

**CLOSURE PLAN FOR
THE GLEASON WORKS
FORMER WASTE STORAGE AREA**

Prepared For:

*The Gleason Works
1000 University Avenue
P.O. Box 22970
Rochester, New York 14692*

August, 1993

ERM-NORTHEAST, INC.
5500 Main Street
Williamsville, New York 14221

687.001



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1.0 INTRODUCTION

This Closure Plan was prepared by ERM-Northeast, Inc. (ERM) for The Gleason Works (Gleason) to provide an outline for closing the former waste storage area at Gleason's facility at 1000 University Avenue, Rochester, New York. The Closure Plan was prepared at the request of the New York State Department of Environmental Conservation (NYSDEC) Region 8 office.

1.1 SITE DESCRIPTION

The Gleason facility at 1000 University Avenue (hereafter referred to as "the site") is located within the eastern portion of the City of Rochester, Monroe County, New York (Figure 1-1). The 20.4 acre site is bordered to the north by the New York Central Railroad and Atlantic Avenue, to the east by Buckingham Properties, to the west by Russell Street and to the south by University Avenue (Figure 1-2). The perimeter of the site is fenced, and guards are present at the entrance gates during working and non-working hours. The Gleason facility manufactures machinery that is used world-wide by the automotive and aerospace industries.

1.2 REGULATORY ISSUES

Gleason applied for a Treatment, Storage, Disposal Facility (TSDF) permit in 1981 in order to allow Gleason to store hazardous wastes in its waste storage area (see Figure 1-2) for greater than 90 days.

In 1984 Gleason submitted a written request to the United States Environmental Protection Agency (USEPA) for a Part B denial/Part A withdrawal. Based on subsequent conversations between NYSDEC and Gleason, Gleason was reclassified as a hazardous waste Generator at that



NOTES:

- 1) FIGURE ADAPTED FROM USGS ROCHESTER EAST QUADRANGLE MAP, 1978.
- 2) APPROXIMATE SCALE: 1 CM. = 240 METERS

TITLE	
FIGURE 1-1 SITE LOCATION PLAN	
PREPARED FOR	
THE GLEASON WORKS	
	SCALE
ERM-Northeast	FIGURE
Environmental Resources Management	DATE

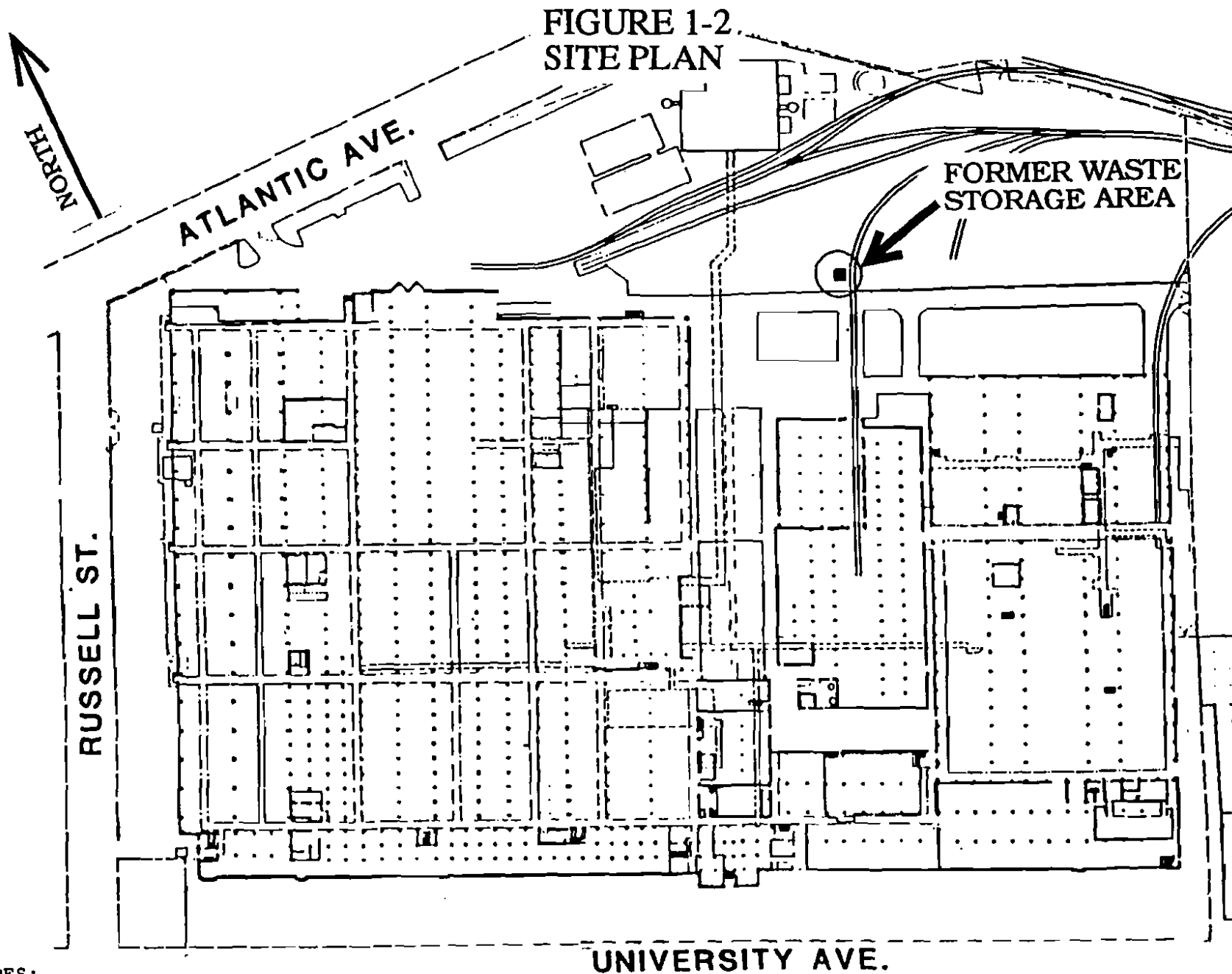


FIGURE 1-2
SITE PLAN

FORMER WASTE
STORAGE AREA

RUSSELL ST.

UNIVERSITY AVE.

NOTES:

- 1) FIGURE ADAPTED FROM LOZIER SITE PLAN, SEPTEMBER 1989.
- 2) DRAWING NOT TO SCALE.

time. As a Generator, Gleason stored drums of waste in the waste storage area for less than 90 days, prior to off-site disposal. Additionally in 1984, Gleason submitted a preliminary Closure Plan for its waste storage area. This plan was approved by NYSDEC; however, an implementation schedule was not prepared at that time because the storage area was being used by Gleason for less than 90 day storage.

The USEPA performed a Corrective Action Prior to Loss of Interim Status (CAPTLOIS) inspection at the facility in 1989. The USEPA investigated the entire facility including the waste storage area. The USEPA concluded in its report that there were no known or suspected releases from the storage area.

Gleason has recently taken steps to close its former waste storage area because this area is no longer used for accumulation of wastes. Gleason retained ERM to prepare a Closure Plan for submittal to NYSDEC (Phase I). Following NYSDEC approval of the Closure Plan, Gleason will initiate Phase II of this project which will include a field sampling program, delineation of the area requiring remediation, evaluation of potential remedial alternatives and closure of the area.

1.3 CLOSURE PLAN OVERVIEW

This Closure Plan is presented for use by project personnel, and will be used to guide the project through closure of the former waste storage area at the site. Overall, the Closure Plan includes a description of the following:

- Background Information;
- Closure Activities;
- Closure Documentation; and
- Project Organization.

A Health and Safety Plan (HASP) will be prepared following selection of the remedial contractor and will be based on the results of the sampling and testing program proposed herein. The HASP will be implemented by on-site personnel (i.e., in the vicinity of the work area) during implementation of the Closure Plan.

2.0 BACKGROUND INFORMATION

2.1 FORMER STORAGE AREA DESCRIPTION

Gleason formerly used an approximate 25 foot by 27 foot (675 sq.-ft.) waste storage area for the accumulation (prior to off-site disposal) of drummed hazardous waste. This area was located on an approximate 41 foot by 42 foot (1,722 sq.-ft.) concrete pad. During operation, the storage area was bermed and covered with a layer of flyash. This flyash layer was subsequently removed, and is currently staged in plastic sheeting in an area adjacent to the former waste storage area. During the period when the area was used for waste accumulation (1981 through 1990), a chain barrier surrounded the area. "Hazardous Waste" and "No Smoking" warning signs were also placed around the area.

2.2 FORMER WASTE HANDLING ACTIVITIES

Hazardous wastes were generated on-site by manufacturing processes. These wastes were accumulated in 55-gallon drums in the waste storage area. Satellite accumulation drums were filled at the point of waste generation and moved to the storage area using a Hyster forklift.

During operation, storage containers included New York State Department of Transportation (NYSDOT) - approved 17E, 17H, 37M and 6D 55-gallon steel closed-top drums. Corrosives were stored in polyethylene lined steel drums. Drums not acceptable for transportation were overpacked inside 85-gallon drums. Most of the drums were obtained from Kaplan Container Corporation of East Rochester; however, some reclaimed drums were also used. These reclaimed drums were inspected prior to use. The drums were stored on pallets which were placed on the flyash that covered the concrete

pad. The maximum accumulation in the waste storage area was 60 drums.

Table 2-1 includes a summary of the wastes formerly accumulated at the waste storage area. A more comprehensive summary is included in Appendix B. These wastes were disposed of at the following facilities: Voelker Analysis (NYD 991291782), Frontier Chemical (NYD 043815703), Emergency Technical Services Corp. (NJD 000692053), CECOS International, Corp. (NYD 080336241) Detrex Corp. (MID 091605972, OHD 080158702), CyanoKem (MID 098011992), General Electric (NYD 067539940), Thermal KEM (SCD 044442333), ENSCO (ARD 069748192), Solvents and Petroleum Services, Inc. (NYD 013277454), Michigan Disposal (MID 000724831), Envirotek Ltd. (NYD 038641601), Environmental International Electric Services, Inc. (MOD 980973556), Transformer Service, Inc. (NHD 018902874) and Chemtron Corp. (OHD 066060609).

2.3

CURRENT WASTE HANDLING ACTIVITIES

Wastes are currently stored for less than 90 days in a storage area located in the Annex Building. These wastes are manifested, transported, and disposed of in accordance with Federal and State regulations at approved off-site TSDFs. The NYSDEC inspects the present storage area annually.

TABLE 2 - 1
Summary of Chemicals Stored in Former Waste Storage Area

<u>Hazardous Waste</u>	<u>Content</u>	<u>EPA Waste Code</u>
Liquid	Copper, sodium, and nickel cyanides in basic solutions. Some common bases include sodium hydroxide and potassium hydroxide (Poison B)	D003
Liquid	Cadmium and copper cyanide in neutral solutions (Poison B)	D003
Liquid	Chromic acid and sulfuric acid (corrosive)	D002
Liquid	Spent halogenated solvents, trichloroethylene and trichloroethane, and methylene chloride with some contaminants amounting to less than 30% including phenol, formic acid, and dissolved rubber	F002
Liquid	Spent non-halogenated solvents, commonly found in paint, lacquer, and toner. Common constituents include alcohol, ketones, xylene, toluene, and naphtha. Small amounts of phthalate and carbon black (flammable and combustible liquids)	F005 D001
Liquid	Polychlorinated biphenyls (ORM-E)	B006
Solid	Chrome, copper, cyanide, lead, and barium sulfate and Speedi-dry (Poison B and ORM-E)	D005 D007
Miscellaneous	a. Copper plating solution filters (dry) (Poison B) b. Waste parcolene solution, manganese phosphate and tetrasodium pyrophosphate c. Wax contaminated with 1-2% chromium, copper and trichloroethylene (ORM-E)	

3.0 CLOSURE ACTIVITIES

3.1 SAMPLING AND ANALYSIS

This plan incorporates pre-sampling to delineate the extent of contamination (if present) followed by remediation with no post-excavation sampling. This approach has been successfully implemented at other closure and soil remediation projects in New York State. The benefit of this approach is that it allows excavation, backfilling and restoration of the impacted area during a single field event (i.e., the remedial contractor does not have to wait for analytical laboratory results before backfilling the excavation). This approach improves project safety (i.e., excavations are not left open for extended periods of time), expedites the closure program and reduces remedial costs.

3.1.1 *Sampling of Flyash Pile*

It is currently anticipated that the entire flyash pile will be taken for off-site disposal. Thus, it is only necessary to identify the appropriate disposal method (e.g., sanitary or hazardous waste landfilling). Six (6) samples will be randomly collected from the flyash pile. These samples will be composited into 2 samples which will be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) for the parameters listed on Table 3-1. The results of the TCLP analysis will be compared with the regulatory threshold levels.

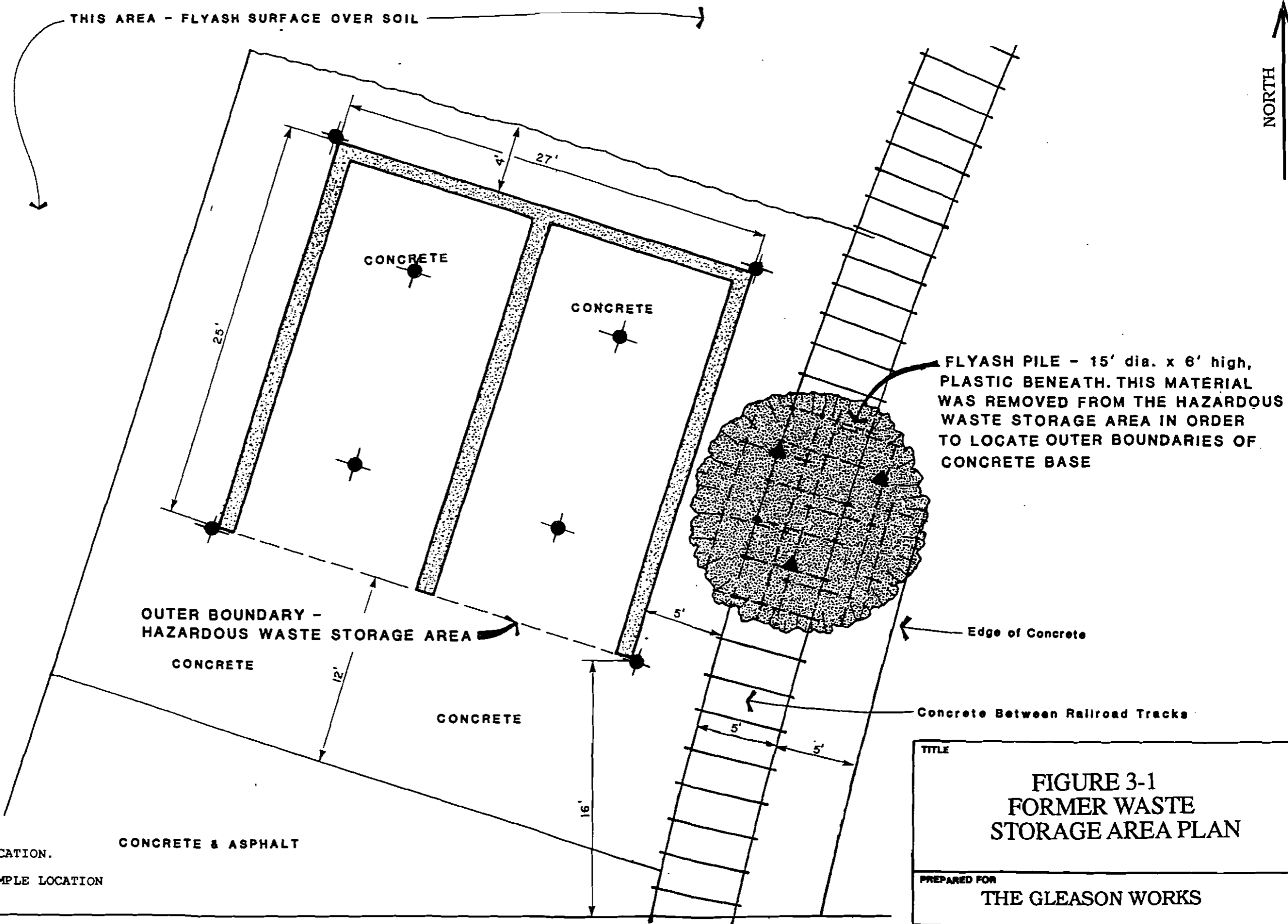
3.1.2 *Sampling of Waste Storage Area*

Figure 3-1 is a plan of the former waste storage area. Samples will be collected from this area to evaluate whether the materials formerly stored in this area are detectable in the concrete or soil below. A total of 27

TABLE 3-1

TOXICITY CHARACTERISTIC CONSTITUENTS

<u>Constituent</u>	<u>Regulatory Level (mg/l)</u>
Arsenic	5.0
Barium	100.0
Benzene	0.5
Cadmium	1.0
Carbon Tetrachloride	0.5
Chlordane	0.03
Chlorobenzene	100.0
Chloroform	6.0
Chromium	5.0
o-Cresol	200.0
m-Cresol	200.0
p-Cresol	200.0
Cresol	200.0
2,4-D	10.0
1,4-Dichlorobenzene	7.5
1,2-Dichloroethane	0.5
1,1-Dichloroethylene	0.7
2,4-Dinitrotoluene	0.13
Endrin	0.02
Heptachlor	0.008
Hexachlorobenzene	0.13
Hexachloro-1,3-butadiene	0.5
Hexachloroethane	3.0
Lead	5.0
Lindane	0.4
Mercury	0.2
Methoxychlor	10.0
Methyl ethyl ketone	200.0
Nitrobenzene	2.0
Pentachlorophenol	100.0
Pyridine	5.0
Selenium	1.0
Silver	5.0
Tetrachloroethylene	0.7
Toxaphene	0.5
Trichloroethylene	0.5
2,4,5-Trichlorophenol	400.0
2,4,6-Trichlorophenol	2.0
2,4,5-TP (Silver)	1.0
Vinyl Chloride	0.2



LEGEND:
 ● PROPOSED TEST BORING LOCATION.
 ▲ PROPOSED FLYASH PILE SAMPLE LOCATION

NOTES:
 1) FIGURE ADAPTED FROM LOZIER WASTE STORAGE AREA PLAN, SEPTEMBER 1989.
 2) DRAWING NOT TO SCALE.

TITLE	
FIGURE 3-1 FORMER WASTE STORAGE AREA PLAN	
PREPARED FOR	
THE GLEASON WORKS	
ERM	ERM-Northeast
<small>Environmental Resources Management</small>	
SCALE	FIGURE
DATE	

149926

soil/concrete samples will be collected as summarized below:

- 24 samples will be collected from eight boring locations (i.e., 3 samples per boring) underneath or adjacent to the former waste storage area (see Figure 3-1). One sample at each location will be collected immediately below the concrete (i.e., ground surface to 2 feet), a second sample will then be collected 2 to 4 feet below the surface and a third from 4 to 6 feet.
- one (1) composite sample of concrete will be collected from the four boring locations within the former waste storage area.
- one (1) soil sample will be collected from an area near the Gate 4 Guard House on Atlantic Avenue to evaluate background levels.
- one (1) soil sample will be collected from an area near the northeast corner of the Gleason property to evaluate background levels.

Initially, the 8 samples collected from ground surface to 2 feet, the concrete sample and the two background samples (i.e., total of eleven samples) will be analyzed for TCL-volatiles (method 8240), polychlorinated biphenyls (method 8080) and the following inorganics: chromium, copper, lead, mercury, barium, cadmium, manganese and cyanide. Based on the results from these ten surface samples, selected subsurface samples collected from the 2 to 6 foot zone will be analyzed as necessary to complete the delineation of the impacted soil. It is anticipated that if analytes are detected in the first sample set (i.e., the 0 to 2 foot zone), then the second sample set that will undergo analysis will include samples from the 4 to 6 foot zone from boring locations in the lower lying areas of the pad. The analytical parameter list outlined above is consistent with the wastes formerly stored in the waste storage area

(see Table 2-1 and Appendix A).

Those analytes that are detected at levels over 20 times the NYSDEC ground water standard will also be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP). This approach is consistent with the August 1992 NYSDEC STARS Memo #1. Note that additional samples will need to be collected if the results of this initial sampling round indicate that elevated levels exist at the four corner sampling locations or at depths greater than six feet below ground surface.

3.1.3 *Sample Collection Methods*

A total of eight borings will be drilled for collection of the 24 above-referenced samples. A concrete coring device will be used to remove the concrete at the boring locations. Soil samples will be collected using pre-cleaned split-spoon samplers and stainless steel trowels. This equipment will be decontaminated between samples. Samples for volatiles analysis will be collected first in 40 ml VOA vials with teflon lined septum caps. The vials will be filled with soil allowing as little headspace as possible. Following collection of the volatiles samples, additional soil will be collected for the other parameters. Additional sample volume will be collected and archived for subsequent landfill acceptance testing, if necessary. Prior to sampling and between sample collection, sampling equipment will be decontaminated as follows:

- 1) Wash with Alconox detergent (or steam clean);
- 2) Rinse with clean potable water;
- 3) Rinse with methanol;
- 4) Rinse with deionized water; and
- 5) Air dry.

3.1.4 *Sample Handling*

Samples will be hand delivered to General Testing Corporation (GTC) laboratories in Rochester, New York. Chain-of-custody protocols will be followed during sample collection. The samples will be tracked from time of collection to time of relinquishment at GTC. Following receipt of the data, ERM will provide data validation to ensure data quality.

3.1.5 *Analytical Testing*

Below is a summary of the analytical testing program for this project. This analytical program will be conducted by a NYSDOH-approved laboratory. The laboratory Quality Assurance/Quality Control program will consist of a chronological summary and the laboratory blank analysis for the analysis date.

<u>Sample Type</u>	<u>Analytical Test Method</u>
Flyash Pile Samples	TCLP for Parameters on Table 3-1
Storage Area Sample	TCL Volatiles, PCBs and chromium, copper, lead, mercury, barium, cadmium, manganese and cyanide. TCLP for detected analytes over 20 times the NYDEC ground water standard.
Background Soil Sample	TCL Volatiles, PCBs and chromium, copper, lead, mercury, barium, cadmium, manganese and cyanide.

3.2

DELINEATION OF AREA REQUIRING REMEDIATION

Following receipt of the analytical data, the vertical and horizontal limits of the area requiring remediation, if any, will be identified. It is presently anticipated that potential soil leachability will be the primary factor driving the cleanup. Thus, this delineation will be done by comparing parameters detected in soil using the TCLP procedure with appropriate NYDEC ground water standards. The site-specific cleanup levels may also be developed through comparison with published background levels, cleanup levels used at other similar sites and the results from the background sample analysis.

3.3

EVALUATION OF CLOSURE ALTERNATIVES

Following delineation of the area requiring remediation, potential remedial alternatives will be evaluated for the area. A remedial alternative will be identified using a cost-effectiveness analysis similar to that proposed in the October 1991 NYSDEC Draft Cleanup Policy. Some potential remedial alternatives include:

- Excavation and off-site disposal;
- Excavation, on-site treatment and off-site disposal;
- Containment;
- Insitu stabilization; and
- Pad decontamination followed by disposal at a C&D landfill.

Although the above alternatives will be considered, it is presently anticipated that the selected remedial alternative will include excavation of a portion of the concrete pad and underlying soil, and off-site disposal of this material and the flyash pile. Thus, the remainder of this section outlines the approach for implementing this alternative.

3.4 CLOSURE OF STORAGE AREA

3.4.1 *Site Preparation*

Following development of the site-specific cleanup levels, the area requiring excavation will be delineated in the field with survey stakes. The vertical and lateral limits of the excavation will be identified and discussed with the remedial contractor prior to mobilization of equipment.

3.4.2 *Storage Pad Cleaning*

Cleaning of the storage area will include removal of residual material (i.e., flyash dust) on the concrete pad. This material will be staged with the flyash previously removed from the area.

3.4.3 *Excavation of Soil and Flyash*

A hydraulic excavator will be used to remove the material requiring remediation (i.e., soil, flyash and concrete). This material will be loaded directly into one or more dump trailers for subsequent off-site disposal. If some material requires hazardous waste landfilling, these materials will be segregated, placed in proper containers and appropriately labeled. Following excavation of the soil to the predetermined limits, the excavation will be backfilled with clean soil and restored to grade.

3.4.4 *Disposal*

Waste characterization testing will be completed prior to excavation of the material. Thus, the material can be transported directly to the landfill for disposal. Possible disposal facilities include BFI's Sanitary Landfill in Niagara

Falls, New York and Chemical Waste Management's Model City facility in Lewiston, New York. Waste manifests will be completed and signed by appropriate Gleason personnel prior to shipment of waste materials.

CLOSURE DOCUMENTATION

ERM project engineers will be on-site full-time during closure to monitor and document the activities of the remedial contractor. Daily field notes will be recorded summarizing the activities conducted during the remediation with will, at a minimum, contain the following:

- Location;
- Date and Time;
- Weather and Temperature;
- Equipment Used;
- On-site Personnel;
- Air Quality Monitoring Levels;
- Summary of Activities; and
- Work Completed.

Following completion of the closure program, Gleason will submit a report to NYSDEC documenting sample results and closure activities. This report will document that the closure activities were conducted in compliance with this Closure Plan and will be signed by appropriate representatives from Gleason and ERM.

5.0 PROJECT ORGANIZATION

5.1 PROJECT MANAGEMENT

The responsibilities of the key project personnel are presented in Figure 5-1. These personnel have been selected on the basis of their understanding of the regulatory requirements as well as their demonstrated technical capabilities.

The ERM-Northeast Buffalo office has assigned highly qualified individuals to conduct this project. Specifically, Mr. Jeffrey A. Wittlinger, P.E. will be the Project Manager who will oversee the project. Mr. Wittlinger is a professional engineer, licensed in the State of New York, with over ten years of experience in remedial engineering.

Mr. Glenn Wygant will serve as the Project Geologist. Mr. Wygant has over 10 years of experience in hazardous waste closures, waste disposal and USTs. Mr. Robert T. Fabian will be the engineering technician who will be involved in the field sampling program.

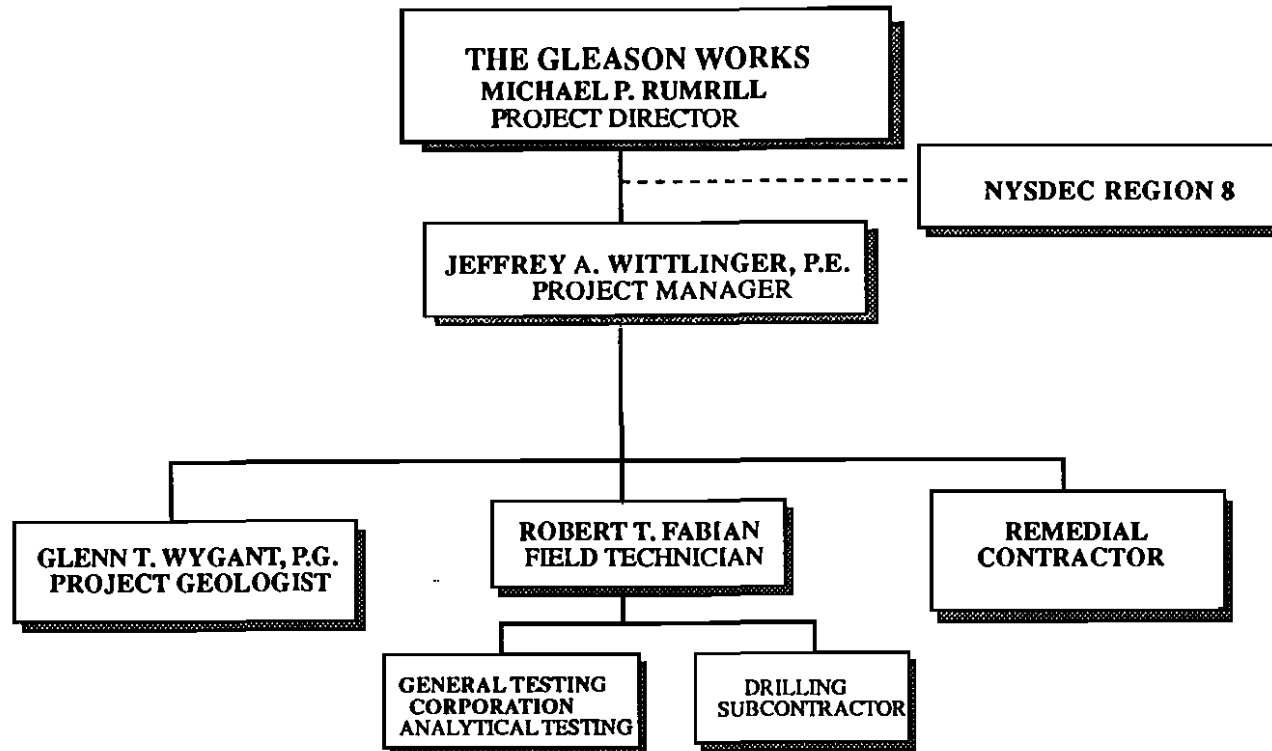
5.2 IMPLEMENTATION SCHEDULE

Figure 5-2 presents a project schedule. The project start date will be identified following NYSDEC-approval of the final Closure Plan.

5.3 PROJECT COST ESTIMATE

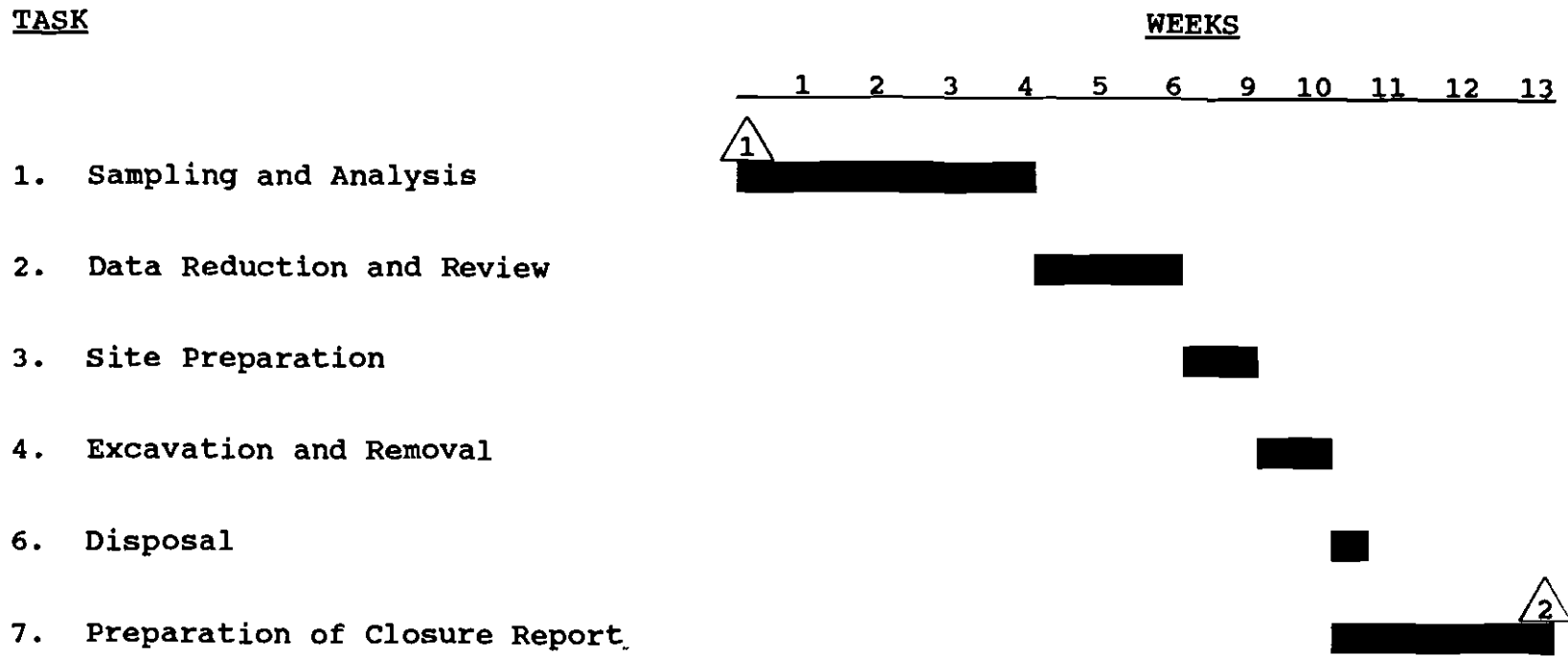
The cost of this closure project will be directly related to the volume of material that requires remediation. Thus, an accurate cost estimate cannot be prepared until after the sampling program has been completed. A preliminary estimate of the range of costs, including a 10 percent

FIGURE 5-1
PROJECT ORGANIZATION CHART
THE GLEASON WORKS
CLOSURE OF FORMER WASTE STORAGE AREA



5-2

**FIGURE 5-2
IMPLEMENTATION SCHEDULE**



MILESTONE DESCRIPTIONS

- 1 Project Start-up
- 2 Submit Closure Report

LEGEND

▲ Key Task Milestones

administrative cost and a 15 percent contingency cost, is presented below.

1) Engineering	\$ 20,000 to 30,000
2) Analytical Laboratory	\$ 20,000 to 30,000
3) Remedial Contractor	\$ 20,000 to 50,000
4) Disposal	\$ <u>5,000 to 50,000</u>
Total Costs	\$ 65,000 to 160,000

APPENDIX A

**INVENTORY OF CHEMICALS STORED IN
FORMER WASTE STORAGE AREA**

WASTES STORED - G.W. HAZARDOUS WASTE STORAGE AREA

WASTE NAME	USDOT SHIPPING NAME	CHEMICAL CONSTITUENTS
PCB CAPACITORS	RQ, WASTE HAZARDOUS SUBSTANCE, LIQUID, NOS. (POLYCHLORINATED BIPHENYLS) ORM-E NA9188	POLYCHLORINATED BIPHENYLS
CHROME EXHAUST SLUDGE	HAZARDOUS WASTE SOLID, NOS ORM-E NA 9189	CHROMIUM - 30-45% LEAD - 1-5% SULFURIC ACID - 3-8%
WASTE TRICHLOROETHYLENE	WASTE TRICHLOROETHYLENE ORM-A UN 1710	TRICHLOROETHYLENE
WASTE III TRICHLOROETHANE	WASTE 1,1,1, TRICHLOROETHANE ORM-A UN 2831	1,1,1, TRICHLOROETHANE
CONTAMINATED WAX	HAZARDOUS WASTE SOLID N.O.S. ORM-E NA 9189	WAX - 90-95% CHROMIUM - 1-2% COPPER - 1-2% TRICHLOROETHYLENE - 1-2%
TE PAINT	WASTE PAINT, LACQUER, COMBUSTIBLE LIQUID UN 1263	ALCOHOLS - INCLUDING 2 - PROPANOL KETONES - INCLUDING MEK TOLUENE NAPHTHA XYLENE ETHANOL 2 METHYL - 1- PROPANOL 2 BUTOXYETHANOL ACETONE METHYL ISO BUTYL KETONO ISOBUTYL ACETATE BIS (2-ETHYLHEXYL) PHTHALATE
COPPER CYANIDE PRECIPITATE	WASTE CYANIDE MIXTURE POISON B UN 1588	WATER - 85-95% SODIUM CARBONATE - 3-8% CYANIDE (COPPER & SODIUM) .5-2% COPPER - .5-2%
PERIODIC REVERSE CLEANING SOLUTION	WASTE CYANIDE SOLUTION NOS POISON B UN 1935	CYANIDE - .5-1%

WASTES STORED - G.W. HAZARDOUS WASTE STORAGE AREA

WASTE NAME	USDOT SHIPPING NAME	CHEMICAL CONSTITUENTS
COPPER CYANIDE PLATING SOLUTION	WASTE CYANIDE SOLUTION NOS POISON B UN 1935	WATER - 82-90% COPPER METAL DISSOLVED - 2-4% COPPER CYANIDE - 4-6% POTASSIUM HYDROXIDE - 1-3% ULTRATARTRAL - 1-3% FREE SODIUM CYANIDE - .5-1.5%
NICKEL PENTRATE WASTE	WASTE CYANIDE SOLUTION NOS POSITION B UN 1935	WATER - 45-55% SODIUM HYDROXIDE - 35-45% SODIUM NITRATE - 2-6% SODIUM NITRITE - 2-6% NICKEL NITRATE - <.01% SODIUM CYANIDE - < 1% SODIUM CARBONATE - 1-3%
COPPER STRIP WASTE	WASTE CHROMIC ACID SOLUTION CORROSIVE UN 1755	CHROMIC ACID - 30-45% SULFURIC ACID - 30-45% WATER - 10-20% COPPER (DISSOLVED) - 3-10%
WASTE TURCO - RUBBER STRIP	WASTE METHYLENE CHLORIDE MIXTURE - ORM-A UN 1593	METHYLENE CHLORIDE - 60-70% PHENOL - 20-30% FORMIC ACID - 5-15% DISSOLVED RUBBER - 5-10%
CHROME STRIP SOLUTION	WASTE CHROMIC ACID SOLUTION CORROSIVE UN 1755	WATER - 45-55% HYDROCHLORIC ACID - 45-55% CHROMIUM (DISSOLVED) - 3-6%
CYANIDE/SPEEDI-DRI	WASTE CYANIDE SOLID - MIXTURE, POISON B UN 1588	SPEEDI-DRY COPPER CYANIDE SODIUM CYANIDE
MERCURY BATTERIES/ MERCURY FILLED TUBES	MERCURY, COMPOUND SOLIDS, POISON B - UN 2025	SPEEDI-DRY MERCURY BATTERIES MERCURY FILLED TUBES
WASTE LACQUER THINNER	WASTE FLAMMABLE LIQUID N.O.S FLAMMABLE LIQUID UN 1993	LACQUER THINNER

WASTED STORED - G.W. HAZARDOUS WASTE STORAGE AREA

WASTE NAME	USDOT SHIPPING NAME	CHEMICAL CONSTITUENTS
WASTE PARCOLENE M SOLUTION	COMPOUND, IRON OR STEEL RUST PREVENTING OR REMOVING OTHER THAN PETROLEUM N.O.I.	MANGANESE PHOSPHATE TETRASODIUM PYROPHOSPHATE
BARIUM SULFATE SLUDGE	HAZARDOUS WASTE SOLID N.O.S. UN 1263	BARIUM SULFATE - 100%
CADMIUM PLATING SOLUTION	WASTE CYANIDE SOLUTION, N.O.S. POISON B (CADMIUM) UN 1935	CYANIDE - DISSOLVED CADMIUM - DISSOLVED
WASTE TONER	WASTE COMBUSTIBLE LIQUID N.O.S. COMBUSTIBLE LIQUID NA 1993	CARBON BLACK MINERAL SPIRITS
CYANIDE AREA RINSE DOWN SOLUTION	R.O., WASTE CYANIDE SOLUTION, N.O.S. (CYANIDE) POISON B UN 1935	WATER - 90-95% COPPER CYANIDE - 1-2% SODIUM CYANIDE - 1-2%
COPPER PLATING SOLUTION FILTERS	RQ, WASTE CYANIDE MIXTURE, DRY, (CYANIDE) POISON B UN 1588	FILTER MATERIAL - 90-95% WATER - 1-5% COPPER CYANIDE - 1-3% SODIUM CYANIDE - 1-3%
DEBRIS FROM CYANIDE AREA, DUCTS/TANKS	RQ, POISONOUS SOLID, N.O.S. (CYANIDE, CHROME) POISON B UN 2811	DIRT - SPEEDI-DRY COPPER CYANIDE CHROMIUM
LIQUID DEBRIS FROM COPPER CYANIDE DUCT-WORK- RINSE AREA	RQ, WASTE CYANIDE SOLUTION, N.O.S. (CYANIDE) POISON B UN 1935	WATER DIRT COPPER CYANIDE (DISSOLVED)
		H. W. BOWMAN AUGUST 2, 1989 (wastes)(H)