
1994 ANNUAL REPORT

**NEW YORK STATE SUPERFUND STANDBY CONTRACT
COLUMBIA MILLS TREATMENT FACILITY OPERATIONS
MINETTO, NEW YORK**

WORK ASSIGNMENT D002852-11

**Prepared For:
New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation**

NYSDEC Site No. 7-38-012

MARCH 1995

**MALCOLM PIRNIE, INC.
7481 Henry Clay Blvd.
Liverpool, New York 13088**

0266-318

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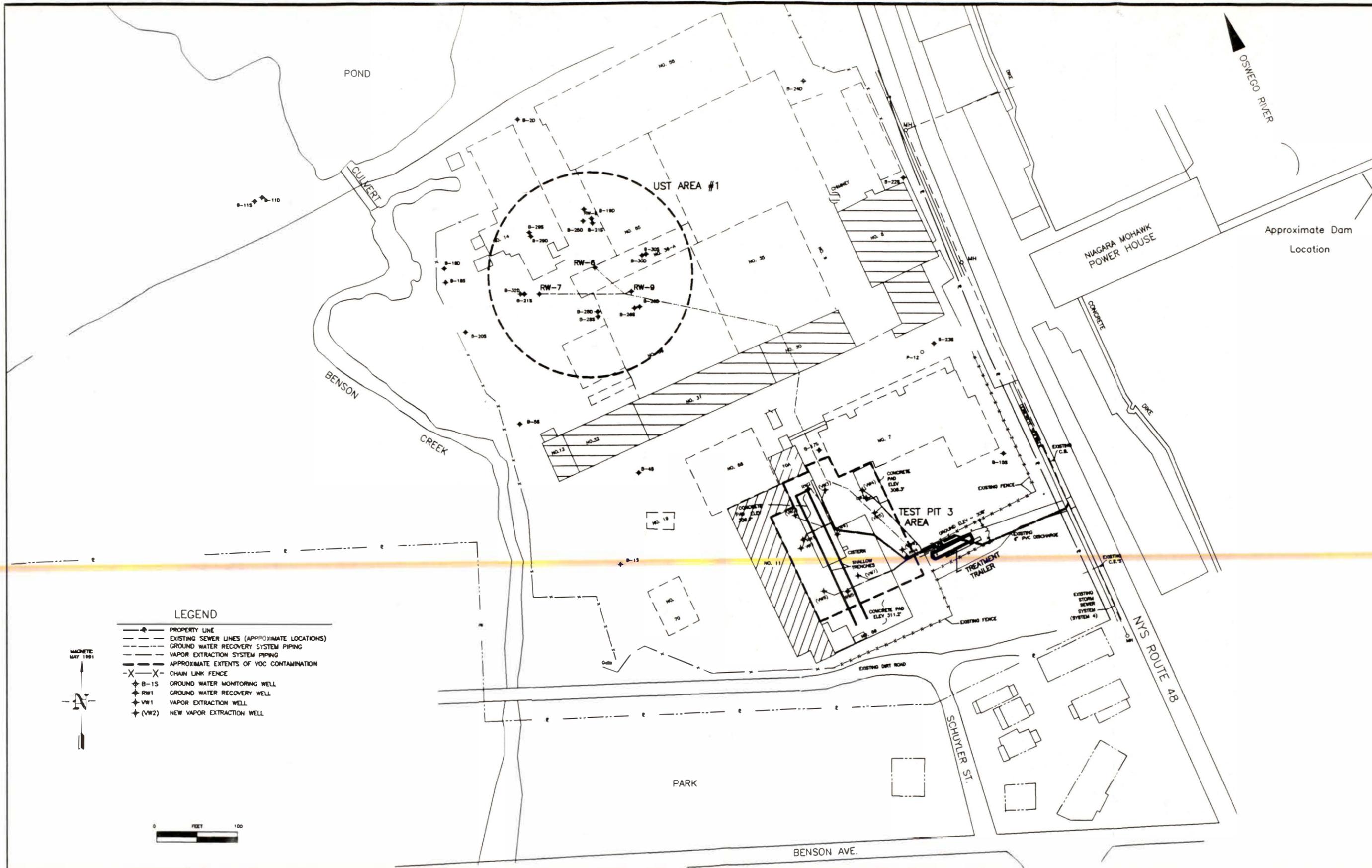
1.0 INTRODUCTION

1.1 BACKGROUND

In March 1989, The Columbia Mills, Inc. entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) to develop and implement (1) an Interim Remedial Measure (IRM) program according to the terms set forth in a formal Consent Order (A7-0167-89-02) and (2) a supplemental Remedial Investigation (RI) and Feasibility Study (FS), consistent with Order on Consent #A7-0161-88-12. Included in the IRM program was the remediation of in-situ soils contaminated with volatile organic compounds (VOCs) in the Test Pit 3 Area. Refer to Figure 1 for the Test Pit 3 Area location. Results of the RI/FS conducted at the site under Order on Consent #A7-0161-88-12 indicated that VOC contamination was also present in the groundwater in the vicinity of UST Area 1. Refer to Figure 1 for the location of this area. The most feasible remedial alternative for the groundwater in UST Area 1 was determined to be the extraction and treatment of the water.

Test Pit 3 Area

Soil and groundwater sampling was undertaken to determine the extent of contamination in the Test Pit 3 area as part of the IRM program. Analytical results indicated that unconsolidated material within the study area consisted primarily of medium to fine sands and silt with some clay. Headspace screening and laboratory analyses of soil samples indicated that VOCs were present in both the unsaturated zone and saturated zone soils. Methyl isobutyl ketone (MIBK) and xylenes were the target VOCs detected; however, the majority of compounds detected were tentatively identified compounds (TICs). These TICs included methyl alkanes and methyl cycloalkanes, and are generally considered to be related to benzene (ligroine), which site records show was stored in three partially buried steel tanks located in the northwest corner of the Test Pit 3 Area. Benzene is a petroleum based solvent which is a mixture of a variety of volatile hydrocarbons. Analytical results of monitoring well sampling performed in the Test Pit 3 Area indicated only slight VOC contamination was present in the groundwater. The approximate extent of VOC contaminated soil requiring remediation is shown in Figure 1.



- LEGEND**
- PROPERTY LINE
 - - - EXISTING SEWER LINES (APPROXIMATE LOCATIONS)
 - - - GROUND WATER RECOVERY SYSTEM PIPING
 - - - VAPOR EXTRACTION SYSTEM PIPING
 - - - APPROXIMATE EXTENTS OF VOC CONTAMINATION
 - X-X- CHAIN LINK FENCE
 - ◆ B-15 GROUND WATER MONITORING WELL
 - ◆ RW1 GROUND WATER RECOVERY WELL
 - ◆ VW1 VAPOR EXTRACTION WELL
 - ◆ (VW2) NEW VAPOR EXTRACTION WELL



**MALCOLM
PIRNIE**

NO.	DATE	DESCRIPTION	BY

THE COLUMBIA MILLS, INC.
MINETTO, NEW YORK
**TEST PIT #3 AREA
VAPOR EXTRACTION SYSTEM**

**UST AREA 1 AND TEST PIT 3 AREA
LOCATION MAP**

MALCOLM PIRNIE, INC.
DATE FEBRUARY 1995

FIGURE 1

Results of a feasibility study undertaken to determine the most feasible method for remediation of the VOC contaminated soils indicated that vapor extraction conducted in conjunction with groundwater drawdown should be performed. The groundwater table would be depressed in the area in order to increase the thickness of the vadose zone. This would allow for vapor extraction removal of VOCs at greater depths.

Construction and installation of the Test Pit 3 Area vapor extraction/groundwater drawdown and treatment system at the Columbia Mills site was completed during February 1993. The November 1992 Preliminary Operations, Maintenance and Monitoring Plan established the scope of services for operation of the system and was approved by the NYSDEC in its letter dated November 30, 1992. Operation of the system commenced on February 11, 1993. The Columbia Mills, Inc. funded Malcolm Pirnie's operation of the system through August 1994, when funding for site remediation was no longer available. The NYSDEC then took over financial responsibility for operations through December 1994, when the system was shut down for the winter.

The layout of the Test Pit 3 Area full-scale vapor extraction/groundwater drawdown system is shown in Figure 2. Included in the figure are the groundwater recovery wells and vacuum wells, associated piping and treatment trailer. The system discharge points are shown and are:

1. Six inch process vent on treatment trailer - treated air discharge from vacuum wells to atmosphere.
2. Six inch line connected to the state storm sewer on Route 48 (System 4) - treated groundwater discharge from recovery wells to Oswego River.

The housing unit for the vapor extraction/groundwater drawdown system is a modified 1988 Fruehauf trailer. The unit measures 53 feet long by 8.5 feet wide by 13.5 feet high.

UST Area 1

During 1988, five underground tanks were removed from UST Area 1 and taken off-site for disposal. Soil and groundwater sampling was subsequently undertaken in this area to determine the extent of contamination. Initial shallow groundwater sampling in the vicinity of the tanks prior to their removal indicated the presence of high levels of toluene. Toluene and methyl ethyl ketone (MEK) were also detected in the excavation pit soil.

MAGNETIC
MAY 1991

L
RGE
E
G
O
R
E
R

CONCRETE DUCT

OSWEGO RIVER

NIAGARA
MOHAWK
POWER
CORPORATION

(FORMERLY

EXISTING
C.B.

NYS ROUTE 48

6" GROUND WATER
DISCHARGE CONNECTION
TO STORM SEWER

HARGE

EXISTING
C.B.'S

EXISTING
STORM
SEWER
SYSTEM
(SYSTEM 4)

EXISTING
STORM
MH

LEGEND

- EXISTING SEWER LINES (APPROXIMATE LOCATIONS)
- - - GROUND WATER RECOVERY SYSTEM PIPING
- - - VAPOR EXTRACTION SYSTEM PIPING
- - - APPROXIMATE EXTENTS OF VOC CONTAMINATION
- - - CHAIN LINK FENCE
- ⊕ B-18 GROUND WATER MONITORING WELL
- BP-1 GROUND WATER PIEZOMETER
- BP-10 NEW GROUND WATER PIEZOMETER - INSTALLED AUGUST 1991
- ◇ VP1 VACUUM PIEZOMETER
- ◆ (VP2) NEW VACUUM PIEZOMETER - INSTALLED JANUARY 1992
- ⊕ MW1 GROUND WATER RECOVERY WELL
- ⊕ MW-1 GROUND WATER PIEZOMETER/POSSIBLE TO CONVERT TO RECOVERY WELL
- ⊕ VV1 VAPOR EXTRACTION WELL
- ⊕ (VV2) NEW VAPOR EXTRACTION WELL - INSTALLED JANUARY 1992

APPROXIMATE AREA OF SIGNIFICANT DEBRIS PILES

-  MOSTLY LOW PILED DUCT
-  MOSTLY HIGH PILED DUCT
-  MOSTLY ROOFING MATERIAL
-  MOSTLY WOOD
-  MOSTLY FILL DIRT AND CONCRETE



**MALCOLM
PIRNIE**

NO.	REV.	DATE

AREA DETAILS

MALCOLM PIRNIE, INC.

DATE JULY 1994

FIGURE 2

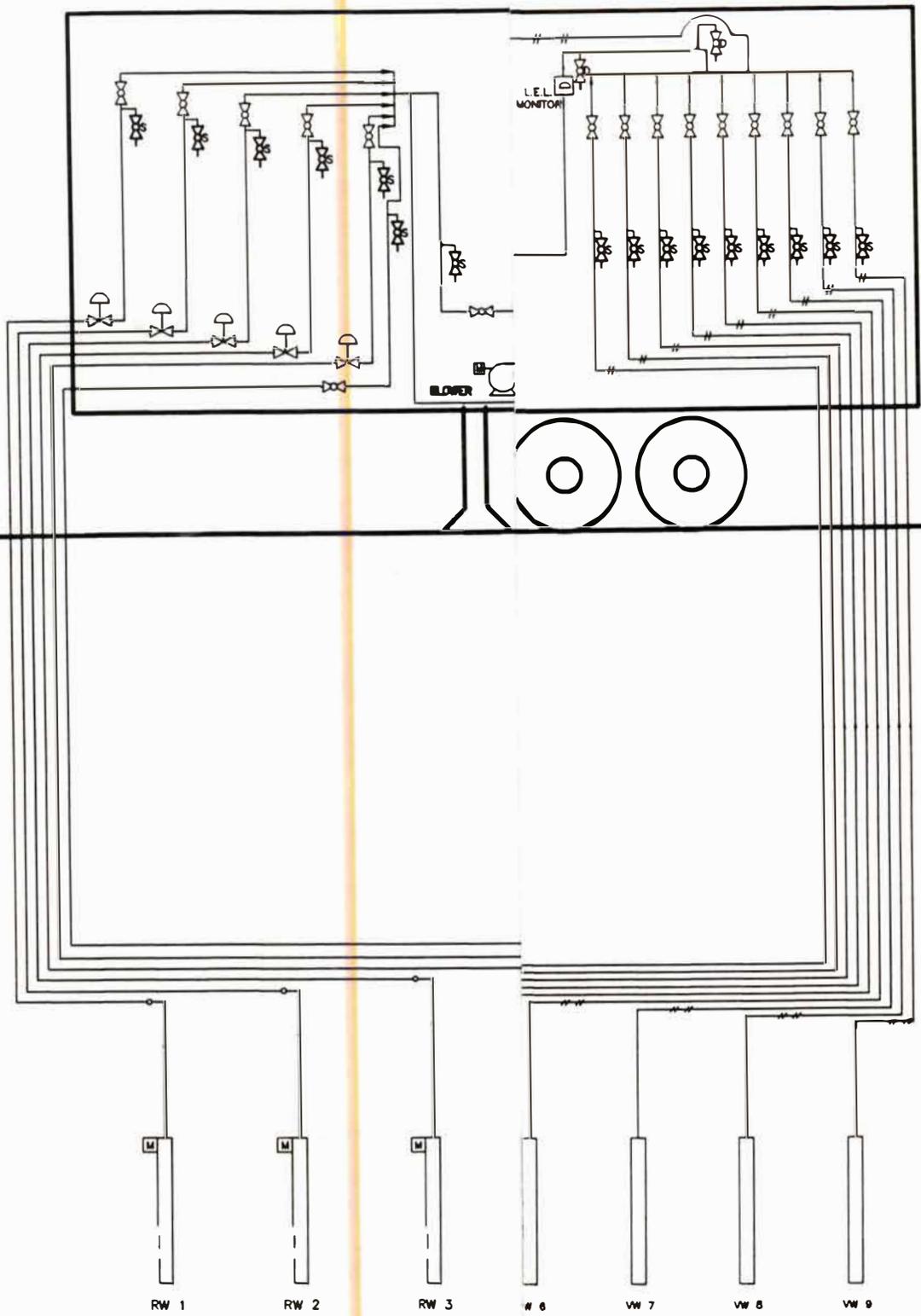
However, soil and groundwater sampling undertaken during the RI indicated that volatile organic contamination was no longer present in the immediate area of the tanks after the tanks were removed.

Volatile organic contamination was, however, detected in the groundwater southeast of the UST area. Contaminants included aromatic and chlorinated hydrocarbons. Little to no VOC contamination was detected in the soils; thus, remediation of the soils was determined not to be required. The approximate extent of VOC contaminated groundwater requiring remediation is shown in Figure 1.

As previously mentioned, the most feasible remedial alternative for the groundwater in the vicinity of UST Area 1 was determined to be collection, treatment and subsequent disposal (discharge). This selected alternative was outlined in the NYSDEC Record of Decision, dated March 1992. Malcolm Pirnie determined that it would be feasible to pipe the extracted groundwater to the treatment system located in the Test Pit 3 Area. Thus, the NYSDEC-approved design submittal for the UST Area 1 groundwater remediation system called for the piping of recovered groundwater to the Test Pit 3 Area system for treatment. Construction of the UST Area 1 groundwater recovery system was completed during the first half of 1994. Three UST Area 1 recovery wells would be used in the pump and treat operation and were manifolded into one line to run to the trailer. Connection to the treatment system was made during May 1994, at which time operation of the UST Area 1 recovery system commenced. Figure 1 shows the locations of the UST Area 1 recovery wells and the piping which carries the extracted groundwater to the treatment system in the Test Pit 3 Area.

1.2 PROCESS OVERVIEW

A schematic of the vapor extraction/groundwater drawdown and treatment system is shown in Figure 3. The vapor extraction system itself consists of nine vacuum wells (all in the Test Pit 3 Area) manifolded to a vapor-liquid separator/vacuum pump set-up. Granular activated carbon is used to treat the extracted air prior to its discharge to the atmosphere. The groundwater drawdown system consists of eight recovery wells piped to



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RW 1 RW 2 RW 3 RW 6 RW 7 RW 8 RW 9

GROUND WATER RECOVERY WELLS

**MALCOLM
PIRNIE**

REVISION			
NO.	BY	DATE	

SCHEMATIC

MALCOLM PIRNIE, INC.
DATE FEBRUARY 1995

FIGURE 3

an iron removal system and activated carbon treatment system. Following carbon treatment, the effluent is discharged into an existing storm sewer which eventually flows to the Oswego River. Five recovery wells are located in the Test Pit 3 Area, and three wells are in UST Area 1.

13 CLEAN-UP GOALS AND OBJECTIVES

The clean-up goals, or remedial action objectives, for the VOC-contaminated soil in the Test Pit 3 Area and the groundwater in UST Area 1 are as follows:

Test Pit 3 Area Subsurface Soil

The goal of remediation is to reduce total target-VOC concentrations in the soil to 1 part per million (ppm), or 1000 ug/kg. This goal was established in the NYSDEC-approved IRM Report "Evaluation of Alternatives for Treatment of VOC Contaminated Subsurface Soils in Test Pit 3 Area", dated April 1991.

UST Area 1 Groundwater

The remedial action objective is to reduce VOC levels in the groundwater in order to achieve groundwater standards. This goal was established in the April 1992 Columbia Mills site FS Report and the NYSDEC Record of Decision, dated March 1992. Class GA groundwater standards are listed in Section 703.5 of the Water Quality Regulations of New York State, Title 6, Chapter X. Contaminants detected in the groundwater in UST Area 1 are listed below, along with their respective clean-up levels.

<u>Contaminant</u>	<u>Clean-Up Level (ug/l)</u>
Vinyl chloride	2
Acetone	50
cis-1,2-Dichloroethene	5
1,2-Dichloroethene (total)	**
Methyl ethyl ketone	50*
Trichloroethene	5
Benzene	0.7

Methyl isobutyl ketone	50*
Toluene	5

NOTES: * Indicates there is no NYSDEC Class GA standard for the compound; the criterion listed represents the maximum contaminant level (MCL) for NYSDEC drinking water standards.

** Indicates there is no Class GA standard for 1,2-dichloroethene (total); the Class GA standard for each of the two individual isomers is 5 ug/l.

2.0 SUMMARY OF OPERATIONS

2.1 GROUNDWATER DRAWDOWN/TREATMENT SYSTEM

2.1.1 Overall System Operation

Operation of the Test Pit 3 Area groundwater drawdown/treatment system continued through 1994, to December 21, 1994, when it was shut down for the winter. Over this period, approximately 2.1 million gallons of water were treated. Except for a shutdown during the period of August 11, 1994 to September 29, 1994, and a few temporary shut-downs for minor repairs or power failures, operation of the system during 1994 was continuous. The entire system was shut down during August and September while control of operations was transferred from The Columbia Mills, Inc. to the NYSDEC.

Test Pit 3 Area Recovery Well System

Flow monitoring logs for 1994 are contained in Appendix A. Only two wells in the Test Pit 3 Area were inoperable for significant periods of time beyond those minor shutdowns described above. These events were:

- | | | |
|------|---------------------------------|--|
| RW-3 | Did not operate Jan 1 - Feb 25 | Water level transmitter inoperable and removed for repair during late 1993, then water froze in line - line was replaced in Feb 1994 |
| RW-4 | Did not operate Jun 29 - Jul 12 | Pump wiring repaired |

It was also noted during December 1994, that very little flow was entering the treatment system from recovery well RW-5. Although Malcolm Pirnie investigated several possibilities for the cause of this reduction in flow, no cause had yet been determined when the entire system was shut down for the winter.

The pumps in the recovery wells were required to be pulled and cleaned several times during 1994 due to the growth of iron bacteria on the pump intake screens and the plugging of the pump impellers with iron and silt. When the pumps became plugged, they could no longer maintain the required drawdown. Cleaning involved washing off the outside of the pumps and screens and changing the impellers.

UST Area 1 Recovery Well System

The three recovery wells in UST Area 1 were tied into the treatment system and put into operation on May 26, 1994. The combined flow from the wells in UST Area 1 ranged from 0.4 gallons per minute (gpm), in July, to 2.6 gpm, in August. At the time of system shutdown in December, approximately 212,000 gallons of water had been pumped from UST Area 1 and treated by the system.

During the initial operation of these wells in June, the treatment facility automatically shut down due to the clogging of both sets of bag filters. The newly installed UST Area 1 wells, however, had not yet been tied into the shut-down mechanism and continued pumping water to the trailer. This flow of water from the UST Area 1 wells overflowed the treatment tanks and spilled onto the floor (and subsequently leaked out the rear door of the trailer). Malcolm Pirnie was notified of the situation and responded to the site to turn off the three recovery wells.

The spilled water appeared to have infiltrated into the ground directly behind the trailer. No further cleanup was required. Documentation of this spill event was provided to the NYSDEC in Malcolm Pirnie's June 13, 1994 correspondence. As noted in that letter, all spill quantities were far below the reportable spill quantity.

After the necessary instrumentation was installed to allow for the automatic shutdown of the wells (June 15), the three UST Area 1 wells were restarted and continued to operate through the middle part of December. At that time, it was discovered that no groundwater was entering the treatment facility from the UST Area 1 wells. It is believed that since the three pumps in this area cycle on and off, and the total volume of water produced is low, water froze in the heat-traced piping leading from the wells to the treatment facility. The pumps were shut off to avoid damage, and the piping was drained during the week of December 19, 1994, when the weather was unseasonably warm. The wells were then kept off as part of the winter shutdown.

Treatment of Water From Sewer Remediation

On June 13 and 14, 1994, additional rinse water generated during the remediation of the on-site sewers was pumped from dewatering pits, located in the center of the site, through the treatment system. The water was produced from the flushing of industrial sewer lines at the site. The majority of water had been pumped through the treatment system in December 1993 (refer to the 1993 Annual Report).

2.1.2 System Modifications

A schematic of the treatment system is shown in Figure 3 (Section 1.2). Some modifications were made to the system during 1994 in order to enable more efficient operation.

The liquid phase carbon treatment system, which consists of three parallel trains of carbon and serves to remove VOCs from the groundwater, was retrofitted with "Ironmaster" carbon during June 1994. This carbon is more resistant to clogging from inorganics and biological growth than carbon previously used. Use of the "Ironmaster" carbon eliminated the need for backwashing the carbon. Backwashing had been required on a regular basis prior to carbon replacement to dislodge particles and iron bacteria that plugged the carbon. However, fittings were installed when the system was switched over to the "Ironmaster" carbon which would facilitate backwashing if it became necessary in the future.

As instructed by NYSDEC personnel, the aeration tank blower, polymer, and mixers were turned off during June, and the four tanks located in line before the bag filters served as settling tanks for the remainder of the year. Originally, bag filtration had been utilized in the treatment facility as a means of metals/solids removal prior to carbon treatment. The solids removal system incorporated the use of aeration, polymer addition, and mixing in four separate tanks prior to filtration. In an effort to increase the operating life of the bag filters, and subsequently decrease the level of maintenance required, the NYSDEC determined that a test should be run to determine whether the four tanks prior to filtration could serve better as settling tanks. Aeration and polymer addition were stopped in June. Discharge limits for the system continued to be met and filter life was extended. Thus, the tanks remained in operation as settling tanks through the remainder of the year.

2.2 VAPOR EXTRACTION SYSTEM

A schematic of the vapor extraction system is included in Figure 3. At the end of 1993, all Test Pit 3 Area vacuum wells had been shut down (December 23, 1993) and arrangements had been made for the changeout of the carbon in both vapor phase adsorbers. Both adsorbers were changed out on January 12, 1994, and the vapor extraction system was restarted on January 13, 1994. Listed below are the start-up and shut-down dates for the vapor extraction system during 1994. These dates refer to the periods of operation of the vacuum wells, or the actual vapor extraction system. The vacuum pump does also operate during groundwater treatment, serving to capture vapors from the first and last tanks in the groundwater treatment system for vapor carbon treatment.

<u>Days of System Operation</u>	<u>Notes</u>
Jan 13 - Jan 28	All VWs turned off Jan 28 - low contaminant concentrations in vapors, system turned off to allow contaminant vapors to build back up in Test Pit 3 Area soil
Feb 4 - Mar 17	All VWs turned off Mar 17 - low contaminant concentrations in vapors and relatively low removal efficiency being achieved by primary carbon adsorber, system turned off to allow vapors to build back up in soil
Mar 21 & Apr 1	Tried to start vacuum wells; however, low contaminant concentrations in vapors and elevated groundwater levels in vacuum wells did not permit startup at this time
May 31 - Jun 30	All VWs turned off Jun 30 - normalized treatment efficiency of primary carbon dropped below 70%, VWs had been shut down for a few days during this time period for groundwater system modification

Jul 15 - Jul 25	All VWs shut down on July 25 (following a power failure in the Town) for system maintenance
Aug 2 - Aug 11	All VWs except VW-5 in operation; VWs shut down for approx. 2 days during this period of time due to power failure in Town; all VWs turned off Aug 11 for transition of operations from The Columbia Mills, Inc. to the NYSDEC
Nov 9 - Nov 23	Vacuum wells VW-1, 3, 4, and 9 turned on Nov 9; VWs 2 and 5 turned on Nov 15; VW-7 turned on Nov 18; all VWs turned off Nov 23 - low contaminant concentrations in vapors, system turned off to allow contaminant vapors to build back up in Test Pit 3 Area soil

When the vacuum wells were shut off on November 23, it was planned to restart them during the following week and cycle them on and off during December. However, the wells remained off through the end of December. Buildup of pressure in the vapor extraction system raised concern regarding the increased load placed on the vacuum pump's motor. Malcolm Pirnie investigated possible causes and solutions to this problem; however, no cause could be determined.

Operation of the vapor extraction system during 1994 was affected by the level of the groundwater table in the Test Pit 3 Area. Groundwater levels began to increase during March due to the snow melt and amount of precipitation received, and levels remained high during April and May. Because of this increase in elevation of the water table, the vacuum wells could not be put into operation during this period of time.

The vacuum wells operated for a total of approximately 113 days during 1994. Inspection and monitoring logs for the vapor extraction system are contained in Appendix B.

23 WINTERIZATION OF TREATMENT FACILITY

On December 21, 1994, the entire treatment facility was shut down for the winter in accordance with the NYSDEC's request. The winterization tasks, as outlined in the NYSDEC's December 23, 1994 letter, were completed during the first part of January 1995.

The tasks included:

- **draining all pumps, pipes, tanks, and apparatus**
- **draining the liquid phase carbon adsorbers**
- **cleaning the process tanks and bag filters, and staging the drums of waste outside the trailer with temporary containment**
- **performing preventive maintenance on the vacuum pump**
- **winterizing the trailer heating system and shed**
- **setting the thermostat in the trailer at 55°F**

3.0 FACILITY PERFORMANCE

3.1 GROUNDWATER DRAWDOWN SYSTEM

During 1994, Test Pit 3 Area groundwater levels were periodically measured to monitor the effectiveness of the groundwater drawdown system. Levels were obtained from all Test Pit 3 Area wells and piezometers on a quarterly basis, while groundwater levels in the vacuum wells and recovery wells were measured more frequently. Groundwater elevation data are provided in Appendix C.

The water table configuration in the Test Pit 3 Area on March 15, 1994 is shown in Figure 4, and represents conditions as they existed while the recovery-well system was operating during a relatively wet period. The figure shows that the drawdown produced by the recovery wells extended across the entire area targeted for remediation.

The operational goal of the groundwater drawdown system was to dewater saturated soils for vapor extraction treatment by lowering the water table. The target induced water table depth was 15 feet below grade. During operation of the vapor extraction system, the target depth was generally not achieved. However, operation of the vapor extraction system can have the effect of raising the water table due to either the removal of capillary water held in pore spaces adjacent to the well screens and/or to localized vacuum-induced mounding of the groundwater near each well. A better estimate of the induced water table depth can be made when the vapor extraction system is not operating. Most water-level data collected this year were obtained when the vapor extraction system was not operating. At such times, dry vacuum wells indicate that the groundwater level near the well was sufficiently lowered. In the northwest half of the area, the target depth was attained frequently, as shown by the water level data available for the vacuum wells in this portion of the site (VW-1, VW-2, VW-3, VW-4, and VW-9, see Appendix C). These data show that these vacuum wells were often dry. The vacuum wells in the southeast portion of the area were dry less frequently. Periods of inadequate drawdown in both portions of the area tended to occur during periods of groundwater recharge (rain and snowmelt) and at times when operation of one or more of the recovery wells was either discontinued (for maintenance) or inadequate (the desired pumping level was not maintained).

MAGNETIC
MAY 1991



(FORMERLY BUILDING NO. 68)

BUILDING
NO. 10A

FOUNDATION RUINS
(FORMERLY BUILDING NO. 7)

304.94
BP-8

BUILDING
NO. 11

LEGEND

- EXISTING SEWER LINES (APPROXIMATE LOCATIONS)
- GROUND WATER RECOVERY SYSTEM PIPING
- VAPOR EXTRACTION SYSTEM PIPING
- APPROXIMATE EXTENTS OF VOC CONTAMINATION
- X-X- CHAIN LINK FENCE
- ⊕ B-15 GROUND WATER MONITORING WELL
- BP-1 GROUND WATER PIEZOMETER
- BP-10 NEW GROUND WATER PIEZOMETER - INSTALLED AUGUST 1991
- ◇ VP1 VACUUM PIEZOMETER
- ◆ (VP8) NEW VACUUM PIEZOMETER - INSTALLED JANUARY 1992
- ⊕ RW1 GROUND WATER RECOVERY WELL
- ⊕ W-1 GROUND WATER PIEZOMETER/POSSIBLE TO CONVERT TO RECOVERY WELL
- ⊕ VW1 VAPOR EXTRACTION WELL
- ⊕ (VW2) NEW VAPOR EXTRACTION WELL - INSTALLED JANUARY 1992
- WATER TABLE CONTOUR

10 0 10
SCALE IN FEET

3624 : ADMIN \E:\ACAD\PROJ\1069079\ANNFIGS SCALE: 1:201 02/07, 1995 at 09:36

THE COLUMBIA MILLS, INC.
MINETTO, NEW YORK
**TEST PIT #3 AREA
VAPOR EXTRACTION SYSTEM**

**WATER TABLE CONFIGURATION
03/15/94**

MALCOLM PIRNIE, INC.
DATE FEBRUARY 1995
FIGURE 4

REVISIONS			
NO.	BY	DATE	DESCRIPTION

**MALCOLM
PIRNIE**

RDW
RDW
RDW

DWK
RDW
RDW

Despite the system's inability to lower the water table to the target depth, the system did significantly increase the thickness of the vadose zone available for treatment. Review of groundwater elevation data collected prior to operation of the drawdown system indicates that, even in the spring, when groundwater recharge is the highest, the system reduced the water-table elevation across the area by about eight feet, providing an additional eight feet of vadose-zone thickness for vapor extraction treatment. Although the target induced water table depth of 15 feet was not constantly maintained across the full extent of the Test Pit 3 Area, the operational goal of the groundwater drawdown system to dewater saturated soils for vapor extraction treatment was achieved.

3.2 GROUNDWATER TREATMENT SYSTEM

Sampling of the groundwater drawdown/treatment system was conducted in accordance with the schedules contained in the Test Pit 3 Area Treatment Trailer Operations 1993 Annual Report, revised May 1994, and the New York State Superfund Standby Contract Project Work Plan, July 1994. The purpose of the sampling was to monitor the effectiveness of the groundwater treatment system and verify proper system performance. All samples were collected by Malcolm Pirnie. Samples obtained prior to August 11, 1994 were analyzed by Life Science Laboratories, Inc. (LSL), East Syracuse, New York. Samples obtained after August 11, under the State Superfund contract, were analyzed by NYTEST Environmental, Inc. (NEI), Port Washington, New York.

Analytical results are summarized in Table 1. Also included in Table 1 are the groundwater effluent discharge limitations required at the treatment facility by the NYSDEC. VOC and total organic carbon (TOC) discharge limits are included on page 3 of the table, and the discharge limits for inorganics are on page 6. Copies of the 1994 laboratory reports from LSL and NEI are provided in Appendix D.

All system discharge limits were met during the year, meaning the system performed properly. In fact, VOC influent concentrations to the system were relatively low. Total xylenes, again, were the only compounds detected during 1994 on more than one occasion in the water pumped from the Test Pit 3 Area. Low levels of trichloroethene (TCE) and 1,2-dichloroethene (1,2-DCE) are present in the water being recovered from UST Area 1.

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUNDWATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	VOLATILE ORGANICS (ug/l)											TOC (mg/l)	
		2-Buta- none (MEK)	1,2-Di- chloro- ethane	1,1,1- Tri- chloro- ethane	Tri- chloro- ethene	Benzene	Toluene	Ethyl- benzene	Xylenes	4-Methyl- 2-penta- none (MIBK)	1,2-Di- chloro- ethene (total)	Vinyl Chloride		Acetone
RW-1	03/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—
	11/28/94	<10	<10	<10	<10	<10	<10	2J	3J	<10	<10	<10	<10	—
RW-2	03/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—
	11/28/94	<10	<10	<10	1J	1J	<10	<10	<10	<10	2J	<10	<10	—
RW-3	03/15/94	<10	5	5	5	5	5	5	21	<10	5	<10	<10	—
	11/28/94	<10	<10	<10	<10	<10	<10	<10	2J	<10	<10	<10	<10	—
RW-4	03/15/94	<10	5	5	5	5	5	5	9.2	<10	5	<10	<10	—
	11/28/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	—
RW-5	03/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—
	11/28/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	—
RW-6	11/28/94	<10	<10	<10	9J	<10	<10	<10	<10	<10	2J	<10	<10	—
RW-7	11/28/94	<10	<10	<10	12	<10	<10	<10	<10	<10	5J	<10	<10	—
RW-9	11/28/94	<10	<10	<10	4J	<10	<10	<10	<10	<10	6J	<10	9J	—

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUNDWATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	VOLATILE ORGANICS (µg/l)											TOC (mg/l)		
		2-Buta- none (MEK)	1,2-Di- chloro- ethane	1,1,1- Tri- chloro- ethane	Tri- chloro- ethene	Benzene	Toluene	Ethyl- benzene	Xylenes	4-Methyl- 2-penta- none (MIBK)	1,2-Di- chloro- ethene (total)	Vinyl Chloride		Acetone	
Aeration Tank Influent	01/13/94	<10	5	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	02/18/94	<10	5	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	03/15/94*	<40	20	20	20	20	20	20	20	<40	20	<40	<40	—	
	04/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	05/16/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	05/31/94+	<10	5	5	5	5	5	5	5	<10	5	<10	<10	24	
	Test Pit 3 Area Flow	06/16/94**	<10	5	5	5	5	5	5	5.7	<10	5	<10	<10	30
	UST Area 1 Flow	06/16/94**	<10	5	5	10	5	5	5	5	<10	7.6	<10	<10	12
		07/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—
		10/27/94++	<10	<10	<10	2J	<10	<10	<10	<10	<10	2J	<10	<10	—
	11/26/94	<10	<10	<10	3J	<10	<10	1J	1J	<10	2J	<10	<10	—	
Bag Filter Effluent	01/13/94	<10	5	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	02/18/94	<10	5	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	03/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	04/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	05/16/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	06/16/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
	07/15/94	<10	5	5	5	5	5	5	5	<10	5	<10	<10	—	
		10/27/94++	<10	<10	<10	2J	<10	<10	<10	<10	<10	2J	<10	<10	—
	11/26/94	<10	<10	<10	2J	<10	<10	<10	<10	<10	<10	<10	<10	—	
Carbon Tap B	Train 1	01/13/94	<10	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	Train 2	02/18/94	<10	5	5	5	5	5	5	<10	5(0)	<10	<10	—	
	Train 3	03/15/94	<10	5	5	5	5	5	5	<10	5	<10	<10	—	
	Train 1	04/15/94	<10	5	5	5	5	5	5	<10	5	<10	<10	<1	
	Train 2	05/16/94	<10	5	5	5	5	5	5	<10	5	<10	<10	9	
	Train 3	06/16/94	<10	5	5	5	5	5	5	<10	5	<10	<10	10	
	Train 1	07/15/94	<10	5	5	5	5	5	5	<10	5	<10	<10	5	
	Train 2	10/27/94++	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4.2
	Train 3	11/26/94	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	9.2

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUNDWATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	VOLATILE ORGANICS (ug/l)											TOC (mg/l)		
		2-Buta- none (MEK)	1,2-Di- chloro- ethane	1,1,1- Tri- chloro- ethane	Tri- chloro- ethene	Benzene	Toluene	Ethyl- benzene	Xylenes	4-Methyl- 2-penta- none (MIBK)	1,2-Di- chloro- ethene (total)	Vinyl Chloride		Acetone	
Discharge	01/13/94	<10	6	6	6	6	6	6	6	6	<10	5(6)	<10	<10	2
	02/01/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	02/16/94	<10	6	6	6	6	6	6	6	6	<10	5(6)	<10	<10	<1
	03/01/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	03/15/94	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	14
	03/31/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	04/15/94	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	5
	04/28/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	05/16/94	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	15
	05/31/94+	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	12
	06/16/94	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	9
	06/30/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	07/15/94	<10	6	6	6	6	6	6	6	6	<10	6	<10	<10	8
	07/29/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10/27/94++	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4.3
11/10/94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11/28/94	<10	<10	<10	<10	<10	<10	<10	<10	<10.0	<10	<10	<10	<10	5.1	
12/13/94	—	—	—	—	—	—	—	—	<10	—	—	—	—	—	
Discharge Limits		10	20	10	10	10	10	10	10	10	10	10	10	50	

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUND WATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	INORGANICS (mg/l)												
		Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Zinc	Cyanide
RW-1	03/15/94	—	—	—	—	—	—	—	2.4	—	27	4.0	—	—
	11/28/94	—	—	—	—	—	—	—	8.76	—	25.7	5.34	—	—
RW-2	03/15/94	—	—	—	—	—	—	—	1.8	—	24	6.4	—	—
	11/28/94	—	—	—	—	—	—	—	6.54	—	23.6	7.45	—	—
RW-3	03/15/94	—	—	—	—	—	—	—	7.8	—	22	8.0	—	—
	11/28/94	—	—	—	—	—	—	—	4.41	—	23.1	8.60	—	—
RW-4	03/15/94	—	—	—	—	—	—	—	2.5	—	18	6.8	—	—
	11/28/94	—	—	—	—	—	—	—	3.93	—	18.0	6.99	—	—
RW-5	03/15/94	—	—	—	—	—	—	—	3.0	—	18	5.8	—	—
	11/28/94	—	—	—	—	—	—	—	5.15	—	20.7	5.23	—	—
RW-6	11/28/94	—	—	—	—	—	—	—	0.876	—	23.5	0.552	—	—
RW-7	11/28/94	—	—	—	—	—	—	—	18.5	—	23.9	2.95	—	—
RW-9	11/28/94	—	—	—	—	—	—	—	4.55	—	28.3	2.26	—	—

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUND WATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	INORGANICS (mg/l)													
		Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Zinc	Cyanide	
Aeration Tank Influent	01/13/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	02/16/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	03/15/94*	—	—	—	—	—	—	—	22	—	—	17	—	—	
	04/15/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	05/16/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	05/31/94†	<0.1	0.0035	<0.01	0.59	<0.01	<0.04	<0.02	1.5	0.0017	20	5.6	0.024	0.0064	
	Test Pit 3 Area Flow	06/16/94**	<0.1	<0.02	0.013	0.77	<0.01	<0.01	<0.02	2.1	<0.05	20	5.0	<0.01	—
	UST Area 1 Flow	06/16/94**	<0.1	<0.02	<0.01	0.30	<0.01	<0.01	<0.02	0.11	<0.05	24	1.2	0.014	—
		07/15/94	—	—	—	—	—	—	—	—	—	—	—	—	—
		10/27/94††	—	—	—	—	—	—	—	—	—	—	—	—	—
	11/26/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bag Filter Effluent	01/13/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	02/16/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	03/15/94	—	—	—	—	—	—	—	1.4	—	—	6.0	—	—	
	04/15/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	05/16/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	06/16/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
	07/15/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
		10/27/94††	—	—	—	—	—	—	—	—	—	—	—	—	—
		11/26/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	Carbon Tap B	Train 1	01/13/94	—	—	—	—	—	—	—	—	—	—	—	—
Train 2		02/16/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 3		03/15/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 1		04/15/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 2		05/16/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 3		06/16/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 1		07/15/94	—	—	—	—	—	—	—	—	—	—	—	—	
Train 2		10/27/94††	—	—	—	—	—	—	—	—	—	—	—	—	—
Train 3		11/26/94	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 1
COLUMBIA MILLS – TEST PIT 3 AREA TREATMENT SYSTEM
ROUTINE GROUND WATER SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994

Sample Location	Date Sampled	INORGANICS (mg/l)												
		Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Manganese	Zinc	Cyanide
Discharge	01/13/94	0.13	<0.01	0.0021	0.34	<0.004	<0.01	<0.02	0.11	<0.04	20	1.2	<0.05	<0.005
	02/01/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	02/16/94	<0.1	0.024	0.0026	<0.2	<0.01	<0.01	<0.05	0.052	<0.05	22	0.14	<0.01	<0.005
	03/01/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	03/15/94	<0.1	0.021	<0.001	0.26	<0.02	<0.01	<0.02	<0.04	<0.2	22	0.034	0.022	<0.005
	03/31/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	04/15/94	<0.1	0.0044	<0.003	<0.2	<0.01	<0.01	<0.05	0.13	0.0029	16	0.94	<0.01	<0.005
	04/28/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	05/16/94	<0.1	0.054	<0.01	0.46	<0.01	<0.01	<0.01	0.082	<0.005	21	0.44	<0.05	0.0057
	05/31/94+	<0.1	0.0034	0.012	0.33	<0.01	<0.04	<0.02	0.085	<0.001	20	<0.01	0.037	0.0064
	06/16/94	<0.1	<0.02	0.013	0.47	<0.01	<0.01	<0.02	0.12	<0.05	20	1.9	0.014	<0.005
	06/30/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	07/15/94	<0.1	<0.002	0.0029	0.82	<0.01	0.11	<0.02	0.16	<0.05	19	4.0	<0.01	0.014
	07/29/94	—	—	—	—	—	—	—	—	—	—	—	—	—
	10/27/94++	<0.057	<0.038	<0.005	0.769	<0.002	<0.005	<0.005	<0.016	<0.003	23.6	4.16	<0.005	<0.010
11/10/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
11/26/94	<0.057	<0.038	<0.005	0.751	<0.002	<0.005	<0.005	<0.016	<0.003	22.9	3.53	0.0279	<0.010	
12/13/94	—	—	—	—	—	—	—	—	—	—	—	—	—	
Discharge Limits		4.0	0.15	0.05	2.5	0.02	0.1	0.25	4.0	0.1	25	6.0	2.5	0.1

NOTES:

— = Not Applicable or Not Analyzed

* = Indicates methylene chloride also detected at 22 ug/l.

+ = Indicates first sampling event after groundwater flow from UST Area 1 tied into system.

(t) = Indicates concentration reported is for trans-isomer of compound.

** = Indicates total suspended solids (TSS) and total dissolved solids (TDS) also analyzed

Test Pit 3 Area Flow: TSS = 4.8 mg/l; TDS = 580 mg/l

UST Area 1 Flow: TSS = <4 mg/l; TDS = 940 mg/l

++ = Low levels of methylene chloride (estimated 4 ug/l – 6 ug/l) were detected in all Oct. 27 samples. Methylene chloride was also detected in the method blank, indicating the compound is a probable lab contaminant. Two TICs, each identified as "Unknown Siloxane", were detected in all samples. However, the lab report states that this is "probably due to column degradation and not sample constituency". Seven TICs identified as unknowns and unknown hydrocarbons were detected in the Aeration Tank Influent at estimated concentrations ranging from 7 ug/l to 26 ug/l. These compounds were not detected in samples obtained from the system at locations downstream of the aeration tank.

Low levels of methylene chloride (estimated 1 ug/l – 2 ug/l) were detected in some of the Nov. 28 samples. Methylene chloride was also detected in the method blank, indicating the compound is a probable lab contaminant.

J = Indicates an estimated value.

3.3 VAPOR EXTRACTION SYSTEM

Air Monitoring and Sampling

Vapor extraction system air monitoring and sampling were performed during 1994 to ensure air discharge limits were being met and to monitor vapor phase carbon performance. Periodic monitoring of the air stream was conducted by Malcolm Pirnie with a Foxboro Century OVA (Model 108) flame ionization meter during system operation. Monitoring was conducted in accordance with the schedules contained in the Test Pit 3 Area Treatment Trailer Operations 1993 Annual Report, revised May 1994, and the July 1994 New York State Superfund Standby Contract Project Work Plan. A summary of OVA meter results is provided in Table 2.

Air samples of the primary carbon unit influent (the stream entering the first in the series of two carbon adsorbers) and the primary carbon effluent (the stream exiting the first adsorber and entering the second adsorber) were also obtained by Upstate Laboratories, Inc. (Upstate), East Syracuse, New York following each month-long period of operation. This was done in accordance with the schedules contained in the report and work plan mentioned above. The air samples were analyzed for USEPA 8240 VOCs. Analysis for phenol was performed during the first part of the year; however, this compound was dropped from the monitoring requirements since it was not normally detected and did not appear to be a Test Pit 3 Area contaminant. The requirement of analyzing the effluent stream from the secondary carbon unit (the air being discharged to the atmosphere) was also dropped during 1994 since discharge limits for the system apply to the effluent from the first carbon. The second carbon unit is meant to serve only as a back-up. Upstate's analytical results are summarized in Table 3, and copies of the laboratory reports are provided in Appendix E.

Carbon Treatment System Performance - Comparison of Monitoring/Sampling Results to Discharge Limits

As previously mentioned, the air discharge limits for the system are applicable to the primary carbon effluent stream, or the stream entering the secondary carbon unit. Concentration limits and efficiency criteria have been set for each target compound, while a normalized removal efficiency of 70 percent must be met by the primary carbon unit for total hydrocarbons (as measured with the OVA meter). The normalized percent removal

TABLE 2
COLUMBIA MILLS – TEST PIT 3 AREA
VAPOR EXTRACTION SYSTEM
RESULTS OF OVA METER MONITORING – 1994

Date	Time	Primary Influent (ppm)+	Primary Effluent (ppm)+	Secondary Effluent (ppm)+	Normalized Primary % Removal+	Active Wells	Dilution Valve
01/13/94	7:30	Turned on vacuum wells					
	8:00	630	170	150	96	All	Closed
	9:00	600	145	115	94	All	Closed
	10:00	510	130	110	95	All	Closed
01/14/94*	9:30	330	50	40	97	All	Closed
01/17/94	8:00	290	50	30	92	All	Closed
01/18/94	8:00	280	40	25	94	All	Closed
01/19/94	8:00	270	40	30	96	All	Closed
01/28/94	9:00	40	38	37	67	All	Closed
	9:15	Turned off vacuum wells					
02/04/94	8:55	Turned on vacuum wells					
	9:00	270	42	40	99	All	Closed
02/09/94	10:00	100	46	26	73	All	Closed
02/14/94*	8:30	125	25	22	97	All	Closed
03/01/94	8:00	70	35	23	74	All	Closed
03/15/94*	8:30	100	56	28	61	All	Closed
03/17/94	8:00	Turned off vacuum wells					
03/21/94	11:20	Turned on vacuum wells					
	11:30	49	44	38	45	All	Closed
	12:00	38	36	32	33	All	Closed
	12:00	Turned off vacuum wells					
04/01/94	7:30	Turned on vacuum wells					
	8:00	38	34	33	80	All	Closed
	8:15	Turned off vacuum wells					
05/31/94	12:53 PM	Turned on vacuum wells					
	12:55 PM	520	180	140	89	All	Closed
	1:40 PM	490	160	110	87	All	Closed
	2:50 PM	285	98	65	82	All	Opened
06/08/94	8:00	190	56	36	87	All	Opened
06/30/94	10:00	110	80	30	38	All	Opened
	10:10	Turned off vacuum wells					
07/15/94	10:45	Turned on vacuum wells					
	10:45	800	215	140	89	All	Closed
	10:55	770	205	135	89	All	Closed
07/20/94*	8:30	280	100	44	76	All	Closed
07/25/94	Vacuum wells shut off						
08/02/94	11:20	Turned on vacuum wells					
	11:30	>1000	500	360	78	All but VW-5	Closed
	11:45	>1000	500	360	78	All but VW-5	Closed
08/11/94	10:25	500	330	180	53	All but VW-5	Closed
	10:30	Turned off vacuum wells					

**TABLE 2
COLUMBIA MILLS – TEST PIT 3 AREA
VAPOR EXTRACTION SYSTEM
RESULTS OF OVA METER MONITORING – 1994**

Date	Time	Primary Influent (ppm)+	Primary Effluent (ppm)+	Secondary Effluent (ppm)+	Normalized Primary % Removal+	Active Wells	Dilution Valve
11/09/94	AM	Turned on vacuum wells					
	AM	600	310	240	81	1,3,4,9	Closed
11/15/94	AM	82	38	28	81	1-5,9	Closed
11/18/94	AM	120	68	50	74	1-5,7,9	Closed
11/22/94	AM	72	24	22	96	1-5,7,9	Closed
11/23/94	AM	42	12	10	94	1-5,7,9	Closed
	AM	Turned off vacuum wells					

NOTES: Total air flow rate = 210-220 cfm

* – Upstate Labs at site to obtain air samples for lab analysis

+ – Definitions:

The primary influent concentration is the concentration of contaminants, as measured with the OVA meter, in the air stream entering the first in the series of two carbon adsorbers.

The primary effluent concentration is the concentration of contaminants, as measured with the OVA meter, in the air stream after the air has passed through the first carbon adsorber. This is the concentration of contaminants entering the second carbon adsorber.

The secondary effluent concentration is the concentration of contaminants, as measured with the OVA meter, in the air stream after the air has passed through both carbon adsorbers. This is the concentration being discharged to the atmosphere.

The normalized percent removal takes into account the effluent concentration of the secondary carbon. To calculate this removal, the secondary effluent concentration was first subtracted from each of the two readings for the primary unit. The percent removal was then calculated. This assumes that what is passing through the secondary unit cannot be treated with carbon in general (e.g. methane).

No OVA readings were taken between August 11, 1994 and September 30, 1994 since the entire facility was shut down. No readings were taken during October because all vacuum wells remained off.

No OVA readings were taken during the month of December, as all vacuum wells remained off.

TABLE 3
COLUMBIA MILLS – TEST PIT 3 AREA SYSTEM
ROUTINE VAPOR EXTRACTION SYSTEM SAMPLING
SUMMARY OF ANALYTICAL RESULTS – 1994
TARGET COMPOUNDS DETECTED OR PREVIOUSLY DETECTED

PARAMETER	OVA Reading	USEPA 8240 Volatile Organics						Phenol	
		Ethylbenzene		Toluene		Xylenes		$\mu\text{g}/\text{m}^3$	ppm
DATE	ppm	$\mu\text{g}/\text{m}^3$	ppm	$\mu\text{g}/\text{m}^3$	ppm	$\mu\text{g}/\text{m}^3$	ppm	$\mu\text{g}/\text{m}^3$	ppm
Primary Vapor Carbon Influent									
01/14/94	330	<50	<0.0115	<50	<0.0133	100	0.0230	<77	<0.0200
02/14/94	125	<75	<0.0173	<75	<0.0199	110	0.0253	<77	<0.0200
03/15/94	100	<50	<0.0115	<50	<0.0133	52	0.0120	<77	<0.0200
07/20/94	280	<210	<0.0484	<210	<0.0557	<210	<0.0484	--	--
Primary Vapor Carbon Effluent									
01/14/94	50	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
02/14/94	25	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
03/15/94	56	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
07/20/94	100	<100	<0.0230	<100	<0.0265	<100	<0.0230	--	--
Secondary Vapor Carbon Effluent									
01/14/94	40	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
02/14/94	22	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
03/15/94	28	<5	<0.0012	<5	<0.0013	<5	<0.0012	<77	<0.0200
Max Allowable Discharge Limit for the Primary Vapor Carbon	--	278098	64.0	278098	73.8	278098	64.0	--	--
Control/Media Blank									
01/14/94	--	<0.04 μg	--	<0.04 μg	--	<0.04 μg	--	<5 μg	--
02/14/94	--	<0.025 μg	--	<0.025 μg	--	<0.025 μg	--	<5 μg	--
03/15/94	--	<0.05 μg	--	<0.05 μg	--	<0.05 μg	--	<5 μg	--
07/20/94*	--	<0.2 μg	--	0.3 μg	--	<0.2 μg	--	--	--

Notes:

-- = not applicable or not analyzed

* = indicates methylene chloride also detected at 0.6 ug, and acetone detected at 1.4 ug.

A known volume of air was collected for each sample then passed through two carbon adsorbant tubes in series. The VOCs adsorb onto the carbon; the carbon is then analyzed for VOCs.

Conversion from $\mu\text{g}/\text{m}^3$ to ppm assumes T = 77°F and V = 24.45.

$$\text{ppm} = [(\mu\text{g}/\text{m}^3)(V)]/[(\text{molecular weight})(1000)]$$

takes into account the effluent concentration of the secondary carbon; the secondary effluent concentration is first subtracted from each of the two readings for the primary unit before calculating the percent removal. This assumes that what is passing through the secondary unit cannot be treated with carbon in general (eg., methane); this assumption is based on results of air sampling conducted since system start-up in 1993.

As is apparent from the OVA meter data in Table 2, contaminant concentrations in the vapor removed from the Test Pit 3 Area soil were initially high each time the vacuum wells were started. Concentrations and, subsequently, the removal efficiency of the carbon then dropped over time. Once the efficiency of the primary carbon dropped to near 70 percent, the system was shut off, and contaminant vapors were allowed to build back up in the soil. The system was then restarted, and this cycling continued through the year.

Results of air sampling performed by Upstate after each month of vacuum well operation indicated that the only target compound present in the air stream from the vacuum wells was xylene. This compound was detected at very low concentrations going into the primary carbon and was not detected coming out. No other target compounds were detected. Thus, discharge limits were met for all target compounds.

Table 4 presents the air sampling data from the Test Pit 3 Area vapor extraction system and the estimated VOC loadings represented by the data. Since air sampling was conducted only periodically to assess the performance of the carbon, insufficient air data are available to attempt to estimate contaminant mass removal from the soil. A verification soil sampling and/or increased vapor sampling program should be established to determine when clean-up has been achieved.

3.4 SOIL BORING SAMPLING

Soil Boring Sampling and Results

On December 13, 1994, three soil borings were advanced in the Test Pit 3 Area by Drilex Environmental (Drilex) and sampled in accordance with the State Superfund Project Work Plan and Malcolm Pirnie's December 7, 1994 letter to Drilex. Sampling was performed to determine the status of soil remediation in the area. A NYSDEC representative and a Malcolm Pirnie field technician were present at the site during the drilling and sampling to observe activities.

**TABLE 4
COLUMBIA MILLS – TEST PIT 3 AREA
VAPOR EXTRACTION SYSTEM
AIR SAMPLING/VOC LOADING**

Primary Vapor Carbon Influent	Flowrate (cfm)	Xylenes		
		Conc (ug/m3)	Loading (lb/hr)	Loading (lb/day)
01/14/94	215	100	0.000081	0.00193
02/14/94	220	110	0.000091	0.00218
03/15/94	220	52	0.000043	0.00103
07/20/94	230	<210	<0.000180	<0.00434

NOTES: Air samples were collected four times during 1994 for EPA 8240 VOC analysis (sampling was performed after each month-long period of vacuum well operation). The only compound detected was xylene (at the concentrations shown in the table). Xylene was not detected in the primary vapor carbon effluent or the secondary carbon effluent during the four sampling episodes.

The borings were advanced to depths of up to 12 feet at the locations shown in Figure 5. Two samples were obtained from each boring at different depths and analyzed for VOCs and total petroleum hydrocarbons (TPH). A summary of the results is included in Table 5. A copy of the laboratory report from NEI is provided in Appendix D.

Results indicate that contaminant concentrations at soil sampling locations SB1 and SB3 are well below the clean-up goal of 1 ppm, or 1000 ug/kg, total target-VOCs. However, total target-VOC concentrations exceed 1000 ug/kg at location SB2, which is near the original southern extent of contamination. Xylenes were present at the greatest concentration in both samples obtained at location SB2. TPH analysis of one of the samples obtained from boring SB1 indicated a concentration of 290 mg/kg, even though no target site contaminants were detected in the sample. All other TPH analyses indicated concentrations below 10 mg/kg.

Comparison of Recent Soil Concentrations to Concentrations Detected In 1989 Soil Borings

Boring SB2 was installed near piezometer BP-9. This piezometer had been installed during September 1989, and results of the analysis of soil obtained from the piezometer boring indicated xylenes were present at 9800 $\mu\text{g}/\text{kg}$ and 4-methyl-2-pentanone, or MIBK, was present at an estimated concentration of 1200 $\mu\text{g}/\text{kg}$. The soil sample was obtained at a depth of seven to nine feet below land surface. The concentration of xylenes in the soil sample obtained from boring SB2 was reported as 2600 $\mu\text{g}/\text{kg}$, and MIBK was not detected. Thus, contaminant concentrations detected in the most recent sample obtained from the southwest corner of the Test Pit 3 Area were lower than levels detected prior to the commencement of remedial activities.

This is also the case for SB1, which was installed near piezometer BP-2. Xylenes were detected in soil from the BP-2 boring in 1989 at a concentration of 1600 $\mu\text{g}/\text{kg}$ and MIBK at 2000 $\mu\text{g}/\text{kg}$. These compounds were not detected during the most recent sampling.

It is difficult, however, to verify contaminant removal by the vapor extraction system based on the limited sampling conducted.

MAGNETIC
MAY 1991



(FORMERLY BUILDING NO. 68)

BUILDING
NO. 10A

FOUNDATION RUINS
(FORMERLY BUILDING NO. 7)

BUILDING
NO. 11

(FORMERLY BUILDING NO. 69)

APPROXIMATE
EXTENT
OF VOC
CONTAMINATION

GROUND ELEV ~ 308'

TREATMENT
TRAILER

EXISTING FENCE

LEGEND

- EXISTING SEWER LINES (APPROXIMATE LOCATIONS)
- GROUND WATER RECOVERY SYSTEM PIPING
- VAPOR EXTRACTION SYSTEM PIPING
- - - APPROXIMATE EXTENTS OF VOC CONTAMINATION
- X - X - CHAIN LINK FENCE
- ⊕ B-1S GROUND WATER MONITORING WELL
- BP-1 GROUND WATER PIEZOMETER
- BP-10 NEW GROUND WATER PIEZOMETER - INSTALLED AUGUST 1991
- ◇ VP1 VACUUM PIEZOMETER
- ◆ (VP6) NEW VACUUM PIEZOMETER - INSTALLED JANUARY 1992
- ⊕ RW1 GROUND WATER RECOVERY WELL
- ⊕ W-1 GROUND WATER PIEZOMETER/POSSIBLE TO CONVERT TO RECOVERY WELL
- ⊕ VW1 VAPOR EXTRACTION WELL
- ⊕ (VW2) NEW VAPOR EXTRACTION WELL - INSTALLED JANUARY 1992
- ▲ SB1 LOCATIONS OF TEST BORINGS



3624 : ADMIN
 \\E:\ACAD\PROJ\1069079\ANNFIGS SCALE: 1:200 01/12, 1995 at 11:00



REVISIONS		DES	DWK
NO.	DATE		

DES
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THE COLUMBIA MILLS, INC.
MIDWATER, NEW YORK
**TEST PIT #3 AREA
VAPOR EXTRACTION SYSTEM**

SOIL BORING LOCATIONS

MALCOLM PIRNIE, INC.
DATE JANUARY 1995
FIGURE 5

TABLE 5
 COLUMBIA MILLS—TEST PIT 3 AREA
 DEC. 13, 1994 SOIL SAMPLING
 SUMMARY OF ANALYTICAL RESULTS

Sample Location/Depth		VOLATILE ORGANICS (ug/kg)					TPH (mg/kg)
		Xylenes	Toluene	Methylene Chloride	Acetone	2-Butanone (MEK)	
SB1	5-7 ft.	<11	<11	6JB	13	<11	290
	9-11 ft	<11	<11	6JB	<11	<11	<10
SB2	5-7 ft	1800E	<11	6JB	30	<11	<10
	5-7 ft (DL)	1200D	<57	66BD	51JD	11JBD	—
	7-9 ft	2600E	<55	15JB	14JB	<55	<10
	7-9 ft (DL)	2600D	<1300	910JD	<1300	<1300	—
SB3	6-8 ft.	16	1J	11JB	11J	<12	<10
	10-12 ft	14	2J	11JB	9J	<11	<10
Soil Clean-Up Level*		see note below					—

NOTES: TPH = Total Petroleum Hydrocarbons

J = Indicates an estimated value.

B = Indicates compound was found in the associated blank as well as the sample.

E = Indicates compound whose concentration exceeded the calibration range of the analytical instrument.

D = Indicates compound was detected in an analysis at a secondary dilution factor.

(DL) = Indicates diluted sample. The concentrations of xylenes (which initially exceeded the calibration range for both SB2 samples) should be taken from this more dilute analysis.

* = The soil clean-up goal was defined in the April 1991 IRM report "Evaluation of Alternatives for Treatment of VOC Contaminated Subsurface Soils In Test Pit 3 Area" as reducing total target VOC concentrations to approximately 1 ppm, or 1000ug/kg.

4.0 SUMMARY AND CONCLUSIONS

4.1 SUMMARY

With the exception of a few minor shutdowns and the shutdown which occurred during the transition of the Columbia Mills project to State Superfund (August - September), the Test Pit 3 Area groundwater drawdown/treatment system operated continuously during 1994. The three recovery wells located in UST Area 1 were tied into the system during late May 1994 and operated through December. The Test Pit 3 Area vapor extraction system operated for a total of approximately 113 days during the year. At the request of the NYSDEC, all wells and the entire treatment facility were shutdown for the winter on December 21, 1994. The system was winterized during the first part of January 1995.

Concentrations of target VOCs were low in both the groundwater treatment system influent stream (water from the recovery wells) and the vapor extraction system influent stream (air from the vacuum wells). The main target contaminants in each area are:

- Test Pit 3 Area - xylenes
- UST Area 1 - TCE and 1,2-DCE.

As indicated by the OVA meter monitoring results, nontarget VOCs appear to comprise the majority of compounds present in the vapors being withdrawn from the Test Pit 3 Area soil. The nontarget compounds were identified during 1993 and are generally considered to be compounds related to the petroleum based solvent allegedly stored in the area. The treatment of these nontarget compounds is monitored with the OVA meter, which measures the concentration of total hydrocarbons.

Soil sampling conducted during December in the Test Pit 3 Area indicated that, although soil VOC contaminant levels appear to be decreasing, the soil clean-up goal has not yet been achieved in all areas of the Test Pit 3 Area by vapor extraction. Some subsurface soil still requires remediation, as indicated by the detection of VOCs (mostly xylenes) at elevated levels in soil sampled in the area near the original southern extent of contamination. However, pilot testing conducted as part of the original system design indicated a period of two to four years would be required to achieve clean-up goals. Since the vapor extraction system has operated for less than two years, it was not surprising that the soil clean-up goal has yet to be met. This sampling was done as a check on the progress

of the remedial process.

When the treatment facility is restarted in the Spring, the following problems which were noted prior to winter shutdown will need to be addressed:

- the reduction of flow from groundwater recovery well RW-5, and
- the pressure build-up in the vapor extraction system.

4.2 CONCLUSIONS/RECOMMENDATIONS

Based on the evaluation of the Test Pit 3 Area/UST Area 1 Treatment Facility operation and data collected during the past year, the following conclusions and recommendations have been made:

Groundwater Recovery/Treatment System

- a. The main purpose of the groundwater drawdown system in the Test Pit 3 Area is to lower the groundwater table and expose more subsurface soil to the effects of vapor extraction. Since the flow of groundwater into the Test Pit 3 Area is greatly increased during the Spring, the groundwater drawdown system is not as effective in dewatering the entire area. Water levels tend to be higher in the vacuum wells and the wells cannot operate. Thus, it may be more feasible to shut the Test Pit 3 Area recovery wells off during the Spring, and restart them later in the year when they can effectively control the groundwater levels at the vacuum well points. The UST Area 1 groundwater recovery system, however, should be able to operate year-round.
- b. Iron bacteria and silt continue to be a problem for the recovery well pumps in the Test Pit 3 Area. Routine maintenance of these pumps must continue.
- c. Due to the low contaminant concentrations in the groundwater treatment system influent, the feasibility of reducing groundwater treatment, or bypassing treatment altogether, should be examined. In order to determine what action should be taken, additional system sampling is required. One possibility for a reduced treatment system would be to use the aeration tank to strip VOCs from the influent groundwater, then pass the water through the three tanks following the aeration tank. These tanks would serve as settling tanks. The water would then be discharged to the storm sewer/Oswego River as is currently being done. In this scenario, the bag filters and liquid phase carbon would be bypassed.
- d. If the groundwater treatment system is to continue to operate as it currently is (with the bag filters and carbon), several modifications should be made. System modifications which could be implemented immediately, with minimal cost, include:

- moving the outlet from the final process tank up to half-tank level. The bottom of the tank would then act as a sump to hold solids.
- installing baffles in the process tanks. Baffles would prevent short circuiting of system flow to allow for more efficient sediment removal.

Facility modifications which could be implemented as part of the next operations contract, at a greater cost than those modifications listed above, include:

- adding a primary settling tank to the treatment process prior to the process tanks. Since no room is available in the trailer, the new tank would have to be installed outside. Design factors involved in installing the new tank would include freeze protection, tank and piping, and pumps and valves.

Vapor Extraction System

- a. Results of soil sampling conducted in the Test Pit 3 Area during December indicated that vapor extraction treatment of the soil should continue, at least in the southwest corner where elevated levels of xylenes were detected. Additional soil sampling could be undertaken to more accurately identify the area of soil still requiring remediation. In this way, vapor extraction treatment could be concentrated in the appropriate area(s) and some vacuum wells could be shut off.
- b. In order to maximize the efficiency of the vapor extraction system and continue to meet discharge limits, the system must continue to be cycled on and off. In general, at system start-up, the saturated vapors present in the soil are quickly removed. After the initial period of operation, contaminant removal tends to become diffusion-limited, and removal rates drop with time. The wells are temporarily turned off to allow the soil vapor to reequilibrate and contaminant concentrations to build back up. This also increases removal efficiency.

APPENDICES

APPENDIX A

Flow Monitoring Logs

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION/GROUND WATER EXTRACTION SYSTEM

OPERATIONS, MAINTENANCE AND MONITORING MANUAL

GROUND WATER EXTRACTION SYSTEM – FLOW MONITORING LOG

MONTH/YEAR: Jan. '94
Feb. '94

System Location	Parameter	READING				
		Week 1 <u>1/19/94</u>	Week 2 <u>1/27/94</u>	Week 3 <u>2/1/94</u>	Week 4 <u>2/15/94</u>	Week 5 <u>3/19/94</u>
RW1	Flowrate (gpm)	<u>1.5</u>	<u>0.2</u>	<u>0.2</u>	<u>1.4</u>	<u>0.7</u>
	Total Gallons	<u>365724</u>	<u>378467</u>	<u>378467</u>	<u>393479</u>	<u>415278</u>
RW2	Flowrate (gpm)	<u>OFF</u>	<u>1.6</u>	<u>1.6</u>	<u>1.1</u>	<u>1.2</u>
	Total Gallons	<u>523777</u>	<u>549239</u>	<u>56539</u>	<u>585204</u>	<u>617239</u>
RW3	Flowrate (gpm)	<u>OFF</u>	<u>OFF</u>	<u>OFF</u>	<u>OFF</u>	<u>3</u>
	Total Gallons	<u>560145</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>617552</u>
RW4	Flowrate (gpm)	<u>1.6</u>	<u>0.2</u>	<u>0.2</u>	<u>1.5</u>	<u>0.2</u>
	Total Gallons	<u>970919</u>	<u>981289</u>	<u>981289</u>	<u>1012970</u>	<u>1034611</u>
RW5	Flowrate (gpm)	<u>0.3</u>	<u>0.3</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>
	Total Gallons	<u>358016</u>	<u>359973</u>	<u>359975</u>	<u>360560</u>	<u>360560</u>
Carbon – Train 1	Flowrate (gpm)	<u>3</u>	<u>3</u>	<u>3</u>	<u>2.5</u>	<u>2</u>
	Total Gallons	<u>629438</u>	<u>647317</u>	<u>655737</u>	<u>678211</u>	<u>734160</u>
Carbon – Train 2	Flowrate (gpm)	<u>3</u>	<u>3</u>	<u>2</u>	<u>2.5</u>	<u>2</u>
	Total Gallons	<u>572149</u>	<u>590919</u>	<u>598483</u>	<u>615250</u>	<u>664030</u>
Carbon – Train 3	Flowrate (gpm)	<u>3</u>	<u>2.5</u>	<u>2</u>	<u>2</u>	<u>2</u>
	Total Gallons	<u>5622051</u>	<u>5640403</u>	<u>5647085</u>	<u>5657295</u>	<u>5686090</u>
System Effluent	Flowrate (gpm)	<u>9</u>	<u>9</u>	<u><7</u>	<u>8</u>	<u><7</u>
	Total Gallons	<u>157033</u>	<u>177702</u>	<u>191353</u>	<u>221397</u>	<u>339465</u>

COLUMBIA MILLS
TEST PIT 3 AREA IRM
GROUND WATER WITHDRAWAL SYSTEM - FLOW MONITORING LOG

MARCH/APRIL 1994

SYSTEM LOCATION	PARAMETER	READING			
		MARCH		APRIL	
		3/15/94	3/19/94	4/1/94	4/15/94
RW-1	Flowrate (gpm)	1.2		2.1	2.5
	Total Gallons	422632		468275	495681
RW-2	Flowrate (gpm)	0.4		1.8	2.9
	Total Gallons	621376		641092	682127
RW-3	Flowrate (gpm)	3.2		6	OFF
	Total Gallons	644212		703017	721329
RW-4	Flowrate (gpm)	1.3		2.1	1.8
	Total Gallons	1013086		1079803	1117600
RW-5	Flowrate (gpm)	0.2		SHUT OFF	1.7
	Total Gallons	360582		NEAR MAINT.	383977
Carbon - Train 1	Flowrate (gpm)	3		5	3.8
	Total Gallons	746937		786344	847354
Carbon - Train 2	Flowrate (gpm)	3		3	3.5
	Total Gallons	677002		718703	745659
Carbon - Train 3	Flowrate (gpm)	2		3.5	3
	Total Gallons	9707330		6745130	6767632
System Effluent	Flowrate (gpm)	8		13	11
	Total Gallons	369254		456555	585610

COLUMBIA MILLS
TEST PIT 3 AREA IRM
GROUND WATER WITHDRAWAL SYSTEM - FLOW MONITORING LOG

MAY/JUNE 1994

SYSTEM LOCATION	PARAMETER	READING			
		5/2/94 ^{April} MAY 5/1/94	5/16/94	6/1/94	6/2/94
RW-1	Flowrate (gpm)	0.2	0.1	0.1	0.2
	Total Gallons	517022	517150	520783	520783
RW-2	Flowrate (gpm)	0.2	0.2	0.1	0.1
	Total Gallons	707772	716886	722197	728502
RW-3	Flowrate (gpm)	3.2	3.2	2.1	2.2
	Total Gallons	785832	849189	900228	922407
RW-4	Flowrate (gpm)	0.2	0.2	0.1	0.1
	Total Gallons	1130057	—	1130057	1130057
RW-5	Flowrate (gpm)	0.3	0.2	0.1	0.1
	Total Gallons	403315	403369	403420	403482
Carbon - Train 1	Flowrate (gpm)	4.2	4.5	2.8	2
	Total Gallons	409236	481490	102607	1049181
Carbon - Train 2	Flowrate (gpm)	2.2	2.5	0.1	4.2
	Total Gallons	774552	785755	799917	82554
Carbon - Train 3	Flowrate (gpm)	2.2	2.5	0.1	3.5
	Total Gallons	6796030	3806765	3811286	3838088
System Effluent	Flowrate (gpm)	10	9	7	10
	Total Gallons	742405	844689	944688	1080769

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UST 1

1.3
13932

1.0
41076

COLUMBIA MILLS
TEST PIT 3 AREA IRM
GROUND WATER WITHDRAWAL SYSTEM - FLOW MONITORING LOG

JULY/AUGUST 1994

SYSTEM LOCATION	PARAMETER	READING					
		JULY			AUGUST		
		7/ 12 /94	7/ /94		8/ 5 /94	8/ /94	
RW-1	Flowrate (gpm)	0.2			> 0		
	Total Gallons	525328			525330		
RW-2	Flowrate (gpm)	0.2			> 0		
	Total Gallons	731708			734127		
RW-3	Flowrate (gpm)	2.4			1.5 (level high)		
	Total Gallons	995661			1058876		
RW-4	Flowrate (gpm)	0.2			> 0		
	Total Gallons	0.2			1152029		
RW-5	Flowrate (gpm)	0.2			> 0		
	Total Gallons	403496			403532		
Carbon - Train 1	Flowrate (gpm)	3					
	Total Gallons	1049209			1074469		
Carbon - Train 2	Flowrate (gpm)	3					
	Total Gallons	871237			917634		
Carbon - Train 3	Flowrate (gpm)	3					
	Total Gallons	3854976			3854987		
System Effluent	Flowrate (gpm)	10			10-11		
	Total Gallons	1266346			1430370		

Comp
UST 1

0.4
60394

2.6
68456

COLUMBIA MILLS
TEST PIT 3 AREA IRM
GROUND WATER WITHDRAWAL SYSTEM - FLOW MONITORING LOG

SEP/OCT 1994

SYSTEM LOCATION	PARAMETER	READING			
		SEPTEMBER		OCTOBER	
		9/ /94	9/ /94	10/ 26 /94	10/ /94
RW-1	Flowrate (gpm)			0.2	
	Total Gallons			539883	
RW-2	Flowrate (gpm)			0	
	Total Gallons			758787	
RW-3	Flowrate (gpm)			2	
	Total Gallons			1167981	
RW-4	Flowrate (gpm)			0.2	
	Total Gallons			1165469	
RW-5	Flowrate (gpm)			0.2	
	Total Gallons			406602	
Carbon - Train 1	Flowrate (gpm)				
	Total Gallons			1130962	
Carbon - Train 2	Flowrate (gpm)				
	Total Gallons			1065568	
Carbon - Train 3	Flowrate (gpm)				
	Total Gallons			3958732	
System Effluent	Flowrate (gpm)			8	
	Total Gallons			1,718,047	

COLUMBIA MILLS
TEST PIT 3 AREA IRM
GROUND WATER WITHDRAWAL SYSTEM - FLOW MONITORING LOG

NOV/DEC 1994

SYSTEM LOCATION	PARAMETER	READING			
		NOVEMBER		DECEMBER	
		11/ 22/94	11/ /94	12/ 21 /94	12/ /94
RW-1	Flowrate (gpm)	0.8		OFF	
	Total Gallons	562904		578925	
RW-2	Flowrate (gpm)	0.2		OFF	
	Total Gallons	790447		805807	
RW-3	Flowrate (gpm)	2.1		OFF	
	Total Gallons	1263565		1325587	
RW-4	Flowrate (gpm)	0.2		OFF	
	Total Gallons	1189971		1266087	
RW-5	Flowrate (gpm)	0.2		OFF	
	Total Gallons	409925		409960	
Carbon - Train 1	Flowrate (gpm)	1		OFF	
	Total Gallons	1181456		1182111	
Carbon - Train 2	Flowrate (gpm)	4.5		OFF	
	Total Gallons	1124333		1170103	
Carbon - Train 3	Flowrate (gpm)	1		OFF	
	Total Gallons	3992047		0032001	
System Effluent	Flowrate (gpm)	12		OFF	
	Total Gallons	1932,338		2184514	

UST Area 1 Wells

—

OFF

211866 gpm
gallons

APPENDIX B

***Vapor Extraction System
Monitoring Logs***

**Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System**

**Operations, Maintenance and Monitoring Manual
Inspection Log Sheet**

Date: 1/12/01

Initials: LL

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)
VW-1			
VW-2			
VW-3			
VW-4			
VW-5			
VW-6			
VW-7			
VW-8			
VW-9			

Charging Carbon Today

SUBSYSTEM

Down!

2. Vacuum Pump Unit On Off
Temp (F) 210 Air Flow (cfm) _____ Pressure (psi) _____

3. Vacuum Pump Unit Filter
Before Filter _____ in. Hg After Filter 5 in. Hg

4. Verify Operation of Demister Pump
Vacuum Near Entrance To Demister _____ in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
Line Entering Primary Carbon (A or B) _____ psi Line Entering Secondary Carbon (A or B) _____ psi

7. % LEL 14

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

Set	Act	Set	Act	Set	Act	Set	Act	Set	Act					
RW-1	<u>515</u>	<u>423</u>	RW-2	<u>519</u>	_____	RW-3	<u>off</u>	_____	RW-4	<u>614</u>	_____	RW-5	<u>612</u>	_____

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
Amount of Chlorine In Tank _____ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
Amount of Polymer In Tank _____ gal. Make Polymer No

5. Verify Operation of Wastewater Feed Pump Y

6. Check Bag Filter System
Filter Set In Use A or B Filter Type: Set A _____ Set B _____
Primary Filter Pressure _____ psi Secondary Filter Pressure _____ psi Differential Pressure _____ psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	_____	_____	_____
Train 2	_____	_____	_____
Train 3	_____	_____	_____

**Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System**

**Operations, Maintenance and Monitoring Manual
Inspection Log Sheet**

Date: 1/14/94

Initials MLV

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)
VW-1	<u>NO</u>	<u>?</u>	<u>4</u>
VW-2			
VW-3			
VW-4			
VW-5			
VW-6			
VW-7			
VW-8			
VW-9			

2. Vacuum Pump Unit On Off
Temp (F) 140 Air Flow (cfm) 215 Pressure (psi) 3

3. Vacuum Pump Unit Filter
Before Filter 5 in. Hg After Filter 5 in. Hg

4. Verify Operation of Demister Pump
Vacuum Near Entrance To Demister 5 in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
Line Entering Primary Carbon (A or B) _____ psi Line Entering Secondary Carbon (A or B) _____ psi

7. % LEL 15

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

Set	Act	Set	Act	Set	Act	Set	Act	Set	Act		
RW-1	<u>5.5</u>			RW-2	<u>5.8</u>	RW-3	<u>OFF</u>	RW-4	<u>6.4</u>	RW-5	<u>6.2</u>

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
Amount of Chlorine In Tank _____ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
Amount of Polymer In Tank 95 gal. Make Polymer Yes No

5. Verify Operation of Wastewater Feed Pump

6. Check Bag Filter System
Filter Set In Use A or B Filter Type: Set A _____ Set B _____
Primary Filter Pressure 46 psi Secondary Filter Pressure 40 psi Differential Pressure 6 psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	<u>0</u>	<u>0</u>	<u>0</u>
Train 2			
Train 3			

Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System

Operations, Maintenance and Monitoring Manual
Inspection Log Sheet

Date: 1/27/91

Initials idw

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)
VW-1	↑	3	4
VW-2			
VW-3			
VW-4	No		
VW-5			
VW-6	↓		
VW-7			
VW-8			
VW-9			

2. Vacuum Pump Unit On Off
 Temp (F) 140 Air Flow (cfm) 25 Pressure (psi) 3

3. Vacuum Pump Unit Filter
 Before Filter 5 in. Hg After Filter 5 in. Hg

4. Verify Operation of Demister Pump
 Vacuum Near Entrance To Demister 5 in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
 Line Entering Primary Carbon (A or B) 3 psi Line Entering Secondary Carbon (A or B) 2 psi

7. % LEL 15

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

	Set	Act	Set	Act	Set	Act	Set	Act	Set	Act
RW-1	5.3	10.0	6.2	10.2	OFF		6.4	8	6.2	7.4

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
 Amount of Chlorine In Tank _____ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
 Amount of Polymer In Tank 10 gal. Make Polymer Yes No

5. Verify Operation of Wastewater Feed Pump

6. Check Bag Filter System
 Filter Set In Use A or B Filter Type: Set A _____ Set B X
 Primary Filter Pressure 20 psi Secondary Filter Pressure 20 psi Differential Pressure 0 psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	3	1	0
Train 2	3	1	0
Train 3	3	1	0

**Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System**

**Operations, Maintenance and Monitoring Manual
Inspection Log Sheet**

Date: 2/1/94

Initials hll

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)	
VW-1	System			
VW-2				
VW-3				
VW-4				
VW-5				
VW-6			Off	
VW-7				
VW-8				
VW-9				

2. Vacuum Pump Unit On Off
Temp (F) 190 Air Flow (cfm) 215 Pressure (psi) 32

3. Vacuum Pump Unit Filter
Before Filter 0 in. Hg After Filter 0 in. Hg

4. Verify Operation of Demister Pump
Vacuum Near Entrance To Demister 0 in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
Line Entering Primary Carbon (A or B) A 2 psi Line Entering Secondary Carbon (A or B) B 2 psi

7. % LEL 15

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

Set	Act	Set	Act	Set	Act	Set	Act	Set	Act				
RW-1	<u>8.5</u>	<u>11.8</u>	RW-2	<u>6.5</u>	<u>13</u>	RW-3	<u>Off</u>	RW-4	<u>8.5</u>	<u>10.8</u>	RW-5	<u>6.2</u>	<u>6.2</u>

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
Amount of Chlorine In Tank _____ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
Amount of Polymer In Tank 55 gal. Make Polymer Yes No

5. Verify Operation of Wastewater Feed Pump

6. Check Bag Filter System
Filter Set In Use A or B B Filter Type: Set A 40 Set B 5
Primary Filter Pressure 40 psi Secondary Filter Pressure 32 psi Differential Pressure 8 psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	<u>0</u>	<u>0</u>	<u>0</u>
Train 2	<u>0</u>	<u>0</u>	<u>0</u>
Train 3	<u>0</u>	<u>0</u>	<u>0</u>

3 Breached today

**Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System**

**Operations, Maintenance and Monitoring Manual
Inspection Log Sheet**

Date: 2/18/14

Initials KL

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)
VW-1	<u>✓</u>	<u>?</u>	<u>3</u>
VW-2			
VW-3			
VW-4			
VW-5			
VW-6			
VW-7			
VW-8			
VW-9			

2. Vacuum Pump Unit On Off
Temp (F) 74 Air Flow (cfm) 220 Pressure (psi) 2

3. Vacuum Pump Unit Filter
Before Filter 3 in. Hg After Filter 3 in. Hg

4. Verify Operation of Demister Pump
Vacuum Near Entrance To Demister 2 in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
Line Entering Primary Carbon (A or B) 2 psi Line Entering Secondary Carbon (A or B) 0 psi

7. % LEL 15

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

	Set	Act		Set	Act		Set	Act		Set	Act
RW-1	<u>4.2</u>	<u>4.1</u>	RW-2	<u>at "Man"</u>		RW-3	<u>off</u>		RW-4	<u>6.5</u>	<u>6.1</u>
									RW-5	<u>6.3</u>	<u>6.1</u>

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
Amount of Chlorine In Tank ✓ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
Amount of Polymer In Tank 50 gal. Make Polymer Yes No

5. Verify Operation of Wastewater Feed Pump

6. Check Bag Filter System

Filter Set In Use A or B B Filter Type: Set A _____ Set B _____
Primary Filter Pressure 30 psi Secondary Filter Pressure 20 psi Differential Pressure 10 psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	<u>2</u>	<u>0</u>	<u>0</u>
Train 2	<u>2</u>	<u>0</u>	<u>0</u>
Train 3	<u>2</u>	<u>0</u>	<u>0</u>

**Columbia Mills
Test Pit 3 Area IRM
Groundwater and Vapor Treatment System**

**Operations, Maintenance and Monitoring Manual
Inspection Log Sheet**

Date: 2/5/84

Initials WLS

VAPOR EXTRACTION SYSTEM

1. Individual Air Flow Lines

Well ID	Adjustment Necessary	Air Flow (cfm)	Vacuum (in. Hg)
VW-1	~	?	4
VW-2	~	3.3	
VW-3		?	
VW-4	2/10		
VW-5			
VW-6	~		
VW-7			
VW-8			
VW-9	~		

2. Vacuum Pump Unit On Off
Temp (F) 140 Air Flow (cfm) 220 Pressure (psi) 5.5

3. Vacuum Pump Unit Filter
Before Filter 25 in. Hg After Filter 25 in. Hg

4. Verify Operation of Demister Pump
Vacuum Near Entrance To Demister 2.6 in. Hg

5. Check Air Dilution Valve Open Closed

6. Inspect Carbon Adsorbers
Line Entering Primary Carbon (A or B) A 12 psi Line Entering Secondary Carbon (A or B) B 0 psi

7. % LEL 15

GROUNDWATER EXTRACTION SYSTEM

1. Check Levels of Submersible Well Pumps

	Set	Act		Set	Act		Set	Act		Set	Act
RW-1	<u>7.2</u>	<u>4.3</u>	RW-2	<u>MANUAL</u>		RW-3	<u>7.5</u>	<u>15.3</u>	RW-4	<u>6.5</u>	<u>6.5</u>
									RW-5	<u>4.3</u>	<u>6.1</u>

2. Verify Operation of Aeration Tank Blower On Off

3. Verify Operation of Chlorine Feed Pump On Off
Amount of Chlorine In Tank _____ gal. Make Chlorine Yes No

4. Verify Operation of Polymer Feed Pump On Off
Amount of Polymer In Tank 55 gal. Make Polymer Yes No

5. Verify Operation of Wastewater Feed Pump _____

6. Check Bag Filter System
Filter Set In Use A or B Filter Type: Set A 40 Set B Sarcin
Primary Filter Pressure 26 psi Secondary Filter Pressure 16 psi Differential Pressure 10 psi

7. Check Pressure in Carbon Canisters

	1st	2nd	3rd
Train 1	<u>5</u>	<u>1.5</u>	<u>1.2</u>
Train 2	<u>5</u>	<u>0.8</u>	<u>1</u>
Train 3	<u>5</u>	<u>1</u>	<u>1</u>

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM-MONITORING LOG SHEET

MARCH 1994

PARAMETER	READING			
	3/ <u>15</u> /94		3/ <u>26</u> /94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1	?	3		
VW-2				
VW-3				
VW-4				
VW-5				
VW-6				
VW-7				
VW-8				
VW-9				
% LEL	15			
VACUUM PUMP UNIT	3			
Vacuum (in Hg) - Demister Entrance	1			
Vacuum (in Hg) - Before Filter	1			
Vacuum (in Hg) - After Filter	1			
Air Dilution Valve	Open/Closed		Open/Closed	
Temperature (F) - Discharge	140			
Pressure (psi) - Discharge	5			
Flowrate (cfm) - Discharge	220			
CARBON ADSORBERS				
Pressure - Line Into Primary Unit	(A or B)	2 psi	A or B	psi
Pressure - Line Into Second Unit	A or (B)	0 psi	A or B	psi
DEMISTER EFF. HOLDING TANK				
Water Depth	0"			
OVA METER READINGS				
Background (ppm)	8			
Primary Carbon Influent (ppm)	100			
Primary Carbon Effluent (ppm)	56			
Secondary Carbon Effluent (ppm)	28			

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM - MONITORING LOG SHEET

APRIL 1994

PARAMETER	READING			
	4/ <u>1</u> /94		4/ <u>15</u> /94	
	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VACUUM WELLS				
VW-1				
VW-2	<i>Turned on system - Ran for 1/2 Hour - Took OVA</i>			
VW-3				
VW-4	<i>Reading - Not Done</i>			
VW-5				
VW-6				
VW-7				
VW-8				
VW-9				
% LEL		15		16
VACUUM PUMP UNIT				
Vacuum (In Hg) - Demister Entrance		-		
Vacuum (In Hg) - Before Filter		-		
Vacuum (In Hg) - After Filter				
Air Dilution Valve		Open/Closed		Open/Closed
Temperature (F) - Discharge				
Pressure (psi) - Discharge		-		
Flowrate (cfm) - Discharge		220		220
CARBON ADSORBERS				
Pressure - Line Into Primary Unit	(A or B)	3 psi	(A or B)	3 psi
Pressure - Line Into Second Unit	A or (B)	3 psi	A or (B)	3 psi
DEMISTER EFF. HOLDING TANK				
Water Depth		-		
OVA METER READINGS				
Background (ppm)		10		
Primary Carbon Influent (ppm)		38		
Primary Carbon Effluent (ppm)		31		
Secondary Carbon Effluent (ppm)		33		

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM-MONITORING LOG SHEET

MAY 1994

PARAMETER	READING			
	5/ <u>2</u> /94		5/ <u>16</u> /94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1	<i>S-SYSTEM</i> <i>157</i> <i>OFF</i> <i>(1164 H₂O TANK)</i>		<i>S-SYSTEM</i> <i>OFF</i>	
VW-2				
VW-3				
VW-4				
VW-5				
VW-6				
VW-7				
VW-8				
VW-9				
% LEL	17		18	
VACUUM PUMP UNIT				
Vacuum (In Hg) – Demister Entrance	1.5		1.5	
Vacuum (In Hg) – Before Filter	0		0	
Vacuum (In Hg) – After Filter	0		0	
Air Dilution Valve	Open/Closed		Open/Closed	
Temperature (F) – Discharge	150		150	
Pressure (psi) – Discharge	6		6	
Flowrate (cfm) – Discharge	210		210	
CARBON ADSORBERS				
Pressure – Line Into Primary Unit	A or B 2.5 psi		A or B 2.5 psi	
Pressure – Line Into Second Unit	A or B 0.5 psi		A or B 0.5 psi	
DEMISTER EFF. HOLDING TANK				
Water Depth	—		—	
OVA METER READINGS				
Background (ppm)				
Primary Carbon Influent (ppm)				
Primary Carbon Effluent (ppm)				
Secondary Carbon Effluent (ppm)				

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM—MONITORING LOG SHEET

JUNE 1994

PARAMETER	READING			
	6/ <u>1</u> /94		6/ <u>20</u> /94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1	< 5	3	25	3.2
VW-2	32.5	3	32.5	3
VW-3	6.5	3	9	3
VW-4	5	2.5	5	28
VW-5	< 5	3	25	35
VW-6	< 5	2.5	25	3
VW-7	< 5 H ₂ O	2.5	25	3
VW-8	5	2.5	5	3
VW-9	11.5	3	16.5	3
% LEL	20			
VACUUM PUMP UNIT				
Vacuum (In Hg) – Demister Entrance	4		0	
Vacuum (In Hg) – Before Filter	0		0	
Vacuum (In Hg) – After Filter	4		0	
Air Dilution Valve	(Open/Closed)		Open/Closed	
Temperature (F) – Discharge	150		150	
Pressure (psi) – Discharge	4		4	
Flowrate (cfm) – Discharge	23		210	
CARBON ADSORBERS				
Pressure – Line Into Primary Unit	(A or B)	2 psi	(A or B)	1.8 psi
Pressure – Line Into Second Unit	A or B	0.5 psi	A or B	0.5 psi
DEMISTER EFF. HOLDING TANK				
Water Depth	—		—	
OVA METER READINGS				
Background (ppm)			(6/30/94)	
Primary Carbon Influent (ppm)			7	
Primary Carbon Effluent (ppm)			110	
Secondary Carbon Effluent (ppm)			80	
			30	

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM - MONITORING LOG SHEET

JULY 1994

PARAMETER	READING			
	7/ <u>12</u> /94		7/ <u> </u> /94	
	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VACUUM WELLS				
VW-1				
VW-2				
VW-3				
VW-4				
VW-5				
VW-6				
VW-7				
VW-8				
VW-9				
% LEL		19		
VACUUM PUMP UNIT				
Vacuum (In Hg) - Demister Entrance		0		
Vacuum (In Hg) - Before Filter		0		
Vacuum (in Hg) - After Filter		0		
Air Dilution Valve		Open/Closed		Open/Closed
Temperature (F) - Discharge		130		
Pressure (psi) - Discharge		10		
Flowrate (cfm) - Discharge		230		
CARBON ADSORBERS				
Pressure - Line Into Primary Unit	A or B	2.25 psi	A or B	psi
Pressure - Line Into Second Unit	A or B	0.5 psi	A or B	psi
DEMISTER EFF. HOLDING TANK				
Water Depth	-			
OVA METER READINGS				
Background (ppm)	-		(7/20/94) 8	
Primary Carbon Influent (ppm)	-		280	
Primary Carbon Effluent (ppm)	-		100	
Secondary Carbon Effluent (ppm)	-		44	

77%

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM-MONITORING LOG SHEET

AUGUST 1994

PARAMETER	READING			
	8/ <u>5</u> /94		8/ ___ /94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1	3	2		
VW-2	18.5	1.8		
VW-3	9.5	2.1		
VW-4	10.5	2		
VW-6	— OFF —			
VW-6	4.5	2		
VW-7	17	2		
VW-8	32.5	1.5		
VW-9	7.5	1.5		
% LEL	27			
VACUUM PUMP UNIT				
Vacuum (in Hg) – Demister Entrance	0			
Vacuum (in Hg) – Before Filter	0			
Vacuum (in Hg) – After Filter	0			
Air Dilution Valve	Open Closed		Open/Closed	
Temperature (F) – Discharge	140			
Pressure (psi) – Discharge	8			
Flowrate (cfm) – Discharge	225			
CARBON ADSORBERS				
Pressure – Line Into Primary Unit	(A or B)	2.2 psi	A or B	psi
Pressure – Line Into Second Unit	(A or B)	0.5 psi	A or B	psi
DEMISTER EFF. HOLDING TANK				
Water Depth	0			
OVA METER READINGS				
Background (ppm)	X			
Primary Carbon Influent (ppm)				
Primary Carbon Effluent (ppm)				
Secondary Carbon Effluent (ppm)				

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM - MONITORING LOG SHEET

SEPTEMBER 1994

PARAMETER	READING			
	9/___/94		9/___/94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1				
VW-2				
VW-3				
VW-4				
VW-5				
VW-6				
VW-7				
VW-8				
VW-9				
% LEL	<div style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;">TRAILER SHUT DOWN</div>			
VACUUM PUMP UNIT				
Vacuum (in Hg) - Demister Entrance				
Vacuum (in Hg) - Before Filter				
Vacuum (in Hg) - After Filter				
Air Dilution Valve	Oper/Closed		Oper/Closed	
Temperature (F) - Discharge				
Pressure (psi) - Discharge				
Flowrate (cfm) - Discharge				
CARBON ADSORBERS				
Pressure - Line Into Primary Unit	A or B	_____ psi	A or B	_____ psi
Pressure - Line Into Second Unit	A or B	_____ psi	A or B	_____ psi
DEMISTER EFF. HOLDING TANK				
Water Depth				
OVA METER READINGS				
Background (ppm)				
Primary Carbon Influent (ppm)				
Primary Carbon Effluent (ppm)				
Secondary Carbon Effluent (ppm)				

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM-MONITORING LOG SHEET

OCTOBER 1994

PARAMETER	READING			
	10/ <u>26</u> /94		10/ ___ /94	
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)
VW-1	?	2.5		
VW-2		2.5		
VW-3		3		
VW-4		2		
VW-5		2.3		
VW-6	OFF	-1		
VW-7	?	3		
VW-8	OFF	-1		
VW-9	?	2.5		
% LEL				
VACUUM PUMP UNIT				
Vacuum (In Hg) - Demister Entrance	4			
Vacuum (In Hg) - Before Filter	5			
Vacuum (In Hg) - After Filter	2.5			
Air Dilution Valve	Open/Closed		Open/Closed	
Temperature (F) - Discharge	150			
Pressure (psi) - Discharge	0			
Flowrate (cfm) - Discharge	220			
CARBON ADSORBERS				
Pressure - Line Into Primary Unit	A or B	2 psi	A or B	psi
Pressure - Line Into Second Unit	A or B	0 psi	A or B	psi
DEMISTER EFF. HOLDING TANK				
Water Depth	-			
OVA METER READINGS				
Background (ppm)				
Primary Carbon Influent (ppm)				
Primary Carbon Effluent (ppm)				
Secondary Carbon Effluent (ppm)				

COLUMBIA MILLS
TEST PIT 3 AREA IRM
VAPOR EXTRACTION SYSTEM - MONITORING LOG SHEET

NOVEMBER 1994

PARAMETER	READING					
	11/ <u>03</u> /94		11/ <u>22</u> /94			
VACUUM WELLS	FLOW (cfm)	VACUUM (in Hg)	FLOW (cfm)	VACUUM (in Hg)		
VW-1		1		3		
VW-2	OFF			3		
VW-3		5		3		
VW-4	OFF	5		3		
VW-5	OFF			3		
VW-6	OFF		OFF			
VW-7	OFF			3		
VW-8	OFF		OFF			
VW-9		5		3		
% LEL			22			
VACUUM PUMP UNIT			4			
Vacuum (In Hg) - Demister Entrance			4			
Vacuum (In Hg) - Before Filter			4.5			
Vacuum (In Hg) - After Filter			4.5			
Air Dilution Valve	Open/Closed		Open/Closed			
Temperature (F) - Discharge			140			
Pressure (psi) - Discharge			2			
Flowrate (cfm) - Discharge			240			
CARBON ADSORBERS						
Pressure - Line Into Primary Unit	A or B	_____ psi	A or B	_____ psi		
Pressure - Line Into Second Unit	A or B	_____ psi	A or B	_____ psi		
DEMISTER EFF. HOLDING TANK						
Water Depth						
OVA METER READINGS	Background (ppm)	Primary Carbon Influent (ppm)	11/15/94	11/13	11/22	11/23
	12	32	2.7	120	0.2	2.5
	33	33	63	72	24	12
	23	23	50	22	10	
			31.2	74.9		

31.2
74.9
Removal

APPENDIX C

***Test Pit 3 Area
Groundwater Elevations***

GROUND WATER ELEVATIONS/TEST PIT 3 AREA

Columbia Mills, Minetto, NY

	RW-1	RW-2	RW-3	RW-4	RW-5	VW-1	VW-2	VW-3	VW-4	VW-5	VW-6
Meas. Pt. Elev. (FAMSL)	312.93	311.06	310.19	309.45	313.09	313.58	313.38	312.41	311.61	310.34	312.53
BOW (FBMP)	28.91	33.16	32.66	26.95	27.73	12.35	15.22	16.76	16.37	15.92	18.56
BOW Elevation (FAMSL)	284.02	277.90	277.53	282.50	285.36	301.23	298.16	295.65	295.24	294.42	293.97
01/13/94	294.08	286.46	*298.58	288.35	291.63	+303.20	+dry	+300.5	+301.12	+298.46	+299.51
01/31/94	298.14	294.16	*300.00	293.10	291.84	dry	300.39	dry	299.80	300.15	300.15
02/09/94	297.21	290.92	*299.00	288.55	292.35	+303.44	+301.92	+300.15	+298.79	+298.95	+300.07
03/15/94	N/A	283.86	294.09	288.42	291.72	+303.38	+303.08	+dry	+301.39	+298.19	+300.53
03/31/94	294.47	298.80	300.21	289.12	300.99	302.70	304.71	302.15	302.77	302.10	305.02
04/15/94	295.21	294.90	303.71	288.27	291.69	304.31	306.44	302.96	303.79	303.99	305.54
04/28/94	291.93	285.11	282.89	288.45	291.39	dry	301.15	dry	dry	296.79	301.06
05/13/94	291.03	285.29	282.69	288.21	291.79	dry	299.83	dry	dry	295.72	300.14
05/31/94	292.13	285.56	283.39	288.98	291.69	dry	299.54	dry	dry	295.96	299.01
06/30/94	291.93	287.66	N/A	*---	291.44	+303.43	+302.58	+299.06	+299.91	+300.74	+300.13
07/15/94	292.43	285.06	283.39	289.33	292.19	dry	dry	dry	dry	295.48	296.72
07/29/94	292.33	287.66	287.24	287.90	292.39	dry	dry	dry	dry	295.49	295.58
09/29/94	*303.15	*302.56	*302.25	*302.43	*303.29	303.33	303.42	302.27	301.68	302.06	302.21
10/26/94	289.93	286.76	283.49	285.75	290.19	dry	dry	dry	dry	dry	295.93

GROUND WATER ELEVATIONS/TEST PIT 3 AREA

Columbia Mills, Minetto, NY

	VW-7	VW-8	VW-9	W-1	B-3S	B-3D	B-12S	B-13S	B-13D	B-14S	B-16S
Meas. Pt. Elev. (FAMSL)	316.52	314.11	316.05	313.18	309.65	310.74	310.58	313.30	313.42	310.10	310.86
BOW (FBMP)	19.40	16.97	18.75	29.98	14.56	28.08	12.54	15.09	31.77	11.61	12.60
BOW Elevation (FAMSL)	297.12	297.14	297.30	283.20	295.09	282.66	298.04	298.21	281.65	298.49	298.26
01/13/94	+298.66	+300.36	+dry	298.84	---	---	---	---	---	---	---
01/31/94	300.22	302.11	dry	300.59	299.03	299.37	302.37	302.04	302.77	301.71	301.65
02/09/94	+299.55	+301.11	+304.79	299.64	---	---	---	---	---	---	---
03/15/94	+299.87	+302.76	+305.45	298.85	295.08	295.16	302.73	301.57	302.16	301.08	301.68
03/31/94	304.58	306.77	dry	304.64	---	---	---	---	---	---	---
04/15/94	305.19	307.83	305.49	---	---	---	---	---	---	---	---
04/28/94	300.68	303.15	299.34	299.60	---	---	---	---	---	---	---
05/13/94	299.65	301.49	298.66	298.96	---	---	---	---	---	---	---
05/31/94	299.32	301.01	298.50	298.79	---	---	---	---	---	---	---
06/30/94	+299.42	+300.61	+305.11	298.59	dry	294.84	---	300.55	300.57	299.53	300.73
07/15/94	298.21	299.94	dry	298.06	---	---	---	---	---	---	---
07/29/94	297.67	299.28	dry	---	---	---	---	---	---	---	---
09/29/94	302.68	303.47	dry	303.11	302.44	302.49	302.21	303.51	303.11	302.55	301.30
10/26/94	dry	298.29	dry	---	---	---	---	---	---	---	---

GROUND WATER ELEVATIONS/TEST PIT 3 AREA

Columbia Mills, Minetto, NY

	B-17S	B-27D	BP-1	BP-2	BP-3	BP-4	BP-5	BP-6	BP-8	BP-9	BP-10
Meas. Pt. Elev. (FAMSL)	310.54	313.00	311.17	313.02	312.03	312.79	313.20	313.63	311.80	313.03	313.02
BOW (FBMP)	13.05	41.78	14.05	14.82	15.05	14.49	13.99	14.87	14.31	12.56	17.72
BOW Elevation (FAMSL)	297.49	271.22	297.12	298.20	296.98	298.30	299.21	298.76	297.49	300.47	295.30
01/13/94	----	----	----	----	----	----	----	----	----	----	----
01/31/94	301.93	303.01	301.48	302.16	301.19	300.39	301.73	----	304.91	301.66	300.47
02/09/94	----	----	----	----	----	----	----	----	----	----	----
03/15/94	302.07	302.59	299.74	301.25	299.95	buried	301.91	buried	304.94	301.88	298.92
03/31/94	----	----	----	----	----	----	----	----	----	----	----
04/15/94	----	----	----	----	----	----	----	----	----	----	----
04/28/94	----	----	----	----	----	----	----	----	----	----	----
05/13/94	----	----	----	----	----	----	----	----	----	----	----
05/31/94	----	----	----	----	----	----	----	----	----	----	----
06/30/94	----	301.08	dry	299.87	299.79	dry	300.70	300.01	----	dry	298.58
07/15/94	----	----	----	----	----	----	----	----	----	----	----
07/29/94	----	----	----	----	----	----	----	----	----	----	----
09/29/94	302.05	303.03	302.91	304.04	303.59	302.91	303.44	303.69	304.15	303.22	302.99
10/26/94	----	----	----	----	----	----	----	----	----	----	----

GROUND WATER ELEVATIONS/TEST PIT 3 AREA

Columbia Mills, Minetto, NY

	BP-11	BP-12	BP-13	BP-14	BP-15	VP-6S	VP-6D	VP-7	VP-8	VP-9	VP-10S
Meas. Pt. Elev. (FAMSL)	313.11	311.37	310.16	309.02	313.07	310.24	310.51	309.35	309.41	313.47	313.70
BOW (FBMP)	16.95	17.75	17.90	18.48	17.87	8.99	15.26	15.02	14.84	15.27	9.40
BOW Elevation (FAMSL)	296.16	293.62	292.26	290.54	295.20	301.25	295.25	294.33	294.57	298.20	304.30
01/13/94	----	----	----	----	----	----	----	----	----	----	----
01/31/94	301.98	300.75	301.19	300.43	300.17	dry	299.90	300.35	299.81	dry	dry
02/09/94	----	----	----	----	----	----	----	----	----	----	----
03/15/94	301.48	299.79	299.99	298.99	buried	dry	dry	299.36	299.24	dry	dry
03/31/94	----	----	----	----	----	----	----	----	----	----	----
04/15/94	----	----	----	----	----	----	----	----	----	----	----
04/28/94	----	----	----	----	----	----	----	----	----	----	----
05/13/94	----	----	----	----	----	----	----	----	----	----	----
05/31/94	----	----	----	----	----	----	----	----	----	----	----
06/30/94	301.15	298.87	299.56	----	299.24	----	----	----	----	dry	dry
07/15/94	----	----	----	----	----	----	----	----	----	----	----
07/29/94	----	----	----	----	----	----	----	----	----	----	----
09/29/94	303.75	302.90	301.72	302.44	302.63	302.17	302.15	302.40	302.27	302.61	dry
10/26/94	----	----	----	----	----	----	----	----	----	----	----

GROUND WATER ELEVATIONS/TEST PIT 3 AREA

Columbia Mills, Minetto, NY

	VP-10D	VP-11S	VP-11D	VP-12
Meas. Pt. Elev. (FAMSL)	313.64	312.11	311.99	312.78
BOW (FBMP)	15.34	9.13	15.01	14.58
BOW Elevation (FAMSL)	298.30	302.98	296.98	298.20
01/13/94	---	---	---	---
01/31/94	300.34	303.01	299.58	300.72
02/09/94	---	---	---	---
03/15/94	299.08	buried	buried	buried
03/31/94	---	---	---	---
04/15/94	---	---	---	---
04/28/94	---	---	---	---
05/13/94	---	---	---	---
05/31/94	---	---	---	---
06/30/94	298.70	dry	299.57	300.00
07/15/94	---	---	---	---
07/29/94	---	---	---	---
09/29/94	302.66	304.06	302.93	302.85
10/26/94	---	---	---	---

Notes:

- Recovery Well off for this reading
- + Vacuum Well on for this reading
- FAMSL** Feet above mean sea level.
- BOW** Bottom of well.
- FBMP** Feet below measuring point.
- dry** Ground water table below bottom of well screen.
- No measurement was taken.
- buried Well was buried under snow and could not be located
- N/A Indicates accurate measurement could not be obtained from recovery well

APPENDIX D

***Groundwater Sampling
Laboratory Reports***

Life Science Laboratories, Inc
5854 Butternut Drive
East Syracuse, New York 13057
(315) 445-1105
NYS DOH ELAP NO. 10248

FEB - 7 1994



** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100391 Project #: L2115 -333
Customer ID: Aeration Tank Influent - 01/13/94
Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>TPA 8240 Volatiles</u>					
Chloromethane	<10	ug/l		01/17/94	CRT
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
2-Butanone	<10	ug/l		01/17/94	CRT
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Benzene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
2-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100392
 Customer ID: Filter Effluent
 Matrix: NPW

Project #: L2115 -333
 - 01/13/94
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
n-Hexanone	<10	ug/l		01/17/94	CRT
4-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Total Xylenes	<5	ug/l		01/17/94	CRT

Sample # 40100393
 Customer ID: Carbon Train 1,
 Matrix: NPW

Project #: L2115 -333
 Tap C - 01/13/94
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>PA 8240 Volatiles</u>					
Chloromethane	<10	ug/l		01/17/94	CRT
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
2-Butanone	<10	ug/l		01/17/94	CRT
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100393 Project #: L2115 -333
 Customer ID: Carbon Train 1, Tap C - 01/13/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Benzene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
4-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Total Xylenes	<5	ug/l		01/17/94	CRT

Sample # 40100394 Project #: L2115 -333
 Customer ID: Carbon Train 1, Tap B - 01/13/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>EPA 8240 Volatiles</u>					
Chloromethane	<10	ug/l		01/17/94	CRT
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100394 Project #: L2115 -333
 Customer ID: Carbon Train 1, Tap B - 01/13/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Benzene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
2-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Total Xylenes	<5	ug/l		01/17/94	CRT

Sample # 40100395 Project #: L2115 -333
 Customer ID: Carbon Train 1, Tap A - 01/13/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>EPA 8240 Volatiles</u> Chloromethane	<10	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100395

Project #: L2115 -333

Customer ID: Carbon Train 1, Tap A - 01/13/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
2-Butanone	<10	ug/l		01/17/94	CRT
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Benzene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
4-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Total Xylenes	<5	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100396

Project #: L2115 -333

Customer ID: Discharge - 01/13/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>PA 8240 Volatiles</u>					
Chloromethane	<10	ug/l		01/17/94	CRT
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
2-Butanone	<10	ug/l		01/17/94	CRT
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Propene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
2-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Chloroethene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Ethyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Metal Xylenes	<5	ug/l		01/17/94	CRT
Aluminum, EPA 202.1	0.13	mg/l		01/20/94	KBB

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100396 Project #: L2115 -333
 Customer ID: Discharge - 01/13/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Antimony, EPA 204.2	<0.01	mg/l		01/26/94	CRW
Arsenic, EPA 206.2	0.0021	mg/l		02/02/94	CRW
Barium, EPA 208.1	0.34	mg/l		01/27/94	KBB
Cadmium, EPA 213.1	<0.004	mg/l		01/19/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		01/24/94	KBB
Copper, EPA 220.1	<0.02	mg/l		01/24/94	JNT
Iron, EPA 236.1	0.11	mg/l		01/19/94	KBB
Lead, EPA 239.1	<0.04	mg/l		01/31/94	KBB
Magnesium, EPA 242.1	20	mg/l		01/31/94	JNT
Manganese, EPA 243.1	1.2	mg/l		01/31/94	JNT
Zinc, EPA 289.1	<0.05	mg/l		01/21/94	KBB
Metals Digestion, EPA 600/4-79				01/17/94	KBB
Cyanide, Total, EPA 335.2	<0.005	mg/l		01/24/94	JDC
TOC, SM 17 ed. 5310	2	mg/l		01/18/94	J&L*

Sample # 40100397 Project #: L2115 -333
 Customer ID: Blank
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
<u>EPA 8240 Volatiles</u>					
Chloromethane	<10	ug/l		01/17/94	CRT
Bromomethane	<10	ug/l		01/17/94	CRT
Vinyl Chloride	<10	ug/l		01/17/94	CRT
Chloroethane	<10	ug/l		01/17/94	CRT
Methylene Chloride	<5	ug/l		01/17/94	CRT
Acetone	<10	ug/l		01/17/94	CRT
Carbon Disulfide	<5	ug/l		01/17/94	CRT
1,1-Dichloroethene	<5	ug/l		01/17/94	CRT
1,1-Dichloroethane	<5	ug/l		01/17/94	CRT
trans-1,2-Dichloroethene	<5	ug/l		01/17/94	CRT
Chloroform	<5	ug/l		01/17/94	CRT
1,2-Dichloroethane	<5	ug/l		01/17/94	CRT
2-Butanone	<10	ug/l		01/17/94	CRT

** SAMPLE ANALYSIS REPORT **

02/04/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40100397
Customer ID: Blank
Matrix: NPW

Project #: L2115 -333

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
1,1,1-Trichloroethane	<5	ug/l		01/17/94	CRT
Carbon Tetrachloride	<5	ug/l		01/17/94	CRT
Vinyl Acetate	<10	ug/l		01/17/94	CRT
Bromodichloromethane	<5	ug/l		01/17/94	CRT
1,1,2,2-Tetrachloroethane	<5	ug/l		01/17/94	CRT
1,2-Dichloropropane	<5	ug/l		01/17/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Trichloroethene	<5	ug/l		01/17/94	CRT
Dibromochloromethane	<5	ug/l		01/17/94	CRT
1,1,2-Trichloroethane	<5	ug/l		01/17/94	CRT
Benzene	<5	ug/l		01/17/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		01/17/94	CRT
Bromoform	<5	ug/l		01/17/94	CRT
2-Hexanone	<10	ug/l		01/17/94	CRT
2-Methyl-2-pentanone	<10	ug/l		01/17/94	CRT
Tetrachloroethene	<5	ug/l		01/17/94	CRT
Toluene	<5	ug/l		01/17/94	CRT
Chlorobenzene	<5	ug/l		01/17/94	CRT
Methyl Benzene	<5	ug/l		01/17/94	CRT
Styrene	<5	ug/l		01/17/94	CRT
Total Xylenes	<5	ug/l		01/17/94	CRT

This analysis was subcontracted to NYS DOH ELAP #10900.


Reviewed By

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

**CHAIN OF CUSTODY
SUMMARY FORM**

L2115-333

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSH

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION			PROJECT NUMBER			ANALYSIS REQUIRED						DATE ANALYSIS NEEDED	NOTES	
COLONIA MILLS MINTON, N.Y.			1069-07-9			B216	TOC	12 METALS*	CYANIDE					
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE								
				NO.	SIZE / TYPE									
AERATION TANK INFLUENT	1/13/94	9 ⁰⁰ AM	W	2	40ml/V		X					40100391	2-Week	
FILTER EFFLUENT				2			X					-0392		
CARBON TRAIL 1, TAP A C				2			X					-0393		(Actually Tap C)
CARBON TRAIL 1, TAP B				2			X					-0394		
CARBON TRAIL 1, TAP B A				2			X					-0395		(Actually Tap A)
DISCHARGE				5	2-40ml/V 1-16oz/P 2-32oz/P	H ₂ SO ₄ Ascorbic Acid: HCl	X	X	X			-0396		
TRIP BLANK				2	40ml/V		X					-0397		
Tap A + C changed on chain + on bottles as per Karen B. 1/13/94 RAB														

Matrix: W - water O - oil S - soil A - air SE - sediment X - other
Container: V - VOA vol Q - glass P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	1/13/94	10 ³⁵	* Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn
<i>[Signature]</i>	J. Waller	1/13/94	1:55pm	
Purpose or reason for collecting sample(s): <u>MONTHLY GW SAMPLING</u>				



Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

file 1069079

FEB 23 1994

** SAMPLE ANALYSIS REPORT **

02/16/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201078
 Customer ID: Discharge - 02/01/94
 Matrix: NPW

Project #: L2115 -337
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Xylenes, EPA 624	<5	ug/l		02/01/94	KMG

Sample # 40201079
 Customer ID: Trip Blank - 02/01/94
 Matrix: NPW

Project #: L2115 -337
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Xylenes, EPA 624	<5	ug/l		02/01/94	KMG

John Mancini QDC
 Reviewed By

Life Science Laboratories, Inc., warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages, or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark, or service mark of Life Science Laboratories, Inc., especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C:DWK

**CHAIN OF CUSTODY
SUMMARY FORM**

L2117-007

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER		ANALYSIS REQUIRED										DATE ANALYSIS NEEDED	NOTES	
BS&K Columbia Mills				1069079														
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE	Xylenes											
				NO.	SIZE / TYPE													
DISCHARGE	2/1/94		W	2	40ml / V	—	X										2/16/94	placed 4020/0 on ice 4020/0
TRIP BLANK	↓		↓	↓	↓	—	X										↓	

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyzers, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>Phil Walker</i>	<i>J. Waller</i>	<i>2/1/94</i>	<i>4:20 pm</i>	

Purpose or reason for collecting sample(s): _____

MAR - 7 1994



SAMPLE ANALYSIS REPORT

L2115-344
LSL Project No.

John M. ... Q.D.O.
Reviewed By

3/4/94
Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C! DWK 03/08/94

LIFE SCIENCE LABORATORIES, INC.

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201779
Customer ID: AT-W - 02/16/94
Matrix: NPW

Project #: L2115 -344
Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201779
 Customer ID: AT-W - 02/16/94
 Matrix: NPW

Project #: L2115 -344
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	6.3	ug/l		02/18/94	KMG

Sample # 40201780
 Customer ID: BF-EFF - 02/16/94
 Matrix: NPW

Project #: L2115 -344
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201780
 Customer ID: BF-EFF - 02/16/94
 Matrix: NPW

Project #: L2115 -344

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	<5	ug/l		02/18/94	KMG

Sample # 40201781
 Customer ID: CT-2A - 02/16/94
 Matrix: NPW

Project #: L2115 -344

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201781
 Customer ID: CT-2A - 02/16/94
 Matrix: NPW

Project #: L2115 -344
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	<5	ug/l		02/18/94	KMG

Sample # 40201782
 Customer ID: CT-2B - 02/16/94
 Matrix: NPW

Project #: L2115 -344
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201782
 Customer ID: CT-2B - 02/16/94
 Matrix: NPW

Project #: L2115 -344
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	<5	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201783
Customer ID: CT-2C - 02/16/94
Matrix: NPW

Project #: L2115 -344
Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	<5	ug/l		02/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201784

Project #: L2115 -344

Customer ID: Discharge - 02/16/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Chloromethane	<10	ug/l		02/18/94	KMG
Bromomethane	<10	ug/l		02/18/94	KMG
Vinyl Chloride	<10	ug/l		02/18/94	KMG
Chloroethane	<10	ug/l		02/18/94	KMG
Methylene Chloride	<5	ug/l		02/18/94	KMG
Acetone	<10	ug/l		02/18/94	KMG
Carbon Disulfide	<5	ug/l		02/18/94	KMG
1,1-Dichloroethene	<5	ug/l		02/18/94	KMG
1,1-Dichloroethane	<5	ug/l		02/18/94	KMG
trans-1,2-Dichloroethene	<5	ug/l		02/18/94	KMG
Chloroform	<5	ug/l		02/18/94	KMG
1,2-Dichloroethane	<5	ug/l		02/18/94	KMG
2-Butanone	<10	ug/l		02/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		02/18/94	KMG
Carbon Tetrachloride	<5	ug/l		02/18/94	KMG
Vinyl Acetate	<10	ug/l		02/18/94	KMG
Bromodichloromethane	<5	ug/l		02/18/94	KMG
1,1,2,2-Tetrachloroethane	<5	ug/l		02/18/94	KMG
1,2-Dichloropropane	<5	ug/l		02/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Trichloroethene	<5	ug/l		02/18/94	KMG
Dibromochloromethane	<5	ug/l		02/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		02/18/94	KMG
Benzene	<5	ug/l		02/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		02/18/94	KMG
Bromoform	<5	ug/l		02/18/94	KMG
2-Hexanone	<10	ug/l		02/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		02/18/94	KMG
Tetrachloroethene	<5	ug/l		02/18/94	KMG
Toluene	<5	ug/l		02/18/94	KMG
Chlorobenzene	<5	ug/l		02/18/94	KMG
Ethyl Benzene	<5	ug/l		02/18/94	KMG
Styrene	<5	ug/l		02/18/94	KMG
Total Xylenes	<5	ug/l		02/18/94	KMG
Aluminum, EPA 202.1	<0.1	mg/l		02/28/94	KBB

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

03/04/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40201784

Project #: L2115 -344

Customer ID: Discharge - 02/16/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Antimony, EPA 204.2	0.024	mg/l		02/28/94	CRW
Arsenic, EPA 206.2	0.0026	mg/l		02/21/94	CRW
Barium, EPA 208.1	<0.2	mg/l		02/23/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		02/25/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		02/24/94	KBB
Copper, EPA 220.1	<0.05	mg/l		02/17/94	KBB
Iron, EPA 236.1	0.052	mg/l		02/18/94	KBB
Lead, EPA 239.1	<0.05	mg/l		03/01/94	KBB
Magnesium, EPA 242.1	22	mg/l		02/28/94	JNT
Manganese, EPA 243.1	0.14	mg/l		02/25/94	KBB
Zinc, EPA 289.1	<0.01	mg/l		03/02/94	JNT
Metals Digestion, EPA 600/4-79				02/17/94	JEB
Cyanide, Total, EPA 335.2	<0.005	mg/l		02/22/94	JDC
TOC, SM 17 ed. 5310	<1	mg/l	a	03/01/94	J&L

a- Subbed out TOC's to ELAP #10900

L 2115-544

**MALCOLM
PIRNIE**

**CHAIN OF CUSTODY
SUMMARY FORM**

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balblerer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION			PROJECT NUMBER			ANALYSIS REQUIRED										DATE ANALYSIS NEEDED	NOTES	
Columbia Mills Munkato, N.Y.			1069-07-9			8240	TOC	12 METALS*	CYANIDE									
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE												
				NO.	SIZE / TYPE													
AT-1A	2/16/94	8 ⁰⁰ AM	W	2	4oz/V		X										2 WEEK	40201779
BF-FFF				2			X											40201780
CT-2A				2			X											1781
CT-2B				2			X											1782
CT-2C				2			X											1783
DISCHARGE				5	2-4oz/V 1-16oz/P 1-32oz/P	H ₂ O ₂ ACID WASH	X	X	X	X								1784
TRIP BLANK				2	4oz/V		X											Blanks recv. at lab empty KAS 2/16/94

Matrix: W - water O - oil
S - soil A - air
SE - sediment X - other

Container: V - VOA vial
G - glass
P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
2. 'Date Analyte Needed' is the date that written results are required by Malcolm Pirnie, Inc.
3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time
<i>[Signature]</i>	<i>[Signature]</i>	2/16/94	8 ⁰⁰

Special Instructions
* 12 METALS = Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn

Purpose or reason for collecting sample(s): MUNICIPAL SEWER



SAMPLE ANALYSIS REPORT

LD115-346

LSL Project No.

John Mancuso QDO
Reviewed By

3/9/94

Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK 03/11/94

** SAMPLE ANALYSIS REPORT **

03/07/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40302560 Project #: L2115 -346
Customer ID: Discharge - 03/01/94
Matrix: NPW Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Xylenes, EPA 624	<5	ug/l		03/02/94	KMG

Sample # 40302561 Project #: L2115 -346
Customer ID: Trip Blank - 03/01/94
Matrix: NPW Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Xylenes, EPA 624	<5	ug/l		03/02/94	KMG

L2115-344

CHAIN OF CUSTODY SUMMARY FORM

**MALCOLM
PIRNIE**

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balblerer
ANALYTICAL LABORATORY: LSK

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION			PROJECT NUMBER			ANALYSIS REQUIRED										DATE ANALYSIS NEEDED	NOTES		
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE	XY/VALUES												
				NO.	SIZE / TYPE														
Columbia Mills Fulton, NY																			
DISCHARGE	3/11/84 2/25/84	8 ⁰⁰ AM	W	2	4oz/4		X											2-Week	40302560
TRIP BANK	1	1	1	1	1		X											1	2560

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	3/11/84	8 ⁴⁵	
Purpose or reason for collecting sample(s):				<i>Monthly Sampling</i>



SAMPLE ANALYSIS REPORT

L2115-355

LSL Project No.

Paul Mancuso QDO

Reviewed By

3/31/94

Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

04/04/94
C: DWK

LIFE SCIENCE LABORATORIES, INC.

5854 Butternut Drive, East Syracuse, New York 13057 Telephone: (315) 445-1105 Fax: (315) 445-1301

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303227
 Customer ID: RW-1 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/17/94	KMG
Benzene	<5	ug/l		03/17/94	KMG
Bromodichloromethane	<5	ug/l		03/17/94	KMG
Bromoform	<5	ug/l		03/17/94	KMG
Bromomethane	<10	ug/l		03/17/94	KMG
2-Butanone	<10	ug/l		03/17/94	KMG
Carbon disulfide	<5	ug/l		03/17/94	KMG
Carbon tetrachloride	<5	ug/l		03/17/94	KMG
Chlorobenzene	<5	ug/l		03/17/94	KMG
Chloroethane	<10	ug/l		03/17/94	KMG
Chloroform	<5	ug/l		03/17/94	KMG
Chloromethane	<10	ug/l		03/17/94	KMG
Dibromochloromethane	<5	ug/l		03/17/94	KMG
1,1-Dichloroethane	<5	ug/l		03/17/94	KMG
1,2-Dichloroethane	<5	ug/l		03/17/94	KMG
1,1-Dichloroethene	<5	ug/l		03/17/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/17/94	KMG
1,2-Dichloropropane	<5	ug/l		03/17/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/17/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/17/94	KMG
Ethylbenzene	<5	ug/l		03/17/94	KMG
2-Hexanone	<10	ug/l		03/17/94	KMG
Methylene chloride	<5	ug/l		03/17/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/17/94	KMG
Styrene	<5	ug/l		03/17/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/17/94	KMG
Tetrachloroethene	<5	ug/l		03/17/94	KMG
Toluene	<5	ug/l		03/17/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/17/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/17/94	KMG
Trichloroethene	<5	ug/l		03/17/94	KMG
Vinyl acetate	<10	ug/l		03/17/94	KMG

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303227
 Customer ID: RW-1 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		03/17/94	KMG
o-Xylene	<5	ug/l		03/17/94	KMG
m-Xylene	<5	ug/l		03/17/94	KMG
p-Xylene	<5	ug/l		03/17/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	2.4	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	27	mg/l		03/29/94	KBB
Manganese, EPA 243.1	4.0	mg/l		03/29/94	KBB

Sample # 40303228
 Customer ID: RW-2 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/17/94	KMG
Benzene	<5	ug/l		03/17/94	KMG
Bromodichloromethane	<5	ug/l		03/17/94	KMG
Bromoform	<5	ug/l		03/17/94	KMG
Bromomethane	<10	ug/l		03/17/94	KMG
2-Butanone	<10	ug/l		03/17/94	KMG
Carbon disulfide	<5	ug/l		03/17/94	KMG
Carbon tetrachloride	<5	ug/l		03/17/94	KMG
Chlorobenzene	<5	ug/l		03/17/94	KMG
Chloroethane	<10	ug/l		03/17/94	KMG
Chloroform	<5	ug/l		03/17/94	KMG
Chloromethane	<10	ug/l		03/17/94	KMG
Dibromochloromethane	<5	ug/l		03/17/94	KMG
1,1-Dichloroethane	<5	ug/l		03/17/94	KMG
1,2-Dichloroethane	<5	ug/l		03/17/94	KMG
1,1-Dichloroethene	<5	ug/l		03/17/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/17/94	KMG
1,2-Dichloropropane	<5	ug/l		03/17/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303228
 Customer ID: RW-2 - 03/15/94
 Matrix: NPW

Project #: L2115 -355
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
cis-1,3-Dichloropropene	<5	ug/l		03/17/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/17/94	KMG
Ethylbenzene	<5	ug/l		03/17/94	KMG
2-Hexanone	<10	ug/l		03/17/94	KMG
Methylene chloride	<5	ug/l		03/17/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/17/94	KMG
Styrene	<5	ug/l		03/17/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/17/94	KMG
Tetrachloroethene	<5	ug/l		03/17/94	KMG
Toluene	<5	ug/l		03/17/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/17/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/17/94	KMG
Trichloroethene	<5	ug/l		03/17/94	KMG
Vinyl acetate	<10	ug/l		03/17/94	KMG
Vinyl chloride	<10	ug/l		03/17/94	KMG
o-Xylene	<5	ug/l		03/17/94	KMG
m-Xylene	<5	ug/l		03/17/94	KMG
p-Xylene	<5	ug/l		03/17/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	1.8	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	24	mg/l		03/29/94	KBB
Manganese, EPA 243.1	6.4	mg/l		03/29/94	KBB

Sample # 40303229
 Customer ID: RW-3 - 03/15/94
 Matrix: NPW

Project #: L2115 -355
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/18/94	KMG
Benzene	<5	ug/l		03/18/94	KMG
Bromodichloromethane	<5	ug/l		03/18/94	KMG
Bromoform	<5	ug/l		03/18/94	KMG

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 East Syracuse, New York 13057
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 NYS DOH ELAP NO. 10248

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** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303229
 Customer ID: RW-3 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Bromomethane	<10	ug/l		03/18/94	KMG
2-Butanone	<10	ug/l		03/18/94	KMG
Carbon disulfide	<5	ug/l		03/18/94	KMG
Carbon tetrachloride	<5	ug/l		03/18/94	KMG
Chlorobenzene	<5	ug/l		03/18/94	KMG
Chloroethane	<10	ug/l		03/18/94	KMG
Chloroform	<5	ug/l		03/18/94	KMG
Chloromethane	<10	ug/l		03/18/94	KMG
Dibromochloromethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethane	<5	ug/l		03/18/94	KMG
1,2-Dichloroethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethene	<5	ug/l		03/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/18/94	KMG
1,2-Dichloropropane	<5	ug/l		03/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
Ethylbenzene	<5	ug/l		03/18/94	KMG
2-Hexanone	<10	ug/l		03/18/94	KMG
Methylene chloride	<5	ug/l		03/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/18/94	KMG
Styrene	<5	ug/l		03/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/18/94	KMG
Tetrachloroethene	<5	ug/l		03/18/94	KMG
Toluene	<5	ug/l		03/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/18/94	KMG
Trichloroethene	<5	ug/l		03/18/94	KMG
Vinyl acetate	<10	ug/l		03/18/94	KMG
Vinyl chloride	<10	ug/l		03/18/94	KMG
o-Xylene	<5	ug/l		03/18/94	KMG
m-Xylene	21 *	ug/l	a	03/18/94	KMG
p-Xylene	*	ug/l		03/18/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	7.8	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	22	mg/l		03/29/94	KBB

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303229
 Customer ID: RW-3 - 03/15/94
 Matrix: NPW

Project #: L2115 -355
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Manganese, EPA 243.1	8.0	mg/l		03/29/94	KBB

a- Chromatographically, para and meta Xylene co-elute. The reported value may represent either of these compounds or a combination thereof.

Sample # 40303230
 Customer ID: RW-4 - 03/15/94
 Matrix: NPW

Project #: L2115 -355
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/18/94	KMG
Benzene	<5	ug/l		03/18/94	KMG
Bromodichloromethane	<5	ug/l		03/18/94	KMG
Bromoform	<5	ug/l		03/18/94	KMG
Bromomethane	<10	ug/l		03/18/94	KMG
2-Butanone	<10	ug/l		03/18/94	KMG
Carbon disulfide	<5	ug/l		03/18/94	KMG
Carbon tetrachloride	<5	ug/l		03/18/94	KMG
Chlorobenzene	<5	ug/l		03/18/94	KMG
Chloroethane	<10	ug/l		03/18/94	KMG
Chloroform	<5	ug/l		03/18/94	KMG
Chloromethane	<10	ug/l		03/18/94	KMG
Dibromochloromethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethane	<5	ug/l		03/18/94	KMG
1,2-Dichloroethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethene	<5	ug/l		03/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/18/94	KMG
1,2-Dichloropropane	<5	ug/l		03/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
Ethylbenzene	<5	ug/l		03/18/94	KMG
2-Hexanone	<10	ug/l		03/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303230
 Customer ID: RW-4 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Methylene chloride	<5	ug/l		03/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/18/94	KMG
Styrene	<5	ug/l		03/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/18/94	KMG
Tetrachloroethene	<5	ug/l		03/18/94	KMG
Toluene	<5	ug/l		03/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/18/94	KMG
Trichloroethene	<5	ug/l		03/18/94	KMG
Vinyl acetate	<10	ug/l		03/18/94	KMG
Vinyl chloride	<10	ug/l		03/18/94	KMG
o-Xylene	<5	ug/l		03/18/94	KMG
m-Xylene	9.2 *	ug/l	a	03/18/94	KMG
p-Xylene	*	ug/l		03/18/94	KMG
Metals Digestion, EPA 600/4-79					
Iron, EPA 236.1	2.5	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	18	mg/l		03/29/94	KBB
Manganese, EPA 243.1	6.8	mg/l		03/29/94	KBB

a- Chromatographically, para and meta Xylene co-elute. The reported value may represent either of these compounds or a combination thereof.

Sample # 40303231
 Customer ID: RW-5 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/18/94	KMG
Benzene	<5	ug/l		03/18/94	KMG
Bromodichloromethane	<5	ug/l		03/18/94	KMG
Bromoform	<5	ug/l		03/18/94	KMG
Bromomethane	<10	ug/l		03/18/94	KMG
2-Butanone	<10	ug/l		03/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303231
 Customer ID: RW-5 - 03/15/94
 Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Carbon disulfide	<5	ug/l		03/18/94	KMG
Carbon tetrachloride	<5	ug/l		03/18/94	KMG
Chlorobenzene	<5	ug/l		03/18/94	KMG
Chloroethane	<10	ug/l		03/18/94	KMG
Chloroform	<5	ug/l		03/18/94	KMG
Chloromethane	<10	ug/l		03/18/94	KMG
Dibromochloromethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethane	<5	ug/l		03/18/94	KMG
1,2-Dichloroethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethene	<5	ug/l		03/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/18/94	KMG
1,2-Dichloropropane	<5	ug/l		03/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
Ethylbenzene	<5	ug/l		03/18/94	KMG
2-Hexanone	<10	ug/l		03/18/94	KMG
Methylene chloride	<5	ug/l		03/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/18/94	KMG
Styrene	<5	ug/l		03/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/18/94	KMG
Tetrachloroethene	<5	ug/l		03/18/94	KMG
Toluene	<5	ug/l		03/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/18/94	KMG
Trichloroethene	<5	ug/l		03/18/94	KMG
Vinyl acetate	<10	ug/l		03/18/94	KMG
Vinyl chloride	<10	ug/l		03/18/94	KMG
o-Xylene	<5	ug/l		03/18/94	KMG
m-Xylene	<5	ug/l		03/18/94	KMG
p-Xylene	<5	ug/l		03/18/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	3.0	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	18	mg/l		03/29/94	KBB
Manganese, EPA 243.1	5.8	mg/l		03/29/94	KBB

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** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303232
Customer ID: Aeration Tank Influent
Matrix: NPW

Project #: L2115 -355
Influent - 03/15/94
Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<40	ug/l	a	03/19/94	KMG
Benzene	<20	ug/l		03/19/94	KMG
Bromodichloromethane	<20	ug/l		03/19/94	KMG
Bromoform	<20	ug/l		03/19/94	KMG
Bromomethane	<40	ug/l		03/19/94	KMG
2-Butanone	<40	ug/l		03/19/94	KMG
Carbon disulfide	<20	ug/l		03/19/94	KMG
Carbon tetrachloride	<20	ug/l		03/19/94	KMG
Chlorobenzene	<20	ug/l		03/19/94	KMG
Chloroethane	<40	ug/l		03/19/94	KMG
Chloroform	<20	ug/l		03/19/94	KMG
Chloromethane	<40	ug/l		03/19/94	KMG
Dibromochloromethane	<20	ug/l		03/19/94	KMG
1,1-Dichloroethane	<20	ug/l		03/19/94	KMG
1,2-Dichloroethane	<20	ug/l		03/19/94	KMG
1,1-Dichloroethene	<20	ug/l		03/19/94	KMG
1,2-Dichloroethene, Total	<20	ug/l		03/19/94	KMG
1,2-Dichloropropane	<20	ug/l		03/19/94	KMG
cis-1,3-Dichloropropene	<20	ug/l		03/19/94	KMG
trans-1,3-Dichloropropene	<20	ug/l		03/19/94	KMG
Ethylbenzene	<20	ug/l		03/19/94	KMG
2-Hexanone	<40	ug/l		03/19/94	KMG
Methylene chloride	22	ug/l		03/19/94	KMG
4-Methyl-2-pentanone	<40	ug/l		03/19/94	KMG
Styrene	<20	ug/l		03/19/94	KMG
1,1,2,2,-Tetrachloroethane	<20	ug/l		03/19/94	KMG
Tetrachloroethene	<20	ug/l		03/19/94	KMG
Toluene	<20	ug/l		03/19/94	KMG
1,1,1-Trichloroethane	<20	ug/l		03/19/94	KMG
1,1,2-Trichloroethane	<20	ug/l		03/19/94	KMG
Trichloroethene	<20	ug/l		03/19/94	KMG
Vinyl acetate	<40	ug/l		03/19/94	KMG
Vinyl chloride	<40	ug/l		03/19/94	KMG
o-Xylene	<20	ug/l		03/19/94	KMG
m-Xylene	<20	ug/l		03/19/94	KMG
p-Xylene	<20	ug/l		03/19/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer
 Phone: (315) 457-4105

Sample # 40303232 Project #: L2115 -355
 Customer ID: Aeration Tank Influent - 03/15/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	22	mg/l		03/25/94	JNT
Manganese, EPA 243.1	17	mg/l		03/29/94	KBB

a- Elevated detection limit due to matrix interference

Sample # 40303233 Project #: L2115 -355
 Customer ID: Bag Filter Effluent - 03/15/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/21/94	KMG
Benzene	<5	ug/l		03/21/94	KMG
Bromodichloromethane	<5	ug/l		03/21/94	KMG
Bromoform	<5	ug/l		03/21/94	KMG
Bromomethane	<10	ug/l		03/21/94	KMG
2-Butanone	<10	ug/l		03/21/94	KMG
Carbon disulfide	<5	ug/l		03/21/94	KMG
Carbon tetrachloride	<5	ug/l		03/21/94	KMG
Chlorobenzene	<5	ug/l		03/21/94	KMG
Chloroethane	<10	ug/l		03/21/94	KMG
Chloroform	<5	ug/l		03/21/94	KMG
Chloromethane	<10	ug/l		03/21/94	KMG
Dibromochloromethane	<5	ug/l		03/21/94	KMG
1,1-Dichloroethane	<5	ug/l		03/21/94	KMG
1,2-Dichloroethane	<5	ug/l		03/21/94	KMG
1,1-Dichloroethene	<5	ug/l		03/21/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/21/94	KMG
1,2-Dichloropropane	<5	ug/l		03/21/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/21/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/21/94	KMG
Ethylbenzene	<5	ug/l		03/21/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303233

Project #: L2115 -355

Customer ID: Bag Filter Effluent - 03/15/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
2-Hexanone	<10	ug/l		03/21/94	KMG
Methylene chloride	<5	ug/l		03/21/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/21/94	KMG
Styrene	<5	ug/l		03/21/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/21/94	KMG
Tetrachloroethene	<5	ug/l		03/21/94	KMG
Toluene	<5	ug/l		03/21/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/21/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/21/94	KMG
Trichloroethene	<5	ug/l		03/21/94	KMG
Vinyl acetate	<10	ug/l		03/21/94	KMG
Vinyl chloride	<10	ug/l		03/21/94	KMG
o-Xylene	<5	ug/l		03/21/94	KMG
m-Xylene	<5	ug/l		03/21/94	KMG
p-Xylene	<5	ug/l		03/21/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	1.4	mg/l		03/25/94	JNT
Manganese, EPA 243.1	6.0	mg/l		03/29/94	KBB

Sample # 40303234

Project #: L2115 -355

Customer ID: Carbon Train 3, Tap A - 03/15/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/18/94	KMG
Benzene	<5	ug/l		03/18/94	KMG
Bromodichloromethane	<5	ug/l		03/18/94	KMG
Bromoform	<5	ug/l		03/18/94	KMG
Bromomethane	<10	ug/l		03/18/94	KMG
2-Butanone	<10	ug/l		03/18/94	KMG
Carbon disulfide	<5	ug/l		03/18/94	KMG
Carbon tetrachloride	<5	ug/l		03/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303234

Project #: L2115 -355

Customer ID: Carbon Train 3, Tap A - 03/15/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Chlorobenzene	<5	ug/l		03/18/94	KMG
Chloroethane	<10	ug/l		03/18/94	KMG
Chloroform	<5	ug/l		03/18/94	KMG
Chloromethane	<10	ug/l		03/18/94	KMG
Dibromochloromethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethane	<5	ug/l		03/18/94	KMG
1,2-Dichloroethane	<5	ug/l		03/18/94	KMG
1,1-Dichloroethene	<5	ug/l		03/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/18/94	KMG
1,2-Dichloropropane	<5	ug/l		03/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/18/94	KMG
Ethylbenzene	<5	ug/l		03/18/94	KMG
2-Hexanone	<10	ug/l		03/18/94	KMG
Methylene chloride	<5	ug/l		03/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/18/94	KMG
Styrene	<5	ug/l		03/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/18/94	KMG
Tetrachloroethene	<5	ug/l		03/18/94	KMG
Toluene	<5	ug/l		03/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/18/94	KMG
Trichloroethene	<5	ug/l		03/18/94	KMG
Vinyl acetate	<10	ug/l		03/18/94	KMG
Vinyl chloride	<10	ug/l		03/18/94	KMG
o-Xylene	<5	ug/l		03/18/94	KMG
m-Xylene	<5	ug/l		03/18/94	KMG
p-Xylene	<5	ug/l		03/18/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303235
 Customer ID: Carbon Train 3, Tap C - 03/15/94
 Matrix: NPW

Project #: L2115 -355
 Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/19/94	KMG
Benzene	<5	ug/l		03/19/94	KMG
Bromodichloromethane	<5	ug/l		03/19/94	KMG
Bromoform	<5	ug/l		03/19/94	KMG
Bromomethane	<10	ug/l		03/19/94	KMG
2-Butanone	<10	ug/l		03/19/94	KMG
Carbon disulfide	<5	ug/l		03/19/94	KMG
Carbon tetrachloride	<5	ug/l		03/19/94	KMG
Chlorobenzene	<5	ug/l		03/19/94	KMG
Chloroethane	<10	ug/l		03/19/94	KMG
Chloroform	<5	ug/l		03/19/94	KMG
Chloromethane	<10	ug/l		03/19/94	KMG
Dibromochloromethane	<5	ug/l		03/19/94	KMG
1,1-Dichloroethane	<5	ug/l		03/19/94	KMG
1,2-Dichloroethane	<5	ug/l		03/19/94	KMG
1,1-Dichloroethene	<5	ug/l		03/19/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/19/94	KMG
1,2-Dichloropropane	<5	ug/l		03/19/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/19/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/19/94	KMG
Ethylbenzene	<5	ug/l		03/19/94	KMG
2-Hexanone	<10	ug/l		03/19/94	KMG
Methylene chloride	<5	ug/l		03/19/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/19/94	KMG
Styrene	<5	ug/l		03/19/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/19/94	KMG
Tetrachloroethene	<5	ug/l		03/19/94	KMG
Toluene	<5	ug/l		03/19/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/19/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/19/94	KMG
Trichloroethene	<5	ug/l		03/19/94	KMG
Vinyl acetate	<10	ug/l		03/19/94	KMG
Vinyl chloride	<10	ug/l		03/19/94	KMG
o-Xylene	<5	ug/l		03/19/94	KMG
m-Xylene	<5	ug/l		03/19/94	KMG
p-Xylene	<5	ug/l		03/19/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303238

Project #: L2115 -355

Customer ID: Carbon Train 3, Tap B - 03/15/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/22/94	KMG
Benzene	<5	ug/l		03/22/94	KMG
Bromodichloromethane	<5	ug/l		03/22/94	KMG
Bromoform	<5	ug/l		03/22/94	KMG
Bromomethane	<10	ug/l		03/22/94	KMG
2-Butanone	<10	ug/l		03/22/94	KMG
Carbon disulfide	<5	ug/l		03/22/94	KMG
Carbon tetrachloride	<5	ug/l		03/22/94	KMG
Chlorobenzene	<5	ug/l		03/22/94	KMG
Chloroethane	<10	ug/l		03/22/94	KMG
Chloroform	<5	ug/l		03/22/94	KMG
Chloromethane	<10	ug/l		03/22/94	KMG
Dibromochloromethane	<5	ug/l		03/22/94	KMG
1,1-Dichloroethane	<5	ug/l		03/22/94	KMG
1,2-Dichloroethane	<5	ug/l		03/22/94	KMG
1,1-Dichloroethene	<5	ug/l		03/22/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/22/94	KMG
1,2-Dichloropropane	<5	ug/l		03/22/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/22/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/22/94	KMG
Ethylbenzene	<5	ug/l		03/22/94	KMG
2-Hexanone	<10	ug/l		03/22/94	KMG
Methylene chloride	<5	ug/l		03/22/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/22/94	KMG
Styrene	<5	ug/l		03/22/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/22/94	KMG
Tetrachloroethene	<5	ug/l		03/22/94	KMG
Toluene	<5	ug/l		03/22/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/22/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/22/94	KMG
Trichloroethene	<5	ug/l		03/22/94	KMG
Vinyl acetate	<10	ug/l		03/22/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303238 Project #: L2115 -355
 Customer ID: Carbon Train 3, Tap B - 03/15/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		03/22/94	KMG
o-Xylene	<5	ug/l		03/22/94	KMG
m-Xylene	<5	ug/l		03/22/94	KMG
p-Xylene	<5	ug/l		03/22/94	KMG

Sample # 40303236 Project #: L2115 -355
 Customer ID: Discharge - 03/15/94
 Matrix: NPW Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/19/94	KMG
Benzene	<5	ug/l		03/19/94	KMG
Bromodichloromethane	<5	ug/l		03/19/94	KMG
Bromoform	<5	ug/l		03/19/94	KMG
Bromomethane	<10	ug/l		03/19/94	KMG
2-Butanone	<10	ug/l		03/19/94	KMG
Carbon disulfide	<5	ug/l		03/19/94	KMG
Carbon tetrachloride	<5	ug/l		03/19/94	KMG
Chlorobenzene	<5	ug/l		03/19/94	KMG
Chloroethane	<10	ug/l		03/19/94	KMG
Chloroform	<5	ug/l		03/19/94	KMG
Chloromethane	<10	ug/l		03/19/94	KMG
Dibromochloromethane	<5	ug/l		03/19/94	KMG
1,1-Dichloroethane	<5	ug/l		03/19/94	KMG
1,2-Dichloroethane	<5	ug/l		03/19/94	KMG
1,1-Dichloroethene	<5	ug/l		03/19/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/19/94	KMG
1,2-Dichloropropane	<5	ug/l		03/19/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/19/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/19/94	KMG
Ethylbenzene	<5	ug/l		03/19/94	KMG
2-Hexanone	<10	ug/l		03/19/94	KMG

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303236

Project #: L2115 -355

Customer ID: Discharge - 03/15/94

Matrix: NPW

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Methylene chloride	<5	ug/l		03/19/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/19/94	KMG
Styrene	<5	ug/l		03/19/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/19/94	KMG
Tetrachloroethene	<5	ug/l		03/19/94	KMG
Toluene	<5	ug/l		03/19/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/19/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/19/94	KMG
Trichloroethene	<5	ug/l		03/19/94	KMG
Vinyl acetate	<10	ug/l		03/19/94	KMG
Vinyl chloride	<10	ug/l		03/19/94	KMG
o-Xylene	<5	ug/l		03/19/94	KMG
m-Xylene	<5	ug/l		03/19/94	KMG
p-Xylene	<5	ug/l		03/19/94	KMG
Metals Digestion, EPA 600/4-79				03/16/94	JEB
Iron, EPA 236.1	<0.04	mg/l		03/25/94	JNT
Magnesium, EPA 242.1	22	mg/l		03/29/94	KBB
Manganese, EPA 243.1	0.034	mg/l		03/29/94	KBB
Aluminum, EPA 202.1	<0.1	mg/l		03/18/94	KBB
Antimony, EPA 204.2	0.021	mg/l		03/23/94	CRW
Arsenic, EPA 206.2	<0.001	mg/l		03/23/94	CRW
Barium, EPA 208.1	0.26	mg/l		03/18/94	KBB
Cadmium, EPA 213.1	<0.02	mg/l		03/23/94	JNT
Chromium, Total, EPA 218.1	<0.01	mg/l		03/23/94	KBB
Copper, EPA 220.1	<0.02	mg/l		03/28/94	JNT
Lead, EPA 239.1	<0.2	mg/l		03/23/94	JNT
Zinc, EPA 289.1	0.022	mg/l		03/18/94	JNT
TOC, SM 17 ed. 5310	14	mg/l		03/23/94	J&L
Cyanide, Total, EPA 335.2	<0.005	mg/l		03/21/94	JDC

Life Science Laboratories, Inc
5854 Butternut Drive
East Syracuse, New York 13057
(315) 445-1105
NYS DOH ELAP NO. 10248

Page # 16

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303237
Customer ID: Trip Blank - 03/15/94
Matrix: NPW

Project #: L2115 -355
Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		03/22/94	KMG
Benzene	<5	ug/l		03/22/94	KMG
Bromodichloromethane	<5	ug/l		03/22/94	KMG
Bromoform	<5	ug/l		03/22/94	KMG
Bromomethane	<10	ug/l		03/22/94	KMG
2-Butanone	<10	ug/l		03/22/94	KMG
Carbon disulfide	<5	ug/l		03/22/94	KMG
Carbon tetrachloride	<5	ug/l		03/22/94	KMG
Chlorobenzene	<5	ug/l		03/22/94	KMG
Chloroethane	<10	ug/l		03/22/94	KMG
Chloroform	<5	ug/l		03/22/94	KMG
Chloromethane	<10	ug/l		03/22/94	KMG
Dibromochloromethane	<5	ug/l		03/22/94	KMG
1,1-Dichloroethane	<5	ug/l		03/22/94	KMG
1,2-Dichloroethane	<5	ug/l		03/22/94	KMG
1,1-Dichloroethene	<5	ug/l		03/22/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		03/22/94	KMG
1,2-Dichloropropane	<5	ug/l		03/22/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		03/22/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		03/22/94	KMG
Ethylbenzene	<5	ug/l		03/22/94	KMG
2-Hexanone	<10	ug/l		03/22/94	KMG
Methylene chloride	<5	ug/l		03/22/94	KMG
4-Methyl-2-pentanone	<10	ug/l		03/22/94	KMG
Styrene	<5	ug/l		03/22/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		03/22/94	KMG
Tetrachloroethene	<5	ug/l		03/22/94	KMG
Toluene	<5	ug/l		03/22/94	KMG
1,1,1-Trichloroethane	<5	ug/l		03/22/94	KMG
1,1,2-Trichloroethane	<5	ug/l		03/22/94	KMG
Trichloroethene	<5	ug/l		03/22/94	KMG
Vinyl acetate	<10	ug/l		03/22/94	KMG
Vinyl chloride	<10	ug/l		03/22/94	KMG
o-Xylene	<5	ug/l		03/22/94	KMG

Life Science Laboratories, Inc
5854 Butternut Drive
East Syracuse, New York 13057
(315) 445-1105
NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

03/30/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40303237
Customer ID: Trip Blank - 03/15/94
Matrix: NPW

Project #: L2115 -355

Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
m-Xylene	<5	ug/l		03/22/94	KMG
p-Xylene	<5	ug/l		03/22/94	KMG

L2115-350

CHAIN OF CUSTODY SUMMARY FORM

**MALCOLM
PIRNIE**

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balblerer
ANALYTICAL LABORATORY: *LSK*

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER		ANALYSIS REQUIRED							DATE ANALYSIS NEEDED	NOTES
<i>Columbia Mills Maretto, N.Y.</i>				<i>1069-07-9</i>		<i>8240</i>	<i>Fe, Mg, Mn</i>	<i>Fe, Mn</i>						
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE								
				NO.	SIZE / TYPE									
<i>RW-1</i>	<i>3/15/94</i>	<i>9⁰⁰ AM</i>	<i>W</i>	<i>3</i>	<i>2-4oz/V 1-32oz/P</i>	<i>H₂O₂</i>	<i>X</i>	<i>X</i>					<i>2-Week</i>	<i>40303227</i>
<i>RW-2</i>							<i>X</i>	<i>X</i>						<i>3228</i>
<i>RW-3</i>							<i>X</i>	<i>X</i>						<i>3229</i>
<i>RW-4</i>							<i>X</i>	<i>X</i>						<i>3230</i>
<i>RW-5</i>							<i>X</i>	<i>X</i>						<i>3231</i>
<i>AERATION TANK INFLUENT</i>				<i>3</i>	<i>2-4oz/V 1-16oz/P</i>	<i>H₂O₂</i>	<i>X</i>		<i>X</i>					<i>3232</i>
<i>BAF FILTER EFFLUENT</i>				<i>1</i>	<i>1</i>	<i>1</i>	<i>X</i>		<i>X</i>					<i>3233</i>
<i>CARBON TANK 3, TAP A</i>				<i>2</i>	<i>4oz/V</i>	<i>-</i>	<i>X</i>							<i>3234</i>
<i>CARBON TANK 3, TAP B</i>				<i>1</i>	<i>1</i>	<i>-</i>	<i>X</i>							<i>* 3238</i>
<i>CARBON TANK 3, TAP C</i>				<i>1</i>	<i>1</i>	<i>-</i>	<i>X</i>							<i>3235</i>

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	<i>3/15/94</i>	<i>10³⁰ AM</i>	
				Purpose or reason for collecting sample(s): <i>QUARTERLY SAMPLING</i>

**MALCOLM
PIRNIE**

**CHAIN OF CUSTODY
SUMMARY FORM**

L2115-55b

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balblerer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION		PROJECT NUMBER		ANALYSIS REQUIRED								DATE ANALYSIS NEEDED	NOTES					
COLUMBIA MILLS MANTLETT, N.Y.		1069-07-9		8246	ToC	Metals*	Chloride											
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE												
				NO.	SIZE / TYPE													
DISCHARGE	3/15/94	9 ⁰⁰ AM	W	5	2-4oz / 1-16oz / 1-32oz	H ₂ SO ₄ H ₂ O ₂ , Ascorbic Acid	X	X	X	X							2-Week	40303236
TRIP BLANK	1	1	1	2	1/2oz / 1/4oz	-	X										1	3237

Matrix: W - water O - oil
 S - soil A - air
 SE - sediment X - other

Container: V - VOA vial
 G - glass
 P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time
<i>[Signature]</i>	<i>[Signature]</i>	3/15/94	10 ⁰⁰ AM

Special Instructions
 * Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn

Purpose or reason for collecting sample(s): QUANTITATIVE SAMPLE

RECEIVED

APR 1 1994

MALCOLM PIRNIE, D.D.
SYRACUSE OFFICE



SAMPLE ANALYSIS REPORT

L2115-358
LSL Project No.

Jack Mancuso
Reviewed By

4/8/94
Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

DWK 04/11/94

** SAMPLE ANALYSIS REPORT **

04/06/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer
Phone: (315) 457-4105

Sample # 40404150 Project #: L2115 -358
Customer ID: Discharge - 03/31/94
Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Xylenes, EPA 624	<5	ug/l		04/01/94	KMG

Sample # 40404151 Project #: L2115 -358
Customer ID: Trip Blank - 03/31/94
Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Xylenes, EPA 624	<5	ug/l		04/01/94	KMG

L2112-370

CHAIN OF CUSTODY SUMMARY FORM

**MALCOLM
PIRNIE**

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

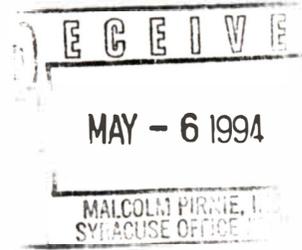
7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION		PROJECT NUMBER		ANALYSIS REQUIRED								DATE ANALYSIS NEEDED	NOTES			
				XY	1	2	3	4	5	6	7			8		
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE	XY	1	2	3	4	5	6	7	8	
				NO.	SIZE / TYPE											
DISCHARGE	3/31/94	8 ⁰⁰ AM	W	2	4ozal/V		X									7-DAY → 2 weeks 400415
TRIP BLANK	11	1	L	L	1		X									1 turnaround 415 pls courier

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	3/31/94	3 ⁰⁰	Purpose or reason for collecting sample(s):
<i>[Signature]</i>	<i>[Signature]</i>	3/31/94	4:00	



SAMPLE ANALYSIS REPORT

LA115-363
LSL Project No.

Jack Mancuso QDO
Reviewed By

5/5/94
Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK 05/09/94

** SAMPLE ANALYSIS REPORT **

05/05/94

Karen Balbierer
Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404798 Project #: L2115 -363
Customer ID: Aeration Tank Influent-4/15/94
Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		04/18/94	KMG
Benzene	<5	ug/l		04/18/94	KMG
Bromodichloromethane	<5	ug/l		04/18/94	KMG
Bromoform	<5	ug/l		04/18/94	KMG
Bromomethane	<10	ug/l		04/18/94	KMG
2-Butanone	<10	ug/l		04/18/94	KMG
Carbon disulfide	<5	ug/l		04/18/94	KMG
Carbon tetrachloride	<5	ug/l		04/18/94	KMG
Chlorobenzene	<5	ug/l		04/18/94	KMG
Chloroethane	<10	ug/l		04/18/94	KMG
Chloroform	<5	ug/l		04/18/94	KMG
Chloromethane	<10	ug/l		04/18/94	KMG
Dibromochloromethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethane	<5	ug/l		04/18/94	KMG
1,2-Dichloroethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethene	<5	ug/l		04/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		04/18/94	KMG
1,2-Dichloropropane	<5	ug/l		04/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
Ethylbenzene	<5	ug/l		04/18/94	KMG
2-Hexanone	<10	ug/l		04/18/94	KMG
Methylene chloride	<5	ug/l		04/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		04/18/94	KMG
Styrene	<5	ug/l		04/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		04/18/94	KMG
Tetrachloroethene	<5	ug/l		04/18/94	KMG
Toluene	<5	ug/l		04/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		04/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		04/18/94	KMG
Trichloroethene	<5	ug/l		04/18/94	KMG
Vinyl acetate	<10	ug/l		04/18/94	KMG

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404798
 Customer ID: Aeration Tank Influent-4/15/94
 Matrix: NPW

Project #: L2115 -363
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		04/18/94	KMG
o-Xylene	<5	ug/l		04/18/94	KMG
m-Xylene	<5	ug/l		04/18/94	KMG
p-Xylene	<5	ug/l		04/18/94	KMG

Sample # 40404799
 Customer ID: Bag Filter Effluent-4/15/94
 Matrix: NPW

Project #: L2115 -363
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		04/18/94	KMG
Benzene	<5	ug/l		04/18/94	KMG
Bromodichloromethane	<5	ug/l		04/18/94	KMG
Bromoform	<5	ug/l		04/18/94	KMG
Bromomethane	<10	ug/l		04/18/94	KMG
2-Butanone	<10	ug/l		04/18/94	KMG
Carbon disulfide	<5	ug/l		04/18/94	KMG
Carbon tetrachloride	<5	ug/l		04/18/94	KMG
Chlorobenzene	<5	ug/l		04/18/94	KMG
Chloroethane	<10	ug/l		04/18/94	KMG
Chloroform	<5	ug/l		04/18/94	KMG
Chloromethane	<10	ug/l		04/18/94	KMG
Dibromochloromethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethane	<5	ug/l		04/18/94	KMG
1,2-Dichloroethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethene	<5	ug/l		04/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		04/18/94	KMG
1,2-Dichloropropane	<5	ug/l		04/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
Ethylbenzene	<5	ug/l		04/18/94	KMG
2-Hexanone	<10	ug/l		04/18/94	KMG

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404799 Project #: L2115 -363
 Customer ID: Bag Filter Effluent-4/15/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Methylene chloride	<5	ug/l		04/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		04/18/94	KMG
Styrene	<5	ug/l		04/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		04/18/94	KMG
Tetrachloroethene	<5	ug/l		04/18/94	KMG
Toluene	<5	ug/l		04/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		04/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		04/18/94	KMG
Trichloroethene	<5	ug/l		04/18/94	KMG
Vinyl acetate	<10	ug/l		04/18/94	KMG
Vinyl chloride	<10	ug/l		04/18/94	KMG
o-Xylene	<5	ug/l		04/18/94	KMG
m-Xylene	<5	ug/l		04/18/94	KMG
p-Xylene	<5	ug/l		04/18/94	KMG

Sample # 40404800 Project #: L2115 -363
 Customer ID: Carbon Tap 1B-4/15/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		04/18/94	KMG
Benzene	<5	ug/l		04/18/94	KMG
Bromodichloromethane	<5	ug/l		04/18/94	KMG
Bromoform	<5	ug/l		04/18/94	KMG
Bromomethane	<10	ug/l		04/18/94	KMG
2-Butanone	<10	ug/l		04/18/94	KMG
Carbon disulfide	<5	ug/l		04/18/94	KMG
Carbon tetrachloride	<5	ug/l		04/18/94	KMG
Chlorobenzene	<5	ug/l		04/18/94	KMG
Chloroethane	<10	ug/l		04/18/94	KMG
Chloroform	<5	ug/l		04/18/94	KMG
Chloromethane	<10	ug/l		04/18/94	KMG

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404800

Project #: L2115 -363

Customer ID: Carbon Tap 1B-4/15/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Dibromochloromethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethane	<5	ug/l		04/18/94	KMG
1,2-Dichloroethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethene	<5	ug/l		04/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		04/18/94	KMG
1,2-Dichloropropane	<5	ug/l		04/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
Ethylbenzene	<5	ug/l		04/18/94	KMG
2-Hexanone	<10	ug/l		04/18/94	KMG
Methylene chloride	<5	ug/l		04/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		04/18/94	KMG
Styrene	<5	ug/l		04/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		04/18/94	KMG
Tetrachloroethene	<5	ug/l		04/18/94	KMG
Toluene	<5	ug/l		04/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		04/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		04/18/94	KMG
Trichloroethene	<5	ug/l		04/18/94	KMG
Vinyl acetate	<10	ug/l		04/18/94	KMG
Vinyl chloride	<10	ug/l		04/18/94	KMG
o-Xylene	<5	ug/l		04/18/94	KMG
m-Xylene	<5	ug/l		04/18/94	KMG
p-Xylene	<5	ug/l		04/18/94	KMG
TOC, SM 17 ed. 5310	<1	mg/l	a	04/28/94	J&L

a- TOC's sub-contracted out to ELAP #10900

Sample # 40404801

Project #: L2115 -363

Customer ID: Discharge-4/15/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
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** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404801

Project #: L2115 -363

Customer ID: Discharge-4/15/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		04/18/94	KMG
Benzene	<5	ug/l		04/18/94	KMG
Bromodichloromethane	<5	ug/l		04/18/94	KMG
Bromoform	<5	ug/l		04/18/94	KMG
Bromomethane	<10	ug/l		04/18/94	KMG
2-Butanone	<10	ug/l		04/18/94	KMG
Carbon disulfide	<5	ug/l		04/18/94	KMG
Carbon tetrachloride	<5	ug/l		04/18/94	KMG
Chlorobenzene	<5	ug/l		04/18/94	KMG
Chloroethane	<10	ug/l		04/18/94	KMG
Chloroform	<5	ug/l		04/18/94	KMG
Chloromethane	<10	ug/l		04/18/94	KMG
Dibromochloromethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethane	<5	ug/l		04/18/94	KMG
1,2-Dichloroethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethene	<5	ug/l		04/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		04/18/94	KMG
1,2-Dichloropropane	<5	ug/l		04/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
Ethylbenzene	<5	ug/l		04/18/94	KMG
2-Hexanone	<10	ug/l		04/18/94	KMG
Methylene chloride	<5	ug/l		04/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		04/18/94	KMG
Styrene	<5	ug/l		04/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		04/18/94	KMG
Tetrachloroethene	<5	ug/l		04/18/94	KMG
Toluene	<5	ug/l		04/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		04/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		04/18/94	KMG
Trichloroethene	<5	ug/l		04/18/94	KMG
Vinyl acetate	<10	ug/l		04/18/94	KMG
Vinyl chloride	<10	ug/l		04/18/94	KMG
o-Xylene	<5	ug/l		04/18/94	KMG
m-Xylene	<5	ug/l		04/18/94	KMG
p-Xylene	<5	ug/l		04/18/94	KMG

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404801
 Customer ID: Discharge-4/15/94
 Matrix: NPW

Project #: L2115 -363
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
TOC, SM 17 ed. 5310	5	mg/l		04/28/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		05/02/94	KBB
Antimony, EPA 204.2	0.0044	mg/l		04/21/94	CRW
Arsenic, EPA 206.2	<0.003	mg/l		05/04/94	CRW
Barium, EPA 208.1	<0.2	mg/l		04/22/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		04/25/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		04/19/94	KBB
Copper, EPA 220.1	<0.05	mg/l		04/25/94	JNT
Iron, EPA 236.1	0.13	mg/l		04/25/94	KBB
Magnesium, EPA 242.1	16	mg/l		04/26/94	JNT
Manganese, EPA 243.1	0.94	mg/l		05/02/94	KBB
Zinc, EPA 289.1	<0.01	mg/l		04/21/94	KBB
Cyanide, Total, EPA 335.2	<0.005	mg/l		04/19/94	JDC
Metals Digestion, EPA 600/4-79				04/18/94	JEB
Lead, EPA 239.2	0.0029	mg/l		05/03/94	CRW

Sample # 40404802
 Customer ID: Trip Blank-4/15/94
 Matrix: NPW

Project #: L2115 -363
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		04/18/94	KMG
Benzene	<5	ug/l		04/18/94	KMG
Bromodichloromethane	<5	ug/l		04/18/94	KMG
Bromoform	<5	ug/l		04/18/94	KMG
Bromomethane	<10	ug/l		04/18/94	KMG
2-Butanone	<10	ug/l		04/18/94	KMG
Carbon disulfide	<5	ug/l		04/18/94	KMG
Carbon tetrachloride	<5	ug/l		04/18/94	KMG
Chlorobenzene	<5	ug/l		04/18/94	KMG
Chloroethane	<10	ug/l		04/18/94	KMG
Chloroform	<5	ug/l		04/18/94	KMG
Chloromethane	<10	ug/l		04/18/94	KMG

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40404802

Project #: L2115 -363

Customer ID: Trip Blank-4/15/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Dibromochloromethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethane	<5	ug/l		04/18/94	KMG
1,2-Dichloroethane	<5	ug/l		04/18/94	KMG
1,1-Dichloroethene	<5	ug/l		04/18/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		04/18/94	KMG
1,2-Dichloropropane	<5	ug/l		04/18/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		04/18/94	KMG
Ethylbenzene	<5	ug/l		04/18/94	KMG
2-Hexanone	<10	ug/l		04/18/94	KMG
Methylene chloride	<5	ug/l		04/18/94	KMG
4-Methyl-2-pentanone	<10	ug/l		04/18/94	KMG
Styrene	<5	ug/l		04/18/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		04/18/94	KMG
Tetrachloroethene	<5	ug/l		04/18/94	KMG
Toluene	<5	ug/l		04/18/94	KMG
1,1,1-Trichloroethane	<5	ug/l		04/18/94	KMG
1,1,2-Trichloroethane	<5	ug/l		04/18/94	KMG
Trichloroethene	<5	ug/l		04/18/94	KMG
Vinyl acetate	<10	ug/l		04/18/94	KMG
Vinyl chloride	<10	ug/l		04/18/94	KMG
o-Xylene	<5	ug/l		04/18/94	KMG
m-Xylene	<5	ug/l		04/18/94	KMG
p-Xylene	<5	ug/l		04/18/94	KMG

**CHAIN OF CUSTODY
SUMMARY FORM**

L-2115-363

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER		ANALYSIS REQUIRED								DATE ANALYSIS NEEDED	NOTES
Columbia Mills				1069079		EPA 8240	TOC	Metals*	Cyanide						
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE									
				NO.	SIZE / TYPE										
AERATION TANK INFLUENT	4/15/94		W	2	40ml IV	---	X								4/29/94 40404798
BAG FILTER EFFLUENT	↓		↓	2	" "	---	X								-4799
CARBON TAP 1B	↓		↓	3	40ml IV 16oz 1P	H ₂ SO ₄	X	X							-4800
DISCHARGE	↓		↓	5	40ml IV 32oz 1P 32oz 1P	nitric acid ascorbic acid H ₂ SO ₄	X	X	X	X					-4801
TRIP BLANK	↓		↓	2	40ml IV	---	X								-4802

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
M. Park	J. Wallace	4/15	11:53	* metals = Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn
				Purpose or reason for collecting sample(s): <u>monthly sampling</u>

File: 1069-079

RECEIVED

MAY 11 1994



SAMPLE ANALYSIS REPORT

LD115-367
LSL Project No.

Jack Mancuso QDO
Reviewed By

5/9/94
Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C:DWK 05/11/94

LIFE SCIENCE LABORATORIES, INC.

5854 Butternut Drive, East Syracuse, New York 13057 Telephone: (315) 445-1105 Fax: (315) 445-1301

** SAMPLE ANALYSIS REPORT **

05/05/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40405661 Project #: L2115 -367
Customer ID: Discharge - 04/28/94
Matrix: NPW Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Xylenes, EPA 624	<5	ug/l		05/03/94	CRT

Sample # 40405662 Project #: L2115 -367
Customer ID: Trip Blank - 04/28/94
Matrix: NPW Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Xylenes, EPA 624	<5	ug/l		05/03/94	CRT

**CHAIN OF CUSTODY
SUMMARY FORM**

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

C2115-307

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER			ANALYSIS REQUIRED							DATE ANALYSIS NEEDED	NOTES
BS&K Columbia Mills				1069079			Xylenes								
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE	X	X	X	X	X	X	X	X	
				NO.	SIZE / TYPE										
DISCHARGE	4/28/94		W	2	40ml IV	—	X								
TRIP BLANK	↓	8:00AM	↓	↓	↓	—	X								placed on ice

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	4/28/94	2:55pm	
<i>[Signature]</i>	<i>[Signature]</i>	4/28/94	15:35p.	



file: 1069-079

JUN - 8 1994

MALCOLM PIERCE
SYRACUSE OFFICE

SAMPLE ANALYSIS REPORT

L2115-377

LSL Project No.

Jack M... GDO

Reviewed By

6/6/94

Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK 06/08/94

LIFE SCIENCE LABORATORIES, INC.

5854 Butternut Drive, East Syracuse, New York 13057 Telephone: (315) 445-1105 Fax: (315) 445-1301

** SAMPLE ANALYSIS REPORT **

06/06/94

Karen Balbierer
Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer
Phone: (315) 457-4105

Sample # 40506591
Customer ID: Aeration Tank Influent - 05/16/94
Matrix: NPW
Project #: L2115 -377
Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		05/20/94	CRT
Benzene	<5	ug/l		05/20/94	CRT
Bromodichloromethane	<5	ug/l		05/20/94	CRT
Bromoform	<5	ug/l		05/20/94	CRT
Bromomethane	<10	ug/l		05/20/94	CRT
2-Butanone	<10	ug/l		05/20/94	CRT
Carbon disulfide	<5	ug/l		05/20/94	CRT
Carbon tetrachloride	<5	ug/l		05/20/94	CRT
Chlorobenzene	<5	ug/l		05/20/94	CRT
Chloroethane	<10	ug/l		05/20/94	CRT
Chloroform	<5	ug/l		05/20/94	CRT
Chloromethane	<10	ug/l		05/20/94	CRT
Dibromochloromethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethane	<5	ug/l		05/20/94	CRT
1,2-Dichloroethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethene	<5	ug/l		05/20/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		05/20/94	CRT
1,2-Dichloropropane	<5	ug/l		05/20/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
Ethylbenzene	<5	ug/l		05/20/94	CRT
2-Hexanone	<10	ug/l		05/20/94	CRT
Methylene chloride	<5	ug/l		05/20/94	CRT
4-Methyl-2-pentanone	<10	ug/l		05/20/94	CRT
Styrene	<5	ug/l		05/20/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		05/20/94	CRT
Tetrachloroethene	<5	ug/l		05/20/94	CRT
Toluene	<5	ug/l		05/20/94	CRT
1,1,1-Trichloroethane	<5	ug/l		05/20/94	CRT
1,1,2-Trichloroethane	<5	ug/l		05/20/94	CRT
Trichloroethene	<5	ug/l		05/20/94	CRT
Vinyl acetate	<10	ug/l		05/20/94	CRT

** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40506591 Project #: L2115 -377
 Customer ID: Aeration Tank Influent - 05/16/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		05/20/94	CRT
o-Xylene	<5	ug/l		05/20/94	CRT
m-Xylene	<5	ug/l		05/20/94	CRT
p-Xylene	<5	ug/l		05/20/94	CRT

Sample # 40506592 Project #: L2115 -377
 Customer ID: Filter Effluent - 05/16/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		05/20/94	CRT
Benzene	<5	ug/l		05/20/94	CRT
Bromodichloromethane	<5	ug/l		05/20/94	CRT
Bromoform	<5	ug/l		05/20/94	CRT
Bromomethane	<10	ug/l		05/20/94	CRT
2-Butanone	<10	ug/l		05/20/94	CRT
Carbon disulfide	<5	ug/l		05/20/94	CRT
Carbon tetrachloride	<5	ug/l		05/20/94	CRT
Chlorobenzene	<5	ug/l		05/20/94	CRT
Chloroethane	<10	ug/l		05/20/94	CRT
Chloroform	<5	ug/l		05/20/94	CRT
Chloromethane	<10	ug/l		05/20/94	CRT
Dibromochloromethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethane	<5	ug/l		05/20/94	CRT
1,2-Dichloroethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethene	<5	ug/l		05/20/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		05/20/94	CRT
1,2-Dichloropropane	<5	ug/l		05/20/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
Ethylbenzene	<5	ug/l		05/20/94	CRT
2-Hexanone	<10	ug/l		05/20/94	CRT

** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40506592 Project #: L2115 -377
 Customer ID: Filter Effluent - 05/16/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Methylene chloride	<5	ug/l		05/20/94	CRT
4-Methyl-2-pentanone	<10	ug/l		05/20/94	CRT
Styrene	<5	ug/l		05/20/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		05/20/94	CRT
Tetrachloroethene	<5	ug/l		05/20/94	CRT
Toluene	<5	ug/l		05/20/94	CRT
1,1,1-Trichloroethane	<5	ug/l		05/20/94	CRT
1,1,2-Trichloroethane	<5	ug/l		05/20/94	CRT
Trichloroethene	<5	ug/l		05/20/94	CRT
Vinyl acetate	<10	ug/l		05/20/94	CRT
Vinyl chloride	<10	ug/l		05/20/94	CRT
o-Xylene	<5	ug/l		05/20/94	CRT
m-Xylene	<5	ug/l		05/20/94	CRT
p-Xylene	<5	ug/l		05/20/94	CRT

Sample # 40506593 Project #: L2115 -377
 Customer ID: Carbon Train 2 Tap B - 05/16/94
 Matrix: NPW Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		05/20/94	CRT
Benzene	<5	ug/l		05/20/94	CRT
Bromodichloromethane	<5	ug/l		05/20/94	CRT
Bromoform	<5	ug/l		05/20/94	CRT
Bromomethane	<10	ug/l		05/20/94	CRT
2-Butanone	<10	ug/l		05/20/94	CRT
Carbon disulfide	<5	ug/l		05/20/94	CRT
Carbon tetrachloride	<5	ug/l		05/20/94	CRT
Chlorobenzene	<5	ug/l		05/20/94	CRT
Chloroethane	<10	ug/l		05/20/94	CRT
Chloroform	<5	ug/l		05/20/94	CRT
Chloromethane	<10	ug/l		05/20/94	CRT

Life Science Laboratories, Inc
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 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40506593
 Customer ID: Carbon Train 2
 Matrix: NPW

Project #: L2115 -377
 Tap B - 05/16/94
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Dibromochloromethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethane	<5	ug/l		05/20/94	CRT
1,2-Dichloroethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethene	<5	ug/l		05/20/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		05/20/94	CRT
1,2-Dichloropropane	<5	ug/l		05/20/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
Ethylbenzene	<5	ug/l		05/20/94	CRT
2-Hexanone	<10	ug/l		05/20/94	CRT
Methylene chloride	<5	ug/l		05/20/94	CRT
4-Methyl-2-pentanone	<10	ug/l		05/20/94	CRT
Styrene	<5	ug/l		05/20/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		05/20/94	CRT
Tetrachloroethene	<5	ug/l		05/20/94	CRT
Toluene	<5	ug/l		05/20/94	CRT
1,1,1-Trichloroethane	<5	ug/l		05/20/94	CRT
1,1,2-Trichloroethane	<5	ug/l		05/20/94	CRT
Trichloroethene	<5	ug/l		05/20/94	CRT
Vinyl acetate	<10	ug/l		05/20/94	CRT
Vinyl chloride	<10	ug/l		05/20/94	CRT
o-Xylene	<5	ug/l		05/20/94	CRT
m-Xylene	<5	ug/l		05/20/94	CRT
p-Xylene	<5	ug/l		05/20/94	CRT
TOC, SM 17 ed. 5310	9	mg/l	a	05/27/94	J&L

a- TOC's were sub-contracted out to ELAP #10900

Sample # 40506594
 Customer ID: Discharge - 05/16/94
 Matrix: NPW

Project #: L2115 -377
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
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** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40506594
Customer ID: Discharge - 05/16/94
Matrix: NPW

Project #: L2115 -377

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		05/20/94	CRT
Benzene	<5	ug/l		05/20/94	CRT
Bromodichloromethane	<5	ug/l		05/20/94	CRT
Bromoform	<5	ug/l		05/20/94	CRT
Bromomethane	<10	ug/l		05/20/94	CRT
2-Butanone	<10	ug/l		05/20/94	CRT
Carbon disulfide	<5	ug/l		05/20/94	CRT
Carbon tetrachloride	<5	ug/l		05/20/94	CRT
Chlorobenzene	<5	ug/l		05/20/94	CRT
Chloroethane	<10	ug/l		05/20/94	CRT
Chloroform	<5	ug/l		05/20/94	CRT
Chloromethane	<10	ug/l		05/20/94	CRT
Dibromochloromethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethane	<5	ug/l		05/20/94	CRT
1,2-Dichloroethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethene	<5	ug/l		05/20/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		05/20/94	CRT
1,2-Dichloropropane	<5	ug/l		05/20/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
Ethylbenzene	<5	ug/l		05/20/94	CRT
2-Hexanone	<10	ug/l		05/20/94	CRT
Methylene chloride	<5	ug/l		05/20/94	CRT
4-Methyl-2-pentanone	<10	ug/l		05/20/94	CRT
Styrene	<5	ug/l		05/20/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		05/20/94	CRT
Tetrachloroethene	<5	ug/l		05/20/94	CRT
Toluene	<5	ug/l		05/20/94	CRT
1,1,1-Trichloroethane	<5	ug/l		05/20/94	CRT
1,1,2-Trichloroethane	<5	ug/l		05/20/94	CRT
Trichloroethene	<5	ug/l		05/20/94	CRT
Vinyl acetate	<10	ug/l		05/20/94	CRT
Vinyl chloride	<10	ug/l		05/20/94	CRT
o-Xylene	<5	ug/l		05/20/94	CRT
m-Xylene	<5	ug/l		05/20/94	CRT
p-Xylene	<5	ug/l		05/20/94	CRT

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** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40506594
 Customer ID: Discharge - 05/16/94
 Matrix: NPW

Project #: L2115 -377
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
TOC, SM 17 ed. 5310	15	mg/l		05/27/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		05/19/94	KBB
Antimony, EPA 204.2	0.054	mg/l		06/04/94	CRW
Arsenic, EPA 206.2	<0.01	mg/l		06/02/94	CRW
Barium, EPA 208.1	0.46	mg/l		05/26/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		05/20/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l	a	05/24/94	KBB
Copper, EPA 220.1	<0.01	mg/l		05/20/94	KBB
Iron, EPA 236.1	0.082	mg/l		06/01/94	JNT
Magnesium, EPA 242.1	21	mg/l	a	05/27/94	JNT
Manganese, EPA 243.1	0.44	mg/l		05/23/94	KBB
Zinc, EPA 289.1	<0.05	mg/l		05/25/94	KBB
Cyanide, Total, EPA 335.2	0.0057	mg/l		05/19/94	JDC
Metals Digestion, EPA 600/4-79	batch	702		05/17/94	JEB
Lead, EPA 239.2	<0.005	mg/l		05/26/94	CRW

a- Result should be considered to be an estimate due to matrix interferences.

Sample # 40506595
 Customer ID: Trip Blank - 05/16/94
 Matrix: NPW

Project #: L2115 -377
 Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		05/20/94	CRT
Benzene	<5	ug/l		05/20/94	CRT
Bromodichloromethane	<5	ug/l		05/20/94	CRT
Bromoform	<5	ug/l		05/20/94	CRT
Bromomethane	<10	ug/l		05/20/94	CRT
2-Butanone	<10	ug/l		05/20/94	CRT
Carbon disulfide	<5	ug/l		05/20/94	CRT
Carbon tetrachloride	<5	ug/l		05/20/94	CRT
Chlorobenzene	<5	ug/l		05/20/94	CRT
Chloroethane	<10	ug/l		05/20/94	CRT

** SAMPLE ANALYSIS REPORT **

06/06/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer
Phone: (315) 457-4105

Sample # 40506595

Project #: L2115 -377

Customer ID: Trip Blank - 05/16/94

Matrix: NPW

Authorization: 1069-079

Test Name	Results	Units	Comment	Completed	Initials
Chloroform	<5	ug/l		05/20/94	CRT
Chloromethane	<10	ug/l		05/20/94	CRT
Dibromochloromethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethane	<5	ug/l		05/20/94	CRT
1,2-Dichloroethane	<5	ug/l		05/20/94	CRT
1,1-Dichloroethene	<5	ug/l		05/20/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		05/20/94	CRT
1,2-Dichloropropane	<5	ug/l		05/20/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		05/20/94	CRT
Ethylbenzene	<5	ug/l		05/20/94	CRT
2-Hexanone	<10	ug/l		05/20/94	CRT
Methylene chloride	<5	ug/l		05/20/94	CRT
4-Methyl-2-pentanone	<10	ug/l		05/20/94	CRT
Styrene	<5	ug/l		05/20/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		05/20/94	CRT
Tetrachloroethene	<5	ug/l		05/20/94	CRT
Toluene	<5	ug/l		05/20/94	CRT
1,1,1-Trichloroethane	<5	ug/l		05/20/94	CRT
1,1,2-Trichloroethane	<5	ug/l		05/20/94	CRT
Trichloroethene	<5	ug/l		05/20/94	CRT
Vinyl acetate	<10	ug/l		05/20/94	CRT
Vinyl chloride	<10	ug/l		05/20/94	CRT
o-Xylene	<5	ug/l		05/20/94	CRT
m-Xylene	<5	ug/l		05/20/94	CRT
p-Xylene	<5	ug/l		05/20/94	CRT

CHAIN OF CUSTODY SUMMARY FORM

L2115-377

**MALCOLM
PIRNIE**
SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER			ANALYSIS REQUIRED						DATE ANALYSIS NEEDED	NOTES	
Columbia Mills Minetto, NY				1069079			EPA 8240	TOC	12 metals*	Cyanide					
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE									
				NO.	SIZE / TYPE										
AERATION TANK INFLUENT	5/16/94	8 ³⁰ AM	W	2	40ml/V	—	X					40500591	5/27/94	placed on ice	
FILTER EFFLUENT				2	40 ml/V	—	X					6592			
CARBON TRAIN 2 TAP B				3	40 ml/V=2 8oz/P-1	H ₂ SO ₄	X	X				6593			
DISCHARGE				5	2-40 ml/V 1- 8oz/P 1- 32 oz/P 1- 0.5 gal/P	H ₂ SO ₄ ascorbic/NaOH HNO ₃	X	X	X	X		6594			
TRIP BLANK			↓	2	40ml/V	—	X					6595	↓		

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	5/16/94	8 ³⁰ AM	12 metals - Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn monthly sampling



SAMPLE ANALYSIS REPORT

20115-382

LSL Project No.

Jack Mancuso QDO

Reviewed By

6/17/94

Date

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C: DWK 06/20/94

** SAMPLE ANALYSIS REPORT **

06/17/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40507687

Project #: L2115 -382

Customer ID: Aeration Tank Influent - 5/31/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/02/94	CRT
Benzene	<5	ug/l		06/02/94	CRT
Bromodichloromethane	<5	ug/l		06/02/94	CRT
Bromoform	<5	ug/l		06/02/94	CRT
Bromomethane	<10	ug/l		06/02/94	CRT
2-Butanone	<10	ug/l		06/02/94	CRT
Carbon disulfide	<5	ug/l		06/02/94	CRT
Carbon tetrachloride	<5	ug/l		06/02/94	CRT
Chlorobenzene	<5	ug/l		06/02/94	CRT
Chloroethane	<10	ug/l		06/02/94	CRT
Chloroform	<5	ug/l		06/02/94	CRT
Chloromethane	<10	ug/l		06/02/94	CRT
Dibromochloromethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethane	<5	ug/l		06/02/94	CRT
1,2-Dichloroethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethene	<5	ug/l		06/02/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		06/02/94	CRT
1,2-Dichloropropane	<5	ug/l		06/02/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
Ethylbenzene	<5	ug/l		06/02/94	CRT
2-Hexanone	<10	ug/l		06/02/94	CRT
Methylene chloride	<5	ug/l		06/02/94	CRT
4-Methyl-2-pentanone	<10	ug/l		06/02/94	CRT
Styrene	<5	ug/l		06/02/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/02/94	CRT
Tetrachloroethene	<5	ug/l		06/02/94	CRT
Toluene	<5	ug/l		06/02/94	CRT
1,1,1-Trichloroethane	<5	ug/l		06/02/94	CRT
1,1,2-Trichloroethane	<5	ug/l		06/02/94	CRT
Trichloroethene	<5	ug/l		06/02/94	CRT
Vinyl acetate	<10	ug/l		06/02/94	CRT

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** SAMPLE ANALYSIS REPORT **

06/17/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40507687 Project #: L2115 -382
 Customer ID: Aeration Tank Influent - 5/31/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		06/02/94	CRT
o-Xylene	<5	ug/l		06/02/94	CRT
m-Xylene	<5	ug/l		06/02/94	CRT
p-Xylene	<5	ug/l		06/02/94	CRT
TOC, SM 17 ed. 5310	24	mg/l	a	06/06/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		06/08/94	KBB
Antimony, EPA 204.2	0.0035	mg/l		06/17/94	CRW
Arsenic, EPA 206.2	<0.01	mg/l		06/04/94	CRW
Barium, EPA 208.1	0.59	mg/l		06/07/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		06/07/94	KBB
Chromium, Total, EPA 218.1	<0.04	mg/l		06/13/94	KBB
Copper, EPA 220.1	<0.02	mg/l		06/03/94	JNT
Iron, EPA 236.1	1.5	mg/l		06/09/94	KBB
Magnesium, EPA 242.1	20	mg/l		06/09/94	KBB
Manganese, EPA 243.1	5.6	mg/l		06/03/94	KBB
Zinc, EPA 289.1	0.024	mg/l		06/02/94	JNT
Cyanide, Total, EPA 335.2	0.0064	mg/l		06/08/94	JDC
Metals Digestion, EPA 600/4-79	batch	742		06/02/94	JEB
Lead, EPA 239.2	0.0017	mg/l		06/16/94	CRW

a- TOC's were sub-contracted out tp ELAP #10900

Sample # 40507688 Project #: L2115 -382
 Customer ID: Discharge - 5/31/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/02/94	CRT
Benzene	<5	ug/l		06/02/94	CRT
Bromodichloromethane	<5	ug/l		06/02/94	CRT
Bromoform	<5	ug/l		06/02/94	CRT
Bromomethane	<10	ug/l		06/02/94	CRT

** SAMPLE ANALYSIS REPORT **

06/17/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40507688

Project #: L2115 -382

Customer ID: Discharge - 5/31/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
2-Butanone	<10	ug/l		06/02/94	CRT
Carbon disulfide	<5	ug/l		06/02/94	CRT
Carbon tetrachloride	<5	ug/l		06/02/94	CRT
Chlorobenzene	<5	ug/l		06/02/94	CRT
Chloroethane	<10	ug/l		06/02/94	CRT
Chloroform	<5	ug/l		06/02/94	CRT
Chloromethane	<10	ug/l		06/02/94	CRT
Dibromochloromethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethane	<5	ug/l		06/02/94	CRT
1,2-Dichloroethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethene	<5	ug/l		06/02/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		06/02/94	CRT
1,2-Dichloropropane	<5	ug/l		06/02/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
Ethylbenzene	<5	ug/l		06/02/94	CRT
2-Hexanone	<10	ug/l		06/02/94	CRT
Methylene chloride	<5	ug/l		06/02/94	CRT
4-Methyl-2-pentanone	<10	ug/l		06/02/94	CRT
Styrene	<5	ug/l		06/02/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/02/94	CRT
Tetrachloroethene	<5	ug/l		06/02/94	CRT
Toluene	<5	ug/l		06/02/94	CRT
1,1,1-Trichloroethane	<5	ug/l		06/02/94	CRT
1,1,2-Trichloroethane	<5	ug/l		06/02/94	CRT
Trichloroethene	<5	ug/l		06/02/94	CRT
Vinyl acetate	<10	ug/l		06/02/94	CRT
Vinyl chloride	<10	ug/l		06/02/94	CRT
o-Xylene	<5	ug/l		06/02/94	CRT
m-Xylene	<5	ug/l		06/02/94	CRT
p-Xylene	<5	ug/l		06/02/94	CRT
TOC, SM 17 ed. 5310	12	mg/l		06/06/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		06/08/94	KBB
Antimony, EPA 204.2	0.0034	mg/l		06/17/94	CRW
Arsenic, EPA 206.2	0.012	mg/l		06/06/94	CRW
Barium, EPA 208.1	0.33	mg/l		06/07/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		06/07/94	KBB

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

06/17/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40507688
 Customer ID: Discharge - 5/31/94
 Matrix: NPW

Project #: L2115 -382
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Chromium, Total, EPA 218.1	<0.04	mg/l		06/13/94	KBB
Copper, EPA 220.1	<0.02	mg/l		06/03/94	JNT
Iron, EPA 236.1	0.085	mg/l		06/09/94	KBB
Magnesium, EPA 242.1	20	mg/l		06/09/94	KBB
Manganese, EPA 243.1	<0.01	mg/l		06/03/94	KBB
Zinc, EPA 289.1	0.037	mg/l		06/02/94	JNT
Cyanide, Total, EPA 335.2	0.0064	mg/l		06/08/94	JDC
Metals Digestion, EPA 600/4-79	batch	742		06/02/94	JEB
Lead, EPA 239.2	<0.001	mg/l		06/16/94	CRW

Sample # 40507689
 Customer ID: Trip Blank - 5/31/94
 Matrix: NPW

Project #: L2115 -382
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/02/94	CRT
Benzene	<5	ug/l		06/02/94	CRT
Bromodichloromethane	<5	ug/l		06/02/94	CRT
Bromoform	<5	ug/l		06/02/94	CRT
Bromomethane	<10	ug/l		06/02/94	CRT
2-Butanone	<10	ug/l		06/02/94	CRT
Carbon disulfide	<5	ug/l		06/02/94	CRT
Carbon tetrachloride	<5	ug/l		06/02/94	CRT
Chlorobenzene	<5	ug/l		06/02/94	CRT
Chloroethane	<10	ug/l		06/02/94	CRT
Chloroform	<5	ug/l		06/02/94	CRT
Chloromethane	<10	ug/l		06/02/94	CRT
Dibromochloromethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethane	<5	ug/l		06/02/94	CRT
1,2-Dichloroethane	<5	ug/l		06/02/94	CRT
1,1-Dichloroethene	<5	ug/l		06/02/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		06/02/94	CRT
1,2-Dichloropropane	<5	ug/l		06/02/94	CRT

** SAMPLE ANALYSIS REPORT **

06/17/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40507689

Project #: L2115 -382

Customer ID: Trip Blank - 5/31/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
cis-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		06/02/94	CRT
Ethylbenzene	<5	ug/l		06/02/94	CRT
2-Hexanone	<10	ug/l		06/02/94	CRT
Methylene chloride	<5	ug/l		06/02/94	CRT
4-Methyl-2-pentanone	<10	ug/l		06/02/94	CRT
Styrene	<5	ug/l		06/02/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/02/94	CRT
Tetrachloroethene	<5	ug/l		06/02/94	CRT
Toluene	<5	ug/l		06/02/94	CRT
1,1,1-Trichloroethane	<5	ug/l		06/02/94	CRT
1,1,2-Trichloroethane	<5	ug/l		06/02/94	CRT
Trichloroethene	<5	ug/l		06/02/94	CRT
Vinyl acetate	<10	ug/l		06/02/94	CRT
Vinyl chloride	<10	ug/l		06/02/94	CRT
o-Xylene	<5	ug/l		06/02/94	CRT
m-Xylene	<5	ug/l		06/02/94	CRT
p-Xylene	<5	ug/l		06/02/94	CRT

**CHAIN OF CUSTODY
SUMMARY FORM**

L2115-382

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER			ANALYSIS REQUIRED							DATE ANALYSIS NEEDED	NOTES
Columbia Mills Minetto, NY				1069079			EPA 8240	TOC	Metals*	Cyanide					
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE									
				NO.	SIZE / TYPE										
AERATION TANK INFLUENT	5/31/94	11:00	W	5	1 liter - P 1 liter - P 500 ml - P 40 ml - V (2)	HNO ₃ Ascorbic Acid H ₂ SO ₄	X	X	X	X					6/14/94 41502087
DISCHARGE	↓	11:20	↓	5	↓	↓	X	X	X	X					* -7688
TRIP BLANK	↓	10:00	↓	2	40ml-V	---	X								* WTD -7689
* 1 of the trip blanks broken at laboratory upon receipt - WTD 5/31/94															
Discharge vials															
* air bubble in 1 purge vial - WTD 5/31/94															
Matrix: W - water O - oil Container: V - VOA vial S - soil A - air G - glass SE - sediment X - other P - plastic							NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR. 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc. 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.								
Relinquished by	Received by	Date	Time	Special Instructions											
<i>[Signature]</i>	<i>[Signature]</i>	5/31/94	4:18 pm	* metals = Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn											
Purpose or reason for collecting sample(s): monthly IRM sampling / UST 1 start-up															



File: 1069-079

SAMPLE ANALYSIS REPORT

L2115 - 385

LSL Project No.

[Signature]

Reviewed By

7/13/94

Date

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C: DWK 07/18/94

LIFE SCIENCE LABORATORIES, INC.

5854 Butternut Drive, East Syracuse, New York 13057 Telephone: (315) 445-1105 Fax: (315) 445-1301

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608827 Project #: L2115 -385
Customer ID: Comb. Test Pit 3 - 6/16/94
Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/16/94	KMG
Benzene	<5	ug/l		06/16/94	KMG
Bromodichloromethane	<5	ug/l		06/16/94	KMG
Bromoform	<5	ug/l		06/16/94	KMG
Bromomethane	<10	ug/l		06/16/94	KMG
2-Butanone	<10	ug/l		06/16/94	KMG
Carbon disulfide	<5	ug/l		06/16/94	KMG
Carbon tetrachloride	<5	ug/l		06/16/94	KMG
Chlorobenzene	<5	ug/l		06/16/94	KMG
Chloroethane	<10	ug/l		06/16/94	KMG
Chloroform	<5	ug/l		06/16/94	KMG
Chloromethane	<10	ug/l		06/16/94	KMG
Dibromochloromethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethane	<5	ug/l		06/16/94	KMG
1,2-Dichloroethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethene	<5	ug/l		06/16/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		06/16/94	KMG
1,2-Dichloropropane	<5	ug/l		06/16/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
Ethylbenzene	<5	ug/l		06/16/94	KMG
2-Hexanone	<10	ug/l		06/16/94	KMG
Methylene chloride	<5	ug/l		06/16/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/16/94	KMG
Styrene	<5	ug/l		06/16/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/16/94	KMG
Tetrachloroethene	<5	ug/l		06/16/94	KMG
Toluene	<5	ug/l		06/16/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/16/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/16/94	KMG
Trichloroethene	<5	ug/l		06/16/94	KMG
Vinyl acetate	<10	ug/l		06/16/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608827
 Customer ID: Comb. Test Pit 3
 Matrix: NPW

Project #: L2115 -385
 - 6/16/94
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		06/16/94	KMG
o-Xylene	<5	ug/l		06/16/94	KMG
m-Xylene	5.7 *	ug/l	a	06/16/94	KMG
p-Xylene	*	ug/l		06/16/94	KMG
TOC, SM 17 ed. 5310	30	mg/l	b	06/20/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		06/22/94	KBB
Antimony, EPA 204.2	<0.02	mg/l		07/12/94	CRW
Arsenic, EPA 206.2	0.013	mg/l		06/24/94	CRW
Barium, EPA 208.1	0.77	mg/l		06/23/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		06/27/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		06/24/94	KBB
Copper, EPA 220.1	<0.02	mg/l		06/29/94	JNT
Iron, EPA 236.1	2.1	mg/l		06/29/94	KBB
Magnesium, EPA 242.1	20	mg/l		06/27/94	JNT
Manganese, EPA 243.1	5.0	mg/l		06/30/94	EMG
Zinc, EPA 289.1	<0.01	mg/l		06/27/94	JNT
Metals Digestion, EPA 600/4-79	batch	787		06/21/94	JEB
Lead, EPA 239.1	<0.05	mg/l		07/08/94	KBB

a- Chromatographically, para and meta Xylene co-elute. The reported value may represent either of these compounds or a combination thereof.

b- TOC's were sub-contracted out to ELAP #10900.

Sample # 40608828
 Customer ID: Comb. UST Area 1
 Matrix: NPW

Project #: L2115 -385
 - 6/16/94
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/16/94	KMG
Benzene	<5	ug/l		06/16/94	KMG
Bromodichloromethane	<5	ug/l		06/16/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608828

Project #: L2115 -385

Customer ID: Comb. UST Area 1 - 6/16/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Bromoform	<5	ug/l		06/16/94	KMG
Bromomethane	<10	ug/l		06/16/94	KMG
2-Butanone	<10	ug/l		06/16/94	KMG
Carbon disulfide	<5	ug/l		06/16/94	KMG
Carbon tetrachloride	<5	ug/l		06/16/94	KMG
Chlorobenzene	<5	ug/l		06/16/94	KMG
Chloroethane	<10	ug/l		06/16/94	KMG
Chloroform	<5	ug/l		06/16/94	KMG
Chloromethane	<10	ug/l		06/16/94	KMG
Dibromochloromethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethane	<5	ug/l		06/16/94	KMG
1,2-Dichloroethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethene	<5	ug/l		06/16/94	KMG
1,2-Dichloroethene, Total	7.6	ug/l	a	06/16/94	KMG
1,2-Dichloropropane	<5	ug/l		06/16/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
Ethylbenzene	<5	ug/l		06/16/94	KMG
2-Hexanone	<10	ug/l		06/16/94	KMG
Methylene chloride	<5	ug/l		06/16/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/16/94	KMG
Styrene	<5	ug/l		06/16/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/16/94	KMG
Tetrachloroethene	<5	ug/l		06/16/94	KMG
Toluene	<5	ug/l		06/16/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/16/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/16/94	KMG
Trichloroethene	10	ug/l		06/16/94	KMG
Vinyl acetate	<10	ug/l		06/16/94	KMG
Vinyl chloride	<10	ug/l		06/16/94	KMG
o-Xylene	<5	ug/l		06/16/94	KMG
m-Xylene	<5	ug/l		06/16/94	KMG
p-Xylene	<5	ug/l		06/16/94	KMG
TOC, SM 17 ed. 5310	12	mg/l		06/20/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		06/22/94	KBB
Antimony, EPA 204.2	<0.02	mg/l		07/11/94	CRW
Arsenic, EPA 206.2	<0.01	mg/l		06/24/94	CRW

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608828 Project #: L2115 -385
 Customer ID: Comb. UST Area 1 - 6/16/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Barium, EPA 208.1	0.30	mg/l		06/23/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		06/27/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		06/24/94	KBB
Copper, EPA 220.1	<0.02	mg/l		06/29/94	JNT
Iron, EPA 236.1	0.11	mg/l		06/29/94	KBB
Magnesium, EPA 242.1	24	mg/l		06/27/94	JNT
Manganese, EPA 243.1	1.2	mg/l		06/30/94	EMG
Zinc, EPA 289.1	0.014	mg/l		06/27/94	JNT
Metals Digestion, EPA 600/4-79	batch	787		06/21/94	JEB
Lead, EPA 239.2	<0.05	mg/l		07/08/94	KBB

a- cis-1,2-Dichloroethene

Sample # 40608829 Project #: L2115 -385
 Customer ID: Filter Effluent - 6/16/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/16/94	KMG
Benzene	<5	ug/l		06/16/94	KMG
Bromodichloromethane	<5	ug/l		06/16/94	KMG
Bromoform	<5	ug/l		06/16/94	KMG
Bromomethane	<10	ug/l		06/16/94	KMG
2-Butanone	<10	ug/l		06/16/94	KMG
Carbon disulfide	<5	ug/l		06/16/94	KMG
Carbon tetrachloride	<5	ug/l		06/16/94	KMG
Chlorobenzene	<5	ug/l		06/16/94	KMG
Chloroethane	<10	ug/l		06/16/94	KMG
Chloroform	<5	ug/l		06/16/94	KMG
Chloromethane	<10	ug/l		06/16/94	KMG
Dibromochloromethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethane	<5	ug/l		06/16/94	KMG
1,2-Dichloroethane	<5	ug/l		06/16/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608829

Project #: L2115 -385

Customer ID: Filter Effluent - 6/16/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
1,1-Dichloroethene	<5	ug/l		06/16/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		06/16/94	KMG
1,2-Dichloropropane	<5	ug/l		06/16/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
Ethylbenzene	<5	ug/l		06/16/94	KMG
2-Hexanone	<10	ug/l		06/16/94	KMG
Methylene chloride	<5	ug/l		06/16/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/16/94	KMG
Styrene	<5	ug/l		06/16/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/16/94	KMG
Tetrachloroethene	<5	ug/l		06/16/94	KMG
Toluene	<5	ug/l		06/16/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/16/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/16/94	KMG
Trichloroethene	<5	ug/l		06/16/94	KMG
Vinyl acetate	<10	ug/l		06/16/94	KMG
Vinyl chloride	<10	ug/l		06/16/94	KMG
o-Xylene	<5	ug/l		06/16/94	KMG
m-Xylene	<5	ug/l		06/16/94	KMG
p-Xylene	<5	ug/l		06/16/94	KMG

Sample # 40608830

Project #: L2115 -385

Customer ID: Carbon Train 3, Tap B - 6/16/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/16/94	KMG
Benzene	<5	ug/l		06/16/94	KMG
Bromodichloromethane	<5	ug/l		06/16/94	KMG
Bromoform	<5	ug/l		06/16/94	KMG
Bromomethane	<10	ug/l		06/16/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608830
 Customer ID: Carbon Train 3,
 Matrix: NPW

Project #: L2115 -385
 Tap B - 6/16/94
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
2-Butanone	<10	ug/l		06/16/94	KMG
Carbon disulfide	<5	ug/l		06/16/94	KMG
Carbon tetrachloride	<5	ug/l		06/16/94	KMG
Chlorobenzene	<5	ug/l		06/16/94	KMG
Chloroethane	<10	ug/l		06/16/94	KMG
Chloroform	<5	ug/l		06/16/94	KMG
Chloromethane	<10	ug/l		06/16/94	KMG
Dibromochloromethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethane	<5	ug/l		06/16/94	KMG
1,2-Dichloroethane	<5	ug/l		06/16/94	KMG
1,1-Dichloroethene	<5	ug/l		06/16/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		06/16/94	KMG
1,2-Dichloropropane	<5	ug/l		06/16/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/16/94	KMG
Ethylbenzene	<5	ug/l		06/16/94	KMG
2-Hexanone	<10	ug/l		06/16/94	KMG
Methylene chloride	<5	ug/l		06/16/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/16/94	KMG
Styrene	<5	ug/l		06/16/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/16/94	KMG
Tetrachloroethene	<5	ug/l		06/16/94	KMG
Toluene	<5	ug/l		06/16/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/16/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/16/94	KMG
Trichloroethene	<5	ug/l		06/16/94	KMG
Vinyl acetate	<10	ug/l		06/16/94	KMG
Vinyl chloride	<10	ug/l		06/16/94	KMG
m-Xylene	<5	ug/l		06/16/94	KMG
p-Xylene	<5	ug/l		06/16/94	KMG
o-Xylene	<5	ug/l		06/16/94	KMG
OC, SM 17 ed. 5310	10	mg/l		06/20/94	J&L

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608831

Project #: L2115 -385

Customer ID: Discharge - 6/16/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/17/94	KMG
Benzene	<5	ug/l		06/17/94	KMG
Bromodichloromethane	<5	ug/l		06/17/94	KMG
Bromoform	<5	ug/l		06/17/94	KMG
Bromomethane	<10	ug/l		06/17/94	KMG
2-Butanone	<10	ug/l		06/17/94	KMG
Carbon disulfide	<5	ug/l		06/17/94	KMG
Carbon tetrachloride	<5	ug/l		06/17/94	KMG
Chlorobenzene	<5	ug/l		06/17/94	KMG
Chloroethane	<10	ug/l		06/17/94	KMG
Chloroform	<5	ug/l		06/17/94	KMG
Chloromethane	<10	ug/l		06/17/94	KMG
Dibromochloromethane	<5	ug/l		06/17/94	KMG
1,1-Dichloroethane	<5	ug/l		06/17/94	KMG
1,2-Dichloroethane	<5	ug/l		06/17/94	KMG
1,1-Dichloroethene	<5	ug/l		06/17/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		06/17/94	KMG
1,2-Dichloropropane	<5	ug/l		06/17/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/17/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/17/94	KMG
Ethylbenzene	<5	ug/l		06/17/94	KMG
2-Hexanone	<10	ug/l		06/17/94	KMG
Methylene chloride	<5	ug/l		06/17/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/17/94	KMG
Styrene	<5	ug/l		06/17/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/17/94	KMG
Tetrachloroethene	<5	ug/l		06/17/94	KMG
Toluene	<5	ug/l		06/17/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/17/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/17/94	KMG
Trichloroethene	<5	ug/l		06/17/94	KMG
Vinyl acetate	<10	ug/l		06/17/94	KMG
Vinyl chloride	<10	ug/l		06/17/94	KMG
o-Xylene	<5	ug/l		06/17/94	KMG
m-Xylene	<5	ug/l		06/17/94	KMG
p-Xylene	<5	ug/l		06/17/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608831
 Customer ID: Discharge - 6/16/94
 Matrix: NPW

Project #: L2115 -385
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
TOC, SM 17 ed. 5310	9	mg/l		06/20/94	J&L
Aluminum, EPA 202.1	<0.1	mg/l		06/22/94	KBB
Antimony, EPA 204.2	<0.02	mg/l		07/11/94	CRW
Arsenic, EPA 206.2	0.013	mg/l		06/24/94	CRW
Barium, EPA 208.1	0.47	mg/l		06/23/94	KBB
Cadmium, EPA 213.1	<0.01	mg/l		06/27/94	KBB
Chromium, Total, EPA 218.1	<0.01	mg/l		06/24/94	KBB
Copper, EPA 220.1	<0.02	mg/l		06/29/94	JNT
Iron, EPA 236.1	0.12	mg/l		06/29/94	KBB
Magnesium, EPA 242.1	20	mg/l		06/27/94	JNT
Manganese, EPA 243.1	1.9	mg/l		06/30/94	EMG
Zinc, EPA 289.1	0.014	mg/l		06/27/94	JNT
Metals Digestion, EPA 600/4-79	batch	787		06/21/94	JEB
Cyanide, Total, EPA 335.2	<0.005	mg/l		06/22/94	JDC
Lead, EPA 239.1	<0.05	mg/l		07/08/94	KBB

Sample # 40608832
 Customer ID: Trip Blank - 6/16/94
 Matrix: NPW

Project #: L2115 -385
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		06/17/94	KMG
Benzene	<5	ug/l		06/17/94	KMG
Bromodichloromethane	<5	ug/l		06/17/94	KMG
Bromoform	<5	ug/l		06/17/94	KMG
Bromomethane	<10	ug/l		06/17/94	KMG
-Butanone	<10	ug/l		06/17/94	KMG
Carbon disulfide	<5	ug/l		06/17/94	KMG
Carbon tetrachloride	<5	ug/l		06/17/94	KMG
Chlorobenzene	<5	ug/l		06/17/94	KMG
Chloroethane	<10	ug/l		06/17/94	KMG
Chloroform	<5	ug/l		06/17/94	KMG

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608832

Project #: L2115 -385

Customer ID: Trip Blank - 6/16/94

Authorization: 1069079

Matrix: NPW

Test Name	Results	Units	Comment	Completed	Initials
Chloromethane	<10	ug/l		06/17/94	KMG
Dibromochloromethane	<5	ug/l		06/17/94	KMG
1,1-Dichloroethane	<5	ug/l		06/17/94	KMG
1,2-Dichloroethane	<5	ug/l		06/17/94	KMG
1,1-Dichloroethene	<5	ug/l		06/17/94	KMG
1,2-Dichloroethene, Total	<5	ug/l		06/17/94	KMG
1,2-Dichloropropane	<5	ug/l		06/17/94	KMG
cis-1,3-Dichloropropene	<5	ug/l		06/17/94	KMG
trans-1,3-Dichloropropene	<5	ug/l		06/17/94	KMG
Ethylbenzene	<5	ug/l		06/17/94	KMG
2-Hexanone	<10	ug/l		06/17/94	KMG
Methylene chloride	<5	ug/l		06/17/94	KMG
4-Methyl-2-pentanone	<10	ug/l		06/17/94	KMG
Styrene	<5	ug/l		06/17/94	KMG
1,1,2,2,-Tetrachloroethane	<5	ug/l		06/17/94	KMG
Tetrachloroethene	<5	ug/l		06/17/94	KMG
Toluene	<5	ug/l		06/17/94	KMG
1,1,1-Trichloroethane	<5	ug/l		06/17/94	KMG
1,1,2-Trichloroethane	<5	ug/l		06/17/94	KMG
Trichloroethene	<5	ug/l		06/17/94	KMG
Vinyl acetate	<10	ug/l		06/17/94	KMG
Vinyl chloride	<10	ug/l		06/17/94	KMG
o-Xylene	<5	ug/l		06/17/94	KMG
m-Xylene	<5	ug/l		06/17/94	KMG
p-Xylene	<5	ug/l		06/17/94	KMG

Sample # 40608833

Project #: L2115 -385

Customer ID: Comb. Test Pit 3 - 6/16/94

Authorization: 1069079

Matrix: NPW

Test Name	Results	Units	Comment	Completed	Initials
Solids, Tot.Suspended, EPA 160.2	4.8	mg/l		06/22/94	HMP
Solids,Dissolved, EPA 160.1	580	mg/l		06/22/94	HMP

Life Science Laboratories, Inc
5854 Butternut Drive
East Syracuse, New York 13057
(315) 445-1105
NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

07/13/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40608834
Customer ID: Comb. UST Area 1 - 6/16/94
Matrix: NPW

Project #: L2115 -385
Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Solids, Tot.Suspended, EPA 160.2	<4	mg/l		06/22/94	HMP
Solids,Dissolved, EPA 160.1	940	mg/l		06/22/94	HMP

L2115-385

**MALCOLM
PIRNIE**

**CHAIN OF CUSTODY
SUMMARY FORM**

SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSH

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION			PROJECT NUMBER			ANALYSIS REQUIRED						DATE ANALYSIS NEEDED	NOTES	
COLUMBIA MILLS Middletown, N.Y.			1069-07-9			B240	12 Metals	TOC						
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE								
				NO.	SIZE / TYPE									
Com. Test Pit 3	6/16/94	7 ³⁰ m	W	2	4ozal/V		X						2-Whisk	40608827
I				1	32oz/P	HNO ₃		X						
				1	16oz/P	H ₂ SO ₄			X					
Com. VST Area 1				2	4ozal/V		X							40608828
I				1	32oz/P	HNO ₃		X						
				1	16oz/P	H ₂ SO ₄			X					
FILTR. EFFLUENT CARBON TRAIL 3, TAP 3				2	4ozal/V		X							40608829
I				2	L		X							40608830
				1	16oz/P	H ₂ SO ₄			X					
DISCHARGE				2	4ozal/V		X							40608831

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analyze Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	<i>[Signature]</i>	6/16/94	9 ²⁵	*Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn

Purpose or reason for collecting sample(s):

File: 1069-079

RECEIVED

1994



SAMPLE ANALYSIS REPORT

 L2115 - 389

LSL Project No.

[Signature]

Reviewed By

 7/11/94

Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK 07/14/94

** SAMPLE ANALYSIS REPORT **

07/11/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer
Phone: (315) 457-4105

Sample # 40610016
Customer ID: Effluent - 6/30/94
Matrix: NPW

Project #: L2115 -389
Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Total Xylenes, EPA 624	<5	ug/l		07/02/94	CRT

Sample # 40610017
Customer ID: Trip Blank - 6/30/94
Matrix: NPW

Project #: L2115 -389
Authorization: 1069079

<u>Test Name</u>	<u>Results</u>	<u>Units</u>	<u>Comment</u>	<u>Completed</u>	<u>Initials</u>
Total Xylenes, EPA 624	<5	ug/l		07/02/94	CRT

AUG - 8 1994

**SAMPLE ANALYSIS REPORT**L 2115-391

LSL Project No.



Reviewed By

8/4/94

Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711102 Project #: L2115 -391
 Customer ID: Aeration Tank Influent - 7/15/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
-----	-----	-----	-----	-----	-----
EPA 8240 Volatiles					
Acetone	<10	ug/l		07/19/94	CRT
Benzene	<5	ug/l		07/19/94	CRT
Bromodichloromethane	<5	ug/l		07/19/94	CRT
Bromoform	<5	ug/l		07/19/94	CRT
Bromomethane	<10	ug/l		07/19/94	CRT
2-Butanone	<10	ug/l		07/19/94	CRT
Carbon disulfide	<5	ug/l		07/19/94	CRT
Carbon tetrachloride	<5	ug/l		07/19/94	CRT
Chlorobenzene	<5	ug/l		07/19/94	CRT
Chloroethane	<10	ug/l		07/19/94	CRT
Chloroform	<5	ug/l		07/19/94	CRT
Chloromethane	<10	ug/l		07/19/94	CRT
Dibromochloromethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethane	<5	ug/l		07/19/94	CRT
1,2-Dichloroethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethene	<5	ug/l		07/19/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		07/19/94	CRT
1,2-Dichloropropane	<5	ug/l		07/19/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
Ethylbenzene	<5	ug/l		07/19/94	CRT
2-Hexanone	<10	ug/l		07/19/94	CRT
Methylene chloride	<5	ug/l		07/19/94	CRT
4-Methyl-2-pentanone	<10	ug/l		07/19/94	CRT
Styrene	<5	ug/l		07/19/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		07/19/94	CRT
Tetrachloroethene	<5	ug/l		07/19/94	CRT
Toluene	<5	ug/l		07/19/94	CRT
1,1,1-Trichloroethane	<5	ug/l		07/19/94	CRT
1,1,2-Trichloroethane	<5	ug/l		07/19/94	CRT
Trichloroethene	<5	ug/l		07/19/94	CRT
Vinyl acetate	<10	ug/l		07/19/94	CRT

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711102 Project #: L2115 -391
 Customer ID: Aeration Tank Influent - 7/15/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Vinyl chloride	<10	ug/l		07/19/94	CRT
-Xylene	<5	ug/l		07/19/94	CRT
-Xylene	<5	ug/l		07/19/94	CRT
p-Xylene	<5	ug/l		07/19/94	CRT

Sample # 40711103 Project #: L2115 -391
 Customer ID: Bag Filter Effluent - 7/15/94
 Matrix: NPW Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
PA 8240 Volatiles					
Acetone	<10	ug/l		07/19/94	CRT
Benzene	<5	ug/l		07/19/94	CRT
Bromodichloromethane	<5	ug/l		07/19/94	CRT
Bromoform	<5	ug/l		07/19/94	CRT
Bromomethane	<10	ug/l		07/19/94	CRT
-Butanone	<10	ug/l		07/19/94	CRT
Carbon disulfide	<5	ug/l		07/19/94	CRT
Carbon tetrachloride	<5	ug/l		07/19/94	CRT
Chlorobenzene	<5	ug/l		07/19/94	CRT
Chloroethane	<10	ug/l		07/19/94	CRT
Chloroform	<5	ug/l		07/19/94	CRT
Chloromethane	<10	ug/l		07/19/94	CRT
Dibromochloromethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethane	<5	ug/l		07/19/94	CRT
1,2-Dichloroethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethene	<5	ug/l		07/19/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		07/19/94	CRT
1,2-Dichloropropane	<5	ug/l		07/19/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
methylbenzene	<5	ug/l		07/19/94	CRT
2-Hexanone	<10	ug/l		07/19/94	CRT

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711103

Project #: L2115 -391

Customer ID: Bag Filter Effluent - 7/15/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Methylene chloride	<5	ug/l		07/19/94	CRT
4-Methyl-2-pentanone	<10	ug/l		07/19/94	CRT
Styrene	<5	ug/l		07/19/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		07/19/94	CRT
Tetrachloroethene	<5	ug/l		07/19/94	CRT
Toluene	<5	ug/l		07/19/94	CRT
1,1,1-Trichloroethane	<5	ug/l		07/19/94	CRT
1,1,2-Trichloroethane	<5	ug/l		07/19/94	CRT
Trichloroethene	<5	ug/l		07/19/94	CRT
Vinyl acetate	<10	ug/l		07/19/94	CRT
Vinyl chloride	<10	ug/l		07/19/94	CRT
o-Xylene	<5	ug/l		07/19/94	CRT
m-Xylene	<5	ug/l		07/19/94	CRT
p-Xylene	<5	ug/l		07/19/94	CRT

Sample # 40711104

Project #: L2115 -391

Customer ID: Carbon 1-B - 7/15/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
EPA 8240 Volatiles					
Acetone	<10	ug/l		07/19/94	CRT
Benzene	<5	ug/l		07/19/94	CRT
Bromodichloromethane	<5	ug/l		07/19/94	CRT
Bromoform	<5	ug/l		07/19/94	CRT
Bromomethane	<10	ug/l		07/19/94	CRT
2-Butanone	<10	ug/l		07/19/94	CRT
Carbon disulfide	<5	ug/l		07/19/94	CRT
Carbon tetrachloride	<5	ug/l		07/19/94	CRT
Chlorobenzene	<5	ug/l		07/19/94	CRT
Chloroethane	<10	ug/l		07/19/94	CRT
Chloroform	<5	ug/l		07/19/94	CRT
Chloromethane	<10	ug/l		07/19/94	CRT

Life Science Laboratories, Inc
 5854 Butternut Drive
 East Syracuse, New York 13057
 (315) 445-1105
 NYS DOH ELAP NO. 10248

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711104
 Customer ID: Carbon 1-B - 7/15/94
 Matrix: NPW

Project #: L2115 -391

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Dibromochloromethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethane	<5	ug/l		07/19/94	CRT
1,2-Dichloroethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethene	<5	ug/l		07/19/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		07/19/94	CRT
1,2-Dichloropropane	<5	ug/l		07/19/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
Ethylbenzene	<5	ug/l		07/19/94	CRT
2-Hexanone	<10	ug/l		07/19/94	CRT
Methylene chloride	<5	ug/l		07/19/94	CRT
4-Methyl-2-pentanone	<10	ug/l		07/19/94	CRT
Styrene	<5	ug/l		07/19/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		07/19/94	CRT
Tetrachloroethene	<5	ug/l		07/19/94	CRT
Toluene	<5	ug/l		07/19/94	CRT
1,1,1-Trichloroethane	<5	ug/l		07/19/94	CRT
1,1,2-Trichloroethane	<5	ug/l		07/19/94	CRT
Trichloroethene	<5	ug/l		07/19/94	CRT
Vinyl acetate	<10	ug/l		07/19/94	CRT
Vinyl chloride	<10	ug/l		07/19/94	CRT
o-Xylene	<5	ug/l		07/19/94	CRT
m-Xylene	<5	ug/l		07/19/94	CRT
p-Xylene	<5	ug/l		07/19/94	CRT
TOC, SM 17 ed. 5310	5	mg/l	a	07/26/94	JL

a- Analysis performed by ELAP #10900.

Sample # 40711105
 Customer ID: Discharge - 7/15/94
 Matrix: NPW

Project #: L2115 -391

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
LPA 8240 Volatiles					
Acetone	<10	ug/l		07/19/94	CRT

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711105

Project #: L2115 -391

Customer ID: Discharge - 7/15/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Benzene	<5	ug/l		07/19/94	CRT
Bromodichloromethane	<5	ug/l		07/19/94	CRT
Bromoform	<5	ug/l		07/19/94	CRT
Bromomethane	<10	ug/l		07/19/94	CRT
2-Butanone	<10	ug/l		07/19/94	CRT
Carbon disulfide	<5	ug/l		07/19/94	CRT
Carbon tetrachloride	<5	ug/l		07/19/94	CRT
Chlorobenzene	<5	ug/l		07/19/94	CRT
Chloroethane	<10	ug/l		07/19/94	CRT
Chloroform	<5	ug/l		07/19/94	CRT
Chloromethane	<10	ug/l		07/19/94	CRT
Dibromochloromethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethane	<5	ug/l		07/19/94	CRT
1,2-Dichloroethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethene	<5	ug/l		07/19/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		07/19/94	CRT
1,2-Dichloropropane	<5	ug/l		07/19/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
Ethylbenzene	<5	ug/l		07/19/94	CRT
2-Hexanone	<10	ug/l		07/19/94	CRT
Methylene chloride	<5	ug/l		07/19/94	CRT
4-Methyl-2-pentanone	<10	ug/l		07/19/94	CRT
Styrene	<5	ug/l		07/19/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		07/19/94	CRT
Tetrachloroethene	<5	ug/l		07/19/94	CRT
Toluene	<5	ug/l		07/19/94	CRT
1,1,1-Trichloroethane	<5	ug/l		07/19/94	CRT
1,1,2-Trichloroethane	<5	ug/l		07/19/94	CRT
Trichloroethene	<5	ug/l		07/19/94	CRT
Vinyl acetate	<10	ug/l		07/19/94	CRT
Vinyl chloride	<10	ug/l		07/19/94	CRT
o-Xylene	<5	ug/l		07/19/94	CRT
m-Xylene	<5	ug/l		07/19/94	CRT
p-Xylene	<5	ug/l		07/19/94	CRT

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
 7481 Henry Clay Blvd.
 Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711105
 Customer ID: Discharge - 7/15/94
 Matrix: NPW

Project #: L2115 -391
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
TOC, SM 17 ed. 5310	8	mg/l		07/26/94	JL
Cyanide, Total, EPA 335.2	0.014	mg/l		07/19/94	JDC
Aluminum, EPA 202.1	<0.1	mg/l		07/25/94	KBB
Antimony, EPA 204.2	<0.002	mg/l		07/28/94	TER
Arsenic, EPA 206.2	0.0029	mg/l		07/27/94	CRW
Barium, EPA 208.1	0.82	mg/l		07/26/94	EMG
Cadmium, EPA 213.1	<0.01	mg/l		07/26/94	KBB
Chromium, Total, EPA 218.1	0.11	mg/l		07/21/94	KBB
Copper, EPA 220.1	<0.02	mg/l		07/22/94	JNT
Cobalt, EPA 236.1	0.16	mg/l		07/26/94	EMG
Lead, EPA 239.1	<0.05	mg/l		07/22/94	KBB
Magnesium, EPA 242.1	19	mg/l		07/28/94	EMG
Manganese, EPA 243.1	4.0	mg/l		07/29/94	KBB
Zinc, EPA 289.1	<0.01	mg/l		07/22/94	KBB
Metals Digestion, EPA 600/4-79	batch	853		07/19/94	JEB

Sample # 40711106
 Customer ID: Trip Blank - 7/15/94
 Matrix: NPW

Project #: L2115 -391
 Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
PA 8240 Volatiles					
Acetone	<10	ug/l		07/19/94	CRT
Benzene	<5	ug/l		07/19/94	CRT
Bromodichloromethane	<5	ug/l		07/19/94	CRT
Bromoform	<5	ug/l		07/19/94	CRT
Bromomethane	<10	ug/l		07/19/94	CRT
tert-Butanone	<10	ug/l		07/19/94	CRT
Carbon disulfide	<5	ug/l		07/19/94	CRT
Carbon tetrachloride	<5	ug/l		07/19/94	CRT
Chlorobenzene	<5	ug/l		07/19/94	CRT
Chloroethane	<10	ug/l		07/19/94	CRT
Chloroform	<5	ug/l		07/19/94	CRT
Chloromethane	<10	ug/l		07/19/94	CRT

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40711106

Project #: L2115 -391

Customer ID: Trip Blank - 7/15/94

Matrix: NPW

Authorization: 1069079

Test Name	Results	Units	Comment	Completed	Initials
Dibromochloromethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethane	<5	ug/l		07/19/94	CRT
1,2-Dichloroethane	<5	ug/l		07/19/94	CRT
1,1-Dichloroethene	<5	ug/l		07/19/94	CRT
1,2-Dichloroethene, Total	<5	ug/l		07/19/94	CRT
1,2-Dichloropropane	<5	ug/l		07/19/94	CRT
cis-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
trans-1,3-Dichloropropene	<5	ug/l		07/19/94	CRT
Ethylbenzene	<5	ug/l		07/19/94	CRT
2-Hexanone	<10	ug/l		07/19/94	CRT
Methylene chloride	<5	ug/l		07/19/94	CRT
4-Methyl-2-pentanone	<10	ug/l		07/19/94	CRT
Styrene	<5	ug/l		07/19/94	CRT
1,1,2,2,-Tetrachloroethane	<5	ug/l		07/19/94	CRT
Tetrachloroethene	<5	ug/l		07/19/94	CRT
Toluene	<5	ug/l		07/19/94	CRT
1,1,1-Trichloroethane	<5	ug/l		07/19/94	CRT
1,1,2-Trichloroethane	<5	ug/l		07/19/94	CRT
Trichloroethene	<5	ug/l		07/19/94	CRT
Vinyl acetate	<10	ug/l		07/19/94	CRT
Vinyl chloride	<10	ug/l		07/19/94	CRT
o-Xylene	<5	ug/l		07/19/94	CRT
m-Xylene	<5	ug/l		07/19/94	CRT
p-Xylene	<5	ug/l		07/19/94	CRT

**MALCOLM
PIRNIE**

SYRACUSE OFFICE
(315) 457-4105

CHAIN OF CUSTODY SUMMARY FORM

MPI Contact: Karen Balbierer
ANALYTICAL LABORATORY: LSL

L2115-377

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

CLIENT/LOCATION				PROJECT NUMBER			ANALYSIS REQUIRED							DATE ANALYSIS NEEDED	NOTES
Columbia Mills Mineetto, NY				1069079			EPA 8240	TOC	12 metals*	Cyanide					
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE									
				NO.	SIZE / TYPE										
AERATION TANK INFLUENT	7/15/94	4071102	W	2	40ml/V	—	X						8/1/94	placed on ice	
BAG FILTER EFFLUENT		11103		2	40ml/V	—	X								
CARBON I-B		11104		3	2-40 ml/V 1- 16oz/P	H ₂ SO ₄	X	X							
DISCHARGE		11105		5	2-40 ml/V 1- 16oz/P 2- 32oz/P	H ₂ SO ₄ HNO ₃ as concn / MeOH	X	X	X	X					
TRIP BLANK	↓	11106	↓	2	40 ml/V	—	X						↓		

Metric: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time
<i>[Signature]</i>	<i>[Signature]</i>	7/15/94	12:33 pm

Special Instructions
 12 metals = Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn
 Purpose or reason for collecting sample(s): monthly sampling



SAMPLE ANALYSIS REPORT

LD115-393
LSL Project No.

Jack Mancuso QDO
Reviewed By

8/5/94
Date

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By Client's acceptance and/or use of this report, Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect Client as regards to the results contained in this report. Client further agrees that the only remedy available to Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to Client.

The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without the express prior written consent of Life Science Laboratories, Inc.

C: DWK 08/15/94

** SAMPLE ANALYSIS REPORT **

08/03/94

Malcolm Pirnie
7481 Henry Clay Blvd.
Liverpool, NY 13088

Contacts: Ms. Karen Balbierer

Phone: (315) 457-4105

Sample # 40712385
Customer ID: Discharge - 7/29/94
Matrix: NPW

Project #: L2115 -393
Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Total Xylenes, EPA 624	<5	ug/l		08/03/94	KMG

Sample # 40712386
Customer ID: Trip Blank - 7/29/94
Matrix: NPW

Project #: L2115 -393
Authorization: 1069-07-9

Test Name	Results	Units	Comment	Completed	Initials
Total Xylenes, EPA 624	<5	ug/l		08/03/94	KMG

CHAIN OF CUSTODY SUMMARY FORM

LQ 115-393

7481 HENRY CLAY BLVD.
LIVERPOOL, NY 13088

**MALCOLM
PIRNIE**
SYRACUSE OFFICE
(315) 457-4105

MPI Contact: Karen Balblerer
ANALYTICAL LABORATORY: LSL

CLIENT/LOCATION		PROJECT NUMBER		ANALYSIS REQUIRED										DATE ANALYSIS NEEDED	NOTES						
				COLUMBIA MILLS Middletown, N.Y.		1069-07-8															
SAMPLE ID / DESCRIPTION	DATE SAMPLED	TIME SAMPLED	MATRIX	CONTAINERS		PRESERVATIVE	Xylenes														
				NO.	SIZE / TYPE																
DISCHARGE	7/29/04	8 ⁰⁰ am	W	2	4 gal/V		X													2-kegus	40712385
TRIP BLANK	I	I	I	I	I		X													I	40712386

Matrix: W - water O - oil Container: V - VOA vial
 S - soil A - air G - glass
 SE - sediment X - other P - plastic

NOTE: 1. Turnaround time for all volatile analyses, regardless of matrix, is seven days from VTSR.
 2. 'Date Analysis Needed' is the date that written results are required by Malcolm Pirnie, Inc.
 3. Call the Malcolm Pirnie, Inc contact within 24 hours of sample receipt if the requirements on this sheet cannot be met.

Relinquished by	Received by	Date	Time	Special Instructions
<i>[Signature]</i>	M. Drolot	7/29/04	9 ⁰⁰	
Purpose or reason for collecting sample(s):				



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

December 12, 1994

DEC 13

Malcolm Pirnie Inc.
748 Henry Clay Boulevard
Liverpool, NY 13088

Attn: Karen Balbierer

Nyttest is pleased to submit our Project No. 9421401
Login No. 22408 on your sample(s) received: 10/29

Test sample(s) associated with this project will be retained for a period of thirty (30) days, unless otherwise instructed.

My staff is available to answer any questions concerning our report and we look forward to serving your future analytical needs.

Very truly yours,
Nyttest Environmental Inc.



Rene Gigante
Executive Vice President

Encl:
Shipped Via: Fedex



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No. : 9421401
Log in No. : 22408
P.O. No. : 0266-318
Date : Dec. 9, 1994

ANALYTICAL DATA REPORT
PACKAGE FOR

Malcolm Pirnie Inc.

748 Henry Clay Boulevard

Liverpool, NY 13088

ATTN: Karen Balbierer
REF: Columbia Mills, Proj#0266-318 (Monthly)

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
----------------------	--------------------------	-------------------

S E E N E X T P A G E

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

NYS Lab ID. #10195
NJ Cert. #73469
dg

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s). Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

NYTEST ENVIRONMENTAL Inc.

LABORATORY
NUMBER

SAMPLE
IDENTIFICATION

TYPE OF
SAMPLE

2240801
2240802
2240803
2240804
2240805

ATI001
BFE001
CT2TPB
DSCHGE
TPBLNK

Water
Water
Water
Water
Water

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SDG Narrative

000001

NARRATIVE DISCUSSION
VOLATILES - 22408

INTRODUCTION

This narrative covers the analysis of five (5) samples in accordance with protocols based on SW-846 Method 8240.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

All required minimum RRFs and maximum % D continuing calibration requirements have been met in accordance with the Method.

METHOD BLANK

Methylene chloride was found in method blank VBLKN62 at a concentration within QC limits.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKE BLANKS

The recoveries for the matrix spike blanks were within QC limits.

MATRIX SPIKES

Matrix Spikes were not designated to be performed on any of the samples covered by this report.

All spike recoveries and RPD values fell within the advisory QC limits for batch MS/MSD.

INTERNAL STANDARDS

All area responses and retention times fell within acceptable ranges.

SAMPLE COMMENTS

The TICs identified as "Unknown Siloxane" are most probably due to column degradation and not sample constituency.

No further analytical problems were encountered.

000002

NON-CONFORMANCE SUMMARY
(Case Narrative)

Log In No: 22408

INORGANIC FRACTION

Samples were analyzed as per required protocols, no problems were encountered.

000003

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

Yosi Ben
Remo Gigante

000004

ASP Forms

000005

Traffic Reports

000009



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental.

(516) 625-5500

FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name: Malcolm Pirnie, Inc. (MPI)
 Address: 7481 HENRY CLAY RD.
LIVERPOOL, N.Y. 13088
 Project Manager: STEVE D'ARCAVALLO
 Phone: (315) 457-4105 FAX: (315) 457-4959
 Project Name: NYSD&C STADBY CONTRACT - COLUMBIA MILLS TRUCK OPERATIONS
 Project Number: 0266-318
 P.O. #: 0266-318
 Analytical Protocol: _____ Deliverables: _____
 Sampled By: WES JONES

Analysis Requested

No. of Containers

EPA 8240

TOC

METALS #

CYANIDE

Bin #'s In / Out (For Lab Use Only)

Login #: _____
 Ship to:
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: 10/26/91
 Carrier: Fed Ex
 Air Bill #: _____
 Cooler #: 431
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	Analysis Requested
	A T I O O 1	10/27/91	8 ³⁰	AQUATIC TANK INFILTR	2	✓
	B F E O O 1		8 ⁴⁰	BOE FILTER EFFLUENT	2	✓
	C T 2 T P B		8 ⁴⁵	CANAL TANK 2, TAP B	43	✓ ✓ ✓ ✓
	D S C H G R		8 ⁵⁵	DISCHARGE	5	✓ ✓ ✓ ✓
	T P B L N K		-	TRIP BLANK	2	✓

Comments

Relinquished by: <u>Wes Jones</u>	Date / Time: <u>10/27/91 11³⁰ am.</u>	Received by: <u>Federal Express</u>	Date / Time: <u>10/27/91</u>
Print Name: <u>WES JONES</u>		Print Name: <u>FEDERAL EXPRESS</u>	
Relinquished by: <u>000010</u>	Date / Time:	Received by:	Date / Time:
Print Name:		Print Name:	
Relinquished by: <u>000010</u>	Date / Time:	Received by Laboratory: <u>Michael Lan</u>	Date / Time: <u>10/27/91 11:00</u>
Print Name:		Print Name: <u>Michael Lan</u>	

Lab Use Only

Custody Seal: Intact Broken AbsentSample Rec'd in Good Condition?: Y NSample Temperature: 2 Degrees CelsiusINSPECTED BY: ML

COMMENTS: _____

Special Instructions: * METALS - Al, Sb, As, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Mn, Zn

NYTEST ENVIRONMENTAL INC.

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample		NAME: <u>M. LAM</u>	TITLE: <u>SC</u>
Client: <u>MPE</u>	Date Broken: <u>10/29/94</u>	Military Time Seal Broken: <u>1030</u>	
Login #: <u>22408</u>	Analytical Parameter/Fraction: <u>metals TOC w TCN</u> <u>T 8280</u>		

SAMPLE NO.	ALIQOT/EXTRACT NO.	SAMPLE NO.	ALIQOT/EXTRACT NO.
<u>22408-01</u>	<u>ATI 001</u>		
<u>1 - 02</u>	<u>BFED01</u>		
<u>1 - 03</u>	<u>CT2TPB</u>		
<u>1 - 04</u>	<u>DISHWASH</u>		
<u>1 - 05</u>	<u>TRIP BLANK</u>		

DATE	TIME	RELINQUISHED BY	RECIEVED BY	PURPOSE OF CHANGE OF CUS.
<u>11/1/94</u>	<u>0810</u>	PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u>	PRINTED NAME <u>Scuver</u> SIGNATURE <u>Scuver</u>	<u>T 8240</u>
<u>11/4/94</u>	<u>1300</u>	PRINTED NAME <u>P. Pierides</u> SIGNATURE <u>P. Pierides</u>	PRINTED NAME <u>H. Trujillo</u> SIGNATURE <u>H. Trujillo</u>	<u>metals</u>
<u>11/5/94</u>	<u>0630</u>	PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u>	PRINTED NAME <u>Madigan</u> SIGNATURE <u>Madigan</u>	<u>TOC</u>
<u>11/8/94</u>	<u>0800</u>	PRINTED NAME <u>R Fletcher</u> SIGNATURE <u>R Fletcher</u>	PRINTED NAME <u>B. NATH</u> SIGNATURE <u>B. Nath</u>	<u>TCN</u>
<u>11/8/94</u>	<u>0830</u>	PRINTED NAME <u>R. Madigan</u> SIGNATURE <u>R. Madigan</u>	PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u>	<u>Storage</u>
<u>11/9/94</u>	<u>1000</u>	PRINTED NAME <u>B. NATH</u> SIGNATURE <u>B. Nath</u>	PRINTED NAME <u>P. Pierides</u> SIGNATURE <u>P. Pierides</u>	<u>STORAGE</u>
<u>11/10/94</u>	<u>1500</u>	PRINTED NAME <u>Scuver</u> SIGNATURE <u>Scuver</u>	PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u>	<u>004011 STORAGE</u>
<u>11/15/94</u>	<u>1130</u>	PRINTED NAME <u>H. Trujillo</u> SIGNATURE <u>H. Trujillo</u>	PRINTED NAME <u>M. LAM</u> SIGNATURE <u>M. Lam</u>	<u>STORAGE</u>

11/19 8:00

M. LAM
M. Lam

Jan. Pierides
Jan. Pierides

CM

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

(Provide at least two copies to the airline.)

Shipper *Wes Jones*
Malcolm Pirnie, Inc.
7481 Henry Clark Blvd
Liverpool, NY 13088

Air Waybill No. *1540842423*
 Page *1* of *1* Pages
 Shipper's Reference Number (optional) *02106-318*

Consignee *Nutest Environmental, Inc.*
6050 view Blvd.
Port Washington, NY 11050

Federal Express Corporation



Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete inapplicable)

PASSENGER AND CARGO AIRCRAFT	<input checked="" type="checkbox"/>
CARGO AIRCRAFT	<input type="checkbox"/>

Airport of Departure: *Syracuse*

Airport of Destination: *J.F. Kennedy*

: (delete as applicable)
NONRADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification						
Proper Shipping Name	Class or Division	UN or ID No.	Subsidiary Risk	Quantity and type of packaging	Packing Inst.	Authorization
<i>Corrosive Liquid, N.O.S.</i>	<i>8</i>	<i>UN-1760</i>		<i>(8) 0.04L Glass Bottle containing Hydrochloric Acid solution</i>	<i>Y809 II</i>	<i>LTD QTY.</i>

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Government Regulations.

Name/Title of Signatory
Earl W. Mulken Supervisor
 Place and Date
Liverpool, NY 10/28/94
 Signature
[Signature]

Emergency Telephone Number (Required for US Origin or Destination Shipments)
914-654-3446

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FEDERAL **NOTIFICATION FOR LOADING OF DANGEROUS GOODS (PART B)** 3 **OUTBOUND**
(Travel to Destination)
 Press Hard—5 Part Form—USE BALL POINT PEN ONLY

Employee No. *140741* Origin: *JFK* Dest: *BPA* Date: *10/28/94*

Proper Shipping Name, Class or Division, UN or ID No., Subsidiary Risk (Per Title 49 CFR & IATA/CACR)	P A X	C A O	N P g	Net Qty Per Pkg	Airbill Number/ Customer Number	Container No./	
						Box	Car
<i>COGNAC</i>					<i>1518 42183</i>		

EMERGENCY RESPONSE CONTACT 24 HR. # *1-914-654-3446*

CARGO AIRCRAFT ONLY IF APPLICABLE

FedEx M-03908 8/93 LOGOS # 107539 © 1994 All Rights Reserved

WES JONES
 MALCOLM PIRNIE INC
 7481 HENRY CLAY BLVD
 LIVERPOOL NY 130883522
 (315) 457-4105

SHIP DATE: 28OCT94
 ACCOUNT # 106342733
 MAX-WGT: 15 LBS

TO: MYTEST ENVIRONMENTAL, INC.
 60 SEAVLEY BLVD
 PORT WASHINGTON NY 11060

PART # 145385 FORMAT # 077 RIT 08/94

154 0842 423



POWERSHIP 3

154 0842 423

REF: 0266-318

PRIORITY OVERNIGHT

**SAT
AA**

CAD # 00862 28OCT94

Trk# **154 0842 423**

Michael Lani

**DROP
11050-NY-US
DNG**

JFK
01BPA

10/29/94 1100



000013



NOTIFICATION FOR LOADING OF DANGEROUS GOODS (PART B) 5

STAY WITH PACKAGE

Press Hard - 6 Part Form - USE BALL POINT PEN ONLY

Employee No. 11171	Origin: SJK	Dest: .C. F. H.	Date: 11/1/88				
Proper Shipping Name, Class or Division, UN or ID No., Substitutory Risk (Per Title 49 CFR & IATA/CAO)	P A X	C A O	No. of Pkgs	Net Qty Per Pkg	Airbill Number/ Customer Number	Container No./ Belly Comp	
						In	Out
CORROSIVE LIQUID, N.O.S. UN 1760 CLASS 8 Y808							11
EMERGENCY RESPONSE CONTACT 24 HR. # 11171 / 116						TRUCK PLACARD BOX WEIGHT	

CARGO AIRCRAFT ONLY IF APPLICABLE

FedEx M-EXPDB 6/83 LOGOS # 107530

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**MALCOLM
PIRNIE**

MALCO PIRNIE, INC. 7481 HENRY CLAY BOULEVARD LIVERPOOL, NY 130

CORROSIVE LIQUID, N.O.S.
CLASS 8

UN 1760 Y808

PACK. INST. 2, 11

(8) 0.04 L GLASS BOTTLES CONTAINING
HYDROCHLORIC ACID SOLUTION

EMERG. RESP CONTACT (914) 654-3446

RECYCLED PAPER

Albert J.
M. LARI

10/27/88

000014

Qualifiers

000015

Method Qualifiers for Organic CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J - Indicates an estimated value. The flag is used either when estimating 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 sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been successfully confirmed.
- B - This flag is used when the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.

Form I's

000017

Volatile Data

000018

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATI001

Lab Name: NYTEST ENV INC Contract: 9421401
 Lab Code: NYTEST Case No.: 22408 SAS No.: SDG No.: 22408
 Matrix: (soil/water) WATER Lab Sample ID: 2240801
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0110.D
 Level: (low/med) LOW Date Received: 10/29/94
 % Moisture: not dec. _____ Data Analyzed: 11/03/94
 Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	6	JB
67-64-1	-----Acetone	10	U
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	2	J
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	4	J
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	10	U
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	10	U

000013

AE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFE001

Lab Name: NYTEST ENV INC

Contract: 9421401

Lab Code: NYTEST

Case No.: 22408

SAS No.:

SDG No.: 22408

Matrix: (soil/water) WATER

Lab Sample ID: 2240802

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0111.D

Level: (low/med) LOW

Date Received: 10/29/94

% Moisture: not dec. _____

Data Analyzed: 11/03/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	12.934	7	J
2.	UNKNOWN SILOXANE	18.064	8	J
3.				
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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CT2TPB

Lab Name: NYTEST ENV INC

Contract: 9421401

Lab Code: NYTEST

Case No.: 22408

SAS No.:

SDG No.: 22408

Matrix: (soil/water) WATER

Lab Sample ID: 2240803

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0112.D

Level: (low/med) LOW

Date Received: 10/29/94

% Moisture: not dec. _____

Data Analyzed: 11/03/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	12.934	10	J
2.	UNKNOWN SILOXANE	18.064	20	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DSCHGE

Lab Name: NYTEST ENV INC

Contract: 9421401

Lab Code: NYTEST

Case No.: 22408

SAS No.:

SDG No.: 22408

Matrix: (soil/water) WATER

Lab Sample ID: 2240804

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0113.D

Level: (low/med) LOW

Date Received: 10/29/94

% Moisture: not dec. _____

Data Analyzed: 11/03/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	12.944	7	J
2.	UNKNOWN SILOXANE	18.073	16	J
3.				
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000026

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BPA SAMPLE NO.

TPBLNK

Lab Name: NYTEST ENV INC

Contract: 9421401

Lab Code: NYTEST

Case No.: 22408

SAS No.:

SDG No.: 22408

Matrix: (soil/water) WATER

Lab Sample ID: 2240805

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0114.D

Level: (low/med) LOW

Date Received: 10/29/94

% Moisture: not dec. _____

Data Analyzed: 11/03/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SILOXANE	12.934	10	J
2.	UNKNOWN SILOXANE	18.064	28	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.

VBLKN62

Lab Name: NYTEST ENV INC

Contract: 9421401

Lab Code: NYTEST

Case No.: 22408

SAS No.:

SDG No.: 22408

Matrix: (soil/water) WATER

Lab Sample ID: VBLKN62

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0102.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Data Analyzed: 11/03/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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000030

Inorganic Data

000031

**Total Organic Carbon
Results**

Lab Name: Nytest Environmental Inc. Case No. 22408

Project No: 9421401 SDG: 22408

Client : Malcom Pirnie Inc.

Sample ID	Lab ID		Results in mg/L
CT2TPB	2240803		4.2
DSCHGE	2240804		4.3
DSCHGED	2240804	DUP	4.6
DSCHGES	2240804	SPIKE	203
Duplicate Relative Percent Difference:			6.74
Spike Added:			200 ppm
Spike Percent Recovery:			99.4%
MDL			1.0
Method Blank			<1.0

000033

REPORT OF ANALYSIS

Log In No.: 22408

We find as follows:

Results in mg/l:

Sample Identification

Parameter(s)

NYTEST NO. CLIENT ID.

Chloride

2240803 CT2TPB
2240804 DSCHGE

195
183

METHOD BLANK

<1.0

000034



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

December 5, 1994

Malcolm Pirnie Inc.
7481 Henry Clay Boulevard
Liverpool, NY 13088

Attn: Karen Balbierer

Nyttest is pleased to submit our Project No. 9421401Login No. 22525 on your sample(s) received: 11/11

Test sample(s) associated with this project will be retained for
a period of thirty (30) days, unless otherwise instructed.

My staff is available to answer any questions concerning our report
and we look forward to serving your future analytical needs.

Very truly yours,
Nyttest Environmental Inc.


Remo Gigante
Executive Vice President

Encl:
Shipped Via: Fedex

C: DWK 12/08/94



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No. : 9421401
Log in No. : 22525
P.O. No. : 0266-318
Date : Dec. 1, 1994

ANALYTICAL DATA REPORT
PACKAGE FOR

Malcolm Pirnie Inc.

7481 Henry Clay Boulevard

Liverpool, NY 13088

ATTN: Karen Balbierer
REF: Columbia Mills, Proj#0266-318 (Monthly)

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
----------------------	--------------------------	-------------------

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195
NJ Cert. #73469
dg

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s) Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense

NYTEST ENVIRONMENTAL Inc.

LABORATORY
NUMBER

SAMPLE
IDENTIFICATION

TYPE OF
SAMPLE

2252501
2252502

DSCHGE
TRBLNK

Water
Water

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Traffic Reports	7 - 16
Qualifiers.	17 - 18
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SDG Narrative

NARRATIVE DISCUSSION
VOLATILES - 22525

INTRODUCTION

This narrative covers the analysis of two (2) samples in accordance with protocols based on SW-846 Method 8240.

HOLDING TIMES

The analytical holding time for this analysis was met in accordance with the Method (14 days from collection). Analysis was however, performed on (1) day outside the ASP required holding time. Samples were initially analyzed within the ten (10) day required holding time, however, due to Xylene contamination in the method blank, reanalysis was required.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

All required minimum RRFs and maximum % D continuing calibration requirements have been met in accordance with the Method.

METHOD BLANKS

The method blank associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKES

Matrix Spikes were not designated to be performed on the sample covered by this report.

Batched QC is being supplied. Please note that non site specific QC may demonstrate differing matrix affects than samples contained in this login. The applicable Form 3 is, therefore, being supplied.

INTERNAL STANDARDS

All area responses and retention times fell within acceptable ranges.

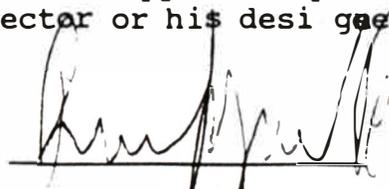
SAMPLE COMMENTS

No analytical problems were encountered.

c:\nar.dis\dg

000002

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



Remo Gigante

000003

ASP Forms

000004

Traffic Reports

TO: Joe Dockery
OF: NEI
FAX NO.: 516-625-1274
RE: Columbia Mills Treatment Trailer Sampling

FROM: Karen Balbierer

DATE: 3 November 1994

TIME: 15:50

JOB NUMBER: 0266-318

NUMBER OF PAGES: (including this sheet) (1)

MESSAGE: Joe,

On November 10th, we will be collecting a sample (1 water & 1 trip blank) at Columbia Mills, for xylenes analysis by EPA method 8240. We need to get vials for the sample and a trip blank by Tuesday November 8th.

We are looking for 3 week TAT for these results as you discussed with Dave Knutsen.

Also, I will now be the main contact person for both NYSDEC/Columbia Mills projects 0266-318 & 0266-319, so you can send me all reports and invoices. If I am not available you may want to speak with Steve Darcangelo (0266-318) or Dave Knutsen (0266-319).

Please let me know if there are any problems.

Thank you.

7481 Henry Clay Blvd.
Liverpool, NY 13088

TEL:(315) 457-4105
FAX:(315) 457-4959

000010

*If you do not receive all pages or if portions are illegible
please call (315) 457-4105 for retransmission*

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

(Provide at least two copies to the airline.)

Shipper <i>Maleda Frank</i> <i>7481 Henry Clay Blvd.</i> <i>Liverpool, N.Y. 13088</i>	Air Waybill No. <i>1923444634</i> Page <i>1</i> of <i>1</i> Pages Shipper's Reference Number <small>(optional)</small>
---	---

Consignee *NYTEST ENVIRONMENTAL INC.*
60 SEAVIEW BLVD
PORT WASHINGTON, N.Y. 11050-4618

Federal Express Corporation



Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder, or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for:
(delete nonapplicable)

PASSENGER AND CARGO AIRCRAFT	<input checked="" type="checkbox"/>
CARGO AIRCRAFT ONLY	<input checked="" type="checkbox"/>

Airport of Departure: *Syracuse*

Airport of Destination: *John F Kennedy*

Shipment type: (delete non applicable)

NONRADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification				Quantity and type of packaging	Packing Inst.	Authorization
Proper Shipping Name	Class or Division	UN or ID No.	Subsidiary Risk			
<i>CORROSIVE LIQUID, N.O.S.</i> <i>(HYDROCHLORIC ACID SOLUTION)</i>	<i>8</i>	<i>1760</i>		<i>1 PLASTIC COOLER CONTAINING</i> <i>(4) 0.04 L GLASS VIALS CONTAINING</i> <i>HYDROCHLORIC ACID SOLUTION)</i>	<i>Y808,</i> <i>II</i>	<i>LTD QTY</i>

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Government Regulations.	Name/Title of Signatory <i>GARY MULLEN / SUPERVISOR</i> Place and Date <i>LIVERPOOL, NY</i>
	Signature <small>(see warning above)</small> <i>Gary W Mullen</i>
Emergency Telephone Number (Required for US Origin or Destination Shipments) <i>(914) 654-3446</i>	

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

000011

GARY MULLEN
MALCOLM PIRNIE INC
7481 HENRY CLAY BLVD
LIVERPOOL NY 13088J522
(315)457-4105

SHIP DATE: 10NOV94
ACCOUNT # 106342733
MAN-WGT: 5 LBS

TO:
MYTEST ENVIRONMENTAL, INC.
60 SEAVIEW BLVD.
PORT WASHINGTON NY 11050

(516)625-5500

192 3444 634



POWERSHIP 3

192 3444 634

REF: 0266-318

PRIORITY OVERNIGHT

FRI
AA

CAD # 88862

10NOV94

Trk# 192 3444 634

JFK

11050-NY-US
DNG

73BPA



PART # 145365 FORMAT # 077 RIT 0894

000012

Robert [Signature]
11/11/94 0930

NEI SAMPLE / ANALYSIS DISCREPANCY FORM

Client Malcolm Pirnie
 Login 22525
 Proj # _____
 Date Rec'd 11/11/94
 Initiated By Staver
 Date 11/22/94

Department	
Login	GC
Extraction	Metals
<input checked="" type="checkbox"/> VOA	Wet Chem
BNA	Report Prod
QC/QA	

Finalized Copy Distribution
 Copy to Section Manager _____
 Copy to QC _____
 Copy to PM/CS/Sales _____
 Copy to S.M. _____
 Copy to _____

RECEIPT DISCREPANCY <input type="checkbox"/> Samples Rec'd Outside of Holding Time <input type="checkbox"/> Sample ID on bottle does not match COC <input type="checkbox"/> Analysis on COC does not match Project Synopsis <input type="checkbox"/> Improper bottles rec'd for analysis requested <input type="checkbox"/> Sample bottle rec'd broken <input type="checkbox"/> Air bubble / Headspace in VOA Vials <input type="checkbox"/> # of bottles rec'd does not match COC <input type="checkbox"/> Rec'd unlabelled/illegible sample bottle <input type="checkbox"/> Insufficient volume/weight rec'd <input type="checkbox"/> COC not properly completed <input type="checkbox"/> Cooler Temperature above 6 deg <input type="checkbox"/> Other (Describe) _____	List Samples Affected: <p style="text-align: right;">Route to Project Manager / Client Services</p>
---	---

ANALYSIS / QC <input type="checkbox"/> Samples Analyzed outside of Holding Time <input type="checkbox"/> Surrogates / Internals Outside of QC Limits (specify or provide forms) <input type="checkbox"/> Extract / Sample Lost / Broken <input type="checkbox"/> QC Expenditures (provide forms) <input checked="" type="checkbox"/> TIC's in Method Blank (provide # and ~ conc.) <input type="checkbox"/> Insufficient Sample for Analysis <input type="checkbox"/> Duplicate Sample Does Not Match <input type="checkbox"/> Sample Extract Emulsions <input type="checkbox"/> Sample Could not be concentrated to final volume (specify final %) <input type="checkbox"/> Other (Describe) _____	List Samples Affected: <p style="text-align: right;">Route to Laboratory Operations Manager</p>	LAST DAY OF HOLDING TIME <u>11/21/94</u>
--	---	--

RECEIPT DISCREPANCY RESOLUTION

PREPARED BY _____ DATE _____

CLIENT CONTACT _____

PROJECT CHANGE INITIATED: YES NO

ANALYSIS / QC PROBLEM RESOLUTION

QC# 730

Re-extraction/Re-analysis authorized
 Report & State in Case Narrative
 Advise Client (Route to PM/CS/Sales)
 Other Advised Karen of M/P

- sample reanalyzed with 11 day VTR (1 day beyond 10 day requirement but with 14 day correction a

Authorized by JB 11/30 Date _____

REVIEW, VERIFICATION AND APPROVAL

000013

Initial Login _____
 Samp Control Review _____
 PM / CS _____
 Lab. Op. Mgr _____

SK

NEI SAMPLE / ANALYSIS DISCREPANCY FORM

Client MPI
 Login 22525
 Proj # 9421401
 Date Rec'd 11/11/94
 Initiated By RA
 Date 11/11/94

Department	
Login	GC
Extraction	Metals
VOA	Wet Chem
BNA	Report Prod
QC/QA	

Finalized Copy Distribution
 ___ Copy to Section Manager _____
 ___ Copy to QC _____
 ___ Copy to PM/CS/Sales _____
 ___ Copy to _____
 ___ Copy to _____

RECEIPT DISCREPANCY List Samples Affected:

<input type="checkbox"/> Samples Rec'd Outside of Holding Time <input type="checkbox"/> Sample ID on bottle does not match COC <input type="checkbox"/> Analysis on COC does not match Project Synopsis <input type="checkbox"/> Improper bottles rec'd for analysis requested <input type="checkbox"/> Sample bottle rec'd broken <input type="checkbox"/> Air bubble / Headspace in VOA Vials <input type="checkbox"/> # of bottles rec'd does not match COC <input type="checkbox"/> Rec'd unlabelled/illegible sample bottle <input type="checkbox"/> Insufficient volume/weight rec'd <input type="checkbox"/> COC not properly completed <input type="checkbox"/> Cooler Temperature above 6 deg <input checked="" type="checkbox"/> Other (Describe)	<p>① COC has 2 WK T/A, PS has 3/4 wks. ② See attached letter. T8240 do we report Xylene only? ③ Previous entry was ASP CATA. Also Product Code was ASP 8240, P.S. has T8240. P.S has CATB</p>
--	--

Route to Project Manager / Client Services

ANALYSIS / QC List Samples Affected: LAST DAY OF HOLDING TIME 1/1

<input type="checkbox"/> Samples Analyzed outside of Holding Time <input type="checkbox"/> Surrogates / Internals Outside of QC Limits (specify or provide forms) <input type="checkbox"/> Extract / Sample Lost / Broken <input type="checkbox"/> QC Exceedance (provide forms) <input type="checkbox"/> TIC's in Method Blank (provide # and ~ conc.) <input type="checkbox"/> Insufficient Sample for Analysis <input type="checkbox"/> Duplicate Sample Does Not Match <input type="checkbox"/> Sample Extract Emulsions <input type="checkbox"/> Sample Could not be concentrated to final volume (specify final vol) <input type="checkbox"/> Other (Describe)	
---	--

Route to Laboratory Operations Manager

RECEIPT DISCREPANCY RESOLUTION

PREPARED BY RS DATE 11/11

CLIENT CONTACT Karen Balbierer

① Enter for 3 weeks
 ② Yes, enter Xylene only
 ③ Enter according to previous entry CATA ASP 8240

ANALYSIS / QC PROBLEM RESOLUTION

QC# _____

Re-extraction/Re-analysis authorized
 Report & State in Case Narrative
 Advise Client (Route to PM/CS/Sales)
 Other

Authorized by _____ Date _____

REVIEW, VERIFICATION AND APPROVAL

000014

Initial Login RA
 Samp Control Review MZ
 PM / CS RS
 Lab. Co. Mgr S. Wen 11-14-94

NYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

DATE: 11/15/94 Tues

10:15

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	PH	TEMPERATURE POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
P1864	8:02	BFBP1115			2ul						
P1865	8:14	USTD050			5g/5mls		1				
P1866	8:56	BFBP1115 ✓			2ul						
P1867		USTD050			5g/5mls		1				
P1868	9:57	BFB1115			2ul						
P1869	10:09	VSTD050			5mls		1				
P1870	10:52	VSTD010 ✓			5mls		1				
P1871	11:25	USTD020 ✓			5mls		1				
P1872	11:54	VSTD050 ✓			5mls		1				
P1873	12:21	VSTD000 ✓			5mls		1				
P1874	12:54	VSTD200 ✓			5mls		1				
P1875		VBLK P79			5mls		1				
					5mls		1				

BFB 10-26-94-K-CVI
 ITS 10-26-94-16-DUI
 Comb 11-1-94-18-EG
 MS 8-11-94-15-m6
 GC

000015

Qualifiers

000017

nytest environmental_{inc}
Method Qualifiers for Organic CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J - Indicates an estimated value. The flag is used either when estimating 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 sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been successfully confirmed.
- B - This flag is used when the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.

000018

Form I's

000019

1 A - MP
NYTEST ENVIRONMENTAL INC.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX: WATER SAMPLE ID: DSCHGE
CONC. LEVEL: LOW LAB ID: 2252501
ANALYSIS DATE: 11/22/94 DIL FACTOR: 1.00
% MOISTURE: NA
UG/L

CMPD # CAS Number VOLATILE COMPOUNDS

1330-20-7	Xylene (total)	10.0 U
-----------	----------------	--------

000020

1 A - MP
NYTEST ENVIRONMENTAL INC.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX: WATER SAMPLE ID: VBLKP86
CONC. LEVEL: LOW LAB ID: P2014
ANALYSIS DATE: 11/22/94 DIL FACTOR: 1.00
% MOISTURE: NA
UG/L

CMPD #	CAS Number	VOLATILE COMPOUNDS	
4	1330-20-7	Xylene (total)	10.0 U

000022



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nyttest environmental inc.

January 5, 1995

Malcolm Pirnie Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

Attn: Karen Balbierer

Nyttest is pleased to submit our Project No. 9421433
Login No. 22620 on your sample(s) received: 11/29

Test sample(s) associated with this project will be retained for a period of thirty (30) days, unless otherwise instructed.

My staff is available to answer any questions concerning our report and we look forward to serving your future analytical needs.

Very truly yours,

Nyttest Environmental Inc.


Remo Gigante

Executive Vice President

Encl:

Shipped Via: Fedex



Project No. : 9421433
Log in No. : 22620
P.O. No. : Pending
Date : Jan. 4, 1995

ANALYTICAL DATA REPORT
PACKAGE FOR

Malcolm Pirnie Inc.

7481 Henry Clay Blvd.

Liverpool, NY 13088

ATTN: Karen Balbierer
REF: Columbia Mills Bi-Annual, Proj.#0266-318

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
----------------------	--------------------------	-------------------

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

NYS Lab ID. #10195
NJ Cert. #73469
ep

Report on sample(s) furnished by client applies to sample(s) Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests. Nytest shall have the option of returning such sample(s) to the client at the client's expense

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
2262001	DSCHGE	Water
2262002	CT3TPB	Water
2262003	RWELL1	Water
2262004	RWELL2	Water
2262005	RWELL3	Water
2262006	RWELL4	Water
2262007	RWELL5	Water
2262008	RWELL6	Water
2262009	RWELL7	Water
2262010	RWELL9	Water
2262011	ATKINF	Water
2262012	BFTEFF	Water
2262013	TPBLNK	Water

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	<hr style="border-top: 1px dashed black;"/>
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Contract Lab Sample Information Sheets.	na
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Qualifiers.	17 - 21
Form I's.	22 - 52

SDG Narrative

00001

NARRATIVE DISCUSSION
VOLATILES - 22620

INTRODUCTION

This narrative covers the analysis of thirteen (13) samples in accordance with protocols based on SW-846 Method 8240.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

All required minimum RRFs and maximum % D continuing calibration requirements have been met in accordance with the Method.

METHOD BLANKS

The method blanks associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKE BLANKS

The recoveries for the matrix spike blank were within QC limits.

MATRIX SPIKES

Sample DSCHGE was utilized in the MS/MSD series. All spike recoveries and RPD values fell within the advisory QC limits.

INTERNAL STANDARDS

All area responses and retention times fell within acceptable ranges.

SAMPLE COMMENTS

The TICs identified as "Unknown Siloxane" are most probably due to column degradation and not sample constituency.

No further analytical problems were encountered.

c:\nar.dis\dg

00002

NON-CONFORMANCE SUMMARY
(Case Narrative)

Login No.: 22620

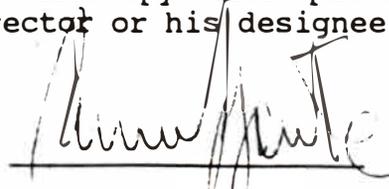
INORGANIC FRACTION

The samples were analyzed according to the required protocols.
No problems were encountered.

g
1/5/95

00003

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

A handwritten signature in black ink, appearing to read "Remo Gigante", written over a horizontal line.

Remo Gigante

00004

ASP Forms

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical requirements					
		VOA GC/MS Method	BNA GC/MS Method	VOA GC Method	PEST PCB Method	METALS	OTHER
DSCHGE	2262001	✓				✓	✓
CT3TPB	02	✓				✓	
RWELL1	03	✓				✓	
RWELL2	04	✓				✓	
RWELL3	05	✓				✓	
RWELL4	06	✓				✓	
RWELL5	07	✓				✓	
RWELL6	08	✓				✓	
RWELL7	09	✓				✓	
RWELL9	10	✓				✓	
ATKINF	11	✓					
BFTEFF	12	✓					
TPBLNK	13	✓					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE DIGESTED	DATE ANALYZED
2262001	Water	Al, As, Ba, Cd, Cr, Cu, Fe, Mg, Mn, Pb, Sb, Zn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262002	Water	TOC	11/29/95	-	12/3/95
2262003	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262004	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262005	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262006	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262007	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262008	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262009	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21
2262010	Water	Fe, Mg, Mn, TOC	11/29/95	12/2 & 12/3	12/3-12/21

Traffic Reports

00009



Chain of Custody Record

Client Name Malcolm Pirnie
 Address 2481 HUNT CLAY BLVD.
LIVERPOOL, N.Y. 13088
 Project Manager Steve D'Arbanis
 Phone (315) 457-4105 FAX (315) 457-4959
 Project Name NYSDEC STAIN-BY CONTACT - C.M. MULLS TANKS
 Project Number 0266-318
 P.O. # _____
 Analytical Protocol _____ Deliverables 3-WEEK TAT
 Sampled By HKS Jones

Analysis Requested

No. of Containers	BZ ₆	TOC	12 METALS ^{at}	CHLORIDE	Fe, Mg, Mn
Bin #'s In / Out (For Lab Use Only)					

Login #: 2262c
 Ship to:
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: 11/20/01
 Carrier: FRO EX
 Air Bill #: _____
 Cooler #: 112
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location
11	A T K I N F	11/28/01	10 ³⁰ AM	AERATION TANK EFFLUENT
12	B F T E F F			BAL FILTER EFFLUENT
02	C T 3 T P B			CANON TANK 3, TAP B
01	D S C H G E			DISCHARGE
03	R W E L L 1			RECEPT WELL #1
04	R W E L L 2			#2
05	R W E L L 3			#3
06	R W E L L 4			#4
07	R W E L L 5			#5
08	R W E L L 6			#6

Comments

Relinquished by: HKS Jones
 Print Name: HKS Jones
 Relinquished by: _____
 Print Name: 000110
 Relinquished by: _____
 Print Name: _____

Date / Time: 11/23/01 2⁰⁰ PM
 Received by: Fred Ex
 Print Name: FREDERICK EXALDO
 Date / Time: 11/23/01 2⁰⁰ PM
 Received by: _____
 Print Name: _____
 Date / Time: _____
 Received by Laboratory: [Signature]
 Print Name: [Signature]
 Date / Time: 11/29/01 10⁰⁰ AM

Lab Use Only
 Custody Seal: Intact Broken Absent
 Sample Rec'd in Good Condition?: Y N
 Sample Temperature: 5 Degrees Celsius
 INSPECTED BY: PP
 COMMENTS: _____

Special Instructions: _____



Chain of Custody Record

Client Name: MARCOLE PIRMA
 Address: 7481 HENRY COT JEW
LIVERMORE, CA 94538
 Project Manager: STEVE DIMANCIGLO
 Phone: (315) 457-4105 FAX: (315) 457-4555
 Project Name: NYSDEC STAD-BY CONTRACT - C. MICK TAMILIA
 Project Number: 0266-318
 P.O. #: _____
 Analytical Protocol: _____ Deliverables: 3 LKCC TAT
 Sampled By: Wes Jones

Analysis Requested

No. of Containers: 8240
Fer Mg Mn

Bin #'s In / Out (For Lab Use Only)

Login #: 22620
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn: Sample Control
 Date Shipped: 11/28/94
 Carrier: Fed Ex
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location
09	R W E L L 7	11/28/94	10 ² am	Reservoir #7
10	R W E L L 9			"9
	R W C O M B			All Reservoir Lakes Conting
13	T P B L A K			TRIP BANK

No. of Containers	Bin #	In	Out
23		X	X
23		X	X
3		X	X
2		X	

Comments

Relinquished by: <u>[Signature]</u>	Date / Time: <u>11/28/94 2² am</u>	Received by: <u>Fed Ex</u>	Date / Time: <u>11/28/94 2² am</u>
Print Name: <u>Wes Jones</u>		Print Name: <u>FEDERAL EXPRESS</u>	
Relinquished by: _____	Date / Time: _____	Received by: _____	Date / Time: _____
Print Name: _____		Print Name: _____	
Relinquished by: <u>00011</u>	Date / Time: _____	Received by: <u>[Signature]</u>	Date / Time: <u>11/29/94 1000</u>
Print Name: _____		Print Name: <u>Pier 1 Pierides</u>	

Lab Use Only

Custody Seals: Intact Broken Absent

Sample Rec'd in Good Condition?: Y N

Sample Temperature: 5 Degrees Celsius

INSPECTED BY: [Signature]

COMMENTS: _____

Special Instructions: _____

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

NAME: Presi Presides TITLE: S.C.O.

Client: <u>MPI</u>	Date Broken: <u>11/29/94</u>	Military Time Seal Broken: <u>1000</u>
Login #: <u>22620</u>	Analytical Parameter/Fraction: <u>TOCW, METALS, ASP8240, TCN</u>	

SAMPLE NO.	ALIQUOT/EXTRACT NO.	SAMPLE NO.	ALIQUOT/EXTRACT NO.
DSCH6E	22620-01	ATKINF	22620-11
CT3TPB	02	BFTEFF	L 12
RWELL1	03	TPBLNK	L 13
RWELL2	04		
RWELL3	05		
RWELL4	06		
RWELL5	07		
RWELL6	08		
RWELL7	09		
RWELL9	10		

DATE	TIME	RELINQUISHED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUST.
11/30/94	1400	PRINTED NAME: <u>M. LANI</u>	PRINTED NAME: <u>VITO CASF Llc</u>	ASP8240
		SIGNATURE: <u>M. Lan</u>	SIGNATURE: <u>[Signature]</u>	
12/3/94	0700	PRINTED NAME: <u>M. LANI</u>	PRINTED NAME: <u>R. Madigan</u>	TOC
		SIGNATURE: <u>M. Lan</u>	SIGNATURE: <u>[Signature]</u>	
12/3/94	0900	PRINTED NAME: <u>M. LANI</u>	PRINTED NAME: <u>B. NATH</u>	TCN
		SIGNATURE: <u>M. Lan</u>	SIGNATURE: <u>[Signature]</u>	
12/5/94	0850	PRINTED NAME: <u>R. Madigan</u>	PRINTED NAME: <u>[Signature]</u>	STORAGE
		SIGNATURE: <u>[Signature]</u>	SIGNATURE: <u>[Signature]</u>	
12/7/94	16:00	PRINTED NAME: <u>M. LANI</u>	PRINTED NAME: <u>H. Trujillo</u>	Metals
		SIGNATURE: <u>M. Lan</u>	SIGNATURE: <u>[Signature]</u>	
12/7/94	0815	PRINTED NAME: <u>B. NATH</u>	PRINTED NAME: <u>M. LANI</u>	STORAGE
		SIGNATURE: <u>[Signature]</u>	SIGNATURE: <u>M. Lan</u>	
12/9/94	1500	PRINTED NAME: <u>H. Trujillo</u>	PRINTED NAME: <u>M. LANI</u>	STORAGE
		SIGNATURE: <u>[Signature]</u>	SIGNATURE: <u>M. Lan</u>	
12/13/94	0800	PRINTED NAME: <u>VITO CASF Llc</u>	PRINTED NAME: <u>M. LANI</u>	STORAGE
		SIGNATURE: <u>[Signature]</u>	SIGNATURE: <u>M. Lan</u>	
12/29/94 14:00		M. LANI M. Lan	Jan Phigisoy Jan Phigisoy	CL00012
12/31/94 0700		Jan Phigisoy		

NYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	pH
N0432	850	BFBIN1130				
N0433		USTOBSA				
N0434		USTOBSA				
N0435	1218	USTOBSA			Sm	
N0436	1292	USTOBSA			↓	
N0437	1326	USTOBSA			↓	
N0438	1401	USTOBSA			↓	
N0439	1435	USTOBSA			↓	
N0440	1508	BFBIN1130				
N0441	1521	USTOBSA			Sm	
N0442	1556	UBCKM18			Sm	
N0443	1631	M5B			Sm	
N0444	1706	FB1122	2260104	11-22-94	Sm	<1
N0445	1740	FB1122	2260105	1	↓	↓
N0446	1815	FB1121	2259504	11-22-94	Sm	<1
N0447	1850	FB1121	2259505	1	↓	<1
N0448	1925	MW34BOL	2260101	11-22-94	100ul/Sm	<1
N0449	1959	MW05BOL	2260102	1	↓	↓
N0450	2034	MW06BOL	2260103	1	↓	↓
N0451	2109	MW04BOL	2259501	11-22-94	Sm/Sm	<1
N0452	2143	MW18A	2259502	↓	↓	↓
N0453	2218	MW24A	2259503	↓	100ul/Sm	↓
N0454	2252	FB1128	2262601	11-30-94	Sm	<1
N0455	2327	FB1129	2262701	11-29-94	Sm	≈7
N0456	0002	MW12-2	2262702	11-29-94	Sm	≈7
N0457	0036	MW11-2	2262703	↓	↓	≈7
N0458	0111	MW-9-2	2262704	↓	↓	≈7
N0459	145	TRAPLK	2262705	↓	↓	≈7
N0460	220	DISCHGE	2262001	11-29-94	Sm	<1

00019

DATE 11-30-94

L. Singh

70

TEKMAR POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYSIS
—			OK	C. SINGH
1			— NK	
1			— NK	
4	137110, 747062	482981	} WATER LINE ASP/SEA/82+0	OK
5	130170, 719185	472510		
6	132289, 728831	429220		
7	129756, 719960	482620		
8	129814, 703718	492565		
			— OK	C. SINGH
1	131664, 747892	497662	— OK	
2	103, 94, 93	OK		
3	105, 93, 94	OK (MSO)		
4	103, 103, 104	OK		
5	106, 99, 101	OK		
6	104, 103, 104	OK		
7	105, 102, 104	OK		
8	104, 104, 97	OK	— rem of SEC	
9	106, 97, 96	OK	— rem of SEC	
10	94, 98, 97	OK		
11	82, 101, 101	OK		
12	102, 98, 98	OK		
13	98, 98, 99	OK		
14	101, 100, 104	OK		
15	102, 101, 104	OK		
16	103, 100, 103	OK		
1	103, 101, 103	OK		
2	104, 102, 104	OK		
3	100, 97, 98	OK		
4	102, 94, 95	OK		

NYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	pH
N0432	850	BFB1N1130				
N0433		UST0850				
N0434		UST0850				
N0435	1218	UST0818NA			Sm1	
N0436	1252	UST0820NA			↓	
N0437	1326	UST0850NA			↓	
N0438	1401	UST0850NA			↓	
N0439	1435	UST0850NA			↓	
N0440	1508	BFB2M1130				
N0441	1521	UST0850N1			Sm1	
N0442	1556	UBLKN18			Sm1	
N0443	1631	M5B			Sm1	
N0444	1706	FB1122	2260104	11-22-94	Sm1	<1
N0445	1740	TB1122	2260105	1	1	1
N0446	1815	FB1121	2259504	11-22-94	Sm1	<1
N0447	1850	TB1121	2259505	1	1	<1
N0448	1925	MW34BOL	2260101	11-22-94	10ml/Sm1	<1
N0449	1959	MW05BOL	2260102	1	1	1
N0450	2034	MW06BOL	2260103	1	1	1
N0451	2109	MW04BOL	2259501	11-22-94	5ml/Sm1	<1
N0452	2143	MW18A	2259502	↓	↓	↓
N0453	2218	MW24A	2259503	↓	10ml/Sm1	↓
N0454	2252	FB1128	2262601	11-30-94	Sm1	<1
N0455	2327	FB1129	2262701	11-29-94	Sm1	≈7
N0456	0002	MW12-2	2262702	11-29-94	Sm1	≈7
N0457	0036	MW11-2	2262703	↓	↓	≈7
N0458	0111	MW9-2	2262704	↓	↓	≈7
N0459	145	TRAP1K	2262705	↓	↓	≈7
N0460	220	DSCHEG	2262001	11-29-94	Sm1	<1

110014

DATE

11-30-94 *L. Singh*

TEKMAR POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
—			OK	L. SINGH
1			— NB	
1			— NB	
4	134110, 747062	482581	} WATER CILINE ASP/SPA/82+0	OK
5	130170, 719185	442310		
6	132289, 728831	429220		
7	135756, 715960	482620		
8	139718, 729718	492565		
1	139718, 747052	497662	— OK	L. SINGH
2	103, 94, 93	OK		
3	105, 93, 94	O/C (MS0)		
4	103, 103, 104	O/C		
5	106, 99, 101	O/C		
6	104, 103, 104	O/C		
7	105, 102, 104	O/C		
8	104, 104, 97	OK	— return of suc	
9	106, 97, 96	OK	— return of suc	
10	94, 93, 97	OK		
11	82, 101, 104	O/C		
12	102, 98, 98	O/C		
13	98, 98, 99	O/C		
14	101, 100, 104	O/C		
15	102, 101, 104	O/C		
16	103, 100, 103	O/C		
1	103, 101, 103	O/C		
2	104, 102, 104	O/C		
3	100, 97, 98	O/C		
4	102, 94, 95	O/C		

NYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	PH
N0461	254	DSC46-8MS	226201	11-24-94	Soil	←
N0462	328	DSC46-8MS	226201			
N0463	—	BLANK	—	—	—	—

MS
12-2-94

00015

DATE

11-30-94 *L. S. Miller*

TEKMAR POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
5	104, 93, 95	OK	(MS)	L. S. Miller
6	104, 97, 87	OK	(MS)	↓

MS
12-2-94

used to clean syringe

NYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC D	CONDITION	pH
N0464	828	BF31M201				
N0465	844	USTO08M2			Sml	
N0466	918	UPK119			Sml	
N0467	953	MW3430X	2260101	11-22-94	10ml/Sol	<1
N0468	1027	MW0530X	22602	1	10ml/Sol	1
N0469	1102	T73TPB	226202	11-29-94	Sml	<1
N0470	1137	RWELL1	226203			
N0471	1211	RWELL2	226204			
N0472	1246	RWELL3	226205			
N0473	1321	RWELL4	226206			
N0474	1355	RWELL5	226207			
N0475	1430	RWELL6	226208			
N0476	154	RWELL7	226209			
N0477	1539	RWELL9	2262010			
N0478	1614	ATKINT	2262011			
N0479	1649	BFTEFF	2262012			
N0480	1723	TPBLK	2262013			
N0481	1757	BF32M201				
N0482	1811	USTO08M3			Sml	
N0483	1846	UPK120			Sml	
N0484	1920	MSS			Sml	
N0485	1955	NOV	2263501	11-30-94	Sml	<1
N0486	2029	MW1-02	2263401	11-30-94	Sol	≈7
N0487	2164	MW1-02MS	2263402			
N0488	2139	MW1-02MS	2263403			
N0489	2213	MW1-02	2263404			
N0490	2247	MW802	2263405			
N0491	2322	MW802	2263406			
N0492	2356	MW13-02	2263410			
N0493	0031	TPBLK	2263411			

00016

DATE 12-1-94

Z. J. [Signature]

TEKMAR POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
			- c/c	L. SIMON
1	136741, 780588, 451558		- c/c	
2	102, 98, 97	c/c	- c/c	
3	102, 104, 102	c/c		
4	98, 100, 97	c/c		
5	92, 101, 99	c/c		
6	103, 90, 88	c/c		
7	103, 97, 94	c/c		
8	104, 103, 101	c/c		
9	102, 102, 102	c/c		
10	103, 102, 99	c/c		
11	101, 94, 90	c/c		
12	106, 90, 86	c/c		
13	103, 92, 88	c/c		
14	103, 96, 93	OK		
15	106, 107, 103	c/c		
16	102, 110, 108	c/c		
-			- c/c	L. SIMON
1			- c/c	
2	89, 95, 96	c/c	- c/c	
3	89, 98, 98	OK	(MS)	
4	93, 97, 96	OK	Acute 1600 ppb	Menu
5			resul compare	
6	92, 106, 103	OK	(MS)	
7	93, 106, 104	c/c	(MS)	
8	91, 92, 90	OK		
9	91, 109, 105	OK		
10	92, 91, 91	OK		
11	86, 109, 108	OK		
12			resul compare	

Qualifiers

nytest environmental_{inc}
Method Qualifiers for Organic CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.

- J - Indicates an estimated value. The flag is used either when estimating 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 sample quantitation limit but greater than zero.

- N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

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

- C - This flag applies to pesticide results where the identification has been successfully confirmed.

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

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

- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

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

00018

Method Qualifiers for Inorganics

FORM I-IN includes fields for three types of results qualifiers. These qualifiers must be completed as follows:

* C (Concentration) qualifier -- Enter "B" if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for but not detected, a "U" must be entered.

* Q Qualifier -- Specified entries and their meanings are as follows :

E - The reported value is estimated because of the presence of interference.

M - Duplicate precision not met (CV > 20%).

N - Spiked sample recovery not within control limits.

S - The reported value was determined by Method of Standard Addition (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

+ - Correlation Coefficient for MSA is less than 0.995.

Entering "S", "W" or "+" is mutually exclusive.

* M (Method) qualifier - enter:

- "P" for ICP

- "A" for Flame AA

- "F" for Furnace AA

- "CV" for Cold Vapor AA

- "AV" for Automated Cold Vapor AA

- "AS" for Semi-Automated Spectrophotometric

- "C" for Manual Spectrophotometric

- "T" for Titrimetric

- "NR" if the analyte is not required to be analyzed.

METHODOLOGY SUMMARY
 NYTEST ENVIRONMENTAL INC.

<u>AQUEOUS SAMPLE PREPARATION</u> [See reference 1 and 2]	<u>METHOD</u>
AA/ICP Sample Preparation (1)	200.7
Furnace Sample Preparation (1)	200.0
Mercury Sample Preparation (1)	245.1

NON-AQUEOUS EXTRACTIONS [See reference 2]

SOIL AND SEDIMENT SAMPLES:

AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3050
Mercury Sample Preparation	7471

SLUDGE / PETROLEUM BASED SAMPLES: [See reference 2]

AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3020 / 3030 / 3050
Mercury Sample Preparation	7471

ICP (INDUCTIVELY COUPLED PLASMA):

REFERENCE 1a/REFERENCE 2a

ALUMINUM	200.7/6010
ANTIMONY	200.7/6010
BARIUM	200.7/6010
BERYLLIUM	200.7/6010
CADMIUM	200.7/6010
CALCIUM	200.7/6010
CHROMIUM	200.7/6010
COBALT	200.7/6010
COPPER	200.7/6010
IRON	200.7/6010
LEAD	200.7/6010
MAGNESIUM	200.7/6010
MANGANESE	200.7/6010
MOLYBDENUM	200.7/6010
NICKEL	200.7/6010
POTASSIUM	200.7/6010
SILVER	200.7/6010
SODIUM	200.7/6010
TIN	200.7/6010
TITANIUM	200.7/6010
VANADIUM	200.7/6010
ZINC	200.7/6010

METHODOLOGY SUMMARY
NYTEST ENVIRONMENTAL INC.

FURNACE AA:	REFERENCE 1 / REFERENCE 2
ANTIMONY	204.1 / 7041
ARSENIC	206.2 / 7060
LEAD	239.2 / 7421
SELENIUM	270.2 / 7740
THALLIUM	279.2 / 7841
TIN	282.2
VANADIUM	286.2 / 7911
MERCURY	245.1 / 7470

Toxicity Characteristic Leaching
Procedure (TCLP) [Reference 5]

ADDITIONAL INORGANIC PARAMETERS

TOC	415.1/9060
TOX	9020

REFERENCES:

- (1) 600/4-79-002 Methods for Chemical Analysis of Water and Waste
- (1a) 600/4-79-002 Methods for Chemical Analysis of Water and Waste as modified by the EPA CLP Statement of Work 787
- (2) SW 846 Test Methods for Evaluating Solid Waste
- (2a) SW 846 Test Methods for Evaluating Solid Waste as modified by the EPA CLP Statement of Work 787
- (3) 40 CFR Part 136, VOL. 49, No. 209 Test Parameters for the Analysis of Pollutants
- (4) As modified by NJDEP - BISE (for non aqueous samples)
- (5) Federal Register Vol 55 No. 126 Friday 06/29/90 p.26986-26996.

Form I's

00022

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATKINF

Lab Name: NYTEST ENV INC Contract: 9421433
 Lab Code: NYTEST Case No.: 22620 SAS No.: SDG No.: 22620
 Matrix: (soil/water) WATER Lab Sample ID: 2262011
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0478.D
 Level: (low/med) LOW Date Received: 11/29/94
 % Moisture: not dec. _____ Data Analyzed: 12/01/94
 Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	10	U
67-64-1	-----Acetone	10	U
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	2	J
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	3	J
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	1	J
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	1	J
108-05-4	-----Vinyl Acetate	10	U

00023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CT3TPB

Lab Name: NYTEST ENV INC

Contract: 9421433

Lab Code: NYTEST

Case No.: 22620

SAS No.:

SDG No.: 22620

Matrix: (soil/water) WATER

Lab Sample ID: 2262002

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0469.D

Level: (low/med) LOW

Date Received: 11/29/94

% Moisture: not dec. _____

Data Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	2	JB
67-64-1	-----Acetone	10	U
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	10	U
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	10	U
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	10	U
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	10	U
108-05-4	-----Vinyl Acetate	10	U

00025

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: NYTEST ENV INC

Contract: 9421433

Lab Code: NYTEST

Case No.: 22620

SAS No.:

SDG No.: 22620

Matrix: (soil/water) WATER

Lab Sample ID: MSB

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0443.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Data Analyzed: 11/30/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	47	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	43	
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	46	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	49	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	43	
108-90-7	Chlorobenzene	44	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U
108-05-4	Vinyl Acetate	10	U

00029

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RWELL2

Lab Name: NYTEST ENV INC Contract: 9421433
 Lab Code: NYTEST Case No.: 22620 SAS No.: SDG No.: 22620
 Matrix: (soil/water) WATER Lab Sample ID: 2262004
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: N0471.D
 Level: (low/med) LOW Date Received: 11/29/94
 % Moisture: not dec. _____ Data Analyzed: 12/01/94
 Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U
108-05-4	Vinyl Acetate	10	U

00031

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RWELL3

Lab Name: NYTEST ENV INC

Contract: 9421433

Lab Code: NYTEST

Case No.: 22620

SAS No.:

SDG No.: 22620

Matrix: (soil/water) WATER

Lab Sample ID: 2262005

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0472.D

Level: (low/med) LOW

Date Received: 11/29/94

% Moisture: not dec. _____

Data Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	10	U
67-64-1	-----Acetone	10	U
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	10	U
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	10	U
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	10	U
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	2	J
108-05-4	-----Vinyl Acetate	10	U

00032

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPBLNK

Lab Name: NYTEST ENV INC

Contract: 9421433

Lab Code: NYTEST

Case No.: 22620

SAS No.:

SDG No.: 22620

Matrix: (soil/water) WATER

Lab Sample ID: 2262013

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0480.D

Level: (low/med) LOW

Date Received: 11/29/94

% Moisture: not dec. _____

Data Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloroethane	10	U
74-83-9	Bromochloromethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromochloromethane	10	U
78-87-5	1,2-Dibromopropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U
108-05-4	Vinyl Acetate	10	U

00038

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB SAMPLE NO.

VBLKN19

Lab Name: NYTEST ENV INC

Contract: 9421433

Lab Code: NYTEST

Case No.: 22620

SAS No.:

SDG No.: 22620

Matrix: (soil/water) WATER

Lab Sample ID: VBLKN19

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0466.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Data Analyzed: 12/01/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	3	J
67-64-1	-----Acetone	10	U
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	10	U
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	10	U
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	10	U
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	10	U
108-05-4	-----Vinyl Acetate	10	U

00040

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DSCHGE

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620_ SAS No.: _____ SDG No.: 22620_

Matrix (soil/water): WATER Lab Sample ID: 262001 _____

Level (low/med): LOW_ Date Received: 11/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	57.0	U		P
7440-36-0	Antimony	38.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium	751			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	16.0	U		P
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium	22900			P
7439-96-5	Manganese	3530			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	27.9			P
5955-70-0	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL1

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____

Matrix (soil/water): WATER Lab Sample ID: 262003 _____

Level (low/med): LOW _____ Date Received: 11/29/94

8 Solids: _____ 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	8760			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	25700			P
7439-96-5	Manganese	5340			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR _____ Texture: _____

Color After: COLORLESS Clarity After: CLEAR _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL2

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____

Matrix (soil/water): WATER Lab Sample ID: 262004 _____

Level (low/med): LOW _____ Date Received: 11/29/94

§ Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	6540			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	23600			P
7439-96-5	Manganese	7450			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR _____ Texture: _____

Color After: COLORLESS Clarity After: CLEAR _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL3

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620_ SAS No.: _____ SDG No.: 22620_

Matrix (soil/water): WATER Lab Sample ID: 262005 _____

Level (low/med): LOW_ Date Received: 11/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	4410			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	23100			P
7439-96-5	Manganese	8600			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL4

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____

Matrix (soil/water): WATER Lab Sample ID: 262006 _____

Level (low/med): LOW _____ Date Received: 11/29/94

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	3930			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	18000			P
7439-96-5	Manganese	6990			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR _____ Texture: _____

Color After: COLORLESS Clarity After: CLEAR _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELLS

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____

Matrix (soil/water): WATER Lab Sample ID: 262007 _____

Level (low/med): LOW _____ Date Received: 11/29/94

% Solids: _____ 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	5150			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	20700			P
7439-96-5	Manganese	5230			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL6

Lab Name: NYTEST_FNV_INC _____ Contract: 9421433 _____
Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____
Matrix (soil/water): WATER Lab Sample ID: 262008 _____
Level (low/med): LOW _____ Date Received: 11/29/94
% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	876			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	23500			P
7439-96-5	Manganese	552			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL7

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620 SAS No.: _____ SDG No.: 22620 _____

Matrix (soil/water): WATER Lab Sample ID: 262009 _____

Level (low/med): LOW _____ Date Received: 11/29/94

% Solids: _____ 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L _____

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	18500			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	23900			P
7439-96-5	Manganese	2950			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR _____ Texture: _____

Color After: COLORLESS Clarity After: CLEAR _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

RWELL9

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____
 Lab Code: NYTEST Case No.: 22620_ SAS No.: _____ SDG No.: 22620_
 Matrix (soil/water): WATER Lab Sample ID: 262010 _____
 Level (low/med): LOW_ Date Received: 11/29/94
 Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	4550			P
7439-92-1	Lead				NR
7439-95-4	Magnesium	28300			P
7439-96-5	Manganese	2260			P
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____
 Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

3
BLANKS

Lab Name: NYTEST_ENV_INC _____ Contract: 9421433 _____

Lab Code: NYTEST Case No.: 22620_ SAS No.: _____ SDG No.: 22620_

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum	57.0	U	57.0	U	57.0	U	57.0	U	57.000	U	P
Antimony	38.0	U	38.0	U	38.0	U	38.0	U	38.000	U	P
Arsenic	5.0	U	5.0	U	5.0	U			5.000	U	F
Barium	11.0	U	11.0	U	11.0	U	11.0	U	11.000	U	P
Beryllium											NR
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Calcium											NR
Chromium	5.0	U	7.5	B	5.2	B	7.8	B	-5.480	B	P
Cobalt											NR
Copper	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Iron	16.0	U	16.0	U	16.0	U	19.2	B	16.000	U	P
Lead	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	F
Magnesium	1548.0	U	1548.0	U	1548.0	U	1548.0	U	1548.000	U	P
Manganese	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	AS

Total Organic Carbon
Results

Lab Name: Nytest Environmental Inc.

Case No. 22620

Project No: 9421433

SDG: 22620

Client : Malcolm Pirnie Inc.

Sample ID	Lab ID		Results in mg/l
DSCHGE	2262001		5.1
DSCHGED	2262001	DUP	5.2
DSCHGES	2262001	SPIKE	204
CT3TPB	2262002		9.2
Duplicate Relative Percent Difference:			1.94
Spike Added:			200 ppm
Spike Percent Recovery:			99.5%
MDL			1.0
Method Blank			<1.0

00051

NYTEST ENVIRONMENTAL, INC.

REPORT OF ANALYSIS

Log In No : 22620

We find as follows :

Sample Identification

<u>Parameter(s)</u>	Lab ID : Client ID :	<u>2262001</u> <u>DSCHGE</u>	<u>2262002</u> <u>CT3TPB</u>	<u>Method</u> <u>Blank</u>
Results in mg/L:				
Chloride (for TOC check)		211	223	1 U
Total Cyanide		0.01 U	NR	0.01 U

U : Below method blank/method reporting limit
E : Above method limit
NA : Not available
NR : Not Required

00052



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nyttest environmental inc.

January 9, 1995

JAN 10 1995

Malcolm Pirnie Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

Attn: Dave Knutson

Nyttest is pleased to submit our Project No. 9421395
Login No. 22732 on your sample(s) received: 12/14

Test sample(s) associated with this project will be retained for a period of thirty (30) days, unless otherwise instructed.

My staff is available to answer any questions concerning our report and we look forward to serving your future analytical needs.

Very truly yours,
Nyttest Environmental Inc.

Remo Gigante
Executive Vice President

Encl:
Shipped Via: Fedex

C: DWK 01/10/95



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9421395
Log in No. : 22732
P.O. No. : Pending
Date : Jan. 6, 1995

ANALYTICAL DATA REPORT
PACKAGE FOR

Malcolm Pirnie Inc.

7481 Henry Clay Blvd.

Liverpool, NY 13088

ATTN: Dave Knutson
REF: Columbia Mills, Proj.#0266-31-9

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
----------------------	--------------------------	-------------------

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195
NJ Cert. #73469
ep

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s) Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
2273201	SB16-8	Soil
2273202	SB113	Soil
2273203	SB26-8	Soil
2273204	SB213	Soil
2273205	SB36-8	Soil
2273206	SB313	Soil
2273207	DSCHGE	Water
2273208	TPBLNK	Water

Table of Contents

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SDG Narrative

**NARRATIVE DISCUSSION
VOLATILES - 22732**

=====

INTRODUCTION

This narrative covers the analysis of eight (8) samples in accordance with protocols based on SW-846 Method 8240.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

All required minimum RRFs and maximum %D continuing calibration requirements have been met in accordance with the Method.

METHOD BLANKS

The method blanks associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES (SYSTEM MONITORING COMPOUNDS)

Surrogate recoveries were within QC limits with the exception of samples SB26-8 and SB213 which yielded surrogate recoveries outside QC limits.

Reanalyses were performed at dilutions, and with reduced sample matrix interferences, all recoveries fell within QC limits. Both sets of data are included, for each sample.

MATRIX SPIKE BLANKS

The recoveries for the matrix spike blanks were within QC limits.

MATRIX SPIKES

Matrix Spikes were not designated to be performed on any of the samples covered by this report.

Batched QC is being supplied. Please note that non site specific QC may demonstrate differing matrix affects than samples contained in this login. The applicable Form 3 is, therefore, being supplied.

000002

VOLATILES (continued)

INTERNAL STANDARDS

All area responses and retention times fell within acceptable ranges.

SAMPLE COMMENTS

The analysis of samples SB26-8 and SB213 yielded target analyte concentrations which exceeded the highest calibration standard. These compounds have been qualified "E". Reanalyses were performed at dilutions. Both sets of data are included for each sample. The concentrations of these compounds should be taken from the more dilute analyses.

No further analytical problems were encountered.

ep

0000005

NON-CONFORMANCE SUMMARY
(Case Narrative)

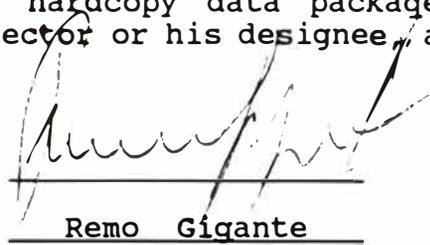
Log In No: 22732

INORGANIC FRACTION

Samples were analyzed as per EPA Method 418.1, no problems were encountered.

0000004

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



Remo Gigante

ASP Forms

000006

Traffic Reports

000009



Chain of Custody Record

Client Name: Malcolm Pirnie, Inc.
 Address: 7481 Hooker Cray Blvd.
Livermore, N.Y. 13088

Project Manager: Dana Kaurstad
 Phone: (315) 457-4105 FAX: (315) 457-4959
 Project Name: Cowana Mills - Treatment Train Evaluations
 Project Number: 0266-318
 P.O. #: _____
 Analytical Protocol: _____ Deliverables: _____
 Sampled By: Wes Jones

Analysis Requested	
No. of Containers	8240 TPH XYLENES
Bin #'s In / Out (For Lab Use Only)	

Login #: _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: 12/13/94
 Carrier: Fed Ex
 Air Bill #: _____
 Cooler #: 155
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location
	S B 1 6 - 8	12/13/94		Soil Bank #1
	S B 1 13 - 15			└
	S B 2 6 - 8			Soil Bank #2
	S B 2 13 - 15			└
	S B 3 6 - 8			Soil Bank #3
	S B 3 13 - 15			└
	D S C H G R			DISCHARGE
	T P B L N K			TRIP BREAK

No. of Containers	TPH	XYLENES
1	X	
1		X
	X	
		X
	X	
		X
		X

Comments: 2 Week TAT

Relinquished by: [Signature]
 Print Name: Wes Jones

Relinquished by: 0000010
 Print Name: _____

Relinquished by: 0100010
 Print Name: _____

Date / Time: 12/13/94 3:30
 Received by: [Signature]
 Print Name: Fred Ex

Date / Time: 12/14/94 3:30
 Received by: [Signature]
 Print Name: Fred Ex

Date / Time: _____
 Received by: [Signature]
 Print Name: _____

Date / Time: _____
 Received by: [Signature]
 Print Name: Robert Fletcher

Lab Use Only

Custody Seal: Intact Broken Absent

Sample Rec'd in Good Condition?: Y N

Sample Temperature: 2 Degrees Celsius

INSPECTED BY: [Signature]

COMMENTS: _____

Special Instructions: _____



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental.

(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page #: 1 of 1

Client Name Maicon Pereira, Inc.
 Address 7481 House Cat Blvd.
Liverpool, NY 13088

Project Manager Dana Koutzel
 Phone (315) 457-4105 FAX (315) 457-4959
 Project Name Couanna Mills - Treatment Train Evaluation
 Project Number 0266-318
 P.O. # _____
 Analytical Protocol _____ Deliverables _____
 Sampled By Wes Jones

Analysis Requested										
No. of Containers	B240	TPH	XYLENES							
	Bin #'s In / Out (For Lab Use Only)									

Login # _____
 Ship to: _____
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn: Sample Control
 Date Shipped 12/13/94
 Carrier: Fed Ex
 Air Bill # _____
 Cooler #: 135
 C of C #: _____
 SDG #: _____
 NEIQT #: _____

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location
	S B 1 6 - 8	12/13/94		Soil Bank #1
	S B 1 13 - 15			└
	S B 2 6 - 8			Soil Bank #2
	S B 2 13 - 15			└
	S B 3 6 - 8			Soil Bank #3
	S B 3 13 - 15			└
	D S C H G E			DISCHARGE
	T P B L N K			TRAP BANK

No. of Containers	Analysis Requested			Bin #'s In / Out (For Lab Use Only)						
	B240	TPH	XYLENES							
1	X									
1		X								
	X									
		X								
	X									
			X							
			X							

Comments
2 week TAT

Relinquished by: Wes Jones
 Print Name: Wes Jones

Relinquished by: _____
 Print Name: _____

Relinquished by: _____
 Print Name: _____

Date / Time
12/13/94 3:30

Date / Time

Date / Time

Received by: Fred Ex
 Print Name: Fred Ex

Received by: _____
 Print Name: _____

Received by: Robert Fletcher
 Print Name: Robert Fletcher

Date / Time
12/14/94 3:30

Date / Time

Date / Time
12/14/94 0930

Lab Use Only

Custody Seal: Intact Broken Absent

Sample Rec'd in Good Condition?: Y N

Sample Temperature: 2 Degree Celsius

INSPECTED BY: [Signature]

COMMENTS: _____

Special Instructions: _____

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

NAME: Robert Fletcher TITLE: SCO

Client: MPI Date Broken: 12/14/94 Military Time Seal Broken:

Login #: 22732 Analytical Parameter/Fraction: ASP8240, TPHC

SAMPLE NO.	ALIQUOT/EXTRACT NO.	SAMPLE NO.	ALIQUOT/EXTRACT NO.
SB16-8	22732-01		
SB113	02		
SB26-8	03		
SB213	04		
SB36-8	05		
SB313	06		
DSCH6E	07		
TRPBK	✓ 08		

DATE	TIME	RELINQUISHED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUST.
12/16/94	0800	PRINTED NAME: P. Precides	PRINTED NAME: S. Carver	ASP 8240
		SIGNATURE: <i>[Signature]</i>	SIGNATURE: <i>[Signature]</i>	
12/20/94	0905	PRINTED NAME: P. Precides	PRINTED NAME: Johanna Gray	TPHC
		SIGNATURE: <i>[Signature]</i>	SIGNATURE: <i>[Signature]</i>	
12/23/94	1400	PRINTED NAME: S. Carver	PRINTED NAME: M. Lan	Storage
		SIGNATURE: <i>[Signature]</i>	SIGNATURE: <i>[Signature]</i>	
12/28/94	0940	PRINTED NAME: JOHANNA GRAY	PRINTED NAME: R. Fletcher	Storage
		SIGNATURE: <i>[Signature]</i>	SIGNATURE: <i>[Signature]</i>	
		PRINTED NAME:	PRINTED NAME:	
		SIGNATURE:	SIGNATURE:	
		PRINTED NAME:	PRINTED NAME:	
		SIGNATURE:	SIGNATURE:	
		PRINTED NAME:	PRINTED NAME:	
		SIGNATURE:	SIGNATURE:	
		PRINTED NAME:	PRINTED NAME:	000012
		SIGNATURE:	SIGNATURE:	

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

(Provide at least two copies to the airline.)

Shipper
 MALEOLA PIRNIE
 7481 HENRY CLAY BLVD.
 LIVERPOOL, N.Y. 13089

Air Waybill No. 246 7899847
 Page 1 of 1 Pages
 Shipper's Reference Number (optional)

Consignee
 NYTEST ENVIRONMENTAL INC
 60 SEAVIEW BLVD.
 PORT WASHINGTON, N.Y.
 11050-4618

Federal Express Corporation


Two completed and signed copies of this Declaration must be handed to the operator.

WARNING
 Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder, or an IATA cargo agent.

TRANSPORT DETAILS
 This shipment is within the limitations prescribed for: (delete nonapplicable)
 Airport of Departure: SYRACUSE
 Airport of Destination: JOHN F. KENNEDY

PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT <input checked="" type="checkbox"/>
------------------------------	--

Shipment type: (delete non applicable)
 NONRADIOACTIVE RADIOACTIVE

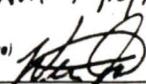
NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification						
Proper Shipping Name	Class or Division	UN or ID No.	Subsidiary Risk	Quantity and type of packaging	Packing Inst.	Authorization
CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID SOLUTION)	8	1760		1 PLASTIC COOLER CONTAINING (4) 604 L GLASS VIALS CONTAINING HYDROCHLORIC ACID SOLUTION	Y808, II	LTD QTY

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Government Regulations.

Emergency Telephone Number (Required for US Origin or Destination Shipments)
 (914) 654-3446

Name/Title of Signatory: WES JONES / DESIGNER
 Place and Date: LIVERPOOL, N.Y. 12/13/94
 Signature: 

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

NEI SAMPLE / ANALYSIS DISCREPANCY FORM

Client IMP1
 Login 22732
 Proj.# 9421395
 Date-Rec'd 12/14/94
 Initiated By RA
 Date 12/14/94

Department	
Login	GC
Extraction	Metals
VOA	Wet Chem
BNA	Report Prod
QC/QA	

Finalized Copy Distribution
 Copy to Section Manager
 Copy to QC
 Copy to PM/CS/Sales
 Copy to _____
 Copy to _____

RECEIPT DISCREPANCY

List Samples Affected:

- Samples Rec'd Outside of Holding Time
- Sample ID on bottle does not match COC
- Analysis on COC does not match Project Synopsis
- Improper bottles rec'd for analysis requested
- Sample bottle rec'd broken
- Air bubble / Headspace in VOA Vials
- # of bottles rec'd does not match COC
- Rec'd unlabelled/illegible sample bottle
- Insufficient volume/weight rec'd
- COC not properly completed
- Cooler Temperature above 6 deg
- Other (Describe)

① REC'd 2 bottles for each sample 2402, 2125, 185. bottles marked 8240 + TPHC. COC does not have a X for each analysis.

② ~~Discharge Trip Blank Report X-Hem only?~~
 which NEI Project # do we use?

Route to Project Manager / Client Services

ANALYSIS / QC

List Samples Affected:

LAST DAY OF HOLDING TIME
 ___/___/___

- Samples Analyzed outside of Holding Time
- Surrogates / Internals Outside of QC Limits (specify or provide forms)
- Extract / Sample Lost / Broken
- QC Exceedance (provide forms)
- TIC's in Method Blank (provide # and ~ conc.)
- Insufficient Sample for Analysis
- Duplicate Sample Does Not Match
- Sample Extract Emulsions
- Sample Could not be concentrated to final volume (specify final vol)
- Other (Describe)

Route to Laboratory Operations Manager

RECEIPT DISCREPANCY RESOLUTION

PREPARED BY RT DATE 12/14

CLIENT CONTACT Dave Kautson

① Enter soils for 8240 and TPH. Corrected COC to follow.

② Columbia Mills: not meeting 1 quart / B. manual

ANALYSIS / QC PROBLEM RESOLUTION

- QC# _____
- Re-extraction/Re-analysis authorized
 - Report & State in Case Narrative
 - Advise Client (Route to PM/CS/Sales)
 - Other

Authorized by _____ Date _____

REVIEW, VERIFICATION AND APPROVAL

Initial Login RA 0000014
 Samp Control Review _____
 PM / CS RT
 Lab. Op. Mgr S. W. W. 12-16-94

PROJECT CHANGE INITIATED: YES NO

NEI SAMPLE / ANALYSIS DISCREPANCY FORM

Client MP1
 Login 22732
 Proj # 4421395
 Date Rec'd 12/14/94
 Initiated By [Signature]
 Date 12/14/94

Department	
Login	GC
Extraction	Metals
VOA	Wet Chem
BNA	Report Prod
QC/QA	

Finalized Copy Distribution
 Copy to Section Manager
 Copy to QC
 Copy to PM/CS/Sales
 Copy to _____
 Copy to _____

RECEIPT DISCREPANCY

- Samples Rec'd Outside of Holding Time
- Sample ID on bottle does not match COC
- Analysis on COC does not match Project Synopsis
- Improper bottles rec'd for analysis requested
- Sample bottle rec'd broken
- Air bubble / Headspace in VOA Vials
- # of bottles rec'd does not match COC
- Rec'd unlabelled/Illegible sample bottle
- Insufficient volume/weight rec'd
- COC not properly completed
- Cooler Temperature above 6 deg
- Other (Describe)

List Samples Affected:

- ① REC'd 2 bottles for each sample 2402 & 2425m/1850, bottles marked 8240 + TPHC. COC does not have a X for each analysis.
- ② ~~Discrepancy in TIC report x Hemi only?~~
which NEI Project # do we use?

Route to Project Manager / Client Services

ANALYSIS / QC

List Samples Affected:

LAST DAY OF HOLDING TIME
//

- Samples Analyzed outside of Holding Time
- Surrogates / Internals Outside of QC Limits (specify or provide forms)
- Extract / Sample Lost / Broken
- QC Exceedance (provide forms)
- TIC's in Method Blank (provide # and ~ conc.)
- Insufficient Sample for Analysis
- Duplicate Sample Does Not Match
- Sample Extract Emulsions
- Sample Could not be concentrated to final volume (specify final vol)
- Other (Describe)

Route to Laboratory Operations Manager

RECEIPT DISCREPANCY RESOLUTION

PREPARED BY [Signature] DATE 12/14

CLIENT CONTACT Dave Knutson

① Enter soils for 8240 and TPH. Corrected COC to follow.

② Columbia Mills: not meeting 1 quart / B. manual

ANALYSIS / QC PROBLEM RESOLUTION

- QC# _____
- Re-extraction/Re-analysis authorized
 - Report & State in Case Narrative
 - Advise Client (Route to PM/CS/Sales)
 - Other

Authorized by _____ Date _____

REVIEW, VERIFICATION AND APPROVAL

Initial Login [Signature] 0000015
 Samp Control Review _____
 PM / CS _____
 Lab. Op. Mgr _____

NYTEST ENVIRONMENTAL

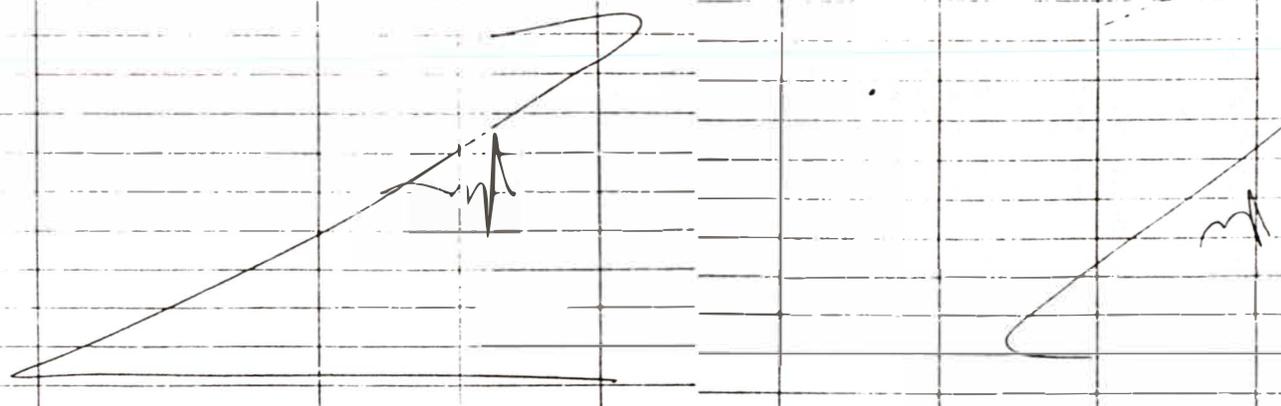
GC/MS VOLATILE INJECTION LOG BOOK

DATE 12-2-94

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	PH	TEKMAR POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
-----------	----------	-----------	--------	------------	-----------	----	-----------------	--------------------	--------------------------	----------	---------

H1180	1154	QC-CAL-CHK	11-20-94	11-20-94	5.2	1	1	93.93	OK		H. Col
H1181	1221	Vs 12.40			5.2	1	93.93	OK			
H1182	1253	Vs 12.41			5.2	1	93.93	OK			
H1183	1521	HD-601A	226211	11-20-94	5.2	1	93.93	OK			
H1185	1606	HD-601B	2263211		5.2	1	93.93	OK			
H1186	1640	USTP0104			5.2	1	93.93	OK			
H1187	1612	USTP0104			5.2	1	93.93	OK			
H1188	1564	USTP0207			5.2	1	93.93	OK			
H1189	1615	USTP0504			5.2	1	93.93	OK			
H1190	1657	USTP0504			5.2	1	93.93	OK			
H1191	1711	USTP0824			5.2	1	93.93	OK			
H1192	1750	USTP0804			5.2	1	93.93	OK			
H1193	18112	USTP0807			5.2	1	93.93	OK			
H1194	18156	USTP0807			5.2	1	93.93	OK			
H1195	1829	USTP2004			5.2	1	93.93	OK			
H1196	1805	QC			5.2	1	93.93	OK			

0000016



TYTEST ENVIRONMENTAL

GC/MS VOLATILE INJECTION LOG BOOK

186E192

DATE 12-18-96

DATA FILE	INJ TIME	SAMPLE ID	LAB ID	DATE REC'D	CONDITION	PH	MARKER POSITION	SURROGATE RECOVERY	INTERNAL STD AREA COUNTS	COMMENTS	ANALYST
1432	1014	VF51M12H									Vf Cur
1438	1015	VSTAD504			5m				29701 99643	Pool 4 F	11-30-96 18 HV1
1439	1108	VB6M116						92/102, 91	0h		11-30-96 18 HV2
1440	1142	QC-CAC-CH-2L							10422 48854		
1441	1221	VB6M115			100uL/r			85/102, 99	0h		
1442	1250	VB6M116			5m			96/101, 107	0h	newva head 10pph	
1443	1325	W3-22	2274106	12-14-96	5m	1		96/101, 102	0h		
1444	1359	W271M	2274105		200uL/r	1		96/101, 102	0h		
1445	1432	W20120AL	2274102			1		82/101, 102	0h		
1446	1506	W2045D	2274104		5m	1		96/101, 102	0h		
1447	1556	VB6M117			5m			85/101, 102	0h		
1448	1629	VB6M116	2273201	12-16-96		1		96/101, 102	0h		
1449	1702	OSCHGE	2273207			1		85/101, 102	0h		
1450	1735	0253			100uL/r			96/102, 102	0h		
1451	1807	12-96	2271201	12-15-96				91/101, 106	0h		
1452	1841	SUMISAL	2271201	12-15-96	5m/r			n.d.	0h		
1453	1846	SUMISAL	2271702							newva	
1454	1848	OUT-SAL	2271705							newva	
1455	2020	SUMISAL	2271706							newva	
1456	2054	SUMISAL	11							newva	
1457	2126	SUMISAL	11							newva	
1458	2200	ALCANL									
1459	2252	12026C	2273302	12-16-96	5m	1		96/101, 91	0h		
1460	2307	E-COM1	2272107	12-15-96		2		96/101, 91	0h		
1461	2342	W-COM1	2272110			2		85/101, 90	0h		
1462	0017	E-COM1	2274017	12-16-96		2		87/99, 95	0h		
1463	0057	W-COM1	2274018			2		93/101, 101	0h		
1464	0126	E-COM1	2275417	12-15-96		2		96/101, 101	0h		
1465	0201	W-COM1	2275418			2		97/90, 95	0h		

Handwritten signature or mark at the bottom right of the page.

DATE OF ANALYSIS: 12/30/94
 ANALYST: JOHANNA GRAY
 ANALYTE: TP4 C

NYTEST LOG BOOK

METHOD NO.: 418.1
 (EPA STD METHOD)

5 cm cell

Date Rec'd	Client ID (Sample ID)	Log No.	DATE EXTR	WT/VOL	ABS	CONC	DIL	% R % RPD
/	B1(a)	/		10.000	-0.002	<10		
/	std(a)	/		1000	0.4166	4.24		106
12/12	A351.5	2271601	12/20	10.168	-0.003	<10		
	A351.5MS	(dp) 02		10.085	-0.014	<10		0
	A351.5MSD ^{spike} is 409	(sp) 03		9.748	0.4055	4.23 4.120		103
	A35115	04		10.037	0.0035	<10		
	A35125	05		10.036	0.0091	<10		
	A35135	06		10.161	-0.007	<10		
	A35225	07		10.072	-0.004	<10		
12/8	A344.2	2269901	12/19	10.028	+0.061	<10		
	A34135	02		10.118	-0.059	<10		
	A181.5	03		10.018	-0.057	<10		
/	B1(b)	/		10.000	0.0024	<10		
/	std(b) 3.99	/		1000	0.4253	4.33		109
	A185.5	2269904		10.147	-0.056	<10		
	A186.9	05		10.065	-0.005	<10		
	A18175	06		10.085	-0.044	<10		
12/14	SB16-8	2273201	12/28	10.088	0.2545	255		
	SB113	02		10.021	-0.035	<10		
	SB26-8	03		10.020	-0.028	<10		
	SB213	04		10.099	-0.002	<10		
	SB36-8	05		10.149	-0.038	<10		
	SB313	06		10.173	-0.054	<10		
12/14	RAPID	2273401		10.014	0.4809	9782	1:20	
/	B1(c)	/		10.000	0.0017	<10		
/	std(c) 3.99	/		1000	0.4237	4.31		108
CONT →							0000022	

Qualifiers

Method Qualifiers for Organic CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J - Indicates an estimated value. The flag is used either when estimating 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 sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been successfully confirmed.
- B - This flag is used when the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.

Form I's

0000026

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DSCHGE

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) WATER

Lab Sample ID: 2273207

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1449.D

Level: (low/med) LOW

Date Received: 12/14/94

% Moisture: not dec. _____

Data Analyzed: 12/19/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

1330-20-7-----	Xylene (total)	_____	10	U
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0000027

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB113

Lab Name: NYTEST ENV INC Contract: 9421395
 Lab Code: NYTEST Case No.: 22732 SAS No.: SDG No.: 22732
 Matrix: (soil/water) SOIL Lab Sample ID: 2273202
 Sample wt/vol: 5.0 (g) G Lab File ID: P2364.D
 Level: (low/med) LOW Date Received: 12/14/94
 % Moisture: not dec. 13 Data Analyzed: 12/19/94
 Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	11	U
74-83-9	-----Bromomethane	11	U
75-01-4	-----Vinyl Chloride	11	U
75-00-3	-----Chloroethane	11	U
75-09-2	-----Methylene Chloride	6	JB
67-64-1	-----Acetone	11	U
75-15-0	-----Carbon Disulfide	11	U
75-35-4	-----1,1-Dichloroethene	11	U
75-34-3	-----1,1-Dichloroethane	11	U
540-59-0	-----1,2-Dichloroethene (total)	11	U
67-66-3	-----Chloroform	11	U
107-06-2	-----1,2-Dichloroethane	11	U
78-93-3	-----2-Butanone	11	U
71-55-6	-----1,1,1-Trichloroethane	11	U
56-23-5	-----Carbon Tetrachloride	11	U
75-27-4	-----Bromodichloromethane	11	U
78-87-5	-----1,2-Dichloropropane	11	U
10061-01-5	-----cis-1,3-Dichloropropene	11	U
79-01-6	-----Trichloroethene	11	U
124-48-1	-----Dibromochloromethane	11	U
79-00-5	-----1,1,2-Trichloroethane	11	U
71-43-2	-----Benzene	11	U
10061-02-6	-----trans-1,2-Dichloropropene	11	U
75-25-2	-----Bromochloromethane	11	U
108-10-1	-----4-Methyl-2-Pentanone	11	U
591-78-6	-----2-Hexanone	11	U
127-18-4	-----Tetrachloroethene	11	U
79-34-5	-----1,1,2,2-Tetrachloroethane	11	U
108-88-3	-----Toluene	11	U
108-90-7	-----Chlorobenzene	11	U
100-41-4	-----Ethylbenzene	11	U
100-42-5	-----Styrene	11	U
1330-20-7	-----Xylene (total)	11	U
108-05-4	-----Vinyl Acetate	11	U

0000028

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16-8

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) SOIL

Lab Sample ID: 2273201

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P2363.D

Level: (low/med) LOW

Date Received: 12/14/94

% Moisture: not dec. 12

Data Analyzed: 12/19/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	11	U
74-83-9	-----Bromomethane	11	U
75-01-4	-----Vinyl Chloride	11	U
75-00-3	-----Chloroethane	11	U
75-09-2	-----Methylene Chloride	6	JB
67-64-1	-----Acetone	13	U
75-15-0	-----Carbon Disulfide	11	U
75-35-4	-----1,1-Dichloroethene	11	U
75-34-3	-----1,1-Dichloroethane	11	U
540-59-0	-----1,2-Dichloroethene (total)	11	U
67-66-3	-----Chloroform	11	U
107-06-2	-----1,2-Dichloroethane	11	U
78-93-3	-----2-Butanone	11	U
71-55-6	-----1,1,1-Trichloroethane	11	U
56-23-5	-----Carbon Tetrachloride	11	U
75-27-4	-----Bromodichloromethane	11	U
78-87-5	-----1,2-Dichloropropane	11	U
10061-01-5	-----cis-1,3-Dichloropropene	11	U
79-01-6	-----Trichloroethene	11	U
124-48-1	-----Dibromochloromethane	11	U
79-00-5	-----1,1,2-Trichloroethane	11	U
71-43-2	-----Benzene	11	U
10061-02-6	-----trans-1,3-Dichloropropene	11	U
75-25-2	-----Bromoform	11	U
108-10-1	-----4-Methyl-2-Pentanone	11	U
591-78-6	-----2-Hexanone	11	U
127-18-4	-----Tetrachloroethene	11	U
79-34-5	-----1,1,2,2-Tetrachloroethane	11	U
108-88-3	-----Toluene	11	U
108-90-7	-----Chlorobenzene	11	U
100-41-4	-----Ethylbenzene	11	U
100-42-5	-----Styrene	11	U
1330-20-7	-----Xylene (total)	11	U
108-05-4	-----Vinyl Acetate	11	U

0000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB213DL

Lab Name: NYTEST ENV INC Contract: 9421395

Lab Code: NYTEST Case No.: 22732 SAS No.: SDG No.: 22732

Matrix: (soil/water) SOIL Lab Sample ID: 2273204

Sample wt/vol: 4.0 (g/mL) G Lab File ID: P2414.D

Level: (low/med) MED Date Received: 12/14/94

% Moisture: not dec. 9 Data Analyzed: 12/21/94

Column: (pack/cap) CAP Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	1300	U
74-83-9	-----Bromomethane	1300	U
75-01-4	-----Vinyl Chloride	1300	U
75-00-3	-----Chloroethane	1300	U
75-09-2	-----Methylene Chloride	910	JD
67-64-1	-----Acetone	1300	U
75-15-0	-----Carbon Disulfide	1300	U
75-35-4	-----1,1-Dichloroethene	1300	U
75-34-3	-----1,1-Dichloroethane	1300	U
540-59-0	-----1,2-Dichloroethene (total)	1300	U
67-66-3	-----Chloroform	1300	U
107-06-2	-----1,2-Dichloroethane	1300	U
78-93-3	-----2-Butanone	1300	U
71-55-6	-----1,1,1-Trichloroethane	1300	U
56-23-5	-----Carbon Tetrachloride	1300	U
75-27-4	-----Bromodichloromethane	1300	U
78-87-5	-----1,2-Dichloropropane	1300	U
10061-01-5	-----cis-1,3-Dichloropropene	1300	U
79-01-6	-----Trichloroethene	1300	U
124-48-1	-----Dibromochloromethane	1300	U
79-00-5	-----1,1,2-Trichloroethane	1300	U
71-43-2	-----Benzene	1300	U
10061-02-6	-----trans-1,3-Dichloropropene	1300	U
75-25-2	-----Bromoform	1300	U
108-10-1	-----4-Methyl-2-Pentanone	1300	U
591-78-6	-----2-Hexanone	1300	U
127-18-4	-----Tetrachloroethene	1300	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1300	U
108-88-3	-----Toluene	1300	U
108-90-7	-----Chlorobenzene	1300	U
100-41-4	-----Ethylbenzene	1300	U
100-42-5	-----Styrene	1300	U
1330-20-7	-----Xylene (total)	2600	D
108-05-4	-----Vinyl Acetate	1300	U

0000031

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB26-8DL

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) SOIL

Lab Sample ID: 2273203

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P2366.D

Level: (low/med) LOW

Date Received: 12/14/94

% Moisture: not dec. 13

Data Analyzed: 12/19/94

Column: (pack/cap) CAP

Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	57	U
74-83-9	Bromomethane	57	U
75-01-4	Vinyl Chloride	57	U
75-00-3	Chloroethane	57	U
75-09-2	Methylene Chloride	66	BD
67-64-1	Acetone	51	JD
75-15-0	Carbon Disulfide	57	U
75-35-4	1,1-Dichloroethene	57	U
75-34-3	1,1-Dichloroethane	57	U
540-59-0	1,2-Dichloroethene (total)	57	U
67-66-3	Chloroform	57	U
107-06-2	1,2-Dichloroethane	57	U
78-93-3	2-Butanone	11	JBD
71-55-6	1,1,1-Trichloroethane	57	U
56-23-5	Carbon Tetrachloride	57	U
75-27-4	Bromodichloromethane	57	U
78-87-5	1,2-Dichloropropane	57	U
10061-01-5	cis-1,3-Dichloropropene	57	U
79-01-6	Trichloroethene	57	U
124-48-1	Dibromochloromethane	57	U
79-00-5	1,1,2-Trichloroethane	57	U
71-43-2	Benzene	57	U
10061-02-6	trans-1,3-Dichloropropene	57	U
75-25-2	Bromoform	57	U
108-10-1	4-Methyl-2-Pentanone	57	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	57	U
79-34-5	1,1,2,2-Tetrachloroethane	57	U
108-88-3	Toluene	57	U
108-90-7	Chlorobenzene	57	U
100-41-4	Ethylbenzene	57	U
100-42-5	Styrene	57	U
1330-20-7	Xylene (total)	1200	D
108-05-4	Vinyl Acetate	57	U

0000033

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB36-8

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) SOIL

Lab Sample ID: 2273205

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P2367.D

Level: (low/med) LOW

Date Received: 12/14/94

% Moisture: not dec. 18

Data Analyzed: 12/19/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	12	U
74-83-9	-----Bromomethane	12	U
75-01-4	-----Vinyl Chloride	12	U
75-00-3	-----Chloroethane	12	U
75-09-2	-----Methylene Chloride	11	JB
67-64-1	-----Acetone	11	J
75-15-0	-----Carbon Disulfide	12	U
75-35-4	-----1,1-Dichloroethene	12	U
75-34-3	-----1,1-Dichloroethane	12	U
540-59-0	-----1,2-Dichloroethene (total)	12	U
67-66-3	-----Chloroform	12	U
107-06-2	-----1,2-Dichloroethane	12	U
78-93-3	-----2-Butanone	12	U
71-55-6	-----1,1,1-Trichloroethane	12	U
56-23-5	-----Carbon Tetrachloride	12	U
75-27-4	-----Bromodichloromethane	12	U
78-87-5	-----1,2-Dichloropropane	12	U
10061-01-5	-----cis-1,3-Dichloropropene	12	U
79-01-6	-----Trichloroethene	12	U
124-48-1	-----Dibromochloromethane	12	U
79-00-5	-----1,1,2-Trichloroethane	12	U
71-43-2	-----Benzene	12	U
10061-02-6	-----trans-1,3-Dichloropropene	12	U
75-25-2	-----Bromoform	12	U
108-10-1	-----4-Methyl-2-Pentanone	12	U
591-78-6	-----2-Hexanone	12	U
127-18-4	-----Tetrachloroethene	12	U
79-34-5	-----1,1,2,2-Tetrachloroethane	12	U
108-88-3	-----Toluene	1	J
108-90-7	-----Chlorobenzene	12	U
100-41-4	-----Ethylbenzene	12	U
100-42-5	-----Styrene	12	U
1330-20-7	-----Xylene (total)	16	
108-05-4	-----Vinyl Acetate	12	U

0000035

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKM14

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) WATER

Lab Sample ID: VBLKM14

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1439.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Data Analyzed: 12/19/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7-----	Xylene (total) _____	10	U

0000037

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKP13

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) SOIL

Lab Sample ID: VBLKP13

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: P2380.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0

Data Analyzed: 12/20/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	10	U
74-83-9	-----Bromomethane	10	U
75-01-4	-----Vinyl Chloride	10	U
75-00-3	-----Chloroethane	10	U
75-09-2	-----Methylene Chloride	28	U
67-64-1	-----Acetone	1	J
75-15-0	-----Carbon Disulfide	10	U
75-35-4	-----1,1-Dichloroethene	10	U
75-34-3	-----1,1-Dichloroethane	10	U
540-59-0	-----1,2-Dichloroethene (total)	10	U
67-66-3	-----Chloroform	10	U
107-06-2	-----1,2-Dichloroethane	10	U
78-93-3	-----2-Butanone	10	U
71-55-6	-----1,1,1-Trichloroethane	10	U
56-23-5	-----Carbon Tetrachloride	10	U
75-27-4	-----Bromodichloromethane	10	U
78-87-5	-----1,2-Dichloropropane	10	U
10061-01-5	-----cis-1,3-Dichloropropene	10	U
79-01-6	-----Trichloroethene	10	U
124-48-1	-----Dibromochloromethane	10	U
79-00-5	-----1,1,2-Trichloroethane	10	U
71-43-2	-----Benzene	10	U
10061-02-6	-----trans-1,3-Dichloropropene	10	U
75-25-2	-----Bromoform	10	U
108-10-1	-----4-Methyl-2-Pentanone	10	U
591-78-6	-----2-Hexanone	10	U
127-18-4	-----Tetrachloroethene	10	U
79-34-5	-----1,1,2,2-Tetrachloroethane	10	U
108-88-3	-----Toluene	10	U
108-90-7	-----Chlorobenzene	10	U
100-41-4	-----Ethylbenzene	10	U
100-42-5	-----Styrene	10	U
1330-20-7	-----Xylene (total)	10	U
108-05-4	-----Vinyl Acetate	10	U

0000039

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKP17

Lab Name: NYTEST ENV INC

Contract: 9421395

Lab Code: NYTEST

Case No.: 22732

SAS No.:

SDG No.: 22732

Matrix: (soil/water) SOIL

Lab Sample ID: VBLKP17

Sample wt/vol: 4.0 (g/mL) G

Lab File ID: P2405.D

Level: (low/med) MED

Date Received: 12/14/94

% Moisture: not dec. 0

Data Analyzed: 12/21/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	1200	U
74-83-9	-----Bromomethane	1200	U
75-01-4	-----Vinyl Chloride	1200	U
75-00-3	-----Chloroethane	1200	U
75-09-2	-----Methylene Chloride	1200	U
67-64-1	-----Acetone	1200	U
75-15-0	-----Carbon Disulfide	1200	U
75-35-4	-----1,1-Dichloroethene	1200	U
75-34-3	-----1,1-Dichloroethane	1200	U
540-59-0	-----1,2-Dichloroethene (total)	1200	U
67-66-3	-----Chloroform	1200	U
107-06-2	-----1,2-Dichloroethane	1200	U
78-93-3	-----2-Butanone	1200	U
71-55-6	-----1,1,1-Trichloroethane	1200	U
56-23-5	-----Carbon Tetrachloride	1200	U
75-27-4	-----Bromodichloromethane	1200	U
78-87-5	-----1,2-Dichloropropane	1200	U
10061-01-5	-----cis-1,3-Dichloropropene	1200	U
79-01-6	-----Trichloroethene	1200	U
124-48-1	-----Dibromochloromethane	1200	U
79-00-5	-----1,1,2-Trichloroethane	1200	U
71-43-2	-----Benzene	1200	U
10061-02-6	-----trans-1,3-Dichloropropene	1200	U
75-25-2	-----Bromoform	1200	U
108-10-1	-----4-Methyl-2-Pentanone	1200	U
591-78-6	-----2-Hexanone	1200	U
127-18-4	-----Tetrachloroethene	1200	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1200	U
108-88-3	-----Toluene	1200	U
108-90-7	-----Chlorobenzene	1200	U
100-41-4	-----Ethylbenzene	1200	U
100-42-5	-----Styrene	1200	U
1330-20-7	-----Xylene (total)	1200	U
108-05-4	-----Vinyl Acetate	1200	U

0000040

NYTEST ENVIRONMENTAL, INC.

REPORT OF ANALYSIS

We find as follows :

Log In No : 22732

Results in mg/Kg:

<u>Sample Identification</u>	<u>Parameter(s)</u>
Soil Method Blank	10 U
Soil Method Detection Limit	10

<u>LAB ID</u>	<u>CLIENT ID</u>	
2273201	SB16-8	290
2273202	SB113	10 U
2273203	SB26-8	10 U
2273204	SB213	10 U
2273205	SB36-8	10 U
2273206	SB313	10 U

U : Below method blank / method reporting limit

0000041

APPENDIX E

***Vapor Extraction Sampling
Laboratory Reports***

Upstate Laboratories inc.

Shipping: 6034 Corporate Drive • East Syracuse, New York 13057 • (315) 437-0255

Mailing: Box 289 • Syracuse, New York 13206

Southern Region (607) 724-0478

Western Region (716) 436-9070

Eastern Region (518) 459-3134

N. Jersey Region (201) 703-1324

February 14, 1994

Ms. Karen A. Balbierer
Environmental Scientist
Malcolm Pirnie, Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

FEB 14 1994

Re: Analysis Report #021494041 - 1069-079 Columbia Mills

Dear Ms. Balbierer:

Please find enclosed the results for your air samples which were collected by ULI personnel on January 14, 1994.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.



Timothy M. O'Rourke, CIH
Industrial Hygiene Manager

TMO/sh

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE 1069-079 COLUMBIA

Sampled by: ULI

APPROVAL: Gu

QC: X

Lab I.D.: 10170

MILLS VAPOR CARBON INF 1/14/94 0925-0935H C V=65L

ULI I.D.: 01494154

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

TCL Volatiles by EPA Method 8240

Chloromethane	<50ug/m3	01/27/94	01	VM0106
Bromomethane	<50ug/m3	01/27/94	01	VM0106
Vinyl Chloride	<50ug/m3	01/27/94	01	VM0106
Chloroethane	<50ug/m3	01/27/94	01	VM0106
Methylene Chloride	<50ug/m3	01/27/94	01	VM0106
Acetone	<200ug/m3	01/27/94	01	VM0106
Carbon Disulfide	<50ug/m3	01/27/94	01	VM0106
1,1-Dichloroethene	<50ug/m3	01/27/94	01	VM0106
1,1-Dichloroethane	<50ug/m3	01/27/94	01	VM0106
trans-1,2-Dichloroethene	<50ug/m3	01/27/94	01	VM0106
cis-1,2-Dichloroethene	<50ug/m3	01/27/94	01	VM0106
Chloroform	<50ug/m3	01/27/94	01	VM0106
1,2-Dichloroethane	<50ug/m3	01/27/94	01	VM0106
2-Butanone	<200ug/m3	01/27/94	01	VM0106
1,1,1-Trichloroethane	<50ug/m3	01/27/94	01	VM0106
Carbon Tetrachloride	<50ug/m3	01/27/94	01	VM0106
Bromodichloromethane	<50ug/m3	01/27/94	01	VM0106
1,2-Dichloropropane	<50ug/m3	01/27/94	01	VM0106
cis-1,3-Dichloropropene	<50ug/m3	01/27/94	01	VM0106
Trichloroethene	<50ug/m3	01/27/94	01	VM0106
Dibromochloromethane	<50ug/m3	01/27/94	01	VM0106
1,1,2-Trichloroethane	<50ug/m3	01/27/94	01	VM0106
Benzene	<50ug/m3	01/27/94	01	VM0106
trans-1,3-Dichloropropene	<50ug/m3	01/27/94	01	VM0106
Bromoform	<50ug/m3	01/27/94	01	VM0106
4-Methyl-2-pentanone	<200ug/m3	01/27/94	01	VM0106
2-Hexanone	<200ug/m3	01/27/94	01	VM0106
Tetrachloroethene	<50ug/m3	01/27/94	01	VM0106
1,1,2,2-Tetrachloroethane	<50ug/m3	01/27/94	01	VM0106
Toluene	<50ug/m3	01/27/94	01	VM0106
Chlorobenzene	<50ug/m3	01/27/94	01	VM0106
Ethylbenzene	<50ug/m3	01/27/94	01	VM0106
Styrene	<50ug/m3	01/27/94	01	VM0106
m-Xylene and p-Xylene	100ug/m3	01/27/94	01	VM0106
o-Xylene	<50ug/m3	01/27/94	01	VM0106

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *Cam*

QC: *X*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS PRIMARY VAPOR CARBON EFF 1/14/94 0925-0935H C

V=65L

ULI I.D.: 01494155

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

TCL Volatiles by EPA Method 8240

Chloromethane	<5ug/m3	01/27/94		VM0106
Bromomethane	<5ug/m3	01/27/94		VM0106
Vinyl Chloride	<5ug/m3	01/27/94		VM0106
Chloroethane	<5ug/m3	01/27/94		VM0106
Methylene Chloride	<5ug/m3	01/27/94		VM0106
Acetone	<20ug/m3	01/27/94		VM0106
Carbon Disulfide	<5ug/m3	01/27/94		VM0106
1,1-Dichloroethene	<5ug/m3	01/27/94		VM0106
1,1-Dichloroethane	<5ug/m3	01/27/94		VM0106
trans-1,2-Dichloroethene	<5ug/m3	01/27/94		VM0106
cis-1,2-Dichloroethene	<5ug/m3	01/27/94		VM0106
Chloroform	<5ug/m3	01/27/94		VM0106
1,2-Dichloroethane	<5ug/m3	01/27/94		VM0106
2-Butanone	<20ug/m3	01/27/94		VM0106
1,1,1-Trichloroethane	<5ug/m3	01/27/94		VM0106
Carbon Tetrachloride	<5ug/m3	01/27/94		VM0106
Bromodichloromethane	<5ug/m3	01/27/94		VM0106
1,2-Dichloropropane	<5ug/m3	01/27/94		VM0106
cis-1,3-Dichloropropene	<5ug/m3	01/27/94		VM0106
Trichloroethene	<5ug/m3	01/27/94		VM0106
Dibromochloromethane	<5ug/m3	01/27/94		VM0106
1,1,2-Trichloroethane	<5ug/m3	01/27/94		VM0106
Benzene	<5ug/m3	01/27/94		VM0106
trans-1,3-Dichloropropene	<5ug/m3	01/27/94		VM0106
Bromoform	<5ug/m3	01/27/94		VM0106
4-Methyl-2-pentanone	<20ug/m3	01/27/94		VM0106
2-Hexanone	<20ug/m3	01/27/94		VM0106
Tetrachloroethene	<5ug/m3	01/27/94		VM0106
1,1,2,2-Tetrachloroethane	<5ug/m3	01/27/94		VM0106
Toluene	<5ug/m3	01/27/94		VM0106
Chlorobenzene	<5ug/m3	01/27/94		VM0106
Ethylbenzene	<5ug/m3	01/27/94		VM0106
Styrene	<5ug/m3	01/27/94		VM0106
m-Xylene and p-Xylene	<5ug/m3	01/27/94		VM0106
o-Xylene	<5ug/m3	01/27/94		VM0106

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *Gu*

QC: *D*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS SECONDARY VAPOR CARBON EFF 1/14/94 0925-0935H

V=65L

ULI I.D.: 01494156

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<5ug/m3	01/27/94		VM0106
Bromomethane	<5ug/m3	01/27/94		VM0106
Vinyl Chloride	<5ug/m3	01/27/94		VM0106
Chloroethane	<5ug/m3	01/27/94		VM0106
Methylene Chloride	<5ug/m3	01/27/94		VM0106
Acetone	<20ug/m3	01/27/94		VM0106
Carbon Disulfide	<5ug/m3	01/27/94		VM0106
1,1-Dichloroethene	<5ug/m3	01/27/94		VM0106
1,1-Dichloroethane	<5ug/m3	01/27/94		VM0106
trans-1,2-Dichloroethene	<5ug/m3	01/27/94		VM0106
cis-1,2-Dichloroethene	<5ug/m3	01/27/94		VM0106
Chloroform	<5ug/m3	01/27/94		VM0106
1,2-Dichloroethane	<5ug/m3	01/27/94		VM0106
2-Butanone	<20ug/m3	01/27/94		VM0106
1,1,1-Trichloroethane	<5ug/m3	01/27/94		VM0106
Carbon Tetrachloride	<5ug/m3	01/27/94		VM0106
Bromodichloromethane	<5ug/m3	01/27/94		VM0106
1,2-Dichloropropane	<5ug/m3	01/27/94		VM0106
cis-1,3-Dichloropropene	<5ug/m3	01/27/94		VM0106
Trichloroethene	<5ug/m3	01/27/94		VM0106
Dibromochloromethane	<5ug/m3	01/27/94		VM0106
1,1,2-Trichloroethane	<5ug/m3	01/27/94		VM0106
Benzene	<5ug/m3	01/27/94		VM0106
trans-1,3-Dichloropropene	<5ug/m3	01/27/94		VM0106
Bromoform	<5ug/m3	01/27/94		VM0106
4-Methyl-2-pentanone	<20ug/m3	01/27/94		VM0106
2-Hexanone	<20ug/m3	01/27/94		VM0106
Tetrachloroethene	<5ug/m3	01/27/94		VM0106
1,1,2,2-Tetrachloroethane	<5ug/m3	01/27/94		VM0106
Toluene	<5ug/m3	01/27/94		VM0106
Chlorobenzene	<5ug/m3	01/27/94		VM0106
Ethylbenzene	<5ug/m3	01/27/94		VM0106
Styrene	<5ug/m3	01/27/94		VM0106
m-Xylene and p-Xylene	<5ug/m3	01/27/94		VM0106
o-Xylene	<5ug/m3	01/27/94		VM0106

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: GN

QC: DC

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS VAPOR CARBON INF 1/14/94 0938-0948H C V=65L

ULI I.D.: 01494157

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

GCMS Phenols

Phenol

<77ug/m3

02/12/94

SA0087

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL:

QC:

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS PRIMARY VAPOR CARBON EFF 1/14/94 0938-0948H C

V=65L

ULI I.D.: 01494158

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

GCMS Phenols

Phenol

<77ug/m3

02/12/94

SA0087

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *Com*

QC: *DC*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS SECONDARY VAPOR CARBON EFF 1/14/94 0938-0945H (

V=65L

ULI I.D.: 01494159

Matrix: ATr

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

GCMS Phenols

Phenol

<77ug/m3

02/12/94

SA0087

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE 1069-079 COLUMBIA

Sampled by: ULI

APPROVAL: GU

QC: DC

Lab I.D.: 10170

MILLS BLANK A 1/14/94

ULI I.D.: 01494160

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

TCL Volatiles by EPA Method 8240

Chloromethane	<0.04ug	01/27/94		VM0106
Bromomethane	<0.04ug	01/27/94		VM0106
Vinyl Chloride	<0.04ug	01/27/94		VM0106
Chloroethane	<0.04ug	01/27/94		VM0106
Methylene Chloride	<0.04ug	01/27/94		VM0106
Acetone	<0.2ug	01/27/94		VM0106
Carbon Disulfide	<0.04ug	01/27/94		VM0106
1,1-Dichloroethene	<0.04ug	01/27/94		VM0106
1,1-Dichloroethane	<0.04ug	01/27/94		VM0106
trans-1,2-Dichloroethene	<0.04ug	01/27/94		VM0106
cis-1,2-Dichloroethene	<0.04ug	01/27/94		VM0106
Chloroform	<0.04ug	01/27/94		VM0106
1,2-Dichloroethane	<0.04ug	01/27/94		VM0106
2-Butanone	<0.2ug	01/27/94		VM0106
1,1,1-Trichloroethane	<0.04ug	01/27/94		VM0106
Carbon Tetrachloride	<0.04ug	01/27/94		VM0106
Bromodichloromethane	<0.04ug	01/27/94		VM0106
1,2-Dichloropropane	<0.04ug	01/27/94		VM0106
cis-1,3-Dichloropropene	<0.04ug	01/27/94		VM0106
Trichloroethene	<0.04ug	01/27/94		VM0106
Dibromochloromethane	<0.04ug	01/27/94		VM0106
1,1,2-Trichloroethane	<0.04ug	01/27/94		VM0106
Benzene	<0.04ug	01/27/94		VM0106
trans-1,3-Dichloropropene	<0.04ug	01/27/94		VM0106
Bromoform	<0.04ug	01/27/94		VM0106
4-Methyl-2-pentanone	<0.2ug	01/27/94		VM0106
2-Hexanone	<0.2ug	01/27/94		VM0106
Tetrachloroethene	<0.04ug	01/27/94		VM0106
1,1,2,2-Tetrachloroethane	<0.04ug	01/27/94		VM0106
Toluene	<0.04ug	01/27/94		VM0106
Chlorobenzene	<0.04ug	01/27/94		VM0106
Ethylbenzene	<0.04ug	01/27/94		VM0106
Styrene	<0.04ug	01/27/94		VM0106
m-Xylene and p-Xylene	<0.04ug	01/27/94		VM0106
o-Xylene	<0.04ug	01/27/94		VM0106

DATE: 02/14/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 021494041

Client I.D.: MALCOLM PIRNIE, INC. - SYRACUSE 1069-079 COLUMBIA

Sampled by: ULI

APPROVAL: *SW*

QC: *DC*

Lab I.D.: 10170

MILLS BLANK B 1/14/94

ULI I.D.: 01494161

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

GCMS Phenols

Phenol

<5ug

02/12/94

SA0087

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 MATRIX INTERFERENCE
- 3 PRESENT IN BLANK
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- 8 BDL (BELOW DETECTION LIMITS)
- 9 MDL (METHOD DETECTION LIMITS)
- 10 ADL (AVERAGE DETECTION LIMITS)
- 11 PQL (PRACTICAL QUANTITATION LIMIT)
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE OR VALUES WITHIN EXPERIMENTAL ERROR
- 14 MG/L / PPB
- 15 MG/L (MILLIGRAMS PER LITER), PPM (PARTS PER MILLION)
- 16 UG/L (MICROGRAMS PER LITER), PPB (PARTS PER BILLION)
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 DEPENDING UPON THE INTENDED USE OF THIS TEST RESULT, CONFIRMATION BY GC/MS OR DUAL COLUMN CHROMATOGRAPHY MAY BE REQUIRED
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMIT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
- 26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 FIELD PARAMETER TO BE PROVIDED ON DISC
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND (NON-DETECTED)
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 NON-POTABLE WATER SOURCE
- 34 INDIVIDUAL AROCLORS DO NOT CARRY A DETECTION LIMIT BUT ARE INCLUSIVE TO THE TOTAL PCB CONTENT
- 35 THE ANALYSIS DID NOT MEET ELAP POST-DIGESTION SPIKE REQUIREMENTS. THE STATE REQUIRES THIS SAMPLE TO BE REANALYZED BY METHOD OF STANDARD ADDITIONS. SHOULD YOU REQUIRE THIS ADDITIONAL EFFORT, PLEASE CONTACT THE LABORATORY WITHIN 5 WORKING DAYS FOR A PRICE QUOTATION.
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL₂) / POUNDS (LBS) PER DAY OF CL₂
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- 40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
- 41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 43 METAL BY CONCENTRATION PROCEDURE
- 44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Upsate Laboratories, Inc.

Industrial Hygiene & Air Resources Division

Chain of Custody Record

6034 Corporate Drive, East Syracuse, New York 13057

Telephone: 315-437-0255

Fax: 315-437-1209

P.O. Box 289 Syracuse, New York 13206

Client: <u>Makelm Pirne</u>				Matrix: <u>SEIL VAPOR (AIR)</u>				Due Date: <u>1-24-94</u>				PARAMETERS										
Client Contact: <u>Karen Balbræk</u>				Purchase Order Number: <u>1069-079</u>				DEC Spill #: (if applicable) <u>---</u>														
Project Name / Project #: <u>Columbia Mills / 1069-079</u>				Composite or Grab <u>Composite</u>				Other: <u>---</u>				# OF CONT EPA 8240 Phenol (ccms)										
DATE	START TIME	END TIME	TOTAL TIME (min)	FLOW RATE (l/m)	AIR VOLUME (l)	IMPING. VOLUME (L)	ULI I.D.# Internal use only	SAMPLE DESCRIPTION														
1-14-94	09:25	09:35	10.5	.4	65	-	01494154	VAPOR CARBON INFLUENT	(1)	X												
1-14-94	09:25	09:35	10.5	.4	65	-	01494155	PRIMARY VAPOR CARBON EFFLUENT	(1)	X												
1-14-94	09:25	09:35	10.5	.4	65	-	01494156	SECONDARY VAPOR CARBON EFFLUENT	(1)	X												
1-14-94	09:38	09:48	6.5	1.0	65	-	01494157	VAPOR CARBON INFLUENT	(1)	X	X											
1-14-94	09:38	09:48	6.5	1.0	65	-	01494158	PRIMARY VAPOR CARBON EFFLUENT	(1)	X	X											
1-14-94	09:38	09:45	6.5	1.0	65	-	01494159	SECONDARY VAPOR CARBON EFFLUENT	(1)	X	X											
1-14-94	-	-	-	-	-	-	01494160	BLANK A	(1)	X												
1-14-94	-	-	-	-	-	-	01494161	BLANK B	(1)		X											
SAMPLED BY: (Print) <u>GARRETT MOLL</u>				COMPANY: <u>ULI</u>				RELINQUISHED BY: (Signature) <u>G. Moll</u>					DATE/TIME: <u>1-14-94</u>									
RECEIVED BY: (Print)				DATE/TIME:				RELINQUISHED BY: (Signature)					DATE/TIME:									
RECEIVED BY LAB: <u>T. Cost</u>				DATE/TIME: <u>1/14/94 4:00pm</u>				Name of Courier (if used):														

Upstate Laboratories inc.

98-2123

Shipping: 6034 Corporate Drive • East Syracuse, New York 13057 • (315) 437-0255

Mailing: Box 289 • Syracuse, New York 13206

Southern Region (607) 724-0478

Western Region (716) 436-9070

Eastern Region (518) 459-3134

N. Jersey Region (201) 703-1324

March 1, 1994

Ms. Karen A. Balbierer
Environmental Scientist
Malcolm Pirnie, Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Analysis Report #030194013 - 1069-079 Columbia Mills

Dear Ms. Balbierer:

Please find enclosed the results for your samples which were collected by ULI personnel on February 14, 1994.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.


Timothy M. O'Rourke, CIH
Industrial Hygiene Manager

TMO/sh

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE 1069-079 COLUMBIA

Sampled by: ULI

APPROVAL: 

QC: JH

Lab I.D.: 10170

MILLS INF 2/14/94 1205-1210H C V=20L

ULT I.D.: 04694013

Matrix: ATr

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<75ug/m3	02/23/94	01	VM0125
Bromomethane	<75ug/m3	02/23/94	01	VM0125
Vinyl Chloride	<75ug/m3	02/23/94	01	VM0125
Chloroethane	<75ug/m3	02/23/94	01	VM0125
Methylene Chloride	<75ug/m3	02/23/94	01	VM0125
Acetone	<250ug/m3	02/23/94	01	VM0125
Carbon Disulfide	<75ug/m3	02/23/94	01	VM0125
1,1-Dichloroethene	<75ug/m3	02/23/94	01	VM0125
1,1-Dichloroethane	<75ug/m3	02/23/94	01	VM0125
trans-1,2-Dichloroethene	<75ug/m3	02/23/94	01	VM0125
cis-1,2-Dichloroethene	<75ug/m3	02/23/94	01	VM0125
Chloroform	<75ug/m3	02/23/94	01	VM0125
1,2-Dichloroethane	<75ug/m3	02/23/94	01	VM0125
2-Butanone	<250ug/m3	02/23/94	01	VM0125
1,1,1-Trichloroethane	<75ug/m3	02/23/94	01	VM0125
Carbon Tetrachloride	<75ug/m3	02/23/94	01	VM0125
Bromodichloromethane	<75ug/m3	02/23/94	01	VM0125
1,2-Dichloropropane	<75ug/m3	02/23/94	01	VM0125
cis-1,3-Dichloropropene	<75ug/m3	02/23/94	01	VM0125
Trichloroethene	<75ug/m3	02/23/94	01	VM0125
Dibromochloromethane	<75ug/m3	02/23/94	01	VM0125
1,1,2-Trichloroethane	<75ug/m3	02/23/94	01	VM0125
Benzene	<75ug/m3	02/23/94	01	VM0125
trans-1,3-Dichloropropene	<75ug/m3	02/23/94	01	VM0125
Bromoform	<75ug/m3	02/23/94	01	VM0125
4-Methyl-2-pentanone	<250ug/m3	02/23/94	01	VM0125
2-Hexanone	<250ug/m3	02/23/94	01	VM0125
Tetrachloroethene	<75ug/m3	02/23/94	01	VM0125
1,1,2,2-Tetrachloroethane	<75ug/m3	02/23/94	01	VM0125
Toluene	<75ug/m3	02/23/94	01	VM0125
Chlorobenzene	<75ug/m3	02/23/94	01	VM0125
Ethylbenzene	<75ug/m3	02/23/94	01	VM0125
Styrene	<75ug/m3	02/23/94	01	VM0125
m-Xylene and p-Xylene	110ug/m3	02/23/94	01	VM0125
o-Xylene	<75ug/m3	02/23/94	01	VM0125

DATE: 03/01/94

Upstate Laboratories, Inc.
Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

1069-079 COLUMBIA
MILLS PRIMARY EFF 2/14/94 0830-0840H C V=65L

ULI I.D.: 04694014

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<5ug/m3	02/23/94		VM0125
Bromomethane	<5ug/m3	02/23/94		VM0125
Vinyl Chloride	<5ug/m3	02/23/94		VM0125
Chloroethane	<5ug/m3	02/23/94		VM0125
Methylene Chloride	<5ug/m3	02/23/94		VM0125
Acetone	<15ug/m3	02/23/94		VM0125
Carbon Disulfide	<5ug/m3	02/23/94		VM0125
1,1-Dichloroethene	<5ug/m3	02/23/94		VM0125
1,1-Dichloroethane	<5ug/m3	02/23/94		VM0125
trans-1,2-Dichloroethene	<5ug/m3	02/23/94		VM0125
cis-1,2-Dichloroethene	<5ug/m3	02/23/94		VM0125
Chloroform	<5ug/m3	02/23/94		VM0125
1,2-Dichloroethane	<5ug/m3	02/23/94		VM0125
2-Butanone	<15ug/m3	02/23/94		VM0125
1,1,1-Trichloroethane	<5ug/m3	02/23/94		VM0125
Carbon Tetrachloride	<5ug/m3	02/23/94		VM0125
Bromodichloromethane	<5ug/m3	02/23/94		VM0125
1,2-Dichloropropane	<5ug/m3	02/23/94		VM0125
cis-1,3-Dichloropropene	<5ug/m3	02/23/94		VM0125
Trichloroethene	<5ug/m3	02/23/94		VM0125
Dibromochloromethane	<5ug/m3	02/23/94		VM0125
1,1,2-Trichloroethane	<5ug/m3	02/23/94		VM0125
Benzene	<5ug/m3	02/23/94		VM0125
trans-1,3-Dichloropropene	<5ug/m3	02/23/94		VM0125
Bromoform	<5ug/m3	02/23/94		VM0125
4-Methyl-2-pentanone	<15ug/m3	02/23/94		VM0125
2-Hexanone	<15ug/m3	02/23/94		VM0125
Tetrachloroethene	<5ug/m3	02/23/94		VM0125
1,1,2,2-Tetrachloroethane	<5ug/m3	02/23/94		VM0125
Toluene	<5ug/m3	02/23/94		VM0125
Chlorobenzene	<5ug/m3	02/23/94		VM0125
Ethylbenzene	<5ug/m3	02/23/94		VM0125
Styrene	<5ug/m3	02/23/94		VM0125
m-Xylene and p-Xylene	<5ug/m3	02/23/94		VM0125
o-Xylene	<5ug/m3	02/23/94		VM0125

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS SECONDARY EFF 2/14/94 0830-0840H C V=65L

ULI I.D.: 04694015

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<5ug/m3	02/23/94		VM0125
Bromomethane	<5ug/m3	02/23/94		VM0125
Vinyl Chloride	<5ug/m3	02/23/94		VM0125
Chloroethane	<5ug/m3	02/23/94		VM0125
Methylene Chloride	<5ug/m3	02/23/94		VM0125
Acetone	<15ug/m3	02/23/94		VM0125
Carbon Disulfide	<5ug/m3	02/23/94		VM0125
1,1-Dichloroethene	<5ug/m3	02/23/94		VM0125
1,1-Dichloroethane	<5ug/m3	02/23/94		VM0125
trans-1,2-Dichloroethene	<5ug/m3	02/23/94		VM0125
cis-1,2-Dichloroethene	<5ug/m3	02/23/94		VM0125
Chloroform	<5ug/m3	02/23/94		VM0125
1,2-Dichloroethane	<5ug/m3	02/23/94		VM0125
2-Butanone	<15ug/m3	02/23/94		VM0125
1,1,1-Trichloroethane	<5ug/m3	02/23/94		VM0125
Carbon Tetrachloride	<5ug/m3	02/23/94		VM0125
Bromodichloromethane	<5ug/m3	02/23/94		VM0125
1,2-Dichloropropane	<5ug/m3	02/23/94		VM0125
cis-1,3-Dichloropropene	<5ug/m3	02/23/94		VM0125
Trichloroethene	<5ug/m3	02/23/94		VM0125
Dibromochloromethane	<5ug/m3	02/23/94		VM0125
1,1,2-Trichloroethane	<5ug/m3	02/23/94		VM0125
Benzene	<5ug/m3	02/23/94		VM0125
trans-1,3-Dichloropropene	<5ug/m3	02/23/94		VM0125
Bromoform	<5ug/m3	02/23/94		VM0125
4-Methyl-2-pentanone	<15ug/m3	02/23/94		VM0125
2-Hexanone	<15ug/m3	02/23/94		VM0125
Tetrachloroethene	<5ug/m3	02/23/94		VM0125
1,1,2,2-Tetrachloroethane	<5ug/m3	02/23/94		VM0125
Toluene	<5ug/m3	02/23/94		VM0125
Chlorobenzene	<5ug/m3	02/23/94		VM0125
Ethylbenzene	<5ug/m3	02/23/94		VM0125
Styrene	<5ug/m3	02/23/94		VM0125
m-Xylene and p-Xylene	<5ug/m3	02/23/94		VM0125
o-Xylene	<5ug/m3	02/23/94		VM0125

DATE: 03/01/94

Upstate Laboratories, Inc.
Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS INF 2/14/94 0845-0855H C V=65L

ULI I.D.: 046940I6

Matrix: ATr

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<77ug/m3

02/21/94

SA0091

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: 

QC: 

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS PRIMARY EFF 2/14/94 0845-0855H C V=65L

ULI I.D.: 04594017

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<77ug/m3

02/21/94

SA0091

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

1069-079 COLUMBIA

MILLS SECONDARY EFF 2/14/94 0845-0855H C V=65L

ULI I.D.: 04694018

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<77ug/m3

02/21/94

SA0091

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE 1069-079 COLUMBIA

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

MILLS BLANK A 2/14/94

ULI I.D.: 04694019

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<0.025ug	02/23/94		VM0125
Bromomethane	<0.025ug	02/23/94		VM0125
Vinyl Chloride	<0.025ug	02/23/94		VM0125
Chloroethane	<0.025ug	02/23/94		VM0125
Methylene Chloride	<0.025ug	02/23/94		VM0125
Acetone	<0.08ug	02/23/94		VM0125
Carbon Disulfide	<0.025ug	02/23/94		VM0125
1,1-Dichloroethene	<0.025ug	02/23/94		VM0125
1,1-Dichloroethane	<0.025ug	02/23/94		VM0125
trans-1,2-Dichloroethene	<0.025ug	02/23/94		VM0125
cis-1,2-Dichloroethene	<0.025ug	02/23/94		VM0125
Chloroform	<0.025ug	02/23/94		VM0125
1,2-Dichloroethane	<0.025ug	02/23/94		VM0125
2-Butanone	<0.08ug	02/23/94		VM0125
1,1,1-Trichloroethane	<0.025ug	02/23/94		VM0125
Carbon Tetrachloride	<0.025ug	02/23/94		VM0125
Bromodichloromethane	<0.025ug	02/23/94		VM0125
1,2-Dichloropropane	<0.025ug	02/23/94		VM0125
cis-1,3-Dichloropropene	<0.025ug	02/23/94		VM0125
Trichloroethene	<0.025ug	02/23/94		VM0125
Dibromochloromethane	<0.025ug	02/23/94		VM0125
1,1,2-Trichloroethane	<0.025ug	02/23/94		VM0125
Benzene	<0.025ug	02/23/94		VM0125
trans-1,3-Dichloropropene	<0.025ug	02/23/94		VM0125
Bromoform	<0.025ug	02/23/94		VM0125
4-Methyl-2-pentanone	<0.08ug	02/23/94		VM0125
2-Hexanone	<0.08ug	02/23/94		VM0125
Tetrachloroethene	<0.025ug	02/23/94		VM0125
1,1,2,2-Tetrachloroethane	<0.025ug	02/23/94		VM0125
Toluene	<0.025ug	02/23/94		VM0125
Chlorobenzene	<0.025ug	02/23/94		VM0125
Ethylbenzene	<0.025ug	02/23/94		VM0125
Styrene	<0.025ug	02/23/94		VM0125
m-Xylene and p-Xylene	<0.025ug	02/23/94		VM0125
o-Xylene	<0.025ug	02/23/94		VM0125

DATE: 03/01/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 030194013

Client I.D.: MALCOLM PIRNIE, INC. - SYRACUSE

Sampled by: ULI

APPROVAL: *[Signature]*

QC: *[Signature]*

Lab I.D.: 10170

1069-079 COLUMBIA
MILLS BLANK B 2/14/94

ULI I.D.: 04694020

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<5ug

02/21/94

SA0091

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 MATRIX INTERFERENCE
- 3 PRESENT IN BLANK
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- 8 BDL (BELOW DETECTION LIMITS)
- 9 MDL (METHOD DETECTION LIMITS)
- 10 ADL (AVERAGE DETECTION LIMITS)
- 11 PQL (PRACTICAL QUANTITATION LIMIT)
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE OR VALUES WITHIN EXPERIMENTAL ERROR
- 14 MG/L / PPB
- 15 MG/L (MILLIGRAMS PER LITER), PPM (PARTS PER MILLION)
- 16 UG/L (MICROGRAMS PER LITER), PPB (PARTS PER BILLION)
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 DEPENDING UPON THE INTENDED USE OF THIS TEST RESULT, CONFIRMATION BY GC/MS OR DUAL COLUMN CHROMATOGRAPHY MAY BE REQUIRED
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMIT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
- 26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 FIELD PARAMETER TO BE PROVIDED ON DISC
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND (NON-DETECTED)
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 NON-POTABLE WATER SOURCE
- 34 INDIVIDUAL AROCLORS DO NOT CARRY A DETECTION LIMIT BUT ARE INCLUSIVE TO THE TOTAL PCB CONTENT
- 35 THE ANALYSIS DID NOT MEET ELAP POST-DIGESTION SPIKE REQUIREMENTS. THE STATE REQUIRES THIS SAMPLE TO BE REANALYZED BY METHOD OF STANDARD ADDITIONS. SHOULD YOU REQUIRE THIS ADDITIONAL EFFORT, PLEASE CONTACT THE LABORATORY WITHIN 5 WORKING DAYS FOR A PRICE QUOTATION.
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL₂) / POUNDS (LBS) PER DAY OF CL₂
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- 40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
- 41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 43 METAL BY CONCENTRATION PROCEDURE
- 44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Upsate Laboratories, Inc.

Industrial Hygiene & Air Resources Division

Chain of Custody Record

603 Corporate Drive, East Syracuse, New York 13057

Telephone: 315-437-0255

Fax: 315-437-1209

P.O. Box 289 Syracuse, New York 13206

04694013-20

Client: Michael Pirone	Matrix AIR SOIL VAPOR (AIR)	Due Date: T.C. 3/1/94	PARAMETERS			
Client Contact: KAREN BIBILIERE	Purchase Order Number: 1041-071	DEC Spill #:(if applicable) —	OF			
Project Name / Project #: Columbia Mills/1041-071	Composite or Grab	Other: —	CON			

	DATE	START TIME	END TIME	TOTAL TIME (min)	FLOW RATE (l/m)	AIR VOLUME (l)	IMPING. VOLUME (L)	U.I.D.# Internal use only	SAMPLE DESCRIPTION	CON	EPA 8240 (TUM)	Phenol by TUMS
13	2-14-94	12:05 12:13	12:10	66	.3	20	—	04694013	INFLUENT	(1)	X	
14	2-14-94	08:30	08:40	216	.3	65	—	04694014	PRIMARY EFFLUENT	(1)	X	
15	2-14-94	08:30	08:40	214	.3	65	—	04694015	SECONDARY EFFLUENT	(1)	X	
16	2-14-94	08:45	08:55	65	1.0	65	—	04694016	INFLUENT	(1)	X	
17	2-14-94	08:45	08:55	65	1.0	65	—	04694017	PRIMARY EFFLUENT	(1)	X	
18	2-14-94	08:45	08:55	65	1.0	65	—	04694018	SECONDARY EFFLUENT	(1)	X	
19	2-14-94	—	—	—	—	—	—	04694019	BLANK A	(1)	X	
20	2-14-94	—	—	—	—	—	—	04694020	BLANK B	(1)	X	

SAMPLED BY:(Print) GARRETT MOLL	COMPANY: UPSTATE LABORATORIES	RELINQUISHED BY:(Signature) <i>Garrett Moll</i>	DATE/TIME: 2-15-94 12:00
RECEIVED BY:(Print)	DATE/TIME:	RELINQUISHED BY:(Signature)	DATE/TIME:
RECEIVED BY LAB: <i>T. Coak</i>	DATE/TIME: 2/15/94	Name of Courier (if used):	

Upstate Laboratories inc.

Shipping: 6034 Corporate Drive • East Syracuse, New York 13057 • (315) 437-0255
Mailing: Box 289 • Syracuse, New York 13206
Southern Region (607) 724-0478
Western Region (716) 436-9070
Eastern Region (518) 459-3134
N. Jersey Region (201) 703-1324

RECEIVED

APR - 5 1994

MALCOLM PIRNIE, INC.
SYRACUSE OFFICE

April 5, 1994

Ms. Karen A. Balbierer
Environmental Scientist
Malcolm Pirnie, Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Analysis Report #07494134 - Air Emissions

Dear Ms. Balbierer:

Please find enclosed the results for your samples which were collected by ULI personnel on March 15, 1994.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.



Timothy M. O'Rourke, CIH
Industrial Hygiene Manager

TMO/sh

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 04/05/94

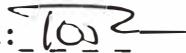
Upstate Laboratories, Inc.

Analysis Results

Report Number: 07494134

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: 

QC: 
Lab I.D.: 10170

AIR EMISSIONS

INF 3/15/94 0830H V=65L

ULI I.D.: 07494134

Matrix: ATr

PARAMETERS

RESULTS

DATE ANAL.

KEY

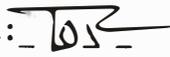
FILE#

TCL Volatiles by EPA Method 8240

Chloromethane	<50ug/m3	03/31/94		VM0141
Bromomethane	<50ug/m3	03/31/94		VM0141
Vinyl Chloride	<50ug/m3	03/31/94		VM0141
Chloroethane	<50ug/m3	03/31/94		VM0141
Methylene Chloride	<50ug/m3	03/31/94		VM0141
Acetone	<200ug/m3	03/31/94		VM0141
Carbon Disulfide	<50ug/m3	03/31/94		VM0141
1,1-Dichloroethene	<50ug/m3	03/31/94		VM0141
1,1-Dichloroethane	<50ug/m3	03/31/94		VM0141
trans-1,2-Dichloroethene	<50ug/m3	03/31/94		VM0141
cis-1,2-Dichloroethene	<50ug/m3	03/31/94		VM0141
Chloroform	<50ug/m3	03/31/94		VM0141
1,2-Dichloroethane	<50ug/m3	03/31/94		VM0141
2-Butanone	<200ug/m3	03/31/94		VM0141
1,1,1-Trichloroethane	<50ug/m3	03/31/94		VM0141
Carbon Tetrachloride	<50ug/m3	03/31/94		VM0141
Bromodichloromethane	<50ug/m3	03/31/94		VM0141
1,2-Dichloropropane	<50ug/m3	03/31/94		VM0141
cis-1,3-Dichloropropene	<50ug/m3	03/31/94		VM0141
Trichloroethene	<50ug/m3	03/31/94		VM0141
Dibromochloromethane	<50ug/m3	03/31/94		VM0141
1,1,2-Trichloroethane	<50ug/m3	03/31/94		VM0141
Benzene	<50ug/m3	03/31/94		VM0141
trans-1,3-Dichloropropene	<50ug/m3	03/31/94		VM0141
Bromoform	<50ug/m3	03/31/94		VM0141
4-Methyl-2-pentanone	<200ug/m3	03/31/94		VM0141
2-Hexanone	<200ug/m3	03/31/94		VM0141
Tetrachloroethene	<50ug/m3	03/31/94		VM0141
1,1,2,2-Tetrachloroethane	<50ug/m3	03/31/94		VM0141
Toluene	<50ug/m3	03/31/94		VM0141
Chlorobenzene	<50ug/m3	03/31/94		VM0141
Ethylbenzene	<50ug/m3	03/31/94		VM0141
Styrene	<50ug/m3	03/31/94		VM0141
m-Xylene and p-Xylene	52ug/m3	03/31/94		VM0141
o-Xylene	<50ug/m3	03/31/94		VM0141

DATE: 04/05/94

Upstate Laboratories, Inc.
Analysis Results
Report Number: 07494134
Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE
Sampled by: ULI

APPROVAL: 
QC: 
Lab I.D.: 10170

AIR EMISSIONS
PRIMARY EFF 3/15/94 0830H V=65L

ULI I.D.: 07494135

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<5ug/m3	03/31/94		VM0141
Bromomethane	<5ug/m3	03/31/94		VM0141
Vinyl Chloride	<5ug/m3	03/31/94		VM0141
Chloroethane	<5ug/m3	03/31/94		VM0141
Methylene Chloride	<5ug/m3	03/31/94		VM0141
Acetone	<20ug/m3	03/31/94		VM0141
Carbon Disulfide	<5ug/m3	03/31/94		VM0141
1,1-Dichloroethene	<5ug/m3	03/31/94		VM0141
1,1-Dichloroethane	<5ug/m3	03/31/94		VM0141
trans-1,2-Dichloroethene	<5ug/m3	03/31/94		VM0141
cis-1,2-Dichloroethene	<5ug/m3	03/31/94		VM0141
Chloroform	<5ug/m3	03/31/94		VM0141
1,2-Dichloroethane	<5ug/m3	03/31/94		VM0141
2-Butanone	<20ug/m3	03/31/94		VM0141
1,1,1-Trichloroethane	<5ug/m3	03/31/94		VM0141
Carbon Tetrachloride	<5ug/m3	03/31/94		VM0141
Bromodichloromethane	<5ug/m3	03/31/94		VM0141
1,2-Dichloropropane	<5ug/m3	03/31/94		VM0141
cis-1,3-Dichloropropene	<5ug/m3	03/31/94		VM0141
Trichloroethene	<5ug/m3	03/31/94		VM0141
Dibromochloromethane	<5ug/m3	03/31/94		VM0141
1,1,2-Trichloroethane	<5ug/m3	03/31/94		VM0141
Benzene	<5ug/m3	03/31/94		VM0141
trans-1,3-Dichloropropene	<5ug/m3	03/31/94		VM0141
Bromoform	<5ug/m3	03/31/94		VM0141
4-Methyl-2-pentanone	<20ug/m3	03/31/94		VM0141
2-Hexanone	<20ug/m3	03/31/94		VM0141
Tetrachloroethene	<5ug/m3	03/31/94		VM0141
1,1,2,2-Tetrachloroethane	<5ug/m3	03/31/94		VM0141
Toluene	<5ug/m3	03/31/94		VM0141
Chlorobenzene	<5ug/m3	03/31/94		VM0141
Ethylbenzene	<5ug/m3	03/31/94		VM0141
Styrene	<5ug/m3	03/31/94		VM0141
m-Xylene and p-Xylene	<5ug/m3	03/31/94		VM0141
o-Xylene	<5ug/m3	03/31/94		VM0141

DATE: 04/05/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 07494134

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: TOR

QC: asc

Lab I.D.: 10170

AIR EMISSIONS

SECONDARY EFF 3/15/94 0830H V=65L

ULI I.D.: 07494136

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<5ug/m3	03/31/94		VM0141
Bromomethane	<5ug/m3	03/31/94		VM0141
Vinyl Chloride	<5ug/m3	03/31/94		VM0141
Chloroethane	<5ug/m3	03/31/94		VM0141
Methylene Chloride	<5ug/m3	03/31/94		VM0141
Acetone	<20ug/m3	03/31/94		VM0141
Carbon Disulfide	<5ug/m3	03/31/94		VM0141
1,1-Dichloroethene	<5ug/m3	03/31/94		VM0141
1,1-Dichloroethane	<5ug/m3	03/31/94		VM0141
trans-1,2-Dichloroethene	<5ug/m3	03/31/94		VM0141
cis-1,2-Dichloroethene	<5ug/m3	03/31/94		VM0141
Chloroform	<5ug/m3	03/31/94		VM0141
1,2-Dichloroethane	<5ug/m3	03/31/94		VM0141
2-Butanone	<20ug/m3	03/31/94		VM0141
1,1,1-Trichloroethane	<5ug/m3	03/31/94		VM0141
Carbon Tetrachloride	<5ug/m3	03/31/94		VM0141
Bromodichloromethane	<5ug/m3	03/31/94		VM0141
1,2-Dichloropropane	<5ug/m3	03/31/94		VM0141
cis-1,3-Dichloropropene	<5ug/m3	03/31/94		VM0141
Trichloroethene	<5ug/m3	03/31/94		VM0141
Dibromochloromethane	<5ug/m3	03/31/94		VM0141
1,1,2-Trichloroethane	<5ug/m3	03/31/94		VM0141
Benzene	<5ug/m3	03/31/94		VM0141
trans-1,3-Dichloropropene	<5ug/m3	03/31/94		VM0141
Bromoform	<5ug/m3	03/31/94		VM0141
4-Methyl-2-pentanone	<20ug/m3	03/31/94		VM0141
2-Hexanone	<20ug/m3	03/31/94		VM0141
Tetrachloroethene	<5ug/m3	03/31/94		VM0141
1,1,2,2-Tetrachloroethane	<5ug/m3	03/31/94		VM0141
Toluene	<5ug/m3	03/31/94		VM0141
Chlorobenzene	<5ug/m3	03/31/94		VM0141
Ethylbenzene	<5ug/m3	03/31/94		VM0141
Styrene	<5ug/m3	03/31/94		VM0141
m-Xylene and p-Xylene	<5ug/m3	03/31/94		VM0141
o-Xylene	<5ug/m3	03/31/94		VM0141

DATE: 04/05/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 07494134

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: TOP

QC: SS

Lab I.D.: 10170

AIR EMISSIONS

INF 3/15/94 0815H V=65L

ULI I.D.: 07494137

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<77ug/m3

03/21/94

SA0103

DATE: 04/05/94

Upstate Laboratories, Inc.
Analysis Results
Report Number: 07494134
Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE
Sampled by: ULI

APPROVAL: 
QC: 
Lab I.D.: 10170

AIR EMISSIONS
PRIMARY EFF 3/15/94 0815H V=65L

ULI I.D.: 07494138

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<77ug/m3

03/21/94

SA0103

DATE: 04/05/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 07494134

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE AIR EMISSIONS

Sampled by: ULI

BLANK 3/15/94

APPROVAL: 

QC: 
Lab I.D.: 10170

ULI I.D.: 07494140

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<0.05ug	03/31/94		VM0141
Bromomethane	<0.05ug	03/31/94		VM0141
Vinyl Chloride	<0.05ug	03/31/94		VM0141
Chloroethane	<0.05ug	03/31/94		VM0141
Methylene Chloride	<0.05ug	03/31/94		VM0141
Acetone	<0.2ug	03/31/94		VM0141
Carbon Disulfide	<0.05ug	03/31/94		VM0141
1,1-Dichloroethene	<0.05ug	03/31/94		VM0141
1,1-Dichloroethane	<0.05ug	03/31/94		VM0141
trans-1,2-Dichloroethene	<0.05ug	03/31/94		VM0141
cis-1,2-Dichloroethene	<0.05ug	03/31/94		VM0141
Chloroform	<0.05ug	03/31/94		VM0141
1,2-Dichloroethane	<0.05ug	03/31/94		VM0141
2-Butanone	<0.2ug	03/31/94		VM0141
1,1,1-Trichloroethane	<0.05ug	03/31/94		VM0141
Carbon Tetrachloride	<0.05ug	03/31/94		VM0141
Bromodichloromethane	<0.05ug	03/31/94		VM0141
1,2-Dichloropropane	<0.05ug	03/31/94		VM0141
cis-1,3-Dichloropropene	<0.05ug	03/31/94		VM0141
Trichloroethene	<0.05ug	03/31/94		VM0141
Dibromochloromethane	<0.05ug	03/31/94		VM0141
1,1,2-Trichloroethane	<0.05ug	03/31/94		VM0141
Benzene	<0.05ug	03/31/94		VM0141
trans-1,3-Dichloropropene	<0.05ug	03/31/94		VM0141
Bromoform	<0.05ug	03/31/94		VM0141
4-Methyl-2-pentanone	<0.2ug	03/31/94		VM0141
2-Hexanone	<0.2ug	03/31/94		VM0141
Tetrachloroethene	<0.05ug	03/31/94		VM0141
1,1,2,2-Tetrachloroethane	<0.05ug	03/31/94		VM0141
Toluene	<0.05ug	03/31/94		VM0141
Chlorobenzene	<0.05ug	03/31/94		VM0141
Ethylbenzene	<0.05ug	03/31/94		VM0141
Styrene	<0.05ug	03/31/94		VM0141
m-Xylene and p-Xylene	<0.05ug	03/31/94		VM0141
o-Xylene	<0.05ug	03/31/94		VM0141

DATE: 04/05/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 07494134

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE

Sampled by: ULI

APPROVAL: 

QC: 

Lab I.D.: 10170

AIR EMISSIONS
BLANK 3/15/94

ULI I.D.: 07494141

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

EPA Method 625, Acid Extractables
Phenol

<5ug

03/21/94

SA0103

Upstate Laboratories, Inc

Industrial Hygiene & Air Resources Division

Chain of Custody Record

6034 Corporate Drive, East Syracuse, New York 13073 Telephone: 315-437-0255

Fax: 315-437-1209

P.O. Box 289 Syracuse, New York 13206

Client: Malcolm Pirnie, Inc				Matrix: AIR				Due Date: 2 WEEKS 3/29				PARAMETERS							F I E L D N O.	P U M P N O.	
Client Contact: Ms. Karen Balbierer				Purchase Order Number: 1069-079				DEC Spill #: (if applicable) NA				# OF C O N T									
Project Name / Project #: AIR EMISSIONS				Other:				File: IH-COCmpi													
DATE	START TIME	END TIME	TOTAL TIME (min)	FLOW RATE l/m	AIR VOL. (l)	IMP. VOL. (L)	ULI I.D.# Internal use only	SAMPLE DESCRIPTION				#1	#2	#3	#4	#5	#6	#7			
3/15/94	8.30		325	0.200	65		134	Influent				(1) X								1	
3/15/94	8.30		325	0.199	65		135	Primary Effluent				(1) X								2	
3/15/94	8.30		325	0.199	65		131e	Secondary Effluent				(1) X								3	
3/15/94	8.15		65	1.000	65		137	Influent				(1)	X							4	
3/15/94	8.15		65	1.000	65		138	Primary Effluent				(1)	X							5	
3/15/94	8.15		65	1.000	65		139	Secondary Effluent				(1)	X							6	
3/15/94							140	Blank				(1) X								7	
3/15/94							141	Blank				(1)	X							8	

PARAMETER AND METHOD				COMMENTS:			
#1) EPA 8240 TCL				Purchase Order covers quarterly testing for five quarters			
#2) Phenol GCMS							
#3)							
#4)							
#5)							
#6)							
#7)							
SAMPLED BY: (Print) GARRETT J. MOLL		COMPANY: UPSTATE LABS		RELINQUISHED BY: (Signature) <i>Garrett Moll</i>		DATE/TIME: 3-15-94 5:50pm	
RECEIVED BY: (Print)		DATE/TIME:		RELINQUISHED BY: (Signature)		DATE/TIME:	
RECEIVED BY LAB: <i>J. Jaquin</i>		DATE/TIME: 3/15/94 1750p		Name of Courier (if used): <i>US</i>			

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057 • (315) 437-0255 • Fax (315) 437-1209

Mailing: Box 289 • Syracuse, NY 13206

Albany (518) 459-3134

Binghamton (607) 724-0478

312

August 9, 1994

Buffalo (716) 662-2118
Rochester (716) 436-9070
New Jersey (201) 703-1324

Ms. Karen A. Balbierer
Environmental Scientist
Malcolm Pirnie, Inc.
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Analysis Report #20294047 - Air Emissions

Dear Ms. Balbierer:

Please find enclosed the results for your samples which were collected by ULI personnel on July 20, 1994.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Timothy M O'Rourke

Timothy M. O'Rourke, CIH
Industrial Hygiene Manager

TMO/sl

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 8/9/94. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 08/09/94

Upstate Laboratories, Inc.
Analysis Results
Report Number: 20294047
Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE
Sampled by: ULI

APPROVAL: *GM*
QC: *SC*
Lab I.D.: 10170

AIR EMISSIONS
PRIMARY INF 7/20/94 1350H V=14L

ULI I.D.: 20294047

Matrix: ATr

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<210ug/m3	08/01/94	01	VM0264
Bromomethane	<210ug/m3	08/01/94	01	VM0264
Vinyl Chloride	<210ug/m3	08/01/94	01	VM0264
Chloroethane	<210ug/m3	08/01/94	01	VM0264
Methylene Chloride	<210ug/m3	08/01/94	01	VM0264
Acetone	<600ug/m3	08/01/94	01	VM0264
Carbon Disulfide	<210ug/m3	08/01/94	01	VM0264
1,1-Dichloroethene	<210ug/m3	08/01/94	01	VM0264
1,1-Dichloroethane	<210ug/m3	08/01/94	01	VM0264
trans-1,2-Dichloroethene	<210ug/m3	08/01/94	01	VM0264
cis-1,2-Dichloroethene	<210ug/m3	08/01/94	01	VM0264
Chloroform	<210ug/m3	08/01/94	01	VM0264
1,2-Dichloroethane	<210ug/m3	08/01/94	01	VM0264
2-Butanone	<600ug/m3	08/01/94	01	VM0264
1,1,1-Trichloroethane	<210ug/m3	08/01/94	01	VM0264
Carbon Tetrachloride	<210ug/m3	08/01/94	01	VM0264
Bromodichloromethane	<210ug/m3	08/01/94	01	VM0264
1,2-Dichloropropane	<210ug/m3	08/01/94	01	VM0264
cis-1,3-Dichloropropene	<210ug/m3	08/01/94	01	VM0264
Trichloroethene	<210ug/m3	08/01/94	01	VM0264
Dibromochloromethane	<210ug/m3	08/01/94	01	VM0264
1,1,2-Trichloroethane	<210ug/m3	08/01/94	01	VM0264
Benzene	<210ug/m3	08/01/94	01	VM0264
trans-1,3-Dichloropropene	<210ug/m3	08/01/94	01	VM0264
Bromoform	<210ug/m3	08/01/94	01	VM0264
4-Methyl-2-pentanone	<600ug/m3	08/01/94	01	VM0264
2-Hexanone	<600ug/m3	08/01/94	01	VM0264
Tetrachloroethene	<210ug/m3	08/01/94	01	VM0264
1,1,2,2-Tetrachloroethane	<210ug/m3	08/01/94	01	VM0264
Toluene	<210ug/m3	08/01/94	01	VM0264
Chlorobenzene	<210ug/m3	08/01/94	01	VM0264
Ethylbenzene	<210ug/m3	08/01/94	01	VM0264
Styrene	<210ug/m3	08/01/94	01	VM0264
m-Xylene and p-Xylene	<210ug/m3	08/01/94	01	VM0264
o-Xylene	<210ug/m3	08/01/94	01	VM0264

DATE: 08/09/94

Upstate Laboratories, Inc.

Analysis Results

Report Number: 20294047

Client I.D.: MALCOLM PIRNIE, INC. - SYRACUSE

Sampled by: ULI

APPROVAL: *em*

QC: *[Signature]*

Lab I.D.: 10170

AIR EMISSIONS

PRIMARY EFF 7/20/94 1400H V=14L

ULI I.D.: 20294048

Matrix: Air

PARAMETERS

RESULTS

DATE ANAL.

KEY

FILE#

TCL Volatiles by EPA Method 8240

Chloromethane	<100ug/m3	08/01/94	01	VM0264
Bromomethane	<100ug/m3	08/01/94	01	VM0264
Vinyl Chloride	<100ug/m3	08/01/94	01	VM0264
Chloroethane	<100ug/m3	08/01/94	01	VM0264
Methylene Chloride	<100ug/m3	08/01/94	01	VM0264
Acetone	<300ug/m3	08/01/94	01	VM0264
Carbon Disulfide	<100ug/m3	08/01/94	01	VM0264
1,1-Dichloroethene	<100ug/m3	08/01/94	01	VM0264
1,1-Dichloroethane	<100ug/m3	08/01/94	01	VM0264
trans-1,2-Dichloroethene	<100ug/m3	08/01/94	01	VM0264
cis-1,2-Dichloroethene	<100ug/m3	08/01/94	01	VM0264
Chloroform	<100ug/m3	08/01/94	01	VM0264
1,2-Dichloroethane	<100ug/m3	08/01/94	01	VM0264
2-Butanone	<300ug/m3	08/01/94	01	VM0264
1,1,1-Trichloroethane	<100ug/m3	08/01/94	01	VM0264
Carbon Tetrachloride	<100ug/m3	08/01/94	01	VM0264
Bromodichloromethane	<100ug/m3	08/01/94	01	VM0264
1,2-Dichloropropane	<100ug/m3	08/01/94	01	VM0264
cis-1,3-Dichloropropene	<100ug/m3	08/01/94	01	VM0264
Trichloroethene	<100ug/m3	08/01/94	01	VM0264
Dibromochloromethane	<100ug/m3	08/01/94	01	VM0264
1,1,2-Trichloroethane	<100ug/m3	08/01/94	01	VM0264
Benzene	<100ug/m3	08/01/94	01	VM0264
trans-1,3-Dichloropropene	<100ug/m3	08/01/94	01	VM0264
Bromoform	<100ug/m3	08/01/94	01	VM0264
4-Methyl-2-pentanone	<300ug/m3	08/01/94	01	VM0264
2-Hexanone	<300ug/m3	08/01/94	01	VM0264
Tetrachloroethene	<100ug/m3	08/01/94	01	VM0264
1,1,2,2-Tetrachloroethane	<100ug/m3	08/01/94	01	VM0264
Toluene	<100ug/m3	08/01/94	01	VM0264
Chlorobenzene	<100ug/m3	08/01/94	01	VM0264
Ethylbenzene	<100ug/m3	08/01/94	01	VM0264
Styrene	<100ug/m3	08/01/94	01	VM0264
m-Xylene and p-Xylene	<100ug/m3	08/01/94	01	VM0264
o-Xylene	<100ug/m3	08/01/94	01	VM0264

DATE: 08/09/94

Upstate Laboratories, Inc.
Analysis Results

Report Number: 20294047

Client I.D.: MALCOLM PIRNIE, INC.-SYRACUSE
Sampled by: ULI

APPROVAL: *Em*

QC: *[Signature]*

Lab I.D.: 10170

AIR EMISSIONS
PORAPAK BLANK 7/20/94

ULI I.D.: 20294049

Matrix: Air

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TCL Volatiles by EPA Method 8240				
Chloromethane	<0.2ug	07/29/94		VM0212
Bromomethane	<0.2ug	07/29/94		VM0212
Vinyl Chloride	<0.2ug	07/29/94		VM0212
Chloroethane	<0.2ug	07/29/94		VM0212
Methylene Chloride	0.6ug	07/29/94		VM0212
Acetone	1.4ug	07/29/94		VM0212
Carbon Disulfide	<0.2ug	07/29/94		VM0212
1,1-Dichloroethene	<0.2ug	07/29/94		VM0212
1,1-Dichloroethane	<0.2ug	07/29/94		VM0212
trans-1,2-Dichloroethene	<0.2ug	07/29/94		VM0212
cis-1,2-Dichloroethene	<0.2ug	07/29/94		VM0212
Chloroform	<0.2ug	07/29/94		VM0212
1,2-Dichloroethane	<0.2ug	07/29/94		VM0212
2-Butanone	<0.6ug	07/29/94		VM0212
1,1,1-Trichloroethane	<0.2ug	07/29/94		VM0212
Carbon Tetrachloride	<0.2ug	07/29/94		VM0212
Bromodichloromethane	<0.2ug	07/29/94		VM0212
1,2-Dichloropropane	<0.2ug	07/29/94		VM0212
cis-1,3-Dichloropropene	<0.2ug	07/29/94		VM0212
Trichloroethene	<0.2ug	07/29/94		VM0212
Dibromochloromethane	<0.2ug	07/29/94		VM0212
1,1,2-Trichloroethane	<0.2ug	07/29/94		VM0212
Benzene	<0.2ug	07/29/94		VM0212
trans-1,3-Dichloropropene	<0.2ug	07/29/94		VM0212
Bromoform	<0.2ug	07/29/94		VM0212
4-Methyl-2-pentanone	<0.6ug	07/29/94		VM0212
2-Hexanone	<0.6ug	07/29/94		VM0212
Tetrachloroethene	<0.2ug	07/29/94		VM0212
1,1,2,2-Tetrachloroethane	<0.2ug	07/29/94		VM0212
Toluene	0.3ug	07/29/94		VM0212
Chlorobenzene	<0.2ug	07/29/94		VM0212
Ethylbenzene	<0.2ug	07/29/94		VM0212
Styrene	<0.2ug	07/29/94		VM0212
m-Xylene and p-Xylene	<0.2ug	07/29/94		VM0212
o-Xylene	<0.2ug	07/29/94		VM0212

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 MATRIX INTERFERENCE
- 3 PRESENT IN BLANK
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- 8 BDL(BELOW DETECTION LIMITS)
- 9 MDL(METHOD DETECTION LIMITS)
- 10 ADL(AVERAGE DETECTION LIMITS)
- 11 PQL(PRACTICAL QUANTITATION LIMIT)
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
- 14 SAMPLED BY ULI
- 15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
- 16 SUBCONTRACTED
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 DEPENDING UPON THE INTENDED USE OF THIS TEST RESULT, CONFIRMATION BY GC/MS OR DUAL COLUMN CHROMATOGRAPHY MAY BE REQUIRED
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMIT
- 21 UG/KG AS REC.D / UG/KG DRY WT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND(NON-DETECTED)
- 26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 DOES NOT MEET SPIKE RECOVERY REQUIREMENTS FOR NON-POTABLE WATER
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND(NON-DETECTED)
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 NON-POTABLE WATER SOURCE
- 34 INDIVIDUAL AROCLORS DO NOT CARRY A DETECTION LIMIT BUT ARE INCLUSIVE TO THE TOTAL PCB CONTENT
- 35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL₂) / POUNDS (LBS) PER DAY OF CL₂
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- 40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
- 41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 43 METAL BY CONCENTRATION PROCEDURE
- 44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

8/4

6034 Corporate Drive, East Syracuse, New York 13057

Telephone: 315-437-0255 Fax: 315-437-1209

P.O. Box 289 Syracuse, New York 13206

Client: MALCOLM PIRNIE				Matrix: AIR				Due Date: 2 WEEKS				PARAMETERS							F I E L D N O.	P U M P N O.	
Client Contact: KAREN B.				Purchase Order Number:				DEC Spill #: (if applicable) NA				# OF C O N T	#1	#2	#3	#4	#5	#6			#7
Project Name / Project #: AIR EMISSIONS				Other:				File: IH-COCMPI													
DATE	START TIME	END TIME	TOTAL TIME (min)	FLOW RATE l/m	AIR VOL (l)	IMP. VOL (L)	U.L.I.D.# Internal use only	SAMPLE DESCRIPTION													
7/20/94	1.50				14		20894047	PRIMARY INFLUENT				(1) X								1	
7/20/94	2.00				14		48	PRIMARY EFFLUENT				(1) X								2	
7/20/94							49	PORAPAK BLANK				(1) X								3	

PARAMETER AND METHOD	COMMENTS:
#1) EPA 8240 TCL GCMS	
#2)	
#3)	
#4)	
#5)	
#6)	
#7)	

SAMPLED BY: (Print) GARRETT J. MOLL	COMPANY: UPSTATE LABORATORIES, INC.	RELINQUISHED BY: (Signature) <i>Garrett J. Moll</i>	DATE/TIME: 7-21-94 15:00
RECEIVED BY: (Print) C. Newell	DATE/TIME: 7/21/94 1500	RELINQUISHED BY: (Signature)	DATE/TIME:
RECEIVED BY LAB:	DATE/TIME:	Name of Courier (if used): u/s	

