report.BCP.C734103.2004-07-30.Pre_BCA_Testpit_Investigation

C&S COMPANIES
ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Boulevard
Syracuse, NY 13212
phone 315-455-2000
fax 315-455-9667
www.cscos.com

July 30, 2004

Mr. Jed S. Schneider
Senior Vice President of Construction
Pioneer Midler Avenue, LLC
250 South Clinton Street
Syracuse, New York 13202

Re: PRE-BCA REPORT

File: C81.001.001

Dear Mr. Schneider:

This letter summarizes the findings of pre-BCA activities conducted by C&S Engineers, Inc. at the Pioneer Midler LLC site in Syracuse, New York. The project was undertaken based on the C&S proposal dated June 24, 2004. The objective of this proposed scope of work was to conduct an assessment of specific potentially significant areas of concern as previously identified in reports and discussions. This assessment included excavation of test pits, visual observation, physical screening using field instrumentation, and laboratory analysis of select samples to identify the presence of residual contaminants. The intent of this effort was to provide you with information to assist in making decisions on moving forward with the project and the BCP process. Subsequent to the acceptance of the original scope of work, Pioneer requested the excavation of three additional test pits in the western portion of the property to provide information for the design of a retention basin.

The following sections describe the activities and findings for each area. Copies of the test pit logs are provided in Attachment A and a copy of the analytical report is provided in Attachment B. A figure depicting the site is also attached.

C&D fill area located in the northeastern quadrant of the subject parcel

Three test trenches were excavated in this area: T-1 north zone, T-2 central zone, and T-3 south zone. Each test trench was started as near to the east property boundary as practicable. T-1 was 100-ft long, T-2 was 130-ft, and T-3 was 100-ft. Each test trench was approximately five feet to six feet deep. Water was encountered in each trench at approximately five feet below grade. Material encountered in the trenches consisted of clean fill in the upper three feet; this was predominantly soil and gravel. Below this a variety of material was encountered including foundry sands, foundry slag and glass, scrap wood and metal, concrete, asphalt, and tar. At approximately six feet below grade, a white marl was identified. A six inch stratum of brown peat was found atop the marl in most places. Trenching did not extend more than one foot into the marl.

Volatile organic vapors were encountered in the first trench (T-1) approximately 70 feet from the east end of the trench. This material registered 275 ppm on the field photoionization detector during a head space evaluation. The material exhibited a black stain and a slight sheen developed on the surface of the water proximate to the material. A sample of the material was collected for laboratory analysis for volatile organic compounds (VOCs) via EPA method 8260 and PCBs via EPA method 8082.

Volatile organic vapors, stained soil, or sheens were encountered elsewhere in the former C&D area. A composite soil sample from T-2 and T-3 was collected for laboratory analysis for VOCs and PCBs.

Results of the analytical work showed that PCBs were not detected in either sample. The composite sample from trenches T-2 and T-3 also showed no detectable levels of VOCs (other that the laboratory contaminant acetone, which is a common laboratory solvent)). The sample from T-1 showed three detectable VOCs: acetone (a laboratory contaminant), 2-butanone (another probable laboratory contaminant), and tetrachloroethene. The level of tetrachloroethene detected (160 ug/kg) is lower than the State recommended soil cleanup objective of 1,400 ug/kg (TAGM 4046) for this compound.

Former pond area located between Building 1 and Building 3 Loading Dock

One test trench was excavated in the former pond area located between Buildings 1 and 3. The upper four feet of the trench consisted of fill which included scrap wood, bricks, asphalt, concrete, rocks, and miscellaneous refuse (cast iron sink, metal pail, metal cans). At approximately four feet below grade, a gray organic silty clay was encountered that was moist to wet and had a very plastic nature. It appeared to be the bottom of the former pond where silt, clay, and natural organic matter had settled over time. Groundwater was encountered above this silt/clay and varied from three feet below grade in the north end of the trench to as deep as seven feet below grade near the middle of the trench. Groundwater at the southern extent of the trench was four feet below grade.

Two composite soil samples were collected from the Pond trench; one from the southern extent and one from the more northerly extent where marl was encountered. The samples were submitted for laboratory analysis for VOCs and PCBs.

The analytical results did not show the presence of PCBs or VOCs. A reported detection of acetone in both samples is suspected to be laboratory contamination.

Area Q - Former petroleum storage tank location

Two trenches were made across the assumed location of the UST. Both trenches were approximately six feet deep. The northeasterly trench consisted mostly of foundry sand and slag. Water was found at five feet below grade. The southwesterly trench consisted of foundry sand and marble stone fragments with some occurrences of slag. Groundwater was also found at five feet below grade at this location.

No laboratory samples were collected from these trenches.

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Area S - Former petroleum storage tanks location

The area was trenched in several places. No volatile organic vapors, stained soil, or sheens were encountered in any of the trenches. Foundry sands and slag were the predominant materials found in this area, and water was encountered at approximately four feet below the surface. There was no indication of imported fill material such as clean crushed stone. No samples were collected.

Former Powerhouse

Two wipe samples were collected from the former power house. Three active and one inactive transformers were present in the building. The first sample (Power Bldg Floor - grab) was collected from the floor in an area of oil staining in front of the left-most transformer in the building. The second sample (Power Bldg Transformer - Grab) was collected from an oil-stained area on the front of the middle transformer. Samples were submitted to the laboratory for PCB analysis.

The sample from the floor showed a level of 5.5 µg/wipe of Aroclor 1260. The sample from the front of the transformer was reported as 1.3 µg/wipe of Aroclor 1260.

West Area Extra Trenches

Three trenches were excavated for the purpose of determining groundwater levels in the area at the west end of the Property. No samples were collected in this area. The following describes the findings in that area.

South Trench (Midler T-1): Total depth of ten feet. 0-5 feet below the surface consisted of fill composed of slag, foundry sand, and sand/silt. 5-10 feet consisted of black to gray sand; wet at eight feet below grade. A white to pinkish marl was encountered at ten feet below grade. Groundwater entered the trench at eight feet below grade.

Middle Trench (Midler T-2): Total depth of six feet. 0-3 feet below the surface consisted of a brown, dry mixture of top soil and rocks. 4-6 ft consisted of black to gray sand and foundry sand mixed with rocks. Groundwater entered the trench at six feet below grade.

North Trench (Midler T-3): Total depth of three feet. 0-3 below the surface feet consisted of fill composed of slag, foundry sand, sand/silt. Wet marl was encountered at three feet below grade. Groundwater entered the trench at three feet below grade.

Summary

Investigations were conducted at several locations to evaluate potential significant environmental issues relative to future development qt the site. Tasks included excavation of test trenches, observation of excavated materials, analytical testing of soil, and sampling and analysis of oil-stained areas in the powerhouse.

Based on the results of this evaluation, we do not believe that there are environmental issues at the site that would be prohibitively costly to correct or that would prevent development.

C&S COMPANIES

Thank you for the opportunity to assist Pioneer Midler Avenue, LLC with this project. We are available to meet at your convenience to discuss these findings. Please call us if there are any questions.

Sincerely yours,

C&S ENGINEERS, INC.

Thomas A. Barba
Senior Project Scientist

TAB:cah
Attachments

cc: Ken Kamlet, Esq. - Newman Development

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ATTACHMENT A

Test Pit Logs

C&S ENGINEERS

C&S

Engineers, Inc.

499 Col Eileen Collins Blvd, Syracuse, New York 13212

(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: C&D Area T-1 Date: 7-23-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 0730

Contractor: CRAL Contracting, Inc. Finish: 0900

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 5			Foundry sand and slag, some construction/ demolition debris, moist	PID Reading 275ppm in soil encountered approx 70-ft east of property boundary in trench 3-ft to 5-ft below grade. Black stain soil.
	5.5			White marl, wet	
				Wet at 5-ft. Groundwater 5-ft below grade	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%

Boulders (greater than 10 inches diameter):
none

C&S
Engineers, Inc.
499 Col Eileen Collins Blvd, Syracuse, New York 13212
(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: C&D Area T-2 Date: 7-23-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 0900

Contractor: CRAL Contracting, Inc. Finish: 1100

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 5			Foundry sand and slag, some construction/ demolition debris, scrap wood and metal, moist	
	5.5			Wet at 5-ft. Groundwater 5-ft below grade	
	9.0			Marl	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%
Boulders (greater than 10 inches diameter):
none

C&S

499 Col Eileen Collins Blvd, Syracuse, New York 13212

Engineers, Inc.

TEST PIT LOG

(315) 455-2000 Fax: (315) 455-9667

Test Pit No: C&D Area T-3 Date: 7-23-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1100

Contractor: CRAL Contracting, Inc. Finish: 1200

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 3			Foundry sand and slag, some construction/ demolition debris, scrap wood and metal, moist, root zone at 3-ft	
	3 - 5			Black to gray, medium sand, some foundry sand moist Wet at 4-ft. Groundwater 4-ft below grade	
	5 - 6			Brown peat, wet	
	6			White marl, wet	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%

Boulders (greater than 10 inches diameter):
none

C&S

499 Col Eileen Collins Blvd, Syracuse, New York 13212

Engineers, Inc.

TEST PIT LOG

(315) 455-2000 Fax: (315) 455-9667

Test Pit No: Pond North Date: 7-22-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1300

Contractor: CRAL Contracting, Inc. Finish: 1600

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 3.5			Brown to black, sand and silt, some misc construction/demolition debris, moist	
	3.5 - 4.5			White marl, wet, groundwater at 3-ft	
	4.5 - 5.5			Brown peat, wet	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%

Boulders (greater than 10 inches diameter):
< 1%

C&S
Engineers, Inc.
499 Col Eileen Collins Blvd, Syracuse, New York 13212
(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: Pond South **Date:** 7-22-04 **Page:** 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC **Start:** 1300

Contractor: CRAL Contracting, Inc. **Finish:** 1600

Equipment: Kobelco SK160 LC **Inspector:** J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 4			Foundry sand and slag, scrap wood, metal, brick misc construction/demolition debris, moist	
	4			Black to gray, organic silt/clay, wet Groundwater at 4-ft below grade	PID Reading 0 ppm

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter): < 5%

Boulders (greater than 10 inches diameter): < 1%

C&S

499 Col Eileen Collins Blvd, Syracuse, New York 13212

Engineers, Inc.

TEST PIT LOG

(315) 455-2000 Fax: (315) 455-9667

Test Pit No: Area S (Former ASTs) Date: 7-23-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1400

Contractor: CRAL Contracting, Inc. Finish: 1500

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 4			Foundry sand and slag, crushed stone, moist Wet at 4-ft. Groundwater 4-ft below grade	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%

Boulders (greater than 10 inches diameter):
none

C&S

499 Col Eileen Collins Blvd, Syracuse, New York 13212

Engineers, Inc.

TEST PIT LOG

(315) 455-2000 Fax: (315) 455-9667

Test Pit No: Area Q (12,000 gal UST) Date: 7-22-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 0900

Contractor: CRAL Contracting, Inc. Finish: 1030

Equipment: Mini-Excavator Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 5			Foundry sand and slag, marble stone cobbles, moist. Wet at 5-ft. Groundwater 5-ft below grade	PID Reading - 20 ppm

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%

Boulders (greater than 10 inches diameter):
none

C&S
Engineers, Inc.
499 Col Eileen Collins Blvd, Syracuse, New York 13212
(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: Midler Ave T-1 Date: 7-22-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1100

Contractor: CRAL Contracting, Inc. Finish: 1130

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 5			Foundry sand and slag	
	5 - 10			Black to gray, medium sand	
	10			White marl	
				Water entering above marl at 8-ft below grade	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%
Boulders (greater than 10 inches diameter):
none

C&S
Engineers, Inc.
499 Col Eileen Collins Blvd, Syracuse, New York 13212
(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: Midler Ave T-2 Date: 7-22-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1130

Contractor: CRAL Contracting, Inc. Finish: 1200

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 3			Brown, top soil and rock cobbles, dry	
	3 - 6			Black to gray, medium sand, foundry sand and slag, some rock cobbles Groundwater at 6-ft below grade	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%
Boulders (greater than 10 inches diameter):
none

C&S Engineers, Inc.
499 Col Eileen Collins Blvd, Syracuse, New York 13212
(315) 455-2000 Fax: (315) 455-9667

TEST PIT LOG

Test Pit No: Midler Ave T-3 Date: 7-22-04 Page: 1 of 1

Project: Midler Avenue Pre-BCA Investigation

Client: Pioneer Midler Avenue, LLC Start: 1200

Contractor: CRAL Contracting, Inc. Finish: 1215

Equipment: Kobelco SK160 LC Inspector: J. Holmquist

Scale in Feet	Strata Depth Change	Sample No.	Sample Depth Range	Description of Materials	Remarks
	0 - 3			Brown to black, medium sand, foundry sand and slag, moist	
	3			White marl Groundwater at 3-ft below grade	

Groundwater		
Date	Time	Depth
	see above	

Cobbles (2.5 to 10 inches diameter):
< 5%
Boulders (greater than 10 inches diameter):
none

ATTACHMENT B

Analytical Report

C&S ENGINEERS

Tom Barba
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
N. Syracuse, NY 13212

Phone: (315) 455-2000
FAX: (315) 455-9667

Laboratory Analysis Report

For

C&S Engineers, Inc.

Client Project ID:

Pioneer Midler

LSL Project ID: **0412284**

Receive Date/Time: 07/23/04 15:20

Project Received by: MW

Life Science Laboratories, Inc.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1105
Fax (315) 445-1301
NYS DOH ELAP #10248
PA DEP #68-2556

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 728-3320
Fax (585) 728-2711
NYS DOH ELAP #11667

LSL Southern Tier Lab
30 East Main Street
Cuba, NY 14727
Tel. (585) 968-2640
Fax (585) 968-0906
NYS DOH ELAP #10760

LSL MidLakes Lab
699 South Main Street
Canandaigua, NY 14424
Tel. (585) 396-0270
Fax (585) 396-0377
NYS DOH ELAP #11369

This report was reviewed by: Linda Waters QC ***Date:*** 7/28/04

Life Science Laboratories, Inc.

A copy of this report was sent to:

Date Printed: 7/28/04

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **Power Bldg Floor -Grab** **LSL Sample ID:** **0412284-001**

Location: Pioneer Midler

Sampled: 07/22/04 10:15 **Sampled By:** JH

Sample Matrix: Wipe

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) NYSDOH 312-3M/EPA 8082 PCB's in Wipes					
Aroclor-1016	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1221	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1232	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1242	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1248	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1254	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1260	5.5	ug/wipe	7/26/04	7/27/04	AMW
This target analyte appears to be biologically degraded and/or environmentally weathered.					
Surrogate (DCB)	91	%R	7/26/04	7/27/04	AMW

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **Power Bldg Transformer -Grab** **LSL Sample ID:** **0412284-002**

Location: Pioneer Midler

Sampled: 07/22/04 10:16 **Sampled By:** JH

Sample Matrix: Wipe

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) NYSDOH 312-3M/EPA 8082 PCB's in Wipes					
Aroclor-1016	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1221	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1232	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1242	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1248	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1254	<0.5	ug/wipe	7/26/04	7/27/04	AMW
Aroclor-1260	1.3	ug/wipe	7/26/04	7/27/04	AMW
This target analyte appears to be biologically degraded and/or environmentally weathered.					
Surrogate (DCB)	95	%R	7/26/04	7/27/04	AMW

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: Pond A 3'-4' - Comp **LSL Sample ID:** 0412284-003

Location: Pioneer Midler

Sampled: 07/22/04 15:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082 PCB's					
Aroclor-1016	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1221	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1232	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1242	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1248	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1254	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1260	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Surrogate (DCB)	90	%R	7/26/04	7/28/04	AMW
(1) EPA 8260B TCL Volatiles					
Acetone	190	ug/kg dry		7/26/04	LEF
Benzene	<40	ug/kg dry		7/26/04	LEF
Bromodichloromethane	<40	ug/kg dry		7/26/04	LEF
Bromoform	<40	ug/kg dry		7/26/04	LEF
Bromomethane	<40	ug/kg dry		7/26/04	LEF
2-Butanone (MEK)	<80	ug/kg dry		7/26/04	LEF
Carbon disulfide	<40	ug/kg dry		7/26/04	LEF
Carbon tetrachloride	<40	ug/kg dry		7/26/04	LEF
Chlorobenzene	<40	ug/kg dry		7/26/04	LEF
Chloroethane	<40	ug/kg dry		7/26/04	LEF
Chloroform	<40	ug/kg dry		7/26/04	LEF
Chloromethane	<40	ug/kg dry		7/26/04	LEF
Dibromochloromethane	<40	ug/kg dry		7/26/04	LEF
1,1-Dichloroethane	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloroethane	<40	ug/kg dry		7/26/04	LEF
1,1-Dichloroethene	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloroethene, Total	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloropropane	<40	ug/kg dry		7/26/04	LEF
cis-1,3-Dichloropropene	<40	ug/kg dry		7/26/04	LEF
trans-1,3-Dichloropropene	<40	ug/kg dry		7/26/04	LEF
Ethyl benzene	<40	ug/kg dry		7/26/04	LEF
2-Hexanone	<80	ug/kg dry		7/26/04	LEF
Methylene chloride	<80	ug/kg dry		7/26/04	LEF
4-Methyl-2-pentanone (MIBK)	<80	ug/kg dry		7/26/04	LEF
Styrene	<40	ug/kg dry		7/26/04	LEF
1,1,2,2-Tetrachloroethane	<40	ug/kg dry		7/26/04	LEF
Tetrachloroethene	<40	ug/kg dry		7/26/04	LEF
Toluene	<40	ug/kg dry		7/26/04	LEF
1,1,1-Trichloroethane	<40	ug/kg dry		7/26/04	LEF
1,1,2-Trichloroethane	<40	ug/kg dry		7/26/04	LEF
Trichloroethene	<40	ug/kg dry		7/26/04	LEF
Vinyl chloride	<40	ug/kg dry		7/26/04	LEF
Xylenes (Total)	<40	ug/kg dry		7/26/04	LEF
Surrogate (1,2-DCA-d4)	99	%R		7/26/04	LEF
Surrogate (Tol-d8)	106	%R		7/26/04	LEF
Surrogate (4-BFB)	117	%R		7/26/04	LEF

Elevated detection limit due to matrix interference.

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **Pond A 3'-4' - Comp** **LSL Sample ID:** **0412284-003**

Location: Pioneer Midler

Sampled: 07/22/04 15:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Modified EPA 160.3 Total Solids					
Total Solids @ 103-105 C	57	%	7/28/04	7/28/04	LEF

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **Pond B 3'-5' - Comp** **LSL Sample ID:** **0412284-004**

Location: Pioneer Midler

Sampled: 07/22/04 16:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082 PCB's					
Aroclor-1016	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1221	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1232	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1242	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1248	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1254	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1260	<0.4	mg/kg dry	7/26/04	7/28/04	AMW
Surrogate (DCB)	104	%R	7/26/04	7/28/04	AMW
(1) EPA 8260B TCL Volatiles					
Acetone	160	ug/kg dry		7/26/04	LEF
Benzene	<40	ug/kg dry		7/26/04	LEF
Bromodichloromethane	<40	ug/kg dry		7/26/04	LEF
Bromoform	<40	ug/kg dry		7/26/04	LEF
Bromomethane	<40	ug/kg dry		7/26/04	LEF
2-Butanone (MEK)	<80	ug/kg dry		7/26/04	LEF
Carbon disulfide	<40	ug/kg dry		7/26/04	LEF
Carbon tetrachloride	<40	ug/kg dry		7/26/04	LEF
Chlorobenzene	<40	ug/kg dry		7/26/04	LEF
Chloroethane	<40	ug/kg dry		7/26/04	LEF
Chloroform	<40	ug/kg dry		7/26/04	LEF
Chloromethane	<40	ug/kg dry		7/26/04	LEF
Dibromochloromethane	<40	ug/kg dry		7/26/04	LEF
1,1-Dichloroethane	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloroethane	<40	ug/kg dry		7/26/04	LEF
1,1-Dichloroethene	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloroethene, Total	<40	ug/kg dry		7/26/04	LEF
1,2-Dichloropropane	<40	ug/kg dry		7/26/04	LEF
cis-1,3-Dichloropropene	<40	ug/kg dry		7/26/04	LEF
trans-1,3-Dichloropropene	<40	ug/kg dry		7/26/04	LEF
Ethyl benzene	<40	ug/kg dry		7/26/04	LEF
2-Hexanone	<80	ug/kg dry		7/26/04	LEF
Methylene chloride	<80	ug/kg dry		7/26/04	LEF
4-Methyl-2-pentanone (MIBK)	<80	ug/kg dry		7/26/04	LEF
Styrene	<40	ug/kg dry		7/26/04	LEF
1,1,2,2-Tetrachloroethane	<40	ug/kg dry		7/26/04	LEF
Tetrachloroethene	<40	ug/kg dry		7/26/04	LEF
Toluene	<40	ug/kg dry		7/26/04	LEF
1,1,1-Trichloroethane	<40	ug/kg dry		7/26/04	LEF
1,1,2-Trichloroethane	<40	ug/kg dry		7/26/04	LEF
Trichloroethene	<40	ug/kg dry		7/26/04	LEF
Vinyl chloride	<40	ug/kg dry		7/26/04	LEF
Xylenes (Total)	<40	ug/kg dry		7/26/04	LEF
Surrogate (1,2-DCA-d4)	111	%R		7/26/04	LEF
Surrogate (Tol-d8)	103	%R		7/26/04	LEF
Surrogate (4-BFB)	111	%R		7/26/04	LEF

Elevated detection limit due to matrix interference.

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: **Pond B 3'-5' - Comp** **LSL Sample ID:** **0412284-004**

Location: Pioneer Midler

Sampled: 07/22/04 16:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Modified EPA 160.3 Total Solids					
Total Solids @ 103-105 C	58	%	7/28/04	7/28/04	LEF

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: C+D T1 70' West 5'-6' - Grab **LSL Sample ID:** 0412284-005

Location: Pioneer Midler

Sampled: 07/23/04 9:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082 PCB's					
Aroclor-1016	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1221	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1232	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1242	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1248	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1254	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1260	<0.6	mg/kg dry	7/26/04	7/28/04	AMW
Surrogate (DCB)	105	%R	7/26/04	7/28/04	AMW
(1) EPA 8260B TCL Volatiles					
Acetone	1500	ug/kg dry		7/26/04	LEF
Benzene	<70	ug/kg dry		7/26/04	LEF
Bromodichloromethane	<70	ug/kg dry		7/26/04	LEF
Bromoform	<70	ug/kg dry		7/26/04	LEF
Bromomethane	<70	ug/kg dry		7/26/04	LEF
2-Butanone (MEK)	370	ug/kg dry		7/26/04	LEF
Carbon disulfide	<70	ug/kg dry		7/26/04	LEF
Carbon tetrachloride	<70	ug/kg dry		7/26/04	LEF
Chlorobenzene	<70	ug/kg dry		7/26/04	LEF
Chloroethane	<70	ug/kg dry		7/26/04	LEF
Chloroform	<70	ug/kg dry		7/26/04	LEF
Chloromethane	<70	ug/kg dry		7/26/04	LEF
Dibromochloromethane	<70	ug/kg dry		7/26/04	LEF
1,1-Dichloroethane	<70	ug/kg dry		7/26/04	LEF
1,2-Dichloroethane	<70	ug/kg dry		7/26/04	LEF
1,1-Dichloroethene	<70	ug/kg dry		7/26/04	LEF
1,2-Dichloroethene, Total	<70	ug/kg dry		7/26/04	LEF
1,2-Dichloropropane	<70	ug/kg dry		7/26/04	LEF
cis-1,3-Dichloropropene	<70	ug/kg dry		7/26/04	LEF
trans-1,3-Dichloropropene	<70	ug/kg dry		7/26/04	LEF
Ethyl benzene	<70	ug/kg dry		7/26/04	LEF
2-Hexanone	<100	ug/kg dry		7/26/04	LEF
Methylene chloride	<100	ug/kg dry		7/26/04	LEF
4-Methyl-2-pentanone (MIBK)	<100	ug/kg dry		7/26/04	LEF
Styrene	<70	ug/kg dry		7/26/04	LEF
1,1,2,2-Tetrachloroethane	<70	ug/kg dry		7/26/04	LEF
Tetrachloroethene	160	ug/kg dry		7/26/04	LEF
Toluene	<70	ug/kg dry		7/26/04	LEF
1,1,1-Trichloroethane	<70	ug/kg dry		7/26/04	LEF
1,1,2-Trichloroethane	<70	ug/kg dry		7/26/04	LEF
Trichloroethene	<70	ug/kg dry		7/26/04	LEF
Vinyl chloride	<70	ug/kg dry		7/26/04	LEF
Xylenes (Total)	170	ug/kg dry		7/26/04	LEF
Surrogate (1,2-DCA-d4)	115	%R		7/26/04	LEF
Surrogate (Tol-d8)	110	%R		7/26/04	LEF
Surrogate (4-BFB)	103	%R		7/26/04	LEF

Elevated detection limits due to the presence of a petroleum hydrocarbon pattern in the sample.

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: C+D T1 70' West 5'-6' - Grab **LSL Sample ID:** 0412284-005

Location: Pioneer Midler

Sampled: 07/23/04 9:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Modified EPA 160.3 Total Solids					
Total Solids @ 103-105 C	35	%	7/28/04	7/28/04	LEF

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: C+D T2 and T3 2'-5' - Comp **LSL Sample ID:** 0412284-006

Location: Pioneer Midler

Sampled: 07/23/04 11:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082 PCB's					
Aroclor-1016	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1221	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1232	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1242	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1248	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1254	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Aroclor-1260	<0.2	mg/kg dry	7/26/04	7/28/04	AMW
Surrogate (DCB)	101	%R	7/26/04	7/28/04	AMW
(1) EPA 8260B TCL Volatiles					
Acetone	80	ug/kg dry		7/26/04	LEF
Benzene	<30	ug/kg dry		7/26/04	LEF
Bromodichloromethane	<30	ug/kg dry		7/26/04	LEF
Bromoform	<30	ug/kg dry		7/26/04	LEF
Bromomethane	<30	ug/kg dry		7/26/04	LEF
2-Butanone (MEK)	<60	ug/kg dry		7/26/04	LEF
Carbon disulfide	<30	ug/kg dry		7/26/04	LEF
Carbon tetrachloride	<30	ug/kg dry		7/26/04	LEF
Chlorobenzene	<30	ug/kg dry		7/26/04	LEF
Chloroethane	<30	ug/kg dry		7/26/04	LEF
Chloroform	<30	ug/kg dry		7/26/04	LEF
Chloromethane	<30	ug/kg dry		7/26/04	LEF
Dibromochloromethane	<30	ug/kg dry		7/26/04	LEF
1,1-Dichloroethane	<30	ug/kg dry		7/26/04	LEF
1,2-Dichloroethane	<30	ug/kg dry		7/26/04	LEF
1,1-Dichloroethene	<30	ug/kg dry		7/26/04	LEF
1,2-Dichloroethene, Total	<30	ug/kg dry		7/26/04	LEF
1,2-Dichloropropane	<30	ug/kg dry		7/26/04	LEF
cis-1,3-Dichloropropene	<30	ug/kg dry		7/26/04	LEF
trans-1,3-Dichloropropene	<30	ug/kg dry		7/26/04	LEF
Ethyl benzene	<30	ug/kg dry		7/26/04	LEF
2-Hexanone	<60	ug/kg dry		7/26/04	LEF
Methylene chloride	<60	ug/kg dry		7/26/04	LEF
4-Methyl-2-pentanone (MIBK)	<60	ug/kg dry		7/26/04	LEF
Styrene	<30	ug/kg dry		7/26/04	LEF
1,1,2,2-Tetrachloroethane	<30	ug/kg dry		7/26/04	LEF
Tetrachloroethene	<30	ug/kg dry		7/26/04	LEF
Toluene	<30	ug/kg dry		7/26/04	LEF
1,1,1-Trichloroethane	<30	ug/kg dry		7/26/04	LEF
1,1,2-Trichloroethane	<30	ug/kg dry		7/26/04	LEF
Trichloroethene	<30	ug/kg dry		7/26/04	LEF
Vinyl chloride	<30	ug/kg dry		7/26/04	LEF
Xylenes (Total)	<30	ug/kg dry		7/26/04	LEF
Surrogate (1,2-DCA-d4)	110	%R		7/26/04	LEF
Surrogate (Tol-d8)	117	%R		7/26/04	LEF
Surrogate (4-BFB)	103	%R		7/26/04	LEF

Elevated detection limit due to matrix interference.

-- LABORATORY ANALYSIS REPORT --

C&S Engineers, Inc. *N. Syracuse, NY*

Sample ID: C+D T2 and T3 2'-5' - Comp **LSL Sample ID:** 0412284-006

Location: Pioneer Midler

Sampled: 07/23/04 11:00 **Sampled By:** JH

Sample Matrix: SHW Dry Wt

Analytical Method / Analyte	Result	Units	Prep Date	Analysis Date & Time	Analyst Initials
(1) Modified EPA 160.3 Total Solids					
Total Solids @ 103-105 C	83	%	7/28/04	7/28/04	LEF

SURROGATE RECOVERY CONTROL LIMITS FOR ORGANIC METHODS

Method	Surrogate(s)	Water Limits, %R	SHW Limits, %R
EPA 504	TCMX	80-120	NA
EPA 508	DCB	70-130	NA
EPA 515.4	DCAA	70-130	NA
EPA 524.2	1,2-DCA-d4, 4-BFB	80-120	NA
EPA 525.2	1,3-DM-2-NB, TPP, Per-d12	70-130	NA
EPA 526	1,3-DM-2-NB, TPP	70-130	NA
EPA 528	2-CP-3,4,5,6-d4, 2,4,6-TBP	70-130	NA
EPA 551.1	Decafluorobiphenyl	80-120	NA
EPA 552.2	2,3-DBPA	80-120	NA
EPA 601	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 602	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 608	DCB	30-150	NA
EPA 624	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	NA
EPA 625, AE	2-Fluorophenol	21-110	NA
EPA 625, AE	Phenol-d5	10-110	NA
EPA 625, AE	2,4,6-Tribromophenol	10-123	NA
EPA 625, BN	Nitrobenzene-d5	35-114	NA
EPA 625, BN	2-Fluorobiphenyl	43-116	NA
EPA 625, BN	Terphenyl-d14	33-141	NA
EPA 8010	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8020	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8021	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8081	TCMX, DCB	30-150	30-150
EPA 8082	DCB	30-150	30-150
EPA 8151	DCAA	30-130	30-120
EPA 8260	1,2-DCA-d4, Tol-d8, 4-BFB	70-130	70-130
EPA 8270, AE	2-Fluorophenol	21-110	25-121
EPA 8270, AE	Phenol-d5	10-110	24-113
EPA 8270, AE	2,4,6-Tribromophenol	10-123	19-122
EPA 8270, BN	Nitrobenzene-d5	35-114	23-120
EPA 8270, BN	2-Fluorobiphenyl	43-116	30-115
EPA 8270, BN	Terphenyl-d14	33-141	18-137
DOH 310-13	Dodecane	40-110	40-110
DOH 310-14	Dodecane	40-110	40-110
DOH 310-15	Dodecane	40-110	40-110
DOH 310-34*	4-BFB	50-150	50-150
8015M_GRO*	4-BFB	50-150	50-150
8015M_DRO	Terphenyl-d14	50-150	50-150

*Run by GC/MS.

Units Key:	ug/l = microgram per liter ug/kg = microgram per kilogram mg/l = milligram per liter mg/kg = milligram per kilogram %R = Percent Recovery

Life Science Laboratories, Inc.

CHAIN OF CUSTODY RECORD

LSL Central Lab
5854 Butternut Drive
E. Syracuse, N.Y. 13057
Phone: (315)445-1105
Fax: (315)445-1301

LSL North Lab
131 St. Lawrence Ave.
Waddington, N.Y. 13694
Phone: (315)388-4476
Fax: (315)388-4061

LSL Finger Lakes

LSL Southern Tier Lab
30 East Main St.
Cuba, N.Y. 14727
Phone: (585)968-2640
Fax: (585)968-0906

Turnaro

Normal
14 DAY ☐

Pre-Authorized
Next Day* ☐ 3-Day * ☒
2-Day * ☐ 7-Day* ☐

*Additional Charges may apply

Report Address:
Name: TOM BARBA
Company: CTS Engineers
Street: 499 Col Eileen Collins Blvd
City/State: Syracuse NY Zip: 13212
Phone: 455-2000 Fax: 455-9667
Email:

Date Needed or Special Instructions:

Authorization or P.O. #

Client Project ID/Client Site ID Pioneer Midler

LSL Project Number:

Client's Sample Identifications	Sample Date	Sample Time	Type grab/comp	Matrix	Preserv Added	Containers #	Containers size/type	Analyses	Preserv Check	LSL ID#
Power Bldg Floor	7-22	10:15	grab	—	—	1	wipe	PCB Wipe		001 A
Power Bldg Transformer	7-22	10:16	grab	—	—	1	Wipe	PCB Wipe		002 A
POND A 3'-4'	7-22	3 PM	comp	soil	—	2	8 oz glass	EPA 8260 Totals EPA 8082 Totals		003 AB
POND B 3'-5'	7-22	4PM	comp	soil	—	2	↓	↓		004 ↓
C+D T1 70'West 5'-6'	7-23	9AM	grab	soil	—	2	↓	↓		005 ↓
C+D T2 and T3 2'-5'	7-23	11AM	comp	soil	—	2	↓	↓		006 ↓

LSL use only:

Containers this C-O-C

Custody Transfers

		Date	Time
Sampled By: JOHN HOLMQUIST	Received By:		
Relinquished By: John Holmquist	Received By:		
Relinquished By:	Rec'd for Lab By:	07-23-04	15:20 RCVD
Shipment Method:	Received Intact: Y N	Sample Temp	

*** All areas of this Chain of Custody Record MUST be filled out in order to process samples in a timely manner IN PEN ONLY***

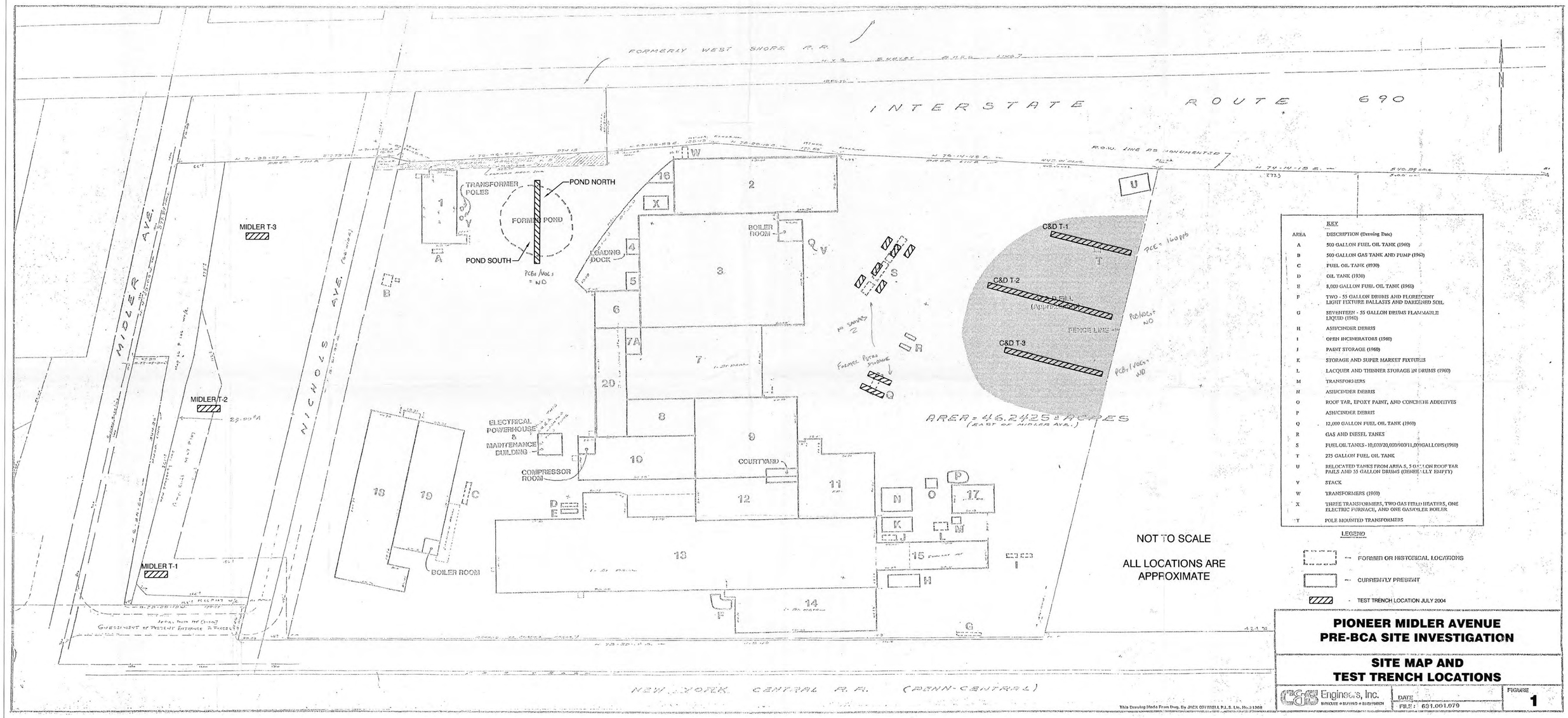
Reg COC

13.6°C OT

APPENDIX C

Site Figure

C&S ENGINEERS



KEY	
AREA	DESCRIPTION (Drawing Date)
A	500 GALLON FUEL OIL TANK (1960)
B	500 GALLON GAS TANK AND PUMP (1962)
C	FUEL OIL TANK (1930)
D	OIL TANK (1930)
E	8,000 GALLON FUEL OIL TANK (1960)
F	TWO - 55 GALLON DRUMS AND FLORESCENT LIGHT FIXTURE BALLASTS AND DARKENED SOIL
G	SEVENTEEN - 55 GALLON DRUMS FLAMMABLE LIQUID (1960)
H	ASH/CINDER DEBRIS
I	OPEN INCINERATORS (1960)
J	PAINT STORAGE (1960)
K	STORAGE AND SUPER MARKET FIXTURES
L	LACQUER AND THINNER STORAGE IN DRUMS (1960)
M	TRANSFORMERS
N	ASH/CINDER DEBRIS
O	ROOF TAR, EPOXY PAINT, AND CONCRETE ADDITIVES
P	ASH/CINDER DEBRIS
Q	12,000 GALLON FUEL OIL TANK (1960)
R	GAS AND DIESEL TANKS
S	FUEL OIL TANKS - 10,000/20,000/900/11,000 GALLONS (1960)
T	275 GALLON FUEL OIL TANK
U	RELOCATED TANKS FROM AREA S, 5 GALLON ROOF TAR PAILS AND 55 GALLON DRUMS (GENERALLY EMPTY)
V	STACK
W	TRANSFORMERS (1960)
X	THREE TRANSFORMERS, TWO GAS FIELD HEATERS, ONE ELECTRIC FURNACE, AND ONE GAS/OILER BOILER
Y	POLE MOUNTED TRANSFORMERS

LEGEND

- FORMER OR HISTORICAL LOCATIONS
- CURRENTLY PRESENT
- TEST TRENCH LOCATION JULY 2004

This Drawing Made From Dwg. By JACK COTTRELL P.L.S. Lic. No. 21368

PIONEER MIDLER AVENUE
PRE-BCA SITE INVESTIGATION

SITE MAP AND TEST TRENCH LOCATIONS

C&S Engineers, Inc. BUFFALO

DATE

FILE: 631.001.079

FIGURE 1