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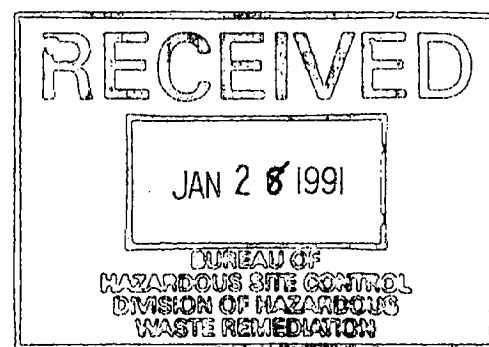
932048 B

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

Carborundum Corporation
Niagara Falls

Site No. 932048B
Niagara County



Prepared for:
**New York State
Department of
Environmental Conservation**

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., *Director*

By:
E.C. Jordan Co.
Portland, Maine

JANUARY 1991

NYSDEC CONTRACT NO. D002472
NYSDEC WORK ASSIGNMENT NO. D002472-6

E.C. JORDAN CO.

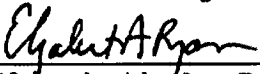
FINAL REPORT

TASK 1: DATA RECORDS SEARCH AND ASSESSMENT
PRELIMINARY SITE ASSESSMENT

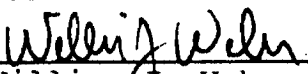
CARBORUNDUM BUILDING 82
SITE NO. 932048B
NIAGARA COUNTY

JANUARY 1991

Submitted by:


Elizabeth A. Ryan
Project Manager
E.C. Jordan Co.

Approved by:


William J. Weber
NSSC Program Manager
E.C. Jordan Co.

NOTICE

This Preliminary Site Assessment report about the Carborundum Building 82 Site (Site No. 932048B), in Niagara Falls, New York, was prepared expressly for the New York State Department of Environmental Conservation (NYSDEC) under the Superfund Standby Contract (No. D002472, Work Assignment No. D002472-6). The purpose of this report is to provide information necessary for NYSDEC to reclassify the site according to the Classes 2, 3, and Delist categories described in Section 2.0 of this report. The conclusions and recommendations in this report represent E.C. Jordan's professional judgment and opinion based on present, generally accepted engineering practices for conducting preliminary site characterizations and assessments. Conclusions in this report are based on records reviews, interviews, and site walkovers performed by Jordan personnel. The health-based regulatory standards discussed in this report may change in the future. Levels of environmental contamination that are "acceptable" by current standards may not be so in the future.

Information contained in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of or reliance on the information, assessments, or conclusions in this report without adaptation will be at the sole risk and liability of the party undertaking the reuse.

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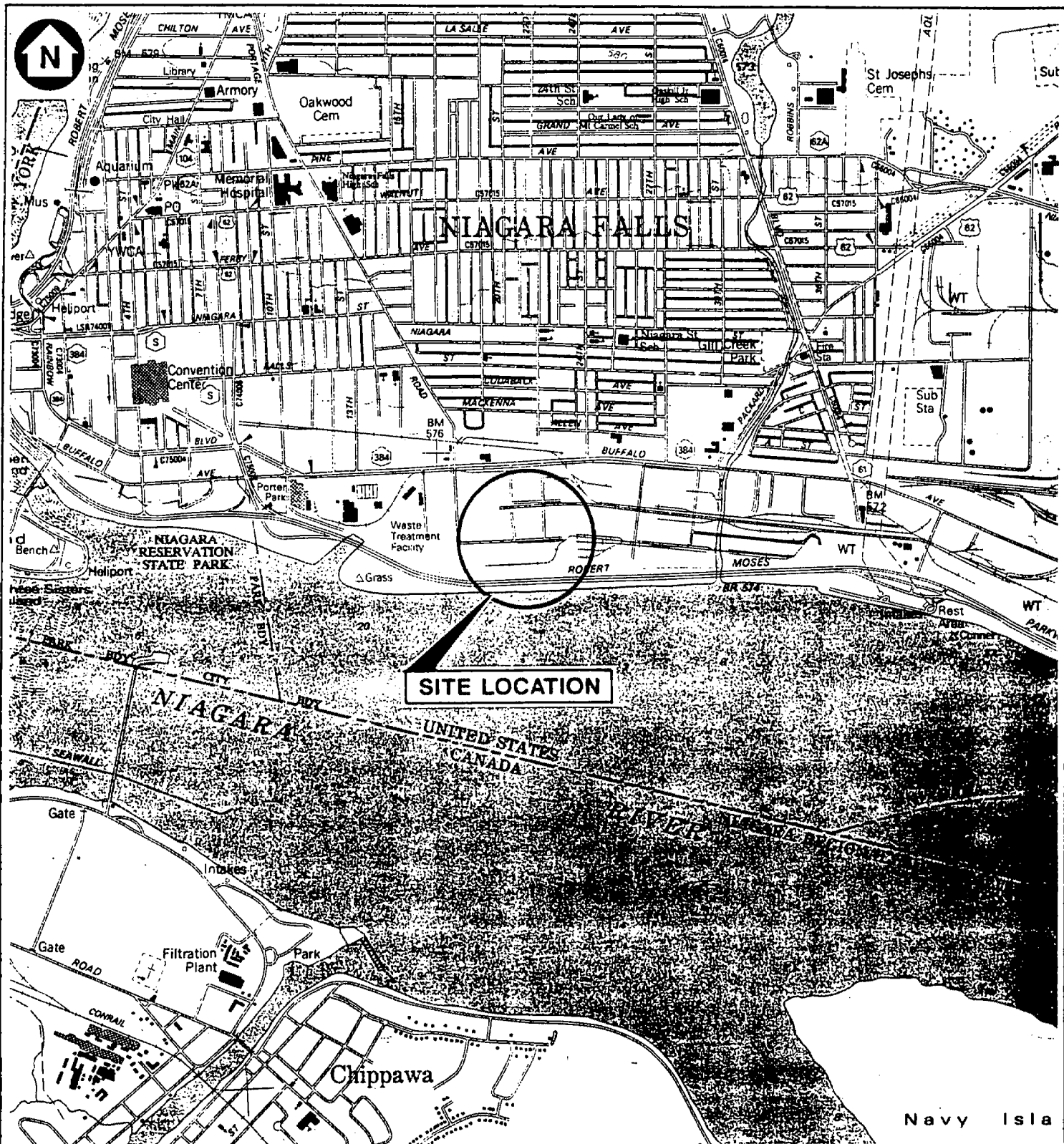
1.0 EXECUTIVE SUMMARY

The Carborundum Building 82 (Carborundum) Site is a 1.5-acre storage area located on a 40-acre parcel of land owned by Washington Mills Electro Minerals Corporation. The property is located between Buffalo Avenue and the Robert Moses Parkway and the waste storage area is located south of Building 82 (see Figures 1 and 2). The 1.5-acre storage area was used for an unknown period of time to temporarily store wastes such as sand, refractory brick, dust collector fines, grinding wheels, fly ash, wood, metal scrap, silicon carbide fines, aluminum-silica shot, and kiln furniture made of ceramic materials. The practice of storing waste on this site was discontinued in 1979 and in 1985 all waste materials were removed by Modern Disposal Services, Inc.

The information collected and reviewed by Jordan revealed the following:

- There is no evidence or documentation of hazardous waste disposal on-site.
- The wastes stored on-site are not defined as hazardous according to 6 NYCRR 371.1(d).
- There is no evidence of any landfilling activity.
- PCBs were detected at levels of 0.0012 ppm and 0.55 ppm in the transformer oil containment pit. These levels are well below the NYSDEC maximum allowable concentration for non-hazardous waste of 50 ppm PCBs (6 NYCRR 371.4(d)(6)(e)).
- The solvents used on-site to rinse abrasive grains (e.g., methanol, acetone, and toluene), have reportedly had no contact with wastes previously stored on the site.
- The site is located downstream from public drinking water intakes on the Niagara River.
- The site is secured by a chain-link fence and guarded.
- The nearest wetlands and drinking water wells are approximately 3 miles away.

Based on these findings, it is E.C. Jordan Co.'s (Jordan) recommendation that the Carborundum Site be delisted from the suspected inactive hazardous waste registry.

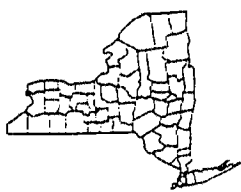


SOURCE: N.Y.S. DEPARTMENT OF TRANSPORTATION, NIAGARA FALLS QUADRANGLE
DATED 1989, 7.5 MINUTE SERIES

SITE NO: 932048B
LOCATION: CITY OF NIAGARA FALLS
NIAGARA COUNTY

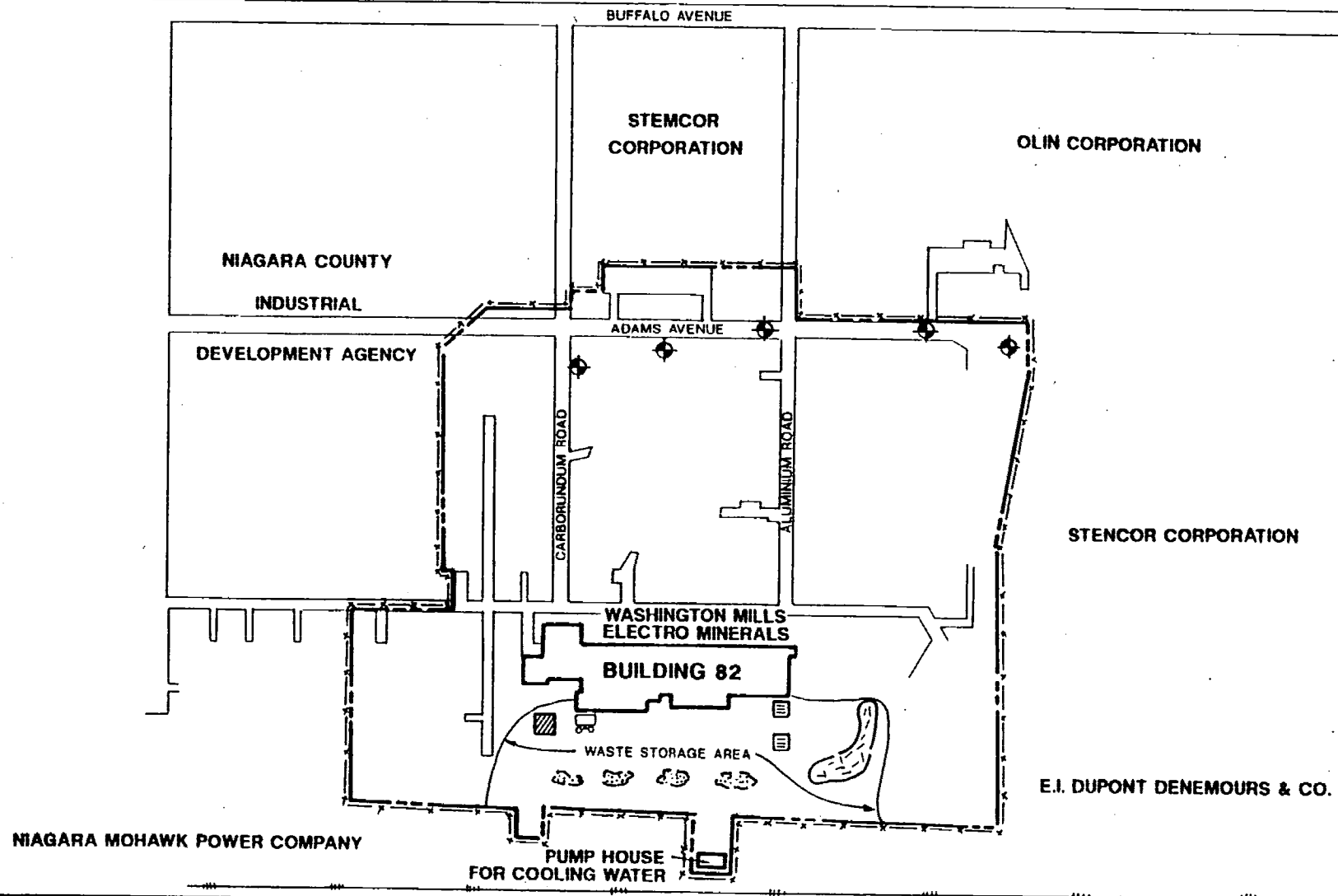
FIGURE 1
SITE LOCATION MAP
CARBORUNDUM BUILDING 82 SITE
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

ECJORDANCO



SCALE IN FEET





NOT TO SCALE

LEGEND

- | | |
|---|------------------------------|
| --- WASHINGTON MILLS ELECTRO MINERALS PROPERTY BOUNDARY | HOPPERS CONTAINING Al_2O_3 |
| SPLIT SPOON SOIL SAMPLE LOCATIONS | RAILROAD |
| PALLET STORAGE | CHAIN-LINK FENCE |
| SCRAP METAL STORAGE | |
| TRANSFORMER OIL CONTAINMENT PIT | |
| CONCRETE RUBBLE SOIL - PILES | |

FIGURE 2
SITE SKETCH MAP
CARBORUNDUM BUILDING 82 SITE
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

Original—BHSC
Copy—REGION
Copy—DEE
Copy—DOH
Copy—PREPARER

ADDITIONS/CHANGES TO REGISTRY
OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

1. SITE NAME Carborundum Building 82		2. SITE NO. 932048B		3. TOWN City of Niagara Falls		4. COUNTY Niagara	
5. REGION 9		6. CLASSIFICATION Current _____/Proposed <input checked="" type="checkbox"/> X		7. ACTIVITY <input type="checkbox"/> Add <input type="checkbox"/> Reclassify <input checked="" type="checkbox"/> Delist <input type="checkbox"/> Modify _____			
8a. DESCRIBE LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location). The site is located south of Building 82 on Washington Mills Electro Minerals property located at 1801 Buffalo Avenue. Niagara Falls b. Quadrangle <u>Quadrangle</u> c. Site Latitude <u>43°05'02"</u> Longitude <u>79°02'14"</u> d. Tax Map Number _____							
9a. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations) The site is relatively flat and has been graded. It is currently used to store scrap metal, wood pallets, rubble, and recyclable aluminum oxide shot. b. Area <u>1</u> acres c. EPA ID Number <u>D042513754</u> d. PA/SI <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No e. Completed: <input checked="" type="checkbox"/> Phase I <input type="checkbox"/> Phase II <input type="checkbox"/> PSA <input type="checkbox"/> Sampling							
10. BRIEFLY LIST THE TYPE AND QUANTITY OF THE HAZARDOUS WASTE AND THE DATES THAT IT WAS DISPOSED OF AT THIS SITE No hazardous waste was documented as being disposed of at this site.							
11a. SUMMARIZED SAMPLING DATA ATTACHED <input type="checkbox"/> Air <input type="checkbox"/> Groundwater <input type="checkbox"/> Surface Water <input type="checkbox"/> Soil <input type="checkbox"/> Waste <input type="checkbox"/> EP Tox <input type="checkbox"/> TCLP. b. List contravened parameters and values No sampling was performed for this Preliminary Site Assessment Task 1.							
12. SITE IMPACT DATA a. Nearest surface water: Distance <u>650</u> ft. Direction <u>South</u> Classification _____ b. Nearest groundwater: Depth <u>9</u> ft. Flow Direction <u>South</u> <input type="checkbox"/> Sole Source <input type="checkbox"/> Primary <input type="checkbox"/> Principal c. Nearest water supply: Distance <u>2 mi.</u> <input checked="" type="checkbox"/> X Direction <u>East</u> Active <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No d. Nearest building: Distance <u>30</u> ft. Direction <u>North</u> Use _____ e. Crops or livestock on site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No f. Exposed hazardous waste? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No g. Controlled site access? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No h. Documented fish or wildlife mortality? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No i. Impact on special status fish or wildlife resource? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No j. Within a State Economic Development Zone? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No k. For Class 2a; Code _____ Health Model Score _____ l. For Class 2; Priority Category _____ m. HRS Score _____ n. Significant Threat <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown							
13. SITE OWNER'S NAME Washington Mills Electro Minerals Corp.		14. ADDRESS 1801 Buffalo Ave. Niagara Falls, New York 14302			15. TELEPHONE NUMBER (716) 278-6763		
16. PREPARER Roger Bondeson Environmental Scientist/E.C. Jordan Co. Name Title and Organization 207-775-54-1 11/28/90 <i>Beth G... for R.B.</i> Telephone Number Date Signature							

2.0 PURPOSE

The purpose of a PSA is to provide the information necessary for NYSDEC to reclassify the site according to the following classifications:

Class 2 - Hazardous waste sites presenting a significant threat to the public health or the environment.

Class 3 - Hazardous waste sites not presenting a significant threat to the public health or the environment.

Delist - Sites where hazardous waste disposal is not documented.

Task 1, Data Records Search and Assessment, of a Preliminary Site Assessment (PSA) was conducted at the Carborundum Site, Site No. 932048B, in Niagara Falls, New York by Jordan under the NYSDEC Superfund Standby Contract (Contract No. D002472, Work Assignment No. D002472-6).

The Carborundum Site is a suspected inactive hazardous waste site recognized by NYSDEC. This site is currently classified as Class 2a because there is insufficient information to document hazardous waste disposal and/or assess the significance of potential risks to public health or the environment.

3.0 SCOPE OF WORK

PSA Task 1 consists of two data gathering activities: a file review/records search, and a site walkover. Specific activities performed for the Carborundum Site under these tasks are described in the following subsections.

3.1 File Reviews

The Jordan project team began collecting information on the Carborundum Site at the NYSDEC Central Office in Albany, New York during the week of June 25, 1990. In addition, Jordan personnel reviewed files at the New York State Department of Health (NYSDOH), the U.S. Geological Survey, the U.S. Fish and Wildlife Service, the New York State Department of Transportation, and the State Geological Survey.

On July 16, 1990 the Jordan team reviewed files, provided by Yavuz Erk, P.E., Environmental Engineer II for NYSDEC Region 9 at NYSDEC's Region 9 Office. Jordan personnel reviewed files at the NYSDOH Regional Office in Buffalo, New York on July 17, 1990 and at the Niagara County Health Department (NCHD) on July 20, 1990. Jordan personnel visited the Niagara County Soil and Water Conservation District on July 24, 1990 to obtain copies of aerial photographs of the site; and on July 25, 1990, the Jordan team visited the NYSDEC Region 9 Bureau of Wildlife to identify wetlands and critical habitat areas.

The following individuals were interviewed:

Paul Dicky
Public Health Engineer
Niagara County Health Department
10th and East Falls Street
Niagara Falls, New York
(716) 284-3128

Yavuz Erk
Environmental Engineer II
NYSDEC Region 9
600 Buffalo, NY 14414
(716) 847-4585

3.2 Site Walkover

On July 25, 1990 a site walkover was conducted at the Carborundum Site. The following individuals attended the visit:

<u>Name</u>	<u>Title</u>	<u>Affiliation</u>
Roger Bondeson	Environmental Scientist	E.C. Jordan Co.
Cathy Lanois	Environmental Scientist	E.C. Jordan Co.
Sri Maddineni	Environmental Engineer II	NYSDEC Central
Yavuz Erk	Environmental Engineer II	NYSDEC Region 9
Dean E. Venturin	Environmental Health and Safety Manager	Washington Mills Electro Minerals

The site tour began at 8:30 a.m. and was conducted by Dean Venturin, Environmental Health and Safety Manager for Washington Mills Electro Minerals. Before entering the site the field team calibrated a photoionization detector and explosimeter/oxygen meter to monitor ambient air quality during the inspection. The resulting data were used to confirm that worker health was protected and safety procedures could be instituted if concentrations were detected above background levels. No readings above background were detected.

A sketch of the Washington Mills Electro Minerals property and the waste storage area is shown as Figure 2. The Jordan team, accompanied by Dean Venturin, Yavuz Erk, and Sri Maddineni, entered the waste storage area from the eastern side of the site. In the southeastern section of the waste storage area, the Jordan team observed a large scrap metal pile containing various pieces of equipment. To the west of the scrap metal pile, the Jordan team noted numerous scrap wooden pallets. Further west, and along the fence at the southern border, several small piles of concrete, rubble, and soil were observed. North of these debris piles were several hoppers containing chunks of aluminum oxide.

A small concrete pit, covered by a metal sheet was located on the western border of the waste storage area. This pit reportedly was constructed to contain transformer oil that leaked from storage tank trailers. This pit reportedly was never used (Venturin, 1990). An electrical transformer was observed approximately 60 feet north of the pit and was labeled as containing less than 50 parts per million (ppm) of polychlorinated biphenyls (PCBs). An information sheet concerning this transformer is included in Appendix D.

The waste storage area is relatively flat and has been graded over with crushed stone. Although residual silicon carbide fines, sands, and refractory bricks were observed throughout the grounds, most of the wastes stored prior to 1985 appeared to have been removed. The waste storage area was void of vegetative growth with the exception of sparse weeds and grasses growing near Building 82.

Site access is strictly controlled by a chain-link fence extending around the perimeter of the Washington Mills Electro Minerals property and by a gate located on the northern border of the property. The gate is attended by a guard employed by the company.

Permission to take photographs during the site tour was not granted; therefore, photographs are not included in the site file. The site tour was completed at 10:00 a.m.

4.0 SITE ASSESSMENT

The following subsections describe the information gained through the records search, interviews, and site walkover of the Carborundum Site.

4.1 Site History

The Carborundum waste storage area was used for an unknown period of time to store sand, grinding wheels, refractory brick, fly ash, dust collector fines, wood, metal, kiln furniture, aluminum-silica shot, silicon carbide fines, and other scrap materials. Storage of these waste materials was discontinued in 1979 and remaining wastes were removed in 1985 by Modern Disposal Services, Inc. (Ecology and Environment, 1990 and Venturin, 1990). The site was subsequently covered with crushed stone. Visual observations made during the site tour revealed evidence of refractory brick, sand, and silicon carbide fines in the former waste storage area.

The waste storage site is currently used to store scrap metal and wooden pallets, hoppers containing aluminum oxide, and piles of concrete rubble and soil. The scrap metal is periodically removed and recycled by a scrap metal dealer. The aluminum oxide materials are generated and reused in the manufacturing process. Dust fines generated during the manufacture of abrasive grains are collected in baghouses and either reused or sent to the company's Canadian plant for use in its manufacturing process. Paper, garbage, and wood wastes generated at the facility are disposed through Modern Disposal Services, Inc.

From 1901 to 1978 the Carborundum Corporation owned the property. In 1978, Electro Minerals (U.S.), Inc., owned by the Carborundum Corporation, was purchased by Kennecott Copper. In June of 1981, the property was purchased by Standard Oil of Ohio, and in 1987, Washington Mills Abrasives purchased Electro Minerals (U.S.), Inc. from Standard Oil of Ohio.

All of the owners stated above used the Electro Minerals (U.S.), Inc. facility to manufacture refractory products and/or abrasive grains from silicon carbide, aluminum oxide, graphite, and boron carbide. The manufacturing processes included crushing, sorting, bagging, and arc furnace operations. Building 82 was used to manufacture silicon carbide. In 1981 these operations were discontinued and the building is currently used for storage.

Washington Mills Abrasives, current owners of Electro Minerals (U.S.), Inc. facility (now referred to as Washington Mills Electro Minerals) uses the property to manufacture abrasive grains for sand paper and grinding wheels, and to manufacture refractory brick products. Wastes generated in addition to previously discussed waste streams include acetone, methanol, toluene, waste oils, and greases. These materials are collected by Safety Kleen and

Tonawanda Tank for recycling and/or appropriate disposal. The cleaning solvents are used to wash the grains. These solvents have reportedly never been in contact with the wastes that were stored on the Building 82 Site (Venturin, 1990).

The transformer stored near the waste storage site was labeled as containing less than 50 ppm PCBs and the transformer oil containment pit was reportedly never used (Venturin, 1990).

4.2 Site Topography

Surface topography slopes towards the Niagara River located approximately 650 feet south of the Carborundum Site. With the exception of some sparse weeds and grasses, the storage area is void of vegetation. The nearest wetland is approximately 4.75 miles to the east of the site (NYSDEC, Division of Fish and Wildlife). The Carborundum Building 82 Site is surrounded by several chemical industries and is located in the southern portion of the City of Niagara Falls. The waste storage site is not located in a floodplain (Ecology and Environment, 1990).

4.3 Site Hydrology

The following paragraphs describe what is known about the hydrologic setting at the Carborundum Site. The soils on the Carborundum Site consist of the Odessa-Lakemont-Ovid Association. Generally, these soils are somewhat poorly to very poorly drained and are moderately to fine textured (Soil Conservation Service, 1972).

According to soil borings drilled in 1984, surficial geology consists of crushed stone, sand, cinder, refractory brick, and carbon fines (Thomsen Associates, 1984). Immediately beneath the fill material, silts and clays were encountered. Bedrock of the area is primarily sedimentary in origin and consists of Lockport Dolostone. Bedrock depths range from 10 to 24 feet below ground level. Several of the soil borings encountered standing water at depths of 7 to 12 feet (Ecology and Environment, 1990).

Permeability of soils is 10^{-4} to 10^{-8} cm/sec while permeability of the bedrock is 10^{-2} to 10^{-4} cm/sec (Ecology and Environment, 1990).

Groundwater flow is expected to flow southward, towards the Niagara River. An industrial pumping well for non-contact water is located at the Olin Chemical Plant, approximately one-half mile to the northeast. The pumping action of this well may influence groundwater to flow towards the well (Ecology and Environment, 1990).

The City of Niagara obtains its drinking water from the Niagara River. The intakes for the river water are located upstream from the site; therefore, are not threatened by any potential contamination from this site. The nearest drinking water well is greater than 3 miles away. An industrial pumping well is located approximately one-half mile from the site and is used for non-contact cooling water.

4.4 Contamination Assessment

No sampling data exists for the waste storage area. A grab sample of soil was taken from the concrete containment pit adjacent to the waste storage area and analyzed for PCBs (Venturin, 1990). Analysis revealed concentrations of Aroclor 1260 of 0.0012 milligram per liter (ppm) and 0.55 microgram per gram (ppm) which are lower than the NYSDEC maximum allowable concentration of 50 ppm PCBs for hazardous waste characterization (6 NYCRR 371.4(d)(6)(e)). Results of this analysis is attached as Appendix D.

Split-spoon samples were collected at five locations along Adams Avenue (Figure 2) by Earth Dimensions, Inc., in November of 1984. These samples were taken in connection with the installation of the Adams Avenue storm sewer. Analysis of these samples was conducted by Advanced Environmental Systems, Inc. Laboratory results indicated the presence of volatile organic compounds, phenols, and total mercury (AES, 1984). Because these sample locations are upgradient of the waste storage area, it is unlikely that the results are attributable to the Carborundum Site.

5.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

5.1 Hazardous Waste Deposition

Information collected by Jordan did not confirm hazardous waste deposition at the Carborundum Site. The information reviewed by Jordan indicates that wastes were temporarily stored, but not disposed of or landfilled at the site. Wastes stored on-site include scrap metal, wood, sand, fly ash, refractory brick, and silicon carbide fines. These wastes are not considered to be hazardous under 6 NYCRR 371.1(d). The type of manufacturing processes used and products made on-site (abrasive grains and refractory brick) are not associated with the generation of hazardous wastes. Therefore, it is unlikely that hazardous wastes are present in any significant quantity at the Building 82 storage site.

The transformer oil containment pit was sampled and analyzed for PCB's in 1984. Sample results revealed PCB in concentrations below RCRA maximum allowable concentrations of 50 ppm for hazardous waste characterization.

5.2 Significant Threat Determination

The Carborundum Building 82 waste storage site does not pose a significant threat to human health and the environment. There is no evidence of hazardous waste disposal at this site and no documented contravention of standards. Access to the site is limited, as it is secured by a chain-link fence, and guarded. There are no wetlands or drinking water wells within 3 miles of the site. Public drinking water intake pipes on the Niagara River are located upstream of the site.

5.3 Recommendations

Based on the information reviewed and on the documentation of the types of waste stored at the site, Jordan recommends the Carborundum Site be delisted from the suspected inactive hazardous waste registry.

Information collected and reviewed by Jordan revealed the following:

- There is no evidence or documentation of hazardous waste disposal.
- The wastes stored at the site included sand, refractory brick, dust collector fines, grinding wheels, scrap metal, wood, kiln furniture, silicon carbide fines, and aluminum-silica shot. These wastes are not defined as hazardous by 6 NYCRR 371.1(d).

- There is no evidence of any landfilling activities.
- PCBs were detected at levels of 0.0012 ppm and 0.55 ppm, well below NYSDEC maximum allowable concentration for nonhazardous waste (50 ppm) (6 NYCRR 371.4(d)(6)(e)).
- The solvents used on-site to rinse abrasive grains (e.g. methanol, acetone, and toluene), have reportedly had no contact with wastes previously stored on the site.
- The site is located downstream from public drinking water intakes on the Niagara River.
- The site is secured by a chain-link fence and guarded.
- The site is not located near wetlands or drinking water wells (both at least three miles away).

Based on these findings, it is Jordan's recommendation that the Carborundum Building 82 Site be delisted from the suspected inactive hazardous waste registry.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

NCHD Niagara County Health Department
NYSDEC New York State Department of Environmental Conservation
NYSDOH New York State Department of Health

PCBs polychlorinated biphenyls
ppm parts per million
PSA Preliminary Site Assessment

REFERENCES

Advanced Environmental Systems, Inc. (AES), 1984. Investigation Prior to the Installation of the Adams Avenue Storm Sewer Analysis of Soil Samples Collected December 7, 1984, Report Prepared for Standard Oil of Ohio Electro Minerals Company, December 7, 1984.

City of Niagara Falls, Tax Assessor's Office, City Hall, Niagara Falls, New York.

Ecology and Environment Engineering, P.C., 1990. "Engineering Investigations at Inactive Hazardous Waste Sites, Phase I Investigations, Carborundum Building 82, Site Number 932048B", Prepared for New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, January, 1990.

Johnston, R.H. Groundwater in the Niagara Falls Area, New York, State of New York Conservation Department, Water Resources Commission Bulletin GW-53.

New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Central Office, Albany, New York, Contact: Sri Maddineni.

New York State Department of Environmental Conservation, Region 9, Division of Solid and Hazardous Waste, 584 Delaware Avenue, Buffalo, New York, Contact: Yavuz Erk.

New York State Department of Environmental Conservation, Region 9, Division of Fish and Wildlife, Wetland Maps, 600 Delaware Avenue, Buffalo, New York.

New York State Department of Health, Corning Tower, The Governor Nelson A. Rockefeller Empire State Plaza, Albany, New York.

New York State Department of Health, Regional Office, 584 Delaware Avenue, Buffalo, New York, Contact: Cameron O'Connor.

New York State Department of Transportation, 1989. Topographic Map, Niagara Falls Quadrangle.

Niagara County Health Department, 10th and East Falls Street, Niagara Falls, New York, Contact: Paul Dicky.

Niagara County Soil and Water Conservation District, Farm and Home Center, 4487 Lake Avenue, Lockport, New York 14094, Contact: Richard Tillman.

REFERENCES
(Continued)

Soil Conservation Service, 1972. "Soil Survey of Niagara County, New York", Soil Conservation Service 4487 Lake Avenue, Lockport, New York, October 1972.

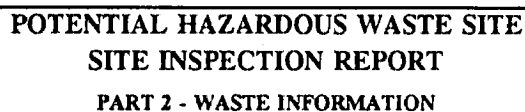
Thomsen Associates, Proposed SIC Facility, SOHIO Electro Minerals Company, Niagara Falls, New York, August 13, 1984.

Venturin, Dean E., 1990. Manager Environmental Health and Safety, Washington Mills Electro Minerals Corporation, 1801 Buffalo Avenue, Niagara Falls, New York 14302.
Interview with Roger Bondeson, E.C. Jordan Co., Portland, Maine, July 25, 1990.

APPENDIX B

SITE INSPECTION REPORT
(USEPA FORM 2070-13)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 1 - SITE LOCATION AND INSPECTION INFORMATION		I. IDENTIFICATION			
		01 STATE New York		01 SITE NUMBER D042513754	
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site) Carborundum Building 82			02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 1801 Buffalo Avenue		
03 CITY Niagara Falls		04 STATE New York	05 ZIP CODE 14302	06 COUNTY Niagara	07 COUNTY CODE 08 CONG. DIST
09 COORDINATES LATITUDE 43° 05' 02" _		LONGITUDE 079° 02' 14" _			
10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER _____ <input type="checkbox"/> G. UNKNOWN _____					
III. INSPECTION INFORMATION					
01 DATE OF INSPECTION 7 / 25 / 90 MONTH DAY YEAR		02 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE		03 YEARS OF OPERATION 1901 BEGINNING YEAR ENDING YEAR UNKNOWN	
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR _____ (Name of firm) <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR _____ (Name of firm) <input type="checkbox"/> E. STATE <input checked="" type="checkbox"/> F. STATE CONTRACTOR _____ (Name of firm) <input type="checkbox"/> G. OTHER _____ (Specify)					
05 CHIEF INSPECTOR Roger L. Bondeson		06 TITLE Environmental Scientist		07 ORGANIZATION E.C. Jordan Co.	
09 OTHER INSPECTORS Kathy Lanois		10 TITLE Environmental Scientist		11 ORGANIZATION E.C. Jordan Co.	
				()	
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				()	
				()	
13 SITE REPRESENTATIVES INTERVIEWED		14 TITLE	15 ADDRESS		16 TELEPHONE NO. ()
Dean E. Venturin		Manager, Environmental	Washington Mills Electro Minerals P.O. Box 423, 1801 Buffalo Avenue		(716) 278-6763
		Health & Safety	Niagara Falls, New York		()
					()
					()
					()
					()
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT		18 TIME OF INSPECTION 8:30 am		19 WEATHER CONDITIONS Sunny, 76° F	
IV. INFORMATION AVAILABLE FROM					
01 CONTACT Sri Maddineni		02 OF (Agency/Organization) New York State Department of Environmental Conservation			03 TELEPHONE NO. (518) 457-0638
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Roger L. Bondeson		05 AGENCY	06 ORGANIZATION E.C. Jordan Co.	07 TELEPHONE NO. (207) 775-5401	08 DATE 7 / 25 / 90 MONTH DAY YEAR



01 STATE
New York

01 SITE NUMBER
D042513754

01 PHYSICAL STATES (Check all that apply)

X	A. SOLID		E. SLURRY
X	B. POWDER, FINES	--	F. LIQUID
-	C. SLUDGE	--	G. GAS
-	D. OTHER		

(Specify)

TONS unknown
CUBIC YARDS _____
NO. OF DRUMS _____

- A. TOXIC	- E. SOLUBLE	- I. HIGHLY VOLATILE
- B. CORROSIVE	- F. INFECTIOUS	- J. EXPLOSIVE
- C. RADIOACTIVE	- G. FLAMMABLE	- K. REACTIVE
- D. PERSISTENT	- H. IGNITABLE	- L. INCOMPATIBLE
		- M. NOT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			Temporary storage area for sand, fly ash, fire
OLW	OILY WASTE			brick, dust collector fines, kiln furniture, wood,
SOL	SOLVENTS			grinding wheels, aluminum-silica shot, fiber and
PSD	PESTICIDES			metal scrap. No waste has been landfilled. The
OCC	OTHER ORGANIC CHEMICALS			area is not now in use.
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

[illegible]

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

0042513754

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION

There is potential for contamination; site is not lined.

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: > 10,000 04 NARRATIVE DESCRIPTION

Potential for surface water is present, site is approximately 600 feet from the Niagara River. Potential is low because waste is no longer being stored on-site.

01 ☒ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: > 10,000 04 NARRATIVE DESCRIPTION

Potential is low as waste is no longer being stored on-site.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 04 NARRATIVE DESCRIPTION

Waste no longer present in storage area.

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION

Potential for direct contact is low-waste is removed and site is graded over with fill.

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 04 NARRATIVE DESCRIPTION

Potential for soil contamination is higher; waste was placed directly on ground surface. Only workers would be exposed as site is guarded and fenced.

01 ☐ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: < 10 04 NARRATIVE DESCRIPTION

Potential is low; water intake for Niagara Falls is located upstream in the Niagara River.

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 04 NARRATIVE DESCRIPTION

Potential for worker exposure is low; waste has been removed and site graded over with fill.

01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10-100 04 NARRATIVE DESCRIPTION

Potential is low; waste has been removed and site graded over with fill. Site is also fenced and guarded.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☒ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

Potential for damage to fauna is low; area is fenced, there is no vegetation and waste has been removed.

01 ☐ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
(Spills/Runoff/Standing liquids, Leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 100-10,000 04 NARRATIVE DESCRIPTION

Potential is low; waste has been removed from site and is covered with fill. Only workers would be exposed because site is fenced and heavily guarded.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Potential appears to be low; waste has been removed from site.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTs 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Unknown. Potential appears to be low; waste has been removed from site.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

No potential. Site is fenced, grounds are guarded.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

A transformer oil containment pit is located adjacent to the waste storage area. A composite sample was taken from this pit. PCBs were detected at 0.0012 ppm and 0.55 ppm.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 18,750

IV. COMMENTS

No evidence or documentation of hazardous waste disposal was discovered.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (specify)				
<input type="checkbox"/> H. LOCAL (specify)				
<input checked="" type="checkbox"/> I. OTHER (specify)	SPDES NYD001367481			For cooling water discharge
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (check all that apply)	05 OTHER <input checked="" type="checkbox"/> A. BUILDINGS ONSITE
<input type="checkbox"/> A. SURFACE IMPOUNDMENT	_____	_____	<input type="checkbox"/> A. INCINERATION	06 AREA OF SITE _____ (acres)
<input type="checkbox"/> B. PILES	_____	_____	<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND	_____	_____	<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND	_____	_____	<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND	_____	_____	<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL	_____	_____	<input checked="" type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM	_____	_____	<input checked="" type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input checked="" type="checkbox"/> H. OPEN DUMP	unknown	_____	<input type="checkbox"/> H. OTHER (specify)	
<input type="checkbox"/> I. OTHER (specify)	_____	_____		

07 COMMENTS

There is no documentation that hazardous wastes were stored on-site.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

No liners in use.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Site is fenced and guarded, waste has been removed.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

0042513754

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY
(check as applicable)

COMMUNITY
NON-COMMUNITY

SURFACE WELL
A. ☒ B. ☐
B. ☐ B. ☐

02 STATUS

ENDANGERED AFFECTED MONITORED
A. ☐ B. ☐ C. ☒
D. ☐ E. ☐ F. ☐

03 DISTANCE TO SITE

A. 2 (mi)
B. (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (other sources available)
☒ C. COMMERCIAL INDUSTRIAL IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSABLE
COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

02 POPULATION SERVED BY GROUNDWATER 0

03 DISTANCE TO NEAREST DRINKING WATER WELL > 3 (mi)

04 DEPTH TO GROUNDWATER

9 (ft)

05 DIRECTION OF GROUNDWATER FLOW

southwest

06 DEPTH TO AQUIFER OF CONCERN

9 (ft)

07 POTENTIAL YIELD OF AQUIFER

unknown (gpd)

08 SOLE SOURCE AQUIFER

☐ YES ☒ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

A well drawing water from the aquifer of concern is used for non-contact cooling processes. This well is located approximately 4/10 mile to the northeast on the Olin Corp. property.

10 RECHARGE AREA

☒ YES ☐ NO
COMMENTS - Bedrock aquifer can be recharged by precipitation seeping through soil.

11 DISCHARGE AREA

☐ YES ☒ NO
COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

AFFECTED DISTANCE TO SITE

Niagara River

600 feet

Lake Ontario

14

(mi)

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE TWO (2) MILES OF SITE THREE (3) MILES OF SITE

A. 18,758
NO. OF PERSONS

B. 39,797
NO. OF PERSONS

C. 58,663
NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

0.25 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

17,710

04 DISTANCE TO NEAREST OFF-SITE BUILDING

100 feet

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within written vicinity of site, e.g., rural, village, densely populated urban area)

This site is in a highly industrialized area. A densely populated urban area is located within a half-mile radius of this site.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

0042513754

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-9} - 10^{-8} cm/sec ☒ B. 10^{-4} - 10^{-6} cm/sec ☐ C. 10^{-4} - 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE
(Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE
(10^{-4} - 10^{-6} cm/sec) ☒ C. RELATIVELY PERMEABLE
(10^{-2} - 10^{-4} cm/sec) ☐ D. VERY PERMEABLE
(Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

9 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (ft)

05 SOIL Ph

5.6 - 7.6

06 NET PRECIPITATION

4 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.5 (in)

08 SLOPE

SITE SLOPE

0.1 %

DIRECTION OF SITE SLOPE

southwest

TERRAIN AVERAGE SLOPE

0.1 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

10

SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. > 3 (mi)

B. 3.5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 3 (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

A. 0 (mi)

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

B. 1,500 feet

AGRICULTURAL LANDS
PRIME AG LAND

C. 1.5 (mi)

AG LAND

D. 1.5 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is located 1-3/4 miles east of the American Falls in the City of Niagara Falls, New York; Niagara Co. It is 600 feet north of the Niagara River in a highly industrialized southern section of the city. This area is characterized by numerous chemical plant facilities. Residential areas are located approximately 1,500 feet to the north of the site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. SAMPLES TAKEN - No samples were collected during this PSA Task 1

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU Air Monitoring	No readings above background noted

IV. PHOTOGRAPHS AND MAPS

01 TYPE GROUND AERIAL	02 IN CUSTODY OF NYSDEC (Name of organization or individual)
03 MAPS X YES NO	04 LOCATION OF MAPS Sri Maddineni, NYSDEC, Albany, New York

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

No other field data was collected for this PSA Task 1.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION**

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

0042513754

II. CURRENT OWNER(S)

01 NAME
Electro Minerals (U.S.), Inc.

02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)
Buffalo Avenue

04 SIC CODE

05 CITY
Niagara Falls

06 STATE
New York

07 ZIP CODE
14302

PARENT COMPANY (If applicable)

08 NAME
Washington Mills Abrasives

09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)
20 North Main Street

11 SIC CODE

12 CITY
North Grafton

13 STATE
MA

14 ZIP CODE

01 NAME

02 D+B NUMBER

08 NAME

09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

10 STREET ADDRESS (P.O. Box, RFD #, etc.)

11 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

12 CITY

13 STATE

14 ZIP CODE

01 NAME

02 D+B NUMBER

08 NAME

09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

10 STREET ADDRESS (P.O. Box, RFD #, etc.)

11 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

12 CITY

13 STATE

14 ZIP CODE

01 NAME

02 D+B NUMBER

08 NAME

09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

10 STREET ADDRESS (P.O. Box, RFD #, etc.)

11 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

12 CITY

13 STATE

14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME
Carborundum

02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)
Buffalo Avenue

04 SIC CODE

05 CITY
Niagara Falls

06 STATE
New York

07 ZIP CODE
14302

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME

02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

01 NAME

02 D+B NUMBER

01 NAME

02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

05 CITY

06 STATE

07 ZIP CODE

01 NAME

02 D+B NUMBER

01 NAME

02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

05 CITY

06 STATE

07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION**

I. IDENTIFICATION

01 STATE
New York

01 SITE NUMBER
D042513754

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (If applicable)

01 NAME
Washington Mills Electro Minerals

02 D+B NUMBER

10 NAME
Washington Mills Abrasives

11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)
Buffalo Avenue

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)
20 North Main Street

13 SIC CODE

05 CITY
Niagara Falls

06 STATE
New York

07 ZIP CODE
14302

14 CITY
North Grafton

15 STATE
MA

16 ZIP CODE

08 YEARS OF OPERATION
2

09 NAME OF OWNER

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATOR'S PARENT COMPANIES (If applicable)

01 NAME
Carborundum Corp.

02 D+B NUMBER

10 NAME
Standard Oil of Ohio

11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)
Buffalo Avenue

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY
Niagara Falls

06 STATE
New York

07 ZIP CODE

14 CITY
Cleveland

15 STATE
OH

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER

01 NAME

02 D+B NUMBER

10 NAME

11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER

01 NAME

02 D+B NUMBER

10 NAME

11 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. ON-SITE GENERATOR

01 NAME Washington Mills Electro Minerals	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Buffalo Avenue	04 SIC CODE	
05 CITY Niagara Falls	06 STATE New York	

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME Modern Disposal Services, Inc.	02 D+B NUMBER	01 NAME	02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Model City Road	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY Lewiston	06 STATE New York	07 ZIP CODE 14092	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. PAST RESPONSE ACTIVITIES

01 A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE <u>unknown</u>	03 AGENCY
N/A		
01 E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE <u>unknown</u>	03 AGENCY
N/A		
01 F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 X G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION	02 DATE <u>1985</u>	03 AGENCY
Wastes stored at the site were removed by Modern Disposal Services, Inc. in 1988.		
01 H. ON SITE BURIAL 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 L. ENCAPSULATION 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 N. CUTOFF WALLS 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		
01 Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE	03 AGENCY
N/A		



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE
New York

01 SITE NUMBER
D042513754

II. PAST RESPONSE ACTIVITIES (Continued)

01 04	R. BARRIER WALLS CONSTRUCTED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	S. CAPPING/COVERING DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	T. BULK TANKAGE REPAIRED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	U. GROUT CURTAIN CONSTRUCTED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	V. BOTTOM SEALED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	W. GAS CONTROL DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	X. FIRE CONTROL DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	Y. LEACHATE TREATMENT DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	Z. AREA EVACUATED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	X 1. ACCESS TO SITE RESTRICTED DESCRIPTION	02 DATE 1987	03 AGENCY
Site is fenced and the grounds are guarded.			
01 04	2. POPULATION RELOCATED DESCRIPTION	02 DATE	03 AGENCY
N/A			
01 04	3. OTHER REMEDIAL ACTIVITIES DESCRIPTION	02 DATE	03 AGENCY
N/A			

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE

New York

01 SITE NUMBER

D042513754

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

Phase I Investigation by Ecology and Environment Engineering, P.C., January 1990.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, January 1991, E.C. Jordan Co., and references cited therein.

APPENDIX C
INTERVIEW DOCUMENTATION FORMS

E.C. Jordan Co.
Work Assignment No. D002472-6

New York State Department of Environmental Conservation
Preliminary Site Assessments

INFORMATIONAL INTERVIEW

Job No: 6291-20

Date: 7/19/90

Site: Carborundum Building 82 Site

Telephone: In-Person X

Between: Roger Bondeson
E.C. Jordan Co.

and: Dean E. Venturin, Manager
Environmental Health & Safety
Washington Mills Electro Minerals

Affiliation: _____

Signature: Roger Bondeson

Signature: Dean E. Venturin

The Carborundum Building 82 Site is now owned by Washington Mills Electro Minerals Corporation, a subsidiary of Washington Mills Abrasives. Property was purchased in December 1986.

Previous owners include Standard Oil 1981-1986; Kennocott Copper 1978-1981; and Carborundum 1901-1978.

All companies including current ownership manufactured abrasive grains from silicon carbide, aluminum oxide, and boron carbide.

Processes at the plant include crushing, bagging, and arc furnace processing.

The Carborundum Building 82 Site was used prior to 1985 to store wastes such as sand, fly ash, fire bricks, dust collector fines, kiln furniture made of ceramic materials, silicon carbide fines, and aluminum oxide fines.

The wastes stored at the Carborundum Building 82 Site were removed and disposed of by Modern Disposal Services, Inc. 1985.

Waste disposal practices since 1985 include the recycling of dust collector fines and scrap metal. Other solid wastes are disposed of in the Modern Landfill. Dust fines consist of aluminum oxide (Al₂O₃).

Spent cleaning solvents used to rinse abrasive grains and waste oils in other areas of the plant are collected and removed by Safety Kleen and Tonawanda Tank.

Cleaning solvents used to rinse grains include methanol, toluene, and acetone. These solvents were not used near the Building 82 Site nor were they in contact with wastes previously sorted on the Building 82 Site.

The storage site is now used to store scrap metal, concrete, rubble, soil, pallets, and hoppers containing chunks of Al₂O₃.

Storm drain waters are discharged to the City of Niagara Falls storm sewer system in accordance with a SPDES permit issued by the city.

INFORMATIONAL INTERVIEW

Job No: 6291-20

Date: 7/19/90

Site: **Carborundum Building 82 Site**

Telephone: _____ In-Person X

Between: Roger Bondeson
E.C. Jordan Co.

and: Environmental Health & Safety
Washington Mills Electro Minerals

Affiliation: _____

Signature: *[Handwritten Signature]*

Signature:

Noncontact cooling water is discharged into the Niagara River in accordance with a SPDES permit issued by NYSDEC.

The Carborundum Building 82 was used for the manufacture of abrasive crude from silicon carbide. Since 1981, Building 82 has been used for storage.

A concrete pit located on the southwest side of the waste storage area was constructed to contain transformer oil leaks from mobile tank trailers that were parked near the pit. The concrete pit was reportedly never used. A grab sample was taken from the pit several years ago and analyzed for PCB's. PCB's were not detected. The pit is currently covered with metal sheets and serves no function to plant operations.

The transformer located south of Building 83 of the Washington Mills Electro Minerals property contains less than 50 ppm of PCB.

Two underground storage tanks have been closed out in accordance with NYSDEC regulations. These tanks are not located in the waste storage area.

Chrome oxide is used by Washington Mills Electro Minerals to color final products such as grinding wheels. Chrome oxide is not stored or disposed of on the Carborundum Building 82 Site. As chrome oxide is used to color final products, no chrome oxide waste is produced.

APPENDIX D

PCB ANALYSIS FOR TRANSFORMER

OIL CONTAINMENT PIT



ACTS TESTING LABS, INC.

3900 Broadway • Buffalo, N.Y. 14227-1192 • (716) 684-3300

TECHNICAL REPORT 4-4893

August 27, 1984

Mrs. Jill Knickerbocker
SCA CHEMICAL SERVICES

OBJECT:

Analysis of one "composited" sample for Polychlorinated Biphenyl (PCB's). Five samples were received on August 14, 1984 from Mrs. Jill Knickerbocker. The samples were labeled Carborundum Pit Samples and, were combined by this laboratory into one composite sample. PCB analyses were performed on both the Aqueous and Sludge Layers.

RESULTS:

165. Aqueous Layer

Sludge Layer

PCB'S

0.0012 Milligrams per liter

0.55 Micrograms per gram

Note: The PCB concentrations are reported as
Aroclor 1260.

ppm

ug/g

or ppm

EXPERIMENTAL:

Five hundred Milliliters (Mls) of the Aqueous Layer were extracted three times with 60 Mls of Methylene Chloride, concentrated in a Kuderna-Danish apparatus to 2 Mls, crossed over into Hexane, re-concentrated to 2 Mls, reacted (cleaned) with Sulfuric Acid and Mercury, and two Microliters injected into a Shimadzu Gas Chromatograph.

The sludge layer (20 Grams) was extracted 16 hours in a Soxhlet apparatus with Methylene Chloride, concentrated to 2 Mls in a Kuderna-Danish Apparatus, crossed into Hexane, re-concentrated to 2 Mls, reacted with Sulfuric Acid and Mercury, and two Microliters injected into the Shimadzu Gas Chromatograph.

ACTS TESTING LABS. INC.

Mrs. Jill Knickerbocker
SCA CHEMCIAL SERVICES

August 27, 1984
PAGE # 2
TECHNICAL REPORT # 4-4893

The Gas Chromatograph is equipped with a Ni-63, Electron Capture Detector which is monitored with a Shimadzu Microprocessor. A 25 Meter Silicone coated capillary column, held isothermally at 220° C, was used to effect separation. The chromatograph was calibrated with known concentrations of Aroclor 1260.

ACTS TESTING LABS, INC.


Elmer K. Gerbracht
Technical Director

d1



TO ACTS
3900 Broadway
CHAIN OF CUSTODY

No 088

SCA CHEMICAL SERVICES, INC.
1550 Balmer Rd.
MODEL CITY, NEW YORK 14107

SAMPLERS (signature)

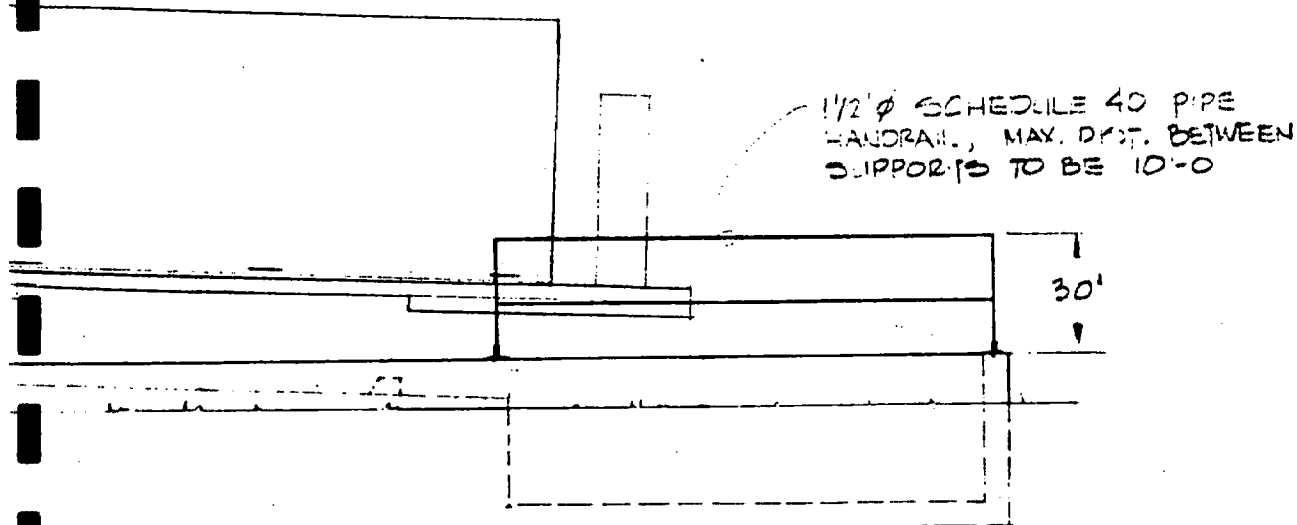
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE	NO. OF CONTAINERS	ANALYSIS REQUIRED
borerunning at samples		8-3-84		grab	5	all 5 composites + run PCBs on water phase and on solids phase

Relinquished by: (signature) <i>Joe Krueberbach</i>	Received by: (signature) <i>Frank L. Clark</i>	Date/Time 12:00 AM 8-14-84
Relinquished by: (signature) <i>Frank L. Clark</i>	Received by: (signature) <i>Joe Krueberbach</i>	Date/Time 8-14-84 2:30
Relinquished by: (signature)	Received by: (signature)	Date/Time
Relinquished by: (signature)	Received by: (signature)	Date/Time
Dispatched by: (signature)	Date/Time	Received by: (signature) Date/Time


Method of Shipment: _____
Receiving Laboratory: _____

NOTE: PLEASE SUBMIT THIS FORM WITH ALL REPORTS!

*TANK TRAILER SHOWN IN APPROX. LOCATION
(2000 GAL. STORAGE TANK)



SCALE: 1/4" = 1'-0"

REV.	 CARBORUNDUM ELECTRO MINERALS DIVISION	
	SUBJECT- <u>OIL TANK STORAGE PAD</u>	
	LOCATION- <u>WEST OF BUILDING 95</u>	
	SCALE- _____	DATE- <u>MAY, 18, 1978</u>
	DRAWN- <u>S. GREENWALD</u>	CHECKED- _____
	TRACED- _____	APPROVED- _____
	JOB NO. _____	
	DWG. NO. <u>501672</u>	
	REV. _____	

CUST-SOHIO ELECTRO MINERALS CO CITY - NIAGARA FALLS NY

ID#- 06460000

TC#-0035

SUB NAME SPARE TRANSFORMER UNIT#- **MOBILE** OTHER -

LOCATION - OUTDOOR/

NAMEPLATE DATA

ADDITIONAL EQUIPMENT

MFG- GE
 DATE MFG -
 S/N- C863469
 KVA- 1,500
 PRI- 12,000
 SEC- 480

EQUIP TYPE - TRANSFORMER
 TRANS CLASS -
 IMPEDENCE - 5.94%
 PHASE/CYCLE - 3/60
 LIQUID TYPE - OIL
 GAL LIQUID - 590

RADIATORS - YES
 FANS - NO
 H2O COOLED - NO
 OIL PUMPS - NO
 TOP FPV - 1.00 INCH
 BOTTOM FPV - .50 INCH

CONSERVATOR- NO
 TAP CHANGER- NO
 BUSHING LOC- SIDE
 RECLAIMER -
 POWER V/A -
 OTHER ACCESS -

VISUAL INSPECTION

-- PCB CONTENT/EXPRESSED IN PPM --

PAINT CONDITION-FAIR LEAKS-NONE

DATE OF	1242	1254	1260	TOTAL
SERVICE AROCLOR	AROCLOR	AROCLOR	AROCLOR	CONTENT
11/02/79			18	18

-- FIELD SERVICE --

COLOR LABEL	GREEN	CLASS -

LIQUID SCREEN TEST DATA

DATE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
4/00/75				.040 AC	32.2 AC	40 AC	0.75 AC	0.886 AC	CLEAR AC	NONE AC
3/00/76				.020 AC	31.4 QU	45 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
1/00/78				.020 AC	32.8 AC	45 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
12/00/78				.020 AC	32.7 AC	41 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
10/00/79				.040 AC	37.9 AC	39 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
10/00/80				.030 AC	35.6 AC	40 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
10/00/81				.020 AC	36.4 AC	37 AC	0.75 AC	0.880 AC	CLEAR AC	NONE AC
11/00/82				.020 AC	36.8 AC	36 AC	1.00 AC	0.880 AC	CLEAR AC	NONE AC
10/12/83	NORMAL	20 C	0.0	.020 AC	37.8 AC	27 QU	1.00 AC	0.880 AC	CLEAR AC	NONE AC
10/10/84	NORMAL	20 C	0.0	.030 AC	36.6 AC	37 AC	1.00 AC	0.880 AC	CLEAR AC	NONE AC

COMMENTS TRANSFORMER OIL TEST DATA ACCEPTABLE, HOWEVER STUDIES INDICATE OXIDATION BY-PRODUCTS TRAPPED IN INSULATION.

GAS-IN-OIL ANALYSIS/GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS	EVALUATION

* THIS TEST IS AN INVALUABLE TOOL USED TO EVALUATE THE OPERATION OF IN-SERVICE AND

* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.