

FILE COPY

Columbia Mills Site

**Minetto (T), Oswego County, New York
Site No. 7-38-012**



RECORD OF DECISION

March 1992



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

18

Columbia Mills Site

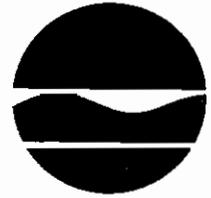
Minetto (T), Oswego County, New York
Site No. 7-38-012

RECORD OF DECISION

March 1992



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



DECLARATION STATEMENT - RECORD OF DECISION (ROD)

Columbia Mills Site
Minetto, Oswego County
Site No. 07-38-012

Statement of Purpose

The Record of Decision (ROD) sets forth the selected Remedial Action Plan for the Columbia Mills inactive hazardous waste site. This Remedial Action Plan was developed in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the New York State Environmental Conservation Law (ECL). The selected remedial plan complies to the maximum extent practicable with the National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300, of 1985.

Statement of Basis

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Columbia Mills site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix 5 of the ROD.

Description of Selected Remedy

The selected remedial action plan will control the potential contaminant routes of exposure to human health and the environment through excavation, capping and containment, and treatment of the source waste. The remedy is technically feasible and complies with the statutory requirements. Briefly, the selected remedial action plan includes the following:

- A) Stabilize and cap wastes in the former plant disposal area and collect and treat groundwater from the area of capped wastes. Wastes in the landfill area will be

stabilized to prevent leaching of metals followed by containment. Containment will consist of the construction of a single membrane barrier cap in conjunction with a barrier drain to collect and transport for treatment, the leachate from the fill. In addition a second trench system will drain three ponds which currently form the edges of the landfill and will serve to direct surface water and groundwater away from the containment area. The contaminated pond and stream sediments, as well as soils and sediments from the main plant also contaminated with metals will also be included in this on-site containment system.

This containment system will eliminate the infiltration of precipitation into the landfill waste, prevent migration of contaminants into the surrounding environment, and will prevent the direct contact by both people and wildlife with the waste. Leachate will be collected and is expected to be treated on site and discharged to surface water or collected for off-site treatment, as appropriate. Treatment will meet the appropriate permit requirements for its discharge.

A groundwater monitoring program will be implemented to monitor the effectiveness of this system. Since the selected remedy results in hazardous wastes remaining on site, at a minimum, a five-year review of the effectiveness of the remedy is required. This review will be conducted to evaluate whether the implemented remedy continues to provide adequate protection of human health and the environment.

- B) Extraction and treatment of the volatile organic compound contaminated groundwater in the UST Area 1 with vapor extraction treatment of soil hot spots. Groundwater treatment will commence first and will control contaminant migration in the aquifer. The vacuum extraction will be used only as necessary to remediate contaminated soil hot spots. Groundwater will be treated as necessary to meet the appropriate permit requirements for its discharge. Treatment is expected to be accomplished with air stripping or carbon absorption, and will be discharged to surface water. Groundwater and soils treatment design will incorporate proper controls so that all air discharge and water quality standards or criteria for discharge will be met.
- C) Remove the sediments from the plants sewers and dispose of in the on-site landfill or off-site facility followed by the abandonment of sewer lines. This remedy will protect the public health by eliminating the possibility of future contact with these materials and will eliminate current discharges to the Oswego River. It is expected that most sediments will be disposed of on the on-site landfill. However, any sediments which test as characteristic hazardous waste or contain high levels of organic contamination will be disposed of in an off-site facility.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected Remedial Action Plan is protective of human health and the environment. The remedies selected will meet the substantive requirements of the Federal and State laws, regulations and standards that are applicable or relevant and appropriate to the remedial action. The remedies will satisfy, to the maximum extent practicable, the statutory preference for remedies that employ treatment that reduce toxicity, mobility or volume as a principal element. This statutory preference will be met in the landfill by eliminating the mobility of contaminant pathways of exposure to human health and the environment through the installation of a containment system for the source waste at this site. In UST Area 1, the toxicity, mobility and volume of contaminants in the soil and groundwater will be reduced by the treatment system to be implemented, while in the sewer systems, the mobility of the contaminants will be addressed by their removal from an area of active migration on the sewers and contained either on or off site.

3-25-92
DATE



Edward O. Sullivan
Deputy Commissioner

TABLE OF CONTENTS

**Columbia Mills Site
Minetto (T), Oswego County, New York
Site No. 07-38-012**

Section

- 1. Site Location and Description**
- 2. Site History**
- 3. Current Status**
- 4. Enforcement Status**
- 5. Goals for the Remedial Actions**
- 6. Summary of Evaluation of Alternatives**
- 7. Summary of the Government's Decision**

Appendix 1: Detailed Description of Selected Remedies
Appendix 2: Tables on Screening and Evaluation of Alternatives
Appendix 3: Cost Tables on Alternatives
Appendix 4: Data Summary Tables
Appendix 5: Administrative Record



SECTION 1: SITE LOCATION AND DESCRIPTION

The Columbia Mills site is an abandoned manufacturing plant located along Route 48 near to its intersection with Route 25, in the Town of Minetto, Oswego County. The site consists of approximately 100 acres of land, 10 of which constitute the main plant area, and 90 acres of wooded area, part of which is the site of the former plant landfill. The site is bounded on the east by Route 48, which runs parallel to the Oswego River, by Benson Avenue (Route 25) to the south, on the north by Snell Road (Route 42) and to the west by a Conrail track right-of-way (Figures 1 and 2). The area surrounding the site consists of both residential and agricultural areas. The Oswego River is approximately 100 feet northeast of the site.

The main plant area is comprised of nine standing structures, several partially and completely demolished buildings, rubble and a 200-foot tall radial brick chimney. Several underground tunnels, including one that crosses Route 48, still exist in the main plant area along with the abandon plant sewer systems. Two ponds which were used to store process water for the plant are located to the north and northwest of the main plant area.

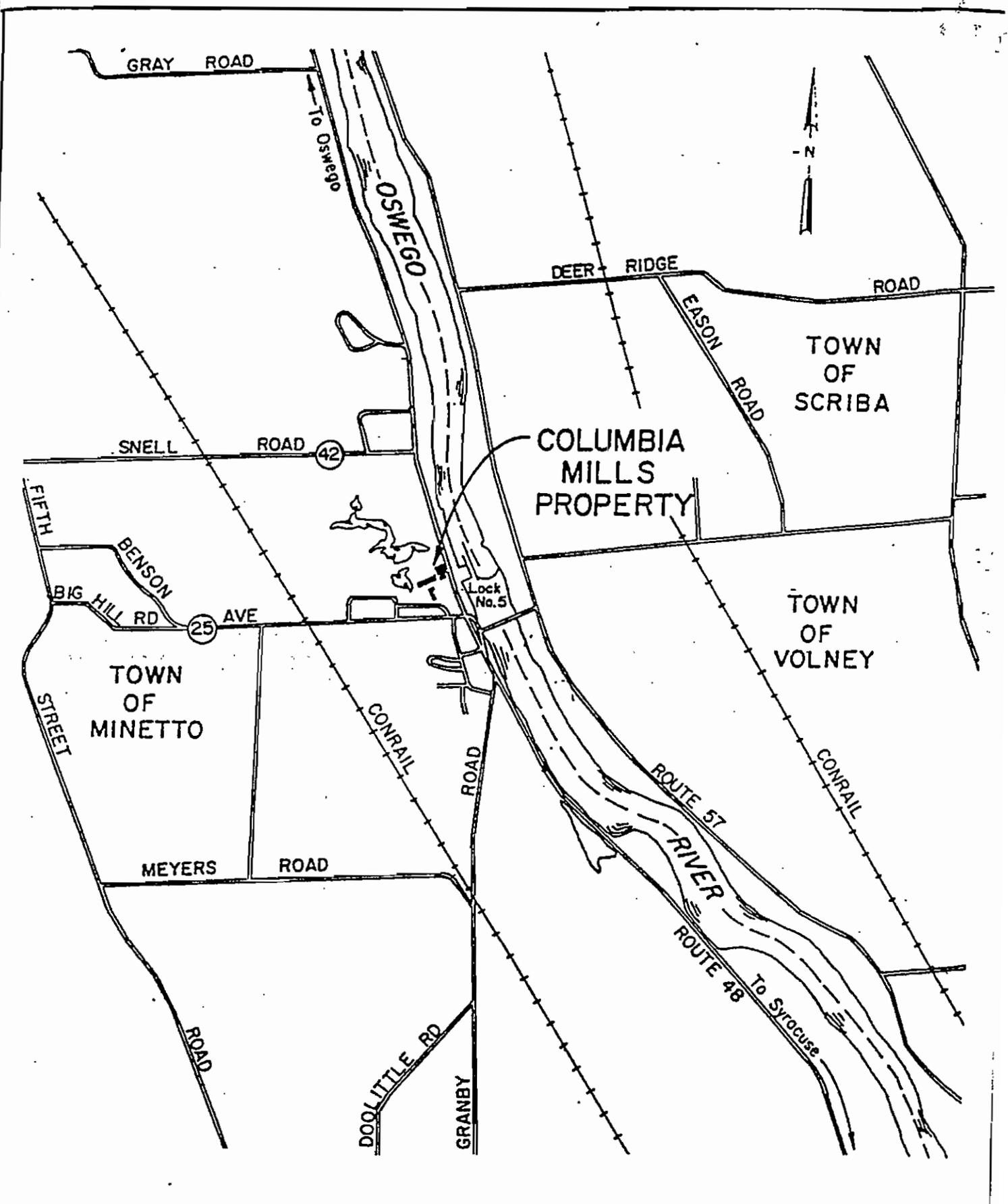
To the west of the main plant area there exists approximately 90 acres of undeveloped land. This area includes several ponds, streams, and the former plant landfill. The landfill is approximately five acres in area and consists of drums, ash, and debris. It is partially bordered by three ponds, designated ponds 1, 2 and 3. Pond 1 discharges into an unnamed creek which runs toward the main plant and discharges into the larger of the former process ponds. The landscape of this area is gently rolling and is predominantly heavily wooded. Ten acres of the property to the far north consists of low lying marshy areas, which includes a NYSDEC designated wetland area.

SECTION 2: SITE HISTORY

The Columbia Mills Company was a manufacturer of coated cloth and vinyl products from 1887 until the plant closed in 1976. After the plant ceased to operate, the property was sold to Columin Development Corporation, who initiated salvage operations. During the salvaging process asbestos (from pipe wrappings and other sources) was left exposed and buried in rubble. This salvaging operation ended prematurely and Columin defaulted on property taxes. There is currently a dispute regarding ownership and the property belongs to Oswego County and/or the Town of Minetto.

2.1: PREVIOUS INVESTIGATIONS

Site Reuse Investigation: In 1984, Calocerinos & Spina (C&S) was retained by Oswego County to evaluate the potential for site reuse. During this investigation several potential hazards were identified on site. Containers of chemicals and underground storage tanks were identified as well as physical hazards due to the lack of site security measures.



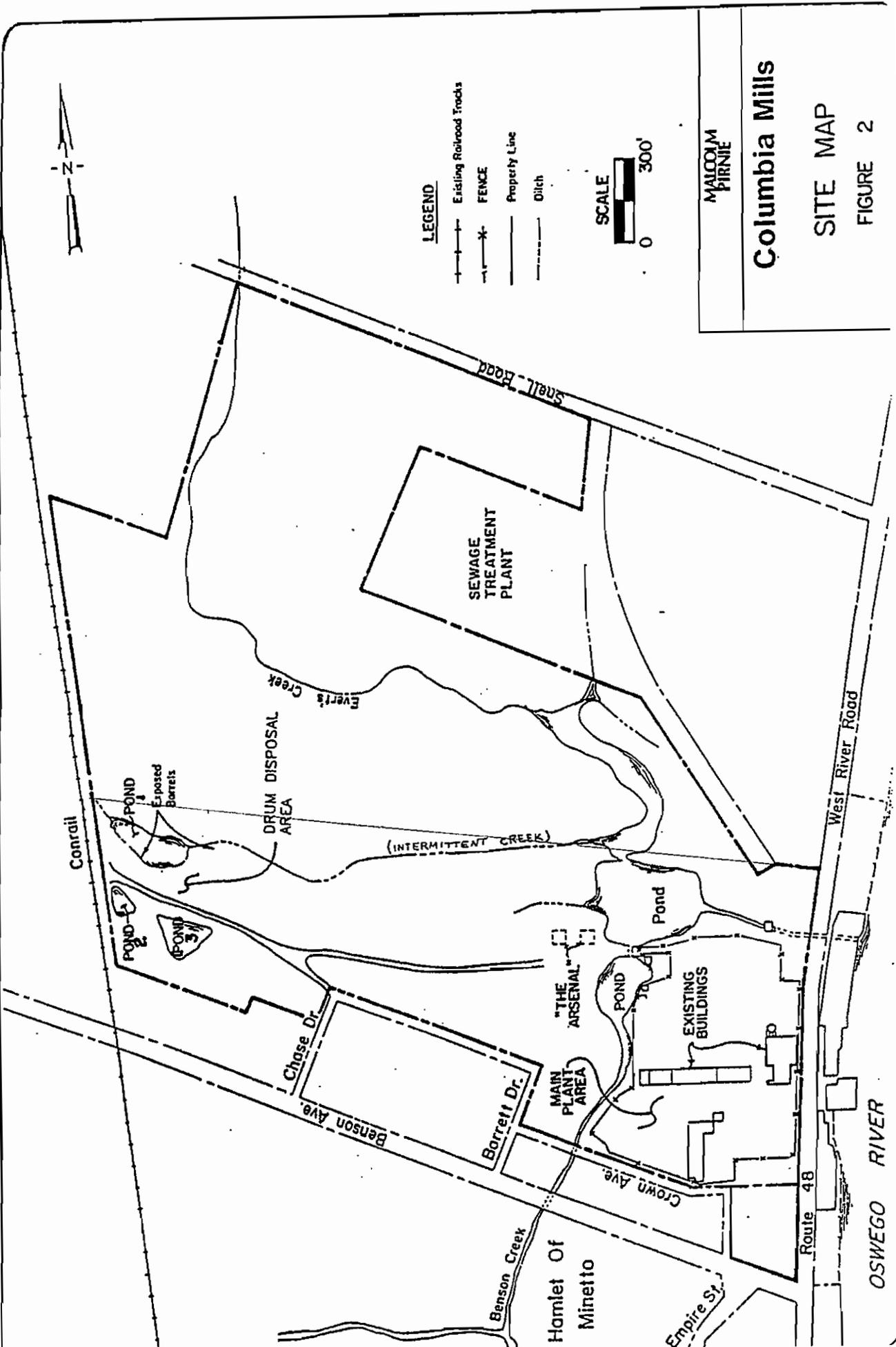
**MALCOLM
PIRNIE**

**COLUMBIA MILLS
SITE LOCATION MAP**

FIGURE 1

APRIL 1989

SCALE: 1" = 2000'



Phase II Investigation: In order to evaluate potential contaminant sources in the main plant and drum disposal areas relative to human health and the environment, to improve site security measures and to arrange for the removal of the drums and bags of chemicals in the main plant area, during 1985 C&S was authorized by Bond, Schoeneck & King, attorneys for the Columbia Mills company, to perform a Phase II site investigation.

Results of the Phase II investigation indicated that contamination of the soil, surface water and shallow groundwater by organics had occurred in locations hydraulically downgradient of underground storage tanks in the main plant area. In addition, the presence of metals and organic compounds resulted in contamination of the surface soil and metals contamination of surface water and sediment in the drum disposal area.

During the Phase II study site security was improved and actions were undertaken to characterize and remove the abandoned containers of chemicals in the main plant area.

Expanded Phase II Investigation: Following the NYSDEC review and comment of the Phase II report, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures (IRMs).

During the period March 1987 to August 1988 Malcolm Pirnie, Inc. performed several work tasks as part of the expanded Phase II investigation. Soil, sediment and surface water samples were collected on site and three additional deep groundwater monitoring wells were installed and sampled. A domestic water well inventory was performed in the vicinity of the site. Sixteen wells were identified as used for drinking water purposes, but none of these are located hydraulically downgradient of the site. During August 1987, approximately 200 samples of rubble and demolition debris from the main plant area were collected and analyzed for asbestos. Asbestos was found to be present throughout the main plant area in the buildings and debris piles.

Initial RI Report: Although a supplemental Phase II report was originally to be prepared at the conclusion of the expanded Phase II investigation, it was determined that since the reporting requirements would be similar, an RI report would be prepared in lieu of the supplemental Phase II report. Based on this decision, additional sampling and analyses were requested by the NYSDEC and the New York State Department of Health (NYSDOH). The additional sampling and analyses included collection of groundwater, surface water, sediments and soil samples for analysis for the compounds on the Target Compound List (TCL).

The results of the interim remedial actions and the post-Phase II investigation were presented in a draft RI report which was submitted to the NYSDEC and the NYSDOH in October 1988.

Additional Air Investigation: In August of 1988, due to the piles of debris containing asbestos material located in the main plant area, the NYSDEC's Division of Air Resources performed an ambient air investigation for asbestos to assess the risk

immediate area of the test pit. After an evaluation of alternatives, vapor extraction conducted in conjunction with groundwater withdrawal was determined to be the most feasible alternative. Construction of the vapor extraction system began in the fall of 1991 and start-up is expected to begin in the spring of 1992. The system is expected to operate for several years.

3.2: RESULTS OF THE REMEDIAL INVESTIGATIONS (RI)

The RI was conducted by Malcolm Pirnie, Inc., for Columbia Mills, Inc., in two phases from October, 1989 to August 1991. Work tasks included:

- Conducting two soil gas surveys in the main plant area.
- Installing additional groundwater monitoring wells and piezometers.
- Excavating and sampling of test pits in the drum disposal area.
- Conducting a natural resources investigation at the site.
- Sampling groundwater, soil, sediment, and surface water.
- Investigating the storm sewers and conducting sampling of sewer water and sediment.
- Collection of biota and tissue sampling to examine possible site impacts on wildlife.

A summary of the major results and the conclusions of the supplemental RI for the different site area is provided below. Data tables are provided in Appendix 4. A complete description of all RI activities and data is contained in the RI/FS report.

DRUM DISPOSAL AREA:

Soils/Waste: RI activities in the drum disposal area included of test pitting and sampling of soils and wastes. The landfill is approximately five acres in area and consists of drums, ash, and debris at depths to 11 feet. The approximate area of contamination is shown in Figure 3. The fill material contains levels of cadmium (14.7 ppm to 28.5 ppm), chromium (112 ppm to 588 ppm), copper (156 ppm to 1100 ppm), lead (1300 ppm to 4600 ppm), zinc (856 ppm to 8950 ppm), and cyanide (1.4 ppm to 36.90 ppm). Previous sampling of the fill in the former railroad bed identified lead at 65,000 ppm on the surface. The results of the October, 1990 TCLP metals analysis identified lead from the surface soil at location No. 1 at 178 ppm which exceeds the regulatory level of 5 ppm, indicated the presence of a characteristic hazardous waste. Semi-volatile compounds were detected in all samples. The only VOC detected in the soils was toluene at concentrations of 2 ppb and 7 ppb.

Groundwater: Groundwater in the drum disposal area exists in both the overburden deposits (shallow zone) and bedrock (deep zone). Bedrock in this area

due to off site migration. Samples were taken at the site boundary downwind of debris piles. Asbestos levels detected were all at or below expected ambient concentrations.

SECTION 3: CURRENT STATUS

Upon review of the draft RI report it was determined that additional work was necessary to define the nature and extent of contamination resulting from the various areas of the site. An order on Consent was signed on March 20, 1989 between Columbia Mills, Inc. and the NYSDEC. This document set forth the time frame for the development and implementation of a supplemental RI and Feasibility Study (FS). Due to known contamination at elevated levels in three areas of the main plant area, Columbia Mills signed a second consent order for three IRMs.

3.1: INTERIM REMEDIAL MEASURES (IRMS)

Prior to the supplemental RI the following IRMs were undertaken at the site:

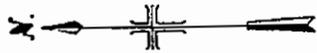
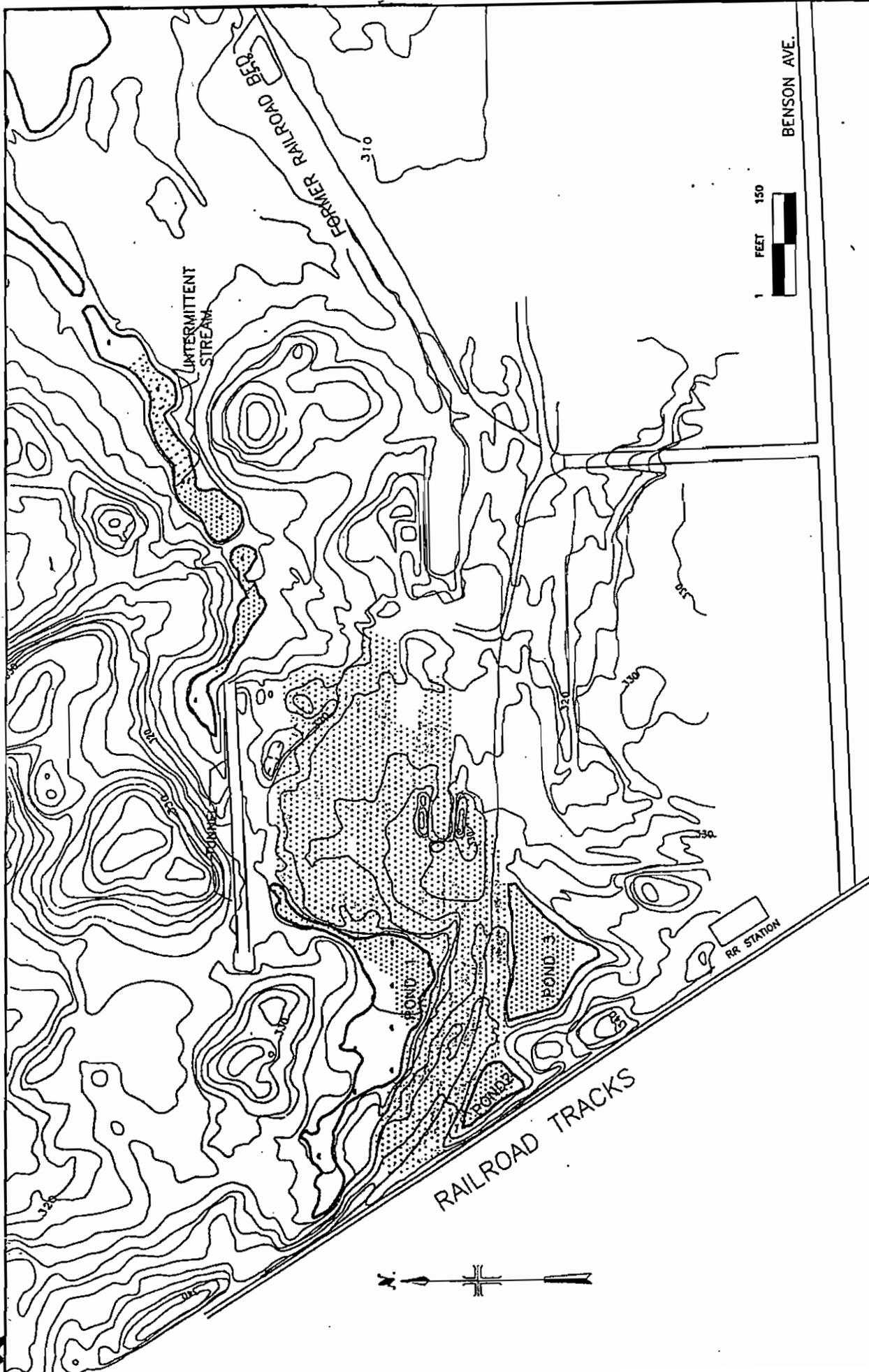
- A fence was secured around the main plant area in 1985.
- In the fall of 1987 over 100 containers of chemicals were removed from the main plant area.
- Eight underground storage tanks were removed from the site in the summer of 1988. Contaminated soils were excavated and staged in piles on site.
- In June 1988 the accessible part of the most contaminated area of the drum disposal area was covered with a six inch soil cover to prevent contact with surface soils.

The more current IRM program under the IRM Order on Consent addressed three locations with known contamination in the main plant area:

Building 8 IRM: Results of the 1987 and 1988 PCB sampling in Building 8 identified soil contaminated with up to 43,000 ppm of PCBs. Removal of these soils was undertaken during September 20 - 21, 1989.

Stockpiled Soil IRM: This IRM involved spreading and aerating the contaminated soil piles from the 1988 tank excavations, to reduce the VOC levels. This remediation occurred during July through September 1990 and resulted in levels of less than 1 ppm well below the clean-up goal of 10 ppm.

Test Pit 3 IRM: No tanks were unearthed in the UST area 3 in 1987, but soil sampling in the test pit indicated the presence of toluene (11,000 ppb), ethylbenzene (4,800 ppb) and xylenes (59,000 ppb). A small scale pilot vapor extraction test was conducted during September 1990 on the VOC contaminated surface soils in the



BENSON AVE.

-  - SOIL / FILL REMEDIAL UNIT
-  - POND & CREEK SEDIMENT REMEDIAL UNIT

COLUMBIA MILLS	
DRUM DISPOSAL AREA SOIL / FILL & SEDIMENT REMEDIAL UNIT LOCATIONS	
MALCOLM	Date
	Figure No.

occurs at depths of less than one foot below land surface to 20 feet. Groundwater flow in the shallow zone in the fill area is generally north, from pond 3 to pond 1. In the deep zone groundwater flow is east towards the river.

Metals and semi-volatile compounds were detected in the shallow groundwater of the drum disposal area at B-10S where lead (80 ppb), zinc (614 ppb), and cyanide (143 ppb) exceeded standards. Semi-volatiles found to be present at concentrations above their class GA values are: Benzo (a) anthracene, chrysene, benzo (b) fluoranthene, benzo (k) fluoranthene, and benzo (d) pyrene. Values were estimated at 1-3 ppb. For the deep groundwater, the volatile organic compounds, toluene, Trichloroethene (TCE) and methylethyl ketone (MEK), were detected in MW-10D at levels below groundwater standards.

Sediments: Elevated levels of some metals have been detected in the sediments of ponds 1, 2 and 3. The extent of contamination in the three ponds is determined primarily through the analysis of the previous data collected during 1985 and 1987. The extent of sediment contamination is shown in Figure 3. Sampling of sediments in pond 1 has indicated that the metals contamination is concentrated in the top one foot layer of sediments in the southeast quarter of the pond. Metals detected at elevated concentrations in this area include cadmium (.35 ppm to 6.6 ppm), chromium (2.6 ppm to 110 ppm), copper (5.7 ppm to 180 ppm), lead 1.7 ppm to 480 ppm), nickel (2 ppm to 130 ppm), and zinc (41 ppm to 2300 ppm). In pond 3 sediments, the 1985 sampling identified lead up to 13,000 ppm. The October 1990 RI TCLP sampling of pond 3 identified lead at 18 ppm, exceeding the TCLP regulatory level. In pond 2, the 1985 sampling identified elevated metals; particularly lead (720 ppm to 3,000 ppm) and zinc (94 ppm to 7800 ppm).

The sediment in the intermittent stream running from pond 1 to Evert's Creek was sampled for inorganics as part of the supplemental RI. The sample locations closest to the drum disposal area, SED-4, SED-5, and SED-6 contained the greatest number of metals at concentrations exceeding NYSDEC sediment criteria. Based on this information it appears that the metals contamination in the sediment in this stream is concentrated in a 400 foot section east of the concrete "tunnel", downstream from the drum disposal area.

Surface Water: In past sampling of the ponds there have been sporadic detections above surface water standards of cadmium, lead, and zinc. Limited surface water sampling was conducted in the drum disposal area as part of the additional RI field work. The only recent exceedence of class D standards was the June 1991 sample SW-8 of pond 1. Lead was detected at 270 ppb and zinc was detected at 2100 ppb.

MAIN PLANT AREA

Soil: Soil sampling was concentrated in the four areas where underground storage tanks (UST) had been present, identified as UST areas 1 through 4 (see Figure 4). In UST area 1, VOCs were detected in the soil zone directly above bedrock (10-12



OSWEGO RIVER

Approximate Dam Location

NIAGARA MOHAWK POWER HOUSE

CONCRETE DIKE

CONCRETE DIKE

ROUTE 48

CROWN AVE.

PARK

N. AVE.

- EXISTING BUILDINGS
- UST EXCAVATED SOIL PILES REMEDIAL UNIT
- UST AREA 1 SOIL REMEDIAL UNIT
- UST AREA 1 SHALLOW / DEEP GROUND WATER REMEDIAL UNITS
- TEST PIT 3 AREA SOIL REMEDIAL UNIT
- TEST PIT 3 AREA SHALLOW / DEEP GROUND WATER REMEDIAL UNITS
- UST 1 AREA CREEK SEDIMENT REMEDIAL UNIT



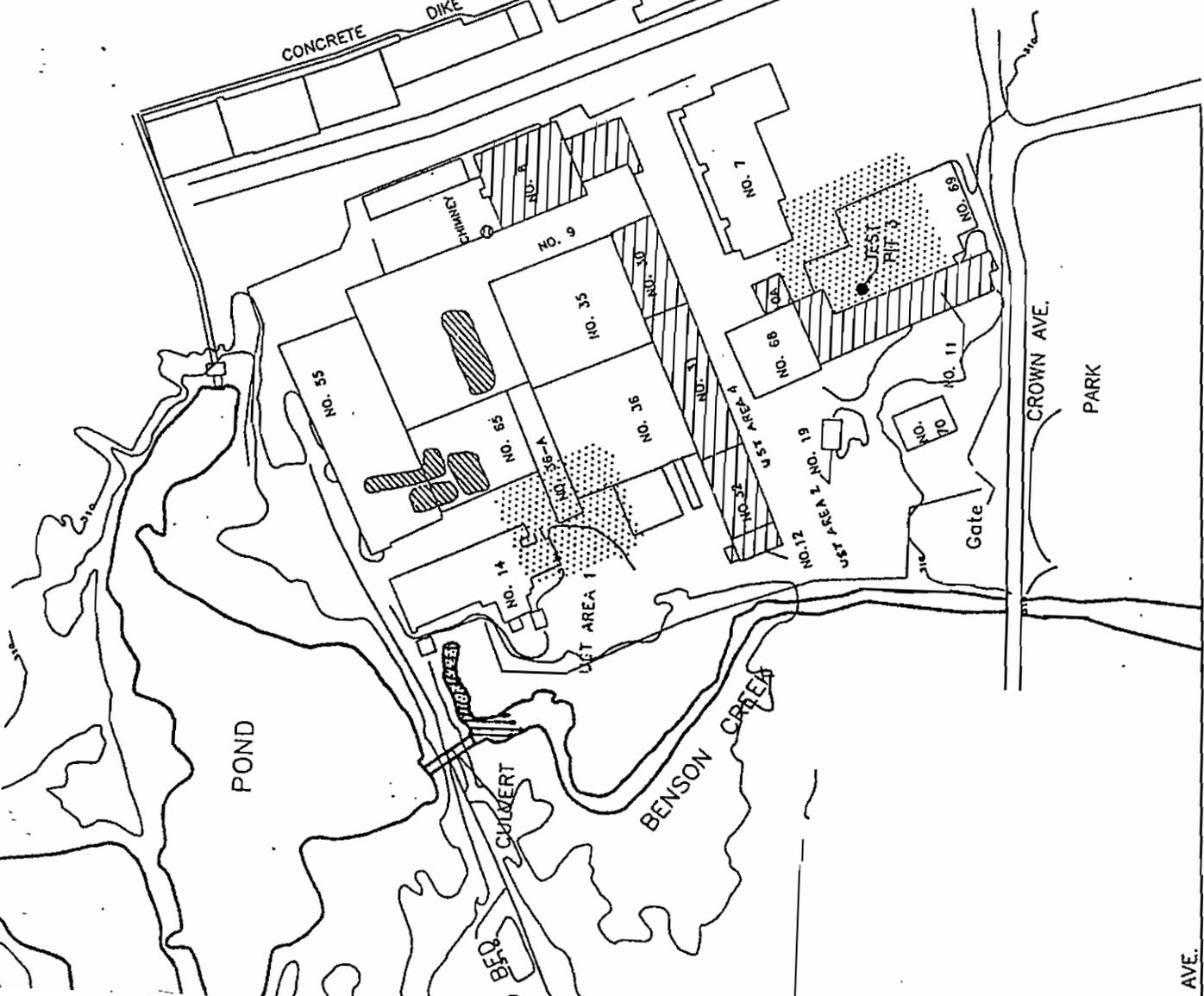
COLUMBIA MILLS

MAIN PLANT AREA SOIL & SEDIMENT REMEDIAL UNIT LOCATIONS

MALCOLM

Date

Figure No.



feet). The compound detected at the highest concentration was toluene at 13 ppb. Benzene was detected at 16 ppb in boring B-19D which is located east of the tank area. The five surface soil samples located at the edge of UST area 1, on the bank of Benson Creek, identified some metals at slightly elevated levels. Metals in the borings taken in the tank area were at background levels.

Previous sampling indicated the presence of VOCs in the soils of UST areas 2 and 4, however, detectable levels of VOCs were not found in these areas during the summer 1989 soil gas survey. Elevated levels of VOCs were found in the test pit 3 area soil. This contamination is being addressed under the IRM program. Semi-volatile compounds were also detected in this area but not at levels of concern.

The VOC contamination in the stockpiled soils from the former tank excavations was effectively alleviated through aeration of the soil. Supplemental RI sampling of the soil piles identified elevated levels of semi-volatile compounds and levels of lead up to 2420 ppm.

Groundwater: Similar to the drum disposal area, groundwater in the main plant exists in both the overburden deposits (shallow zone) and bedrock (deep zone). Shallow groundwater flow, in the main plant area, is complicated by the presence of the building foundations, tunnels, and storm sewers. Over most of the main plant area shallow groundwater is collected by the bedding of sewer system 2B and discharged to the Oswego River. In other sections, groundwater discharges to Benson Creek. The deep groundwater flow pattern is influenced by the water ponded behind the Niagara-Mohawk hydroelectric dam. Much of the deep zone groundwater, therefore, flows north towards Benson Creek and the main pond before discharging to the Oswego River.

In the main plant area sampling of shallow and deep groundwater monitoring wells identified VOC contamination in the area east of UST Area 1 and in the vicinity of UST Area 3 (see Figure 4). In the UST Area 1 the shallow groundwater contained toluene (4 ppb) and TCE (71 ppb) in Well B-21S. VOC contamination was confirmed during additional sampling of this well in April 1991, with several compounds exceeding groundwater standards. The following compounds were detected: Vinyl chloride (18 ppb), 1, 2 DCE (85 ppb), TCE (100 ppb), Benzene (2 ppb), MEK (19 ppb). A little further east, in the bedrock groundwater at B-19D, benzene and toluene have been consistently detected at concentrations exceeding their respective GA standards. The concentration of benzene has averaged 16.5 ppb and toluene 66.5 ppb. Contamination has migrated to a depth in bedrock greater than B-19D as sampling of the deeper well, B-25D, during April 1991 indicated the presence of toluene at 41 ppb. The deep bedrock represents a poor-water bearing unit.

In the test pit 3 area, analytical results of the RI sampling of the shallow monitoring wells and the deep wells have indicated that, in general, only low levels of VOCs are present in the groundwater in this area. The only MCL/GA standard exceedences noted for organics were toluene (10 ppb) and MEK (140 ppb). Tentatively identified compounds (TICs), identified as cyclohexanes, appear to be the main contaminants in the test pit 3 area groundwater.



COLUMBIA MILLS	
LOCATION OF PLANT SEWER SYSTEM	
MALCOLM PIRNIE	Date October 1991
	Figure No. 5

Sediments/Surface Water: The sediment in Benson Creek near UST area 1 was sampled for VOCs and inorganics as part of the supplemental RI. The analytical results indicate that two VOCs were detected in the sediments: MEK (37 ppb) at SED 2 and toluene (3 ppb) at SED 5. Metals analysis indicated that nearly all metals were present with the highest concentrations at locations SED 4 and SED 5. These samples were obtained from the area of ponded water between UST area 1 and the embankment north. Levels of lead were 429 ppm at SED 4 and 1560 ppm at SED 5. Further up on the bank from SED 5 lead was detected in sample SS-7 at 13,800 ppm.

Past sampling of surface water from Benson Creek near UST-area 1, which was performed before the tanks were removed, indicated the presence of VOCs. In the most recent analyses as part of this RI, no VOCs were detected and zinc was the only metal detected at 6 ppb.

Sewers: The investigation of on-site sewers identified six piping systems, which were sampled and characterized. Three of the systems 2A and B, 3, and 4 discharge to the Oswego River. Systems 1 and 6 consist of former roof drain piping and contain no flowing of water. System 5 is the former septic drainage from building 14 and consists of 2 tanks which formerly discharged to Benson Creek. System 2B originates near the drum disposal area and runs under Benson Creek and through the main plant area. The sewers are shown in Figure 5.

Semi-volatile contaminants are present in sediment in all storm sewers which were sampled. System 6 contained no sediments and sampling of system 3 sediments in 1987 identified only the presence of metals. VOCs were detected at low levels in system 1 and 4 sediments. The highest detection was toluene at 170 ppm in SS-1 of system 2A. Metals and low levels of pesticides or PCBs were detected in most sediments sampled. In general, these contaminants exist at lower levels in the sewer waters, which discharge to the Oswego River.

Arsenal Area: The arsenal area is located behind the main plant area, shown on Figure 2. It was a former storage area for explosive chemicals which have since been removed from site. Overall, the magnitude of contamination in the arsenal area is very slight. Semi-volatiles appear to be the predominant contaminants in this area, but are present at low concentrations.

SECTION 4: ENFORCEMENT STATUS

The potentially responsible parties (PRPs) for the Columbia Mills site include Columbia Mills, Inc. and the Columin Development Corporation. Columbia Mills sold the property to Columin who then defaulted on property taxes and have not been located since. There is currently a dispute regarding ownership and the property belongs to Oswego County and/or the Town of Minetto.

On March 20, 1989, Columbia Mills, Inc. entered into an Order on Consent with the NYSDEC for the performance of the RI/FS. Columbia Mills also entered an Interim Order on Consent for remediation of the test pit 3 area, five soil piles from the underground storage

X

tank excavations, and the building 8 area PCBs. To date, the RI/FS is complete and the Building 8 and soil pile IRMs have been completed. The construction activities associated with the pit 3 IRM will soon be completed and it is expected to be in operation in early 1992. It will operate for several years until contaminants present have been treated and reduced to below action levels.

SECTION 5: GOALS FOR THE REMEDIAL ACTIONS

Remedial action objective are established under the broad guidelines of meeting all standards, criteria, and guidances (SCGs) and for protecting human health and the environment. Human health risks are based on comparison to health remediation goals. Data relevant to the exposure levels of trespassers to the site is presented in the Baseline Risks Assessment Reports prepared by Malcolm Pirnie, Inc. The sediment criteria guidance document and the soil background levels will be used as guidelines for the remediation of pond and creek sediments and soils.

The media of concern identified for the Columbia Mills site are the soils/wastes, sediments and groundwater in the main plant area and drum disposal area. The remedial action objectives for the site are as follows:

- 1) Reduce contamination in site soils and sediments, including sewer sediments, to prevent unacceptable risks to human health and the environment.
- 2) Prevent direct exposure to surface soils sediments and contaminated groundwater.
- 3) Prevent releases from contaminated areas that would result in groundwater or surface water contaminant levels in excess of SCGs.
- 4) Reduce contaminant levels in the groundwater in order to achieve groundwater standards.

SECTION 6: SUMMARY OF THE EVALUATION OF THE ALTERNATIVES

The Columbia Mills site consists of two remedial areas: the main plant area and the drum disposal area. Three contaminated areas in the main plant area have been remediated or are being remediated by implementing Interim Remedial Measures (IRMs). The IRMs were discussed in Section 4.1. Within the two remedial areas the following remedial units, which are subject of this PRAP, have been identified:

- 1) Drum disposal area remedial units
 - drums/fill
 - shallow groundwater between ponds 1 and 3
 - pond and creek sediments

2) Main plant area remedial units

- underground storage tank (UST) area 1 soils and excavated soil piles
- UST area 1 groundwater
- UST area 1 creek sediments
- sewer system sediments
- debris piles and building interiors (asbestos)

Based upon chemical and geologic information gathered during the RI, general response actions were identified for each medium of concern. The general response actions are listed in Appendix 2. Several remedial technologies were identified for each general response action. The various remedial technologies, listed in Appendix 2, were then screened for applicability and effectiveness based on the specific site characteristics and contamination present. These technologies were combined into alternatives comprehensively addressing the contamination at each remedial unit. These alternatives were then screened using the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) "Selection of Remedial Actions at Inactive Hazardous Waste Sites.

The alternatives evaluated in the detailed analysis are listed and discussed below for each remedial unit identified. The results of the TAGM scoring for each operable unit are in Appendix 2. For a complete discussion of this evaluation refer to Section 4 of the Feasibility Study Report, Vol. I.

A. Contaminated Soils

Drum Disposal Area Soil/Fill Material

Alternative 1: No action

Alternative 2: Drain ponds and re-route creek/cap in place.

Alternative 3: Drain ponds and re-route creek/lime stabilization/cap in place.

Alternative 4: Drain ponds and re-route creek/excavate/lime stabilization/cap in railroad right-of-way.

Alternative 5: Drain Ponds and re-route creek/excavate/dispose of in off-site landfill.

Alternatives 2, 3 and 4 involve draining and permanently diverting the ponds and surface water to prevent contact with the fill. Alternatives 3 and 4 add lime or other material to the fill to stabilize the metals. These alternatives involve capping the fill in place or in the railroad right-of-way. In alternative 5 the ponds are temporarily diverted to allow for excavation of the fill.

X

All action alternatives would be expected to comply with applicable SCGs. They would all be equally protective of human health and the environment, although off-site disposal of the waste would allow for unrestricted use of the land in that area. The two alternatives involving lime stabilization are more effective than just capping the material in place since an additional step would be taken to prevent the leaching of metals into the groundwater. The least difficult alternative to implement would be Alternative 2, since this alternative would not involve any additional treatment or excavation. The most difficult to implement would be Alternative 4 which involves excavation, lime stabilization in place and capping in the railroad right-of-way. Alternatives 3 and 5 are comparable in difficulty. The most cost effective alternative was determined to be Alternative 2 which involves capping the material in place. Disposing of the Drum Disposal Area fill material off site would be approximately ten times more expensive than Alternatives 2 or 3. (The estimated costs for each alternative in the detailed analysis are listed in Appendix 3.)

UST Area 1 Soils

Alternative 1: No action

Alternative 2: Excavation/on site disposal.

Alternative 3: Excavation/off site disposal.

Alternative 4: Soil washing (in situ)

Alternative 5: Vapor extraction

Except for the no action alternative all alternatives would be expected to achieve applicable SCGs and all would be protective of human health and the environment. The two in-situ alternatives of soil washing and vapor extraction would be more effective in the short term, mainly because they do not involve excavation. Excavating the soils would result in short term impacts from dust generation and possible VOCs becoming airborne. Also, the two in-situ treatment alternatives would be more effective in the long term, as the contamination would be destroyed rather than being moved from one location to another. Vapor extraction would be the least difficult alternative to implement, while excavation and on site disposal would be the most difficult to implement. This is because construction of an on site landfill would be necessary. Looking at relative costs, vapor extraction appears to be the most cost effective of the four alternatives.

UST Excavated Soil Piles

Alternative 1: No action

Alternative 2: Disposal in off-site landfill.

Alternative 3: Cap in railroad right-of-way.

Alternative 4: Lime stabilization/cap in railroad right-of-way.

These alternatives basically involve either disposing off site or placement under the cap in the drum disposal area. Alternatives 3 and 4 are dependent on the landfill option being chosen for the drum area fill.

Except for the no action alternative each of the alternatives would comply with applicable SCGs and provide for the protection of human health and the environment. Off site disposal of the soils would be less effective in the short term than the other alternatives. Increased traffic off site during remediation would pose short term risks and would also enhance the possibility of contaminant migration off site. In the long term, stabilization and capping the soil in the railroad right-of-way would be most effective since it is a more permanent solution, and results in the greatest reduction of toxicity and mobility.

Overall, alternatives 2, 3 and 4 appear to be equally implementable. Lime stabilization and capping the material in the railroad right-of-way would be less cost effective than just capping the material or off site disposal, but there does not appear to be a large incremental difference in cost between the three alternatives.

B. Sediments

Drum Disposal Area Pond and Creek Sediments/UST Area 1 Creek Sediments

Alternative 1: No action

Alternative 2: Excavation/on site disposal.

Alternative 3: Excavation/off site disposal.

Alternative 4: Excavation/treatment/ on site disposal.

Alternative 5: Excavation/treatment/ off site disposal.

Alternative 6: Excavation/lime stabilization/cap in railroad right-of-way.

All action alternatives involve the excavation of the sediments, with disposal either off site or on site. On site disposal would consist of either consolidating the material within the drum area fill or construction of an on-site landfill. The addition of a treatment or stabilization step would further reduce migration of contaminants.

Except for the no action alternative, all alternatives would comply with applicable SCGs. All would be equally protective of human health and the environment, although the off site disposal alternatives would remove the contamination from the site altogether. The alternatives which involve the disposal of the sediments on site are more effective in the short term. This is due in part to the possibility of contamination being transported off site when the sediments are removed for disposal in an off-site landfill. In the long term, Alternatives 4 and 5, which involve treatment appear to be the most effective because treatment will decrease the mobility of the contaminants.

Alternative 6 involving lime stabilization and capping with other on-site fill is considered to provide the greatest reduction of toxicity and mobility of contamination and is the most implementable. In terms of relative cost Alternative 6, would be the most cost effective alternative followed by an on site landfill while the least cost effective alternatives would be the off site disposal options.

C. Contaminated Groundwater

Drum Disposal Area - Shallow Groundwater

Alternative 1: No action

Alternative 2: Containment

Alternative 3 : Extraction/treatment/ discharge to surface water.

Alternative 4: Divert pond water/ lower groundwater table/collect and treat leachate/discharge to surface water.

Containment consists of vertical barriers, such as slurry walls, to restrict groundwater migration through the fill. The extraction alternative involves installing recovery wells in the drum disposal area. Alternative 4 involves the construction of two trenches one to divert surface water and groundwater around the landfill so they would not contact the fill. The second trench would collect groundwater from the fill for treatment.

With the exception of the no-action alternative, all alternatives will comply with applicable SCGs, including GA standards/guidance values and surface water discharge limits. The three action alternatives would be equally protective of human health and the environment.

The alternatives of containment and extraction/treatment would be equally effective in the short term impacts to the environment. In the long term, Alternative 4, divert pond water, would be the most effective. This alternative has the longest expected lifetime and a minimal amount of long term monitoring would be required. Diverting the pond water and discharging to surface water was determined to be the most implementable action alternative, while the remaining two alternatives, containment and extraction and treatment, were determined to be the least.

The most cost effective action alternative was determined to be Alternative 4. Alternative 3, extraction and treatment of the groundwater, was estimated to be the highest in cost.

Shallow Groundwater - UST Area 1/ Deep Groundwater (Well B-19D Area)

Alternative 1: No action

Alternative 2: Extraction/discharge to sanitary sewer.

Alternative 3: Extraction/ pretreatment/discharge to sanitary Sewer.

Alternative 4: Extraction/treatment/ discharge to surface water.

All action alternatives involve the installation of recovery wells to extract contaminated groundwater. These alternatives would be operated in conjunction with some type of soil remediation.

The alternatives that would treat the extracted groundwater prior to discharge would be expected to comply with all applicable SCGs would be the most protective to human health and the environment since the risk of exposures would be reduced by the removal of VOCs. During remediation, these two alternatives would also be the most effective due to the treatment of the contaminants in the water prior to discharge, but they are less implementable than the no treatment option. The extraction and treatment alternatives would be the least cost effective. Overall, the alternative of treating the water and discharging it to surface water would be the most feasible.

D. Contaminated Sewer Sediment

The sewer systems 1, 2A, 2B, 3, and 4 were evaluated separately in the FS, but for simplicity these sewer systems will be discussed together since many alternatives overlap. Three or more of the following alternatives were evaluated for each sewer system:

Alternative 1: No action (all systems).

Alternative 2: Monitoring/permitting (systems 1 and 4).

Alternative 3: Close line in place (systems 1, 2A, 3 and 4).

Alternative 4: Flush sediments/off site disposal (systems 2A, 2B, 3 and 4).

Alternative 5: Excavation/off site disposal (system 1).

Alternative 6: Close main plant section of line 2B in place/divert upstream flow into Benson Creek (system 2B only).

Most systems can either be closed in place or have sediments flushed out for disposal. Alternative 2 would involve extending the site fence to include system 1 and monitoring would be required, for system 4 a permit would be obtained for the discharge of the sewer water. Alternative 3 involves sealing manholes and plugging sewer lines with grout. For system 2B, diverting the upstream portion of the line to Benson Creek (Alternative 6) will prevent water from continuing to flow through contaminated areas of the main plant.

Although no SCGs are directly applicable to the sediments in the sewers, all alternatives would comply with any action specific SCGs. Closing lines or flushing sediments are the most protective of human health and reduce mobility of contaminants. Closing lines in place would be the most implementable action alternative, and also most cost effective, however, removal of sediments or line excavation would be the most protective remedy in the

long term.

Sewer System 5

Sewer System 5 is discussed separate from the other sewer systems since it involves two small buried septic tanks containing sediments. The alternatives evaluated are as follows:

Alternative 1: No action

Alternative 2: Close system in place (fill with concrete).

Alternative 3: Excavate tanks and sediment/cap in railroad right-of-way.

Although no SCGs are applicable to the sediments in Sewer System 5, the sediments in Tank 2 may be contributing to the slight contamination of water present in that tank. This water may be conveyed to Benson Creek. All alternatives would provide for the protection of human health and the environment. The no action alternative would provide no reduction in contaminant toxicity, mobility or volume since no action would be taken. Closing the system in place would provide for the greatest reduction in contaminant mobility, while excavating the tanks and sediment and disposing of them in the Drum Disposal Area would provide slightly less.

In terms of cost effectiveness, the no action alternative was rated the highest. the most cost effective action alternative was determined to be closing the system in place. Excavating and capping the material in the railroad right-of-way would involve a slight incremental increase in costs.

SECTION 7: SUMMARY OF THE GOVERNMENT'S DECISION

All of the remedial units discussed above are summarized under three preferred alternatives which are presented in Table 1. Each remedial measure is described below along with the rationale for its selection. All remedial units are shown in Figures 3, 4, and 5. These remedies do not address the asbestos problem in the main plant area. Asbestos cannot be addressed under the inactive hazardous waste remedial program.

A. Stabilize and Cap Wastes in the Railroad Right-of-Way/Collect and Treat Groundwater from the Area of Capped Waste.

Wastes in the landfill area will be stabilized to prevent leaching of metals followed by containment. Containment will consist of the construction of a single membrane barrier cap in conjunction with a barrier drain to collect and transport for treatment the leachate from the fill. In addition a second trench system will drain the three ponds which currently form the edges of the landfill and will serve to direct surface water and groundwater away from the landfill. The contaminated pond and stream sediments as well as soils and sediments from the main plant will also be included in this on-site containment system, after treatment, to stabilize metals.

This remedy will include a groundwater monitoring program to insure the remedy is effective. In addition, since the selected remedy results in hazardous wastes remaining on site, at a minimum, a five year review of the effectiveness of the remedy is required. In addition, deed restrictions or other appropriate measures shall be instituted to prohibit future use as residential and to inform future owners of the conditions. A more detailed description of this alternative is presented in Appendix 1, along with diagrams depicting this remedial measure.

Lead has been established as the indicator parameter to determine the boundaries for remediation in the drum disposal area fill material the suggested clean-up level for lead is to the background levels in the adjacent community. This clean-up goal will be further evaluated during the design phase of the project. Confirmatory sampling will be required as appropriate to define clean-up goals and the remedial boundaries during construction.

The NYSDEC wetland designated OW-16 lies within the northwest corner of the Columbia Mills property. However, since the area being remediated does not lie within the NYSDEC designated wetland area, and should not interfere with it, a permit will not be required.

All SCGs will be met with this alternative by preventing the flow of precipitation and groundwater through the fill material which will stop the leaching of metals into the groundwater. Any groundwater or leachate migrating from the fill will be collected and treated before discharge. Although unrestricted use of the land following remediation will not be possible, this alternative will protect human health and the environment since contact with the fill will be prevented by the cap.

Short term risks of blowing dusts during remediation can be controlled by wetting the work area. Operation and maintenance will involve monitoring groundwater quality, cap maintenance and repair, and collection and treatment of leachate. While the implementability of this alternative is considered to be similar in complexity to off site disposal, this alternative is, however, cost effective since the cost of off site disposal is estimated to be ten times the cost of this alternative.

B. Extraction and Treatment of Groundwater in the UST-1 Area with Vapor Extraction Treatment of Soil Hot Spots

The recommended alternative for the UST Area 1 volatile organic compounds is groundwater extraction and treatment in conjunction with vacuum extraction of soils, as necessary. This treatment technology is currently proceeding as an IRM in the UST Area 3. Groundwater treatment will commence first to control contaminant migration and will also serve to lower the groundwater table for the vacuum extraction process. The groundwater is expected to be treated by air stripping or carbon absorption and applicable measures will be taken so that air streams meet air standards and criteria. The vacuum extraction will only be used as necessary to remediate contaminated soil hot spots. If sampling during the installation of the groundwater system identifies limited contamination, the vacuum extraction system will be scaled back or eliminated entirely. Additional details on this remedy are provided in Appendix 1.

X

This alternative will be required to meet the action specific SCGs determined to be applicable for an air discharge. This alternative is protective of human health and the environment since contaminants will be removed from the site. Short term risks will be mitigated by treating the contaminated air stream and groundwater as applicable. This alternative is considered to be a permanent remedy, as well as, the most easily implemented and the most cost effective.

C. Remove Sewer Sediments/ Abandon Sewer Lines/Dispose in On-site Landfill

No one alternative evaluated in the FS is considered by the NYSDEC to provide adequate long term protection to human health. To provide long term protection of human health, and address public concerns, the State has required that the sediments in the sewer lines be removed and the lines plugged to prevent discharge of groundwater. All accessible systems will have sediments removed by either excavation or flushing and collection. Systems which are not accessible by these techniques will be excavated in their entirety. It is expected that most sediments will be disposed of in the on-site landfill. However, any sediments which test as a characteristic hazardous waste or contain high levels of organic contamination will be disposed at an off-site facility.

Applicable SCGs will be met with this alternative. This alternative is protective of human health and the environment. No short term risks are posed. Although this remedy is not classified as a permanent remedy, it will be effective in the long term since sediments will be removed. This alternative is more difficult to implement than sealing lines in place, and is not quite as cost effective, but it is the only remedy which provides long term protection of human health.

TABLE 1 COLUMBIA MILLS

GOVERNMENT'S PREFERRED REMEDIAL ALTERNATIVE

REMEDIAL MEASURE	REMEDIAL UNIT ADDRESSED/ ESTIMATED VOLUME	ESTIMATED COSTS
A. Stabilize and Cap Wastes in the Railroad Right-of-Way, Collect and Treat Groundwater from the Area of Capped Waste	- Drum Disposal Area Fill material (57,000 cu. yd)	Total Capital Cost:
	- UST Excavated Soil Piles (1,000 cu. yd)	\$3,000,000
	- Drum Disposal Area Pond & Creek Sediment (3,000 cu. yd)	Present Worth:
	- UST Area 1 Creek Sediment (120 cu. yd)	\$3,228,400
	- Drum Disposal Area Shallow Groundwater	
	- Tanks 1 and 2, Sewer System 5 (1.1 cu. yd)	
B. Extraction and Treatment of Groundwater with Vapor Extraction Treatment of Soil Hot Spots	- UST AREA 1 Soil (12,500 cu.yd)	Total Capital Costs:
	- UST Area 1 Shallow Groundwater	\$314,000
	- Well B-19D Area Deep Groundwater	Present Worth:
		\$630,700
C. Remove Sewer Sediments or Excavate Lines/Dispose of in On-site Landfill	- Sewer System 1 (200 cu. yd total)	Total Capital Costs:
	- Sewer System 2A	\$221,400
	- Sewer System 2B, Main Plant Area Portion	Present Worth:
	- Sewer System 3	\$227,400
	- Sewer System 4, Main Plant Area Portion	

APPENDIX 1

APPENDIX 1

This Appendix presents a more detailed description of the steps which will be undertaken to implement the preferred alternative defined in the PRAP.

A. Stabilize and Cap Wastes in the Railroad Right-of-Way/Collect and Treat Groundwater from the Area of Capped Waste.

The selected remedial measure for the soil and fill in the Drum Disposal Area will also incorporate the following: 1) the sediments which will be dredged from the Drum Disposal Area ponds and a portion of the intermittent creek, 2) the sediments which will be dredged from the ponded area in Benson Creek adjacent to UST Area 1, 3) the stockpiled soils from the former UST areas and 4) the excavated tanks and surrounding fill from Sewer System 5. The wastes will be stabilized by the application of lime or other acceptable stabilization material and covered with a single barrier cap. A barrier trench will be constructed to collect groundwater generated from the landfill for treatment.

Also included within the same remedial measure will be the draining of the Drum Disposal Area ponds and diversion of the intermittent creek that drains Pond 1 away from the Drum Disposal Area. The drainage of the ponds and creek serves to lower the groundwater table below the bottom of fill and to divert the surface water away from the contaminated fill, facilitating the remediation of the shallow groundwater between Ponds 1 and 3 and surface water drainage in this area. The upstream portion of Sewer System 2B will be diverted to Benson Creek and will provide the drainage for Ponds 2 and 3 and surface water in this area. The system will serve as a permanent conveyance for the diverted water away from the fill. A pond will be constructed along the creek of similar area to the three removed.

The remedial measure consists of the following work tasks to be carried out in the approximate order listed below:

1. Diversion of Sewer System 2B

This system will serve to drain the former area of ponds 2 and 3 and surface runoff. As shown in Figure 6, a new connection will be made to Sewer system 2B at a point near the former apartment buildings. The new piping will convey water from this point to the ponded area of Benson Creek behind the Main Plant Area. The existing pipe leading toward the Main Plant Area will be broken and plugged to prevent water from flowing into the Main Plant Area portion of the sewer.



-  SOIL / FILL REMEDIAL UNIT
-  POND & CREEK SEDIMENT REMEDIAL UNIT



COLUMBIA MILLS

DRUM DISPOSAL AREA
DURING CONSTRUCTION OF
REMEDIAL MEASURES

MALCOLM PIRNIE	Date	October 1991	Figure No.	6

2. Catchment Areas

Catch basins will be constructed to collect and treat water and sediments from the ponds. Pond sediment will not be dredged until after the landfill barrier drain is installed. Treatment of water from catch basins will be ongoing during construction of the capped area. Contaminated sediments will be removed from catch basins on a regular basis and placed on the area to be capped.

Two separate catchment areas will be constructed as shown in Figure 6. One will serve to collect water and sediments from Pond 1 and the intermittent creek for treatment, and the other will collect the same from Ponds 2 and 3. The treated water from each catchment area will be pumped to the intermittent stream downstream of the area or to MH2B-1A, depending on the catchment used. Construction of the catchment areas may begin prior to completion of the diversion of Sewer System 2B. However, the trench from Ponds 2 and 3 cannot be connected to the catchment area until the diversion of sewer System 2B is complete.

3. Lime Stabilization of Contaminated Fill Left in Place

The use of lime as an appropriate stabilization material will be confirmed during a pilot test. The application of lime to the contaminated fill is expected to raise the pH of any percolating waste sufficient to prevent the leaching of metals from the fill material. The treatment will not involve mixing the lime into the material which is to be capped, but rather will involve the application of lime to the surface of the material. Each addition of material from other areas of the Columbia Mills site will be similarly stabilized by the application of lime.

4. Construction of Trench at West End of Capped Area

A wide trench will be constructed at the west end of the Drum Disposal Area as shown in Figure 6. The trench will divert groundwater flow to Trenches A and B on either side of the area to be capped and away from the fill material, thus preventing contact with the contaminated fill. It will also act to limit access to the capped area. The trench will be excavated to a depth of approximately three feet below the lower limit of the fill material (approximately 15 feet below the land surface) and will be an estimated 50 to 60 feet wide at land surface. The trench length will be approximately 500 feet.

5. Excavation of Contaminated Fill Outside of the Capped Area

Some of the contaminated fill is currently located outside of the boundaries of the area to be capped. For this reason, it will be necessary to excavate a small quantity of the fill and place it inside the limits of the area to be capped as shown on Figure 6. The excavated fill will then be stabilized by the application of lime as

previously described. The areas where the contaminated fill is excavated from will be filled with clean material from a source to be determined.

6. Construction of Inner Leachate Trench (Barrier Drain)

The barrier drain will be constructed under the edge of the area to be capped to collect any landfill leachate. Once in the trench this groundwater will flow to a treatment area where it will be treated and discharged to the outer trench.

7. Dredging of Sediments and Excavation of Sewer System 5 Tanks

The areas containing sediment will be dredged and the sediment removed from these areas will be transported to the Drum Disposal Area. The sediments removed from the intermittent creek and Ponds 1, 2 and 3 will be placed directly onto the lime stabilized area of fill within the limits of the capped area as shown in Figure 6. The tanks from Sewer System 5 and the fill comprising the adjacent creek bank will be excavated during the dredging of the UST Area 1 sediments. The sediments removed from this ponded area of Benson Creek will be transported to the railroad right-of-way along with the tanks and fill excavated from Sewer System 5 and the adjacent bank, where they will be placed with the Drum Disposal Area sediments. Stabilization material will be applied to at a rate to be determined in the pilot test to prevent the leaching of metals from the sediments.

The sediments removed are expected to be relatively dry due to the seasonal low groundwater and drainage of the water from the ponds in the Drum Disposal Area into catchment basins. As previously stated, it may be necessary to add recovery wells to pump down the groundwater in the area of the ponds to facilitate removal of sediments. In order to prevent the water in Benson Creek from flowing back into the ponded area during the removal of the sediments, a small, temporary dam or sheet piling will be installed. Once the contaminated sediments have been removed, the dam or sheet piling will be removed and the ponded area will be restored.

8. Construction of Diversion Trenches

Diversion of the water in Ponds 1, 2 and 3 will be achieved by constructing permanent trenches through the bottom of the ponds. The water from Pond 1 will be diverted around the Drum Disposal Area to the intermittent stream beyond the clean up area. The water drained from Ponds 2 and 3 will be diverted to MH-1A on Sewer System 2B which will ultimately drain into Benson Creek.

The diversion trenches will be constructed before the final cover of the capped area is in place to permanently lower and divert the groundwater and surface water. The trenches will be excavated approximately three feet below the lower limit of contaminated fill and approximately four feet below the grade of the bottom of the

ponds to sufficiently lower the groundwater table in the capped area. The trench on the north side of the capped area will originate near the culvert which allows water to flow under the existing railroad tracks into Pond 1 and will continue, as shown in Figure 7, around the capped area to a point in the intermittent stream beyond the tunnel. The trench on the south side of the capped area will originate near the culvert which allows water to flow under the existing railroad tracks into Pond 2 and continue through Pond 3 to MH-1A of Sewer System 2B. The trenches will be lined with a geotextile filtering membrane which will allow water to flow into the trench and provide stabilization for the side walls. The trenches will be filled with crushed stone to allow for water to flow through the trenches and to prevent the trenches from becoming filled with debris. The existing contours of the ponds will remain except for where stabilization of slopes are necessary.

9. Regrading of Capped Area with Stockpiled Soils

The soils which were previously excavated from the former UST areas and stockpiled in the Main Plant Area will be used to approximate the contours of the final capped area. The soil will be loaded onto trucks and transported to the Drum Disposal Area where it will be systematically placed and compacted to form a base for the final cover. Fill material from the main plant area will be brought in, if necessary, to complete the final grading as shown in Figure 7.

10. Construction of Single Barrier Cap

When final grading of the fill materials and stockpiled soils is complete, the construction of the single membrane cap will begin. The landfill cap system detailed below was chosen to (1) eliminate the infiltration of precipitation into the landfilled waste materials, (2) prevent erosion of contaminated soils and (3) to prevent the direct contact by both people and wildlife with the waste.

The landfill cap will cover the area of waste deposition which contains lead in surface soils above a clean-up goal to be established during the remedy design phase. Surface run-off and water from the drainage layer of the cap will be channeled to the adjacent drainage trenches with discharge ultimately to the Oswego River. Leachate within the landfill will run into a passive drainage system trench under the cap which will be directed to catchment areas for treatment and discharged to the river.

The components of the landfill cap will be, as required by 6NYCRR Part 360-2.13, and are presented here, in order, starting from the existing landfill surface to the surface of the cap. (Also see Figure 8.)

- A minimum 12 inch compacted layer. This layer may be constructed utilizing some or all of the following: consolidated waste soils from other locations on site or "clean fill" brought

to the site. This material will be used to create appropriate landfill slopes and contours and may range from a minimum of 12 inches to several feet in thickness. It is likely that a combination of all of the above sources of fill will be utilized in contouring the landfill.

- A gas venting layer if necessary consisting of 12 inches of graded stone (or an equivalent geotextile gas venting material) combined with piping to vent the gas to the atmosphere.
- The low permeability barrier layer. This will consist either of an 18 inch low permeability soil layer (clay) constructed to minimize precipitation into the landfill. The clay must have a maximum remolded coefficient of permeability of 1×10^{-7} cm/second. This material must be placed on a slope of no less than four percent to promote positive drainage and at maximum slope of 33 percent to minimize erosion.

A geomembrane, typically a high density polyethylene material (HDPE), may be used as an alternative to the low permeability soil layer. It must have a maximum coefficient of permeability of 1×10^{-12} centimeters per second, chemical and physical resistance to materials it may come in contact with and accommodate the expected forces and stresses caused by installation, settlement and weather. The minimum thickness of the geomembrane will be 40 mils.

- A drainage layer which will have a minimum hydraulic conductivity of 2×10^{-2} cm/sec and a final bottom slope of two percent after settlement and subsidence will be used to drain precipitation which percolates into the soil of the cap. Water removed by this layer will be transmitted to a perimeter drain system and then discharged to surface water.

This drainage layer will consist of either a six inch layer of crushed stone and conveyance piping or a geosynthetic drainage membrane designed to perform the equivalent function of the 6 inch stone drainage layer.

- A 24 inch barrier protection layer of soil must be installed above the low permeability cover. Material specifications, installation methods and compaction specifications must be adequate to protect the geomembrane barrier layer from frost and thaw damage, root penetration, to resist erosion and to be stable on the final cover design slopes. Consideration should also be given to the prevention of burrowing by animals down to the geomembrane.
- A 6 inch topsoil layer must be designed and constructed to maintain vegetative growth over the landfill. A thicker layer of topsoil may be required if the post-closure site use warrants a thicker layer.

Access restrictions at landfill sites are intended to prevent or reduce exposure to on-site contamination. They include actions such as fencing, signage, and property deed covenants to prevent development of the site or use of groundwater below the site. Access restrictions may also be used to protect the integrity of the landfill cap system.

Signs will be posted on the site to advise people that intrusive activities into the soils are not allowed. This warning will serve to prevent potential damage to the buried geomembrane or filter fabric.

B. Extraction and Treatment of Groundwater in the UST-1 Area with Vapor Extraction Treatment of Soil Hot Spots

Remediation of the UST area groundwater will consist of pumping and treating of the groundwater utilizing the test pit 3 area treatment system. In addition, vapor extraction will be implemented similar to the test pit 3 area remediation if field conditions deem it necessary.

The following plan for the cleanup of the UST Area 1 soil and groundwater remedial units will be implemented:

1. Install groundwater recovery wells in the are of groundwater contamination and commence pumping operations to prevent the contaminant plume in this area from migrating. Pipe the withdrawn groundwater to the groundwater treatment system which will be in operation in the Test Pit 3 Area unless hydraulics or contaminant loadings prohibit such a set up. Should this be the case, a separate treatment system or modifications to the Test Pit 3 system would be necessary.
2. During recovery well installation, sample soil from borings and submit for analysis to determine if any areas containing high levels of volatile organic compound (VOC) contamination exist in the unsaturated zone.
3. Depending on the analytical results of the soil sampling, implement one of the following:
 - a. **Very low VOC concentrations or no VOCs detected in soil.**

Vapor extraction would not be implemented in UST Area 1. Remediation of the soil would not be necessary if no VOCs were detected or if VOC concentrations were near the established clean-up level of 1 ppm.

b. **Intermediate VOC concentrations detected in soil.**

If areas of intermediate level VOC contamination exist, a soil gas survey would be conducted to better determine the extent of VOC contamination in the subsurface soils. The implementation of vapor extraction would be delayed until the remediation of the Test Pit 3 Area was complete and the treatment system which will be in operation in that area was available. In this case, vapor extraction would be implemented on the UST soils to aid in reducing the length of time for groundwater treatment.

c. **High VOC concentrations detected in soil.**

If areas of soil containing high levels of VOC contamination exist, a soil gas survey would be conducted to pinpoint the problem areas. Remediation of the soil in these areas utilizing a separate vapor extraction system would commence as soon as possible.

APPENDIX 2

SUMMARY OF GENERAL RESPONSE ACTIONS

Main Plant Area		
Contaminated Medium	Contamination Concern	General Response Action
Soils	VOCs Semivolatiles Metals	No Action/Access Restrictions Excavation/Treatment/Disposal In-Situ Treatment Containment
Sediments (including sewers)	VOCs Semivolatiles Pesticides/PCBs Metals	No Action/Access Restrictions/Monitoring Removal/Treatment/Disposal In-Situ Treatment Containment
Shallow and Deep Ground Water	VOCs	No Action/Monitoring Containment Collection/Treatment/Discharge In-Situ Ground Water Treatment
Building and Debris Piles	Asbestos	No Action/Access Restrictions Containment Removal/Treatment/Disposal
Drum Disposal Area		
Contaminated Medium	Contamination Concern	General Response Action
Soil/Fill Material	Metals Semivolatiles	No Action/Access Restrictions Containment Excavation/Treatment/Disposal In-Situ Treatment
Sediments	Metals Semivolatiles	No Action/Access Restrictions/Monitoring Excavation/Treatment/Disposal In-Situ Treatment Containment
Shallow Ground Water	Metals	No Action/Monitoring Containment Collection/Treatment/Disposal In-Situ Ground Water Treatment

SUMMARY OF APPLICABLE REMEDIAL TECHNOLOGIES

Contaminated Soils

General Response Action	Applicable Remedial Technology	Process Options	Applicable	
			Main Plant Area	Drum Disposal Area
No Action/Institutional Actions:	No Action/Institutional Options:			
No action.	No Action		Yes	Yes
Access restrictions.	Deed restrictions. Fencing.		Yes	Yes
Containment Actions:	Containment Technologies:		Yes	Yes
Containment.	Capping. Vertical Barriers. Horizontal barriers. Surface controls.	Clay cap, synthetic membrane, multi-layer. Slurry wall, sheet piling. Liners, ground injection. Diversion/collection, grading, soil stabilization.	Yes	Yes
	Sediment control barriers. Dust controls.	Coffer dams, curtain barriers. Revegetation, capping.	Yes	Yes
Excavation/Treatment Actions:	Removal Technologies:		Yes	Yes
Excavation/treatment/disposal.	Excavation.	Solids excavation.		Yes
	Treatment Technologies:			
	Solidification, fixation, stabilization, immobilization.	Lime Stabilization.	Yes	Yes
	Dewatering	Sorption, pozzolanic agents, encapsulation. Belt filler press, dewatering and drying beds.	Yes	Yes
	Physical treatment.	Water/solvent leaching (with subsequent liquids treatment).	Yes	Yes
	Chemical treatment.	Lime neutralization.	Yes	Yes
	Biological treatment.	Cultured microorganisms.	Yes	No
	In-situ treatment.	Surface bioreclamation.	Yes	No
	Thermal treatment.	Incineration, pyrolysis.	Yes	No
Disposal excavation.			Yes	Yes

SUMMARY OF APPLICABLE REMEDIAL TECHNOLOGIES

Contaminated Sediments

General Response Action	Applicable Remedial Technology	Process Options	Applicable	
			Main Plant Area	Drum Disposal Area
No Action/Institutional Actions:	No Action/Institutional Options:			
No action.	No Action		Yes	Yes
Access restrictions to monitoring.	Deed restrictions. Fencing.		Yes	Yes
Excavation Actions:	Removal Technologies:		Yes	Yes
Excavation.	Excavation.	Sediments excavation.		Yes
	Containment Technologies:			
	Capping.	Removal with clay cap, multi-layer, asphalt.	Yes	Yes
	Vertical barriers.	Slurry wall, sheet piling.	Yes	Yes
	Horizontal barriers.	Liners, grout injection.	Yes	Yes
	Sediment control barriers.	Coffer dams, curtain barriers, capping barriers.	Yes	Yes
Excavation/Treatment Actions:	Treatment Technologies:			
Removal/disposal.	Solidification, fixation, stabilization.		Yes	Yes
Removal/treatment/disposal.	Dewatering.		No	Yes
	Physical treatment.		Yes	Yes
	Chemical treatment.		Yes	Yes
	Biological treatment.		No	No
	Thermal treatment.		Yes	No
		Incineration pyrolysis.	Yes	No

SUMMARY OF APPLICABLE REMEDIAL TECHNOLOGIES

Contaminated Ground Water

General Response Action	Applicable Remedial Technology	Process Options	Applicable	
			Main Plant Area	Drum Disposal Area
<p>No Action/Institutional Actions:</p> <p>No action.</p> <p>Alternative residential water supply.</p> <p>Monitoring.</p>	<p>No Action/Institutional Options:</p> <p>No Action</p> <p>Deed restrictions.</p> <p>Fencing.</p>		Yes	Yes
<p>Containment Actions:</p> <p>Containment.</p>	<p>Containment Technologies:</p> <p>Capping.</p> <p>Vertical barriers.</p> <p>Horizontal barriers.</p>	<p>Clay cap, synthetic membrane, multi-layer.</p> <p>Slurry wall, sheet piling.</p> <p>Liners, ground injection.</p>	Yes	Yes
<p>Collection Treatment Actions:</p> <p>Collection/treatment discharge.</p>	<p>Extraction Technologies:</p> <p>Ground water collection/pumping.</p> <p>Enhanced removal.</p>	<p>Wells, subsurface or leachate collection.</p> <p>Solution mining, vapor extraction, enhanced oil recovery.</p>	Yes	Yes
	<p>Treatment Technologies:</p> <p>Physical treatment.</p> <p>Chemical treatment.</p>	<p>Coagulation/flocculation, oil-water separation, air stripping, adsorption.</p> <p>Neutralization, precipitation, ion exchange oxidation/reduction.</p>	Yes	No
<p>In-situ ground water treatment.</p>	<p>Disposal Technologies:</p> <p>Discharge to WWTP (after treatment).</p> <p>Discharge to surface water (after treatment).</p> <p>In-situ treatment.</p>	<p>Subsurface bioreclamation.</p>	Yes	Yes
			Yes	No

SUMMARY OF APPLICABLE REMEDIAL TECHNOLOGIES

Contaminated Structures

General Response Action	Applicable Remedial Technology	Process Options	Applicable	
			Main Plant Area	Drum Disposal Area
No Action/Institutional Actions: No action. Access restrictions.	No Action/Institutional Options: No Action Deed restrictions. Fencing.		Yes Yes Yes	N/A N/A N/A
Treatment Actions: Removal/Disposal.	Removal Technologies: Excavation. Removal	Excavation, debris removal Asbestos removal	Yes Yes	N/A N/A
Containment Actions:	Containment Technologies: Barriers.	Encapsulation Seal Buildings	Yes Yes	N/A N/A

N/A - Not Applicable - No contaminated structures in Drum Disposal Area.

SUMMARY OF APPLICABLE REMEDIAL TECHNOLOGIES

Drums and Debris

General Response Action	Applicable Remedial Technology	Process Options	Applicable	
			Main Plant Area	Drum Disposal Area
No Action/Institutional Actions:	No Action/Institutional Options:			
No action.	No Action		Yes	Yes
Access restrictions to (location).	Deed restrictions. Fencing.		Yes	Yes
Containment Actions:	Containment Technologies:			
	Capping.	Clay cap, synthetic membranes, multi-layer.	Yes	Yes
	Vertical barriers.	Slurry wall, sheet piling.	No	Yes
	Horizontal barriers.	Liners, grout injection.	No	Yes
		Dust controls.	Yes	Yes
Excavation/Treatment Actions:	Removal Technologies:			
Removal/disposal.	Excavation.	Solids excavation.	Yes	Yes
	Drum/Debris Removal.	Drum and debris removal.	Yes	Yes
Removal/treatment/disposal.	Treatment Technologies:			
	Physical treatment.	Water/solvent leaching (with subsequent liquids treatment).	No	No
	Chemical treatment.	Neutralization.	No	No
	Biological treatment.	Cultured microorganisms.	No	No
	Thermal treatment.	Incineration, pyrolysis, gaseous incineration.	No	No
	Solids processing.	Crushing and grinding, screening, classification.	No	No
	Disposal.	On-site landfill.	No	No
		Off-site landfill.	Yes	Yes
			Yes	Yes

**TABLE 4-1
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF DRUM DISPOSAL AREA FILL MATERIAL
 METALS AND SEMIVOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
Drain Ponds & Reroute Creek/ Cap In Place	10	20	9	6	2	12	15	74
Drain Ponds & Reroute Creek/Lime Stabilization/Cap In Place	10	20	9	11	8	11	14	83
Drain Ponds & Reroute Creek/Excavate/Lime Stabilization/Cap in Railroad Right-of-Way	10	20	8	11	8	9	12	78
Drain Ponds & Reroute Creek/Excavate/ Dispose in Off-Site Landfill	10	20	6	11	2	10	2	61

**TABLE 4-2
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF UST AREA 1 SOILS
 VOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (\$15)	Total (100)
No Action	0							0
Excavation/On-Site Disposal	10	20	8	6	2	9	12	67
Excavation/Off-Site Disposal	10	20	5	11	2	10	10	68
Soil Washing (In-Situ)	10	20	9	14	14	10	8	85
Vapor Extraction	10	20	9	14	15	13	15	96

Alternative should not be further considered since it does not meet SCGs

**TABLE 4-4
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF UST EXCAVATED SOIL PILES
 METALS AND SEMIVOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
Dispose In Off-Site Landfill	10	20	6	12	2	11	15	76
Cap In Railroad Right of Way	10	20	8	10	2	11	14	75
Lime Stabilization/Cap In Railroad Right-of-Way	10	20	8	13	8	11	12	82

**TABLE 4-5
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF DRUM DISPOSAL AREA POND AND CREEK SEDIMENTS
 METALS AND SEMIVOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
Excavation/On-Site Disposal	10	20	9	6	2	11	10	68
Excavation/Off-Site Disposal	10	20	6	11	2	12	8	69
Excavation/Treatment/On-Site Disposal	10	20	9	11	8	9	8	75
Excavation/Treatment/Off-Site Disposal	10	20	6	14	8	9	7	74
Excavation/Lime Stabilization/Cap In Railroad Right-of-Way	10	20	9	11	8	11	15	84

**TABLE 4-6
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF UST AREA 1 CREEK SEDIMENTS
 METALS AND SEMIVOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
Excavation/Off-Site Disposal	10	20	6	11	2	12	8	69
Excavation/Treatment/On-Site Disposal	10	20	8	11	8	9	8	74
Excavation/Treatment/Off-Site Disposal	10	20	6	14	8	10	7	75
Excavation/Lime Stabilization/Cap in Railroad Right-of-Way	10	20	8	11	8	11	15	83

**TABLE 4-7
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SHALLOW GROUND WATER
 IN DRUM DISPOSAL AREA (Between Ponds 1 & 3)
 METALS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	6	8	6	6	0	13	15	54
Containment	10	17	9	4	2	10	10	62
Extraction/Treatment/ Discharge to Surface Water	10	17	9	6	6	10	8	66
Divert Pond Water/Lower GW Table/ Discharge to Surface Water	10	17	8	10	2	11	15	73

**TABLE 4-9
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SHALLOW GROUND WATER
 IN MAIN PLANT AREA (UST 1 Area)
 VOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	6	8	6	6	0	13	15	54
Extraction/Discharge to Sanitary Sewer	3	11	9	6	0	12	15	56
Extraction/Pretreatment/Discharge to Sanitary Sewer	10	17	9	8	6	9	8	67
Extraction/Treatment/Discharge to Surface Water	10	17	9	7	6	11	8	68

**TABLE 4-11
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF DEEP GROUND WATER
 IN MAIN PLANT AREA (Well B-19D Area)
 VOLATILE ORGANICS**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	6	8	6	6	0	13	15	54
Extraction/Discharge to Sanitary Sewer	3	11	9	6	0	12	15	56
Extraction/Pretreatment/Discharge to Sanitary Sewer	10	17	9	7	6	8	8	65
Extraction/Treatment/Discharge to Surface Water	10	17	9	7	6	9	8	66

TABLE 4-12
DETAILED ANALYSIS RESULTS
REMEDIATION OF SEWER SYSTEM SEDIMENTS
SEWER SYSTEM 1

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	10	17	10	9	0	13	15	74
Institutional - Monitoring, Access Restrictions	10	20	10	7	0	13	11	71
Excavation/Off-Site Disposal	10	20	6	12	2	10	5	65
Close Sewer Line in Place	10	20	10	11	5	11	15	82

**TABLE 4-13
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SEWER SYSTEM SEDIMENTS
 SEWER SYSTEM 2A**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	10	17	10	6	0	13	15	71
Close Line in Place	10	20	10	8	5	12	15	80
Flush Sediments/Off-Site Disposal	10	20	6	11	2	10	5	64

**TABLE 4-14
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SEWER SYSTEM SEDIMENTS
 SEWER SYSTEM 2B**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	10	17	10	9	0	13	15	74
Flush Sediments/Off Site Disposal	10	20	6	12	2	11	15	76
Close Main Plant Section of Line in Place/ Divert Upstream Flow into Benson Creek	10	20	8	11	5	12	13	79

**TABLE 4-15
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SEWER SYSTEM SEDIMENTS
 SEWER SYSTEM 3**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	10	20	10	9	0	13	15	77
Close Line in Place	10	20	10	11	5	10	15	81
Flush Sediments/Off-Site Disposal/ Fill Trenches	10	20	6	12	2	11	12	73

**TABLE 4-16
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SEWER SYSTEM SEDIMENTS
 SEWER SYSTEM 4**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	6	17	10	9	0	13	15	70
Monitoring/Permitting	6	17	10	7	0	13	12	65
Close Line in Place	10	20	10	11	5	12	15	83
Flush Sediments/Dewater/Off-Site Disposal	10	20	6	12	2	11	10	71

**TABLE 4-17
 DETAILED ANALYSIS RESULTS
 REMEDIATION OF SEWER SYSTEM SEDIMENTS
 SEWER SYSTEM 5**

Alternative	Compliance with SCGs (10)	Protection of Human Health and Environment (20)	Short Term Effectiveness (10)	Long Term Effectiveness (15)	Reduction of Toxicity, Mobility or Volume (15)	Implementability (15)	Cost (15)	Total (100)
No Action	6	20	10	9	0	13	15	73
Close System in Place (Fill with Concrete)	10	20	10	11	5	12	15	83
Excavate Tanks & Sediment/Cap in Railroad Right-of-Way	10	20	9	10	2	11	13	75

APPENDIX 3

**COST ANALYSIS
DRUM DISPOSAL AREA FILL**

ALTERNATIVE #1 - Cap In Place	
Construction Costs	\$2,143,000
Contingency (15%)	\$321,450
Total Construction Costs	\$2,464,450
Engineering (10%)	\$246,445
Total Project Cost	\$2,710,895
Annual O & M Cost	\$23,500
Present Worth - O & M (30 yrs)	\$221,535
Total Present Worth	\$2,932,400
ALTERNATIVE #2 - Lime Stabilize, Cap In Place	
Construction Costs	\$2,245,000
Contingency (15%)	\$336,750
Total Construction Costs	\$2,581,750
Engineering (10%)	\$258,175
Total Project Cost	\$2,839,925
Annual O & M Cost	\$23,500
Present Worth - O & M (30 yrs)	\$221,535
Total Present Worth	\$3,061,500
ALTERNATIVE #3 - Excavate, Lime Stabilize, Cap in RR Right-of-Way	
Construction Costs	\$2,585,000
Contingency (15%)	\$387,750
Total Construction Costs	\$2,972,750
Engineering (10%)	\$297,275
Total Project Cost	\$3,270,025
Annual O & M Cost	\$23,500
Present Worth - O & M (30 yrs)	\$221,535
Total Present Worth	\$3,491,600
ALTERNATIVE #4 - Excavate, Dispose Off-Site	
Construction Costs	\$30,716,000
Contingency (15%)	\$4,607,400
Total Construction Costs	\$35,323,400
Engineering (10%)	\$3,532,340
Total Project Cost	\$38,855,740
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$38,855,700

**COST ANALYSIS
UST AREA 1 SOIL**

ALTERNATIVE #1 - No Action		
Construction Costs		\$0
Contingency (15%)		\$0
Total Construction Costs		\$0
Engineering (10%)		\$0
Total Project Cost		\$0
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$0
ALTERNATIVE #2 - Excavate, Dispose On-Site		
Construction Costs		\$1,975,000
Contingency (15%)		\$296,250
Total Construction Costs		\$2,271,250
Engineering (10%)		\$227,125
Total Project Cost		\$2,498,375
Annual O & M Cost		\$14,590
Present Worth - O & M (30 yrs)		\$137,540
Total Present Worth		\$2,635,900
ALTERNATIVE #3 - Excavate, Dispose Off-Site		
Construction Costs		\$4,037,500
Contingency (15%)		\$605,625
Total Construction Costs		\$4,643,125
Engineering (10%)		\$464,313
Total Project Cost		\$5,107,438
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$5,107,400
ALTERNATIVE #4 - Soil Washing		
Construction Costs		\$1,250,000
Contingency (15%)		\$187,500
Total Construction Costs		\$1,437,500
Engineering (10%)		\$143,750
Total Project Cost		\$1,581,250
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$1,581,300

**COST ANALYSIS
UST AREA 1 SOIL**

ALTERNATIVE #5 – Vapor Extraction, Ground Water Withdrawal	
Construction Costs	\$247,950
Contingency (15%)	\$37,193
Total Construction Costs	\$285,143
Engineering (10%)	\$28,514
Total Project Cost	\$313,657
Annual O & M Cost	\$100,000
Present Worth – O & M (4 yrs)	\$317,000
Total Present Worth	\$630,700

**COST ANALYSIS
UST EXCAVATED SOIL PILES**

ALTERNATIVE #1 - Dispose Off-Site	
Construction Costs	\$303,000
Contingency (15%)	\$45,450
Total Construction Costs	\$348,450
Engineering (10%)	\$34,845
Total Project Cost	\$383,295
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$383,300
ALTERNATIVE #2 - Cap in RR Right-of-Way	
Construction Costs	\$187,000
Contingency (15%)	\$28,050
Total Construction Costs	\$215,050
Engineering (10%)	\$21,505
Total Project Cost	\$236,555
Annual O & M Cost	\$1,550
Present Worth - O & M (30 yrs)	\$14,612
Total Present Worth	\$251,200
ALTERNATIVE #3 - Lime Stabilize, Cap in RR Right-of-Way	
Construction Costs	\$190,700
Contingency (15%)	\$28,605
Total Construction Costs	\$219,305
Engineering (10%)	\$21,931
Total Project Cost	\$241,236
Annual O & M Cost	\$1,550
Present Worth - O & M (30 yrs)	\$14,612
Total Present Worth	\$255,800

**COST ANALYSIS
DRUM DISPOSAL AREA POND & CREEK SEDIMENTS**

ALTERNATIVE #1 - Excavate, On-Site Disposal	
Construction Costs	\$567,500
Contingency (15%)	\$85,125
Total Construction Costs	\$652,625
Engineering (10%)	\$65,263
Total Project Cost	\$717,888
Annual O & M Cost	\$3,700
Present Worth - O & M (30 yrs)	\$34,880
Total Present Worth	\$752,800
ALTERNATIVE #2 - Excavate, Off-Site Disposal	
Construction Costs	\$939,000
Contingency (15%)	\$140,850
Total Construction Costs	\$1,079,850
Engineering (10%)	\$107,985
Total Project Cost	\$1,187,835
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$1,187,800
ALTERNATIVE #3 - Excavate, Treat, On-Site Disposal	
Construction Costs	\$1,017,500
Contingency (15%)	\$152,625
Total Construction Costs	\$1,170,125
Engineering (10%)	\$117,013
Total Project Cost	\$1,287,138
Annual O & M Cost	\$3,700
Present Worth - O & M (30 yrs)	\$34,880
Total Present Worth	\$1,322,000
ALTERNATIVE #4 - Excavate, Treat, Off-Site Disposal	
Construction Costs	\$1,342,000
Contingency (15%)	\$201,300
Total Construction Costs	\$1,543,300
Engineering (10%)	\$154,330
Total Project Cost	\$1,697,630
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$1,697,600

**COST ANALYSIS
DRUM DISPOSAL AREA POND & CREEK SEDIMENTS**

ALTERNATIVE #5 - Excavate, Lime Stabilize, Cap in RR Right-of-Way	
Construction Costs	\$470,000
Contingency (15%)	\$70,500
Total Construction Costs	\$540,500
Engineering (10%)	\$54,050
Total Project Cost	\$594,550
Annual O & M Cost	\$4,600
Present Worth - O & M (30 yrs)	\$43,364
Total Present Worth	\$637,900

**COST ANALYSIS
UST AREA 1 CREEK SEDIMENTS**

ALTERNATIVE #1 - Excavate, Dispose Off-Site	
Construction Costs	\$38,250
Contingency (15%)	\$5,738
Total Construction Costs	\$43,988
Engineering (10%)	\$4,399
Total Project Cost	\$48,386
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$48,400
ALTERNATIVE #2 - Excavate, Treat, On-Site Disposal	
Construction Costs	\$209,900
Contingency (15%)	\$31,485
Total Construction Costs	\$241,385
Engineering (10%)	\$24,139
Total Project Cost	\$265,524
Annual O & M Cost	\$190
Present Worth - O & M (30 yrs)	\$1,791
Total Present Worth	\$267,300
ALTERNATIVE #3 - Excavate, Treat, Off-Site Disposal	
Construction Costs	\$56,250
Contingency (15%)	\$8,438
Total Construction Costs	\$64,688
Engineering (10%)	\$6,469
Total Project Cost	\$71,156
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$71,200
ALTERNATIVE #4 - Excavate, Lime Stabilize, Cap in RR Right-of-Way	
Construction Costs	\$23,770
Contingency (15%)	\$3,566
Total Construction Costs	\$27,336
Engineering (10%)	\$2,734
Total Project Cost	\$30,069
Annual O & M Cost	\$235
Present Worth - O & M (30 yrs)	\$2,215
Total Present Worth	\$32,300

**COST ANALYSIS
DRUM DISPOSAL AREA SHALLOW GROUND WATER**

ALTERNATIVE #1 – No Action		
Construction Costs		\$0
Contingency (15%)		\$0
Total Construction Costs		\$0
Engineering (10%)		\$0
Total Project Cost		\$0
Annual O & M Cost		\$0
Present Worth – O & M (30 yrs)		\$0
Total Present Worth		\$0
ALTERNATIVE #2 – Containment		
Construction Costs	\$1,943,400	
Contingency (15%)	\$291,510	
Total Construction Costs	\$2,234,910	
Engineering (10%)	\$223,491	
Total Project Cost	\$2,458,401	
Annual O & M Cost	\$4,850	
Present Worth – O & M (30 yrs)	\$45,721	
Total Present Worth	\$2,504,100	
ALTERNATIVE #3 – Extract, Treat, Discharge to Surface Water		
Construction Costs	\$169,000	
Contingency (15%)	\$25,350	
Total Construction Costs	\$194,350	
Engineering (10%)	\$19,435	
Total Project Cost	\$213,785	
Annual O & M Cost	\$20,600	
Present Worth – O & M (30 yrs)	\$194,196	
Total Present Worth	\$408,000	
ALTERNATIVE #4 – Divert Ponds, Discharge to Surface Water		
Construction Costs	\$254,000	
Contingency (15%)	\$38,100	
Total Construction Costs	\$292,100	
Engineering (10%)	\$29,210	
Total Project Cost	\$321,310	
Annual O & M Cost	\$450	
Present Worth – O & M (30 yrs)	\$4,242	
Total Present Worth	\$325,600	

**COST ANALYSIS
WELL B19-D/UST AREA 1 - GROUND WATER**

ALTERNATIVE #1 - No Action	
Construction Costs	\$0
Contingency (15%)	\$0
Total Construction Costs	\$0
Engineering (10%)	\$0
Total Project Cost	\$0
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$0
ALTERNATIVE #2 - Extract, Discharge to Sanitary Sewer	
Construction Costs	\$79,920
Contingency (15%)	\$11,988
Total Construction Costs	\$91,908
Engineering (10%)	\$9,191
Total Project Cost	\$101,099
Annual O & M Cost	\$34,600
Present Worth - O & M (30 yrs)	\$326,174
Total Present Worth	\$427,300
ALTERNATIVE #3 - Extract, Treat, Discharge to Sanitary Sewer	
Construction Costs	\$122,120
Contingency (15%)	\$18,318
Total Construction Costs	\$140,438
Engineering (10%)	\$14,044
Total Project Cost	\$154,482
Annual O & M Cost	\$41,000
Present Worth - O & M (30 yrs)	\$386,507
Total Present Worth	\$541,000
ALTERNATIVE #4 - Extract, Treat, Discharge to Surface Water	
Construction Costs	\$122,120
Contingency (15%)	\$18,318
Total Construction Costs	\$140,438
Engineering (10%)	\$14,044
Total Project Cost	\$154,482
Annual O & M Cost	\$22,700
Present Worth - O & M (30 yrs)	\$213,993
Total Present Worth	\$368,500

**COST ANALYSIS
SEWER SYSTEM 1 SEDIMENTS**

ALTERNATIVE #1 – No Action	
Construction Costs	\$0
Contingency (15%)	\$0
Total Construction Costs	\$0
Engineering (10%)	\$0
Total Project Cost	\$0
Annual O & M Cost	\$0
Present Worth – O & M (30 yrs)	\$0
Total Present Worth	\$0
ALTERNATIVE #2 – Monitoring, Access Restrictions	
Construction Costs	\$4,200
Contingency (15%)	\$630
Total Construction Costs	\$4,830
Engineering (10%)	\$483
Total Project Cost	\$5,313
Annual O & M Cost	\$500
Present Worth – O & M (30 yrs)	\$4,714
Total Present Worth	\$10,000
ALTERNATIVE #3 – Excavate, Off-Site Disposal	
Construction Costs	\$12,450
Contingency (15%)	\$1,868
Total Construction Costs	\$14,318
Engineering (10%)	\$1,432
Total Project Cost	\$15,749
Annual O & M Cost	\$0
Present Worth – O & M (30 yrs)	\$0
Total Present Worth	\$15,700
ALTERNATIVE #4 – Close Sewer Line In Place	
Construction Costs	\$10,400
Contingency (15%)	\$1,560
Total Construction Costs	\$11,960
Engineering (10%)	\$1,196
Total Project Cost	\$13,156
Annual O & M Cost	\$500
Present Worth – O & M (30 yrs)	\$4,714
Total Present Worth	\$17,900

**COST ANALYSIS
SEWER SYSTEM 1 SEDIMENTS**

ALTERNATIVE #5 - Excavate, Lime Stabilize, Cap in RR Right-of-Way

Construction Costs	\$8,700
Contingency (15%)	\$1,305
Total Construction Costs	\$10,005
Engineering (10%)	\$1,001
Total Project Cost	\$11,006
Annual O & M Cost	\$25
Present Worth - O & M (30 yrs)	\$236
Total Present Worth	\$11,200

**COST ANALYSIS
SEWER SYSTEM 2A SEDIMENTS**

ALTERNATIVE #1 – No Action	
Construction Costs	\$0
Contingency (15%)	\$0
Total Construction Costs	\$0
Engineering (10%)	\$0
Total Project Cost	\$0
Annual O & M Cost	\$0
Present Worth – O & M (30 yrs)	\$0
Total Present Worth	\$0
ALTERNATIVE #2 – Close Line In Place	
	\$5,750
Construction Costs	\$500
Contingency (15%)	\$75
Total Construction Costs	\$575
Engineering (10%)	\$58
Total Project Cost	\$633
Annual O & M Cost	\$500
Present Worth – O & M (30 yrs)	\$4,714
Total Present Worth	\$5,300
ALTERNATIVE #3 – Flush Sediments/Off-Site Disposal	
Construction Costs	\$35,000
Contingency (15%)	\$5,250
Total Construction Costs	\$40,250
Engineering (10%)	\$4,025
Total Project Cost	\$44,275
Annual O & M Cost	\$0
Present Worth – O & M (30 yrs)	\$0
Total Present Worth	\$44,300
ALTERNATIVE #4 – Flush Sediments, Lime Stabilize, Cap in RR R.O.W	
Construction Costs	\$26,900
Contingency (15%)	\$4,035
Total Construction Costs	\$30,935
Engineering (10%)	\$3,094
Total Project Cost	\$34,029
Annual O & M Cost	\$5
Present Worth – O & M (30 yrs)	\$47
Total Present Worth	\$34,100

**COST ANALYSIS
SEWER SYSTEM 2B SEDIMENTS**

ALTERNATIVE #1 - No Action		
Construction Costs		\$0
Contingency (15%)		\$0
Total Construction Costs		\$0
Engineering (10%)		\$0
Total Project Cost		\$0
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$0
ALTERNATIVE #2 - Flush Sediments, Off-Site Disposal		
Construction Costs		\$38,100
Contingency (15%)		\$5,715
Total Construction Costs		\$43,815
Engineering (10%)		\$4,382
Total Project Cost		\$48,197
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$48,200
ALTERNATIVE #3 - Close Main Plant Section, Divert Upstream Flow		
Construction Costs		\$35,500
Contingency (15%)		\$5,325
Total Construction Costs		\$40,825
Engineering (10%)		\$4,083
Total Project Cost		\$44,908
Annual O & M Cost		\$500
Present Worth - O & M (30 yrs)		\$4,714
Total Present Worth		\$49,600
ALTERNATIVE #4 - Flush Sediments in Main Plant Area, Lime Stabilize Cap in RR Right-of-Way, Divert Upstream Flow		
Construction Costs		\$54,400
Contingency (15%)		\$8,160
Total Construction Costs		\$62,560
Engineering (10%)		\$6,256
Total Project Cost		\$68,816
Annual O & M Cost		\$55
Present Worth - O & M (30 yrs)		\$518
Total Present Worth		\$69,300

**COST ANALYSIS
SEWER SYSTEM 3 SEDIMENTS**

ALTERNATIVE #1 - No Action	
Construction Costs	\$0
Contingency (15%)	\$0
Total Construction Costs	\$0
Engineering (10%)	\$0
Total Project Cost	\$0
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$0
ALTERNATIVE #2 - Close Line In Place	
Construction Costs	\$34,000
Contingency (15%)	\$5,100
Total Construction Costs	\$39,100
Engineering (10%)	\$3,910
Total Project Cost	\$43,010
Annual O & M Cost	\$500
Present Worth - O & M (30 yrs)	\$4,714
Total Present Worth	\$47,700
ALTERNATIVE #3 - Flush Sediments, Off-site Disposal, Fill Trenches	
Construction Costs	\$68,700
Contingency (15%)	\$10,305
Total Construction Costs	\$79,005
Engineering (10%)	\$7,901
Total Project Cost	\$86,906
Annual O & M Cost	\$500
Present Worth - O & M (30 yrs)	\$4,714
Total Present Worth	\$91,600
ALTERNATIVE #4 - Flush Sediments, Lime Stabilize, Cap in RR Right-of-Way, Fill Trenches	
Construction Costs	\$60,700
Contingency (15%)	\$9,105
Total Construction Costs	\$69,805
Engineering (10%)	\$6,981
Total Project Cost	\$76,786
Annual O & M Cost	\$545
Present Worth - O & M (30 yrs)	\$5,138
Total Present Worth	\$81,900

**COST ANALYSIS
SEWER SYSTEM 4 SEDIMENTS**

ALTERNATIVE #1 - No Action		
Construction Costs		\$0
Contingency (15%)		\$0
Total Construction Costs		\$0
Engineering (10%)		\$0
Total Project Cost		\$0
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$0
ALTERNATIVE #2 - Monitoring, Permitting		
Construction Costs		\$5,000
Contingency (15%)		\$750
Total Construction Costs		\$5,750
Engineering (10%)		\$575
Total Project Cost		\$6,325
Annual O & M Cost		\$1,480
Present Worth - O & M (30 yrs)		\$13,952
Total Present Worth		\$20,300
ALTERNATIVE #3 - Close Line In Place		
Construction Costs		\$6,350
Contingency (15%)		\$953
Total Construction Costs		\$7,303
Engineering (10%)		\$730
Total Project Cost		\$8,033
Annual O & M Cost		\$500
Present Worth - O & M (30 yrs)		\$4,714
Total Present Worth		\$12,700
ALTERNATIVE #4 - Flush Sediments, Dewater, Off-Site Disposal		
Construction Costs		\$24,200
Contingency (15%)		\$3,630
Total Construction Costs		\$27,830
Engineering (10%)		\$2,783
Total Project Cost		\$30,613
Annual O & M Cost		\$0
Present Worth - O & M (30 yrs)		\$0
Total Present Worth		\$30,600

**COST ANALYSIS
SEWER SYSTEM 4 SEDIMENTS**

ALTERNATIVE #5 - Flush Sediments, Lime Stabilize, Cap in RR R.O.W

Construction Costs	\$24,350
Contingency (15%)	\$3,653
Total Construction Costs	\$28,003

Engineering (10%)	\$2,800
Total Project Cost	\$30,803

Annual O & M Cost	\$5
Present Worth - O & M (30 yrs)	\$47

Total Present Worth	\$30,800
----------------------------	-----------------

**COST ANALYSIS
SEWER SYSTEM 5 SEDIMENTS**

ALTERNATIVE #1 - No Action	
Construction Costs	\$0
Contingency (15%)	\$0
Total Construction Costs	\$0
Engineering (10%)	\$0
Total Project Cost	\$0
Annual O & M Cost	\$0
Present Worth - O & M (30 yrs)	\$0
Total Present Worth	\$0
ALTERNATIVE #2 - Close System In Place - (Fill W/Concrete)	
Construction Costs	\$800
Contingency (15%)	\$120
Total Construction Costs	\$920
Engineering (10%)	\$92
Total Project Cost	\$1,012
Annual O & M Cost	\$250
Present Worth - O & M (30 yrs)	\$2,357
Total Present Worth	\$3,400
ALTERNATIVE #3 - Excavate, Cap in RR Right-of-Way	
Construction Costs	\$6,250
Contingency (15%)	\$938
Total Construction Costs	\$7,188
Engineering (10%)	\$719
Total Project Cost	\$7,906
Annual O & M Cost	\$300
Present Worth - O & M (30 yrs)	\$2,828
Total Present Worth	\$10,700

**COLUMBIA MILLS
REMEDIAL MEASURE COST ANALYSES**

- 1) **Stabilize and cap wastes in the railroad right-of-way, collect and treat ground water from the area of capped waste**

Construction Costs	\$2,377,000
Contingency (15%)	\$356,550
Total Construction Costs	\$2,733,550
Engineering (10%)	\$273,355
Total Project Cost	\$3,006,905
Annual O & M Cost	\$23,500
Present Worth – O & M (30 yrs)	\$221,535
Total Present Worth	\$3,228,400

- 2) **Extraction and treatment of ground water in the UST-1 Area with vapor extraction treatment of soil hot spots.**

Construction Costs	\$247,950
Contingency (15%)	\$37,193
Total Construction Costs	\$285,143
Engineering (10%)	\$28,514
Total Project Cost	\$313,657
Annual O & M Cost	\$100,000
Present Worth – O & M (4 yrs)	\$317,000
Total Present Worth	\$630,700

**COLUMBIA MILLS
REMEDIAL MEASURE COST ANALYSES**

- 3) **Remove sewer sediments or excavate lines, disposal of sediments in the on-site landfill (capped area).**

**Sewer System 1 – Excavate, Lime Stabilize, Cap in RR
Right-of-Way**

Construction Costs	\$8,700
Contingency (15%)	\$1,305
Total Construction Costs	\$10,005
Engineering (10%)	\$1,001
Total Project Cost	\$11,006
Annual O & M Cost	\$25
Present Worth – O & M (30 yrs)	\$236
Total Present Worth	\$11,200

**Sewer System 2A – Flush Sediments, Lime Stabilize,
Cap in Railroad Right-of-Way**

Construction Costs	\$26,900
Contingency (15%)	\$4,035
Total Construction Costs	\$30,935
Engineering (10%)	\$3,094
Total Project Cost	\$34,029
Annual O & M Cost	\$5
Present Worth – O & M (30 yrs)	\$47
Total Present Worth	\$34,100

**COLUMBIA MILLS
REMEDIAL MEASURE COST ANALYSES**

**Sewer System 2B - Flush Sediments in Main Plant Area,
Lime Stabilize, Cap in Railroad Right-of-Way,
Divert Upstream Flow**

Construction Costs	\$54,400
Contingency (15%)	\$8,160
Total Construction Costs	\$62,560
Engineering (10%)	\$6,256
Total Project Cost	\$68,816
Annual O & M Cost	\$55
Present Worth - O & M (30 yrs)	\$518
Total Present Worth	\$69,300

**Sewer System 3 - Flush Sediments, Lime Stabilize,
Cap in Railroad Right-of-Way, Fill Trenches**

Construction Costs	\$60,700
Contingency (15%)	\$9,105
Total Construction Costs	\$69,805
Engineering (10%)	\$6,981
Total Project Cost	\$76,786
Annual O & M Cost	\$545
Present Worth - O & M (30 yrs)	\$5,138
Total Present Worth	\$81,900

**COLUMBIA MILLS
REMEDIAL MEASURE COST ANALYSES**

**Sewer System 4 - Flush Sediments, Lime Stabilize,
Cap in Railroad Right-of-Way**

Construction Costs	\$24,350
Contingency (15%)	\$3,653
Total Construction Costs	\$28,003
Engineering (10%)	\$2,800
Total Project Cost	\$30,803
Annual O & M Cost	\$5
Present Worth - O & M (30 yrs)	\$47
Total Present Worth	\$30,800

Total Sewer Costs:

Total Project Cost	\$221,440
Present Worth - O & M (30 yrs)	\$5,986
Total Present Worth	\$227,400

APPENDIX 4

**COLUMBIA MILLS SURFACE SOIL
 MAIN PLANT AREA - UST AREA 1
 FREQUENCY OF DETECTION
 - Validated Data -**

INORGANIC	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATION* (mg/kg)	BACKGROUND CONCENTRATION** (mg/kg)
Aluminum	5/5	5130J-7030J	8800J-9680J
Antimony	1/5	8.8B	8.0B-8.6B
Arsenic	5/5	0.90J-4.8J	2.8J-3.3J
Chromium	5/5	5.2J-16.0J	8.5-8.6
Copper	5/5	22.2J-128J	8.5B-25.2J
Iron	5/5	6160J-19400J	11900J-12100J
Lead	5/5	12.2J-116J	8.6J-15.9J
Magnesium	5/5	543J-1620J	1180J-2350J
Manganese	5/5	157J-537J	17B-313
Zinc	5/5	34.7J-833J	33.9J-45.5J

NOTES:

*As detected in samples obtained November 1989.

**Concentrations detected in two background surface soil samples obtained November 1989. Data is validated.

J-Indicates an estimated value.

B-This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SOIL
MAIN PLANT AREA - AREA A
FREQUENCY OF DETECTION
- Validated Data -**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS	RANGE OF DETECTED CONCENTRATIONS	BACKGROUND CONCENTRATION**
<u>VOLATILE ORGANICS (ug/kg)</u>				
Methylene Chloride	16/16		8B-28B*	32B-71B
Benzene	1/16	5-6	1J*	6U-7U
Toluene	10/16	5-6	1J-120J*	6U-7UL
Xylenes	1/16	5-6	5J*	6U-7UL
<u>INORGANICS (mg/kg)</u>				
Cadmium	1/26		1.3J	0.69U-0.86
Lead	26/26		1.1B-485J*	8.6J-15.9J
Mercury	11/26		0.12J-2.8J	0.11U-0.14U
Zinc	26/26		20.0J-499J*	33.8J-45.5J

NOTES:

Volatile organic samples obtained from former Piles 1,2 & 4 and inorganic samples obtained from former Piles 1,2,3 & 4 October 1989.

* Additional QA/QC samples (MS, MSD, duplicate, replicate) included in range of detected concentrations.

** Concentrations detected in two background surface soil samples obtained November 1989.

Data is validated. Additional QA/QC samples (MS, MSD, replicate) included in range of concentrations for volatile organics.

U - Indicates compound was analyzed but not detected.

L - Indicates sample quantitation limit is an estimated quantity.

J - Indicates an estimated value.

B - This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SOIL
MAIN PLANT AREA - AREA A
FREQUENCY OF DETECTION**

- Non Validated Data -

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS	RANGE OF DETECTED CONCENTRATIONS	BACKGROUND CONCENTRATION*
VOLATILE ORGANICS (ug/kg)				
Acetone	2/12	1500-1800	4800-4700	13UL-70B
Trichlorotrifluoroethane	3/18	20	73-380	
1,1,1-Trichloroethane	1/19	20-30	58	6U-7UL
Tetrachloroethylene	8/28	20-30	34-530	6U-7UL
SEMIVOLATILES (ug/kg)				
Phenanthrene	1/4	1000	1000	390U-490U
Dibutyl phthalate	2/4	1000	1000-1900	2800B-4000B
Fluoranthene	1/4	1000	1000	390U-490U
Pyrene	1/4	1000	1100	390U-490U
Bis(2-ethylhexyl)phthalate	1/4	1000	1000	390U-2500B
INORGANICS (mg/kg)				
Aluminum	4/4		4800-5700	8800J-8880J
Arsenic	4/4		4.0-8.0	2.8J-3.3J
Barium	4/4		50-220	34.2J-80.8J
Beryllium	4/4		0.18-0.58	0.42B-0.45B
Cadmium	4/4		0.28-0.60	0.89U-0.98
Calcium	4/4		990-4200	254J-282J
Chromium	4/4		11-28	6.5-8.5
Cobalt	4/4		4.4-5.6	4.1B-5.8B
Copper	4/4		16-80	8.5B-25.2J
Iron	4/4		8000-14000	11800J-12100J
Lead	4/4		46-280	8.5J-15.9J+
Magnesium	4/4		2200-3200	1180J-2350J
Manganese	4/4		200-380	178-313
Mercury	4/4		0.05-0.30	0.11U-0.14U
Nickel	4/4		6.6-9.8	7.6-10.5
Potassium	4/4		400-440	176B-256B
Sodium	4/4		72-98	53.0B-64.5B
Vanadium	4/4		12-14	15.5-19.2
Zinc	4/4		27-240	33.9J-45.5J

NOTES:

Volatile organic samples obtained from former Piles 1,2 & 4 August 1988 and from aerated former Pile 3 August and September 1990. Semivolatile and inorganic samples obtained from former Piles 1, 2, 3 & 4 June 1989.

* Concentrations detected in two background surface soil samples obtained November 1989. Data is validated.

Additional QA/QC samples (MS, MSD) included in range of concentrations for volatile and semivolatile organics.

+ Concentrations of lead in twelve surface soil samples obtained at locations outside the Drum Disposal Area (Background) in April 1988 ranged from 8.9 ppm - 53 ppm (average = 26.5 ppm). Data was not validated.

U - Indicates compound was analyzed but not detected.

L - Indicates sample quantitation limit is an estimated quantity.

J - Indicates an estimated value.

B - This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SOIL
MAIN PLANT AREA - AREA B
FREQUENCY OF DETECTION
- Validated Data -**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATIONS	BACKGROUND CONCENTRATION**
SEMIVOLATILES (ug/kg)			
2-Methylphenol	5/5	38J-380J*	390U-490U
4-Methylphenol	2/5	66J-180J*	390U-490U
Naphthalene	5/5	72J-270J*	390U-490U
Acenaphthylene	5/5	60J-270J*	390U-490U
Acenaphthene	2/5	44J-110J	390U-490U
Phenanthrene	5/5	410-34000J*	390U-490U
Anthracene	5/5	66J-9200J*	390U-490U
Fluoranthene	5/5	550-3900J*	390U-490U
Pyrene	5/5	390-3300	390U-490U
Benzo(a)anthracene	5/5	240J-19000J*	390U-490U
Chrysene	5/5	320J-20000J*	390U-490U
Benzo(b)fluoranthene	5/5	390J-2400J*	390U-490U
Benzo(k)fluoranthene	5/5	290J-3000J*	390U-490U
Benzo(a)pyrene	5/5	300J-17000J*	390U-490U
Indeno(1,2,3-cd)pyrene	5/5	270J-9300J*	390U-490U
di-n-Butylphthalate	5/5	88B-490B*	2900B-4000B
INORGANICS (mg/kg)			
Lead	5/5	19.8J-2420J*	8.6J-15.9J
Mercury	3/5	0.12J-0.54J	0.11U-0.14U
Zinc	5/5	159J-932J*	33.9J-45.5J

NOTES:

Samples obtained from former Pile 5 October 1989.

* Additional QA/QC samples (MS, MSD, duplicate) included in range of detected concentrations.

** Concentrations detected in two background surface soil samples obtained November 1989.

Data is validated. Additional QA/QC samples (MS, MSD) included in range of concentrations for semivolatiles.

U - Indicates compound was analyzed but not detected.

J - Indicates an estimated value.

B - This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SOIL
MAIN PLANT AREA - AREA B
FREQUENCY OF DETECTION**

- Non Validated Data -

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATIONS*	BACKGROUND CONCENTRATION**
SEMIVOLATILES (ug/kg)			
Phenanthrene	1/1	2700	300U-400U
Fluoranthene	1/1	2500	300U-400U
Pyrene	1/1	2100	300U-400U
Chrysene	1/1	1200	300U-400U
Benzo(a)anthracene	1/1	1000	300U-400U
Bis(2-ethylhexyl)phthalate	1/1	1400	300U-2500B
INORGANICS (mg/kg)			
Aluminum	1/1	5200	8800J-9850J
Arsenic	1/1	6.0	2.8J-3.3J
Barium	1/1	900	34.2J-80.8J
Beryllium	1/1	0.22	0.42B-0.45B
Cadmium	1/1	0.70	0.69U-0.66
Calcium	1/1	1100	254J-282J
Chromium	1/1	68	8.5-8.6
Cobalt	1/1	5.2	4.1B-5.8B
Copper	1/1	62	8.5B-25.2J
Iron	1/1	10000	11900J-12100J
Lead	1/1	630	8.6J-15.9J+
Magnesium	1/1	2400	1180J-2350J
Manganese	1/1	350	178-313
Mercury	1/1	0.25	0.11U-0.14U
Nickel	1/1	8.0	7.6-10.5
Potassium	1/1	480	176B-256B
Sodium	1/1	88	53.0B-64.5B
Vanadium	1/1	14	15.5-19.2
Zinc	1/1	310	33.9J-45.5J

NOTES:

* As detected in composite sample obtained June 1989 from former Pile 5. No volatile organics were detected in exit samples obtained from former Pile 5 in November 1990 following soil aeration activities.

** Concentrations detected in two background surface soil samples obtained November 1989. Data is validated. Additional QA/QC samples (MS, MSD) included in range of concentrations for semivolatiles.

+ - Concentrations of lead in twelve surface soil samples obtained at locations outside the Drum Disposal Area (Background) in April 1988 ranged from 8.9 ppm - 53 ppm (average = 26.5 ppm). Data was not validated.

U - Indicates compound was analyzed but not detected.

J - Indicates an estimated value.

B - This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SURFACE SOIL
ARSENAL AREA
FREQUENCY OF DETECTION
- Non Validated Data -**

CHEMICAL	FREQUENCY OF DETECTION	DETECTED CONCENTRATION	BACKGROUND CONCENTRATION*
<u>VOLATILE ORGANICS (ug/kg)</u>			
Methylene chloride	1/1	12	32B-71B
<u>SEMIVOLATILES(ug/kg)</u>			
Bis(2-ethylhexyl)phthalate	1/1	1900	390U-2500B
<u>TICS</u>			
2-Ethyl-1-hexanol	1/1	6000	
Benzene acetic acid	1/1	600	
4-Hydroxy-3-methoxy benzaldehyde	1/1	180	
<u>INORGANICS (mg/kg)</u>			
Cadmium	1/1	1	0.69U-0.66
Chromium	1/1	11	8.5-8.8
Copper	1/1	5.8	8.6B-25.2J
Lead	1/1	100	8.6J-15.9J+
Nickel	1/1	2.7	7.6-10.6
Silver	1/1	0.3	0.53UL-0.64UL
Zinc	1/1	60	33.9J-45.5J

NOTES:

Sample A obtained August 1985.

*-Concentrations detected in two background surface soil samples obtained November-1989. Data is validated. Additional QA/QC samples (MS,MSD,rep) included in range of concentrations for volatile and semivolatile organics.

-Concentrations of lead in twelve surface soil samples obtained at probable background locations outside the Drum Disposal Area in April 1988 ranged from 8.9ppm - 53ppm (average = 26.6ppm). Data was not validated.

TIC-Tentatively identified compound.

U - Indicates compound was analyzed but not detected.

L - Indicates sample quantitation limit is an estimated quantity.

J - Indicates an estimated value.

B - This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

**COLUMBIA MILLS SEDIMENT
MAIN PLANT AREA - BENSON CREEK
SUMMARY OF DETECTIONS
- Validated Data -**

CHEMICAL	NOVEMBER 1988										FEBRUARY 1989	ORGANICS CRITERIA*		METALS CRITERIA		
	SED 1	SED 2	SED 2 (REPREP)	SED 3	SED 3 (DUPE)	SED 3 (DUPE - REPREP)	SED 4	SED 4 (MS)	SED 4 (MSD)	SED 6	SED 6 (REPREP)	88-7%	TOXICITY BASIS	HUMAN HEALTH RESRQUE BASIS	CRITERIA**	LIMIT OF TOLERANCE***
VOIATILE ORGANICS (ug/Ls) Methylene chloride 1,1,1-Trichloroethane Toluene Methyl ethyl ketone	628 13U 13U 25UR	228 10UL 10UL 37J	408 8UL 9UL 12UJ	248 8U 8U 12UR	648 10UL 10UL 20UR	218 10UL 10UL 20UR	3608 18UL 18UL 33UR	1008 16UL 108%	2208 18UL 132%	328 12UL 3J 24UR	768 12UL 3J 24UR	208 2J 10UL 20UR				
SEMI-VOIATILES (ug/Ls) Fluoranthene Pyrene Benzo(a)anthracene Chrysene d-n-Butyltoluene													4170*			
INORGANICS (mg/L) Aluminum Arsimony Asphene Cadmium Chromium Copper Iron Lead Magnesium Manganese Zinc Cyanide	4080J 7.8U 2.6U 0.80U 6.8J 35.3J 7030J 2.4 1000J 213J 170J 10.0U	6780J 8.8U 3.4J 1.1U 10.2J 62.6J 1280J 61.8 1580J 606J 200J 10.0U	5980J 7.8U 2.6U 0.84U 8.6J 49.6J 8630J 65.9 1180J 281J 164J 10.0U	3820J 6.4U 2.1J 0.65U 6.7J 38.3J 6820J 44.0 1180J 228J 134J 10.0U	6850J 11.78 7.4J 3.58 18.1J 722J 30800J 429 1280J 787J 2750J 45.0	8190J 20.98 13.7J 8.3 48.3J 373J 6440J 1660 1120J 146J 9430J 10.0U	7890J 13.5 11.8 3.0 1870J 778 20500 13800 2810J 137 1850J 184							64(0-8-8) 0.8(0.2-1.0) 24(22-31) 18(16-25) 24000(20000-30000) 2723-311	33 10 111 114 40000 250 1100 800	

NOTE:
November 1988 samples not analyzed for semivolatiles
REPREP--Replicate sample.
DUPE--Duplicate sample.
MS--Matrix spike.
MSD--Matrix spike duplicate.
U--Indicates compound was analyzed but not detected.
J--Indicates an estimated quantity.
B--The result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).
L--The sample quantization limit is an estimated quantity.
%--Indicates percent recovery for MS and MSD samples.
R--Indicates an unreliable result based on data validation--compound (methyl ethyl ketone) may or may not be present in the sample due to poor instrument response.
*Source: NYSDDEC Sediment Criteria Guidance Document - December 1988. Criteria based on sediment organic carbon content of 3%.
**Source: NYSDDEC Sediment Criteria Guidance Document. Values in parenthesis are "no effect" and "lowest-effect" levels, respectively.
***Source: NYSDDEC Sediment Criteria Guidance Document. Concentration which would be detrimental to the majority of species, potentially eliminating most.
†--EPA proposed Interim sediment criteria.

**COLUMBIA MILLS GROUND WATER
DRUM DISPOSAL AREA
FREQUENCY OF DETECTION**

- Validated Data -

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)				
				USEPA MCL	NYDEC MCL	NYDEC GA-S	NYDEC GA-G	
VOLATILE ORGANICS								
Trichloroethane	1/3	1	3	5	5	5	50	
Toluene	1/3	1	31-4*		5			50
SEMI-VOLATILES								
Phenanthrene	1/3	10-11	21		50		50	
Fluoranthene	1/3	10-11	21		50		50	
Pyrene	1/3	10-11	21		50		50	
Benzo(a)anthracene	1/3	10-11	21		50		0.002	
Chrysene	1/3	10-11	21		50		0.002	
Benzo(b)fluoranthene	1/3	10-11	11		50		0.002	
Benzo(k)fluoranthene	1/3	10-11	0.81		50			0.002
Benzo(a)pyrene	1/3	10-11	11		50			
di-n-Buylphthalate	2/3	10-11	28		50		50	
INORGANICS (TOTAL)								
Aluminum	2/3	84.0	111-147					3
Antimony	1/3	22.0	24.8B*					
Chromium	2/3	2.0	3.0B-6.0B	50	50		50	
Copper	3/3		6.0-10.4*		1000		200	
Iron	3/3		\$160J-27800J*		300		300	
Lead	1/3	3.0	80.0J	50	50		25	
Magnesium	3/3		11400J-17700J*					35000
Manganese	3/3		133J-1240J*		300		300	
Zinc	3/3		30.5B-614J*		5000		300	
Cyanide	1/3	10.0	143				100	

Notes:
 Samples obtained from B-7D, B-10S and B-10D February 1980. Water was purged from wells one day before sampling to allow water in wells to sit overnight to reduce sample turbidity for metals analysis.
 * Additional QA/QC sample (duplicate) included in range of detected concentrations.
 SCGs-Standard, Criteria and Guidelines.
 J-Indicates an estimated value.
 B-This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).
 ND-Non detectable

**COLUMBIA MILLS GROUND WATER
DRUM DISPOSAL AREA
FREQUENCY OF DETECTION
- Non Validated Data -**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)			
				USEPA MCL	NYDEC MCL	NYDEC GA-8	NYDEC GA-9
<u>VOLATILE ORGANICS</u>							
Methylene Chloride	8/12	1-8	1J-2.68		5	5	50
Acetone	3/3		2JB-51		50		
1,1-Dichloroethylene	1/12	1-5	TR<1	7	5	5	0.07
Chloroform	2/12	1-5	6-7	100+	100+	100	
Methyl ethyl ketone	1/5	10	18		50		
Toluene	2/12	1-5	2J-4		5	5	50
<u>SEMIVOLATILES</u>							
Bis(2-ethylhexyl)phthalate	2/2	10	1J-4J		50	50	
<u>INORGANICS</u>							
Aluminum - soluble	0/2	200	ND				
- total	1/2	200	7220				
Antimony - soluble	0/2	80.0	ND				
- total	1/2	80.0	74.0				3
Barium - soluble	1/2	200	238	1000(T)	1000(T)	1000(T)	
Cadmium - soluble	0/5	5-10	ND				
- total	2/6	5	110-120	10	10	10	
Calcium - soluble	2/2	5000	51800-66300				
Chromium - soluble	0/5	10-80	ND				
- total	3/6	10-50	176-900	50	50	50	
Copper - soluble	0/5	10-25.0	ND				
- total	4/6	20-25.0	30-2500		1000	200	
Iron - soluble	2/2	100	284-512				
- total	2/2	100	17000-85000		300	300	
Lead - soluble	0/5	5-100	ND				
- total	3/6	3.0-300	2760-58000	50	50	25	
Magnesium - soluble	2/2	5000	7110-15900				
- total	2/2	5000	11500-11800				35000
Manganese - soluble	2/2	15.0	116-2310				
- total	2/2	15.0	91.6-4550		300	300	
Nickel - soluble	3/5	30-40	40-120				
- total	3/4	30	40-14000				
Sodium - soluble	2/2	5000	6230-12900			20000(T)	
Zinc - soluble	5/5	20.0	54-270				
- total	6/6	5-20.0	39-22000		5000	300	
Cyanide	2/4	10.0-100	153-218				100

Notes:

Samples obtained from B-7S October 1985; B-7S/B-7D April, August, October 1987 and April 1988; B-10D April 1990 and B-10S/B-10D October 1990.

SCGs-Standards, Criteria and Guidelines

J-Indicates an estimated value.

B-This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).

ND-Indicates compound was analyzed but not detected.

TR-Trace amount detected.

+Limit for total trihalomethanes.

(T)-SCG for total Barium or Sodium.

**COLUMBIA MILLS SEDIMENT
INTERMITTENT STREAM ORIGINATING IN DRUM DISPOSAL AREA
SUMMARY OF DETECTIONS
- Validated Data -**

Sample ID	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	Criteria*	Limit of Tolerance**
<u>Inorganics (mg/kg)</u>										
Aluminum	4900J	10300J	6180J	8040J	6880J	8690J	9870J	12400J		
Antimony	13.5B	31.4B	24.2B	16.2B	7.0U	7.2U	6.6U	5.4U		
Arsenic	1.5J	22.0J	6.6J	7.4J	3.3J	0.80J	0.81J	3.5J	5(4.0-5.5)	33
Cadmium	1.6B	88.8	25.4	23.4	10.1	2.2B	1.5B	0.66U	0.8(0.6-1.0)	10
Chromium	25.8J	151J	37.8J	46.6J	18.5J	13.1J	15.1J	18.6J	26(22-31)	111
Copper	49.3J	156J	48.6J	59.4J	22.1J	13.1B	13.4B	14.3B	19(15-25)	114
Iron	8800J	45500J	17100J	18000J	9200J	7690J	8470J	18200J	24,000 (20,000-30,000)	40,000
Lead	26.9	31.1	10.3	15.5	1.7	9.4	8.9	5.3	27(23-31)	250
Magnesium	971J	2650J	1380J	1800J	1610J	1670J	2010J	2470J		
Manganese	176J	6030J	3350J	1240J	1500J	561J	562J	4780J	428(400-457)	1100
Zinc	540J	7230J	2690J	2640J	1210J	593J	608J	282J	85(65-110)	800
Cyanide	10.0U	10.0U	10.0	26.0	10.0U	10.0U	10.0U	10.0U		

Notes: All samples collected November 1989. Results arranged based on sample locations, from upstream (SED 3) to downstream (SED-10).
 U Indicates constituent was analyzed for but not detected.
 J Indicates an estimated value.
 B This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).
 * Source: NYSDEC Sediment Criteria Guidance Document - December 1989. Values in parenthesis are "no-effect" and "lowest-effect" levels, respectively.
 ** Source: NYSDEC Sediment Criteria Guidance Document. Concentration which would be detrimental to the majority of species, potentially eliminating most.

**COLUMBIA MILLS SEDIMENT
DRUM DISPOSAL AREA - PONDS
FREQUENCY OF DETECTION
- Non Validated Data -**

POND 1

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATION (mg/kg)	Criteria* (mg/kg)	Limit of Tolerance** (mg/kg)
INORGANICS				
Cadmium	13/13	0.35-8.6	0.8(0.6-1.0)	10
Chromium	13/13	2.8-110	26(22-31)	111
Copper	13/13	5.7-180	18(15-25)	114
Lead	12/13	1.7-480	27(23-31)	250
Nickel	13/13	2.0-130	22(15-31)	40
Silver	2/13	0.3-4.0		
Zinc	13/13	41-2300	85(65-110)	800

POND 2

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATION (mg/kg)	Criteria* (mg/kg)	Limit of Tolerance** (mg/kg)
INORGANICS				
Cadmium	4/4	1.0-9.2	0.8(0.6-1.0)	10
Chromium	4/4	20-62	26(22-31)	111
Copper	4/4	13-590	18(15-25)	114
Lead	4/4	120-3000	27(23-31)	250
Nickel	4/4	2.7-42	22(15-31)	40
Zinc	4/4	94-7800	85(65-110)	800

POND 3

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTED CONCENTRATION (mg/kg)	Criteria* (mg/kg)	Limit of Tolerance** (mg/kg)
INORGANICS				
Cadmium	6/6	0.63-8.4	0.8(0.6-1.0)	10
Chromium	6/6	13-200	26(22-31)	111
Copper	6/6	8.2-160	18(15-25)	114
Lead	6/6	58-13,000	27(23-31)	250
Nickel	6/6	4.6-60	22(15-31)	40
Silver	1/6	0.3		
Zinc	6/6	100-3200	85(65-110)	800

Notes:

- * Values in parenthesis are "no effect" and "lowest effect" levels, respectively. Source: NYSDEC, Division of Fish and Wildlife document - Sediment Criteria - December 1989
- ** Concentration which would be detrimental to the majority of species, potentially eliminating most. Source: NYSDEC, Division of Fish and Wildlife document - Sediment Criteria - December 1989

**COLUMBIA MILL'S SEDIMENT
INTERMITTENT STREAM ORIGINATING IN DRUM DISPOSAL AREA
SUMMARY OF DETECTIONS
- Non Validated Data -**

SAMPLE ID DATE COLLECTED	SED-3 04/11/88	SED-4/S 04/11/88	R 04/28/87	R 08/18/87	S 04/28/87	S 08/18/87	SED-2 04/11/88	ORGANICS CRITERIA*			METALS CRITERIA	
								AQUATIC TOXICITY BASIS	HUMAN HEALTH RESIDUE BASIS	WILDLIFE RESIDUE BASIS	CRITERIA**	LIMIT OF TOLERANCE***
VOLATILE ORGANICS (ug/kg)												
Toluene	24U	110%	20U		20U		4U					
Methylene Chloride	110B	150B	100U		100U		45B					
Acetone	41J8	42J8					17J8					
SEMI-VOLATILES (ug/kg)												
Phenol	2000U						830J	18				
4-Chloro-3-methylphenol	2000U						480J					
Phenanthrene	2000U						430J	4170*				
Fluoranthene	2000U						500J					
Pyrene	400J						460J					
Chrysene	2000U						320J		30			
Benzo[a]anthracene	710J						740J	3591				
TICS												
Carboxylic acid							2400J					
Hexanedioic acid	2400J						4200J					
PESTICIDES (ug/kg)												
4,4'-DDE	40J						12J	1500	0.3	30/25+		
4,4'-DDD	42J						84J	1600	0.3	30/25+		
INORGANICS (mg/kg)												
Aluminum	8130						4820					
Barium	168U						87.9					
Cadmium	23.2	2.1					1.8U				0.80-6-1.09	10
Calcium	4820						3730				20(22-31)	111
Chromium	18.4	42					23.5				10(15-58)	114
Copper	181	70					63.3				24,000(20,000-30,000)	40,000
Iron	12300						6830				27(23-31)	250
Lead	81.5	250					604				428(400-457)	1100
Manganese	408						192				22(18-31)	40
Nickel	23.1U	8.6					21.5					
Selenium	4.7						2.1					
Zinc	2000	37					662				85(65-110)	800

NOTES

Sample results arranged based on sample locations, from upstream (SED-3) to downstream (SED-2)
 No data indicates compound was not analyzed
 U- indicates compound was analyzed but not detected
 J- indicates an estimated quantity
 B- This result is qualitatively suspect since this analyte was detected in field and/or laboratory blank(s) at a similar level(s).
 * Indicates percent recovery for MS sample.
 TICs- Tentatively identified compounds.
 ** Source: NYSDDEC Sediment Criteria Guidance Document - December 1988. Criteria based on sediment organic carbon content of 3%.
 *** Source: NYSDDEC Sediment Criteria Guidance Document. Values in parentheses are "no-effect", and "lowest-effect" levels, respectively.
 - EPA proposed interim sediment criteria

**COLUMBIA MILLS SURFACE WATER
DRUM DISPOSAL AREA - PONDS
FREQUENCY OF DETECTION
- Non Validated Data -**

POND 1

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)		
				USEPA ACUTE CRITERIA	USEPA CHRONIC CRITERIA	NYSDEC CLASS D STANDARD
VOLATILE ORGANICS						
Methylene Chloride	3/3	1	1.0-2.4			
INORGANICS						
Cadmium	4/4	0.01-5	0.06-5	2.55	0.84	2.55
Chromium	3/4	0.01-50	0.11-2.0	1,200*	151*	1,200
Chromium(+6)	3/4	0.004-10	0.009-0.010	16	11	16
Copper	3/4	0.01-20	0.10-0.8	12.4	8.53	12.4
Lead	3/4	0.05-100	0.8-3.5	50.2	1.95	50.9
Nickel	3/4	0.01-30	2-7	1,026	114	1,379
Zinc	4/4	0.01-10	62-860	84.6	76.6	234

POND 2

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)		
				USEPA ACUTE CRITERIA	USEPA CHRONIC CRITERIA	NYSDEC CLASS D STANDARD
INORGANICS						
Cadmium	1/2	5	7	2.55	0.84	2.55
Zinc	2/2	10	40-270	84.6	76.6	234

POND 3

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)		
				USEPA ACUTE CRITERIA	USEPA CHRONIC CRITERIA	NYSDEC CLASS D STANDARD
VOLATILE ORGANICS						
Methylene Chloride	2/2	1	3.0B-4.5B			
INORGANICS						
Cadmium	1/8	0.01-5	25	2.55	0.84	2.55
Copper	1/8	0.01-20	0.01	12.4	8.53	12.4
Lead	4/6	0.05-100	0.08-700	50.2	1.95	50.9
Nickel	2/6	0.01-30	0.01-0.02	1,026	114	1,379
Zinc	6/6	0.01-10	0.04-20,000	84.6	76.6	234

Note: SCGs - Standards, Criteria and Guidelines

* Value for Chromium III

B = Also found in blank; value shown corrected for concentration in blank.

Hardness dependent criteria based on calculated site surface water hardness of 68.2 mg/l. All criteria are hardness dependent except for Chromium(+6).

**COLUMBIA MILLS SURFACE WATER
INTERMITTENT STREAM ORIGINATING IN DRUM DISPOSAL AREA
FREQUENCY OF DETECTION**

- Non Validated Data -

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF SAMPLE QUANTITATION LIMITS (ug/l)	RANGE OF DETECTED CONCENTRATION (ug/l)	SCGs (ug/l)		
				USEPA ACUTE CRITERIA	USEPA CHRONIC CRITERIA	NYSDEC CLASS D STANDARD
<u>VOLATILE ORGANICS</u>						
1,1,1-Trichloroethane Chloroform	2/2	1	1 TR-1			
	2/2	1	2	28,900*	1,240*	
<u>INORGANICS</u>						
Zinc	2/2	10	110-350	84.8+	78.8+	234+

Note: SCGs - Standards, Criteria and Guidelines

TR = Trace amount

* Insufficient data to develop criteria. Value presented is the lowest observed effect level.

+ Hardness dependent criteria based on calculated site surface water hardness of 68.2 mg/l.

Columbia Mills Site



Minetto (T), Oswego County, New York
Site No. 7-38-012

RESPONSIVENESS SUMMARY for PROPOSED REMEDIAL ACTION PLAN

Public Hearing
February 25, 1992

Issue Date
March 1992



Prepared by:

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

RESPONSIVENESS SUMMARY

Columbia Mills Site Proposed Remedial Action Plan Minetto (T), Oswego County Site No. 7-38-012

The Proposed Remedial Action Plan (PRAP) was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on February 4, 1992. This Plan outlined the preferred remedial measures proposed for remediation of the Columbia Mills site. The preferred remedy consisted of the following:

- 1) Stabilization and containment of wastes in an on-site landfill with groundwater leachate collection for treatment,
- 2) Groundwater extraction and vacuum extraction treatment of the Underground Storage Tanks (UST) Area 1 contamination, and
- 3) Excavation of on-site sewer sediments and line closure.

The release of the PRAP was followed by a notice to the mailing list informing the public of the PRAP's availability.

Availability sessions were held on January 22, 1992 to provide an opportunity for informal discussions and questions on the proposed remedy between citizens and project staff, and a public hearing was held on February 25, 1992 where comments were recorded by a stenographer and have become part of the administrative record for this site. All written comments pertaining to the PRAP submitted during the comment period, which was extended at citizen's request to March 18, 1992, were also accepted into the administrative record.

This responsiveness summary responds to all questions submitted during the comment period which pertain to the PRAP, but does not respond to questions or comments on the Test Pit 3 Interim Remedial Measure (IRM) - vacuum extraction/catalytic oxidation process. The IRM is a separate remedy from the PRAP. It addresses a discrete area of contamination on-site and is being performed under a separate Order on Consent between the NYSDEC and Responsible Party, Columbia Mills. The hearing was scheduled to take public comments on the PRAP and in an attempt to be responsive to public concerns on the IRM, the NYSDEC held a separate, informal question and answer session on the IRM after the close of the hearing. As stated at the hearing (refer to pages 2-3 of the official hearing transcript) comments on the IRM would not be accepted in to the responsiveness summary for the PRAP. These comments and questions on the IRM will be addressed in a separate document at a future date.

In summary, this responsiveness summary responds to all questions submitted during the comment period which pertain to the PRAP. The Appendix contains the official transcript of the hearing and the written comments received during the comment period.

INDEX

<u>COMMENT NO.</u>	<u>COMMENTARY BY</u>	<u>SUBJECT</u>
1	Dr. Augustine Silveira Jr.	Leachate Treatment
2	Dr. Augustine Silveira Jr.	Groundwater Contamination
3	Dr. Augustine Silveira Jr.	Future Development
4	Ms. Lysa Chetney	Future Development
5	Mr. Peter Rosenbaum	Data Collection and Analysis/Sampling Grid
6	Mr. Peter Rosenbaum	Asbestos
7	Mr. Peter Rosenbaum	River Contamination
8	Mr. Peter Rosenbaum	Landfill Remedy
9	Mr. Peter Rosenbaum	Comment Period Extension
10	Ms. Annette Pregger	Landfill Monitoring
11	Dr. James Moser	Complete Cleanup
12	Mr/Mrs. Dale Zych	Landfill Remedy Selection
13	Mr. Bob Wood	Landfill Remedy
14	Ms. Helen Daly	Chemical Releases
15	Ms. Helen Daly	SPDES
16	Ms. Helen Daly	Leachate Treatment
17	Mr. Harold Thorpe	Env. Impact Statement
18	Mr. Harold Thorpe	Wetlands
19	Ms. Guadagno	Wildlife Exposure/Access Restrictions
20	Mr. Anthony Barone	Future Development
21	Spectator	Railroad Cars
22	Dr. Richard Roberts	Sampling Grid
23	Dr. Richard Roberts	Leachate Control
24	Dr. Richard Roberts	PID Meter
25	Mr. Corey Swertfager	Single Membrane Cap
26	Mr. Corey Swertfager	Future Development
27	Mr. Corey Swertfager	Public Comment Period
28	Minetto Town Board	Off-Site Disposal
29	Mr/Mrs. Joseph Pollock	Landfill Remedy
30	Mr/Mrs. David Place	Landfill Remedy

APPENIX A:

1. Article by Augustine Silveira which appeared in Palladium - Times, Saturday, February 22, 1992.
2. Letter to Robert W. Schick, NYSDEC, from Peter A. Rosenbaum, Ph.D, dated March 3, 1992.
3. Letter to Robert W. Schick, NYSDEC, from Peter A. Rosenbaum, Ph.D, dated March 3, 1992.
4. Letter to Robert W. Schick, NYSDEC, from Peter A. Rosenbaum, Ph.D, dated March 16, 1992.
5. Written statement from Rev. Dr. James J. Moser.
6. Letter to NYSDEC from Dale and Diane Zych, dated March 2, 1992.
7. Written statement from Helen Daly.
8. Letter to David Camp, NYSDEC from Richard N. Roberts, Ph.D., dated February 28, 1992.
9. Letter to David Camp, NYSDEC, from Corey Swertfager.
10. Letter to NYSDEC from members of the Minetto Town Board, dated March 5, 1992.
11. Letter to David Camp, NYSDEC, from Joseph and Tessa Pollock, dated March 5, 1992.
12. Letter to David Camp, NYSDEC, from David and Rosemary Place.
13. Letter to Robert W. Schick, NYSDEC from Constance A. Fry, dated March 18, 1992.
14. Petition to the NYSDEC from the Citizens for a Responsible Environment in Oswego County (CREOC).
15. Letter to Robert W. Schick, NYSDEC, from Wesley Sweetser, dated February 27, 1992.
- *16. Letter to David Camp, NYSDEC, from Carl Allen, dated March 3, 1992.
- *17. Letter to David Camp, NYSDEC, from Edward Lonky, Ph.D.
- *18. Letter to David Camp, NYSDEC, from Jacki Reihman, Ph.D.
- *19. Letter to David Camp, NYSDEC, from Sara Cole.

20. Official transcript of Public Hearing in the matter of the Columbia Mills site.

APPENDIX B: Contact List

* These letters regard only the Test Pit 3 IRM and have been included for completeness. All IRM comments will be addressed in a separate document at a future date.

Testimony was presented by Dr. Augustine Silveira Jr. which is contained on pages 15-20 in the official transcript contained in Appendix A of this Responsiveness Summary. A letter was received by the NYSDEC which requested that Mr. Silveira's February 22, 1992 article in the Palladium Times be entered into the record. This article and his testimony contains comments on the PRAP and the test pit 3 IRM. The comments pertaining to the PRAP are accepted into the administrative record which are questions No.'s. 4 and 5 of that article and a comment in the testimony. The following are those comments followed by the NYSDEC response.

COMMENT - 1: How will the leachate from the permanent waste site be collected and where will it be treated.

RESPONSE - 1 : Landfill leachate will be collected under the cap by a barrier drain which will transport the water to a central collection point. Treatment of the landfill leachate will either be by an on-site treatment system or the leachate will be collected for off site treatment. The specific treatment process will be developed during the design phase of the project. If on-site treatment is chosen, the treatment is likely to involve some form of metals precipitation or filtration. Any metal sludge resulting from the treatment process will have to be disposed of off site in an appropriate facility. Any discharge of treated water to surface or groundwater must meet the requirements of the State Pollution Discharge Elimination System (SPDES) program and the Water Quality Regulations for Surface and Groundwater 6NYCRR Parts 700-705.

COMMENT - 2: How will the wastes leaching from the waste site be prevented from reaching neighboring wells and the Oswego River.

RESPONSE - 2: Leachate control from the landfill is addressed in Comment 1. The only other contamination release to groundwater is the volatile organic compounds (VOC) contaminated area near UST area 1. The pump and treat remedy linked with vacuum extraction of any hot spots will treat the groundwater problem and control the migration of the plume. Although groundwater flow is towards the river, the contamination in the UST area 1 and the groundwater contamination associated with the landfill is relatively minor and evidence of migration off site or into river was not identified.

COMMENT - 3: Concern that a permanent hazardous waste dump would serve as a major detriment for any future developer considering the site.

RESPONSE - 3: The remedy of on-site containment of wastes will be protective of the surrounding community and will allow the larger portion of the site to be usable. Permanent caps are common for hazardous waste landfills as well as municipal landfills and need not limit the use of the property. Parks are often built atop capped landfills. In view of the fact that the waste is predominantly ash intermixed with areas of relatively immobile heavy metals, and involves only 10 percent of the total property, it is reasonable to conclude that any serious developer knowing the facts would not be discouraged from developing the remainder of the property.

Lysa Chetney Presented Testimony which is contained on pages 20-23 of the official transcript contained in Appendix A of this responsiveness summary. The testimony contains comments on the PRAP and the Test Pit 3 IRM. The testimony is accepted based on its comments on the PRAP. The following is an extracted version of the comment on the PRAP followed by the NYSDEC response.

COMMENT - 4: If you leave a permanent hazardous waste site there is no developer that will develop in this Town. It will be very difficult for a developer to use the main plant area, given the sewer lines under the buildings.

RESPONSE - 4: For part one of the comment, which pertains to leaving wastes in the on-site landfill, please see the response to Comment 3. For part two, the remedy for the former plant sewer systems is sediment removal followed by sealing off the lines. After implementation of this remedy the sewer lines will not contain hazardous wastes, therefore, the use of this portion of the property will not be restricted.

Testimony was presented by Peter A. Rosenbaum, Ph.D. The testimony is contained on pages 23-27 in the official transcript contained in Appendix A of this Responsiveness Summary. A letter dated March 3, 1992 containing various comments was also received by the Department as well as two additional letters dated March 3 and March 16, 1992. These letters contain comments on the PRAP and the test pit 3 IRM and are accepted into the administrative record on the basis of the comments pertaining to the PRAP. The following are the comments relative to the PRAP followed by the NYSDEC response.

COMMENT - 5: The methodology and the reliability of the data collected and reported in the "Feasibility Study", the "Remedial Investigation", the "Baseline Risk Assessment--Human Health Evaluation" and the "Ecological Risk Assessment" are seriously flawed. For example:

- a) There is no rationale or specific design for the method or manner in which data was collected. Data was collected unsystematically. No sampling grids were applied to soil, water and air sampling.
- b) Analysis lack quality control and the notion of a target compound list (TCL) suggests perceptions and bias. Public has not been given any supportive data pertaining to laboratory quality controls (e.g., split samples/blind duplicates) or other measures of the reliability of the data.
- c) Potable gas chromatograph at the site requires a highly trained operator and must be "loaded" with a column sensitive to the specific substances being analyzed.

RESPONSE - 5:

- a) Random grid sampling of every part of the property is infeasible, costly, and unnecessary. Instead, best professional judgement is used to sample where wastes are likely to be found. The objective of the investigation is not the

unobtainable goal of removing all uncertainty, but rather to gather information sufficient to support an informed risk management decision regarding which remedy appears to be most appropriate for a given site.

Initially, suspected areas are sampled and then identified contaminated areas are investigated further to fully define the nature and extent of contamination. In this case several areas of potential contamination were well known from site inspections, facility maps and records of plant operations and disposal habits. Representative samples were taken where visible waste were seen or in areas of waste disposal, chemical storage, or in the vicinity of buried tanks. These areas are the landfill, main plant and arsenal.

Sampling of groundwater, soils, sediments, and wastes were performed in each of these areas, as applicable, until source areas and the extent of contaminant migration, including off-site migration, were fully defined. With regard to off-site migration, for example, samples are typically taken close to the site boundaries where groundwater and surface water exits the property. If contaminants are not at the boundary, there is no reason to sample further off-site.

For larger areas of contamination representative samples are taken to define and characterize these areas. For example, in the landfill, soil and test pit samples were collected to characterize the fill until native soils were reached. In the main plant area, soil gas probes were installed as a screening tool to find hot spots of volatile organic compounds and potential off site migration pathways. Groundwater wells are installed in any areas where wastes or contaminated soils were identified and also in any "suspect" areas. Groundwater wells are then installed downgradient (or upgradient) of any contaminated wells to define the extent (or source) of contamination, and at site boundaries downgradient of contaminated areas. Additional groundwater wells are installed until the groundwater contamination is fully defined. Air samples are collected downwind and upwind of suspected areas at site boundaries. Air screening is also performed during all intrusive field activities and are taken downwind and near sample locations.

Except for the air samples and soil vapor samples, which typically detect only VOCs, all screening samples are analyzed for VOCs, semi-VOCs, pesticides, PCBs and metals.

- b) All analytical samples are collected and analyzed in accordance with the standard laboratory protocols as set forth by the New York State Analytical Services Protocol (ASP). This document fully defines quality assurance/quality control (QA/QC) requirements which includes the criteria for duplicate samples. The data in the RI report lists the results of the duplicates (MS/MSD samples). In addition, data validation is performed to test data against the required protocol. All data collected under the Columbia Mills consent order was validated by an independent firm. Non-validated data collected prior to this date is used as an indication of contamination, however, is not used to approve

an area as "clean". In addition, the NYSDEC routinely splits samples and analyzes these to provide corroboration of the analytical data reported.

The TCL list is the standard list of compounds which through past experience, the NYSDEC and U.S. Environmental Protection Agency (USEPA) have determined are of interest in investigation of inactive hazardous waste sites. This list is not deviated from unless conditions require analysis of additional compounds unique to a site. At Columbia Mills, as at all sites, unknowns were identified and are reported by a tentatively identified compound (TIC) scan which is run as part of all VOC and semi-VOC analysis.

- c) A model 511A thermo-environmental portable GC and a trained operator were provided by Upstate Laboratories, Inc., East Syracuse, New York, to evaluate the soil gas for the following compounds: xylene, toluene, ethylbenzene, methylethyl ketone, methylisobutyl ketone, benzene, 1,1,1-TCA, 1,1-DCE and 1,1,2,2-Tetrachloroethane.

COMMENT - 6: I am very concerned and bewildered that the PRAP does not address the remediation of the asbestos in and around the Columbia Mills site. This omission is a glaring deficiency. The protection of the public is the mission of the NYSDEC and the failure of the PRAP to address containment and removal of asbestos at the Columbia Mills site is, in my opinion, incomprehensible. Failure to address this issue is an abrogation of the NYSDEC's legal and moral responsibility to the People of the State of New York.

RESPONSE - 6: The Environmental Conservation Law (ECL) § 27-1301 defines hazardous wastes for purposes of the inactive hazardous waste site remedial program as those wastes listed or satisfying the characteristics identified in 6NYCRR Part 371. Part 371 provides a very specific list of compounds and derivatives from specific industrial processes which are classified as hazardous wastes as well as the characteristics which may also classify a waste as hazardous for purposes of the NYS regulation of hazardous wastes. This listing does not include asbestos. Therefore, the hazardous waste program cannot address the asbestos situation. The asbestos problem is going to have to be overcome by some other source. The NYSDEC simply does not have the authority to address it in the context of the site remedial program. This anomaly in the state regulations has been explained at the previous meeting and availability session and because of its unique relationship to this site was also an item singled out for a reply in the hearing record (pages 25-28), when a question was raised.

COMMENT - 7: Further contamination of the Oswego River and adjacent Lake Ontario will occur as a direct result of the implementation of this PRAP. Dilution is not the solution to pollution. SPDES requirements are a regulatory shame and you know it.

RESPONSE - 7: The Remedial Investigation (RI) has not identified any contravention of surface water standards attributed to the site in the Oswego River, therefore, the remedy is unlikely to have an impact. The SPDES program is designed

for protection of public health and the environment and is the regulatory scheme governing discharges in the State. The landfill and UST area 1 remedies must meet these requirements. The sewer systems will be plugged after sediment removal, therefore, eliminating the current discharge of unregulated storm water.

COMMENT - 8: New York State does not need a toxic waste dump in the middle of a residential area and adjacent to a river that flows directly into Lake Ontario. Establishing an everlasting toxic waste site at the Columbia Mills turns this otherwise desirable site for development (near water, electricity, sewage treatment plants, highways and hospitals) into an uninhabitable orifice percolating toxic waste. It will not be an "island of waste" as Mr. Camp suggested. Health burdens will forever manifest themselves and discourage, if not prevent, any future development (industrial, residential, or recreational) at this site. Furthermore, your argument, espoused at the February 25, 1992 public meeting, that the level of contamination is not high enough, and the volume of material too great, to warrant the space allocation in the limited space available in toxic waste site is tenuous, unsubstantiated and, quite simply, represents your biased perspective. Minetto's estimated 60,000 cubic yards of contaminated soils and debris are too dangerous to leave on this site where the natural process of weather and geology (e.g., seepage and erosion) will deliver them into the Oswego River. No cap, especially not a single membrane cap with no sides or bottom, will defend against the inevitable release of toxic leachate from the proposed on-site toxic waste dump. Requests moratorium on construction of an on-site permanent hazardous dump site.

RESPONSE - 8: The use of containment measures such as landfill capping and leachate collection are common and accepted measures for the control of disposed hazardous wastes, and are protective of public health and the environment. Once capped, the landfill will not limit the full use of the remainder of the property. Also see response to Comment 3 for further discussion of the property development issue. The landfill will be an "island of waste" in the sense that the contaminants will be isolated from the community and the environment. More specifically, the following exposure routes to human health and the environment currently exist as indicated in the Baseline Risk Assessment for the drum disposal area:

- Contact with surface soils.
- Contact with pond sediments.
- Usage of groundwater.

These exposure points will be eliminated with implementation of the selected remedy. Wastes and sediments will be consolidated and capped, thereby eliminating human and wildlife exposure to these contaminated media. Groundwater will be protected by collection and treatment of landfill leachate and by preventing the groundwater from contacting the fill. Risks from inhalation of airborne particulates will also be eliminated by capping the wastes.

Largely due to the characteristic low mobility of landfill contaminants, the likelihood that contaminants are currently reaching the Oswego River is low. In fact, groundwater contamination in the vicinity of the existing landfill was found only where

the groundwater directly contacts the fill material and not downgradient of the landfill. Contamination in the bedrock aquifer beneath the fill was detected at only low levels, below groundwater standards and was not indicative of compounds identified in the landfill. Contaminants were found at only low levels in the samples from surface water of the ponds and intermittent stream which drains the ponds and landfill area and sediment samples of this stream identified contaminants only in those samples which were closest to the landfill. Due to the fact that the majority of the waste is relatively inert and the contaminants present have a low potential for migration, the contamination can be effectively isolated from the surrounding community. Please also see the response to Comment 25 which addresses cap effectiveness and the response to Comment 23 which addresses leachate control.

The remedy selection was based on the evaluation in the feasibility study which is in accordance with the NYS guidelines outlined in the Division of Hazardous Waste Remediation Technical and Administrative Guidance Memorandum (TAGM) 4030. For more discussion on remedy selection, please see the response to Comment 12.

COMMENT - 9: Requested that the public comment period on the PRAP be extended since the Baseline Risk Assessment and Ecological Risk Assessment documents were not available in the local repository until February 18, 1992. Also requested that the public hearing on February 25, 1992 be reconvened. Concern that combining the PRAP hearing and IRM meeting limited public comment on PRAP.

RESPONSE - 9: Per your request the comment period was extended to March 18, 1992 and announcement of the extension extended to the site's mailing list and local media. Since the comment period has been extended and all written comments provided during the extended comment period will be included in the official record, we did not see a need to hold another hearing. Moving the hearing held on February 25, 1992 to the larger church hall worked well and we were able to comfortably accommodate the large number of interested people making it unnecessary to reconvene the hearing, as was offered prior to our move to the church hall.

Please see the introduction to this responsiveness summary which addresses the comment regarding the IRM meeting.

Ms. Annette Pregger had a Brief Comment which is contained on page 28 in the official transcript contained in Appendix A of this responsiveness summary. The following is an extracted version of the comment followed by the NYSDEC response.

COMMENT - 10: It was stated earlier that the landfill will be monitored for 30 years. What happens in 31 years, in 40 years? Who will check on this area?

RESPONSE - 10: The cost to monitor and maintain the landfill is evaluated on a 30 year period for comparison purposes only. These sites will be maintained and will be monitored for their lifetime.

Reverend Dr. James J. Moser presented a statement which is contained on pages 29-31 of the official transcript contained in Appendix A of this responsiveness summary. Written text

to this statement was also received and is contained in Appendix A. The following is the general comment extracted from that statement and the NYSDEC response.

COMMENT - 11: Nothing less than the thorough, complete, and comprehensive cleanup and restoration of the entire Columbia Mills site is acceptable.

RESPONSE - 11: Please refer to the response to Comment 12 below.

Testimony was presented by Dale Zych which is contained on pages 32-34 of the official transcript contained in Appendix A. A letter dated March 3, 1992 was also received from Dale and Diane Zych and accepted into the administrative record. The following comment on the PRAP is stated below and accompanied by the NYSDEC response.

COMMENT - 12: Requests that all hazardous wastes be removed from the site or treated in such a manner that they will not be labeled as such, feels that in the report the "better" alternatives were usually discarded because of cost considerations and on-site disposal of the contaminated soil and wastes selected as the preferred alternative.

RESPONSE - 12: There are several established guidelines and factors which must be considered in the evaluation and selection of a remedy for an inactive hazardous waste site. One criteria, which represents the general goal of the program, is to eliminate or mitigate all threats and potential threats to the public health and the environment presented by hazardous waste disposed at the site through the proper application of scientific and engineering principles. In addition to this a remedy must be in compliance, to the maximum extent possible, with all applicable environmental laws, regulations, standards and guidance. The selected remedy, capping wastes on site, fully satisfies these two criteria. The remedy will effectively mitigate risks to the public health and the environment by eliminating the exposure pathways (see response to Comment 8).

Alternatives, once they have been determined to be protective of public health and the environment, are also evaluated against the following criteria:

- Short-term effectiveness
- Longer-term effectiveness
- Reduction of toxicity, mobility and volume
- Implementability
- Cost

The statutory preference is for remedies that are highly reliable and provide for long term protection. Remedy selection considerations also include a preference for remedial actions that employ treatment that permanently and significantly reduces the volume, toxicity, or mobility of the contaminants. Based on this preference the following hierarchy of remedial technologies, from most desirable to least desirable, has been established (NYSDEC TAGM 4030):

- a) destruction
- b) separation/treatment

- c) solidification/chemical fixation
- d) control and isolation on site
- e) land disposal off site

In this case reduction of the toxicity and volume of the landfill wastes is not possible. Reduction of mobility, however, will be achieved with on-site containment/waste stabilization. Off site transport and disposal is the least favored alternative where other practicable alternatives exist. Off site disposal of wastes will also have greater short-term risks to the community since wastes will have to be excavated and transported off site. Regarding implementability, on-site capping is common and considered highly reliable. Based on these factors implementation of off site disposal is not justified.

Regarding the issue of cost, it is a requirement that remedies be cost effective, but this is the last criteria factored into the remedy selection process. The cost of off site disposal was estimated in the feasibility study report to be 10 times greater than on site containment. However, this was not the deciding factor in choosing on site containment since this remedy rated higher than off site disposal in the other evaluation criteria discussed above.

Testimony was presented by Bob Wood which is contained on pages 35-39 of the official transcript contained in Appendix A of this responsiveness summary. The following is an extracted version of his comments from the testimony followed by the NYSDEC response.

COMMENT - 13: Objection to the permanent waste site. Concern that it takes 10, 12 acres out of circulation.

RESPONSE - 13: Please see response to Comment **12** which addresses remedy selection. The only benefit of off-site disposal is the unrestricted use of an additional 10 or 12 acres of currently non-useable property.

Helen Daly presented testimony which is contained on pages 39-43 of the official transcript contained in Appendix A of this responsiveness summary. Text of Ms. Daly's testimony was received by the NYSDEC and is contained in Appendix A. The following are Ms. Daly's questions and the NYSDEC response.

COMMENT - 14: Have you calculated the amount of each hazardous chemical that will be released into the atmosphere and into the water ways, if you go ahead with your tentatively proposed plans? If you have what are the values, and how do they compare with alternative plans. If you have not, you should be required to make these calculations.

RESPONSE - 14: Two of the three proposed remedies, on-site capping of wastes and UST-1 area groundwater treatment, will involve the generation of some quantity of contaminated groundwater or leachate for disposal. The treatment method is considered a design detail so the specific method has not yet been determined, therefore, we do not have the calculated discharges at this time. This allows for flexibility in the treatment/disposal method so that, during the final remedial design,

all information can be factored in to determine the best disposal option and to allow utilization of the latest available technologies.

From an environmental regulation standpoint, all acceptable treatment/disposal options will be required to meet the SPDES requirements and are, thus, equally protective. Cost and ease of implementation is likely to be the deciding factors in which method is used. Atmospheric discharges for the remedies are expected to be easily controlled. Any air discharges will be required to meet State air criteria and regulations.

COMMENT - 15: Who decided on the effluent (SPDES requirements) and monitoring requirements? How many legal discharges are at this level in the Oswego River drainage basin?

RESPONSE - 15: SPDES requirements are set on a case by case basis by the NYSDEC's Division of Water. They are based on the lower value of the best available treatment technology or water quality standards or limitations. Any discharge allowed takes into account the loadings by other discharges to the river segment or basin.

The total number of active permitted discharges to the Oswego River basin is 38 (October 1991 data).

COMMENT - 16: Where would the leachate be taken and treated if waste is left on site: Fulton sewage treatment and dumped into the Oswego River?

RESPONSE - 16: The leachate would be taken to a facility in full regulatory compliance and permitted either pursuant to the SPDES system program or 6NYCRR Part 375, whichever is determined to be applicable for the leachate collected.

Testimony was presented by Harold Thorpe and is contained on pages 45-46 of the official transcript which is contained in Appendix A of this responsiveness summary. The following is an extracted version of the comments or questions from that testimony followed by the NYSDEC response.

COMMENT - 17: The permanent waste disposal site is on sandy, cinder soil and will be capped, but whatever is under the cap is going to leave and migrate towards the river. That being the case, has an environmental impact statement been filed with the USEPA?

RESPONSE - 17: The material comprising the waste in the landfill is the sandy, cinder soil referred. The metals contamination in the landfill has characteristic low mobility and has only been found to be in the groundwater in direct contact with the fill, and not found to be migrating into groundwater downgradient or very far down the intermittent stream (see Response to Comment 8). Leachate controls, however, are provided (see Response to Comment 23). The NYSDEC inactive hazardous waste program is excluded from the environmental quality review act since the programs goal is the protection of the environment and the steps taken to identify and address alternatives are deemed comparable to the SEQRA process.

COMMENT - 18: Part of the Columbia Mills property is designated as a regulated wetland. I do not think you can construct a landfill near a wetland.

RESPONSE - 18: The NYSDEC wetland designated as OW-16 lies within the northwest corner of the Columbia Mills site. However, the proposed remedial action is well outside the buffer zone of this designated wetland and there should be no interference. Since the area being remediated does not lie within the NYSDEC wetland area, a NYSDEC permit is not required.

A Brief Statement was Presented by Ms. Guadagno which is contained on pages 49-50 of the official transcript. The following is an extracted version of the comment from that testimony followed by the NYSDEC response.

COMMENT - 19: There are animals that are going to get at this permanent waste site, which means that they will become toxic from being exposed to this waste. How are we going to contain these animals in the site? Also has concern about effectiveness of a fence around the capped area which could be climbed.

RESPONSE - 19: There is currently an exposure point for wildlife which contact uncapped surface soils and sediments in the landfill area. Once the wastes and sediments are capped and contained this exposure point will be eliminated. The barrier layer and drainage layer of the cap is covered with a minimum of a 24 inch barrier protection layer of soil. This protection layer is designed to protect against frost and thaw damage, root penetration, and to resist erosion. Consideration will also be given to the prevention of burrowing animals down to the barrier layer.

Measures will be taken to limit access onto the capped area which are intended to protect the integrity of the landfill cap system. These actions are primarily designed to prevent intrusive activities and may include such measures as fencing, signage, or other form of barrier.

Anthony Barone Presented a Brief Comment which is contained on pages 50-51 of the official transcript contained on Appendix A of this responsiveness summary. The following is an extracted version of the comment and the NYSDEC response.

COMMENT - 20: Concern that complete and thorough clean up is necessary in order for industries to consider purchasing the property.

RESPONSE - 10: Please see response to Comments 3 and 4.

On Page 56 of the official transcript a spectator asked a final question at the hearing which is presented below and followed by the NYSDEC response.

COMMENT - 21: Railroad cars filled with chemical were reportedly buried on site. Have they been removed.

RESPONSE - 21: During the summer of 1988 eight USTs were removed and transported from the site as an IRM. Two of these tanks, in UST area 2, were 10,000

gallon railroads tank car bodies which contained some residual solvents.

A letter dated February 28, 1992 from Richard N. Roberts, Ph.D. was received by the NYSDEC. This letter contained comments on the PRAP and the test pit 3 IRM. This letter is accepted into the administrative record on the basis of its comments pertaining to the PRAP which are comments No.'s 1, 2 and 4.

COMMENT - 22: I see no evidence of a complete sampling survey of the entire 100 acres of the site. For instance, less than a dozen samples are documented for PCB analysis. This leaves most of the site as a complete unknown in PCB content. A sampling grid needs to be established such that representative samples for organics as well as inorganics can be collected and analyzed. Until these data are in hand, it is difficult to comprehend how a site cleanup can be designed.

RESPONSE - 22: Please see response to Comment 5a.

COMMENT - 23: A permanent pile of heavy metal contaminated soil is going to be made in an area where the substrate allows leachate from the pile to enter the water table with ease. The engineering design calls for a clay cap that is supposed to divert precipitation and thus inhibit leachate formation and a perimeter ditch that may allow leachate collection and treatment for 30 years. I do not believe that this plan will prevent significant heavy metal leachate from reaching the Oswego River because a major fraction will not be collectable by this procedure and because such a long term situation is not likely to be successfully carried out. In addition, the exact nature of the "treatment" process for the heavy metal leachate is unspecified since there is no known treatment that "neutralizes" the toxic effects of heavy metals.

RESPONSE - 23: A permanent pile of heavy metal contamination is not going to be "made", as it already exists. The remedy is intended to protect the public and environment from the potential risks posed by this waste, which are the result of direct dermal contact with the waste material either through trespass on the site or as a result of migration of airborne particles.

Concerning contaminant migration, the waste in the former plant landfill consists mostly of ash and slag from material burned during plant operation, which contains residual heavy metals and semi-volatile compounds specifically (combustion by-products) not fully destroyed by the burning. These materials characteristically bind to soil and, thus do not readily leach into groundwater. This has been confirmed in the groundwater and pond sampling in which contamination was found at low levels only in the groundwater in direct contact with the fill and was not found to be migrating. So in this case, landfill leachate is something which can be easily controlled. Only traces of landfill contaminates were identified in the surface waters in contact with the waste and in the bedrock groundwater beneath the site and were not identified downgradient of the site.

Four measures will be taken in the remediation to prevent future leaching of these compounds into the groundwater:

- a) Lime will be applied to the landfilled material to increase its alkalinity to further stabilize the heavy metals. Stabilization is not intended to reduce the toxicity of the contaminants, but to reduce their mobility. Stabilization linked with a cap and trench systems is designed to achieve this goal.
- b) The waste will be capped with a low permeability material which will prevent rain water and surface water from migrating through the wastes. The cap will be sloped to cause surface water to readily run off of the fill.
- c) An outer trench system will be constructed around the perimeter of the landfill to prevent groundwater and surface water from contacting the wastes. The depths of the trenches will be greater than the deepest part of waste which will in turn forever lower the groundwater table under the waste to a level below the waste. Surface water will also be directed away from the contaminated landfill.
- d) An inner trench system will be constructed at the edge of fill/waste, under the cap, to collect any leachate generated by the fill. After construction of the cap, the small quantity of water already present in the fill will migrate downward. This leachate will intercept the groundwater table below fill which has been depressed by the action of the inner (and outer) trench system. The inner trench will act as a "French Drain" and collect any leachate above the level of the trench. Any water collected in the inner trench system will be collected for treatment. The specific method of leachate treatment will be developed during the design phase of the project. It will likely consist of either, collection in a holding tank with off site treatment, or on-site treatment with discharge of treated water to surface water. In general, treatment of heavy metals consists of precipitation which will collect the heavy metals for off site disposal. The manner of treatment will be fully outlined and presented for public comment during the design phase.

COMMENT - 24: The flame ionization instrument utilized for perimeter monitoring during the soil aeration procedure accomplished some time ago is not a very sensitive method for chlorinated hydrocarbons. Such an instrument is notoriously insensitive to highly chlorinated hydrocarbon species such as tetrachloroethane, for instance. This type of monitor would not be utilized in the future without bedcap from another monitor that is more sensitive to chlorinated species such as a photo-ionization detector.

RESPONSE - 24: The statement that a flame ionization detector was utilized during the soil aeration is incorrect. As stated in the December 1990 report by Malcolm Pirnie, Inc. (MPI) "Treatment of Volatile Organic Contaminated Soils Originating from Underground Storage Tank Excavations", air monitoring during soil aeration was performed with HNU photo-ionization detectors. This is the instrument typically used for most air screening/monitoring.

A letter from Corey Swertfager was received by the NYSDEC. This letter contains comments on the PRAP and the test pit 3 IRM. This letter is accepted into the administrative record on

the basis of its comments pertaining to the PRAP. The following are the comments raised by Corey Swertfager relative to the PRAP.

COMMENT - 25: A permanent, capped waste site will leak toxins into the groundwater. The proposed single membrane cap will leak and continue to contaminate the site.

RESPONSE - 25: Due to the characteristic low mobility of the waste material, in the case of this landfill, leachate can be controlled with relative ease. In fact, groundwater contamination in the vicinity of the existing landfill was found only where the groundwater directly contacts the fill material and not downgradient of the landfill and at only trace levels in the bedrock aquifer beneath the fill.

The single membrane cap is commonly used for capping hazardous wastes. It is designed to eliminate infiltration of precipitation into the landfilled waste materials and to prevent erosion of contaminated soils. The cap consists of a minimum twelve inch compacted layer to create appropriate landfill slopes and contours which is covered by a low permeability barrier layer which consist of either 18 inches of clay with a permeability of 1×10^{-7} cm/second or a geomembrane, such as high density polyethylene, with a maximum permeability of 1×10^{-12} cm/second and minimum thickness of 60 mils. Above this is a drainage layer, then a 24 inch layer of soil to protect the low permeability barrier. Topsoil is placed above this for vegetative growth.

The cap is expected to be very effective in eliminating precipitation from infiltrating into the waste. In addition, a monitoring program will be implemented to insure that the cap and drainage trenches continue to be effective. Monitoring wells will be installed around the landfill and periodically sampled for the contaminants of concern at the site. If contaminants are detected in the wells the situation will be evaluated and appropriate action will be taken to insure the continued effectiveness of the landfill. In addition, at a minimum of every five years the remedy will be evaluated to insure continued effectiveness.

COMMENT - 26: A permanent hazardous waste site at Columbia Mills will discourage (if not prevent) future development of this otherwise desirable industrial site.

RESPONSE - 26: Please refer to the response for Comment 3.

COMMENT - 27: The allotted public response time is inadequate - only a one week period after your February 25 public meeting.

RESPONSE - 27: The NYSDEC provides a 30 day public comment period for all PRAPs that are released and typically attempts to schedule the public meeting in the middle of this period. In this case, the meeting fell toward the end of the comment period, however, the full thirty days was available for comment on other than in the hearing. The comment period was also extended by two weeks to March 18, 1992 based on a request for additional time to review documents which were delayed in

being placed in the document repository.

A letter was Received from the Minetto Town Board Dated March 5, 1992. This letter contains comments on the PRAP and the test pit 3 IRM. This letter is accepted into the administrative record on the basis of its comments pertaining to the PRAP. The following is the comment raised by the Minetto Town Board relative to the PRAP.

COMMENT - 28: The Town Board desire the hazardous waste site be eliminated and all contaminated soil be removed to a suitable disposal facility.

RESPONSE - 28: Please see responses to Comment 12 on remedy selection.

A Letter from Joseph and Tessa Pollock Dated March 5, 1992 was received by the NYSDEC. This letter contains comments on the PRAP and the test pit 3 IRM. This letter is accepted and the administrative record on the basis of its comments pertaining to the PRAP. The following is the comment raised by Mr. and Mrs. Pollock relative to the PRAP.

COMMENT - 29: Opposed to the creation of an approximate 10 acre toxic waste site on site as it would deter future use of property.

RESPONSE - 29: Please response to Comment 12 on remedy selection.

A letter from David and Rosemary Place was received by the NYSDEC. This letter contains comments on the PRAP and the test pit 3 IRM. This letter is accepted into the administrative record on the basis of its comment pertaining to the PRAP. The following is the comment raised by Mr. and Mrs. Place relative to the PRAP.

COMMENT - 30: We are opposed to the establishment of a permanent hazardous waste site. This will eventually leak, contaminating the groundwater. The toxins will eventually make their way to the Oswego River, then Lake Ontario, thus contaminating the drinking water for thousands of Central New Yorkers. If we are going to clean up Columbia Mills, lets get rid of all the hazardous waste.

RESPONSE - 30: See responses to Comments 12 - remedy selection and Comment 23 - leachate control.

A letter was received from Constance A. Fry dated March 18, 1992 and a petition from the Citizens for a responsible environment in Oswego County (CREOC) after the March 18, 1992 public comment deadline. These letters are contained in Appendix A and their comments are addressed under the other items in this responsiveness summary.

APPENDIX A



OSWEGO

STATE UNIVERSITY OF NEW YORK
OSWEGO, NEW YORK 13126

February 27, 1992

Mr. David A. Camp
New York State Department of
Environmental Conservation
Room 222
50 Wolf Road
Albany, New York 12233-7010

Dear Mr. Camp:

I formally request that my enclosed full article be entered into the written record of the Tuesday, February 25th hearing held in Minetto, New York.

Also, I would like to receive answers in writing to the questions I have asked in my enclosed article.

Thank you for your consideration.

Sincerely,

Augustine Silveira, Jr.
Distinguished Teaching Professor
Chairman, Department of Chemistry

AS/lb
Enc.

Tough questions for the DEC

Columbia Mills clean-up plan needs addressing

By AUGUSTINE SILVEIRA JR.

The Department of Environmental Conservation proposes to have a permanent hazardous waste dump near the shores of the Oswego River, at the Columbia Mills site in Minetto. Citizens for a Responsible Environment in Oswego County oppose this plan, and fail to understand the DEC's actions.

A permanent hazardous waste dump would serve as a major detriment for any future developer considering the site. If the county or town were fortunate enough to find a developer, they would be liable to the developer for the inevitable problems resulting from a permanent hazardous waste site.

At the same time that the DEC is spending time and money developing remedial action plans for the Oswego River and harbor, the latter designated as one of the 42 "hotspots" on the Great Lakes, they are proposing to allow hazardous waste to remain in Minetto. I was recently appointed to the Remedial Action Committee by the DEC to assist in this area.

Hazardous waste sites are never perfect, and there is the definite possibility that wastes will seep from the site into the nearby Oswego River (3½ miles upstream from the Oswego Harbor and Lake Ontario). In the DEC proposed remedial action plan for the Columbia Mills site (February, 1992), it is stated on page five that "in the deep zone, ground water flow is east towards the river."

We believe the DEC should develop a plan to clean up the Columbia Mills site completely, so that the town of Minetto can attract new industry to this ideal site: It is close to a source of water (Oswego River), electrical



Augustine
Silveira

power (the water power electric generating plant), an under-utilized sewage treatment plant, and major highways (routes 481, 690).

The proposed plan to incinerate continually over a period of years some of the hazardous waste and permanently capping the remaining wastes is unacceptable. Experts have raised a large number of questions about the DEC's suggestion to use a portable incinerator (called the Global REMEDI-CAT). Incomplete incineration would be very dangerous to the public. The incineration would be occurring not only near the Oswego River, but in a residential area near the Minetto Elementary School with 514 children, post office and proposed hospital and nursing home.

Some questions citizens should be asking the DEC include:

1. David A. Camp of the DEC indicated in an earlier meeting that some of the organic compounds in Test Pit 3 were chlorinated hydrocarbons, yet the Global REMEDI-CAT Catalytic Reactor which the DEC indicated will be used for the incineration will *not* destroy chlorinated hydrocarbons. Why is the REMEDI-CAT Catalytic Reactor being used? Incomplete combustion of chlorinated aromatic hydrocarbons could lead to the formation of the deadly chemical dioxin.

2. How will the exhaust gases be monitored? Monitoring only carbon monoxide will *not* tell you the organic compounds that have not been fully combusted.

3. Halogens such as chlorides poi-

son the catalyst, making it ineffective. How will the catalyst be monitored?

4. How would the leachate from the permanent waste site be collected, and where will it be treated?

5. How would the waste leaching from the waste site be prevented from reaching neighboring wells and the Oswego River that flows into Lake Ontario, a major source of drinking water for our citizens and the city of Syracuse?

6. What is the *complete* list of chemicals from Test Site 3 that the DEC plans to incinerate?

7. Has the REMEDI-CAT ever been utilized over a period of three years, 24 hours per day anywhere else?

8. How would the atmospheric releases from the REMEDI-CAT be prevented from depositing in the Oswego River and Lake Ontario?

9. Has the REMEDI-CAT ever been run without supervision for extended periods of time?

What are the possible alternatives? One suitable alternative would be to vacuum liquid chemicals using charcoal filters into trucks and take them off-site to a professional disposal company such as SCA Chemical Services in Model City, N.Y. Many of the heavy metals could be converted into insoluble products such as hydroxides and removed from the site. This approach would allow Oswego County and the town of Minetto *unrestricted use* of the land for future development. Columbia Mills should be responsible for the payment of the cleanup since it created the present situation, and the DEC, in representing the taxpayers of New York, should aggressively pursue the monies needed for restoration of this property.

The DEC will be at an open meeting to listen to citizen concerns at 6:30 p.m. Tuesday at the Minetto Town Hall.

Dr. Augustine Silveira Jr. is a distinguished teaching professor of chemistry and the department's chairman at SUNY-Oswego. He has been a resident of Minetto for the past 27 years.

REGISTER MAIL--RETURN RECEIPT REQUESTED

RR 5, Box 226
Oswego, New York 13126

March 3, 1992

Robert W. Schick, P.E.
Chief, Remedial Section A
Bureau of Western Remedial Action
Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation
50 Wolf Road, Room 222
Albany, New York, 12233-7010

Dear Mr. Schick,

This is to formally protest the deficiency in DUE PROCESS owing to the lack of timely availability of significant documents pertinent to the Proposed Remedial Action Plan (PRAP) prior to the February 25, 1992 Department of Environmental Conservation (DEC) Public Hearing on the PRAP for the Columbia Mills Site. This is a violation of DEC procedures. I formally request that you (1) extend the official Period of Comment on this PRAP and (2) set a date to reconvene the Public Hearing on this PRAP prior to the issuance of a Decision of Record, as you promised (guaranteed) at the Public Hearing on February 25, 1992.

The Public Hearing you presided over on February 25, 1992 at the Minetto Town Hall (subsequently reconvened at the Minetto Methodist Church) on the PRAP for the Columbia Mills Site (Oswego County, New York; Site No. 7-38-012) was in violation of DEC procedures. Significant documents directly pertinent to the PRAP for the Columbia Mills Site (Minetto, Oswego County, New York; Site No. 7-38-012) were not available/obtainable in a timely manner prior to the Public Hearing on said PRAP. These significant documents include the "Baseline Risk Assessment--Human Health Evaluation--Main Plant Area (Revised December, 1991)" and the "Ecological Risk Assessment--Drum Disposal Area (December, 1991).

The document repository at the Minnetto Town Hall was not mailed the "Baseline Risk Assessment--Human Health Evaluation--Main Plant Area" or the "Ecological Risk Assessment--Drum Disposal Area" until February 18, 1992. These materials were received at this Document Repository on February 21, 1992 (SEE ATTACHED) To my knowledge, these documents were not available for public inspection prior to the February 25, 1992 Public Hearing. Even if they were "available" on February 21, 1992, this was not ample time for public inspection of these significant documents prior to the Public Hearing (February 25, 1992). The public was not given the required minimum of one month from receipt of these documents before convening a Public Hearing. Due to your lack of timeliness, the public was not given opportunity to inspect or comment on the above documents at the Public Hearing on this PRAP.

You will recall that I questioned you directly in open public session about this at the February 25, 1992 Public Hearing. You did not then or afterwards offer any reason for this assault on due process.

Therefore, I formally request that you reconvene another Public Hearing to (1) address public testimony pertinent to those documents and to (2) provide the "answers" to the questions you were not able/willing to answer on February 25, 1992. Furthermore, I request that Period of Comment on the Columbia Mills PRAP be extended appropriately to reflect the late date when the Baseline Risk Assessment --Human Health Evaluation--Main Plant Area" and the "Ecological Risk Assessment" were made available to the public. I would suggest that a reasonable date that the Period of Comment be extended to be March 25, 1992--approximately 30 days after this document was first available for public inspection.

Additionally, I request that you SET A DATE for the reconvention of the Public Hearing on this PRAP (as you promised to on February 25, 1992). The public must be allowed to get answers to all of their questions and to comment on all pertinent documents before the Record of Decision on this PRAP is issued.

(3)

I trust that you will respond at your earliest convenience and that you will publicize, in both the local media and in the NYS official record, when and where reconvention of the Public Hearing will occur and that the Period of Comment has been extended (and why).

I await your response.

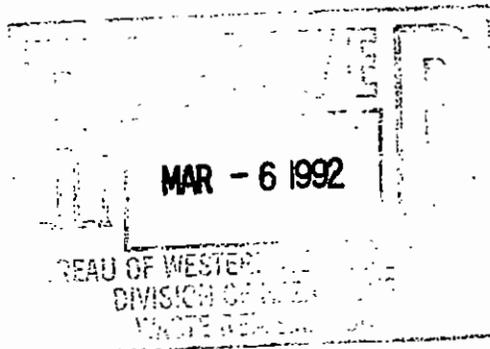
Yours truly,

A handwritten signature in cursive script, appearing to read "Peter A. Rosenbaum".

Peter A. Rosenbaum, Ph.D.

attachments:

cc: Commissioner Thomas C. Jorling
State Assemblywoman Fran Sullivan
✓ State Senator John M. McHugh
✓ County Administrator Arthur Ospelt
County Health Commissioner Rupert Collins
Mayor Terrence M. Hammill
✓ Legislator Donald J. Wahrendorf
✓ Supervisor Joseph Mangano



RR 5, Box 226
Oswego, New York 13126

March 3, 1992

Robert W. Schick, P.E.
Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation
50 Wolf Road, Room 222
Albany, New York, 12233-7010

Dear Mr. Schick,

The following is written text to accompany my verbal public comments at the February 25, 1992 (6:30-8:30 P.M.) public hearing at the Minetto Town Hall on the Proposed Remedial Action Plan (PRAP)--Columbia Mills Site, Minetto (T), Oswego County, New York, Site No. 7-38-012.

I am a resident of Minetto, a parent of school aged children and a professional biologist. I have lived in the Town of Minetto since November of 1985. I reside at RR 5, Box 226, Oswego, N.Y. 13126 which is the post office address for my residence at 1821 Benson Avenue in Minetto. I am employed as an Associate Professor of Biology at the State University of New York--College at Oswego. My primary areas of expertise are human genetics, genetic epidemiology, and herpetology. My eldest daughter attends second grade at the Minetto Public School and my younger 20 month old daughter who attends private day care in Minetto. My wife is a Special Education Teacher for Oswego County BOCES.

I herein express my belief that the PRAP for the Columbia Mills site is dangerously flawed. This PRAP does not satisfactorily address either the short term or long term health and safety of the resident of this municipality and the adjacent Oswego County. Furthermore, this PRAP does not propose to clean-up this site, but instead proposes to construct a permanent toxic waste site.

Along with my neighbors, I want to see the expeditious clean-up of the Columbia Mills site. By any measure, the Columbia Mills Site is a clear and immanent danger to public health in its present state. Remediation should literally clean-up the Columbia Mills site. This is what is in the best interest of all concerned (including the citizens of Minetto, the citizens of Oswego County, the citizens of New York State, and the government of the State of New York). However, the PRAP does not target the clean-up this site. Instead, it calls for the further endangering of public health from the by-products of the incineration of toxic material and the creation of permanent toxic waste dump at this site. I believe that the PRAP does not adequately protect the health and safety of the people.

RM-2

I have read and reviewed the documents prepared by Malcom Pirnie, Inc. for the attorneys for Columbia Mills (Bond, Schoeneck & King) on this site including (but not limited to) the Remedial Investigation (RI), and Feasibility Study (FS), as well as the NYSDEC's Proposed Remedial Action Plan (PRAP). Most recently, I read and review the "Baseline Risk Assessment--Human Health Evaluation--Main Plant Area" and the "Ecological Risk Assessment--Drum Disposal Area" that were prepared by Malcom Pirnie (SEE MY REGISTERED LETTER OF MARCH 3, 1992 for my formal objection to the latter documents lack of timely availability). These volumes are needlessly boring. They are written in an archaic style, the text appears to be unedited, and these "reports", "studies" and "assessments" are further marred by excessive redundancy.

There are significant methodological defects in the manner in which the data collection for these documents was obtained. Owing to the use of unvalidated assumptions and deficient methodologies, the subsequent evaluation carried by the "experts" employed by Malcom Pirnie are of limited utility. Quite simply, this site has not been accurately characterized. Much of the data is highly suspect and clearly biased. There is no indication that data was systematically collected. Rationales are either absent or based on favored assumptions, not facts. In some instances, methodologies rely on unprovable, or outright false assumptions. In view of the defects in the scientific design, the non-systematic nature of data collection, and the low reliability of the quality controls and analyses described, it is not surprising that the "conclusions" are ambiguous or unspecified.

The following are concerns which I wish to address in some detail.

1. The human health impact of any proposed remedy should, in my opinion, be paramount. I recognize that I have a biased perspective. After all, I am the parent of a school aged children. Yes, the health of the school aged children are foremost in my view. This PRAP includes "remedies" that I believe will endanger the health and welfare of my seven year old daughter who attends the Minetto School. She and roughly five hundred (500) of her classmates will be approximately two hundred (200) meters from the exhaust coming from a "toy" incinerator which will be burning toxic waste, at best, and is likely to generate various products of incomplete combustion (PICs) including the highly toxic, carcinogenic and mutagenic chemical compounds known as dioxins and furans. Let me assure you, I will not permit my child to be subjected to this threat to her health and her well-being. My daughter will not unwittingly become a guinea pig in this unscientific experimental endeavor! No citizen should be so inflicted or otherwise treated with such negligent disregard.

The damages and human health impacts from incineration are notoriously insidious. The effects often do not manifest themselves for a decade or more. This makes the legal demonstration of cause and effect quite difficult. Furthermore, medical studies attest to the increased susceptibility to damages caused by chemical exposure in young people. Children's immunological systems are in a state early development, rapid growth and differentiation. As such, children are especially vulnerable and must not be imperiled by experimental or wishful science.

The proposed remedy to vacuum extract and incinerate (via catalytic oxidation) volatile organic chemical, some of which are chlorinated and some of which remain unknown, will directly and profoundly impact the health of humans who come in contact with these various products of incomplete combustion (PICs). Whether by contact with the skin (dermal contact) or by breathing them in (inhalation) or by swallowing (ingestion), these PICs will detrimentally impact human and other life downwind (the wind blows to all-- 360 degrees-- compass directions from this site) of this site and downstream to the Oswego river and adjacent Lake Ontario, from which many municipalities get their drinking water.

2. The methodology and the reliability of the data collected and reported in the "Feasibility Study", the "Remedial Investigation", the "Baseline Risk Assessment--Human Health Evaluation" and the "Ecological Risk Assessment" are seriously flawed.

FOR EXAMPLE:

--There is no rationale or specific design for the method or manner in which data was collected. During the February 25, 1992 public meeting, panelists referred to their reliance on old insurance maps. This is hardly a substitute for characterizing the present day nature of this site. Data was collected in a non-systematic manner. No sampling grid system of any dimension (one meter, ten meters, one hundred meters) were applied to ground, water and air sampling. This has resulted in an ambiguous and generally vague characterization of this site.

--The methodology used for both on-site and off-site analyses of air, soil and water samples are defective. Analyses lack quality controls and are therefore suspect. FOR EXAMPLE, the portable gas chromatograph used at the Columbia Mills site requires a highly trained operator and must be "loaded" with a column sensitive to the specific substances being analyzed. An inexperienced operator is likely to fail to detect many substances under scrutiny. Why do "unknowns" remain unaccounted for at this site? Furthermore, the notion of a "Target Compound List (TCL)" suggest pre-conceptions and bias. This mind set negates the uncertainties of analytic field assessment. I remain highly skeptical of this and other field analyses. Additionally, the public has not been given any supportive data pertaining to laboratory quality controls (e.g., split samples / blind duplicates) or other measures of the reliability of the data. If reliability data exist, I demand that it be made available to concerned local scientific experts. For the present, I have serious doubts about the quality and reliability of the data presented as well as the methods of sampling upon which assessments are based.

3. This PRAP, under a separate Interim Remedial Measure (IRM), proposes to incinerate volatile organic chemicals (VOCs) in the vicinity of Test Pit 3. This is an extremely dangerous and ill-conceived plan for many reasons. FOR EXAMPLE, the REMEDI-CAT catalytic reactor that has been proposed to be utilized is not designed for use at a multi-toxic site, especially one that includes chlorinated compounds and PCB's. By your own admission at the February 25, 1992 Public Hearing, this type of machine have NEVER BEFORE BEEN USED AT A MULTI-TOXIC RESIDENTIAL SITE IN NEW YORK STATE such as the Columbia Mills site. While it may work properly at another site (e.g. gas stations), it is ill-suited for the Columbia Mills site. This "toy" incinerator has been glorified by its MANUFACTURER, GLOBAL TECHNOLOGIES. No plan for the constant monitoring of emissions has been formulated that safeguard the health and safety of the public. These shortcomings may be because it is technically impossible to effectively monitor for small quantities of dioxins or furans that will be created when chlorinated hydrocarbons are incinerated. IF INCINERATION is to be employed (an it should not be), it seems only rationale the emissions from this incinerator be filtered through activated charcoal. This would trap any products of incomplete combustion (PICs). GLOBAL TECHNOLOGIES does make a CHLORO-CAT designed for the incineration of chlorinated hydrocarbon. Additionally, written material was made available at the February 25, 1992 meeting on a VAPEX vapor extraction technology which describes how it employs "catalytic incineration and carbon adsorption". THE TECHNOLOGY REQUIRED TO PROTECT THE PUBLIC IS AVAILABLE. WHY IS IT NOT BEING RECOMMENDED FOR THE COLUMBIA MILL SITE.

The current plan for monitoring the REMEDI-CAT is inadequate and unacceptable. Incineration emissions must be monitored in such a way that there are no discharges of PICs. I remain highly skeptical that the computer assisted monitors, described by GLOBAL TECHNOLOGIES at the February 25, 1992 public meeting, can detect the combustion of chlorinated hydrocarbons. The incineration of chlorinated hydrocarbons will "spoil" the REMEDI-CAT's catalyst. GLOBAL's "assurance" that combustion of chlorinated hydrocarbons will result in an unexpected rise in temperature that would trigger shutdown of this incineration system is not at all comforting. I have seen no evidence that effective back-up systems and monitoring devices exist for this type of equipment. Its application at this multi-toxic residential site is ill-advised as it poses severe hazards to human health.

AS AN ALTERNATIVE TO ON-SITE INCINERATION, a safer and, in my opinion, more desirable alternative to address the VOCs at the Columbia Mills Site would be to vacuum extract vapors directly into activated charcoal filter. This would avoid the public health threats that on-site incineration bring with it. Mr. Richard Klippel, Vice President for Malcom Pirnie and Project Manager for Malcom Pirnie at the Columbia Mills Site stated at the February 25, 1992 open public session that the cost of carbon adsorption is "a wash" with incineration. He further noted that the major cost associated with incineration is the COST OF THE UNIT (i.e., the REMEDI-CAT). Carbon filter adsorption will also require constant monitoring to ensure that filters are changed as they become saturated. This will be especially important during the first year or so when the majority of the material captured by vacuum extraction would be expected to be trapped.

4. I am suspicious of the relationship between the DEC, Malcom Pirnie and Global Technologies. Who paid for the travel expenses (from Milwaukee, Wisconsin) for the GLOBAL TECHNOLOGIES "experts" the two times in the last month that I have seen them at Minnetto public meetings? The DEC?, Malcom Pirnie? Who??

5. Mr. Klippel made some interesting revelations at the public session on February 25, 1992. Before that meeting, it was considered to be "local mythology" that railroad cars were buried on the Columbia Mills site. Instead, the public learned from Mr. Klippel that FIVE RAILROAD CARS were among the eight tanks already removed from the site. Additionally, many of those in attendance, including those with formal scientific background as well as those with plain old common sense, were incredulous at the disclosure that the soil had been aerated in the summer of 1988 to reduce the concentrations of contaminants. While aeration surely diluted the areas of high contamination, it also dispersed these carcinogens, teratogens and mutagens into peoples lungs and onto their skin. Ultimately, these discharges of toxins will wind their way to the Oswego River and the adjacent Lake Ontario. There they have already been consumed or wait, swimming in bio-accumulating sport fish, soon to be caught and consumed.

6. I strongly recommend that all interested residents and politicians review the video tape of the Public Hearing on the Columbia Mills PRAP as well as the tape of the subsequent open public meeting on the Interim Remedial Measure (IRM). Any untrained reviewer will witness how Ms. Lacey, Mr. Camp and yourself endeavored to limit and otherwise be selective in what public comment and concerns were accepted on the record during the PRAP Public Hearing. Your stratagem of separating the discussion of the PRAP from the IRM was an artful dodge. Furthermore, the tactic of making selective responses was employed effectively for "damage control" by your team. Another obvious tactic the tapes reveal is that your team panelists feigned ignorance when questioned about specific technologies, risks, alternatives or when asked to disclose data. The local cable company, Paragon Cable, broadcast these proceeding several times on the local public access channel. I trust they would make tapes available to the DEC. I strongly recommend that these video tapes be incorporated into the public record of the proceedings of the Public Hearing on the PRAP and the public meeting on the IRM.

7. I am very concerned and bewildered that the PRAP does not address the remediation of the asbestos in and around the Columbia Mills site. This omission is a glaring deficiency. The protection of the public is the mission of the DEC and the failure of the PRAP to address containment and removal of asbestos at the Columbia Mills site is, in my opinion, incomprehensible. Failure to address this issue is an abrogation of the DEC's legal and moral responsibility to the People of the State of New York.

I am also incredulous at the inaction by the DEC to abate the current state of the asbestos on this site. By your own admission, "airborne levels of asbestos are of concern at this site". Your reports further acknowledge that link between asbestos inhalation and lung cancer, mesotheliomas, and cancer of the gastrointestinal tract. Nearby residents and passersby are presently exposed to dermal contact, inhalation and ingestion of asbestos fibers. In my opinion, the DEC is negligent in its legal and moral responsibility to the public health by not immediately and directly capturing and containing the asbestos on this site and including abatement of asbestos from this site in this PRAP.

8. Further contamination of the Oswego River and adjacent Lake Ontario will occur as a direct result of the implementation of this PRAP. Dilution is not the solution to pollution. SPEDES requirements are a regulatory shame and you know it.

9. New York State does not need a toxic waste dump in the middle of a residential area and adjacent to a river that flows directly into Lake Ontario. Establishing an everlasting toxic waste site at the Columbia Mills turns this otherwise desirable site for development (near water, electricity, sewage treatment plants, highways and hospitals) into an uninhabitable orifice percolating toxic waste. It will not be an "island of waste" as Mr. Camp suggested. Health burdens will forever manifest themselves and discourage, if not prevent, any future development (industrial, residential, or recreational) at this site. Furthermore, your argument, espoused at the February 25, 1992 public meeting, that the level of contamination is not high enough, and the volume of material too great, to warrant the space allocation in the limited space available in toxic waste site is tenuous, unsubstantiated and, quite simply, represents your biased perspective. Minetto's estimated 60,000 cubic yards of contaminated soils and debris are too dangerous to leave on this site where the natural processes of weather and geology (e.g., seepage & erosion) will deliver them into the Oswego River. No cap, especially not a single membrane cap with no sides or bottom, will defend against the inevitable release of toxic leachate from the proposed on-site toxic waste dump.

I stand ready to discuss these points and other concerns I have with the DEC, Malcom Pirnie, Attorneys for Columbia Mills, local elected officials, concerned citizens, concerned scientists and engineers, clergy, etc.

The residents of Minetto and Oswego County will be the most directly impacted by any remediation of the Columbia Mills site. Therefore the community must be primary in the decision process that will lead to the clean-up of this site.

I formally request the DEC initiate a MORATORIUM on plans for on-site incineration and construction of a an on-site permanent hazardous dump site.

I formally request an independent scientific investigation of the Columbia Mills site. Simple put, too much remains uncertain or unknown about this site at present. An independent appraisal would apply sound scientific methodologies that utilize strict design parameters and reliable quality controls. The results would be an accurate characterization of this site. From an accurate characterization, effective and safe remediation strategies can be implemented.

I formally request a "round table" meeting with DEC scientists and engineers, DEC consultants engineers from Malcom Pirnie, Columbia Mill attorneys (Bond, Schoeneck, & King), elected official from the Town of Minetto and Oswego County, concerned citizens, concerned scientists and engineers, and clergy. This dialogue should be held in open public session and before the Record of Decision on this PRAP has been issued.

My objections to the lack of timeliness and the failure in due process associated with the February 25, 1992 proceeding should already be in your possession (Registered letter dated March 2, 1992).

Thank you for you prompt attention. I await you response to my comments, questions and concerns.

Yours truly,

A handwritten signature in black ink, appearing to read "Peter A. Rosenbaum", with a horizontal line extending to the right.

Peter A. Rosenbaum, Ph.D.

RR 5, Box 226
Oswego, New York 13126

March 16, 1992

Robert W. Schick, P.E.
Chief, Remedial Section A
Bureau of Western Remedial Action
Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation (NYSDEC)
50 Wolf Road, Room 222
Albany, New York, 12233-7010

Dear Mr. Schick,

I am in receipt of your letter of March 11, 1992. Thank you for your response.

I am gratified that you acknowledge that pertinent documents relevant to the Proposed Remedial Action Plan (PRAP) for the Columbia Mills Site (Columbia Mills Site, Minetto (T), Oswego County, New York, Site No. 7-38-012) were not available in a timely manner prior to the February 25, 1992 PRAP hearing. I appreciate your extension of the comment period to March 18, 1992.

It remains my opinion that due process is not served by extending the comment period in the absence of another meeting. Obviously you believe that your legal obligations were met on February 25, 1992. Moving the hearing to the larger church hall to accommodate the large number of interested public citizens was most appropriate and is not at issue. I contend that a reasonable period of time to review ALL relevant documents is required before the NYSDEC can legitimately convene a public hearing on a PRAP. Thus, the public hearing on February 25, 1992 was not sufficient to satisfy the NYSDEC's legal obligations to the public. I steadfastly contend that the public's right to be heard in an open public forum following a reasonable period of time to review ALL relevant documents has been denied.

(2)

Regarding your comments on the distinction between the informal meeting on the Interim Remedial Measures (IRM) and the hearing on the PRAP, I do appreciate the differentiation between these two meetings. I agree that the PRAP hearing is not designed to be the appropriate forum for a question and answer session. However, I assert that you and Ms. Lacey manipulated the situation (i.e., having the February 25, 1992 public meeting divided into (1) a public hearing on the PRAP followed by (2) an informal meeting to discuss the IRM) so as to stifle and otherwise limit public comment on the PRAP. Ms. Lacey unfairly cut off public comment at the PRAP hearing. I further assert that both Ms. Lacey and yourself chose to answer questions during the PRAP hearing in a biased manner. This combined effort, in my opinion, undermined due process as well as public confidence.

As for the test pit 3 IRM, I am relieved that you acknowledge that your panel (i.e., NYSDEC staff, Malcom Pirnie staff, and Global Technologies representatives) "were not able to respond" to questions at the informal meeting on the IRM. To be clear, you admitted that you did not have sufficient data to accurately characterize the test pit 3 area and to having insufficient experience with the technology proposed in this IRM. You agreed to hold another public meeting to address these unanswered questions BEFORE the preparation or issuance of an operation plan for vacuum extraction / catalytic oxidation system or any other proposed remediation for the test pit 3 area. Please honor your promise and meet with us before you decide what's best for this community.

The people of Minetto and Oswego County deserve due process in all aspects of the Remedial Action Plan process. Furthermore, I appeal to you to engage this community in an active participatory role in the remediation process at the Columbia Mills site. Whatever the remediation, we will be the most directly impacted. This community deserves to be kept informed and demands to be partners with the NYSDEC and others in this remediation process. Please honor your commitment to involve community members with interest and expertise in this process.

Sincerely,



Peter A. Rosenbaum

cc: Commissioner Edward Sullivan

The Rev. Dr. James J. Moser
2059 Benson Ave., P.O.Box 192
Minetto, New York 13115
(315) 342-2557

STATEMENT TO
THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AT THE MINETTO TOWN MEETING
February 25, 1992

My name is James J. Moser. I live on Benson Avenue immediately adjacent to and overlooking the back lots of Columbia Mills. I am a pastor in this community and my profession is one dedicated to the building and nurture of a just and healthy social environment for all people. I have no substantive technical expertise to contribute to the already complicated incinerator proposition, which I think is a narrow issue anyway. The incinerator, even if satisfactory, would merely be like a bandaid on a cancer. I do, however, have a bigger and a simpler point to make.

My simple point is based on a single piece of fact: the Columbia Mill site is nestled in the midst of a pre-existing residential community. I submit that this fact, in and of itself, and requiring no further justification, dictates the moral imperative that nothing less than a total and comprehensive clean up of the toxic materials and contaminated environment of the entire site is acceptable.

The Minetto Town Board is charged with representing both the residents and the town's best interests. I do not personally envy the complicated task of decision-making faced by board members. I respect the burden of responsibility that they bear on my behalf. And I say to members of the board:

To insist on, or even to allow, anything less than the complete clean up and restoration of the Columbia Mills site would be to fail your responsibility to the very citizens who have elected you, not to mention the ones too young to vote.

The New York State Department of Environmental Conservation is charged with the high and noble mission of protecting both the citizens and the environment of our communities. And I say to the DEC:

To settle for, to accept, or to negotiate any solution short of the complete clean up and restoration of the Columbia Mills site would be to act out a hollow and perhaps cynical parody of that high and noble mission. As a public service agency, cost is not your bottom line. The protection of people and nature is.

My simple point is this:

NOTHING LESS THAN THE THOROUGH, COMPLETE, AND COMPREHENSIVE CLEAN UP AND RESTORATION OF THE ENTIRE COLUMBIA MILLS SITE, FROM TEST PIT #3 TO THE CONRAIL LINE, FROM THE BENSON AVENUE PARK TO THE SEWAGE TREATMENT PLANT, IS ACCEPTABLE.

Nothing less than complete clean up is acceptable.
Nothing less is acceptable.
Nothing less.
Nothing!

TO: DEC Representatives

DATE: 2 March 1992

FROM: Dale & Diane Zych; 2052 Benson Ave.; PO Box 272; Minetto, NY 13115

RE: DEC's Proposed Remedial Action Plan

STATEMENT

No one who has read the various reports (as we have), filed by Malcolm Pirnie, INC., can fail to be impressed with the magnitude of the environmental pollution problem that exists on the Columbia Mills site in Minetto. It is an infamous testimony to the abuse the land can take for nearly 100 years of industrial use. There is no question that the town of Minetto enjoyed many benefits from having the mill situated here. But this is all in the past. We are now at a turning point in the long history of the town of Minetto and critical decisions are now being made, the results of which will be with us long into the 21st century.

As residents who have enjoyed living on Benson Avenue for about 13 years, the proposed remedial action plan now under consideration by the DEC raises serious issues that all residents need to be concerned with. In my opinion, the central issue has to do with what remains of the site once the proposed clean-up plan has been completed. As I read through the alternatives for the clean-up of the different parts of the site, the better alternatives were usually discarded because of cost considerations and on-site disposal of the contaminated soil and wastes selected as the preferred alternative. The residents of Minetto are being asked to accept, after the DEC leaves, a lot of partially demolished buildings that look like Berlin after World War II. This fact of life will have to be accepted by Minetto and Oswego County in the short term. However, in addition, we are being left with 100 acres, of which 10 acres will be a permanent hazardous waste site. We are not asking for a Walden Pond back there, but any stored hazardous waste on-site virtually guarantees that the land will not have any future use and provides no guarantee that pollution of the area will not continue well into the future.

I am therefore asking the DEC to review their proposed plan and select alternatives that will remove all hazardous wastes from the site or treat the wastes in such a manner that they will not be labeled as such. This request is made in the full realization that the Minetto site is probably one of many such sites in New York State and that the DEC has an enormous responsibility and an endless task in protecting the environment. However, the DEC has here in Minetto an opportunity to demonstrate how a site can be remediated so that its future use is not restricted in any manner. It may take longer and cost more, but we all must show that we are not prepared to walk away from our environmental messes and leave them behind. The proposed remedial action plan, as it now stands, predicts a bleak future for our town. Future generations who live here deserve better.

Dale & Diane Zych

My name is Helen Daly. My husband and I have lived in Minetto for the last 23 1/2 years. Our house is less than one mile from the Columbia Mills site.

I am embarrassed that I have lived here so long and did not realize until recently how polluted the Columbia Mills site is.

The Department of Environmental Conservation should be even more embarrassed, because it was under their watch that this pollution occurred.

However, the issue now is how should the site be cleaned up.

Our goal should be to clean up the site with the least amount of environmental degradation anywhere on planet Earth, and that the site be returned to a condition where a new industry can be convinced to come to this otherwise excellent site (near water, electricity, sewage treatment plant, highways, and a workforce).

I have read the reports written about the Columbia Mills site, and have come to the conclusion that the option selected by the DEC is not the best for planet Earth.

Let me put this statement in perspective. The International Joint Commission (IJC) has identified as the Great Lakes as a body of water in serious trouble. Canada and the USA has agreed to work together to clean up the Great Lakes, and the IJC has developed a policy of ZERO-DISCHARGE. This means that we should no longer use the Great Lakes as a dumping ground for persistent toxic chemicals.

Our policy had been DILUTION IS THE SOLUTION TO POLLUTION. Unfortunately, this policy does not work, because of bioaccumulation: little fish eat contaminated algae, bigger fish eat lots of little fish, and the biggest fish eats many smaller fish and concentrates the chemicals. Therefore, the DEC has to place restrictions on the consumption of the sport fish they stock on Lake Ontario.

In order to clean up the Great Lakes the IJC has identified 42 hotspots around the Great Lakes. The Oswego Harbor is one of them. At the request of the Commissioner of the DEC, I served on this committee for many years. What became very clear is that the Oswego River is flushing a large number of toxic chemicals through the Oswego Harbor into Lake Ontario. This has to be stopped, if we want to clean up Lake Ontario.

I believe that the solution the DEC has initially selected for the Columbia Mills site will add to the problems of not only the Minetto community, but the health of Lake Ontario.

- burning the hazardous chemicals in an incinerator not designed for the magnitude of the job will result in releases into the atmosphere. Whatever you and I do not breath in will get into the atmosphere, and the rain will bring it back down into Lake Ontario. This is hardly a reasonable solution.

- leaving a permanent waste dump next to the Oswego River is also not a very good idea. The dump will leach into the Oswego River, and whatever chemicals are not picked up by swimmers in the Oswego River and the fish in the Oswego Harbor, will go to Lake Ontario to get into our drinking water supply and fish.

Questions:

1. Have you calculated the amount of each hazardous chemical that will be released into the atmosphere and into the waterways, if you go ahead with your tentatively proposed plans?

If you have, what are the values, and how do they compare with alternate plans?

If you have not, you should be required to make these calculations.

2. Who decided on the effluent limitations (SPEDES requirements) and monitoring requirements? How many legal discharges are at this level in the Oswego River drainage basin?

3. Where would the leachate be taken and treated if waste is left on site: Fulton sewage treatment and dumped into the Oswego River?

I urge we support the proposals of CREOC.

February 28, 1992

Mr. David Camp
New York State Department of Environmental Conservation
Room 222
50 Wolf Road
Albany, New York 12233

Dear Mr. Camp:

My concerns about the Columbia Mills site proposed cleanup stem from my 35 years experience as an analytical chemist with both field and laboratory experience. The following points are those which have come to my attention as a result of reading the Malcolm Pirnie documents and careful attention at the meeting of February 25, 1992 in Minetto.

1. I see no evidence of a complete sampling survey of the entire 100 acres of the site. For instance, less than a dozen samples are documented for PCB analysis. This leaves most of the site as a complete unknown in PCB content. A sampling grid needs to be established such that representative samples for organics as well as inorganics can be collected and analyzed. Until these data are in hand, it is difficult to comprehend how a site cleanup can be designed.

2. A permanent pile of heavy metal contaminated soil is going to be made in an area where the substrate allows leachate from the pile to enter the water table with ease. The engineering design calls for a clay cap that is supposed to divert precipitation and thus inhibit leachate formation and a perimeter ditch that may allow leachate collection and treatment for 30 years. I do not believe that this plan will prevent significant heavy metal leachate from reaching the Oswego River because a major fraction will not be collectable by this procedure and because such a long term situation is not likely to be successfully carried out. In addition, the exact nature of the "treatment" process for the heavy metal leachate is unspecified since there is no known treatment that "neutralizes" the toxic effects of heavy metals.

3. It was reported at the Feb. 25th meeting that samples from the pit 3 area showed analytical variability. This variability must be addressed in order to determine how to properly treat this area. Assuming that the data showing variability in the chlorinated hydrocarbons present was due to laboratory background error, as was stated at the meeting, is not acceptable. This area, as well as other areas in question, must be properly sampled and analyzed before it can be remediated.

4. The flame ionization instrument utilized for perimeter monitoring during the soil aeration procedure accomplished some time ago is not a very sensitive method for chlorinated hydrocarbons. Such an instrument is notoriously insensitive to highly chlorinated hydrocarbon species such as tetrachloroethane, for instance. This type of monitor should not be utilized in the future without backup from another monitor that is more sensitive to chlorinated species such as a photoionization detector.

5. Statements at the meeting made by engineers from Malcolm Pirnie such as "I don't think that dioxins will be formed in the catalytic oxidation operation" are completely unscientific and therefore unacceptable. If there is data available documenting that the operation of the proposed catalytic convertor under conditions where it would be possible to form dioxins has in fact not produced dioxins or other toxic products, then this data should be made available for examination. At the present time, with the data available concerning the unknown constituents at the site, it can not be determined with any degree of confidence that dioxins might not be formed.

6. Any incineration or catalytic oxidation operation must include extensive monitoring of the exhaust stack emissions by the proper analytical procedures capable of detecting and quantitating all potential organics that might be formed or released unchanged in the process. This monitoring must continue throughout the operation with a frequency statistically designed to detect any changes.

I would appreciate the inclusion of these comments in the record. Thank you.

Sincerely,



Richard N. Roberts, Ph.D.
The Research Center
319 Piez Hall #8
SUNY College at Oswego
Oswego, New York 12126

Corey Swertfager
128 E. Fourth St.
Oswego, NY 13126
Thursday, February 27, 1992

David Camp
NYS DEC
Room 222
50 Wolf Road
Albany, NY 12233

Dear Mr. Camp:

Several toxic chemicals, including ethylbenzene, toluene, xylene, PCBs, and unknown organic compounds, and heavy metals (mainly lead) have been detected at the 100-acre Columbia Mills site and will require extensive procedures to remove them. You are currently reviewing an Interim Remedial Measure (IRM) clean-up plan proposed by Malcolm Pirnie, Inc. of Liverpool, hired by the former owners of Columbia Mills.

Malcolm Pirnie's IRM plan involves extracting the toxic materials, "destroying" some of them using a catalytic oxidizer (incinerator) and storing the remaining toxins on a 10-acre portion of the Columbia Mills site. According to you, that portion of land would be an "island of waste," since it would be permanently fenced off and remain useless.

But a permanent, capped waste site would leak toxins into the ground water. The proposed single membrane cap will leak and continue to contaminate the Columbia Mills site, Oswego River, Oswego Harbor and Lake Ontario.

A permanent hazardous waste site at Columbia Mills would discourage (if not prevent) future development of this otherwise desirable industrial site (near water, electricity, sewage treatment plant, highways).

Incineration is never complete. Products of incomplete combustion (PICs) are more dangerous than original contaminants. You had indicated in an earlier meeting that some of the organic compounds at Columbia Mills were chlorinated hydrocarbons, yet the Global REMEDI-CAT Catalytic Reactor which the you indicated will be used for the incineration will not destroy chlorinated hydrocarbons. The burning of chlorinated organic compounds and PCBs produce the more highly toxic organic toxins known as dioxins and furans.

School children (Minetto elementary and Minetto nursery), residents,

businesses, and highway traffic would be exposed to the airborne toxic products of incomplete incineration. Those products of incomplete incineration would also further pollute the Oswego River and Lake Ontario.

A complete list of chemicals at Columbia Mills has not been put forth to the Minetto residents. There is a lack of monitoring in the IRM incineration plan. An unattended, "automatic" incineration unit may not be totally reliable. Has the safety of the workers and residents been fully considered in the toxic waste incinerator plans?

Children are far more susceptible to the dangers of breathing in toxins. We citizens of the area are concerned for the safety of the children around the site during and after the operation of a faulty, toxic waste incinerator. You should get away from cost efficiency and guard the safety of the children and other citizens.

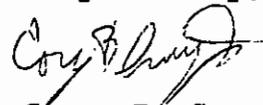
Area scientific experts offered an alternative plan to clean up the Columbia Mills site: "Perform vacuum extraction of contaminated soils and groundwater, as planned, but instead of on-site incineration, capture and contain organic compounds in activated charcoal filters. Once contained, the fate of these toxic materials can be addressed. Some experts have suggested off-site incineration in a professional toxic waste incinerator, not a portable incinerator that is not adequate for the job." Are you fully looking into such a plan?

Minetto residents would not be the only ones affected by an improper toxic waste incinerator and storage. Oswego residents and a turn-over of 8,000 students every four years would also be contaminated. One toxic for another is not an answer.

I urge you to halt your plans to begin incineration and construction of a permanent hazardous waste dump site at Columbia Mills and to more fully discuss better clean-up plans with area residents, including Minetto and Oswego residents.

Your allotted public response time is inadequate—only a one week period after your February 25 meeting with area residents. I request that, in the future, the DEC allows more time for public input after such a major meeting.

Respectfully,



Corey B. Swertfager

TOWN OF MINETTO

P.O. BOX 220
MINETTO, NEW YORK 13115

March 5, 1992

Dear Sirs:

We, the Town Board, Town of Minetto, are writing on behalf of the residents of our community concerning the proposed Columbia Mills Remedial Action Plan.

As you are aware, the vast majority of those who attended the public hearings and informational meetings have expressed concerns regarding the incineration of contaminants and the ten acre permanently capped waste disposal area.

As the governing board representing these residents, we, the Town Board, Town of Minetto, feel compelled to express both dissatisfaction and concern with the proposed plan.

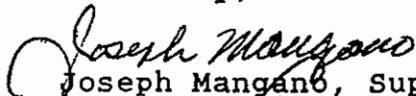
While the catalytic incinerator appears to be a viable means of disposing of the contaminants, obviously, our resident professors of chemistry and biology have expressed grave concerns as to its effectiveness in mitigating the problem without creating a greater health hazard to local residents.

We share the opinion that the prospect of developing the property with a permanent ten acre hazardous waste site located there is bleak at best.

The Town Board, Town of Minetto, wishes to express our sincere appreciation for the information provided and courtesy extended to our community, and respectfully request you modify the incinerator proposal to further guarantee our residents safety and well being. We also desire the hazardous waste site be eliminated and all contaminated soil be removed to a suitable disposal facility.

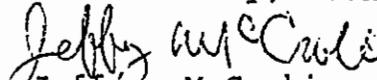
In closing, thank you for the tireless hours spent on this problem site. Please continue your efforts and provide the Town of Minetto with a clean parcel suitable for development.

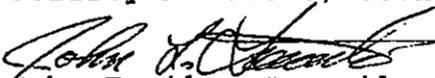
Sincerely,


Joseph Mangano, Supervisor


Michael A. Ferlito, Councilperson


Kristine Fay, Councilperson


Jeffrey McCrobie, Councilperson


John Familo, Councilperson

P.O. Box 59

Minetto, New York 13115

March 5, 1992

David Camp
N.Y.S Dept of Environmental Conservation
Rm 222
50 Wolf Rd
Albany, New York 12233

Dear Mr. Camp,

As homeowners in the town of Minetto (3888 Dumms Rd - Co. Rt. 31) we would like to go on record as being opposed to the proposed incineration of waste on the Columbia Mills property and to the creation of an approximate 10 Acre toxic waste site on said property.

We feel the portable catalytic incinerator proposed by Malcolm Pixie Inc. is not adequate to burn the waste at a temperature high enough to avoid the creation of Dioxin. Global Technologies the company supplying the catalytic reactor states that as chlorinated hydrocarbons start to foul the converter it would shut down thus avoiding the creation of Dioxin. We beg to disagree this is quite erroneous information.

The cool down period alone be it 5 min, 10 min or whatever would allow the creation of Dioxin and the ultimate release into the atmosphere. That along with not constantly monitoring the incinerator is not taking into account what is best for the people of Minnetta. Also this incinerator has never been used for this type of clean-up. Are we to be guinea pigs for the rest of the state - to see if it works?

We understand the Fulton Terminals site will be using incinerator and carbon extraction. Wouldn't this be a safer and more logical solution to the Columbia Mills site?

As to the permanent toxic waste site in Minnetta this would be totally a waste of land that is desperately needed to be put back on the tax rolls and developed for all the good of the citizens of Minnetta and the surrounding areas. We cannot afford the taxes in Minnetta to keep climbing the way they have. We need development and by not totally cleaning up the Columbia Mills site we would be losing 100 Acres of prime land that would be contributing not only to the taxes of Minnetta but to the whole of Oswego County. Growth means revenue but no one will develop any where near a toxic waste site be it 10 acres

or one. We in ^{NY} Minnetto know this and cannot accept anything but the complete cleanup of Columbia Mills.

Please keep in mind what is best for the citizens of Minnetto and also surrounding areas. We are not alone in the effects this will have on our future. No one can afford fouled air, drinking water or land. Please do what is right for the Environment and the people

An Indian saying goes " We do not own the land we see our creators for the future." Let's do this one right and pass on land that no one will have to be afraid of.

Thank you,

Joseph and Tessa Pollock
P.O. Box 59
Minnetto, New York 13115

Joseph A. Pollock
Tessa A. Pollock

David Camp
Room 222, NYSDEC
50 Wolf Road
Albany, New York 12233

Dear Mr. Camp:

We are writing to you to express our concern over the proposed clean-up of the Columbia Mills site in Minetto. We are all in agreement that the site should be cleaned up, but it would appear that the DEC and the residents of Minetto have a difference of opinion on how this should be accomplished.

First, we are opposed to the establishment of a permanent hazardous waste site. This will eventually leak, contaminating the ground water. The toxins will eventually make their way to the Oswego River, then Lake Ontario, thus contaminating the drinking water for thousands of Central New Yorkers. If we are going to clean up Columbia Mills, lets get rid of all the hazardous waste.

Second, we are opposed to the incineration plan. Several independent sources have stated that the portable incinerator is not sufficient to handle the job. There will be incomplete combustion, thus producing dioxins to further pollute the air and water. If the waste must be incinerated, we would prefer taking it to an off-site professional toxic waste incinerator, so that we can be sure it is completely burned without dangerous emissions. We also have serious reservations about the use of Malcolm Pirnie Co. to operate this incinerator. We do not feel that this company is sufficiently experienced in this type of operation.

Also, if the plan is approved, we would request constant monitoring to be sure that the incinerator can be shut down in case of a problem.

The citizens of Minetto are the ones who will have to live with this problem and its solution for years to come. Please take our concerns and our wishes into consideration. We would like to see alternative plans and be able to make an informed choice. Please do not rush into an ill-advised solution. We want to make sure that the alternative chosen is the best choice for all concerned.

Very truly yours,

David and Rosemary Place
4020 Empire Ave. P.O. Box 3
Minetto, New York 13115

CONSTANCE A. FRY
P. O. BOX 148
MINETTO, N. Y. 13115-0148
(315)342-4787

March 18, 1992

R.W. Schick, FE
Division of Hazardous Waste
Remediation Room 222
N Y S Environmental Conservation
50 Wolf Road
Albany, N.Y. 12233-7017

Dear Sir;

I am writing with concerns in reference to the remedial plans for the Columbia Mills Site in the Town of Minetto. I am skeptical about the direction and its impact to the community verus the benefits of the remedial plan as proposed.

I have concerns with the perceived environmental risks, costs and uncertainties posed by potentially dangerous disposal activities. The proposal to locate a controversial technology at the site has raised community specter of danger. The proposed plan for the Columbia Mills Site constitutes not just expected but actual impacts on the community in a compulsory manner. We are concerned with what are our alternatives, as well as the larger values concerning technology, economy, and the environment beyond the first phase.

The community has strong concerns about the environmental degradation of the site and the proposal to site a controversial technology here. The health and safety, as well as the protection of ecological integrity are central to this community's quality of life. Leachate problems, land values, technical risks, design problems, cost and community opposition are in three central areas.

1. Potential health risks associated with hazardous or toxic compounds and the stack gases produced from combustion.
2. The negative economic effect of the proposed remedial plan on community property values and tax structure now and in the future.
3. The perceived stigma, inequity and disproportionate costs eventually that will be borne by this community with uncertainties as to the reduction of volume of waste and the asethetic alternatives.

There is a need for a viable alternative to a permanent landfill and incineration that will focus on health and safety risks, economic impacts, and technological/regulatory uncertainties, and the seriousness of the whole waste problem at the Columbia Mills Site.

CONSTANCE A. FRY
P. O. BOX 148
MINETTO, N. Y. 13115-0148
(315)342-4787

Anxieties focus on the potential health and safety risks, economic effects and uncertainties of incineration and the landfill. Also the aesthetic concern of a permanent landfill, the level of environmental risks associated with it, and the larger crisis not addressed by anyone, asbestos.

The residents all favor a total clean up. The advantages/disadvantages of the proposed remedial plan suggests a number of implications and the need for a further study of the controversies to include the site as a whole.

Given the impact on the town as to health, safety, economics, aesthetics, the shape of the town's future agenda and the environmental impact in to the next century all alternatives must be examined closely. If gases from the stack are determined hazardous by state and local tests will it then fall under federal hazardous waste guidelines requiring its transportation for disposal to an approved hazardous waste landfill?

After nearly more than 20 years a total clean up of the Columbia Mills Site now will be nothing more than band aid surgery. I strongly urge the DEC to look at this site as a whole and bring the residents of the town a viable solution.

Sincerely,
Constance A. Fry

Constance A. Fry

The Citizens for a Responsible Environment in Oswego County are elated with the idea of having the Columbia Mills Site in Minetto cleaned up. We believe, however, that before proceeding with the proposed Remedial Action Plan dated February 1992 and submitted for the site by Malcolm Pirnie, Inc., further testing should quickly be conducted at the site. This testing should be done to identify further organic compounds that are shown to exist on the site and to examine alternative methods available for the complete removal of these and any other chemicals found to be present at the site. Thank you.

Richard / Sanyu	P.O. Box 22	Minetto, N.Y. 13115
Tammy Bellinger	P.O. Box 112	Minetto 13115
Ed Bell	P.O. Box 4	Minetto
Loretta Francate	P.O. Box 234	Minetto, NY 13115
Gar Silveira	P.O. Box 98	Minetto N.Y. 13115
Mr. Robert Carlson	P.O. Box 256	Minetto, N.Y. 13115
Diane Zych	P.O. Box 272	Minetto NY 13115
Linda & Billings Jr.	P.O. Box 112	Minetto, NY 13115
Wendell Wierzbowski	P.O. Box 227	Minetto, NY 13115
Robert Minter	R.D. #5	Oswego, N.Y.
Edward Minter	R.D. 5	Oswego, N.Y.
E. Spurr	R.D. 5	Oswego, N.Y.
Bob Sibilny	P.O. Box 73	Minetto, N.Y. 13115
Mette Linge	P.O. Box 229	Minetto, NY 13115
Linda Hudich	P.O. Box 43	Minetto, NY 13115
Harold Thompson	P.O. Box 289	Minetto, N.Y. 13115
Ladise Krawczyk	Box 89	" " "
Catherine Tricoli	R.D. 4 Box 103	Oswego, N.Y. 13115

E

The Citizens for a Responsible Environment in Oswego County are elated with the idea of having the Columbia Mills Site in Minetto cleaned up. We believe, however, that before proceeding with the proposed Remedial Action Plan dated February 1992 and submitted for the site by Malcolm Pirnie, Inc., further testing should quickly be conducted at the site. This testing should be done to identify further organic compounds that are shown to exist on the site and to examine alternative methods available for the complete removal of these and any other chemicals found to be present at the site. Thank you.

Guosuo P. Bailey Minetto Mini Mart

Betty Phillip RD #5 Box 310 Oswego

Margalite Chatterbox R.D. #1 Box 229, Fullon, NY

Elaine Adamski RD #3 Box 87, Oswego, N.Y.

John Paul Rd 4 Box 12 Oswego, NY

Catherine J. Tomkin P.O. Box 58 4197 W. River Rd. Minetto,

Pat Engle FA Box 282 Minetto NY 13115

Josephine Natoli P.O. Box 524, Minetto, N.Y. 13115

Lisa M. Gledhill FA Box 129 Minetto, N.Y. 13115

Robert A. Chetry PO Box 129 Minetto NY 13115

March 3, 1992

Carl C Allen
RD 5 Dumas Rd
Oswego NY 13126

David Camp
Room 222 NYSDEC
50 Wolf Rd
Albany NY 12233

Re: Columbia Mills Clean Up

Sir:

It is hard for some of us to become excited about the removal of waste at the site, other than the fact that it is taking so long.

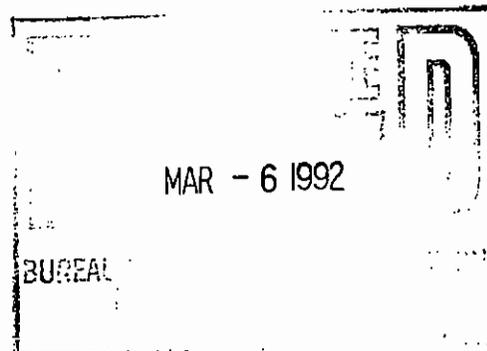
I am 68 years old, and like Joe Mangano, was raised, have hunted, fished, played and worked in the vicinity of Columbia Mills most of my life. I am very healthy and expect to live many more years!

When I was a kid, I went through the ashes at the dump to get nails. This is the heavy metal area that you want to seal off.

My Uncle lived in the house for over 40 years where Mrs. Chetney now resides. He worked at Columbia Mills all of his life. When he died, of natural causes, he was 80+ and had been in excellent health.

In the early 1930's lightning had hit an underground Benzene tank. It blew the manhole cover off and the contents burned for many days. More Benzene was incinerated during that time than you will burn in years. I don't remember anyone being sick.

About continuous monitoring of the incinerator stack, it should be done and done in a way that the town is involved. You could set up a glass front meter rack near and facing Mrs Chetney's house. For a reference base, install a 3 pen recorder monitoring stack flow, temperature, and opacity 24 hours a day, 7 days a week. Set up additional recorders and sensing units to cover what ever else Dr Silveira and Mrs Chetney deem necessary. I like Foxboro Fan Fold recorders. A whole weeks worth of activity can be checked for trends without un-rolling the chart.



Put Mrs. Chetney on your payroll to keep track of activity and change the charts. Make it a community monitoring activity.

When you finish both you and the town will be winners. You will say, "See we didn't pollute the air" and Mrs. Chetney and Dr. Silveira will say, "Yes, and we know for sure."

Sincerely,

Carl C. Allen

Carl C Allen

cc: Joe Mangano, Town Supervisor
Jeff Mc Crobie, Mill Clean Up Committee

RR 5, BOX 76
OSWEGO, N.Y. 13126

27 Feb. 1992

Robert W. Schick, P.E.
NYSDEC, Room 222
50 Wolf Road
Albany.. New York 12233-7010

Dear Mr. Schick:

I am not sure if you were the person presiding over the meeting in Minetto on the Columbia Mills Project on 27 February or not; but at any rate, I would like to express my appreciation for the information that was given out and to express my support for the incineration project and my confidence in your agency and in the panel of engineers and in their technology. Most of those in attendance, other than myself and a few others, live in fairly close proximity to the plant and have assumed some kind of arbitrary role as the sole protectors of the environment and do not represent, in my opinion, the feelings of the vast majority of the residents, who would like to see the clean-up proceed more expeditiously, with due precaution, of course.

It annoys me excessively to put up with the blatant nonsense that most of these uttered at the public meeting. The only person with any real knowledge of the matter is Professor Silveira, who has received quite a number of government grants, if I am not mistaken, in connection with the ecology of Lake Ontario; but even he, when he lends credence to a group of flakey anti-nukes and anti-incinerates, tends to detract from the clean-up project for Columbia Mills. His article in the Palladium Times, published a day or so before the meeting, suggested that you were going to flood the atmosphere with dioxins. Naturally, he knows that ethel-toluene, benzene, and xylene contain only the elements of carbon and hydrogen and that their incineration can do no worse than combustion of gasoline in engines or the running of gas furnaces. A friend of mine who is a County Legislator says the legislature is under perpetual barrage from anti-incineration kooks, so it would be well to send Silveira empirical evidence from recent test results from the area under consideration for incineration; and if the tests are negative or within proper guidelines, to simply move in and do the job. Apparently, your agency has so acted in the past because I thought you were talking of burning the contents of the tank cars which were apparently moved out long ago.

The question of the permanent on-site waste dump is obviously not subject to so simple a solution and requires more study somewhere down the road; but it is certainly the most economical and most feasible if there is no other State site in the immediate area completely removed from the Lake Ontario watershed. Perhaps if you relied more on the County Government for support, you would get less bogged down in trivia. They own half the site right now.

Yours truly,

W. D. Sweetser
WRSLEY D. SWEETSER
Professor Emeritus

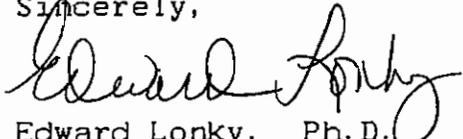
David Camp
Room 222
NYS DEC
50 Wolff Road
Albany, New York 12233

Dear Mr. Camp,

I am writing this letter to register my grave concern about the possibility of locating an incinerator at the Columbia Mills site in Minetto, New York. My daughter attends the Minetto school. The likelihood of burning hazardous waste in such close proximity to an elementary school is, I believe, unconscionable. To expose residents and schoolchildren to toxic fumes is foolhardy and short-sighted. The fact that the incinerator is not proven technology only fuels my own anger and astonishment.

For the DEC to engage in anything less than a total clean-up is a travesty of your mission. I hope the DEC will more fully evaluate the contingencies before beginning a project which may well harm people, animals and the environment.

Sincerely,



Edward Lonky, Ph.D.
R.D. 6, Box 43
Oswego, New York 13126

David Camp
Room 222
NYS DEC
50 Wolff Road
Albany, New York 12233

Dear Mr. Camp,

I am writing this letter to register my grave concern about the possibility of locating an incinerator at the Columbia Mills site in Minetto, New York. My daughter attends the Minetto school. The likelihood of burning hazardous waste in such close proximity to an elementary school is, I believe, unconscionable. To expose residents and schoolchildren to toxic fumes is foolhardy and short-sighted. The fact that the incinerator is not proven technology only fuels my own anger and astonishment.

For the DEC to engage in anything less than a total clean-up is a travesty of your mission. I hope the DEC will more fully evaluate the contingencies before beginning a project which may well harm people, animals and the environment.

Sincerely,



Jacki Reihman, Ph.D.
R.D. 6, Box 43
Oswego, New York 13126

Sara H. Cole
R.D. #5, Box 192
Oswego, N.Y. 13126

Dear Mr. Camp:

I am a resident of the Town of Minetto in Oswego County. We have a toxic waste problem in our town, located at the site of the now-closed Columbia Mills Factory. The DEC has proposed using an incinerator to dispose of some of the chemicals present. This site is centrally located in our village. Within short walking distance there are homes, stores, a post office, fire station, town hall, two churches, and most importantly an elementary school.

My purpose in writing is to encourage the DEC to listen to the residents and please consider an alternative method of removing these chemicals. I urge you to consider the safety of our families and homes.

Thank you.

Respectfully,

Sara H. Cole

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PUBLIC HEARING

IN THE MATTER OF

C O L U M B I A M I L L S

25 February 1992 - 6:30 PM

Methodist Church of Minetto

Minetto, New York

APPEARANCES:

KATE LACEY, New York State Department of
Environmental Conservation

ROBERT SCHICK, New York State Department of
Environmental Conservation

DAVID CAMP, New York State Department of
Environmental Conservation

Khristine D. Sellin
Court Reporter

MACHINE SHORTHAND REPORTING SERVICE
424 UNIVERSITY BUILDING
SYRACUSE, NEW YORK 13202
(315) 422-3990 (315) 422-3995
FAX (315) 422-4308

Lacey

1 MS. LACEY: This is the public hearing
2 required under law for receiving public comment on
3 the proposed remedial action plan on the hazardous
4 waste site, Columbia Mills. This is taking place
5 in the middle of the public comment period, which
6 ends on March the 5th. The comments will be
7 accepted here tonight and also in writing in Albany
8 by the project engineer, the lead engineer for DEC,
9 who is David Camp, the gentleman here. The
10 address -- we'll give it a couple times so that
11 you make sure that you have it -- Room 222, New
12 York State DEC, 50 Wolf Road, Albany, New York,
13 12233, and it's attention David Camp. Comments
14 from tonight and any comments, written comments
15 which are sent in during the comment period will be
16 addressed in a responsiveness summary, any
17 questions, anything that wants to be raised -- that
18 any of you want to raise on the record will be
19 addressed at the conclusion of the public comment
20 period.

21 Now most of you, I assume, just because of
22 having been in Minetto a few times within the last
23 few weeks, most of you have concerns about the
24 technology and some work which has been proposed as
25 part of an IRM, an interim remedial measure, on

Lacey

1 Test Pit Area 3. We will get into the particulars
2 of that and discuss that following the hearing.
3 The hearing is on the overall remedial action plan,
4 which is proposed after an evaluation after reading
5 the remedial investigation feasibility study, which
6 was done on the entire site and submitted for the
7 company. It was done by Malcolm Pirney, engineers
8 for the company, and has been submitted to DEC, and
9 Dave Camp will now go through a brief overview of
10 the proposed remediation for the hazardous waste
11 site.

12 At the conclusion of that we will be taking
13 comments. It's not really on the proposed
14 remediation. It's not really a question-answer
15 thing. It's comments on reaction, pro and con, on
16 that remedial proposal. I'm also going to
17 circulate a sheet with a place for name, address
18 and phone number. We'd appreciate a list of the
19 people who are in attendance for the record.

20 MR. CAMP: Okay. Like Kate said, I'm
21 Dave Camp, project manager for -- actually, project
22 engineer for this project, for the DEC. And like
23 she said, I'm going to go over briefly the
24 proposals, proposed remedies that we propose for
25 the site.

Camp

1 I've got some overheads, and this is basically
2 a map of the site. The property boundary is
3 basically the big line there (indicating). Now the
4 areas where we found hazardous waste are in the
5 main plant area, which is down here (indicating),
6 for some existing buildings here, as you can see a
7 few ponds in the back. By the way, here's the
8 Oswego River down here (indicating). Hazardous
9 wastes were found here, and there's also a landfill
10 in the back area. That's the other area that will
11 be addressed in the proposed remedial action plan.

12 Now I just want to mention, everything I'm
13 going to be talking about right now is in the
14 document which is the proposed remedial action
15 plan, which is in the repository, which is the Town
16 Hall. There are several copies there. I believe
17 you can borrow them from the Town Hall. I've got
18 some extra copies with me, if you wanted to read
19 it, or we can mail you a copy.

20 Now this is a table taken right from the PRAP
21 document, and this lists the proposed remedial
22 measures for the site, and there's basically three
23 of them, A B and C, that are separate, and these
24 will address all the hazardous wastes on the site,
25 but they are separate from the IRM. That's a

Camp

1 separate issue that will be talked about a little
2 later.

3 The first remedy, A, is to stabilize and cap
4 wastes in the landfill in the drum disposal area,
5 which is that far back part of the site that I
6 showed you on the other map. And the ground water
7 will be directed and treated. This remedy
8 addresses several different areas, the discrete
9 areas of waste around the site. They're listed
10 here (indicating). They address the drum disposal
11 area, fill material that's existing back there, and
12 that's about a seven or so acre landfill that the
13 plant used. It basically consists of ash and
14 material that the plant had burned during their
15 operation dump back there. The contamination
16 present there is mostly heavy metals, and then
17 there are some semi-volatile organics. The heavy
18 metals are mostly lead. The other areas are the
19 ponds that are back there, the sediments in the
20 ponds. They're right next to the landfill, and
21 they also have heavy metals in them. They'll be
22 dredged and consolidated into the other landfill
23 area.

24 There's three areas in the main plant area
25 that will be excavated and placed back into the

Camp

1 landfill. Those are the sediments out of the sewer
2 systems, and I'll be talking about that in C. It
3 also addresses the stream sediments from Benson
4 Creek. That's up in the main plant area, and it
5 also addresses some of the stockpiled soils that
6 are located in the main plant area. Those soils
7 and sediments will be shipped back to the landfill
8 area and it will be capped, which I'll show you.
9 I've got a diagram here that might be -- Okay.
10 This is just generally a blowup of the landfill
11 area, and it shows generally where the cap will be,
12 outlined by this line here (indicating), and all
13 the capped waste will be inside of that. There
14 will be a cover over that, which is a typical
15 landfill cap, and the cap is provided to keep
16 people from having contact with the material from
17 the surface runoff and prevent water from going
18 into the landfill material so that it can't leach
19 out in the ground water.

20 The other problem back here is that some of
21 the waste has been going into the ground water, so
22 as part of this, the ground water will be
23 remediated by, well, by capping the waste and
24 keeping rain water out and then also by lowering
25 the ground water table. The ground water table

Camp

1 will be lowered by putting trenches on all around
2 the landfill area and diverting all the water out
3 of the area, which will in turn lower the ground
4 water table. This will, in effect, be just an
5 island of waste that will be isolated from the
6 environment and from human contact and everything.
7 It will be fenced, it will be -- there will be
8 grass over it, and it will be monitored, I guess,
9 for 30 years.

10 SPECTATOR: How much leachate do you expect
11 to come out of there?

12 MR. SCHICK: Questions will be taken after
13 this.

14 MR. CAMP: I'm going to move on now to Remedy
15 B, which is another remedy separate from that, and
16 this is extraction treatment of ground water and
17 treatment of that ground water, and a vapor
18 extraction treatment of soil hot spots. Now let me
19 just show you where that's located real quick.
20 It's just this area here in the main plant area.
21 Here's all the buildings and the river over here
22 (indicating). There's a relatively small area of
23 ground water contamination here and soil
24 contamination. It's volatile organic
25 contamination, chlorinated and nonchlorinated

Camp

1 compounds, like toluene and benzene, and the remedy
2 is to extract the ground water and treat it, and
3 that will control the ground water plume.

4 SPECTATOR: I'm sorry. When you say treated,
5 could you go into more detail?

6 MR. CAMP: Okay. Treatment typically
7 means -- like in this case it will be pulled out
8 of the ground and then run through an air stripper
9 for treatment or carbon treatment or some other
10 approved treatment. That is not set in stone right
11 now. That is like a design detail. So right now
12 treatment is just some form of treatment to clean
13 the water up so it can be discharged into the river
14 or the waste water treatment plant.

15 SPECTATOR: So we don't really know?

16 MR. CAMP: No, not now. The other part of
17 that is, right above the ground water there's some
18 contaminated soils. Now from the existing sampling
19 that we have, these soils do not seem to be heavily
20 contaminated, but while we are putting in the
21 ground water extraction wells to extract the ground
22 water, extensive sampling will be done in that area
23 to confirm exactly how much it is contaminated.
24 Now if it's not contaminated above typical cleanup
25 levels, no soil remediation will be performed. If

Camp

1 the contamination is moderate, vacuum extraction
2 treatment process will be placed in that area, and
3 I'll note that this is --

4 SPECTATOR: Why hasn't that sampling been
5 done?

6 MR. CAMP: No, sampling has been done. Soil
7 sampling has been done. We noted some VOC
8 contamination, but it's been small. It's actually
9 below what we would clean up the soils at. It's
10 actually just trace levels.

11 MR. SCHICK: The vacuum extraction is a
12 contingency. If we identify heavily contaminated
13 areas in the ground water or if there are heavily
14 contaminated areas which can be identified, go in
15 with vacuum extraction.

16 SPECTATOR: What I don't understand is why
17 you haven't characterized the site.

18 MR. SCHICK: We're concluding a contingency,
19 so if we do discover the areas, they can be
20 treated.

21 MR. CAMP: The ground water is contaminated
22 underneath it, and we believe there must be
23 contaminated soils above that. So that will be,
24 you know, that will be confirmed.

25 SPECTATOR: How deep is the contaminated

Camp

1 soil?

2 MR. CAMP: The ground water -- I can't --

3 MR. SCHICK: Again, we'd like to just get
4 through this, and then these questions can be
5 asked, and they will be responded to.

6 SPECTATOR: But you're making it sound like
7 it's all so nice. We'll cap it, we'll treat it.
8 And then we ask you, and it turns out you don't
9 know how much leachate, you do not know how you
10 treat it, and I think it's unfair to make it sound
11 like you have it all solved.

12 MR. SCHICK: We can address that. If we can
13 just get through the overall remedy, I can address
14 that.

15 MR. CAMP: These remedies are made to be a
16 little bit open so that we can work proper design
17 measures in, you know. These are just basic
18 remedies. They will be designed in detail in the
19 future, once they're approved.

20 Let's see. Remedy C, I'll skip to now, is to
21 remove the sewer sediments. The plant contains
22 various sewer lines that existed during the plant
23 operation. Some of them have been or don't have
24 any water flowing through them. A few of them do.
25 And most of them contain sediments contaminated

Camp

1 with low levels of contamination from the different
2 areas of the site, and the remedy is to go in and
3 flush out these sediments, collect them and dispose
4 of them in the landfill in the back of the plant.
5 Now if the contamination in those sediments is like
6 high volatile contamination or really high metals
7 characteristic of hazardous waste, that material
8 will not be dumped in the landfill. They will be
9 shipped off site and disposed of on an off-site
10 landfill. And if the sediments can't be flushed
11 out, the lines could be removed in their entirety,
12 and this remedy will basically, you know, leave the
13 area usable in the future. We originally were
14 thinking of just closing off the lines, and now we
15 have decided to go in and actually clean those
16 sediments out, so if anyone was to do any future
17 excavation on this property, you know, the
18 hazardous waste would not be there anymore. We
19 will also seal off the lines after we remove the
20 waste and water from going through it and just
21 going through the Oswego River. And again, this
22 Option B will remediate that area of the main plant
23 entirely. It will take a few years to do it, but
24 then that area will be left clean, and I'd just
25 like to close and say that the main plant area here

Camp

1 will be clean of hazardous waste and that area will
2 be usable since it will no longer be hazardous
3 waste. The rest of the plant site here has no
4 hazardous waste in this. All that will remain
5 after our three remedies, proposed remedy is
6 implemented.

7 There's a landfill in the back area. That
8 landfill will only be about 10 acres in size, and
9 it's in the far back corner, and this whole site
10 area is 100 acres, so it's just a small piece of
11 the entire property.

12 That's just basically a brief summary of the
13 proposed remedial measures, and I'll turn it over
14 to Bob.

15 MR. SCHICK: Just to briefly sum up and
16 address a couple of the concerns, what you
17 highlighted is part of what we're looking for
18 tonight, some idea of what concerns you, what the
19 areas of the plant you feel may need to be flushed
20 out further. One of the things that we
21 intentionally do is to keep our flexibility open.
22 We want to make sure the guidelines that will
23 determine what we do in terms of cleanups are met.
24 Those are the ground water standards, those are
25 ambient air guidelines, those are criteria that are

Schick

1 established for sediments and streams. What we are
2 doing is we're identifying those performance
3 standards which will be met in whatever remedy we
4 put in place. We want to keep our options as open
5 as possible so we can design the best remedy, as we
6 get into the detail design phase, to allow both new
7 technologies to be implemented and also to make
8 sure that if something does change as we go in and
9 do greater confirmatory sampling, to get a more
10 refined picture on exactly what is there when we
11 look to start our treatment. We need to keep those
12 options open.

13 Some of the things that were identified here
14 are the kind of thing, if you feel that they are
15 something that should be addressed in greater
16 detail, please bring them up as part of your
17 comments. The comments here tonight that we're
18 looking for are on this plant. What do you see as
19 the deficiencies, if any? What do you see as the
20 benefits? If you have a difference of opinion on
21 the remedy we've selected, by all means express
22 it. We're here to get the opinion of the community
23 in terms of what this remedy is. This document is
24 essentially a draft. We will go back with the
25 comments from this meeting, we will look at the

Schick

1 document, modify it as we deem appropriate to
2 address those comments. However, any and all
3 comments made will be responded to. We may -- I'm
4 not saying that every single thing that is said
5 here tonight is going to be reflected by a change
6 in this document, but we will document to you the
7 comments from the public, why we did not address
8 that specific concern, or if we addressed it, how
9 we addressed it.

10 Now in order to make things easier for our
11 stenographer, we ask that commentors come to the
12 microphone. I don't know -- if we'd like, we can
13 try to move it back a little further in the
14 audience, but if you can come to the microphone,
15 state your name clearly so that she can hear it,
16 and if it's, you know, it's a complicated name, I'm
17 not sure if you'd like it spelled or not, but I'm
18 sure it would help her out just so we can have as
19 accurate a record of people who have their concerns
20 as possible.

21 At this point in time, we could open the floor
22 to commentors.

23 MS. LACEY: Before you start commenting, the
24 sheet for signing in for names is going around the
25 outside of the room, and when it gets up here, it

Silvera

1 will be going down the rows. If that arrives,
2 you'll know what it is, in case you missed that
3 originally.

4 MR. SILVERA: I'm Gus Silvera. I'm a
5 resident of Minetto for 27 years. I have no
6 interest to make the DEC look bad. I do have
7 questions, and I'd like them responded to, because
8 I care about this town, and also, I care about the
9 people in this town.

10 Let's talk about the permanent waste site
11 first. I'd like to know how, also, if I could just
12 very briefly state something. This article that
13 came in the paper was not something that I
14 volunteered to do. I was asked by the publisher,
15 by the Pal Times. I took the time to read your
16 documents, I was asked by the publisher to get it
17 out as soon as possible. He asked me on a Tuesday
18 to get it out on Saturday so you folks would have
19 some time. I've called the County people to let
20 you know, I asked Evan Walsh to make sure that
21 David gets this so you'd see some of these
22 questions before you came. Again, I have no
23 interest -- I've worked with the DEC, I'm working
24 with the DEC now in terms of the Oswego Harbor on
25 the remedial plan. I've been appointed by them.

Silvera

1 We are in this together, DEC as well as the
2 community here, in doing this right.

3 Now with that, let me ask some questions. How
4 would the leachate from the permanent waste site be
5 collected, where will it be treated, and also, how
6 will the waste leaching from the waste site be
7 prevented from entering neighboring wells, the
8 Oswego River, which flows into Lake Ontario, which
9 is the major source of the drinking water for
10 citizens of this town and City of Oswego, as well
11 as the City of Syracuse. The ground water flow,
12 deep flowing ground water flow is east towards the
13 river. This is taken right out of your own
14 report.

15 MR. SCHICK: Well, again, we are simply
16 collecting the comments tonight.

17 MR. SILVERA: Oh, you're not answering?
18 Okay. My next question would be: In capping it
19 with clay, I'm concerned with what's going to
20 happen in terms of the leaching from underneath,
21 and that relates to my first two questions. With
22 respect to the incineration plan, the last meeting
23 I asked a question to -- one question that I was
24 allowed to ask to David Camp, if chlorinated
25 hydrocarbons were in Test Pit 3, and he answered in

Silvera

1 the affirmative. We have witnesses here that heard
2 that answer. I also talked with this young man
3 outside of the meeting. I also have a letter dated
4 Friday -- received and dated Friday, February 21st,
5 that indeed there were chlorinated hydrocarbons in
6 Test Pit 3, and I expressed to him my concern
7 outside that meeting in terms of incinerating. I
8 didn't realize at the time that the incinerator
9 that would be used could not burn efficiently
10 chlorinated hydrocarbon. I'll explain how I found
11 out about that later, but I asked David if there
12 were chlorinated hydrocarbons as well as aerated
13 hydrocarbons. A letter confirmed that, listing
14 specific compounds, such as trichloroethane and
15 1,1,2,2 tetrachloroethane was identified. I might
16 add, I'm an organic chemist, and I've spent all my
17 life doing research in this whole area. Yet in
18 this morning's paper, the Post Standard, Dave
19 Knudsen of Malcolm Pirney says that in their recent
20 sampling, singular -- I want to know if it's
21 multiple tests -- they didn't find any chlorinated
22 hydrocarbons. Now that doesn't give us a lot of
23 confidence in this town when we see that. We're
24 getting a letter on Friday, I questioned it on
25 Saturday, in terms of my article in the Pal Times,

Silvera

1 and now we hear in terms of the consultant that you
2 hired said he did another sample now that's not
3 there. This is extremely important, as you know,
4 in burning chlorinated hydrocarbons at hot
5 temperatures. It's very difficult to completely
6 combust these things. You need very high
7 temperatures, and the incinerator that is being
8 recommended will not do it, will not burn
9 chlorinated hydrocarbons. If you have chlorinated
10 hydrocarbons that are not completely combusted,
11 they will form the very dangerous chemical dioxin.
12 This is the stuff that was in trace amounts in
13 Agent Orange, and we know what happened to that,
14 so --

15 MS. LACEY: Excuse me. The stuff on this
16 technology, if we could just leave that to the
17 discussion -- we're going to go through a full
18 discussion with questions and --

19 MR. SILVERA: On the incinerator?

20 MS. LACEY: On the Test Pit Area 3.

21 MR. SILVERA: I do have the specs on the test
22 pit area that's used from the company.

23 MS. LACEY: The IRM is a specific proposal
24 for Test Pit Area 3, and we realize there are a lot
25 of people with questions and comments about that.

Silvera

1 We'd like to get the overall record complete on the
2 remedial plan for the full site, and then we'll
3 address -- you'll have plenty of opportunity to get
4 into the technology, and the people are here from
5 Malcolm Pirney and from the company to address
6 those questions, so if we could just, you know, try
7 to -- I think you have some more on the full -- the
8 rest of the stuff.

9 MR. SILVERA: All right. I hope that we can
10 work with the DEC in terms of the full plan. What
11 I would prefer to see us do is, if the technology
12 is there, to remove the organic compounds from Test
13 Pit 3, as I said, if the technology is there, to
14 move it off site to a professional, professional
15 company that can dispose of this. There's plenty
16 in Pennsylvania. I mentioned one in the article.
17 I have no connection with them in New York.

18 I worry about any permanent waste site here.
19 It's very important to me, and I think to many of
20 the residents in this town, that we're able to
21 develop this site. A permanent waste site, even
22 though you say it's 10 acres, that's 10 percent,
23 and I feel it's very detrimental to any developer
24 wanting to come in and develop this site. It's an
25 ideal site. You have transportation cars nearby,

Silvera

1 you have an underutilized waste treatment plant,
2 you have hydropower. I'm hoping we can get some
3 clean industry in here that will create jobs for
4 the people of this county and also do much in terms
5 of our tax base, and I think by leaving it on site
6 you really have given us pretty much dead land. I
7 don't see a developer wanting to come in.

8 So my feeling is, I'd like the treatment that
9 you're suggesting in terms of the line treatments
10 to divert these heavy metals to hydroxide. That's
11 well-known technology, and I would like to see that
12 trucked off, again, to -- we have landfills that
13 have certainly been supervised by the DEC. And I
14 thank you for hearing me out.

15 MS. LACEY: Okay. Others wishing to comment?

16 MS. CHETNEY: My name is Lisa Chetney. I
17 live on Schuyler Street here in Minetto. I have
18 lived in this town for six years. I chose to move
19 here with assurances from the town supervisor at
20 that time there was no hazardous waste in Columbia
21 Mills. I moved into my house in November of 85.
22 This site was listed by the DEC as a hazardous
23 waste site in December of 84. According to the DEC
24 they were not legally bound to notify the residents
25 of this town that there was a hazardous waste site

Chetney

1 in our town. However, morally, I feel that they
2 were. This site is 100 acres. If you leave it a
3 permanent hazardous waste site, there is no
4 developer in their right mind that will come in
5 here and develop in this town with a hazardous
6 waste site as a neighbor, not to mention a leaching
7 hazardous waste site. It will be very difficult
8 for any developer to use the main plant area, given
9 the sewer lines under the buildings. However, if
10 it were to be properly cleaned up, knock down the
11 buildings and the eyesore, clean up the rest of it
12 properly, we have 90 acres of prime real estate to
13 be developed in this town, which would create
14 desperately needed jobs and would help us with our
15 tax base. Everyone in this town is in agreement
16 the taxes are too high here.

17 Okay. Your incinerator, I have, on very, very
18 credible opinions, is not going to do the job.
19 Hydrocarbons will create dioxin. I live 200 feet
20 from where you plan to place this incinerator. One
21 block from this incinerator you have a nursery
22 school of 3- and 4-year-olds, 46 of them. Two
23 blocks from this incinerator you have 514 children
24 ranging from 5 to 12 years old.

25 MS. LACEY: Can we just save the part about

Chetney

1 the --

2 MS. CHETNEY: This is my statement. Thank
3 you. This is my statement.

4 SPECTATOR: This is on the hearing right now,
5 isn't it? Isn't this on the hearing?

6 MS. LACEY: No, no. Go ahead. Okay.

7 MS. CHETNEY: This is about the whole ball of
8 wax.

9 MS. LACEY: Okay.

10 MS. CHETNEY: Now children, and it has been
11 proven, are extremely more susceptible to toxics
12 than adults. My people tell me there will be a
13 very, very good chance of dioxin being created by
14 this incinerator. I don't believe any of us are
15 willing to breathe this. I want this site cleaned
16 as much as anyone else in this town. I border Test
17 Pit 3. No one lives closer to this site than I
18 do. But just doing something for the sake of doing
19 something is not the way to go. We have to look at
20 this plan, look at the real effects, with an
21 independent source giving us our opinions, and I
22 suggest that the DEC get away from looking at the
23 cost efficiency of a deliberate polluter and get
24 back to the job of protecting the environment and
25 the people who live here.

Rosenbaum

1 I thank you.

2 MS. LACEY: All right. Other comments on the
3 PRAP?

4 MR. ROSENBAUM: My name is Peter Rosenbaum.
5 I'm a resident of Minetto. I've lived here since
6 1985, and I guess that my primary concern is that
7 of progress. Things seem to be going awfully
8 quickly. Over in the Town Hall --

9 MS. LACEY: We're very rarely accused of
10 that.

11 MR. ROSENBAUM: Well, excuse me. Over in the
12 Town Hall for the first time I saw something, Base
13 Line Risk Assessment of Human Health Evaluations.
14 It was dated July 91 and December 91. It was a
15 letter posted February 18th. I don't know when it
16 was received by the Town Hall. If human health
17 assessment was evaluated, I think that we should
18 have an opportunity to look at that report.

19 There was also a report there described as
20 Ecological Risk Assessment dated December 1991. To
21 my knowledge these documents have not been
22 available. This is an Oswego County problem. I
23 believe that the Oswego County residents should be
24 the ones deciding what remedy is best for them.

25 I do have some specific comments that I will

Rosenbaum

1 send to Albany, but I'd like to comment on the ifs
2 that Mr. Camp brought up. These ifs, the design of
3 the surveys, I do not understand. I have read the
4 documents, there does not appear to have been a
5 systematic data collection, be it by 10-meter
6 grids, 100-meter grids, I don't believe that this
7 site has been properly and adequately
8 characterized, either on the surface or subsurface,
9 and that is another concern I have.

10 I've also read a lot about -- in the previous
11 documents about worker safety, and tonight was the
12 first time I found anything out about resident
13 safety. I believe that this should be a community
14 decision process, not a DEC decision process, not a
15 Malcolm Pirney decision process, and I'd like to
16 formally request that a moratorium be placed on
17 incineration and the establishment of a permanent
18 toxic waste site.

19 I'd also like to formally request that an
20 independent investigation be done, where the
21 accuracy and reliability of the data can be
22 scrutinized.

23 And I'd lastly like to formally request a
24 round table discussion between the DEC and its
25 experts, Malcolm Pirney and its experts, local

Rosenbaum

1 experts, local concerned citizens, so that we can
2 all work together to do what we all want, which is
3 to expedite the cleanup, not making another toxic
4 waste site. We have enough of those in New York
5 State, cleanup of this site so that it's truly
6 remediated.

7 Before I leave the microphone, I'd like to say
8 that I have grave concerns about asbestos, but
9 since they're not addressed in this current
10 proposed remedial action plan -- in my opinion it's
11 hazardous waste. It has a very high price tag on
12 it. According to Malcolm Pirney, it's a \$5 1/2
13 million price tag, and I think that -- and excuse
14 me for this -- I think that the DEC is abrogating
15 its responsibility to public health by not
16 addressing that issue.

17 Thank you very much.

18 MS. LACEY: Before we go to another comment,
19 just a quick response on the asbestos situation.
20 The hazardous waste program cannot deal with
21 asbestos. It's not -- it's not within the
22 hazardous waste program's jurisdiction. It's not
23 within their -- they can't deal with it, and, you
24 know, when the site is -- when the hazardous waste
25 program -- when the cleanup is complete, the

Rosenbaum

1 asbestos will still be present.

2 MR. ROSENBAUM: Can you tell us whether
3 people that are driving by are being exposed to
4 friable asbestos?

5 MS. LACEY: The health department would have
6 to make any assessment as far as, you know, what
7 the situation is with the asbestos, but it's well
8 known there's a lot of asbestos within buildings on
9 that site.

10 SPECTATOR: Asbestos is kind of deadly.

11 MS. LACEY: Can we get on with the comments
12 on the PRAP first?

13 SPECTATOR: No. The statement made about the
14 asbestos not being a hazardous waste, I have it on
15 pretty good authority today that the New York State
16 Superfund Coalition, the core document which lists
17 hazardous substances -- this is list 302.4 -- lists
18 asbestos, and this is the bible of hazardous waste,
19 supposedly.

20 MR. SCHICK: Again --

21 SPECTATOR: Viable quantity is one pound.
22 There's tons of it in that area.

23 MR. SCHICK: Just to go forth with what Kate
24 said, the Environmental Conservation Law, which is
25 what we work under, the section of that law

Rosenbaum

1 identifies hazardous wastes by those wastes listed
2 or characteristic as identified by Part 371. It's
3 a very, very -- we've discussed this in the past
4 with some of the people who have been here. It's a
5 very specific list of compounds and derivatives
6 from certain industrial processes, as well as the
7 characteristics, which means if it meets a certain
8 characteristic, it can be considered hazardous
9 waste. That listing does not include asbestos. We
10 are as frustrated with the limitations placed on us
11 by that list as you are here and many people we
12 meet at meetings around the State. It's what we
13 have to live with. We are exploring any possible
14 alternatives which we can suggest to the Town, but
15 so far we've found nothing. So I think people who
16 have been at the meetings before, we have tried to
17 address this, we recognize it's there. You know,
18 the toxicity of the compound has been established.
19 However, it's just beyond our mandate. We're going
20 to attack the hazardous waste issue. The asbestos
21 is another problem which is going to have to be
22 overcome through some other source. We just don't
23 have the authority to address it, and, you know, I
24 think we probably agree with many statements that
25 you could make about what it is and the severity of

Pregger

1 the problem, but our hands are tied. We just can't
2 address it.

3 SPECTATOR: That's truly regrettable.

4 MR. SCHICK: It is.

5 MS. LACEY: It is. I guess this is the
6 line. Go ahead.

7 MS. PREGGER: Hi. My name is Annette
8 Pregger, and earlier it was stated that the area
9 will be monitored for 30 years. My concern is what
10 happens in 31 years, in 40 years, okay? This
11 fenced-off area is sitting there, and who's
12 checking up on it? All right. What happens to my
13 children, my grandchildren, your children? What's
14 going to happen? Is this just going to be
15 neglected? Let's save the children.

16 That's all I have to say.

17 .. MR. SCHICK: That was somewhat of a
18 misconception the way it was left. The 30 years
19 is, when we do an analysis to evaluate, it's
20 evaluated on a 30-year period. These sites will be
21 maintained and will be monitored longer than 30
22 years. 30 years is a measure of time to equate
23 everything together, just to ease that fear.

24 MS. PREGGER: All right then. I mean, like
25 is this an annual affair, you know, once a year we

Moser

1 go and monitor the site that's just sitting there,
2 sitting there fenced, you know, kids are like right
3 outside the fence looking at this area that they
4 can't play in? How often does this happen? All
5 right. It's just going to sit there. What's the
6 world coming to?

7 Thank you.

8 MR. MOSER: My name is James J. Moser. I
9 live on Benson Avenue, immediately adjacent to and
10 overlooking the back lots of Columbia Mills. I'm a
11 pastor in this community, and my profession is one
12 dedicated to the building and nurture of a just and
13 healthy social environment for all people. I have
14 no substantive technical expertise to contribute to
15 the already complicated incinerator proposition,
16 which I think is a narrow issue anyway. The
17 incinerator, even if satisfactory, would merely be
18 like a band-aid on a cancer. I do, however, have a
19 bigger and simpler point to make.

20 My simple point is based on a single piece of
21 fact. The Columbia Mills site is nestled in the
22 midst of a preexisting residential community. I
23 submit that this fact, in and of itself, and
24 requiring no further justification, dictates the
25 moral imperative that nothing less than a total and

Moser

1 comprehensive cleanup of the toxic materials and
2 contaminated environment of the entire site is
3 acceptable.

4 The Minetto Town Board is charged with
5 representing both the residents and the Town's best
6 interests. I do not personally envy the
7 complicated task of decision-making that is faced
8 by the Board's members, and I respect the burden of
9 responsibility that they bear on my behalf. And I
10 say to the members of the Board, to insist on or
11 even to allow anything less than the complete
12 cleanup and restoration of the Columbia Mills site
13 would be to fail your responsibility to the very
14 citizens who have elected you and to the ones who
15 are too young to find a chance.

16 To New York State Department of Environmental
17 Conservation, it is charged with the high and noble
18 mission of protecting both citizens and the
19 environment of our community, and I state to the
20 DEC, to settle for, to accept or to negotiate any
21 solution short of the complete cleanup and
22 restoration of the Columbia Mills site would be to
23 act out a hollow and perhaps even cynical parody of
24 that high and noble mission. As a public service
25 agency, cost is not your bottom line. The

West

1 protection of people and nature is.

2 My simple point is this: Nothing less than a
3 thorough, complete and comprehensive cleanup and
4 restoration of the entire Columbia Mills site, from
5 Test Pit 3 to the Conrail line, from Benson Avenue
6 Park to the sewage treatment plant, is acceptable.
7 Nothing less than complete cleanup is acceptable.
8 Nothing less is acceptable. Nothing less;
9 nothing.

10 MR. WEST: Hi. My name is Tom West. I live
11 in Minetto. I've lived here merely a year. I live
12 across from the school on Granby Road, and I just
13 have some questions to ask. This isn't the time to
14 ask the questions, but the proposed unit isn't 100
15 percent capable of 100 percent efficiency brand new
16 out of the box that you're planning on incinerating
17 this stuff with, so how efficient is it going to be
18 after running it 24 hours a day for three years?
19 And the random monitoring I don't think would be
20 acceptable, because random monitoring leaves all
21 that time in between when it's being monitored for
22 things to go wrong, and I also think that if
23 monitoring is going to be done, it should be done
24 continuously by an independent firm, not by
25 somebody hired by Malcolm Pirney or the DEC or some

Zike

1 other puppet to be brought in here and tell people
2 what they're supposed to hear, and also I'd just
3 like to finish that I moved here, more than
4 tripling my taxes, and I brought my family here,
5 and I don't think that the reason for all that was
6 to be afraid to send my kids outside and play for
7 the next three years.

8 Thank you.

9 MR. ZIKE: My name is Dale Zike. I live at
10 2052 Benson Avenue, and I have a statement I'd like
11 to read. No one who has read the various reports
12 filed by Malcolm Pirney, Incorporated can fail to
13 be impressed with the magnitude of the
14 environmental pollution problem that exists on the
15 Columbia Mills site. It is an infamous testimony
16 to the abuse the land can take for nearly 100 years
17 of industrial use. There is no question that the
18 Town of Minetto enjoyed many benefits from having
19 the Mills situated here, but this is all in the
20 past. We are now at a turning point in the long
21 history of the Town of Minetto, and critical
22 decisions are now being made, the results of which
23 will be with us long into the 21st century. As a
24 resident who has enjoyed living on Benson Avenue
25 for about 13 years, the proposed remedial action

Zike

1 plan now under consideration by the DEC raises
2 serious issues that all residents need to be
3 concerned with.

4 In my opinion the central issue has to do with
5 what remains on the site once the proposed cleanup
6 plan has been completed. As I read through the
7 alternatives for the cleanup of the different parts
8 of the site, the better alternatives were usually
9 discarded because of cost considerations. And
10 on-site disposal of the contaminated soil and waste
11 selected as the preferred alternative, the
12 residents of Minetto are being asked to accept,
13 after the DEC leaves, a lot of partially demolished
14 buildings that look like Berlin after World War
15 Two. In fact, this is a fact of life we will have
16 to accept in the short-term. But in addition, we
17 are being left with 100 acres, part of which will
18 be a permanent hazardous waste site. We are not
19 asking for a Walden Pond back there, but any stored
20 hazardous waste on site actually guarantees that
21 the land will not have any future use and provides
22 no guarantees that the future pollution of the area
23 will not continue. I am therefore asking the DEC
24 to review their proposed plan and select
25 alternatives that will remove all hazardous waste

Zike

1 from the site or treat the waste in such a manner
2 that they will not have to be labeled as such.
3 This request is made in the full realization that
4 the Minetto site is probably one of many sites in
5 New York State and that the DEC has an enormous
6 responsibility, an endless task for protecting the
7 environment. However, the DEC has here in Minetto
8 an opportunity to demonstrate how a site can be
9 remediated so that its future use is not restricted
10 in any manner. It may take longer and cost more
11 dollars, but we all must show that we are not
12 prepared to walk away from our messes and leave
13 them behind. The proposed remedial action plan as
14 it now stands predicts a bleak future for our town.
15 Future generations who live here deserve better.

16 Thank you.

17 MR. RAFTTEL: My name is Tom Raftel, and I
18 live apparently 203 feet from the incinerator site,
19 if Lisa lives 200. I am here to comment on the IRM
20 proposed by the DEC and opposed by CREOC. I find
21 myself a citizen hollering, hollering for any
22 on-site solution. I believe that stands for
23 chaos. Right. I do not have an ideal solution
24 here, and one of the main concerns that I have and
25 I would seriously like commented on is if the DEC

Raftel

1 is put back in its plans to take that plan, which
2 is at best, adequate, certainly not ideal, but if
3 this plan is delayed for another 12 years, 14
4 years, I want to know how much more exposure to
5 loose asbestos I'm going to have, because nothing
6 has been done on the primary contaminants. I
7 understand the DEC can't do anything about the
8 asbestos. Only Columbia Mills can. Good luck,
9 folks. But if the DEC is held up in taking care of
10 the contaminants, how long before any of the site
11 is viable. I believe we should act now,
12 adequately, as safely as possible and certainly no
13 more dangerous than what's there now.

14 That's all. Thank you.

15 MR. WOOD: My name is Bob Wood. I've lived
16 in Minetto quite a spell. We first moved here in
17 62 and lived on Benson Avenue, so I know Columbia
18 Mills, as many in the room do tonight, as a vibrant
19 entity, local employment a big share of the taxes
20 and so on. It was great. A lot of people moved
21 here because it was a prime residential area. 78,
22 things went down the drain, so in 88 we moved. I
23 got tired of looking at the desecration across the
24 street from my house, that cavern of Columbia
25 Mills. We moved to Ridgeway Sites. I have a stake

Wood

1 in the community, and I'd like to throw a couple of
2 perspectives on this. I questioned the validity of
3 this hearing that's before the Town Board meeting
4 on the 10th and Ms. Lacey gave me a kind answer.
5 This was reasonably complete, but it wasn't
6 absolutely authoritative. The question was: Okay.
7 What's going to come out of this hearing? Is it
8 another cast-in-stone decision already made, or are
9 the opinions of the people assembled, if they can
10 come up with a viable solution, going to be
11 listened to? I don't really think we need to come
12 up with a viable decision. You've paid hundreds of
13 thousands of dollars to consultants to come up with
14 them, but we can cast a couple of perspectives.
15 I've had some experience in land planning. This is
16 my objection.

17 The first objection is to the permanent waste
18 site, namely the drum disposal area. Mr. Camp,
19 could you put that large scale map on the screen
20 again, please? It's Figure 3, Malcolm Pirney.

21 MR. CAMP: I've got Figure 2, but I think
22 that's the one you mean.

23 MR. WOOD: Well, that doesn't show. You had
24 it before.

25 MR. CAMP: Oh, this one?

Wood

1 MR. WOOD: That's not it, either. There we
2 go. Okay. Several people have commented on this.
3 This is by the railroad tracks. It's by the
4 residential area of Benson Avenue. There's a lot
5 of surface and subsurface contamination here. This
6 site is elected as a permanent waste site, fenced
7 off, dead forever. Minetto already has one
8 cemetery; that's hallowed ground. It's beautiful.
9 We don't need another. You say there's seven
10 acres. Well, I'm not sure of the scale of that map
11 from here, but it strikes me as though it's more
12 than seven acres. It's probably more like eight or
13 nine, and by the time you get through moving other
14 stuff in there from other parts of the site, it
15 will be twelve acres. Okay. Minetto's zoning law
16 has an acre and a half for a lot. So eight lots
17 are forever forgotten. Eight lots, eight houses,
18 eight assessments of maybe 170 or \$200,000. Lots
19 fully serviced in Kingford Woods are going for
20 \$30,000. By the time this place is anywhere near
21 ready to use, they'll be 40,000 for a lot with a
22 \$170,000 house on there. What are they paying
23 taxes for? Tax rate is \$14.62 a thousand, and you
24 can figure it out as quick as I can. That's \$3,000
25 a year of tax revenue lost, and this is forever,

Wood

1 and forever is a hell of a long time. Okay. Who's
2 going to live in that house? Somebody that earns
3 30,000 a year, probably average factory wage, \$15
4 an hour for 2,000 hours a year, 30,000. The wife
5 has to work today to make the freight, so there's
6 \$45,000 worth of income. A third of that is spent
7 locally. 15,000 revenue lost to -- lost to
8 Doug Cooper's shop, lost to Tom Fletcher, lost to
9 Jerry Lockwood's markets. This is in perpetuity,
10 forever. We've had a lot of hits, and this is a
11 small town, and there isn't that much acreage here
12 to develop. You're going to take 10, 12 acres out
13 of circulation. I'm against that. In the Minetto
14 zoning code, which was enacted a number of years
15 ago, there's a provision for plan development.
16 This is a natural, 100 acres, part of it with a
17 subdivision, part of it commercial, along the
18 street, and part of it light industry. We can
19 forget it, can't we, if this is a permanent waste
20 site.

21 Let me throw one other humorous note in here.
22 This morning's paper had a lot of funny things, and
23 some pretty serious things. Gus's already alluded
24 to the serious one. The funny one was there. The
25 country, in its wisdom, is going to have a

Wood

1 nationwide postal campaign on which picture of
2 Elvis Presley to put on a stamp. Now that's a key
3 issue. And guess what? 5 million postcards
4 preaddressed are going to be available for voting
5 for April 6th to April 24th. Isn't that marvelous?
6 Isn't that marvelous? The heck of it is that
7 survey is going to be followed. They'll pick the
8 stamp that people ask for. What's going to happen
9 here?

10 Thank you.

11 MS. DALY: My name is Helen Daly. My husband
12 and I have lived in Minetto for the last 23 and a
13 half years. Our house is less than one mile from
14 the Columbia Mills site. I'm embarrassed that I've
15 lived here so long and did not realize until
16 recently how polluted the Columbia Mills site is.
17 The Department of Environmental Conservation should
18 be even more embarrassed, because it was under
19 their watch that that pollution occurred. However,
20 the issue now is how should this site be cleaned
21 up. Our goal should be to clean up the site with
22 the least amount of environmental degradation
23 anywhere on planet Earth and that the site be
24 returned to a condition where a new industry can be
25 convinced to come to this otherwise excellent site

Daly

1 near water, electricity to a treatment plant,
2 highways, railroad and a work force. I have read
3 the reports written about the Columbia Mills site
4 and have come to the conclusion that the option
5 selected by the DEC is not the best for planet
6 Earth.

7 Let me put this statement in perspective. The
8 International Joint Commission, called the IJC, has
9 identified the Great Lakes as a body of water in
10 serious trouble. There is a commission between
11 Canada and the United States, and they have agreed
12 to work together to clean up the Great Lakes. The
13 IJC has developed a policy of zero discharge. This
14 means that we should no longer use the Great Lakes
15 as a dumping ground for persistent toxic
16 chemicals. Our policy, and I mean worldwide
17 policy, has been dilution is the solution to
18 pollution. Unfortunately, this policy does not
19 work because of something called biocumulation.
20 When we dump the toxic chemicals into a body of
21 water, they disperse. That is true, but then they
22 contaminate the algae, the little fish eat the
23 contaminated algae, bigger fish eat lots of little
24 fish, and the biggest fish eat many smaller fish
25 with concentrated larger amounts of these

Daly

1 chemicals. It is for this reason that DEC has had
2 to place restrictions on the consumption of sport
3 fish they themselves stock in Lake Ontario. In
4 order to clean up the Great Lakes the IJC has
5 identified 42 hot spots around the Great Lakes.
6 The Oswego Harbor is one of these 42 hot spots. At
7 the request of the Commissioner of the DEC I served
8 on a committee, the Remedial Action Plan Committee,
9 for many years, trying to figure out how bad the
10 Oswego Harbor is and how to clean it up with the
11 goal of helping us clean up the Great Lakes. What
12 became very clear is that the Oswego River is
13 flushing a large number of toxic chemicals through
14 the Oswego Harbor into Lake Ontario. This has to
15 be stopped if we want to clean up Lake Ontario. I
16 believe that the solution the DEC has initially
17 selected for the Columbia Mills site will add to
18 the problems of not only the Minetto community but
19 the health of Lake Ontario. Burning the hazardous
20 chemicals in an incinerator not designed for the
21 magnitude of the job will result in releases into
22 the atmosphere. Whatever you and I do not breathe
23 in will then get into the atmosphere where the rain
24 will bring it back down back into the drainage
25 basin into the Oswego River, the Harbor and into

Daly

1 Lake Ontario. This is hardly a reasonable solution
2 to take the waste in the dirt, in the ground, put
3 it into atmosphere and let it come down someplace
4 else. Leaving a permanent waste dump next to the
5 Oswego River is not a very good idea. The dump
6 will leach into the Oswego River, and whatever
7 chemicals are not picked up by the swimmers in the
8 Oswego River and the fish in the Oswego Harbor will
9 go into Lake Ontario and get into our drinking
10 water supply and our fish.

11 I have a few questions. Have you calculated
12 the amount of each hazardous chemical that will be
13 released into the atmosphere and into the waterways
14 if you go ahead with your tentatively proposed
15 plans? If you have, what are the values and how do
16 they compare with the alternate plans in your
17 proposal? If you've not made these calculations,
18 you should be required to make them. Who decided
19 on the effluent limitations, the SPDES requirements
20 and the monitoring requirements? How many legal
21 discharges are there at this level in the Oswego
22 River drainage basin? Where would the leachate be
23 taken and treated if waste is left on site? Would
24 it go to the Fulton Sewage Treatment Plant and
25 dumped into the Oswego River, just to get back into

Kerr

1 our swimming and drinking water and with the fish?
2 I urge we support the proposals of CREOC. Thank
3 you.

4 MR. KERR: My name is Paul Kerr, and I live
5 with my wife, Rosemarie, and our daughter Alicia on
6 Rich Road. Our daughter goes to Minetto School.
7 My comment is going to be brief. It's clear that
8 the people here -- we didn't cause the pollution.
9 It's clear that the DEC didn't cause the
10 pollution. At some point it's going to have to be
11 some kind of consensus to remedy this problem. I
12 have no technical background in environmental
13 science, so you can say, well, why do you want to
14 make a comment? The reason I want to make a
15 comment is, not having any background, there are
16 far more questions that are raised just by reading
17 the material that I've had a chance to read in the
18 newspaper and some other materials, that even I, as
19 a person with no scientific background, can raise
20 questions, very basic questions, like: How deep is
21 the contamination? Also, how long will it be
22 monitored, how will it be monitored? And this has
23 already been addressed by other speakers. The
24 incinerator -- when I first came here to Oswego --
25 this was back in 71, and Niagara Mohawk had to

Kerr

1 build those large smokestacks to, I assume, to make
2 sure that whatever was being burned would burn more
3 fully and put less toxic materials in the
4 atmosphere. And they're high. I mean, they're
5 tall, and you're coming in with a little portable
6 job that is supposed to burn off all these toxic
7 materials. I have a lot of questions like that.
8 It's like Swiss cheese.

9 MS. LACEY: I think on that, there will be a
10 discussion of that technology and we'll get further
11 into that part. That's part of the Test Pit 3, and
12 there are people here to give a lot of information
13 on that particular topic.

14 MR. KERR: Good. Okay. Well, thank you. I
15 have nothing else to say at this point.

16 MS. LACEY: If you have anything on other
17 parts of the --

18 MR. KERR: No, anything I would have said has
19 already been said.

20 MS. RILEY: Hello. My name is Erin Riley,
21 and I'm a student at SUNY Oswego. Yearly SUNY
22 Oswego averages 8,000 students, with an entirely
23 different 8,000 students every four years.
24 Depending on which way the wind is blowing, and we
25 all know it certainly blows around here, this

Riley

1 proposed incinerator will affect many more people
2 than just the residents of Minetto. Money should
3 not be an issue when the quality of life is
4 concerned. The taxpayers of Minetto are supplying
5 their elected officials with their hard-earned
6 dollars. Replacing a hazardous substance on the
7 ground with one in the air in the form of
8 incinerated dioxins should not be an option. To
9 replace one hazardous substance with another is not
10 a viable solution. I think I speak for the
11 majority of students at the college when I say that
12 I don't want this in my neighborhood.

13 Thank you.

14 MR. THORPE: You've got time for one more,
15 right?

16 MS. LACEY: Sure.

17 MR. THORPE: I know Gus is dying to hear what
18 I'm going to say. My name is Harold Thorpe. I've
19 lived in Minetto since 1976. I have lived in the
20 Morris Kring House, for those of you who have been
21 here longer, and I've got a lot of questions which
22 you aren't going to answer. But a lot of points
23 have been said right here, and I think it's quite
24 evident how the people in this room feel, and there
25 are a couple of things that somebody's missed.

Thorpe

1 Number one, the area that you want to cap, to
2 make it a permanent waste disposal area in sandy,
3 cinder soil, you can cap it, but whatever's under
4 the cap is going to leave, and your own
5 investigations have shown that it's going to leave
6 towards the river. This area is part of the water
7 shed to the Oswego River and Lake Ontario. That
8 being the case, has an environmental impact
9 statement been filed with the EPA?

10 Secondly, I believe part of these pieces of
11 property are wetlands. I don't think you can do
12 this near a wetland. I know you can't do hardly
13 anything near a wetland. I can't believe a toxic
14 waste dump in perpetuity would be acceptable. Now
15 I've lived here since 1976, and I love it here.
16 Don't destroy it. Joe, I've always supported you,
17 and you've always helped me when I needed it. Help
18 me now.

19 Thank you.

20 MR. SERELL: Hi. I'm Tom Serell. I've been
21 a Minetto resident for about five years. I have
22 one concern, and that's really the health of the
23 people. The real concern, though, is we can come
24 up with a lot of excuses to not fix a problem now.
25 We can say it's not a perfect solution, we can say

Serell

1 there will be a little bit of leachate maybe that
2 will go the wrong way, but right now we've got it
3 all. We got every goddamned bit of stuff that's in
4 there, and the dogs are tracking through it. We
5 need to do something. Now maybe a ten-acre area is
6 not the best solution, but maybe we take care of
7 what we've got now and then we can come along later
8 and take care of that ten acres. But I don't think
9 that by arguing the specific points continually
10 we're going to solve the problem. We're going to
11 delay the inevitable. We're going to be stuck with
12 something, whether it's here, whether it's 100
13 miles down the road, somebody is going to have to
14 take this waste, and if we can isolate it and
15 control it, maybe we've got a better solution to
16 take care of right here. And I just think we need
17 to think carefully. I don't want to have a toxic
18 waste site here, either. But I think we have to
19 take carefully the alternatives and also consider
20 the cost, because we know that nothing comes
21 without a cost, and we can't always take a solution
22 that costs the most amount of money. We don't have
23 that kind of money, the State, the Federal
24 government, nobody has a lot of funds. So maybe we
25 need to take the best solution we can get for now

Elliott

1 and go for corrections later.

2 Thank you.

3 MR. ELLIOTT: My name is Richard Elliott. I
4 live here, and I work here (indicating).

5 MS. LACEY: Thank you for the use of your
6 building.

7 MR. ELLIOTT: Certainly. My understanding of
8 basic approach to the DEC relative to hazardous
9 waste sites in general, as you find them across New
10 York, is to prioritize the relative danger in each
11 one and to go after the most dangerous ones first.
12 If we have the DEC here now, obviously, we have a
13 more serious problem on our hands than other toxic
14 waste sites across the State of New York. If the
15 job is half done, that will lower where we fall on
16 the scale. Others will then come in ahead of us in
17 terms of priority, and you guys are not going to be
18 back for a long time. It's got to be done whole,
19 not half, so that we get half the problem taken
20 care of and we fall into a lower category and we
21 don't see anyone again.

22 MS. LACEY: Is there anyone else with a
23 comment to put on the record?

24 MS. ROSE: I'm Tracy Rose. I'm from the
25 college, and just referring to the last speaker but

Rose - Guadagno

1 one, there is no cost that can be attached to
2 losing just one child to cancer as a result of
3 incineration. Human life does not have a price.
4 Columbia Mills should pay for the damage, whatever
5 it costs. Unfortunately, we're already exposed to
6 dioxins a few miles down the road in Volney. The
7 incinerator went in there, and I didn't hear anyone
8 shouting about that.

9 That's all.

10 MS. LACEY: Anyone else? Comments?

11 MS. GUADAGNO: I, too, am a student at the
12 college. I've lived in Oswego for two years now.
13 What I'm wondering is: There are animals that are
14 going to get at this permanent waste site, which
15 means that, the way I understand it, they will
16 become toxic from being exposed to this waste.
17 Children are going to play with them. I know that
18 I have picked up many turtles on the road, you
19 know. I used to work at Sealright, going back and
20 forth, you know, that's exposed me to toxins. How
21 are we going to contain these animals in this
22 site? How are you going to keep -- a fence can be
23 climbed. Are there going to be patrols? Is there
24 going to be a guard? I don't see how making this
25 permanent dump is going to work at all. It needs

Barone

1 to be cleaned up, and it needs to be taken from
2 this site.

3 That's all I have to say.

4 MR. BARONE: My name is Anthony Barone. I
5 live on Benson Ave. I've lived in Minetto for
6 almost 30 years now, and I think the DEC should
7 look at a complete and total cleanup of the area,
8 because whether you know it or not, I think it
9 already has impacted on one of the industries
10 within Minetto. Last week the Niagara Mohawk Power
11 Corporation presented to the Town Board a plan for
12 the relicensing of their hydrostations, and one of
13 the things that they are looking at are recreation
14 facilities and possibly purchasing of the property
15 adjacent to them, which was prior owned by Columbia
16 Mills, and they are very -- now they are very
17 reluctant in pursuing the purchase of that
18 property, because they do not know what the
19 contaminants are involved in this. And so until
20 they know what the DEC plans to do and what kind of
21 contaminants are in there, their indications are
22 that they will not pursue the purchase of that
23 property, so I think a complete and thorough
24 cleanup of the area, if Niagara Mohawk or the Town
25 of Minetto is going to realize any further use of

Will

1 that property, it has to be done.

2 Thank you.

3 MR. WILL: Hello. My name is Luko Will. I'm
4 from the college, and I just want to say it's
5 wonderful all the people concerned here, and I got
6 a lot of very good suggestions how to do the job
7 better. I just want to say that do what the people
8 want.

9 Thank you.

10 MS. LACEY: Further comments?

11 SPECTATOR: Where's Columbia Mills? Are they
12 here tonight or anyone representing them?

13 SPECTATOR: Or their checkbook?

14 MS. LACEY: We're going to close the hearing
15 part of the --

16 MR. DOBSON: I have a question. Are we
17 allowed to comment now about proposed things for
18 the dump in the future for Minetto at this point?

19 MS. LACEY: As far as the site?

20 MR. DOBSON: Yes.

21 MS. LACEY: Oh, sure. Are you talking about
22 reuse of the site?

23 MR. DOBSON: Yes. My name is Mitch Dobson.
24 My family has lived in Minetto for -- well, more
25 than 30 years, and I'm living in Ridgeway Site. As

Dobson

1 I said, the interesting part about Minetto is that
2 it's essentially a progressive little town. It's
3 something that maybe possibly we could all work as
4 a group and invest in Minetto. The interesting
5 part is that people are wondering what to do about
6 Columbia Mills. Well, it's been here for longer
7 than we've been here. So since the town is not
8 using this property anyway for any valuable usage,
9 why don't they just invest in Columbia Mills. Why
10 don't they, say, like buy this town and invest it
11 back into the community, turn what those ten acres
12 are back into useful jobs, possibly education,
13 possibly a senior citizen facility, possibly
14 anything that would promote jobs for Minetto, for
15 whoever. It's getting to a point where people are
16 going to have to eventually, you know, reinvest in
17 their own future, and there are times when I wonder
18 if people really care enough about the community to
19 do such a thing.

20 That's all I have to say. Thank you.

21 MS. LACEY: Okay. I'd like to wrap up the
22 public hearing, the public hearing portion of
23 tonight and move on to the description and
24 explanation and comments on the interim remedial
25 measure which is under discussion and is obviously

Lacey

1 of such concern to a lot of you.

2 Before we close this off, I need to remind you
3 once again that the comment period lasts until the
4 5th of March, that both oral and written comments
5 will become part of the record and will be
6 responded to before a record of decision is issued
7 on this site.

8 MR. ROSENBAUM: Before people leave can you
9 explain the dichotomy that you are presenting to
10 us? Why is there a separate meeting on --

11 MS. LACEY: Yes. Actually, it's fairly easy
12 to explain. The ongoing investigation and the
13 normal investigation and remediation process with
14 the hazardous waste program has been going on over
15 a period of years, four or five years from the
16 beginning of the remedial investigation until the
17 completion of the feasibility study, which I
18 believe was last December -- October -- December,
19 in the winter. We are required by the State
20 Superfund Laws, by the hazardous waste regulations
21 to conduct a public hearing on the proposed
22 remedial action plan and to put that out for 30
23 days of public comment. That was noticed for
24 public comment the early part of February, and the
25 comment period ends at the end of March.

Lacey

1 The other topic which has raised such public
2 interest and concern, is an interim remedial
3 measure. It is one of several remedial measures
4 which have been undertaken at the site while the
5 overall investigation has been ongoing. There was
6 a drum removal which was an IRM, there were
7 remedial measures which were undertaken in order to
8 move along specific parts of the process, specific
9 hazardous conditions to deal with those, rather
10 than waiting until the other overall remedial plan
11 was in place, so what we're -- the IRM that we're
12 talking about at the conclusion of this hearing is
13 not included in the overall plan. It was
14 supplemental. It was investigated separately. It
15 was put out in notice separately. It was out in a
16 separate volume and described thoroughly so that,
17 you know, people would have a chance to look at
18 that separately.

19 MR. ROSENBAUM: Just another question. That
20 will happen much quicker than the matters that we
21 spoke about related to the remedial action?

22 MS. LACEY: Yes. As far as the remedial plan
23 for the entire overall site, the comments that have
24 been made tonight and the ones that will be
25 received by mail up until the 5th of March will be

Lacey

1 addressed by the staff at DEC. They'll get some
2 answers, evaluate some of the comments that were
3 made, respond to them. If there are changes in the
4 draft PRAP, the remedial action plan, that will be
5 finalized in a document called a ROD, a record of
6 decision, and that would be the formal decision on
7 an overall approach to the cleanup. Following
8 that, there would normally be a design -- You can
9 go through the --

10 MR. SCHICK: Yes. Can I just add, we can
11 give a little how we got to where we are on that
12 IRM as an introduction before we start off.

13 MR. ROSENBAUM: The IRM is scheduled to occur
14 tomorrow?

15 MR. SCHICK: Right. It's scheduled to occur
16 once we have approved it. I'll give you just a
17 brief history, where we are, and then we can get
18 into our detail.

19 SPECTATOR: Who's approving?

20 MR. SCHICK: The DEC.

21 SPECTATOR: Oh, you?

22 MR. SCHICK: The regulatory agency.

23 MS. LACEY: So if we can just close off the
24 hearing part of this and then move on, we'll get a
25 description of the technology that everyone is so

Lacey

1 concerned about.

2 Yes?

3 SPECTATOR: One question before we go into
4 that. I've been told by my children that there's
5 been some railroad cars filled with chemicals that
6 had been buried in the site. Have they been
7 removed, do you know?

8 MS. LACEY: Railroad cars buried at this
9 site?

10 SPECTATOR: Yes, ma'am. Yes, ma'am.

11 MR. ROSENBAUM: How would they know? They
12 haven't adequately surveyed the property.

13 MS. LACEY: There's been some pretty thorough
14 testing done of that property. If there's some --

15 SPECTATOR: There's been eight tanks
16 removed. There are no remaining tanks on the
17 site. Five of those were railroad cars.

18 MS. LACEY: And they were removed. When we
19 were talking before, there were drums removed,
20 there were tanks removed on the site under interim
21 remedial measures, IRMs, the same kind of thing
22 we're talking about, rather than waiting for the
23 overall cleanup plan to go through this fairly
24 lengthy approval process. Okay.

25 SPECTATOR: I'd like to just say something.

Lacey

1 I'm very grateful there's many PhD, biology and
2 chemistry professors in this audience tonight.
3 Many of these professors have taught me, and I'm
4 sure that they've taught you. Please take their
5 advice so we don't have to give you an F.

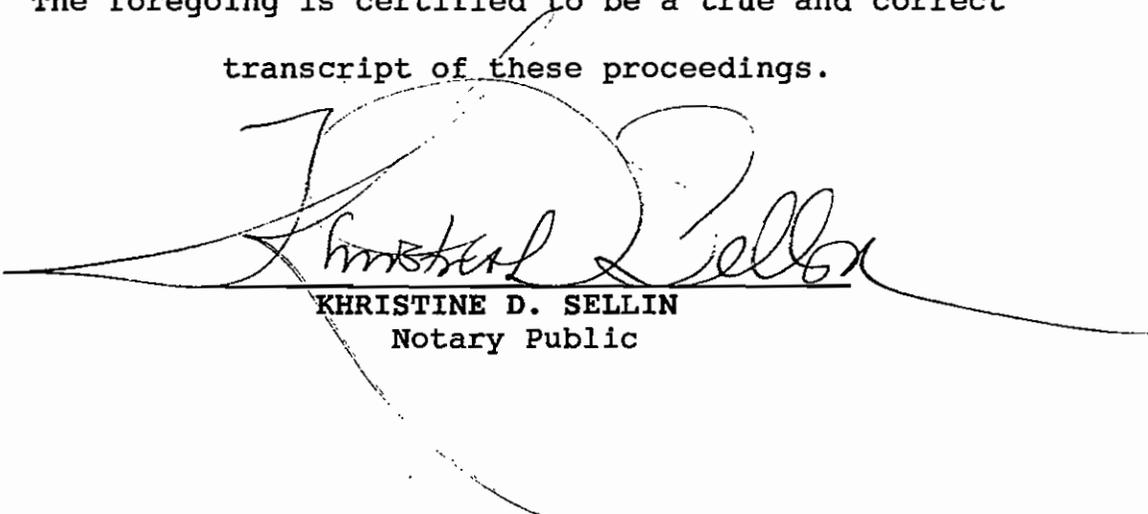
6 Thank you.

7 MS. LACEY: Okay. With that, we'd like to
8 close the session, and again, I'll give you the
9 address. Any written comments should be addressed
10 to David Camp, New York State DEC, Room 222, 50
11 Wolf Road, Albany, New York, 12233. If you want
12 to, get a card from David to make sure you have the
13 right address.

14 * * *

15
16 CERTIFICATE

17
18 The foregoing is certified to be a true and correct
19 transcript of these proceedings.

20
21 
22 KRISTINE D. SELLIN
23 Notary Public
24
25

APPENDIX B

DOCUMENT REPOSITORIES:

Documents related to remedial activities at the Columbia Mills site are available for public review. The documents are available at:

LOCAL REPOSITORIES:

Town of Minetto
Town Hall, Box 220
4030 Empire Avenue
Minetto, New York 13115

REGIONAL REPOSITORIES:

DEC Regional Office
Office of Public Affairs
615 Erie Boulevard West
Syracuse, New York 13204

DEPARTMENT CONTACTS:

Mr. Robert W. Schick, P.E.
or/ Mr. David A. Camp
NYSDEC, Room 222
50 Wolf Road
Albany, New York 12233-7010
518/457-4343

REGIONAL HAZARDOUS WASTE ENGINEER:

Mr. Charles Branagh
Regional Headquarters - NYSDEC
615 Erie Boulevard West
Syracuse, New York 13204-2400
315/426-7551

CITIZEN PARTICIPATION SPECIALIST:

Ms. Kate Lacey
Regional Headquarters - NYSDEC
615 Erie Boulevard West
Syracuse, New York 13204-2400
315/426-7400

NYSDOH - CONTACT SYRACUSE:

Mr. Ronald Heerkens
NYS Department of Health
677 South Salina Street
Syracuse, New York 13202
315/426-7613

NYSDEC "800" number 1-800-342-9296, staffed by members of NYSDEC's Citizen Participation Unit who will listen to your questions and try to provide an immediate answer or will get back to you as soon as possible with accurate information.



Thomas C. Jorling
Commissioner

20

MEMORANDUM

TO: Eric O'Brecht - Bureau of Eastern Remedial Action - DHWR - Room 222
FROM: Joe Kelleher, Chief, Chemical Systems Section, DOW - By: Bill Wasilauski
SUBJECT: Columbia Mills Site #738012, Minetto (T), Oswego Co.
DATE: December 30, 1988

We have completed our review of the Draft Remedial Investigation Report for the subject site. We have the following comments.

We agree with recommendation #3 which indicates that additional reports should be made to determine if the "no-response" homes located downgradient of the site have domestic wells. If such wells can be located they should be sampled as part of the RI/FS to determine the extent of contamination of the groundwater downgradient of the site. If such domestic wells do not exist then installation of additional monitoring wells to determine the extent of contaminant migration from the site should be considered.

We also agree that a replacement monitoring well for B-2 should be installed especially since this location is contaminated with volatile organics (especially toluene) from UST's which have been removed from this vicinity.

cc: Lee Flocke - Region 7
Joseph Slack - Director, BERA - DHWR

JFK/WW/vc

RECEIVED

JAN 04 1989

BUREAU OF EASTERN REMEDIAL ACTION
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WASTE REMEDIATION

Steph / Eric
Any Problem?
Joe



Eric

New York State Department of Environmental Conservation

MEMORANDUM

TO: Joseph L. Slack, P.E., Director, Bureau of Eastern Remedial Action, DHWR
FROM: Stephen B. Hammond, Chief, Technical Support Section *SB Hammond*
SUBJECT: Columbia Mills Site #738012
DATE: December 14, 1988

This is to inform you that Section staff believe it will be necessary to begin laying the ground work for an alternate source of funding for a remedial program at the referenced site. In addition, involvement by the Division of Solid Waste may be necessary to determine measures to mitigate the asbestos problems at the site.

At present, the only PRP the Department has brought enforcement action against is Columbia Mills, the former owner of the site. The current owners, the Town of Minetto and County of Oswego, acquired the property after Columin Development Corporation, a salvaging company who purchased the property in an auction, defaulted on property taxes. Neither the Town or County claims ownership to site. DEE has informed us that ownership will be determined by the courts when enforcement action is brought against the municipalities.

Columbia Mills has yet to reveal any financial information, but in a recent meeting they claimed to have two million dollars available for the remedial program. It is our opinion that due to the comprehensiveness of the problems at the site, this will not be enough to finance an appropriate remedial action. In addition, the Town and County must likely does not have the funds necessary to complete a remedial action at the site. Therefore, the Department should begin considering alternative funding sources such as State Superfund or EQBA Funds, to remediate the site.

-- The second issue involves the final deposition of the asbestos identified at the site. Columbia Mills claims that they are not responsible for the asbestos problem at the site because they did not own the property at the time the problem was created. The asbestos was spread over the site during salvaging operations in 1978 by Columin Development Corporation. The company went out of business after they defaulted on property taxes, so it appears they will not be a viable PRP; DEE is presently investigating this matter. The Town and/or the County are the only other PRPs.

Columbia Mills has agreed to consider signing a Consent Order that cover Supplemental RI work and a Feasibility Study that does not include studying the asbestos problem. Section staff requested that DEE consult with the Division of Solid Waste before a Consent Order was sent to the PRP that didn't include studying the asbestos problem. The Division of Solid Waste's position, which we are in agreement with, was that this Consent Order did not have to consider the asbestos, but that it contain provisions allowing the Department to bring action against Columbia Mills for the asbestos problems in the future.

Eric Obrecht and I are available to meet with you to discuss these issues should you want to take additional actions.



New York State Department of Environmental Conservation

MEMORANDUM

TO: Woody Erickson
FROM: Dolores Tuohy *DT*
SUBJECT: Columbia Mills Inactive Hazardous Waste Site—Site Code # 738012
DATE: December 9, 1988

As I discussed with you yesterday, DEE is trying to obtain information on "Columin Development Corporation," a PRP in the Columbia Mills case. The company demolished a number of the buildings at the Site a number of years ago, leaving asbestos strewn about the Site.

We have the following information about Columin Development Corporation:

- o The company's main offices are or were in Pulaski, New York or Albany.
- o The last name of one of the owners of the company is believed to be "Dobbins."
- o Columin conveyed the Columbia Mills property to Great Northern Corporation by Deed dated October 25, 1982. The Deed is filed in the Oswego County Clerk's Office. We do not have a book and page number for the Deed.

Any information you can obtain on this company, including the names of its principals and whether it is still in existence, would be appreciated. Please have any documents copied at the County Clerk's Office certified.

Thanks for the assistance.

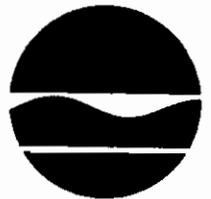
DAT:ljd

cc: Eric Obrecht
Dave Wazenkewitz

SEARCHED
SERIALIZED
INDEXED
FILED
DEC 12 1988
OSWEGO COUNTY CLERK'S OFFICE

Eric Okecht

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



Thomas C. Jorling
Commissioner

The Honorable Ray T. Chesbro
New York State Assembly
Room 529
Legislative Office Building
Albany, New York 12248

DEC 07 1988

Dear Assemblyman Chesbro:

This is in response to your November 1, 1988 letter to Regional Director William Krichbaum regarding the Columbia Mills Site located in Minetto, New York.

Facilities at the Columbia Mills Site were used for the manufacture of cloth and vinyl products from 1889 until approximately 1976. These manufacturing processes generated a number of chemical wastes. An investigation of the Site undertaken in 1986 disclosed the presence of underground storage tanks, a drum disposal area, and contaminated surface soil, surface water and groundwater. Substantial quantities of asbestos, which were randomly disposed of during a salvage company's operations following the plant's closure, are present at the Site.

The Department has listed the Site in the Registry of Inactive Hazardous Waste Disposal Sites as a classification "2," indicating that the Site constitutes a significant threat to the environment.

In 1980, the Department arranged for the removal of numerous drums disposed of at the Site. Since then, the Department has worked with consultants of the Columbia Mills Company to develop plans to investigate the Site and to take immediate remedial measures with respect to the most severe problems at the Site. The Department has overseen the consultant's carrying out of these investigations and remedial measures. The enclosed "Fact Sheet" details activities undertaken at the Site by the Department and Columbia Mills.

Members of the Department's legal staff have been involved in the case since early 1988. The New York State Attorney General's Office has recently joined in our negotiating efforts. Negotiations with Columbia Mills have been directed toward obtaining a formal commitment from the company to continue its investigation and remediation of the Site. Issues regarding the company's ability to pay to remediate the Site have forestalled obtaining a prompt commitment from the company.

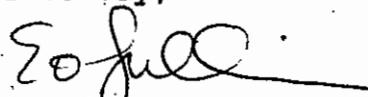
12-19-88

BUREAU OF

As you know, State law provides that the State must use reasonable efforts to compel responsible parties to investigate and remediate inactive hazardous waste sites before State funds can be used for such remediation. While the Department understands the desire of the residents of Minetto to see State funds used to immediately clean up the Site, the Department is bound by law to seek Columbia Mills' participation in the cleanup before State funds are expended. Since Columbia Mills has expressed a willingness, at the present time, to continue investigating and remediating the Site, we are unable to expend State funds to undertake these activities.

In closing, let me assure you that the steps being taken by this Department are for the protection of the citizens of Minetto as well as the environment. The Department's objective is to have a complete cleanup take place at the Site as quickly as possible.

Sincerely,



Edward O. Sullivan
Deputy Commissioner

Enclosure

DAT:ljd

bcc: Mike O'Toole
Charlie Goddard
Joe Slack/S. Hammond
Eric Obrecht
Frank Bifera
Dolores Tuohy
Dean Sommer
Jeff Gaal
Bill Krichbaum

FACT SHEET (11/88)

Site: Columbia Mills NYS 738012

Location: Town of Minetto, Oswego County

Registry Classification: Class 2

Responsible Party: Columbia Mills Company (Shell of company no longer in business in the United States; Canadian parent company has been sold).

Site Ownership: Town of Minetto and Oswego County

Enforcement Status: Division of Environmental Enforcement has the enforcement lead for the Department. The Department is currently negotiating a Consent Order with Columbia Mills.

Technical Review and Oversight: Provided by DEC Region 7 and Division of Hazardous Waste Remediation, Bureau of Eastern Remedial Action.

Site History:

1976 - Columbia Mills ceased operation and sold the plant to a salvage company.

1980 - DEC arranged for manifested removal of numerous drums.

1984 - Evaluation of the site's potential for reuse for Oswego County documented potential hazards at the site due to left-over chemicals and/or wastes.

1986 - Phase II Site Investigation prepared for Bond, Schoeneck, & King (Attorney for Columbia Mills Company).

Following DEC review and comment, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures.

December 1986 Work Plan Scope and Status:

- Reviewed and approved by DEC March, 1987
- Cleaning and removal of buried tanks and contaminated soil - tanks pumped out in November 1987 and removal of tanks and soil scheduled for spring 1988.

- Installation of temporary fencing and warning signs around drum burning area - installed May 1987.
- Inventory of asbestos materials - completed August 1987.
- Gathering further information on soils, groundwater, surface water, and sediments to refine Hazardous Ranking Score - completed autumn of 1987.
- removal of overpacked drums from main plant area - removed September 1987.
- Report submittal - Malcolm Pirnie (engineering consultant hired by Bond, Schoeneck, & King) proposed to Bond, Schoeneck, & King that the report on the field investigations carried out under this work plan be in the form of a Remedial Investigation Report rather than a Supplemental Phase II Report.

February 1988 -

Malcolm Pirnie submitted a revised work plan for removal of buried tanks and aeration of contaminated soils. After several revisions the work plan was approved by the Department in July 1988.

June 1988 -

Malcolm Pirnie had an accessible portion of a lead contaminated area of the site covered with a six inch soil blanket. Large trees were also cut down to limit vehicle and human traffic through this area.

July 1988 -

Eight underground tanks were removed from the site to an approved disposal facility. The contaminated soils collected from around the tanks were piled on site and covered. The holes in the ground left by the tank removals were backfilled with clean fill.

August 1988 -

Malcolm Pirnie sampled soils removed during tank excavation. Disposal of the soils is pending further investigation.

August 1988 -

Division of Air Resources with cooperation from Division of Hazardous Waste Remediation, performed an ambient air investigation for asbestos.

November 1988 -

Malcolm Pirnie submitted Draft Remedial Investigation Report based on previous Phase II investigations and subsequent soil, groundwater and surface water investigations. The report is currently being reviewed by the Department.



THE ASSEMBLY
STATE OF NEW YORK
ALBANY

RECEIVED
NOV 9 1988
DEPT. OF ENV. CONSERVATION
REGION 7 ENV. DIV.

RAY T. CHESBRO
Assemblyman 117th District
RANKING MINORITY MEMBER
Committee on House Operations
Room 888
Legislative Office Building
Albany, New York 12248
(518) 485-6841

DISTRICT OFFICE
Cattaraugus County Office Bldg.
200 North Second Street
Pulver, New York 13069
(518) 886-8185

November 1, 1988

Mr. William Krichbaum
Regional Director
New York State Department of
Environmental Conservation
615 Erie Boulevard West
Syracuse, New York 13204

Dear Mr. Krichbaum;

I am writing to you regarding the former Columbia Mills site in the Town of Minetto. Enclosed please find a copy of the petitions I have recently received concerning the site.

I would appreciate your advising me of the status of the clean up project.

Thank you for your time and interest in this matter.

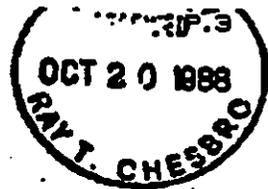
With kind regards,

Sincerely,

Ray
RAY T. CHESBRO
Member of Assembly
117th District

RTC:bg

enclosures



PETITION

We, the undersigned, being residents, property owners, taxpayers and concerned citizens of the Town of Minetto and/or of surrounding environs in the County of Oswego, hereby request New York State, the Department of Environmental Conservation, the Department of Health, the Department of State and any other appropriate subdivisions or agencies thereof, as well as the United States of America, through its applicable departments, agencies and subdivisions, to forthwith carry out any and all measures necessary to effect the clean-up of the former Columbia Mills industrial site in the said Town of Minetto, including the removal of any toxic wastes and/or toxic materials thereon, all asbestos and asbestos-tainted materials, and the razing of the building remnants still remaining; we call on both the federal and state governments, as well as the Oswego County Legislature, to appropriate the necessary funding to effectuate the foregoing, without further delay.

DISTRIBUTION:

- Hon. Daniel P. Moynihan, United States Senate
- Hon. Alfonse M. D'Amato, United States Senate
- Hon. Frank Horton, United States House of Representatives
- Hon. Mario M. Cuomo, New York State Governor
- Hon. John M. McHugh, New York State Senate
- Hon. Ray T. Chesbro, New York State Assembly
- Hon. Hollis Isalin, Oswego County Legislative Chairman

<u>NAME</u>	<u>DATE</u>	<u>ADDRESS</u>
<u>Lashie L. Battles</u>	<u>8/27/88</u>	<u>RR5 Box 26 Oswego NY</u>
<u>Raymond A. Jackson</u>	<u>8/27/88</u>	<u>407 Knobby Rd - Minetto NY</u>
<u>Paul M. Kunkley</u>	<u>8/27/88</u>	<u>RR5 Box 228 Oswego NY</u>
<u>Josephine A. Gratale</u>	<u>8/27/88</u>	<u>P.O. Box 524, Minetto, NY</u>
<u>Barbara Ferlito</u>	<u>8/27/88</u>	<u>R.D. 1 Box 203, Fulton NY</u>
<u>Alison Ward</u>	<u>8/27/88</u>	<u>Box 73, R.D. 5 Oswego NY</u>
<u>Lynn M. Chetney</u>	<u>8/27/88</u>	<u>Box 129 Minetto NY</u>
<u>Marayle B. Biddle</u>	<u>8/27/88</u>	<u>6 Brookside Dr Oswego NY</u>
<u>Arlene Dodge</u>	<u>8/27/88</u>	<u>1997 Beaman Ave</u>
<u>Jenny Spedding</u>	<u>8/27/88</u>	<u>Box 88 Oswego NY</u>
<u>John R. Saunders</u>	<u>8/27/88</u>	<u>PO Box 167 Oswego NY</u>
<u>John H. Belt</u>	<u>8/27/88</u>	<u>666 Ave RD 10 Oswego NY</u>

M E M O R A N D U M

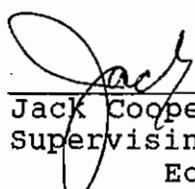
December 2, 1988

TO: Eric Obrecht, Division of Hazardous Waste Remediation
FROM: Jack Cooper, Division of Fish and Wildlife
RE: Columbia Mills Site

The Division of Fish and Wildlife has reviewed the Draft Remedial Investigation Report for the above referenced site. Due to the size and location of this site, there is considerable potential for interaction with fish and wildlife resources. Section 2.3 of the report attempts to identify natural resources of the site, however, more detail is needed to fully assess the habitats that will be impacted and the potential fish and wildlife receptors. It appears that the site does contain a diverse mix of habitats, from wood lots to wetlands. This diversity will provide habitat for a wide variety of wildlife species such as: deer, raccoon, muskrat, song birds, waterfowl among other species. The report needs to identify the specific covertime and vegetative species associated with the site and the various wildlife species that will be associated with the covertypes.

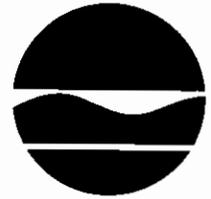
The risk assessment should determine which of the habitats are most likely to be contaminated, which wildlife receptors will be impacted and the probable contamination pathway. It appears that metals may be the most significant problem. The report has identified high metal concentrations associated with soils around the ponds on the west side of the property. Possible exposure routes for wildlife could include ingestion of soils, runoff of sediment into surface waters and bioaccumulation through the food chain. We recommend that the risk of potential contamination and the exposure pathways be investigated for metals, in addition to other contaminants on the site, and that fish and wildlife receptors, as well as humans, be evaluated. Surface water concentrations of cadmium may be acutely toxic. We will be conducting additional review of the report and will provide more specific comments shortly.

If you have any questions relative to these comments, please contact me at 457-1769.



Jack Cooper
Supervising Fish & Wildlife
Ecologist

JC/kh
cc: B. Griffin
R. Sloan



Thomas C. Jorling
Commissioner

M E M O R A N D U M

TO: Eric O'Brecht - Bureau of Eastern Remedial Action - DHWR - Room 222
FROM: Joe Kelleher, Chief, Chemical Systems Section, DOW - By: Bill Wasilauski *uw*
SUBJECT: Columbia Mills Site #738012, Minetto (T), Oswego Co.
DATE: December 30, 1988

We have completed our review of the Draft Remedial Investigation Report for the subject site. We have the following comments.

We agree with recommendation #3 which indicates ^{possibly} that additional reports should be made to determine if the "no-response" homes located downgradient of the site have domestic wells. If such wells can be located they should be sampled as part of the RI/FS to determine the extent of contamination of the groundwater downgradient of the site. If such domestic wells do not exist then installation of additional monitoring wells to determine the extent of contaminant migration from the site should be considered.

We also agree that a replacement monitoring well for B-2 should be installed especially since this location is contaminated with volatile organics (especially toluene) from UST's which have been removed from this vicinity.

cc: Lee Flocke - Region 7
Joseph Slack - Director, BERA - DHWR

JFK/WW/vc

JAN 04 1989
BUREAU OF EASTERN REMEDIAL ACTION
DEPT. OF ENVIRONMENTAL CONSERVATION
WASTEWATER DIVISION

TRANSMITTAL SLIP

TO Joe Kelleher

FROM Eric R. Obrecht DATE 11/22/88

RE: Columbia Mills 738012

Attached are the Appendices for Columbia Mills Draft RI. Comments on the Draft RI should be sent to me by Dec. 7 1988 rather than November 28 as stated previously in the original transmittal memo.

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____ Signature
- Information
- Approval
- Prepare final/draft in _____ Copies
- Comments
- Signature
- File
- Return to me
- _____
- _____

TRANSMITTAL SLIP

TO Art Fossa

FROM Eric Obrecht DATE 11/22/88

RE: Columbia Mills # 738012

Attached are the appendices for Columbia Mills Draft RI. Comments on the draft RI should be sent to me by Dec 7 rather than November 28 as ~~pre~~ stated previously in the original transmittal memo. Call me if you have any questions 7-5637

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____ Signature
- Information
- Approval
- Prepare final/draft in _____ Copies
- Comments
- Signature
- File
- Return to me
- _____
- _____

TRANSMITTAL SLIP

TO Jim Colquhoun
 FROM Eric Obrecht DATE 1/22/88
 RE: Columbia Mills # 738012

Attached are the appendices for Columbia Mills Draft RI
 Comments ~~sketch~~ on the Draft RI should be sent to me
 by December 6 rather than November 28 as stated
 previously in the original transmittal memo. If you have

FOR ACTION AS INDICATED:

any questions call me. 75637

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Please Handle | <input type="checkbox"/> Comments |
| <input type="checkbox"/> Prepare Reply | <input type="checkbox"/> Signature |
| <input type="checkbox"/> Prepare Reply for _____
Signature | <input type="checkbox"/> File |
| <input type="checkbox"/> Information | <input type="checkbox"/> Return to me |
| <input type="checkbox"/> Approval | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Prepare final/draft in _____ Copies | <input type="checkbox"/> _____ |



DUPLICATE

New York State Department of Environmental Conservation

MEMORANDUM

TO: Delores Touhy, Esq., Albany Field Unit, DEE
FROM: Eric R. Obrecht, Bureau of Eastern Remedial Action, DHWR
SUBJECT: Columbia Mills Site #738012

DATE: November 21, 1988

Attached is a Fact Sheet for the referenced site outlining the technical work completed over the past several years.

Below is a list of people we feel should be copied on the response to Assemblyman Chesbro.

Name	Office
Ned Sullivan	Exec. Office
Mike O'Toole	DHWR
Charlie Goddard	DHWR
Joe Slack/S. Hammond	DHWR
Eric Obrecht	DHWR
Frank Bifera	DEE
Dean Sommer	AG
Jeff Gaal	EPA
Bill Kirchbaum	DEC Region 7

If you have any questions, please call me at 7-5637.

ERO:mn
 Attachment
 cc: J. Slack/S. Hammond
 E. Obrecht

FACT SHEET (12/87)

Site: Columbia Mills NYS 738012

Location: Town of Minetto, Oswego County

Registry Classification: Class 2

Responsible Party: Columbia Mills Company (no longer in business in the United States, but there is still a parent company in Canada).

Site Ownership: Town of Minetto and Oswego County

Enforcement Status: DEC - Region 7 has retained the enforcement lead and Columbia Mills has informally agreed to pay for investigations to determine the nature and extent of the contamination. There is no formal Consent Order.

Technical Review and Oversight: Provided by DEC Region 7 and Division of Hazardous Waste Remediation, Bureau of Eastern Remedial Action.

Site History:

1976 - Columbia Mills ceased operation and sold the plant to a salvage company.

1980 - DEC arranged for manifested removal of numerous drums.

1984 - Evaluation of the site's potential for reuse for Oswego County documented potential hazards at the site due to left-over chemicals and/or wastes.

1986 - Phase II Site Investigation prepared for Bond, Schoeneck, & King (Attorney for Columbia Mills Company).

Following DEC review and comment, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures.

December 1986 Work Plan Scope and Status:

- Reviewed and approved by DEC March, 1987
- Cleaning and removal of buried tanks and contaminated soil - tanks pumped out in November 1987 and removal of tanks and soil scheduled for spring 1988.
- Installation of temporary fencing and warning signs around drum burning area - installed May 1987.

- Inventory of asbestos materials - completed August 1987.
- Gathering further information on soils, groundwater, surface water, and sediments to refine Hazardous Ranking Score - completed autumn of 1987.
- removal of overpacked drums from main plant area - removed September 1987.
- Report submittal - Malcolm Pirnie (engineering consultant hired by Bond, Schoeneck, & King) has proposed to Bond, Schoeneck, & King that the report on the field investigations carried out under this work plan be in the form of a Remedial Investigation Report rather than a Supplemental Phase II Report. This proposal is currently under review by Bond, Schoeneck, & King and the Columbia Mills Company.

February 1988 -

Malcolm Pirnie submitted a revised work plan for removal of buried tanks and aeration of contaminated soils. After several revisions the work plan was approved by the Department in July 1988.

July 1988 -

Eight underground tanks were removed from the site to an approved disposal facility. The contaminated soils collected from around the tanks were piled on site and covered. The holes in the ground left by the tank removals were backfilled with clean fill.

August 1988 -

Malcolm Pirnie sampled soils removed during tank excavation. Disposal of the soils is pending further investigation.

August 1988 -

Division of Air Resources with cooperation from Division of Hazardous Waste Remediation, performed an ambient air investigation for asbestos.

November 1988 -

Malcolm Pirnie submitted Draft Remedial Investigation Report based on previous Phase Ii investigations and subsequent soil, groundwater and surface water investigations. The report is currently being reviewed by the Department.

FACT SHEET (11/88)

Site: Columbia Mills NYS 738012

Location: Town of Minetto, Oswego County

Registry Classification: Class 2

Responsible Party: Columbia Mills Company (Shell of company no longer in business in the United States; Canadian parent company has been sold).

Site Ownership: Town of Minetto and Oswego County

Enforcement Status: Division of Environmental Enforcement has the enforcement lead for the Department. ~~The Attorney General's office is evaluating the case for enforcement. Columbia Mills has informally agreed to pay for investigations to determine the nature and extent of the contamination. There is no formal Consent Order.~~ ^{DEC} ①

Technical Review and Oversight: Provided by DEC Region 7 and Division of Hazardous Waste Remediation, Bureau of Eastern Remedial Action.

Site History:

1976 - Columbia Mills ceased operation and sold the plant to a salvage company.

1980 - DEC arranged for manifested removal of numerous drums.

1984 - Evaluation of the site's potential for reuse for Oswego County documented potential hazards at the site due to left-over chemicals and/or wastes.

1986 - Phase II Site Investigation prepared for Bond, Schoeneck, & King (Attorney for Columbia Mills Company).

Following DEC review and comment, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures.

December 1986 Work Plan Scope and Status:

- Reviewed and approved by DEC March, 1987
- Cleaning and removal of buried tanks and contaminated soil - tanks pumped out in November 1987 and removal of tanks and soil scheduled for spring 1988.

- Installation of temporary fencing and warning signs around drum burning area - installed May 1987.
- Inventory of asbestos materials - completed August 1987.
- Gathering further information on soils, groundwater, surface water, and sediments to refine Hazardous Ranking Score - completed autumn of 1987.
- removal of overpacked drums from main plant area - removed September 1987.
- Report submittal - Malcolm Pirnie (engineering consultant hired by Bond, Schoeneck, & King) proposed to Bond, Schoeneck, & King that the report on the field investigations carried out under this work plan be in the form of a Remedial Investigation Report rather than a Supplemental Phase II Report.

February 1988 -

Malcolm Pirnie submitted a revised work plan for removal of buried tanks and aeration of contaminated soils. After several revisions the work plan was approved by the Department in July 1988.

June 1988 -

Malcolm Pirnie had an accessible portion of a lead contaminated area of the site covered with a six inch soil blanket. Large trees were also cut down to limit vehicle and human traffic through this area.

July 1988 -

Eight underground tanks were removed from the site to an approved disposal facility. The contaminated soils collected from around the tanks were piled on site and covered. The holes in the ground left by the tank removals were backfilled with clean fill.

August 1988 -

Malcolm Pirnie sampled soils removed during tank excavation. Disposal of the soils is pending further investigation.

August 1988 -

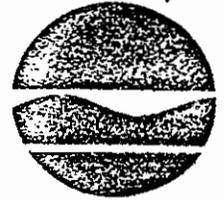
Division of Air Resources with cooperation from Division of Hazardous Waste Remediation, performed an ambient air investigation for asbestos.

November 1988 -

Malcolm Pirnie submitted Draft Remedial Investigation Report based on previous Phase II investigations and subsequent soil, groundwater and surface water investigations. The report is currently being reviewed by the Department.

New York State Department of Environmental Conservation
615 Erie Blvd. W., Syracuse, NY 13204-2400

Region 7 Headquarters
(315) 426-7400



Thomas C. Jorling
Commissioner

November 17, 1988

Honorable Ray T. Chesbro
Member of Assembly
Oswego County Office Building
200 North Second Street
Fulton, NY 13069

Dear Assemblyman Chesbro:

This is in regard to your letter of November 1, 1988 concerning
Columbia Mills.

At the moment, our Central Office staff who are involved with
this site are most directly familiar with the current status.
I have therefore referred your letter to the Central Office. I
anticipate that you will receive a response from our Division
of Hazardous Waste Remediation within the near future.

Sincerely,


William Krichbaum
Regional Director

bcc: T. Male
S. Hammond
D. Tuohy

RECEIVED
NOV 22 1988
COMMUNICATIONS SECTION

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Jim Colquhoun, Chief, Bureau of Environmental Protection, DFWL
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action, DHWR
SUBJECT: Columbia Mills Site #738012

DATE: November 14, 1988

A handwritten signature in black ink, appearing to be "J. Slack", located to the right of the "FROM:" line.

This office has begun reviewing the attached Draft Remedial Investigation. The copy is for your review and comments.

Eric R. Obrecht, of my staff, is the assigned project manager for the site. If you have any questions regarding this site, please call Eric at 7-5637. Comments should be transmitted to Eric by November 28.

ERO:mn
cc:w/o Attachment
S. Hammond/Obrecht

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Art Fossa, Director, Bureau of Toxic Air Sampling, DAR
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action, DHWR
SUBJECT: Columbia Mills Site #738012

DATE: November 14, 1988

This office has begun reviewing the attached Draft Remedial Investigation. The copy is for your review and comments.

Eric R. Obrecht, of my staff, is the assigned project manager for the site. If you have any questions regarding this site, please call Eric at 7-5637. Comments should be transmitted to Eric by November 28.

ERO:mn
cc:w/o Attachment
S. Hammond/Obrecht

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Joe Kelleher, Chief, Chemical Systems Section, Bureau of Wastewater Design, DW. *Kelleher*
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action, DHWR
SUBJECT: Columbia Mills Site #738012
DATE: November 14, 1988

This office has begun reviewing the attached Draft Remedial Investigation. The copy is for your review and comments.

Eric R. Obrecht, of my staff, is the assigned project manager for the site. If you have any questions regarding this site, please call Eric at 7-5637. Comments should be transmitted to Eric by November 28.

ERO:mn
cc:w/o Attachment
S. Hammond/Obrecht



New York State Department of Environmental Conservation

MEMORANDUM

TO: Michael J. O'Toole, Director, Division of Hazardous Waste Remediation
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action
SUBJECT: Columbia Mills Site #738012
DATE: October 20, 1988

This is to notify you that Division of Environmental Enforcement has referred the referenced site to the Attorney General's office. The referral is being made because of the Attorney General's authority to enforce CERCLA.

Areas of the site are contaminated with asbestos. Asbestos is not a hazardous waste under New York State Law, but it is a hazardous substance under CERCLA. Therefore, the Attorney General has the authority to compel the PRP to clean up the asbestos problems. In addition, the PRP has been unwilling to negotiate a Consent Order or disclose pertinent financial information. Under CERCLA, the Attorney General has the power to obtain information from the PRP regarding its ability to pay for a clean up at the site.

Eric Obrecht or Stephen Hammond, of my staff, will keep you informed of any future developments in this case and answer any questions you have regarding the site.

ERO:mn
cc: C. Goddard
S. Hammond
E. Obrecht



THE ASSEMBLY
STATE OF NEW YORK
ALBANY

RECEIVED
NOV 3 1988
DEPT. OF ENV. CONSERVATION
REGION 7-ENV. QU.

DISTRICT OFFICE
Cattaraugus County Office Bldg.
200 North Second Street
Pulaski, New York 13069
(518) 699-8185

RAY T. CHESBRO
Assemblyman 117th District
RANKING MINORITY MEMBER
Committee on House Operations

Room 528
Legislative Office Building
Albany, New York 12248
(518) 465-6841

November 1, 1988

Mr. William Krichbaum
Regional Director
New York State Department of
Environmental Conservation
615 Erie Boulevard West
Syracuse, New York 13204

Dear Mr. Krichbaum;

I am writing to you regarding the former Columbia Mills site in the Town of Minetto. Enclosed please find a copy of the petitions I have recently received concerning the site.

I would appreciate your advising me of the status of the clean up project.

Thank you for your time and interest in this matter.

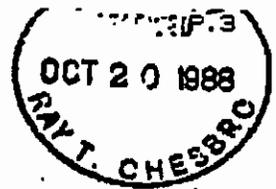
With kind regards,

Sincerely,

Ray
RAY T. CHESBRO
Member of Assembly
117th District

RTC:bg

enclosures



PETITION

We, the undersigned, being residents, property owners, taxpayers and concerned citizens of the Town of Minetto and/or of surrounding environs in the County of Oswego, hereby request New York State, the Department of Environmental Conservation, the Department of Health, the Department of State and any other appropriate subdivisions or agencies thereof, as well as the United States of America, through its applicable departments, agencies and subdivisions, to forthwith carry out any and all measures necessary to effect the clean-up of the former Columbia Mills industrial site in the said Town of Minetto, including the removal of any toxic wastes and/or toxic materials thereon, all asbestos and asbestos-tainted materials, and the rasing of the building remnants still remaining; we call on both the federal and state governments, as well as the Oswego County Legislature, to appropriate the necessary funding to effectuate the foregoing, without further delay.

DISTRIBUTION:

- Hon. Daniel P. Moynihan, United States Senate
- Hon. Alfonse M. D'Amato, United States Senate
- Hon. Frank Horton, United States House of Representatives
- Hon. Mario M. Cuomo, New York State Governor
- Hon. John M. McHugh, New York State Senate
- Hon. Ray T. Chesbro, New York State Assembly
- Hon. Hollis Iselin, Oswego County Legislative Chairman

<u>NAME</u>	<u>DATE</u>	<u>ADDRESS</u>
<u>Leslie L. Battler</u>	<u>8/27/88</u>	<u>RR5 Box 261 Oswego</u>
<u>Ray Reed Jackson</u>	<u>8/27/88</u>	<u>407 Grand St Minetto NY</u>
<u>Ken M. Kinsley</u>	<u>8/27/88</u>	<u>RR5 Box 228 Oswego NY</u>
<u>Jacqueline A. Natale</u>	<u>8/27/88</u>	<u>P.O. Box 524, Minetto, NY</u>
<u>Merisa Ferlito</u>	<u>8/27/88</u>	<u>R.D. 1 Box 203, Fulton NY</u>
<u>Alison Ward</u>	<u>8/27/88</u>	<u>Box 73, R.D. 5 Oswego</u>
<u>Lisa M. Chetney</u>	<u>8/27/88</u>	<u>PO Box 129 Minetto NY</u>
<u>Karenyle S. Suddie</u>	<u>8/27/88</u>	<u>6 Brookside Dr NY</u>
<u>Arlene Dodge</u>	<u>8/27/88</u>	<u>1992 Benham Ave</u>
<u>Nancy Spedding</u>	<u>8/27/88</u>	<u>Box 88 Oswego NY</u>
<u>Joe Robinson</u>	<u>8/27/88</u>	<u>PO #4 Box 167 Oswego NY</u>
<u>John H. Belt</u>	<u>8/27/88</u>	<u>1005 Ave RD 10 Oswego</u>

November 1, 1988

Leslie H. Deming, Esq.
Bond, Schoeneck & King
215 East Washington Street
Watertown, New York 13601

Dear Les:

Enclosed are three (3) copies of the Remedial Investigation Report for the Columbia Mills site in Minetto for review by you and your client.

As we discussed, I am transmitting four (4) copies to the NYSDEC in Albany and additional copies to the local DEC and Health Department offices.

While we will not have the formal Risk Assessment and Feasibility Study done soon, I will prepare order of magnitude estimates of cost for various remedial alternatives for the site in the near future for your use.

Please call me if you have any questions.

Very truly yours,

MALCOLM PIRNIE, INC.


Richard W. Klippel, P.E.
Senior Project Manager

mp

Enclosure

c: Eric Obrecht - NYSDEC, Albany (4)
Dave Wazenkewitz - NYSDEC, Syracuse (1)
Ron Heerkens - NYSDOH, Syracuse (1)
Evan Walsh - OCDOH, Oswego (1)

1069-02-1



STATE OF NEW YORK
DEPARTMENT OF LAW
ALBANY, NY 12224

ROBERT ABRAMS
Attorney General

JAMES A. SEVINSKY
Assistant Attorney General in Charge
Environmental Protection Bureau

VAL E. WASHINGTON
Deputy Bureau Chief
Environmental Protection Bureau

Telephone (518) 474-801

5ive copies to
Frank
Dore Wazenkant
Eric Obrecht
Ron Neerkeno

October 13, 1988

Leslie Deming, Esq.
Bond, Schoeneck and King
215 Washington Street
Watertown, NY 13601-3389

Re: Columbia Mills

Dear Mr. Deming:

This is a follow-up to our conversation relative to the Columbia Mills site.

As I advised you, the NYS Department of Environmental Conservation ("DEC") has referred this matter to our office for civil prosecution.

If this office were to commence an action, we would seriously consider pursuing both the corporate entity and those individuals responsible for the operation of the Oswego County facility.

From my understanding of your representations, Columbia Mills is attempting to cooperate with the State in taking remedial measures at the site. In addition, the company has established a fund, consisting of remaining corporate assets, to pay for the implementation of remedial measures.

I suggest therefore that, rather than immediately commencing litigation against your client, we meet to discuss the following issues:

1. The extent of Columbia Mills assets;
2. the payment, to the State of New York, of remaining fund assets;

RECEIVED

OCT 21 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

3. the ability of the company to implement remedial measures; and
4. the resolution of liability issues between the State and Columbia Mills.

I suggest that we involve DEC so that we can discuss the benefits/detriments of resolving this matter in the administrative context. The meeting can be held in Room 250 of the Justice Building, Albany, New York at 10:30 a.m. on November 15, 1988. If Columbia Mills has any technical submissions prior to that date, please provide a copy to this office. In addition, if you can provide me with financial information about Columbia Mills' remaining assets prior to our meeting it would greatly enhance the opportunities for a prompt resolution.

As a final word, if the company is unwilling to disclose its financial situation to us, there is very little opportunity for a "buy out" resolution. Rather, the company would be forced to litigate a case where its liability is well established under CERCLA/SARA and which would ultimately result in a debtor examination, at which time we would obtain the information I am now requesting.

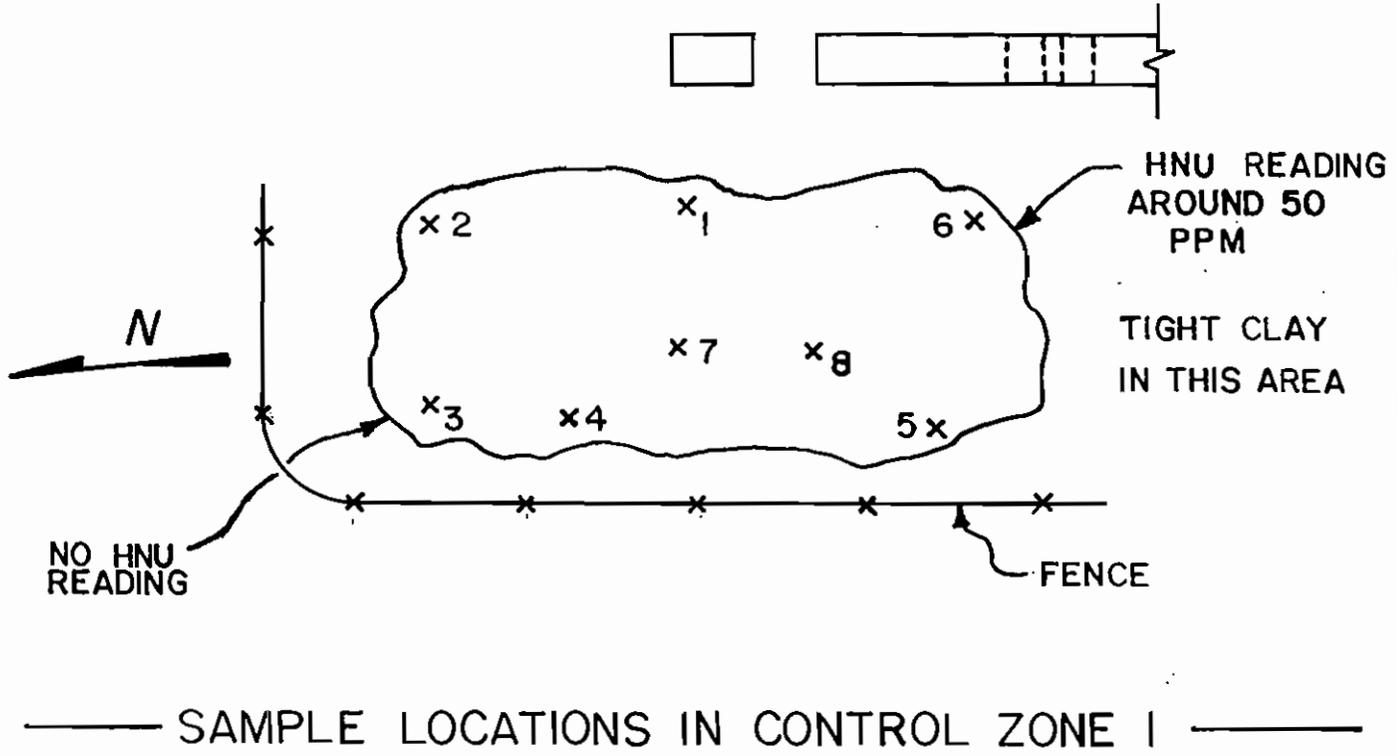
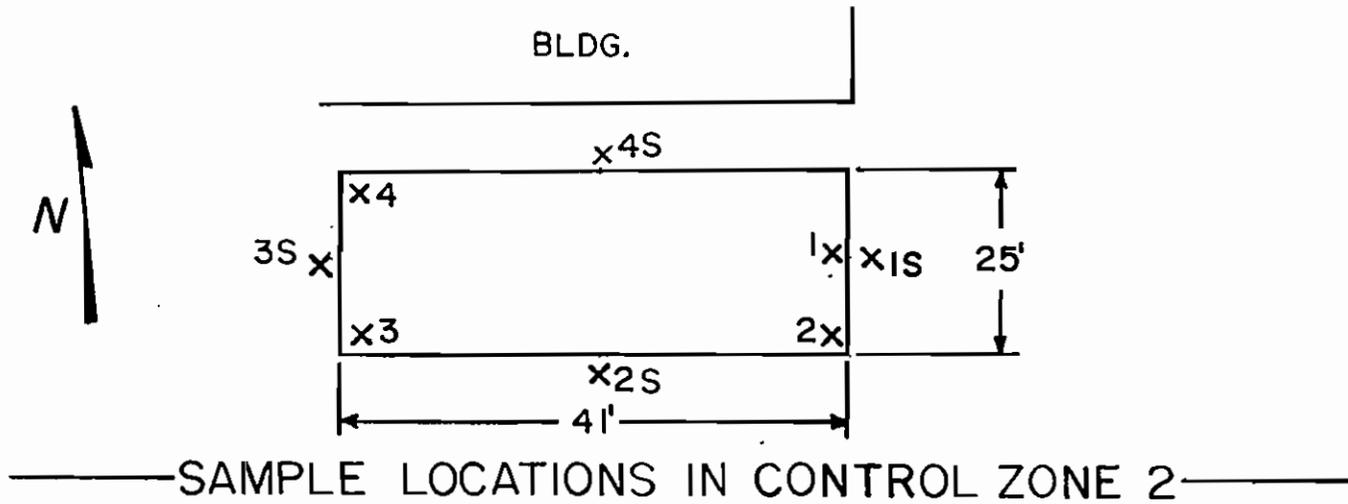
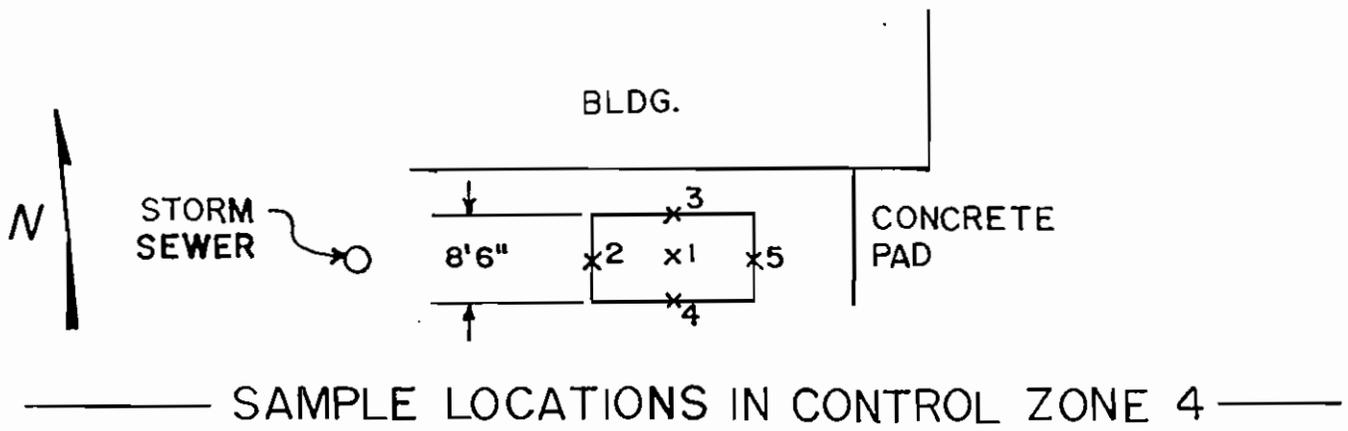
I hope the company agrees that a prompt, non-litigative resolution is the most productive course to follow.

Yours truly,

DEAN S. SOMMER
Assistant Attorney General

cc: Frank Bifera, Esq. ✓
Dolores Touhy, Esq.
Maureen Leary, Esq.
Tracy Gold

OCT 19 1988



October 4, 1988

Mr. Eric Obrecht
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

RECEIVED

OCT 7 1988

BUREAU OF ENVIRONMENTAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Dear Mr. Obrecht:

Enclosed, please find the analytical results of the soil samples taken upon completion of the tank removal activities conducted at the Columbia Mills site in Minetto, New York.

Three control zones were established for the tank areas. These zones are shown in Figure 1. Once excavation of the tanks and associated soil was complete, grab samples were taken from the floor and walls of each excavated area. The sampling locations are shown in Figure 2. The samples were submitted to Upstate Laboratories for analysis of benzene, toluene, xylenes and ketones. The analytical results are presented in Table 1. Only those parameters that were detected are included in the table. A copy of the laboratory report is also attached for your information.

Contaminated soil (determined by visual observation, observation of contaminant odor or HNU readings) was staged into five piles (see Figure 3). The initial observations indicated that only soil excavated from Zones 1 and 2 was considered to be contaminated. The source of each pile is described below.

Pile #1	-	Soil from Zones 1 and 2
Pile #2	-	Soil from Zones 1 and 2
Pile #3	-	Soil From Zone 1
Pile #4	-	Soil from Zone 2
Pile #5	-	Soil from Zone 1

Each pile was divided into four quadrants and one sample from each quadrant was taken using either a hand auger/corer or shovel. Most samples were taken at a depth of two to three feet. Since the maximum height of pile #4 is approximately two feet, samples were taken 6-10 inches below the surface. The four samples from each pile were composited into one sample and submitted to

**MALCOLM
PIRNIE**

Mr. Eric Obrecht

October 4, 1988
Page 2

Upstate Laboratories for analysis. Each composite sample was analyzed for volatile organics (USEPA 601/602), PCBs, cyanide reactivity, sulfide reactivity and ketones. The analytical results for the parameters which were found above the detection limits are presented in Table 2. A complete set of analytical results for the composite soil samples is also attached.

If you have any questions please do not hesitate to call.

Very truly yours,

MALCOLM PIRNIE, INC.

Richard W. Klippel ^{n.v.}

Richard W. Klippel, P.E.
Senior Project Manager

mp

Enclosure

c: David Wazenkewitz - NYSDEC, Region 7
Charles Branagh - NYSDEC, Region 7
Ronald Heerkens - NYSDOH, Syracuse
Leslie Deming - BS&K

TABLE #1
ANALYTICAL RESULTS
SOILS REMAINING IN PLACE

SAMPLE I.D.	TOLUENE	XYLENE	METHYL ETHYL KETONE
<u>ZONE 1</u>			
1-1	LT 10	LT 10	410
1-2	LT 10	LT 10	LT 10
1-3	LT 10	LT 10	LT 10
1-4	83,000	280	LT 100
1-5	LT 10	LT 10	LT 10
1-6	LT 10	LT 10	2,300
1-7	52,000	LT 150	LT 150
1-8	5,200	LT 200	LT 200
<u>ZONE 2</u>			
2-1	LT 10	LT 10	730
2-2	LT 10	LT 10	700
2-3	LT 10	LT 10	660
2-4	LT 10	LT 10	580
2S-1	LT 10	LT 10	LT 10
2S-2	LT 10	LT 10	650
2S-3	LT 10	LT 10	4,800
2S-4	LT 10	LT 10	6,600
<u>ZONE 4</u>			
4-1	LT 10	LT 10	5,900
4-2	LT 10	LT 10	5,700
4-3	LT 10	LT 10	490
4-4	39	LT 10	LT 10
4-5	LT 10	LT 10	800

All units in ppb
LT = Less Than

TABLE #2
ANALYTICAL RESULTS
SOILS IN COVERED PILES

	REACTIVE SULFIDE (ppm)	REACTIVE CYANIDE (ppm)	METHYL ETHYL KETONE (ppb)	METHYL ISOBUTYL KETONE (ppb)	TETRA- CHLORO- ETHYLENE (ppb)	TOLUENE (ppb)
Pile #1	250	2.1	LT 30	ND	LT 30	LT 30
Pile #2	150	18	LT 30	ND	34	LT 30
Pile #3	130	2.3	2,800	ND	LT 300	16,000
Pile #4	460	LT 1.0	LT 30	ND	LT 30	LT 30
Pile #5	LT 20	3.9	2,900	320	LT 20	1300

ND = Not Detected
LT = Less Than



New York State Department of Environmental Conservation

MEMORANDUM

TO: Janice K. Corr *JKC*
FROM: Dolores A. Tuohy Through Dave Markell
SUBJECT: Columbia Mills Inactive Hazardous Waste Site
Registry # 738012
DATE: September 28, 1988

Attached for your signature is a referral letter to Robert Abrams regarding the Columbia Mills Site in Minetto, New York.

In 1986, a Phase II Investigation disclosed the presence of underground storage tanks, a drum disposal area, and contaminated surface soil, surface water and groundwater at the Columbia Mills site. Substantial quantities of asbestos, which were randomly disposed of during a salvage company's operations, are also present at the site. The Department has determined that the site constitutes a significant threat to the environment.

Columbia Mills, a former owner of the site and generator of the hazardous wastes located there, is carrying out a Remedial Investigation, but has refused to sign an Order on Consent with respect to the undertaking of the Remedial Investigation/Feasibility Study. The company will not discuss signing an Order on Consent with respect to a Remedial Program until a Feasibility Study has been completed. Moreover, the company will not assume responsibility for the remediation of the site's significant asbestos problem. The company's attorney has stated that Columbia Mills may not have the financial assets to undertake a Remedial Program at the site, yet has refused to voluntarily disclose information regarding the company's financial status.

It is the opinion of the parties handling the case for the Department that the Attorney General's office should take the enforcement lead for the Columbia Mills case. Asbestos is not a hazardous waste under New York law. It is, however, a hazardous substance under CERCLA and, therefore, the Attorney General has the authority to compel Columbia Mills to remediate the asbestos problems. In addition, the Attorney General's office has the authority, under CERCLA, to compel Columbia Mills to furnish information regarding its ability to pay for a cleanup at the site.

DAT:ljd
Attachment

cc: Frank Bifera
Jim Periconi
Dave Wazenkewitz
Eric Obrecht
Ron Heerkens

RECEIVED

OCT 3 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION



STATE OF NEW YORK
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233

JANICE K. CORR

DEPUTY COMMISSIONER AND GENERAL COUNSEL

September 28, 1988

The Honorable Robert Abrams
Attorney General
State of New York Department of Law
The Capitol
Albany, New York 12224

**RE: Columbia Mills Inactive Hazardous Waste Site
Registry # 738012**

Dear Attorney General Abrams:

I am hereby referring to your office the above-referenced matter for enforcement.

The County of Oswego and/or the Town of Minetto currently own the Columbia Mills Site. Facilities located at the site were used for the manufacture of cloth and vinyl products from 1889 until 1976. A 1986 Phase II Investigation disclosed the presence of underground storage tanks, a drum disposal area, and contaminated surface soil, surface water and groundwater. Substantial quantities of asbestos, which were randomly disposed of during a salvage company's operations following the plant's closure, are found at the site. The Department has determined that the site constitutes a significant threat to the environment.

The Columbia Mills Company, the generator of the hazardous waste at the site, has conducted a Remedial Investigation. It is currently drafting a Remedial Investigation Report, and has verbally agreed to undertake a Feasibility Study.

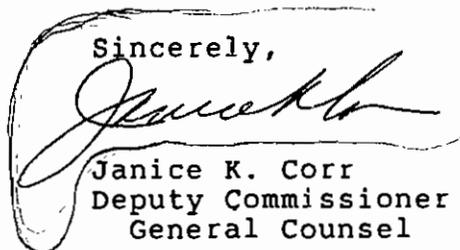
Columbia Mills, although following Departmental technical requirements, has refused to sign an Order on Consent with respect to the undertaking of the Remedial Investigation/Feasibility Study. The company has refused to discuss signing an Order on Consent with respect to a Remedial Program and will discuss the matter only after a Feasibility Study has been completed. Moreover, the company will not assume responsibility for the remediation of the site's significant asbestos problem. The company's attorney has stated that Columbia Mills may not have the financial assets to undertake a Remedial Program at the site, yet has refused to voluntarily disclose information regarding the company's financial status.

It is the opinion of my staff that your office should bring an enforcement action at the Columbia Mills site. Asbestos is not a hazardous waste under New York law. Therefore, the Department has no power to compel Columbia Mills to undertake the asbestos cleanup. Asbestos does, however, meet the CERCLA definitions of "hazardous substance" found in 42 USC Section 9601(14)(D) and (E). In addition to having the authority to compel Columbia Mills to remediate the asbestos problem at the site, your office has the authority, under 42 USC Section 9604(e)(2)(C), to compel Columbia Mills to furnish information regarding its ability to pay for cleanup at the site.

This matter has been handled to date by Dolores Tuohy of the Division of Environmental Enforcement. Ms. Tuohy, who can be reached at (518) 457-3296, will continue to serve as the Department's contact person in this matter and will be available to assist your staff, as necessary.

Thank you for your cooperation.

Sincerely,



Janice K. Corr
Deputy Commissioner and
General Counsel

cc: James A. Sevinsky
Val Washington
Dean Sommer
Dolores Tuohy

DAT:ljd

bcc: Dave Markell
Jim Periconi
Frank Bifera
Dave Wazenkewitz
Eric Obrecht
Ron Heerkens



New York State Department of Environmental Conservation

MEMORANDUM

TO: Frank Bifera, Assistant Counsel, Division of Environmental Enforcement
FROM: Stephen B. Hammond, Chief, Technical Support Section, BERA
SUBJECT: Columbia Mills Site #738012
DATE: August 18, 1988

I have reviewed this case with Eric Obrecht, the Technical Support Section Project Manager, and wish to emphasize the need to successfully pursue a Consent Order at this time with the site's PRPs.

This site poses a significant threat to human health and the environment and has been a serious concern of the Town officials for many years. The Town has expressed its concern to Ned Sullivan on several occasions. It is essential that a proper RI/FS be conducted in an orderly, logical fashion within appropriate time frames. I have a concern that a mechanism isn't in place to commit the PRP to completing a remedial program at this site in a timely fashion.

Given the above, I believe it is important that we complete negotiations on a Consent Order with the PRP soon or start the process to use State Superfund dollars. We need your assistance to step-up enforcement actions with the subject site's PRPs. Eric and I would like to meet with you and Delores at your earliest convenience to discuss this matter.

cc: J. Slack
J. Periconi

SBH:mn

bcc: M. O'Toole
C. Goddard
E. Obrecht

August 9, 1988

Steven Hammond, P.E.
Associate Sanitary Engineer
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

RECEIVED

AUG 16 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Dear Steve:

At our August 4, 1988 project meeting on Columbia Mill, Eric Obrecht gave me a copy of the enclosed memo regarding air contamination associated with the work.

We recognize the importance of off-site impact from this work and we have provided continuous HNU monitoring during all work involving dirt excavation and movement. However, the 1 ppm restriction contained in the attached memo is no longer valid and is completely unreasonable for future work based on the following facts.

1. The mass emissions estimate submitted with our letter of June 29, 1988 specifically identified benzene as the substance of concern because of its low TLV of 10 ppm and its odor threshold of 30 ppm. We included benzene in the analysis even though the limited data showing benzene to be present was highly suspect, since it was not discovered in other samples in the same area.
2. During the tank removal project, an on-site portable gas chromatograph and operator were provided by Upstate Laboratories. The operators primary task was to immediately screen the excavated soil in each new area to detect if benzene was present. He found no benzene in either area where dirt was excavated although he did find concentrations of toluene and/or MEK. He could not differentiate between the toluene and MEK since they coeluted in the sample.

On the same days, the portable GC was utilized to obtain an analysis of air in soil gas pipes which have been installed at the site. He did find benzene at one location in an area where there are no known tanks and where no dirt is being excavated under this interim remediation program. A copy of the laboratory report is attached for your review.

Steven Hammond, P.E.
NYSDEC

August 9, 1988
Page 2

As shown in the report, the only benzene found by the portable GC was in a soil gas pipe in an area not being excavated. No benzene was found in the excavated dirt on either day from either excavated location. Only toluene/MEK was found in the dirt.

We are continuing to work with the dirt and will continue to monitor the downwind concentrations whenever dirt is being moved. We propose, however, to continue using the HNU meter and to evaluate the readings as if it were toluene which has a TLV of 100 ppm. We, therefore, propose to utilize the limiting concentration at the property line of 50% of the TLV for toluene or 50 ppm.

We will be filling the excavated hole with clean dirt today, Tuesday, August 9, 1988 and sampling the piles of contaminated soil at the same time. A reworking of the screening analysis for air contaminants will be performed when we have the analytical results of the samples.

Please feel free to call if you have any questions.

Very truly yours,

MALCOLM PIRNIE, INC.



Richard W. Klippel, P.E.
Senior Project Manager

mp

Enclosure

1069-02-1

c: Les Deming
Dave Wazenkewitz
Ron Heerkens
Gordon Proud

File: 1069-02-1
Columbia Mills

Upstate Laboratories inc.

143 Midler Park Drive • Box 289 • Syracuse, New York 13206 • (315) 437-0255
Southern Region (607) 272-2708 ext. 1
Western Region (716) 244-8760

August 3, 1988

Mr. Tom Barba
Malcolm Pirnie, Inc.
890 Seventh North Street
Liverpool, New York 13088

Re: Analysis Report #080388040 - Columbia Mills, Minetto, NY

Dear Mr. Barba:

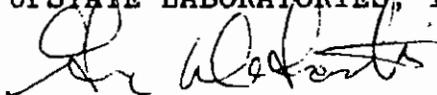
Enclosed you will find the gas chromatograph field readings taken by ULI personnel at the Columbia Mills site in Minetto, New York.

Included is a description of methods, calibration, actual readings, and a summary.

Should you have any questions regarding this report, please feel free to contact me.

Very truly yours,

UPSTATE LABORATORIES, INC.



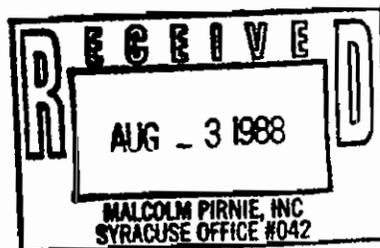
Gregory J. DeSantis
Technical Services Manager

GJD/cs

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

cc: Rick
Mark
Dick



MALCOLM PIRNIE, INC.

Analysis Report: 080388040

Date: August 3, 1988

Columbia Mills Sampling Site Using Photovac Portable Gas
Chromatograph Model 1070

The Photovac Gas Chromatograph was standardized and calibrated in the laboratory prior to the field survey. The compounds of interest, Benzene, Toluene, and MEK (Methyl ethyl ketone), were introduced into the GC using an air sampling valve and separated on an SE-30 packed column. Benzene could be clearly separated from the other two compounds of interest and quantified. MEK and Toluene coeluted under the conditions used. All compounds eluting at the retention time of Toluene/MEK were quantified as if they were Toluene.

Four types of samples were analyzed: soil gas (SG), background air (BA), site air (SA), and soil grab samples (SS). Detection limits for Benzene, Toluene, and MEK were 1 ppm, 1 ppm, and 10 ppm, respectively.

The following is a compilation of results.

July 25, 1988

<u>Sample Location</u>	<u>Benzene (ppm)</u>	<u>MEK (ppm)</u>	<u>Comments</u>
Column blank	<1	<1	--
BA off site, 1005 hrs	<1	1.5	Opposite gate
SA on site, 1431 hrs	<1	2.7	Near SG 2
SG 2	<1	5	Multiple peaks in low conc. (<1 ppm)
SG 3	<1	6.8	--
SG 4	<1	± 2.5	Some baseline drift. 30 l. of air evacuated
SG 21	<1	1	60 l. of air evacuated
SS front tank area (3 tanks)	<1	200	HNU read 400 ppm

Key:

SG = Soil Gas	Air from soil gas probes after air evacuation
BA = Background Air	Down wind off site
SA = Site Air	Background on site
SS = Soil Sample	Head space off jars of contaminated soil

July 26, 1988

<u>Sample Location</u>	<u>Benzene (ppm)</u>	<u>MEK (ppm)</u>	<u>Comments</u>
Column blank	<1	<1	--
BA off site, 1005 hrs	<1	<1	Opposite gate
SG 24	<1	<1	74 l. of air evacuated
SG 28	<1	<1	24 l. of air evacuated
SG 27	>150	>2600	35 l. of air evacuated
(Multiple intense peaks of unknown origin. Suggest resample for GCMS analysis.)			
SS back tank area (5 tanks)	<1	97	--
SA over back tank area	<1	11.6	Taken after 4 tanks were removed

Key:

SG = Soil Gas	Air from soil gas probes after air evacuation
BA = Background Air	Down wind off site
SA = Site Air	Background on site
SS = Soil Sample	Head space off jars of contaminated soil

Summary of Results

Background air monitoring off site indicated that a small amount of Toluene was blown down wind on the hot, sunny day (7/25/88) due to volatilization of compounds from the disturbed soil. The low levels observed off site during the overcast day (7/26/88) indicated that there was less volatilization and subsequent transport.

All samples except SG 27 contained less than 1 ppm Benzene. Toluene/MEK was only up to 11.6 ppm over the back tank site only during removal of a tank. All other air samples contained less than 3 ppm. Soil samples taken from the diggings at the front and back sites contained 200 and 97 ppm Toluene/MEK, respectively, in the head space above the samples, indicating the high level of contamination.

SG 27 had an extremely high level of organic material, which was detected by the gas chromatograph. The value of 2600 ppm for Toluene is a guesstimate, for the detector is no longer linear in that region. The actual value may be much higher. Fourteen separate peaks eluted during the sample run.

However, since we were only testing for the above mentioned compounds, the remaining are unknowns. Also, the fact the peaks were so intense and broad means more than one compound may be under each chromatograph peak. Thus, if the identity of the compounds in SG 27 are needed, further testing would be necessary.

Approved: 

8/03/88

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.

August 9, 1988

Steven Hammond, P.E.
Associate Sanitary Engineer
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

RECEIVED

AUG 16 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Dear Steve:

At our August 4, 1988 project meeting on Columbia Mill, Eric Obrecht gave me a copy of the enclosed memo regarding air contamination associated with the work.

We recognize the importance of off-site impact from this work and we have provided continuous HNU monitoring during all work involving dirt excavation and movement. However, the 1 ppm restriction contained in the attached memo is no longer valid and is completely unreasonable for future work based on the following facts.

1. The mass emissions estimate submitted with our letter of June 29, 1988 specifically identified benzene as the substance of concern because of its low TLV of 10 ppm and its odor threshold of 30 ppm. We included benzene in the analysis even though the limited data showing benzene to be present was highly suspect, since it was not discovered in other samples in the same area.
2. During the tank removal project, an on-site portable gas chromatograph and operator were provided by Upstate Laboratories. The operators primary task was to immediately screen the excavated soil in each new area to detect if benzene was present. He found no benzene in either area where dirt was excavated although he did find concentrations of toluene and/or MEK. He could not differentiate between the toluene and MEK since they coeluted in the sample.

On the same days, the portable GC was utilized to obtain an analysis of air in soil gas pipes which have been installed at the site. He did find benzene at one location in an area where there are no known tanks and where no dirt is being excavated under this interim remediation program. A copy of the laboratory report is attached for your review.

Steven Hammond, P.E.
NYSDEC

August 9, 1988
Page 2

As shown in the report, the only benzene found by the portable GC was in a soil gas pipe in an area not being excavated. No benzene was found in the excavated dirt on either day from either excavated location. Only toluene/MEK was found in the dirt.

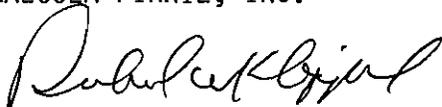
We are continuing to work with the dirt and will continue to monitor the downwind concentrations whenever dirt is being moved. We propose, however, to continue using the HNU meter and to evaluate the readings as if it were toluene which has a TLV of 100 ppm. We, therefore, propose to utilize the limiting concentration at the property line of 50% of the TLV for toluene or 50 ppm.

We will be filling the excavated hole with clean dirt today, Tuesday, August 9, 1988 and sampling the piles of contaminated soil at the same time. A reworking of the screening analysis for air contaminants will be performed when we have the analytical results of the samples.

Please feel free to call if you have any questions.

Very truly yours,

MALCOLM PIRNIE, INC.


Richard W. Klippel, P.E.
Senior Project Manager

mp

Enclosure

1069-02-1

c: Les Deming
Dave Wazenkewitz
Ron Heerkens
Gordon Proud

Upstate Laboratories inc.

143 Midler Park Drive • Box 289 • Syracuse, New York 13206 • (315) 437-0255
Southern Region (607) 272-2708 ext. 1
Western Region (716) 244-8760

File: 1069-02-1
Columbia Mills

August 3, 1988

Mr. Tom Barba
Malcolm Pirnie, Inc.
890 Seventh North Street
Liverpool, New York 13088

Re: Analysis Report #080388040 - Columbia Mills, Minetto, NY

Dear Mr. Barba:

Enclosed you will find the gas chromatograph field readings taken by ULI personnel at the Columbia Mills site in Minetto, New York.

Included is a description of methods, calibration, actual readings, and a summary.

Should you have any questions regarding this report, please feel free to contact me.

Very truly yours,

UPSTATE LABORATORIES, INC.



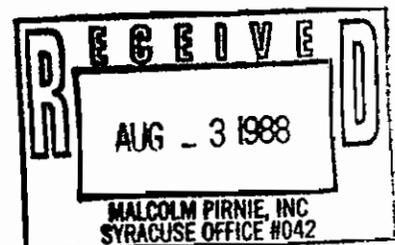
Gregory J. DeSantis
Technical Services Manager

GJD/cs

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

cc: Rick
Mark
Dick



MALCOLM PIRNIE, INC.

Analysis Report: 080388040

Date: August 3, 1988

Columbia Mills Sampling Site Using Photovac Portable Gas Chromatograph Model 1070

The Photovac Gas Chromatograph was standardized and calibrated in the laboratory prior to the field survey. The compounds of interest, Benzene, Toluene, and MEK (Methyl ethyl ketone), were introduced into the GC using an air sampling valve and separated on an SE-30 packed column. Benzene could be clearly separated from the other two compounds of interest and quantified. MEK and Toluene coeluted under the conditions used. All compounds eluting at the retention time of Toluene/MEK were quantified as if they were Toluene.

Four types of samples were analyzed: soil gas (SG), background air (BA), site air (SA), and soil grab samples (SS). Detection limits for Benzene, Toluene, and MEK were 1 ppm, 1 ppm, and 10 ppm, respectively.

The following is a compilation of results.

July 25, 1988

<u>Sample Location</u>	<u>Benzene (ppm)</u>	<u>MEK (ppm)</u>	<u>Comments</u>
Column blank	<1	<1	--
BA off site, 1005 hrs	<1	1.5	Opposite gate
SA on site, 1431 hrs	<1	2.7	Near SG 2
SG 2	<1	5	Multiple peaks in low conc. (<1 ppm)
SG 3	<1	6.8	--
SG 4	<1	± 2.5	Some baseline drift. 30 l. of air evacuated
SG 21	<1	1	60 l. of air evacuated
SS front tank area (3 tanks)	<1	200	HNU read 400 ppm

Key:

SG = Soil Gas	Air from soil gas probes after air evacuation
BA = Background Air	Down wind off site
SA = Site Air	Background on site
SS = Soil Sample	Head space off jars of contaminated soil

July 26, 1988

<u>Sample Location</u>	<u>Benzene (ppm)</u>	<u>MEK (ppm)</u>	<u>Comments</u>
Column blank	<1	<1	--
BA off site, 1005 hrs	<1	<1	Opposite gate
SG 24	<1	<1	74 l. of air evacuated
SG 28	<1	<1	24 l. of air evacuated
SG 27	>150	>2600	35 l. of air evacuated
(Multiple intense peaks of unknown origin. Suggest resample for GCMS analysis.)			
SS back tank area (5 tanks)	<1	97	--
SA over back tank area	<1	11.6	Taken after 4 tanks were removed

Key:

SG = Soil Gas	Air from soil gas probes after air evacuation
BA = Background Air	Down wind off site
SA = Site Air	Background on site
SS = Soil Sample	Head space off jars of contaminated soil

Summary of Results

Background air monitoring off site indicated that a small amount of Toluene was blown down wind on the hot, sunny day (7/25/88) due to volatilization of compounds from the disturbed soil. The low levels observed off site during the overcast day (7/26/88) indicated that there was less volatilization and subsequent transport.

All samples except SG 27 contained less than 1 ppm Benzene. Toluene/MEK was only up to 11.6 ppm over the back tank site only during removal of a tank. All other air samples contained less than 3 ppm. Soil samples taken from the diggings at the front and back sites contained 200 and 97 ppm Toluene/MEK, respectively, in the head space above the samples, indicating the high level of contamination.

SG 27 had an extremely high level of organic material, which was detected by the gas chromatograph. The value of 2600 ppm for Toluene is a guesstimate, for the detector is no longer linear in that region. The actual value may be much higher. Fourteen separate peaks eluted during the sample run.

However, since we were only testing for the above mentioned compounds, the remaining are unknowns. Also, the fact the peaks were so intense and broad means more than one compound may be under each chromatograph peak. Thus, if the identity of the compounds in SG 27 are needed, further testing would be necessary.

Approved: _____



8/03/88

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.



New York State Department of Environmental Conservation

MEMORANDUM

TO: Steve Hammond
FROM: Art Fossa *AF*
SUBJECT: Columbia Mills Remediation Site

DATE: July 28, 1988

This is a follow-up to my memo to Eric Obrecht of 7/25/88 and your phone conversation with Matt Reis of 7/27/88 on the captioned subject.

The current remedial activities need not be curtailed at this time. However, we recommend a property line action level of 1 ppm as benzene not to be exceeded using an HNu or equivalent calibrated for benzene. In the event of an exceedence, site remediation activity should cease until at least 30 consecutive minutes of acceptable downwind ambient air concentration is observed at the property line. This recommendation is based upon the anticipated short duration of the remedial activity and the fact that all of us have recognized the possibility of off-site air impacts from this site remediation.

We would expect that for future sites, solicitation of Division of Air Resources site review comments will be initiated earlier and that our resulting recommendations relating to air monitoring and off-site air quality impacts will be implemented expeditiously.

cc: J. Slack
 B. Webster
 Dr. Mo
 B. Majewski
 P. Lavin
 M. Reis
 M. Riano
 J. Hawley
 R. Tramontano
 N. Boyce

RECEIVED

JUL 29 1988

SPECIAL OPERATIONS REMEDIAL ACTION
 DIVISION OF HAZARDOUS
 WASTE CORPORATION

AJF:dg

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Eric Obrecht
FROM: Art Fossa *AF*
SUBJECT: Columbia Mills - Tank Removal
DATE: July 25, 1988

The supplemental information on the proposed Columbia Mills Tank Removal submitted by Malcom Pirnie, Inc. (letters dated June 29 and July 5, 1988) have been reviewed by the Bureau of Air Toxics. Detailed comments by Matt Reis of that Bureau are attached.

In addition there have been informal discussions with the Bureau of Toxic Substance Assessment, NYS Department of Health concerning appropriate action levels for perimeter air monitoring. There appears to be some reluctance to endorse the action limits proposed by Emmy Thomee, NYS DOH Syracuse Regional Office, in her letter of April 15, 1988. Apparently those action limits of 3 and 5 times the TLV-TWA were not reviewed by the Albany Office. We will continue to investigate this question. The Bureau of Air Toxics is also in the process of developing appropriate short-term values based on risk analyses. Guidance on acceptable action limits will be provided as soon as possible.

Attachment

cc: M. Reis

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Eric Obrecht
FROM: Art Fossa *AF*
SUBJECT: Columbia Mills - Tank Removal
DATE: July 25, 1988

The supplemental information on the proposed Columbia Mills Tank Removal submitted by Malcom Pirnie, Inc. (letters dated June 29 and July 5, 1988) have been reviewed by the Bureau of Air Toxics. Detailed comments by Matt Reis of that Bureau are attached.

In addition there have been informal discussions with the Bureau of Toxic Substance Assessment, NYS Department of Health concerning appropriate action levels for perimeter air monitoring. There appears to be some reluctance to endorse the action limits proposed by Emmy Thomee, NYS DOH Syracuse Regional Office, in her letter of April 15, 1988. Apparently those action limits of 3 and 5 times the TLV-TWA were not reviewed by the Albany Office. We will continue to investigate this question. The Bureau of Air Toxics is also in the process of developing appropriate short-term values based on risk analyses. Guidance on acceptable action limits will be provided as soon as possible.

Attachment

cc: M. Reis



Thomas C. Jorling
Commissioner

July 21, 1988

MEMORANDUM

TO: Art Fossa
FROM: Matt Reis *MR*
SUBJECT: Columbia Mills Tank Removal Workplan

We have reviewed the information that you provided us regarding the referenced project:

1. Their approach to soil cleanup is by no means the most environmentally sound. It will result in an unnecessary exposure of workers and nearby residents to compounds of high toxicity. These concerns were expressed in Comments 1 and 9 of our May 19, 1988 memo and were a result of our discussions with Dr. Riano.
2. The original proposal stated that excavated soil would be spread in a 6 inch layer and would be turned over once per week. How often would the 2.3 ft. layer now proposed be turned?
3. Malcolm Pirnie's emission estimates are based on toluene, MEK and benzene content in the groundwater of 15, 15 and 33 ppm respectively. Table 4 of the February 1988 "Updated Workplan" for this project indicates benzene levels of 5.6 to 13,150 mg/kg (ppm) were detected in soil samples taken near the tanks to be removed. If these figures are used, emission estimates (and impacts) would be increased by a factor of up to 400.
4. If doubt exists over the validity of the 1984 sampling, it should be re-done. This is especially important in light of the wide range of concentration values presented and their attempt to relate groundwater concentrations to soil contamination levels.
5. Off-site impact calculations are based on the distance to the nearest residences (at a distance of 700 ft) rather than the nearest property line (100-150 ft away) as is the usual approach. The use of a shorter distance to receptors in Air Guide-1's area source calculation would result in a smaller "dilution factor" and greater impacts.

- 
6. Malcolm Pirnie's June 29, 1988 letter already indicates that the AAL's of only "2 of the 3" contaminants would be met (benzene's would not) using their worst case approach. Consideration of our comments in Items 3 and 4 above could worsen the projected problem with benzene and cause an exceedance to be predicted for other compounds.
 7. The solvent content of the soil presented in Attachment #1 assumes that the volumes of earth to be excavated in Areas 1 and 2 will be equal. How valid is this assumption? What will be done with the soil from excavations in Area 4? The tank in Area 4 contained gasoline and so was a potential source of benzene.
 8. Consideration of asbestos contamination will be necessary if excavation takes place in areas where it was detected.
 9. As pointed out by Bill Webster's staff during discussions, any emissions of benzene greater than one pound per hour would require the application of BACT. At least one of the scenarios discussed in Malcolm Pirnie's submittal would create this condition.
 10. Identification of the specific compounds emitted during remediation is necessary to be able to determine the character and quantities of the chemicals to which off-site receptors may be exposed. The monitoring mentioned in Item 4 of our May 19, 1988 memo should also be pursued. An HNu meter will not accomplish any of this.

In general, the parties conducting the cleanup declined to implement our recommendations. This is disadvantageous in light of the potential for negative health and environmental impacts both in this project and in remediation efforts to be conducted in the future. This kind of work should not be undertaken without the application of proper safeguards.

cc: W. Webster
P. Lavin
R. Majewski
M. Riano
M. Goldman

MR/lms

88-2-59

June 29, 1988

RECEIVED

JUL 5 1988

Mr. Eric Obrecht
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

BUREAU OF ENVIRONMENTAL ACTION
DIVISION OF HAZARDOUS
WASTE ACTION

Re: Columbia Mills Tank Removal Work Plan

Dear Mr. Obrecht:

In July 1987, we submitted a Work Plan to Mr. Wazenkewitz of Region 7 for cleaning, removal and disposal of several abandoned tanks and contaminated soil at the Columbia Mills site in Minetto, New York. DEC responded with comments in their letter of October 1, 1987. The Plan was subsequently revised and resubmitted on February 1988. During this intervening time, the tanks were emptied and cleaned with the solvents and washwater disposed of in full accordance with Part 373 regulations and with the knowledge and approval of DEC. Thus the Plan resubmittal in February 1988 dealt solely with the remaining tasks of excavating and disposal of the tanks and any associated contaminated soil.

On April 18th, we received a copy of the NYSDOH comments on the revised Work Plan. On May 3, 1988, we submitted Addendum #1 to the Updated Work Plan addressing the DOH concerns as expressed in their April 18, 1988 letter. Additional comments from the DOH were relayed by Mr. Wazenkewitz by phone on June 10, 1988. This letter addresses those comments in detail.

- A. Worst case estimate of air emissions utilizing Air Guide-1. Attachment #1 contains a screening analyses of ambient air quality impacts proposed for a worst case scenario utilizing 850 cubic yards of contaminated dirt spread out for volatilization in an area of 10,000 ft². Contaminants found on site, toluene, MEK and benzene have been assigned average levels in the soil based on worst case assumptions utilizing limited data.

In summary, the estimate shows that for the absolute worst case where 1/2 of the total poundage of each contaminant is assumed to volatilize on the first day, TLV's can be met at the work site and average annual ambient air concentrations for 2 of the 3 contaminants can be met at the nearest downwind houses on Rt. 48. The analysis shows benzene to be the contaminant of most concern since its TLV is below the odor threshold and its TLV and recommended AAL are the lowest of the three contaminants anticipated to be present.

This analysis confirms our earlier estimates that the levels of contaminants in the soil (27#/day toluene & MEK and 56#/day benzene) are not sufficient to cause a serious problem with air emissions during remediation.

- B. Release of asbestos in excavation - The areas where excavation of the tanks is to take place are not areas containing rubble which has asbestos contamination.
- C. Odor thresholds - Odor thresholds are included in our ambient air quality screening (Attachment #1).
- D. We propose to utilize a 5 ppm HNU reading at the property line as an alarm concentration. If we assume that the entire HNU reading is benzene (which has a direct correlation in the instrument) then the 5 ppm reading would equal 1/2 of the TLV concentration. We feel that this is very conservative since we have never confirmed the existence of benzene in ground water or deeper soils, or in the tanks themselves. The only benzene data is from surface soils and surface water samples analyzed in 1984, which results are somewhat questionable.
- E. We attached a revised drawing showing a substituted area for aeration of the soil. This is a larger area underlain by a concrete floor and is more easily accessible to equipment. The other area was elevated approximately 3 feet off the ground and was not accessible without construction of a truck ramp.
- F. The dirt will be stockpiled in segregated bermed areas underlain by membrane sheeting on top of a concrete floor. The edges of the membrane will be raised to contain any water that falls on the material. A tarp will be used to cover the material in the event of rain. Any water that does enter the area will be analyzed and properly disposed of along with the contaminated soils.
- G. Use of portable GC for air monitoring - In light of the low levels of estimated emissions and the direct correlation of the benzene reading utilizing the HNU instrument, we cannot justify the greatly increased expense for utilization of a full scale portable GC on this project. Our proposed use of the HNU instrument and the assumption that all readings are benzene should provide for more than adequate protection of both the workers and the public.

Mr. Eric Obrecht

-3-

June 29, 1988

- H. Covering PCB soils - If any soils containing measurable quantities of PCB's are returned to the excavation, they will be covered with clean dirt at the surface.

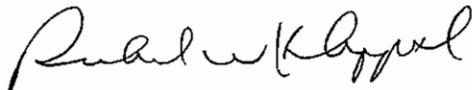
We feel that these comments should satisfy your expressed concerns and we urge you to perform a timely review of this submittal.

We have solicited bids for the referenced work and announced our intention to award the work. The Contractor can start work as early as July 11, 1988 and may increase his quote upon any substantial delay. We are, therefore, planning to commence the work in mid-July unless we are specifically instructed to the contrary by your agency.

Please feel free to call if you have any questions.

Very truly yours,

MALCOLM PIRNIE, INC.



Richard W. Klippel, P.E.
Senior Project Manager

mp

- c: D. Wazenkewitz, DEC Region 7
E. Thomee, DOH Syracuse
S. Hammond, HW DEC Albany
W. Webster, AIR DEC Albany
G. Proud, Town of Minetto
L. Deming, Esq., BS&K

1069-02-1

ATTACHMENT #1

SCREENING ANALYSIS OF
AMBIENT AIR QUALITY IMPACT
FROM AREA SOURCE AT
COLUMBIA MILLS, MINETTO, NEW YORK

1. Worst Case - 850 cy contaminated soil or 23,000 cubic feet laid out to aerate and volatilize in sunshine in a cell 330' long x 30.3' wide x 2.3' deep.
2. Assumes three weeks to volatilize off contaminants at a decreasing rate 50% first week, 30% second week, 20% third week.
3. Hypothetical concentrations in contaminated soil
 - A. Toluene - Ground water nil in Area 1, Area #2 61,000 ppb average/50% moisture equals 30,500 ppb or 30.5 ppm in area #1 or 15.25 ppm in composite soil from Areas 1 and 2.
 - B. MEK - Lack of data. Assume same average concentration as toluene 15.25. Should be conservative since less MEK was stored in tanks than toluene.
 - C. Benzene - Never found in ground water samples in detectable concentrations. Found in surface soils in 1984 but data is questionable. Assume 1/2 HNU reading is benzene (worst case)

Area #1 Well #2	6 depths average	2.6 mg/l
Area #2 Well #1	6 depths average	130 mg/l/132.6/2
Composite mixture of Area #1 & Area #2 = $66.3 \times 1/2 = 33.15$		
4. Toxicity Data From Air Guide #1
 - A. Toluene - Low Toxicity
 - TLV = 100 ppm or 375 mg/m³
 - AAL = 7500 ug/m³ or 7.5 mg/m³ or 2 ppm
 - B. MEK - Moderate Toxicity
 - TLV = 200 ppm or 590 mg/m³
 - AAL = 1967 ug/m³ or 1.97 mg/m³ or .67 ppm
 - C. Benzene - High Toxicity
 - TLV = 10 ppm or 30 mg/m³
 - AAL = 100 ug/m³ or .1 mg/m³ or .033 ppm

ATTACHMENT #1

SCREENING ANALYSIS OF
AMBIENT AIR QUALITY IMPACT
FROM AREA SOURCE AT
COLUMBIA MILLS, MINETTO, NEW YORK
(Continued)

5. Total Contaminant Poundages From Data

23,000 cu.ft. x 74 #/cu.ft. = 1,702,000 # of soil

$$\text{Toluene} = \frac{15.25}{1,000,000\#} = \frac{x}{1,702,000\#} \times = 25.96\# \text{ Say } 27\#$$

$$\text{MEK} = \frac{15.25}{1,000,000\#} = \frac{x}{1,702,000\#} \times = 25.96\# \text{ Say } 27\#$$

$$\text{Benzene} = \frac{33.15}{1,000,000\#} = \frac{x}{1,702,000\#} \times = 56.4\# \text{ Say } 56\#$$

VOLATILIZATION RATES

	1st Week	2nd Week	3rd Week	Total
Toluene	13.5#	8.1#	5.4#	27#
MEK	13.5#	8.1#	5.4#	27#
Benzene	28#	16.9#	11.2#	56#

6. Calculated Hourly Emission Rates (QA)

$$\text{QA - Toluene} = \frac{13.5\# \text{ 1st Week}}{168 \text{ hrs 1st Week}} = .08\#/\text{hr}/10,000 \text{ ft}^2 = .000008\#/\text{ft}^2\text{hr}$$

$$\text{QA - MEK} = .08\#/\text{hr}/10,000 = .000008\#/\text{ft}^2\text{hr}$$

$$\text{QA - Benzene} = \frac{28}{168} = .167\#/\text{hr}/10,000 = .0000167\#/\text{ft}^2\text{hr}$$

ATTACHMENT #1

SCREENING ANALYSIS OF
AMBIENT AIR QUALITY IMPACT
FROM AREA SOURCE AT
COLUMBIA MILLS, MINETTO, NEW YORK
(Continued)

7. Calculated Annual Concentration Within Area Source

Ca(ug/m³) - K x QA x Cm (pg. 18 Air Guide #1)

$$\begin{aligned} \text{Ca(Toluene)} &= 15 \times .000008 \times 1.355 \times 10^{-6} = 162.6 \\ \text{Ca(MEK)} &= 15 \times .000008 \times 1.355 \times 10^{-6} = 162.6 \\ \text{Ca(Benzene)} &= 15 \times .0000167 \times 1.355 \times 10^{-6} = 339.4 \end{aligned}$$

8. Comparison With TLVs & AALs at Work Site

	CALCULATED CONCENTRATION	TLV	AAL
Toluene	162.6 ug/m ³	375,000 ug/m ³	7,500 ug/m ³
MEK	162.6 ug/m ³	590,000 ug/m ³	1,967 ug/m ³
Benzene	339.4 ug/m ³	30,000 ug/m ³	100 ug/m ³

9. Comparison With AALs at Nearest Houses (Downwind 700 ft± to Houses on Rt. 48)

$$\frac{700}{350} = 2S \text{ Distance} = 25 \text{ Dilutions}$$

	Ca SITE	HOUSES ON RT. 48 (AAL SITE/25)	RECOMMENDED AAL
Toluene	162.6 ug/m ³	6.5 ug/m ³	7,500 ug/m ³
MEK	162.6 ug/m ³	6.5 ug/m ³	1,967 ug/m ³
Benzene	339.4 ug/m ³	13.6 ug/m ³	100 ug/m ³

ATTACHMENT #1

SCREENING ANALYSIS OF
AMBIENT AIR QUALITY IMPACT
FROM AREA SOURCE AT
COLUMBIA MILLS, MINETTO, NEW YORK
(Continued)

10. Assuming 1/2 of Pounds Volatilized in One Day Instead of One Week.

A. Concentrations at work site compared to TLVs and AALs (previous values multiplied by 7):

	CALCULATED CONCENTRATION	TLV	AAL
Toluene	1,138 ug/m ³	375,000 ug/m ³	7,500 ug/m ³
MEK	1,138 ug/m ³	590,000 ug/m ³	1,967 ug/m ³
Benzene	2,376 ug/m ³	30,000 ug/m ³	100 ug/m ³

B. Concentration at houses compared with AAL:

	CALCULATED CONCENTRATIONS AT HOUSES RT 48 (SITE CONC/25)	RECOMMENDED AAL
Toluene	45.5 ug/m ³	7,500 ug/m ³
MEK	45.5 ug/m ³	1,967 ug/m ³
Benzene	95 ug/m ³	100 ug/m ³

11. Comparison With Odor Thresholds:

A. On-Site - Using 1/2 volatilization in 1 day

	CALC. CONC. mg/m ³	CALC. CONC. ppm	ODOR THRSH ppm	TLV ppm
Toluene	1.138	.303	40	100
MEK	1.138	.386	25	200
Benzene	4.838	1.613	31	10

ATTACHMENT #1

SCREENING ANALYSIS OF
AMBIENT AIR QUALITY IMPACT
FROM AREA SOURCE AT
COLUMBIA MILLS, MINETTO, NEW YORK
(Continued)

- B. Off-Site at houses on Rt 48 700 ft. away using 1/2 volatilization in 1 day

	CALC. CONC. mg/m ³	CALC. CONC. ppm	ODOR THRSH ppm	AAL ppm
Toluene	.046	.012	40	2
MEK	.046	.016	25	0.67
Benzene	.193	.064	31	0.033

12. Conclusions

1. Benzene is most critical because TLV less than odor threshold.
2. On-site monitoring should be for 10 ppm of benzene (TLV).
3. If assume HNU reading is all benzene, then 10 ppm (HNU) would be cut-off point for benzene exposure. Wear masks above that level.
4. Use 5 ppm at property line as a limit for continuing or stopping work (1/2 TLV).

July 5, 1988

Mr. Eric Obrecht
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

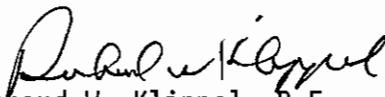
Dear Mr. Obrecht:

Enclosed is a copy of Figure #1 depicting the revised soil staging location at Columbia Mills which was inadvertently left out of our submittal to you of June 29, 1988.

As explained, this area is underlain by a concrete slab on grade with an access ramp.

Very truly yours,

MALCOLM PIRNIE, INC.


Richard W. Klippel, P.E.
Senior Project Manager

mp

Enclosure

c: D. Wazenkewitz, DEC Region 7
E. Thomee, DOH Syracuse
S. Hammond, HW DEC Albany
W. Webster, AIR DEC Albany
G. Proud, Town of Minetto
L. Deming, Esq., BS&K

RECEIVED

JUL 8 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION



E. Obrecht

New York State Department of Environmental Conservation

MEMORANDUM

TO: Dolores Tuohy, Division of Environmental Enforcement
FROM: John B. Swartwout, Sr. San. Eng., Bureau of Eastern Remedial Action, DHWR
SUBJECT: Columbia Mills Inactive Hazardous Waste Site I.D. No. 738012
DATE: JUN 21 1988

JBS

The purpose of this memorandum is to document the nature and substance of the ongoing technical studies on the Columbia Mills Site by the responsible party on a voluntary basis. The Columbia Mills Company is conducting a Remedial Investigation/Feasibility Study with DEC oversight but without a Consent Order.

The RI portion of the work is complete except for some ambient air sampling which has been delayed while the Division of Air Resources investigates the most appropriate method to accomplish this task. The RI Work Plan was approved in advance by the Department and field oversight was provided by Department personnel during much of the field work. The RI work has been done in accordance with the same SARA requirements that a Consent Order would have called for.

The RI/FS report will be subject to peer review at a Division of Hazardous Waste Remediation Project Review Meeting. My expectation is that this investigation will be found to have met all requirements.

One final point concerning this site is that the engineering consultants for the Columbia Mills Company (Malcolm Pirnie, Inc.) have been very cooperative throughout this investigation and have recommended that interim remedial work take place at the site. Several interim remedial measures have already been implemented as a result.

cc: D. Wazenkewitz
S. Hammond
E. Obrecht



E. Obrecht

New York State Department of Environmental Conservation

MEMORANDUM

TO: Distribution Below
FROM: John B. Swartwout, Tech. Support Section, Bureau of Eastern Rem. Action
SUBJECT: Assignment of New Project Engineer - Columbia Mills Site, I.D. No. 738012
DATE: JUN 21 1988

JBS

As part of a recent redistribution of the workload in this Section, Mr. Eric Obrecht has been designated Project Engineer on the Columbia Mills Site. Mr. Obrecht is an Assistant Sanitary Engineer and has over three years experience with DEC.

Effective immediately, all correspondence and telephone contacts on this site should be directed to Mr. Obrecht. Mr. Obrecht can be reached at 518-457-5637. I will continue to be available to provide assistance on this site should the need arise.

Please call me if you have any questions on this change.

Distribution: D. Wazenkewitz
D. Tuohy
W. Webster
R. Heerkens
E. Walsh

cc: S. Hammond
E. Obrecht



E. Obrecht

New York State Department of Environmental Conservation

MEMORANDUM

TO: William Webster, Division of Air Resources
FROM: John Swartwout, Bureau of Eastern Remedial Action *JSS*
SUBJECT: Columbia Mills Hazardous Waste Site, I.D. No. 738012

DATE: JUN 17 1988

I have been notified by Dave Wazenkewitz of Region 7 that the placement of clean soil cover over the metal-contaminated soil in the rear portion of the Columbia Mills Site is taking place this week. As a result, we no longer have a need for air monitoring for metals. We do still need your input on appropriate air monitoring for volatiles and asbestos at the site.

cc: S. Hammond
D. Wazenkewitz, Region 7
E. Obrecht



J. Swartwout

New York State Department of Environmental Conservation

MEMORANDUM

TO: William Webster, Division of Air Resources
FROM: John Swartwout, Bureau of Eastern Remedial Action *JBS*
SUBJECT: Columbia Mills Hazardous Waste Site, I.D. No. 738012
DATE: JUN 17 1988

I have been notified by Dave Wazenkewitz of Region 7 that the placement of clean soil cover over the metal-contaminated soil in the rear portion of the Columbia Mills Site is taking place this week. As a result, we no longer have a need for air monitoring for metals. We do still need your input on appropriate air monitoring for volatiles and asbestos at the site.

cc: S. Hammond
D. Wazenkewitz, Region 7
E. Obrecht

BOND, SCHOENECK & KING

ONE WASHINGTON STREET

WASHINGTON, NEW YORK 10001-3000

FRANCIS S. BOND
JOSEPH M. SCHOENECK
ROBERT J. KING
STUART A. MCCREARY
SAMUEL R. MILITELLO

JARVIS L. GAMBLE
OF COUNSEL

ONE LINCOLN CENTER
SYRACUSE, NEW YORK 13202-1355
(315) 422-0121

III WASHINGTON AVENUE
ALBANY, NEW YORK 12210-2280
(518) 462-7421

PYLON PARK
5301 NORTH FEDERAL HIGHWAY
BOCA RATON, FLORIDA 33487-4990
(305) 997-0411

1167 THIRD STREET SOUTH
NAPLES, FLORIDA 33940-7098
(813) 262-6812

JOHN A. BOND
JOSEPH J. BOND
JOHN J. BOND

JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND
JOHN J. BOND

cc: F. Bifera
J. Swartwout
D. Wazenkewitz

6/15/88

June 14, 1988

Dolores A. Tuohy, Esq.
Division of Environmental Enforcement
Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: Columbia Mills Inactive Hazardous
Site - Registry #738012

Dear Ms. Tuohy:

This is in response to your letter of June 3, 1988, and our subsequent discussion of this case.

Upon the closing of the Minetto plant, the sole remaining asset of Columbia Mills was its subsidiary plant in Cornwall, Ontario. During the past year this subsidiary was sold for cash and a note payable by the purchaser. There was no distribution of the proceeds of the sale to Columbia Mills' shareholders and the cash on hand and the payments as they are received on the note have been and will be invested in Treasury bills and used for the primary purpose of discharging its liability for remediation of the Minetto site.

The report from our engineers as to remediation alternatives and the estimated costs thereof is scheduled to be

JUN 16 1988

RECEIVED

JUN 17 1988
BUREAU OF EASTERN REGIONAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Dolores A. Tuohy, Esq.
June 14, 1988
Page 2

completed in August, at which time we will know if the company's funds will be insufficient to complete the agreed upon remedial work, a fact we shall certainly substantiate at that time.

I am sure you are aware that the company has fully cooperated with the Department's efforts to bring this matter to a conclusion and, in expending some \$300,000, has accomplished the removal of over 650 drums of material and undertaken all studies requested by the Department. Columbia Mills will continue to cooperate in this remedial effort and is as anxious as the Department, the Town and our former neighbors to put this problem behind it.

If you have any questions, please call me.

Very truly yours,

BOND, SCHOENECK & KING

By: 
Leslie H. Deming

LHD:jjj

cc: John R. Metz
311 Waldorf Parkway
Syracuse, New York 13224

June 14, 1988

Mr. David S. Wazenkewitz
New York State Department of
Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool New York 13088

Dear Mr. Wazenkewitz:

Attached are the results of sampling and analysis recently conducted at the Columbia Mills site in Minetto, New York. The data include:

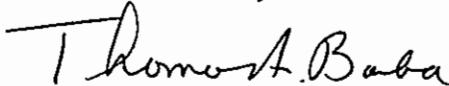
- A. TCL analysis of six ground water monitoring well samples and one surface water sample.
- B. TCL analysis of three sediment and three soil samples.
- C. PCB analysis of eight soil and two oil/sediment samples from the main plant area.
- D. Lead analysis of 14 soil samples from locations surrounding the drum disposal area.
- E. Semi-volatiles analysis (EPA 625) and PCBs/pesticides (EPA 608) on two soil samples in the drum disposal area.

Figures 1 and 2 attached show the locations of the various samples.

If there are any questions, please feel free to contact us.

Very truly yours,

MALCOLM PIRNIE, INC.



Thomas A. Barba
Senior Project Scientist

ds

Attachment

c: J. Swartwout - NYSDEC, Albany
R. Heerkens - NYSDOH, Syracuse
L. Deming - B,S&K

1069-02-1

RECEIVED
JUN 22 1988
BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

COLUMBIA MILLS
 TCL ANALYSIS - 04/11/88
 GROUND AND SURFACE WATER
 Malcolm Pirnie - Syracuse

PARAMETER	MW-1S	MW-2S	MW-2D	MW-3S	MW-7S	MW-7D	SW-1
Benzene	<5	24 J	<5	<5	<5	<5	<5
Toluene	<5	20,000	1	<5	<5	<5	<5
Ethylbenzene	<5	11 J	<5	<5	<5	<5	<5
Xylenes (total)	<5	110	<5	<5	<5	<5	<5
Unknown	8	-	-	-	-	-	-
Unknowns	-	-	-	Note 2	-	-	-
2-Methylphenol	<10	21	<10	<10	<10	<10	<10
4-Methylphenol	<10	22	<10	<10	<10	<10	<10
Naphthalene	<10	4 J	<10	<10	<10	<10	<10
Phenanthrene	<10	3 J	<10	<10	<10	<10	<10
Fluoranthene	<10	1 J	<10	<10	<10	<10	<10
Pyrene	<10	1 J	<10	<10	<10	<10	<10
Unknowns	-	-	-	Note 3	-	-	-
Silver	<10.0	<10.0	17.3	10.4	<10.0	<10.0	<10.0
Aluminum	<200	398	<200	<200	<200	<200	<200
Arsenic	19.7	<10.0	14.4	<10.0	<10.0	<10.0	<10.0
Barium	234	400	513	<200	<200	238	<200
Calcium	96,500	103,000	76,200	66,200	51,600	56,300	23,200
Iron	6,690	15,700	580	14,000	512	284	117
Magnesium	8,140	9,800	25,600	8,880	7,110	15,900	<5,000
Manganese	3,420	4,250	1,310	3,640	2,310	116	43.7
Sodium	<5,000	14,700	48,700	43,200	6,230	12,900	16,600
Lead	<5.0	10.8	<5.0	<5.0	<5.0	<5.0	<5.0
Antimony	<60.0	<60.0	<60.0	64.1	<60.0	<60.0	<60.0
Zinc	72.9	48.9	51.5	86.7	163	81.8	<20.0
Cyanide, total	<10.00	152	<10.00	29.2	153	<10.00	<10.00

NOTES

1. All results in ug/l.
2. 15 VOA unknowns ranging in concentration from 5 to 89 ug/l.
3. 2 BNA unknowns of concentration equal to 12 and 15 ug/l.
4. J = present, but below detection limit.
5. Metals samples were filtered in the field.
6. Only those organics and metals that were detected are included on this table.

COLUMBIA MILLS
 TCL ANALYSIS - 04/11/88
 SOIL & SEDIMENT - ORGANICS
 Malcolm Pirnie - Syracuse

PARAMETER	SED-1	SED-2	SED-3	SOIL-1	SOIL-2	SOIL-3
Chloromethane	73	<27	<48	<14	<14	<14
2- Butanaone	52	<27	<48	<14	<14	<14
Benzene	23	<14	<24	<7	<7	<7
Toluene	8,400	4 J	<24	7	2 J	<7
Ethylbenzene	38	<14	<24	<7	<7	<7
Xylenes (total)	180	<14	<24	<7	<7	<7
Dimethyl sulfide	120	-	-	-	-	-
Phenol	<1,000	830 J	<2,000	<500	<500	<500
4-Chloro-3-methylphenol	<1,000	490 J	<2,000	<500	<500	<500
Phenanthrene	880 J	430 J	<2,000	<500	94 J	<500
Fluoranthene	1,600	500 J	<2,000	150 J	150 J	<500
Pyrene	1,400	460 J	400 J	180 J	140 J	<500
Benzo(a)anthracene	770 J	<900	<2,000	<500	<500	<500
bis(2-Ethylhexyl)phthalate	<1,000	740 J	710 J	320 J	1,100	300 J
Chrysene	1,100 J	320 J	<2,000	<500	<500	<500
Benzo(b)fluoranthene	1,600	<900	<2,000	<500	<500	<500
Carboxylic acid	-	3,400	2,400	-	-	710
Unknowns	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
Hexanedioic acid	-	4,200	-	-	-	-
4,4'-DDE	33 J	13 J	40 J	3.8 J	12 J	<110
4,4'-DDD	13 J	6.4 J	43 J	<110	<100	<110
4,4'-DDT	<270	<190	<370	<110	16 J	<110

- NOTES
1. All results in ug/kg.
 2. J = present, but below detection limit.
 3. Several BNA unknowns were found:

LOCATION	NO. OF UNKNOWN	CONCENTRATION RANGE (ug/kg)
SED-1	5	5,600 - 7,400
SED-2	4	4,300 - 8,700
SED-3	4	5,100 - 17,000
SOIL-1	2	9,500 - 14,000
SOIL-2	2	4,200 - 5,900
SOIL-3	2	6,500 - 8,500

COLUMBIA MILLS
TCL ANALYSIS - 04/11/88
SOIL & SEDIMENT - METALS
Malcolm Pirnie - Syracuse

PARAMETER =====	SED-1 =====	SED-2 =====	SED-3 =====	SOIL-1 =====	SOIL-2 =====	SOIL-3 =====
Silver	<5.3	<3.6	<8.3	<2.4	<2.1	<2.5
Aluminum	10,700	4,920	6,130	11,600	6,310	11,500
Arsenic	7.7	<3.2	<6.8	<2.8	2.7	2.6
Barium	288	87.9	<166	50.8	60.9	167
Beryllium	<2.6	<1.8	<4.1	<1.2	<1.1	<1.2
Calcium	4,980	3,730	4,620	<1,210	<1,070	<1,230
Cadmium	<2.6	<1.8	23.2	<1.2	<1.1	<1.2
Cobalt	<26.4	<18.0	<41.4	<12.1	<10.7	<12.3
Chromium (T)	21.3	23.5	18.4	9.2	11.5	10.6
Copper	193	63.3	181	9.2	16.6	11.2
Iron	20,500	6,830	12,300	14,200	12,800	14,600
Mercury	<0.33	<0.23	<0.51	<0.14	<0.13	<0.14
Potassium	<2,640	<1,800	<4,140	<1,210	<1,070	<1,230
Magnesium	<2,640	<1,800	<4,140	1,270	<1070	1,730
Manganese	645	192	408	169	254	333
Sodium	<2,640	<1,800	<4,140	<1,210	<1,070	<1,230
Nickel	24.8	21.5	<33.1	<9.7	<8.6	11.4
Lead	203	606	61.5	12.9	73.6	31.9
Antimony	<31.7	<21.6	<49.7	<14.6	<12.8	<14.7
Selenium	3.6	2.1	4.7	<1.4	<0.97	<1.3
Thallium	<6.0	<3.2	<6.8	<2.8	<1.9	<2.5
Vanadium	206	<18.0	<41.4	18.0	11.6	18.0
Zinc	505	662	2,000	41.3	79.8	89.6

NOTES

1. All results in mg/kg.

COLUMBIA MILLS
SOIL SAMPLES
Malcolm Pirnie - Syracuse

PCB ANALYSES

SAMPLE ID	PCB (mg/kg dry weight)	PCB (mg/kg dry weight)
PCB-1	<2	<2
PCB-2	33	28
PCB-3	<2	<2
PCB-4	<2	<2
PCB-5	<2	<2
PCB-6	<2	<2
PCB-7	<2	<2
PCB-8	<2	<2
PCB-9	<2	<2
PCB-10	<2	<2

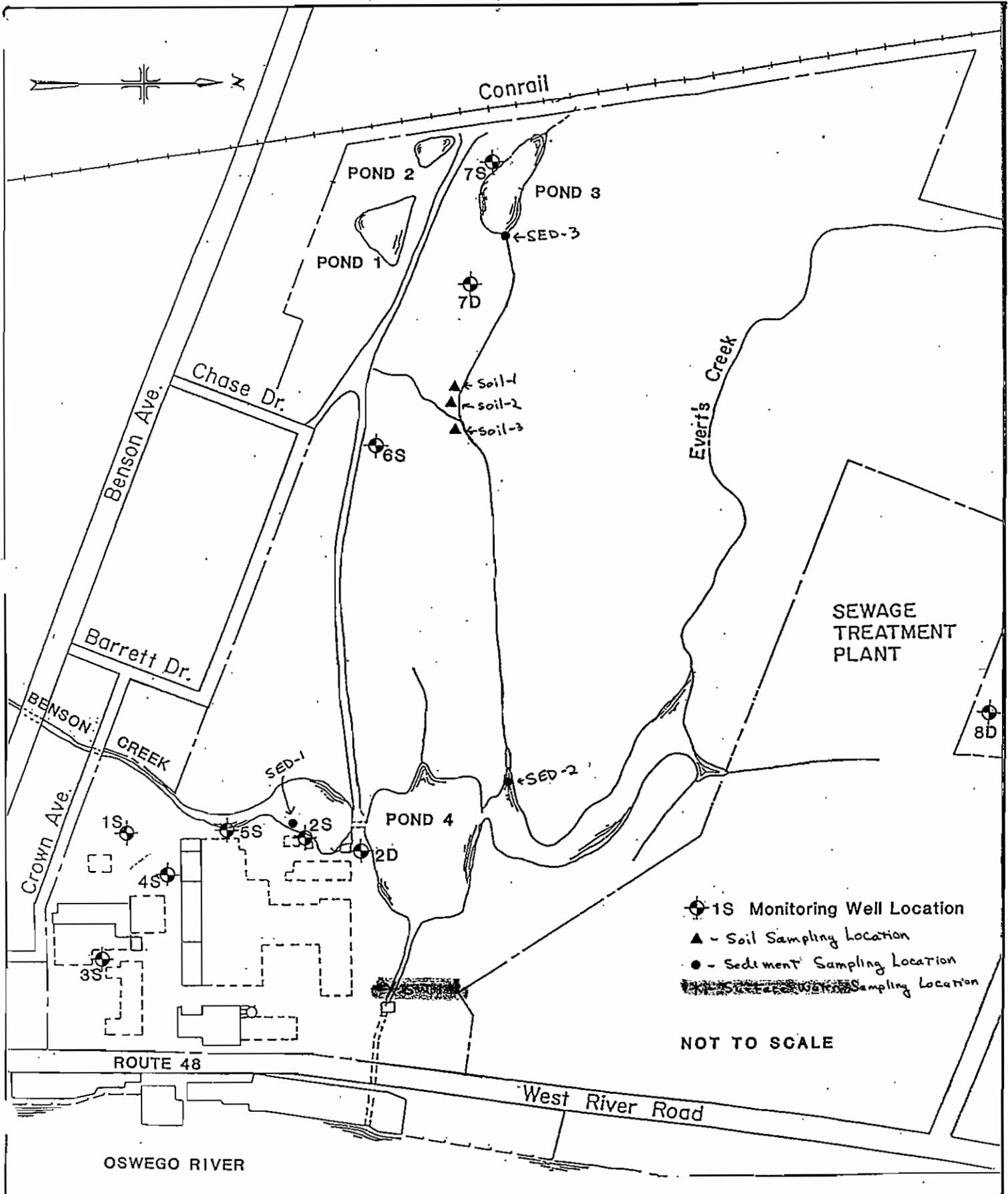
LEAD ANALYSES

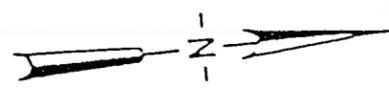
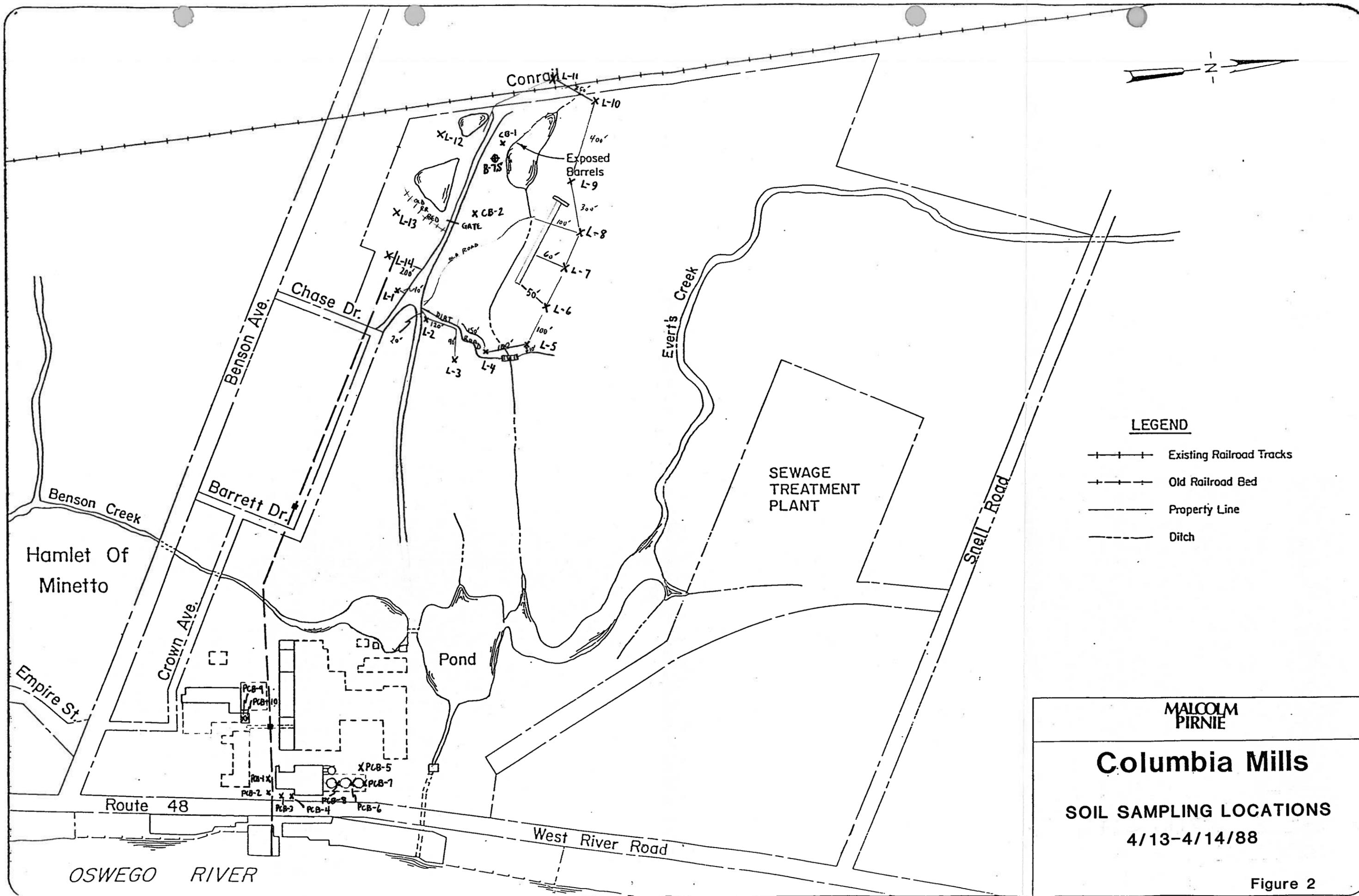
SAMPLE ID	TOTAL LEAD (ppm)
L-1	100
L-2	130
L-3	31
L-4	17
L-5	12
L-6	8.9
L-7	53
L-8	36
L-9	29
L-10	41
L-11	19
L-12	25
L-13	23
L-14	23

BASE/NEUTRAL EXTRACTABLES

	CB-1 (mg/kg)	CB-2 (mg/kg)
Acenaphthylene	1	<1
Phenanthrene	<1	1
Dibutyl phthalate	8	18
Fluoranthene	<1	4
Pyrene	<1	9
Aroclor 1254	0.3	<0.1
Phenol	<1	3
bis(2-Ethylhexyl)- phthalate	17	280

Figure 1





LEGEND

- +—+— Existing Railroad Tracks
- - - - - Old Railroad Bed
- - - - - Property Line
- — — — — Ditch

**MALCOLM
PIRNIE**

Columbia Mills

**SOIL SAMPLING LOCATIONS
4/13-4/14/88**

Figure 2

June 9, 1988

Mr. David Wazenkewitz
Solid Waste Engineer
New York State Department of
Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088

Re: Columbia Mills

Dear Dave:

We have finalized arrangements for J.J. Lane Construction Company to provide gravel cover and spread the material over the contaminated railroad right-of-way at the rear of the Columbia Mills property in Minetto. The work is tentatively scheduled for late next week (June 16 and 17, 1988).

The Contractor will start dumping gravel just inside the chain link gate at the area surrounded by the red snow fence. The dozer will spread the gravel in a pattern back toward the active railroad tracks, eventually covering an area approximately 20 feet wide by 540 feet long, as shown on the attached sketch. The gravel thickness will be approximately six inches. Approximately 200 cubic yards will be spread. The Contractor will not be exposed to the waste since the dozer will be working on top of the freshly spread gravel at all times.

Once the gravel has been spread, the Contractor will cut down a number of large trees adjacent to the former railroad bed and pile these trees to form a series of brush piles in the area. The trees are already marked with red paint and the approximate location of the brush piles is also shown on the attached sketch. As with the other work, the Contractor will be working on top of the fresh gravel and will not be exposed to the hazardous constituents in the contaminated soil.

Malcolm Pirnie will have a field representative at the site at all times to monitor the Contractors actions and advise him with regard to avoiding exposure to the wastes. The Malcolm Pirnie representative will direct the gravel trucks such that they do not drive over uncovered contaminated soil in the area and he will certify that each truck has not contacted hazardous wastes on the site.

Mr. David Wazenkewitz

-2-

June 9, 1988

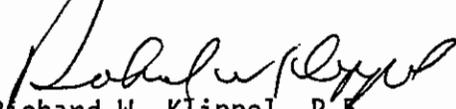
If for some reason, the truck tires become contaminated, he will supervise decontamination of the tires prior to the truck leaving the site. Likewise, the Engineer will supervise decontamination of the Contractors equipment prior to its removal from the site.

Upon completion of the work, a short report will be prepared documenting the work performed, the precautions taken and the results obtained. A copy of this report will be submitted for your records.

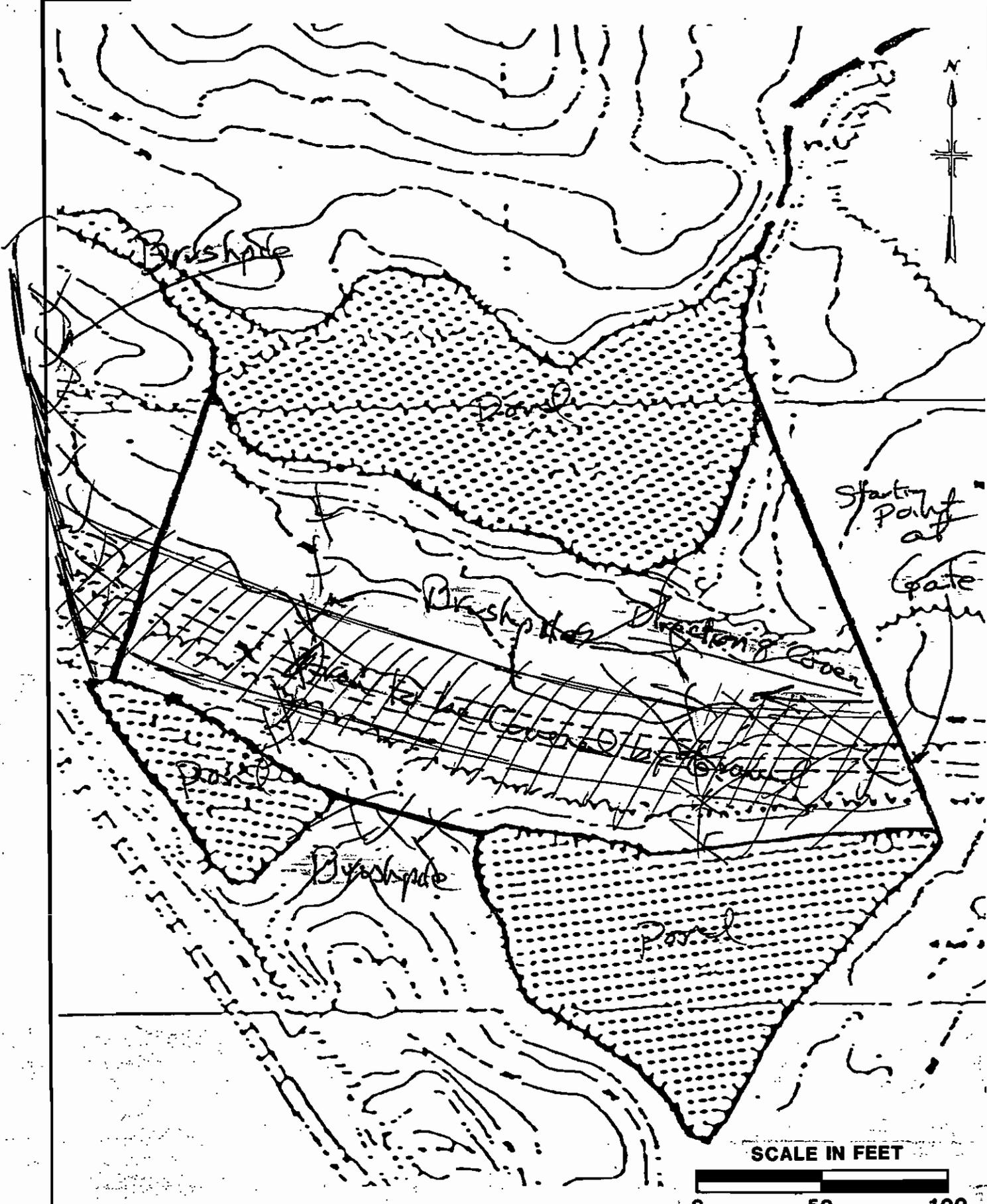
As stated earlier, we have tentatively planned for the work to be completed on June 16 and 17, 1988. However, that date is contingent upon the Contractor's completion of other activities. Therefore, we will notify you by telephone when the date has been finalized.

Very truly yours,

MALCOLM PIRNIE, INC.


Richard W. Klippel, P.E.
Manager, Syracuse Office

c: Gordon Proud, Town of Minetto
Ron Heerkens, NYSDOH
Evan Walsh, OCHD
J.J. Lane Construction Co.



**MALCOLM
PIRNIE**

MALCOLM PIRNIE, INC.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Swartwout



Thomas C. Jorling
Commissioner

June 3, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Leslie H. Deming, Esq.
Bond, Schoeneck & King
One Lincoln Center
Syracuse, New York 13202

RE: Columbia Mills Inactive Hazardous Waste Site-Registry # 738012

Dear Mr. Deming:

The Columbia Mills case has been referred to the Division of Environmental Enforcement located at 50 Wolf Road in Albany, New York. All further legal matters relating to the property should be handled through this office.

As an initial step, I would like to determine whether the case is in fact suitable for enforcement activity. At a meeting held in the Minetto Town Offices in January 1988, you indicated to me that the Columbia Mills Company has a limited pool of funds from which to draw and would likely be unable to complete an entire remedial program at the site. If this can be verified, the Department may be forced to seek funding elsewhere for any costs which cannot be paid by Columbia Mills.

For this reason, I am requesting that Columbia Mills provide us with audited financial statements from the Columbia Mills Company and its Canadian counterpart. The statements should include Balance Sheets, Income Statements and Statements of Changes in Financial Position. Statements should be provided for years beginning with the fiscal year immediately prior to but not including the fiscal year during which the Canadian entity was sold. Financial statements should be provided for all subsequent years up to the year the most recent statements were put forth.

If, for any year, there are no audited financial statements for the company or companies, please provide internal financial statements including the company or companies' Balance Sheets and Income Statements.

In addition, I would like to be provided with the Contract of Sale for the sale of the Canadian part of the company, the Deed or other instrument evidencing transfer of title, and Bills of Sale related to the transaction, as well as any amendments, changes or modifications to these documents.

RECEIVED

JUN 6 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

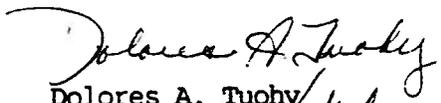
Leslie H. Deming, Esq.
June 3, 1988

Page 2

I believe this information will enable the Department to select an appropriate course of action to pursue in this case.

The requested information should be submitted to me by June 24, 1988. Feel free to contact me if you have any questions or comments.

Very truly yours,


Dolores A. Tuohy
Attorney
Division of Environmental
Enforcement
(518) 457-3296

bcc: John Swartwout
Dave Wazenkewitz
Emmy Thomee

J. Swartout

E. Bennett, R. Majewski, J. Davis, N. Boyce
A. Fessa
Resolution of Columbia Mills Air Issues

June 2, 1988

Recent review of a plan for removal of buried tanks from the Columbia Mills Site disclosed a number of air issues including potential emission rates, community impacts and ambient monitoring.

In order to resolve the details of these concerns a meeting with Hazardous Waste Remediation has been scheduled for 11:00 a.m., Tuesday, June 7, 1988 in the Air Library. We should be prepared to justify our requests for additional work and to provide sufficiently detailed guidance that the contractor for the project will be able to meet our technical expectations.

If you have any questions please call either Bill Webster or myself.

Please continue to use T&A Code 9153 for this project.

cc: J. Swartout

RECEIVED

JUN 3 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

TRANSMITTAL SLIP

TO: Dave Wazenkewitz, Region 7

FROM: John Stewart, Bureau of Eastern Remedial Action

RE: Columbia Mills Site
Division of Air Comments on Workplan for Removal of Buried Tanks

DATE: May 27, 1988

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____
Signature
- Information
- Approval
- Prepare final/draft in _____ Copies

- Comments
- Signature
- File
- Return to me
- Bill Webster is trying to set up
a meeting to resolve this
on Tues, June 7 here in Albany.



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Swartout
FROM: W.J. Webster *WJW*
SUBJECT: Columbia Mills - Removal of Buried Tanks
DATE: May 24, 1988

The workplan for removal of buried tanks at the Columbia Mills Site has been reviewed by the Bureau of Air Toxics and Bureau of Impact Assessment and Meteorology. Their detailed comments are attached.

There general agreement that the proposed remedial action could have an impact on the ambient air and that this possibility has not been adequately addressed in the plan. The proposed monitoring and action limits are in the ppm range which is more appropriate for occupational safety than for exposure of the general public.

A meeting to discuss resolution of the air issues would probably be the most efficient way to keep the project moving forward. The alternative, simply waiting for a revised workplan and reviewing it, could lead to substantial delays. If you agree please call me at 7-7454 and I will make the arrangements.

cc: T. Allen
E. Bennett
R. Majewski
N. Boyce

WW:dg

File
Project Review
Columbia Hills

E. Bennett, J. Davis, R. Majewski
W.J. Webster
Columbia Hills Site - Removal of Buried Tanks

May 10, 1988

Attached is a workplan for removal of buried tanks at the Columbia Hills Site, Minetto, Oswego County, New York. The planned action includes elements of concern of the Division of Air Resources: excavation of contaminated areas and on-site aeration of contaminated soils. There is no evidence of an air impact assessment for the surrounding community.

Before the proposed remedial construction begins I believe it is appropriate for the Division of Air Resource to accomplish the following:

- 1) An estimate of emissions potential during excavation and the resulting community impacts (BIAI/BSC).
- 2) An estimate of emissions potential during on-site aeration of contaminated soils and the resulting community impacts (BIAI/BSC).
- 3) A statement concerning the acceptability of the potential community impacts (BAT).
- 4) Definition of appropriate limits or controls (BSC).
- 5) Definition of appropriate air monitoring during construction (BAT/BTAS).

For perspective, consider the data in Table 5, HNu readings of soil borings. Assume that the highest observation, 260 ppm, is toluene. Then the air concentration of toluene in the vicinity of the soil sample was 975,000 $\mu\text{g}/\text{m}^3$ which compares unfavorably with the AAL of 7500 $\mu\text{g}/\text{m}^3$. Even the average concentration reported would be approximately 140,000 $\mu\text{g}/\text{m}^3$.

Figure 2, "Soil Removal Flow Chart" describes the treatment of soils based on HNu readings. Considering the relative responses of toluene (100%) and methyl ethyl keytone (57%) these limits can be translated to the following air concentrations:

HNu Reading ppm	Toluene $\mu\text{g}/\text{m}^3$	MEK $\mu\text{g}/\text{m}^3$
10	37,500	51,750
50	187,500	268,750
260	750,000	1,035,000

The proposed air monitoring would also be based on the Mtu with 10 ppm as the action level.

May I please have your comments no later than Thursday, May 19, 1988. The T&A code for this project is 9153 .

Attachment

cc: N. Boyce

WW:dg



New York State Department of Environmental Conservation

MEMORANDUM

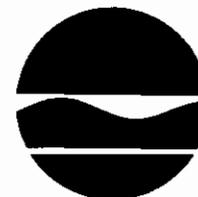
TO: Bill Webster - BTAS
FROM: Al Elkerton - BIAM AE
SUBJECT: The Columbia Mills Remedial Site, Minetto, Oswego Co.
DATE: May 17, 1988

As you requested in your memo regarding the attached "Updated Workplan for Removal of Buried Tanks" at the above sites, I have the following comments:

1. The map just after page one of the attached workplan shows the areas of the location of the buried toxic container tanks. If part of the remediation plan is to aerate some of the less toxic soil involved, the dimensions of the area and the location of the area concerned must be presented for assessment of toxic air quality impacts.
2. The toxics to be evaluated and the emission rates (per unit area, per unit time) must be provided. Also, the applicable averaging times for the assessment of the toxic impacts to be assessed should be provided.
3. It is indicated that onsite and offsite impacts should be considered. However, assessment of impact at the nearest offsite residence is mentioned, but the distance and direction of the nearest residence should also be presented.

If I can be of further assistance, please contact me.

/cb
cc: L. Sedefian
N. Boyce, Region 7



Thomas C. Jorling
Commissioner

May 19, 1988

MEMORANDUM

TO: W. Webster

FROM: M. Reis *MR*

RE: Columbia Mills Remediation Site - Removal of Buried Tanks

As requested in your May 10, 1988 memo to Bob Majewski, we have reviewed the work plan for the removal of buried tanks at the Columbia Mills site in Minetto, Oswego County. This plan is deficient in a number of areas:

1. Of all the contaminants mentioned, benzene emissions would likely be the source of the greatest concern for public health effects. Benzene is a known human carcinogen, has the most restrictive AAL of all of the materials detected in the soil, and may have deleterious effects on sensitive individuals exposed even for short periods of time even at concentrations below guidelines.

The TLV for benzene is 10 ppm. TLVs are applied in industrial environments and should not be used to determine acceptability of impacts on the general population where concentrations could be maintained for several weeks. The use of an "action level" of 10 ppm is unacceptable.

2. Detection methods capable of specifically identifying and quantifying all compounds of interest should be used. It is necessary to do this in order to be able to directly compare impacts to applicable guidelines. An HNu meter is not suitable for this task.
3. Preliminary sampling should be conducted to provide data on the identity, quantities and emission rates of contaminants that might be emitted during remediation. This testing could be conducted in test pits or wells, for example. Data gathered can be used to evaluate the adequacy of the work plan.
4. Monitoring at a remediation site should include the contaminants listed in Max Goldman's April 5, 1988 memo to you in addition to any other compounds detected at the site for which there is specific concern.

5. Any air sampling should be conducted more frequently than twice per day to ensure that concentrations occurring at the times of maximum volatilization are measured.
6. The means by which the downwind direction will be determined should be specified.
7. The plan does not address asbestos monitoring and impact evaluation. Samples taken at the site at locations 191, 192, 194, 200 and 201, as described in the "Inventory of Asbestos Contaminated Materials", indicate the presence of asbestos. These sampling points are all located in the areas to be excavated.
8. The use of an HNu meter to determine soil contamination levels, as described in Figure 2 of the work plan, is of questionable validity.
9. Exposure of the soil (which contains several organics and asbestos) to the air does not appear to be the most environmentally sound treatment or disposal method. The two or so weeks that are proposed to accomplish this may not be enough time to adequately reduce the concentration of the compounds present. We understand after discussions with John Swartout that it would be necessary to reduce concentrations to 1 to 5 ppm before the soil would no longer be considered hazardous. Aeration would also not remove asbestos. If a better method of on-site treatment cannot be found, excavated material should be disposed of off-site.

The work plan should be revised based on these comments. Please call me if you have any questions.

bjs

cc: R. Majewski
M. Riano
P. Lavin
M. Goldman



New York State Department of Environmental Conservation

MEMORANDUM

7-7454

Bill Webster

TO: Art Fossa, Division of Air Resources

FROM: John Swartwout, Sr. Sanitary Engineer, Bur. of Eastern Remedial Action

SUBJECT: Review of Workplan for Removal of Buried Tanks - Columbia Mills Inactive Hazardous Waste Site, ID #738012

DATE: April 29, 1988

Attached is a copy of a workplan for removal of buried tanks and remediation of contaminated soil at the Columbia Mills site in Oswego County. This workplan has been approved by the Bureau of Eastern Remedial Action and reviewed by Region 7 staff. Norm Boyce, the Regional Air Engineer has indicated that he does not have a problem with the workplan, but he requested that you be given the opportunity to review it since it includes on-site aeration of soils containing volatiles. He particularly requested that you look at the appropriateness of the planned use of HNU meters for determining the level of contamination. I request that you review this matter and give me your reaction as soon as possible.

Please call me at 7-5637 if you have any questions on this request or need further information on the Columbia Mills site. Max Goldman, of your Division, is also familiar with the background information on this site, as is Norm Boyce. Feel free to contact them as well.

Attachment

- cc: w/o Attachment
- D. Wazenkewitz
- D. Tuohy
- M. Goldman
- N. Boyce
- S. Hammond

w/ JWS + EO

R7- $\frac{1}{2}$ DHAASR (CO) - reviewed workplan in fall 87 including R7-Air, no problems

~~R7-AIR~~ MPI - revised workplan accord. to comments by early '88

Revised Workplan rece'd Feb '88 - addressing comments R7-Air then asked for CO-Air review.

CO-Air by 7/88 - no written comment, verbal - significant changes.

7-25-88 - MPI calls to tell us their starting now - today

7-25-88
SBH



John Swartwout

New York State Department of Environmental Conservation

MEMORANDUM

TO: Joseph L. Slack through Stephen Hammond
FROM: John Swartwout, Sr. Sanitary Engineer *JBS*
SUBJECT: Future Course of Action Regarding Columbia Mills Site, ID #738012
DATE: April 7, 1988

It now appears likely that design and construction of the remedial plan at the Columbia Mills site will have to be accomplished using State Superfund funding. It is requested that action be taken now to add this site to the candidate site list for the State Superfund. The remainder of this memo contains background information relating to the Department's strategy for cleaning up the site.

STRATEGY MEETING

A meeting was held on March 30, 1988 at the DEC Region 7 office to discuss the DEC's strategy for cleaning up the Columbia Mills site. Region 7, DHWR, DEE, DOH, and the Oswego County Health Department participated. A list of attendees is attached.

BACKGROUND

Mr. Les Deming of Bond, Schoeneck, and King, attorneys for the Columbia Mills Company, has stated that the remaining operating company in Canada has been sold and all that remains is an escrow account from which funds may be withdrawn for remedial investigations and remediation. Once these funds are expended, there will be no further funding available from his client. Although no precise figure has been provided on how much is in the account, it is apparent from statements made by Mr. Deming and his engineering consultants, Malcolm Pirnie, that completing the RI/FS and the interim remedial measures already planned will just about deplete the account. Little, if any, funds would remain for the overall remediation.

As a result of the inventory of asbestos containing materials conducted at the site in August 1987 by CS Environmental Laboratory for Bond, Schoeneck, and King, it became apparent that asbestos contamination at the site is potentially a major health concern. Mr. Deming has stated, however, that the Columbia Mills Company will not take responsibility for the asbestos problem since they believe that problem was created by the salvage firm which demolished and scavenged the buildings after the plant was sold. If the Columbia Mills Company were to clean up the site except for the asbestos, the State would not be able to clean up the asbestos under State Superfund because asbestos is not classified as a hazardous waste. Asbestos could be cleaned up along with other hazardous materials, however, as part of a comprehensive State Superfund clean-up. Malcolm Pirnie has stated that they intend to include the asbestos problem in the RI/FS.

Additional sampling to complete the data base required for the RI/FS is currently underway. This sampling program was negotiated among Malcolm Pirnie, DOH, and DEC. Analysis of soils, groundwater, and surface water for the full list of TCL (HSL) parameters is included.

DEC review is nearing completion on interim remediation to remove underground tanks from the site, excavate contaminated soil surrounding the tanks, and either ship the soil off site or clean it through volatilization. Tank removal is planned for this spring with soil clean-up continuing through the summer. Columbia Mills Company will fund it.

Final details are currently being worked out for interim remedial measures in the drum disposal area to limit public access and contact with contaminated soils. Access will be limited by downing trees on ATV trails and contact will be prevented by providing a cover of clean soil. This work is planned for this spring. Columbia Mills Company will fund it.

The Division of Air Resources has been asked to provide air sampling equipment for use at the site to investigate potential off-site migration of asbestos and heavy metals (including lead). The Bureau of Air Toxics is currently reviewing this request.

DECISIONS REACHED

1. More information is needed on the asbestos problem at Columbia Mills before the DOH can determine if some immediate action is required to protect the public health and to determine the relative importance of the asbestos contamination vs. other contamination problems on-site. Dave Wazenkewitz will ask Malcolm Pirnie what additional data they think needs to be developed to fully address the asbestos problem in the RI/FS. The Division of Air Resources is making their own determination of the type of air monitoring program which would be appropriate given the circumstances.
2. DEE needs to negotiate a Consent Order and get access to the Columbia Mills Company financial records to determine what their assets are. Due to the possibility that technical work may stop when legal negotiations start, it was decided that legal demands on the Columbia Mills Company will be delayed until the following technical activities are completed:
 - a. Collection and analysis of current round of field samples.
 - b. Removal of underground tanks and contaminated soil.
 - c. Interim remediation (soil cover and felled trees) in drum disposal area.
3. Once technical activities listed in 2. above are completed, DEE will request that Columbia Mills Company sign a Consent Order for complete remediation of the site. DEE believes this is the best way to force Columbia Mills to disclose its financial assets and show why it can't pay for remediation.

4. It was agreed that, in addition to the technical work listed in 2. above, as a minimum, we want Columbia Mills to complete the RI/FS. Design and Construction could then be accomplished with State Superfund funding if necessary.

BERA ACTION REQUESTED

I was asked to make the required notifications and begin laying the groundwork for State Superfund funding for design and construction phases. It is presently anticipated that the RI/FS phase would end and the design phase begin in March 1989. We want to avoid a delay in work on this site when the transition to State funding becomes necessary.

I spoke briefly to Ray Lupe about this situation and he indicated that State Superfund funding and scheduling for the design phase in the spring of 1989 should not be a problem. He requested a memo on the specifics. He also noted that State Superfund funding for RI/FS work on this site within the next year would be a problem. This reinforces our desire to have the Columbia Mills Company complete the RI/FS which is underway.

Attachment

cc: D. Tuohy
D. Wazenkewitz

COLUMBIA Airlines Meeting

3/30/88

Thomas E. Schmidt

Cswago County Health Dept.

349-3589

Chris Williams

" (349-356)

DAVE WAZENKIEWICZ

NYS DEC 315-428-4483

Isolores Tuohy

DEC-DEE 518-457-3294

Emmy Thomée

NYS-DOH

(315) ~~448-256~~ 428-3257

Ron Heenkens

"

428-4718

John Swartwout

NYS-DEC

518-457-5637

Hazardous Waste Remediation



New York State Department of Environmental Conservation

MEMORANDUM

TO: Joseph Slack
FROM: Don Gower
SUBJECT: Proposed Air Monitoring at Columbia Mills Site
DATE: March 24, 1988

3-21-88
Slack
H. Majewski
John Swartzwout

This will acknowledge your request for Air technical assistance at the Columbia Mills Inactive Hazardous Waste Site.

The first step will be a review of the scope of the proposed air monitoring based on site data. This review will be performed by the Bureau of Air Toxics under the direction of Robert Majewski. His staff has been asked to commence the review as soon as possible.

cc: T. Allen w/attachment
R. Majewski

 Gower

10/10/88



New York State Department of Environmental Conservation

MEMORANDUM

TO: Dave Wazenkewitz, Region 7
FROM: John Swartwout, Bureau of Eastern Remedial Action *JS*
SUBJECT: Revised Workplan for Tank Removal at Columbia Mills Site, #738012
DATE: March 17, 1988

I have reviewed the subject workplan prepared by Malcolm Pirnie Incorporated, and dated February 1988. The updated workplan addresses the concerns which I had raised in my July 22, 1987 memo to you. I recommend that the workplan be approved and that the work begin as soon as site conditions become favorable.

cc: Stephen Hammond
Larry Gross, Region 7



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Swartout - Eastern Remedial
FROM: Dave Wazenkewitz - R7 *DSW*
SUBJECT: REVISED WORKPLAN - TANK REMOVAL COLUMBIA MILLS
MINETTO (T), OSWEGO CO #738012
DATE: March 7, 1988

Attached for your review and comments is the above referenced work plan.

DW/f

cc: Evan Walsh
Ron Heerkens
Tom Male
Larry Gross
Delores Touhy

RECEIVED

MAR 14 1988

BUREAU OF EASTERN REGIONAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: Dave Wazenkewitz, Region 7
FROM: John Swartwout, Senior Sanitary Engineer, Bureau of Eastern Remedial Action
SUBJECT: Work Plan for Removal of Buried Tanks at Columbia Mills Site
DATE: July 22, 1987

The Bureau of Eastern Remedial Action has reviewed the subject work plan and has the following comments:

1. The characterization of tank contents should include analysis for PCBs where approximate.
2. Supplied air or SCBA will be required for any tank entries.
3. Any cutting of tanks to gain entry must be done with an air chisel.
4. Aeration of contaminated soil is an acceptable remediation technology provided that emission limits and air quality monitoring specified by the Regional Air Engineer are followed. Turning the soil over after a week may not be sufficient, however. Rototilling every one or two days may be necessary.
5. Our goal would be for levels to be below 1 ppm for each contaminant and below 10 ppm total before the aerated soil is used for backfill.
6. When the contractor is through excavating at a given location, soil samples should be taken off the walls and bottom of the excavation for laboratory analysis to confirm that enough soil has been removed.
7. A Health and Safety Plan complying with OSHA requirements is needed for this work.
8. If removed tanks are to be sent to a scrapyard, they must be decontaminated and certified clean first.

cc: John Iannotti
Larry Gross, Region 7



New York State Department of Environmental Conservation

MEMORANDUM

Slack / GAW

TO: Don Gower, Director, Bureau of Air Quality Surveillance
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action
SUBJECT: Columbia Mills Inactive Hazardous Waste Site #738012,
Minetto (T), Oswego Co.
DATE: March 16, 1988

In order to better evaluate the air impacts from the above site, we are requesting the use of 4-6 Hi-Volume samplers from your Division.

It is anticipated that the samplers will operate every day (24hrs/day), for a period of about 3-6 months. Please include any spare parts that you deem necessary for continuous, uninterrupted operation of this network.

Filters, laboratory services, and calibration will be provided by the responsible party's consultants. The main concerns are particulate transport off site and the primary contaminants of concern are heavy metals and asbestos.

If you have any questions, please let me know. If not, your staff can coordinate with John Swartwout, of my staff, or Dave Wazenkewitz, of Region 7.

Your assistance in this matter is appreciated.

cc: J. Swartwout
D. Wazenkewitz
N. Boyce
N. Gross
T. Male
R. Heerkens
Evan Walsh

TOWN OF MINETTO
P.O. BOX 1120
MINETTO, NEW YORK 13115

March 7, 1988

State of N.Y., Dept. of Health
Office of Public Health
Syracuse Regional Office
677 South Salina Street
Syracuse, New York

AttN: Emmy Thomee

Dear Ms. Thomee:

The Minetto Town Board request the honor of your presence at our March 14, 1988 Town Board Meeting at 7:00 P.M. in the Minetto Town Hall.

This meeting will be a follow-up of the inter-agency meeting that was held on February 21, 1988, in regard to security measures taken at the Columbia Mills site.

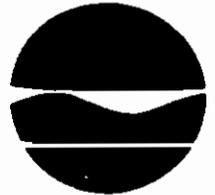
Yours Truly,



Gordon Proud
Supervisor

cc: Tom Smith
Malcolm Pirnie
Richard Klippel
Donald Wahrendorf
David Wazenkewitz
Sue Miller

New York State Department of Environmental Conservation
7481 Henry Clay Blvd., Liverpool, New York 13088



Thomas C. Jorling
Commissioner

February 24, 1988

Mr. Richard W. Klippel, P.E.
Project Manager
Malcolm Pirnie Engineers
890 Seventh North St.
Liverpool, NY 13088

RE: COLUMBIA MILLS INACTIVE

Dear Mr. Klippel:

This letter is in regard to your letter of January 18, 1988 and our site walk-thru on January 29, 1988.

Based on the finding of the site visit, we are requesting the following items be added to your scope of work indicated in the above mentioned letter:

- 1) Sampling and analysis for PCB's should be conducted in area along the south side of the boiler house and between the boiler house and Route 48 including the front oil storage area along Route 48.
- 2) A sufficient number of soil borings east and west of Building 11 and in the new still area in the southwest corner of the property. The investigation in these areas should include:
 - a) Soil gas and PCB sampling and analysis
 - b) In areas where high soil gas readings are encountered, sampling and analysis for volatile organics should be conducted;
- 3) Three - four soil boring and surface sampling off the eastern edge of the drum disposal area. Analysis should include TCL parameters.
- 4) Lead sampling and analysis should be taken in the drum disposal area and in downwind and background areas.
- 5) Based on the finding above, additional groundwater monitoring wells may be required.

FEB 24 1988
BUREAU OF ENVIRONMENTAL ACTION
DIVISION OF WASTE MANAGEMENT

Mr. Richard W. Klippel, P.E.
February 19, 1988
Page 2

- 6) Sampling for combustion by-products should be considered in the drum disposal area.
- 7) A representative hi-vol sampling program during worst case conditions should be conducted. Analysis for lead and asbestos should be conducted.

If you have any questions, please contact me at (315)428-4483.

Very truly yours,

A handwritten signature in dark ink, appearing to read "D. S. Wazenkewitz", with a large, stylized flourish at the end.

David S. Wazenkewitz
Sanitary Engineer
Solid Waste Management

DSW/f

cc: Gross
Swartout
Heerkens
Walsh
Delores Tuhue

STATE OF NEW YORK
DEPARTMENT OF HEALTH



OFFICE OF PUBLIC HEALTH

Swartwout

SYRACUSE REGIONAL OFFICE

677 SOUTH SALINA STREET

SYRACUSE, N.Y. 13202-3592

DAVID AXELROD, M.D.
Commissioner

LINDA A. RANDOLPH M.D., M.P.H.
Director, OPH

February 22, 1988

WILLIAM F. LEAVY
Executive Deputy Director

RECEIVED

MAR 02 1988

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Mr. Lester H. Deming, Esq.
Bond, Schoeneck and King
One Lincoln Center
Syracuse, N.Y. 13202

Dear Mr. Deming:

This letter will confirm the topics discussed and decisions reached concerning interim security at the Columbia Mills site, on February 18, 1988 at the meeting in Minetto Town Hall (attendance list attached).

The NYS Department of Health (DOH) expressed its concern on the following subjects, with the following results:

1. Concern: The Pb-contaminated area should be covered with 6" of soil, to prevent direct contact with and inhalation of Pb.

Resolution: The Town of Minetto will provide gravel and Columbia Mills will provide a contractor and other assistance to the town to spread it. The cooperation of county personnel will be sought by the town, to help town employees move materials to the site. Malcolm Pirnie may assist by providing names of appropriate contractors. OSHA-certified personnel will be required.

Cover will be put down over frozen soil or dry soil, but wet conditions will be avoided so as to prevent mixing of contaminated soil with clean fill. Operations are expected to begin by May.

2. Concern: Vehicular access should be limited, to prevent raising dust clouds of Pb-contaminated particulates.

Resolution: Large trees will be laid across all ATV access points, concurrently with deposition of gravel cover. This will prevent disturbance of cover in the future.

3. Concern: Security measures should be extended to include the entire barrel-dump, and should include warnings of chemical hazard.

Resolution: The snow fence will be extended to include the barrel-dump area. Columbia Mills will provide financial support. The NYS Department of Environmental Conservation (DEC) or Malcolm Pirnie will provide hazardous waste signs, which will be erected where they will be visible from the perimeter of the snow fenced area.

4. Concern: Regular monitoring of the adequacy of security, i.e. fences, barricades, and general site use, is needed to prevent vandalism, and that the effects of vandalism will be repaired in a timely manner.

Resolution: Provision of part-time security guards, who would check security several times weekly at varying hours, was discussed, but rejected for the moment. A letter will be sent by the town to county personnel requesting occasional, routine surveillance of the site. In the meantime, Neighborhood Watch-type citizen checks on fences may be made until cover, barricades and additional fencing are provided. The need for paid security guards may be reassessed at any time. Fences and gates will be provided by Columbia Mills and maintained as agreed between the company and the town.

5. Concern: The target shooting area, which may attract people to the contaminated area, should be removed.

Resolution: Consensus was that target practice can not be prevented, and that the target itself prevents stray bullets. Creation of artificial paths and a new target in an uncontaminated area was discussed, but was dismissed as unacceptable to those using the site.

6. Concern: Vandalism on site has increased since health warnings have been publicized.

Resolution: A public meeting will be held at 7:00 p.m. Monday, March 14, 1988 in Minetto Town Hall to update the community on site developments, with an emphasis on security concerns. Town officials will be assisted by NYS-DOH, NYS-DEC, and Oswego County and consulting engineering personnel in presenting the issues.

Progress made at this meeting was encouraging. Thank you for your participation, input, and responsiveness to concerns expressed.

Sincerely,

Emmy Thomee

ET:pc
Attachment

Emmy Thomee
Program Research Specialist II (Toxics)
(315)428-3257

cc: R. Heerkens
S. Mohanka
R. Tramontano
G. Litwin
G. Proud
D. Tuohy
J. Swartout
D. Wazenkewitz
D. Wahrendorf
R. Collins
R. Klippel
T. Schmidt

Lynda Armstrong	Councilwoman
Robert A. Natali	Councilman
Dolores Puchy	Atty - DEC
DAVID WAZENKEWITZ	R-7
John Swartwout	DEC - Bureau of Eastern Remedial Action
Don Wahrendorf	Legislator
Doris I. Polcino	Planning Board Member
Joseph J. Mangano	Code Enforcement Officer
Thomas E. Schmidt	Oswego Co. Public Health Dept.
Michael R. Felitto	Councilman, town of Minetto
L. H. Deming	Atty - Columbia Mills
Emmy Thorneo	NYS - Dept. of Health
Dick Kippel	Malden, Penn. Engineers
Gordon Proud	Supervisor
David J. Roman	Atty, Minetto

New York State Department of Environmental Conservation
7481 Henry Clay Blvd., Liverpool, New York 13088



Thomas C. Jorling
Commissioner

February 5, 1988

FEB 10 1988
BUREAU OF CLEAN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

Mr. Richard Turoski
Rep. for Senator McHugh
Room 814
Legislative Office Building
Albany, NY 12247

RE: COLUMBIA MILLS, MINELTO, NY
SITE I.D. #738012

Dear Mr. Turoski:

Regarding our telephone conversation on February 4, 1988, attached for your information are copies of the meeting agenda and a summary memo by J. Swartout regarding the meeting.

If you have further questions, please contact me at (315)428-4483.

Very truly yours,

David S. Wazenkewitz
Sanitary Engineer
Solid Waste Management

DSW/fo

Enc.

cc: Swartout
Heerkens
Gross
Male
Walsh

Columbia Mills Meeting
Town of Minetto

1/21/88
10:30 a.m.

- | | | |
|-------------------|--------------------------------|-----------------|
| Thomas Barba | Malcolm Pirnie, Inc, Liverpool | 457-4105 |
| Mark Wilder | Malcolm Pirnie, Inc. | 457-4105 |
| Dick Klippel | malcolm Pirnie Inc | 457-4105 |
| Dolores Tuohy | DEC, Albany | (518) 457-3296 |
| John Swartwout | DEC, Albany | (518) 457-5963 |
| DAVID J. ROMAN | Minetto Town Attorney | (315) 343-2742 |
| ROBERT A. NATOLI | Minetto, Counselor | (315) 343-1585 |
| Sue Miller | DEC | 428-4497 |
| Mark Lichtenstein | Oswego Co. EMC | (315) 349-3564 |
| Emmy Thomas | NYS - Dept. of Health (Toxics) | (315) 428-3257 |
| REN HEERKENS | NYS - DOT - Sur | (315) 428-4718 |
| Chris Williams | Oswego Co. Health Dept | (315) 349-3561 |
| MIKE STEPHENS | MINETTO PLANNING | (315) 342-3043 |
| Doris Poland | Minetto Planning | (315) -343-5090 |
| Dan Wahrendorf | minetto Legislator | 315 342 0361 |
| Phinia Oyer | Bookkeeper, Deputy | 315 342-1667 |
| Wan Walsh | Oswego Co. Health Dept | 315-349-3561 |
| Tom Male | DEC - Liverpool | 315-428-AA84 |
| DAVE WAZEKOWICZ | " " | " " " |
| GORDON PROUD | SUPERVISOR TOWN OF MINETTO, NY | 343-2393 |
| LH DEMING | COLUMBIA MILLS | 315 422 0121 |

AGENDA
COLUMBIA MILLS MEETING
JANUARY 21, 1988

- | | |
|--------------------------------|------------------|
| A. INTRODUCTION | Dave Wazenkewitz |
| B. DESCRIPTION OF SITE | Tom Barba |
| C. PAST WORK | |
| Soils, test pits | Tom Barba |
| Ground water quality | Mark Wilder |
| Surface water & sediments | Mark Wilder |
| PCBs (boiler house) | Mark Wilder |
| Asbestos | Tom Barba |
| D. CONTINUING WORK | |
| Tank removal | Tom Barba |
| Site security & problems | Dick Klippel |
| E. FUTURE WORK | |
| Draft remedial invest. report | Dick Klippel |
| Additional sampling & analysis | Dick Klippel |
| Risk assessment | Tom Barba |
| Feasibility study | Dick Klippel |
| Public input | Dick Klippel |
| F. DISCUSSION | |

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233- 4011



Thomas C. Jorling
Commissioner

JAN 28 1988

Ms. Deborah Sale
Chief of Staff
State of New York
Office of the Lieutenant Governor
Albany, New York 12224

Dear Ms. Sale:

Re: Columbia Mills Site, Minetto, NY
Site I.D. #738012

This is a follow-up to our December 16 telephone conversation regarding the Columbia Mills site in the Town of Minetto.

Representatives of the Department met with the Minetto Town Board on January 21, 1988 to provide an update on past, present and future hazardous waste remedial work at the Columbia Mills site. Representatives of the State and Oswego County Health Departments, Oswego County Legislature, Minetto Planning Board, and Columbia Mills Company also participated. A copy of the meeting agenda is enclosed for your information.

Both this Department and the Columbia Mills Company, acting through their engineering consultant Malcolm Pirnie, Inc., are committed to maintaining a dialogue with the public and local officials concerning remediation of the Columbia Mills site. A public meeting and a 30-day public comment period will be scheduled before the Commissioner considers approving the Columbia Mills Company's remedial plan.

Please feel free to call me at (518) 457-1415 should you desire any further information on the Columbia Mills site or the January 21 meeting.

Sincerely,

Edward O. Sullivan
Deputy Commissioner

Enclosure

bcc: w/enc. - E. Sullivan (2)
M. O'Toole (2)
C. Goddard
J. Slack
S. Hammond
J. Swartwout
D. Wazenkewitz, Region 7

JS:mn

AGENDA
COLUMBIA MILLS MEETING
JANUARY 21, 1988

- | | |
|--------------------------------|------------------|
| A. INTRODUCTION | Dave Wazenkewitz |
| B. DESCRIPTION OF SITE | Tom Barba |
| C. PAST WORK | |
| Soils, test pits | Tom Barba |
| Ground water quality | Mark Wilder |
| Surface water & sediments | Mark Wilder |
| PCBs (boiler house) | Mark Wilder |
| Asbestos | Tom Barba |
| D. CONTINUING WORK | |
| Tank removal | Tom Barba |
| Site security & problems | Dick Klippel |
| E. FUTURE WORK | |
| Draft remedial invest. report | Dick Klippel |
| Additional sampling & analysis | Dick Klippel |
| Risk assessment | Tom Barba |
| Feasibility study | Dick Klippel |
| Public input | Dick Klippel |
| F. DISCUSSION | |



J Swartwout

New York State Department of Environmental Conservation

MEMORANDUM

TO: Stephen Hammond/Joseph Slack
FROM: John Swartwout
SUBJECT: Columbia Mills Site, ID #738012 - Meeting with Local Officials in Minetto
DATE: January 27, 1988

A meeting was held on January 21, 1988 at 10:30 a.m. in the Minetto Town Hall to brief Town officials on the Columbia Mills Site. A list of all attendees is attached. Note that representatives of Oswego County, the State Health Department, the Columbia Mills Company, and the media were present. The newspaper reporter did not sign in.

An agenda for the meeting is attached. Dave Wazenkewitz of Region 7 made introductory remarks and Tom Barba, Mark Wilder, and Dick Klippel of Malcolm Pirnie (engineering consultants for Columbia Mills) gave the remainder of the presentation, using information summarized from the attached Sampling and Analysis Data Report. The meeting continued with a long discussion by all present. Following are some items of interest which came out of the discussion.

- Study schedule proposed by Malcolm Pirnie - complete RI this summer and complete FS by end of 1988.
- Major remedial construction will be in summer of 1990 at earliest, but cleanup of PCB contamination in basement area may be done earlier as an interim remedial action.
- Columbia Mills Company does not feel responsible for the asbestos problem. They think the salvage company (Columen) was.
- Columbia Mills Company agrees to cleanup the metals and organics (and possibly the PCBs) as long as their funds last.
- Columbia Mills Company (in Canada) has been sold and proceeds from the sale are in an escrow account. Those are the only funds now available for site cleanup. Malcolm Pirnie does not think there will be enough to complete remedial work.
- The Town's comprehensive plan for future use of the site is commercial and multi-family housing in the front portion (highest priority area for development) and residential in the back portion.

- Per previous agreement between Columbia Mills and the Town, maintenance of fences is the Town's responsibility.
- Total security for the site (with 24-hour guards) would cost \$18,000 per month. Less costly means of minimizing human exposure to toxic materials are being considered.
- The Town Attorney stated that remedial work on the hazardous wastes must be completed before the Town would consider taking title and trying to get funding to clean up asbestos and rubble at the site.
- Asbestos contamination is a major stumbling block at the site since it is not classified as a hazardous waste, but may be the greatest potential health problem there and will greatly complicate cleanup of rubble at the site.

I spoke to Debbie Christian on January 25 about the possibility of cleaning up the asbestos problem with State Superfund money. She indicated that once the hazardous waste is remediated, the asbestos problem would not be eligible for cleanup under the State Superfund since it is not a hazardous waste. However, if Columbia Mills were to run out of funds before remediating the hazardous waste problems, it might be possible to clean up the asbestos along with the hazardous wastes under State Superfund. I believe further discussions are needed within the Department on this question.

Attachment

cc: w/o att. - Delores Tuohy
Debbie Christian
Tom Male
Dave Wazenkewitz
Sue Miller

JBS/dmh
bcc: J. Swartwout

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

January 18, 1988

Mr. David Wazenkewitz
New York State Dept. of Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088

Dear Mr. Wazenkewitz:

Confirming discussions during our meeting of January 15, 1988 regarding the Columbia Mills site, at the request of the New York State Department of Environmental Conservation and the New York State Department of Health, Malcolm Pirnie, Inc. will conduct additional sampling and analysis as described below:

- (1) Hazardous substance list (HSL) ^{TCL} parameters - Six groundwater monitoring wells (1S, 2S, 2D, 3S, 7S, 7D), three sediment and one surface water samples (see attached drawing). Analysis will be for the 130 organics (plus library search), and 25 inorganic on the HSL list.
- (2) PCB's - Sampling and analysis of not more than 10 soil samples from areas adjacent to the power house.
- (3) Lead-Sampling and analysis of not more than 15 surface soil samples from areas near the perimeter of the Columbia Mills site. Locations of these samples will be coordinated with the NYSDOH.

Malcolm Pirnie, Inc. will notify the New York State Department of Environmental Conservation at least one week in advance of sampling to allow for the State to prepare for split samples.

We will continue to prepare the draft Remedial Investigation Report, and subsequent to the receipt of the analytical results, we will meet with you to discuss the results.

Please feel free to contact us if there are any questions.

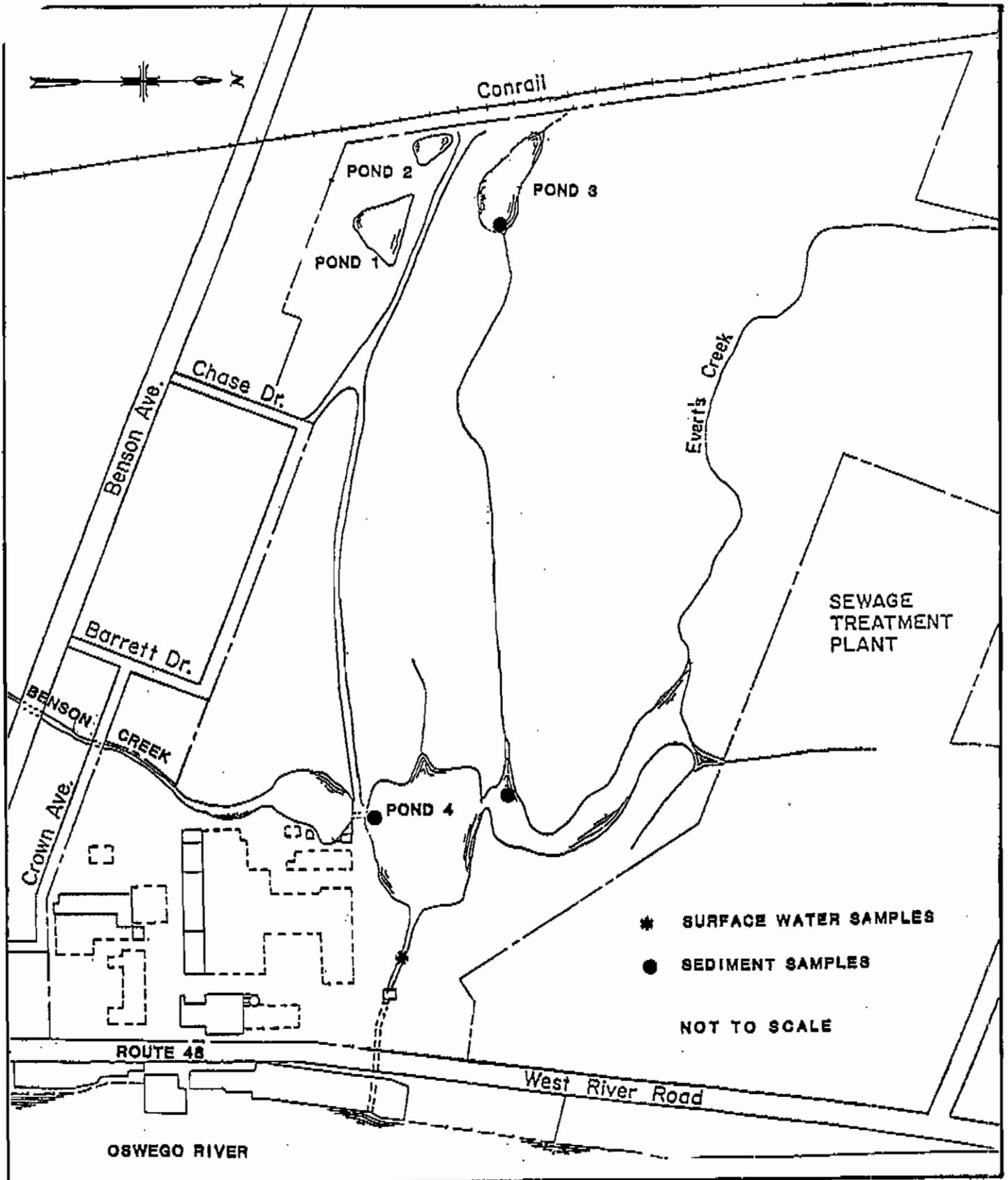
Very truly yours,

MALCOLM PIRNIE, INC.

Richard W. Klippel, P.E.
Project Manager

fc
1069-02-1

(2) - *Handwritten notes:*
 - Frost all *Handwritten notes*
 - Frost all *Handwritten notes*
 (2) - *Handwritten notes:*
 - Soil boring 23-6 *Handwritten notes*
 - *Handwritten notes*
 - *Handwritten notes*
 (3)



PROPOSED SAMPLING LOCATIONS



New York State Department of Environmental Conservation

MEMORANDUM

TO: Michael J. O'Toole, Jr., Act. Dir., Div. of Hazardous Waste Remediation
FROM: Joseph L. Slack, Chief, Bureau of Eastern Remedial Action
SUBJECT: Columbia Mills Site, Town of Minetto, Oswego County (#738012)

January 11, 1988

DATE:

A handwritten signature in black ink, appearing to read "Slack", written over the "FROM:" line of the memorandum header.

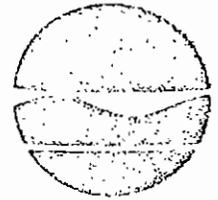
This is to follow up on your memorandum of December 29, 1987 to Deputy Commissioner Sullivan on this subject. Dave Wazenkewitz of Region 7 has contacted the Town of Minetto about arranging a meeting for us to brief them on this site. The meeting with the Town officials is scheduled for 10:30 a.m. on Thursday January 21, 1988 in the Town Hall. At a meeting held in Liverpool on January 6, Dave Wazenkewitz and John Swartwout (Bureau of Eastern Remedial Action) spoke to the Columbia Mills Company's consultants (Malcolm Pirnie) about the January 21 meeting. Malcolm Pirnie has agreed to attend and to give the main presentation on the background, current status, and future work planned for the site. Another meeting between the DEC representatives and Malcolm Pirnie will be held on January 15, 1988 to discuss the details of what is to be presented at the meeting with the Town officials.

cc: E. Sullivan
C. Goddard
D. Wazendewitz
J. Swartwout

John Swartout - Eastern Remediation - Albany 222

New York State Department of Environmental Conservation
7481 Henry Clay Blvd., Liverpool, New York 13088

JAN 14 1988
DEPARTMENT OF ENVIRONMENTAL ACTION
DIVISION OF ENVIRONMENTAL ACTION



Thomas C. Jorling
Commissioner

January 11, 1988

Mr. Leslie Deming
Bond, Schoeneck & King
One Lincoln Center
Syracuse, NY 13202-1355

RE: COLUMBIA MILLS INACTIVE HAZARDOUS WASTE SITE - #738012
MINETTO (T), OSWEGO COUNTY

Dear Mr. Deming:

This is to confirm our conversation regarding the meeting concerning the Columbia Mills Site. The meeting is set for 10:30 A.M. January 21, 1988 at the Minetto Town Office.

There are a number of items that need to be addressed, and we would like to have you and your engineers discuss the following:

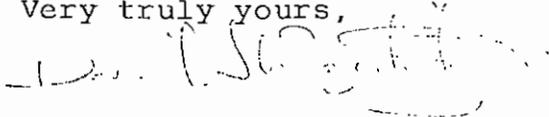
- 1) UPDATE INVESTIGATIONS:
 - a) Asbestos
 - b) Phase II findings (HRS score, groundwater, surfacewater, and soil contamination.)
 - c) Private well survey findings
 - d) New findings
- 2) UPDATE OF THE INTERIM REMEDIAL MEASURES
- 3) REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Mr. Leslie Deming

Page 2

We appreciate your cooperation regarding this matter; and if you have any questions, please feel free to contact me at (315) 428-4423.

Very truly yours,



David Wazenkewitz
Sanitary Engineer
Solid Waste Management

DW/f

cc: Gordon Proud - Minetto Town Supervisor
Carolyn Rush - Oswego County Administrator
Ron Heerkens - NYSDOH
Evan Walsh - Oswego County Health
Larry Gross/Tom Male
Richard Teroski - Rep. for Senator John M. Mc Hugh
D. Wazenkewitz
Susan Miller
Frank Bifera



New York State Department of Environmental Conservation

MEMORANDUM

TO: Edward O. Sullivan, Deputy Commissioner
FROM: Michael J. O'Toole, Jr., Act. Dir., Div. of Hazardous Waste Rem.
SUBJECT: Columbia Mills Site, Town of Minetto, Oswego County

DATE:

DEC 29 1987

In response to your note of December 17, 1987, Division staff have contacted Madeline Lewis' office (R.W. Groneman). Mr. Steve Hammond, Supervisor, Technical Support Section, will work with staff in Region 7 to arrange a meeting (tentatively scheduled for January 21, 1988) to brief the Town of Minetto Town Board regarding the status of remedial activities at this site. We will notify R.W. Groneman of the date of the meeting.

cc: M. Lewis
R.W. Groneman
S. Hammond

→ 12-29-87

→ John Swartwout

December 16, 1987

Telecon, Debra Sale, LT Gov's Office

RE: Columbia Mills

- Writer briefed Debra on status of project.
- Debra noted that there has been little public information. Locality is very confused due to lack of understanding of cleanup process. In fact, recent election turned on the issue of the cleanup.
- Debra would like DEC to report to Town Board on project status in early January.
- Writer assured her that we would prepare information session for Board at their convenience.

cc: Madeline Lewis
Michael J. O'Toole

New York State
Department of Environmental Conservation

MEMORANDUM

TO: Michael J. O'Toole 12/17/87

Would you please identify a candidate to organize a public information session on this for early January. Joe Slack should probably be prepared to attend. I may have to as well. Please coordinate with Madeline.

Ned.

NED SULLIVAN
Deputy Commissioner



New York State Department of Environmental Conservation

MEMORANDUM

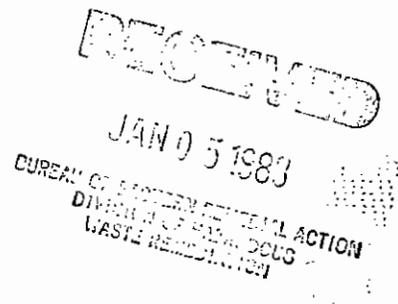
TO: John Swartout - 4010
FROM: Dave Wazenkewitz - R-7150
SUBJECT: Columbia Mills Inactive Hazardous Waste Site
#738012 (Asbestos Survey/RI/FS Authorization Letter)
DATE: December 23, 1987

Attached are the Asbestos Survey and RI/FS Authorization Letter for your review and comments.

I have set up a date of January 21, 1987 for a meeting with the local officials. As we discussed, a RI/FS Scoping Project Update is set up for January 6, 1987 at the offices of Malcom Pirnie.

Enc.

cc: Ron Heerkens
Larry Gross
Tom Male
Evan Walsh



New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-



Thomas C. Jorling
Commissioner

December 21, 1987

Ms. Deborah Sale
Chief of Staff
State of New York
Office of the Lieutenant Governor
Albany, New York 12224

Dear Ms. Sale:

Re: Status of Work at Columbia Mills
Site in Minetto, N.Y.
Site I.D. #738012

Thank you for your letter dated November 17, 1987 requesting information regarding the Columbia Mills site. I am pleased to provide, for your use, the enclosed fact sheet delineating background information and current status of the site activities.

I am available to further discuss this issue at your request. Please feel free to call me at (518) 457-1415 should you have additional questions. Thank you.

Sincerely,

Edward O. Sullivan
Deputy Commissioner

Enclosure

let me know how and when
you want us to make a presentation.

bcc: w/enc. - E. Sullivan (2)
M. O'Toole (2)
J. Slack
S. Hammond
J. Swartwout

JS:mn

FACT SHEET (12/87)

Site: Columbia Mills NYS 738012

Location: Town of Minetto, Oswego County

Registry Classification: Class 2

Responsible Party: Columbia Mills Company (no longer in business in the United States, but there is still a parent company in Canada).

Site Ownership: Town of Minetto and Oswego County

Enforcement Status: DEC - Region 7 has retained the enforcement lead and Columbia Mills has informally agreed to pay for investigations to determine the nature and extent of the contamination. There is no formal Consent Order.

Technical Review and Oversight: Provided by DEC Region 7 and Division of Hazardous Waste Remediation, Bureau of Eastern Remedial Action.

Site History:

1976 - Columbia Mills ceased operation and sold the plant to a salvage company.

1980 - DEC arranged for manifested removal of numerous drums.

1984 - Evaluation of the site's potential for reuse for Oswego County documented potential hazards at the site due to left-over chemicals and/or wastes.

1986 - Phase II Site Investigation prepared for Bond, Schoeneck, & King (Attorney for Columbia Mills Company).

Following DEC review and comment, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures.

December 1986 Work Plan Scope and Status:

- Reviewed and approved by DEC March, 1987
- Cleaning and removal of buried tanks and contaminated soil - tanks pumped out in November 1987 and removal of tanks and soil scheduled for spring 1988.
- Installation of temporary fencing and warning signs around drum burning area - installed May 1987.

- Inventory of asbestos materials - completed August 1987.
- Gathering further information on soils, groundwater, surface water, and sediments to refine Hazardous Ranking Score - completed autumn of 1987.
- removal of overpacked drums from main plant area - removed September 1987.
- Report submittal - Malcolm Pirnie (engineering consultant hired by Bond, Schoeneck, & King) has proposed to Bond, Schoeneck, & King that the report on the field investigations carried out under this work plan be in the form of a Remedial Investigation Report rather than a Supplemental Phase II Report. This proposal is currently under review by Bond, Schoeneck, & King and the Columbia Mills Company.

NOV 24 1987



STATE OF NEW YORK
OFFICE OF THE LIEUTENANT GOVERNOR
ALBANY 12224

STAN LUNDINE
LIEUTENANT GOVERNOR

Ned Sullivan, Deputy Commissioner
Department of Environmental Conservation
50 Wold Road
Albany, New York 12233

November 17, 1987

In Syracuse last week, I met Jane Galliger Watts who is the democratic chair of Minetto, a small town in Oswego. She and her supporters have just taken over the town board in Minetto. Their principal issue was the Columbia mills. Could you please let me know what the status of the Columbia Mills Clean-up is? I would appreciate that very much. I would also probably like to discuss this issue with you after I have a clearer idea of what we are doing so far in Columbia Mills. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Sale".

Deborah Sale
Chief of Staff

RECEIVED
DEC 01 1987
DEPARTMENT OF ENVIRONMENTAL ACTION
COLUMBIA MILLS CLEAN-UP
WASTEWATER TREATMENT

BOND, SCHOENECK & KING

ONE LINCOLN CENTER

SYRACUSE, NEW YORK 13202-1355

(315) 422-0121
TELECOPIER (315) 422-3598

111 WASHINGTON AVENUE
ALBANY, NEW YORK 12210-2280
(518) 462-7421

216 WASHINGTON STREET
WATERTOWN, NEW YORK 13601-3389
(315) 788-3327

PYLON PARK
5301 NORTH FEDERAL HIGHWAY
BOCA RATON, FLORIDA 33487-4990
(305) 997-0411

1167 THIRD STREET SOUTH
NAPLES, FLORIDA 33940-7098
(813) 262-6812

December 17, 1987

DAVID L. DAWSON *
DAVID R. SHERIDAN
THOMAS D. KELEHER
JAMES H. SEELY
HENRY H. MELCHOR
THAODEUS J. LEWKOWICZ
JOSEPH T. NOTONDO
EDWIN J. KELLEY, JR.
LARRY P. MALFITANO
JOHN H. CALLAHAN
JOHN G. MCGOWAN
EDWARD RYAN CONAN
JOSEPH P. VAN DE LOO
GEORGE J. GETMAN *
DEBORAH H. KARALUNAS
DONALD S. DIBENEDETTO
ROBERT A. LABERGE
WILLIAM R. HORIARTT
MAURA A. FLOOD
SCOTT C. SELBACH
RICHARD A. REED
MARGARET M. CASSADY
PATRICK J. PUDRO

ROBERT J. SLYE
DANIEL J. VENUTI
DENNIS G. WHELPLEY
PAUL F. KING **
D. FRED GARNER **
JOHN S. WESTRICK
HEIDI JUHL **
NICHOLAS J. D'AMBROSIO, JR.
LOUIS A. ALEXANDER
CHARLES M. ALEXANDER
ELIZABETH S. RIKER
JUDITH H. ROSENBAUM **
R. SCOTT PRICE **
DENNIS D. CURTIS
VIRGINIA C. ROBBINS
MARTIN J. TYKISHSKI
DAVID D. FENSTEP
JONATHAN B. FELLOWS
STUART A. MCCREARY
RAYMOND J. PASCUCCI ***
SAMUEL R. MILITELLO
JULIE M. ROGGE
ANNE F. SIROTA ****
JAMES D. BATTI

* ALSO ADMITTED TO FLA. BAR
** ADMITTED IN PA. ONLY
*** ADMITTED IN PA. ONLY
**** ADMITTED IN HD. ONLY

HUDERY C. STRATTON (1927-1978)
HOWARD H. CANNON (1927-1979)
ANTON H. ZAHM (1947-1984)
WILLIAM F. FITZPATRICK (1929-1984)

CHARLES A. SCHOENECK, JR.
TRACY H. FERGUSON
LYLE W. HORNBECK
CHESTER H. KING, JR.
N. EARLE EVANS
FRANCIS E. MALONEY
FRANCIS D. PRICE *
JAMES E. WILDER *
HENRY R. MCCARTHY
RAYMOND W. MURRAY, JR.
JOSEPH J. LAWTON, JR.
GEORGE C. SHATTUCK
LESLIE H. DEHING
JOHN J. DEE
JOHN A. BEACH *
CHARLES T. DEECHING, JR.
WILLIAM P. BURROWS
JOHN H. FREYER *
ROBERT W. KOPP
CHARLES T. MAJOR
JOHN S. FERGUSON
ROBERT E. MOSES
ARTHUR E. DON GIOVANNI *
WILLIAM L. BERGAN
ANTHONY R. PITTARELLI *
FRANCIS E. MALONEY, JR.
WALLACE J. McDONALD *
JAMES D. FITZPATRICK
STEPHEN L. JOHNSON

JAMES E. HACKIN *
DAVID H. SEXTON *
GARY R. GERMAIN
THOMAS S. EVANS *
H. DEAN NEBERLIG, JR.
THOMAS J. GROOMS
RICHARD L. SMITH
JAMES P. McDONALD *
S. PAUL DATAGLIA
STEPHEN J. VOLLMER
L. LAWRENCE TULLY
PAUL M. SAHSOUCY *
GARY H. CLARA
RICHARD C. HEFFERN
RICHARD D. HOLE
GEORGE H. LOWE
JOHN D. ALLEN
DAVID H. PELLOW
THOMAS E. MTERS
LOUIS R. DILORENZO
CARL ROSENBLUM
BARRY R. KOGUT *
M. CATHERINE RICHARDSON
JOHN GAAL
JOSEPH ZAGRANICZNT
THOMAS R. SMITH
R. DANIEL BORDONI
RONALD C. BERGER
ROBERT C. ZUNDEL, JR. *

Mr. David Wazenkewitz
New York State Department of
Environmental Conservation
7481 Henry Clay Blvd.
Liverpool, New York 13088

Dear Dave:

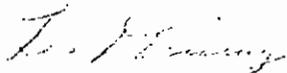
On November 12, 1987 our engineers, Malcolm Pirnie, submitted on behalf of our client Columbia Mills, a status report of the ongoing investigation of the Minetto site along with their proposal that the Phase 2 Report, which is now being revised in response to your comments, be extended to include a remedial investigation/feasibility study report.

In a meeting last Monday with Dick Klippel of Malcolm Pirnie, our client authorized an additional estimated expenditure of \$85,000 to complete these reports.

Our client is concerned with moving this project along and we would appreciate your commenting directly to Dick Klippel on your suggestions for a format of these reports which might permit approval and remedial work to be done in stages. Thus, initial work could be commenced without waiting for approval for the entire plan as a whole.

I know that Gordon Proud has requested that we give him and his board periodic updates on the status of this project and I would be happy to join you in a meeting for that purpose at a time agreeable to you and Mr. Proud.

Very truly yours,
BOND, SCHOENECK & KING

By: 
Leslie H. Deming

/gck

cc: Mr. John Metz
Mr. Gordon Proud



New York State Department of Environmental Conservation

MEMORANDUM

TO: Michael J. O'Toole, Acting Director, Div. of Haz. Waste Remediation
FROM: Stephen Hammond, Associate Sanitary Engineer, BERA *SB Hammond*
SUBJECT: Status of Work at Columbia Mills Hazardous Waste Site in
 Minetto - ID #738012
DATE: December 9, 1987

Site: Columbia Mills NYS 738012

Location: Town of Minetto, Oswego County

Registry Classification: Class 2

Responsible Party: Columbia Mills Company (no longer in business in the United States, but there is still a parent company in Canada).

Site Ownership: Town of Minetto and Oswego County

Enforcement Status: Region 7 has retained the enforcement lead and Columbia Mills has informally agreed to pay for investigations to determine the nature and extent of the contamination. There is no formal Consent Order.

Technical Review and Oversight: Provided by Region 7 and Bureau of Eastern Remedial Action.

Site History:

1976 - Columbia Mills ceased operation and sold the plant to a salvage company.

1980 - DEC arranged for manifested removal of numerous drums

1984 - Evaluation of the site's potential for reuse for Oswego County documented potential hazards at the site due to left-over chemicals and/or wastes.

1986 - Phase II Site Investigation prepared for Bond, Schoeneck, & King (Attorney for Columbia Mills Company).

Following DEC review and comment, Columbia Mills agreed to fund additional Phase II investigations and pursue a number of interim remedial measures.

December 1986 Work Plan Scope and Status:

- Reviewed and approved by DEC March, 1987
- Cleaning and removal of buried tanks and contaminated soil - tanks pumped out in November 1987 and removal of tanks and soil scheduled for spring 1988.
- Installation of temporary fencing and warning signs around drum burning area - installed May 1987.
- Inventory of asbestos materials - completed August 1987
- Gathering further information on soils, groundwater, surface water, and sediments to refine HRS score - completed autumn of 1987 with refined HRS score of 47.7 computed (not yet reviewed by DEC)
- removal of overpacked drums from main plant area - removed September 1987.
- Report submittal - Malcolm Pirnie (engineering consultant hired by Bond, Schoeneck, & King) has proposed to Bond, Schoeneck, & King that the report on the field investigations carried out under this work plan be in the form of a Remedial Investigation Report rather than a Supplemental Phase II Report. This proposal is currently under review by Bond, Schoeneck, & King and the Columbia Mills Company.

DEC Contacts -

Central Office - John Swartwout - 457-5637
Region 7 Office - Dave Wazenkewitz - (315) 428-4483

cc: J. Swartwout
D. Wazenkewitz

NOV 24 1987



STATE OF NEW YORK
OFFICE OF THE LIEUTENANT GOVERNOR
ALBANY 12224

STAN LUNDINE
LIEUTENANT GOVERNOR

Ned Sullivan, Deputy Commissioner
Department of Environmental Conservation
50 Wold Road
Albany, New York 12233

November 17, 1987

In syracuse last week, I met Jane Galliger Watts who is the democratic chair of Minetto, a small town in Oswego. She and her supporters have just taken over the town board in Minetto. Their principal issue was the Columbia mills. Could you please let me know what the status of the Columbia Mills Clean-up is? I would appreciate that very much. I would also probably like to discuss this issue with you after I have a clearer idea of what we are doing so far in Columbia Mills. Thank you.

Sincerely,

Deborah Sale
Chief of Staff

RECEIVED
DEC 0 1987
OFFICE OF THE LIEUTENANT GOVERNOR
ALBANY, NEW YORK 12224



New York State
Environmental Conservation

Joe -

12-7

14-1

4 1987

Pls. have someone bring me up
to speed as to what's going on
here.

NEW YORK STATE
ENVIRONMENTAL CONSERVATION

Mike

TO: Mike

Pls advise. Deborah
is an ally. I'd
like to be as
responsive as
possible

Director
Conservation

RECEIVED

DEC 04 1987

DIRECTOR'S OFFICE
DIVISION OF HAZARDOUS
WASTE REMEDIATION

NED SULLIVAN
Deputy Commissioner

Jane Galliger Watts who is the
a small town in Oswego. She and her
er the town board in Minetto. Their
bia mills. Could you please let me
olumbia Mills Clean-up is? I would
would also probably like to discuss

appreciate that very much
this issue with you after I have a clearer idea of what we are
doing so far in Columbia Mills. Thank you.

Sincerely,

Deborah Sale
Chief of Staff

RECEIVED

DEC 04 1987
DIRECTOR'S OFFICE
DIVISION OF HAZARDOUS
WASTE REMEDIATION



New York State Department of Environmental Conservation

MEMORANDUM

TO: Steve Hammond
FROM: John Swartwout *JS*
SUBJECT: Removal of Drums from Columbia Mills Site, Region 7
DATE: October 5, 1987

The drums of waste material which had been staged and overpacked previously at the Columbia Mills site were removed by Environmental Technology, Inc. on September 30, 1987. The drums had been sampled and labeled by Paul Stacharczyk of North Coast Associates (subcontractor to ETI). Mr. Stacharczyk directed the removal operation. I arrived at the site at 10:00 a.m. Work began at 12 noon and the first of two Frontier Chemical tractor trailers was loaded with flammable liquids, corrosives, and non-hazardous wastes. It was loaded at 4:00 p.m., at which time I departed the site. They were preparing to load the second truck with all remaining drums (flammable solids, oxidizers, non-hazardous waste). Both trucks were to be driven to Michigan, where most drums will be disposed of at Michigan Recovery and Michigan Disposal. Some drums will be brought back to Frontier Chemical in Buffalo. Michigan and NYSDEC hazardous waste manifests were being signed by Mr. Stacharczyk representing the generator (as authorized by Leslie Deming, attorney for the Columbia Mills, Inc.).

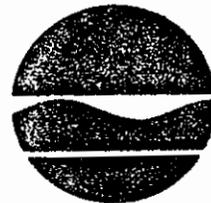
While waiting for the ETI crew to arrive in the morning, Paul Stacharczyk, Dave Wazenkewitz (Region 7), and I met with Gordon Proud, the Town Supervisor, who was very pleased that the drums were finally to be removed. He indicated that he was going to have part of the removal videotaped and that the media had also been notified. Mr. Stacharczyk, Mr. Wazenkewitz, and I also inspected the drum disposal area at the site and found the fences up and gates locked (neither of which had been the case on my previous field visit there).

During the loading of the first truck, a member of the Minetto Fire Company arrived to videotape part of the operation. Shortly thereafter, a TV crew arrived from Channel 9 in Syracuse and requested an interview with me. I granted their request and answered several questions about the removal and about the site in general. A photographer from a local newspaper (from Oswego, I believe) also visited the site and took photographs of the drums being loaded on the truck.

cc: D. Wazenkewitz, Region 7

JS/dmh
 bcc: J. Swartwout

New York State Department of Environmental Conservation
Region 7, Environmental Quality Office
7481 Henry Clay Boulevard
Liverpool, NY 13088
(315) 4284483



Henry G. Williams
Commissioner

RECEIVED

OCT 13 1987

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

October 1, 1987

Mr. Walter Deming
Bond, Schoeneck & King
1 Lincoln Center
Syracuse, NY 13202

Dear Mr. Deming:

We have reviewed the above workplan for closure or removal of the buried tanks at the Columbia Mills site and have the following comments for your consideration and response:

1. The plan should be submitted under the seal and signature of a Professional engineer. The plan should also provide for oversight of this work by a Professional Engineer or his qualified representative.

2. Phase I - Characterization of Tank Contents

a. The plan should include analysis for PCB's, TOX and analysis for final treatment/disposal, for all tank contents. If TOX results are positive additional sampling for halogenated compounds should be considered.

b. A health and safety plan in accordance with OSHA requirements should be included as part of this workplan. The safety plan should be implemented upon commencement of Phase I of the workplan.

c. Supplied air should be specified for any tank entries and appropriate tools and equipment should be used when cutting into tanks with flammable liquids or vapors.

d. The local emergency officials should be notified prior to commencement of this work.

3. Phases II-III Determination of Disposal Methods for Tank Contents Removal and Disposal of Tank Contents

a. The workplan should address the location, how long of a storage period, containment, and other precautions necessary for storage of hazardous waste.

b. Will there be mixing? If so, how will this be handled?

4. Phase IV - Clean and Inspect Tank Interiors

a. See Comment #2c.

5. Phase V - Remove Tanks and Associated Contaminated Soil

a. The plan should identify what tanks will be removed and what tanks will be closed-out on site. If any tanks are to be closed on site, site usage limitations should be included in the report. This should include piping and fitting, etc.

b. Areas where tanks will be closed out on site will also need further remediation of surrounding soils, and this should be considered as part of this report. An estimate of the total amount of soil to be removed should be presented in the report.

c. How will the fill material be protected from contamination of the surrounding soils.

d. How long, where, how much, and what type of soil testing will be conducted on the contaminated soil being temporarily stockpiled on site. The compatibility of the waste should be looked into. More detail as to how the material will be contained should be included in the report. Also, a contingency and maintenance plan should be included.

e. When excavation of soil at a given location is completed, soil samples should be taken of the walls and at the bottom of the excavation for analysis to confirm enough soil has been removed.

f. The analytical requirements for testing the soil that will be treated or disposed of offsite should include analysis for PCB's, TOX, land ban requirements and other analysis required to properly handle, transport, and dispose of the material. Again, if TOX results are positive, sampling for halogenated compounds should be conducted.

g. Analytical requirements for determining whether or not the soil cleaning method can be used should include analysis for PCB's and a scan for other hazardous constituents. Also, a detailed design based on worst case conditions should be included as part of this proposal. The design should take into account required containment, run-on, run-off and precipitation controls, maximum emission rates in accordance with NYSDEC Air Guide - 1 and related to maximum soil concentrations, along with required monitoring of emissions. Also, an estimate of how much soil, where the aeration will take place, the anticipated aeration time, and the anticipated level of clean-up. Also, disposal requirements for contaminated water should be considered.

Page 3
Mr. Deming
October 1, 1987

h. Any tanks that will be removed must be decontaminated and certified clean.

If you have any question please feel free to contact me at 315 (428-4483).

Very truly yours,



David S. Wazenkewitz
Sanitary Engineer

- cc: Larry Gross
Tom Male
Norm Boyce
John Swartout ✓
Ron Heerkens
Evan Walsh
Gordon Proud
Dick Klippel

TRANSMITTAL SLIP

TO: [REDACTED] T, NORM BOYCE, RON HERRICKS, EVAN WALSH

FROM: DAVE WAZENKIEWITZ - R-7 DATE: 9/17/87

RE: DRAFT COMMENTS FOR TANK & SOIL REMOVAL & TREATMENT AT COLUMBIA MILLS (MINETTO). IF YOU HAVE ANY ADDITIONAL COMMENTS PLEASE LET ME KNOW.

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____ Signature
- Information
- Approval
- Prepare final/draft in _____ Copies

- Comments
- Signature
- File
- Return to me
- _____
- _____

Draft 9/16/87

Dear Mr. Deming:

We have reviewed the above workplan for closure or removal of the buried tanks at the Columbia Mills site and have the following comments for your consideration and response:

1. The plan should be submitted under the seal and signature of a professional engineer.
2. Phase I - Characterization of Tank Contents
 - a. The plan should include analysis for PCB's, TOX and ^{analysis} ~~those required~~ for final treatment/disposal, for all tank contents. If TOX results are positive additional sampling for halogenated compounds should be considered.
 - b. A health and safety plan in accordance with OSHA requirements should be included as part of this workplan. The safety plan should be implemented upon commencement of Phase I of the workplan.
 - c. Supplied air should be specified for any tank entries and appropriate tools and equipment should be used when cutting into tanks with flammable liquids or vapors.
 - d. The local emergency officials should be notified prior to commencement of this work.
3. Phases II-III Determination of Disposal Methods for Tank Contents - Removal and Disposal of Tank Contents
 - a. The workplan should address the location, how long of a storage period, containment, and other precautions necessary for storage of hazardous waste.
 - b. Will there be mixing? If so, how will this be handled?
4. Phase IV - Clean and Inspect Tank Interiors
 - a. See Comment #2c.
5. Phase V - Remove Tanks and Associated Contaminated Soil
 - a. The plan should identify what tanks will be removed and what tanks will be closed-out on site. If any tanks are to be closed out on site, site usage limitations should be included in the report. This should include piping and fitting, etc.

b. Areas where tanks will be closed out on site will also need further remediation of surrounding soils, and this should be considered as part of this report. An estimate of the total amount of soil to be removed should be presented in the report.

c. After contaminated soil is removed, what will be used as fill? How will the fill material be protected from contamination of the surrounding soils.

d. How long, where, how much, and what type of soil testing will be conducted on the contaminated soil being temporarily stockpiled on site. The compatibility of the waste should be looked into. More detail as to how the material will be contained should be included in the report. Also, a contingency and maintenance plan should be included.

e. When excavation of soil at a given location is completed, soil samples should be taken of the walls and at the bottom of the excavation for analysis to confirm enough soil has been removed.

f. The analytical requirements for testing the soil that will be treated or disposed of offsite should include analysis for PCB's, TOX, ^{land} and ban requirements and other analysis required to properly handle, transport, and dispose of the material. Again, if TOX results are positive, sampling for halogenated compounds should be conducted.

g. Analytical requirements for determining whether or not the soil cleaning method can be used should include analysis for PCB's and a scan for other hazardous constituents. Also, a detailed design based on worst case conditions should be included as part of this proposal. The design should take into account required containment, run-on, run-off and precipitation controls, maximum emission rules in accordance with NYSDEC Air Guide -1 related to maximum soil concentrations, along with required monitoring of emissions. Also, an estimate of how much soil, where the aeration will take place, the anticipated aeration time, and the anticipated level of clean-up. Also, disposal requirements for contaminated water should be looked into.

Ask about meaning of 5C. ~~I thought~~ They planned to aerate ~~the~~ ^{some} soil & then use it for backfill & use clean granular material otherwise.

Comment 8 on my July 22 Memo is not addressed.

Discussed with Dave W, by phone on 18 Sept.

BOND, SCHOENECK & KING

ONE LINCOLN CENTER

SYRACUSE, NEW YORK 13202-1055

(315) 422-0121
TELECOPIER (315) 422-3588

111 WASHINGTON AVENUE
ALBANY, NEW YORK 12210 2280
(518) 452-7421

216 WASHINGTON STREET
WATERTOWN, NEW YORK 13601 3288
(315) 788-3327

PYLON PARK
8301 NORTH FEDERAL HIGHWAY
BOCA RATON, FLORIDA 33431-4890
(305) 997-0411

1187 THIRD STREET SOUTH
NAPLES, FLORIDA 33940-7098
(813) 982-8812

September 15, 1987

MURPHY G. STRATTON 1921-1978
NORMAN H. DENNOH 1917-1979
ANTHONY J. CLARK 1921-1984
WILLIAM F. FITZPATRICK 1929-1984

CHARLES A. SCHOENECK, JR.
TRACY A. FERJUBON
LYLE W. HOLMBECK
CHESTER K. KING, JR.
N. EARLE EVANS
FRANCIS C. MALONEY
FRANCIS C. PRICE
L. AMES E. WILBER
HENRY R. MCCARTHY
RAYMOND K. MURRAY, JR.
JOSEPH J. LANTON, JR.
GEORGE C. SMATTUCK
LESLIE H. DEMING
JOHN J. DEE
JOHN A. BEACH
CHARLES T. BEECHING, JR.
WILLIAM F. BURROWS
JOHN M. FREYER
ROBERT W. KOPP
CHARLES T. MAJOR
JOHN S. FERGUSON
ROBERT E. HOBBS
ARTHUR E. GONGIYANNI
WILLIAM L. BERSAN
ANTHONY R. PITTARELLI
FRANCIS C. MALONEY, JR.
WALLACE J. MACDONALD
JAMES D. FITZPATRICK
STEPHEN L. JOHNSON

JAMES C. MACKIN
DAVID N. BERTON
GARY R. GERMAIN
THOMAS S. EVANS
N. DEAN KESERLIG, JR.
THOMAS J. GROOMS
RICHARD L. SMITH
JAMES R. MACDONALD
E. PAUL BATTAGLIA
STEPHEN J. VOLLMER
L. LAWRENCE TULLY
PAUL M. SANBOUCY
BARY H. CLARR
RICHARD C. HEFFERN
RICHARD D. HOLE
GEORGE H. LOWE
JOHN D. ALLEN
DAVID K. PELLOW
THOMAS S. METERS
LOUIS R. BILGRENIO
CARL ROSENBLON
BARRY R. BOGUT
M. CATHERINE RICHARDSON
JOHN GAAL
JOSEPH ZAGRANICENY
THOMAS R. SMITH
R. DANIEL BORDONI
RONALD C. BENSER
ROBERT G. ZUNDEL, JR.

DAVID J. DAWSON
DAVID R. SHERIDAN
THOMAS D. RELEHER
JAMES K. BEELEY
HENRY N. MELCHOR
THADDEUS J. LEWNOWICZ
JOSEPH T. BOFONDO
EDWIN J. KELLEY, JR.
LARRY R. MALPITANO
JOHN M. CALLAHAN
JOHN S. MOODWIN
EDWARD RYAN COONAN
JOSEPH P. VAN DE LOO
GEORGE J. GETMAN
DEBORAH K. KARALLUNAS
DONALD E. BENEDEDETTO
ROBERT A. LABERGE
WILLIAM R. MORARTY
NAURIA A. FLOOD
SCOTT C. BELSACH
RICHARD A. REED
MARGARET M. CASBARY
SHEILAH S. POLEY
PATRICK J. ACCORD

ROBERT J. ELYE
DANIEL J. VENUTI
DIANE E. KATZ
DENNIS C. WHEELER
PAUL F. KING
D. FRED GARNER
JOHN S. WESTRICK
HERD JUNI
NICHOLAS J. D'AMBRASIO, JR.
LOUIS A. ALEXANDER
CHARLES M. ALEXANDER
PAUL T. WEINSTEIN
ELIZABETH S. RIKER
JUDITH H. ROSENBAUM
N. SCOTT PRICE
DENNIS O. CURTIN
VIRGINIA C. ROBBINS
MARTIN J. TYRREIN
DAVID D. FEMSTER
JONATHAN B. FELLOWES
STUART A. MACCREARY
RAYMOND J. PASCUCCI
SAMUEL M. MILITELLO
JULIE M. ROOSE

* ALSO ADMITTED TO FLA-BAR
** ADMITTED IN FLA-ONLY
*** ADMITTED IN FLA-ONLY

Mr. Gordon Proud
Supervisor
Town of Minetto
Minetto Town Hall
Minetto, New York 13115

Re: Columbia Mills

Dear Mr. Proud:

As attorneys for Columbia Mills, we are pleased to advise you that the analytical testing of the contents of the stored drums at the Minetto plant has been completed, the receipt of these materials at the disposal site has been approved, and we have authorized the transportation of these drums to the disposal site, which we expect to be completed by the week of September 21.

We have also authorized an investigation of asbestos at the site and bid specifications have been prepared for the testing and remediation of the underground tanks and surrounding areas.

We understand that in the near future a meeting may be scheduled with all parties to discuss site security and the completion of remediation.

We look forward to meeting with you and will keep you advised of further developments.

Very truly yours,
BOND, SCHOENECK & KING

By: *Leslie H. Deming*
Leslie H. Deming

/gck

cc: Mr. John Metz
Mr. Richard W. Klippel
Mr. David Wazenkewitz ✓

Dave W.

New York State Department of Environmental Conservation

Henry G. Williams
CommissionerNEWS RELEASE

September 10, 1987

State officials are concerned over vandalism at the Columbia Mills site in the Town of Minetto.

In a joint announcement, David Wazenkewitz, Project Engineer with the State Department of Environmental Conservation and Ron Heerkens of the State Health Department requested the cooperation of the public in advising their children to stay off of the Columbia Mills property.

As part of the on-going investigation and clean up of the site, the Company has fenced in the contaminated areas and installed monitoring wells to the groundwater.

On a recent inspection visit to the site, Wazenkewitz and Heerkens noted that the fencing had been cut and torn down in a couple of locations and warning signs were damaged by gun shots. "In addition, three of the monitoring wells," Wazenkewitz said, "were vandalized."

"Further vandalism of the wells could jeopardize the validity of sampling results and cause us to require installation of new wells at a high cost and leading to further delay in gathering well data," Wazenkewitz noted.

The cost to replace these wells if necessary would exceed \$30,000.

According to Health Department officials, Ron Heerkens, numerous hazardous chemicals have been found on the site. The contaminants include toluene, benzene, xylene, and heavy metals.

"These contaminants are present at various locations throughout the site," Heerkens noted. He added that lead levels in the former barrel disposal area are of primary concern for public exposure. "Our other concern would be the personal safety of individual entering the deteriorating buildings," he said.

"Although drums stored in buildings on the site containing waste will be removed from the site, there is residual contamination present in the soil, surface and groundwater," Heerkens said.

"We urge all area residents to stay away from the wells and off of the Columbia Mills property both for their own safety and so the investigation can proceed in a timely manner," he added.

Heerkens pointed out that a fact sheet has been prepared by the State Health Department on the site and health concerns. The fact sheet has been distributed to area residents through the town newsletter.

The purpose of the current investigation is to determine what type of contamination exists and its location.

Work accomplished and on-going at the site includes:

- soil, ground and surface water sampling is continuing
- secured drums are awaiting shipment
- private well survey underway
- firm to be hired for asbestos survey of buildings on site
- an additional drum disposal area was located during current investigation
- nine buried tanks of various sizes have been located and a plan is being developed for their excavation and removal.

All investigatory and remedial work done to date has been funded entirely by the private firm, Columbia Mills. The site is a 100-acre site that was used by Columbia Mills from 1887 to 1976 for the manufacture of cloth and vinyl products and is currently listed on DEC's Registry of Inactive Hazardous Waste sites.

-30-

Contact: Sue Miller
315-428-4497

AGENDA

COLUMBIA MILLS SITE

JULY 21, 1987

1. GROUND WATER
2. SURFACE WATER
3. SEDIMENT
4. ASBESTOS REMOVAL
5. DRUM REMOVAL
6. TANK REMOVAL
7. DOMESTIC WELL INVENTORY
8. TUNNELS/SEWERS
9. FUTURE PLANS

Columbia Mills Meeting - July 21, 1987

& Sediment

1. Surface Water - results in from water samples - some organics showed up (see attached table)
- levels of metals higher in back, lower in front
 - not much contamination in the water → more in sediment
 - sampling of pond water and sediments confirmed what was found before

wet weather

2. Groundwater - results of a sampling on attached 2 sheets
- Potentiometric surface map based on the 3 deep wells shows bedrock groundwater flow toward river
 - 2D shows some toluene (16 ug/l vs. 15,000 in 2S)
 - low levels of organics at 8D from unknown source
 - 7D shows some chloroform
 - Wells 6S and 7S have been vandalized; cap now missing off of 7D
 - Chloroform in 7D & 7S doesn't make sense
- - Another round of sampling will be done late August
- Bedrock only about 20 feet under site (less than had been previously assumed)
 - metals now found in groundwater in back area → unfiltered samples used in the analysis → filtered samples used previously when metals not found in groundwater

3. Asbestos Removal - bids are in for inside & outside asbestos survey which will include recommendations for removal - will get a
- report back with recommendations late this year or early next. May have to treat all the rubble there as asbestos contaminated.

Work should start in Aug. As an add-on MP will have them do some air monitoring for asbestos.

4. PCB's found ^(43,000ppm) in dirt on floor of electrical room in basement of boiler house. Oil samples taken there were clean. Floor drains there are already sealed and area is not accessible
5. Drum Removal - still having problems getting the contractor to actually take away the drums. Dave W. will follow up on it.
6. Tank Removal - went over our prelim. comments. Region is concerned about the aeration of contaminated soils → air pollution. Hope to get final comments to MP in a couple of weeks.
7. Domestic Well inventory - still have a few non-responders they are checking on but they believe all downgradient are on public water. There are some wells used for other purposes such as watering lawns & filling pools.
- 8. Tunnels & sewers → all located; sampling will take place same time as next round of groundwater sampling. Tunnels all lined with asbestos; generally no water in them, but may be during heavy rain storms.
9. Will get together at site and look at situation with snow fence → see what else can be done to improve situation to limit access
- 10. Will look at doing some off-site down wind air monitoring, mainly for heavy metals.

ATTENDEES

COLUMBIA MILLS MEETING

JULY 21, 1987

NAME AFFILIATION TELEPHONE #

Tom Barba	Malcolm Pirnie Inc	457-4105
RICK KULIBERT	"	"
John Swartwout	NYSDEC - Albany	518-457-5637
Prison Rogers	DEC Reg 7	428-4483
EVAN WALSH	OSWEGO CO. H.D.	349-3561
Chris Williams	CSOHD	349-3561
MIKE POLSIN	MALCOLM PIRNIE	457-4105
DAVE WARENKEWITZ	NYSDEC R.7	428-4483
Dick Kluppel	Malcolm Pirnie	457-4105
JAMES CRAFT	NYSDEC - REG. 7	428-4483
Emmy Thonée	NYS - DOH - Syracuse	428-3257

Columbia Mills Site

Comments on Removal of Underground Tanks

1. ^{Page 10,} Para. 4.1 item 1 - Will PCB scan be run as part of analysis?
2. ^{Page 10,} Para. 4.1 item 3 - Supplied air will be required ~~under~~ for tank entries. Cutting the tanks must be with an air chisel.
3. ~~Page~~ Page 12, Para. 4.4 - Supplied air will be required for tank entries
4. Page 13 - Aeration of the soil and turning after a week may not be enough. Rototilling every 2 days may be needed.
5. Page ~~12~~¹³ - The level of each contaminant should be below 1ppm before the aerated soil is used for backfill
6. When through excavating at a location, soil samples should be taken off the walls and bottom of the excavation for laboratory analysis.
7. A Health and Safety Plan is needed.
8. If tanks are sent to the scrapyard, they must be decontaminated and certified clean first.

Rototilling currently underway at Union Fork & Hoe
(Region 6).

Regional Air Engineer involved in setting limits on releases of various contaminants → no actual permit needed but limits set as though there were a permit issued.

Contractor is required to monitor air periodically as required by Regional Air Engineer.

Experience at Union Fork & Hoe, Rototron, etc. has been that this works well and air pollution is not a problem.

GROUND WATER MONITORING WELLS
COLUMBIA MILLS

METALS

	1S	2S	2D	3S	4S	5S	6S	7S	7D	8D
Cadmium,	LT 0.005	0.006	LT 0.005	0.11	LT 0.005	0.007				
Chromium, Hex	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01
Chromium	0.06	0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	0.06	0.90	LT 0.05	LT 0.05
Copper	0.04	0.03	LT 0.02	LT 0.02	0.08	LT 0.02	0.31	2.5	LT 0.02	0.03
Lead	LT 0.1	0.6	LT 0.1	LT 0.1	LT 0.1	LT 0.1	0.2	55	LT 0.01	LT 0.1
Nickel	LT 0.03	0.07	0.06	0.09	0.07	0.06	0.04	14	LT 0.03	0.08
Silver	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05
Zinc	0.037	0.82	0.005	LT 0.005	0.067	0.010	0.50	2.4	0.039	0.096

All results in mg/l

Samples of 4/28/87

GROUND WATER MONITORING WELLS
COLUMBIA MILLS

ORGANIC PARAMETERS DETECTED

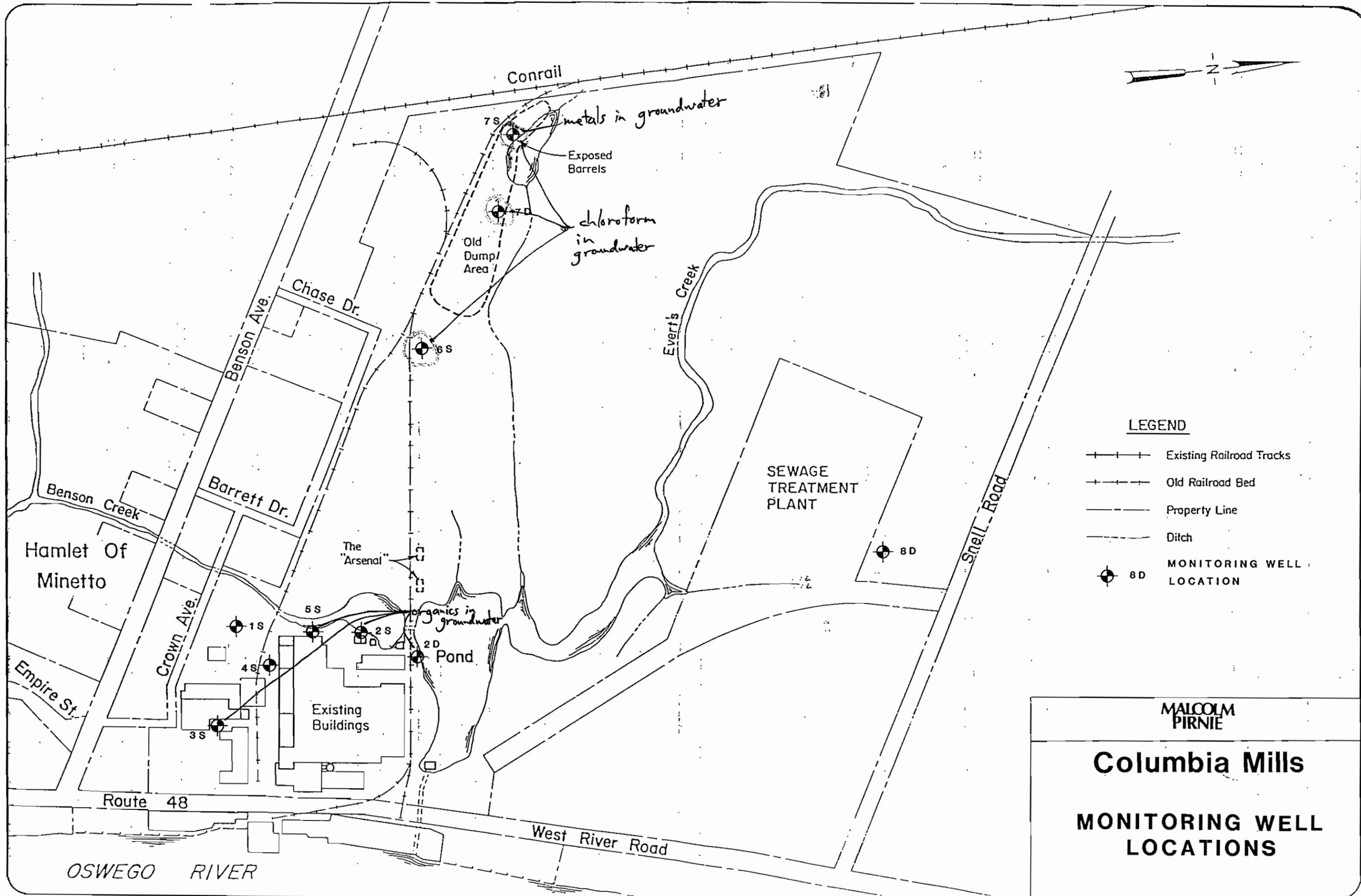
39' deep
31' deep
52' deep

	1S	2S	3S	4S	5S	6S	7S	7D	8D
1,1-Dichloro-ethylene	2	LT 1	LT 1	LT 1	14	4	TRLT 1	LT 1	3
1,1,1-Tri-chloroethane	TRLT 1	LT 1	TRLT 1	1	1	2	LT 1	LT 1	2
Chloroform	LT 1	LT 1	LT 1	LT 1	1	1	LT 1	LT 1	LT 1
Trichloro-ethylene	LT 1	LT 1	LT 1	LT 1	LT 1	LT 1	LT 1	LT 1	1
Toluene	LT 1	15,000	8	TRLT 1	14	LT 1	LT 1	LT 1	LT 1
Ethylbenzene	LT 1	25	LT 1	LT 1	9	LT 1	LT 1	LT 1	LT 1
Xylenes	LT 1	100	LT 1	LT 1	69	LT 1	LT 1	LT 1	LT 1

All results in ug/l.

Data represent those parameters detected on USEPA 601 & 602 Scans.

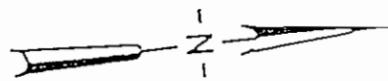
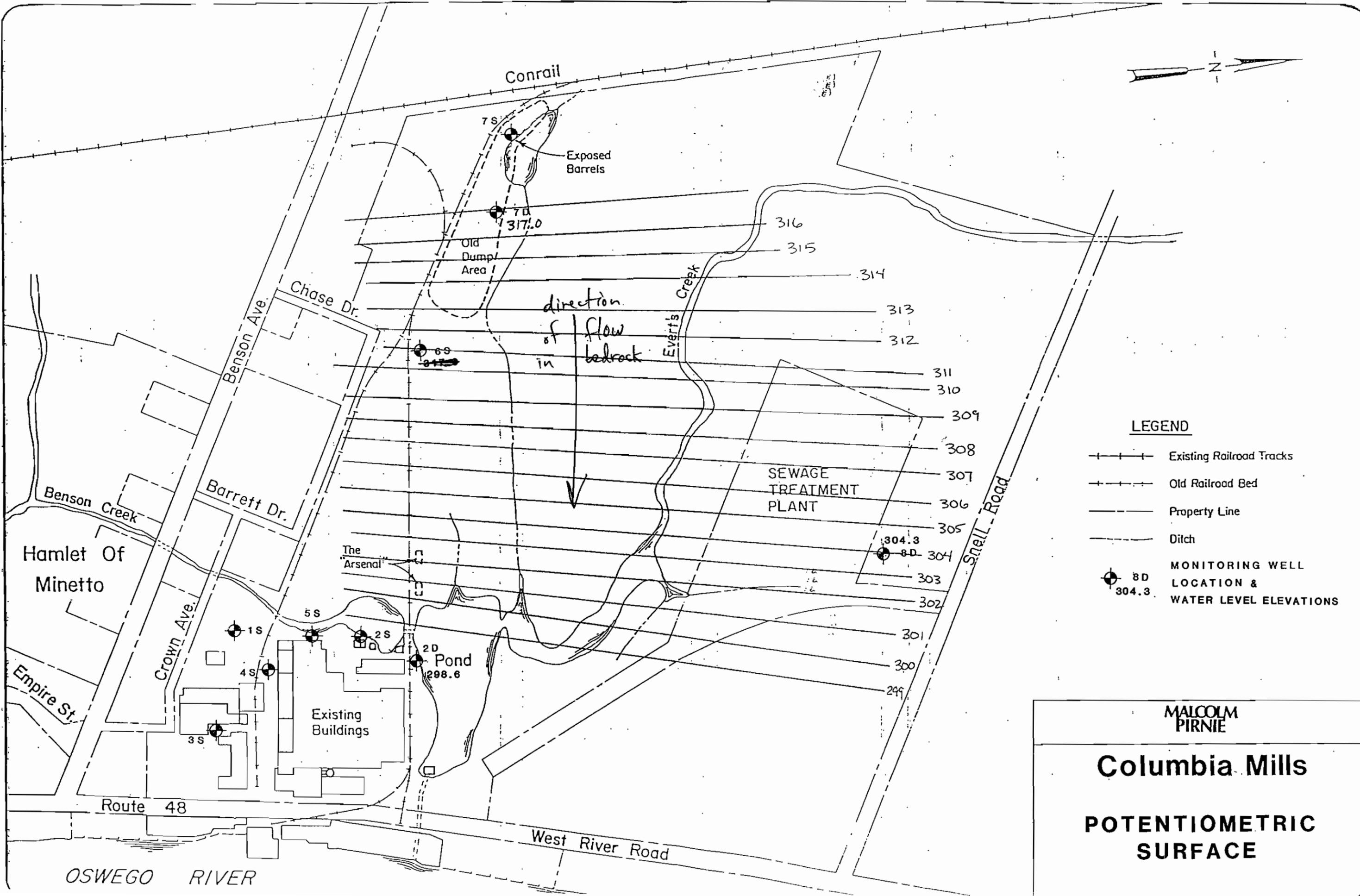
Wells samples 4/28/87.



MALCOLM
PIRNIE

Columbia Mills

MONITORING WELL LOCATIONS



LEGEND

- +—+— Existing Railroad Tracks
- - - - - Old Railroad Bed
- — — — — Property Line
- - - - - Ditch
- 8D 304.3
● 8D 304.3 MONITORING WELL LOCATION & WATER LEVEL ELEVATIONS

MALCOLM
PIRNIE

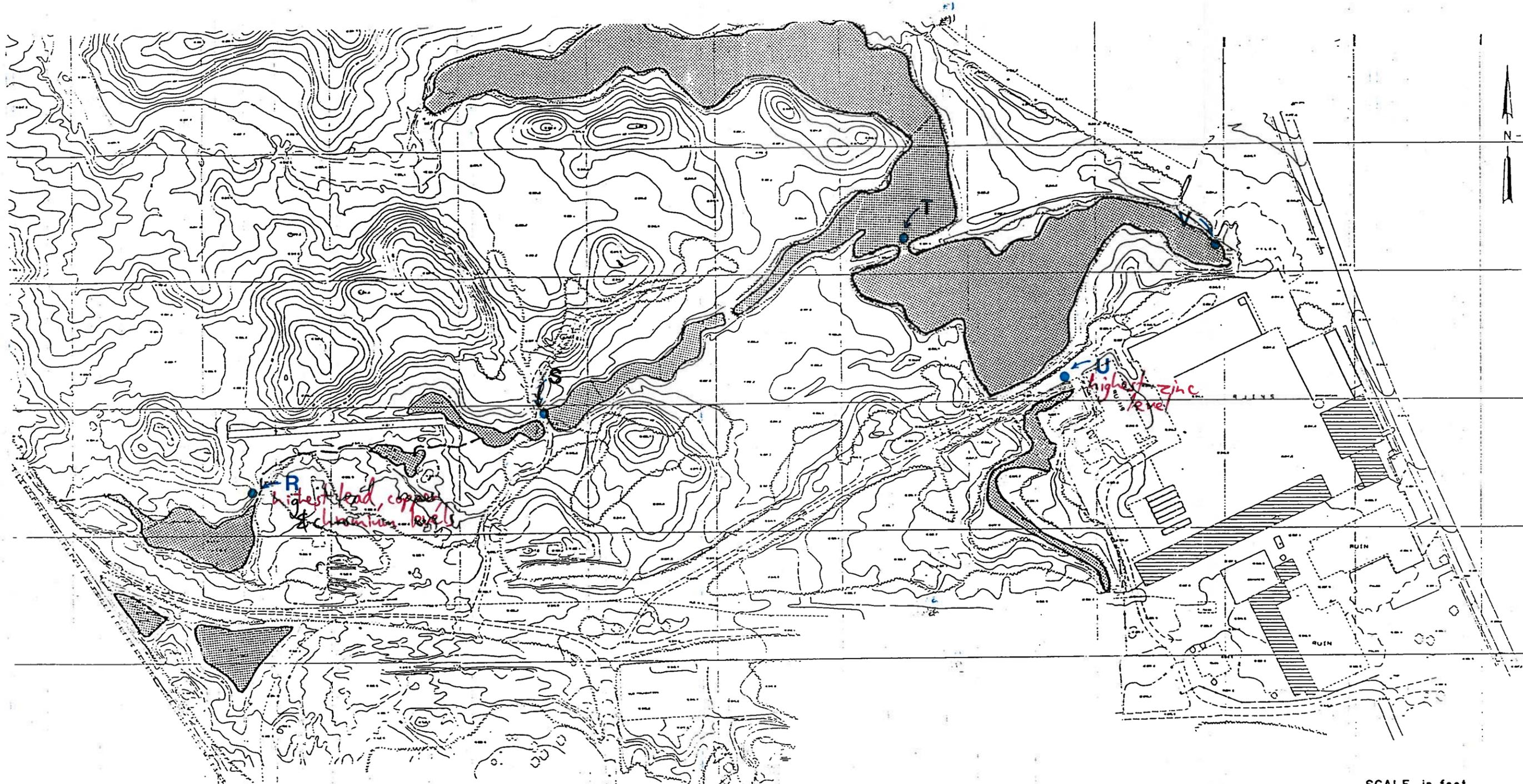
Columbia Mills

POTENTIOMETRIC SURFACE

STREAM SAMPLING
COLUMBIA MILLS

	SURFACE WATER					SEDIMENT				
	R (mg/l)	S (mg/l)	T (mg/l)	U (mg/l)	V (mg/l)	R (ppm)	S (ppm)	T (ppm)	U (ppm)	V (ppm)
Cadmium	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	2.1	14	16	3.5	0.24
Chromium, Hex	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 5				
Chromium	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	42	15	15	20	5.9
Copper	LT 0.02	LT 0.02	LT 0.02	LT 0.02	0.03	70	30	32	68	36
Lead	LT 0.1	LT 0.1	LT 0.1	LT 0.1	LT 0.1	250	73	81	160	55
Nickel	LT 0.03	LT 0.03	LT 0.03	LT 0.03	LT 0.03	8.6	14	15	64	4.3
Silver	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 0.05	LT 1.0				
Zinc	0.11	0.35	0.011	0.011	0.009	37	33	41	1100	87
1,1-Dichloro- ethylene	LT 0.001	LT 0.001	LT 0.001	0.008	LT 0.001	NA	NA	NA	NA	NA
Chloroform	0.002	0.002	LT 0.001	0.003	0.001	NA	NA	NA	NA	NA
1,1,1-Tri- chloroethane	TRLT 0.001	LT 0.001	LT 0.001	LT 0.001	LT 0.001	NA	NA	NA	NA	NA

Note: Only those organics detected in EPA 601/602 scan are shown.



Metals in all sediments

**MALCOLM
PIRNIE**

REVISIONS			
NO	BY	DATE	REMARKS

DES
DWN
CKD

**COLUMBIA MILLS
MINETTO, NEW YORK**

**SURFACE WATER & SEDIMENT
STREAM SAMPLE LOCATIONS
(4/28/87)**

MALCOLM PIRNIE, INC.

DATE

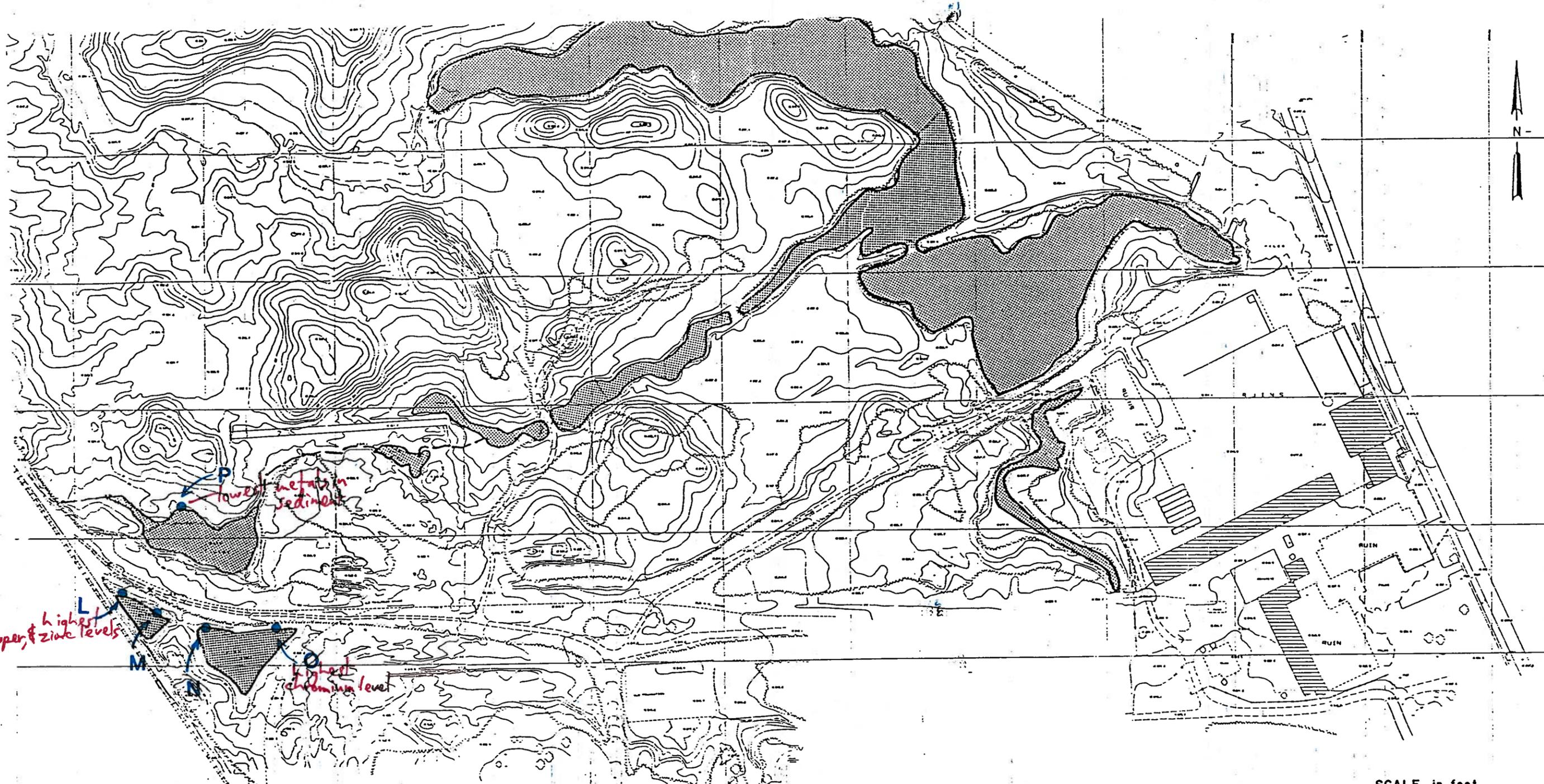
SHEET OF

SURFACE WATER SEDIMENT
COLUMBIA MILLS

1069-01-1

PONDS

	SURFACE WATER					SEDIMENT				
	L (mg/l)	M (mg/l)	N (mg/l)	O (mg/l)	P (mg/l)	L (ppm)	M (ppm)	N (ppm)	O (ppm)	P (ppm)
Cadmium	LT 0.005	0.007	LT 0.005	LT 0.005	NA	9.2	1.0	0.63	1.2	0.93
Chromium, Hex	LT 0.01	LT 0.01	LT 0.01	LT 0.01	NA	LT 5				
Chromium	LT 0.05	LT 0.05	LT 0.05	LT 0.05	NA	57	20	13	200	2.6
Copper	LT 0.02	LT 0.02	LT 0.02	LT 0.02	NA	590	13	9.2	57	5.7
Lead	LT 0.1	LT 0.1	LT 0.1	LT 0.1	NA	3000	120	58	1300	20
Nickel	LT 0.03	LT 0.03	LT 0.03	LT 0.03	NA	42	2.7	4.6	24	2.0
Silver	LT 0.05	LT 0.05	LT 0.05	LT 0.05	NA	LT 1.0	LT 1.0	LT 1.0	LT 1.0	4.0
Zinc	0.27	0.040	0.074	LT 0.061	NA	7800	94	100	690	41



L
highest lead, copper, & zinc levels

P
lowest metal in sediment

N
highest chromium level

metals in all sediments

SCALE in feet



**MALCOLM
PIRNIE**

REVISIONS			
NO	BY	DATE	REMARKS

DES
DWN
CKD

**COLUMBIA MILLS
MINETTO, NEW YORK**

**SURFACE WATER & SEDIMENT
POND SAMPLE LOCATIONS
(4/28/87)**

MALCOLM PIRNIE, INC.
DATE
SHEET OF

July 13, 1987

David S. Wazenkewitz
Asst. Sanitary Engineer
New York State Department of
Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088

Dear Dave:

Enclosed are three (3) copies of our Work Plan for removal of the buried tanks at the Columbia Mills site.

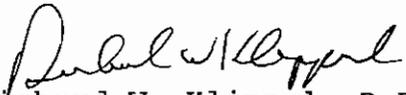
If you have a chance to review it, we could discuss this at our meeting on July 21, 1987.

We would like to get this work underway this summer, if possible, and we are working on an RFP for contractors to quote on the job.

Please call if you have any questions.

Very truly yours,

MALCOLM PIRNIE, INC.


Richard W. Klippel, P.E.
Project Manager

RWK/mmp

Enclosure

cc: John Swartout (w/enclosure)

WORKPLAN

FOR

CLOSURE OR REMOVAL OF BURIED TANKS

COLUMBIA MILLS
Minetto, New York

JULY 1987

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS,
SCIENTISTS & PLANNERS
890 Seventh North Street
Liverpool, New York 13088

TABLE OF CONTENTS

	<u>PAGE</u>
1.0 TANK INVENTORY	1
2.0 REVIEW OF PREVIOUS SAMPLING RESULTS	1
2.1 Surface Soil Sampling	1
2.2 Soil Borings	3
2.3 Groundwater Samples	4
2.4 Surface Water Samples	4
3.0 RISK ASSESSMENT	4
4.0 WORKPLAN	8
4.1 Phase I - Characterization of Tank Contents	10
4.2 Phase II - Determination of Disposal Method(s) for Tank Contents	11
4.3 Phase III - Removal and Disposal of Tank Contents	11
4.4 Phase IV - Clean and Inspect Tank Interiors	12
4.5 Phase V - Remove Tanks and Associated Contaminated Soils	12
4.6 Phase VI - Site Restoration and/or Remediation	14

List of Tables

Table 1 Surface Soil Sampling Results From June 1984	3
Table 2 HNU Meter Readings for Split-Spoon Samples	5
Table 3 Summary of Groundwater Analyses	6
Table 4 Summary of Surface Water Sample Analyses	7
Table 5 Benzene and Toluene Standards and Guidance Values	9

List of Figures

Figure 1 Buried Tank and Sampling Locations	2
---	---

List of Appendices

Appendix A NYSDEC September 25, 1986 Memorandum	
---	--

WORKPLAN
CLOSURE OR REMOVAL OF BURIED TANKS
Columbia Mills, Minetto, New York

1.0 TANK INVENTORY

The Columbia Mills site includes several buried tanks. These tanks are located in the four areas shown on Figure 1.

In "Area 1" there are three 3000 gallon tanks which were used to store toluene. Presently, two of the tanks are empty and one contains sludge.

In "Area 2" there are two 10,000 gallon tanks which were used to store TOLU-SOL. "TOLU-SOL" is a trademark for a series of solvents, consisting predominantly of C₇ hydrocarbons, with low concentrations of naphthenic hydrocarbons, and from 3% to 50% aromatic hydrocarbons. The balance of these solvents consists of essentially paraffinic compounds.¹ To date, it has not been physically possible to open these tanks, so it is unknown whether they contain residual materials.

In "Area 3" there are three 500 gallon tanks which were used to store benzene. These tanks are located beneath a concrete pad. As such, their presence has not been confirmed, and their current contents are unknown.

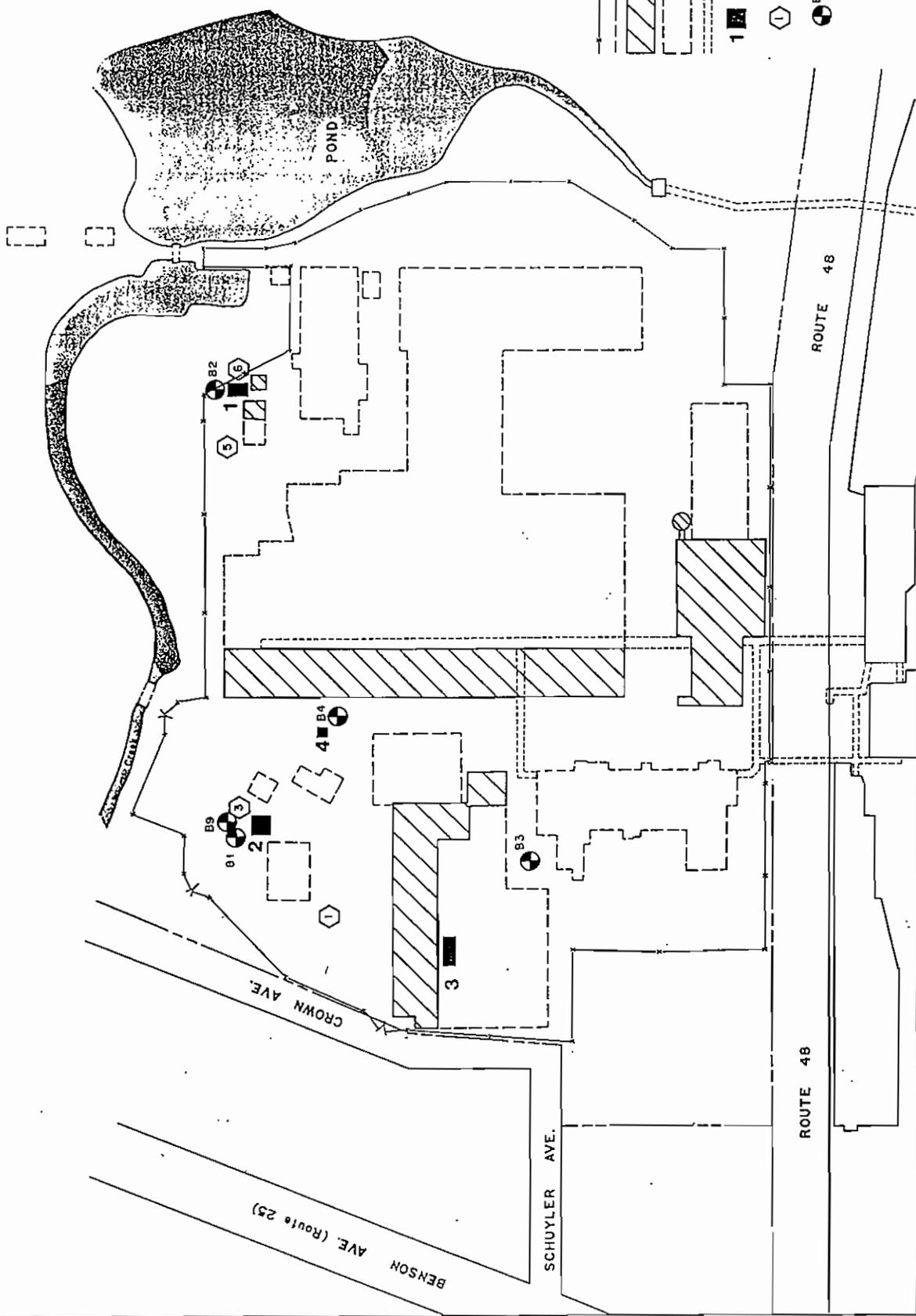
In "Area 4" there is a 500 gallon tank which was used to store gasoline. There is still some gasoline in the tank.

2.0 REVIEW OF PREVIOUS SAMPLING RESULTS

2.1 Surface Soil Sampling

Surface soil samples were collected in June of 1984 at the locations shown on Figure 1. The samples were collected from the top four inches of soil using a small hand shovel. Benzene was found in all four samples, at varying concentrations. Additionally, toluene and ethylbenzene were found at low levels near buried tank Area 1. The sample results are presented in Table 1, below.

¹ The Condensed Chemical Dictionary, Tenth Edition, Van Nostrand Reinhold Co., 1981.



- LEGEND**
- CHAIN LINK FENCE
 - PROPERTY LINE
 - EXISTING BUILDINGS
 - BUILDING RUINS
 - UNDERGROUND TUNNELS
 - BURIED TANKS (approximate locations)
 - SURFACE SOIL SAMPLES (approximate locations)
 - BORING LOCATIONS (approximate)

SCALE in feet
0 50 100

BURIED TANK AND SAMPLING LOCATIONS

COLUMBIA MILLS
MINNETTO, NEW YORK

NO.	DATE	REVISIONS

NO.	DATE	REVISIONS

MALCOLM PIRNIE

TABLE 1

SURFACE SOIL SAMPLING RESULTS FROM JUNE 1984

SAMPLE LOCATION	TANK AREA	BENZENE mg/kg	TOLUENE mg/kg	ETHYL BENZENE mg/kg
1	-	173	LT 1	LT 1
3	2	5.6	LT 1	LT 1
5	1	13,150	9	7
6	1	6,870	LT 1	LT 1

2.2 Soil Borings

Seven test borings were drilled at the Columbia Mills site during September of 1985. Borings located near the buried tank areas are shown on Figure 1. Each boring was sampled continuously using split-spoon samplers. A portion of each sample was placed in a plastic bag and shaken. An HNU meter probe was inserted into the bag to detect any organic vapors present. HNU readings are presented in Table 2.

An additional boring, identified as "B9" on Figure 1, was drilled in March of 1987. Split spoon samples were collected every two feet to a depth of ten feet. Two composite samples were made from the individual samples: one representing the top six feet of soil and one representing the remaining four feet. The samples were analyzed for volatile organics, with the results indicating that all of the organic parameters analyzed in the samples were below detectable limits. In addition to the laboratory soil analyses, HNU readings were measured of soil samples in the field. These readings, included in Table 2, indicated organic vapor readings ranging from 1.2 to 72.0 ppm.

2.3 Groundwater Samples

Seven monitoring wells were installed at the locations of the test borings. These wells were sampled in October of 1985. The samples were analyzed for volatile organics. The results of the analyses are presented in Table 3, indicated the presence of toluene in two wells (B-2 and B-3); 1,1,2,2-Tetrachloroethane in one well (B-3), methylene chloride in one well (B-7); and no detectable organic parameters in the remaining groundwater samples.

2.4 Surface Water Samples

A sample of surface water was taken on the perimeter of a pooled area in the vicinity of the Tank 1 area. At the time the sample was taken (May 1984), this water was stagnant and was pooled in an area upstream of the drainage pond on the site. The surface drainage characteristics in this area have since changed and this area is currently completely submerged.

The results of this sample analyses, summarized in Table 4, indicated elevated levels of several organic parameters, particularly toluene and benzene. Other detectable organic parameters in the sample included ethylbenzene and various forms of xylene.

3.0 RISK ASSESSMENT

Benzene and toluene are the primary contaminants associated with the contents of the various tanks on-site. These contaminants have been detected at varying levels in soil, groundwater and surface water samples collected near the tanks (see Section 2.0).

TABLE 2

HNU METER READINGS FOR SPLIT-SPOON SAMPLES
SOIL BORINGS TAKEN SEPTEMBER 1985

BORING LOCATION	NEAREST TANK AREA	SAMPLE NO.	DEPTH (FEET)	HNU READING (ppm)
B-1	No. 2	S-1	0-2	0.8
		S-2	2-4	1.0
		S-3	4-6	1.0
		S-4	6-8	9.0
		S-5	8-10	2.0
		S-6	10-10.7	2.0
B-2	No. 1	S-1	0-1.5	1.0
		S-2	3-4	22.0
		S-3	4-6	100.0
		S-4A	6-7.5	110.0
		S-4B	7.5-8	260.0
		S-5	8-10	215.0
B-3	No. 3	S-6	10-12	70.0
		S-1	0-2	1.0
		S-2	2-4	120.0
		S-3	4-6	85.0
		S-4	6-8	5.0
		S-5	8-10	0
B-4	No. 4	S-6	10-12	2.0
		S-7	12-14	0.6
		S-1	0-2	0.4
		S-2	2-4	7.0
		S-3	4-6	0
		S-4	6-8	1.2
B-9**	No. 2	S-5	8-10	7.0
		S-1A	0-2'	26.0
		S-1B	2-4'	72.0
		S-2	4-6'	1.4*
		S-3	6-8'	1.2*
		S-4	8-10'	1.4

* Sample collected was of insufficient volume to obtain accurate HNU reading.

** Boring B-9 was performed in March 1987.

TABLE 3SUMMARY OF GROUNDWATER ANALYSES
SAMPLES COLLECTED OCTOBER 1985

WELL NO.	PARAMETERS DETECTED
B-1	None
B-2	Toluene (190,000 ug/l)
B-3	1,1,2,2-Tetrachloroethane (13 ug/l), Toluene (1.9 ug/l)
B-4	None
B-5	None
B-6	None
B-7	Methylene Chloride (2.6 ug/l - also in blank)

TABLE 4

SUMMARY OF SURFACE WATER SAMPLE ANALYSES
ALL RESULTS ARE REPORTED AS UG/L

SAMPLE #	BENZENE	TOLUENE	ETHYLBENZENE	P-XYLENE	M-XYLENE	O-XYLENE
7	72	34,300	LT 1	9	28	13

Note: LT = "Less Than"

Benzene is listed as a known carcinogen in the Fourth Annual Report on Carcinogens prepared by the National Toxicology Program. Human exposure to benzene is primarily through inhalation, although it can penetrate the skin or be ingested. Chronic exposure to benzene can cause a variety of abnormal blood conditions and benzene is minimally toxic to the liver and kidneys. Benzene in the environment has been demonstrated to adversely affect aquatic life and have deleterious effects at many levels of the food chain. Toluene is considered to be relatively non-toxic to man, although it has been linked to occasional reports of blood disorders. Aquatic studies indicate that toluene is toxic to a number of fish species. Based on these human health and aquatic life considerations, various standards and guidance values have been established for benzene and toluene by state and federal regulatory agencies (Table 5).

Exposure to these site contaminants is available through several pathways due to their presence in the site soil, groundwater and surface water. The exposure potential is further increased by the connection of site groundwater and surface water to both the Oswego River and Lake Ontario.

In summary, contaminants from the on-site buried tanks present a fairly significant risk in terms of their toxicity and exposure potential. Therefore, this workplan has been developed to mitigate that risk to the maximum extent possible.

4.0 WORKPLAN

The workplan to remove or close the buried tanks at the Columbia Mills site will consist of several phases of activity, as follows:

TABLE 5

BENZENE AND TOLUENE STANDARDS AND GUIDANCE VALUES

	<u>BENZENE</u> (ug/l)	<u>TOLUENE</u> (ug/l)
<u>NYSDEC Water Quality Criteria</u>		
Protection of human health	1	NA
Protection of aquatic life	50	50
<u>USEPA Water Quality Criteria</u>		
Protection of human health (10^{-6} risk)	0.66	14,300
Protection of aquatic life	5,300	17,500
<u>NYSDEC Class GA Standards</u>		
Discharge to groundwater	Not detectable*	NA
<u>USEPA Drinking Water Standards</u>		
Recommended maximum contaminant level	Zero	NA
<u>OSHA Employee Safety</u>		
Time weighted average (ppm)	10	100
Short term exposure limit (ppm)	25	150

* The detection limit of benzene or toluene in water is 1 ppb.
The detection limit of benzene or toluene in soil is 1 ppm.

- PHASE I Characterize tank contents.
PHASE II Determine disposal method(s) for tank contents.
PHASE III Remove and dispose tank contents.
PHASE IV Clean and inspect tank interiors.
PHASE V Remove tanks and associated contaminated soils.
PHASE VI Site restoration and/or remediation.

4.1 Phase I - Characterization of Tank Contents

The initial phase of the tank closure plan at the Columbia Mills site involves the characterization of tank contents. Analyses of soil and groundwater samples taken from the vicinity of the tanks has indicated the presence of several organic contaminants. As part of the overall tank closure plan, the quantity and characteristics of the tank contents must be determined. Therefore, this phase of work will consist of the following tasks:

1. The contents of the tanks in Area 1 have been assessed. Two of the tanks are empty and one contains sludge. Prior to removal of these tanks, a sample of the sludge will be collected and a hazardous characteristics analysis performed. This would include analysis of EP-Toxicity metals, BTX, ignitability, corrosivity and reactivity.
2. It has not been possible to date to gain access to the tanks in Area 2. Accessing these tanks will be accomplished by utilizing heavy equipment and/or tools to open surface manways or fittings. The quantity of residual tank contents will be estimated and samples collected for analysis of hazardous characteristics.
3. The location of the tanks in Area 3 has not been verified in the field. Thus, the work effort of this task will include cutting and/or removal of the concrete surface pad over the tanks and exposure of the tank tops. Access into the tank

will be gained through manholes or fittings on top of the tank or by cutting a hole in the tank top. The quantities of the residual tank contents will be estimated and the contents analyzed.

4. Previous site investigations have disclosed the presence of gasoline in the Area 4 tank. Under this task, the remaining tank contents will be quantified and analyzed for hazardous constituents.

4.2 Phase II - Determination of Disposal Method(s) for Tank Contents

Once the tank contents have been characterized, the appropriate disposal methods will be determined. Unless the volume of the tank contents is too large, all residual waste materials from the tanks will be removed and placed in suitable drums for subsequent disposal. The ultimate disposal method used for the various waste products will depend on the physical nature, volume and chemical characteristics of the material.

4.3 PHASE III - REMOVAL AND DISPOSAL OF TANK CONTENTS

The residual tank contents will be removed and prepared for disposal. It is anticipated that some of the tanks may contain residual sludge or solid waste material. Rinsewater will be added to these tanks to facilitate removal of the residual contents. The waste materials will be suctioned out and placed into drums for subsequent disposal. Should the waste volume of any of the tanks exceed 1,000 gallons, a tanker truck will be used to remove and transport the waste. The residual contents of each of the tanks will be removed such that less than 1" of material or less will be left in the tank. Any residual left in the tanks will be removed and disposed of when the tanks are cleaned.

4.4 Phase IV - Clean and Inspect Tank Interiors

Following removal of tank residual contents, the tank interiors will be cleaned and visually inspected for indications of leakage. Tanks with suitable manways or access chambers will be entered and the work performed inside the tank. Tanks which are inaccessible for physical entry will be cleaned and inspected to the extent possible through surface openings. The condition of the tank interiors will be documented and any cracks, holes or rupturing of the tank shell will be noted.

4.5 Phase V - Remove Tanks and Associated Contaminated Soils

Once the tanks have been cleaned and inspected, they will be removed following NYSDEC guidelines. A summary of the procedure used to remove the tanks is as follows:

1. Excavate backfill material over the tank and expose tank top.
2. Remove or plug all connecting pipes, fittings, etc.
3. Analyze the gaseous content of the tank for concentration of flammable/combustible gases. Should the concentration of combustible gases exceed the allowable explosive range, the tank shall be vapor freed using a method outlined in NPPA Vol. 327.
4. Remove the tanks and inspect the tank exteriors.
5. Place a sufficient number of large holes (i.e., greater than 6" in diameter) in the tank shell to preclude further use of the tank.
6. Remove the tank from the site to an approved disposal facility or scrapyard.

Areas where the tanks have been removed may require further remediation of the surrounding soil. For purposes of the tank closure plan, soil determined to be contaminated

will be removed and disposed of from the immediate vicinity of the tanks. Should additional remediation measures be necessary, those will be addressed in a separate work plan.

The following guidelines will be utilized for determining the presence of contamination in the soil surrounding the tanks:

1. Visual observation of product within the soil.
2. Observation of contaminant odor in the soil.
3. Elevated organic vapor readings of soil samples using an HNU photoionization meter. Due to the presence of various sources of organic contaminants on the site, HNU readings of soil samples from several locations will be averaged to determine a "background" contamination level. Soil samples in the vicinity of the removed underground tanks exhibiting an organic vapor concentration 10 ppm in excess of the background level will be excavated and treated as contaminated.

Contaminated soil taken from the immediate vicinity of the removed tanks will be temporarily stockpiled on site on polyethylene sheeting. The stockpiled soil will also be covered with polyethylene sheeting to prevent further site contamination due to precipitation runoff.

Samples of stockpiled soil will be analyzed for hazardous characteristics, BTX, and oil and grease. The ultimate disposal method used for the stockpiled soil will depend on the type and concentration of contaminants in the soil. Soil contaminated with non-hazardous volatile components will be spread out in a thin layer (approximately 6") and allowed to aerate. After a week, the soil layer will be turned to enhance volatilization and allowed to aerate for a second week. When the soil benzene and toluene concentrations are below background levels it may be used as backfill material in the tank excavations.

4.6 Phase VI - Site Restoration and/or Remediation

Tank excavation areas will be restored by backfilling to grade with clean, granular material. The backfill will be placed and compacted in 1-foot lifts to minimize subsequent settlement. The tank removal areas will be restored to grade in each location.

The work of the tank closure plan is limited to the immediate tank areas. Should site sampling adjacent to the tank areas indicate elevated levels of soil contamination, this situation will be addressed separately. A preliminary hydrogeological investigation plan will be developed to assess the potential impact on the affected soil and groundwater. This investigation will include, at a minimum, installation of soil borings and groundwater monitoring wells and the collection and analysis of soil and groundwater samples. The results of the preliminary hydrogeological investigation will form the basis for subsequent site remediation or additional investigative activities.



RECEIVED New York State Department of Environmental Conservation

MEMORANDUM

TO: John Snyder, Senior Sanitary Engineer
FROM: Bureau of Environmental Quality, Division of Regulatory Affairs
SUBJECT: Oswego River Project - Long Lake Energy Corp. (LLEC)
DATE: Minetto - Columbia Mills
 June 12, 1987

This is to acknowledge receipt of your May 15, 1987 memo to John Iannotti, a copy of which was provided to Murdock MacKenzie under a separate memo dated May 27, 1987.

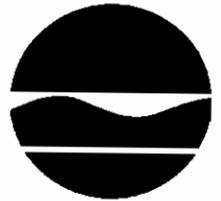
The review of hydroelectric projects is a statewide activity coordinated by central office DRA. This review involves multiple state agencies and various divisions within DEC, both at the region and central office levels. Any comments or requirements that need to be directed to a prospective developer, as well as the Federal Energy Regulatory Commission (FERC), are procedurally done through DRA. Be assured that any regional comments expressed through Pat Snyder to this office will be passed on to LLEC. Only in certain circumstances do we direct a developer to work directly with DEC staff and that is usually after a License/Exemption has been granted by FERC.

If you have any questions with respect to hydro review, please feel free to contact me at 7-2224.

EM/pm
 cc: P. Snyder
 J. Iannotti
 File

New York State Department of Environmental Conservation

Region 7, Environmental Quality Office
7481 Henry Clay Boulevard
Liverpool, New York 13088
June 1, 1987



Henry G. Williams
Commissioner

Mr. Gene Gemperline
Stetson-Harza Engineers
185 Genesee Street
Utica, NY 13501

RE: COLUMBIA MILLS - INPLACE TOXICS SITE #738012

Dear Mr. Gemperline:

This letter is in regard to our recent conversation concerning construction of a hydro-electric power plant in the vicinity of the old Columbia Mills plant.

As we discussed, the abandoned plant site is presently on the Inactive Hazardous Waste Disposal Site Registry, and the responsible parties are conducting sampling to complete a Phase II investigation. Preliminary findings indicate on site contamination, and that old process and sewer lines cross Route 48 and discharge to the river. In view of this, we would recommend the following items be addressed before commencement of construction. Representative sampling should be conducted in areas where dredge (sediment), soil and contaminated debris will be removed, and should be sampled for hazardous characteristics and Hazardous Site List contaminants (see attached list). River sediment should also be sampled for mirex. If any contaminants of concern are found, a contingency plan addressing proper removal, disposal, health and safety, and any special construction techniques should be included and submitted to the Department for review.

As you requested, attached is a copy of the summary of findings at the site to date, which shows soil and groundwater contamination at the site.

Pat Snyder asked me to remind you that steam sampling will also be required. Parameters to be tested should include those sampled for at the Phoenix site, plus mirex.

If you have any further questions please feel free to contact me at (315) 428-4483.

Very truly yours,

DAVID S. WAZENKEWITZ
Assistant Sanitary Engineer
Division of Solid Waste Management

CC: P. Snyder
L. Gross
J. Swartout ✓
R. Heerkens
E. Walsh
G. Proud
R. Klippel
W. Demick
T. Reynolds
M. Mackenzie, R. Brickwedde, S. Edit
E. Miller

RECEIVED

JUN 10 1987

BUREAU OF HAZARDOUS WASTE REMEDIAL ACTION
DIVISION OF SOLID AND
HAZARDOUS WASTE

44-1000

TRANSMITTAL SLIP

TO: Murdock M. Mackenzie, Bureau of Environmental Analysis, Rm. 514

FROM: John Swartwout, Bureau of Eastern Remedial Action DATE: May 27, 1987

RE: Long Lake Energy Corp. FERC License Application for Minetto Site

(May 15, 1987 memo to J. Iannotti attached)

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____
Signature
- Information
- Approval
- Prepare final/draft in _____ Copies

- Comments
- Signature
- File
- Return to me
- _____

A copy of Region 7's letter to Long Lake Energy's consultant will be forwarded to you



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Iannotti, Supervisor, Technical Support Section
FROM: John Swartwout, Sr. Sanitary Engineer, Technical Support Section
SUBJECT: Columbia Mills Site, Minetto, I.D. 738012

Handwritten initials 'JBI' in blue ink.

DATE: May 15, 1987

A meeting was held on May 14, 1987 at the offices of Malcolm Pirnie Engineers in Liverpool to discuss the subject hazardous waste site. Malcolm Pirnie (engineers for Columbia Mills, Inc.) and DEC Region 7 were present, in addition to myself. The meeting was to get a status report on additional Phase II studies and interim remedial work which is now underway at the site and to discuss a hydropower proposal adjacent to the site, which may be affected by the hazardous wastes generated at the site.

The inventory of domestic wells found twenty (20) near the site with eight (8) of them using the water for drinking. Samples have been taken from all shallow and deep wells, from surface waters, and from sediments. These samples are currently undergoing laboratory analysis. The investigation of underground tunnels and sewers is continuing. Samples of water and/or sediments will probably be taken from some of them, once they are all located. Authorization has been given to Environmental Technology, Inc. to remove, transport, and dispose of the remaining 148 drums currently overpacked and staged at the site. Butler Fence Company has been authorized to install temporary security fencing around the drum disposal area. A scope of work is being prepared for the inventory of asbestos on the site. The proposal for removal of underground tanks and associated contaminated soils is being prepared now. Once these items are completed and all lab results are in and evaluated, Malcolm Pirnie will refine the HRS score and prepare a detailed work plan for an RI/FS for remaining hot spots and the drum disposal area.

Long Lake Energy Corporation has prepared a draft application for a Federal Energy Regulatory Commission (FERC) license to reconstruct and operate the existing Niagara Mohawk hydroelectric powerplant at Minetto. The location is immediately adjacent to the Columbia Mills site (and, in fact, was originally part of the Columbia Mills plant). The draft license application is under review by the Regulatory Affairs group in DEC Region 7. The proposal would include demolition of existing buildings and considerable excavation of river bank and sediments.

The probability of these excavated materials being contaminated from the Columbia Mills site was discussed with Malcolm Pirnie. The consensus was that there is a likelihood that the bank soils, sediments, or both will be found to have heavy metal and other contamination, and that Long Lake Energy should be required to sample these materials and prepare a contingency plan for how to handle and dispose of them if —contamination is found. Dave Wazenkewitz (Region 7) will draft up a letter to Long Lake Energy and provide it to me for review. It is understood that if Long Lake Energy does find contamination they may call on Columbia Mills to fund the removal and disposal. Whether Columbia Mills would be willing or able to do so is unknown.

Tom Barba (Malcolm Pirnie) mentioned that Columbia Mills also used to own the property on the other side of the railroad near the drum disposal area. Dave Wazenkewitz suggests that DEC walk that area to make sure drums were not disposed of there as well. Dave also is proposing that after all the current lab work is completed and we see the results, we go out and take some of our own groundwater and surface water samples at the site to check Malcolm Pirnie's results.

JS/bv



TELECOPIER MESSAGE INFORMATION

DEGREE OF URGENCY

Immediately Today Tomorrow Other

	NAME	LOCATION	TELEPHONE NUMBER
SENDER	Dave Wazinkewitz		7-5637
RECEIVER	John Swadlow	Reg 7 Liverpool	
SPECIAL INSTRUCTIONS			

CONTENTS OF MESSAGE

NOTIFY (Name) _____ at telephone number _____

that a 1 cover page message has been sent received on 5-26 19 87

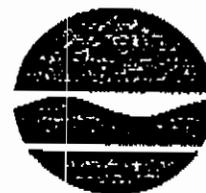
at 4 24 AM PM and that the copy will be picked up personally returned by mail.

Rose
Telecopier Operator

87-4714
Message Number

New York State Department of Environmental Conservation

Region 7 Headquarters
7481 Henry Clay Boulevard
Liverpool, NY 13088
(315) 428-4480



Henry G. Williams
Commissioner

TELEX

TO John Swartout

ROOM 4010

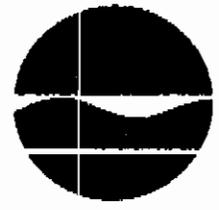
FROM Dave Wazenkewitz

DATE 5/26/87

NO. OF PAGES 1 plus cover

Telex phone number: 315-428-4480

DRAFT



Henry G. Williams
Commissioner

New York State Department of Environmental Conservation

Region 7, Environmental Quality Office
7481 Henry Clay Boulevard
Liverpool, New York 13088
(315) 428-4483
May 20, 1987

*Working if you
have any concerns
please call
James*

Mr. Gene Genperlin
Stetson-Harza Engineers
185 Genesee Street
Utica, NY 13501

RE: COLUMBIA MILLS - INPLACE TOXICS SITE #738012

Dear Mr. Genperlin:

This letter is in regard to our recent conversation concerning construction of a hydro-electric power plant in the vicinity of the old Columbia Mills plant.

As we discussed, the abandoned plant site is presently on the Inactive Hazardous Waste Disposal Site Registry, and the responsible parties are conducting sampling to complete a Phase II investigation. Preliminary findings indicate on site contamination, and that old process and sewer lines cross Route 48 and discharge to the river. In view of this, we would recommend the following items be addressed before commencement of construction. ~~in that area.~~ Representative sampling should be conducted in areas where dredge (sediment), soil and contaminated debris will be removed, and should be sampled for HSL contaminants. If any contaminants of concern are found, a contingency plan addressing proper removal, disposal, health and safety ~~concerns, and residents,~~ and any special construction should be submitted to the Department for review.

As you requested, attached is a copy of the summary of findings at the site to date, which shows soil and ~~GW~~ ^{groundwater} contamination at the site.

If you have any further questions please feel free to contact me at (315) 428-4483.

V
D
A
D
C
send copy of letter to:
Murdoch M. Mackenzie
Ch., Project Review Section
Div. of Regulatory Affairs

spell out or
explain HSL?
& send copy of
the list
(haz. substance list)

TRANSMITTAL SLIP

TO JOHN SWARTOUT - 2M: 222

FROM DAVE WARRENKEWITZ - 209 7

DATE 5/7/87

RE: LETTER OF AUTHORIZATION TO INSTALL TEMPORARY SECURITY FENCE AROUND THE DRUM DISPOSAL AREA COLUMBIA MILLS (MINETTO (T) OSWEGO COUNTY (738012)). F.U.I.

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____
Signature
- Information
- Approval
- Prepare final/draft in _____ copies

- Comments
- Signature
- File
- Return to me
- _____
- _____

MURPHY C. BRATTON 1927-1978
MONARD W. CANNON 1917-1979
ANTON H. JAHN 1947-1984
WILLIAM F. FITZPATRICK 1929-1984

BOND, SCHOENECK & KING

ONE LINCOLN CENTER

SYRACUSE, NEW YORK 13202-1355

(315) 422-0121

III WASHINGTON AVENUE
ALBANY, NEW YORK 12210-2280
(518) 462-7421

216 WASHINGTON STREET
WATERTOWN, NEW YORK 13601-3389
(315) 788-3327

PYLON PARK
5301 NORTH FEDERAL HIGHWAY
BOCA RATON, FLORIDA 33431-4990
(305) 997-0411

1167 THIRD STREET SOUTH
NAPLES, FLORIDA 33940-7098
(813) 262-6812

April 5, 1987

JOHN E. MOSES
OF COUNSEL

DAVID L. DANSON *
DAVID P. SHERIDAN *
ROBERT A. WELER *
THOMAS D. WELCHER *
R. DANIEL BORDONI *
JAMES H. SEELEY *
RONALD C. BERGER *
HENRY H. MELCHOR *
ROBERT C. ZUNDEL, JR. *
THADDEUS J. LEWKOWICZ *
JOSEPH T. ROTONDO *
EDWIN J. KELLEY, JR. *
LARRY P. MALFITANO *
JOHN H. CALLAHAN *
JOHN G. MCGOWAN *
EDWARD RYAN CONAN *
JOSEPH P. VAN DE LOO *
GEORGE J. GETMAN *
DEBORAH H. KARALUNAS *
DONALD S. DIBENEDETTO *
ROBERT A. LABERGE *
WILLIAM R. MORIARTY *

MAURA A. FLOOD *
SCOTT C. SELBACH *
RICHARD A. REED *
MARGARET M. CASSAOT *
SHEILAH E. FOLEY *
PATRICK J. PEDRO *
ROBERT J. SLYE *
DANIEL J. VENUTI *
DIANE E. RATZ *
DENNIS C. WHELPLEY *
PAUL F. KING **
D. FRED GARNER **
JOHN S. WESTRICA *
HEIDI JUHL **
NICHOLAS J. D'AMBROSIO, JR. *
LOUIS A. ALEXANDER *
CHARLES M. ALEXANDER *
PAUL T. WEINSTEIN *
ELIZABETH S. RIKER *
JUDITH H. ROSENBAUM **
R. SCOTT PRICE **

* ALSO ADMITTED TO P.A. BAR
** ADMITTED IN FLA. ONLY

CHARLES A. SCHOENECK JR. *
FRANCIS M. FERDUSON *
LYLE W. HORNBECK *
CHESTER W. KING JR. *
N. EARLE EVANS *
FRANCIS E. WALONEY *
FRANCIS D. PRICE *
JAMES E. WILBER *
HENRY R. MCCARTHY *
RAYMOND N. MURRAY, JR. *
JOSEPH W. LANTON, JR. *
GEORGE C. SHATTUCK *
LESLIE W. DEMING *
JOHN J. DEE *
JOHN A. BEACH *
CHARLES T. BEECHING, JR. *
WILLIAM P. BURROWS *
JOHN M. FRIETZ *
ROBERT W. POPP *
CHARLES T. MAJOR *
JOHN S. FERDUSON *
ROBERT E. MOSES *
ARTHUR E. BONGIOANNI *
WILLIAM L. BERGAN *
ANTHONY R. MITTARELLI *
FRANCIS E. WALONEY, JR. *
WALLACE J. WOODWARD *
JAMES D. FITZPATRICK

STEPHEN L. JOHNSON *
JAMES E. MACRIN *
DAVID W. BERTON *
GARV. R. GERMAIN *
THOMAS S. EVANS *
H. DEAN HERBERLIG, JR. *
THOMAS J. GROOMB *
RICHARD L. SMITH *
JAMES P. McDONALD *
S. PAUL BATTAGLIA *
STEPHEN J. VOLLMER *
L. LAWRENCE TULLY *
PAUL M. SANSOUCY *
DARYL M. CLARA *
RICHARD C. NEFFERN *
RICHARD D. HOLE *
GEORGE H. LOVE *
JOHN D. ALLEN *
DAVID W. FELLOW *
THOMAS E. M'ERB *
LOUIS P. DILORENZO *
CARL ROSENBLUM *
BARR. R. MOGUT *
M. CATHERINE RICHARDSON *
JOHN GAAL *
JOSEPH TAGRANICENT *
THOMAS R. SMITH *

Neil R. Austin, President
Butler Fence Company
536 State Fair Blvd.
Syracuse, New York 13204

Dear Neil:

In behalf of our client, The Columbia Mills Incorporated, we hereby authorize you to furnish and install temporary snow fencing and gate at The Columbia Mills site in Minetto, New York in accordance with your proposal of April 14, 1987. We understand that the price of such project is \$5,886.43. You should coordinate this work with Dick Klippel who will be responsible to us for certifying the completion of the work.

Kindly submit your bill to me for the completed work and we will arrange for prompt payment by our client.

Very truly yours,

BOND, SCHOENECK & KING

By:


Leslie H. Deming

cc: Mr. John Metz
Richard W. Klippel
David Wazenkewitz ✓
Gordon Proud, Supervisor

TRANSMITTAL SLIP

TO JOHN SWARTWORT 221

FROM DAVE WAZENKIEWICZ DATE 5/1/87

RE: FYI - HYDROELECTRIC PROJECT IN MINETTO

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for _____
Signature
- Information
- Approval
- Prepare final/draft in _____ Copies

- Comments
- Signature
- File
- Return to me
- _____
- _____

[Handwritten notes and stamps]
 MAY 12 1987
 STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF WATER



Don
FAS

New York State Department of Environmental Conservation

MEMORANDUM

TO: Ed Miller
FROM: Pat Snyder *PKS*
SUBJECT: Long Lake Energy Corporation, Minetto, FERC #4682
DATE: April 27, 1987

These are Regulatory Affairs comments on Volumes I and II of draft FERC application for the Minetto hydroelectric project. In addition to the specific comments below, please refer to my April 20, 1987 memo that addresses generic concerns related to all facilities on the Oswego River.

The extent of excavation required should be verified.

There is not a current policy to prohibit upstream migration. Salmonids are presently getting upstream to Phoenix.

The archaeology report should be reviewed by our Cultural Resources Section, or, at their option, OPRHP.

The discussion of construction related impacts is very weak but we feel that this subject can be resolved through an environmental management and construction plan.

Fish should be diverted to the ice sluice by an angled trash rack. There should be no significant disturbances to the river between March 15 and July 15.

The statement that the use of fill cofferdams was approved for use in constructing the Phoenix project is premature, if not inaccurate. It is not possible to make other specific comments since we do not know the water depth, currents, timing, etc. We would like to know the specifics of why cellular cofferdams are appropriate for Minetto but not Phoenix.

Our water quality unit may have comments regarding the sediment sampling program or other topics. If so, they will contact you directly. Hazardous wastes are known to have been disposed of on the Columbia Mills property. This situation should be analyzed in reference to the plans for demolition and excavation.

It is not clear how long the flashboards have been missing. Any increase in water levels from existing conditions should be evaluated for wetlands and flooding impacts.

cc: L. Gumaer
B. Zeisel
S. Eidt
L. Gross ✓

To: John Swartz - Rm 222
From: Dave Wazenkewitz

HUBERT C STRATTON 927 1978
JAMES H CANNON 1927 079
ANTHONY J ZANNI 1947 1984
WILLIAM F FITZPATRICK 1926 1984

BOND, SCHOENECK & KING

ONE LINCOLN CENTER

SYRACUSE, NEW YORK 13202-1335

315 422-0121

11 WASHINGTON AVENUE
ALBANY, NEW YORK 12210-2280
518 462-7421

216 WASHINGTON STREET
WATERTOWN, NEW YORK 13601-3389
315 788-3327

PYLON PARK
5301 NORTH FEDERAL HIGHWAY
BOCA RATON, FLORIDA 33431-4990
305 997-0411

1167 THIRD STREET SOUTH
NAPLES, FLORIDA 33940-7098
813 262-6812

April 23, 1987

JOHN E NEAREY
OF COUNSEL

DAVID L DAWSON *
DAVID R SHERIDAN
ROBERT P WELER
THOMAS C RELEHER
DANIEL BORDON
JAMES N SEELEY
RONALD C BERGER
HENRY H MELCHOR
ROBERT C ZUNDEL, JR *
THADDEUS J LEWOWICZ
JOSEPH T ROTONDO
EDWIN J KELLEY, JR.
LARRY P MALFITANO
JOHN G MCGOWAN
EDWARD RYAN CONAN
JOSEPH P VAN DE LIND
GEORGE J GETMAN *
DEBORAH H KARALJNAS
DONALD S DBENEDETTO
ROBERT A LABERGE
WILLIAM R MORIARTY

MAURA A FLOOD
SCOTT C SELBACH
RICHARD A REEC
MARGARET M CASSADY
SHEILAH E FOLEY
PATRICK J PEDRO
ROBERT J SLYE
DANIEL J VENUY
DIANE E RATTI
DENNIS G WHELPLEY
PAUL F RING **
D. FRED GARNER **
JOHN S WESTRICH
HEIDI JUHL **
NICHOLAS J D'AMBROSIO, JR.
LOUIS A ALEXANDER
CHARLES W ALEXANDER
PAUL T WEINSTEIN
ELIZABETH S RIKER
JUDITH H ROSENBAUM **
R SCOTT PRICE **
DENNIS D CURTIN

* ALSO ADMITTED TO FLA BAR
** ADMITTED IN FLA ONLY

CHARLES A SCHOENECK, JR
TRACY H FERGUSON
LYLE W HORNBECK
CHESTER W KING, JR
N EARLE EVANS
FRANCIS E MALONEY
FRANCIS E PRICE *
JAMES E WILBER *
HENRY R MCCARTHY
RATHOND W MURRAY, JR
JOSEPH J LANTON, JR.
GEORGE C SHATTUCK
LESLIE H DEMING
JOHN J DEC
JOHN A BEACH *
CHARLES T BEECHING, JR.
WILLIAM P BURPOWS
JOHN M FREYER *
ROBERT W KOPP
CHARLES T MAJOR
JOHN S FERGUSON
ROBERT E MOSES
ARTHUR E BONGIOVANNI *
WILLIAM L BERGAN
ANTHONY R PITTARELLI *
FRANCIS E MALONEY, JR.
WALLACE J McDONALD *
JAMES G FITZPATRICK

STEPHEN L JOHNSON
JAMES E MACRIN *
DAVID R SEYTON *
GARY R GERMAIN
THOMAS S EVANS *
H DEAN HEBERLIG, JR
THOMAS J GROOMS
RICHARD J SMITH
JAMES R McDONALD *
S PAUL BATTAGLIA
STEPHEN J VOLLMER
L LAWRENCE TULLY
PAUL M SANSOUCY *
GARY M CLARA
RICHARD C HEFFERN
RICHARD D HOLE
GEORGE H LOWE
JOHN D ALLEN
DAVID M PELLON
THOMAS C MYERS
LOUIS P DILORENZO
CARL ROSENBLUM
BARRY R KOGUT *
M CATHERINE RICHARDOSI
JOHN GAAL
JOSEPH ZAGRANICZEN
THOMAS R SMITH

Mr. Jim Greig
Operations Manager
Environmental Technology, Inc.
84 Sweeney Street
North Tonawanda, New York 14120

Re: Columbia Mills (Minetto, New York)
ETI Proposal # 8704-24

Dear Mr. Greig:

We have reviewed your proposal of April 8, 1987 to properly remove, transport and dispose of the 148 drums currently staged at the Columbia Mills Minetto site. We understand that your proposal includes the characterization and analysis of 79 containers still in need of identification.

On behalf of our client, The Columbia Mills Incorporated, we hereby accept your proposal at the firm price of \$71,847.00 for the work described in your proposal. We understand that you will proceed immediately with this project and achieve the disposal of the drums with all due diligence.

Kindly submit your invoice for this project directly to me.

Very truly yours,

BOND, SCHOENECK & KING

By: 
Leslie H. Deming

/gck

cc: Mr. John Metz
Richard W. Klippel
David Wazenkewitz ✓
Supervisor Gordon Proud

RECEIVED

APR 29 1987

BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF SOLID AND
HAZARDOUS WASTE



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Iannotti
FROM: John Swartwout *JS*
SUBJECT: Columbia Mills Site, Minetto, #738012

DATE: March 27, 1987

On March 24 through 26, 1986, I oversaw well installation work by North Star Drilling Co. at the Columbia Mills Site. Mark Wilder, Hydrogeologist for Malcolm Pirnie (engineering consultant for Columbia Mills Company), was providing full-time supervision of the work. I arrived just as they finished installing deep well B2-D on March 24. They then moved their equipment to the drum disposal area and drilled hole B7-D into bedrock through the casing that had been grouted into the till the week before. Bedrock was a fine sandstone at a depth of about 20 feet (shallower than had been anticipated). About 10 feet of bedrock was cored and removed. A stainless steel screen was sand-packed in the hole just below the top of bedrock with the sand continuing to just above the top of bedrock. Several feet of a bentonite slurry were placed above the sand and then non-shrink grout was used to fill the space above the bentonite seal.

On March 25, the drill rig was set up near the Minetto Sewage Treatment Plant to drill hole B9 into bedrock. It was just across a small stream from the location where the 13 foot deep hole was abandoned the previous week (see memo dated March 24, 1987). A hollow-stem auger was used to drill down to bedrock. Split-spoon samples were taken every 5 feet. Once bedrock was reached, the rock was cored about 5 feet through the auger. A well with a 5 foot screen was then constructed similar to B7-D and the auger was simultaneously withdrawn. This work was completed on the morning of March 26.

On March 25, a meeting between representatives of Columbia Mills, DEC and the Town of Minetto was held at the Town Hall. A list of attendees is attached. The main purpose was for DEC (specifically Dave Wazenkewitz) to bring the Town officials up to date on investigations and cleanup work at Columbia Mills. Overpacking of the remaining drums was underway at that time, as was the inventory of domestic water wells. Only 5 wells were found in the area which are being used for drinking water. Mr. Deming stated that Columbia Mills is committed to following through with the site cleanup after additional investigations are completed. The Town is very interested in redeveloping portions of the site, and would like to see the uncontaminated portions of the site (specifically, land along Snell Road near the sewage treatment plant) redeveloped even before remediation is completed at the Columbia Mills plant location and the drum disposal area. Dave and I told them that DEC would have no objection provided it was shown that the areas to be developed were not contaminated (probably as part of the RI). It was also pointed out that Oswego County claims ownership of the site but refuses to enter the property or assist in any way with the cleanup.

Attachment

MINETTO (3-25-87)

NAME :

DAVE WAZENKOWITZ - NYSDEC R-17

John Swartwout - NYSDEC, Albany

ROBERT NATOLI

David J. Roman, Town Attorney, 343-2742

Lee Deming BS+K atty Columbia Mills - Syria.

Joseph F. Mengano Codes Enforcement Minetto

Margaret Maylalon Os. Co. Legislator

GORDON PRODD SUPERVISOR

David BROWER GOVERNOR

CHAS STREIBERMAN Planning

**New York State Department of Environmental Conservation****MEMORANDUM**

TO: John E. Iannotti
FROM: John Swartwout *JBS*
SUBJECT: Columbia Mills Site, Minetto #738012
DATE: March 24, 1987

On March 16 through 18 Brian Davidson and I oversaw well installation work by North Star Drilling Co. at the Columbia Mills Site. Mark Wilder, Hydrogeologist for Malcolm Pirnie (engineering consultant for Columbia Mills Company), was providing full-time supervision of the work. Malcolm Pirnie had decided to install a third bedrock well adjacent to the sewage treatment plant in order to help determine the bedrock groundwater flow direction. Two on-site bedrock wells had already been planned.

On March 16th the drillers arrived and were going to begin drilling near shallow well B-2 on-site. They found that all the water lines on-site had been shut down and they couldn't obtain water for drilling so they decided to start on the sewage treatment plant location. They got the drill rig on location and set up, hooked up to a hydrant at the treatment plant, and then discovered that their steam cleaner was broken. The Town Supervisor and Dave Wazenkewitz (Region 7) visited the site briefly.

On March 17th the repaired steam cleaner still didn't work and the hydrant used the day before was leaking badly. A hose was connected to the sewage treatment plant itself and the casings were washed with cold water (all were new or last used on a non-hazardous construction site). Drilling advanced only about 13 feet due to the presence of boulders. Split spoon samples were taken at the surface and then every 5 feet down. Mark Wilder checked them with a HNU meter and placed samples in glass jars.

On March 18th Malcolm Pirnie and North Star had decided to give up on the sewage treatment plant site for the time being and moved the rig to near shallow well B-2 and grout in the outer casings at both on-site locations and come back with a larger rig the following day to drill down through the till into bedrock. By the time we left (around noon) they had drilled down about 10 feet and taken 3 split spoon samples. I spoke to Dave Wazenkewitz by phone and he was to come out to the site later that afternoon.

JS/ks

To: John Swartout - Albany
From: David Wazenkewitz
Room

**MALCOLM
PIRNIE**

**MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS**

February 25, 1987

New York State Department of
Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088

RECEIVED
MAR 8 1987
BUREAU OF HEALTH, SAFETY & ENVIRONMENTAL
PROTECTION
LIVERPOOL, NY

Attn: Mr. David Wazenkewitz
Asst. Sanitary Engineer

Re: Clarification of Tasks
Columbia Mills
Site Investigation

Dear Mr. Wazenkewitz:

This letter is intended to clarify certain points discussed in the review meeting of the Columbia Mills project held at the Malcolm Pirnie office on Thursday, February 19, 1987. The references refer to the phases as outlined in our proposal of December 1986.

Phase A. Engineering Assistance in Removal of Buried Tanks and Contaminated Soil:

1. Tanks will be permanently closed in accordance with procedures contained in the September 25, 1986 memorandum from Mr. Barolo and Mr. Nosenchuck.
2. A separate work plan will be submitted for each tank which has leaked identifying the procedures for identifying the extent of soil excavation necessary and procedures for evaluating groundwater remediation needs.

Phase B. Assistance in Layout, Design and Construction of Temporary Fencing in the Drum Disposal Area.

1. It is our intent to install 5-foot high plastic net snow fence around the drum burning area as outlined in the attached drawing. Fence posts will consist of metal snow fence posts firmly anchored with concrete bases. Warning signs will be posted on all sides of the fencing containing the words "Danger - Contaminated Area - Keep Out".

Mr. David Wazenkewitz

-2-

February 23, 1987

2. Our client's attorney will contact the Town in writing requesting a written confirmation that the Town will maintain the temporary fencing described above.

Phase C. Assistance in Retaining Contractor for the Inventory of Asbestos on the Site.

1. A copy of the Request for Proposals and a copy of the selected proposal will be sent to the Regional office for review prior to execution.
2. We will notify the Regional office 2 weeks prior to conduct of the asbestos inventory.

Phase D. Perform Additional Work to Reduce the Site's HRS Score.

1. Domestic Well Inventory

Since the EPA procedure for calculating the groundwater migration score will not allow a change in score to any sizeable extent, we will concentrate on inventorying those houses which are in proximity to the site to determine if there is a real risk to health or safety. The enclosed map shows the area that will be covered in the inventory. The revised inventory plans will be discussed with the Oswego County Health Department prior to execution of the program.

2. Evaluation of Deep Aquifer Beneath Site

- a. We agree that three deep wells are required in order to determine the flow direction of the deep aquifer. We will continue with our plans to install 2 deep wells at the Columbia Mills site. Data shows that 2 USGS bedrock wells are located slightly north of the property near the WWTP. If one of these wells can be utilized for water level measurements, we will utilize it. If no existing wells are available to give us the third point, we will install a third bedrock well.

Handwritten notes:
Need to check with
the other something
on the construction
of the well
one of the
is the

- b. Water level readings and pH and conductivity measurements will be taken at each of the 7 existing and 2 or 3 new wells on a quarterly basis during 1987.
- 3. Evaluation of Site Tunnels and Storm Sewers
 - a. The work of this phase will also include any on-site storm sewers, pipes, culverts and tunnels conveying water to the creeks or ponds on the site.
 - b. If such pipes, sewers, etc., have sludge deposits, they will be sampled and analyzed for the contaminants found on-site in previous investigations.
- 4. Evaluation of Soils, Surface Waters and Sediments
 - a. The three soil samples from the drum disposal area, submitted for EP toxicity testing, will consist of composite samples of three aliquots each selected completely at random from the top 12 inches of material in the area. As such, the samples will neither show a worst case or a best base scenario but will show an average leaching potential in the area.
 - b. We have reviewed the hazardous substance list and do not believe that it will detect any compounds over and above those detected on the priority pollutant list. We will, therefore, continue the use of the priority pollutant screening procedure as in the Phase II study for the analysis of the oily wet soils near the former pump house at the pond outlet.

We have attached a revised schedule for the work and will notify you approximately two weeks in advance of major on-site efforts (i.e., drilling, sampling, etc.) so that you may have a representative on site if you desire. We will also notify the Town Supervisor, Gordon Proud and the Minetto Fire Department whenever work activities are being performed at the site.

MALCOLM
PIRNIE

Mr. David Wazenkewitz

-4-

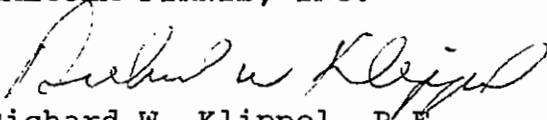
February 23, 1987

We trust that this submittal clarifies the concerns raised during the meeting and we would suggest a similar type meeting be held in approximately 60 days to review the progress.

Please feel free to call if you have any questions or need additional information.

Very truly yours,

MALCOLM PIRNIE, INC.



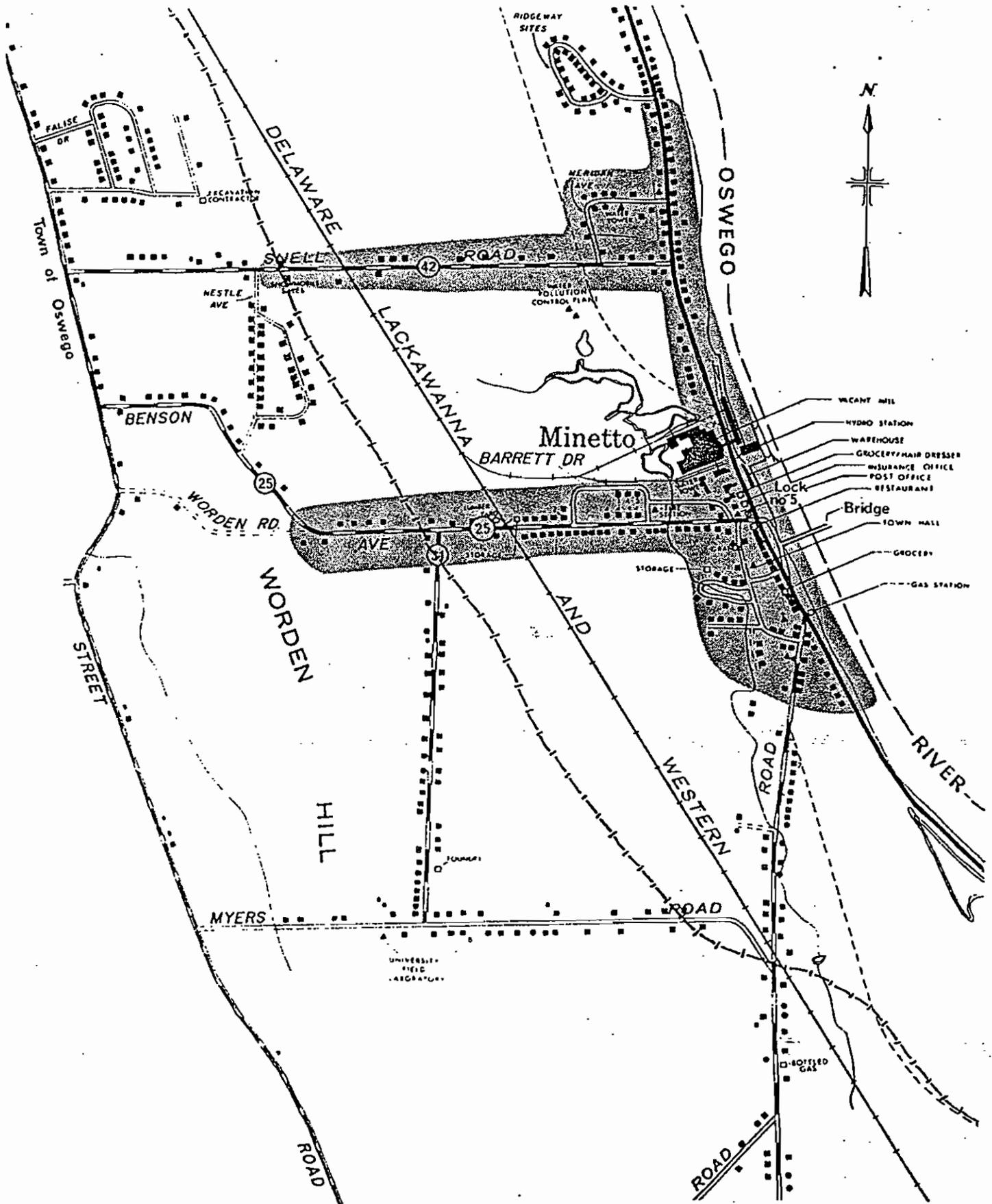
Richard W. Klippel, P.E.
Project Manager

RWK/mmp

Enclosure

cc: Leslie Deming

1069-01-1

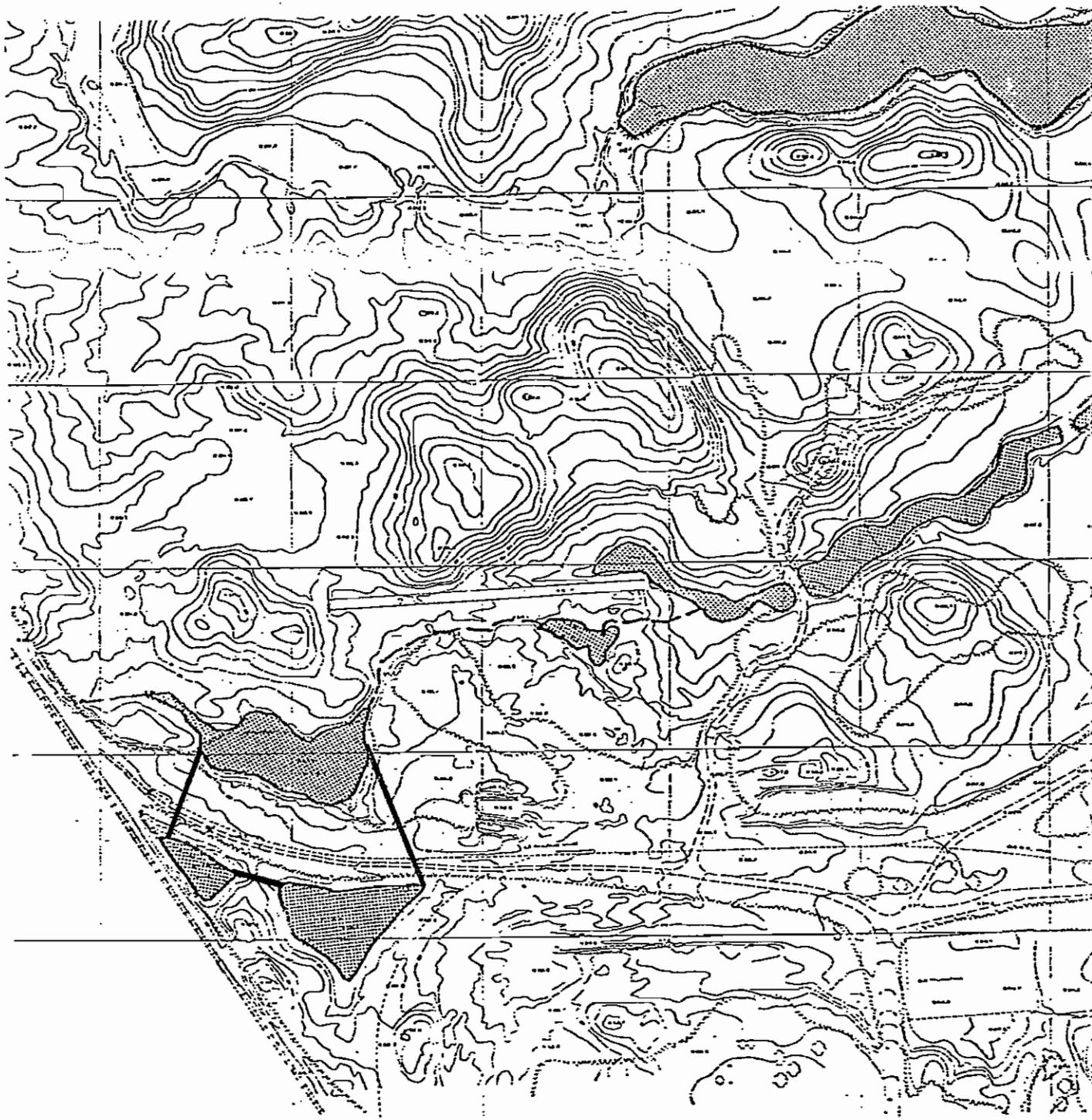


**MALCOLM
PIRNIE**

DOMESTIC WELL SURVEY AREA

MALCOLM PIRNIE, INC.

FEBRUARY 1987

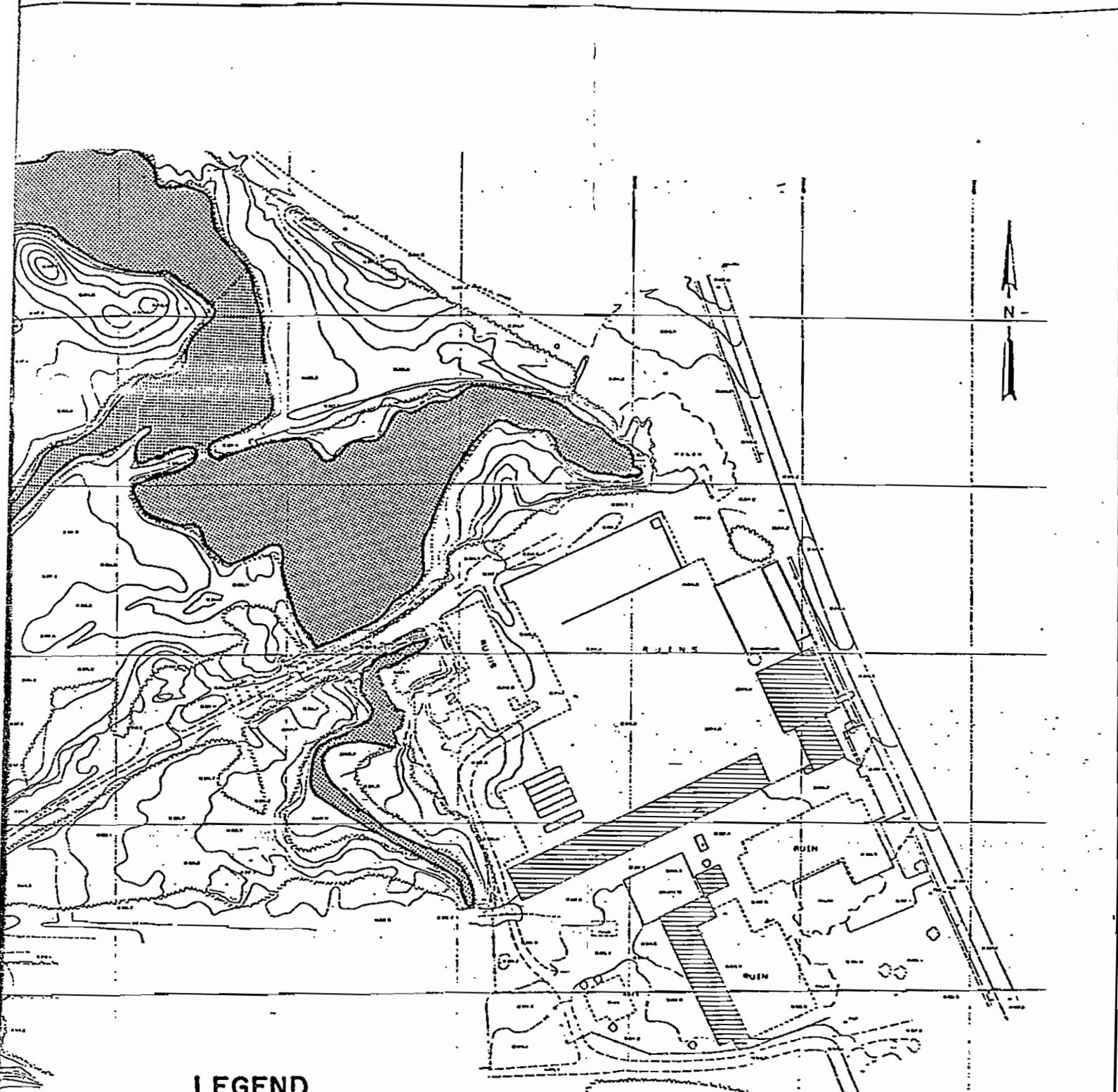


**MALCOLM
PIRNIE**

REVISIONS			
NO	BY	DATE	REMARKS

DES _____
DWN _____
CKD _____

**COLUMBIA
MINETTO, NE**



LEGEND

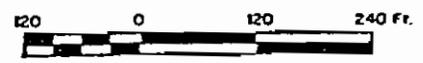


SURFACE WATER



FENCE

SCALE in feet



MILLS
W YORK

**PROPOSED FENCING OF DRUM
DISPOSAL AREA**

MALCOLM PIRNIE, INC.

DATE

SHEET



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Iannotti, Supervisor, Technical Support Section
FROM: John Swartwout *JBS*
SUBJECT: February 19, 1987 Site Visit and Meeting on Columbia Mills Site, Minetto, Oswego County
DATE: February 20, 1987

Dave Wazenkewitz (DEC, Region 7) and I briefly visited the Columbia Mills site on February 19, 1987 so that I could get an idea of the conditions there. We did not go inside the fence, but viewed the site from several locations along adjacent roads. We then stopped at the Minetto Town Hall and Dave introduced me to the Town Supervisor who has been directly involved in the site due to the Town's ownership. The Supervisor naturally wants the site cleaned up as soon as possible and is interested in redeveloping the site to increase the tax base.

I accompanied Dave and other Region 7 staff to a meeting at Malcolm Pirnie's Liverpool, New York office to discuss DEC comments on the December 1986 Proposal for Additional Phase II Investigations. Malcolm Pirnie (MP) indicated that the remaining drums of unused raw material which have been staged at the site should be overpacked and removed from the site soon but they have been having problems working with ETI on arranging for disposal. ETI has been given the go-ahead to overpack and remove the drums.

A summary of DEC comments and discussion items follows:

- MP is aware of DEC's current tank closure guidance
- Orange temporary fencing will be put up this spring
- MP will send DEC a letter describing the type and location of fencing and indicating that tank closure guidance will be followed
- DEC requested a copy of the spec on the asbestos inventory prior to initiation of the work
- DEC must review a workplan for Phase A work (Engineering Assistance in Removal of Buried Tanks and Contaminated Soils), including how they intend to take care of any free produce found in the ground
- Additional soils testing in the "arsenal" area will not be done as part of this proposal, but will be addressed in Phase E Item F (the RI/FS workplan)
- MP will get a written commitment from the Town to maintain the fence once it is installed
- MP will further identify what area will be covered in the domestic well survey and give their rationale for selecting that area

- DEC requests a 3rd deep well be used to determine the flow direction of deep groundwater. It was agreed that MP will attempt to use a USGS well or deep domestic well for this purpose rather than installing a 3rd deep well at this time. The 2 deep wells being installed are to determine if there is any contamination of the deep aquifer. Generalized data for the area indicates that there should be an upward flow from the deep aquifer toward the Oswego River
- It now appears that refinement of the Site's HRS score will increase that score rather than lowering it as had been hoped. This is mainly due to the methodology EPA specifies concerning domestic wells in a 3 mile radius in the aquifers of concern. It doesn't matter if the wells are upgradient or downgradient
- DEC requested a quarterly check of water level elevations in the existing shallow monitoring wells
- MP will provide an explanation of how the EP toxicity testing will be done (e.g., at what depths)
- MP will provide DEC with a revised work schedule

It is expected that most field work will begin in mid-April.



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Iannotti
FROM: John Swartwout *JBS*
SUBJECT: February 12, 1987 Meeting on Columbia Mills Site, Minetto, Oswego County
DATE: February 13, 1987

I met in Liverpool, New York on February 12, 1987, with DEC Region 7 (including Dave Wazenkewitz) and the Oswego County Health Department to discuss Malcolm Pirnie's proposal for additional Phase II Investigations at the Columbia Mills site. The meeting consisted primarily of Dave Wazenkewitz going over his comments to make sure no one else disagreed with them. For the most part, all were in agreement. The comments were generally of a minor nature.

Dave asked me to check on what concentration limits should be used to determine the extent of soil cleanup which should be required. He also asked me to check on whether the Technical Operational Guidance Series (TOGS) should be used for cleanup of groundwater parameters not included in the State Class GA Groundwater Standards. I agreed to check on these items.

Dave said that he would probably need a geologist from Albany to come out for a couple of days at a time for two or three trips during the fieldwork this spring, particularly during drilling of the deep wells. I told him that we probably could arrange for this.

Dave requested that a geologist look at the proposed deep well locations and determine whether additional down-gradient wells are needed. I agreed.

Regarding the field work (probably April-June), Dave may want to split some samples and check for some additional contaminants not tested for previously. He said he probably will have to call on the Central Office to handle some of the oversight during the field work.

Dave suggested a meeting with Malcolm Pirnie (engineers for the former site owner) the week of February 16 to discuss their proposal. All present agreed. I called Dave on February 13 and we agreed to meet with Malcolm Pirnie on February 19 in the afternoon in Liverpool with a brief site inspection by Dave and I to be held that morning.



New York State Department of Environmental Conservation

MEMORANDUM

TO: John Iannotti
FROM: John Swartwout *JBS*
SUBJECT: February 12, 1987 Meeting on Columbia Mills Site, Minetto, Oswego County
DATE: February 13, 1987

I met in Liverpool, New York on February 12, 1987, with DEC Region 7 (including Dave Wazenkewitz) and the Oswego County Health Department to discuss Malcolm Pirnie's proposal for additional Phase II Investigations at the Columbia Mills site. The meeting consisted primarily of Dave Wazenkewitz going over his comments to make sure no one else disagreed with them. For the most part, all were in agreement. The comments were generally of a minor nature.

Dave asked me to check on what concentration limits should be used to determine the extent of soil cleanup which should be required. He also asked me to check on whether the Technical Operational Guidance Series (TOGS) should be used for cleanup of groundwater parameters not included in the State Class GA Groundwater Standards. I agreed to check on these items.

Dave said that he would probably need a geologist from Albany to come out for a couple of days at a time for two or three trips during the fieldwork this spring, particularly during drilling of the deep wells. I told him that we probably could arrange for this.

Dave requested that a geologist look at the proposed deep well locations and determine whether additional down-gradient wells are needed. I agreed.

Regarding the field work (probably April-June), Dave may want to split some samples and check for some additional contaminants not tested for previously. He said he probably will have to call on the Central Office to handle some of the oversight during the field work.

Dave suggested a meeting with Malcolm Pirnie (engineers for the former site owner) the week of February 16 to discuss their proposal. All present agreed. I called Dave on February 13 and we agreed to meet with Malcolm Pirnie on February 19 in the afternoon in Liverpool with a brief site inspection by Dave and I to be held that morning.

file



New York State Department of Environmental Conservation

MEMORANDUM

TO: Dave Wazenkewitz, Region 7
FROM: John Swartwout *JS*
SUBJECT: Additional Phase II Investigations - Columbia Mills, Minetto, Oswego County
DATE: February 2, 1987

I have reviewed the plan for expanded investigation and anticipated interim remedial action at the Columbia Mills site and have no comments at this time. This proposal addresses all the concerns raised previously in the report on Phase II Site Investigations.

cc: J. Iannotti



New York State Department of Environmental Conservation

MEMORANDUM

TO: JOHN IANNOTTI - ROOM 222, TOM REYNOLDS - ROOM 220
FROM: DAVE WAZENKEWITZ, REGION 7
SUBJECT: ADDITION PHASE II INVESTIGATION -
COLUMBIA MILLS, MINETTO (V), OSWEGO COUNTY
DATE: JANUARY 21, 1987

Attached for your review is the plan for expanded investigation and anticipated interim remedial action(s) at the above site.

At present we plan to have comments to the responsible parties by February 18, 1987. If you have any questions or comments please let me know a couple of days prior to the 18th.

Your assistance has been appreciated.

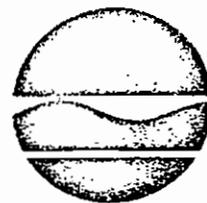
DSW/lis
attachment

CC: E. Walsh
R. Heerkens
L. Gross
W. Demick

JAN 27 1987

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-0001

files



Henry G. Williams
Commissioner

July 9, 1984

The Honorable James Wright
County Executive
Oswego County
County Office Building
Oswego, New York 13126

Re: Columbia Mills
Minetto (T) Oswego County

Dear Mr. Wright:

As a follow up to our recent discussion at your office in Fulton on June 26, 1984 we are close to finalizing the Columbia Mills Site as a candidate for a State Superfund Remedial Investigation/Feasibility Study. One remaining unanswered question however is whether or not any responsible parties exist.

When we met last you indicated that both the County of Oswego and the Town of Minetto had title to the property through a tax lien. It would be helpful if you could delineate this in a letter. In addition, any information that you might have available pertaining to past ownership especially any indicating a solvent entity in the former corporate organization would be extremely beneficial.

Please call me at (518) 457-9538 if the need arises.

Sincerely,

Walter E. Demick

Walter E. Demick, P.E.
Supervisor
Western Investigation Section
Bureau of Hazardous Site Control
Division of Solid and Hazardous Waste

bcc: N. Nosenchuck
M. O'Toole
C. Goddard
S. Lackey
W. Demick
T. Reynolds

files

WED:sjc



New York State Department of Environmental Conservation

M E M O R A N D U M

TO: Mr. King - Room 414
FROM: Mr. Lackey, Region 7
SUBJECT: COLUMBIA MILLS, OSWEGO COUNTY, SITE NO. 738012
DATE: June 19, 1984

I am enclosing recent information collected by Calocerinos & Spina at the Columbia Mills site in Minetto, Oswego County. This plant closed several years ago and ownership assumed by Oswego County because of back taxes. The firm manufactured cloth products used in window shades and book bindings. The attached photograph shows several drums spilled on the floor which presumably contained solid dyes used in the manufacturing of these products. The dry products have now become wet and appear liquid in the photograph.

A map and aerial photo of the site are attached which show the sampling locations used by Calocerinos & Spina. This consulting firm was retained by the County to study the feasibility of razing the site making it available for future industrial expansion. All of the samples collected were soil samples with the exception of #7, which was collected in surface water adjacent to the site. Sample #1 was collected near a solvent recovery facility operated for approximately one year. Sample #3 was from soil above two buried 10,000 gallon railroad tank cars, which the consultant theorized may have previously contained benzene. Samples #5 and #9 were taken from an area above three 3,000 gallon buried solvent tanks. It is believed these tanks currently contain some type of sludge material. Sample #6 was taken near a still operation where three 3,000 gallon tanks formerly containing lacquer thinner are buried.

Explosive chemicals were previously stored in the "arsenal area" but at this time only concrete piers remain. Sample #8 was collected near an old drum disposal area at the rear of the property from a depth of approximately two inches.

In addition to the chemical waste, it has been revealed that the building contains large amounts of asbestos.

Since I only have one copy of the map and area photo, would you please share this information with Mr. Walter Demick. Results from a previous sampling conducted by Mr. Charles Branagh of this office were forwarded to Mr. Reuel Todd, Supervisor for the Town of Minetto, on October 13, 1982. Mr. Goddard was copied with this information. To discuss this site further, please feel free to call myself or Mr. Charles Branagh.

cc: Mr. Demick

SCL/lms

RECEIVED

JUN 25 1984

BUREAU OF REMEDIAL ACTION
 DIVISION OF SOLID AND
 HAZARDOUS WASTE

cc: Mr. Iannotti

Bob Jenior - p II
John
File - Columbia Mills
Leg 7

Region 7, Environmental Quality Office
7481 Henry Clay Boulevard
Liverpool, NY 13088

June 20, 1985

Mr. L. Deming
Attorney-At-Law
Bond, Schoeneck & King
One Lincoln Center
Syracuse, NY 13202

RE: COLUMBIA MILLS - PHASE II SITE INVESTIGATION PROPOSAL
MINETTO (T), OSWEGO COUNTY

Dear Mr. Deming:

The Region 7 office of the N.Y.S.D.E.C. has received the above referenced proposal for our review and approval. Please be advised that we are granting approval for implementation of Phase 1 - Site Security and Phase 2 - Health and Safety Monitoring of the proposed plan.

As we discussed on June 20, 1985, we plan to allow for public comment regarding the proposal but feel it is important to secure the site as quickly and safely as possible. We are anticipating receipt of public comment in late July where substantive comments will be taken in account prior to final approval of the proposal.

Also, as we discussed at our last meeting prior to implementation of any subsurface work at the site, all underground utilities should be located so that they may be avoided.

I would appreciate it if you would keep me advised of the status of this work. If you have any questions, please feel free to contact me. Thank you for your cooperation on this matter.

Very truly yours,

DAVID S. WAZENKEWITZ
Sanitary Engineer
Solid Waste Management

cc: Mr. Iannotti ✓
Mr. Reynolds
Mr. Heerkens
Mr. Walsh
Mr. Wright
Mr. Klippel
Mr. Gross
Ms. Miller
Mr. Brickwedde
Mr. Revel

RECEIVED
JUN 27 1985
BUREAU OF EASTERN REMEDIAL ACTION
DIVISION OF SOLID AND
HAZARDOUS WASTE



New York State Department of Environmental Conservation

MEMORANDUM

TO: Mr. Reynolds - Room 223
FROM: Mr. Wazenkewitz, Region *WZW*
SUBJECT: COLUMBIA MILLS - PROPOSAL FOR PHASE II SITE INVESTIGATION
MINETTO (V), OSWEGO COUNTY
DATE: May 31, 1985

Attached is the revised work plan for the Phase II site investigation at the Columbia Mills site. We are suggesting the following timetable in order to move the project along:

1. Comments on the proposal by June 13, 1985. (Please note that the attached is an extra copy of the report for review by the Bureau of Remedial Action). Providing the consultant has met all requirements we discussed in our last meeting then:
2. Notice for public meeting sent out June 17, 1985.
3. Public meeting to advise local citizens of the work being conducted and to get citizen input on the proposal on or about the week of July 1, 1985.
4. Incorporation of citizen's comments if required and commencement of work the week of July 8, 1985.

We realize the Department's intent is to have all these sites under Consent Order. However, this is one of the cases that the company has been moving ahead of our pursuant of an Order. It seems if we wait to have a signed Consent Order, we may hold up the site investigation. In lieu of this, it is the region's intent, as long as Columbia Mills is willing, to go ahead with the Phase II investigation and concurrently try to work to get a Consent Order signed.

Your assistance on this project has been appreciated. If you have any problems with the above, please give me a call.

cc: Mr. Engel
Mr. Wright
Mr. Iannotti
Ms. Miller
Mr. Gross
Mr. Heerkens
Mr. Walsh
Mr. Demick
Mr. Brickwedde
Mr. Greenthal

RECEIVED

JUN 13 1985

BUREAU OF
DIVISION
HAT

SHANLEY AND SULLIVAN, P.C.

ATTORNEYS AT LAW
34 EAST BRIDGE STREET
OSWEGO, NEW YORK 13126

P. MICHAEL SHANLEY
JOHN T. SULLIVAN, JR.
DAVID J. ROMAN
MICHAEL J. STANLEY

*Rich god.
draft*

cc: *B. Hicks
D. Shaw*

Dine AREA CODE 315
343-2610
8/29/80

August 25, 1980

The Hon. Hugh L. Carey
Governor, State of New York
The Capitol
Albany, New York 12208

RECEIVED

AUG 29 1980

COMMISSIONER OF
ENVIRONMENTAL
CONSERVATION

Re: The Town of Minetto, New York

Dear Governor Carey:

As Town Attorney for the Town of Minetto, N.Y., I have been asked to write you with regard to the toxic waste problem here in Oswego County. As you well know, there are many varied sites across this state and particularly within Oswego County, which have been identified as housing toxic wastes posing a serious threat to the well-being of our people. We wish to formally ask that you provide sufficient funding for the removal of these wastes and cleanup throughout the county. Here in Minetto, we have upwards of one thousand barrels of waste stored at a vacant factory, located in the very center of our township, and have recently received notice from the state Department of Environmental Conservation that their own testings confirm the presence of dangerous chemicals in the stored materials.

We would appreciate being advised as to what steps are being taken to insure said funding and as to the overall timetable envisioned to correct the situation.

We have also been asked to write with regard to gaining executive department assistance in setting up a statewide conference with combined representatives of the Environmental Protection Agency, the NYS Department of Environmental Conservation, representatives of the NYS Health Department, legislative leaders and local officials to address the issue of a long-term comprehensive policy in regard to the toxic waste problem. We believe that such a conference would provide a valuable forum for identifying common problems and taking remedial action in a united cooperative effort. These problems have seemed to proliferate in recent years, and are gaining press attention almost daily. The underlying issues unfortunately have not been resolved and we believe the time to act on this is now.

Thank you for your attention.

RECEIVED

AUG 29 1980

ASSISTANT COMMISSIONER
for
PROGRAM AFFAIRS

Very truly yours,

David J. Roman

David J. Roman

DJR/ftp
pc: William E. Scheuerman,