential interference effects.
RRSS05	Soil		Metals Antimony, Arsenic, Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
RRSS06	Soil		Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Cobalt, Nickel, Lead,		Estimated, possibly biased high.	Potential interference effects.
		Sonication/GPC	Pesticide/PCB	Diluted		Interferences present in the initial undiluted run.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRSS07	Soil		Metals Antimony, Arsenic, Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
		Sonication/GPC	Semivolatile All results except bis(2ethylhexyl phthalate)	Initial		
			bis(2ethylhexyl phthalate)	Diluted		Concentration exceeded the calibration range in the initial analyses.
RRSS08	Soil		Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Cobalt, Nickel, Lead, Sodium, Vanadium		Estimated, possibly biased high.	Potential interference effects.
		Sonication/GPC	Semivolatile All results except bis(2ethylhexyl phthalate)	Initial		
			bis(2ethylhexyl phthalate)	Diluted		Concentration exceeded the calibration range in the initial analyses.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRSS09	Soil	Sonication/GPC	Pesticide/PCB	Diluted		Interferences present in the initial undiluted run.
			Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Cobalt, Nickel, Lead, Sodium, Vanadium		Estimated, possibly biased high.	Potential interference effects.
RRSS10	Soil		Metals Aluminum		Estimated, may be biased high.	Blank contamination.
			Antimony, Lead, Nickel, Thallium, Vanadium		Estimated possibly biased low.	Low spiking recoveries.
			Sodium		Estimated, possibly biased high.	Potential interference effects.
RRSS11	Soil		Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Chromium, Cobalt, Nickel, Lead, Vanadium, Zinc		Estimated, possibly biased high.	Potential interference effects.
			Copper		Estimated possibly biased low.	Potential interference effects.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRSS12	Soil		Metals Antimony, Arsenic, Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Pesticide/PCB Aroclor 1254	Diluted		Interferences present in the initial run.
RRSSFB	Water		Metals Selenium, Thallium		Estimated, possibly biased low.	Low GFAA spike recoveries.
			Zinc		Possible, false negative.	Blank contamination.
RRTT01	Soil		Pesticide/PCB Aroclor 1254	Diluted		Interferences present in the initial run.
			Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Lead, Nickel, Sodium, Zinc		May be biased high.	Potential interference effects.
			Beryllium		May be biased low.	Blank contamination.
RRTT02	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Beryllium		May be biased low.	Blank contamination.
			Cobalt		Estimated.	Blank contamination.
			Selenium		Estimated.	High GFAA spike recovery.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRTT03	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Lead, Nickel, Sodium, Zinc		May be biased high.	Potential interference effects.
			Selenium		Estimated.	High GFAA spike recovery.
			Copper		May be biased low.	Potential interference effects.
RRTT05	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Lead, Nickel, Sodium, Vanadium		May be biased high.	Potential interference effects.
			Beryllium		May be biased low.	Blank contamination.
			Selenium		Estimated.	High GFAA spike recovery.
RRTT06	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Lead, Nickel, Sodium, Zinc		May be biased high.	Potential interference effects.
			Thallium		Estimated.	High GFAA spike recovery.
			TCLP Metals Chromium, Selenium		Estimated.	Blank contamination.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRTT07	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Lead, Nickel, Sodium, Vanadium, Zinc		May be biased high.	Potential interference effects.
			Beryllium		May be biased low.	Blank contamination.
		Sonication	Semivolatile	Medium Level Rerun (RRTT07RR)		Better internal standard area counts and surrogate recoveries.
		Sonication/GPC	Pesticide/PCB	Diluted (RRTT07DL)		PCB concentrations could not be quantified in the initial undiluted run due to interference.
RRTT08	Soil	Sonication/None	Semivolatile	Reanalysis		Better surrogate recoveries.
			Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Chromium, Cobalt, Nickel, Lead, Sodium, Zinc		Estimated, possibly biased high.	Potential interference effects.
			TCLP Metals Cadmium		Estimated, biased low.	Low spiking recovery.
			Lead		Estimated, biased high.	High spiking recovery.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRTT09	Soil	Sonication/GPC	Semivolatile All results except bis(2ethylhexyl phthalate)	Initial		
			bis(2ethylhexyl phthalate)	Diluted		Concentration exceeded the calibration range in the initial run.
		Sonication/GPC	Pesticide/PCB	Diluted		
			Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Silver		Potential false negative.	Potential interference effects.
			Cobalt, Nickel, Sodium, Vanadium		Estimated, possibly biased high.	Potential interference effects.
RRTT10	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Barium, Cobalt, Lead, Nickel, Sodium, Zinc, Vanadium		May be biased high.	Potential interference effects.
			Beryllium		May be biased low.	Blank contamination.
			Selenium		Estimated.	High GFAA spike recovery.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRTT11	Soil	Sonication/None	Semivolatile	Initial		Similar results to between initial and reanalysis.
			Metals Antimony, Arsenic Selenium, Thallium, Vanadium		Estimated, possibly biased low.	Low matrix spike recoveries.
			Chromium		Estimated, possibly biased high.	High matrix spike recoveries.
			Antimony		Potential false positive.	Potential interference effects.
			Cadmium, Silver		Potential false negative.	Potential interference effects.
			Chromium, Cobalt, Nickel, Lead, Sodium, Zinc		Estimated, possibly biased high.	Potential interference effects.
			TCLP Metals Cadmium		Estimated, biased low.	Low spiking recovery.
			Lead		Estimated, biased high.	High spiking recovery.
RRTT12	Soil		Metals Antimony, Arsenic, Chromium		May be biased low.	Low spiking recovery.
			Silver, Cadmium		Potential false negative.	Potential interference effects.
			Antimony, Cobalt, Nickel, Sodium, Vanadium		May be biased high.	Potential interference effects.
			Beryllium		May be biased low.	Blank contamination.
			Semivolatile	Initial		Concentrations from diluted run same as those for initial run.
			Pesticide/PCB Aroclor 1248 and Aroclor 1254	Diluted		Interferences present in the initial run.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRMW1	Water		Metals			
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMW2	Water		Metals			
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMW3S	Water		Metals			
			Iron, Manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMW4S	Water		Metals			
			Iron, Manganese		Estimated, may be biased high	High spiking recoveries.
			Arsenic		Estimated	Potential interference effects.
			Dissolved Metals			
			Aluminum, Zinc		Estimated, may be biased high	Present in blank.
			Calcium		Estimated	Duplicated out of QC limits.
			Manganese		Estimated, may be biased high	High spiking recoveries.
RRMW5S	Water		Metals			
			Antimony, Barium Beryllium, Silver Vanadium		Estimated	Potential interference effects.
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRMW5S (continued)			Dissolved Metals Antimony, Barium, Beryllium, Lead Selenium, Silver Thallium		Estimated	Possible interference effects.
			Zinc		Estimated, may be biased high	Present in blank.
			Manganese		Estimated, may be biased high	High spiking recoveries.
			Calcium		Estimated	Duplicate out of QC limits.
			Cobalt		Estimated	Present in blank.
			Volatiles	Initial		Area count of phenanthrene-d10 was below QC limits in both the initial and reanalysis.
RRMW5I	Water		Metals Barium, Lead Silver, Zinc		Estimated	Potential interference effects.
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMW6S	Water		Metals Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
	Water		Semivolatile 2,4-Dimethylphenol	Diluted		Concentration exceeded calibration range in the initial undiluted run.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRMW7S	Water		Metals			
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMW7I	Water		Metals			
			Iron, manganese		Estimated, may be biased high	High spiking recoveries.
			Selenium, Thallium		Estimated, may be biased low	Low spiking recoveries.
RRMWCM	Water		Metals			
			Magnesium		Estimated, may be biased high.	Detected in blank.
			Selenium, Thallium		Estimated, may be biased low.	Low spiking recoveries.
CW-102	Water		Metals			
			Aluminum		Estimated, may be biased high.	Detected in blank.
RRMWFB	Water		Metals			
			Iron		Estimated, may be biased high.	Found in blank.
			Selenium, Thallium		Estimated, may be biased low.	Low spiking recoveries.

RIVER ROAD SITE
DATA USER ADVISORIES FOR PHASE I
(continued)

Sample ID	Matrix	Extraction/ Cleanup Method	Data Fraction	Best Data Set	Data User Advisory	Comments
RRTT14	Soil		Metals Antimony Cobalt, Lead, Sodium, Vanadium Zinc		Estimated.	Potential interference effects.
			Cadmium, Silver Thallium		Estimated, possible false false negative.	Potential interference effects.
			Potassium		Estimated, may be biased high.	Blank concentration exceeded sample.
RRTT16	Soil		Metals Cadmium, Cobalt Lead, Sodium, Vanadium		Estimated	Potential interference effects.
			Selenium, Silver Thallium		Estimated, possible false negative.	Potential interference effects.
			Potassium		Estimated, may be biased high.	Blank concentration exceeded sample concentration.
RRTT17	Soil		Metals Antimony Cobalt, Lead, Sodium, Vanadium Zinc		Estimated.	Potential interference effects.
			Cadmium, Silver Thallium		Estimated, possible false false negative.	Potential interference effects.
			Potassium		Estimated, may be biased high.	Blank concentration exceeded sample.
			Selenium		Estimated, possible false negative.	Potential interference effects.

Login: 11708

Sample: RRSS06

Matrix: Soil

Organics

Pesticide/PCB

Due to the presence of interferences in the original analysis, RRSS6, the sample was reanalyzed with a 1:3 dilution, RRSS6DL, in order to quantify Aroclor-1260.

The results from RRSS6DL should be used for environmental assessment.

Login: 11708

Sample: RRSS07

Matrix: Soil

Organics

Semivolatile

In the initial analysis of RRSS07, the concentration of bis(2ethylhexyl)phthalate exceeded the instrument calibration range.

As per contract requirements, the sample was reanalyzed at a 1:10 dilution, RRSS7DL, and the concentration of bis(2ethylhexyl)phthalate was within the calibration range. The data from the initial run should be used for all compounds except bis(2ethylhexyl)phthalate. The concentration of bis(2ethylhexyl)phthalate should be taken from the diluted run, RRSS07DL.

Login: 11708

Sample: RRSS08

Matrix: Soil

Organics

Semivolatile

In the initial analyses of RRSS08, the concentration of bis(2ethylhexyl)phthalate exceeded the instrument calibration range. As per contract requirements, the sample was reanalyzed at a 1:2 dilution, RRSS08DL, in order to get the concentration of bis(2ethylhexyl)phthalate within the instrument calibration range. The data from the initial analysis should be used for all compounds except bis(2ethylhexyl)phthalate which should be taken from the diluted run, RRSS08DL.

Login: 11708

Sample: RRSS09

Matrix: Soil

Organics

Pesticide/PCB

Due to interferences in the initial undiluted analysis, RRSS09, the sample was reanalyzed at a 1:3 dilution, RRSS09DL, in order to quantitate the value for Aroclor-1254. The results from the diluted run, RRSS09DL, should be used for environmental assessment

Login: 11708

Sample: RRSS11

Matrix: Soil

Organics

Semivolatile

This sample was extracted medium level due to the nature of the sample matrix. GPC cleanup was not performed on this sample but is required by the 1991 NYSDEC ASP. The data is deemed usable, but not contractually compliant.

Login: 11708

Sample: RRSS12

Matrix: Soil

Organics

Pesticide/PCB

Due to the high levels of Aroclor-1254 present in the initial analysis, RRSS12, the sample was reanalyzed at a 1:2 dilution, RRSS12DL. The concentration of Aroclor-1254 should be taken from RRSS12DL since the value is deemed to be the "best set" of data.

Login: 11853

Sample: RRTT07

Matrix: Soil

Organics

Semivolatile

This was initially analyzed at low level, RRTT07, with a 1:6 dilution in which the concentration of fluoranthene exceeded the instrument calibration range. The sample was reextracted, RRTT07RE, at medium level and analyzed with an additional 1:2 dilution. The reextracted medium level sample was reanalyzed, RRTT07RR, due to internal standard area counts.

INTERNAL STANDARD SUMMARY

Internal Standard	Sample			QC Limits
	RRTT07	RRTT07RE	RRTT07RR	
1,4-Dichlorobenzene-d4	110	99	111	50-200%
Naphthalene-d8	98	99	106	50-200%
Anthracene-d10	68	79	90	50-200%
Phenanthrene-d10	12*	44*	49*	50-200%
Chrysene-d12	51	71	63	50-200%
Perylene-d12	64	92	97	50-200%

SURROGATE RECOVERY SUMMARY

Surrogate	Sample			QC Limits
	RRTT07	RRTT07RE	RRTT07RR	
Nitrobenzene-d5	133*	100	108	23-120%
2-Fluorobiphenyl	153*	127*	116*	30-115%
Terphenyl-d14	65	66	77	18-137%
Phenol-d5	123*	94	81	24-113%
2-Fluorophenol	83	81	66	25-121%
2,4,6-Tribiomophenol	D	54	40	19-122%
2-Chlorophenol-d4	117	123	112	20-130%
1,2-Dichlorobenzene-d4	99	97	97	20-130%

The results from both the medium level runs were comparable, however, since the area count of phenanthrene-d10 and the surrogate recovery of 2-fluorophenol were closer to the QC limits for sample RRTT07RR. The results from RRTT07RR should be used for environmental assessment.

Pesticide/PCB

This sample required reanalysis at a 1:3 dilution, RRTT07DL, in order to quantitate the concentrations of Aroclor-1248 and Aroclor-1260. The results from the diluted run, RRTT07DL, should be used for environmental assessment.

Login: 11708

Sample: RRTT08

Matrix: Soil

Organics

Volatile

This sample was utilized as the MS/MSD, and all runs were done two days out of holding time. The data is deemed usable for environmental assessment but not contractually compliant.

Semivolatiles

This sample was extracted at medium level due to the nature of the sample matrix. GPC cleanup was not performed on this sample but is required by the 1991 NYSDEC ASP.

The sample was reanalyzed, RRTT08RE, due to surrogate recoveries and internal standard area counts not meeting QC requirements.

INTERNAL STANDARD SUMMARY

Internal Standard	Sample		QC Limits
	RRTT08	RRTT08RE	
1,4-Dichlorobenzene-d4	105	101	50-200%
Naphthalene-d8	89	89	50-200%
Acenaphthene-d10	74	78	50-200%
Phenanthrene-d10	31*	30*	50-200%
Chrysene-d12	79	80	50-200%
Perylene-d12	104	106	50-200%

SURROGATE RECOVERY SUMMARY

Internal Standard	Sample		QC Limits
	RRTT08	RRTT08RE	
Nitrobenzene-d5	90	80	23-120%
2-Fluorobiphenyl	111	106	30-115%
Terphenyl-d14	49	52	18-137%
Phenol-d5	41	39	24-113%
2-Fluorophenol	24*	23*	25-121%
2,4,6-Tribiomophenol	18*	21	19-122%
2-Chlorophenol-d4	61	61	20-130%
1,2-Dichlorobenzene-d4	77	79	20-130%

Protocol allows one surrogate recovery per fraction to be outside QC limits as long as it is greater than 10 percent. Based on the above summaries, the data from RRTT08RE is deemed the "best set" since it is more contractually compliant.

The data from RRTT08RE is deemed usable for environmental assessment, even though it is not contractually compliant since GPC cleanup was not performed.

Login: 11708

Sample: RRTT09

Matrix: Soil

Organics

Semivolatile

This sample was initially analyzed at a 1:2 dilution, and the concentration of bis(2-ethylhexyl)phthalate exceeded the instrument calibration range. The sample was reanalyzed, RRTT09DL, at a 1:8 dilution, and all concentrations were within QC limits.

The surrogate recoveries for both RRTT09 and RRTT09DL met QC requirements. Two internal standard area counts were outside QC limits in RRTT09, but all area counts were within QC limits for RRTT09DL. But due to the additional dilution, the results from the initial run should be used for environmental assessment except for the result for bis(2-ethylhexyl)phthalate, which should be taken from the diluted run, RRTT09DL.

Pesticide/PCB

Due to the presence of interferences, this sample required reanalysis at a 1:45 dilution, RRTT09DL, in order to quantify the concentration of Aroclor-1254. The results from RRTT09DL should be used for environmental assessment.

Login: 11708

Sample: RRTT11

Matrix: Soil

Organics

Semivolatile

This sample was extracted medium level due to the nature of the sample matrix. QPC cleanup was not performed on this sample but is required by the 1991 NYSDEC ASP.

The sample required reanalysis due to internal standard area counts.

INTERNAL STANDARD SUMMARY

Internal Standard	Sample		QC Limits
	RRTT11	RRTT11RE	
1,4-Dichlorobenzene-d4	105	108	50-200%
Naphthalene-d8	100	91	50-200%
Acenaphthene-d10	81	75	50-200%
Phenanthrene-d10	35*	31*	50-200%
Chrysene-d12	76	74	50-200%
Perylene-d12	93	97	50-200%

Since similar results were obtained from RRTT11 and RRTT11RE, the data from the initial analysis, RRTT11, should be used.

The data from RRTT11 is deemed usable for environmental assessment, but not contractually compliant since QPC cleanup was not performed.

Login: 11879

Sample: RRTT12A

Matrix: Soil

Organics

Semivolatile

The method blank that was extracted along with this sample did not meet QC requirements as it contained tentatively identified compounds. The sample was not reanalyzed or reextracted contract requirements were not met. However, data is deemed usable for environmental assessment.

In the initial analysis of RRTT12A the concentration of bis(tethylhexyl) phthalate exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1.6 dilution, RRTT12ADL, and the concentration of bis(tetheulhexyl) phthalate was the same in the initial and diluted analysis the data from the initial run should be used for environmental assessment.

Pesticide/PCB

Due to the presence of interferences in the initial analysis, RRTT12A the sample was reanalyzed with a 120 dilution RRTT2ADL in order to quantify aroclors 12.48 and 1254.

Protocol states that if the concentration of an aroclor exceeds 330 ug/kg for soils the samples should be analyzed by GC/MS for confirmation.

Since GC/MS confirmation analysis was not perform, contract requirements were not met, however the data is deemed usable.

The results from RRTTDADL should be used for environmental assessment.

Login: 11879

Sample: RRTT01

Matrix: Soil

Organics

Semivolatile

The method blank that was along with this sample did not meet QC requirements as it contained tentatively identified compounds. The sample was not reanalyzed or reextracted contract requirements were not met. However, data is deemed usable for environmental assessment.

Pesticide/PCB

Due to the presence of interferences in the initial analysis, RRTT01, the sample was reanalyzed with A14 dilution, RRTT01DL in order to quantify aroclor-1254.

Protocol states that if the concentration of an aroclor exceeds 10 330 ug/kg for soils the samples should be analyzed by GC/MS for confirmation.

Since GC/MS confirmation analysis was not performed contract requirements were not met, however the data is deemed usable.

The results from RRTT01DL should be used for environmental assessment.

Login: 11879

Sample: RRTT03

Matrix: Soil

Organics

Semivolatile

The method blank that was extracted along with this sample did not meet QC requirements as it contained tentative identified compounds. The sample was not reanalyzed or reextracted contract requirements were not met. However, data is deemed usable for environmental assessment.

Login: 11908

Sample: RRTT05

Matrix: Soil

Organics

Pesticide/PCB

Protocol states that is the concentration of an aroclor exceeds 330 ug/kg for soils the samples should be analyzed for GC/NS for confirmation.

Since GC/MS confirmation analysis was not performed contract requirements were not met, however the data is deemed usable.

Login: 12177

Sample: RRMW6S

Matrix: Water

Organics

Semivolatile

In the initial analysis of RRMW6S the concentration of 2.4 Dimethylphenol exceeded the instrument calibration range. The sample was reanalyzed RRMW6SDL, at a 1.6 dilution in which the concentration of 2.4 dimethylphenol was within the calibration range.

Contract requirements were met. The results from the initial analysis should be used for all compounds except 2.4-Dimethylphenol. For 2.4-dimethylphenol the results from the diluted run, RRMW6SDL, should be used.

Login: 12193

Sample: RRMW5S

Matrix: Water

Organics

Semivolatile

In the initial analysis of this sample the internal standard area count of phenanthrene-d10 did not meet QC requirements. The sample was reanalyzed, RRMW5SRE, and again the area count of phenanthrene-d10 was below QC limits.

INTERNAL STANDARD AREA SUMMARY

Internal	RRMW5S	RRMW5SRE	QC Limits
1,4-Dichlorobenzene-d4	114	116	50-200%
Naphthalene-d8	93	109	50-200%
Anthracene-d10	63	62	50-200%
Phenanthrene-d10	30	32	50-200%
Chrysene-d12	63	55	50-200%
Perylene-d12	107	74	50-200%

Contract requirements were met. The results from the initial analysis should be used for environmental assessment.

APPENDIX E-2

Phase II Data Usability Report

RIVER ROAD PHASE II DATA USABILITY SUMMARY

Samples collected from the River Road Site Phase II sampling program were analyzed for Target Compounds List plus 30 (TCL +30) less volatile substances. The monitoring well soil samples and one surface water sediment sample were also analyzed for TCL Volatile (VOA) +10 compounds. Surface water sediment samples were also analyzed for Total Organic Carbon (TOC). Data was validated according to the 1991 New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) by C.C. Johnson and Malhotra, a subcontractor to Dvirka and Bartilucci Consulting Engineers (D&B). As a result of this data validation, 10 of 27 samples were found not to be in complete compliance with the ASP Quality Assurance and Quality Control (QA/QC) requirements due to exceeding holding time requirements for semivolatile analysis.

The purpose of this report is to highlight the findings of the data validation by C.C. Johnson and Malhotra with the discussion that follows being for samples with analytical problems. A listing of all the Phase II samples showing which results are contractually complaint or not for each chemical fraction analyzed (volatiles [VOA], base neutrals/acids [BNA], pesticides/PCBs [Pest/PCB], and metals [MET], can be found in Table 1. The data validation reports for each data package from C.C. Johnson and Malhotra are enclosed as Attachment 1 of this document. The Phase I data advisories resulting from data validation/usability findings are listed in Table 2 of this report.

When a sample was extracted and/or analyzed twice, somewhat different findings resulted although none of the differences were sufficient enough to alter the basic outcome regarding environmental conditions/contamination assessment, or to influence the recommended investigative/remedial action for the project. Some variation in the analytical results are expected due to the nonhomogenous nature of the matrices at the site (soil/water) and possible differences in laboratory conditions and equipment between the initial sample extraction and analysis. Only the results determined to be the most accurate and/or those in compliance with the ASP will be used for the presentation/discussion of the data.

Phase II
Data Validation Summary
(Contractual Compliance with 1991 NYSDEC ASP)

Group	Sample#	Matrix	VOA	BNA	Pest/PCB	Metals
Groundwater	RRMW1	Water	NA	OK	OK	OK
	RRMW2	Water	NA	OK	OK	OK
	RRMW3S	Water	NA	OK*	OK	OK
	RRMW4S	Water	NA	OK*	OK	OK
	RRMW5S	Water	NA	OK*	OK	OK
	RRMW6S	Water	NA	OK*	OK	OK
	RRMW7S	Water	NA	OK	OK	OK
	RRMW8S	Water	NA	OK*	OK	OK
	RRMW9S	Water	NA	OK*	OK	OK
	RRMW12CF	Water	NA	OK	OK	OK
	RRMW13CF	Water	NA	OK*	OK	OK
	CW102DM	Water	NA	OK	OK	OK
	RRB3TA	Water	NA	OK	OK	OK
	RRB4TA	Water	NA	OK*	OK	OK
	RRB5TA	Water	NA	OK*	OK	OK
Light Nonaqueous Phase Liquid	RRMW5S0	Oil	NA	OK*	OK	NA
	RRMW8S0	Oil	NA	OK*	OK	NA
Surface Water Sediment	RRSWS-1	Soil	NA	NO*	OK	OK
	RRSWS-2	Soil	NA	NO*	OK	OK
	RRSWS-3	Soil	OK	NO*	OK	OK
	RRSWS-4	Soil	NA	NO*	OK	OK
	RRSWS-5	Soil	NA	NO*	OK	OK
	RRSWS-6	Soil	NA	NO*	OK	OK
Monitoring Well Soil	RRMW8S(5-7)	Soil	OK	NO*	OK	OK
	RRMW8S(15-17)	Soil	OK*	NO*	OK	OK
	RRMW9S(5-7)	Soil	OK	NO*	OK	OK
	RRMW9S(10-12)	Soil	OK	NO*	OK	OK

TABLE 2

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
RRMW1	Water	Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
RRMW2	Water	Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	
RRMW3S	Water	Semivolatile	Initial	Estimated	Poor surrogate recoveries
		Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
RRMW4S	Water	Semivolatile Napthalene	diluted		Concentration exceeded calibration range in initial analysis
		All other results	initial		
		Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
		Zinc		Estimated	Poor duplicate recovery
RRMW5S	Water	Semivolatile	Reanalysis		Internal standard area counts more contractually compliant
		Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Antimony, Sodium		Estimated	Interference

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TABLE 2(continued)

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
RRMW6S	Water	Semivolatile	Initial		Similar internal standard results for both initial and reanalysis
		Metals			
		Aluminum, Iron		Estimated, possibly biased high	High spiking recoveries
		Manganese			
		Sodium		Estimated	Interference
		Zinc		Estimated	Poor duplicate results
		Thallium		Estimated, possibly biased low	Low spiking recovery
RRMW7S	Water	Metals			
		Aluminum, Iron		Estimated, possibly biased high	High spiking recoveries
		Manganese			
		Sodium		Estimated	Interference
		Zinc		Estimated	Poor duplicate results
RRMW8S	Water	Semivolatile			
		Phenol, 2-Methylphenol 4-Methylphenol, 2,4 Dimethylphenol Phenanthrene Flouranthene	Diluted		Concentrations exceeded calibration range in initial run. Take all other results from initial run
		Metals			
		Aluminum, Iron		Estimated, possibly biased high	High spiking recoveries
		Manganese			
		Zinc		Estimated	Poor duplicate results
		Sodium		Estimated	Interference
RRMW9S	Water	Semivolatile			
		Phenol, 2-Methylphenol 4-Methylphenol, 2,4 Dimethylphenol	Diluted		Concentrations exceeded calibration range in initial run. Take all other results from initial run
		Metals			
		Aluminum, Iron		Estimated, possibly biased high	High spiking recoveries
		Manganese			
		Zinc		Estimated	Poor duplicate results
		Sodium		Estimated	Interference

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TABLE 2(continued)

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
RRMW12CF	Water	Metals			
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Zinc		Estimated	Poor duplicate results
		Sodium		Estimated	Interference
RRMW13CF	Water	Semivolatile			
		4 Methylphenol, 2,4 dimethylphenol	Diluted		Concentrations exceeded calibration range in initial run. Take all other results from initial run
		Metals			
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
		Zinc		Estimated	Poor duplicate recoveries
CW102DM	Water	Metals			
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
RRB3TA	Water	Metals			
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Sodium		Estimated	Interference
RRB4TA	Water	Semivolatile	Initial		Reanalysis performed out of holding time
		Base-neutral compounds		Estimated	Surrogate recoveries outside QC limits
		Metals			
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Zinc		Estimated	Poor duplicate recovery
		Sodium		Estimated	Interference

TABLE 2(continued)

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
RRB5TA	Water	Semivolatile	Initial		Reanalysis run outside of holding time
		Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Zinc	Estimated	Poor duplicate recovery	
		Sodium		Estimated	Interference
RRMW550	Oil	Semivolatile Acid Compounds	Initial	Estimated	Poor surrogate recoveries
RRMW850	Oil	Semivolatile Acid Compounds	Reanalysis	Estimated	Poor surrogate recoveries
RRSWS1	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Iron Manganese		Estimated	Poor duplicate recovery
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries
		Lead		Estimated	Poor duplicate recovery
RRSWS2	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries
		Lead		Estimated	Poor duplicate recovery
RRSWS3	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Aluminum, Iron Manganese		Estimated, possibly biased high	High spiking recoveries
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries

TABLE 2(continued)

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
RRSWS4	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Iron Manganese		Estimated	Poor duplicate recovery
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries
RRSWS5	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Iron Manganese		Estimated	Poor duplicate recovery
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries
RRSWS6	Sediment	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Iron Manganese		Estimated	Poor duplicate recovery
		Arsenic, Chromium Zinc		Estimated Possibly biased low	Low spiking recoveries
RRMW85(5-7)	Soil	Semivolatile	Initial	Estimated	Analysis run out of holding time
		Metals Aluminum, Antimony, Calcium, Chomium, Cobalt, Copper, Iron, Lead, Manganese, Sodium, Vanadium Zinc, Cadmium		Estimated	Possible presence of matrix interference
RRMW85(15-17)	Soil	Semivolatile		Estimated	Analysis run out of holding time
		Phenanthrene, Fluoranthene, bis-(2 Ethylhexyl) phthlate	Diluted		Concentrations exceeded the instrument calibration range in the initial analysis. All other results should be taken from the initial run

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TABLE 2(continued)

DATA USER ADVISORIES
RIVER ROAD SITE PHASE II

Sample Id.	Matrix	Fraction	Best Data Data Set	Data Advisory	Comments
		Metals Aluminum, Antimony, Calcium, Chromium, Cobalt, Copper, Iron Lead, Manganese Sodium, Vanadium Zinc		Estimated	Possible presence of matrix inteference
		Volatiles Total Xylenes	Diluted		Concentration exceeded calibration range in the initial run take all other results from the initial fun
RRMW9S(5-7)	Soil	Semivolatile		Estimated	Analysis run out of holding time
		Phenanthrene	Diluted		Concentration exceeded calibration range in the initial analysis
		Metals Aluminum, Antimony, Calcium, Chromium Cobalt, Copper, Iron Lead, Manganese, Sodium, Vanadium, Zinc, Barium		Estimated	Possible presence of matrix interference
RRMW9S (10-12)	Soil	Semivolatile		Estimated	Analysis run out of holding time
		Metals Aluminum, Antimony, Calcium, Chromium Copper, Iron Lead, Manganese, Zinc		Estimated	Possible presence of matrix interference

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Login: 15106
Sample: RRMW3S
Matrix: Water

Organics

Semivolatile

Due to poor surrogate recoveries the sample was re-extracted, RRMW3SRE. However, re-extraction was done 40 days outside of the 10-day holding time allotted for re-extraction. In the re-extract only one surrogate recovery was outside of QC limits. The data from both runs were comparable so the results from the initial run should be used for environmental assessment.

Surrogate	RRMW3S	RRMW3SRE	Limits
Nitrobenzene-d5	18*	74	35-114
2-Fluorobiphenyl	22*	78	43-116
Terphenyl-d4	181*	230*	33-141
1,2 Dichlorobenzene-d4	10*	69	16-110
Phenol-d5	16	75	10-110
2-Fluorophenol	8*	74	21-110
2,4,6-Tribromophenol	48	97	10-123
2-Chlorophenol	12*	70	33-100

Login: 15106
Sample: RRMW4S
Matrix: Water

Organics

Semivolatile

In the initial analysis of RRMW4S the concentration of naphthalene exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:5 dilution, RRMW4SDL and the concentration of naphthalene was within the calibration range. The data from the initial run should be used for all compounds except naphthalene. The result for naphthalene should be taken from the diluted run, RRMW4SDL.

Login: 15106
Sample: RRMW5S
Matrix: Water

Organics

Semivolatile

The initial analysis of sample RRMW5S had three internal standard area counts below QC limits. As per contract requirements the sample was reanalyzed, RRMW5SRE, and only one area count was below QC limits.

The data from the reanalysis, RRMW5SRE should be used since it is more contractually compliant.

Internal Standard	RRMW5S	RRMW5SRE	QC Limits
1,4 Dichlorobenzene	101	85	50-200%
Naphthalene-d8	88	85	50-200%
Acenaphthene-d10	49*	51	50-200%
Phenanthrene-d10	49*	57	50-200%
Chrysene-d12	42*	38*	50-200%
Perylene-d12	65	65	50-200%

Login: 15106
Sample: RRMW6S
Matrix: Water

Organics

Semivolatile

The initial analysis of sample RRMW6S had one internal standard area count below QC limits. As per contract requirements the sample was reanalyzed, RRMW6SRE, and again one area count was below QC limits.

The data from the initial analysis should be used since both runs had similar results.

Internal Standard	RRMW6S	RRMW6SRE	QC Limits
1,4 Dichlorobenzene	97	90	50-200%
Naphthalene-d8	172	182	50-200%
Acenaphthene-d10	74	74	50-200%
Phenanthrene-d10	73	80	50-200%
Chrysene-d12	44*	47*	50-200%
Perylene-d12	66	70	50-200%

Login: 15106
Sample: RRMW8S
Matrix: Water

Organics

Semivolatile

In the initial analysis of RRMW8S the concentrations of phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethylphenol, phenanthrene and fluoranthene exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:10 dilution, RRMW8SDL, and the concentrations of phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethylphenol, phenanthrene and fluoranthene were within the calibration range. The data from the initial run should be used for all compounds except the above compounds which should be taken from the diluted run, RRMW8SDL.

Login: 15106
Sample: RRMW9S
Matrix: Water

Organics

Semivolatile

In the initial analysis of RRMW9S the concentrations of phenol, 2-methylphenol, 4-methylphenol and 2,4-dimethylphenol exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:20 dilution, RRMW9SDL, and the concentrations of phenol, 2-methylphenol, 4-methylphenol and 2,4-dimethylphenol were within the calibration range. The data from the initial run should be used for all compounds except those compounds listed above. The results for the above compounds should be taken from the diluted run, RRMW9SDL.

Login: 15106
Sample: RRMW13CF
Matrix: Water

Organics

Semivolatile

In the initial analysis of RRMW13CF the concentrations of 4-methylphenol and 2,4-dimethylphenol exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:2 dilution, RRMW13CFDL, and the concentrations of 4-methylphenol and 2,4-dimethylphenol was within the calibration range. The data from the initial run should be used for all compounds except 4-methylphenol and 2,4-dimethylphneol, the results for those compounds should be taken from the diluted run, RRMW13CFDL.

Login: 15106
Sample: RRB4TA
Matrix: Water

Organics

Semivolatile

The initial analysis of sample RRB4TA had three base neutral surrogate recoveries outside of QC limits. The sample was reanalyzed and all surrogate recoveries were within QC limits. However, the reanalysis was performed five days outside of the 40-day holding time. The results from both analyses were comparable so the data should be taken from the initial run.

Surrogate	RRB4TA	RRB4TARE	Limits
Nitrobenzene-d5	30*	53	35-114
2,Fluorobiphenyl	38*	51	43-116
Terphenyl-d14	154*	136	33-141
1,2,Dichlorobenzene-d4	28	46	16-110
Phenol-d5	41	49	10-110
2,Fluorophenol	33	49	21-110
2,4,6,Tribromophenol	70	77	10-123
2-Chlorophenol	35	48	33-110

Login: 15106
Sample: RRB5TA
Matrix: Water

Organics

Semivolatile

The initial analysis of sample RRB5TA had one internal standard area count below QC limits. As per contract requirements the sample was reanalyzed, RRB5TASRE, and all area counts were within QC limits. However, reanalysis was performed outside of the 40-day holding time.

The data from the initial analysis, RRB5TA, should be used since it was run within holding times and the data from both runs was comparable.

Internal Standard	RRB5TA	RRB5TARE	Limits
1,4,Dichlorobenzene	110	104	50-200%
Naphthalene d8	95	103	50-200%
Acenaphthene-d10	75	84	50-200%
Phenanthrene-d10	77	91	50-200%
Chrysene-d12	49*	53	50-200%
Perylene-d12	67	81	50-200%

Login: 15106
Sample: RRMW5S0
Matrix: LNAPL (oil)

Organics

Semivolatile

The initial analysis of sample RRMW5S0 had two internal standard area counts and five surrogate recoveries below QC limits. As per contract requirements the sample was reanalyzed, RRMW5S0RE, and similar results were obtained.

The data from the initial analysis, RRMW5S0, should be used.

Internal Standard	RRMW5S0	RRMW5S0RE	Limits
1,4,Dichlorobenzene	71	75	50-200%
Naphthalene d8	69	77	50-200%
Acenaphthene-d10	54	52	50-200%
Phenanthrene-d10	32*	37*	50-200%
Chrysene-d12	28*	28*	50-200%
Perylene-d12	59	60	50-200%

Surrogate	RRMW5S0	RRMW5S0RE	Limits
Nitrobenzene-d5	54	55	23-120
2-Fluorobiphenyl	52	61	30-115
Terphenyl-d4	112	118	18-137
1,2,Dichlorobenzene-d4	48	49	20-130
Phenol-d5	22*	21*	24-113
2-Fluorophenol	8*	8*	25-121
2,4,6-Tribromophenol	0*	0*	19-122
2-Chlorophenol	23	24	20-130

Login: 15106
Sample: RRMW8S0
Matrix: LNAPL (oil)

Organics

Semivolatile

The initial undiluted analysis of sample RRMW8S0 had one internal standard area count and two acid surrogate recoveries below QC limits. The sample was reanalyzed at a 1:2 dilution due to matrix interference. The reanalysis, RRMW8S0DL, only had the two acid surrogate recoveries below QC limits.

The data from the reanalysis, RRMW8S0DL, should be used since it is more contractually compliant and the results for both runs were comparable.

Internal Standard	RRMW8S0	RRMW8S0DL	Limits
1,4,Dichlorobenzene	73	92	50-200%
Naphthalene d8	72	93	50-200%
Acenaphthene-d10	61	78	50-200%
Phenanthrene-d10	52	86	50-200%
Chrysene-d12	44*	61	50-200%
Perylene-d12	80	104	50-200%
Surrogate	**RRMW8S0**	**RRMW8S0DL**	**Limits**
Nitrobenzene-d5	61	46	23-120
2-Fluorobiphenyl	42	41	30-115
Terphenyl-d4	98	114	18-137
1,2,Dichlorobenzene-d4	42	39	20-130
Phenol-d5	30	24	24-113
2-Fluorophenol	18*	13*	25-121
2,4,6-Tribromophenol	13*	11*	19-122
2-Chlorophenol	26	23	20-130

Login: 14852
Sample: RRSWS-1
Matrix: Sediment

Organics

Semivolatile

The original extract of this sample contained sediment and/or multilayers. The samples were then re-extracted within the 10-day holding time allotted for re-extraction. Only the re-extracts were analyzed.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRSWS-2
Matrix: Sediment

Organics

Semivolatile

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRSWS-3
Matrix: Sediment

Organics

Semivolatile

The original extract of this sample contained sediment and/or multilayers. The samples were then re-extracted within the 10-day holding time allotted for re-extraction. Only the re-extracts were analyzed.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRSWS-4
Matrix: Sediment

Organics

Semivolatile

The original extract of this sample contained sediment and/or multilayers. The samples were then re-extracted within the 10-day holding time allotted for re-extraction. Only the re-extracts were analyzed.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRSWS-5
Matrix: Sediment

Organics

Semivolatile

The original extract of this sample contained sediment and/or multilayers. The samples were then re-extracted within the 10-day holding time allotted for re-extraction. Only the re-extracts were analyzed.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRSWS-6
Matrix: Sediment

Organics

Semivolatile

The original extract of this sample contained sediment and/or multilayers. The samples were then re-extracted within the 10-day holding time allotted for re-extraction. Only the re-extracts were analyzed.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRMW8S(5-7)
Matrix: Soil

Organics

Semivolatile

The initial analysis of sample RRMW8S(5-7) had two internal standard area counts below QC limits. As per contract requirements the sample was reanalyzed, RRMW8S(5-7)RE, and again two area counts were below QC limits.

The data from the initial analysis, RRMW8S(5-7) should be used.

Internal Standard	RRMW8S(5-7)	RRMW8S(5-7)RE	Limits
1,4,Dichlorobenzene	65	102	50-200%
Naphthalene d8	71	124	50-200%
Acenaphthene-d10	46*	73	50-200%
Phenanthrene-d10	29*	34*	50-200%
Chrysene-d12	68	35*	50-200%
Perylene-d12	67	62	50-200%

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRMW8S(15-17)
Matrix: Soil

Organics

Volatile

In the initial analysis of RRMW8S(15-17) the concentration of total xylenes exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:5 dilution, RRMW8S(15-17)DL, and the concentration of total xylenes was within the calibration range. The data from the initial run should be used for all compounds except total xylenes, that result should be taken from the diluted run.

Semivolatile

In the initial analysis of RRMW8S(15-17) the concentrations of phenanthrene, fluoranthene and bis(2-ethylhexyl)-phthalate exceeded the instrument calibration range.

As per contract requirements the sample was reanalyzed at a 1:20 dilution, RRMW8S(15-17)DL and the concentrations of phenanthrene, anthracene and bis(2-ethylhexyl)phthalate were within the calibration range. The data from the initial run should be used for all compounds except those listed above which should be taken from the diluted run, RRMW8S(15-17)DL.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRMW9S(5-7)
Matrix: Soil

Organics

Semivolatile

In the initial analysis of this sample the concentration of phenanthrene exceeded the instrument calibration range. The sample was reanalyzed, RRMW9S(5-7)DL, at a 1:5 dilution and the concentration of phenanthrene was within QC limits. The data from the initial run should be used for all compounds except phenanthrene. The concentration of phenanthrene should be taken from the diluted run.

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Login: 14852
Sample: RRMW9S(10-12)
Matrix: Soil

Organics

Semivolatile

Sample analysis was performed outside of the 40-day from VTSR holding time.

Data has been qualified as estimated and deemed usable for environmental assessment.

Appendix F

APPENDIX F

Analytical Results Summary Tables

F-1 Phase I Analytical Results Summary Tables
F-2 Phase II Analytical Results Summary Tables

APPENDIX F-1

Phase I Analytical Results Summary Tables

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
VOLATILE ORGANICS

	RRTT01 3/24/92	RRTT02 3/25/92	RRTT03 3/24/92	RRTT05 3/25/92	RRTT06 3/25/92	RRTT07 3/23/92	RRTT08* 3/10/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	5.00	1.00
PERCENT MOISTURE	12	14	17	29	12	11	17
VOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U
Methylene Chloride	4 BJ	24 B	2 BJ	U	17 B	7 BJ	920 BJ
Acetone	U	U	U	U	U	U	U
Carbon Disulfide	U	U	U	U	U	7 J	U
1,1-Dichloroethene	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	530 J
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	19 J	6400
Chlorobenzene	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	80	1900
Styrene	U	U	U	U	U	U	U
Total Xylenes	U	U	U	U	U	660	11000
ortho-Chlorotoluene	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U
TOTAL VOCs	4	24	2	0	17	773	20750

QUALIFIERS
U: compound analyzed for but not detected
B: compound also detected in the method blank
J: compound found below the detection limit
*: sample analyzed at medium level
: value exceed NYSDOH guidance value of 1000 ug/kg for Total VOCs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
VOLATILE ORGANICS (continued)

	RRTT01 3/24/92	RRTT02 3/25/92	RRTT03 3/24/92	RRTT05 3/25/92	RRTT06 3/25/92	RRTT07 3/23/92	RRTT08* 3/10/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	5.00	1.00
PERCENT MOISTURE	12	14	17	29	12	11	17
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	9 J	NA	NA	NA	NA	48 J	1700000 J
Unknown alkene	NA	NA	NA	NA	NA	NA	890000 J
Unknown alkane	NA	NA	NA	NA	NA	190 J	810000 J
Unknown cycloalkane	NA	NA	NA	NA	NA	NA	1100000 J
Unknown	6 J	NA	NA	NA	NA	30 J	800000 J
Unknown	8 J	NA	NA	NA	NA	130 J	550000 J
Unknown	NA	NA	NA	NA	NA	66 J	800000 J
Unknown	NA	NA	NA	NA	NA	34 J	390000 J
Unknown alkane	NA	NA	NA	NA	NA	100 J	1800000 J
Unknown	NA	NA	NA	NA	NA	NA	2100000 J
Unknown acid	18 J	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	170 J	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
B: compound found in method blank as well as the sample
NA: Not Applicable
*: sample analyzed at medium level

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
VOLATILE ORGANICS

	RRTT09 3/10/92	RRTT10 3/23/92	RRTT11 3/10/92	RRTT12A 3/26/92	RRTT14 3/26/92	RRTT16 3/26/92	RRTT17 3/26/92
DILUTION FACTOR	1.00	1.00	5.00	1.00	5.00	1.00	1.00
PERCENT MOISTURE	35	10	25	16	24	21	32
VOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U
Methylene Chloride	10 U	2 BJ	3 U	8 BJ	U	U	U
Acetone	U	U	U	22	U	U	U
Carbon Disulfide	U	U	5 J	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	40 J	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U
Toluene	U	U	140	U	U	U	2 J
Chlorobenzene	U	U	U	U	U	U	U
Ethylbenzene	U	U	68	U	U	U	U
Styrene	U	U	U	U	U	U	U
Total Xylenes	U	U	250	U	U	U	U
ortho-Chlorotoluene	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U
TOTAL VOCs	10	2	506	30	0	0	2

QUALIFIERS

U: compound analyzed for but not detected

B: compound also detected in the method blank

J: compound found below the detection limit

*: sample analyzed at medium level

: value exceed NYSDOH guidance value of 1000 ug/kg for Total VOCs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
VOLATILE ORGANICS (continued)

	RRTT09 3/10/92	RRTT10 3/23/92	RRTT11 3/10/92	RRTT12A 3/26/92	RRTT14 3/26/92	RRTT16 3/26/92	RRTT17 3/26/92
DILUTION FACTOR	1.00	1.00	5	1.00	5.00	1.00	1.00
PERCENT MOISTURE	35	10	25	16	24	21	32
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	NA	NA	78 J	NA	82 J	NA	NA
Unknown alkene	NA	NA	NA	NA	120 J	NA	NA
Unknown alkane	NA	NA	370 J	NA	60 J	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	150 J	NA	NA
Unknown	NA	NA	NA	NA	76 J	NA	NA
Unknown	NA	NA	NA	NA	160 J	NA	NA
Unknown	NA	NA	NA	NA	41 J	NA	NA
Unknown	NA	NA	NA	NA	120 J	NA	NA
Unknown alkane	NA	NA	250 J	NA	49 J	NA	NA
Unknown	NA	NA	NA	NA	57 J	NA	NA
Unknown acid	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	400 J	NA	NA	NA	NA
Unknown alkane	NA	NA	180 J	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	460 J	NA	NA	NA	NA
Unknown alkane	NA	NA	270 J	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	310 J	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	670 J	NA	NA	NA	NA
Unknown cyclic alkane	NA	NA	160 J	NA	NA	NA	NA

QUALIFIERS
J: estimated value
B: compound found in method blank as well as the sample
NA: Not Applicable
*: sample analyzed at medium level

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS

	RRT101 3/24/92	RRT102 3/25/92	RRT103 3/24/92	RRT105 3/25/92	RRT106 3/25/92	RRT107 3/23/92	RRT107RE 3/23/92
DILUTION FACTOR	2.00	1.00	2.00	1.00	2.00	6.00	2.00
PERCENT MOISTURE	12	14	17	29	12	10	10
SEMIVOLATILE COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	130 J	U	U	U	U	U	U
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U
2-Methylphenol	U	U	U	U	U	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U
4-Methylphenol	140 J	140 J	U	85 J	U	370 J	U
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	140 J	U	U	U	440 J	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U
Naphthalene	210 J	430	U	290 J	150 J	4400	7700 J
4-Chloroaniline	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U
2-Methylnaphthalene	250 J	380 J	72 J	270 J	120 J	3000	8400 J
Hexachlorocyclopentadiene	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U
Dimethylphthalate	U	U	U	U	U	U	U
Acenaphthylene	U	U	U	U	59 J	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U
Acenaphthene	U	U	U	U	U	2800	13000 J
2,4-Dinitrophenol	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U
Dibenzofuran	60 J	94 J	30 J	66 J	U	3000	8100 J
2,4-Dinitrotoluene	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	310 U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U
Fluorene	U	U	U	U	U	2700	12000 J
4-Nitroaniline	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	U	U	U	U	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	80 J	U	U	U
Phenanthrene	380 J	360 J	230 J	270 J	110 J	17000	43000
Anthracene	67 J	46 J	23 J	28 J	85 J	2100 J	7000 J
Carbazole	U	U	U	8 J	U	3300	3900 J
Di-n-butylphthalate	120 J	59 J	U	97 J	U	940 J	1900 J
Fluoranthene	410 J	110 J	240 J	93 J	110 J	24000 E	19000 J
Pyrene	470 J	120 J	220 J	100 J	180 J	3600	8400 J
Butylbenzylphthalate	U	U	U	U	U	U	U
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U
Benzo (a) anthracene	270 J	73 J	180 J	54 J	92 J	3000	5600 J
Chrysene	420 J	96 J	250 J	79 J	180 J	3500	5900 J
bis(2-Ethylhexyl)phthalate	330 BJ	1400 B	460 BJ	1300 B	440 BJ	3400 B	6700 BJ
Di-n-octylphthalate	U	72 J	U	U	U	U	U
Benzo(b)fluoranthene	460 J	86 J	U	U	110 J	2100 J	U
Benzo(k)fluoranthene	300 J	58 J	U	U	100 J	1500 J	U
Benzo(a)pyrene	U	60 J	U	U	130 J	1400 J	U
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	770 J	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	U	U	U	U
4-Chlorophenol	U	U	U	U	U	U	U
Total PAHs	2987	1439	1143	914	1306	68870	121600
Total Carcinogenic PAHs	1450	373	430	133	612	12270	11500
Total Targeted SVOCs	4017	3724	1705	2820	1866	83630	150600

QUALIFIERS

U: analyzed for but not detected

J: compound found below the detection limit

B: analyte found in method blank as well as sample

E: compound concentration exceeds instrument calibration range

D: value from secondary dilution run

*: Sample extracted at medium level

RE: Reanalysis

RR: Re-extracted

DL: sample analyzed at a secondary dilution

: value exceeds the NYSDOH guidance value of 100000 ug/kg for Total PAHs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRTT01	RRTT02	RRTT03	RRTT05	RRTT06	RRTT07	RRTT07RE
	3/24/92	3/25/92	3/24/92	3/25/92	3/25/92	3/23/92	3/23/92
DILUTION FACTOR	2.00	1.00	2.00	1.00	2.00	6.00	2.00
PERCENT MOISTURE	12	14	17	29	12	10	10
TENTATIVELY IDENTIFIED COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	570 J	120 J	780 J	160 J	240 J	3400 J	58000 J
Unknown	1200 J	190 J	36000 JAB	210 J	180 J	9500 J	130000 J
Unknown	300 J	89 J	270 J	820 J	190 J	4400 J	460000 J
Unknown alkane	440 J	430 J	360 J	350 J	180 J	18000 J	48000 J
Unknown alkane	280 J	320 J	530 J	250 J	310 J	10000 J	22000 J
Unknown alkane	840 J	970 J	620 J	750 J	1000 J	11000 J	31000 J
Unknown alkane	1600 J	180 J	680 J	3400 J	590 J	4200 J	27000 J
Unknown alkane	780 J	3800 J	680 J	960 J	620 J	5200 J	33000 J
Unknown alkane	1800 J	1200 J	320 J	490 J	340 J	7400 J	300000 J
Unknown	470 J	670 J	340 J	490 J	650 J	21000 J	70000 J
Unknown alkane	1100 J	3700 J	480 J	4500 J	210 J	3000 J	210000 J
Unknown	480 JB	610 J	780 JB	670 J	NA	4800 J	71000 J
Unknown alkane	1200 J	2000 J	600 J	2600 J	NA	3400 J	150000 J
Unknown	690 J	630 J	590 J	180 J	NA	NA	90000 J
Unknown alkane	1100 J	NA	NA	630 J	NA	5800 J	76000 J
Unknown alkane	NA	NA	NA	NA	NA	33000 J	710000 J
Unknown alkane	NA	NA	NA	NA	NA	NA	410000 J
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown	76000 JAB	NA	580 J	340 J	NA	NA	NA
Unknown	NA	NA	630 J	NA	NA	NA	NA
Dimethyl naphthalene isomer	250 J	210 J	NA	290 J	NA	NA	41000 J
Unknown alkane	NA	220 J	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	380 JB	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	1500 J	NA	340 J	190 J	170 J	2300 J	NA
Unknown aromatic	NA	NA	1000 J	190 J	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	260 J	450 J	NA	240 J	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA	2900 J	27000 J
Unknown cycloalkane	NA	NA	NA	NA	NA	7100 J	110000 J
Unknown acid	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	280 J	190 J	NA	NA	NA	5700 J	NA
Trimethyl naphthalene isomer	NA	340 J	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	3800 J	NA
Unknown cycloalkane	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	91 J	NA	NA	NA	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

A: Aldo-condensation peak

RE: Re-analysis

RR: Re-extracted

DL: sample analyzed at asecondary dilution

*: sample extracted at medium level

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRT107RR 3/23/92	RRT108* 3/10/92	RRT108RE 3/10/92	RRT109 3/10/92	RRT109DL 3/10/92	RRT110 3/23/92	RRT111* 3/10/92
DILUTION FACTOR	2.00	2.00	2.00	2.00	8.00	1	2.00
PERCENT MOISTURE	10	17	17	35	35	10	25
SEMIVOLATILE COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	7400 J	7500 J	U	U	U	U
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U
2-Methylphenol	U	U	U	U	U	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U
4-Methylphenol	U	U	U	230 J	230 DJ	U	U
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	U	U	210 J	110 DJ	U	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U
Naphthalene	8200 J	27000	27000	900 J	940 DJ	U	4300 J
4-Chloroaniline	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U
2-Methylnaphthalene	8400 J	12000 J	12000 J	950 J	930 DJ	32 J	4400 J
Hexachlorocyclopentadiene	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U
Dimethylphthalate	U	U	U	U	U	U	U
Acenaphthylene	U	U	U	U	U	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U
Acenaphthene	12000 J	U	U	U	U	U	U
2,4-Dinitrophenol	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U
Dibenzofuran	7000 J	12000 J	12000 J	310 J	280 DJ	U	2700 J
2,4-Dinitrotoluene	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U
Fluorene	12000 J	11000 J	9400 J	U	U	U	U
4-Nitroaniline	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	U	U	U	U	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	430 J	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U
Phenanthrene	42000	78000	86000	1300	1700 DJ	U	23000 J
Anthracene	4400 J	16000 J	17000 J	280 J	460 DJ	U	4100 J
Carbazole	4000 J	13000 J	16000 J	100 J	U	U	U
Di-n-butylphthalate	2100 J	8500 J	U	U	U	87 J	3600 J
Fluoranthene	23000	47000	49000	290 J	780 DJ	U	14000 J
Pyrene	12000 J	14000 J	13000 J	360 J	780 DJ	U	6700 J
Butylbenzylphthalate	U	U	U	U	U	U	U
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U
Benzo (a) anthracene	6300 J	6100 J	6700 J	610 J	620 DJ	U	2500 J
Chrysene	7900 J	8600 J	9500 J	1000 J	910 DJ	U	4100 J
bis(2-Ethylhexyl)phthalate	7000 BJ	17000 J	18000 J	18000 BE	23000 BD	1000 B	6900 J
Di-n-octylphthalate	U	U	U	U	200 DJ	56 BJ	U
Benzo(b)fluoranthene	U	5300 J	5400 J	1300	1200 DJ	U	U
Benzo(k)fluoranthene	U	3400 J	3600 J	380 J	670 DJ	U	U
Benzo(a)pyrene	U	2100 J	2100 J	520 J	510 DJ	U	U
Indeno(1,2,3-cd)pyrene	U	U	U	580 J	U	U	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	580 J	U	U	U
4-Chlorophenol	U	U	U	U	U	U	U
Total PAHs	127800	218500	228700	8100	8570	0	58700
Total Carcinogenic PAHs	14200	25500	27300	4390	3910	0	6800
Total Targeted SVOCs	156300	288400	294200	28330	33320	1175	76300

QUALIFIERS
U: analyzed for but not detected
J: compound found below the detection limit
B: analyte found in method blank as well as sample
E: compound concentration exceeds instrument calibration range
D: value from secondary dilution run
*: Sample extracted at medium level
RE: Reanalysis
RR: Re-extracted
DL: sample analyzed at a secondary dilution
: value exceeds the NYSDOH guidance value of 100000 ug/kg for Total PAHs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRTT07RR 3/23/92	RRTT08* 3/10/92	RRTT08RE 3/10/92	RRTT09 3/10/92	RRTT09DL 3/10/92	RRTT10 3/23/92	RRTT11* 3/10/92
DILUTION FACTOR	2.00	2.00	2.00	2.00	8.00	1	2.00
PERCENT MOISTURE	10	17	17	35	35	10	25
TENTATIVELY IDENTIFIED COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	34000 J	46000 J	59000 J	23000 JA	29000 JA	340 J	37000 J
Unknown	130000 J	40000 J	100000 J	310 J	950 J	270 J	23000 J
Unknown	260000 J	61000 J	150000 J	400 J	1200 J	410 J	27000 J
Unknown alkane	51000 J	80000 J	74000 J	620 J	1300 J	790 J	28000 J
Unknown alkane	22000 J	43000 J	48000 J	890 J	3300 J	430 J	28000 J
Unknown alkane	31000 J	180000 J	45000 J	100 J	8000 J	1500 J	19000 J
Unknown alkane	27000 J	120000 J	14000 J	3700 J	4800 J	280 J	210000 J
Unknown alkane	21000 J	180000 J	150000 J	1900 J	1800 J	1400 J	140000 J
Unknown alkane	38000 J	120000 J	110000 J	NA	4600 J	640 J	82000 J
Unknown	87000 J	97000 J	49000 J	260 J	1400 J	350 J	6000 J
Unknown alkane	380000 J	540000 J	93000 J	NA	NA	340 J	120000 J
Unknown	NA	83000 J	NA	300 J	1000 J	260 J	150000 J
Unknown alkane	160000 J	130000 J	130000 J	NA	NA	580 J	91000 J
Unknown	NA	170000 J	NA	400 J	1700 J	680 J	230000 J
Unknown alkane	110000 J	70000 J	62000 J	NA	NA	2100 J	86000 J
Unknown alkane	230000 J	310000 J	80000 J	NA	NA	370 J	250000 J
Unknown alkane	160000 J	170000 J	120000 J	NA	NA	1100 J	89000 J
Unknown alkane	38000 J	NA	78000 J	NA	NA	440 J	190000 J
Unknown alkane	NA	NA	61000 J	NA	NA	NA	130000 J
Unknown	NA	180000 J	NA	560 J	1400 J	950 J	28000 J
Unknown	NA	130000 J	NA	390 J	1800 J	1100 J	NA
Dimethyl naphthalene isomer	41000 J	47000 J	NA	430 J	NA	NA	NA
Unknown alkane	NA	NA	300000 J	NA	NA	NA	NA
Unknown alkane	NA	NA	69000 J	NA	NA	NA	NA
Unknown alkane	NA	NA	97000 J	NA	NA	NA	NA
Unknown	NA	NA	NA	450 J	NA	NA	NA
Unknown	NA	NA	NA	880 J	NA	NA	NA
Unknown	NA	NA	NA	2900 J	NA	NA	NA
Unknown aromatic	NA	NA	NA	500 J	1400 J	NA	NA
Unknown aromatic	NA	NA	NA	720 J	NA	NA	NA
Unknown aromatic	NA	NA	NA	530 J	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA	1700 J	NA	NA	NA
Unknown cycloalkane	31000 J	NA	NA	NA	NA	NA	NA
Unknown cycloalkane	220000 J	NA	NA	NA	NA	NA	NA
Unknown acid	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cycloalkane	520000 J	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

A: Aldo-condensation peak

RE: Re-analysis

RR: Re-extracted

DL: sample analyzed at asecondary dilution

*: sample extracted at medium level

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRT111RE 3/10/92	RRT112A 3/26/92	RRT112ADL 3/26/92	RRT114* 3/26/92	RRT116 3/26/92	RRT117 3/26/92	RRT117RE 3/26/92
DILUTION FACTOR	2.00	2.00	6.00	2.00	1.00	1.00	1.00
PERCENT MOISTURE	25	16	16	24	21	33	33
SEMIVOLATILE COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	1000	980 DJ	U	U	U	U
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U
2-Methylphenol	U	360 J	220 DJ	U	U	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U
4-Methylphenol	U	1600	1300 DJ	U	41 J	U	U
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	250 J	110 DJ	U	U	U	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U
Naphthalene	4900 J	1200	1100 DJ	U	99 J	74 J	79 J
4-Chloroaniline	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U
2-Methylnaphthalene	4400 J	870	940 DJ	U	98 J	79 J	86 J
Hexachlorocyclopentadiene	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U
Dimethylphthalate	U	U	U	U	U	U	U
Acenaphthylene	U	50 J	U	U	U	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U
Acenaphthene	U	160 J	120 DJ	U	U	U	U
2,4-Dinitrophenol	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U
Dibenzofuran	2700 J	290 J	250 DJ	U	22 J	U	U
2,4-Dinitrotoluene	U	U	U	U	U	U	U
Diethylphthalate	U	96 J	U	U	U	U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U
Fluorene	U	510 J	380 DJ	U	U	U	U
4-Nitroaniline	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	U	U	U	U	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U
Phenanthrene	26000 J	1400	1400 DJ	3300 J	120 J	130 J	U
Anthracene	3800 J	240 J	290 DJ	U	19 J	140 J	U
Carbazole	U	U	U	U	U	U	U
Di-n-butylphthalate	3300 J	120 J	U	2200 BJ	110 J	120 J	120 J
Fluoranthene	16000 J	480 J	820 DJ	2500 J	89 J	91 J	110 J
Pyrene	5700 J	500 J	830 DJ	1600 J	94 J	85 J	59 J
Butylbenzylphthalate	U	U	U	U	69 J	U	60 J
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U
Benzo (a) anthracene	2000 J	440 J	250 DJ	U	U	U	U
Chrysene	3700 J	460 J	440 DJ	U	U	U	U
bis(2-Ethylhexyl)phthalate	7500 J	11000 BE	11000 BD	6600 BJ	620 B	690 B	620 B
Di-n-octylphthalate	U	280 J	430 DJ	U	U	U	U
Benzo(b)fluoranthene	U	250 J	200 DJ	U	U	U	U
Benzo(k)fluoranthene	U	200 J	110 DJ	U	U	U	U
Benzo(a)pyrene	U	190 J	U	U	U	U	U
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	U	U	U	U
4-Chlorophenol	U	U	U	U	U	U	U
Total PAHs	62100	6080	5940	7400	421	520	248
Total Carcinogenic PAHs	5700	1540	1000	0	0	0	0
Total Targeted SVOCs	80000	21946	21170	16200	1381	1409	1134

QUALIFIERS

U: analyzed for but not detected

J: compound found below the detection limit

B: analyte found in method blank as well as sample

E: compound concentration exceeds instrument calibration range

D: value from secondary dilution run

*: Sample extracted at medium level

RE: Reanalysis

RR: Re-extracted

DL: sample analyzed at a secondary dilution

: value exceeds the NYSDOH guidance value of 100000 ug/kg for Total PAHs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRTT11RE 3/10/92	RRTT12A 3/26/92	RRTT12ADL 3/26/92	RRTT14* 3/26/92	RRTT16 3/26/92	RRTT17 3/26/92	RRTT17RE 3/26/92
DILUTION FACTOR	2.00	2.00	6.00	2.00	1.00	1.00	1.00
PERCENT MOISTURE	25	16	16	24	21	33	33
TENTATIVELY IDENTIFIED COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	23000 J	72000 JA	29000 J	97000 J	950 J	290 J	270 J
Unknown	24000 J	960 J	95000 JA	60000 J	810 J	130 J	200 J
Unknown	16000 J	NA	2800 J	NA	450 J	220 J	200 J
Unknown alkane	35000 J	2100 J	1100 J	40000 J	380 J	110 J	120 J
Unknown alkane	28000 J	1200 J	2400 J	22000 J	530 J	310 J	320 J
Unknown alkane	30000 J	3700 J	1500 J	180000 J	1500 J	300 J	1500 J
Unknown alkane	170000 J	1500 J	4600 J	180000 J	1200 J	1300 J	NA
Unknown alkane	95000 J	7100 J	8700 J	150000 J	920 J	NA	NA
Unknown alkane	150000 J	2200 J	6500 J	30000 J	420 J	NA	NA
Unknown	38000 J	NA	NA	NA	33000 J	180 J	260 J
Unknown alkane	61000 J	12000 J	15000 J	75000 J	NA	NA	NA
Unknown	87000 J	NA	NA	NA	17000 J	160 J	240 J
Unknown alkane	21000 J	5900 J	6100 J	18000 J	NA	NA	NA
Unknown	73000 J	NA	NA	NA	11000 J	210 J	110 J
Unknown alkane	190000 J	2200 J	1400 J	150000 J	NA	NA	NA
Unknown alkane	62000 J	7500 J	9700 J	440000 J	NA	NA	NA
Unknown alkane	230000 J	4500 J	5400 J	160000 J	NA	NA	NA
Unknown alkane	150000 J	2000 J	2000 J	300000 J	NA	NA	NA
Unknown alkane	NA	2000 J	8300 J	240000 J	NA	NA	NA
Unknown	120000 J	NA	NA	NA	3300 J	140 J	150 J
Unknown	49000 J	NA	NA	NA	NA	110 J	120 J
Dimethyl naphthalene isomer	NA	1200 J	1200 J	NA	NA	NA	NA
Unknown alkane	NA	1300 J	3300 J	410000 J	NA	NA	NA
Unknown alkane	NA	NA	2400 J	240000 J	NA	NA	NA
Unknown alkane	NA	NA	3700 J	58000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	160 J	200 J
Unknown	NA	NA	NA	NA	NA	170 J	110 J
Unknown	NA	NA	NA	NA	NA	NA	120 J
Unknown aromatic	NA	1200 JB	NA	NA	47000 J	130 J	200 J
Unknown aromatic	NA	NA	NA	NA	3500 J	110 J	NA
Unknown aromatic	NA	NA	NA	NA	4200 J	280 J	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	22000 J	360 J	NA	NA
Unknown cycloalkane	NA	NA	NA	94000 J	NA	NA	NA
Unknown acid	NA	NA	NA	NA	450 J	NA	NA
Unknown aromatic	NA	NA	NA	NA	370 J	NA	NA
Unknown aromatic	NA	NA	NA	NA	4800 J	NA	NA
Unknown	NA	NA	NA	NA	NA	1300 J	160 J
Unknown	NA	NA	NA	NA	NA	1500 J	310 J
Unknown	NA	NA	NA	NA	NA	3300 J	350 J
Unknown	NA	NA	NA	NA	NA	NA	1300 J
Trimethyl naphthalene isomer	NA	1500 J	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	2000 J	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

A: Aldo-condensation peak

RE: Re-analysis

RR: Re-extracted

DL: sample analyzed at asecondary dilution

*: sample extracted at medium level

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
PESTICIDE/PCBs

	RRTT01 3/24/92	RRTT02 3/25/92	RRTT03 3/24/92	RRTT05 3/25/92	RRTT06 3/25/92	RRTT07 3/23/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	12	14	17	29	12	13
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
alpha-BHC	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	U	U	U
Endosulfan I	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
Endrin	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U
4,4'-DDD	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U
Aroclor-1248	U	U	U	U	U	U
Aroclor-1254	1500 P	33 JP	U	900	310 P	U
Aroclor-1260	U	U	U	U	U	U
Total PCBs	1500	33	0	900	310	0

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentrations from two columns, lower value reported

DL: compound analyzed at a secondary dilution

: value exceeds the NYSDOH guidance value of 10000 ug/kg for Total PCBs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
PESTICIDE/PCBs

	RRTT07DL 3/23/92	RRTT08 3/10/92	RRTT09 3/10/92	RRTT09DL 3/10/92	RRTT10 3/23/92	RRTT11 3/10/92
DILUTION FACTOR	3.00	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	13	17	35	35	14	25
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
alpha-BHC	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	U	U	U
Endosulfan I	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
Endrin	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U
4,4'-DDD	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U
Aroclor-1248	1500 P	U	U	U	U	U
Aroclor-1254	U	640 P	U	21000 P	210	340 P
Aroclor-1260	660 P	U	U	U	U	U
Total PCBs	2160	640	0	21000	210	340

QUALIFIERS
U: compound analyzed for but not detected
P: greater than 25% difference in concentrations from two columns, lower value reported
DL: compound analyzed at a secondary dilution
: value exceeds the NYSDOH guidance value of 10000 ug/kg for Total PCBs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
PESTICIDE/PCBs

	RRTT12A 3/26/92	RRTT12ADL 3/26/92	RRTT14 3/26/92	RRTT14DL 3/26/92	RRTT16 3/26/92	RRTT17 3/26/92
DILUTION FACTOR	1.00	20.00	1.00	3.00	1.00	1.00
PERCENT MOISTURE	16	16	24	24	21	32
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
alpha-BHC	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	U	U	U
Endosulfan I	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
Endrin	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U
4,4'-DDD	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U
Aroclor-1248	U	5900 P	U	U	U	350 P
Aroclor-1254	3800 P	4000	U	U	580	U
Aroclor-1260	U	U	U	2100 P	U	430 P
Total PCBs	3800	9900	0	2100	580	780

QUALIFIERS
U: compound analyzed for but not detected
P: greater than 25% difference in concentrations from two columns, lower value reported
DL: compound analyzed at a secondary dilution
: value exceeds the NYSDOH guidance value of 10000 ug/kg for Total PCBs

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
INORGANIC CONSTITUENTS

	RRTT01 3/24/92	RRTT02 3/25/92	RRTT03 3/24/92	RRTT05 3/25/92	RRTT06 3/25/92	RRTT07 3/23/92	RRTT08 3/10/92
PERCENT SOLIDS	88.0	86.2	82.8	71.3	88.1	89.5	82.6
PARAMETER	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	6560	3130	5870	13100	15200	12000	24300
Antimony	23.5	U	23.5	19.3	20	42.6	126
Arsenic	4.4	10.1	16.3	5.8	43.4	37.1	16
Barium	98.1	87.9	177	127	295	188	406
Beryllium	1.3	0.72 B	2	1.2 B	2.7	0.88 B	U
Cadmium	U	U	U	5.5	U	U	U
Calcium	33800	3880	66300	47800	23900	10900	3750
Chromium	180	31.3	140	117	159	346	1490
Cobalt	7.6 B	6.8 B	8 B	9 B	14.9	24.5	39.9
Copper	55.2	25.4	28.4	92.5	38.4	477	1550
Iron	53100	20300	42500	44700	29700	93700	237000
Lead	444	13.1	67.5	418	102	150	564
Magnesium	2470	505 B	9130	4980	6660	3490	875 B
Manganese	3730	470	14400	2360	423	995	2540
Mercury	0.32	U	0.13	0.15	0.12	0.12	U
Nickel	17.7	39.3	12.4	39.6	30.3	70.4	178
Potassium	771 B	529 B	911 B	1050 B	1900	933 B	U
Selenium	U	U	U	U	U	U	U
Silver	U	U	U	U	U	U	U
Sodium	163 B	113 B	171 B	394 B	476 B	271 B	330 B
Thallium	U	U	1.2 B	U	U	U	U
Vanadium	77.9	19.9	123	8.5 B	51.8	28	U
Zinc	386	36.7	235	1490	243	421	968
Cyanide	U	U	0.82	1.5	U	0.54	U

QUALIFIERS
U: compound analyzed for but not detected
B: compound detected above the IDL but below the CRDL
: value exceeds the NYSDOH guidance value of 500 mg/kg for Lead

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
INORGANIC CONSTITUENTS

	RRTT09 3/10/92	RRTT10 3/23/92	RRTT11 3/10/92	RRTT12 3/26/92	RRTT14 3/26/92	RRTT16 3/26/92	RRTT17 3/26/92
PERCENT SOLIDS	65	89.7	74.8	83.5	76.0	79.2	67.9
PARAMETER	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	18400	2200	33900	11900	20700	5480	5340
Antimony	30.4	14	144	26.9	77.1	U	12.1 B
Arsenic	14	6.4	44.7	6.1	31.4	9.9	8.8
Barium	293	23.2 B	734	151	524	191	128
Beryllium	2.2	U	U	0.97 B	1.3	1 B	2
Cadmium	180	U	U	15.4	U	10.5	U
Calcium	46900	5460	18700	53300	7370	11400	3580
Chromium	233	78.6	1650	149	957	76.3	73.3
Cobalt	14.8 B	4.7 B	50.4	8.6 B	38.1	8.1 B	11.3 B
Copper	398	55.5	2110	109	1130	80.5	62.2
Iron	75800	35100	290000	44400	208000	32800	46100
Lead	7740	85.9	1130	620	417	513	183
Magnesium	4960	514 B	2740	3650	1110 B	1100 B	701 B
Manganese	19400	592	3450	3680	1910	1610	970
Mercury	1.6	U	0.21	0.16	U	U	U
Nickel	49.2	30.4	211	35	213	37.4	44.1
Potassium	6500	U	659 B	1090 B	414 B	882 B	1010 B
Selenium	6.5	U	U	U	U	U	U
Silver	28.5	U	U	U	U	U	U
Sodium	1300 B	U	418 B	515 B	236 B	206 B	184 B
Thallium	2.3 B	U	U	U	U	U	U
Vanadium	15.6	5.5 B	U	18.3	22.2	16.1	32.3
Zinc	23900	312	1510	2200	365	1770	532
Cyanide	U	1.2	U	1.5	0.84	0.58	U

QUALIFIERS

U: compound analyzed for but not detected

B: compound detected above the IDL but below the CRDL

: value exceeds the NYSDOH guidance value of 500 mg/kg for Lead

TABLE
RIVER ROAD
TEST TRENCH & MONITORING WELL SOIL SAMPLING
RECRA CHARACTERISTICS

	RRTT03	RRTT05	RRTT06	RRTT08	RRTT11	RRTT14	RRMW7IA
RECRA CHARACTERISTICS	3/24/92	3/25/92	3/25/92	3/10/92	3/10/92	3/26/92	3/17/92
pH	6.52	8.65	8.9	8.15	7.52		7.81
Ignitablility, F PM	>212	>212	>212	>212	7.82	>212	>212
Corrosivity, inches/year	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Reactivity to Cyanide, PPM	<1	<1	<1	<1	<1	<1	<1
Reactivity to Sulfide, PPM	<1	<1	<1	<1	<1	<1	<1
Total Solids, %	NR	NR	NR	NR	NR	NR	77.4

NOTES
<: less than
>: greater than
NR: not required

TABLE
RIVER ROAD
TEST TRENCH SOIL SAMPLING
TCLP CONSTITUENTS

TCLP CONSTITUENTS	RRTT03 3/24/92 (ug/l)	RRTT05 3/25/92 (ug/l)	RRTT06 3/25/92 (ug/l)	RRTT08 3/10/92 (ug/l)	RRTT11 3/10/92 (ug/l)	RRTT14 3/26/92 (ug/l)
Benzene	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U
Chlordane	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U
o-Cresol	U	U	U	U	U	U
m+p-Cresol	U	U	U	U	U	U
Cresol	U	U	U	U	U	U
2,4-D	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U
1,1-Dichloroethylene	U	U	U	U	U	U
2,4-Dinitrotoluene	U	U	U	U	U	U
Endrin	U	U	U	U	U	U
Heptachlor(and its epoxide)	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U
Hexachloro-1,3-butadiene	U	U	U	U	U	U
Hexchloroethane	U	U	U	U	U	U
Lindane	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U
Methyl ethyl ketone	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U
Pyridine	U	U	U	U	U	U
Tetrachloroethylene	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U
Trichloroethylene	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U
2,4,5-TP (Silvex)	U	U	U	U	U	U
Vinyl chloride	U	U	U	U	U	U
Arsenic	U	U	U	673	626	134
Barium	U	U	U	1290	2100	1490
Cadmium	U	U	U	U	U	U
Chromium	U	U	U	250	423	4 4 B
Lead	U	U	U	90	112	U
Mercury	U	U	U	U	U	U
Selenium	U	U	U	U	U	U
Silver	U	U	U	U	U	U

QUALIFIERS
U: compound analyzed for but not detected
B: constituent found above the IDL but below the CRDL

TABLE
RIVER ROAD
TEST TRENCH & MONITORING WELL SOIL SAMPLING
RECRA CHARACTERISTICS

	RRTT03	RRTT05	RRTT06	RRTT08	RRTT11	RRTT14	RRMW7IA
RECRA CHARACTERISTICS	3/24/92	3/25/92	3/25/92	3/10/92	3/10/92	3/26/92	3/17/92
pH	6.52	8.65	8.9	8.15	7.52		7.81
Ignitablility, F PM	>212	>212	>212	>212	7.82	>212	>212
Corrosivity, inches/year	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Reactivity to Cyanide, PPM	<1	<1	<1	<1	<1	<1	<1
Reactivity to Sulfide, PPM	<1	<1	<1	<1	<1	<1	<1
Total Solids, %	NR	NR	NR	NR	NR	NR	77.4

NOTES
<: less than
>: greater than
NR: not required

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
VOLATILE ORGANICS

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/14/92	RRMW5S 4/15/92	RRMW5I 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	
VOLATILE COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	U	U	U	U	U	U	5 ST
Bromomethane	U	U	U	U	U	U	5 ST
Vinyl Chloride	U	U	U	U	U	U	2 ST
Chloroethane	U	U	U	U	U	U	5 ST
Methylene Chloride	4 BJ	3 BJ	2 BJ	U	U	U	5 ST
Acetone	10 BJ	U	U	U	U	U	----
Carbon Disulfide	U	U	U	U	U	U	----
1,1-Dichloroethene	U	U	U	U	U	U	5 ST
1,1-Dichloroethane	U	U	U	U	U	U	5 ST
1,2-Dichloroethene (total)	U	U	U	U	1 J	1 J	5 ST
Chloroform	U	U	U	U	U	U	7 ST
1,2-Dichloroethane	U	U	U	U	U	U	5 ST
2-Butanone	U	U	U	U	4 J	U	----
1,1,1-Trichloroethane	U	U	U	U	U	U	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	5 ST
Bromodichloromethane	U	U	U	U	6 J	1 J	50 GV
1,2-Dichloropropane	U	U	U	U	U	U	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	5 ST
Trichloroethene	U	U	U	U	U	U	5 ST
Dibromochloromethane	U	U	U	10	1 J	U	50 GV
1,1,2-Trichloroethane	U	U	U	U	U	U	5 ST
Benzene	U	U	3 J	U	U	U	0.7 ST
Trans-1,3-Dichloropropene	U	U	U	U	U	U	5 ST
Bromoform	U	U	U	U	U	U	50 GV
4-Methyl-2-Pentanone	U	U	U	U	U	U	----
2-Hexanone	U	U	U	U	U	U	50 GV
Tetrachloroethene	U	U	2 J	U	U	U	5 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	5 ST
Toluene	U	U	U	U	U	U	5 ST
Chlorobenzene	U	U	U	U	4 J	U	5 ST
Ethylbenzene	U	U	U	U	1 J	U	5 ST
Styrene	U	U	U	U	U	U	5 ST
Total Xylenes	U	U	U	U	U	U	5 ST *
ortho-Chlorotoluene	U	U	U	U	U	U	5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	5 ST
Total VOCs	14	3	7	10	17	2	

QUALIFIERS
U: compound analyzed for but not detected
J: compund found below the detection limit
B: compound found in the method blank as well as the sample
ST: Standard
GV: Guidance Value
----: Not established
*: applies to the sum
: value exceeds standards/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
VOLATILE ORGANICS (continued)

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/14/92	RRMW5S 4/15/92	RRMW5I 4/14/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Freon 113	NA	NA	NA	NA	NA	74 J
Unknown	NA	NA	NA	NA	25 J	NA
Unknown	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
NA: Not Applicable

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
VOLATILE ORGANICS

	RRMW6S 4/14/92	RRMW7S 4/14/92	RRMW7I 4/14/92	RRMWCM 4/15/92	CW102 4/14/92	RRMWFB 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	
VOLATILE COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Chloromethane	U	U	U	U	U	U	5 ST
Bromomethane	U	U	U	U	U	U	5 ST
Vinyl Chloride	U	U	U	U	U	U	2 ST
Chloroethane	U	U	U	U	U	U	5 ST
Methylene Chloride	U	U	U	7 BJ	U	U	5 ST
Acetone	U	U	U	U	U	U	----
Carbon Disulfide	U	U	U	U	U	U	----
1,1-Dichloroethene	68	U	U	U	U	U	5 ST
1,1-Dichloroethane	U	3 J	U	U	U	U	5 ST
1,2-Dichloroethene (total)	80	U	U	U	U	U	5 ST
Chloroform	U	U	U	U	U	U	7 ST
1,2-Dichloroethane	U	U	U	U	U	U	5 ST
2-Butanone	U	U	U	U	U	U	----
1,1,1-Trichloroethane	U	U	U	U	U	U	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	5 ST
Bromodichloromethane	270 E	U	U	U	U	U	50 GV
1,2-Dichloropropane	U	U	U	U	U	U	5 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	5 ST
Trichloroethene	U	U	U	U	U	U	5 ST
Dibromochloromethane	14	U	U	U	U	U	50 GV
1,1,2-Trichloroethane	U	U	U	U	U	U	5 ST
Benzene	U	U	U	U	U	U	0.7 ST
Trans-1,3-Dichloropropene	U	U	U	U	U	U	5 ST
Bromoform	4 J	U	U	U	U	U	50 GV
4-Methyl-2-Pentanone	U	U	U	U	U	U	----
2-Hexanone	U	U	U	U	U	U	50 GV
Tetrachloroethene	3 J	U	U	U	U	U	5 ST
1,1,2,2-Tetrachloroethane	1 J	U	U	U	U	U	5 ST
Toluene	U	U	U	U	U	U	5 ST
Chlorobenzene	U	U	U	U	U	U	5 ST
Ethylbenzene	U	U	U	U	U	U	5 ST
Styrene	U	U	U	U	U	U	5 ST
Total Xylenes	U	U	U	U	U	U	5 ST *
ortho-Chlorotoluene	U	U	U	U	U	U	5 ST
1,2,3-Trichlorobenzene	U	U	U	U	U	U	5 ST
Total VOCs	400	3	0	7	0	0	

QUALIFIERS
U: compound analyzed for but not detected
J: compund found below the detection limit
B: compound found in the method blank as well as the sample
E: concentration exceeds instrument calibration range
ST: Standard
GV: Guidance Value
——: Not established
*: applies to the sum
: value exceeds standards/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
VOLATILE ORGANICS (continued)

	RRMW6S 4/14/92	RRMW7S 4/14/92	RRMW7I 4/14/92	RRMWCM 4/15/92	CW102 4/14/92	RRMWFB 4/14/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Freon 113	NA	68 J	22 J	NA	NA	21 J
Unknown	53 J	NA	NA	NA	NA	NA
Unknown	43 J	NA	NA	NA	NA	NA
Unknown	100 J	NA	NA	NA	NA	NA
Naphthalene	200 J	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
NA: Not Applicable

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/14/92	RRMW5S 4/15/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	
SEMIVOLATILE COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	U	U	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	U	U	U	U	U	——
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	——
4-Methylphenol	U	U	U	U	1 J	——
N-Nitroso-di-n-propylamine	U	U	U	U	U	——
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	U	U	U	U	4 J	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	----
2,4-Dimethylphenol	U	U	U	U	6 J	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	U	U	U	10	1 J	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	——
2-Methylnaphthalene	U	U	U	U	U	——
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	U	U	----
2,4,5-Trichlorophenol	U	U	U	U	U	----
2-Chloronaphthalene	U	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	4 J	50 GV
Acenaphthylene	U	U	U	U	1 J	----
2,6-Dinitrotoluene	U	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	U	U	2 J	4 J	4 J	20 GV
2,4-Dinitrophenol	U	U	U	U	U	----
4-Nitrophenol	U	U	U	U	U	----
Dibenzofuran	U	U	U	2 J	6 J	----
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	U	1 J	U	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	----
Flourene	U	U	1 J	10	U	50 GV
4-Nitroaniline	U	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	——
N-Nitrosodiphenylamine	1 BJ	U	1 BJ	1 BJ	5 J	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	----
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	U	1 ST **
Phenanthrene	U	U	1 J	8 J	6 J	50 GV
Anthracene	U	U	U	2 J	6 J	50 GV
Carbazole	U	U	U	18	2 J	----
Di-n-butylphthalate	1 J	U	U	U	1 J	50 ST
Flouranthene	U	U	U	2 J	20	50 GV
Pyrene	U	U	U	1 J	8 J	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3 -Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	U	U	U	U	6 J	0.002 GV*
Chrysene	U	U	U	U	8 J	0.002 GV*
bis(2-Ethylhexyl)phthalate	15 B	3 BJ	2 BJ	1 BJ	U	50 ST
Di-n-octylphthalate	U	U	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	U	4 J	0.002 GV*
Benzo(k)flouranthene	U	U	U	U	5 J	0.002 GV*
Benzo(a)pyrene	U	U	U	U	2 J	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	U	U	----
4-Chlorophenol	U	U	U	U	U	----
Total PAH's	0	0	4	37	69	
Total SVOC's	17	4	7	59	98	

QUALIFIERS

U: compound analyzed for but not detected
D: compound detected in a diluted sample
J: compound found below the detection liomit
E: concentration exceeds instrument calibration range
B: compound found in method blank as well as sample
RE: Reanalysis
DL: sample analyzed at a secondary dilution
ST: Standard
GV: Guidance Value
nd: not determined
—— Not established
* Value pertains to the sum of the isomers
** Value pertains to total phenols
value exceeds standard/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/14/92	RRMW5S 4/15/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown alkene	NA	310 J	NA	NA	240 J
Unknown	2 J	NA	200 J	7 J	8 J
Sulfur	NA	NA	14 J	5 J	NA
Sulfur	NA	NA	NA	120 J	NA
Unknown	120 J	NA	3 J	3 J	8 J
Unknown	6 J	NA	3 J	15 J	6 J
Unknown cyclic	NA	NA	NA	NA	NA
Unknown	NA	NA	2 J	6 J	7 J
Unknown	NA	NA	2 J	4 J	46 J
Unknown	NA	NA	NA	13 J	20 J
Unknown aromatic	NA	NA	2 J	8 J	12 J
Unknown acid	NA	5 JB	NA	NA	NA
Unknown alkene	NA	4 J	NA	NA	52 J
Unknown aromatic	NA	NA	5 J	22 J	NA
Unknown alkane	NA	NA	10 J	6 J	52 J
Unknown alkane	NA	NA	3 J	NA	7 J
Unknown alkane	NA	NA	3 J	NA	7 J
Unknown alkane	NA	NA	4 J	NA	6 J
Unknown alkane	NA	NA	4 J	NA	NA
Unknown cycloalkane	NA	NA	6 J	NA	6 J
Unknown alkane	NA	NA	15 J	NA	NA
Unknown alkane	NA	NA	10 J	NA	NA
Unknown aromatic	NA	NA	NA	24 J	NA
Unknown aromatic	NA	NA	NA	34 J	NA
Unknown aromatic	NA	NA	NA	34 J	NA
Unknown aromatic	NA	NA	NA	7 J	NA
Unknown aromatic	NA	NA	NA	4 J	NA
Unknown	NA	NA	NA	7 J	NA
Unknown	NA	NA	NA	4 J	NA
Unknown	NA	NA	NA	12 J	NA
Unknown	NA	NA	NA	4 J	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	7 J
Unknown cycloalkane	NA	NA	NA	NA	9 J
Chloro methyl benzene isomer	NA	NA	NA	NA	24 J
Substituted benzene	NA	NA	NA	NA	6 J
Methyl ethyl phenol benzene	NA	NA	NA	NA	10 J
Methyl ethyl phenol benzene	NA	NA	NA	NA	12 J
Substituted phenol	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Dimethyl phenol isomer	NA	NA	NA	NA	NA
Dimethyl phenol isomer	NA	NA	NA	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

NA: Not Applicable

RE: Reanalysis

DL: sample analyzed at a secondary dilution

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS

	RRMW5SRE 4/15/92	RRMW5I 4/14/92	RRMW6S 4/14/92	RRMW6SDL 4/14/92	RRMW7S 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	5.00	1.00	
SEMIVOLATILE COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	U	U	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	U	U	58	58 D	U	——
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	——
4-Methylphenol	1 J	1 J	50	51 D	U	——
N-Nitroso-di-n-propylamine	U	U	U	U	U	——
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	U	U	U	U	U	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	——
2,4-Dimethylphenol	6 J	1 J	270 E	370 D	59	——
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	1 J	U	14	12 DJ	U	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	——
2-Methylnaphthalene	U	U	4 J	3 DJ	1 J	——
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	U	1 J	——
2,4,5-Trichlorophenol	U	U	3 J	2 DJ	8 J	——
2-Chloronaphthalene	U	U	1 J	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	U	50 GV
Acenaphthylene	2 J	U	U	U	U	——
2,6-Dinitrotoluene	13	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	4 J	U	5 J	4 DJ	U	20 GV
2,4-Dinitrophenol	U	U	U	U	U	——
4-Nitrophenol	U	U	U	U	U	——
Dibenzofuran	7 J	U	U	U	U	——
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	U	U	U	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	——
Flourene	10	U	4 J	2 DJ	U	50 GV
4-Nitroaniline	U	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	——
N-Nitrosodiphenylamine	U	1 BJ	3 BJ	6 BDJ	U	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	——
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	2 J	U	1 J	1 ST **
Phenanthrene	7 J	U	7 J	7 DJ	U	50 GV
Anthracene	6 J	U	1 J	1 DJ	U	50 GV
Carbazole	U	U	3 J	5 DJ	U	----
Di-n-butylphthalate	U	U	1 J	U	1 J	50 ST
Flouranthene	30	U	1 J	1 DJ	U	50 GV
Pyrene	12	U	U	1 DJ	U	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	7 J	U	U	U	U	0.002 GV*
Chrysene	7 J	U	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	9 BJ	1 BJ	3 BJ	8 BDJ	2 BJ	50 ST
Di-n-octylphthalate	U	U	U	U	U	50 GV
Benzo(b)flouranthene	3 J	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	3 J	U	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	——
Benzo(g,h,i)perylene	U	U	U	U	U	——
4-Chlorophenol	U	U	U	U	U	——
Total PAH's	92	0	32	28	0	
Total SVOC's	128	4	430	531	73	

QUALIFIERS

U: compound analyzed for but not detected
D: compound detected in a diluted sample
J: compound found below the detection limit
E: concentration exceeds instrument calibration range
B: compound found in method blank as well as sample
RE: Reanalysis
DL: sample analyzed at a secondary dilution
ST: Standard
GV: Guidance Value
nd: not determined
—— Not established
*: Value pertains to the sum of the isomers
** Value pertains to total phenols
value exceeds standard/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRMW5SRE	RRMW5I	RRMW6S	RRMW6SDL	RRMW7S
	4/15/92	4/14/92	4/14/92	4/14/92	4/14/92
DILUTION FACTOR	1.00	1.00	1.00	5.00	1.00
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown alkene	220 J	NA	NA	NA	NA
Unknown	38 J	2 JB	27 J	94 J	34 J
Sulfur	NA	NA	12 J	13 J	NA
Sulfur	NA	NA	NA	NA	NA
Unknown	11 J	12 J	12 J	34 J	6 JB
Unknown	12 J	5 J	31 J	15 J	6 J
Unknown cyclic	NA	3 JB	NA	NA	NA
Unknown	13 J	5 J	10 J	16 J	3 J
Unknown	57 J	14 J	52 J	16 J	3 J
Unknown	11 J	4 J	10 J	NA	3 J
Unknown aromatic	26 J	NA	39 J	13 J	46 J
Unknown acid	NA	3 J	NA	NA	NA
Unknown alkene	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	9 J
Unknown alkane	17 J	NA	28 J	34 J	NA
Unknown alkane	20 J	NA	11 J	12 J	NA
Unknown alkane	24 J	NA	NA	NA	NA
Unknown alkane	33 J	NA	NA	NA	NA
Unknown alkane	11 J	NA	NA	NA	NA
Unknown cycloalkane	10 J	NA	NA	NA	9 JB
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	55 J	NA
Unknown aromatic	NA	NA	NA	12 J	NA
Unknown aromatic	NA	NA	NA	14 J	NA
Unknown aromatic	NA	NA	NA	17 J	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown	NA	11 J	16 J	NA	10 J
Unknown	NA	160 J	17 J	NA	8 J
Unknown	NA	4 J	17 J	NA	17 J
Unknown	NA	9 J	NA	NA	5 J
Unknown	NA	3 J	NA	NA	33 J
Unknown	NA	2 J	NA	NA	10 J
Unknown	NA	9 J	NA	NA	NA
Unknown cycloalkane	15 J	NA	NA	NA	NA
Unknown cycloalkane	15 J	NA	NA	NA	NA
Chloro methyl benzene isomer	21 J	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Methyl ethyl phenol benzene	13 J	NA	NA	NA	NA
Methyl ethyl phenol benzene	NA	NA	NA	NA	NA
Substituted phenol	11 J	NA	13 J	44 J	100 J
Unknown cycloalkane	23 J	NA	NA	NA	NA
Substituted phenol	NA	NA	45 J	140 J	6 J
Substituted phenol	NA	NA	35 J	30 J	NA
Substituted phenol	NA	NA	170 J	220 J	NA
Substituted phenol	NA	NA	73 J	75 J	NA
Substituted phenol	NA	NA	11 J	11 J	NA
Substituted phenol	NA	NA	26 J	13 J	NA
Dimethyl phenol isomer	NA	NA	NA	NA	5 J
Dimethyl phenol isomer	NA	NA	NA	NA	8 J

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

NA: Not Applicable

RE: Reanalysis

DL: sample analyzed at a secondary dilution

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS

	RRMW7I 4/14/92	RRMWCM 4/15/92	CW102 4/14/92	RRMWFB 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	
SEMIVOLATILE COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	1 J	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	1.0 ST **
1,3-Dichlorobenzene	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	4.7 ST *
2-Methylphenol	U	U	U	U	——
2,2'-oxybis(1-chloropropane)	U	U	U	U	——
4-Methylphenol	U	U	U	U	——
N-Nitroso-di-n-propylamine	U	U	U	U	——
Hexachloroethane	U	U	U	U	5 ST
Nitrobenzene	U	U	U	U	5 ST
Isophorone	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	——
2,4-Dimethylphenol	U	U	U	U	——
bis(2-Chloroethoxy)methane	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	5 ST
Naphthalene	U	U	U	U	10 GV
4-Chloroaniline	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	——
2-Methylnaphthalene	U	U	U	U	——
Hexachlorocyclopentadiene	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	U	——
2,4,5-Trichlorophenol	U	U	U	U	——
2-Chloronaphthalene	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	50 GV
Acenaphthylene	U	U	U	U	——
2,6-Dinitrotoluene	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	5 ST
Acenaphthene	U	U	U	U	20 GV
2,4-Dinitrophenol	U	U	U	U	——
4-Nitrophenol	U	U	U	U	——
Dibenzofuran	U	U	U	U	——
2,4-Dinitrotoluene	U	U	U	U	5 ST
Diethylphthalate	U	1 J	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	——
Flourene	U	U	U	U	50 GV
4-Nitroaniline	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	——
N-Nitrosodiphenylamine	1 BJ	U	1 BJ	1 BJ	50 GV
4-Bromophenyl-phenylether	U	U	U	U	——
Hexachlorobenzene	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	1 ST **
Phenanthrene	U	U	U	U	50 GV
Anthracene	U	U	U	U	50 GV
Carbazole	U	U	U	U	——
Di-n-butylphthalate	U	U	1 J	U	50 ST
Flouranthene	U	U	U	U	50 GV
Pyrene	U	U	U	U	50 GV
Butylbenzylphthalate	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	5 ST
Benzo (a) anthracene	U	U	U	U	0.002 GV*
Chrysene	U	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	1 BJ	2 BJ	1 BJ	1 BJ	50 ST
Di-n-octylphthalate	U	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	U	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	——
Benzo(g,h,i)perylene	U	U	U	U	——
4-Chlorophenol	U	U	U	U	——
Total PAH's	0	0	0	0	
Total SVOC's	2	4	3	2	

QUALIFIERS

U: compound analyzed for but not detected
D: compound detected in a diluted sample
J: compound found below the detection liomit
E: concentration exceeds instrument calibration range
B: compound found in method blank as well as sample
RE: Reanalysis
DL: sample analyzed at a secondary dilution
ST: Standard
GV: Guidance Value
nd: not determined
——: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols
value exceeds standard/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRMW7I	RRMWCM	CW102	RRMWFB
	4/14/92	4/15/92	4/14/92	4/14/92
DILUTION FACTOR	1.00	1.00	1.00	1.00
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown alkene	NA	350 J	4 J	NA
Unknown	4 JB	8 JB	320 J	5 JB
Sulfur	NA	NA	3 J	NA
Sulfur	NS	NA	66 J	NA
Unknown	270 J	3 J	2 J	4 JB
Unknown	2 J	2 J	4 J	3 J
Unknown cyclic	5 JB	NA	3 J	4 JB
Unknown	3 J	NA	5 J	3 JB
Unknown	3 J	NA	2 J	3 J
Unknown	NA	NA	2 J	NA
Unknown aromatic	NA	NA	11 J	NA
Unknown acid	NA	NA	NA	NA
Unknown alkene	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA
Chloro methyl benzene isomer	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA
Methyl ethyl phenol benzene	NA	NA	NA	NA
Methyl ethyl phenol benzene	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA
Dimethyl phenol isomer	NA	NA	NA	NA
Dimethyl phenol isomer	NA	NA	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

NA: Not Applicable

RE: Reanalysis

DL: sample analyzed at a secondary dilution

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
PESTICIDE/PCBs

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/14/92	RRMW5S 4/15/92	RRMW5I 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	
PESTICIDE/PCB COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
alpha-BHC	U	U	U	U	U	U	ND
beta-BHC	U	U	U	U	U	U	ND
delta-BHC	U	U	U	U	U	U	ND
gamma-BHC (Lindane)	U	U	U	U	U	U	ND
Heptachlor	U	U	U	U	U	U	ND
Aldrin	U	U	U	U	U	U	ND
Heptachlor epoxide	U	U	U	U	U	U	ND
Endosulfan I	U	U	U	U	U	U	----
Dieldrin	U	U	U	U	U	U	ND
4,4'-DDE	U	U	U	U	U	U	ND
Endrin	U	U	U	U	U	U	ND
Endosulfan II	U	U	U	U	U	U	----
4,4'-DDD	U	U	U	U	U	U	ND
Endosulfan sulfate	U	U	U	U	U	U	----
4,4'-DDT	U	U	U	U	U	U	ND
Methoxychlor	U	U	U	U	U	U	35 ST
Endrin ketone	U	U	U	U	U	U	----
Endrin aldehyde	U	U	U	U	U	U	5 ST
alpha-Chlordane	U	U	U	U	U	U	----
gamma-Chlordane	U	U	U	U	U	U	----
Toxaphene	U	U	U	U	U	U	ND
Aroclor-1016	U	U	U	U	U	U	0.1 ST
Aroclor-1221	U	U	U	U	U	U	0.1 ST
Aroclor-1232	U	U	U	U	U	U	0.1 ST
Aroclor-1242	U	U	U	U	U	U	0.1 ST
Aroclor-1248	U	U	U	U	U	U	0.1 ST
Aroclor-1254	U	U	U	U	5.4 P	U	0.1 ST
Aroclor-1260	U	U	U	U	U	U	0.1 ST
Total PCBs	0	0	0	0	5.4	0	

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentrations from two columns, lower value reported

ST: Standard

----: not determined

ND: Non- Detect

: value exceeds standards/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
PESTICIDE/PCBs

	RRMW6S 4/14/92	RRMW7S 4/14/92	RRMW7I 4/14/92	RRMWCM 4/15/92	CW102 4/14/92	RRMWFB 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	
PESTICIDE/PCB COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
alpha-BHC	U	U	U	U	U	U	ND
beta-BHC	U	U	U	U	U	U	ND
delta-BHC	U	U	U	U	U	U	ND
gamma-BHC (Lindane)	U	U	U	U	U	U	ND
Heptachlor	U	U	U	U	U	U	ND
Aldrin	U	U	U	U	U	U	ND
Heptachlor epoxide	U	U	U	U	U	U	ND
Endosulfan I	U	U	U	U	U	U	----
Dieldrin	U	U	U	U	U	U	ND
4,4'-DDE	U	U	U	U	U	U	ND
Endrin	U	U	U	U	U	U	ND
Endosulfan II	U	U	U	U	U	U	----
4,4'-DDD	U	U	U	U	U	U	ND
Endosulfan sulfate	U	U	U	U	U	U	----
4,4'-DDT	U	U	U	U	U	U	ND
Methoxychlor	U	U	U	U	U	U	35 ST
Endrin ketone	U	U	U	U	U	U	----
Endrin aldehyde	U	U	U	U	U	U	5 ST
alpha-Chlordane	U	U	U	U	U	U	----
gamma-Chlordane	U	U	U	U	U	U	----
Toxaphene	U	U	U	U	U	U	ND
Aroclor-1016	U	U	U	U	U	U	0.1 ST
Aroclor-1221	U	U	U	U	U	U	0.1 ST
Aroclor-1232	U	U	U	U	U	U	0.1 ST
Aroclor-1242	U	U	U	U	U	U	0.1 ST
Aroclor-1248	U	U	U	U	U	U	0.1 ST
Aroclor-1254	U	U	U	U	U	U	0.1 ST
Aroclor-1260	U	U	U	U	U	U	0.1 ST
Total PCBs	0	0	0	0	0	0	

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentrations from two columns, lower value reported

ST: Standard

----: not determined

ND: Non- Detect

: value exceeds standards/guidelines

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

	RRMW1 4/14/92	RRMW2 4/14/92	RRMW3S 4/14/92	RRMW4S 4/15/92	RRMW5S 4/15/92	RRMW5I 4/14/92	RRMW6S 4/14/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PARAMETER	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Aluminum	36.3	36.3	1170	2010	246	36.3	2580	----
Antimony	U	U	U	38.8 B	102	U	U	3 GV
Arsenic	10	U	U	U	U	U	U	25 ST
Barium	24 B	90 B	66.7 B	184 B	31.1 B	44.4 B	90 B	1000 ST
Beryllium	U	U	U	U	U	U	U	3 GV
Cadmium	U	U	U	U	U	U	U	10 ST
Calcium	238000	244000	203000	95700	508000	290000	299000	----
Chromium	U	U	U	U	U	U	U	50 ST
Cobalt	U	U	U	U	8 B	U	U	----
Copper	U	U	U	5.6 B	U	U	U	200 ST
Iron	248	136	1330	8690	42600	4840	3010	300 ST *
Lead	U	2.8 B	U	160	20	2.8 B	11.3	25 ST
Magnesium	81000	39200	1230 B	12000	44300	95800	6170	35000 GV
Manganese	67.5	687	65.5	1330	4170	3670	660	300 ST *
Mercury	U	4.8	U	0.53	1.3	0.21	0.32	2 ST
Nickel	U	U	U	U	U	U	U	----
Potassium	1530 B	U	42000	4360 B	71600	87700	53700	----
Selenium	U	U	5.4	U	U	U	U	10 ST
Silver	U	U	U	U	U	U	U	50 ST
Sodium	15800	140000	30800	23800	47800	110000	47000	20000 ST
Thallium	U	U	U	U	U	U	U	4 GV
Vanadium	U	U	U	U	5.4 B	U	U	----
Zinc	U	U	15.8 B	389	67.6	5.8 B	53.9	300 ST
Cyanide	U	U	99.6	15	7950	22.8	175	100 ST
Hexavalent Chromium	U	U	U	U	90	U	U	50 ST

QUALIFIERS
U: constituent analyzed for but not detected
B: constituent detected above the IDL but below the CRDL
DRRMW4S: Dissolved metals
DRRMW5S: Dissolved metals
GV: Guidance Value
ST: Standard
----: Not established
*: Standard for Iron and Manganese is 500 ug/l
: value exceeds standard/guideline

TABLE
RIVER ROAD
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

	RRMW7S 4/14/92	RRMW7I 4/14/92	RRMWCM 4/15/92	CW102 4/14/92	RRMWFB 4/14/92	DRRMW4S 4/15/92	DRRMW5S 4/15/92	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PARAMETER	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Aluminum	520	36.3	36.3	166	36.3	115	36.3	----
Antimony	U	U	U	U	U	U	106	3 GV
Arsenic	5.6 B	U	U	6 B	U	U	U	25 ST
Barium	82.2 B	71.1 B	35.6 B	224	U	32.2 B	12.5 B	1000 ST
Beryllium	U	U	U	U	U	U	U	3 GV
Cadmium	U	U	U	U	U	U	U	10 ST
Calcium	67900	135000	180000	115000	U	35000	550000	----
Chromium	U	U	U	U	U	U	U	50 ST
Cobalt	U	U	U	U	U	U	8.8 B	----
Copper	U	U	7.4 B	U	U	U	U	200 ST
Iron	961	1390	U	1670	26.4 B	185	64700	300 ST *
Lead	7.8	2.6 B	29.8	U	U	U	U	25 ST
Magnesium	618 B	40700	38700	13700	U	3050 B	48700	35000 GV
Manganese	43.3	94.1	8.3 B	98	U	17.6	4270	300 ST *
Mercury	U	U	U	U	U	U	U	2 ST
Nickel	U	U	U	U	U	U	U	----
Potassium	56800	13400	6850	8300	U	2110 B	81200	----
Selenium	U	U	U	U	U	U	U	10 ST
Silver	U	U	U	U	U	U	U	50 ST
Sodium	62700	68700	30300	76200	U	17000	55300	20000 ST
Thallium	U	U	U	U	U	U	U	4 GV
Vanadium	U	U	U	U	U	U	U	----
Zinc	29	U	U	7.1 B	U	5.1 B	18.3 B	300 ST
Cyanide	110	U	195	U	U	U	U	100 ST
Hexavalent Chromium	U	U	U	U	U	U	U	50 ST

QUALIFIERS
U: constituent analyzed for but not detected
B: constituent detected above the IDL but below the CRDL
DRRMW4S: Dissolved metals
DRRMW5S: Dissolved metals
GV: Guidance Value
ST: Standard
----: Not established
*: Standard for Iron and Manganese is 500 ug/l
: value exceeds standard/guideline

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
VOLATILE ORGANICS (continued)

	RRSS01 3/10/92	RRSS02 3/10/92	RRSS03 3/10/92	RRSS04 3/10/92	RRSS05 3/10/92	RRSS06 3/10/92	RRSS07 3/10/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	42	30	35	30	29	15	22
TENATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
NA: Not Applicable

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Surface Soil
Results

Appendix F

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
VOLATILE ORGANICS

	RRSS08 3/10/92	RRSS09 3/10/92	RRSS10 3/10/92	RRSS11 3/10/92	RRSS12 3/10/92	RRSSFB 3/10/92
DILUTION FACTOR	1.00	1.00	5.00	1.00	1.00	1.00
PERCENT MOISTURE	19	20	1	29	15	NA
VOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Chloromethane	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U
Methylene Chloride	9 BJ	11 BJ	5 BJ	3 BJ	8 BJ	8 J
Acetone	U	U	U	U	U	86
Carbon Disulfide	U	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U
2-Butanone	U	U	J	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U
Benzene	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U
Toluene	U	U	U	U	U	2 J
Chlorobenzene	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U
Styrene	U	U	U	U	U	U
Total Xylenes	U	U	U	U	U	U
ortho-Chlorotoluene	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U
TOTAL VOCs	9	11	5	3	8	96

QUALIFIERS
U: compound analyzed for but not detected
B: compound also detected in the method blank
J: compound found below the detection limit

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
VOLATILE ORGANICS (continued)

	RRSS08 3/10/92	RRSS09 3/10/92	RRSS10 3/10/92	RRSS11 3/10/92	RRSS12 3/10/92	RRSSFB 3/10/92
DILUTION FACTOR	1.00	1.00	5.00	1.00	1.00	1.00
PERCENT MOISTURE	19	20	1	29	15	NA
TENATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Unknown	NA	NA	NA	NA	NA	7 J
Unknown	NA	NA	NA	NA	NA	8 J
Unknown	NA	NA	NA	NA	NA	20 J

QUALIFIERS
J: estimated value
NA: Not Applicable

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
VOLATILE ORGANICS

	RRSS01 3/10/92	RRSS02 3/10/92	RRSS03 3/10/92	RRSS04 3/10/92	RRSS05 3/10/92	RRSS06 3/10/92	RRSS07 3/10/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	42	30	35	30	29	15	22
VOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U
Bromomethane	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U
Chloroethane	U	U	U	U	U	U	U
Methylene Chloride	U	U	10 BJ	12 BJ	3 BJ	8 BJ	12 BJ
Acetone	U	U	U	U	U	U	U
Carbon Disulfide	U	U	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U	U
2-Hexanone	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U
Total Xylenes	U	U	U	U	U	U	U
ortho-Chlorotoluene	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U
TOTAL VOCs	0	0	10	12	3	8	12

QUALIFIERS
U: compound analyzed for but not detected
B: compound also detected in the method blank
J: compound found below the detection limit

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
SEMIVOLATILE ORGANICS

	RRSS01 3/10/92	RRSS02 3/10/92	RRSS03 3/10/92	RRSS03DL 3/10/92	RRSS04 3/10/92	RRSS05 3/10/92	RRSS06 3/10/92	RRSS07 3/10/92
DILUTION FACTOR	2.00	2.00	1.00	2.00	1.00	2.00	2.00	1.00
PERCENT MOISTURE	42	30	35	35	30	29	15	22
SEMIVOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	27 J	U	U	26 J
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U
2-Methylphenol	U	U	U	U	U	U	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U	U
4-Methylphenol	U	U	U	U	U	U	120 J	U
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	U	U	U	U	U	U	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U
Naphthalene	U	U	U	U	U	39000	280 J	150 J
4-Chloroaniline	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U
2-Methylnaphthalene	U	55 J	49 J	65 DJ	U	8100 J	440 J	96 J
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U	U
Dimethylphthalate	U	U	U	U	U	U	U	U
Acenaphthylene	U	110 J	U	U	U	4700 J	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U	U
Acenaphthene	U	71 J	U	U	U	1700 J	U	U
2,4-Dinitrophenol	U	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U	U
Dibenzofuran	U	60 J	U	19 DJ	U	4700 J	79 J	61 J
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U
Diethylphthalate	310 J	U	U	U	U	U	U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U
Flourene	U	180 J	U	U	U	3300 J	U	U
4-Nitroaniline	U	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	30 J	U	U	U	86 J	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U	U
Phenanthrene	320 J	1600	210 J	190 DJ	41 J	25000 J	440 J	420 J
Anthracene	U	250 J	30 J	32 DJ	U	4500 J	91 J	69 J
Carbazole	U	200 J	U	U	U	1500 J	62 J	37 J
Di-n-butylphthalate	U	U	32 J	54 DJ	U	1200 J	73 J	30 J
Flouranthene	490 J	2400	380 J	400 DJ	U	31000	240 J	320 J
Pyrene	460 J	1500	340 J	430 DJ	U	24000 J	290 J	320 J
Butylbenzylphthalate	U	U	U	U	100 J	U	U	U
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U	U
Benzo (a) anthracene	170 J	830 J	170 J	170 DJ	U	15000 J	280 J	130 J
Chrysene	270 J	1200	230 J	240 DJ	U	19000 J	390 J	200 J
bis(2-Ethylhexyl)phthalate	7800 B	1400 B	5900 BE	7700 BD	3500 B	6600 J	1600 B	11000 BE
Di-n-octylphthalate	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	U	1300	210 J	240 DJ	U	21000 J	470 J	140 J
Benzo(k)flouranthene	U	730 J	160 J	180 DJ	U	12000 J	360 J	130 J
Benzo(a)pyrene	U	510 J	200 J	210 DJ	U	16000 J	370 J	87 J
Indeno(1,2,3-cd)pyrene	U	490 J	U	U	U	14000 J	530 J	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	U	U	14000 J	U	U
4-Chlorophenol	U	U	U	U	U	U	U	U
Total PAHs	1710	11171	1910	2092	41	244200	3741	1966
Total Carcinogenic PAHs	440	5060	970	1040	0	97000	2400	687
Total Targeted SVOCs	9820	12886	7921	9930	3668	266300	6201	13216

QUALIFIERS:

U: analyzed for but not detected

J. compound found below the detection limit

B: analyte found in method blank as well as sample

E. compound concentration exceeds instrument calibration range

DL. sample was analyzed at a secondary dilution

: value exceeds NYSDOH guidance value of 100000 ug/kg for Total PAHs

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRSS01 3/10/92	RRSS02 3/10/92	RRSS03 3/10/92	RRSS03DL 3/10/92	RRSS04 3/10/92	RRSS05 3/10/92	RRSS06 3/10/92	RRSS07 3/10/92
DILUTION FACTOR	2.00	2.00	1.00	2.00	1.00	2.00	2.00	1.00
PERCENT MOISTURE	42	30	35	35	30	29	15	22
TENTATIVELY IDENTIFIED COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	26000 JAB	13000 JAB	15000 JAB	16000 JAB	17000 JAB	13000 J	14000 JAB	15000 JAB
Unknown	440 J	550 J	270 J	240 J	220 JB	23000 J	180 J	360 J
Unknown	340 J	260 J	260 J	300 J	140 J	6700 J	190 J	320 J
Unknown	640 J	260 J	170 J	310 J	110 J	7300 J	250 J	120 J
Unknown acid	470 J	230 J	NA	NA	NA	NA	NA	NA
Unknown	300 J	190 J	190 J	1800 J	130 J	8900 J	170 J	5400 J
Unknown	400 J	2000 J	310 J	310 J	160 J	6700 J	160 J	100 J
Unknown	340 J	NA	1700 J	230 J	250 J	7200 J	160 J	180 J
Unknown	850 J	NA	150 J	200 J	100 J	15000 J	1700 J	340 J
Unknown	4600 J	NA	270 J	380 J	860 J	11000 J	190 J	290 J
Unknown	3300 J	NA	150 J	280 J	240 J	12000 J	270 J	610 J
Unknown	13000 J	NA	160 J	310 J	250 J	8500 J	NA	440 J
Unknown	1000 J	NA	290 J	240 J	330 J	8900 J	NA	410 J
Unknown	4000 J	NA	170 J	400 J	NA	NA	NA	4800 J
Unknown	990 J	NA	610 J	260 J	NA	NA	NA	1900 J
Unknown	2800 J	NA	800 J	760 J	NA	NA	NA	NA
Unknown	650 J	NA	NA	3800 J	NA	NA	NA	NA
Unknown cyclic	NA	320 J	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	450 J	NA	NA	NA	9600 J	260 J	170 J
Unknown aromatic	NA	390 J	NA	NA	NA	5700 J	NA	NA
Unknown aromatic	NA	260 J	NA	NA	NA	17000 J	NA	NA
Unknown aromatic	NA	1200 J	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	190 J	260 J	1600 J	NA	320 J	150 J
Unknown	NA	NA	NA	1900 J	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	200 J	140 J
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	400 J	NA
Unknown PCB	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	240 J	4300 J	NA	NA	330 J	310 J
Unknown alkane	NA	NA	260 J	NA	NA	NA	NA	270 J
Unknown alkane	NA	NA	3300 J	NA	NA	NA	NA	290 J
Unknown alkane	NA	NA	3200 J	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	220 J	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA	160 J
Unknown alkane	NA	NA	NA	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
B: compound found in the method blank as well as the sample
A: Aldo-condensation peak
NA: Not Applicable
DL: sample was analyzed at a secondary dilution

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
SEMIVOLATILE ORGANICS

	RRSS07DL 3/10/92	RRSS08 3/10/92	RRSS08DL 3/10/92	RRSS09 3/10/92	RRSS10 3/10/92	RRSS11 3/10/92	RRSS12 3/10/92	RRSSFB 3/10/92
DILUTION FACTOR	10.00	1.00	2.00	1.00	1	2.00	1.00	1.00
PERCENT MOISTURE	22	19	19	20	0.00	29	15	NA
SEMIVOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Phenol	U	U	U	U	U	U	50 J	U
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U
2-Methylphenol	U	U	U	U	U	U	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U	U
4-Methylphenol	U	33 J	U	42 J	U	U	47 J	U
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U	U
2,4-Dimethylphenol	U	45 J	43 DJ	48 J	U	U	53 J	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U
Naphthalene	U	260 J	260 DJ	220 J	U	110000	390	U
4-Chloroaniline	U	U	U	U	U	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U
2-Methylnaphthalene	100 DJ	300 J	290 DJ	270 J	U	13000 J	470	U
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U	U
Dimethylphthalate	U	U	U	U	U	U	U	U
Acenaphthylene	U	U	U	U	U	4600 J	U	U
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U
3-Nitroaniline	U	U	U	U	U	U	U	U
Acenaphthene	U	U	U	U	U	3700 J	U	U
2,4-Dinitrophenol	U	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U	U
Dibenzofuran	U	80 J	70 DJ	61 J	U	6100 J	110 J	U
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	U	U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U
Flourene	U	U	U	U	U	4000 J	U	U
4-Nitroaniline	U	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine	U	U	U	U	U	U	96 J	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U	U
Phenanthrene	460 DJ	250 J	270 DJ	230 J	U	31000	340 J	U
Anthracene	48 DJ	28 J	U	24 J	U	5000 J	33 J	U
Carbazole	U	U	U	U	U	5300 J	23 J	U
Di-n-butylphthalate	U	36 J	U	55 J	U	1200 J	78 J	U
Flouranthene	470 DJ	100 J	100 DJ	140 J	U	43000	190 J	U
Pyrene	440 DJ	88 J	99 DJ	160 J	71000 J	33000	190 J	U
Butylbenzylphthalate	U	U	U	U	U	U	55 J	U
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U	U
Benzo (a) anthracene	170 DJ	44 J	U	82 J	U	22000 J	120 J	U
Chrysene	230 DJ	79 J	U	140 J	U	32000	200 J	U
bis(2-Ethylhexyl)phthalate	25000 BD	3400 BE	3900 BD	2700 B	500000 J	3000 J	1000 B	1 BJ
Di-n-octylphthalate	U	U	U	U	U	U	68 J	U
Benzo(b)flouranthene	U	U	U	160 J	U	34000	270 J	U
Benzo(k)flouranthene	U	U	U	110 J	U	17000 J	130 J	U
Benzo(a)pyrene	U	U	U	89 J	U	28000 J	190 J	U
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	23000 J	170 J	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	U	U	23000 J	110 J	U
4-Chlorophenol	U	U	U	U	U	U	U	U
Total PAHs	1818	849	729	1355	71000	413300	2333	0
Total Carcinogenic PAHs	400	123	0	581	0	156000	1080	0
Total Targeted SVOCs	26918	4743	5032	4531	571000	441900	4383	1

QUALIFIERS:

U: analyzed for but not detected

J: compound found below the detection limit

B: analyte found in method blank as well as sample

E: compound concentration exceeds instrument calibration range

DL: sample was analyzed at a secondary dilution

: value exceeds NYSDOH guidance value of 100000 ug/kg for Total PAHs

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRSS07DL 3/10/92	RRSS08 3/10/92	RRSS08DL 3/10/92	RRSS09 3/10/92	RRSS10 3/10/92	RRSS11 3/10/92	RRSS12 3/10/92	RRSSFB 3/10/92
DILUTION FACTOR	10.00	1.00	2.00	1.00	1	2.00	1.00	1.00
PERCENT MOISTURE	22	19	19	20	0.00	29	15	NA
TENTATIVELY IDENTIFIED COMPOUND	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Unknown	24000 JAB	14000 JAB	16000 JAB	13000 JAB	360000 J	32000 J	13000 JAB	NA
Unknown	11000 J	230 J	950 J	300 J	350000 J	9600 J	250 J	NA
Unknown	NA	190 J	390 J	100 J	240000 J	10000 J	160 J	NA
Unknown	NA	170 J	230 J	280 J	290000 J	6300 J	430 J	NA
Unknown acid	NA	NA	NA	NA	NA	NA	NA	NA
Unknown	NA	470 J	440 J	640 J	230000 J	16000 J	2600 J	NA
Unknown	NA	1500 J	490 J	2700 J	570000 J	8100 J	NA	NA
Unknown	NA	1100 J	560 J	1100 J	250000 J	8500 J	NA	NA
Unknown	NA	NA	690 J	NA	480000 J	6400 J	NA	NA
Unknown	NA	NA	1300 J	NA	270000 J	13000 J	NA	NA
Unknown	NA	NA	2200 J	NA	590000 J	NA	NA	NA
Unknown	NA	NA	1100 J	NA	490000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	270000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	240000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	250000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	240000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	320000 J	NA	NA	NA
Unknown cyclic	NA	NA	NA	NA	NA	NA	NA	NA
Unknown aromatic	NA	190 J	NA	170 J	NA	14000 J	290 J	NA
Unknown aromatic	NA	NA	NA	92 J	NA	9500 J	460 J	NA
Unknown aromatic	NA	NA	NA	NA	NA	7100 J	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA	40000 J	NA	NA
Unknown alkane	NA	140 J	1100 J	NA	NA	NA	170 J	NA
Unknown	NA	NA	NA	NA	290000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	260000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	480000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	260000 J	NA	NA	NA
Dimethyl naphthalene isomer	NA	190 J	190 J	210 J	NA	NA	370 J	NA
Dimethyl naphthalene isomer	NA	NA	NA	95 J	NA	NA	150 J	NA
Unknown PCB	NA	NA	NA	410 J	NA	NA	160 J	NA
Unknown alkane	NA	460 J	350 J	120 J	NA	NA	200 J	NA
Unknown alkane	NA	160 J	1500 J	140 J	NA	NA	680 J	NA
Unknown alkane	NA	1300 J	670 J	430 J	NA	NA	630 J	NA
Unknown alkane	NA	460 J	230 J	270 J	NA	NA	870 J	NA
Unknown alkane	NA	220 J	1300 J	66 J	NA	NA	550 J	NA
Unknown alkane	NA	240 J	770 J	520 J	NA	NA	380 J	NA
Unknown alkane	NA	1300 J	830 J	320 J	NA	NA	290 J	NA
Unknown alkane	NA	780 J	650 J	430 J	NA	NA	1000 J	NA
Unknown alkane	NA	660 J	NA	NA	NA	NA	5800 J	NA
Unknown alkane	NA	500 J	NA	NA	NA	NA	3400 J	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	66 J	NA	NA	NA	NA
Unknown alkane	NA	1600 J	NA	NA	NA	NA	NA	NA

QUALIFIERS
J: estimated value
B: compound found in the method blank as well as the sample
A: Aldo–condensation peak
NA: Not Applicable
DL: sample was analyzed at a secondary dilution

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
PESTICIDE/PCBs

	RRSS01	RRSS02	RRSS03	RRSS04	RRSS05	RRSS06	RRSS06DL	RRSS07	RRSS08
	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00
PERCENT MOISTURE	42	30	35	30	29	15	15	21	19
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
alpha-BHC	U	U	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	U	4.7 P	U	U	U	U
Endosulfan I	U	U	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U	U	U	U
Endrin	U	U	U	U	U	U	U	U	U
Endosulfan II	U	U	U	U	14	U	U	U	U
4,4'-DDD	U	U	U	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U	U	U	U
4,4'-DDT	U	6.5 P	U	U	22 P	U	U	U	U
Methoxychlor	U	U	U	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U	U	U	U
Aroclor-1248	U	U	U	71	U	U	U	250 P	U
Aroclor-1254	U	U	79 P	U	U	U	U	U	320 P
Aroclor-1260	U	U	U	40 JP	U	U	940 P	130 P	U
Total PCBs	0	0	79	111	0	0	940	380	320

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentrations from two columns, lower value reported

DL: sample was analyzed at a secondary dilution

: value exceeds NYSDOH guidance value of 1000 ug/kg for Total PCBs

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
PESTICIDE/PCBs

	RRSS09	RRSS9DL	RRSS10	RRSS11	RRSS12	RRSS12DL	RRSSFB
	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92	3/10/92
DILUTION FACTOR	1.00	45.00	100.00	1.00	1.00	2.00	1.00
PERCENT MOISTURE	20	20	1	29	15	15	NA
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
alpha-BHC	U	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	4.4 P	U	U	U
Endosulfan I	U	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U	U
Endrin	U	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U	U
4,4'-DDD	U	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U	U
Aroclor-1248	U	U	U	U	U	U	U
Aroclor-1254	U	1600 P	U	U	830 P	1000 P	U
Aroclor-1260	U	U	U	U	U	U	U
Total PCBs	0	1600	0	0	830	1000	0

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentrations from two columns, lower value reported

DL: sample was analyzed at a secondary dilution

: value exceeds NYSDOH guidance value of 1000 ug/kg for Total PCBs

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
INORGANIC CONSTITUENTS

	RRSS01 3/10/92	RRSS02 3/10/92	RRSS03 3/10/92	RRSS04 3/10/92	RRSS05 3/10/92	RRSS06 3/10/92
PERCENT SOLIDS	58.2	69.8	65.1	70.4	71.3	85.2
PARAMETER	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	17600	19000	24800	6930	2610	6210
Antimony	U	20.8	17.5 B	25.4	U	14.9
Arsenic	7.9	5.1	75.7	31.7	13	5.9
Barium	106	161	461	187	33.6 B	96.9
Beryllium	U	1.7	3.9	2.7	U	0.59 B
Cadmium	U	U	U	U	U	1.9
Calcium	4500	51100	7700	5800	3870	13400
Chromium	19.1	30.5	83.4	130	28.6	81.5
Cobalt	7.6 B	14.2 B	20.8	16.3	4.8 B	7.3 B
Copper	16.1	35.1	54	236	38.8	98.4
Iron	9300	35900	34100	61300	12300	37900
Lead	43.8	178	149	259	27.8	892
Magnesium	4000	15400	4570	647 B	1050 B	1580
Manganese	481	917	381	1170	119	948
Mercury	U	U	U	U	0.78	0.14
Nickel	22.8	31.1	55.6	79.6	18.8	45.4
Potassium	2940	4320	3470	1600	U	517 B
Selenium	U	U	U	U	U	U
Silver	U	U	U	5.5	U	U
Sodium	U	249 B	552 B	292 B	U	U
Thallium	U	U	U	U	U	U
Vanadium	8 B	39.1	77.6	49.8	11.4 B	10 B
Zinc	123	216	332	1240	76.6	708
Cyanide	U	U	U	U	U	U

QUALIFIERS
U: analyzed for but not detected
B: concentration is above the IDL but below the CRDL
: value exceeds the NYSDOH guidance value of 500 mg/kg for Lead

TABLE
RIVER ROAD
SURFACE SOIL SAMPLING
INORGANIC CONSTITUENTS

	RRSS07 3/10/92	RRSS08 3/10/92	RRSS09 3/10/92	RRSS10 3/10/92	RRSS11 3/10/92	RRSS12 3/10/92	RRSSFB 3/10/92
PERCENT SOLIDS	85.2	80.8	79.7	99.3	71	84.7	NA
PARAMETER	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)
Aluminum	4370	6440	11300	25.8 B	6230	5830	U
Antimony	U	17.6	22.2	U	46.7	16.6	U
Arsenic	6.5	4	12	U	21.3	7.7	U
Barium	92	47.4 B	164	U	164	76.1	U
Beryllium	0.83 B	U	1.4	1.7	1.3 B	U	U
Cadmium	U	5	16.6	U	U	11.6	U
Calcium	4890	3790	35000	U	18000	18000	U
Chromium	33	73.1	117	U	35.9	58	U
Cobalt	8 B	6.6 B	8 B	U	13.4 B	5 B	U
Copper	19.9	59.1	111	U	31.2	57.9	U
Iron	22700	34100	39800	92.1	93600	23500	U
Lead	21.7	258	724	4.3	73	527	U
Magnesium	956 B	1480	1920	U	2140	1350	U
Manganese	728	1050	2960	2.5 B	1680	1790	U
Mercury	U	U	U	U	0.89	U	U
Nickel	22.9	35	35.2	58.9	24.2	23.8	U
Potassium	604 B	1070 B	897 B	U	652 B	813 B	U
Selenium	U	U	1.4	U	U	U	U
Silver	U	U	2.9	U	U	3	8.4 B
Sodium	U	175 B	332 B	U	U	165 B	U
Thallium	U	U	U	U	U	U	U
Vanadium	18.9	7.7 B	12.2 B	232	33.3	6.4 B	U
Zinc	52.6	843	2460	U	428	1810	U
Cyanide	U	U	U	U	1.5	U	U

QUALIFIERS
U: analyzed for but not detected
B: concentration is above the IDL but below the CRDL
: value exceeds the NYSDOH guidance value of 500 mg/kg for Lead

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
VOLATILE ORGANICS

	RRMW4S 3/31/92	RRMW5IAS 3/27/92	RRMW6S 3/24/92	RRMW7IA 3/17/92	RRMWFBS 4/1/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	20	9	10	23	NA
VOLATILE COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Chloromethane	U	U	U	U	U
Bromomethane	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U
Chloroethane	U	U	U	U	U
Methylene Chloride	4 J	25 B	3 BJ	7 B	U
Acetone	U	U	U	10 JB	U
Carbon Disulfide	U	U	U	U	U
1,1-Dichloroethene	U	U	U	U	U
1,1-Dichloroethane	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U
Chloroform	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U
2-Butanone	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U
Trichloroethene	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U
Benzene	U	U	U	U	U
Trans-1,3-Dichloropropene	U	U	U	U	U
Bromoform	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U
2-Hexanone	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U
Toluene	U	U	U	U	U
Chlorobenzene	U	U	U	U	U
Ethylbenzene	U	U	U	U	U
Styrene	U	U	U	U	U
Total Xylenes	U	U	U	U	U
ortho-Chlorotoluene	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U
Total VOCs	4	25	3	17	0

QUALIFIERS
U: compound analyzed for but not detected
B: compound found in the method blank as well as the sample
J: compound found below the detection limit

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
VOLATILE ORGANICS (continued)

	RRMW4S 3/31/92	RRMW5IAS 3/27/92	RRMW6S 3/24/92	RRMW7IA 3/17/92	RRMWFBS 4/1/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	20	9	10	23	NA
TENTATIVELY IDENITIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Unknown cyclic alkane	NA	NA	NA	76 J	NA
Unknown cyclic	NA	NA	NA	29 J	NA
Unknown	NA	NA	NA	27 J	NA
Unknown	NA	NA	NA	33 J	NA
Unknown	NA	NA	NA	25 J	NA

QUALIFIERS

J: estimated value

NA: Not Applicable

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
SEMIVOLATILE ORGANICS

	RRMW4S 3/31/92		RRMW4SDL 3/31/92		RRMW5IAS 3/27/92		RRMW6S 3/24/92		RRMW7IA 3/17/92		RRMWFBS 4/1/92	
DILUTION FACTOR	1.00		4.00		1.00		2.00		1.00		1.00	
PERCENT MOISTURE	20		20		9		10		23		NA	
SEMIVOLATILE COMPOUNDS	(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/kg)		(ug/l)	
Phenol		U		U	1200		1000		180	J		U
bis(2-Chloroethyl)ether		U		U		U		U	1100			U
2-Chlorophenol		U		U		U		U		U		U
1,3-Dichlorobenzene		U		U		U		U		U		U
1,4-Dichlorobenzene		U		U		U		U		U		U
1,2-Dichlorobenzene		U		U		U		U		U		U
2-Methylphenol	260	J	250	J		U	460	J	34	J		U
2,2'-oxybis(1-chloropropane)		U		U		U		U		U		U
4-Methylphenol	820		1100	J	740		2200		330	J		U
N-Nitroso-di-n-propylamine		U		U		U		U		U		U
Hexachloroethane		U		U		U		U		U		U
Nitrobenzene		U		U		U		U		U		U
Isophorone		U		U		U		U		U		U
2-Nitrophenol		U		U		U		U		U		U
2,4-Dimethylphenol	380	J	240	J	69	J	1300			U		U
bis(2-Chloroethoxy)methane		U		U		U		U		U		U
2,4-Dichlorophenol		U		U		U		U		U		U
1,2,4-Trichlorobenzene		U		U		U		U		U		U
Naphthalene	600		720	J	550		420	J	2000			U
4-Chloroaniline		U		U		U		U		U		U
Hexachlorobutadiene		U		U		U		U		U		U
4-Chloro-3-methylphenol		U		U		U		U		U		U
2-Methylnaphthalene	590		760	J	500		330	J	930			U
Hexachlorocyclopentadiene		U		U		U		U		U		U
2,4,6-Trichlorophenol		U		U		U		U		U		U
2,4,5-Trichlorophenol		U		U		U		U		U		U
2-Chloronaphthalene		U		U		U		U		U		U
2-Nitroaniline		U		U		U		U		U		U
Dimethylphthalate		U		U		U		U		U		U
Acenaphthylene	42	J		U		U		U		U		U
2,6-Dinitrotoluene		U		U		U		U		U		U
3-Nitroaniline		U		U		U		U		U		U
Acenaphthene		U		U		U	270	J	800			U
2,4-Dinitrophenol		U		U		U		U		U		U
4-Nitrophenol		U		U		U		U		U		U
Dibenzofuran	170	J	190	J	45	J	110	J	1400			U
2,4-Dinitrotoluene		U		U		U		U		U		U
Diethylphthalate		U		U		U		U		U		U
4-Chlorophenyl-phenylether		U		U		U		U		U		U
Flourene	200	J	400	J	82	J	320	J	1300			U
4-Nitroaniline		U		U		U		U		U		U
4,6-Dinitro-2-methylphenol		U		U		U		U		U		U
N-Nitrosodiphenylamine		U		U		U	100	J		U		U
4-Bromophenyl-phenylether		U		U		U		U		U		U
Hexachlorobenzene		U		U		U		U		U		U
Pentachlorophenol		U		U		U		U		U		U
Phenanthrene	920		1100	J	200	J	640	J	3000			U
Anthracene	170	J	210	J	22	J	61	J	680			U
Carbazole		U		U		U	140	J	19	J		U
Di-n-butylphthalate	160	J	290	J	160	J	150	J	160	J		U
Flouranthene	300	J	500	J	46	J	240	J	910			U
Pyrene	270	J	640	J	40	J	230	J	570			U
Butylbenzylphthalate	270	J		U	180	J		U	120	J		U
3-3'-Dichlorobenzidine		U		U		U		U		U		U
Benzo (a) anthracene	280	J	310	J		U	150	J	250	J		U
Chrysene	430		520	J		U	210	J	280	J		U
bis(2-Ethylhexyl)phthalate	6300	B	11000	B	1600		2200	B	930	B	1	BJ
Di-n-octylphthalate	270	J	360	J	110	J		U	82	J		U
Benzo(b)flouranthene	240	J	230	J		U		U	170	J		U
Benzo(k)flouranthene	140	J	150	J		U		U	120	J		U
Benzo(a)pyrene	150	J	150	J		U		U	140	J		U
Indeno(1,2,3-cd)pyrene		U		U		U		U		U		U
Dibenz(a,h)anthracene		U		U		U		U		U		U
Benzo(g,h,i)perylene		U		U		U		U		U		U
4-Chlorophenol		U		U		U		U		U		U
Total PAHs	3742		4930		940		2541		10220		0	
Total Carcinogenic PAHs	1240		1360		0		360		960		0	
Total SVOCs	12942		19120		5544		10531		15505		1	

QUALIFIERS

U: compound analyzed for but not detected

J: compound found below the detection limit

B: compound found in the method blank as well as the sample

DL: sample analyzed at a secondary dilution

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
SEMIVOLATILE ORGANICS (continued)

	RRMW4S	RRMW4SDL	RRMW5IAS	RRMW-6S	RRMW7IA	RRMWFBS
	3/31/92	3/31/92	3/27/92	3/24/92	3/17/92	4/1/92
DILUTION FACTOR	1.00	4.00	1.00	2.00	1.00	1.00
PERCENT MOISTURE	20	20	9	10	23	NA
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
Unknown alkane	670 J	1000 J	4000 J	630 J	5000 J	NA
Unknown alkane	650 J	3900 J	2600 J	660 J	4900 J	NA
Unknown cycloalkane	NA	NA	2800 J	NA		NA
Unknown alkane	2900 J	870 J	1900 J	1600 J	2300 J	NA
Unknown	550 J	800 J	3700 J	1200 J	51000 JAB	3 J
Unknown alkane	1500 J	10000 J	6100 J	3500 J	2800 J	NA
Unknown alkene	290 J	NA	2600 J	NA	NA	NA
Unknown alkane	4700 J	2100 J	5000 J	2300 J	6800 J	NA
Unknown alkane	1800 J	1700 J	6900 J	5300 J	2400 J	NA
Unknown	680 J	970 J	2700 J	60000 JAB	3100 J	NA
Unknown alkane	1400 J	22000 J	10000 J	2800 J	12000 J	NA
Unknown alkane	NA	5600 J	3000 J	1000 J	2300 J	NA
Unknown hydrocarbon	NA	NA	3600 J	NA	NA	NA
Unknown alkane	NA	7600 J	2200 J	3300 J	1600 J	NA
Unknown alkane	NA	12000 J	2500 J	2000 J	2500 J	NA
Unknown	1600 J	2300 J	2100 J	1500 J	2800 J	NA
Unknown	3300 J	1100 J	3900 J	NA	4500 J	NA
Unknown alkane	NA	9100 J	7600 J	NA	2500 J	NA
Unknown alkane	NA	2700 J	3100 J	NA	3300 J	NA
Unknown alkane	NA	NA	2400 J	NA	NA	NA
Unknown	NA	3500 J	1900 J	NA	5000 J	NA
Substrued benzene	NA	NA	2700 J	NA	NA	NA
Unknown	NA	3300 J	3900 J	NA	4200 J	NA
Unknown	NA	9500 J	3400 J	NA	2600 J	NA
Unknown	NA	29000 J	2100 J	NA	NA	NA
Unknown aromatic	370 J	NA	NA	1000 JB	3100 J	NA
Unknown aromatic	350 J	NA	NA	NA	2600 J	NA
Unknown aromatic	280 J	NA	NA	NA	2300 J	NA
Unknown alkene	340 J	NA	NA	NA	NA	NA
Unknown aromatic	250 J	NA	NA	NA	NA	NA
Unknown aromatic	440 J	NA	NA	NA	NA	NA
Unknown aromatic	210 J	NA	NA	NA	NA	NA
Unknown alkene	4700 J	NA	NA	NA	NA	NA
Substrued phenol	NA	NA	NA	900 J	NA	NA
Substrued phenol	NA	NA	NA	680 J	NA	NA
Substrued phenol	NA	NA	NA	630 J	NA	NA
Substrued phenol	NA	NA	NA	630 J	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	640 J	NA	NA

QUALIFIERS

J: estimated value

B: compound found in the method blank as well as the sample

A: Aldo-condensation peak

NA: Not Applicable

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
PESTICIDE/PCBs

	RRMW4S 3/31/92	RRMW4SDL 3/31/92	RRMW5IAS 3/27/92	RRMW6S 3/24/92	RRMW7IA 3/17/92	RRMWFBS 4/1/92
DILUTION FACTOR	1.00	4.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	20	20	9	10	23	NA
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)
alpha-BHC	U	U	U	U	U	U
beta-BHC	U	U	U	U	U	U
delta-BHC	U	U	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U	U	U
Heptachlor	U	U	U	U	U	U
Aldrin	U	U	U	U	U	U
Heptachlor epoxide	U	U	U	U	U	U
Endosulfan I	U	U	U	U	U	U
Dieldrin	U	U	U	U	U	U
4,4'-DDE	U	U	U	U	U	U
Endrin	U	U	U	U	U	U
Endosulfan II	U	U	U	U	U	U
4,4'-DDD	U	U	U	U	U	U
Endosulfan sulfate	U	U	U	U	U	U
4,4'-DDT	U	U	U	U	U	U
Methoxychlor	U	U	U	U	U	U
Endrin ketone	U	U	U	U	U	U
Endrin aldehyde	U	U	U	U	U	U
alpha-Chlordane	U	U	U	U	U	U
gamma-Chlordane	U	U	U	U	U	U
Toxaphene	U	U	U	U	U	U
Aroclor-1016	U	U	U	U	U	U
Aroclor-1221	U	U	U	U	U	U
Aroclor-1232	U	U	U	U	U	U
Aroclor-1242	U	U	U	U	U	U
Aroclor-1248	U	U	U	300	780	U
Aroclor-1254	U	5000	250	240 P	820	U
Aroclor-1260	U	U	U	U	U	U
Total PCBs	0	5000	250	540	1600	0

QUALIFIERS

U: compound analyzed for but not detected

P: greater than 25% difference in concentr ations from two columns, lower value reported

TABLE
RIVER ROAD
MONITORING WELL SOIL SAMPLING
INORGANIC CONSTITUENTS

	RRMW4S 3/31/92	RRMW5IAS 3/27/92	RRMW6S 3/24/92	RRMW7IA 3/17/92	RRMWFBS 4/1/92
DILUTION FACTOR	1.00	1.00	1.00	1.00	1.00
PERCENT MOISTURE	20	9	10	23	NA
INORGANIC CONSTITUENTS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/l)
Aluminum	15000	3380	3580	4720	U
Antimony	5.5	10.1	6 98	11.1	U
Arsenic	4.68	4.84	U	11.1	U
Barium	156	42.5	26.6	61.8	U
Beryllium	1.25	U	U	U	U
Cadmium	60.1	U	U	10.6	U
Calcium	66700	11300	9640	13700	U
Chromium	85.8	90	20.6	54.5	U
Cobalt	5	5.96	U	6.02	U
Copper	106	61	11.8	51.4	U
Iron	30300	42500	7730	20700	U
Lead	1170	46.8	12.4	306	U
Magnesium	2870	812	1180	1050	U
Manganese	4020	640	445	925	U
Mercury	0.275	U	U	0.239	U
Nickel	23.6	41.7	5.69	24.2	U
Potassium	951	273	470	753	U
Selenium	1.5	U	U	2.38	U
Silver	7.75	U	U	U	U
Sodium	527	103	175	178	U
Thallium	U	U	U	U	U
Vanadium	6.12	5.05	U	18.9	U
Zinc	4370	224	76.3	981	U
Cyanide	6.39	0.31	U	U	U

QUALIFIERS
U: compound analyzed for but not detected
: value excceds the NYSDOH guidance value of 500 mg/kg for

APPENDIX F-2

Phase II Analytical Results Summary Tables

TABLE
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
VOLATILE ORGANIC RESULTS

SAMPLE ID.	RRSWS-3	
SAMPLE DEPTH	6 INCHES	
DATE OF COLLECTION	11/19/92	RANGE OF
DILUTION FACTOR	1	SEDIMENT CRITERIA *
PERCENT MOISTURE	48	AQUATIC TOXICITY BASIS
VOLATILE ORGANIC COMPOUNDS	(ug/kg)	(ug/goc)
Chloromethane	U	
Bromomethane	U	
Vinyl Chloride	U	
Chloroethane	U	
Methylene Chloride	170 B	----
Acetone	62 B	----
Carbon Disulfide	U	
1,1-Dichloroethene	U	
1,1-Dichloroethane	U	
1,2-Dichloroethene (total)	U	
Chloroform	U	
1,2-Dichloroethane	U	
2-Butanone	U	
1,1,1-Trichloroethane	U	
Carbon Tetrachloride	U	
Bromodichloromethane	U	
1,2-Dichloropropane	U	
cis-1,3-Dichloropropene	U	
Trichloroethene	U	
Dibromochloromethane	U	
1,1,2-Trichloroethane	U	
Benzene	2 J	9.0-24.6 +
Trans-1,3-Dichloropropene	U	
Bromoform	U	
4-Methyl-2-Pentanone	U	
2-Hexanone	U	
Tetrachloroethene	U	
1,1,2,2-Tetrachloroethane	U	
Toluene	2 J	----
Chlorobenzene	U	
Ethylbenzene	U	
Styrene	U	
Total Xylenes	U	
Orthochlorotoluene	U	
1,2,3-Trichlorobenzene	U	

QUALIFIERS
B: Compound found in the sample as well as the method blank.
J: Compound found at a concentration below the detection limit.
U: Compound analyzed for but not detected.

NOTES
*: Range based on the measured TOC levels of 1.6%-4.1% and criteria presented in a NYSDEC guidance document entitled "Sediment Criteria, December 1989".
+: Human health residue basis for sediment criteria
----: Criteria not available
Criteria listed only for those compounds which were detected in the samples.

TABLE
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE ID.	RRSWS-1	RRSWS-2	RRSWS-3	RRSWS-4	RRSWS-5	RRSWS-6	SEDIMENT
SAMPLE DEPTH	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	CRITERIA*
DATE OF COLLECTION	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	AQUATIC
DILUTION FACTOR	2	2	2	2	2	2	TOXICITY
PERCENT MOISTURE	41	44	48	49	35	40	BASIS
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/goc)
Phenol	81 J	89 J	21 J	U	U	U	9.0-24.6
bis(2-Chloroethyl)ether	U	U	U	U	U	U	
2-Chlorophenol	U	U	U	U	U	U	
1,3-Dichlorobenzene	U	U	U	U	U	U	
1,4-Dichlorobenzene	U	U	U	U	U	U	
1,2-Dichlorobenzene	U	U	U	U	U	U	
2-Methylphenol	U	U	U	U	U	U	
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	
4-Methylphenol	90 J	U	U	U	U	U	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	
Hexachloroethane	U	U	U	U	U	U	
Nitrobenzene	U	U	U	U	U	U	
Isophorone	U	U	U	U	U	U	
2-Nitrophenol	U	U	U	U	U	U	
2,4-Dimethylphenol	120 J	U	U	U	U	U	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	
2,4-Dichlorophenol	U	U	U	U	U	U	
1,2,4-Trichlorobenzene	U	U	U	U	U	U	
Naphthalene	110 J	96 J	86 J	U	U	370 J	----
4-Chloroaniline	U	U	U	U	U	U	
Hexachlorobutadiene	U	U	U	U	U	U	
4-Chloro-3-methylphenol	U	U	U	U	U	U	
2-Methylnaphthalene	87 J	80 J	63 J	U	U	170 J	----
Hexachlorocyclopentadiene	U	U	U	U	U	U	
2,4,6-Trichlorophenol	U	U	U	U	U	U	
2,4,5-Trichlorophenol	U	U	U	U	U	U	
2-Chloronaphthalene	U	U	U	U	U	U	
2-Nitroaniline	U	U	U	U	U	U	
Dimethylphthalate	U	U	U	U	U	U	
Acenaphthylene	U	U	U	U	U	U	
2,6-Dinitrotoluene	U	U	U	U	U	U	
3-Nitroaniline	U	U	U	U	U	U	
Acenaphthene	U	U	U	U	U	620 J	----
2,4-Dinitrophenol	U	U	U	U	U	U	
4-Nitrophenol	U	U	U	U	U	U	
Dibenzofuran	24 J	28 J	18 J	U	U	380 J	----
2,4-Dinitrotoluene	U	U	U	U	U	U	
Diethylphthalate	U	160 J	U	U	U	U	----
4-Chlorophenyl-phenylether	U	U	U	U	U	U	
Flourene	24 J	U	17 J	U	U	610 J	----
4-Nitroaniline	U	U	U	U	U	U	
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	
N-Nitrosodiphenylamine	U	U	U	U	U	U	
4-Bromophenyl-phenylether	U	U	U	U	U	U	
Hexachlorobenzene	U	U	U	U	U	U	
Pentachlorophenol	U	U	U	U	U	U	
Phenanthrene	160 J	150 J	120 J	57 J	98 J	2000	2085-5699
Anthracene	150 J	25 J	U	7 J	18 J	270 J	----
Carbazole	12 J	U	8 J	U	10 J	310 J	----
Di-n-butylphthalate	U	U	U	U	U	U	
Flouranthene	160 J	120 J	190 J	120 J	230 J	850 J	----
Pyrene	160 J	110 J	160 J	87 J	220 J	490 J	----
Butylbenzylphthalate	U	U	U	U	U	U	
3-3'-Dichlorobenzidine	U	U	U	U	U	U	
Benzo (a) anthracene	U	U	U	U	U	110 J	10.5-28.7
Chrysene	U	U	U	U	U	220 J	10.5-28.7
bis(2-Ethylhexyl)phthalate	420 BJ	460 J	270 BJ	U	280 BJ	210 BJ	1795.5-4907
Di-n-octylphthalate	U	U	U	U	9 J	U	----
Benzo(b)flouranthene	U	U	U	U	U	U	
Benzo(k)flouranthene	U	U	U	U	U	U	
Benzo(a)pyrene	U	U	U	U	U	U	
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	
Dibenz(a,h)anthracene	U	U	U	U	U	U	
Benzo(g,h,i)perylene	U	U	U	U	U	U	
4-Chlorophenol	U	U	U	U	U	U	
TOTAL PAHs	764	501	573	271	566	5570	
TOTAL CARCINOGEN PAHs	0	0	0	0	0	330	
TOTAL SVOCs	1598	1318	953	271	865	6640	

QUALIFIERS
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the de tection limit, value estimated.
U: Compound analyzed for but not detected.

NOTES
*: Range based on the measured TOC levels of 1.6%-4.1% and criteria presented in a NYSDEC guidance document entitled "Sediment Criteria, December 1989".
+: Human health residue basis for sediment criteria
----: Criteria not available
: Value exceeds sediment criteria guidance value range
Criteria listed only for those compounds which were detected in the samples

TABLE
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE ID.	RRSWS-1	RRSWS-2	RRSWS-3	RRSWS-4	RRSWS-5	RRSWS-6
SAMPLE DEPTH	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES
DATE OF COLLECTION	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92
DILUTION FACTOR	2	2	2	2	2	2
PERCENT MOISTURE	41	44	48	49	35	40
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	250 J	270 J	450 J	590 J	230 J	240 J
Unknown alkane	290 J	300 J	270 J	NA	220 J	1100 J
Unknown alkane	390 J	370 J	370 J	NA	240 J	NA
Unknown alkane	310 J	290 J	360 J	NA	360 J	NA
Unknown	640 J	610 J	670 J	450 J	700 J	NA
Unknown alkane	350 J	410 J	350 J	NA	300 J	NA
Unknown alkane	460 J	400 J	320 J	NA	380 J	NA
Unknown alkane	440 J	420 J	NA	NA	820 J	NA
Unknown	800 J	1000 J	1100 J	380 J	220 J	NA
Unknown alkane	910 J	NA	NA	NA	NA	NA
Unknown	NA	330 J	490 J	NA	1600 J	NA
Unknown	NA	460 J		NA	440 J	NA
Unknown acid	NA	470 J	NA	480 J	230 J	NA
Hexadecanoic acid	NA	NA	NA	570 JN	NA	NA
Unknown	NA	NA	NA	NA	310 J	NA
Unknown	NA	NA	NA	NA	340 J	NA

QUALIFIERS
J: Estimated value

NOTES
NA: Not Applicable

TABLE NO.
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
PESTICIDE/PCB RESULTS

SAMPLE ID.	RRSWS-1	RRSWS-2	RRSWS-3	RRSWS-4	RRSWS-5	RRSWS-6	
SAMPLE DEPTH	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	
DATE OF COLLECTION	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	RANGE OF
DILUTION FACTOR	1	1	1	1	1	1	SEDIMENT CRITERIA **
PERCENT MOISTURE	41	44	48	49	35	40	AQUATIC TOXICITY BASIS
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/goc)
alpha-BHC	U	U	U	U	U	U	
beta-BHC	U	U	U	U	U	U	
delta-BHC	U	U	U	U	U	U	
gamma-BHC (Lindane)	U	U	U	U	U	U	
Heptachlor	6.1 P	4 P	U	U	U	U	0.48-1.23
Aldrin	U	U	U	U	U	U	
Heptachlor epoxide	U	U	U	U	U	U	
Endosulfan I	4.4 P	U	U	U	U	U	0.48-1.23
Dieldrin	U	U	U	U	U	U	
4,4'-DDE	U	U	U	U	U	U	
Endrin	U	U	U	U	U	U	
Endosulfan II	U	U	U	U	U	U	
4,4'-DDD	U	U	U	U	U	U	
Endosulfan sulfate	U	U	U	U	U	U	
4,4'-DDT	U	U	U	U	U	U	
Methoxychlor	U	U	U	U	U	U	
Endrin ketone	U	U	U	U	U	U	
Endrin aldehyde	U	U	U	U	U	U	
alpha-Chlordane	U	U	U	U	U	U	
gamma-Chlordane	U	U	U	U	U	U	
Toxaphene	U	U	U	U	U	U	
Aroclor-1016	U	U	U	U	U	U	
Aroclor-1221	U	U	U	U	U	U	
Aroclor-1232	U	U	U	U	U	U	
Aroclor-1242	U	U	U	U	U	U	
Aroclor-1248	U	U	110	180 P	150 P	110 P	0.08-0.24
Aroclor-1254	640	350	U	U	U	U	0.08-0.24
Aroclor-1260	U	U	260	470	380	300	0.08-0.24

QUALIFIERS
P: There was a greater than 25% difference between primary and confirmation column concentration, lower value reported.
U: Compound analyzed for but not detected

NOTES
** Range of values presented are for 1% and 3% TOC, respectively, and criteria presented in a NYSDEC guidance document entitled "Sediment Criteria, December 1989".
: Value exceeds sediment criteria guidance value range

TABLE
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
INORGANIC CONSTITUENTS

SAMPLE ID.	RRSWS-1	RRSWS-2	RRSWS-3	RRSWS-4	RRSWS-5	RRSWS-6	
SAMPLE DEPTH	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	
DATE OF COLLECTION	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	
DILUTION FACTOR	1	1	1	1	1	1	SEDIMENT CRITERIA *
PERCENT SOLIDS	59	56	51.5	51.2	64.6	60.3	AQUATIC TOXICITY BASIS
INORGANIC CONSTITUENTS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	10500	8090	20800	12700	18400	17400	----
Antimony	U	U	U	U	U	U	----
Arsenic	25.4	12.2	14	11.1	7.2	5.9	4.0
Barium	188	92.3	139	83.1	125	136	----
Beryllium	1.3 B	0.74 B	1.5 B	0.81 B	1.2 B	1.3 B	----
Cadmium	4.2	U	U	U	U	U	0.6
Calcium	71000	39200	68500	60800	60100	64400	----
Chromium	86.2	31.1	122	26.8	28	32	22
Cobalt	6.8 B	6.7 B	13.8 B	10.6 B	12 B	14.3 B	----
Copper	57.2	29.8	36.7	25.9	27.2	27.3	15
Iron	29100	19200	41100	24500	28600	34000	20000
Lead	314	107	64	30.8	35.8	37.1	23
Magnesium	5380	7310	17700	16300	16600	16700	----
Manganese	4170	958	2050	761	831	772	400
Mercury	U	U	U	U	U	U	0.1
Nickel	18	16.8	28	26.5	26.7	27.1	15
Potassium	1610 B	1460 B	5140	3010	4280	4460	----
Selenium	U	U	U	U	U	U	----
Silver	U	U	U	U	U	U	----
Sodium	367 B	242 B	471 B	269 B	318 B	417 B	----
Thallium	U	U	U	U	U	U	----
Vanadium	44.2	21.6	47.9	32.4	35.2	41.2	----
Zinc	1750	540	521	225	148	136	65
Cyanide	U	1.1	U	U	1.6	U	----

QUALIFIERS
B: Element found at a concentration less than the CRDL but greater than the IDL.
U: Element analyzed for but not detected

NOTES
*: Level presented is for "No Effect" level from Persaud 1989 as presented in the NYSDEC guidance document entitled "Sediment Criteria, December 1989".
----: Criteria not available
: Value exceeds sediment criteria guidance value

TABLE
RIVER ROAD SITE
SURFACE WATER SEDIMENT SAMPLING
INORGANIC CONSTITUENTS

SAMPLE ID.	RRSWS-1	RRSWS-2	RRSWS-3	RRSWS-4	RRSWS-5	RRSWS-6
SAMPLE DEPTH	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES	6 INCHES
DATE OF COLLECTION	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92	11/19/92
DILUTION FACTOR	1	1	1	1	1	1
PERCENT SOLIDS	59	56	51.5	51.2	64.6	60.3
INORGANIC CONSTITUENTS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Cyanide with sulfide removed	0.59	0.75	0.72	1.22	0.27	0.72
Amenable Cyanide	0.24	0.21	U	0.2	U	U

QUALIFIERS
U: Element analyzed for but not detected

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
VOLATILE ORGANIC RESULTS

SAMPLE ID.	MW8S	MW8S	MW8S-DL	MW9S	MW9S
SAMPLE DEPTH	5-7 FEET	15-17 FEET	15-17 FEET	5-7 FEET	10-12 FEET
DATE OF COLLECTION	11/18/92	11/18/92	11/18/92	11/17/92	11/17/92
DILUTION FACTOR	1	1	5	1	1
PERCENT MOISTURE	27	16	16	21	4
VOLATILE ORGANIC COMOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U
Bromomethane	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U
Chloroethane	U	U	U	U	U
Methylene Chloride	19 B	21 B	170 BD	22 B	19 B
Acetone	50 B	67 B	160 BD	160 B	67 B
Carbon Disulfide	U	U	U	1 J	U
1,1-Dichloroethene	U	U	U	U	U
1,1-Dichloroethane	U	8 J	15 DJ	U	U
1,2-Dichloroethene (total)	U	U	U	U	U
Chloroform	U	U	U	U	U
1,2-Dichloroethane	U	U	U	U	U
2-Butanone	U	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U	U
Carbon Tetrachloride	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U
1,2-Dichloropropane	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U
Trichloroethene	U	5 J	12 DJ	U	U
Dibromochloromethane	U	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U	U
Benzene	2 J	2 J	6 DJ	3 J	U
Trans-1,3-Dichloropropene	U	U	U	U	U
Bromoform	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U
2-Hexanone	U	220	U	U	U
Tetrachloroethene	U	9 J	23 DJ	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U	U
Toluene	2 J	130	290 D	3 J	2 J
Chlorobenzene	U	U	U	U	U
Ethylbenzene	U	60	140 D	U	U
Styrene	U	U	U	U	U
Total Xylenes	U	460 E	1100 D	U	U
Orthochlorotoluene	U	U	U	U	U
1,2,3-Trichlorobenzene	U	U	U	U	U
TOTAL VOCs	73	982	1916	189	88

QUALIFIERS
B: Compound found in the sample as well as the method blank.
D: Concentration from diluted analysis.
E: Compound concentration exceeds the instrument calibration range.
J: Compound found at a concentration below the detection limit.
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution.

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
VOLATILE ORGANIC RESULTS

SAMPLE ID.	MW8S	MW8S	MW8S-DL	MW9S	MW9S
SAMPLE DEPTH	5-7 FEET	15-17 FEET	15-17 FEET	5-7 FEET	10-12 FEET
DATE OF COLLECTION	11/18/92	11/18/92	11/18/92	11/17/92	11/17/92
DILUTION FACTOR	1	1	5	1	1
PERCENT MOISTURE	27	16	16	21	4
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown	11 J	180 J	600 J	8 J	NA
Unknown	7 J	NA	2000 J	NA	NA
Unknown	12 J	NA	560 J	NA	NA
Unknown	8 J	NA	NA	NA	NA
Unknown	9 J	NA	NA	NA	NA
Dimethylheptane isomer	NA	340 J	1300 J	NA	NA
Dimethylheptane isomer	NA	330 J	120 J	NA	NA
Ethylmethylbenzene isomer	NA	170 J	NA	NA	NA
Unknown alkane	NA	860 J	290 J	NA	NA
Unknown alkane	NA	210 J	730 J	NA	NA
Trimethylbenzene isomer	NA	390 J	1000 J	NA	NA
Trimethylbenzene isomer	NA	290 J	810 J	NA	NA
Unknown alkane	NA	720 J	NA	NA	NA
Unknown alkane	NA	340 J	NA	NA	NA
Methyloctane isomer	NA	NA	1200 J	NA	NA

QUALIFIERS
J: Estimated value

NOTES
NA: Not Applicable
DL: Sample analyzed at a secondary dilution.

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE ID.	MW8S	MW8S-RE	MW8S	MW8S-DL	MW9S	MW9S-DL	MW9S
SAMPLE DEPTH	5-7 FEET	5-7 FEET	15-17 FEET	15-17 FEET	5-7 FEET	5-7 FEET	10-12 FEET
DATE OF COLLECTION	11/18/92	11/18/92	11/18/92	11/18/92	11/17/92	11/17/92	11/17/92
DILUTION FACTOR	1	1	1	20	1	5	1
PERCENT MOISTURE	27	27	16	16	21	21	4
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	2500	2600	620	800 DJ	130 J	U	U
bis(2-Chloroethyl)ether	U	U	770	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U
1,3-Dichlorobenzene	U	U	U	U	U	U	U
1,4-Dichlorobenzene	52 J	U	U	U	U	U	U
1,2-Dichlorobenzene	U	U	U	U	U	U	U
2-Methylphenol	720	780	U	U	6 J	U	U
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	U
4-Methylphenol	3000	3200	760	U	95 J	68 DJ	32 J
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U
Hexachloroethane	U	U	U	U	U	U	U
Nitrobenzene	U	U	U	U	U	U	U
Isophorone	U	U	U	U	U	U	U
2-Nitrophenol	U	U	U	U	U	U	U
2,4-Dimethylphenol	470	450 J	540	640 DJ	63 J	U	U
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U
2,4-Dichlorophenol	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	380 J	420 J	U	U	U	U	U
Naphthalene	650	690	4600	10000 D	410 J	330 DJ	49 J
4-Chloroaniline	U	U	U	3200 DJ	U	U	U
Hexachlorobutadiene	U	U	U	U	U	U	U
4-Chloro-3-methylphenol	U	U	U	U	U	U	U
2-Methylnaphthalene	850	770	2200	7000 DJ	560	370 DJ	32 J
Hexachlorocyclopentadiene	U	U	U	U	U	U	U
2,4,6-Trichlorophenol	U	U	U	U	U	U	U
2,4,5-Trichlorophenol	U	U	U	U	U	U	U
2-Chloronaphthalene	U	U	U	U	U	U	U
2-Nitroaniline	U	U	U	U	U	U	U
Dimethylphthalate	50 J	51 J	U	U	U	U	U
Acenaphthylene	47 J	U	U	U	270 J	230 DJ	U
2,6-Dinitrotoluene	U	U	U	U	510	U	U
3-Nitroaniline	U	U	U	U	U	U	U
Acenaphthene	150 J	170 J	1800	6900 DJ	390 J	350 DJ	9 J
2,4-Dinitrophenol	U	U	U	U	U	U	U
4-Nitrophenol	U	U	U	U	U	U	U
Dibenzofuran	U	U	U	U	410 J	380 DJ	U
2,4-Dinitrotoluene	U	U	U	U	U	U	U
Diethylphthalate	U	U	U	U	U	U	U
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U
Flourene	300 J	260 J	1300	6500 DJ	1200	1100 DJ	U
4-Nitroaniline	U	U	U	U	U	U	U
4,6-Dinitro-2-methylphenol	500 J	450 J	U	U	U	U	U
N-Nitrosodiphenylamine	500	U	U	U	570	480 DJ	U
4-Bromophenyl-phenylether	U	U	U	U	U	U	U
Hexachlorobenzene	U	U	U	U	U	U	U
Pentachlorophenol	U	U	U	U	U	U	U
Phenanthrene	1000	1100	21000 E	44000 D	11000 E	10000 D	10 J
Anthracene	86 J	220 J	U	5600 DJ	1700	1500 DJ	43 J
Carbazole	46 J	U	U	U	U	U	U
Di-n-butylphthalate	52 J	58 J	U	U	19 J	U	7 J
Flouranthene	420 J	320 J	45000 E	20000 D	3400	3700 D	U
Pyrene	210 J	310 J	2700	8000 D	2600	3800 D	U
Butylbenzylphthalate	U	150 J	65 J	U	U	U	U
3-3'-Dichlorobenzidine	U	U	U	U	U	U	U
Benzo (a) anthracene	U	U	5600	5300 DJ	2100	1200 DJ	U
Chrysene	330 J	410 J	4100	8700 D	2500	1900 DJ	U
bis(2-Ethylhexyl)phthalate	2000 B	2900 B	3200 BE	7800 BDJ	120 BJ	270 BDJ	U
Di-n-octylphthalate	140 J	140 J	U	370 DJ	44 J	U	5 J
Benzo(b)flouranthene	220 J	U	1800	3800 DJ	900	U	U
Benzo(k)flouranthene	81 J	U	1500	4100 DJ	1000	U	U
Benzo(a)pyrene	U	U	1500	2500 DJ	850	730 DJ	U
Indeno(1,2,3-cd)pyrene	U	U	1100	U	U	U	U
Dibenz(a,h)anthracene	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	U	U	U	U	U	U	U
4-Chlorophenol	U	U	6880 E	U	780	U	U
TOTAL PAHs	3494	3480	92000	125400	24920	24840	111
TOTAL CARCINOGEN PAHs	631	410	15600	24400	7350	3830	0
TOTAL SVOCs	14754	15449	107035	145210	28227	26408	187

QUALIFIERS
B: Compound found in the method blank as well as the sample.
D: Compound concentration from diluted run
E: Compound concentration exceeds instrument calibration range.
J: Compound found at a concentration below the detection limit, value estimated.
U: Compound analyzed for but not detected.

NOTES
DL: Sample analyzed at a secondary dilution.
RE: Sample reanalyzed.

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE ID.	MW8S	MW8S–RE	MW8S	MW8S–DL	MW9S	MW9S–DL	MW9S
SAMPLE DEPTH	5–7 FEET	5–7 FEET	15–17 FEET	15–17 FEET	5–7 FEET	5–7 FEET	10–12 FEET
DATE OF COLLECTION	11/18/92	11/18/92	11/18/92	11/18/92	11/17/92	11/17/92	11/17/92
DILUTION FACTOR	1	1	1	20	1	5	1
PERCENT MOISTURE	27	27	16	16	21	21	4
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Unknown alkane	890 J	1100 J	480 J	9400 J	430 J	740 J	91 J
Unknown alkane	1400 J	1600 J	270 J	23000 J	1200 J	2400 J	92 J
Unknown alkane	470 J	940 J	270 J	100000 J	960 J	1100 J	230 J
Unknown alkane	420 J	930 J	290 J	11000 J	660 J	4900 J	130 J
Unknown alkane & aromatic	NA	NA	310 J	NA	650 J	1500 J	NA
Unknown	520 J	990 J	260 J	9000 J	430 J	1200 J	99 J
Unknown cycloalkane	830 J	730 J	460 J	22000 J	NA	NA	NA
Unknown alkane	1400 J	2400 J	460 J	9100 J	490 J	2000 J	290 J
Unknown alkane	4100 J	1300 J	1300 J	16000 J	2600 J	6600 J	350 J
Unknown cycloalkane	590 J	710 J	690 J	66000 J	NA	NA	NA
Unknown alkane	1500 J	4500 J	860 J	54000 J	1400 J	6300 J	130 J
Unknown alkane	2500 J	2500 J	1400 J	31000 J	640 J	1400 J	74 J
Unknown alkane	NA	NA	520 J	59000 J	1100 J	1300 J	120 J
Unknown alkane	NA	NA	1700 J	250000 J	840 J	13000 J	NA
Unknown alkane	NA	NA	790 J	60000 J	450 J	5700 J	NA
Unknown alkane	NA	NA	1200 J	32000 J	NA	8300 J	NA
Unknown alkane	NA	NA	5900 J	13000 J	NA	3600 J	NA
Unknown alkane	NA	NA	2300 J	34000 J	NA	1900 J	NA
Unknown alkane	NA	NA	790 J	16000 J	NA	NA	NA
Unknown alkane	NA	NA	5500 J	41000 J	NA	NA	NA
Unknown alkane	NA	NA	NA	18000 J	NA	NA	NA
C10H14 Aromatic hydrocarbon	520 J	500 J	NA	NA	NA	NA	NA
Unknown	720 J	3700 J	NA	NA	790 J	4300 J	73 J
Substituted phenol	580 J	640 J	NA	NA	NA	NA	NA
Unknown aromatic	880 J	1200 J	NA	NA	600 J	NA	NA
C11H10 Aromatic hydrocarbon	650 J	660 J	NA	NA	480 J	NA	NA
Unknown	740 J	NA	NA	NA	2400 J	7100 J	84 J
Unknown	880 J	NA	NA	NA	1600 J	2600 J	890 J
Dimethyl naphthalene isomer	550 J	830 J	NA	NA	520 J	NA	NA
Dimethyl naphthalene isomer	520 J	NA	NA	NA	NA	NA	NA
Substituted phenol	NA	930 J	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	1600 J	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	4300 J	NA	NA	NA	NA	NA
Trimethyl naphthalene isomer	NA	NA	NA	NA	NA	NA	110 J
Unknown	NA	NA	NA	NA	NA	NA	1500 J
Unknown	NA	NA	NA	NA	NA	NA	1500 J
Unknown	NA	NA	NA	NA	NA	NA	650 J
C12H12 Naphthalene isomer	NA	NA	NA	NA	1100 J	1300 J	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution.
RE: Sample reanalyzed.
NA: Not Applicable

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
PESTICIDE/PCB RESULTS

SAMPLE ID.	MW8S	MW8S	MW9S	MW9S
SAMPLE DEPTH	5–7 FEET	15–17 FEET	5–7 FEET	10–12 FEET
DATE OF COLLECTION	11/18/92	11/18/92	11/17/92	11/17/92
DILUTION FACTOR	6	1	3	2
PERCENT MOISTURE	27	16	21	4
PESTICIDE/PCB COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
alpha-BHC	U	U	U	U
beta-BHC	U	U	U	U
delta-BHC	U	U	U	U
gamma-BHC (Lindane)	U	U	U	U
Heptachlor	U	U	U	U
Aldrin	U	U	U	U
Heptachlor epoxide	U	U	U	U
Endosulfan I	U	U	U	U
Dieldrin	U	U	U	U
4,4'-DDE	U	U	U	U
Endrin	U	U	U	U
Endosulfan II	U	U	U	2.4 JP
4,4'-DDD	U	U	U	U
Endosulfan sulfate	U	U	U	U
4,4'-DDT	U	U	U	U
Methoxychlor	U	99 JP	U	U
Endrin ketone	U	U	U	U
Endrin aldehyde	U	150	U	4.2 JP
alpha-Chlordane	U	U	U	U
gamma-Chlordane	U	U	U	U
Toxaphene	U	U	U	U
Aroclor-1016	U	U	U	U
Aroclor-1221	U	U	U	U
Aroclor-1232	U	U	U	U
Aroclor-1242	U	U	U	U
Aroclor-1248	3500	U	790	U
Aroclor-1254	U	3400 P	U	U
Aroclor-1260	1500	U	570	U
TOTAL PCBs	5000	3400	1360	0

QUALIFIERS
J: Compound found at a concentration below the detection limit, value estimated.
P: There was a greater than 25% difference between primary and confirmation column concentration, lower value reported.
U: Compound analyzed for but not detected

TABLE NO.
RIVER ROAD SITE
MONITORING WELL SOIL BORING SAMPLING
INORGANIC CONSTITUENTS

SAMPLE ID.	MW8S		MW8S		MW9S		MW9S	
SAMPLE DEPTH	5-7 FEET		15-17 FEET		5-7 FEET		10-12 FEET	
DATE OF COLLECTION	11/18/92		11/18/92		11/17/92		11/17/92	
DILUTION FACTOR	1		1		1		1	
PERCENT SOLIDS	72.6		83.5		78.9		96	
INORGANIC CONSTITUENTS	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Aluminum	10300		6860		1960		1000	
Antimony	14.3	B	27.8		133			U
Arsenic	4.8		4.7		44.3		1.1	B
Barium	163		80.5		42.2	B	13.4	B
Beryllium	0.69	B	0.6	B	0.37	B		U
Cadmium	11.2			U		U		U
Calcium	47800		37700		6540		4040	
Chromium	97.3		102		416		12.7	
Cobalt	7.5	B	9.1	B	53.8			U
Copper	88.3		121		491		8.1	
Iron	38500		40700		407000		8430	
Lead	949		187		152		11.3	
Magnesium	2460		1110	B	1280		439	B
Manganese	2610		1760		3490		159	
Mercury		U		U		U		U
Nickel	42.8		44.6		267		6.4	B
Potassium	1250	B	370	B		U		U
Selenium		U		U		U		U
Silver	2	B		U		U		U
Sodium	301	B	204	B	114	B		U
Thallium		U		U		U		U
Vanadium	4.4	B	6.1	B	24.6		1.1	B
Zinc	1850		834		176		34	
Cyanide	2.3			U		U		U

QUALIFIERS
B: Element found at a concentration less than the CRDL but greater than the IDL.
U: Element analyzed for but not detected

NOTES
: Value exceeds guidance value of 500 mg/kg

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW1	RRMW2	RRMWS3	RRMW4S	RRMW4SDL	NYSDEC CLASS GA
DATE OF COLLECTION	12/9/92	12/9/92	12/10/92	12/10/92	12/10/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	5	STANDARDS/GUIDELINES
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	U	U	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	U	U	U	U	U	----
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	----
4-Methylphenol	U	U	U	U	U	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	----
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	U	U	U	U	U	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	----
2,4-Dimethylphenol	U	U	U	1 J	U	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	U	U	2 J	260 E	310 D	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	----
2-Methylnaphthalene	U	U	U	5 J	4 DJ	----
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	U	U	----
2,4,5-Trichlorophenol	U	U	U	U	U	----
2-Chloronaphthalene	U	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	U	50 GV
Acenaphthylene	U	U	U	1 J	U	----
2,6-Dinitrotoluene	U	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	U	U	1 J	25	22 DJ	20 GV
2,4-Dinitrophenol	U	U	U	U	U	----
4-Nitrophenol	U	U	U	U	U	----
Dibenzofuran	U	U	U	19	16 DJ	----
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	U	U	U	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	----
Flourene	U	U	U	30	26 DJ	50 GV
4-Nitroaniline	U	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	----
N-Nitrosodiphenylamine	U	U	U	U	U	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	----
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	U	1 ST **
Phenanthrene	U	U	1 J	46	45 DJ	50 GV
Anthracene	U	U	U	4 J	U	50 GV
Carbazole	U	U	U	38	30 DJ	----
Di-n-butylphthalate	U	U	U	U	U	50 ST
Flouranthene	U	U	U	6 J	U	50 GV
Pyrene	U	U	U	3 J	U	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	U	U	U	U	U	0.002 GV*
Chrysene	U	U	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	50 ST
Di-n-octylphthalate	U	U	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	U	U	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	U	U	----
4-Chlorophenol	U	U	U	U	U	----
TOTAL PAHs	0	0	4	375	403	
TOTAL CARCINOGEN PAHs	0	0	0	0	0	
TOTAL SVOCs	0	0	4	438	453	

QUALIFIERS
D: Result from diluted run
E: Compound concentration exceeds instrument calibration range
J: Compound found at a concentration below the detection limit
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
ST: Standard
GV: Guidance Value
nd: not determined
----: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols
: value exceeds standard/guidelines

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW1	RRMW2	RRMWS3	RRMW4S	RRMW4SDL
DATE OF COLLECTION	12/9/92	12/9/92	12/10/92	12/10/92	12/10/92
DILUTION FACTOR	1	1	1	1	5
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown	NA	2 J	NA	NA	NA
Unknown	NA	2 J	NA	NA	NA
Unknown alkane	NA	NA	2 J	5 J	NA
C9H10 aromatic hydrocarbon	NA	NA	NA	24 J	NA
C12H10 aromatic hydrocarbon	NA	NA	NA	2 J	NA
Dimethyl naphthalene isomer	NA	NA	NA	3 J	NA
Unknown alkane	NA	NA	NA	3 J	NA
Unknown alkane	NA	NA	NA	2 J	NA
Unknown aromatic	NA	NA	NA	2 J	NA
Unknown aromatic	NA	NA	NA	7 J	NA
Unknown aromatic	NA	NA	NA	5 J	NA
Substituted benzene	NA	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkene	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
NA: Not Applicable

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW5S	RRMW5SRE	RRMW6S	RRMW6SRE	RRMW7S	NYSDEC CLASS GA
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	1	STANDARDS/GUIDELINES
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	3 J	U	1 J	1 J	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	U	U	4 J	4 J	U	----
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	----
4-Methylphenol	2 J	2 J	6 J	6 J	2 J	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	----
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	2 J	2 J	6 J	6 J	U	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	----
2,4-Dimethylphenol	1 J	2 J	57	52	1 J	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	1 J	U	U	U	U	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	----
2-Methylnaphthalene	U	U	U	U	U	----
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	1 J	1 J	U	----
2,4,5-Trichlorophenol	U	U	3 J	3 J	U	----
2-Chloronaphthalene	U	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	U	50 GV
Acenaphthylene	U	2 J	U	U	U	----
2,6-Dinitrotoluene	U	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	6 J	6 J	3 J	2 J	U	20 GV
2,4-Dinitrophenol	U	U	U	U	U	----
4-Nitrophenol	U	U	U	U	U	----
Dibenzofuran	8 J	9 J	U	U	U	----
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	2 J	U	U	1 J	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	----
Flourene	14	14	U	1 J	U	50 GV
4-Nitroaniline	U	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	----
N-Nitrosodiphenylamine	28	21	U	U	U	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	----
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	U	1 ST **
Phenanthrene	5 J	4 J	1 J	1 J	U	50 GV
Anthracene	8 J	5 J	1 J	U	U	50 GV
Carbazole	U	2 J	U	U	U	----
Di-n-butylphthalate	U	1 J	U	U	U	50 ST
Flouranthene	27	25	2 J	2 J	U	50 GV
Pyrene	24	28	U	2 J	U	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	9 J	9 J	U	U	U	0.002 GV*
Chrysene	12	12	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	14	15	4 J	4 J	U	50 ST
Di-n-octylphthalate	2 J	U	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	4 J	6 J	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	U	U	----
4-Chlorophenol	U	U	U	U	U	----
TOTAL PAHs	110	111	7	8	0	
TOTAL CARCINOGEN PAHs	25	27	0	0	0	
TOTAL SVOCs	169	168	88	86	4	

QUALIFIERS
D: Result from diluted run
E: Compound concentration exceeds instrument calibration range
J: Compound found at a concentration below the detection limit
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
ST: Standard
GV: Guidance Value
nd: not determined
----: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols
: value exceeds standard/guidelines

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW5S	RRMW5SRE	RRMW6S	RRMW6SRE	RRMW7S
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92
DILUTION FACTOR	1	1	1	1	1
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown	5 J	4 J	20 J	7 J	3 J
Unknown	3 J	4 J	NA	6 J	NA
Unknown alkane	6 J	8 J	16 J	16 J	NA
C9H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
C12H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA
Unknown alkane	11 J	6 J	9 J	16 J	NA
Unknown alkane	5 J	31 J	73 J	28 J	NA
Unknown aromatic	3 J	7 J	5 J	30 J	NA
Unknown aromatic	6 J	4 J	5 J	8 J	NA
Unknown aromatic	NA	NA	30 J	12 J	NA
Substituted benzene	57 J	57 J	NA	NA	NA
Substituted benzene	3 J	3 J	NA	NA	NA
Substituted phenol	6 J	7 J	7 J	7 J	NA
Unknown cycloalkane	9 J	3 J	4 J	NA	NA
Unknown	5 J	8 J	NA	69 J	NA
Unknown	4 J	6 J	NA	NA	NA
Unknown cycloalkane	24 J	10 J	NA	NA	NA
Unknown	7 J	20 J	NA	NA	NA
Unknown alkane	4 J	8 J	13 J	26 J	NA
Unknown	5 J	26 J	NA	NA	NA
Unknown	22 J	NA	NA	NA	NA
Unknown alkane	16 J	11 J	41 J	14 J	NA
Unknown	20 J	NA	NA	NA	NA
Substituted benzene	NA	3 J	NA	NA	NA
Unknown cycloalkane	NA	25 J	NA	NA	NA
Unknown aromatic	NA	NA	9 J	12 J	NA
Unknown aromatic	NA	NA	10 J	22 J	NA
Unknown aromatic	NA	NA	16 J	NA	NA
Unknown aromatic	NA	NA	24 J	NA	NA
Unknown aromatic	NA	NA	8 J	NA	NA
Unknown aromatic	NA	NA	16 J	NA	NA
Unknown alkane	NA	NA	49 J	40 J	NA
Unknown alkane	NA	NA	29 J	48 J	NA
Unknown alkane	NA	NA	11 J	27 J	NA
Unknown alkane	NA	NA	NA	12 J	NA
Unknown alkene	NA	NA	NA	10 J	NA
Substituted phenol	NA	NA	NA	17 J	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Substituted phenol	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
NA: Not Applicable

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW8S	RRMW8SDL	RRMW9S	RRMW9SDL	RRMW12CF	NYSDEC CLASS GA
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	GROUNDWATER
DILUTION FACTOR	1	10	1	20	1	STANDARDS/GUIDELINES
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	190 E	160 D	390 E	650 D	27	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	240 E	280 D	310 E	530 D	U	----
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	----
4-Methylphenol	440 E	590 D	810 E	1900 DE	4 J	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	----
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	U	U	U	U	U	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	----
2,4-Dimethylphenol	280 E	690 D	220 E	880 D	2 J	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	21	35 DJ	3 J	U	U	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	----
2-Methylnaphthalene	7 J	14 DJ	2 J	U	U	----
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	5 J	U	U	U	U	----
2,4,5-Trichlorophenol	7 J	U	2 J	U	U	----
2-Chloronaphthalene	4 J	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	9 J	U	U	U	U	50 GV
Acenaphthylene	3 J	U	U	U	U	----
2,6-Dinitrotoluene	U	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	25	29 DJ	1 J	U	U	20 GV
2,4-Dinitrophenol	U	U	U	U	U	----
4-Nitrophenol	U	U	U	U	U	----
Dibenzofuran	13	22 DJ	U	U	U	----
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	U	U	U	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	----
Flourene	29	38 DJ	1 J	U	U	50 GV
4-Nitroaniline	U	U	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	----
N-Nitrosodiphenylamine	U	U	U	U	U	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	----
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	U	1 ST **
Phenanthrene	130 E	160 D	U	U	U	50 GV
Anthracene	20	27 DJ	2 J	U	U	50 GV
Carbazole	10	8 DJ	1 J	U	U	----
Di-n-butylphthalate	U	U	U	U	U	50 ST
Flouranthene	81 E	88 DJ	U	U	U	50 GV
Pyrene	43	84 DJ	U	U	U	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	15	U	U	U	U	0.002 GV*
Chrysene	24	U	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	27	36 DJ	U	U	U	50 ST
Di-n-octylphthalate	U	U	U	U	U	50 GV
Benzo(b)flouranthene	12	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	10	U	U	U	U	0.002 GV*
Benzo(a)pyrene	10	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	U	U	----
4-Chlorophenol	U	U	U	U	U	----
TOTAL PAHs	426	461	7	0	0	
TOTAL CARCINOGEN PAHs	74	0	0	0	0	
TOTAL SVOCs	1658	2281	1742	3960	33	

QUALIFIERS
D: Result from diluted run
E: Compound concentration exceeds instrument calibration range
J: Compound found at a concentration below the detection limit
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
ST: Standard
GV: Guidance Value
nd: not determined
----: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols
: value exceeds standard/guidelines

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW8S	RRMW8SDL	RRMW9S	RRMW9SDL	RRMW12CF
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92
DILUTION FACTOR	1	10	1	20	1
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown	20 J	150 J	29 J	NA	5 J
Unknown	11 J	120 J	NA	NA	3 J
Unknown alkane	11 J	150 J	8 J	NA	10 J
C9H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
C12H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	6 J	NA	6 J	NA	NA
Unknown alkane	18 J	70 J	20 J	NA	NA
Unknown alkane	58 J	330 J	7 J	NA	NA
Unknown aromatic	46 J	NA	4 J	40 J	15 J
Unknown aromatic	9 J	NA	3 J	NA	NA
Unknown aromatic	9 J	NA	2 J	NA	NA
Substituted benzene	NA	NA	60 J	61 J	NA
Substituted benzene	NA	NA	NA	NA	NA
Substituted phenol	6 J	88 J	24 J	280 J	4 J
Unknown cycloalkane	8 J	57 J	NA	NA	NA
Unknown	NA	270 J	NA	NA	2 J
Unknown	NA	NA	NA	NA	4 J
Unknown cycloalkane	NA	75 J	NA	NA	NA
Unknown	NA	NA	NA	NA	3 J
Unknown alkane	6 J	65 J	10 J	NA	NA
Unknown	NA	NA	NA	NA	4 J
Unknown	NA	NA	NA	NA	2 J
Unknown alkane	15 J	1000 J	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	10 J	NA	NA
Unknown aromatic	NA	NA	42 J	NA	NA
Unknown aromatic	NA	NA	13 J	NA	NA
Unknown aromatic	NA	NA	13 J	NA	NA
Unknown aromatic	NA	NA	6 J	NA	NA
Unknown aromatic	NA	NA	26 J	NA	NA
Unknown alkane	8 J	260 J	NA	NA	NA
Unknown alkane	94 J	740 J	NA	NA	NA
Unknown alkane	260 J	110 J	NA	NA	NA
Unknown alkane	58 J	560 J	NA	NA	NA
Unknown alkene	NA	NA	NA	NA	14 J
Substituted phenol	NA	NA	8 J	80 J	NA
Unknown alkane	5 J	190 J	NA	NA	NA
Unknown alkane	20 J	94 J	NA	NA	NA
Unknown alkane	10 J	62 J	NA	NA	NA
Unknown alkane	NA	140 J	NA	NA	NA
Substituted phenol	NA	NA	10 J	93 J	NA
Substituted phenol	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
NA: Not Applicable

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW13CF	RRMW13CFDL	RRB3TA	RRB4TA	RRB4TARE	NYSDEC CLASS GA
DATE OF COLLECTION	12/10/92	12/10/92	12/9/92	12/9/92	12/9/92	GROUNDWATER
DILUTION FACTOR	1	2	2	1	1	STANDARDS/GUIDELINES
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	22	23 D	9 J	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	4.7 ST *
2-Methylphenol	50	60 D	2 J	U	U	----
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	----
4-Methylphenol	83 E	120 D	4 J	U	U	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	----
Hexachloroethane	U	U	U	U	U	5 ST
Nitrobenzene	3 J	U	U	U	U	5 ST
Isophorone	U	U	U	U	U	50 GV
2-Nitrophenol	U	U	U	U	U	----
2,4-Dimethylphenol	91 E	130 D	2 J	U	U	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	5 ST
Naphthalene	1 J	1 DJ	130	U	U	10 GV
4-Chloroaniline	U	U	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	U	U	----
2-Methylnaphthalene	U	U	4 J	U	U	----
Hexachlorocyclopentadiene	U	U	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	U	U	----
2,4,5-Trichlorophenol	U	U	U	U	U	----
2-Chloronaphthalene	U	U	U	U	U	5 ST
2-Nitroaniline	U	U	U	U	U	5 ST
Dimethylphthalate	U	U	U	U	U	50 GV
Acenaphthylene	1 J	U	1 J	U	U	----
2,6-Dinitrotoluene	U	U	U	U	U	5 ST
3-Nitroaniline	U	U	U	U	U	5 ST
Acenaphthene	2 J	2 DJ	18 J	U	U	20 GV
2,4-Dinitrophenol	U	U	U	U	U	----
4-Nitrophenol	U	U	U	U	U	----
Dibenzofuran	U	U	4 J	U	U	----
2,4-Dinitrotoluene	U	U	U	U	U	5 ST
Diethylphthalate	2 J	U	U	U	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	----
Flourene	1 J	2 DJ	6 J	U	U	50 GV
4-Nitroaniline	U	21 DJ	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	----
N-Nitrosodiphenylamine	U	U	U	U	U	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	----
Hexachlorobenzene	U	U	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	U	U	1 ST **
Phenanthrene	1 J	3 DJ	3 J	U	U	50 GV
Anthracene	2 J	4 DJ	U	U	U	50 GV
Carbazole	1 J	2 DJ	10 J	U	U	----
Di-n-butylphthalate	1 J	U	U	U	U	50 ST
Flouranthene	4 J	5 DJ	U	U	U	50 GV
Pyrene	6 J	9 DJ	U	U	U	50 GV
Butylbenzylphthalate	U	U	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	U	U	5 ST
Benzo (a) anthracene	U	U	U	U	U	0.002 GV*
Chrysene	U	U	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	6 J	5 DJ	U	U	U	50 ST
Di-n-octylphthalate	1 J	U	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	U	U	0.002 GV*
Benzo(k)flouranthene	U	U	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	U	U	----
4-Chlorophenol	U	U	U	U	U	----
TOTAL PAHs	18	26	158	0	0	
TOTAL CARCINOGEN PAHs	0	0	0	0	0	
TOTAL SVOCs	278	387	193	0	0	

QUALIFIERS
D: Result from diluted run
E: Compound concentration exceeds instrument calibration range
J: Compound found at a concentration below the detection limit
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
ST: Standard
GV: Guidance Value
nd: not determined
----: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols
: value exceeds standard/guidelines

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW13CF	RRMW13CFDL	RRB3TA	RRB4TA	RRB4TARE
DATE OF COLLECTION	12/10/92	12/10/92	12/9/92	12/9/92	12/9/92
DILUTION FACTOR	1	2	2	1	1
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Unknown	35 J	6 J	4 J	2 J	NA
Unknown	NA	10 J	5 J	NA	NA
Unknown alkane	13 J	27 J	6 J	NA	NA
C9H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
C12H10 aromatic hydrocarbon	NA	NA	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA	NA	NA
Unknown alkane	22 J	21 J	7 J	NA	NA
Unknown alkane	50 J	14 J	NA	NA	NA
Unknown aromatic	5 J	9 J	NA	NA	NA
Unknown aromatic	3 J	13 J	NA	NA	NA
Unknown aromatic	3 J	14 J	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Substituted phenol	13 J	21 J	NA	NA	NA
Unknown cycloalkane	34 J	NA	NA	NA	NA
Unknown	NA	20 J	7 J	NA	NA
Unknown	NA	20 J	5 J	NA	NA
Unknown cycloalkane	21 J	NA	NA	NA	NA
Unknown	NA	67 J	4 J	NA	NA
Unknown alkane	11 J	16 J	NA	NA	NA
Unknown	NA	NA	8 J	NA	NA
Unknown	NA	NA	14 J	NA	NA
Unknown alkane	36 J	69 J	NA	NA	NA
Unknown	NA	NA	10 J	NA	NA
Substituted benzene	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown aromatic	10 J	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown aromatic	NA	NA	NA	NA	NA
Unknown alkane	8 J	40 J	NA	NA	NA
Unknown alkane	30 J	53 J	NA	NA	NA
Unknown alkane	20 J	18 J	NA	NA	NA
Unknown alkane	12 J	NA	NA	NA	NA
Unknown alkene	NA	NA	NA	NA	NA
Substituted phenol	8 J	18 J	NA	NA	NA
Unknown alkane	9 J	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Substituted phenol	23 J	10 J	NA	NA	NA
Substituted phenol	NA	29 J	NA	NA	NA
Unknown	NA	NA	10 J	NA	NA
Unknown	NA	NA	9 J	NA	NA
Unknown	NA	NA	9 J	NA	NA
Unknown	NA	NA	9 J	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown cycloalkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA
Unknown alkane	NA	NA	NA	NA	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
NA: Not Applicable

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRB5TA	RRB5TARE	RRCW102DM	NYSDEC CLASS GA
DATE OF COLLECTION	12/9/92	12/9/92	12/9/92	GROUNDWATER
DILUTION FACTOR	1	1	1	STANDARDS/GUIDELINES
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Phenol	U	U	U	1 ST **
bis(2-Chloroethyl)ether	U	U	U	1.0 ST
2-Chlorophenol	U	U	U	1.0 ST**
1,3-Dichlorobenzene	U	U	U	5 ST
1,4-Dichlorobenzene	U	U	U	4.7 ST *
1,2-Dichlorobenzene	U	U	U	4.7 ST *
2-Methylphenol	U	U	U	----
2,2'-oxybis(1-chloropropane)	U	U	U	----
4-Methylphenol	U	U	U	----
N-Nitroso-di-n-propylamine	U	U	U	----
Hexachloroethane	U	U	U	5 ST
Nitrobenzene	U	U	U	5 ST
Isophorone	U	U	U	50 GV
2-Nitrophenol	U	U	U	----
2,4-Dimethylphenol	U	U	U	----
bis(2-Chloroethoxy)methane	U	U	U	5 ST
2,4-Dichlorophenol	U	U	U	1 ST **
1,2,4-Trichlorobenzene	U	U	U	5 ST
Naphthalene	U	U	U	10 GV
4-Chloroaniline	U	U	U	5 ST
Hexachlorobutadiene	U	U	U	5 ST
4-Chloro-3-methylphenol	U	U	U	----
2-Methylnaphthalene	U	U	U	----
Hexachlorocyclopentadiene	U	U	U	5 ST
2,4,6-Trichlorophenol	U	U	U	----
2,4,5-Trichlorophenol	U	U	U	----
2-Chloronaphthalene	U	U	U	5 ST
2-Nitroaniline	U	U	U	5 ST
Dimethylphthalate	U	U	U	50 GV
Acenaphthylene	U	U	U	----
2,6-Dinitrotoluene	U	U	U	5 ST
3-Nitroaniline	U	U	U	5 ST
Acenaphthene	1 J	1 J	U	20 GV
2,4-Dinitrophenol	U	U	U	----
4-Nitrophenol	U	U	U	----
Dibenzofuran	U	U	U	----
2,4-Dinitrotoluene	U	U	U	5 ST
Diethylphthalate	U	1 J	U	50 GV
4-Chlorophenyl-phenylether	U	U	U	----
Flourene	1 J	1 J	U	50 GV
4-Nitroaniline	U	U	U	5 ST
4,6-Dinitro-2-methylphenol	U	U	U	----
N-Nitrosodiphenylamine	U	U	U	50 GV
4-Bromophenyl-phenylether	U	U	U	----
Hexachlorobenzene	U	U	U	0.35 ST
Pentachlorophenol	U	U	U	1 ST **
Phenanthrene	U	U	U	50 GV
Anthracene	U	U	U	50 GV
Carbazole	U	U	U	----
Di-n-butylphthalate	U	U	U	50 ST
Flouranthene	U	U	U	50 GV
Pyrene	U	U	U	50 GV
Butylbenzylphthalate	U	U	U	50 GV
3-3'-Dichlorobenzidine	U	U	U	5 ST
Benzo (a) anthracene	U	U	U	0.002 GV*
Chrysene	U	U	U	0.002 GV*
bis(2-Ethylhexyl)phthalate	U	U	U	50 ST
Di-n-octylphthalate	U	U	U	50 GV
Benzo(b)flouranthene	U	U	U	0.002 GV*
Benzo(k)flouranthene	U	U	U	0.002 GV*
Benzo(a)pyrene	U	U	U	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	0.002 GV
Dibenz(a,h)anthracene	U	U	U	----
Benzo(g,h,i)perylene	U	U	U	----
4-Chlorophenol	U	U	U	----
TOTAL PAHs	2	2	0	
TOTAL CARCINOGEN PAHs	0	0	0	
TOTAL SVOCs	2	3	0	

QUALIFIERS
D: Result from diluted run
E: Compound concentration exceeds instrument calibration range
J: Compound found at a concentration below the detection limit
U: Compound analyzed for but not detected

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
ST: Standard
GV: Guidance Value
nd: not determined
----: Not established
*: Value pertains to the sum of the isomers
**: Value pertains to total phenols

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
SEMIVOLATILE ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRB5TA	RRB5TARE	RRCW102DM
DATE OF COLLECTION	12/9/92	12/9/92	12/9/92
DILUTION FACTOR	1	1	1
TENTATIVELY IDENTIFIED COMPOUNDS	(ug/l)	(ug/l)	(ug/l)
Unknown	3 J	3 J	6 J
Unknown	2 J	2 J	13 J
Unknown alkane	NA	NA	NA
C9H10 aromatic hydrocarbon	NA	NA	NA
C12H10 aromatic hydrocarbon	NA	NA	NA
Dimethyl naphthalene isomer	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown aromatic	4 J	2 J	NA
Unknown aromatic	11 J	4 J	NA
Unknown aromatic	4 J	5 J	NA
Substituted benzene	100 J	100 J	NA
Substituted benzene	NA	NA	NA
Substituted phenol	15 J	15 J	NA
Unknown cycloalkane	NA	NA	NA
Unknown	3 J	4 J	NA
Unknown	2 J	2 J	NA
Unknown cycloalkane	NA	NA	NA
Unknown	3 J	NA	NA
Unknown alkane	NA	NA	NA
Unknown	5 J	3 J	NA
Unknown	4 J	2 J	NA
Unknown alkane	NA	NA	NA
Unknown	3 J	4 J	NA
Substituted benzene	NA	NA	NA
Unknown cycloalkane	NA	NA	NA
Unknown aromatic	6 J	4 J	NA
Unknown aromatic	4 J	5 J	NA
Unknown aromatic	7 J	6 J	NA
Unknown aromatic	NA	6 J	NA
Unknown aromatic	NA	4 J	NA
Unknown aromatic	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkene	NA	NA	NA
Substituted phenol	6 J	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Substituted phenol	NA	NA	NA
Substituted phenol	NA	NA	NA
Unknown	6 J	4 J	NA
Unknown	9 J	9 J	NA
Unknown	NA	NA	NA
Unknown	NA	NA	NA
Unknown cycloalkane	NA	NA	NA
Unknown cycloalkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA
Unknown alkane	NA	NA	NA

QUALIFIERS
J: Estimated value

NOTES
DL: Sample analyzed at a secondary dilution
RE: Sample reanalyzed
NA: Not Applicable

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
PESTICIDE/PCB ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW1	RRMW2	RRMW3S	RRMW4S	RRMW5S	RRMW6S	RRMW7S	RRMW8S	NYSDEC CLASS GA
DATE OF COLLECTION	12/9/92	12/9/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	1	1	1	1	STANDARDS/GUIDELINES
PESTICIDE/PCB COMOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
alpha-BHC	U	U	U	U	U	U	U	U	ND
beta-BHC	U	U	U	U	U	U	U	U	ND
delta-BHC	U	U	U	U	U	U	U	U	ND
gamma-BHC (Lindane)	U	U	U	U	U	U	U	U	ND
Heptachlor	U	U	U	U	U	U	U	U	ND
Aldrin	U	U	U	U	U	U	U	U	ND
Heptachlor epoxide	U	U	U	U	U	U	U	U	ND
Endosulfan I	U	U	U	U	U	U	U	U	----
Dieldrin	U	U	U	U	U	U	U	U	ND
4,4'-DDE	U	U	U	U	U	U	U	U	ND
Endrin	U	U	U	U	U	U	U	U	ND
Endosulfan II	U	U	U	U	U	U	U	U	----
4,4'-DDD	U	U	U	U	U	U	U	U	ND
Endosulfan sulfate	U	U	U	U	U	U	U	U	----
4,4'-DDT	U	U	U	U	U	U	U	U	ND
Methoxychlor	U	U	U	U	U	U	U	U	35 ST
Endrin ketone	U	U	U	U	U	U	U	U	----
Endrin aldehyde	U	U	U	U	U	U	U	U	5 ST
alpha-Chlordane	U	U	U	U	0.65 P	U	U	U	----
gamma-Chlordane	U	U	U	U	U	U	U	U	----
Toxaphene	U	U	U	U	U	U	U	U	ND
Aroclor-1016	U	U	U	U	U	U	U	U	0.1 ST
Aroclor-1221	U	U	U	U	U	U	U	U	0.1 ST
Aroclor-1232	U	U	U	U	U	U	U	U	0.1 ST
Aroclor-1242	U	U	U	U	U	U	U	U	0.1 ST
Aroclor-1248	U	U	U	U	5.7	U	U	17	0.1 ST
Aroclor-1254	U	U	U	U	U	U	U	U	0.1 ST
Aroclor-1260	U	U	U	U	U	U	U	6.6	0.1 ST

QUALIFIERS
P: There was a greater than 25% difference between primary and confirmation column concentration, lower value reported.
U: Compound analyzed for but not detected

NOTES
ST: Standard
GV: Guidance Value
ND: Non-Detect
----: Not established
: Value exceeds standard or guidance value

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
PESTICIDE/PCB ORGANIC RESULTS

SAMPLE IDENTIFICATION	RRMW9S	RRMW12CF	RRMW13CF	RRB3TA	RRB4TA	RRB5TA	RRCW102DM	NYSDEC CLASS GA
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/9/92	12/9/92	12/9/92	12/9/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	1	1	1	STANDARDS/GUIDELINES
PESTICIDE/PCB COMOUNDS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
alpha-BHC	U	U	U	U	U	U	U	ND
beta-BHC	U	U	U	U	U	U	U	ND
delta-BHC	U	U	U	U	U	U	U	ND
gamma-BHC (Lindane)	U	U	U	U	U	U	U	ND
Heptachlor	U	U	U	U	U	U	U	ND
Aldrin	U	U	U	U	U	U	U	ND
Heptachlor epoxide	U	U	U	U	U	U	U	ND
Endosulfan I	U	U	U	U	U	U	U	----
Dieldrin	U	U	U	U	U	U	U	ND
4,4'-DDE	U	U	U	U	U	U	U	ND
Endrin	U	U	U	U	U	U	U	ND
Endosulfan II	U	U	U	U	U	U	U	----
4,4'-DDD	U	U	U	U	U	U	U	ND
Endosulfan sulfate	U	U	U	U	U	U	U	----
4,4'-DDT	U	U	U	U	U	U	U	ND
Methoxychlor	U	U	U	U	U	U	U	35 ST
Endrin ketone	U	U	U	U	U	U	U	----
Endrin aldehyde	U	U	U	U	U	U	U	5 ST
alpha-Chlordane	U	U	U	U	U	U	U	----
gamma-Chlordane	U	U	U	U	U	U	U	----
Toxaphene	U	U	U	U	U	U	U	ND
Aroclor-1016	U	U	U	U	U	U	U	0.1 ST
Aroclor-1221	U	U	U	U	U	U	U	0.1 ST
Aroclor-1232	U	U	U	U	U	U	U	0.1 ST
Aroclor-1242	U	U	U	U	U	U	U	0.1 ST
Aroclor-1248	U	U	2.6 P	U	U	U	U	0.1 ST
Aroclor-1254	U	U	U	U	U	U	U	0.1 ST
Aroclor-1260	U	U	3.4	U	U	U	U	0.1 ST

QUALIFIERS
P: There was a greater than 25% difference between primary and confirmation column concentration, lower value reported.
U: Compound analyzed for but not detected

NOTES
ST: Standard
GV: Guidance Value
ND: Non-Detect
----: Not established
: Value exceeds standard or guidance value

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

SAMPLE IDENTIFICATION	RRMW1	RRMW2	RRMW3S	RRMW4S	RRMW5S	RRMW6S	RRMW7S	RRMW8S	NYSDEC CLASS GA
DATE OF COLLECTION	12/9/92	12/9/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	12/10/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	1	1	1	1	STANDARDS/GUIDELINES
INORGANIC CONSTITUENTS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Aluminum	114 B	51 B	168 B	2070	U	1070	80 B	1830	----
Antimony	U	U	46.9 B	U	39.5 B	U	U	U	3 GV
Arsenic	9.9 B	U	U	U	U	U	U	6.9 B	25 ST
Barium	30.4 B	69.6 B	59.5 B	69.6 B	16.4 B	93.5 B	93.5 B	83.5 B	1000 ST
Beryllium	U	U	U	U	U	U	U	U	3 GV
Cadmium	U	U	U	U	U	U	U	U	10 ST
Calcium	226000	172000	160000	48600	442000	366000	155000	326000	----
Chromium	U	U	U	U	U	U	U	U	50 ST
Cobalt	U	U	U	U	U	U	U	U	----
Copper	U	U	4.3 B	5.4 B	U	U	U	4.3 B	200 ST
Iron	5430	864	37.1 B	4340	38600	1200	26600	5620	300 ST *
Lead	U	U	U	45	U	5.9	U	20.9	25 ST
Magnesium	68300	26000	U	4460 B	35000	1270 B	36300	8940	35000 GV
Manganese	107	1230	U	255	1510	178	432	438	300 ST *
Mercury	U	U	U	U	0.93	U	0.89	0.65	2 ST
Nickel	U	U	U	20.7 B	U	U	U	U	----
Potassium	1700 B	810 B	42800	5340	54000	72700	7220	94400	----
Selenium	U	U	6.1	U	U	U	U	U	10 ST
Silver	U	U	U	U	U	U	U	U	50 ST
Sodium	14600	133000	29500	19200	41800	48400	61600	69000	20000 ST
Thallium	U	U	U	U	U	6.3 B	U	20.9	4 GV
Vanadium	U	U	U	U	U	5.5 B	U	9.7 B	----
Zinc	U	U	U	125	U	12 B	7.8 B	49.2	300 ST
Cyanide	U	U	150	120	5530	270	10	400	100 ST

QUALIFIERS
B: Element found at a concentration less than the CRDL but greater than the IDL.
U: Element analyzed for but not detected

NOTES
ST: Standard
GV: Guidance Value
----: Not established
*: Standard for Iron and Manganese is 500 ug/l
:Value exceeds standard or guidance value

TABLE
RIVER ROAD SITE
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

SAMPLE IDENTIFICATION	RRMW9S	RRMW12CF	RRMW13CF	RRB3TA	RRB4TA	RRB5TA	RRCW102DM	NYSDEC CLASS GA
DATE OF COLLECTION	12/10/92	12/10/92	12/10/92	12/9/92	12/9/92	12/9/92	12/9/92	GROUNDWATER
DILUTION FACTOR	1	1	1	1	1	1	1	STANDARDS/GUIDELINES
INORGANIC CONSTITUENTS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Aluminum	548	56 B	340	1990	907	158 B	200 B	----
Antimony	U	U	U	U	U	U	53.6 B	3 GV
Arsenic	U	U	10.4	U	U	U	12.3	25 ST
Barium	48.1 B	35.4 B	27.8 B	307	186 B	161 B	288	1000 ST
Beryllium	U	U	U	U	U	U	U	3 GV
Cadmium	U	U	U	U	U	U	U	10 ST
Calcium	120000	14700	20900	151000	60700	150000	95900	----
Chromium	U	U	U	U	U	U	U	50 ST
Cobalt	U	U	U	U	U	U	U	----
Copper	U	5.4 B	5.4 B	U	4.3 B	U	U	200 ST
Iron	58 B	153	174	108	5150	1530	3270	300 ST *
Lead	U	7	6.2	U	8.6	3.4	U	25 ST
Magnesium	U	2510 B	5090	U	6900	44500	19000	35000 GV
Manganese	5.1 B	11.9 B	14.9 B	9.3 B	232	884	100	300 ST *
Mercury	U	0.24	0.21	U	U	U	U	2 ST
Nickel	26.3 B	U	U	U	U	U	U	----
Potassium	59000	102000	50000	25700	49900	54800	5590	----
Selenium	6.8	U	U	U	U	U	U	10 ST
Silver	U	U	U	U	U	U	U	50 ST
Sodium	57900	80000	79300	19800	24100	40500	55100	20000 ST
Thallium	U	5.7 B	U	U	U	U	U	4 GV
Vanadium	U	132	12.8 B	U	U	7.2 B	U	----
Zinc	U	U	7.4 B	U	18 B	5.7 B	U	300 ST
Cyanide	310	470	180	870	20	20	U	100 ST

QUALIFIERS
B: Element found at a concentration less than the CRDL but greater than the IDL.
U: Element analyzed for but not detected

NOTES
ST: Standard
GV: Guidance Value
----: Not established
*: Standard for Iron and Manganese is 500 ug/l
:Value exceeds standard or guidance value

Appendix G

APPENDIX G

Field Change Order Forms

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: River Road

Project Number: 1150 Field Change Number: 007

Location: RR-MW-3 Date:

Field Activity Description: Chemical Soil sample for MW-3 weathered cement

Reason for Change: Material to be sampled was ~~not~~ cement though not representative of soils.

Recommended Disposition: not to sample

Edward M [illegible] 4/7/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: did not sample.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: River Road

Project Number: 1150 Field Change Number: 007

Location: RR-MW-3 Date:

Field Activity Description: Chemical Soil sample for MW-3 weathered cement

Reason for Change: Material to be sampled was ~~a~~ cement therefore not representative of soils.

Recommended Disposition: not to sample

Edward A [illegible] 4/7/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: Did not sample.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD

Project Number: 1150 Field Change Number: 005

Location: Tonawanda · NY Date: 3/11/89

Field Activity Description: ~~Bore hole~~ borehole Soil Sampling with 3" Spoon

Reason for Change: Drillers didn't bring 3" spoons

Recommended Disposition: use 2" spoons.

Edward M Alt 4/6/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: use 2" spoons through out borehole.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD SITE

Project Number: 1150 Field Change Number: 004

Location: Tonawanda NY Date: 3/16/92

Field Activity Description: Temporarily hold soil samples in zip-lock bags until OVA screening is completed. Then transfer sample to laboratory supplied jars. This matter was discussed w/ Mike Brinkman and Mike DiPietro and mutually agreed.

Reason for Change: To avoid loss of volatiles from sample while screening drillers vac not clean

Recommended Disposition: See Field Activity Deviation above

Edward M. Abbott 4/6/92 3/16/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: Soil samples were temp. held in zip locks until field screening was completed.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD RIFS

Project Number: 1150 Field Change Number: 001

Location: RIVER ROAD SITE, TONAWANDA N.Y. Date: 3/10/92

Field Activity Description: SOIL SAMPLING AT TEST TRENCH LOCATIONS AND BOREHOLES - ANALYSIS FOR ADDITIONAL PARAMETERS RCRA CHARACTERISTICS

SEE REVERSE FOR DETAILS →

Reason for Change: RECOMMENDED BY NYSDEC PROJECT MGR MIKE BRINKMAN

Recommended Disposition: ADD ADDITIONAL ANALYSIS FOR ONLY THOSE SOIL SAMPLES WHICH EXHIBIT ELEVATED VOC READINGS

Edward M. [illegible] 3/16/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition:

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD RI/FS

Project Number: 1150 Field Change Number: 003

Location: RIVER ROAD SITE TONAWANDA N.Y. Date: 3/19/92

Field Activity Description: Installation ~~of~~ AND CONNECTION of ELECTRIC Service to D&B FIELD TRAILER.

Reason for Change: ADDITIONAL COST of approximately $263 for Niagara-mohawk to perform connection.

Recommended Disposition: - approve additional cost of $263 for service

Edward M. Alt Jr. 3/19/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: approved costs - hookup completed.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD SITE RIFS

Project Number: 1150 Field Change Number: 002

Location: RIVER ROAD SITE, TONAWANDA NY Date: 3/16/92

Field Activity Description: LOCATION OF MW-3 -

Reason for Change: Originally located in area that is inaccessible and also near of high traffic design.

Recommended Disposition: RELOCATE MW-3 NEAR DECON PAD AS PER NYSDEC (MIKE DRINKMAN) - D&B (ED ALDRICH)

Edward M Aldrich 3/16/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition: MW-3 relocated near Decon Pad.

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

NOTE: on 3/19/92 - Snow melt off uncovered concrete had been dumped at proposed MW-3 location - Relocate MW-3 ~150-200' north with NYSDEC on site supervisor approval.

DB-FCF

Appendix H

APPENDIX H

SURVEYOR DATA

Name OM P. PUPLI PE

Address 2140 S. CLINTON AVE
ROCHESTER N.Y. 14618

Phone (716) 442-6940

BM = BRYAN MORRITT
KR = KEVIN RYAN
TV = TOM VANDPEL
MI = MIKE IVES

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DT-0659

491
360
121

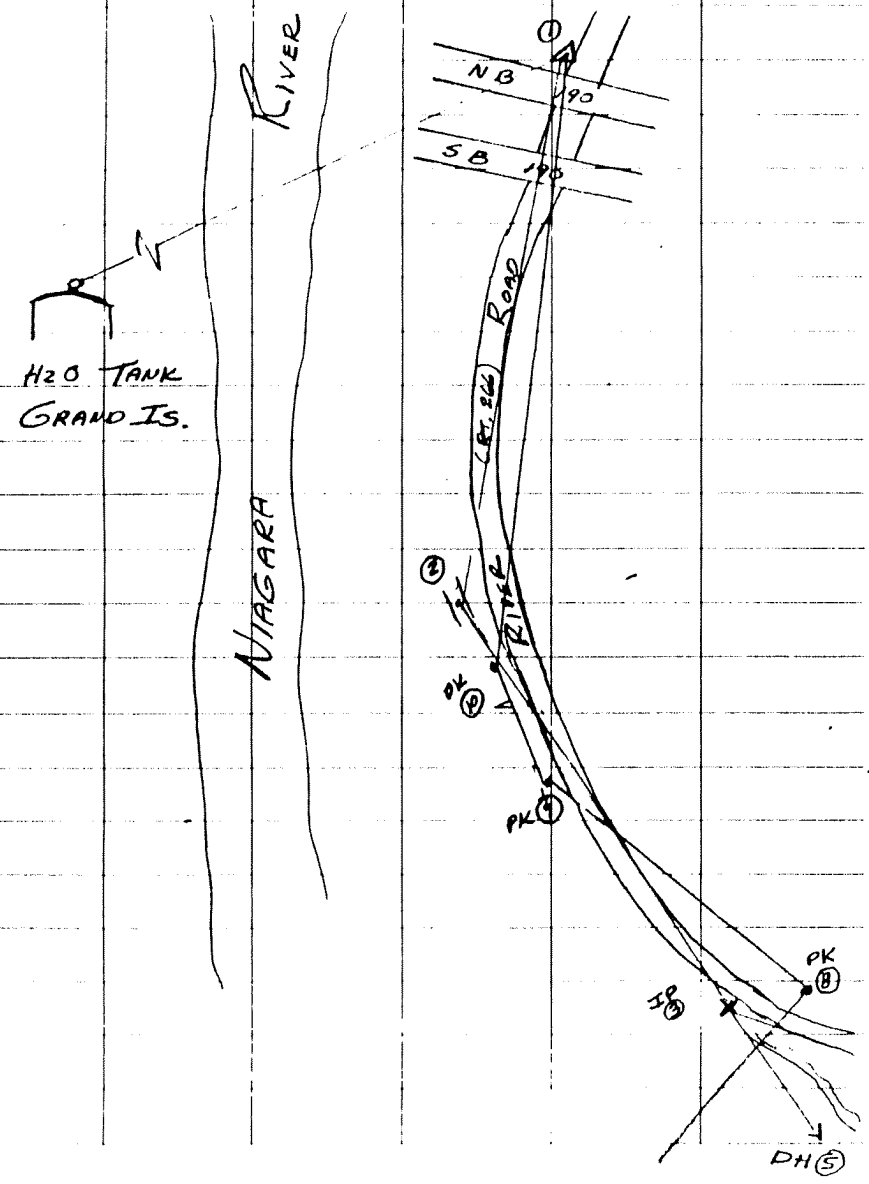
57
54
111
63
51

Projects U.S. STEEL HAZ SITE ELMIRA

ELAN Publishing Co., Inc.
Meredith, N.H. 03253

3/30/92 RIVER RD. - HAZ SITE
TONAWANDA

BASELINE SKETCH

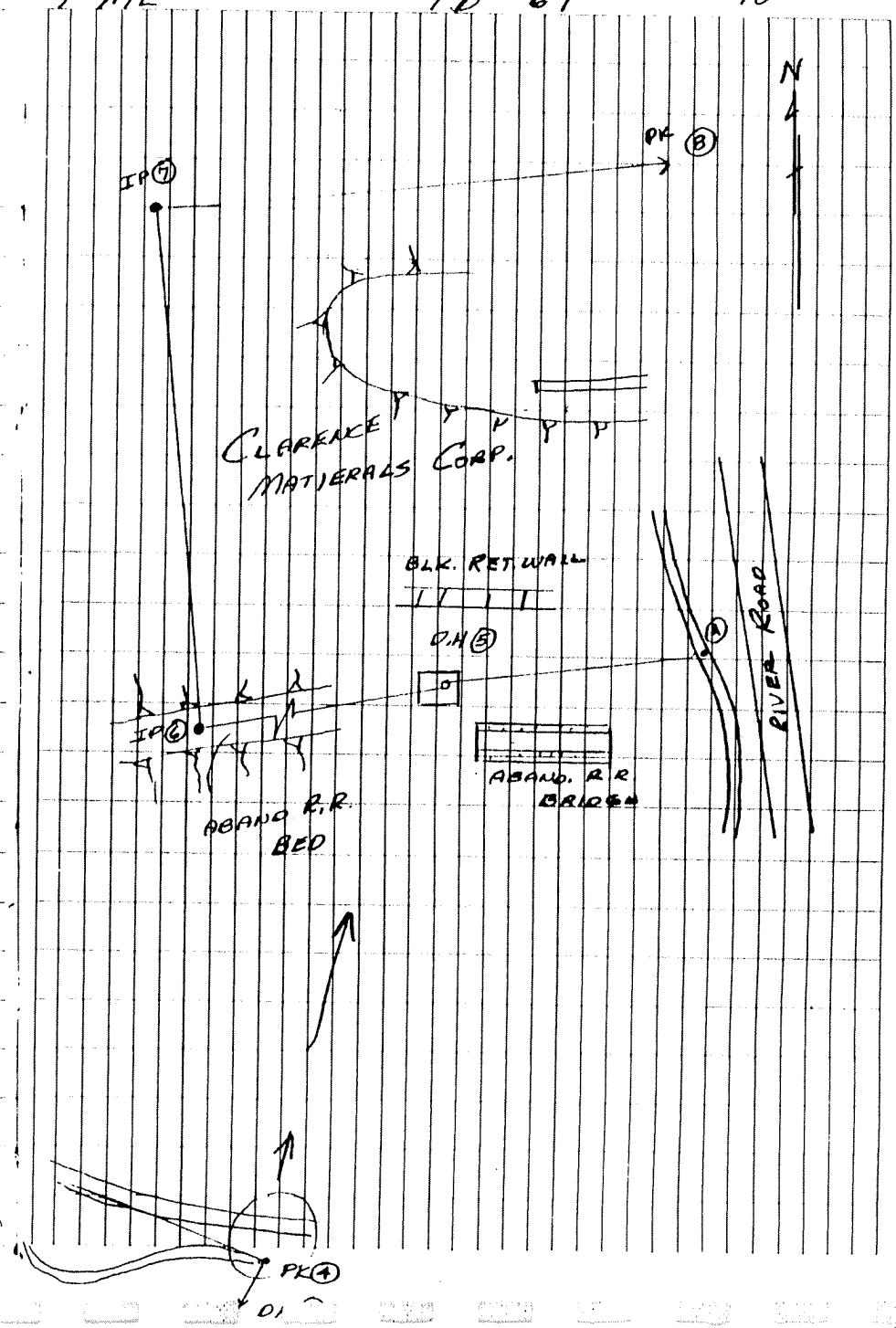


PV
TR
ME

FB # 67

CLOUDY
40°

(10)



3/30/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE SKETCH

USE FOR ADDITIONAL
ON-SITE CONTROL

N
9

FB #67

CLOUDY
35°

(11)

3/30/92 RIVER ROAD - HAZ. SITE
TONAWANDA

π PV
TR
ME

FB #67

CLOUDY (12)
350

BASELINE TRAV.

π ⊙ USGS MON. TON-OTT-1 (1)

B.S. VENT ATOP GRAND ISLAND WATER TANK
CARL RD. & BLACKMON RD.
GREEN TANK

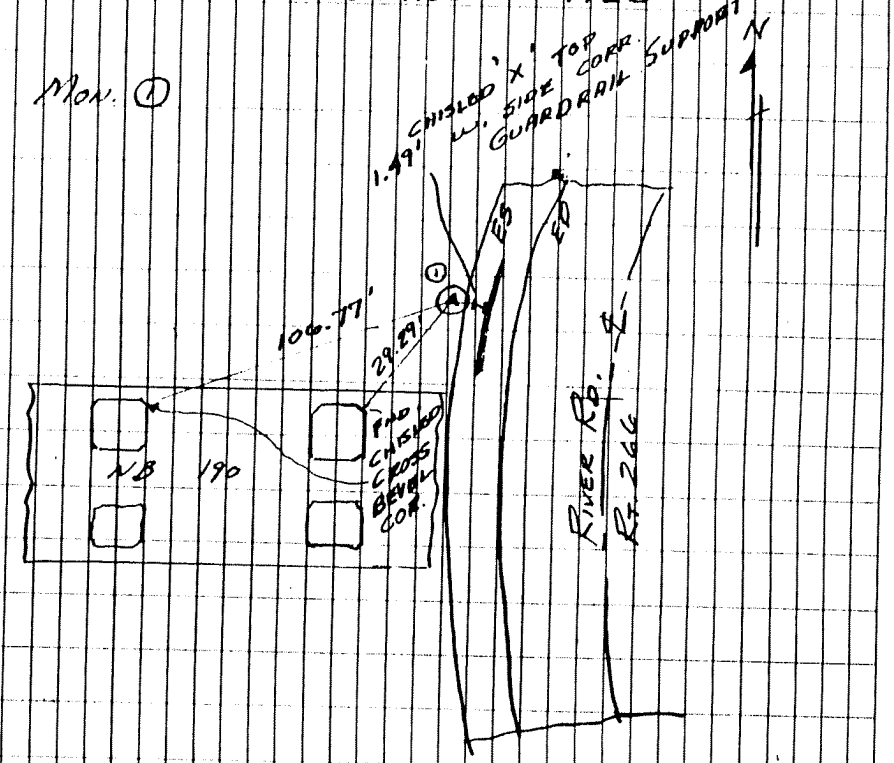
FS. PK (2)	286-09-40	46: 68 72 106-09-32
BS	0-00-00	179-59-52
✗	286-09-40	286-09-40
AVG.	286-09-40	
FS	331-11-42	151-11-41 (101)
BS	45-02-00	225-01-55
✗	286-09-42	286-09-46
AVG	286-09-44	

AVG. 286-09-42

FS (2)	VERT. ∡	FT.	M.
	90-00-57	1446.750	440.970
	269-58-54		
∡	90-01-01		

BASELINE TIES

MON. (1)



3/30/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAY

⊼ ⑨	PK ②	BS	MON ①
FS IP ③ H-142-1	164-~~34~~ 33-53-~~00~~		344-33-51 92 111
BS	0-00-00		179-59-54
∡	164-~~34~~ 33-53-~~00~~		164-33-57
AVG.	164-33-55		
FS	209-35-54		29-35-50 110
BS	45-02-00		225-01-57
∡	164-33-54		164-33-53
AVG	164-33-53.5		

AVG. 164-33-54

BS ①	VERT. ∡	FT.	M.
	90-00-34	1446.750	440.971
	269-59-27		
∡	90-00-34		

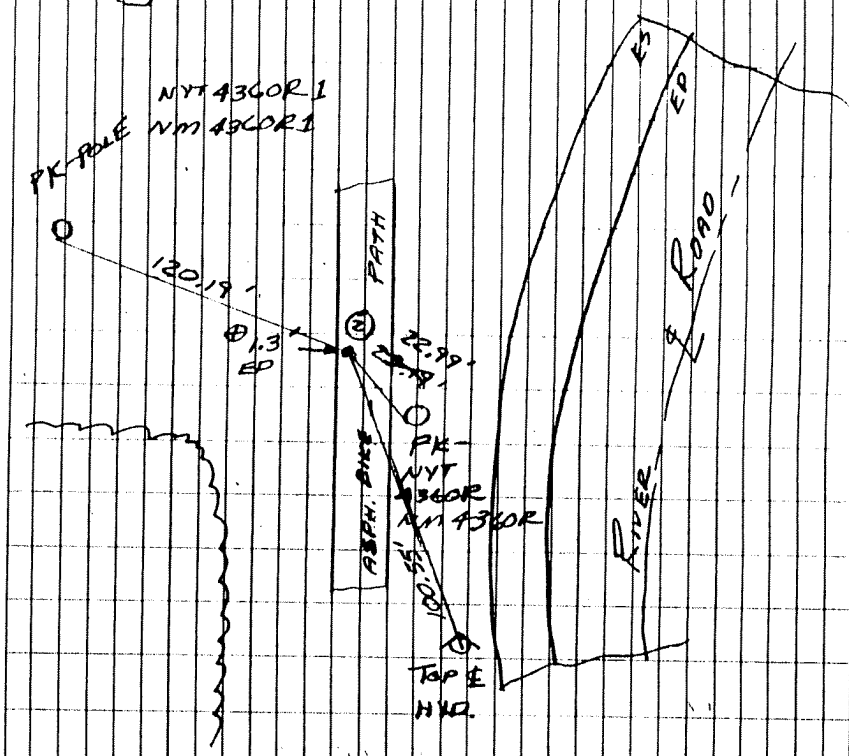
FS ③	VERT. ∡	FT.	M.
	89-57-12	2165.190	659.952
	270-02-44		
∡	89-57-14		

⊼ PN
⊼ TR
⊼ ME

FB #67

SUNNY 40° ⑬

BASELINE TIES



3/30/92

RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

⊼ @ IP ③	BS. PK ②	
FS PK ④	168-53-18	349-53-14 (112 74)
BS	0-00-00	179-59-55
⊼	168-53-18	168-53-19
AVG.	168-53-18.5	
FS	213-55-21	33-55-18
BS	45-02-00	225-01-55
⊼	168-53-21	168-59-23
AVG.	168-53-22	

AVG. 168-53-20

BS ②	VERT. ⊼	FT.	M.
	90-03-58	2165.195	659.953
	269-55-52		
⊼	90-04-03		

FS ④	VERT. ⊼	FT.	M.
	90-14-45	542.910	165.479
	269-44-58		
⊼	90-14-53		

^ PV
☆ TR
♀ ME

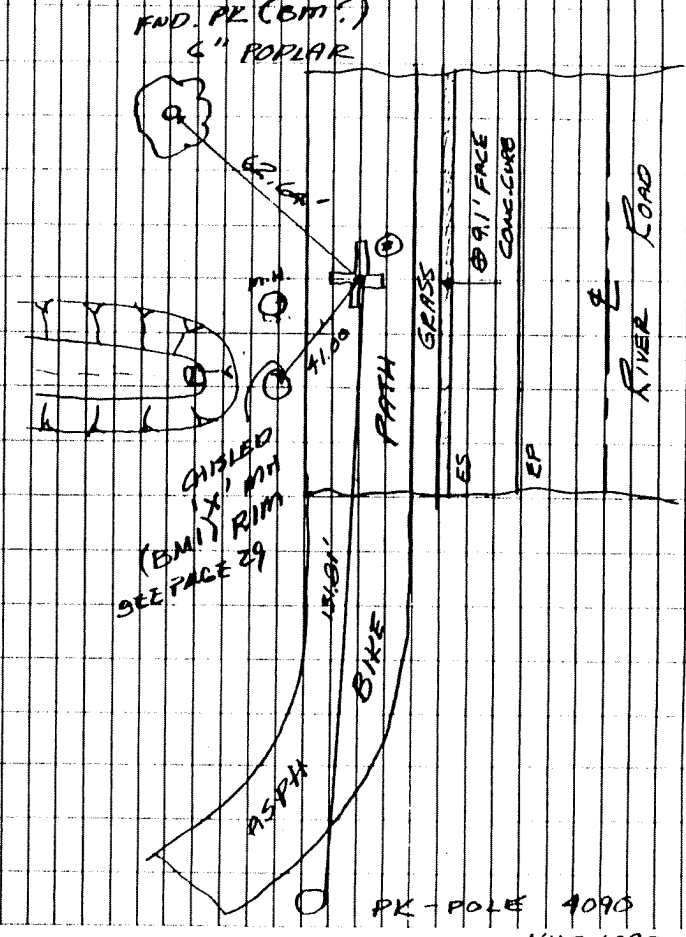
FB #67

CLOUDY 35°

(14)

BASELINE TIES

FND. IP ③ (H-142-1) — 1" RE-BAR IN PAINTED CROSS (CUMITE)



3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

T⊕ IP ③	BS	PK ②	
FS DH ⑤	184-12-27	364 04-12-24	
BS	00-00-00	180-00-00	
*	184-12-27	184-12-24	
AVG.	184-12-25.5		
FS	229-14-25	85 49-14-25	
BS	45-02-00	225-01-57	
*	184-12-25	184-12-28	
AVG.	184-12-26.5		
BS ②	VERT. *	FT.	M.
	90-03-58	2165.210 ✓	659.957
	269-56-18		
*	90-03-50		
FS ⑤	VERT. *	FT.	M.
	88-57-25	597.340 ✓	182.069
	271-02-48		
*	88-57-19		

AVG 184-12-26

73 76
62
73

T PV
TR
P ME

FB #67

SUNNY
35°

3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

T ① PK ① BS. IP ③

FS OH ⑤	258-08-52	78-08-45
BS	0-00-00	180-00-00
∡	258-08-52	258-08-45
AVG.	258-08-48.5	

FS	303-10-46	123-10-45 105
BS	42-02-00	225-01-56
∡	258-08-46	258-08-49
AVG	258-08-47.5	

AVG. 258-08-48

BS ③	VERT. ∡	FT.	M.
	89-47-36	542.915 ✓	165.481
	270-12-24		
∡	89-47-36		

FS ⑤	VERT ∡	FT.	M.
	85-21-06	161.750 ✓	49.302
	274-38-42		
∡	85-21-12		

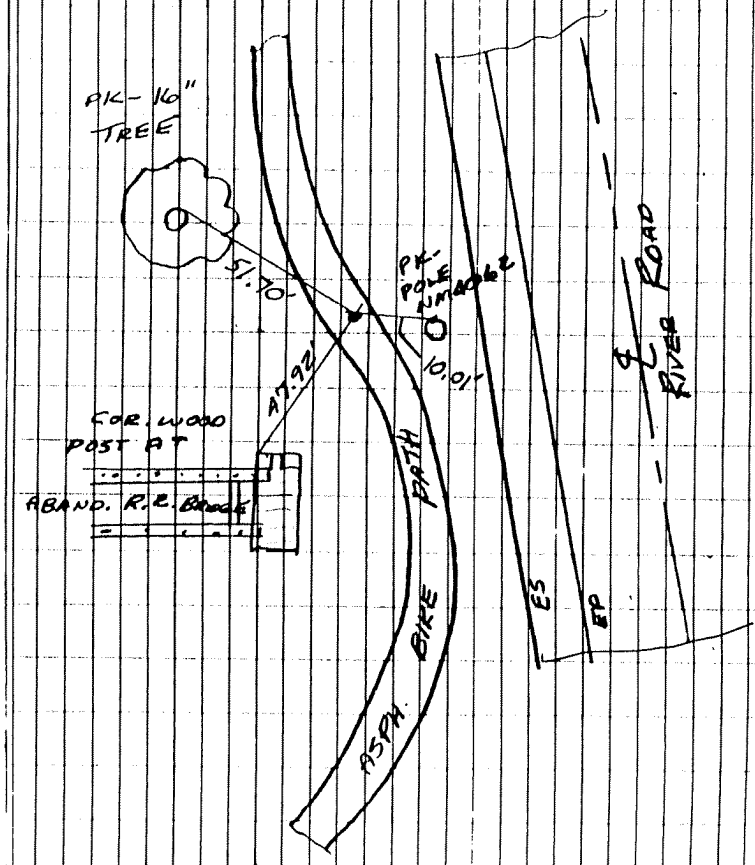
T PV
TR
9 ME

FB #67

SUNNY 35°

(16)

BASELINE TIES



3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

PHOTO CONTROL

T ⑨ PK ④ BS IP ③

⑥
FS H-141-1 165-46-06 345-46-06
BS 0-00-00 180-00-00
∡ 165-46-06 165-46-06
AVG. 165-46-06

FS H-141-1 VERT. ∡ FT. M.
90-16-03 385.815 117.596
269-43-40
∡ 90-16-11

⑥
FS V-141-1 170-27-45
BS 0-00-00
∡ 170-27-45
AVG 170-27-45

FS V-141-1 VERT. ∡ FT. M.
89-32-10 382.620 116.620
270-27-35
∡ 89-32-17

T P.V.
M TR
9 ME

FB #6.7

SUNNY
35°

⑰

CL BASE POLE NYT 4023
NM 4023

317' FOR

CL RIVER ROAD OPP. H-141-1

3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

T ⑨ OH ⑤ BS PK ④

FS IP ⑥	178-05-08	358-05-04
BS	0-00-00	180-00-00
∡	178-05-08	178-05-04
AVG.	178-05-06	
FS	223-07-09	43-07-05
BS	45-02-00	225-02-00
∡	178-05-09	178-05-05
AVG	178-05-07	

AVG. 178-05-06.5

BS ④	VERT. ∡	FT.	M.
	94-49-31	161.780	49.310
	265-10-14		
∡	94-49-38		

FS ⑥	VERT. ∡	FT.	M.
	89-34-28	672.180	204.881
	270-25-25		
∡	89-34-31		

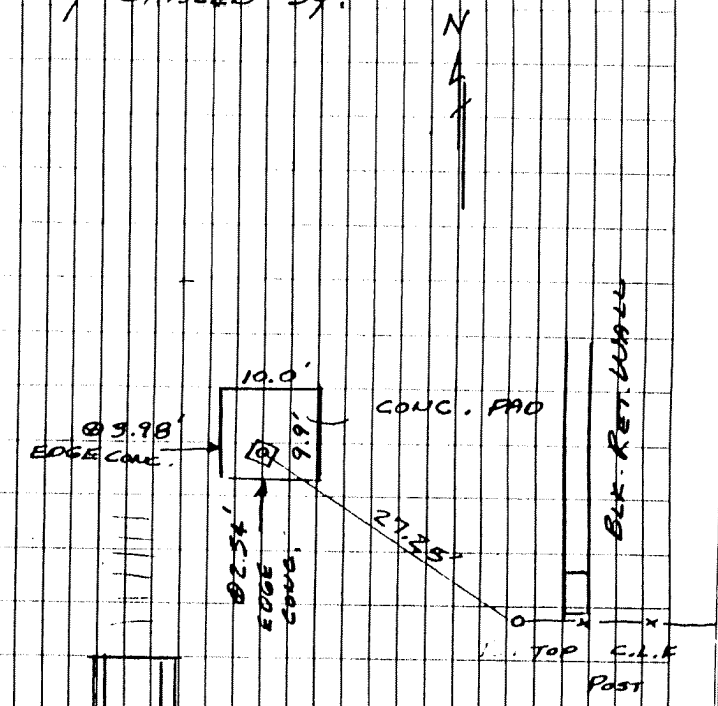
T PV
⌒ TE
⚲ ME

SUNNY 40°

FB #67

BASELINE TIES

PH ⑤ w/ CHISLED SQ.



3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

T ⑥ DH ⑤ BS. IP ③

FS H2O TANK GRAND IS	301-25-42	121-25-38
BS	0-00-00	180-00-00
✱	301-25-42	301-25-38
AVG.	301-25-40	
FS	346-27-42	166-27-40
BS	45-02-00	225-01-58
✱	301-25-42	301-25-42
AVG.	301-25-42	

AVG. 301-25-41

T PV
TR
P ME

FB #67 SUNNY 40°

FS ⑥	240-55-00	60-54-57
BS	0-00-00	180-00-00
✱	240-55-00	240-54-57
AVG.	240-54-58.5	
FS	285-56-58	105-56-56
BS	45-02-00	225-01-58
✱	240-54-58	240-54-58
AVG.	240-54-58	

AVG. 240-54-58

		FT.	M.
BS ③	VERT. ✱		
	91-05-44	597.340	182.070
	268-54-12		
✱	91-05-46		

3/31/92 RIVER ROAD - HAZ SITE
TONAWANDA

BASELINE TRAV.

T ⑨ IP ⑥ BS DH ⑤

FS IP⑦	274-38-00	94-37-48 (96 108)
BS	0-00-00	179-59-53
∡	274-38-00	274-37-55
AVG.	274-37-57.5	
FS	319-40-54 ~~139-40-35~~	139-40-95 (95) ~~319-40-54~~
BS	45-02-43 (5)	225-02-41
∡	274-38-01	274-37-54
AVG	274-37-57.5	

AVG. 274-37-57.5

BS ⑤	VERT. ∡	FT.	M.
	90-28-01	672.185	204.882
	269-31-39		
∡	90-28-11		

FS ⑦	VERT. ∡	FT.	M.
	90-40-52	640.035	195.082
	269-19-06		
∡	90-40-53		

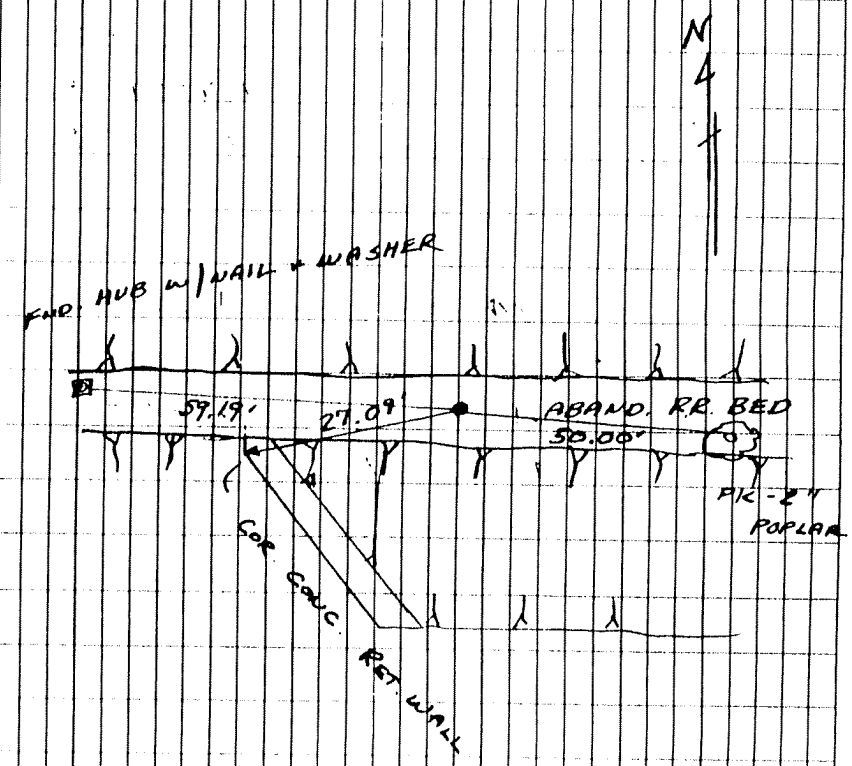
T ME
⊡ TR
9 PV

SUNNY ⑳

FB #67

BASELINE TIES

IP ⑥ 5/8" RE-BAR



3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

T 9 IP 6 BS DH 5

FS H2O TANK GRAND IS	245-31-40	65-31-26 (86)
BS	0-00-00	179-59-47
✱	245-31-40	245-31-39
AVG.	245-31-39.5	
FS	290-34-36 (96)	110-34-17 (77)
BS	45-02-53	225-02-37
✱	245-31-43	245-31-40
AVG.	245-31-41.5	

AVG. 245-31-40

TIME
MTR
PN

FB #67

SUNNY
40°

3/31/91 RIVER ROAD - HAZ. SITE, TONAWANDA

PHOTO CONTROL

TP 9 IP 6 BS DH 5

62

FS H-141-2		393 113 02
	214-54-10	34-54-02
BS	0-00-00	179-59-46
✱	214-54-10	214-54-16
AVG.	214-54-13	

63

FS V-141-2	233-27-39
BS	0-00-00
✱	233-27-39
AVG	233-27-39

FS H-141-2	VERT. ✱	FT.	M.
	92-36-35	329.655	100.479
	267-23-19		
✱	92-36-38		

FS V-141-2	VERT. ✱	FT.	M.
	96-47-18	141.205	43.039
	263-12-41		
✱	96-47-18		

TP 9 FB #67. SUNNY (22)

FENCE COR. @ ✱ PT.

CL RD. ~~OPP H-141-2~~ FL EXTENDED

3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

	⊼ ⑨ IP ⑦	BS IP ⑥
FS PK IP ⑧	278-14-45	98-14-39 (73 99)
BS	0-00-00	179-59-57
∡	278-14-45	278-14-42
AVG.		

FS	323-16-42	143-16-43
BS	45-02-00	225-01-56
∡	278-14-42	
AVG.		

	VERT. ∡	FT.	M.
BS ⑥	89-22-00	640.030 ✓	195.081
	270-37-55		
∡			

	VERT ∡	FT.	M.
FS ⑧	90-28-45	960.565 ✓	292.781
	269-30-46		

⊼ PV
⊡ TR
♀ ME

FB #67

SUNNY 40°

(23)

BASELINE TIES

NONE - ONE PERSON SET-UP

3/31/92 RIVER ROAD - HAZ SITE
TONAWANDA

BASELINE TRAV.

∡ @	PK ⑧ BS	IP ⑦
FS PK ⑨	94-11-04	274-70-10-56
BS	0-00-00	179-59-56
∡	94-11-04	94-11-00
AVG.	94-11-02	
FS	139-13-06	319-12-57
BS	45-02-00	225-01-56
∡	94-11-06	94-11-01
AVG.	94-11-03.5	

AVG. 94-11-03

BS ⑦	VERT. ∡	FT.	M.
	89-31-03	960.565	292.781
	270-29-03		
∡	89-31-00		

FS ⑨	VERT. ∡	FT.	M.
	90-10-47	1015.820	309.623
	269-49-22		
∡	90-10-43		

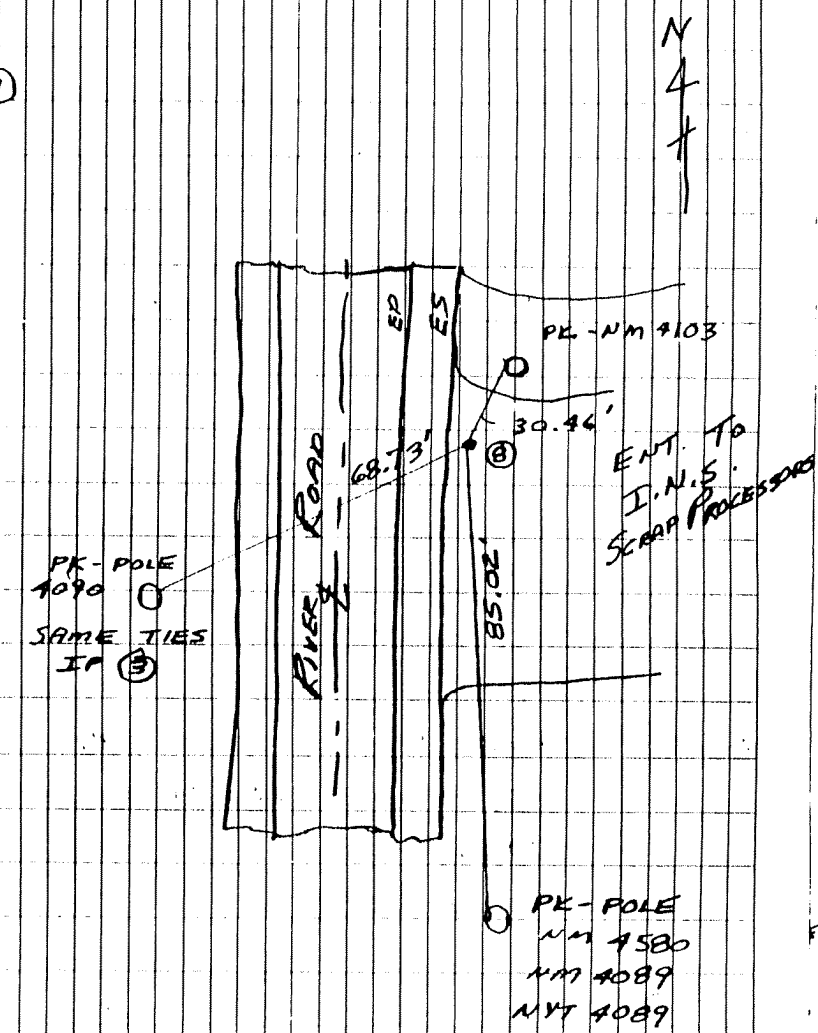
∡ PV
⌭ TR
9 ME

FB #67

SUNNY 40° ㉔

BASELINE TIES

PK. ⑧



3/31/92 RIVER ROAD - HAZ. SITE

TONAWANDA

BASELINE TRAV.

⊼ ⊘	PK 9	BS	PK 8
FS PK 10	191-53-15		11-53-06 (112)
BS	0-00-00		179-59-55
∡	191-53-15		191-53-11
AVG.	191-53-13		
FS	236-55-12		56-55-06 (416)
BS	45-02-00		225-01-55
∡	191-53-12		191-53-11
AVG.	191-53-11.5		

AVG. 191-53-12

BS 8	VERT. ∡	FT.	M.
	89-49-44	1015.800	309.617
	270-10-00		
∡	89-49-52		
FS 10	VERT. ∡	FT.	M.
	90-00-20	1194.645	364.129
	269-59-23		
∡	90-00-28		

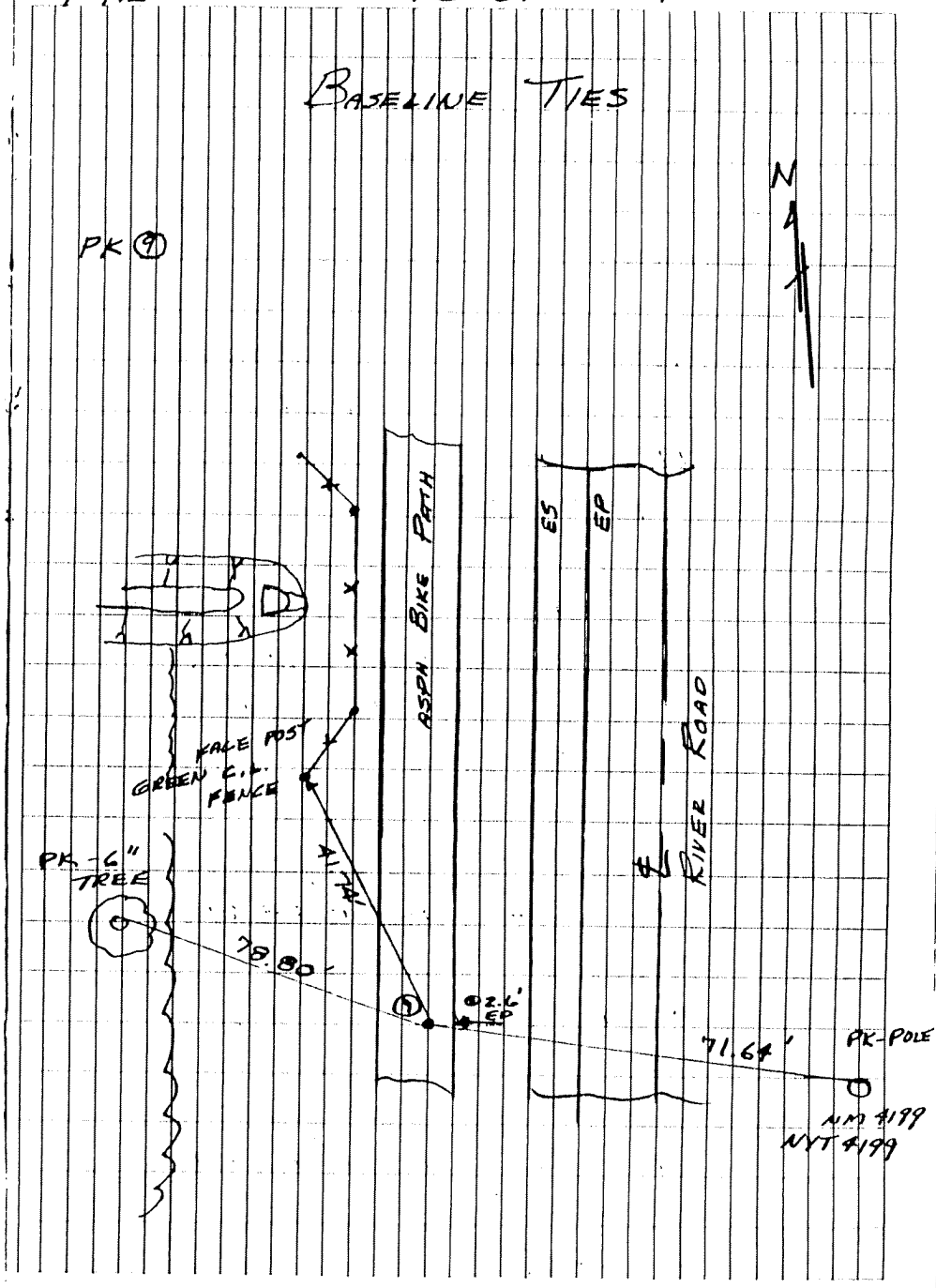
⊼ PV
□ TR
P ME

FB #67

SUNNY 40°

(23)

BASELINE TIES



3/31/92 RIVER ROAD - HAZ. SITE

TONAWANDA

BASELINE TRAV

T ⊕	PK (10)	BS	PK (9)
FS MON. (1)	190-29-21		10-29-16 (88 76)
BS	0-00-00		179-59-57
∡	190-29-21		190-29-19
AVG.	190-29-20		
FS	235-31-27		55-31-22 (82)
BS	45-02-00		225-01-57
∡	190-29-27		190-29-25
AVG	190-29-26		

AVG. 190-29-23

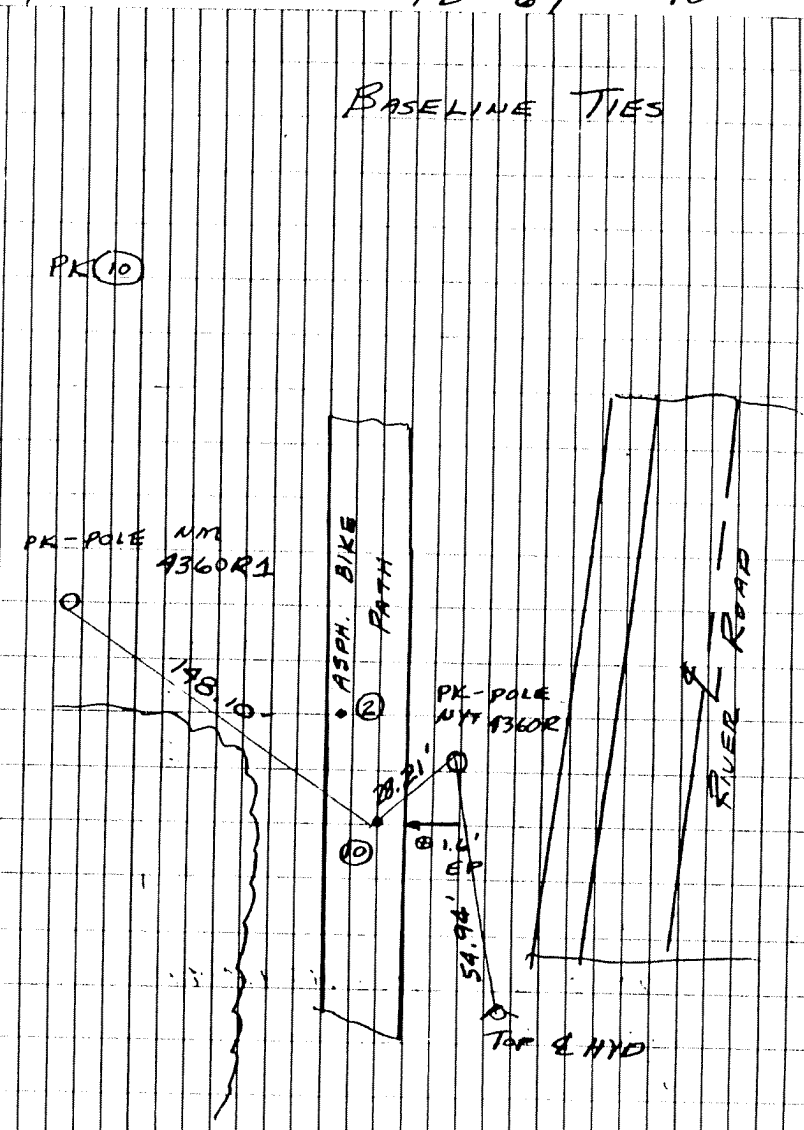
BS (9)	VERT ∡	FT	M
	90-01-24 (15)	1194.645	364.129
	269-58-07		
∡	90-01-39		
FS (1)	VERT ∡	FT.	M.
	90-01-19	1487.795	453.481
	269-58-26		
∡	90-01-26		

T PV
TR
9 ME

SUNNY (26)

FB #67 40°

BASELINE TIES



* NOTE: TAPED (10) - (2) 46.80'

3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

↑ ⊙ MON. ① BS PK ⑩

FS PK ②	00-52-~~33~~ 47	180-52-36 (111 96)
BS	0-00-00	179-59-58 (5)
∡	00-52-~~33~~ 47	00-52-41
AVG	00-52-44	
FS	45-54-42	225-54-34 (94)
BS	45-02-00	225-01-59
∡	00-52-42	00-52-35
AVG.	00-52-38.5	

AVG. 00-52-41

BS ⑩	VERT. ∡	FT.	M.
	90-00-24	1487.800	453.482
	269-59-17		
∡	90-00-34		

FS ②	VERT. ∡	FT.	M.
	90-01-58	1446.745	440.969
	269-57-49		
∡	90-02-05		

107
60
47

3/31/92 RIVER ROAD - HAZ. SITE
TONAWANDA

BASELINE TRAV.

	π ⑨ MON. ①	BS. PK ⑩
FS H2O TANK GRAND IS.	74-42-37	254-42-30 (101 90)
BS	0-00-00	179-59-53
✱	74-42-37	74-42-37
AVG	74-42-37	
FS	119-44-35	299-44-35 (43 95)
BS	45-02-00	225-01-54
✱	74-42-35	74-42-41
AVG.	74-42-38	

AVG. 74-42-37.5

π PV
⌓ TR
P ME

FB #67

SUNNY
40°

(28)

3/31/92 RIVER ROAD - HAZ. SITE

TONAWANDA

SET	SITE	BM		
4.103	[579.115]			575.012
		1.800	577.315	
4.945	[582.260]			
		6.380		
4.053	[579.933]			
		5.625		
5.298	[579.606]			
		2.245		
4.772	[582.133]			
		4.740		
4.440	[581.833]			
		6.485		
5.310	[580.658]			
		4.472		
5.175	[581.361]			AOS
		3.700	577.661	577.655
3.520	[581.181]			
		4.790		

TR
PV
9 ME

FB# 67

SUNNY
40°

(27)

BM BRIDGE SE USLS
½" STEEL BOLT TOP NW SIDE WALL CONC. DRAINAGE DITCH UNDER SB 190 BRIDGE OVER RIVER ROAD (RT. 266)

TP (HYD)

TP

TP

TP

TP

TP

TP

SITE BM 1 CHISLED 'X' ON MH RIM - SEE PAGE 14

TP

3/31/91 RIVER ROAD - HAZ. SITE
TONAWANDA

SET SITE BM

4.712	[581.103]			
		5.719		
6.000	[581.384]			
		4.515		
5.998	[582.867]			
		6.752		
4.218	[580.333]			
		5.920		
4.820	[579.233]			
		3.880		
6.562	[581.915]			
		4.172		
1.316	[579.059]			
		4.033	575.026	575.012
			+0.014	

END RUN

✓ ME

TR
PV
ME

FB #67

CLOUDY
40°

(30)

TP

TP

TP

TP

TP

TP

BM BRIDGE SG USLS

3/31/91 RIVER ROAD - HAZ SITE

TONAWANDA

PHOTO CONTROL

5.36	[583.015]			577.655
		5.92	577.095	
5.60	[582.695]			
		7.82	574.875	
4.52	[579.395]			
		2.15	577.245	(MARKED 577.14)
5.02	[582.265]			
		3.96	578.305	
1.44	[579.745]			
		4.88	574.865	
18.68	[593.545]			
		9.50	584.045	
8.24	[592.285]			
		15.02	577.265	
18.17	[595.435]			
		1.62		
6.82	[600.635]			
		18.96		
6.21	[587.885]			
		5.90	581.985	
5.74	[587.725]			

TR
PV
ME

FB #67

CLOUDY
40°

SITE BM CHISLED 'X' MH RIM

TARGET - V 142-1

TP - PK #

FND BM 7 BY OTHERS - 3" COR ON EAST CONC SUPPORT ON NORTH SIDE OF RIVER RD (OVERHEAD PIPELINES OVER ROAD) ℄ RD OPP POLE V 141-1

PK - #

TP

℄ RD FENCE LINE EXTENDED V 141-2 (DIFF PHOTO POINT)

TP

TP

℄ DIRT RD BETWEEN 2 SMALL TREES V-142-2

3/31/92 RIVER ROAD - HAZ. SITE

TONAWANDA

PHOTO CONTROL

[587.725]

5.05

4.17 [586.845]

9.20 577.645 577.655

✓ TWR

T TR
PV
ME

FB #67

CLOUDY
40°

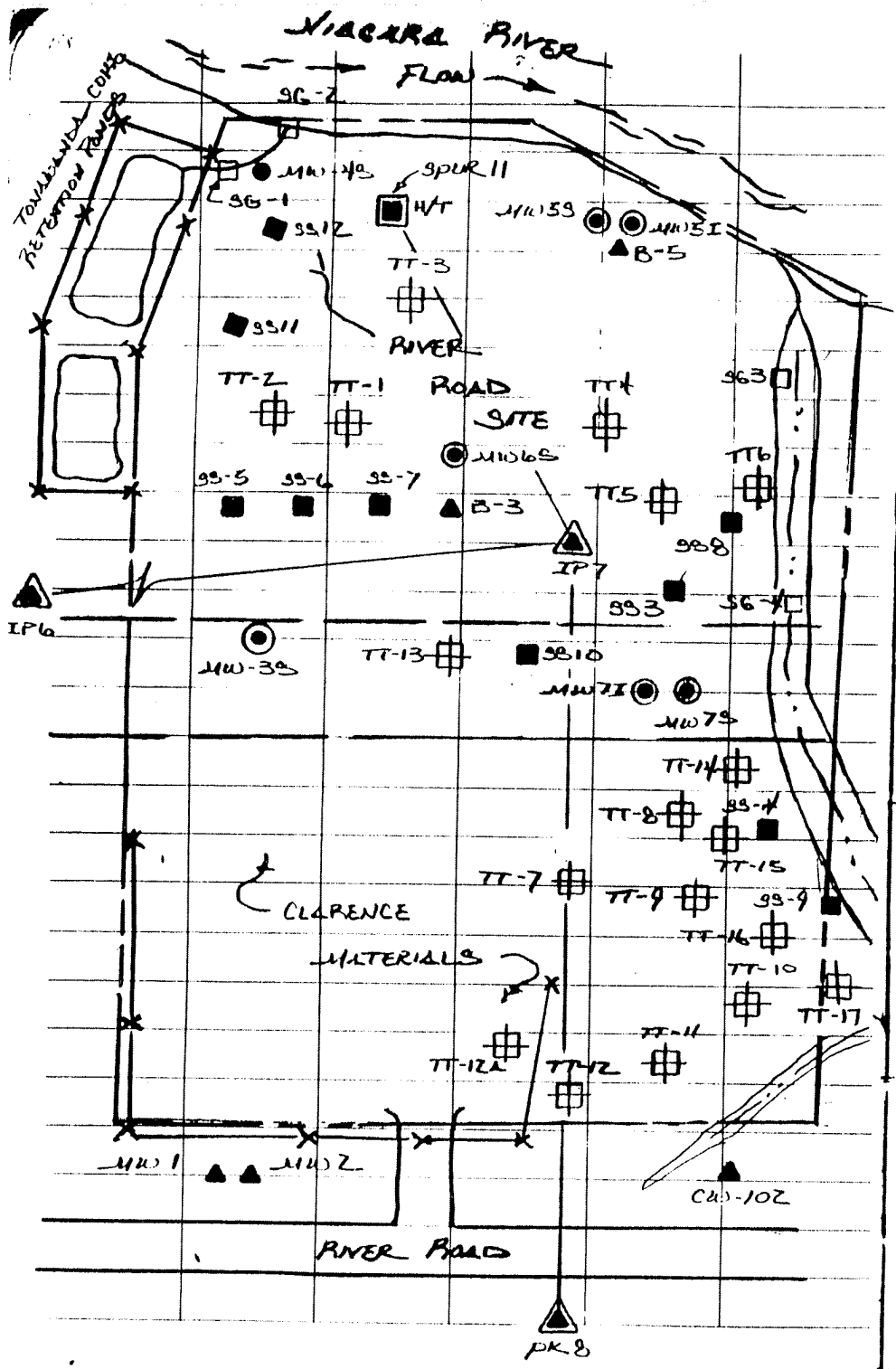
(32)

TP

SITE BM CHISELED "X" MH RIM

4/2/92
KR
PV

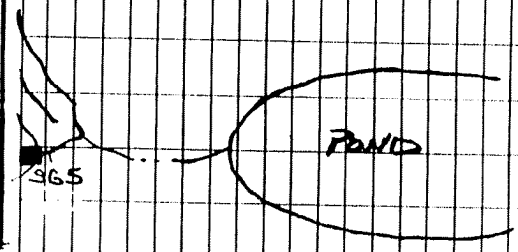
RIVER ROAD HAZ SITE
TONAWANDA
SITE SKETCH



LEGEND

SS — SURFACE SOIL SAMPLE
TT — TEST TRENCH
SG — STAFF GAUGE
MW — MONITORING WELL (NEW)
MW — MONITOR WELL (EXIST)
BASELINE POINT
HUB/TACK

APPROX. LOCATION OF FORMER RATTLESNAKE CREEK



NOTE: SKETCH SHOWS APPROX. LOCATIONS AND NOT DRAWN TO SCALE

M.I.
4/2/92

RIVER ROAD HAZ SITE
TONAWANDA

KR P
PV J

SNOW - 30°

WELL ELEVATIONS

7.78	[585.435]			577.655
		3.75		
3.86	[585.545]			
		4.14	581.405	
		2.00	583.545	
		2.32	583.225	
		4.03	581.515	
		1.43	584.115	
		1.81	583.735	
4.26	[587.995]			
		3.87	584.125	
		4.45	583.545	
		4.77	583.225	
		1.26	586.735	
4.58	[591.315]			
		6.95	584.365	
		4.25	587.065	
		4.77	586.545	
4.56	[591.105]			
		4.04	587.065	
		4.93	586.175	
		2.57	588.535	588.525
		3.21	587.895	

SITE BM (CHISLED 'X' RIM OF MH
TP

MW 7 I	GRD
" "	CASE
" "	RISER
MW 7 S	GRD
" "	CASE
" "	RISER
MW 7 S	CASE
MW 7 I	CASE
" "	RISER
IP & PT 7	
MW 3 S	GRD
" "	CASE
" "	RISER
MW 3 S	CASE
MW 3 I	GRD
" "	CASE
" "	RISER

NOTE: ALL WELL CASINGS MARKED WITH A CHISLED MARK INDICATING WHERE SHOT WAS TAKEN - SHOT TAKEN ON [illegible] EDGE EXT CA[illegible]

VX M.I. RIVER ROAD HAZ SITE

4/2/92 TOWNSHIPL WELL ELEVATIONS

2.79	[590.685]				
		2.16	588.525		MW 8B CASE
		5.06	585.625		MW 6S GRD
		2.74	587.945	587.945	" " CASE
		3.06	587.625		" " RISER
2.33	[589.955]				
		2.01	587.945		MW 6B CASE
		8.22	581.735		MW 8S GRD
		5.61	584.345	584.335	" " CASE
		6.16	583.795		" " RISER
2.58	[586.375]				
		2.04	584.335		MW 8S CASE
		3.47	582.905		MW 5I GRD
		0.95	585.425	585.435	" " CASE
		1.25	585.125		" " RISER
1.45	[586.575]				
		1.14	585.435		MW 5I CASE
		4.25	582.325		MW 5D GRD
		1.65	584.925	584.935	" " CASE
		2.00	584.575		" " RISER
2.16	[586.735]				
		1.80	584.935		MW 5D CASE
		0.295	586.440		SITE BM 2 ARB 15" COTTONWOOD
2.115	[588.555]				

X M.I. RIVER ROAD HAZ SITE

4/2/92 WELL ELEVATIONS

	[588.555]				
		6.885	581.670		HUB/TACK SPUR PT 11
4.54	[586.210]				
		6.82	579.390		MW #9 GRD
		3.26	582.850	582.850	" " CASE
		3.69	582.520		" " RISER
6.04	[588.560]				
		5.71	582.850		MW #9 CASE
		5.79			TP
3.23	[586.00]				
		3.50			TP
7.89	[590.390]				
		7.965			TP
0.83	[583.255]				
		4.62			TP
2.325	[580.960]				
		5.27	575.690		MW 1 GRD
		3.98	576.980	576.980	" " CASE
		3.94	577.020		" " RISER (HIGHER THAN CASE)
4.21	[581.230]				
		4.25	576.980		MW 1 CASE
		5.45	575.780		MW 2 GRD
		4.30	576.930	576.94	" " CASE
		4.25	576.980		" " RISER (HIGHER THAN CASE)

W.M.I. RIVER ROAD HAZ SITE

4/2/92 WELL ELEVATIONS

	5.45	[582.430]			
			5.49	576.940	
			5.55		
	5.63	[582.510]			
			6.16	574.350	
			6.29	576.220	576.22
			6.81	575.700	
	6.60	[582.300]			
			6.04	576.220	
			5.18	577.120	577.095
			4.623	577.677	577.655
					+0.022

END RUN

4/3/92

	4.93	[582.585]			577.655
			4.41	578.175	
	4.18	[582.355]			
			4.705	577.650	577.655
				-0.005	

END RUN

MW 2 CASE
TP

CW-102 GRD
" " CASE
" " RISER

CW102 CASE
TARGET Y-142-1
SITE BM 1 CHISLED 'X' RIM MH

SITE BM 1

PK @ PT 8

SITE BM 1

RIVER ROAD HAZ SITE
TONAWANDA

4/7/92 ELEVATE TRAV PTS

PV - J
KR - Ø

SUNNY, WINDY - 50°F

6.29	[581.302]			575.012
		0.74	580.562	
0.67	[581.232]			
		3.90	577.332	
4.03	[581.362]			
		6.05		
5.61	[580.922]			
		5.65	575.272	
5.15	[580.422]			
		5.77	574.652	
5.73	[580.382]			
		5.57		
6.48	[581.292]			
		4.32		
4.97	[581.942]			
		6.21	575.732	
4.61	[580.372]			
		7.12		
5.29	[578.512]			
		3.49	575.022	
			+0.010✓	

END RUN

SG USLS 1/2" STEEL PIN
IP TRAV PT 11

TP (HYD)

TP

PK TRAV PT 10

PK TRAV PT 2

TP

TP

MON DISK TRAV PT 1

TP

SG USLS 1/2" PIN

RIVER ROAD HAZ SITE
TONAWANDA

4/9/92

ELEVATE TRAV POINTS

RUN "1"

+	HI	-	ELEV	DESC
			575.012	SG USLS
9.645	584.657			
		10.67	573.987	
10.35	584.337			
		1.52	582.807	
12.530	595.337			
		2.09	593.247	
7.08	600.327			
		3.55	596.777	
6.59	603.367			
		1.74	601.627	
3.91	605.537			
		2.10	603.437	
4.12	607.557			
		1.745	605.812	
3.53	609.342			
		1.98	607.362	
3.50	610.862			
		2.18	608.682	
2.50	611.182			
		4.00	607.182	
1.94	609.122			

TV - T
KR - Ø

OC - 50°

RUN "B"

+	HI	-	ELEV	DESC
			575.012	SG USLS
9.32				
	584.332			
		2.10	582.232	
13.11	595.342			
		1.72	593.622	
6.71	600.332			
		3.85	596.482	
6.91	603.372			
		4.05	599.322	
6.21	605.532			
		4.52	601.012	
6.54	607.552			
		3.97	603.582	
5.75	609.332			
		4.39	604.942	
5.91	610.852			
		4.50	606.352	
4.82	611.172			
		6.35	604.822	
4.30	609.122			

LIVEL LEVEL HAL SITE

ELEVATE TRAV POINTS

4/9/92

RUN "A"

+	HI	-	ELEV	DESC
	609.122			
		2.36	606.762	
1.60	608.362			
		1.85	606.512	
2.93	609.442			
		4.01	605.432	
4.80	610.132			
		4.84	605.292	
5.43	610.722			
		5.10	605.622	
4.82	610.442			
		4.74	605.702	
4.99	610.692			
		4.09	606.602	
3.03	609.632			
		5.44	604.192	
5.01	609.202			
		5.53	603.672	
3.94	607.612			
		3.33		
2.64	606.922			NAIL NYT218 ~~RAG~~ IN POLE
		3.91	603.012	FND BM

KIL
PV

40

RUN "B"

+	HI	-	ELEV	DESC
	609.122			
		4.92	604.202	
4.16	608.362			
		4.69	603.652	
5.76	609.412			
		4.47	604.942	
5.27	610.212			
		4.93	605.282	
5.53	610.812			
		5.77	605.042	
5.49	610.532			
		4.10	606.432	
4.34	610.772			
		5.95	604.822	
4.90	609.772			
		5.58	604.192	
5.06	609.202			
		5.61	603.592	
4.02	607.612			
		5.87	601.742	
5.19	606.932			
		4.13	602.802	
3.99	606.792			
		5.77	603.022	NAIL NYT218 ~~RAG~~ IN POLE FND BM

RIVER ROAD HAZ SITE

ELEVATE ℄ PT 18 & SPUR PT 50

			ELEV.	
4.730	607.742		603.012	NAIL IN POLE FND BM
		4.780	602.962	TOP PIN ℄ 18
5.080	608.042			
		1.690	606.352	TOP HUB SPUR
2.980	609.332			
		6.610	602.722	TP.
5.010	607.732			
		4.720	603.012	BM.

NOTE:

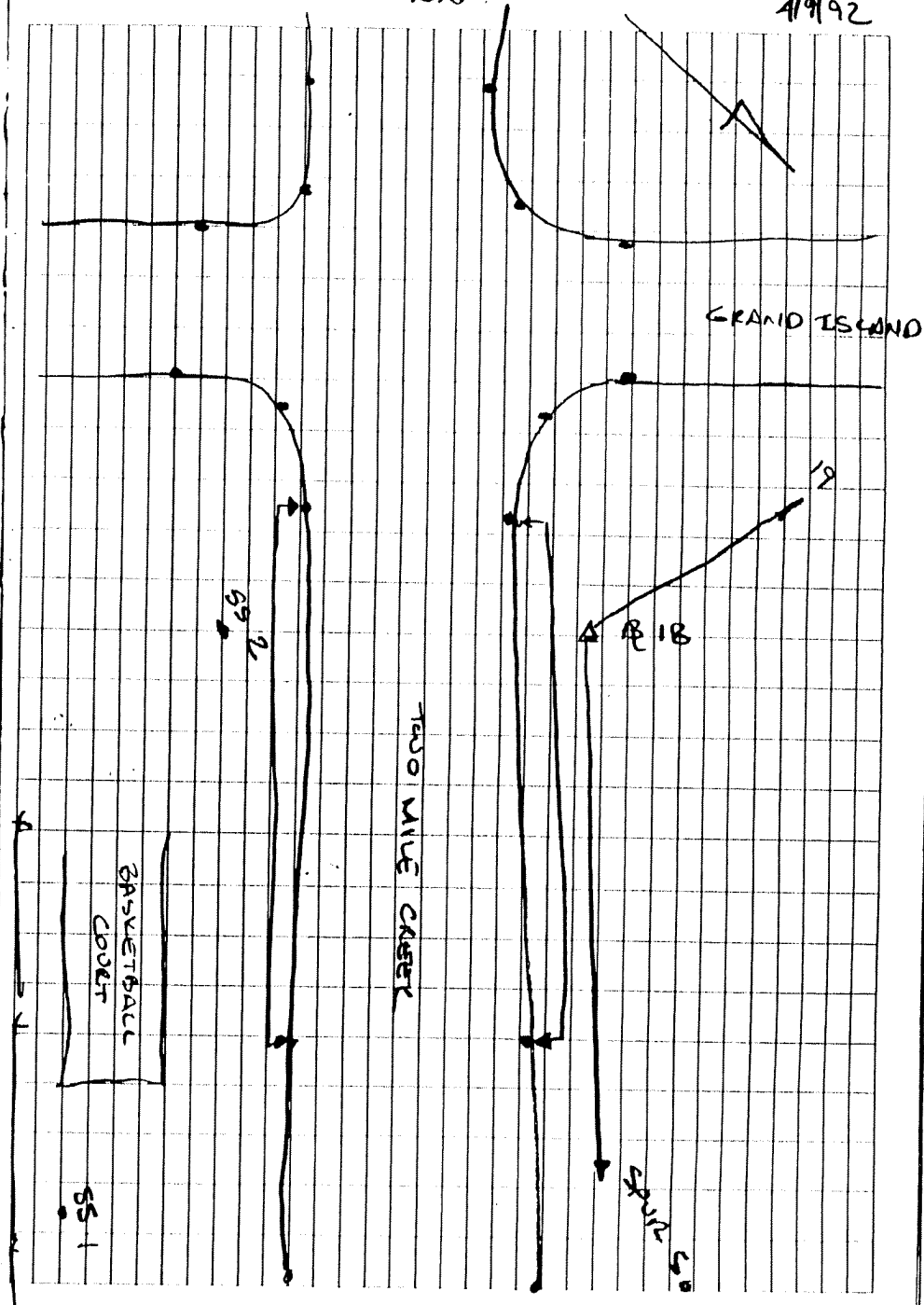
ROAD SHOTS ON TWO MILE CREEK WERE NOT STRUNG, BUT THEY SHOULD BE CONNECTED AS MARKED WITH ARROWS

KK
PN

SKETCH FOR ROAD LOCATION

41

4/9/92



Appendix I

APPENDIX I

ANALYTICAL RESULTS FROM PREVIOUS STUDIES

PHASE I
INVESTIGATION
AND EVALUATION
HAZARDOUS WASTE DISPOSAL SITES

INS Equipment
Erie County, NY

915031

Prepared for:

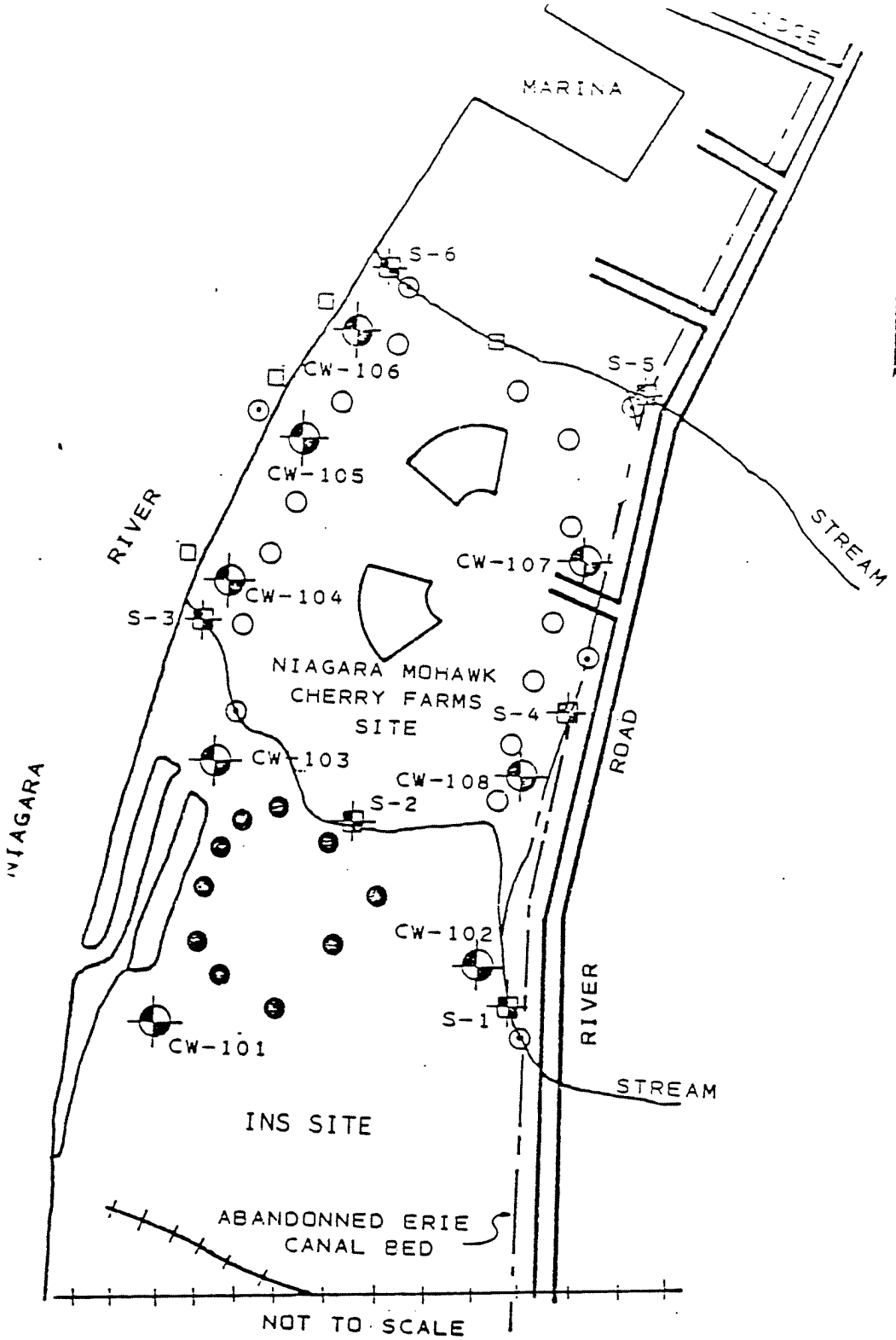
New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Henry G. Williams, Commissioner

Division of Solid and Hazardous Waste
Norman H. Nosenchuck, P.E., Director

ENGINEERING-SCIENCE
in association with
DAMES & MOORE

SEPTEMBER 1984



EXPLANATION:

PREVIOUS BORINGS (APPROXIMATE LOCATION)

- TEST HOLE-USGS (INS)
- TEST HOLE-USGS (CHERRY FARMS)
- GRAB SAMPLE-SEDIMENT IN DITCH (RECRA)
- SURFACE WATER SAMPLE-USGS

PROPOSED BORINGS

- S-1 SURFACE WATER SAMPLE
- CW-1 SAMPLING WELLS

PLOT PLAN
INS SITE
AND
NIAGARA MOHAWK CHERRY FARMS SITE

FIGURE 2

Table 1 .--Analyses of substrate samples from I.N.S. Equipment Corporation, Tonawanda, New York

	Sample Number				
	1	2	3	4	5
Date collected	081082	081082	081082	081082	081082
Depth (ft)	14.0	15.0	20.0	16.5	15.0
Sample Type[1]	s	s	s	s	s
pH					
Conductivity (uMHOS)					
Temperature (°C)					
Inorganic Constituents[2]					
Antimony					
Arsenic					
Cadmium					
Chromium	53000	20000	<1000	5000	6000
Copper	430000	70000	3000	30000	180000
Iron	100000000	26000000	3700000	16000000	41000000
Lead	2500000	630000	10000	110000	170000
Mercury					
Nickel					
Selenium					
Zinc					
Flouride					
Sulfide					
Cyanide					
Organic Compounds[2]	(Mead)	(Mead)	(Mead)	(Mead)	(Mead)
2,4-Dimethyl-1,3-Dioxalane[4]	30000	-	-	-	-
1,3-Dimethylbenzene[4]	5200	-	-	-	-
Decane[4]	25000	-	-	-	-
Undecane[4]	55000	-	-	-	-
Tridecane[4]	90000	-	23000	-	26000
Tetradecane[4]	270000	13000	-	-	82000
Hexadecane[4]	305000	-	64000	-	-
Heptadecane[4]	160000	-	-	-	600000
Octadecane	310000	-	-	-	550000

1 Sample type: gw=ground water, sw=surface water, and s=substrate.
2 Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
3 Cu(D): analysis done by direct aspiration because of high iron concentration.
4 Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
5 Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
6 Volatile found in GC/ms extractions. Concentration results probably less than actual.
7 Low surrogate recoveries.
8 Estimated value less than detection limit.
(Mead): Analyses performed by Mead CompuChem, Inc., Research Triangle Park NC

Analyses of substrate samples from I.N.S. Equipment Corporation, Tonawanda, New York--continued

	Sample Number				
	1	2	3	4	5
Organic Compounds[2] (continued)					
Eicosane[4]	188000	–	–	–	570000
Hexcicosane[4]	97000	–	–	–	–
2,6,10,14-Tetramethyl-heptadecane[4]	88000	–	–	–	63000
4-Methyldecane[4]	7300	–	–	–	–
Dodecane[4]	–	–	5300	–	–
2,6,11-Trimethyldodecane[4]	–	–	8700	–	–
Pentadecane[4]	–	–	–	–	260000
2-Methylpentadecane[4]	–	–	–	–	49000
Phenol	61000	–	–	–	–
2-Methylphenol	11000	–	–	–	–
4-Methylphenol	43000	–	–	<10000[8]	–
2,4-Dimethylphenol	6200[8]	–	–	–	–
2-Methylnaphthalene	6600[8]	–	–	–	<2000[8]
Naphthalene	7700[8]	–	–	–	<1000[8]
Acenaphthalene	6200[8]	–	–	–	68[8]
Flourene	8700[8]	–	–	–	
Phenanthrene	41000	–	<1000[8]	<1000[8]	33000
Anthracene	<1000[8]	–	–	–	–
Flouranthene	25000	–	–	–	–
Pyrene	18000	–	–	–	17000
Di-n-butyphthalate	46[8]	–	–	–	11000
Benzo(a)anthracene	48[8]	–	–	–	<1000[8]
Chrysene	47[8]	–	–	–	<1000[8]
Bis(2-ethylhexl)-phthalate	52000	–	<1000[8]	–	5000
Dibenzofuran	–	–	–	–	62[8]

1 Sample type: gw=ground water, sw=surface water, and s=substrate.
2 Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
3 Cu(D): analysis done by direct aspiration because of high iron concentration.
4 Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
5 Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
6 Volatile found in GC/ms extractions. Concentration results probably less than actual.
7 Low surrogate recoveries.
8 Estimated value less than detection limit.

Table 1 .--Analyses of substrate samples from I.N.S. Equipment Corporation, Tonawanda, New York--continued

	Sample Number				
	6	7	8	9	10
Date collected	081082	081082	081082	081082	081082
Depth (ft)	20.0	8.0	14.0	4.0	4.0
Sample Type[1]	s	s	s	s	s
pH					
Conductivity (uMHOS)					
Temperature (°C)					
Inorganic Constituents[2]					
Antimony					
Arsenic					
Cadmium					
Chromium	1000	4000	1000	2000	2000
Copper	7000	120000	30000	20000	120000
Iron	6000000	29000000	2900000	25000000	19000000
Lead	30000	120000	30000	130000	100000
Mercury					
Nickel					
Selenium					
Zinc					
Flouride					
Sulfide					
Cyanide					
Molecular sulfur			44000		
Organic Compounds[2]					
1,5-Hexadiyne[4]	(Mead)	(Mead)	(Mead)	(Mead)	(Mead)
Cyclohexane[4]	30000	-	-	-	
3-Hexen-2-one[4]	11000	-	-	-	
Hexadecane[4]	4900	-	-	-	
4-Methylphenanthrene[4]	-	2500	-	-	
2-Phenynaphthalene[4]	-	-	-	-	
1-Methylpyrene[4]	-	-	-	18000	
7 H-Benzo(DE)-Anthracene-7-one[4]	-	-	-	7100	
	-	-	-	9500	
				17500	

1 Sample type: gw=ground water, sw=surface water, and s=substrate.
2 Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
3 Cu(D): analysis done by direct aspiration because of high iron concentration.
4 Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
5 Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
6 Volatile found in GC/ms extractions. Concentration results probably less than actual.
7 Low surrogate recoveries.
8 Estimated value less than detection limit.
(Mead): Analyses performed by Mead CompuChem, Inc., Research Triangle Park NC

Table 1 .--Analyses of substrate samples from I.N.S. Equipment Corporation, Tonawanda, New York--continued

	Sample Number				
	6	7	8	9	10
Organic Compounds[2] (continued)					
Benzo(k)phenanthrene[4]	-	-	-	6000	
Perylene[4]	-	-	-	16000	
Bis(2-ethylhexl)phthalate	-	<100000[8]	-	-	
Dibenzofuran	-	-	-	12000	
Flourene	-	-	-	13000	
Phenanthrene	-	-	-	70000	
Anthracene	-	-	-	26000	
Flouranthene	-	-	-	150000	
Pyrene	-	-	-	88000	
Benzo(a)anthracene	-	-	-	47000	
Chrysene	-	-	-	35000	
Benzo(a)pyrene	-	-	-	23000	
Indeno(1,2,3-C,D)pyrene	-	-	-	180008	
Dibenzo(a,h)anthracene	-	-	-	59008	
Benzo(g,h,i)prylen	-	-	-	150008	
Benzo(b)flouranthene	-	-	-	33000	
Benzo(k)flouranthene	-	-	-	33000	
2-Methyl naphthalene	-	-	-	<200008	
Acenaphthylene	-	-	-	21000	

1 Sample type: gw=ground water, sw=surface water, and s=substrate.
2 Concentrations: ug/L for water and ug/Kg for substrate. Blank spaces indicate that no analyses were performed; dashes indicate that constituents and compounds were not found.
3 Cu(D): analysis done by direct aspiration because of high iron concentration.
4 Identity determined by library match; no standard available. Concentration results are semiquantitative and are based on the response factor of the internal standard.
5 Identity based on less than library match; identification seemed reasonable. As for footnote 4, concentration results are semiquantitative.
6 Volatile found in GC/ms extractions. Concentration results probably less than actual.
7 Low surrogate recoveries.
8 Estimated value less than detection limit.

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK PHASE II INVESTIGATIONS

INS EQUIPMENT

NYS SITE I.D. 915031

CITY OF TONAWANDA

ERIE COUNTY

NEW YORK STATE

Sept 1986

Prepared For

DIVISION OF SOLID AND HAZARDOUS WASTE

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION

50 WOLF ROAD

ALBANY, NEW YORK 12233-0001

Prepared By

ENGINEERING-SCIENCE

290 ELWOOD DAVIS ROAD

LIVERPOOL, NEW YORK 13088

In Association With

DAMES & MOORE

2996 BELGIUM ROAD

BALDWINSVILLE, NEW YORK 13027

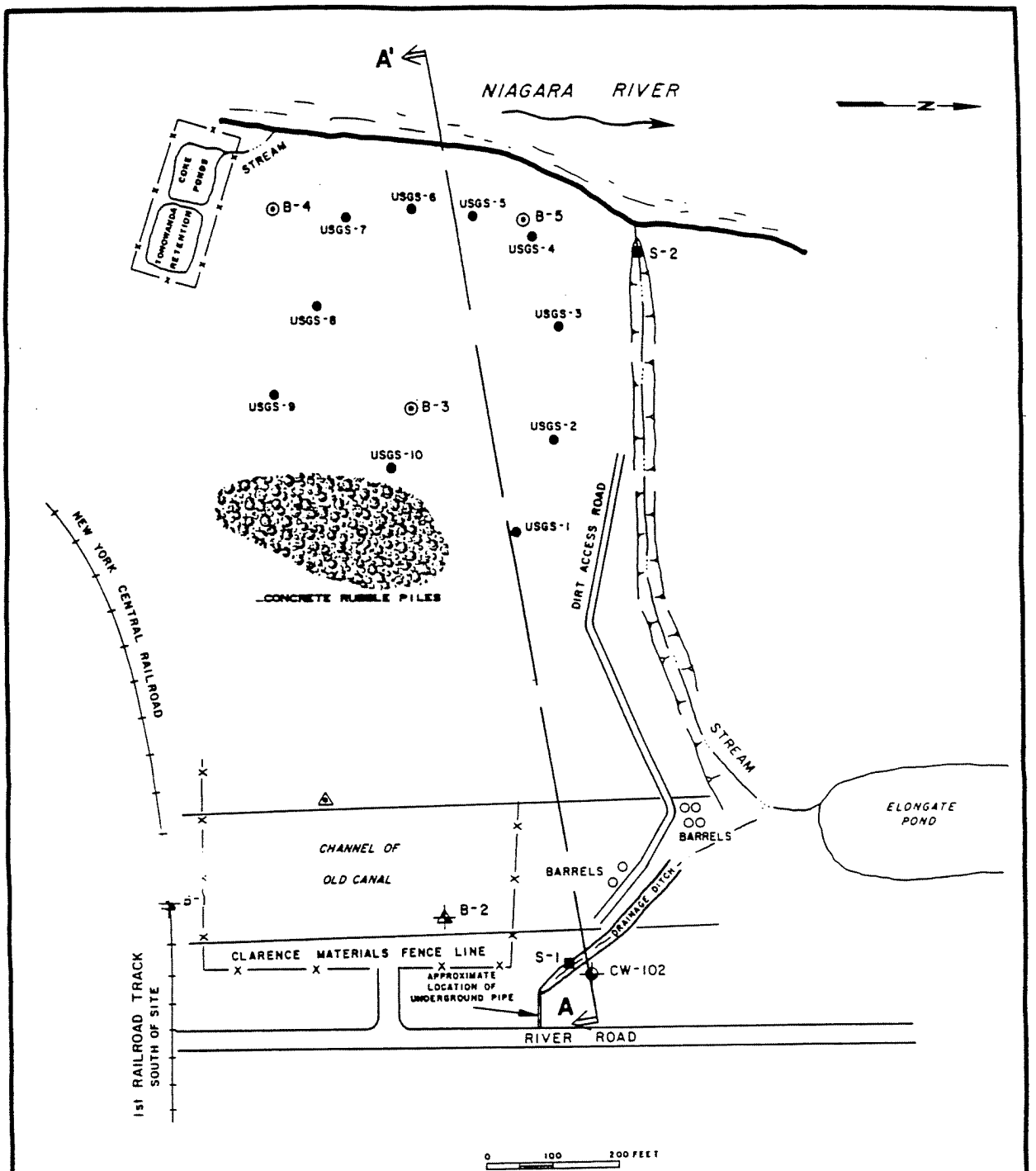

A'
NIAGARA RIVER
N
STREAM
CORE PONDS
TONOWANDA RETENTION
B-4
USGS-7
USGS-6
USGS-5
B-5
USGS-4
S-2
USGS-8
USGS-3
USGS-9
B-3
USGS-2
USGS-10
USGS-1
CONCRETE RUBBLE PILES
DIRT ACCESS ROAD
NEW YORK CENTRAL RAILROAD
STREAM
ELONGATE POND
BARRELS
CHANNEL OF OLD CANAL
BARRELS
DRAINAGE DITCH
B-2
CLARENCE MATERIALS FENCE LINE
S-1
CW-102
APPROXIMATE LOCATION OF UNDERGROUND PIPE
A
RIVER ROAD
1st RAILROAD TRACK SOUTH OF SITE
0 100 200 FEET
EXPLANATION:
USGS TEST BORINGS, 1982 (NIAGARA RIVER TOXICS' STUDY)
MONITORING WELL DRILLED UNDER TRAUTMAN ASSOCIATION'S SUPERVISION
MONITORING WELL DRILLED UNDER DAMES & MOORE'S SUPERVISION
PRIVATE WELL
CROSS SECTION LOCATION
MONITORING WELL DRILLED UNDER TRAUTMAN ASSOCIATION'S SUPERVISION (NO LONGER EXIST)
SURFACE WATER AND SEDIMENT SAMPLE
NOTES (1) Elevations in feet above mean sea level.
(2) Reference datum by Town of Tonowanda
ENGINEERING-SCIENCE IN ASSOCIATION WITH DAMES & MOORE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PHASE II REPORT
PLOT PLAN
INS EQUIPMENT
FIGURE III-1

TABLE IV-3A
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES[1]

Constituent[2]	Sample Location CW-102 (ug/l)	B-3 (ug/l)	B-4 (ug/l)	B-5 (ug/l)	NYSDEC Water[3] Qlty. Standard (ug/l)
Phenolics	20u	230	20u	130	1
Benzene	5.3	96	5u	12	ND
2-butanone	10u	84	10u	10u	NS
Toluene	5u	21	5u	1.5J	50 [4]
Xylene	5u	15	5u	20	50 [4]
1,1 dichloroethane	5u	5u	5u	28	50 [4]
Ethylbenzene	5u	5u	5u	5.1	50 [4]
Bis(2-ethylhexyl) phthalate	20u	10u	3J	20u	4,200
Di-n-octylphthalate	20u	10u	3J	20u	50 [4]

(1) Samples collected in August, 1985 by ES/D&M as part of Phase II Investigation. Samples of groundwater from wells CW-102, B-4, and B-5 were collected and analyzed for semi-volatiles in June, 1986.

(2) Metal constituents tested for (Cd, Pb, Cr, Hg) were not detected in any of the samples. Only those organics that were detected are listed in this table.

(3) "Groundwater Quality Standards and Effluent Standards and/or Limitations", 6 NYCRR Part 703, NYSDEC, 1978. Amended version in "Ambient Water Quality Standards and Guidance Criteria", NYSDEC Memorandum No. 85-W-38, July, 1985.

(4) Guidance criteria, not regulatory standard.

u Less than instrument detection limit.

NS No standard.

ND Not detectable.

J Concentration is an estimate, less than instrument detection limit.

TABLE IV-3B
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES[1]

Constituent	Sample Location and Date						NYSDEC[2] Water Qlty Standard (ug/l)
	Well #1 9/17/80 (ug/l)	Well #3 9/19/80 (ug/l)	Well #6 9/18/80 (ug/l)	Well #5 9/19/80 (ug/l)	Well #2 9/18/80 (ug/l)	Well #4 9/17/80 (ug/l)	
Iron	68,000	630	136,000	310,000	650	16,000	300
Manganese	2,040	600u	6,900	7,200	990	810	300
Nickel	600u	600u	600u	600	600u	620	NS
Zinc	200	50	450	600	2,500	1,800	5,000
Chromium	500u	500u	500u	500u	500u	500u	50
Aluminum	500	500u	500	500u	500u	500u	NS
Total Organic Carbon	34,000	57,500	63,000	14,500	30,000	38,500	NS
Total Halogenated Organics as Lindane	16.7	11.8	11.7	8.4	5.3	8.5	NS

(1) Samples collected as part of Trautman Associates Report, 1980.

(2) "Groundwater Quality Standards and Effluent Standards and/or Limitations", 6 NYCRR Part 703, NYSDEC, September 1, 1978. Amended version in NYSDEC "Ambient Water Quality Standards and Guidance Criteria", Memorandum No. 85-W-38, July 24, 1985.

NS Not specified.

TABLE IV-4
ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES[1]

Constituent[2]	Sample Locations S-1 (ug/l) Upgradient	S-2 (ug/l) Downgradient	NYSDEC Water Quality Standards[3] (ug/l)
Cadmium	5u	5u	10 [5]
Chromium	10u	10u	11 [4]
Lead	[4]	[4]	50 [5]
Mercury	0.2u	0.2u	0.2 [4]
Phenolics	20u	330	1 [5]
Di-n-butylphthalate	3J	10u	50 [5]
2-methylphenol	10u	32	1 [5]
4-methylphenol	10u	70	1 [5]
2,4-dimethylphenol	10u	62	1 [5]

(1) Samples collected in April 1985 as part of Phase II investigation. Additional samples collected in June, 1986 for analysis of semi-volatile compounds.

(2) All of metals tested for are presented. Only organic constituents present in at least one sample are presented.

(3) NYSDEC (1974). "Surface Water Quality Standards", 6 NYCRR 701-702. Amended version in "Ambient Water Quality Standards and Guidance Values", NYSDEC Memorandum No. 85-W-38, July 24, 1985.

(4) Class A, A-S, AA, AA-S, B, C for aquatic life.

(5) Class A, A-S, AA, AA-S for human health.

u Concentration less than detection limit.

[ ] Concentration less than contract required detection limits.

* NUS reported possible laboratory contamination.

J Concentration listed is less than detection limits and is estimated.

TABLE IV-5
ANALYTICAL RESULTS FOR SEDIMENT SAMPLES[1]

Constituent[2]	Sample Number S-1 (mg/kg) Upgradient	Sample Number S-2 (mg/kg) Downgradient	Normal Concentration Range in Soils (mg/kg)
Cadmium	[0.5]	4.5	< 1 [3]
Chromium	22R	3,300R	Trace to 250 [3]
Lead	52	236	2 - 200 [3]
Mercury	0.16u	0.17u	< 1 [4]
Methylene Chloride	0.160 [5]	0.062 [5]	NA
Acetone	0.582 [5]	0.372 [5]	NA
1,1 Dichloroethane	0.39u	0.0095J	NA
2-Butanone	0.078u	0.050	NA
Toluene	0.039u	0.0049J	NA
Total Xylenes	0.039u	0.011	NA
Phenolics	0.010u	0.100	NA
Phenanthrene	1.584u	6.6J	NA
Anthracene	1.584u	3.1J	0.02-0.05 [6]
Di-n-butylphthalate	0.340J	0.620J [5]	NA
Fluoranthene	1.584u	8.8J	NA
Pyrene	1.584u	6.8J	0.05-0.10 [6]
Benzo(a)anthracene	1.584u	2.2J	NA
Chrysene	1.584u	4.1J	0.07-0.10 [6]
Benzo(b)fluoranthene	1.584u	2.9J	0.05-0.07 [6]

(1) Samples collected in April 1985 for Phase II investigation. Additional samples collected in June, 1986 for analysis of semi-volatile compounds.
(2) All of metals tested are presented. Only those organics that were present in at least one of the samples are included.
(3) Handbook of the Toxicology of Metals. Friberg, L., et.al. (1978).
(4) Applied Soil Trace Elements. Davies, B. (1980).
(5) Corrected for concentration in the method blank. Methylene chloride = 0.0097 mg/kg, Acetone = 0.018 mg/kg, Di-n-butylphthalate = 0.27 mg/kg.
(6) Eadie, B. (1982). "Polycyclic Aromatic Hydrocarbons in Sediments and Associated Benthos in Lake Erie", Chemosphere.
[ ] Concentration less than contract detection limit.
R Spike sample recovery out of limits of 75-125% for one sample. Recovery of chromium in one of spiked samples was 15%.
u Concentration less than instrument detection limit.
J Concentration less than instrument detection limit, value is estimated.
NA Information not available.

TABLE IV-6
ANALYTICAL RESULTS FOR SOIL SAMPLES[1]

Constituent[2]	Sample Location 1 (14') (mg/kg)	2 (15') (mg/kg)	3 (18.5') (mg/kg)	4 (16.5') (mg/kg)	5 (15') (mg/kg)	6 (20') (mg/kg)	7 (8') (mg/kg)	8 (14') (mg/kg)	9 (4') (mg/kg)	10 (4') (mg/kg)	Normal Range of Concentration in Soils (mg/kg)
Cadmium	53	20	1u	5	6	1	4	1	2	2	< 1
Chromium	430	70	3	30	180	7	120	30	20	120	Trace-250
Iron	100,000	26,000	3,700	16,000	41,000	6,000	29,000	2,900	23,000	19,000	10000-100000
Lead	2,500	630	10	110	170	30	120	30	130	100	2-200
Phenol	61	---	---	---	---	---	---	---	---	NA	
2, Methylphenol	11	---	---	---	---	---	---	---	---	NA	
4, Methylphenol	43	---	---	10u	---	---	---	---	---	NA	
Bis(2-ethylhexyl)phthalate	52	---	10u	---	5	---	10u	---	---	NA	
Di-n-butylphthalate	4.6J	---	---	---	11	---	---	---	---	NA	
Acenaphthylene	6.2J	---	---	---	6.8J	---	---	---	21	NA	
Anthracene	10u	---	---	---	---	---	---	---	26	NA	0.02-0.05
Benzo(a)anthracene	4.8J	---	---	---	10u	---	---	---	47	NA	
Benzo(b)fluoranthene	---	---	---	---	---	---	---	---	33	NA	
Benzo(k)fluoranthene	---	---	---	---	---	---	---	---	33	NA	0.05-0.07
Benzo(a)pyrene	---	---	---	---	---	---	---	---	23	NA	0.03-0.08
Chrysene	4.7J	---	---	---	10u	---	---	---	35	NA	0.07-0.10
Fluoranthene	25	---	---	---	---	---	---	---	150	NA	
Fluorene	8.7J	---	---	---	NA	---	---	---	13	NA	
Phenanthrene	41	---	10u	10u	33	---	---	---	70	NA	
Pyrene	18	---	---	---	17	---	---	---	88	NA	0.05-0.10
Dibenzofuran	---	---	---	---	6.2J	---	---	---	12	NA	
Total PAH's	108.4	---	10u	10u	63	---	---	---	539	NA	1-10

TABLE IV-6
ANALYTICAL RESULTS FOR SOIL SAMPLES(1)

---

(1) Samples collected by USGS, August 1982.

(2) All metals tested for are presented. Only organic constituents present in at least one sample are presented.

(3) Friberg, L., et.al. (1979). Handbook of Toxicology of Metals.

(4) Davies, B. (1980). Applied Soil Trace Elements

(5) Eadie, B. (1982). "Polycyclic Aromatic Hydrocarbons in Sediments and Associated Benthos in Lake Erie", Chemosphere.

(6) Information not found.

(7) Edwards, N. T. (1983). "Polycyclic Aromatic Hydrocarbons (PAH's) in the Terrestrial Environment - A Review". J. Env. Quality.

u Concentration is less than listed detection limit.

J Concentration listed is an esimtated value, less than the detection limit.

NA Not analyzed.

--- Not detected.

Analytical Results for Groundwater Samples

NUS CORPORATION

5350 CAMPBELLS RUN ROAD • PITTSBURGH PA 15205
412 788 1080

LABORATORY SERVICES DIVISION

I certify that the analytical procedures used in the Engineering-Science, INS Equipment Site project are in accordance with USEPA Guidelines 44CFR46964, 40CFR136. or the NYSDEC Superfund and Contract Laboratory Protocol, January 1985.

Kathy D. [illegible]
Inorganic Laboratory Supervisor

10/21/85
Date

David A. Damer
Organic Laboratory Supervisor

10/24/85
Date

Form I - A

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
CW-102-Water

Date October 15, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science/INS Equipme

SOW NO. 784

LAB SAMPLE ID. NO. 15081914

QC REPORT NO. _____

Elements Identified and Measured

Concentration: Low _____ Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.2 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	5 U (P)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	10 U (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	5 U (F)	24.	Zinc	

Cyanide _____ Percent Solids (%) _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager: Kelly Del Lopez

CLP Sample Management Office
P O Box 818
Alexandria Virginia 22313 703/557-2490

CW-102

Sample Number

CW-102

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15081914
Sample Matrix: Water
Data Release Authorized By:

Case No: ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 08/29/85

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 08/30/85
Date Analyzed: 08/30/85
Conc/Dil Factor: 1 pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	4 9 J,B
67-64-1	Acetone	10 u
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	10 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2

CW-102

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	5	u
78-87-5	1,2-Dichloropropane	5	u
10061-02-6	Trans-1,3-Dichloropropene	5	u
79-01-6	Trichloroethene	5	u
124-48-1	Dibromochloromethane	5	u
79-00-5	1,1,2-Trichloroethane	5	u
71-43-2	Benzene	5 3	
10061-01-5	cis-1,3-Dichloropropene	5	u
110-75-8	2-Chloroethylvinylether	10	u
75-25-2	Bromoform	5	u
591-78-6	2-Hexanone	10	u
108-10-1	4-Methyl-2-Pentanone	10	u
127-18-4	Tetrachlorethene	5	u
108-88-3	Toluene	5	u
108-90-7	Chlorobenzene	5	u
100-41-4	Ethylbenzene	5	u
100-42-5	Styrene	5	u
	Total Xylenes	5	u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

S - Spiked compound

NR - No value required

CW-102

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration Low
Date Extracted/Prepared 08/30/85
Date Analyzed 09/03/85
Conc/Dil Factor 1

CAS Number		ug/l
319-84-6	Alpha-BHC	0.05 u
319-85-7	Beta-BHC	0.05 u
319-86-8	Delta-BHC	0.05 u
58-89-9	Gamma-BHC(lindane)	0.05 u
76-44-8	Heptachlor	0.05 u
309-00-2	Aldrin	0.05 u
1024-57-3	Heptachlor Epoxide	0.05 u
959-98-8	Endosulfan I	0.05 u
60-57-1	Dieldrin	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	Endrin	0.10 u
33213-65-9	Endosulfan II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	Endrin Aldehyde	0.10 u
1031-07-8	Endosulfan Sulfate	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	Methoxychlor	0.50 u
53494-70-5	Endrin Ketone	0.10 u
57-74-9	Chlordane	0.50 u
8001-35-2	Toxaphene	1.00 u
12674-11-2	Aroclor-1016	0.50 u
11104-28-2	Aroclor-1221	0.50 u
11141-16-5	Aroclor-1232	0.50 u
53469-21-9	Aroclor-1242	0.50 u
12672-29-6	Aroclor-1248	0.50 u
11097-69-1	Aroclor-1254	1.00 u
11096-82-5	Aroclor-1260	1.00 u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws Vt 10000 Vi 4

Organics Analysis Data Sheet
(Page 6)

CW-102

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
**********	**********	****	****	******
	NO VOA COMPOUND FOUND			
10544-50-0	SULFUR,MOL (S8)	BNA	1130	30 J

Sample Number
CW-102

Organics Analysis Data Sheet
(Page 1)

boratory Name: NUS CORPORATION
ab Sample ID No: 16060521
Sample Matrix: Water
ta Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/12/86

****

pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

lue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

- Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).
- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.
- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Spiked compound.

nd - No value required.

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT CW-102

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

ncentration: Low GPC Cleanup: NO
te Extracted/Prepared: 06/16/86 Separatory Funnel Extraction: YES
Date Analyzed: 07/22/86 Continuous Liquid-Liquid Extraction: NO
nc/Dil Factor: 2

CAS Number		ug/l
108-95-2	Phenol	20 u
111-44-4	bis(2-Chloroethyl)Ether	20 u
95-57-8	2-Chlorophenol	20 u
541-73-1	1,3-Dichlorobenzene	20 u
106-46-7	1,4-Dichlorobenzene	20 u
100-51-6	Benzyl Alcohol	20 u
95-50-1	1,2-Dichlorobenzene	20 u
95-48-7	2-Methylphenol	20 u
39638-32-9	bis(2-chloroisopropyl)Ether	20 u
106-44-5	4-Methylphenol	20 u
621-64-7	N-Nitroso-Di-n-Propylamine	20 u
67-72-1	Hexachloroethane	20 u
98-95-3	Nitrobenzene	20 u
78-59-1	Isophorone	20 u
88-75-5	2-Nitrophenol	20 u
105-67-9	2,4-Dimethylphenol	20 u
65-85-0	Benzoic Acid	100 u
111-91-1	bis(2-Chloroethoxy)Methane	20 u
120-83-2	2,4-Dichlorophenol	20 u
120-82-1	1,2,4-Trichlorobenzene	20 u
91-20-3	Naphthalene	20 u
106-47-8	4-Chloroaniline	20 u
87-68-3	Hexachlorobutadiene	20 u
59-50-7	4-Chloro-3-Methylphenol	20 u
91-57-6	2-Methylnaphthalene	20 u
77-47-4	Hexachlorocyclopentadiene	20 u
88-06-2	2,4,6-Trichlorophenol	20 u
95-95-4	2,4,5-Trichlorophenol	100 u
91-58-7	2-Chloronaphthalene	20 u
88-74-4	2-Nitroaniline	100 u
131-11-3	Dimethyl Phthalate	20 u
208-96-8	Acenaphthylene	20 u
99-09-2	3-Nitroaniline	100 u

Laboratory Name: NUS CORPORATION
Case No: ES/INS EQUIPMENT

Sample Number
CW-102

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/l	
		**********	
83-32-9	Acenaphthene	20	u
51-28-5	2,4-Dinitrophenol	100	u
100-02-7	4-Nitrophenol	100	u
132-64-9	Dibenzofuran	20	u
121-14-2	2,4-Dinitrotoluene	20	u
606-20-2	2,6-Dinitrotoluene	20	u
84-66-2	Diethylphthalate	20	u
7005-72-3	4-Chlorophenyl-phenylether	20	u
86-73-7	Fluorene	20	u
100-01-6	4-Nitroaniline	100	u
534-52-1	4,6-Dinitro-2-Methylphenol	100	u
86-30-6	N-Nitrosodiphenylamine(1)	20	u
101-55-3	4-Bromophenyl-phenylether	20	u
118-74-1	Hexachlorobenzene	20	u
87-86-5	Pentachlorophenol	100	u
85-01-8	Phenanthrene	20	u
120-12-7	Anthracene	20	u
84-74-2	Di-n-Butylphthalate	20	u
206-44-0	Fluoranthene	20	u
129-00-0	Pyrene	20	u
85-68-7	Butylbenzylphthalate	20	u
91-94-1	3,3`-Dichlorobenzidine	40	u
56-55-3	Benzo(a)Anthracene	20	u
117-81-7	bis(2-Ethylhexyl)Phthalate	20	u
218-01-9	Chrysene	20	u
117-84-0	Di-n-Octyl Phthalate	20	u
205-99-2	Benzo(b)Fluoranthene	20	u
207-08-9	Benzo(k)Fluoranthene	20	u
50-32-8	Benzo(a)Pyrene	20	u
193-39-5	Indeno(1,2,3-cd)Pyrene	20	u
53-70-3	Dibenzo(a,h)Anthracene	20	u
191-24-2	Benzo(g,h,i)Perylene	20	u

(1)-Cannot be separated from diphenylamine

Form I - B

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
B-3-Water

Date October 15, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science/INS Equipme

SOW NO. 784

LAB SAMPLE ID. NO. 15081915

QC REPORT NO. _____

Elements Identified and Measured

Concentration: Low _____ Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.2 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	5 U (P)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	10 U (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	5 U (F)	24.	Zinc	

Cyanide _____ Percent Solids (%) _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager: Kelly Del Aspro

P O Box 819
Alexandria, Virginia 22313 703/557-2490

B-3

Sample Number

B-3

Organics Analysis Data Sheet
(Page 1)

Laboratory Name NUS CORPORATION
Lab Sample ID No 15081915
Sample Matrix Water
Data Release Authorized By

Case No ES-INS EQUIPMENT
QC Report No
Contract No
Date Sample Received 08/29/85

Volatile Compounds

Concentration Low
Date Extracted/Prepared 08/30/85
Date Analyzed 08/30/85
Conc/Dil Factor 1 pH NR
Percent Moisture NR
Percent Moisture (Decanted) NR

CAS Number		ug/l	
74-87-3	Chloromethane	10	u
74-83-9	Bromomethane	10	u
75-01-4	Vinyl chloride	10	u
75-00-3	Chloroethane	10	u
75-09-2	Methylene Chloride	3.2 B,J	
67-64-1	Acetone	10	u
75-15-0	Carbon Disulfide	5	u
75-35-4	1,1-Dichloroethene	5	u
75-34-3	1,1-Dichloroethane	5	u
156-60-5	Trans-1,2-Dichloroethene	5	u
67-66-3	Chloroform	5	u
107-06-2	1,2-Dichloroethane	5	u
78-93-3	2-Butanone	84	
71-55-6	1,1,1-Trichloroethane	5	u
56-23-5	Carbon Tetrachloride	5	u
108-05-4	Vinyl Acetate	10	u
75-27-4	Bromodichloromethane	5	u

Data reporting qualifiers are explained on Page 2.

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l	
79-34-5	1,1,2,2-Tetrachloroethane		5 u
78-87-5	1,2-Dichloropropane		5 u
10061-02-6	Trans-1,3-Dichloropropene		5 u
79-01-6	Trichloroethene		5 u
124-48-1	Dibromochloromethane		5 u
79-00-5	1,1,2-Trichloroethane		5 u
71-43-2	Benzene	96	
10061-01-5	cis-1,3-Dichloropropene		5 u
110-75-8	2-Chloroethylvinylether		10 u
75-25-2	Bromoform		5 u
591-78-6	2-Hexanone		10 u
108-10-1	4-Methyl-2-Pentanone		10 u
127-18-4	Tetrachlorethene		5 u
108-88-3	Toluene	21	
108-90-7	Chlorobenzene		5 u
100-41-4	Ethylbenzene		5 u
100-42-5	Styrene		5 u
	Total Xylenes	15	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound

NR - No value required

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

Concentration Low
Date Extracted/Prepared 08/30/85
Date Analyzed 10/23/85
Conc/Dil Factor: 10

CAS Number		ug/l	
62-75-9	N-Nitrosodimethylamine		100 u
108-95-2	Phenol		100 u
62-53-3	Aniline		100 u
111-44-4	bis(2-Chloroethyl)Ether		100 u
95-57-8	2-Chlorophenol		100 u
541-73-1	1,3-Dichlorobenzene		100 u
106-46-7	1,4-Dichlorobenzene		100 u
100-51-6	Benzyl Alcohol		100 u
95-50-1	1,2-Dichlorobenzene		100 u
95-48-7	2-Methylphenol		100 u
39638-32-9	bis(2-chloroisopropyl)Ether		100 u
106-44-5	4-Methylphenol		100 u
621-64-7	N-Nitroso-Di-n-Propylamine		100 u
67-72-1	Hexachloroethane		100 u
98-95-3	Nitrobenzene		100 u
78-59-1	Isophorone		100 u
88-75-5	2-Nitrophenol		100 u
105-67-9	2,4-Dimethylphenol		100 u
65-85-0	Benzoic Acid		500 u
111-91-1	bis(2-Chloroethoxy)Methane		100 u
120-83-2	2,4-Dichlorophenol		100 u
120-82-1	1,2,4-Trichlorobenzene		100 u
91-20-3	Naphthalene	860	
106-47-8	4-Chloroaniline		100 u
87-68-3	Hexachlorobutadiene		100 u
59-50-7	4-Chloro-3-Methylphenol		100 u
91-57-6	2-Methylnaphthalene		100 u
77-47-4	Hexachlorocyclopentadiene		100 u
88-06-2	2,4,6-Trichlorophenol		100 u
95-95-4	2,4,5-Trichlorophenol		500 u
91-58-7	2-Chloronaphthalene		100 u
88-74-4	2-Nitroaniline		500 u
131-11-3	Dimethyl Phthalate		100 u
208-96-8	Acenaphthylene		100 u
99-09-2	3-Nitroaniline		100 u

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

Case Number:		ug/l	
83-32-9	Acenaphthene	100	u
51-28-5	2,4-Dinitrophenol	500	u
100-02-7	4-Nitrophenol	500	u
132-64-9	Dibenzofuran	100	u
121-14-2	2,4-Dinitrotoluene	100	u
606-20-2	2,6-Dinitrotoluene	100	u
84-66-2	Diethylphthalate	100	u
7005-72-3	4-Chlorophenyl-phenylether	100	u
86-73-7	Fluorene	100	u
100-01-6	4-Nitroaniline	500	u
534-52-1	4,6-Dinitro-2-Methylphenol	500	u
86-30-6	N-Nitrosodiphenylamine(1)	100	u
101-55-3	4-Bromophenyl-phenylether	100	u
118-74-1	Hexachlorobenzene	100	u
87-86-5	Pentachlorophenol	500	u
85-01-8	Phenanthrene	100	u
120-12-7	Anthracene	100	u
84-74-2	Di-n-Butylphthalate	100	u
206-44-0	Fluoranthene	100	u
92-87-5	Benzidine	500	u
129-00-0	Pyrene	100	u
85-68-7	Butylbenzylphthalate	100	u
91-94-1	3,3 -Dichlorobenzidine	200	u
56-55-3	Benzo(a)Anthracene	100	u
117-81-7	bis(2-Ethylhexyl)Phthalate	100	u
218-01-9	Chrysene	100	u
117-84-0	Di-n-Octyl Phthalate	100	u
205-99-2	Benzo(b)Fluoranthene	100	u
207-08-9	Benzo(k)Fluoranthene	100	u
50-32-8	Benzo(a)Pyrene	100	u
193-39-5	Indeno(1,2,3-cd)Pyrene	100	u
53-70-3	Dibenzo(a,h)Anthracene	100	u
191-24-2	Benzo(g,h,i)Perylene	100	u

(1)-Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration Low
Date Extracted/Prepared 08/30/85
Date Analyzed 09/03/85
Conc/Dil Factor 1

CAS Number		ug/l
319-84-6	Alpha-BHC	0.05 u
319-85-7	Beta-BHC	0.05 u
319-86-8	Delta-BHC	0.05 u
58-89-9	Gamma-BHC(lindane)	0.05 u
76-44-8	Heptachlor	0.05 u
309-00-2	Aldrin	0.05 u
1024-57-3	Heptachlor Epoxide	0.05 u
959-98-8	Endosulfan I	0.05 u
60-57-1	Dieldrin	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	Endrin	0.10 u
33213-65-9	Endosulfan II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	Endrin Aldehyde	0.10 u
1031-07-8	Endosulfan Sulfate	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	Methoxychlor	0.50 u
53494-70-5	Endrin Ketone	0.10 u
57-74-9	Chlordane	0.50 u
8001-35-2	Toxaphene	1.00 u
12674-11-2	Aroclor-1016	0.50 u
11104-28-2	Aroclor-1221	0.50 u
11141-16-5	Aroclor-1232	0.50 u
53469-21-9	Aroclor-1242	0.50 u
12672-29-6	Aroclor-1248	0.50 u
11097-69-1	Aroclor-1254	1.00 u
11096-82-5	Aroclor-1260	1.00 u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws 10000 Vt 4 Vi

B-3

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
**********	**********	****	****	******
109-99-9	FURAN,TETRAHYDRO-	VOA	211	100 J
2415-72-7	CYCLOPROPANE,PROPYL-	VOA	237	20 J
96-14-0	PENTANE, 3-METHYL-	VOA	324	20 J
110-54-3	HEXANE	VOA	362	40 J
10544-50-0	SULFUR,MOL (S8)	BNA	1129	100 J

Form I - C

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
B-4-Water

Date October 15, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science/INS Equipme

SOW NO. 784

LAB SAMPLE ID. NO. 15081916

QC REPORT NO. _____

Elements Identified and Measured

Concentration: Low _____ Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.2 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	5 U (P)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	10 U (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	5 U (F)	24.	Zinc	

Cyanide _____ Percent Solids (%) _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager: Kathy Gil Lynch

P O Box 3.8
Alexandria, Virginia 22313 (703) 557-2400

B-4

Sample Number

B-4

Organics Analysis Data Sheet
(Page 1)

Laboratory Name NUS CORPORATION
Lab Sample ID No: 15081916
Sample Matrix Water
Data Release Authorized By:

Case No ES-INS EQUIPMENT
QC Report No
Contract No
Date Sample Received 08/29/85

Volatile Compounds

Concentration Low
Date Extracted/Prepared 08/30/85
Date Analyzed 08/30/85
Conc/Dil Factor 1 pH NR
Percent Moisture NR
Percent Moisture (Decanted) NR

CAS Number		ug/l
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	4.0 J,B
67-64-1	Acetone	10 u
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	10 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2.

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	5	u
78-87-5	1,2-Dichloropropane	5	u
10061-02-6	Trans-1,3-Dichloropropene	5	u
79-01-6	Trichloroethane	5	u
124-48-1	Dibromochloromethane	5	u
79-00-5	1,1,2-Trichloroethane	5	u
71-43-2	Benzene	5	u
10061-01-5	cis-1,3-Dichloropropene	5	u
110-75-8	2-Chloroethylvinylether	10	u
75-25-2	Bromoform	5	u
591-78-6	2-Hexanone	10	u
108-10-1	4-Methyl-2-Pentanone	10	u
127-18-4	Tetrachlorethene	5	u
108-88-3	Toluene	5	u
108-90-7	Chlorobenzene	5	u
100-41-4	Ethylbenzene	5	u
100-42-5	Styrene	5	u
	Total Xylenes	5	u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound.

NR - No value required

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared 08/30/85
Date Analyzed: 09/03/85
Conc/Dil Factor 1

CAS Number		ug/l
319-84-6	Alpha-BHC	0.05 u
319-85-7	Beta-BHC	0.05 u
319-86-8	Delta-BHC	0.05 u
58-89-9	Gamma-BHC(lindane)	0.05 u
76-44-8	Heptachlor	0.05 u
309-00-2	Aldrin	0.05 u
1024-57-3	Heptachlor Epoxide	0.05 u
959-98-8	Endosulfan I	0.05 u
60-57-1	Dieldrin	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	Endrin	0.10 u
33213-65-9	Endosulfan II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	Endrin Aldehyde	0.10 u
1031-07-8	Endosulfan Sulfate	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	Methoxychlor	0.50 u
53494-70-5	Endrin Ketone	0.10 u
57-74-9	Chlordane	0.50 u
8001-35-2	Toxaphene	1.00 u
12674-11-2	Aroclor-1016	0.50 u
11104-28-2	Aroclor-1221	0.50 u
11141-16-5	Aroclor-1232	0.50 u
53469-21-9	Aroclor-1242	0.50 u
12672-29-6	Aroclor-1248	0.50 u
11097-69-1	Aroclor-1254	1.00 u
11096-82-5	Aroclor-1260	1.00 u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws Vt 10000 Vi 4

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
**********	**********	****	****	******
2415-72-7	CYCLOPROPANE,PROPYL-	VOA	283	10 J
96-14-0	PENTANE, 3-METHYL-	VOA	320	10 J
107-83-5	PENTANE,2-METHYL-	VOA	327	10 J
110-54-3	HEXANE	VOA	358	20 J
10544-50-0	SULFUR,MOL. (S8)	BNA	1128	20 J

M E M O R A N D U M

September 12, 1986

TO: INS Equipment Final Report File

FROM: Elizabeth M. Dobson - Engineering-Science

SUBJECT: INS Equipment Sample B-3

The sample marked B-3 for INS Equipment, which was sampled on 6/11/86, was labeled improperly in the field. This sample was taken from well B-4 and is noted as such on the Chain-of-Custody form. This fact is verified from field note observations which note it was not possible to obtain a water sample from Well B-3 due to kinks in the well casing which could not be passed with the sampling bailer.

EMD/sas

Sample Number
B-3

Organics Analysis Data Sheet
(Page 1)

aboratory Name: NUS CORPORATION
.ab Sample ID No: 16060527
Sample Matrix: Water
ata Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/12/86

****

pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

- Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

R - No value required.

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT B-3

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

oncentration: Low GPC Cleanup: NO
ate Extracted/Prepared: 06/16/86 Separatory Funnel Extraction: YES
Date Analyzed: 07/23/86 Continuous Liquid-Liquid Extraction: NO
Conc/Dil Factor: 1

CAS Number		ug/l
108-95-2	Phenol	10 u
111-44-4	bis(2-Chloroethyl)Ether	10 u
95-57-8	2-Chlorophenol	10 u
541-73-1	1,3-Dichlorobenzene	10 u
106-46-7	1,4-Dichlorobenzene	10 u
100-51-6	Benzyl Alcohol	10 u
95-50-1	1,2-Dichlorobenzene	10 u
95-48-7	2-Methylphenol	10 u
39638-32-9	bis(2-chloroisopropyl)Ether	10 u
106-44-5	4-Methylphenol	10 u
621-64-7	N-Nitroso-Di-n-Propylamine	10 u
67-72-1	Hexachloroethane	10 u
98-95-3	Nitrobenzene	10 u
78-59-1	Isophorone	10 u
88-75-5	2-Nitrophenol	10 u
105-67-9	2,4-Dimethylphenol	10 u
65-85-0	Benzoic Acid	50 u
111-91-1	bis(2-Chloroethoxy)Methane	10 u
120-83-2	2,4-Dichlorophenol	10 u
120-82-1	1,2,4-Trichlorobenzene	10 u
91-20-3	Naphthalene	10 u
106-47-8	4-Chloroaniline	10 u
87-68-3	Hexachlorobutadiene	10 u
59-50-7	4-Chloro-3-Methylphenol	10 u
91-57-6	2-Methylnaphthalene	10 u
77-47-4	Hexachlorocyclopentadiene	10 u
88-06-2	2,4,6-Trichlorophenol	10 u
95-95-4	2,4,5-Trichlorophenol	50 u
91-58-7	2-Chloronaphthalene	10 u
88-74-4	2-Nitroaniline	50 u
131-11-3	Dimethyl Phthalate	10 u
208-96-8	Acenaphthylene	10 u
99-09-2	3-Nitroaniline	50 u

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT B-3

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/l	
		**********	
83-32-9	Acenaphthene	10	u
51-28-5	2,4-Dinitrophenol	50	u
100-02-7	4-Nitrophenol	50	u
132-64-9	Dibenzofuran	10	u
121-14-2	2,4-Dinitrotoluene	10	u
606-20-2	2,6-Dinitrotoluene	10	u
84-66-2	Diethylphthalate	10	u
7005-72-3	4-Chlorophenyl-phenylether	10	u
86-73-7	Fluorene	10	u
100-01-6	4-Nitroaniline	50	u
534-52-1	4,6-Dinitro-2-Methylphenol	50	u
86-30-6	N-Nitrosodiphenylamine(1)	10	u
101-55-3	4-Bromophenyl-phenylether	10	u
118-74-1	Hexachlorobenzene	10	u
87-86-5	Pentachlorophenol	50	u
85-01-8	Phenanthrene	10	u
120-12-7	Anthracene	10	u
84-74-2	Di-n-Butylphthalate	10	u
206-44-0	Fluoranthene	10	u
129-00-0	Pyrene	10	u
85-68-7	Butylbenzylphthalate	10	u
91-94-1	3,3`-Dichlorobenzidine	20	u
56-55-3	Benzo(a)Anthracene	10	u
117-81-7	bis(2-Ethylhexyl)Phthalate	3	J
218-01-9	Chrysene	10	u
117-84-0	Di-n-Octyl Phthalate	3	J
205-99-2	Benzo(b)Fluoranthene	10	u
207-08-9	Benzo(k)Fluoranthene	10	u
50-32-8	Benzo(a)Pyrene	10	u
193-39-5	Indeno(1,2,3-cd)Pyrene	10	u
53-70-3	Dibenzo(a,h)Anthracene	10	u
191-24-2	Benzo(g,h,i)Perylene	10	u

(1)-Cannot be separated from diphenylamine

Sample Number
S-2

Organics Analysis Data Sheet
(Page 1)

ıboratory Name: NUS CORPORATION
ab Sample ID No: 16060525
Sample Matrix: Water
ıta Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/14/86

pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

ılue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

- Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).
- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.
- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Spiked compound.

ı - No value required.

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT S-2

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

oncentration: Low GPC Cleanup: NO
ate Extracted/Prepared: 06/16/86 Separatory Funnel Extraction: YES
Date Analyzed: 07/23/86 Continuous Liquid-Liquid Extraction: NO
onc/Dil Factor: 1

CAS Number		ug/l
108-95-2	Phenol	10 u
111-44-4	bis(2-Chloroethyl)Ether	10 u
95-57-8	2-Chlorophenol	10 u
541-73-1	1,3-Dichlorobenzene	10 u
106-46-7	1,4-Dichlorobenzene	10 u
100-51-6	Benzyl Alcohol	10 u
95-50-1	1,2-Dichlorobenzene	10 u
95-48-7	2-Methylphenol	32
39638-32-9	bis(2-chloroisopropyl)Ether	10 u
106-44-5	4-Methylphenol	70
621-64-7	N-Nitroso-Di-n-Propylamine	10 u
67-72-1	Hexachloroethane	10 u
98-95-3	Nitrobenzene	10 u
78-59-1	Isophorone	10 u
88-75-5	2-Nitrophenol	10 u
105-67-9	2,4-Dimethylphenol	62
65-85-0	Benzoic Acid	50 u
111-91-1	bis(2-Chloroethoxy)Methane	10 u
120-83-2	2,4-Dichlorophenol	10 u
120-82-1	1,2,4-Trichlorobenzene	10 u
91-20-3	Naphthalene	10 u
106-47-8	4-Chloroaniline	10 u
87-68-3	Hexachlorobutadiene	10 u
59-50-7	4-Chloro-3-Methylphenol	10 u
91-57-6	2-Methylnaphthalene	10 u
77-47-4	Hexachlorocyclopentadiene	10 u
88-06-2	2,4,6-Trichlorophenol	10 u
95-95-4	2,4,5-Trichlorophenol	50 u
91-58-7	2-Chloronaphthalene	10 u
88-74-4	2-Nitroaniline	50 u
131-11-3	Dimethyl Phthalate	10 u
208-96-8	Acenaphthylene	10 u
99-09-2	3-Nitroaniline	50 u

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT S-2

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/l
83-32-9	Acenaphthene	10 u
51-28-5	2,4-Dinitrophenol	50 u
100-02-7	4-Nitrophenol	50 u
132-64-9	Dibenzofuran	10 u
121-14-2	2,4-Dinitrotoluene	10 u
606-20-2	2,6-Dinitrotoluene	10 u
84-66-2	Diethylphthalate	10 u
7005-72-3	4-Chlorophenyl-phenylether	10 u
86-73-7	Fluorene	10 u
100-01-6	4-Nitroaniline	50 u
534-52-1	4,6-Dinitro-2-Methylphenol	50 u
86-30-6	N-Nitrosodiphenylamine(1)	10 u
101-55-3	4-Bromophenyl-phenylether	10 u
118-74-1	Hexachlorobenzene	10 u
87-86-5	Pentachlorophenol	50 u
85-01-8	Phenanthrene	10 u
120-12-7	Anthracene	10 u
84-74-2	Di-n-Butylphthalate	10 u
206-44-0	Fluoranthene	10 u
129-00-0	Pyrene	10 u
85-68-7	Butylbenzylphthalate	10 u
91-94-1	3,3`-Dichlorobenzidine	20 u
56-55-3	Benzo(a)Anthracene	10 u
117-81-7	bis(2-Ethylhexyl)Phthalate	10 u
218-01-9	Chrysene	10 u
117-84-0	Di-n-Octyl Phthalate	10 u
205-99-2	Benzo(b)Fluoranthene	10 u
207-08-9	Benzo(k)Fluoranthene	10 u
50-32-8	Benzo(a)Pyrene	10 u
193-39-5	Indeno(1,2,3-cd)Pyrene	10 u
53-70-3	Dibenzo(a,h)Anthracene	10 u
191-24-2	Benzo(g,h,i)Perylene	10 u

(1)-Cannot be separated from diphenylamine

PHENOLICS
TEST NUMBER W500 INSTRUMENT NUMBER 0
PAGE NUMBER 6 DATE 05.01.85

Surface Water Phenolics

DATA # / SAMPLE #	ANALYST / DATE	ORIGINAL ALIQUOT / RESULT	ORIGINAL VOLUME	DUPLICATE ALIQUOT / XI	DUPLICATE VOLUME / RESULT	TRIPLICATE ALIQUOT / XJ	TRIPLICATE VOLUME / RESULT	SPIKE	CONCENTRATION THEORETICAL / RESULT	STANDARD THEORETICAL / ACTUAL	USED IN OLD QC DATA
500-000-161	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
15031850	04.01.85	<0.02 ms/l		0.0000	<0.04 ms/l	0.0000	0ms/l		0ms/l	10.71ms/l	
500-000-162	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
15031854	04.01.85	<0.02 ms/l		0.0000	<0.1 ms/l	0.0000	0ms/l		0ms/l	10.71ms/l	
500-000-163	DK	500ml	500ml	100ml	500ml	100ml	500ml	10ml	10ms/l	10ms/l	XJ
15031859	04.04.85	<0.02 ms/l		0.0000	<0.1 ms/l	0.0196	1.04ms/l		1ms/l	11.05ms/l	
500-000-164	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
15031869	04.04.85	<0.02 ms/l		0.0000	<0.1 ms/l	0.0000	0ms/l		0ms/l	11.05ms/l	
500-000-165	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
5031873	04.04.85	<0.02 ms/l		0.0000	<0.1 ms/l	0.0000	0ms/l		0ms/l	11.05ms/l	
500-000-166	DK	500ml	500ml	100ml	500ml	100ml	500ml	10ml	10ms/l	10ms/l	XJ
5040444	04.10.85	<0.02 ms/l		0.0000	<1 ms/l	0.0431	1.09ms/l		1ms/l	11.75ms/l	
500-000-167	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
5040270	04.10.85	0.013ms/l		0.1875	0.019ms/l	0.0000	0ms/l		0ms/l	11.75ms/l	
000-168	DK	500ml	500ml	100ml	500ml	0ml	0ml	0ml	0ms/l	10ms/l	
0270	04.10.85	<0.02 ms/l		0.0000	<0.1 ms/l	0.0000	0ms/l		0ms/l	11.75ms/l	W500-00
W500-000-169	DK	500ml	500ml	100ml (2)	500ml	100ml (2)	500ml	10ml	5ms/l	100ms/l	XJ
5040825	04.17.85	0.326ms/l		~~0.0061~~	0.035ms/l	~~0.7246~~	0.084ms/l		0.535ms/l	106ms/l	
W500-000-170	DK	~~500ml~~	~~500ml~~	100ml	500ml	100ml	500ml	10ml	5ms/l	100ms/l	XI
5040825 (1)	04.17.85	0.326ms/l		0.0219	0.312ms/l	0.0410	0.748ms/l		0.812ms/l	106ms/l	W500-000-
W500-000-171	DK	500ml	500ml	100ml	500ml	100ml	500ml	10ml	10ms/l	10ms/l	XI
5041330	04.22.85	0.3133ms/l		0.0997	0.3827ms/l	0.0345	1.2905ms/l		1.3827ms/l	10.8ms/l	
W500-000-172	DK	500ml	500ml	100ml	500ml	100ml	500ml	10ml	10ms/l	10ms/l	
15040539	04.23.85	2.8ms/l		1.0000	<1 ms/l	0.0099	1.02ms/l		1ms/l	11.2ms/l	

(1) Engineering Science (S-2 surface water)

(2) Information was entered into the computer incorrectly; disregard the data.

Analytical Results for Sediment Samples

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
S-1 Sediment
INS Equipment
(1)

Date June 11, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation
CASE NO. Engineering-Science
SOW NO. 784
LAB SAMPLE ID. NO. 15040822
QC REPORT NO.

Elements Identified and Measured

Concentration: Low ____ Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum			13.	Magnesium		
2.	Antimony			14.	Manganese		
3.	Arsenic			15.	Mercury	0.16 U	(C)
4.	Barium			16.	Nickel		
5.	Beryllium			17.	Potassium		
6.	Cadmium	[0.5]	(F)	18.	Selenium		
7.	Calcium			19.	Silver		
8.	Chromium	22 R	(P)	20.	Sodium		
9.	Cobalt			21.	Thallium		
10.	Copper			22.	Tin		
11.	Iron			23.	Vanadium		
12.	Lead	52	(P)	24.	Zinc		

Cyanide ____ Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) ref: Identification immediately following the Cover Page.

Lab Manager M. J. Marple

Environmental Protection Agency
CLP Sample Management Office
P.O.Box 818
Alexandria, Virginia 22313 703/557-2490

Sample Number

INS EQUIPMENT S-1
Sediment

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15040822
Sample Matrix: Soil
Data Release Authorized By:
****

Case No: ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 04/12/85

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/17/85
Date Analyzed: 04/17/85
Conc/Dil Factor: 5 pH 7
Percent Moisture: 36
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	78 u
74-83-9	Bromomethane	78 u
75-01-4	Vinyl chloride	78 u
75-00-3	Chloroethane	78 u
75-09-2	Methylene Chloride	170 B
67-64-1	Acetone	600 B
75-15-0	Carbon Disulfide	39 u
75-35-4	1,1-Dichloroethene	39 u
75-34-3	1,1-Dichloroethane	39 u
156-60-5	Trans-1,2-Dichloroethene	39 u
67-66-3	Chloroform	39 u
107-06-2	1,2-Dichloroethane	39 u
78-93-3	2-Butanone	78 u
71-55-6	1,1,1-Trichloroethane	39 u
56-23-5	Carbon Tetrachloride	39 u
108-05-4	Vinyl Acetate	78 u
75-27-4	Bromodichloromethane	39 u

Data reporting qualifiers are explained on Page 2.
****

Sample Number
INS EQUIPMENT S-1
Sediment

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/kg
79-34-5	1,1,2,2-Tetrachloroethane	39 u
78-87-5	1,2-Dichloropropane	39 u
10061-02-6	Trans-1,3-Dichloropropene	39 u
79-01-6	Trichloroethene	39 u
124-48-1	Dibromochloromethane	39 u
79-00-5	1,1,2-Trichloroethane	39 u
71-43-2	Benzene	39 u
10061-01-5	cis-1,3-Dichloropropene	39 u
110-75-8	2-Chloroethylvinylether	78 u
75-25-2	Bromoform	39 u
591-78-6	2-Hexanone	78 u
108-10-1	4-Methyl-2-Pentanone	78 u
127-18-4	Tetrachlorethene	39 u
108-88-3	Toluene	39 u
108-90-7	Chlorobenzene	39 u
100-41-4	Ethylbenzene	39 u
100-42-5	Styrene	39 u
	Total Xylenes	39 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J)

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound.

NR - No value required.

Sample Number
INS EQUIPMENT S-1
Sediment

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared: 04/18/85
Date Analyzed: ~~05/28/85~~ 05/29/85
Conc/Dil Factor: 10

CAS Number		ug/kg	
		**********	
319-84-6	Alpha-BHC	128.0	u
319-85-7	Beta-BHC	128.0	u
319-86-8	Delta-BHC	128.0	u
58-89-9	Gamma-BHC(lindane)	128.0	u
76-44-8	Heptachlor	128.0	u
309-00-2	Aldrin	128.0	u
1024-57-3	Heptachlor Epoxide	128.0	u
959-98-8	Endosulfan I	128.0	u
60-57-1	Dieldrin	256.0	u
72-55-9	4,4'-DDE	256.0	u
72-20-8	Endrin	256.0	u
33213-65-9	Endosulfan II	256.0	u
72-54-8	4,4'-DDD	256.0	u
7421-93-4	Endrin Aldehyde	256.0	u
1031-07-8	Endosulfan Sulfate	256.0	u
50-29-3	4,4'-DDT	256.0	u
72-43-5	Methoxychlor	1280.0	u
53494-70-5	Endrin Ketone	256.0	u
57-74-9	Chlordane	1280.0	u
8001-35-2	Toxaphene	2560.0	u
12674-11-2	Aroclor-1016	1280.0	u
11104-28-2	Aroclor-1221	1280.0	u
11141-16-5	Aroclor-1232	1280.0	u
53469-21-9	Aroclor-1242	1280.0	u
12672-29-6	Aroclor-1248	1280.0	u
11097-69-1	Aroclor-1254	2560.0	u
11096-82-5	Aroclor-1260	2560.0	u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs or Ws 19.2 Vt 20000 Vi 4

Sample Number
INS EQUIPMENT S-1

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/kg
**********	**********	****	****	******
76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2-TRIFLUORO-	VOA	241	60 J,B
110-54-3	HEXANE	VOA	365	10 J,B
1186-53-4	PENTANE,2,2,3,4-TETRAMETHYL-	VOA	445	10 J
10544-50-0	SULFUR,MOL. (S8)	BNA	1152	2000 J

Sample Number
SED-1

Organics Analysis Data Sheet
(Page 1)

ıboratory Name: NUS CORPORATION
ab Sample ID No: 16060530
mple Matrix: Soil
ıta Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/12/86

****

pH: NR
Percent Moisture: 17
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.
- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Spiked compound.

.R - No value required.

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT SED-1

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

oncentration: Low GPC Cleanup: NO
ate Extracted/Prepared: 06/16/86 Separatory Funnel Extraction: NO
Date Analyzed: 07/24/86 Continuous Liquid-Liquid Extraction: NO
onc/Dil Factor: 4.0

CAS Number		ug/kg
108-95-2	Phenol	1584 u
111-44-4	bis(2-Chloroethyl)Ether	1584 u
95-57-8	2-Chlorophenol	1584 u
541-73-1	1,3-Dichlorobenzene	1584 u
106-46-7	1,4-Dichlorobenzene	1584 u
100-51-6	Benzyl Alcohol	1584 u
95-50-1	1,2-Dichlorobenzene	1584 u
95-48-7	2-Methylphenol	1584 u
39638-32-9	bis(2-chloroisopropyl)Ether	1584 u
106-44-5	4-Methylphenol	1584 u
621-64-7	N-Nitroso-Di-n-Propylamine	1584 u
67-72-1	Hexachloroethane	1584 u
98-95-3	Nitrobenzene	1584 u
78-59-1	Isophorone	1584 u
88-75-5	2-Nitrophenol	1584 u
105-67-9	2,4-Dimethylphenol	1584 u
65-85-0	Benzoic Acid	7680 u
111-91-1	bis(2-Chloroethoxy)Methane	1584 u
120-83-2	2,4-Dichlorophenol	1584 u
120-82-1	1,2,4-Trichlorobenzene	1584 u
91-20-3	Naphthalene	1584 u
106-47-8	4-Chloroaniline	1584 u
87-68-3	Hexachlorobutadiene	1584 u
59-50-7	4-Chloro-3-Methylphenol	1584 u
91-57-6	2-Methylnaphthalene	1584 u
77-47-4	Hexachlorocyclopentadiene	1584 u
88-06-2	2,4,6-Trichlorophenol	1584 u
95-95-4	2,4,5-Trichlorophenol	7680 u
91-58-7	2-Chloronaphthalene	1584 u
88-74-4	2-Nitroaniline	7680 u
131-11-3	Dimethyl Phthalate	1584 u
208-96-8	Acenaphthylene	1584 u
99-09-2	3-Nitroaniline	7680 u

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT SED-1

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/kg	
83-32-9	Acenaphthene	1584	u
51-28-5	2,4-Dinitrophenol	7680	u
100-02-7	4-Nitrophenol	7680	u
132-64-9	Dibenzofuran	1584	u
121-14-2	2,4-Dinitrotoluene	1584	u
606-20-2	2,6-Dinitrotoluene	1584	u
84-66-2	Diethylphthalate	1584	u
7005-72-3	4-Chlorophenyl-phenylether	1584	u
86-73-7	Fluorene	1584	u
100-01-6	4-Nitroaniline	7680	u
534-52-1	4,6-Dinitro-2-Methylphenol	7680	u
86-30-6	N-Nitrosodiphenylamine(1)	1584	u
101-55-3	4-Bromophenyl-phenylether	1584	u
118-74-1	Hexachlorobenzene	1584	u
87-86-5	Pentachlorophenol	7680	u
85-01-8	Phenanthrene	1584	u
120-12-7	Anthracene	1584	u
84-74-2	Di-n-Butylphthalate	340 J	
206-44-0	Fluoranthene	1584	u
129-00-0	Pyrene	1584	u
85-68-7	Butylbenzylphthalate	1584	u
91-94-1	3,3`-Dichlorobenzidine	3168	u
56-55-3	Benzo(a)Anthracene	1584	u
117-81-7	bis(2-Ethylhexyl)Phthalate	1584	u
218-01-9	Chrysene	1584	u
117-84-0	Di-n-Octyl Phthalate	1584	u
205-99-2	Benzo(b)Fluoranthene	1584	u
207-08-9	Benzo(k)Fluoranthene	1584	u
50-32-8	Benzo(a)Pyrene	1584	u
193-39-5	Indeno(1,2,3-cd)Pyrene	1584	u
53-70-3	Dibenzo(a,h)Anthracene	1584	u
191-24-2	Benzo(g,h,i)Perylene	1584	u

(1)-Cannot be separated from diphenylamine

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
S-2 Sediment
INS Equipment
(1)

Date June 11, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science

SOW NO. 784

LAB SAMPLE ID. NO. 15040823

QC REPORT NO.

Elements Identified and Measured

Concentration: Low ____ Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.17 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	4.5 (F)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	3300 R (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	236 (P)	24.	Zinc	

Cyanide ____ Percent Solids (%) ____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) ref: Identification immediately following the Cover Page.

Lab Manager M. J. Marple

Sample Number
INS EQUIPMENT S-2
SEDIMENT

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared: 04/18/85
Date Analyzed: ~~05/20/85~~ UA 05/29/85
Conc/Dil Factor: 100

CAS Number		ug/kg	
		**********	
319-84-6	Alpha-BHC	1520.0	u
319-85-7	Beta-BHC	1520.0	u
319-86-8	Delta-BHC	1520.0	u
58-89-9	Gamma-BHC(lindane)	1520.0	u
76-44-8	Heptachlor	1520.0	u
309-00-2	Aldrin	1520.0	u
1024-57-3	Heptachlor Epoxide	1520.0	u
959-98-8	Endosulfan I	1520.0	u
60-57-1	Dieldrin	3040.0	u
72-55-9	4,4'-DDE	3040.0	u
72-20-8	Endrin	3040.0	u
33213-65-9	Endosulfan II	3040.0	u
72-54-8	4,4'-DDD	3040.0	u
7421-93-4	Endrin Aldehyde	3040.0	u
1031-07-8	Endosulfan Sulfate	3040.0	u
50-29-3	4,4'-DDT	3040.0	u
72-43-5	Methoxychlor	15200.0	u
53494-70-5	Endrin Ketone	3040.0	u
57-74-9	Chlordane	15200.0	u
8001-35-2	Toxaphene	30400.0	u
12674-11-2	Aroclor-1016	15200.0	u
11104-28-2	Aroclor-1221	15200.0	u
11141-16-5	Aroclor-1232	15200.0	u
53469-21-9	Aroclor-1242	15200.0	u
12672-29-6	Aroclor-1248	15200.0	u
11097-69-1	Aroclor-1254	30400.0	u
11096-82-5	Aroclor-1260	30400.0	u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs or Ws 15.6 Vt 20000 Vi 4

Sample Number
INS EQUIPMENT S-2
SEDIMENT

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/kg
**********	**********	****	****	******
76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2-TRIFLUORO-	VOA	243	100 J
110-54-3	HEXANE	VOA	368	20 J
1921-70-6	PENTADECANE,2,6,10,14-TETRAMETHYL-	BNA	972	20000 J
629-78-7	HEPTADECANE	BNA	1043	10000 J
10544-50-0	SULFUR,MOL. (S8)	BNA	1193	10000 J
5961-33-1	AZETIDINE,3-METHYL-3-PHENYL-	BNA	1531	20000 J
7524-63-2	NAPHTHALENE,1,2,3,4-TETRAHYDRO-	BNA	1670	10000 J
54832-82-5	TRICYCLO[4.3.0.07.,9]NONANE,2,2	BNA	1734	8000
54832-82-5	TRICYCLO[4.3.0.07.,9]NONANE,2,2	BNA	1788	8000

Environmental Protection Agency
CLP Sample Management Office
P.O.Box 818
Alexandria, Virginia 22313 703/557-2490

Sample Number

INS EQUIPMENT S-2
SEDIMENT

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15040823
Sample Matrix: Soil
Data Release Authorized By:

Case No: ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 04/12/85

****

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/17/85
Date Analyzed: 04/17/85
Conc/Dil Factor: 1 pH 7
Percent Moisture: 48
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	19 u
74-83-9	Bromomethane	19 u
75-01-4	Vinyl chloride	19 u
75-00-3	Chloroethane	19 u
75-09-2	Methylene Chloride	72 B
67-64-1	Acetone	390 B
75-15-0	Carbon Disulfide	9 u
75-35-4	1,1-Dichloroethene	9 u
75-34-3	1,1-Dichloroethane	9.5 J
156-60-5	Trans-1,2-Dichloroethene	9 u
67-66-3	Chloroform	9 u
107-06-2	1,2-Dichloroethane	9 u
78-93-3	2-Butanone	50
71-55-6	1,1,1-Trichloroethane	9 u
56-23-5	Carbon Tetrachloride	9 u
108-05-4	Vinyl Acetate	19 u
75-27-4	Bromodichloromethane	9 u

Data reporting qualifiers are explained on Page 2.
****

Sample Number
INS EQUIPMENT S-2
SEDIMENT

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/kg	
		**********	
79-34-5	1,1,2,2-Tetrachloroethane	9	u
78-87-5	1,2-Dichloropropane	9	u
10061-02-6	Trans-1,3-Dichloropropene	9	u
79-01-6	Trichloroethene	9	u
124-48-1	Dibromochloromethane	9	u
79-00-5	1,1,2-Trichloroethane	9	u
71-43-2	Benzene	9	u
10061-01-5	cis-1,3-Dichloropropene	9	u
110-75-8	2-Chloroethylvinylether	19	u
75-25-2	Bromoform	9	u
591-78-6	2-Hexanone	19	u
108-10-1	4-Methyl-2-Pentanone	19	u
127-18-4	Tetrachlorethene	9	u
108-88-3	Toluene	4.9 J	
108-90-7	Chlorobenzene	9	u
100-41-4	Ethylbenzene	9	u
100-42-5	Styrene	9	u
	Total Xylenes	11	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

/alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

: - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound.

NR - No value required.

Organics Analysis Data Sheet

(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16060717
Sample Matrix: Soil
Data Release Authorized By:

Case No: ES/IMS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/14/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: NR
Date Analyzed: NR
Conc/Dil Factor: NR pH 10
Percent Moisture: 33
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane		78-87-5	1,2-Dichloropropane	
74-83-9	Bromomethane		10061-02-6	Trans-1,3-Dichloropropene	
75-01-4	Vinyl Chloride		79-01-6	Trichloroethene	
75-00-3	Chloroethane		124-48-1	Dibromochloromethane	
75-09-2	Methylene Chloride		79-00-5	1,1,2-Trichloroethane	
67-64-1	Acetone		71-43-2	Benzene	
75-15-0	Carbon Disulfide		10061-01-5	cis-1,3-Dichloropropene	
75-35-4	1,1-Dichloroethene		110-75-8	2-Chloroethylvinylether	
75-34-3	1,1-Dichloroethane		75-25-2	Bromoform	
156-60-5	Trans-1,2-Dichloroethene		108-10-1	4-Methyl-2-Pentanone	
67-66-3	Chloroform		591-78-6	2-Hexanone	
107-06-2	1,2-Dichloroethane		127-18-4	Tetrachloroethene	
78-93-3	2-Butanone		79-34-5	1,1,2,2-Tetrachloroethane	
71-55-6	1,1,1-Trichloroethane		108-88-3	Toluene	
56-23-5	Carbon Tetrachloride		108-90-7	Chlorobenzene	
108-05-4	Vinyl Acetate		100-41-4	Ethylbenzene	
75-27-4	Bromodichloromethane		100-42-5	Styrene	
				Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S — Spiked Compound

NR — No value required.

CLP Sample Management Office
P O Box 818
Alexandria, Virginia 22313 703/557-2490

B-5

Sample Number

B-5

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15081917
Sample Matrix: Water
Data Release Authorized By:

Case No ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 08/29/85

****

Volatile Compounds

Concentration: Low
Date Extracted/Prepared 08/30/85
Date Analyzed: 08/30/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	5.8 J
67-64-1	Acetone	10 u
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	28
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	10 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2.
****

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l
79-34-5	1,1,2,2-Tetrachloroethane	5 u
78-87-5	1,2-Dichloropropane	5 u
10061-02-6	Trans-1,3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1,1,2-Trichloroethane	5 u
71-43-2	Benzene	12
10061-01-5	cis-1,3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10 u
75-25-2	Bromoform	5 u
591-78-6	2-Hexanone	10 u
108-10-1	4-Methyl-2-Pentanone	10 u
127-18-4	Tetrachloroethene	5 u
108-88-3	Toluene	1 5 J
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5.1
100-42-5	Styrene	5 u
	Total Xylenes	20

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound

NR - No value required

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared: 08/30/85
Date Analyzed: 09/03/85
Conc/Dil Factor: 1

CAS Number		ug/l
319-84-6	Alpha-BHC	0.05 u
319-85-7	Beta-BHC	0.05 u
319-86-8	Delta-BHC	0.05 u
58-89-9	Gamma-BHC(Lindane)	0.05 u
76-44-8	Heptachlor	0.05 u
309-00-2	Aldrin	0.05 u
1024-57-3	Heptachlor Epoxide	0.05 u
959-98-8	Endosulfan I	0.05 u
60-57-1	Dieldrin	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	Endrin	0.10 u
33213-65-9	Endosulfan II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	Endrin Aldehyde	0.10 u
1031-07-8	Endosulfan Sulfate	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	Methoxychlor	0.50 u
53494-70-5	Endrin Ketone	0.10 u
57-74-9	Chlordane	0.50 u
8001-35-2	Toxaphene	1.00 u
12674-11-2	Aroclor-1016	0.50 u
11104-28-2	Aroclor-1221	0.50 u
11141-16-5	Aroclor-1232	0.50 u
53469-21-9	Aroclor-1242	0.50 u
12672-29-6	Aroclor-1248	0.50 u
11097-69-1	Aroclor-1254	1.00 u
11096-82-5	Aroclor-1260	1.00 u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws Vt 10000 Vi 4

B-5

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
763-29-1	1-PENTENE,2-METHYL-	VOA	266	6 J
96-37-7	CYCLOPENTANE,METHYL-	VOA	280	30 J
96-14-0	PENTANE, 3-METHYL-	VOA	318	30 J
107-83-5	PENTANE,2-METHYL-	VOA	325	50 J
110-54-3	HEXANE	VOA	351	40 J
95-49-8	BENZENE,1-CHLORO-2-METHYL-	BNA	276	500 J
99-89-8	PHENOL,4-(1-METHYLETHYL)-	BNA	515	50 J
61141-72-8	DODECANE,4,6-DIMETHYL-	BNA	914	90 J
10544-50-0	SULFUR,MOL. (S8)	BNA	1127	400 J

Sample Number
B-5

Organics Analysis Data Sheet
(Page 1)

aboratory Name: NUS CORPORATION
Lab Sample ID No: 16060526
Sample Matrix: Water
ata Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/12/86

****

pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.
- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Spiked compound.

..R - No value required.

aboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT B-5

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

ncentration: Low GPC Cleanup: NO
ate Extracted/Prepared: 06/16/86 Separatory Funnel Extraction: YES
Date Analyzed: 07/23/86 Continuous Liquid-Liquid Extraction: NO
nc/Dil Factor: 2

CAS Number		ug/l	
		**********	
108-95-2	Phenol	20	u
111-44-4	bis(2-Chloroethyl)Ether	20	u
95-57-8	2-Chlorophenol	20	u
541-73-1	1,3-Dichlorobenzene	20	u
106-46-7	1,4-Dichlorobenzene	20	u
100-51-6	Benzyl Alcohol	20	u
95-50-1	1,2-Dichlorobenzene	20	u
95-48-7	2-Methylphenol	20	u
39638-32-9	bis(2-chloroisopropyl)Ether	20	u
106-44-5	4-Methylphenol	20	u
621-64-7	N-Nitroso-Di-n-Propylamine	20	u
67-72-1	Hexachloroethane	20	u
98-95-3	Nitrobenzene	20	u
78-59-1	Isophorone	20	u
88-75-5	2-Nitrophenol	20	u
105-67-9	2,4-Dimethylphenol	20	u
65-85-0	Benzoic Acid	100	u
111-91-1	bis(2-Chloroethoxy)Methane	20	u
120-83-2	2,4-Dichlorophenol	20	u
120-82-1	1,2,4-Trichlorobenzene	20	u
91-20-3	Naphthalene	20	u
106-47-8	4-Chloroaniline	20	u
87-68-3	Hexachlorobutadiene	20	u
59-50-7	4-Chloro-3-Methylphenol	20	u
91-57-6	2-Methylnaphthalene	20	u
77-47-4	Hexachlorocyclopentadiene	20	u
88-06-2	2,4,6-Trichlorophenol	20	u
95-95-4	2,4,5-Trichlorophenol	100	u
91-58-7	2-Chloronaphthalene	20	u
88-74-4	2-Nitroaniline	100	u
131-11-3	Dimethyl Phthalate	20	u
208-96-8	Acenaphthylene	20	u
99-09-2	3-Nitroaniline	100	u

Laboratory Name: NUS CORPORATION
Case No: ES/INS EQUIPMENT

Sample Number
B-5

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/l	
		**********	
83-32-9	Acenaphthene	20	u
51-28-5	2,4-Dinitrophenol	100	u
100-02-7	4-Nitrophenol	100	u
132-64-9	Dibenzofuran	20	u
121-14-2	2,4-Dinitrotoluene	20	u
606-20-2	2,6-Dinitrotoluene	20	u
84-66-2	Diethylphthalate	20	u
7005-72-3	4-Chlorophenyl-phenylether	20	u
86-73-7	Fluorene	20	u
100-01-6	4-Nitroaniline	100	u
534-52-1	4,6-Dinitro-2-Methylphenol	100	u
86-30-6	N-Nitrosodiphenylamine(1)	20	u
101-55-3	4-Bromophenyl-phenylether	20	u
118-74-1	Hexachlorobenzene	20	u
87-86-5	Pentachlorophenol	100	u
85-01-8	Phenanthrene	20	u
120-12-7	Anthracene	20	u
84-74-2	Di-n-Butylphthalate	20	u
206-44-0	Fluoranthene	20	u
129-00-0	Pyrene	20	u
85-68-7	Butylbenzylphthalate	20	u
91-94-1	3,3`-Dichlorobenzidine	40	u
56-55-3	Benzo(a)Anthracene	20	u
117-81-7	bis(2-Ethylhexyl)Phthalate	20	u
218-01-9	Chrysene	20	u
117-84-0	Di-n-Octyl Phthalate	20	u
205-99-2	Benzo(b)Fluoranthene	20	u
207-08-9	Benzo(k)Fluoranthene	20	u
50-32-8	Benzo(a)Pyrene	20	u
193-39-5	Indeno(1,2,3-cd)Pyrene	20	u
53-70-3	Dibenzo(a,h)Anthracene	20	u
191-24-2	Benzo(g,h,i)Perylene	20	u

(1)-Cannot be separated from diphenylamine

ANALYST: 0223 Kapetanovich,D
DATE DUE: 09/04/85

PAGE NO: CP -13-073
DATE REC'D: 08/29/85
DATE SAMP.: 08/28/85

~~SPECIAL INSTRUCTIONS:~~

Q.C. one.

9/10 OK

TEST CODE: W500 Phenolics

FACTOR: 1.98 INSTR: ~~spec21~~ WAVE: 500

CLIENT NO	SAMPLE NO	RESULT mg/l	P BOT	DIST ALIQ	DIL	COLOR ALIQ	CELL	ABS	NET ABS
	BLANK: 0.007								
	STANDARD:								
NGINEERING-SCIENCE ~~YSDEC PROTOCOL~~				INS EQUIPMENT-CW-102-WATER					
90650189	15081914	<0.02	Y	500	100	5cm		0.009	0.00
ENGINEERING-SCIENCE YSDEC PROTOCOL				INS EQUIPMENT-B-3-WATER					
90650190	15081915	0.23	Y	500	100	5cm	0.134 ~~0.007~~ OK		0.12
~~NGINEERING-SCIENCE~~ ~~YSDEC PROTOCOL~~				INS EQUIPMENT-B-4-WATER					
90650191	15081916	<0.02	Y	500	100	5cm	0.008 ~~0.006~~ OK		0.0
ENGINEERING-SCIENCE ~~YSDEC PROTOCOL~~				INS EQUIPMENT-B-5-WATER					
90650192	15081917 (D)	0.13	Y	500	100	5cm	0.082 ~~0.013~~ OK		0.0

~~See below~~

QC=0.134

QC 15081917 W500-000-192

DUP	100ml	100ml	5cm	0.021 ~~0.008~~ OK	0.014	0.125

$\rho = 1.00 \times \sigma$

CHECKED BY: [illegible]
DATE: 9/11

9/11

Analytical Results for Surface Water Samples

NUS CORPORATION

5350 CAMPBELLS RUN ROAD • PITTSBURGH PA 15205
412-788-1080

LABORATORY SERVICES DIVISION

I certify that the analytical procedures used in the Engineering-Science, INS Equipment Site project are in accordance with USEPA Guidelines 44CFR46964, 40CFR136, or the NYSDEC Superfund and Contract Laboratory Protocol, January 1985.

Kathy A. Delaney
Inorganic Laboratory Supervisor

7-2-85
Date

David A. Dawes
Organic Laboratory Supervisor

7/2/85
Date

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
S-1 Surface Water
INS Equipment
(1)

Date June 11, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science

SOW NO. 784

LAB SAMPLE ID. NO. 15040824

QC REPORT NO. _____

Elements Identified and Measured

Concentration: Low _____ Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.2 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	5 U (F)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	10 U (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	[4] (F)	24.	Zinc	
Cyanide			Percent Solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) ref. Identification immediately following the Cover Page.

Lab Manager M. J. Marple

Environmental Protection Agency
CLP Sample Management Office.
P.O.Box 818
Alexandria, Virginia 22313 703/557-2490

INS
S-1 Surface

Sample Number

S-1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15040824
Sample Matrix: Water
Data Release Authorized By:

Case No: ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 04/12/85

****

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/19/85
Date Analyzed: 04/19/85
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone	10 u
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	10 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2.
****

Sample Number
S-1

=NS
S-1 Surface Water

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l
		**********
79-34-5	1,1,2,2-Tetrachloroethane	5 u
78-87-5	1,2-Dichloropropane	5 u
10061-02-6	Trans-1,3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1,1,2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1,3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10 u
75-25-2	Bromoform	5 u
591-78-6	2-Hexanone	10 u
108-10-1	4-Methyl-2-Pentanone	10 u
127-18-4	Tetrachlorethene	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained

/alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S - Spiked compound.

NR - No value required.

Sample Number
S-1

INS
S-1 Surface Water

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared: 04/15/85
Date Analyzed: ~~04/30/85 LH~~ 05/01/85
Conc/Dil Factor: 1

CAS Number		ug/l	
		**********	
319-84-6	Alpha-BHC	0.05	u
319-85-7	Beta-BHC	0.05	u
319-86-8	Delta-BHC	0.05	u
58-89-9	Gamma-BHC(lindane)	0.05	u
76-44-8	Heptachlor	0.05	u
309-00-2	Aldrin	0.05	u
1024-57-3	Heptachlor Epoxide	0.05	u
959-98-8	Endosulfan I	0.05	u
60-57-1	Dieldrin	0.10	u
72-55-9	4,4'-DDE	0.10	u
72-20-8	Endrin	0.10	u
33213-65-9	Endosulfan II	0.10	u
72-54-8	4,4'-DDD	0.10	u
7421-93-4	Endrin Aldehyde	0.10	u
1031-07-8	Endosulfan Sulfate	0.10	u
50-29-3	4,4'-DDT	0.10	u
72-43-5	Methoxychlor	0.50	u
53494-70-5	Endrin Ketone	0.10	u
57-74-9	Chlordane	0.50	u
8001-35-2	Toxaphene	1.00	u
12674-11-2	Aroclor-1016	0.50	u
11104-28-2	Aroclor-1221	0.50	u
11141-16-5	Aroclor-1232	0.50	u
53469-21-9	Aroclor-1242	0.50	u
12672-29-6	Aroclor-1248	0.50	u
11097-69-1	Aroclor-1254	1.00	u
11096-82-5	Aroclor-1260	1.00	u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws Vt 10000 Vi 1

Sample Number
S-1

S-1 Surface Wa

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
**********	**********	****	****	******
	NO VOA COMPOUND FOUND			
123-79-5	HEXANEDIOICACID, DIOCTYLESTER Note1	BNA	1395	700 J
27554-26-3	1,2-BENZENEDICARBOXYLICACID,DIISOOCTYLESTER	BNA	1516	20 J
27554-26-3	1,2-BENZENEDICARBOXYLICACID,DIISOOCTYLESTER	BNA	1652	20 J

Note1: possible lab contamination
cdt 7/2/85

Sample Number
S-1

Organics Analysis Data Sheet
(Page 1)

aboratory Name: NUS CORPORATION
ab Sample ID No: 16060524
Sample Matrix: Water
ata Release Authorized By:

Case No: ES/INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 06/12/86

****

pH: NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

****

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

- Indicated an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

- This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

- This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

R - No value required.

Laboratory Name: NUS CORPORATION
Case No: ES/INS EQUIPMENT

Sample Number
S-1

Organics Analysis Data Sheet
(Page 3)

Semivolatile Compounds

oncentration: Low
Date Extracted/Prepared: 06/16/86
Date Analyzed: 07/22/86
onc/Dil Factor: 1

GPC Cleanup: NO
Separatory Funnel Extraction: YES
Continuous Liquid-Liquid Extraction: NO

CAS Number		ug/l
108-95-2	Phenol	10 u
111-44-4	bis(2-Chloroethyl)Ether	10 u
95-57-8	2-Chlorophenol	10 u
541-73-1	1,3-Dichlorobenzene	10 u
106-46-7	1,4-Dichlorobenzene	10 u
100-51-6	Benzyl Alcohol	10 u
95-50-1	1,2-Dichlorobenzene	10 u
95-48-7	2-Methylphenol	10 u
39638-32-9	bis(2-chloroisopropyl)Ether	10 u
106-44-5	4-Methylphenol	10 u
621-64-7	N-Nitroso-Di-n-Propylamine	10 u
67-72-1	Hexachloroethane	10 u
98-95-3	Nitrobenzene	10 u
78-59-1	Isophorone	10 u
88-75-5	2-Nitrophenol	10 u
105-67-9	2,4-Dimethylphenol	10 u
65-85-0	Benzoic Acid	50 u
111-91-1	bis(2-Chloroethoxy)Methane	10 u
120-83-2	2,4-Dichlorophenol	10 u
120-82-1	1,2,4-Trichlorobenzene	10 u
91-20-3	Naphthalene	10 u
106-47-8	4-Chloroaniline	10 u
87-68-3	Hexachlorobutadiene	10 u
59-50-7	4-Chloro-3-Methylphenol	10 u
91-57-6	2-Methylnaphthalene	10 u
77-47-4	Hexachlorocyclopentadiene	10 u
88-06-2	2,4,6-Trichlorophenol	10 u
95-95-4	2,4,5-Trichlorophenol	50 u
91-58-7	2-Chloronaphthalene	10 u
88-74-4	2-Nitroaniline	50 u
131-11-3	Dimethyl Phthalate	10 u
208-96-8	Acenaphthylene	10 u
99-09-2	3-Nitroaniline	50 u

Laboratory Name: NUS CORPORATION Sample Number
Case No: ES/INS EQUIPMENT S-1

Organics Analysis Data Sheet
(Page 4)

Semivolatile Compounds (continued)

CAS Number		ug/l	
83-32-9	Acenaphthene	10	u
51-28-5	2,4-Dinitrophenol	50	u
100-02-7	4-Nitrophenol	50	u
132-64-9	Dibenzofuran	10	u
121-14-2	2,4-Dinitrotoluene	10	u
606-20-2	2,6-Dinitrotoluene	10	u
84-66-2	Diethylphthalate	10	u
7005-72-3	4-Chlorophenyl-phenylether	10	u
86-73-7	Fluorene	10	u
100-01-6	4-Nitroaniline	50	u
534-52-1	4,6-Dinitro-2-Methylphenol	50	u
86-30-6	N-Nitrosodiphenylamine(1)	10	u
101-55-3	4-Bromophenyl-phenylether	10	u
118-74-1	Hexachlorobenzene	10	u
87-86-5	Pentachlorophenol	50	u
85-01-8	Phenanthrene	10	u
120-12-7	Anthracene	10	u
84-74-2	Di-n-Butylphthalate	3 J	
206-44-0	Fluoranthene	10	u
129-00-0	Pyrene	10	u
85-68-7	Butylbenzylphthalate	10	u
91-94-1	3,3`-Dichlorobenzidine	20	u
56-55-3	Benzo(a)Anthracene	10	u
117-81-7	bis(2-Ethylhexyl)Phthalate	10	u
218-01-9	Chrysene	10	u
117-84-0	Di-n-Octyl Phthalate	10	u
205-99-2	Benzo(b)Fluoranthene	10	u
207-08-9	Benzo(k)Fluoranthene	10	u
50-32-8	Benzo(a)Pyrene	10	u
193-39-5	Indeno(1,2,3-cd)Pyrene	10	u
53-70-3	Dibenzo(a,h)Anthracene	10	u
191-24-2	Benzo(g,h,i)Perylene	10	u

(1)-Cannot be separated from diphenylamine

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
5-2 Surface Water
INS Equipment (1)

Date June 11, 1985

INORGANIC ANALYSIS DATA SHEET

LAB NAME NUS Corporation

CASE NO. Engineering-Science

SOW NO. 784

LAB SAMPLE ID. NO. 15040825

QC REPORT NO. _____

Elements Identified and Measured

Concentration: Low _____ Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum		13.	Magnesium	
2.	Antimony		14.	Manganese	
3.	Arsenic		15.	Mercury	0.2 U (C)
4.	Barium		16.	Nickel	
5.	Beryllium		17.	Potassium	
6.	Cadmium	5 U (F)	18.	Selenium	
7.	Calcium		19.	Silver	
8.	Chromium	10 U (P)	20.	Sodium	
9.	Cobalt		21.	Thallium	
10.	Copper		22.	Tin	
11.	Iron		23.	Vanadium	
12.	Lead	[4] (F)	24.	Zinc	

Cyanide _____ Percent Solids (%) _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) ref: Identification immediately following the Cover Page

Lab Manager M. J. Marple

Environmental Protection Agency
CLP Sample Management Office.
P.O.Box 818
Alexandria, Virginia 22313 703/557-2490

INS
S-2 Surface Water

Sample Number

S-2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 15040825
Sample Matrix: Water
Data Release Authorized By:
****

Case No: ES-INS EQUIPMENT
QC Report No:
Contract No:
Date Sample Received: 04/12/85

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 04/19/85
Date Analyzed: 04/19/85
Conc/Dil Factor: NR pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/l
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone	10 u
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	10 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2.
****

Sample Number
S-2

INS
S-2 Surface Water

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

Case Number		ug/l
		**********
79-34-5	1,1,2,2-Tetrachloroethane	5 u
78-87-5	1,2-Dichloropropane	5 u
10061-02-6	Trans-1,3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1,1,2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1,3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10 u
75-25-2	Bromoform	5 u
591-78-6	2-Hexanone	10 u
108-10-1	4-Methyl-2-Pentanone	10 u
127-18-4	Tetrachlorethene	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

/alue - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

: - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS..

3 - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

; - Spiked compound.

IR - No value required.

Sample Number
S-2

INS
S-2 Surface Water

Organics Analysis Data Sheet
(Page 5)

Pesticide/PCBs

Concentration: Low
Date Extracted/Prepared: 04/15/85
Date Analyzed: ~~04/30/85~~ 05/01/85
Conc/Dil Factor: 1

CAS Number		ug/l	
		**********	
319-84-6	Alpha-BHC	0.05	u
319-85-7	Beta-BHC	0.05	u
319-86-8	Delta-BHC	0.05	u
58-89-9	Gamma-BHC(lindane)	0.05	u
76-44-8	Heptachlor	0.05	u
309-00-2	Aldrin	0.05	u
1024-57-3	Heptachlor Epoxide	0.05	u
959-98-8	Endosulfan I	0.05	u
60-57-1	Dieldrin	0.10	u
72-55-9	4,4'-DDE	0.10	u
72-20-8	Endrin	0.10	u
33213-65-9	Endosulfan II	0.10	u
72-54-8	4,4'-DDD	0.10	u
7421-93-4	Endrin Aldehyde	0.10	u
1031-07-8	Endosulfan Sulfate	0.10	u
50-29-3	4,4'-DDT	0.10	u
72-43-5	Methoxychlor	0.50	u
53494-70-5	Endrin Ketone	0.10	u
57-74-9	Chlordane	0.50	u
8001-35-2	Toxaphene	1.00	u
12674-11-2	Aroclor-1016	0.50	u
11104-28-2	Aroclor-1221	0.50	u
11141-16-5	Aroclor-1232	0.50	u
53469-21-9	Aroclor-1242	0.50	u
12672-29-6	Aroclor-1248	0.50	u
11097-69-1	Aroclor-1254	1.00	u
11096-82-5	Aroclor-1260	1.00	u

Vi = Volume of extract injected (ul)
Vs = Volume of water extracted (ml)
Ws = Weight of sample extracted (g)
Vt = Volume of total extract (ul)

Vs 1000 or Ws Vt 10000 Vi 1

Sample Number
S-2

=NS
S-2 Surface Water

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan	Estimated concentration ug/l
**********	**********	****	****	******
	NO VOA COMPOUND FOUND			
88-69-7	PHENOL,2-(1-METHYLETHYL)-	BNA	562	60 J
99-89-8	PHENOL,4-(1-METHYLETHYL)-	BNA	586	40 J
2934-05-6	PHENOL,2,4-BIS(1-METHYLETHYL)-	BNA	741	9 J

Appendix J

APPENDIX J

FIELD FORMS

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-7-92

Field Log Book Page Number: 26-30

Project: River Road RI/FS

Address: River Road, Tonawanda NY

Weather: (AM) Overcast (PM): Overcast

Rainfall: (AM) – Inches (PM) – Inches

Temperature: (AM) 25° °F (PM) 30° °F

Wind Speed: (AM) 0-10 MPH (PM) 0-10 MPH

Wind Direction: (AM) N (PM) NW

Site Condition: Snow on ground

Personnel On Site:

Name	Affiliation
P. Conde	D+B
F. Tooher	D+B
Mike Dipetro	NYSDEC

Subcontractor Work Commencement: (AM) _____ (PM) _____

Subcontractor Work Completion (AM) _____ (PM) _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 12-7-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

5:00 - leave home for airport
7:45 - arrive in Buffalo pick up truck and go to Fedex for coolers, buckets, bubble wrap. Truck full - drove to Grand Island Hotel then to NYSDEC in Buffalo for equipment
11:45 Fran + Pete arrived at site - Om Popl. on site. Did not have H+S 8 hour cert. - They leave site to get cert. Informed office of problem
12:45 Returned to site to get bottles ready, calibrated equipment

13:15 Mike Dipetro (NYSDEC) arrives onsite
13:30 Phone Ed Aldrich - he has received certification from Om Popl. leave site for distilled H_2O for H_2O level indicator
14:25 - Begin H_2O level readings
15:30 - Om Popl. back onsite - will continue
16:00 - Complete water levels for day. Have problem with product in well. NYSDEC Ed Aldrich similar problems last time
15:30 - Return to hotel
16:00 - Finish unloading all equipment

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-7-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Travel to ~~site~~ Buffalo, Tonawanda, Buffalo and then site. Collected water level readings and shopped for supplies. Prepared for sampling

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-8-92

Field Log Book Page Number: 32-34

Project: River Road RI/FS

Address: River Road, Tonawanda NY

Weather: (AM) Overcast + Flurries Rainfall: (AM) — Inches
(PM): Overcast Flurries (PM) — Inches

Temperature: (AM) 25° °F Wind Speed: (AM) 0-10 MPH Wind Direction: (AM) N
(PM) 27 °F (PM) 0-10 MPH (PM) NW

Site Condition: Snow

Personnel On Site:

Name	Affiliation
P. Condl	D+B
F. Tooher	D+B
M. Dipetro	NYSDEC

Subcontractor Work Commencement: (AM) — (PM) —

Subcontractor Work Completion (AM) — (PM) —

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-8-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

7:00 - At hotel - loading equipment into van
7:45 - Arrive at site - decon water level indicator covered with oil and calibrate equipment
8:35 - 12:00 Do round of water levels - had oil problems at wells MW-6S and MW-8S requiring large delays in deconning probe.
14:26 - Purge well B-4
1512 - Purge well B-5
1610 - Purge well B-3
1655 - Purge wells MW-1 and MW-2
1730 - Unloaded equipment to hotel room

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-8-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Performed one complete round of water levels and purged six wells for sampling. Discovered oil/product in wells MW-5S, MW-8S and MW-6S. Delays caused by decoming of oil covered water level indicator.

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-54 Date: 12-9-92

Field Log Book Page Number: 36-45

Project: River Road RI/FS

Address: River Road, Tonawanda, NY

Weather: (AM) Overcast (PM): Ptly sunny

Rainfall: (AM) – Inches (PM) – Inches

Temperature: (AM) 29° °F (PM) 35° °F

Wind Speed: (AM) 0-5 MPH (PM) 0-5 MPH

Wind Direction: (AM) W (PM) NW

Site Condition: Snow

Personnel On Site:

Name	Affiliation
P. Conde	D+B
K. Robins	D+B
M. Dipetro	NYSDEC

Subcontractor Work Commencement: (AM) – (PM) –

Subcontractor Work Completion (AM) – (PM) –

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 12-9-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

6:40 - Begin loading Truck with equipment from hotel. Drive to airport and pick up K. Robins and Drop off F. Tooher (Personal reasons) Drive back to site.
0845 - At site, calibrate instruments
0935 - Sample B-4
0950 - Sample B-5
10:10 - Sample B-3
10:18 - Mike Dipetro at Main truck
10:30 - Sample MW-1
10:40 - Sample MW-7
10:57 - Begin purge CW102
12:02 - Sample CW102
12:15 - Purge MW-12
12:55 - Purge MW-7S
13:20 - Purge MW-4S
13:45 - Purge MW-9S
14:05 - Purge MW-13S
14:28 - Purge MW-3S - Go back to Truck - begin to organize trash and equipment for shipment
15:55 - leave site for hotel
16:20-17:00 - Unload equipment, do chain of custodies - organize and ice samples

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-9-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Collect 6 groundwater samples and purge 6 additional wells. Start preparations for demobe.

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-10-92

Field Log Book Page Number: 46-50

Project: River Road RI/FS

Address: River Road, Tonawanda, NY

Weather: (AM) Snow (PM): Snow

~~Rainfall~~ Snow: (AM) 1-2 Inches (PM) 2-4 Inches

Temperature: (AM) 20° °F (PM) 25° °F

Wind Speed: (AM) ____ MPH (PM) ____ MPH

Wind Direction: (AM) ____ (PM) ____

Site Condition: Poor - Blizzard conditions

Personnel On Site:

Name	Affiliation
P. Conde	D+B
K. Robins	D+B
M. Dipetro	NYSDEC

Subcontractor Work Commencement: (AM) — (PM) —

Subcontractor Work Completion (AM) — (PM) —

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-10-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

0630 - begin loading truck from hotel
0730 - At site - calibrate equipment and prepare to sample and obtain Depth to oil readings (DTO)
0810 - DTO in well MW-6S
0820 - DTO in well MW-8S
0906 - DTO in well MW-5S
0921 - Collect oil sample from MW-5S (MW-5SO) begin pur oil sampl
0956 - Collect sample MW12CF
1005 - Collect sample MW7S
1043 - Sample MW-9S (MS/MSD)
1106 - Sample MW-13CF
1120 - Collect MW-8SO (oil sample)
1130 - Collect MW-4S
1145 - Collect MW-3S
1215 - Begin purge MW-6S
1245 - Collect MW-5S water
1255 - Collect MW-8S water
1315 - Collect MW-6S ~~water~~ water
1347 - leave site for hotel - I go back to site with Mike Dipetro to pick up equipment truck.
14:20-18.30 - Pack up samples, do chain of custodies and pack up equipment for shipment
18:30-2000 - Go to fedex, drop off samples, pick up Mike Dipetro at air port (Rental car return) Go back to site to truck to transfer all remaining equipment to D+B truck.

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-10-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Collected groundwater samples from

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: _____ Reviewed by: _____

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-11-92

Field Log Book Page Number: 52

Project: River Road RI/FS

Address: River Road, Tonawanda, NY

Weather: (AM) Snow (PM): Snow

~~Rainfall~~ Snow: (AM) 6-10 Inches (PM) 10-12 Inches

Temperature: (AM) 28 °F (PM) 32 °F

Wind Speed: (AM) _____ MPH (PM) _____ MPH

Wind Direction: (AM) _____ (PM) _____

Site Condition: Blizzard

Personnel On Site:

Name	Affiliation
P. Conde	D+B
K. Robins	D+B

Subcontractor Work Commencement: (AM) _____ (PM) _____

Subcontractor Work Completion (AM) _____ (PM) _____

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-11-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

0630 - At hotel - packing equipment for shipment
0930 - leave hotel for Fedex - weather is raging blizzard
10:30 - At Fedex
11:30 - leave Fedex for Downtown Rent-a-car
12:30 - At Airport - Delay of flight - do paperwork
15:30 - Flight cancelled - go to rent car and drive to hotel
16:30 - Drive to hotel - no available flights Today. LGA closed. No way into New York due to weather.

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-18-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Packed equipment and moved it to Fedex in a Blizzard. Drove to airport. All flights cancelled. Rent car and go to hotel.

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: D. Hodi

Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-12-92

Field Log Book Page Number: 54-55

Project: River Road

Address: Tonawanda, NY

Weather: (AM) Sunny (PM): Overcast

Rainfall: (AM) _____ Inches (PM) _____ Inches

Temperature: (AM) _____ °F (PM) _____ °F

Wind Speed: (AM) _____ MPH (PM) _____ MPH

Wind Direction: (AM) _____ (PM) _____

Site Condition: Not Applicable

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
P. Conde	D+B	0900	19:30
K. Robins	D+B	0900	20:00

Subcontractor Work Commencement: (AM) — (PM) —

Subcontractor Work Completion: (AM) — (PM) —

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 12-12-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

0900 - Arrive at airport, drop of rental car, go to ticket counter for flight to Islip via Philidelphia (LGA still closed due to weather)
10:00 Flight delayed in Hartford Ct due to heavy snow - on hold awaiting status
11:00 - Informed Flight will arrive within hour
11:15 Flight cancelled - go to counter and exchange to Islip flight via Washington D.C.) (Flight scheduled for 5:00 p.m. out of Washington (USAIR Express)
12:00 leave Buffalo for D.C.
13:10 Arrive D.C. - Informed LGA is open but iffy, will try to catch 3:00 p.m. U.S. Shuttle to LGA. Go to baggage claim to get baggage - P. Conde lost suitcase.
14:00 Move via shuttle bus to main terminal for USAIR Shuttle
15:00 On plane to LGA - delayed at gate
16:00 Leave gate - on hold
17:00 Move to runway - await clearance
17:30 Leave D.C. for LGA
17:30 - 18:30 - Plane in holding pattern awaiting clearance for LGA!
19:00 - Arrive in NY!
19:30 - P. Conde in Roslyn
20:00 - K. Robins in Smithtown.

DVIRKA
AND
BARTILUCCI

DATE: 12-12-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Filled out as much paperwork as possible while travelling from Buffalo to Washington D.C. to NYC (LGA).

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-11-92

Field Log Book Page Number: 52

Project: River Road RI/FS

Address: River Road, Tonawanda, NY

Weather: (AM) Snow (PM): Snow

~~Rainfall~~ Snow: (AM) 6-10 Inches (PM) 10-12 Inches

Temperature: (AM) 28 °F (PM) 32 °F

Wind Speed: (AM) ____ MPH (PM) ____ MPH

Wind Direction: (AM) ____ (PM) ____

Site Condition: Blizzard

Personnel On Site:

Name	Affiliation
P. Cade	D+B
K. Robins	D+B

Subcontractor Work Commencement: (AM) _____ (PM) _____

Subcontractor Work Completion (AM) _____ (PM) _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 12-11-92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

0630 - At hotel - packing equipment for shipment
0930 - leave hotel for Fedex - weather is raging blizzard
10:30 - At Fedex
11:30 - leave Fedex for Downtown Rent-a-car
12:30 - At Airport - Delay of flight - do paperwork
15:30 - Flight cancelled - go to rent car and drive to hotel
16:30 - Drive to hotel - no available flights Today. LGA closed. No way into New York due to weather!

DVIRKA AND BARTILUCCI

DATE: 12-18-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Packed equipment and moved it to fedex in a Blizzard. Drove to airport. All flights cancelled. Rent car and go to hotel.

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: _____ Project Number: 1150-5A Date: 12-12-92

Field Log Book Page Number: 54-55

Project: River Road

Address: Tonawanda, NY

Weather: (AM) Sunny (PM): Overcast

Rainfall: (AM) _____ Inches (PM) _____ Inches

Temperature: (AM) _____ °F (PM) _____ °F

Wind Speed: (AM) _____ MPH (PM) _____ MPH

Wind Direction: (AM) _____ (PM) _____

Site Condition: Not Applicable

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
P. Conde	D+B	0900	19:30
K. Robins	D+B	0900	20:00

Subcontractor Work Commencement: (AM) — (PM) —

Subcontractor Work Completion: (AM) — (PM) —

DVIRKA AND BARTILUCCI

DATE: 12-12-92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Filled out as much paperwork as possible while travelling from Buffalo to Washington D.C. to NYC (LGA).

List specific inspection(s) performed and results (include problems and corrective actions):

List type and location of tests performed and results (include equipment used and monitoring results):

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 01 Project Number: 1150 Date: 11/16/92

Field Log Book Page Number: pgs 3-4

Project: RIVER ROAD RI/FS phase II

Address: Tonawanda NY

Weather: (AM) 30's Cloudy (PM): 40's " Rainfall: (AM) snow 1-2 Inches (PM) 1-2 Inches

Temperature: (AM) 30's °F (PM) 40 °F Wind Speed: (AM) Calm MPH (PM) Calm MPH Wind Direction: (AM) — (PM) —

Site Condition: Snow Cover - wet

Personnel On Site:

Name	Affiliation
Ed Aldrich	D&B
Fran Tooher	"
Ed Sanford	"
Mike DiPetro	"
Keith Damser	Buffalo Drilling
Joe Gardner	" "

Subcontractor Work Commencement: (AM) 1215 (PM)

Subcontractor Work Completion (AM) (PM) 130

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 02 Project Number: 1150 Date: 11/17/92

Field Log Book Page Number: pgs 5-10

Project: River Road RI/FS phase II

Address: Tonawanda NY

Weather: (AM) Snow Rainfall: (AM) – Inches
(PM): Mostly cloudy (PM) trace Inches

Temperature: (AM) 30 °F Wind Speed: (AM) Calm MPH Wind Direction: (AM) –
(PM) 30 °F (PM) " MPH (PM) –

Site Condition: Muddy

Personnel On Site:

Name	Affiliation
Ed	D&B
Fran Tucker	D&B
Mike Dipietro	NYSDA

Subcontractor Work Commencement: (AM) 805 (PM) 1220

Subcontractor Work Completion (AM) 140 (PM) 430

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 11/17/92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

7:00 Fran and Ed meet Mike at hotel and leave for site
7:30 Arrive at site, Drillers have not arrived
8:05 drillers arrive, bad weather caused delay
got water and continued construction of decon pad.
Steam cleaned rig
8:50 Ed leaves site to pick up lunches
parking and get gas.
9:45 Ed returns
10:00 drillers complete steam cleaning and begin to mobilize
10:10 Set up at MW-95. Sat around
Fran calibrate OVA tip, tip is giving a
fault message
10:45 Begin drilling, taking continuous split
spoons and chemical samples.
11:45 John Hyden arrives on site
1:30 John Hyden leaves site
2:00 Battery on OVA is out
& tip still gives fault, Fran phoned Robin
and discussed
2:50 Completed drilling and prep to set well
Set well added sand and B pellets
& 7:00 called it a day.
4:30 All personnel off site
Fran & Ed return to hotel and do
paperwork

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 11/17/92

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Completed construction of decon pad, moved steam cleaned augers and rig moved to MW25 drilled to 27 ft. Began install of well. See previous page for detail

List specific inspection(s) performed and results (include problems and corrective actions):

—

List type and location of tests performed and results (include equipment used and monitoring results):

Air monitoring and sample screening with OVA
see air monitoring forms for detail

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 03 Project Number: 1150 Date: 11/18/92

Field Log Book Page Number: Pg. 10-17

Project: River Road Phase II

Address: Tonawanda NY

Weather: (AM) Cloudy, Overcast Rainfall: (AM) 0 Inches
(PM): " " (PM) 0 Inches

Temperature: (AM) 20's °F Wind Speed: (AM) 0-5 MPH Wind Direction: (AM) W
(PM) 30's °F (PM) " MPH (PM) W

Site Condition: Wet, Soft, Snow Cover, melted by PM

Personnel On Site:

Name	Affiliation
Ed Oldrich	D&B
Fran Tosher	"
Mike Duetro	NYSDEC
Joe Gardner	Buffalo Drill
Wally Brunner	" "

Subcontractor Work Commencement: (AM) 730 (PM) 1130

Subcontractor Work Completion (AM) 1230 (PM) 430

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 11/18/92

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

735 on Site
815 Drillers mix Grout to finish MW-8S
900 finish + Pull off hole to set up on decon Pad
930-1000 Decon rig + TOOLS
1030 Setup on MW-8S
@ 1030 ~~sealing OVA~~ OVA not able to start + microtip not working.
Call office - discuss ~~of~~ contamination of drilling w/ Bryan
" meters w/ TOM
Tom Suggests to get meter from DEC
11:00 Call John Hyden to ask for meter
11:15 John Returns call say meter will be on site soon
1120-1220 Lunch
1226 Start drilling MW-8S
200 finish - Start well construction
330 finish well const. Clean site
~~420~~ 410 leave site go to Fed ex to drop samples
- Stop @ Stew Mart to get ice
500 Buy ice / Ziplock
520 Fed ex soil samples

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 11/18/12

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: @ insert drilling + construction of MW-8s - Collect soil samples, log samples

List specific inspection(s) performed and results (include problems and corrective actions):

Well construction inspection

List type and location of tests performed and results (include equipment used and monitoring results):

none

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

none

Prepared by: _____ Reviewed by: _____

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 04 Project Number: 1150 Date: 11/19

Field Log Book Page Number: Pg 19-21

Project: River Road RIKS

Address: Tonawanda NY

Weather: (AM) Overcast (PM): " Rainfall: (AM) - Inches (PM) - Inches

Temperature: (AM) 30.5 °F (PM) 30 °F Wind Speed: (AM) 0.5 MPH (PM) " MPH Wind Direction: (AM) W (PM) W

Site Condition: Wet, muddy

Personnel On Site:

Name	Affiliation
Ed Oldrich	D&B
Frank Tucker	"
Shane Mattei	NYSDEC
Joe Gardner	Buffalo Drilling
Wally Griner	"
Ed Santoro	D&B

Subcontractor Work Commencement: (AM) 805 (PM) 1200

Subcontractor Work Completion (AM) / (PM) 430

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 11/19

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

805 arrive @ site
810 Mike Repetto + Schuler meet here
Rickles Accounting + tools - Show Schuler
around site - mike leaves
945 Ed S here

1000 Set up to start development @ MW-9s
1010 Start Developing @ MW-9s
Fran, Ed, Schuler start Sed Sampling
Joe starts developing @ MW-8s @ same time.
1265 lunch

115 return - Resume
310 finish developing @ MW-9s
& decon ~~the~~ development equipment
and set up @ MW-8s
410 removed 110 gal. Sed day - Pick up
for day
430 leave site

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 11/19

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Observe well development by Bat. Drilling also collect surface water sediment samples.

List specific inspection(s) performed and results (include problems and corrective actions):

— none —

List type and location of tests performed and results (include equipment used and monitoring results):

~~PH~~ measure PH, conductivity, temp + Turb of Development Water - See log book for results pg 19+21

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

none

Prepared by: Edward M Aldt Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 11/20

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

- 745 arrive @ site - give Schaue HSO.
800 Schaue leaves
810 Joe ~~Gainer~~ Gardner here, cleans up remaining area of decon pad
900 ~~Start~~ development of MW-8S
930 finish development of MW-8S - Joe cleans up MW-8S area + finish cleaning decon pad.
1050 leave site.

DB-DFAR

DVIRKA
AND
BARTILUCCI

DATE: 11/20

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: observe the finish of Development of MW-35 site Clean up + removal of decon pad.

List specific inspection(s) performed and results (include problems and corrective actions):

None

List type and location of tests performed and results (include equipment used and monitoring results):

pH, conductivity, Turbidity, + temperature

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

Drillers will dose of ~8 addl drums ~~tot~~ next week

Prepared by: [signature] Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW SA FT

SAMPLE LOCATION/WELLNO. MW-8S

FIELD SAMPLE I.D. NUMBER RR MW (15-17) DATE 11/18

TIME 1:07 WEATHER Cldy TEMPERATURE 30's

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL ✓ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Blk pH _____ ODOR Petro

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) @ HNU = 4ppm

CONSTITUENTS SAMPLED:

TCL+30

incl. cyanide

REMARKS: Strong Petro odor on Black material? Staining? Coke fines?

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW EA, FT

SAMPLE LOCATION/WELLNO. MW-8S

FIELD SAMPLE I.D. NUMBER RR MW 8S (5-7) DATE 11/18

TIME 1230 WEATHER Cldy TEMPERATURE 30's

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL ✓ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Br-Blk pH _____ ODOR Petro

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) OVA - 0.0 PPM

CONSTITUENTS SAMPLED:

TCL +30

incl. Cyanide

REMARKS: Petro odor in Blk material - Cinders Sand? Coke fines? Black color may be oil staining?

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE: River Road RIFS Phase II SAMPLE CREW: EA/FT

SAMPLE LOCATION/WELL NO.: MW-9S 10-12

FIELD SAMPLE I.D. NUMBER: RR-MW(10-12) DATE: 11/17/92

TIME: 12:00 WEATHER: Cloudy, snow TEMPERATURE: 30's

SAMPLE TYPE:

GROUNDWATER ____ SEDIMENT ____

SURFACE WATER/STREAM ____ AIR ____

SOIL ✓ OTHER (Describe, i.e., septage, leachate) ____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER ____ MEASUREMENT METHOD ____

DEPTH OF WELL ____ MEASUREMENT METHOD ____

VOLUME REMOVED ____ REMOVAL METHOD ____

FIELD TEST RESULTS:

COLOR Speckled Black, Brown pH — ODOR none

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

OTHER (OVA, Methane meter, etc.) 0.0 ppm

CONSTITUENTS SAMPLED:

TCL + 30

REMARKS: Bright Purple ~~spot~~ Stain on soil ~ 1/4" dia.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE RIVER ROAD Ph II SAMPLE CREW EA/FT

SAMPLE LOCATION/WELLNO. R MW-9S 5-7'

FIELD SAMPLE I.D. NUMBER RR-MW(5-7) DATE 11/17/92

TIME 11:27 WEATHER Cloudy, ~~Cold~~ 30's Snow TEMPERATURE 30's

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL ✓ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER NA MEASUREMENT METHOD _____

DEPTH OF WELL NA MEASUREMENT METHOD _____

VOLUME REMOVED NA REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Br-Gray + Black pH – ODOR none

TEMPERATURE (°F) – SPECIFIC CONDUCTANCE (umhos/cm) –

OTHER (OVA, Methane meter, etc.) 1.5 PPM OVA

CONSTITUENTS SAMPLED:

TCL + 30

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW B-3

FIELD SAMPLE I.D. NUMBER RRB3TA DATE 12/9/92

TIME 9:57 WEATHER Cold, windy TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 15.77 MEASUREMENT METHOD water level meter

DEPTH OF WELL 25 Ft MEASUREMENT METHOD water level meter

VOLUME REMOVED 15.5 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR — pH 9.95 ODOR None

TEMPERATURE (°F) 14.2 SPECIFIC CONDUCTANCE (umhos/cm) 2,007

OTHER (OVA, Methane meter, etc.) 0.5 ppm TURBIDITY (NTUs) 5

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Cando

SAMPLE LOCATION/WELLNO. MW B-4

FIELD SAMPLE I.D. NUMBER RR B4TA DATE 12/9/92

TIME 9:19 am WEATHER Cold, windy 10-20 TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 16.26 MEASUREMENT METHOD water level meter

DEPTH OF WELL 24.17 MEASUREMENT METHOD water level meter

VOLUME REMOVED 4 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR pH 6.69 ODOR —

TEMPERATURE (~~°F~~ °C) 17.9 SPECIFIC CONDUCTANCE (umhos/cm) 690

OTHER (OVA, Methane meter, etc.) 0.0 ppm TURBIDITY (NTUs) 56

CONSTITUENTS SAMPLED:

TCLP + 30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Carle

SAMPLE LOCATION/WELLNO. MW-B-5

FIELD SAMPLE I.D. NUMBER RRB5TA DATE 12/9/92

TIME 9:45am WEATHER Windy, cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 16.98 MEASUREMENT METHOD water level meter

DEPTH OF WELL 25.12 MEASUREMENT METHOD water level meter

VOLUME REMOVED 4 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR – pH 7.14 ODOR –

TEMPERATURE (~~°F~~ °C) 14.7 SPECIFIC CONDUCTANCE (umhos/cm) 1,408

OTHER (OVA, Methane meter, etc.) 0.0 ppm TURBIDITY (NTUs) 15

CONSTITUENTS SAMPLED: TCL+30 less VOA

CN-

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Cond

SAMPLE LOCATION/WELLNO. MW-1

FIELD SAMPLE I.D. NUMBER RRMW-1 DATE 12/9/92

TIME 10:30 am WEATHER windy, cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 10.85 MEASUREMENT METHOD water level meter

DEPTH OF WELL 27.00 MEASUREMENT METHOD water level meter

VOLUME REMOVED 9 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR — pH 6.65 ODOR

TEMPERATURE (~~°F~~ C) 19.6 SPECIFIC CONDUCTANCE (umhos/cm) 1630

OTHER (OVA, Methane meter, etc.) 0.5 ppm TURBIDITY (NTUs) 15

CONSTITUENTS SAMPLED: TCL +30 less VOA

CN-

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW-2

FIELD SAMPLE I.D. NUMBER RR MW-2 DATE 12/9/92

TIME 10:40 am WEATHER Wind, Cold TEMPERATURE 10-20°

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 4.79 MEASUREMENT METHOD Water level meter

DEPTH OF WELL 16.91 MEASUREMENT METHOD Water level meter

VOLUME REMOVED 6 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR — pH 6.90 ODOR —

TEMPERATURE (~~°F~~) 18.8 SPECIFIC CONDUCTANCE (umhos/cm) 1820

OTHER (OVA, Methane meter, etc.) 0.6 ppm TURBIDITY (NTUs) 13

CONSTITUENTS SAMPLED: TCL+30 (less VOA)
CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. CW102

FIELD SAMPLE I.D. NUMBER RRCW102DM DATE 12/9/92

TIME 12:02pm WEATHER Windy, Cold TEMPERATURE 10-20°

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 6.77 MEASUREMENT METHOD water level meter

DEPTH OF WELL 29.44 MEASUREMENT METHOD water level meter

VOLUME REMOVED 11 gallon REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR — pH 7.47 ODOR

TEMPERATURE (~~°F~~) 14 SPECIFIC CONDUCTANCE (umhos/cm) 1048

OTHER (OVA, Methane meter, etc.) 0.0 ppm TURBIDITY (NTUs) 19

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE: River Road

SAMPLE CREW: Keith Robins/Pete Conle

SAMPLE LOCATION/WELLNO.: MW-12

FIELD SAMPLE I.D. NUMBER: RR MW12CF

DATE: 12/9/92

TIME: 12:30pm

WEATHER: Windy Cold

TEMPERATURE: 10-20

SAMPLE TYPE:

GROUNDWATER: ✓

SEDIMENT:

SURFACE WATER/STREAM:

AIR:

SOIL:

OTHER (Describe, i.e., septage, leachate):

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER: 12.83

MEASUREMENT METHOD: water level meter

DEPTH OF WELL: 19.50

MEASUREMENT METHOD: water level meter

VOLUME REMOVED: 8 gallons

REMOVAL METHOD: bailer

FIELD TEST RESULTS:

COLOR:

pH: 9.87

ODOR: —

TEMPERATURE (°F): 14.8

SPECIFIC CONDUCTANCE (umhos/cm): 1,230

OTHER (OVA, Methane meter, etc.): 0.0 ppm

TURBIDITY (NTUs): 42

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Carle

SAMPLE LOCATION/WELLNO. MW-75

FIELD SAMPLE I.D. NUMBER RR MW-75 DATE 12/9/92

TIME 1:03 pm WEATHER Windy Cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 16.84 MEASUREMENT METHOD water level meter

DEPTH OF WELL 24.00 MEASUREMENT METHOD water level meter

VOLUME REMOVED 4 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR — pH 7.02 ODOR

TEMPERATURE (°F) 14.1 SPECIFIC CONDUCTANCE (umhos/cm) 1275

OTHER (OVA, Methane meter, etc.) 1.2 ppm TURBIDITY (NTUs) 20

CONSTITUENTS SAMPLED: TCL+3U(less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW-4S

FIELD SAMPLE I.D. NUMBER RRMW-4S DATE 12/9/92

TIME 1:36 pm WEATHER Windy Cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 12.33 MEASUREMENT METHOD Water level meter

DEPTH OF WELL 25.73 MEASUREMENT METHOD Water level meter

VOLUME REMOVED 8 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR pH 8.68 ODOR

TEMPERATURE (~~°F~~) 25.9 SPECIFIC CONDUCTANCE (umhos/cm) 405

OTHER (OVA, Methane meter, etc.) TURBIDITY (NTUs) 167

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Candle

SAMPLE LOCATION/WELLNO. MW-95 and MS/MSD *

FIELD SAMPLE I.D. NUMBER RRMW-95 DATE 12/9/92

TIME 1.51 p.m WEATHER Windy, Cold TEMPERATURE 10-20°

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 17.6 MEASUREMENT METHOD Water level meter

DEPTH OF WELL 26.00 MEASUREMENT METHOD Water level meter

VOLUME REMOVED 4 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR — pH 9.71 ODOR None

TEMPERATURE (~~°F~~) 15.5 SPECIFIC CONDUCTANCE (umhos/cm) 1270

OTHER (OVA, Methane meter, etc.) TURBIDITY (NTUs) 52

CONSTITUENTS SAMPLED: TCL +30 (less VOA)

CN⁻

REMARKS: * Sample Run MS/MSD

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW-13S

FIELD SAMPLE I.D. NUMBER RRMW.13CF DATE 12/9/92

TIME 2:10 pm WEATHER Windy Cold TEMPERATURE 10-20°

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 16.59 MEASUREMENT METHOD water level meter

DEPTH OF WELL 22.00 MEASUREMENT METHOD water level meter

VOLUME REMOVED 2-5 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR pH 9.15 ODOR

TEMPERATURE (°F) SPECIFIC CONDUCTANCE (umhos/cm)

OTHER (OVA, Methane meter, etc.) TURBIDITY (NTUs) 105 / Sample 28

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW-3S

FIELD SAMPLE I.D. NUMBER RRMW3S DATE 12/9/92

TIME 2:45 p.m WEATHER Windy, Cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓ SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 15.77 MEASUREMENT METHOD water level meter

DEPTH OF WELL 30.00 MEASUREMENT METHOD water level meter

VOLUME REMOVED 7 gallons REMOVAL METHOD Bailer

FIELD TEST RESULTS:

COLOR — pH 10.84 ODOR

TEMPERATURE (~~°F~~) 16.2 SPECIFIC CONDUCTANCE (umhos/cm) 1345

OTHER (OVA, Methane meter, etc.) 0.6 ppm TURBIDITY (NTUs) 20

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN-

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW-850

FIELD SAMPLE I.D. NUMBER RR MW850 DATE 12/10/92

TIME 11:20 p.m. WEATHER light snow, cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓/oil SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 24.80 MEASUREMENT METHOD water/oil probe

DEPTH OF WELL 18.30 MEASUREMENT METHOD water/oil probe

VOLUME REMOVED 3 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR black oil pH NA ODOR Oil

TEMPERATURE (°F) NA SPECIFIC CONDUCTANCE (umhos/cm) NA

OTHER (OVA, Methane meter, etc.) 35 ppm TURBIDITY (NTUs) NA

CONSTITUENTS SAMPLED:

PCB's TPHC

BNA,

REMARKS: Black oil identified in bailer

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE: River Road

SAMPLE CREW: Keith Robins/Pete Corde

SAMPLE LOCATION/WELLNO.: MW-85

FIELD SAMPLE I.D. NUMBER: RRMW 8S

DATE: 12/10/92

TIME: 11:30 a.m.

WEATHER: light snow, cold

TEMPERATURE: 10-20°

SAMPLE TYPE:

GROUNDWATER: ✓

SEDIMENT:

SURFACE WATER/STREAM:

AIR:

SOIL:

OTHER (Describe, i.e., septage, leachate):

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER: 24.80

MEASUREMENT METHOD: water/oil probe

DEPTH OF WELL: 18.30

MEASUREMENT METHOD: water/oil probe

VOLUME REMOVED: 3 gallons

REMOVAL METHOD: bailer

FIELD TEST RESULTS:

COLOR:

pH: NA

ODOR:

TEMPERATURE (°F): NA

SPECIFIC CONDUCTANCE (umhos/cm): NA

OTHER (OVA, Methane meter, etc.):

TURBIDITY (NTUs): NA

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS:

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE River Road SAMPLE CREW Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO. MW550 (oil)

FIELD SAMPLE I.D. NUMBER RRMW550 DATE 12/10/92

TIME 9.21 WEATHER light snow, cold TEMPERATURE 10-20

SAMPLE TYPE:

GROUNDWATER ✓/oil SEDIMENT

SURFACE WATER/STREAM AIR

SOIL OTHER (Describe, i.e., septage, leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 26.0 MEASUREMENT METHOD water/oil water probe

DEPTH OF WELL 17.5 MEASUREMENT METHOD water/oil water probe

VOLUME REMOVED 4 gallons REMOVAL METHOD bailer

FIELD TEST RESULTS:

COLOR dark black oil pH NA ODOR oil

TEMPERATURE (°F) NA SPECIFIC CONDUCTANCE (umhos/cm) NA

OTHER (OVA, Methane meter, etc.) TURBIDITY (NTUs) NA

CONSTITUENTS SAMPLED: PCB's TPHC

BNA

REMARKS: Black oil identified in bailer

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE: River Road

SAMPLE CREW: Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO.: MW-5S

FIELD SAMPLE I.D. NUMBER: RRMW-5S

DATE: 12/10/92

TIME: 9:30 am

WEATHER: light snow/cold

TEMPERATURE: 10-20

SAMPLE TYPE:

GROUNDWATER: ✓

SEDIMENT:

SURFACE WATER/STREAM:

AIR:

SOIL:

OTHER (Describe, i.e., septage, leachate):

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER: 17.5

MEASUREMENT METHOD: water level meter

DEPTH OF WELL: 26.0

MEASUREMENT METHOD: water level meter

VOLUME REMOVED: 4.1 gallons

REMOVAL METHOD: Bailer

FIELD TEST RESULTS:

COLOR:

pH: NA

ODOR: —

TEMPERATURE (°F): NA

SPECIFIC CONDUCTANCE (umhos/cm): NA

OTHER (OVA, Methane meter, etc.): NA

TURBIDITY (NTUs): NA

CONSTITUENTS SAMPLED: TCL+30 (less VOA)

CN⁻

REMARKS: Field parameters not recorded due to presence of oil

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

BARTILUCCI

SAMPLE INFORMATION RECORD

SITE: River Road

SAMPLE CREW: Keith Robins/Pete Conde

SAMPLE LOCATION/WELLNO.: MW 6S

FIELD SAMPLE I.D. NUMBER: RRMW6S

DATE: 12/10/92

TIME: 8:10 am

WEATHER: Snow, windy

TEMPERATURE: 10-20

SAMPLE TYPE:

GROUNDWATER: ✓

SEDIMENT:

SURFACE WATER/STREAM:

AIR:

SOIL:

OTHER (Describe, i.e., septage, leachate):

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER: 25.06

MEASUREMENT METHOD: water level/oil probe

DEPTH OF WELL: 17.12

MEASUREMENT METHOD: ~~water~~ level/oil probe

VOLUME REMOVED: 4 gallons

REMOVAL METHOD: bailer

FIELD TEST RESULTS:

COLOR: black oil

pH: NA

ODOR: oil

TEMPERATURE (°F): NA

SPECIFIC CONDUCTANCE (umhos/cm): NA

OTHER (OVA, Methane meter, etc.):

TURBIDITY (NTUs): NOT measured

CONSTITUENTS SAMPLED:

TCL+30 (less VOA)

CN-

REMARKS: Monitoring well had black oil on bailer. Could not use Field test equipment due to oil.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-2

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road

DATE: 12/9/92

PROJECT NUMBER: 1150-5A

INSTRUMENT: Micro tip

RECORDED BY: Keith Robins

CALIBRATION DATE: 12/9/92

WEATHER CONDITIONS: Cold, windy 10-20°

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
9:39 am	B-4	0-10 mph	0.0 ppm	In breathing zone
9:45 am	B-5	0-10 mph	0.0 ppm	In breathing zone
9:57 am	B-3	0-10 mph	0.5 ppm	In breathing zone
10:30	MW-1	0-10 mph	0.5 ppm	In breathing zone
10:40	MW-2	0-10 mph	0.6 ppm	In breathing zone
11:45	CW-102	0-10 mph	0.0 ppm	In breathing zone
12:47	MW-12	0-10 mph	0.0 ppm	In breathing zone
1:03 pm	MW-7S	0-10 mph	1.2 ppm	AT well head
1:36 pm	MW-4	0-10 mph	0.0 ppm	In breathing zone
1:51 pm	MW-9S	0-10 mph	0.0 ppm	In breathing zone
2:10 pm	MW-13S	0-10 mph	0.0 ppm	In breathing zone
2:45 pm	MW-3	0-10 mph	1.6 ppm	AT well head

RECORDING PROCEDURES/REMARKS: Air monitoring was performed during purging groundwater from monitoring wells. All readings recorded using the MicroTip.

AMF

STIKKA
AND
BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road

DATE: 12/10/92

PROJECT NUMBER: 1150-5A

INSTRUMENT: Microtip

RECORDED BY: Keith Robins

CALIBRATION DATE: 12/10/92

WEATHER CONDITIONS: light snow, windy, cold

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
12:55	MW-8S 0	0-10 mph	35 ppm	Inside well head 0.0 ppm In breathing zone
12:45	MW-5S 0	0-10 mph	0.0 ppm	In breathing zone
1:15 pm	MW-6S 0	0-10 mph	0.0 ppm	In breathing zone

RECORDING PROCEDURES/REMARKS: Air Monitoring was conducted prior to purging and sampling. Readings were measured using an MicroTip.

AMF

DVIRKA
AND
BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road

DATE: 11/16

PROJECT NUMBER: 1150

INSTRUMENT: DUST/MICROTOX

RECORDED BY: EMA

CALIBRATION DATE: —

WEATHER CONDITIONS: Snow, 30°

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
no air monitoring today				

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA
AND
BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road RIFS Phase II DATE: 11/17

PROJECT NUMBER: 1150 INSTRUMENT: OVA

RECORDED BY: EMA CALIBRATION DATE: 11/17

WEATHER CONDITIONS: Cloudy, Snow 30's

BG Background
SS Split Spoon
BH Borehole

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
10:10	MW-9S	Calm	0 ppm	BG
1113	S1 0-2	"	"	SS
1127	S2 5-7	"	1.5-1.9 ppm	"
1200	S3 10-12	"	0 ppm	"
~~130~~				
10:10	MW-9S	"	0 mg/m3	Dust

RECORDING PROCEDURES/REMARKS: Meter failure @ 140pm.

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road DATE: 11/18

PROJECT NUMBER: 1150 INSTRUMENT: ~~DRT~~/HNU

RECORDED BY: EMA CALIBRATION DATE: 11/18

WEATHER CONDITIONS: Cloudy 30's

BG = Background
SS = Split Spoon
BH = Bore Hole

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
1226	~~B~~ MW-8S	West 0-5 mph	0.0	BG
" "	MW-8S 0-2'	"	"	SS
1230	" 5-7	"	"	"
1232	" 10-12	"	"	"
107	" 15-17	"	4 ppm	"
1:29	" 20-22	"	0 ppm	"
110	MW-8S	"	0	BH
146	25-27	"	"	SS
1226	MW-8S	"	0 mg/m³	Dust

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road

DATE: 11/17

PROJECT NUMBER: 1150

INSTRUMENT: Hnu

RECORDED BY: GNA

CALIBRATION DATE: 11/17

WEATHER CONDITIONS: Cloudy 30's

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
1045	MW-9s	0-5 W	0 ppm	Well Head Space
11:10	MW-8s	0-5 W	0 ppm	" " "
10:45	MW-9s	"	0 mg/m³	Dust

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: River Road

DATE: 11/20

PROJECT NUMBER: 1150

INSTRUMENT: MIC10-10

RECORDED BY: GMA

CALIBRATION DATE: 11/20

WEATHER CONDITIONS: Partly Cloudy 30-40

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
906	MW-8s	Calm	0 ppm	Well head space
906	"	"	0 mg/M3	Dust

RECORDING PROCEDURES/REMARKS:

AMF

Dvirka and Bartilucci
CONSULTING ENGINEERS

DAILY DRILLING REPORT

WEATHER: Cold, Overcast Snow	DATE: 11/16/92
CONTRACTOR: Buffalo Drilling	PROJECT NAME: RIVER ROAD PH II
DRILLER: Joe Gardner, Wally Greiner	PROJECT NUMBER: 1150
INSPECTOR: E. Aldrich, F. Tooker	CLIENT: NYSDEC
OTHER PERSONNEL: Mike DiPetro	
ON-SITE EQUIPMENT: Dietrick - 50	

TIME LOG

CATEGORY	AM 6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL HRS	BOREHOLE		
MOB/SETUP																							
DRILLING SOIL																							
DRILLING ROCK																							
WELL INSTALLATION																							
DEVELOP/TEST																							
DECONTAMINATION																							
STANDBY																							
DOWN TIME																							
Construct Decon Pad																							

REMARKS:

CONSUMABLES

ITEM	WELL/BORE	SIZE/TYPE	QUANTITY	WELL/BORE	SIZE/TYPE	QUANTITY
OUTER CASING						
INNER CASING						
SCREEN						
GROUT						
BENTONITE						
SAND						
SHELBY TUBES						
SPLIT SPOONS						
POSTS						
LOCKING CAP						
Decon Pad	—	12 X 24'	1			

REMARKS:

DRILLING RECORD

BOREHOLE NUMBER	FROM FEET	TO FEET	TOTAL FEET	DIA. INCHES	METHOD	NOTES

REMARKS:

SIGNATURES

DRILLER: Walter Greiner

INSPECTOR: Edward M Aldrich

Dvirka and Bartilucci
CONSULTING ENGINEERS

DAILY DRILLING REPORT

WEATHER: COLD, Overcast Snow/Rain	DATE: 12/17/92
CONTRACTOR: Buffalo Drilling	PROJECT NAME: RIVER ROAD SITE PH II
DRILLER: Joe Gardner, Wally Grainer	PROJECT NUMBER: 1150
INSPECTOR: E. ALDRICH, F. Tooher	CLIENT: NYSDEC
OTHER PERSONNEL: Mike Dilatro	
ON-SITE EQUIPMENT: Diedrich 50	

TIME LOG

CATEGORY	AM 6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL HRS	BOREHOLE MW-9S		
MOB/SETUP																				1	1		
DRILLING SOIL																				3	3		
DRILLING ROCK																							
WELL INSTALLATION																				1 1/2	1 1/2		
DEVELOP/TEST																							
DECONTAMINATION																				2	2		
STANDBY																							
DOWN TIME																							
Construction meeting																				1/2	1/2		

REMARKS:

CONSUMABLES

ITEM	WELL/BORE	SIZE/TYPE	QUANTITY	WELL/BORE	SIZE/TYPE	QUANTITY
OUTER CASING						
INNER CASING	"	2" PVC	15			
SCREEN	MW-9S	2" 10 slot PVC	15			
GROUT	"	Type II Port.	2			
BENTONITE	"	Powder	1/2			
SAND						
SHELBY TUBES						
SPLIT SPOONS	"	2"	6.			
POSTS						
LOCKING CAP	"	4" steel	1.			
Plug + Caps	"	2"	1			
Concrete			1			
Drums						

REMARKS:

DRILLING RECORD

BOREHOLE NUMBER	FROM FEET	TO FEET	TOTAL FEET	DIA. INCHES	METHOD	NOTES
MW-9S	0	26	26	8"	4 1/4" HSA	

REMARKS:

SIGNATURES

DRILLER: Walter Greiner

INSPECTOR: Edward M Aldrich

Dvirka and Bartilucci
CONSULTING ENGINEERS

DAILY DRILLING REPORT

WEATHER: Overcast, 30's	DATE: 11/18/92
CONTRACTOR: Buffalo Drilling	PROJECT NAME: River Road PH II
DRILLER: Joe Gardner, Wally Brenner	PROJECT NUMBER: 1150
INSPECTOR: E. Albrecht, F. Tocher	CLIENT: NYSDEC
OTHER PERSONNEL: Mike DePietro	
ON-SITE EQUIPMENT: Diedrich 50	

TIME LOG

CATEGORY	AM 6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL HRS	BOREHOLE		
MOB/SETUP																							
DRILLING SOIL																							
DRILLING ROCK																							
WELL INSTALLATION																							
DEVELOP/TEST																							
DECONTAMINATION							930-1030																
STANDBY																							
DOWN TIME																							

REMARKS: 1030 - 11,10 - Standby - Air monitoring down > 1.10 Standby.
1230-100 " " " " .

CONSUMABLES

ITEM	WELL/BORE	SIZE/TYPE	QUANTITY	WELL/BORE	SIZE/TYPE	QUANTITY
OUTER CASING						
INNER CASING					2" PVC riser	15
SCREEN				85	10 slot 2" PVC	15'
GROUT			2	"	2 Portlan	1
BENTONITE		Pellets	1		1	Pail
SAND	95	00	3		80 Sand	3
SHELBY TUBES						
SPLIT SPOONS					2"	6
POSTS						
LOCKING CAP			1			1
Cap + Plug			1			1
Bucket			1			1
Drum			1			
Bent-Powder			1			

REMARKS:

DRILLING RECORD

BOREHOLE NUMBER	FROM FEET	TO FEET	TOTAL FEET	DIA. INCHES	METHOD	NOTES
	0	25	25	9 1/4	HSA	

REMARKS:

SIGNATURES

DRILLER: Walter Brenner

INSPECTOR: Edward M Albrecht

Dvirka and Bartilucci
CONSULTING ENGINEERS

DAILY DRILLING REPORT

WEATHER: Partly Cloudy	DATE: 11/18/92
CONTRACTOR: Buffalo drilling	PROJECT NAME: River Road
DRILLER: Wally Gunner	PROJECT NUMBER: 1150
INSPECTOR: Ed Oldrich, Fran Tooher	CLIENT: NYSDEC
OTHER PERSONNEL:	
ON-SITE EQUIPMENT: Support Truck / Diedrich D-50	

TIME LOG

CATEGORY	AM 6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL HRS	BOREHOLE		
MOB/SETUP					9-10															1			
DRILLING SOIL																							
DRILLING ROCK																							
WELL INSTALLATION																							
DEVELOP/TEST																				6			
DECONTAMINATION																				1			
STANDBY																							
DOWN TIME																							

REMARKS:

CONSUMABLES

ITEM	WELL/BORE	SIZE/TYPE	QUANTITY	WELL/BORE	SIZE/TYPE	QUANTITY
OUTER CASING						
INNER CASING						
SCREEN						
GROUT						
BENTONITE						
SAND						
SHELBY TUBES						
SPLIT SPOONS						
POSTS						
LOCKING CAP						

REMARKS:

DRILLING RECORD

BOREHOLE NUMBER	FROM FEET	TO FEET	TOTAL FEET	DIA. INCHES	METHOD	NOTES

REMARKS:

SIGNATURES

DRILLER: [signature]

INSPECTOR: Edward M Oldrich

Dvirka and Bartilucci
CONSULTING ENGINEERS

DAILY DRILLING REPORT

WEATHER: Partly Cloudy	DATE: 11/20/92
CONTRACTOR: Wally Grimm	PROJECT NAME: River Road
DRILLER: Buffalo drilling	PROJECT NUMBER: 1150
INSPECTOR: ED ALBRECHT / Fran Tooher	CLIENT: NYSDEC
OTHER PERSONNEL:	
ON-SITE EQUIPMENT: Support Truck	

TIME LOG

CATEGORY	AM 6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL HRS	BOREHOLE		
MOB/SETUP																							
DRILLING SOIL																							
DRILLING ROCK																							
WELL INSTALLATION																							
DEVELOP/TEST																				1/2			
DECONTAMINATION																							
STANDBY																							
DOWN TIME																							
Remove Decon Pad																				2 1/2			

REMARKS:

CONSUMABLES

ITEM	WELL/BORE	SIZE/TYPE	QUANTITY	WELL/BORE	SIZE/TYPE	QUANTITY
OUTER CASING						
INNER CASING						
SCREEN						
GROUT						
BENTONITE						
SAND						
SHELBY TUBES						
SPLIT SPOONS						
POSTS						
LOCKING CAP						

REMARKS:

DRILLING RECORD

BOREHOLE NUMBER	FROM FEET	TO FEET	TOTAL FEET	DIA. INCHES	METHOD	NOTES

REMARKS:

SIGNATURES

DRILLER: [signature]

INSPECTOR: Edward M Albrecht

DVIRKA
AND
BARTILUCCI

FIELD CHANGE FORM

Project Name: River Road Phase II RI/FS

Project Number: 1150 Field Change Number: 03

Location: Tonawanda NY Date: 11/18/92

Field Activity Description: ~~VOT~~ Soil VOA Sample bottles. Total Number per Sample is written in work plan as 3

Reason for Change: NYTEST Requires only two vials

Recommended Disposition: Fill only 2 VOA vials per Sample

Edward M Albert 11/18/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition:

Michael J. DiPietro 11/18/92

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA
AND
BARTILUCCI

FIELD CHANGE FORM

Project Name: RIVER ROAD.

Project Number: 1150 Field Change Number: 01

Location: Tonawanda NY Date: 11/10/92

Field Activity Description: PROVIDE KEYED-A-LIKE LOCKS for EXISTING WELLS. B-4, B-5, B-6, and new wells MW-8s and MW-9s to match wells installed during phase I Program

Reason for Change: Provide continuity between all wells on site.

Recommended Disposition: Purchase 6 locks (5 locks as per above plus 1 extra lock for contingency) at a cost of $10 each plus shipping

Edward M. Albrecht Sr. Geologist 11/10/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition:

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

DVIRKA AND BARTILUCCI

FIELD CHANGE FORM

Project Name: River Road

Project Number: 1150 Field Change Number: 02

Location: Tonawanda NY Date: 11/17/92

Field Activity Description: WELL Construction - (Sand PACK grain size) WORK Plan States NO. 1 Grade Sand

Reason for Change: Drillers carry NO. 00 grade, however 00 grade Sand is compatable w/ 0.010-inch slot well screen.

Recommended Disposition: GO w/ NO. 00 grade Sand because of added advantage of being more compatable with surrounding Sediment material size.

Edward M Adend 11/17/92

Field Operations Officer (D&B Consulting Engineers) (Signature) Date

Disposition:

Michael J. DiPalato 11-17-92

On-site Supervisor (NYSDEC) (Signature) Date

Distribution: Project Manager (D&B)
Project Manager (NYSDEC)
Field Operations Officer
On-site Supervisor (NYSDEC)

Others as Required:

DB-FCF

**DVIRKA
AND
BARTILUCCI**

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road

Date: 11/16/92

Project Number: 1150

Calibrated By:

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
no air monitoring	today		

DVIRKA
AND
BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road Ph II Date: 11/17/92
Project Number: 1150 Calibrated By: FT

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Foxboro OVA-128	Cal Gas	10:10	100 PPM Methane

DECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road ph II Date: 11/18/92

Project Number: 1150 Calibrated By: FI

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
MicroTip	Cal Gas	1030	~~Failure~~ Fault readout
OVA	"	1030	Low Battery Charge *
HNU	"	1225	36 PPM 150 but
			@ 2.8 SPAN
* OVA was recharge During previous night + still failed to keep charge			

DECL

DVIRKA
AND
BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road Date: 11/19
Project Number: 1150 Calibrated By: SA/FF

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
HNU	ISOButylene	1000	56 ppm @ 500m of 2.4

DECL

**DVIRKA
AND
BARTILUCCI**

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Riverhead
Project Number: 1150
Date: 11/20
Calibrated By: EA/FT

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
MICROTIP	100 PPM	900	101 PPM ISO.
	ISOButylene		
	Zero Air		

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road Date: 12/8/92

Project Number: 1150-5A Calibrated By: Fran Looher

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Photo VAC MicroTip	100 ppm Isobutylene GAS	8:00 a.m	Calibrated to 100 ppm
	zero Air		zero Air
Cole Parmer PH meter	4.0 / 7.0 Solution	8:10 am	Calibrated 4.0 / 7.0
Turbidity meter	0.02 Standard	8:15 a.m	calibrated to 0.02 NTU
Specific Conductivity Meter	1000 soution	8:20 a.m	Calibrated to 1000 (mhos)

DECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road Date: 12/9/92

Project Number: 1150 - 5A Calibrated By: Keith Robins

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
PhotoVAC Microtip	100 ppm Isobutylene	8:45 a.m	Calibrated to 100 ppm Iso
	Zero Air		Zero Air
Cole Parmer PH meter	4.0/9.0 Solution	9:00 am	Calibrated 6.98/7 4.01/4.00
Turbidity Meter	0.02 STD	9:05 am	Calibrated to 0.02 NTU
Specific Conductivity Meter	1000 solution	9:10 a.m.	Calibrated to 1000 (mhos)

DECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: River Road Date: 12/10/92

Project Number: 1150-5A Calibrated By: Keith Robins

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Photo VAC Microtip	100 ppm Isobutylene	7:30 am	Calibrated to 100 ppm
	Zero Air		
Cole Parmer PH meter	4.0/7.0 Solution	7:35 am	calibrated 4/4, 7/7.00
Turbidity Meter	0.02 STD	7:37 am	calibrated to 0.02 NTU
Specific Conductivity	1000 Solution	7:41 am	Calibrated to 1000 (mhos)

DECL