



## Jack Eisenbach Engineering, P.C.

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June 12, 2003

Peter S. Onderkirk, P.E.  
Environmental Engineer II  
New York State Department of Environmental Conservation  
Division of Hazardous Waste Remediation  
Region 6  
317 Washington Street  
Watertown, NY 13601-3787

Re: *General Cable Site*  
*- Rod Mill Parcel Closure Report*

Dear Mr. Onderkirk:

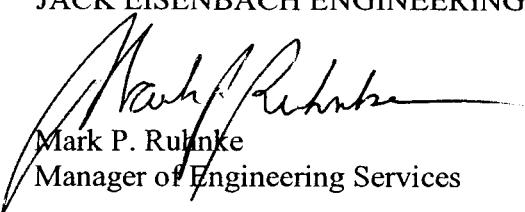
Jack Eisenbach Engineering, P.C., ("JEE") is submitting this Remedial Action Closure Report as an Amendment to the Rod Mill Parcel Closure Report that was previously submitted to the Department on April 26 2001. This Remedial Action Closure Report documents the remediation work completed for the petroleum contamination associated with the former 150,000-gallon above ground storage tank located on the south side of the Rod Mill Parcel.

The report is being submitted to satisfy the work plan obligations of Charles Gaetano for the Rod Mill Parcel, under the Voluntary Remedial Agreement (VRA) with the New York State Department of Environmental Conservation (Index # D6-001-97-07).

If the Department agrees with the work completed, and cleanup levels attained, JEE asks that the Department approve this Amendment to the Closure Report and issue a "no further action letter" for the Rod Mill Parcel.

Please contact me with any questions.

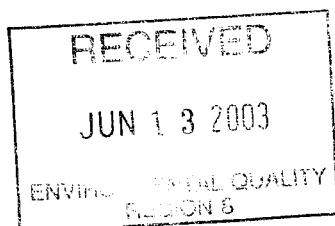
JACK EISENACH ENGINEERING, P.C.

  
Mark P. Ruhnke  
Manager of Engineering Services

C02517-15

Enclosures

cc: Charles Gaetano (w/copy of Report)  
Barry R. Kogut, Esq. (w/copy of Report)



**ROD MILL PARCEL**

**REMEDIAL ACTION  
CLOSURE REPORT**

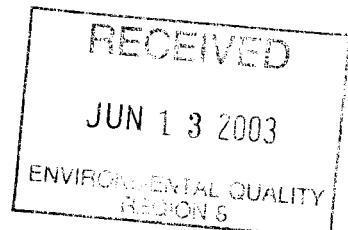
**(Amendment to  
Environmental Remediation Closure Report  
April 26, 2001 )**

Voluntary Remedial Agreement  
(Charles Gaetano-New York State Department  
of Environmental Conservation)  
Index # D6-0001-97-07



**Jack Eisenbach Engineering, P.C.**

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**ROD MILL PARCEL**

**REMEDIAL ACTION  
CLOSURE REPORT**

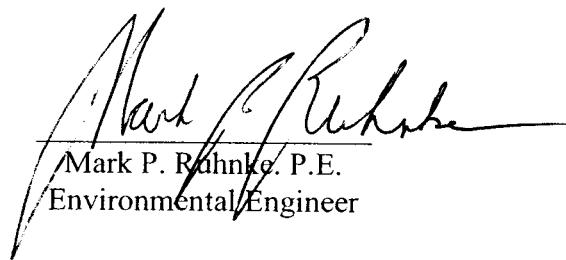
**(Amendment to  
Environmental Remediation Closure Report  
April 26, 2001)**

Voluntary Remedial Agreement  
(Charles Gaetano-New York State Department  
of Environmental Conservation)  
Index # D6-0001-97-07

JEE Project No: 8514

*Prepared For:*  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
State Office Building  
317 Washington Street  
Watertown, New York

*Prepared By:*  
JACK EISENBACK ENGINEERING, P.C.  
291 Genesee Street  
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Mark P. Ruhnke, P.E.  
Environmental Engineer

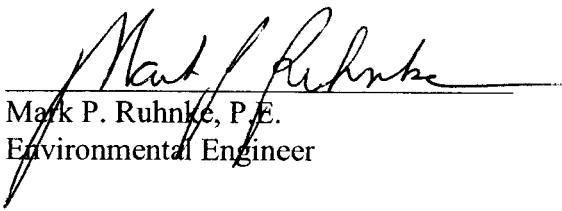
DATE ISSUED: May 30, 2003

Engineer's Certification

This is to certify that the Volunteer's work activities described within the Rod Mill Parcel Remedial Action Report (Amendment to Environmental Remediation Closure Report, dated May 23, 2001) were performed in full accordance with the Rod Mill Parcel Petroleum Spill Remediation Work Plan, which was approved by the department on January 7, 2002.

All work has been completed under Voluntary Remedial Agreement (VRA) between Charles Gaetano and the New York State Department of Environmental Conservation (Index #D6-0001-97-07).

Jack Eisenbach Engineering, P.C.

  
Mark P. Ruhnke, P.E.  
Environmental Engineer



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- Appendix D      Laboratory Report of Analysis
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## **1.0 INTRODUCTION**

Jack Eisenbach Engineering, P.C. (“Engineer”) is submitting this Remedial Action Closure Report as an Amendment to the Rod Mill Parcel Closure Report, that was previously submitted to the New York State Department of Environmental Conservation (“Department”) on April 26 2001. This Remedial Action Closure Report documents the remediation work completed for the petroleum contamination associated with the former 150,000-gallon above ground storage tank, located on the south side of the Rod Mill Parcel.

The scope of work for the petroleum spill remediation is defined in the Rod Mill Petroleum Spill Remediation Work Plan (Petroleum Spill Remediation Work Plan, December 26, 2001). This work plan was approved by the Department on January 7, 2002. All remedial work for the Rod Mill Parcel ha been completed under a Voluntary Remedial Agreement (“VRA”).

The Rod Mill Parcel is part of the former 17-Acre General Cable Site that was subdivided by the City of Rome Planning Board on April 1, 1997. The Rod Mill Property is defined as Parcel No. 5 (6.098 acres) (“Rod Mill Parcel”) in Attachment B of the VRA.

Figure 1 of this report shows the location of the site, Figure 2 shows the 17-Acre General Cable Site, Figure 3 shows the Rod Mill Parcel within the 17-Acre site, Figure 4 shows the remedial work items completed to date, Figure 5 shows the above ground tank system plan, and Figure 6 shows the remedial excavation and closure sampling.

The scope of remediation work for the Rod Mill Parcel petroleum spill has been completed as required in the work plan and is described herein.

## **2.0 REPORT ORGANIZATION**

The remainder of this report is organized into five sections. Section 3.0 details the Petroleum Storage Tank System, Section 4.0 is Geology & Hydrology, Section 5.0 shows the Petroleum Spill Remediation, Section 6.0 has the Conclusions, and Section 7.0 lists the References for this report.

### **3.0 PETROLEUM STORAGE TANK SYSTEM**

The petroleum contamination identified on the Rod Mill Parcel resulted from the failure of the former above ground storage tank system located on the south side of the site (see Figure 3). The storage tank system consisted of a 150,000-gallon (estimated), above ground, single-wall, steel tank. The tank was used for storage of fuel oil (#4) that was used in support of operations for the former General Cable Facility. The oil was used to generate steam for use throughout the facility for manufacturing purposes and for heating.

Review of a 1945 General Cable Corp., Utilities Survey, Gas, Comp Air & Oil, shows the tank with fuel oil supply lines (see Figure 5). The fuel oil lines shown on Figure-5 were uncovered during the remedial excavation. Petroleum contamination was discovered at a union in the fuel-oil piping that went in the north direction toward the former boiler plant. The fuel oil pipe was a 4-inch diameter, steel pipe and was buried 3-feet below grade surface. This pipe originated inside the tank's concrete foundation wall, went through the wall and proceeded northward to the boiler plant.

Two other fuel oil pipes were uncovered during the excavation. These pipes include a 4-inch and 1.5-inch steel pipes that were buried within a single clay-tile pipe. These pipes were noted to go from the tank outward in an eastward direction as shown on Figure-5.

The foundation for the tank consisted of a circular concrete foundation wall that extended down 4-feet where it was supported on a concrete footer. The footer was observed to be 9-inches thick and 2-feet wide. A concrete pad was observed inside the center of the foundation at the surface. This pad was located in the middle of the foundation circle and did not extend to the interior edge of the foundation walls.

### **4.0 GEOLOGY & HYDROLOGY**

The geology observed in the area of the tank consists of a shale bedrock located approximately 20-feet below grade. An alluvial sand and gravel layer is located on top of the bedrock and extends from 20-feet to approximately 11-feet below ground surface. A dense, fractured brown clay was observed above the sand & gravel deposit on the east side of the excavation. This clay layer was approximately 4-feet thick on the east side of the excavation and extended from 11-feet to 7-feet below ground surface. This clay layer became thinner until it disappeared on the west side of the excavation where the sand & gravel layer extended up through to higher elevations. Fill materials, including brick, sand and gravel, were noted in the upper portions of the site from 7-feet below grade to surface.

Ground water was measured to be approximately 12 to 13-feet below ground surface and was defined to be moving in a southerly direction (Spill Investigation, April 26, 2001).

## **5.0 PETROLEUM SPILL REMEDIATION**

Remedial excavation of the petroleum-impacted soil was completed under contract with Paragon Environmental Construction Services (“Contractor”) of Syracuse, New York. The Contractor mobilized on February 10, 2003 and completed all excavation work on February 20, 2003. Inspection of the remedial work and environmental sampling was completed by Jack Eisenbach Engineering, P.C. (“Engineer”). All impacted soil was excavated to the property lines in the north, east and south directions. Excavation in the west direction was stopped at the storm water line. This was based on the need to preserve the utility service, and on previous sampling data to the west of the storm drain showing contaminant levels below TAGM soil clean up levels. Final soil samples were collected on February 20, 2003 for laboratory analysis (see Figure-6 for Excavation and Sampling Plan).

### **5.1 Soil Management During Excavation**

During the excavation, the soil was screened by the field Engineer for petroleum impact. This screening consisted of checking the soil for signs of staining, petroleum odors and for the presence of Volatile Organic Compounds (VOCs) using a PID<sup>1</sup>. Soil that exhibited no signs of impact was stockpiled as clean soil. This clean stockpile included the surface concrete and clean overburden. Upon conclusion of the excavation, this clean soil was used for backfilling the excavation.

Soils that exhibited signs of petroleum impact were stockpiled on site and covered with plastic. The stockpiled, impacted soil was classified for disposal and disposed of off site.

### **5.2 Petroleum Impacted Soil Disposal**

Upon completion of the excavation, 2,154.67 tons of petroleum-impacted soils were excavated and stockpiled on site. This soil was classified as non-hazardous petroleum impacted and was transported by the Contractor and disposed of at the Madison County Landfill located in Wampsville, New York (see Appendix-A for Soil disposal receipts and waste manifests).

### **5.3 Petroleum Impacted Groundwater Disposal**

During the excavation, petroleum impacted ground water and petroleum product was pumped from the excavation. Seven thousand (7,000) gallons of oil/water were pumped from the excavation and disposed of at the Oneida County Water Pollution Control Plant in Utica, New York (see Appendix B disposal records).

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<sup>1</sup> PID-Photoionization detector, used for detection of volatile organic compounds (11.7eV lamp)

## **5.4 Assessment of Excavation and Source of Contamination**

During the excavation, petroleum contamination was observed to be originating from the fuel-oil lines. Oil was identified in the clay pipes that were used to contain the buried fuel-oil lines. The source of oil (the leak) appears to have originated from a coupling/elbow where the fuel-oil line (to the boiler house) enters through the tank foundation. The field observations, and pattern of contamination in this area, defines the oil impact originating at this location. The impact extends outward along the pipes and downward into the soil from this area (please refer to photographs).

As the oil migrated downward, it pooled on top of a brown, fractured clay that was located approximately 7-feet below grade on the east section of the excavation. The top of this clay was discolored gray by the oil on the upper portions. As the clay was excavated, fissures in the clay were observed to be gray indicating oil had penetrated downward through the fissures into the deeper gravel below. On the west side of the excavation the oil impact was observed deeper. Thus is because the oil traveled down from the leak directly into the deeper soils and groundwater. There was no clay present on the west side of the excavation which would have detained the oil and allowed for horizontal migration, as it did on the east side.

The vertical extent was identified from the pipe bedding at approximately 3-feet below grade and extended down to bedrock at 20-feet'. Once the oil reached the groundwater at approximately 12 to 13 feet below ground surface, it dispersed horizontally. The horizontal extents are beyond the property boundaries in the east, north and south directions, as observed from the walls of the open excavation. In the west direction, based on previous soil borings and sampling, impact appears to have extended past the storm water drain but sampling shows concentrations at SB-2, B-1 and B-2 below the TAGM 4046 soil cleanup levels (TAGM 4046, NYSDEC) Refer to Appendix -C for related sampling data from previous investigations (RETEC, 1997) & (Spill Investigation, April 26, 2001).

## **5.5 Closure Sampling**

Soil samples were collected from the walls of the open excavation for assessment. The samples were collected from impacted material along each of the sidewalls. Refer to Table-1 for summary of sample results compared to the NYSDEC TAGM 4046 soil cleanup levels.

The laboratory experienced difficulty in obtaining the required detection levels due to the high levels of contaminants present in the sidewall samples. The two samples (WS-8-19 & WS-12-20) collected in the west direction along the storm water line were analyzed twice, as requested by the project manager of the NYSDEC. The purpose of the second analysis was to dilute the sample and obtain detection limits below TAGM 4046 cleanup standards.

900 6535  
97/13/11  
621277  
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6203193  
Tmz

Based on field observations, petroleum stained soils were left remaining at the property lines along the north, east and south sidewalls of the excavation. The soil sample results from these sidewalls show no compounds above the TAGM soil cleanup objectives. However, the laboratory had difficulty obtaining detection levels due to contaminants being present, and results were reported with elevated detection limits.

The excavation in the west direction was stopped along the storm water utility line. Some residual oil staining was observed on the gravel in this direction. The soil samples from this side were analyzed twice. The first analysis revealed 2-Methylnaphthalene at 55 ppm. This is above the TAGM soil cleanup level 36.4 ppm. The first analysis was reported with elevated detection limits and was re-analyzed after being diluted to lower the detection limits, as requested by the NYSDEC project manager. The diluted analysis results reveal no detection of any compounds above TAGM soil clean up objectives.

## **6.0 CONCLUSIONS**

Based on the remediation work described in this Amendment to the Rod Mill Closure Report, JEE asks that the Department issue a “no further action letter” for the Rod Mill Parcel in accordance with the VRA.

Within 30 days after receipt of the Department’s written approval of the Closure Report, the Volunteer shall record an instrument with the Oneida County Clerk, which contains the required use restrictions set forth in the VRA.

## 7.0 REFERENCES

- 1.) (VRA, March 8, 1999), Volunteer Remediation Agreement, Index D6-001097-01, New York State Department of Environmental Conservation, March 8, 1999.
- 2.) (Work plan, May 5, 1998), *Remedial Action Work Plan, Rod Mill Parcel*, Jack Eisenbach Engineering, P.C., May 5, 1998.
- 3.) (Spill Investigation, April 26, 2001), *Petroleum Spill Investigation, Rod Mill Parcel*, Jack Eisenbach Engineering, P.C., April 26, 2001.
- 4.) (TAGM 4046, NYSDEC), *New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives*, NYSDEC HWR-94-4046, dated January 24, 1994, amended Dec 20, 2000.
- 5.) (Spill Remediation Work Plan, December 26, 2001), *Petroleum Spill Remediation Work Plan, Rod Mill Parcel*, Jack Eisenbach Engineering, P.C., December 26, 2001.
- 6.) (RETEC, 1997), "Phase II Investigation of the Former General Cable Manufacturing Site, Rome, New York.", Remediation Technologies, Inc. September 1997.

**TABLE-1**  
**Summary of Soil Sampling Results, Rod Mill Parcel-General Cable ( by: Eisenbach Envineering, P.C. 6/2/03)**  
**Page 1/4**

Analysis	NYSDEC TAGM 4046 Soil Cleanup Levels																															
	ESW-1-18		ESW-2-18		ESW-3-18		ESW-4-18		ESW-5-19		ESW-6-19		SSW-7-19		SSW-9-19		WSW-8-19*		WSW-12-20**		NSW-10-20		NSW-11-20		PIPE#1 BEDDING		WSW-8-19 DILUTED		WSW-12-20 DILUTED			
	Levels	001	002	003	004	005	006	007	008	009	010	011	012	013	014	009	010	011	012	013	014	009	010	011	012	013	014	009	010			
ASP B VOLATILES-SOIL	mg/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg															
1,1,1-Trichloroethane	0.8	<62	170	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	630	*	*															
1,1,2,2-Tetrachloroethane	0.6	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
1,1,2-Trichloroethane		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
1,1-Dichloroethane	0.2	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
1,1-Dichloroethylene	0.4	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
1,2-Dichloroethane	0.1	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
1,2-Dichloropropane	0.3	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
2-Butanone-(MEK)	0.3	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
2-Hexanone		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
4-Methyl-2-Pentanone (MIBK)	1	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Acetone	0.2	51	<70	79	31	84	<59	7	15	<62	<54	29	55	<60	<160	*	*															
Benzene	1	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Bromodichloromethane		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Bromoform		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Bromomethane		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Carbon Disulfide	2.7	<62	<70	<64	<14	<64	<59	<12	3	<62	<54	<57	<52	<60	<160	*	*															
Carbon Tetrachloride	0.6	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Chlorobenzene	1.7	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Chloroethane	5	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Chloroform	0.3	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Chloromethane		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
cis-1,2-Dichloroethylene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	140	*	*															
cis-1,3-Dichloropropene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Dibromochloromethane	N/A	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Ethylbenzene	5.5	<62	52	<64	<14	80	<59	<12	<11	94	<54	<57	<52	41	<160	*	*															
M & P XYLENE	1.2	<62	120	53	<14	180	<59	<12	<11	220	55	<57	<52	140	<160	*	*															
Methylene Chloride	0.1	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
O-XYLENE	1.2	<62	130	<64	<14	24	<59	<12	<11	57	<54	<57	<52	28	<160	*	*															
Styrene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Tetrachloroethylene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Toluene	1.5	<62	33	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
trans-1,2-Dichloroethylene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
trans-1,3-Dichloropropene		<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															
Trichloroethylene		<62	820	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	950	*	*															
Vinyl Chloride	0.2	<62	<70	<64	<14	<64	<59	<12	<11	<62	<54	<57	<52	<60	<160	*	*															

Notes:

SB-Site Background

MDL - Method detection Limit

NA - Not available

**BOLD** - Values in black indicate compounds that have been detected and are above the NYSDEC TAGM Cleanup Levels

Blank fields indicate no analysis completed

\*-Diluted sample, refer to laboratory report of analysis for detection limit

\*\* - Sample diluted and reanalyzed due to elevated detection limits (results of diluted analysis posted on last two columns of Table)

**TABLE-1**  
**Summary of Soil Sampling Results, Rod Mill Parcel-General Cable ( by: Eisenbach Enfineering, P.C. 6/2/03)**  
**Page 2/4**

Analysis	NYSDEC TAGM 4046 Soil Cleanup Levels												PIPE#1 BEDDING	WSW-8-19 DILUTED	WSW-12-20 DILUTED		
	ESW-1-18		ESW-2-18		ESW-3-18		ESW-4-18		ESW-5-19		ESW-6-19						
	Levels					(12'-14')	(12'-24')	(13')	(10')	(10'-12')	(14')	(13'-15')	DUP	(15')			
ASP B SEMIVOLATILE-SOILS	001	002	003	004	005	006	007	008	009	010	011	012	013	014	009	010	
	2/18/03	2/18/03	2/18/03	2/18/03	2/18/03	2/19/03	2/19/03	2/19/03	2/19/03	2/19/03	2/20/03	2/20/03	2/20/03	2/18/03	2/19/03	2/20/03	
mg/kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	
1,2,4-Trichlorobenzene	3.4	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
1,2-Dichlorobenzene	7.9	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
1,3-Dichlorobenzene	1.6	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
1,4-Dichlorobenzene	8.5	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,2'-oxybis(1-Chloropropane)		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,4,5-Trichlorophenol	0.1	<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
2,4,6-Trichlorophenol		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,4-Dichlorophenol	0.4	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,4-Dimethylphenol		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,4-Dinitrophenol		<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
2,4-Dinitrotoluene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2,6-Dinitrotoluene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2-Chloronaphthalene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2-Chlorophenol	0.8	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2-Methyl Naphthalene	36.4	<11000	31000	13000	970	55000	16000	1200	1100	32000	17000	<48000	12000	20000	<100000	12000	11000
2-Methyl Phenol	0.1/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
2-Methyl-4,6-dinitrophenol		<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
2-Nitroaniline	0.43/ MDL	<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
2-Nitrophenol	0.33/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
3&4-Methyl Phenol		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
3,3'-Dichlorobenzidine	N/A	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
3-Nitroaniline	0.5 or MD	<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
4-Bromophenyl Phenyl Ether		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
4-Chloro-3-methylphenol	0.24/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
4-Chloroaniline	0.22/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
4-Chlorophenyl Phenyl Ether		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
4-Nitroaniline		<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
4-Nitrophenol	0.10/MDL	<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*
Acenaphthylene	41	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Acenaphthene	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Anthracene	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	1800	2000
Benz (g,h,i) perylene	0.061/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Benz(a)anthracene	0.224/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Benz(a)pyrene	0.061/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Benz(b,k)fluoranthene	1.1	<21000	120000	<82000	<18000	<100000	120000	20000	<21000	<120000	<18000	<95000	<21000	<100000	<210000	*	*
bis(2-Chloroethoxy)methane		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
bis(2-Chloroethyl)ether		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	11000	*
bis(2-Ethylhexyl)phthalate	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Butyl Benzyl Phthalate	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Carbazole		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Chrysene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*

**Notes:**

SB-Site Background

MDL - Method detection Limit

NA - Not available

BULD - Values in black indicate compounds that have been detected and are above the NYSDEC TAGM Cleanup Levels

Blank fields indicate no analysis completed

\*-Diluted sample, refer to laboratory report of analysis for detection limit

\*\* - Sample diluted and reanalyzed due to elevated detection limits (results of diluted analysis posted on last two columns of Table)

TABLE-I

**Summary of Soil Sampling Results, Rod Mill Parcel-General Cable (by: Eisenbach Engineering, P.C. 6/2/03)**

Page 3/4

Analysis ASP B SEMIVOLATILE-SOILS	NYSDEC TAGM 4046 Soil Cleanup Levels		ESW-1-18	ESW-2-18	ESW-3-18	ESW-4-18	ESW-5-19	ESW-6-19	SSW-7-19	SSW-9-19	WSW-8-19*	WSW-12-20**	NSW-10-20	NSW-11-20	Pipe#1 BEDDING	WSW-8-19 DILUTED	WSW-12-20 DILUTED	
	Levels					(12'-14')	(12'-24')	(13')	(10')	(10'-12')	(14')	(13'-15')	DUP	(15')		(10'-12')	(14')	
		001	002	003	004	005	006	007	008	009	010	011	012	013	014	009	010	
	mg/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	
Benz(a,h)Anthracene	0.014/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Dibenzofuran	6.2	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Diethyl Phthalate		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Dimethyl Phthalate	2	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Di-n-butylphthalate	8.1	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Di-n-octyl phthalate	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Fluoranthene	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Fluorene	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	2400	2700	
Hexachlorobenzene	0.41	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Hexachlorobutadiene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Hexachlorocyclopentadiene		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Hexachloroethane		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Indeno (1,2,3-cd)Pyrene	3.2	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Isophorone	4.4	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Naphthalene	13	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Nitrobenzene	0.2/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
N-Nitroso-di-n-propylamine		<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
N-Nitrosodiphenylamine			<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*
Pentachlorophenol	1.0/MDL	<27000	<150000	<100000	<22000	<130000	<150000	<25000	<26000	<140000	<22000	<120000	<27000	<130000	<260000	*	*	
Phenanthrene	50	<11000	7600	<41000	3900	6300	<59000	1600	<10000	<58000	8300	<48000	2900	5900	<100000	5100	4900	
Phenol	0.03/MDL	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	<100000	*	*	
Pyrene	50	<11000	<61000	<41000	<8800	<50000	<59000	<9900	<10000	<58000	<8900	<48000	<11000	<52000	19000	1300	*	

## **Notes:**

## SB-Site Background

MDL - Method detection Limit

NA - Not available

**BOLD** - Values in black indicate compounds that have been detected and are above the NYSDEC TAGM Cleanup Levels

Blank fields indicate no analysis completed

\*-Diluted sample, refer to laboratory report of analysis for detection limit

\*\* - Sample diluted and reanalyzed due to elevated detection limits (results of diluted analysis posted on last two columns of Table).

**TABLE-1**  
**Summary of Soil Sampling Results, Rod Mill Parcel-General Cable ( by: Eisenbach Enfineering, P.C. 6/2/03)**  
**Page 4/4**

Analysis PCBs EPA 8082	NYSDEC TAGM 4046 Soil Cleanup Levels		ESW-1-18	ESW-2-18	ESW-3-18	ESW-4-18	ESW-5-19	ESW-6-19	SSW-7-19	SSW-9-19	WSW-8-19*	WSW-12-20**	NSW-10-20	NSW-11-20	PIPE#1 BEDDING	WSW-8-19 DILUTED	WSW-12-20 DILUTED	
	Levels		(001)	(002)	(003)	(004)	(005)	(006)	(007)	(008)	(009)	(010)	(011)	(012)	(013)	(014)	(009)	(010)
	mg/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg	Ug/Kg
PCB-1016	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
PCB-1221	1					<82	<79	<77	<73	<84	<79	<79	<75	<74				
PCB-1232	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
PCB-1242	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
PCB-1248	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
PCB-1254	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
PCB-1260	1					<41	<39	<38	<36	<41	<39	<39	<37	<36				
TPH Fingerprint - Oil/Solid	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Diesel Fuel		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Fuel Oil #2		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Fuel Oil #4		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Fuel Oil #6		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Gasoline		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Kerosene		<6.6	<6.8	<6.3	<6.5	<6.1		<5.5		<62		<5.8		<390				
Petroleum Contaminant		1400	4900	3400	1100	3200		1600		7200		1300		45000				

**Notes:**

SB-Site Background

MDL - Method detection Limit

NA - Not available

**BOLD** - Values in black indicate compounds that have been detected and are above the NYSDEC TAGM Cleanup Levels

Blank fields indicate no analysis completed

\*-Diluted sample, refer to laboratory report of analysis for detection limit

\*\* - Sample diluted and reanalyzed due to elevated detection limits (results of diluted analysis posted on last two columns of Table)

Figure 1

Site Location Map

SCALE 1:24000

1  
2

0

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1

.5

0 1 KILOMETER

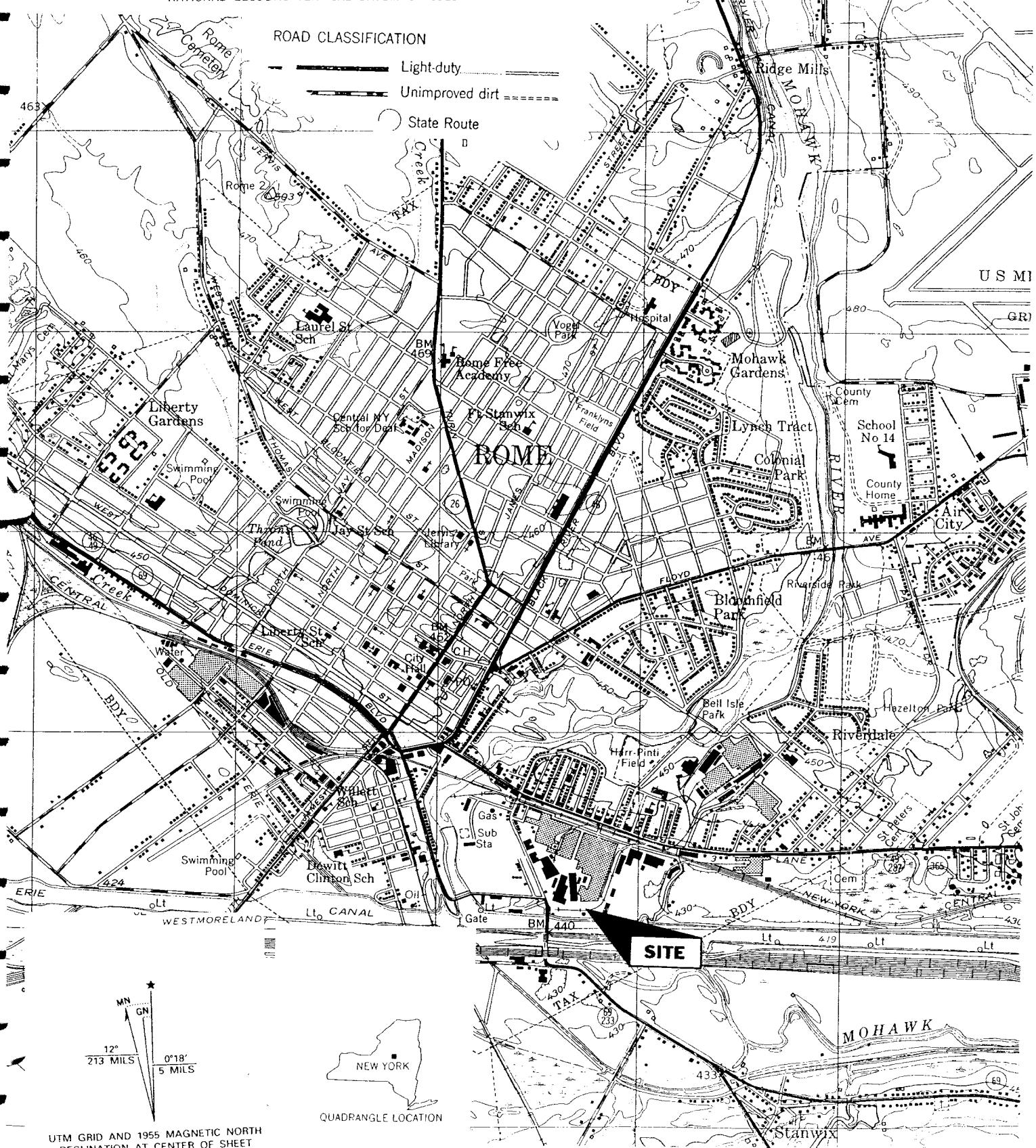
CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION

Light-duty

Unimproved dirt

State Route



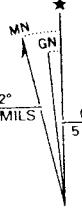
ROME QUADRANGLE

NEW YORK—ONEIDA CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

NW 1/4 ROME 15' QUADRANGLE

UTM GRID AND 1955 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET



12°  
213 MILS

0°18'  
5 MILS

Figure 2

17 Acre Site Plan

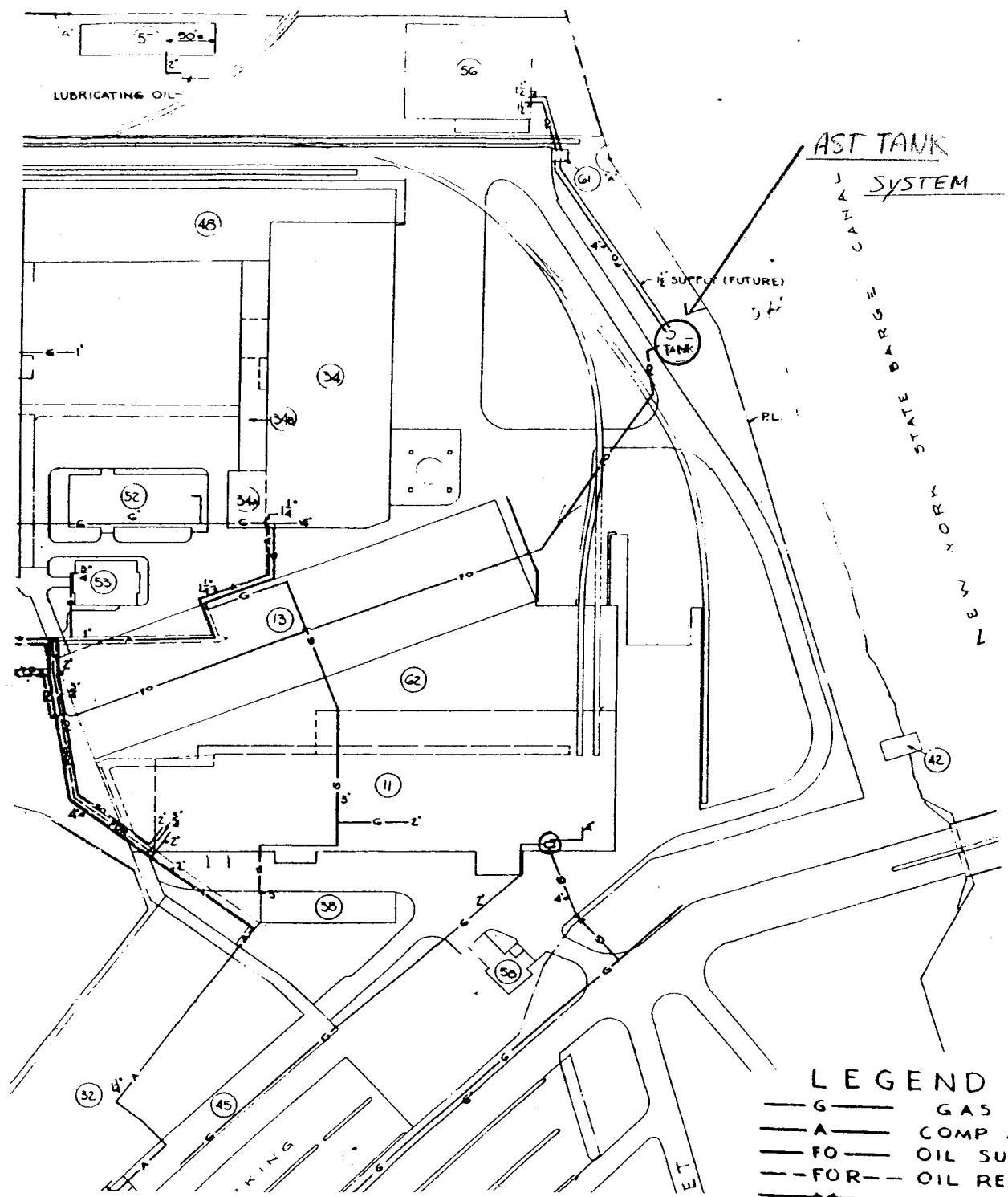
Figure 3

Rod Mill Parcel

Figure 4  
Remedial Work Items Completed

Figure 5

Above ground Tank System Plan  
(Copied from 1945 General Cable Corp. Utility Survey)



REFERENCED FROM:

TAKEN FROM GENERAL CABLE CORP. - 1945 UTILITIES SURVEY, GAS  
- COMP. AIR & OIL

<b>E</b>	DATE 5/30/03	ABOVE GROUND TANK SYSTEM PLAN	
Jack Eisenbach Engineering, P.C.	DRAWN MPR	ROD MILLC PARCEL	
291 Genesee Street, Utica, NY 13501 315-735-1916 Fox 315-735-6365 <a href="http://www.jackeisenbachengineering.com">www.jackeisenbachengineering.com</a>	1	FIG.-5	

Figure 6  
Remedial Excavation and Sampling Plan

## Appendix C

Sampling Data from JEE Spill Investigation and RETEC Phase II Reports

**PETROLEUM SPILL INVESTIGATION**

**ROD MILL PACEL  
GENERAL CABLE SITE  
ROME, NEW YORK  
(Index # D6-0001-97-07)**

*Prepared For:*  
**NEW YORK STATE DEPARTMENT  
OF  
ENVIRONMENTAL CONSERVATION**

**JEE PROJECT NO: 8514**

**DATE ISSUED: April 26, 2001**

*Prepared By:*  
**JACK EISENBACK ENGINEERING, P.C.  
291 Genesee Street  
Utica, New York 13501**

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**Mark P. Ruhnke, P.E.  
Managing Engineer**

GENERAL CABLE  
 Table C1  
 Rod Mill Petroleum Spill Investigation  
 Soil Sample Results (Totals) Compared to STARS TCLP Alternative Guidance Values

**Table C1**

Compound	STARS <sup>1</sup> LIMITS	Boring ID (depth)			
		B-2 (15'-16')	B-4R (8'-12')	B-4 (8'-12')	B-6 (12'-16')
<b>STARS METHOD (ug/kg)</b>					
Benzene	14	U	U	<b>40</b>	U
Ethylbenzene	100	U	U	65	U
Toluene	100	U	U	<b>370</b>	U
<i>o</i> -Xylene	100	U	U	<b>190</b>	U
<i>p</i> -Xylene/ <i>m</i> -Xylene	100	U	U	<b>540</b>	U
Isopropylbenzene	100	U	U	U	U
<i>n</i> -Propylbenzene	100	U	U	U	U
<i>p</i> -Isopropyltoluene	100	U	U	U	U
1,2,4-Trimethylbenzene	100	U	<b>1900</b>	<b>160</b>	<b>5700</b>
1,3,5-Trimethylbenzene	100	U	<b>870</b>	45	U
<i>n</i> -Butylbenzene	100	U	<b>3400</b>	23	<b>7300</b>
sec-Butylbenzene	100	U	<b>300</b>	U	U
tert-Butylbenzene	100	U	U	U	U
4-Isopropyltoluene	100	U	U	U	U
Naphthalene	200	<b>360</b>	<b>4000</b>	U	<b>24000</b>
Methyl-tert-butyl-ether (MTBE)	500	U	U	U	U
<b>ESL METHOD (ug/kg)</b>					
Naphthalene	200	U	U	U	<b>580</b>
Anthracene	1000	U	U	U	310
Fluorene	1000	U	790	U	<b>1300</b>
Phenanthrene	1000	U	<b>1000</b>	U	<b>1800</b>
Pyrene	1000	U	U	U	240 J
Acenaphthene	400	U	<b>540</b>	U	<b>960</b>
Benzo(a)anthracene	0.04 <sup>2</sup>	U	U	U	U
Fluoranthene	1000	U	120 J	U	U
Benzo(b)fluoranthene	0.04 <sup>2</sup>	U	U	U	U
Benzo(k)fluoranthene	0.04 <sup>2</sup>	U	U	U	U
Chrysene	0.04 <sup>2</sup>	U	U	U	U
Benzo(a)pyrene	0.04 <sup>2</sup>	U	U	U	U
Benzo(g,h,i)perylene	0.04 <sup>2</sup>	U	U	U	U
Indeno(1,2,3-cd)pyrene	0.04 <sup>2</sup>	U	U	U	U
Dibenzo(a,h)anthracene	1000	U	U	U	U
<b>Sum of Reported Values</b>		<b>360</b>	<b>12800</b>	<b>1433</b>	<b>41950</b>

U - None Detected

N/A - Not Available/Not Applicable

J - result estimated below the quantitation limit

<sup>1</sup> - NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum- Contaminated Soil Guidance Policy, August 1992, TCLP Alternative Guidance Values

<sup>2</sup> - Due to the high detection limit for a solid matrix, the TCLP Extraction Method must be used to demonstrate groundwater quality protection for these compounds

**BOLDFACE** values exceed regulatory limits

(ug/kg) - micrograms per kilogram (equivalent to parts per billion)

GENERAL CABLE  
 Table C2  
 Rod Mill Petroleum Spill Investigation  
 Groundwater Sample Results Compared to STARS TCLP Extraction Guidance Values  
**Table C2**

Compound	STARS <sup>1</sup> LIMITS	Boring ID (MW ID)						
		B-1	B-3 (MW-3)	B-5	B-7 (MW-7)	B-8	B-9 (MW-9)	B-9R (MW-9R)
<b>EPA MEL (TCLP) (µg/L)</b>								
Benzene	0.7	U	U	U	U	U	U	U
Ethylbenzene	5	U	U	U	U	U	U	U
Toluene	5	U	U	U	U	U	U	U
o-Xylene	5	U	U	U	U	U	U	U
p-Xylene/ m-Xylene	5	U	U	U	U	U	U	U
Isopropylbenzene	5	U	U	U	U	U	1	U
n-Propylbenzene	5	U	U	U	U	U	2	U
p-Isopropyltoluene	5	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	U	U	19	18	5	11	2
1,3,5-Trimethylbenzene	5	U	U	11	U	2	3	U
n-Butylbenzene	5	1	U	35	13	5	19	3
sec-Butylbenzene	5	U	U	U	U	U	9	U
tert-Butylbenzene	5	U	U	U	U	U	U	U
4-Isopropyltoluene	5	U	U	U	U	U	2	U
Naphthalene	10	23	39	95	36	U	38	2
Methyl-tert-butyl-ether (MTBE)	50	U	U	U	U	U	U	U
<b>EPA MEL (TCLP) (µg/L)</b>								
Naphthalene	10	U	400	U	26	U	U	U
Anthracene	50	U	200	U	U	U	U	U
Fluorene	50	U	680	U	7	U	U	U
Phenanthrene	50	U	1400	U	U	U	U	U
Pyrene	50	U	190	U	U	U	U	U
Acenaphthene	20	U	560	U	U	U	U	U
Benzo(a)anthracene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Fluoranthene	50	U	190	U	U	U	U	U
Benzo(b)fluoranthene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Benzo(k)fluoranthene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Chrysene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Benzo(a)pyrene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Indeno(1,2,3-cd)pyrene	0.002 <sup>2</sup>	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	50	U	U	U	U	U	U	U
<b>Sum of Reported Values</b>		24	3659	160	100	12	85	7

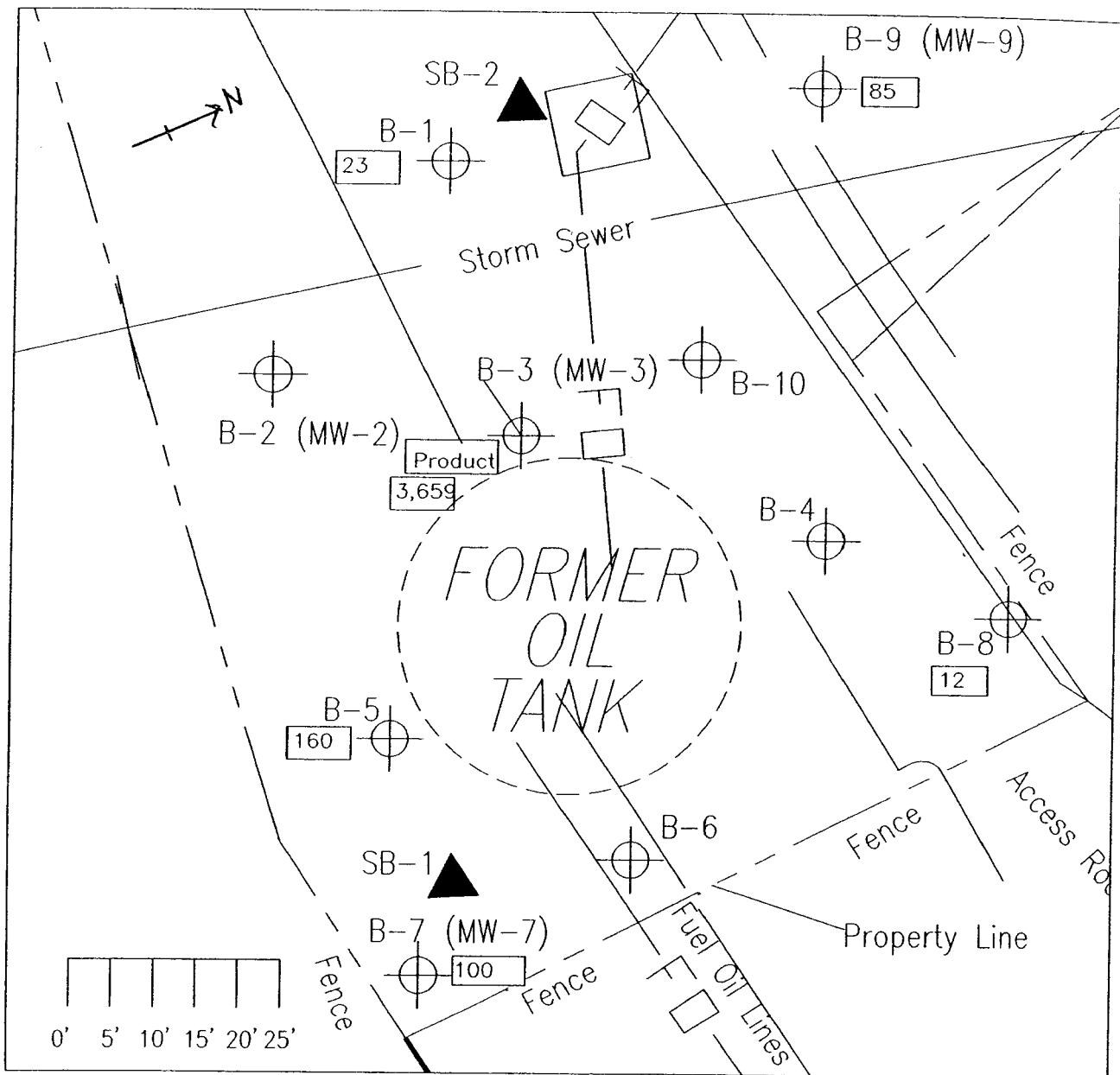
U - None Detected

N/A - Not Available/Not Applicable

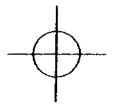
J - result estimated below the quantitation limit

1 - NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum- Contaminated Soil Guidance Policy, August 1992, TCLP Extractio

2 - Due to the high detection limit for a solid matrix, the TCLP Extration Method must be used to demonstreate groundwater quality protection for these com  
**BOLDFACE** values exceed regulatory limits



KEY:



Soil Boring - SB (Monitoring Well - MW) Location



Soil Boring by RETEC, 1997 Phase 2

12,800

Concentrations in Groundwater Sampling (ppb)

<b>JACK EISENBACH ENGINEERING, P.C.</b> <small>291 Genesee Street, Utica, NY 13501 315-735-1916 168 Carlton Street, Buffalo, NY 14263 716-882-3903</small>	DATE: <b>4/27/01</b>	<b>GENERAL CABLE ROD MILL PARCEL</b> <b>GROUNDWATER SAMPLING CONCENTRATIONS (ppb) (SUM OF REPORTED VALUES)</b>	<b>C5</b>
	DRAWN: <b>MPR</b>		
	NO.: <b>8514</b>		

**PHASE II INVESTIGATION OF THE  
EAST ROME BUSINESS PARK CORE AREA  
ROME, NEW YORK**

*Prepared for:*

**DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT  
City Hall  
Rome, NY 13340**

*Prepared By:*

**REMEDIATION TECHNOLOGIES, INC.  
Ithaca, New York**

RETEC Project No. 3-2294-200

Certification: All activities that comprised this investigation were performed in full accordance with the approved Work Plan.

**Remediation Technologies, Inc.**

*Bruce Coulombe/gsb*  
Bruce Coulombe, Hydrogeologist

*John T. Finn*  
John T. Finn, P.E. Senior Engineer



July, 1997

**Table B-2**  
**Summary of Subsurface**  
**Soil Analytical Results**

Name	NYSDEC Recommended Soil Cleanup Objective <sup>1</sup>	MW14 (0-0.3) 12/11/96	MW15 (1-1.3) 12/11/96	MW16 (1-1.3) 12/12/96	MW17 (0-0.3) 12/10/96	SB1 (10-12) 12/18/96	SB2 (16-18) 12/18/96	SB3 (2-4) 12/19/96	SB4 (1-3) 12/19/96
TOTAL SOLIDS (%)		79.68	84.92	77.72	87.62	72.72	81.99	71.51	77.21
MOISTURE (%)		NA	NA	NA	NA	27.28	18.01	28.49	27.79
T. ORGANIC CARBON (mg/Kg)		NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/Kg)									
ANTIMONY	SB	7.49	77.7	3.83 U	13.6	3.25 U	3.32 U	3.88 U	16
ARSENIC	7.5 /SB	6.9	72.6	3.2	7	3	4.5	1.7	8.3
BERYLLIUM	0.16 /SB	0.494	0.306	0.844	0.273	0.8	0.425	0.847	0.532
CADMIUM	1 /SB	0.59 U	0.58 U	0.66 U	1.3	0.58 U	0.53 U	0.68 U	0.65 U
CHROMIUM	10 /SB	7.94	46.4	20.6	18.1	19.1	12.4	18.6	13.2
COPPER	25 /SB	491	291	42.6	272	66.7	27.9	771	842
LEAD	SB	106	236	81.5	138	19	3.4	22	27.7
MERCURY	0.1	0.08	0.1	0.06	0.14	0.04	0.018	0.06	0.17
NICKEL	13 /SB	10.8	9.14	30.9	12.5	30	21.7	25	16
SELENIUM	2 /SB	0.59 U	1.5	0.66 U	0.58 U	0.58 U	0.53 U	0.68 U	0.65 U
SILVER	SB	0.714 U	0.681 U	0.821 U	0.588 U	0.696 U	0.833	0.832 U	0.783 U
THALLIUM	SB	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.4 U	1.3 U
ZINC	20 /SB	105	44.5	67.9	171	79.6	44.6	59.7	41.7
PAHs (mg/Kg)									
NAPHTHALENE	13	1.5	0.62	0.32 U	1.3 J	1.1	0.22 J	0.33 U	0.31 U
ACENAPHTHYLENE	41	1.6	0.59 U	0.32 U	0.98 J	0.32 U	0.29 U	0.33 U	0.31 U
ACENAPHTHENE	50	0.35 J	0.59 U	0.32 U	1.4 U	1.1	0.59	0.33 U	0.31 U
FLUORENE	50	0.65 J	0.12 J	0.32 U	1.4 U	1.1	0.57	0.33 U	0.31 U
PHENANTHRENE	50	9	1.3	0.32 U	3.7	2.2	0.96	0.33 U	0.31 U
ANTHRACENE	50	1.5 J	0.59 U	0.32 U	0.68 J	0.11 J	0.29 U	0.33 U	0.31 U
FLUORANTHENE	50	14	0.48 J	0.32 U	6	0.07 J	0.29 U	0.33 U	0.31 U
PYRENE	50	24	0.51 J	0.32 U	7.9	0.36	0.16 J	0.33 U	0.31 U
BENZ(A)ANTHRACENE	0.224 MDL	10	0.29 J	0.32 U	4.9	0.32 U	0.29 U	0.33 U	0.31 U
CHRYSENE	0.4	9.8	0.47 J	0.32 U	5	0.32 U	0.29 U	0.33 U	0.31 U
BENZ(Q)FLUORANTHENE	1.1	11 **	0.32 J	0.32 U	6	0.32 U	0.29 U	0.33 U	0.31 U
BENZO(Q)FLUORANTHENE	1.1	3.3 **	0.13 J	0.32 U	2.2	0.32 U	0.29 U	0.33 U	0.31 U
BENZOA(PYRENE	0.061 MDL	8.3 **	0.26 J	0.32 U	4.6	0.32 U	0.29 U	0.33 U	0.31 U
INDENO(1,2,3-CD)PYRENE	3.2	3.4 **	0.59 U	0.32 U	2.2	0.32 U	0.29 U	0.33 U	0.31 U
OIBENZO(A,H)ANTHRACENE	0.014 MDL	1.5 **J	0.59 U	0.32 U	0.87 J	0.32 U	0.29 U	0.33 U	0.31 U
BENZO(GH)PYRELYNE	50	3.8 **	0.59 U	0.32 U	2.3	0.32 U	0.29 U	0.33 U	0.31 U
VOCs (mg/Kg)									
CHLOROMETHANE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
VINYL CHLORIDE	0.2	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
CHLOROETHANE	1.9	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
BROMOMETHANE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
1,1-DICHLOROETHENE	0.4	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.021	0.0108 U
ACETONE	0.2	0.031 U	0.029 U	0.084	0.047 U	0.094	3.811 U	0.056 U	0.054 U
CARBON DISULFIDE	2.7	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.031	0.0108 U
METHYLENE CHLORIDE	0.1	0.007	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.019
TRANS-1,2-DICHLOROETHENE	0.3	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
1,1-DICHLOROETHANE	0.2	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
CIS-1,2-DICHLOROETHENE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
2-BUTANONE (MEK)	0.3	0.031 U	0.029 U	0.032 U	0.047 U	0.053 U	3.811 U	0.056 U	0.054 U
CHLOROFORM	0.3	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
1,1,1-TRICHLOROETHANE	0.8	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
CARBON TETRACHLORIDE	0.6	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
BENZENE	0.06	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.019	0.0108 U
1,2-DICHLOROETHANE	0.1	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
TRICHLOROETHENE	0.7	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
1,2-DICHLOROPROPANE	0.3	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.019	0.0108 U
BROMODICHLOROMETHANE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
CIS-1,3-DICHLOROPROPENE	0.3	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
4-METHYL-2-PENTANONE (MIBK)	1	0.012 U	0.012 U	0.013 U	0.019 U	0.021 U	1.52 U	0.022 U	0.022 U
TOLUENE	1.5	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
TRANS-1,3-DICHLOROPROPENE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.022	0.0108 U
1,1,2-TRICHLOROETHANE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
TETRACHLOROETHENE	1.4	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
2-HEXANONE	NL	0.012 U	0.012 U	0.012 U	0.019 U	0.021 U	1.52 U	0.022 U	0.022 U
DIBROMOCHLOROMETHANE	NA	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
CHLOROBENZENE	1.7	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.013	0.0108 U
ETHYL BENZENE	5.5	0.0062 U	0.006 U	0.006 U	0.0093 U	0.11	0.762 U	0.011 U	0.0108 U
P-XYLENE/M-XYLENE	1.2 *	0.0062 U	0.006 U	0.006 U	0.0093 U	0.16	0.762 U	0.011 U	0.0108 U
O-XYLENE	1.2	0.0062 U	0.006 U	0.006 U	0.0093 U	0.026	0.762 U	0.011 U	0.0108 U
STYRENE	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
BROMOFORM	NL	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
1,1,2-TETRACHLOROETHANE	0.6	0.0062 U	0.006 U	0.006 U	0.0093 U	0.01 U	0.762 U	0.011 U	0.0108 U
PCBs (mg/Kg)									
PCB 1016	10	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1221		(Sum of all PCBs)	NA	NA	NA	NA	NA	NA	NA
PCB 1232		NA	NA	NA	NA	NA	NA	NA	NA
PCB 1242		NA	NA	NA	NA	NA	NA	NA	NA
PCB 1248		NA	NA	NA	NA	NA	NA	NA	NA
PCB 1254		NA	NA	NA	NA	NA	NA	NA	NA
PCB 1260		NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NA = Not analyzed/Not available

U = The material was analyzed for, but not detected. The associated numerical value is the sample quantitation limit.

J = The associated numerical value is an estimated quantity.

B = For organic data, the analyte is present in the associated method blank as well as in the sample.

\*\* = Results Are Possible Biased High Due To Chromatographic Interference

MDL = Method Detection Limit

\* = Each corner

NL = Not listed

SB = Site Background

Appendix E

Photographs

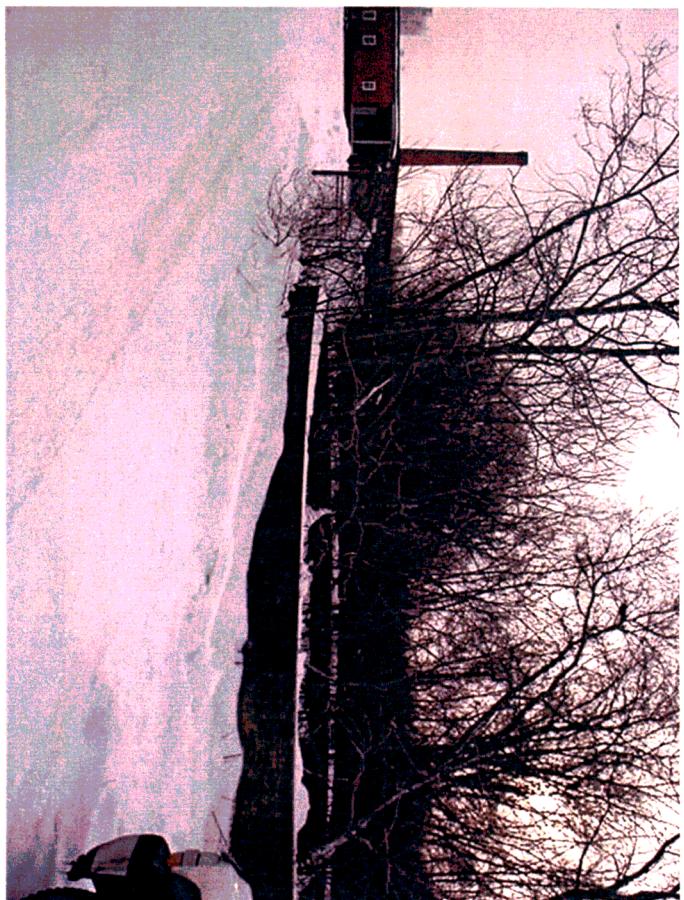
## PHOTO LOG

JEE 2517

- 1.) Looking south at tank foundation being demolished.
- 2.) Fuel oil lines (FOL) being exposed during excavation on the north side of the foundation.
- 3.) Looking east along access road.
- 4.) Looking northeast at tank foundation.
- 5.) Looking east at exposed FOL after tank foundation was removed, note petroleum at base of pipes.
- 6.) Looking east at exposed FOL after tank foundation was removed, note petroleum at base of pipes.
- 7.) Looking north at FOL going through concrete foundation.
- 8.) Looking east at FOL, note petroleum in soil at base of pipes.
- 9.) Looking south at excavation after foundation footer was removed.
- 10.) Looking at clay-tile pipe used for burial of FOL lines in east direction.
- 11.) Looking south at excavation after foundation footer was removed.
- 12.) Looking at oil impacted soil at base of FOL.
- 13.) Looking at clay-tile pipe for lines going in east direction
- 14.) Looking at clay-tile pipe for lines going in east direction
- 15.) Looking at clay tile pipe for lines going in east direction
- 16.) Looking at clay tile pipe for lines going in east direction
- 17.) Looking north at FOL that went north to boiler plant, note 90 deg elbow fitting and oil staining on elbow and in soil below.
- 18.) Looking south at excavation
- 19.) Looking at oil-impacted soil inside of the clay-tile pipe that contained the FOL, and went north to the boiler plant.
- 20.) Looking north at FOL that went north to boiler plant, note 90 deg elbow fitting and oil staining on elbow and in soil below.
- 21.) Oil-impacted soil stockpile, located northwest of excavation.
- 22.) Looking northeast at excavation, note staining on excavation walls.
- 23.) Looking northwest at clean soil stockpile
- 24.) Looking northeast at FOL and oil stained soils.
- 25.) Looking northwest at excavation.
- 26.) Looking east at FOL and stained soil on excavation walls and on surface of groundwater.
- 27.) Looking northwest at top of gray, oil-impacted soil on west side of excavation.
- 28.) Looking east at excavation and impacted soil.
- 29.) Looking south at impacted soil and groundwater below FOL.
- 30.) Looking at impacted soil & groundwater.
- 31.) Looking southeast at impacted soil and groundwater.
- 32.) Looking southeast at open at excavation.
- 33.) Looking south at impacted soil and groundwater, note oil on water surface.
- 34.) Looking south at impacted soil and groundwater, note oil on water surface.
- 35.) Looking south at impacted soil and groundwater, note oil on water surface.
- 36.) Looking west at stockpiled soil.
- 37.) Looking northeast at oil impacted soil on sidewall of excavation, note pattern of impact originating from FOL.
- 38.) Looking northeast at oil impacted soil on sidewall of excavation, note pattern of impact originating from FOL.
- 39.) Looking east at excavation, note oil on water.

- 40.) Looking northeast at oil impacted soil on sidewall of excavation, note pattern of impact originating from FOL.
- 41.) Oil being soaked up and pumped from excavation.
- 42.) Oil being soaked up and pumped from excavation.
- 43.) Looking northeast at oil impacted soil on sidewall of excavation, note pattern of impact originating from FOL.
- 44.) Oil being soaked up and pumped from excavation.
- 45.) Looking north at FOL, note oil stained soils.
- 46.) Looking north at FOL, note oil-stain on pipe.
- 47.) Looking north at oil stained soils.
- 48.) Looking north on to north side of excavation wall.

### Rod Mill Remedial Excavation



## Rod Mill Remedial Excavation



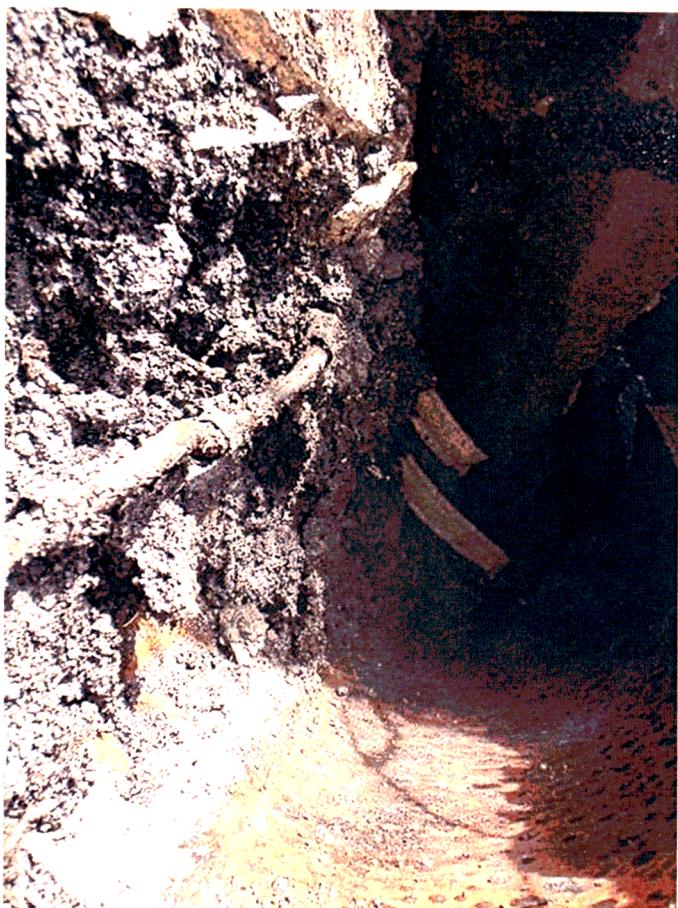
Rod Mill Remedial Excavation



## Rod Mill Remedial Excavation



## Rod Mill Remedial Excavation

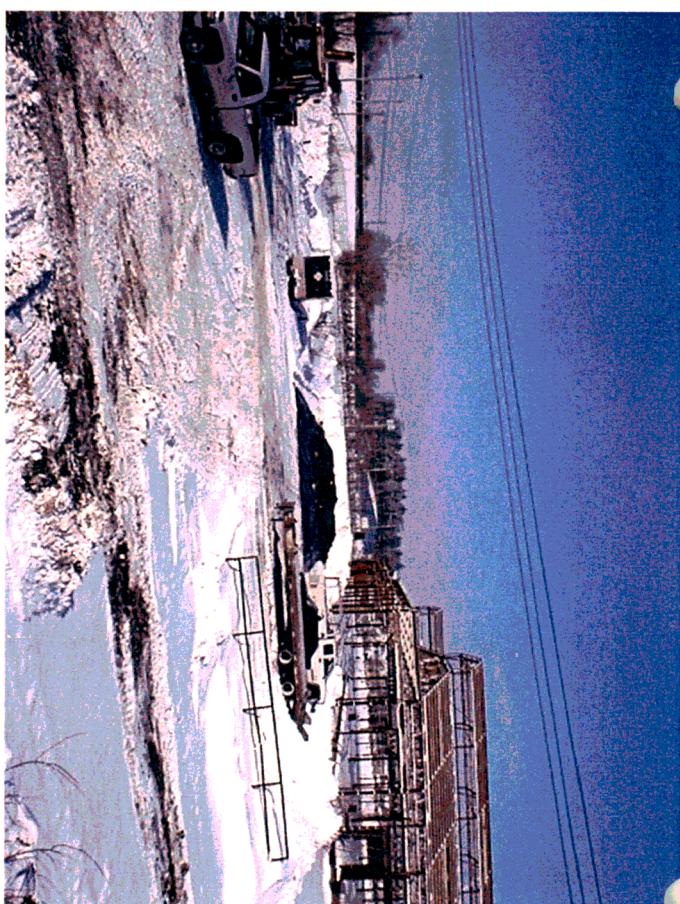


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### Rod Mill Remedial Excavation



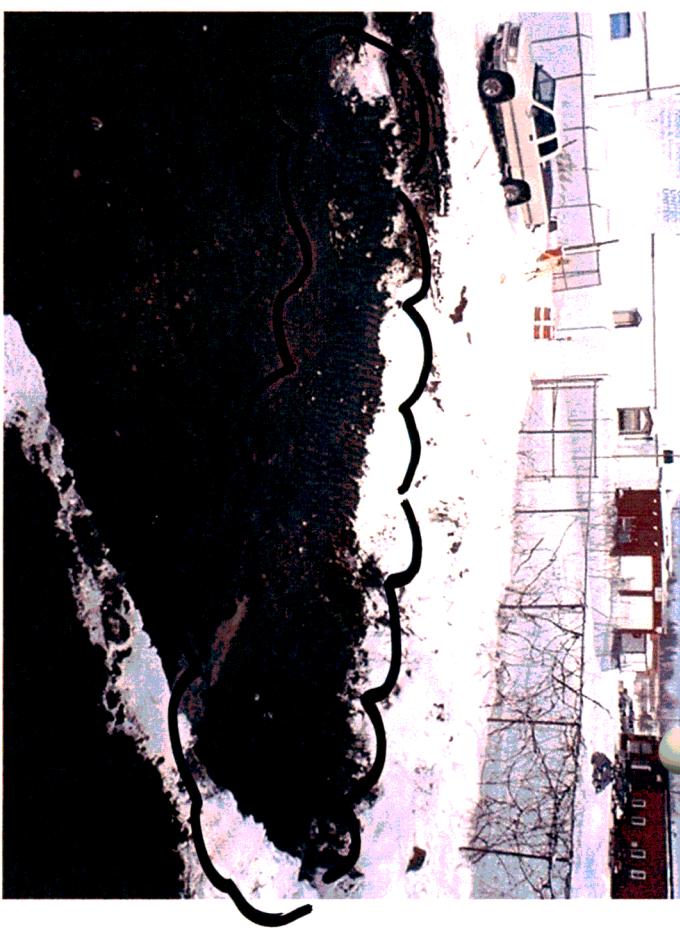
23



24



25



## Rod Mill Remedial Excavation



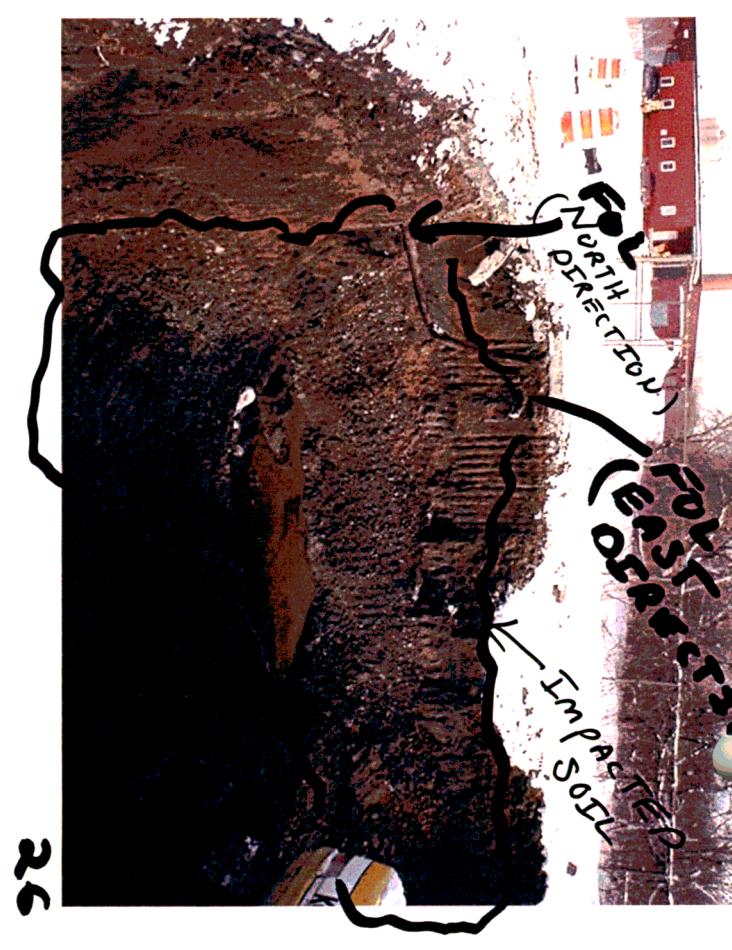
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28

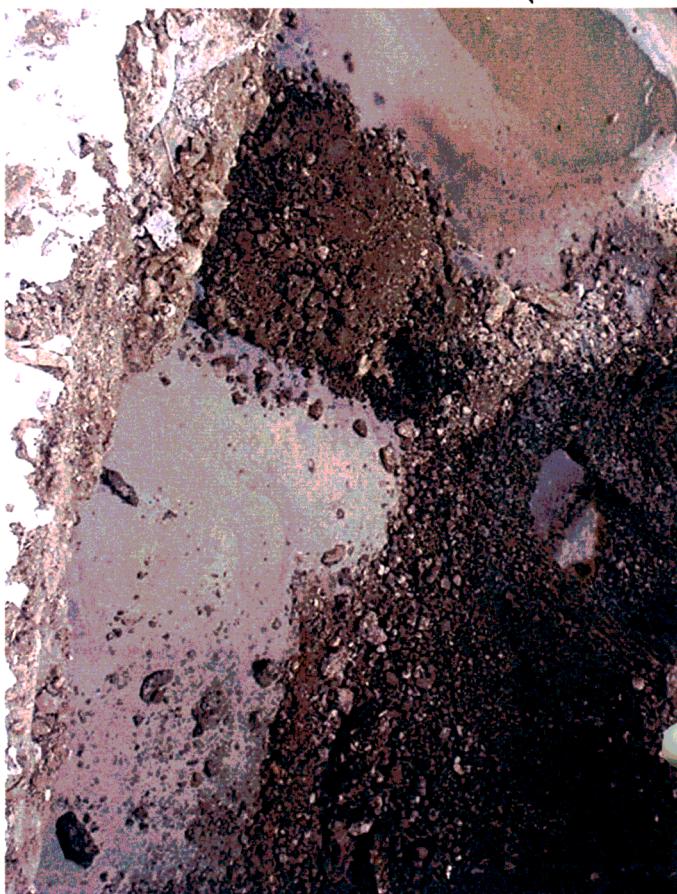


28



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## Rod Mill Remedial Excavation



Rod Mill Remedial Excavation



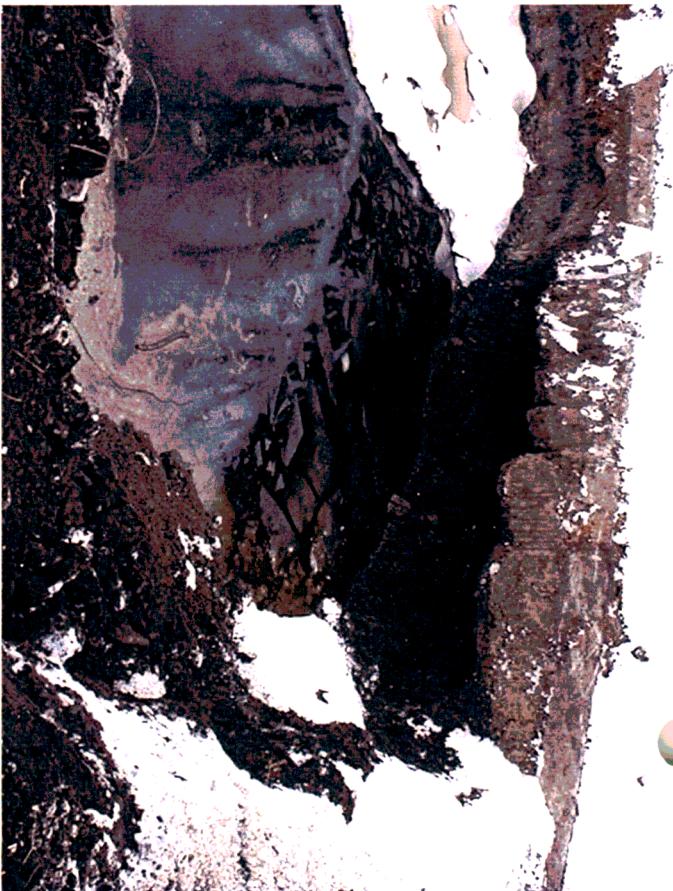
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33

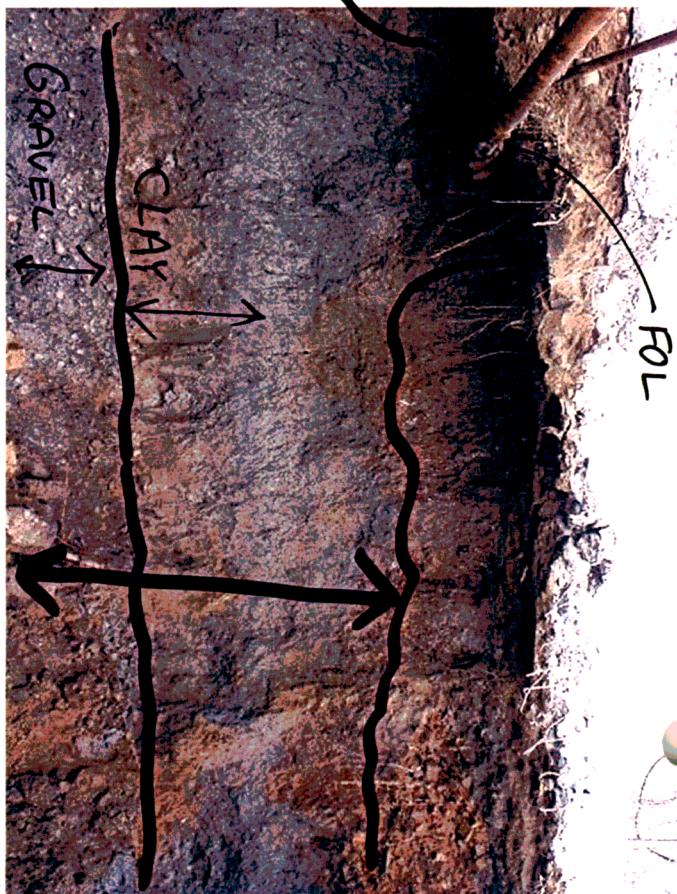
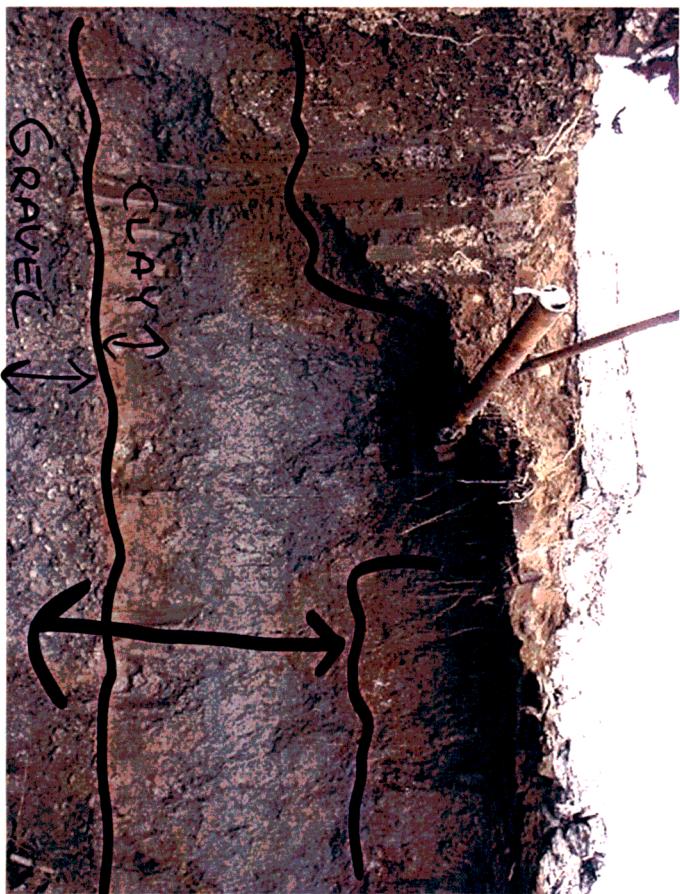
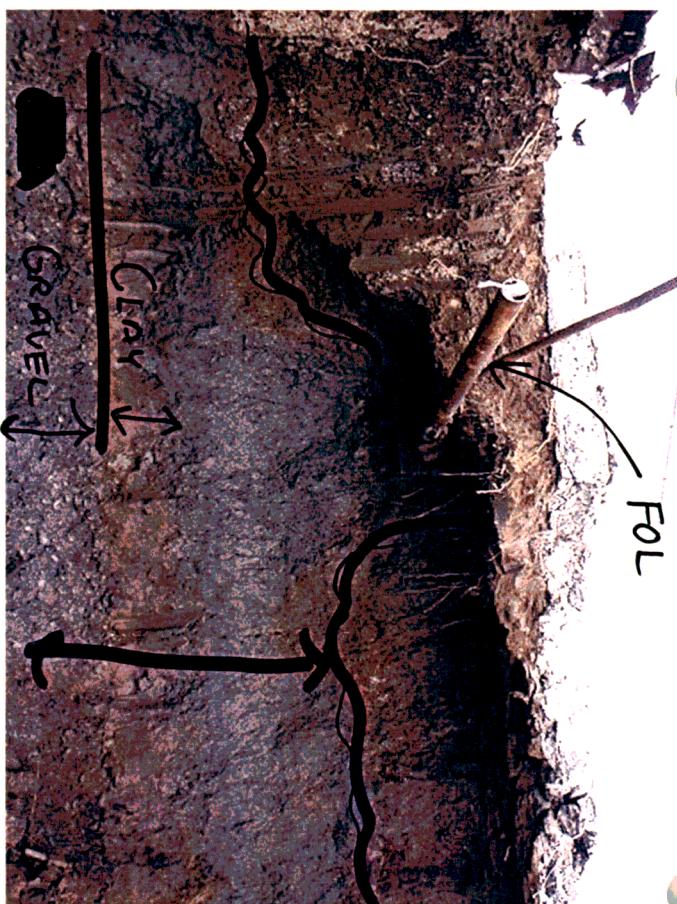


36



34

## Rod Mill Remedial Excavation



## Rod Mill Remedial Excavation



43



44



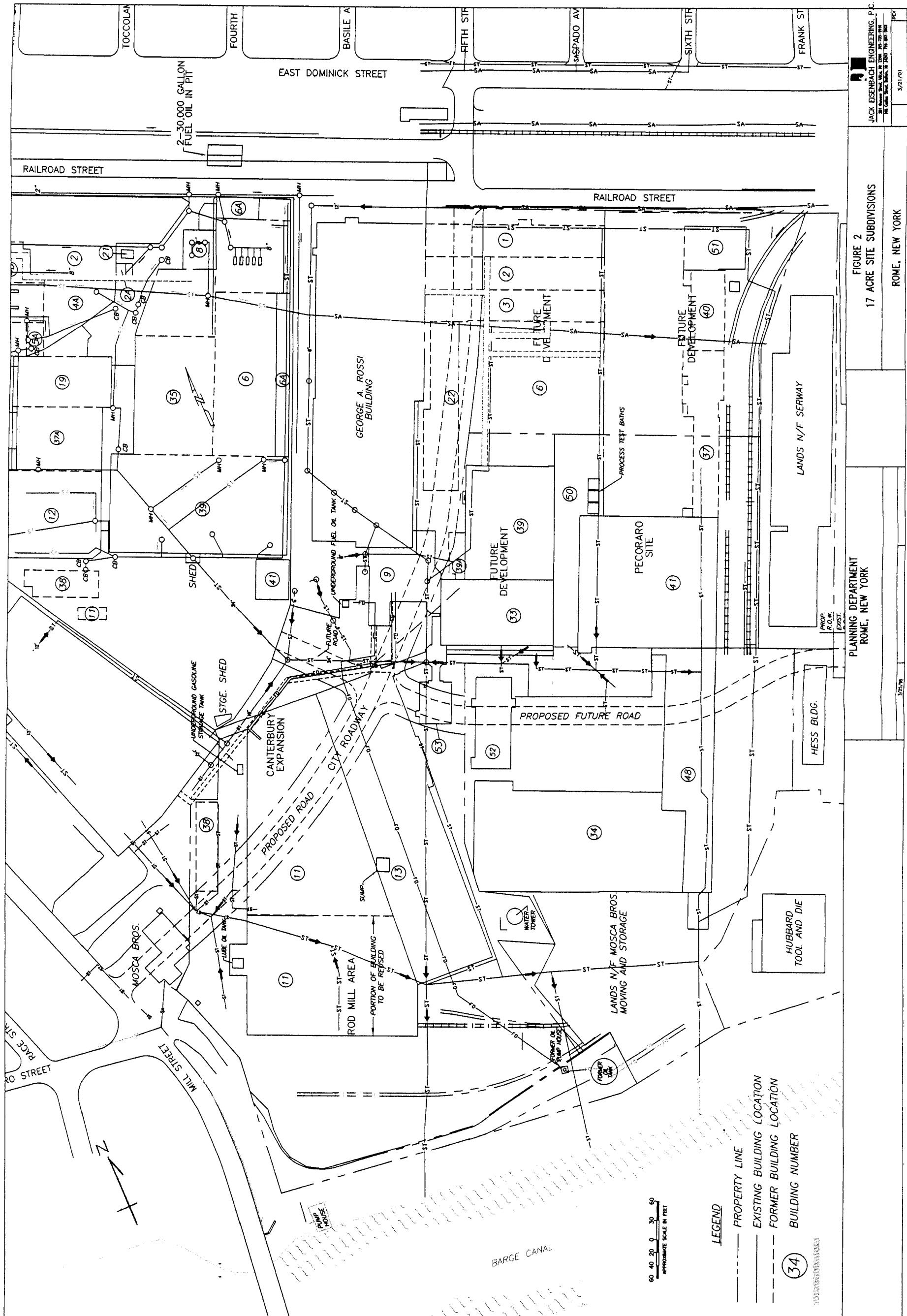
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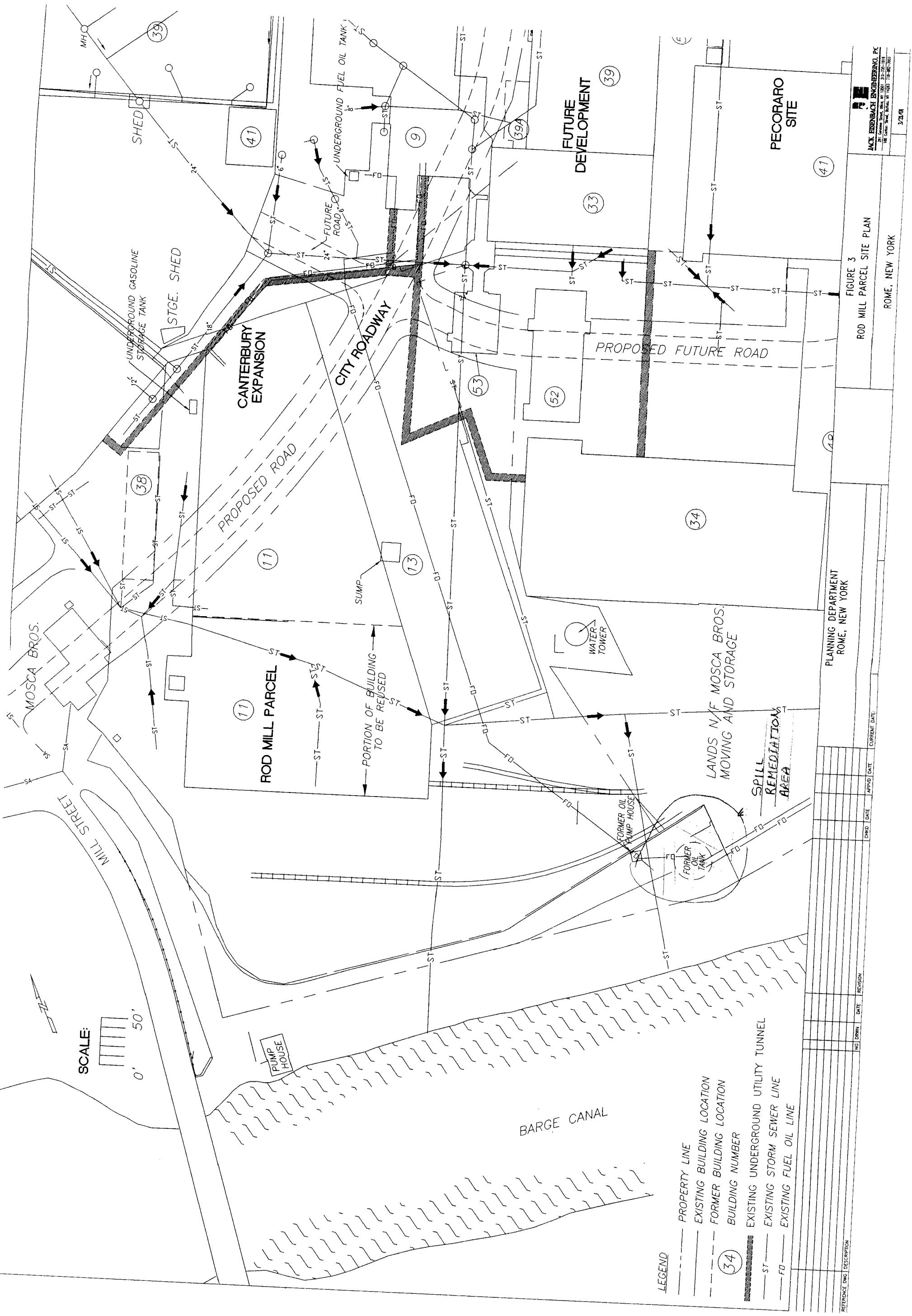


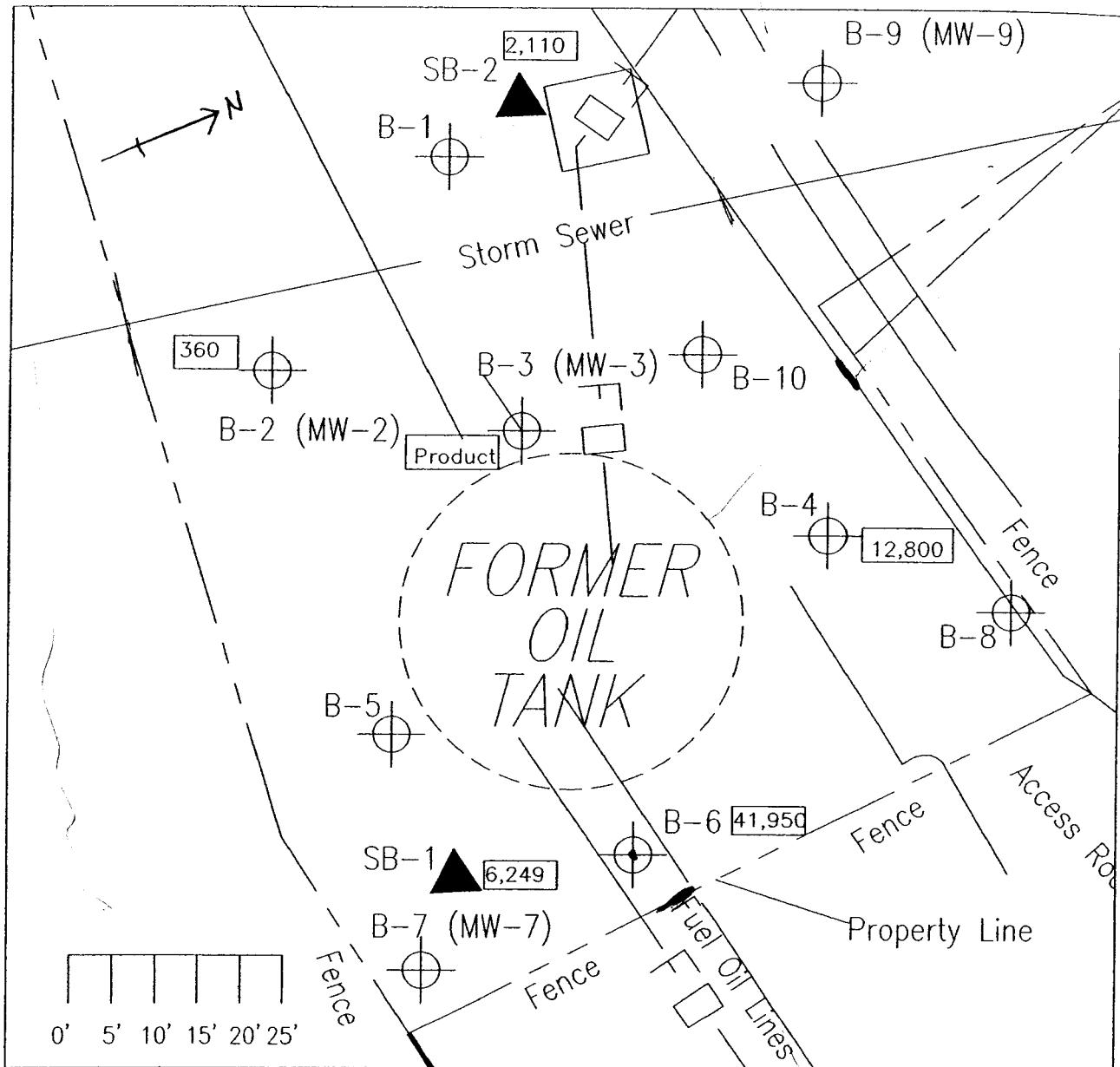
46

## Rod Mill Remedial Excavation

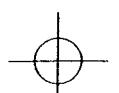








KEY:



Soil Boring - SB (Monitoring Well - MW) Location



Soil Boring by RETEC, 1997 Phase 2

12,800

Concentrations in Soil Sampling (ppb)

 <b>JACK EISENACH ENGINEERING, P.C.</b> <small>291 Genesee Street, Utica, NY 13501 315-735-1916 168 Carlton Street, Buffalo, NY 14263 716-882-3903</small>	DATE: <b>4/27/01</b> DRAWN: <b>MPR</b> NO.: <b>8514</b>
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**GENERAL CABLE  
ROD MILL PARCEL**  
**SOIL SAMPLING CONCENTRATIONS (ppb)  
(SUM OF REPORTED VALUES)**

**C4**

