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RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION REPORT

Spaulding Composites Company
Tonawanda, New York

Changes made per Response to Comments from NYSDEC. Please replace the following within your report.

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JULY 1997 (REVISED JULY 1998)
REF. NO. 5039 (16)
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Revision No. 2
Revised: September 1998

RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION REPORT

Spaulding Composites Company
Tonawanda, New York

Changes made per Response to Comments from NYSDEC. Please replace the following within your report.

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1.0 INTRODUCTION

1.1 GENERAL

Spaulding Composites Company, Inc. (Spaulding) owns a former vulcanized fibre and composites laminate manufacturing facility at its Industrial Plastics Division plant site (Facility or Site) in Tonawanda, New York. Figure 1.1 presents the Site location and Figure 1.2 illustrates the layout of the plant. Spaulding ceased its manufacturing operations in August/September 1992 and completed plant-wide decommissioning activities at the Site in August 1995 as part of the shutdown of the Facility. As part of Spaulding's long-term decommissioning goals for the Facility, Spaulding voluntarily proposed to implement a Site-wide Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) program and a Remedial Investigation/Feasibility Study (RI/FS) to address an area within the Site known as the Resin Drum Landfill.

Spaulding is performing the RFI and RI activities under the terms and conditions of Schedule B to an RCRA Corrective Action Order on Consent (File No. 91-18-R9-3425-91-04) and an RI/FS Order on Consent (Index No. B9-0399-92-03), respectively, entered into by Spaulding and the New York State Department of Environmental Conservation (NYSDEC) with an effective date of October 25, 1994. A Site-wide RFI Work Plan, an RI/FS Work Plan for the Resin Drum Landfill, and associated project support documents, all dated August 1993 and revised by letter dated November 21, 1994, were approved by NYSDEC letter dated November 29, 1994. The RFI and RI activities have been implemented in phases, beginning in April 1995, in accordance with the approved RFI and RI/FS Work Plans. The RFI and RI activities are briefly described in Section 1.2.

The primary objectives of the RFI and RI programs are:

i) to determine the nature and extent of contamination at the Site, including the Resin Drum Landfill;

ii) to define existing and potential pathways of contaminant migration, if any;

iii) to define physical features, to the extent they exist, that affect or could affect contaminant migration, containment, or remediation, if any;

iv) to evaluate potential risks which the Site may pose to public health and the environment; and

v) to gather information necessary to support and complete a Corrective Measure Study (CMS) or FS, if one is determined to be necessary.

This report presents a summary of the tasks performed during the RFI and RI, the information collected during the field activities, and a detailed assessment of the Site conditions. With approval from the NYSDEC, this report has been prepared to fulfill the reporting requirements of the RI/FS Work Plan for the Resin Drum Landfill, the Site-Wide RFI Work Plan, and the Orders on Consent for the two programs. This report is consistent with applicable United States Environmental Protection Agency (USEPA) and NYSDEC guidance, including the following:

i) "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", dated October 1988;

ii) NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, dated January 24, 1994 and subsequent proposed revision(s);

iii) USEPA, "RCRA Facility Investigation Guidance", dated May 1989; and

iv) the National Contingency Plan (NCP) of March 8, 1990.

This report is organized in the following sections:

SECTION 1.0	INTRODUCTION
SECTION 2.0	BACKGROUND
SECTION 3.0	REGIONAL SETTING
SECTION 4.0	DESCRIPTION OF FIELD ACTIVITIES
SECTION 5.0	SITE ENVIRONMENTAL SETTING
SECTION 6.0	NATURE AND EXTENT OF CONTAMINATION
SECTION 7.0	CONTAMINANT FATE AND TRANSPORT
SECTION 8.0	HEALTH ASSESSMENT
SECTION 9.0	CONCLUSIONS

1.2 RFI AND RI SCOPE OF WORK

1.2.1 RCRA Facility Investigation

In the late 1980s, CDM Federal Program Corporation (CDM), a contractor to the USEPA, performed a RCRA Facility Assessment (RFA) at the Site. A draft RFA Report prepared by CDM is presented in Appendix A to the RFI Work Plan. This RFA Report identified 36 Solid Waste Management Units (SWMUs) and several potential Areas of Concern (AOCs). Figure 1.3 identifies the locations of the SWMUs and AOCs at the Site. In mid 1992, Spaulding proposed to perform an RFI and developed an RFI program to investigate certain SWMUs and AOCs. The SWMUs and AOCs were grouped into five SWMU/AOC groups in order to efficiently investigate any potential environmental effects of the SWMUs/AOCs. Section 2.3 describes in detail the SWMUs and AOCs at the Site, and the SWMU/AOC groups.

As part of the development of the RFI Work Plan, all SWMUs and AOCs of the Site were evaluated and recommendations were made for the performance of an RFI on selected SWMUs/AOCs. As noted in the approved RFI Work Plan, the RFI activities focused on the investigation of the following SWMUs and AOCs:

SWMU Group	*SWMUs/AOCs*	
A	SWMU 7	Resin Drum Landfill
	SWMU 13	Sludge Settling Pond
B	SWMU 5	Empty Drum Storage Dock
	SWMU 36	Aboveground/Underground Storage Tanks
	AOC 45	Rail Spur
	AOC 46	Drum Storage Dock
	AOC 47	Bulk Chemical Unloading Area
	AOC 48	Transformer Explosion Area
C	SWMU 8	Laminant Dust Landfill
	SWMU 11	Grinding Waste Sludge Settling Pond
	SWMU 12	Sludge Settling Pond
	SWMU 14	Fiber Waste Sludge Settling Pond
	SWMU 23	Aboveground Storage Tank Farm
	SWMU 26	Paper Sludge Land Application Area
	SWMU 38	Therminol Building Unit/Drain Tiles/Contaminated Soils
D	Miscellaneous SWMU/AOCs Within Building	
E	AOC 40	Off-Site Storm Sewer System
	AOC 41	Niagara River
	AOC 42	Site Utility Bedding
	AOC 44	Site Process Sewer System (I- and F-Lines)
	AOC 43	Site Storm Sewer System

The general objectives of the RFI are to determine if any releases have occurred from the SWMUs and AOCs at the Site, to characterize the nature and extent of such releases, and to identify and evaluate potential contaminant migration pathways.

The RFI activities performed, as described in the approved RFI Work Plan, included the following tasks:

i) description of the current conditions (i.e., geologic and hydrogeologic settings, demographics, zoning) at the Site;

ii) Phase I release determination activities including collection of soil, waste, and groundwater samples, and the development of Site-Specific Parameter Lists (SSPLs);

iii) Phase II contaminant characterization activities including hydrogeologic investigation, surface water/storm water sampling, Site utility bedding investigation, sediment sampling, and Phase II soil investigation;

iv) investigation analyses including sample analyses and data evaluation;

v) identification of protection standards;

vi) identification of potential receptors and performance of a qualitative assessment of risks to public health and the environment; and

vii) preparation of an RFI report.

1.2.2 Remedial Investigation

The Resin Drum Landfill (SWMU 7) has been listed on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites as a Class "2" Site. At the request of the NYSDEC, Spaulding agreed to perform an RI/FS Program for the Resin Drum Landfill and prepared an RI/FS Work Plan. The NYSDEC subsequently approved the RI/FS Work Plan for the Resin Drum Landfill (RI/FS Work Plan), dated August 1993, as modified by submittal dated November 21, 1994.

The general objective of the Resin Drum Landfill RI is to gather sufficient data to characterize the nature and extent of contamination attributable to the Resin Drum Landfill, to identify any contaminant migration pathways and to characterize any potential risks to public health or the environment.

The following activities constitute the Resin Drum Landfill RI:

i) preparation of project-specific plans;
ii) preparation and implementation of a Citizen Participation Plan;
iii) description of current conditions;
iv) procurement of contractors and subcontractors;
v) performance of investigative activities including waste characterization, soil investigation, hydrogeologic investigation, surface water and sediment sampling, and related air monitoring;
vi) sample analyses;
vii) data evaluation;
viii) qualitative assessment of risks to public health and the environment; and
ix) preparation of an RI Report.

With approval from the NYSDEC, the results of the Resin Drum Landfill RI are presented with the results of the Site-wide RFI in this combined RFI/RI report since much of the information required for the two programs overlaps.

2.0 BACKGROUND

2.1 SITE DESCRIPTION

The Industrial Plastics Division of the Spaulding Composites Company, Inc. is located at 310 Wheeler Street in the City of Tonawanda, New York (Pop. 17,284) on approximately 46 acres of land with approximately 17.6 acres of undeveloped land. The Site is located approximately one mile south of the Niagara River and one mile east of Two Mile Creek. Figure 1.1 illustrates the Site location and Figure 1.2 presents the Site layout.

The northeast side of the property, where the plant entrance is located, faces Wheeler Street. Across Wheeler Street is the plant parking lot, several small commercial establishments, and vacant land. The southeast side of the property faces Hackett Street. Across Hackett Street are several large industrial buildings, used for metal fabrication and warehousing. Extending further to the east and several hundred yards away from the plant is a large, old industrial manufacturing complex formerly occupied by the Remington-Rand Company, and now used for warehouse and distribution operations.

There is a strip of open land at the southwestern portion of the property beyond which is Hinds Street. There are residences and a small cluster of stores across Hinds Street.

Along a portion of the northwest side of the property are a number of residential properties lying directly adjacent to the plant property. The remaining portion of the northwest side of the property faces Dodge Avenue, across from which is open land followed by more residential properties.

Land use in the general area gradually changes from mixed industrial, commercial, and residential to mostly residential as one travels from southeast to northwest along Wheeler Street toward the Niagara River.

The topography of the plant Site and the surrounding area is generally flat. Plan 1 illustrates the regional topography. Drainage patterns in the vicinity of the plant are determined by the location of drainage ditches and municipal storm water catch basins. Collected storm water eventually discharges to the Niagara River. Plan 2 presents a topographic survey drawing of the Site.

The general area is served by a municipal water supply system. Review of local and county records indicates that there are no potable water supply wells between the Site and the Niagara River.

2.2 SITE HISTORY

2.2.1 System Operations

Operations at the Tonawanda Plant Industrial Plastics Division began in 1911. A major plant expansion occurred during the 1920s. By the time of World War II, most of the present plant floor area had been constructed. The current plant buildings contain approximately 860,000 square feet of floor area.

From its beginning up to roughly the early post-war years, the plant manufactured primarily one family of products: vulcanized fiber, an early "plastic" made by treating paper with zinc chloride solution to impart certain desired physical properties. The paper used to produce vulcanized fiber was manufactured on Site in a small captive paper mill.

In approximately the late 1940s to early 1950s, the plant installed permanent manufacturing facilities for a second family of products. These products consisted of laminates made by impregnating natural fibers with phenolic resins (and later, also melamine and epoxy resins and synthetic fibers). This material was sold under the trade name, "Spauldite®". Many of the phenolic resins (resoles) used in the production of Spauldite® were manufactured on-Site. The principal chemical raw materials used to produce resins in the past include phenol, formaldehyde, aniline, cresylic acid, cresylic acid type S, di-n-butyl phthalate, butyl octyl phthalate, bis (2-ethylhexyl) phthalate, methanol, ethanol, toluene, acetone, methylethyl ketone, benzene, and ammonium hydroxide. The Spauldite® manufacturing operation underwent a major expansion in 1981 with the addition of the Treater No. 5 building, the Trimline, and the No. 16 high pressure laminating press.

Operations at the plant were divided into four distinct manufacturing areas consisting of the Paper Mill, Fibre Sheet, Fibre Tube, and Spauldite® Sheet Departments. The operations were discontinued in mid to late 1992 and decommissioning activities have been completed in these areas.

2.2.2 Historical Spills or Releases

There have been at least 17 documented spills or releases known to have occurred at the Facility since 1958. There is no record of any spill prior to this time. Fourteen of the 17 spills involved materials leaking or overflowing onto or into the ground or surface water. A brief summary of the incidents is contained in the following subsections. Discussions on other spills/releases associated with SWMUs and AOCs are contained in Section 2.3.

NYSDEC Spill Report numbers are referenced where appropriate. NYSDEC Spill Report numbers 9606382 and 9606459 are duplicate reports related to an odor complaint on August 23, 1986. No documented spill of material into the ground or into surface water occurred that day.

2.2.2.1 Phenol Release to Storm Sewer

Historical documents obtained from NYSDEC program files indicate that prior to 1958 phenol and colored process wastewaters were discharged into the storm sewers which flow to the Niagara River, consistent with practices at that time. In 1958, Spaulding collected these wastewaters for off-Site treatment and ceased the phenolic/colored wastewater discharges to the Niagara River with concurrence of the Water Pollution Control Board.

2.2.2.2 Formaldehyde Tank Leak

On Friday, October 11, 1985, a small leak to the concrete floor was detected in a formaldehyde storage tank located in the Spauldite® bulk chemical tank room. The leak was contained within the secondary containment of the room. The tank was drained into an empty tank truck and repairs were made to the formaldehyde tank. The spilled material, which was contained within the tank room, was cleaned with a methanol wash. All spilled material and wash waters were containerized and were disposed of at an appropriate off-Site disposal facility in accordance with the applicable rules and regulations. The tank room was ventilated with fans for 10 days until there were no measurable formaldehyde fumes.

2.2.2.3 Oil Discharge to Niagara River

No. 4 polishing oil was discovered entering the Niagara River via the Gibson Street storm sewer on Thursday, May 22, 1986. The source was tracked back to the 15,000 gallon aboveground storage tank (AST) located at the east side of the Facility and used to hold No. 4 polishing oil for the fibre tube grinding operations. An undetermined amount of oil leaked or was spilled out of the tank and made its way to a sump located nearby. The sump was tied into the plant storm sewer which empties into the City of Tonawanda's Wheeler Street storm sewer. The water from this storm sewer discharges into the 33-inch storm sewer running down Gibson Street to the Niagara River. Agencies involved or notified included the United States Coast Guard, the City of Tonawanda, and the NYSDEC (NYSDEC Spill Report Number 8601252).

The cleanup was completed over a five-day period and entailed pumping oil out of the sump and erecting absorbent booms across the Gibson Street sewer discharge pipe to collect any oil that had already entered the sewer system.

2.2.2.4 Zinc Chloride Spill

The NYSDEC was notified by Spaulding on August 6, 1986 of a one-time zinc chloride spill in the zinc chloride acid house which occurred the previous day. Steel hoops which held wooden slats together on the 6,000 gallon zinc chloride wooden tank corroded and broke, allowing release of the tank contents into the secondary containment area (concrete pit). Approximately 150 gallons of zinc chloride overflowed the containment curbing and spilled into the discharge trench for the permitted F-Line storm/process sewer. The spill was reported as an excursion on the August 1986 Discharge Monitoring Report in accordance with the conditions of Spaulding's State Pollutant Discharge Elimination System (SPDES) Permit.

2.2.2.5 Resin Spill

On October 23, 1986, a resin spill occurred in the container storage area/empty drum storage dock (SWMU 5) located outside of the eastern end of the building (near Gibson Street). Spaulding contained the spill with absorbent and the impacted soil was excavated and disposed of at an appropriate off-Site disposal facility. This spill was reported to the NYSDEC (Spill Report Number 8604734).

2.2.2.6 Spaulding Solvent Spill

On Friday, November 20, 1987, Spaulding Solvent (a mixture of 50 percent methanol and 50 percent toluene) was being pumped from the underground storage tank (UST) to a process tank located in the Spauldite® Sheet Department. Due to a malfunctioning level controller, the pump shut off failed when the process tank was full. The excess solvent returned to the UST via an underground return pipe. Spaulding discovered that the return pipe had a hole in it due to corrosion and approximately 1,400 gallons of solvent leaked into the ground.

The City of Tonawanda Fire Department and Department of Public Works were called in to vent the storm sewers in the area. The solvent in the ground leached into a nearby sump which was connected to the Wheeler Street storm sewer. The solvent made its way through the storm sewer and the fumes entered several homes and the Fletcher Street School.

Cleanup consisted of plugging the line exiting the sump and removing 1,000 cubic feet of contaminated soils and 2,800 gallons of contaminated groundwater. Contaminated soils and groundwater were disposed of at an appropriate off-Site facility. The NYSDEC was present on Site during the cleanup activities (NYSDEC Spill Report Numbers 8707205 and 8707235).

2.2.2.7 Methanol Pipe Leak

An undetermined amount of methanol was released into the ground from an underground transfer pipe (located between the outside methanol storage tank within the tank farm and the Spauldite® Sheet Department) on April 4, 1989. About 20 gallons of analine oil was also spilled in the same area. A total of 5,700 gallons of contaminated groundwater was collected and sent off Site for incineration. In addition to the groundwater, 30 tons of contaminated soil was removed and landfilled at an approved off-Site disposal facility. The NYSDEC was apprised of every step of the cleanup process (NYSDEC Spill Report Numbers 8900092 and 8900093).

2.2.2.8 Methanol - Toluene Spill

Due to human error on July 14, 1989, methanol from the 15,000 gallon AST flowed into the underground Spaulding Solvent (50 percent methanol and 50 percent toluene) tank after the tank was full. The resulting overflow consisted of approximately 750 gallons of the methanol and 250 gallons of toluene mixture. The spill was contained within a concrete sump. The product was pumped from the containment sump into steel drums.

2.2.2.9 Fire in #3 Boiler

A fire burned in the #3 boiler for approximately two hours on Saturday, November 10, 1990. The fire was contained and put out by the City of Tonawanda Fire Department. It was determined that a resin coating inside the boiler was burning. Cleanup after the fire consisted of removing 200 to 300 gallons of water from the boiler house floor. The remainder of the water sprayed on the fire was trapped in the duct work where it evaporated over several days' time. The NYSDEC was notified by the Fire Department (NYSDEC Spill Report Number 9008789).

2.2.2.10 Underground Methanol Pipe Leak

A pin-hole size leak was discovered in an underground methanol suction line on July 31, 1991 in the vicinity of the UST/AST tank farm. It was believed that 20 to 55 gallons of methanol leaked into the ground. The NYSDEC was notified by Spaulding and the pipe was repaired (NYSDEC Spill Report Number 9104679). Since no visual evidence of spilled material was evident during the pipe excavation and repair, authorization was given by NYSDEC to backfill with the excavated soils.

2.2.2.11 Oil Discharge to the Niagara River

Spaulding was notified by the City of Tonawanda Police Department that an oily sheen was exiting the Gibson Street storm sewer outfall to the Niagara River. This notification occurred on September 9, 1991 and the source was traced to an oil-water separator for a Worthington screw compressor. The failure of the oil separator allowed oily condensate to be discharged into a sump which in turn was pumped into the plant storm sewer. The NYSDEC was notified and the oil separator was replaced (NYSDEC Spill Report Number 91062000). It was estimated that approximately 10 gallons of the oily water mixture had been released.

2.2.2.12 Methanol-Toluene Spill

Failure of a level controller on a solvent transfer tank on March 20, 1992 resulted in 350 to 450 gallons of the 50 percent methanol 50 percent toluene mixture being spilled onto the plant roof through a tank vent pipe. A small amount of solvent did make it to the K-Line storm sewer by traveling down the roof drains which tie directly into the sewer. Testing in the K-Line monitoring station showed 36 parts per billion (ppb) of toluene and no methanol. Flammable vapors were not detected in the K-Line Monitoring Station and the Gibson Street storm sewer.

Due to the solvent's high vapor pressure and the fact that it was spread over a large area, only 30 gallons of product was recovered from the roof. The agencies contacted by Spaulding relative to this spill included the NYSDEC, City of Tonawanda Fire Department, and the National Response Center (NYSDEC Spill Report Number 9112910).

2.2.2.13 October 1994 Transformer Oil Spill

On October 21, 1994, it was discovered that an out-of-service PCB transformer had been vandalized resulting in a spill of PCB transformer liquid (PCB-1260). The PCB transformer was staged within a building awaiting transfer off-Site. PCB transformer liquid was released to a concrete floor inside the building and to the ground outside the building. Contaminated soil and the affected building concrete floor were removed as part of the remediation. The NYSDEC approved the PCB cleanup activities (NYSDEC Spill Report Numbers 9409780 and 9608581). Section 2.5.5 describes the cleanup in detail.

2.2.2.14 Non-PCB Oil Spill

On October 10, 1989, some spillage of non-PCB oils occurred from open top drums to the blacktop surface of a drum storage pad near the Spauldite Department. The NYSDEC Spill Report (Number 8906748) states that during cleanup, some of the oil was washed into the K-Line storm sewer. The NYSDEC Spill Report also states that the area was relatively clear of spilled materials on a subsequent Site visit and no further action was planned. Spaulding Composites Company could not locate any record pertaining to this spill.

2.2.2.15 Kerosene Spill

On July 29, 1991, Spaulding Composites Company personnel noted pin holes in an aboveground outdoor kerosene tank during repairs to a pump. The tank was emptied and taken out of service and disposed of off-Site. The tank was located within a diked area near the paper mill. Approximately 30 cubic yards of kerosene contaminated soil was excavated and disposed off-Site in a properly permitted landfill. The NYSDEC was notified and approved of the cleanup activity (NYSDEC Spill Report Number 9104580).

2.2.2.16 PCB Contaminated Asphalt Spill

On October 10, 1991, PCB contaminated asphalt leaked from a tank located in the aboveground storage area tank farm on the southwest end of the main building in SWMU 23. The NYSDEC was notified (NYSDEC Spill Report Number 9107472), and approximately 22 tons of PCB contaminated soil was excavated and properly disposed off-Site. Section 2.3 (SWMU 23) further discusses this spill and the resulting cleanup activities.

2.2.2.17 Methanol-Toluene Spill

Due to overfilling of the Spaulding solvent tank, methanol-toluene mixture was spilled onto the ground surface. The NYSDEC was notified (NYSDEC Spill Report Number 8709274) and a trench was dug to intercept the spilled solvent. Approximately 1,200 gallons of contaminated groundwater was collected and 30 to 40 cubic yards of soil were excavated. The contaminated soils and groundwater were disposed of at an approved off-Site facility.

2.3 SWMU AND AOC CHARACTERIZATION

2.3.1 General

The Facility RCRA Corrective Action Order on Consent defines the terms "Solid Waste management Unit (SWMU)" and "Areas of Concern (AOCs)" and identifies SWMUs and AOCs located on- and off-Site. Table 2.1 lists these SWMUs and AOCs. Figure 1.3 identifies the locations of these SWMUs and AOCs, except for AOCs 39 through 44, inclusive. AOC 39, 43, and 44 are illustrated on the Plant Sewer Drawing (see Plan 3). The location of all SWMUs and AOCs identified at the Facility are on the northern half of the Facility. No industrial/manufacturing activities have occurred on the southern half of the property nor on the Site's parking lot across Wheeler Street.

Descriptions of each of the SWMUs and AOCs are summarized in the following subsections.

2.3.2 Solid Waste Management Units

A total of 38 SWMUs were identified by the NYSDEC in the Order on Consent. All of these SWMUs are considered to be inactive due to the recent shutdown of manufacturing operations at the Facility and past closure activities. The plant-wide decommissioning activities performed have been summarized in the "Plant Decommissioning Final Report" dated August 1995 and approved by the NYSDEC by letter dated August 30, 1995. Descriptions of each SWMU are as follows.

SWMU 1 - Container Storage Area (Resin Wastes)

SWMU 1 is an indoor container storage area (33 feet by 66 feet) formerly used for the storage of solid and liquid resin (phenol, epoxy, and melamine) waste in drums. Liquid resin wastes also contained methanol and toluene as components of the resin. The liquid resin wastes exhibited hazardous waste characteristics of flammability. This resin waste container storage area is located inside the northwestern portion of the plant building near the resin manufacturing area. The storage area has a concrete containment area with a capacity of approximately 500 gallons. The capacity of this container storage area was estimated to be a maximum of 110 drums or approximately 6,000 gallons. No spills and releases to the environment were known to have occurred in this area. No visual evidence of releases in this area was noted during the RFA.

SWMU 2 - Container Storage Area (Rag Shed)

SWMU 2 is a drummed waste storage area located inside the Rag Shed. The storage area was approximately 175 feet by 146 feet with a capacity of approximately 3550 drums (30,000 gallons). The area was located on a concrete floor, however, no containment dikes or curbing were available. This area stored drummed wastes which included solid and liquid resins (phenolic, epoxy, and melamine) and waters of reaction from the resin manufacturing operations. Only liquid phenolic and epoxy resin wastes exhibited hazardous waste characteristics of flammability. No spills or releases to the environment (ground surface) were known to have occurred from this area. No evidence of spills or releases in this area was discovered during the RFA.

SWMU 3 - Zinc Chloride Sludge Storage Area

This area is located near the Weak Water Treatment Plant outside of the former (abandoned) boiler house and was used for the staging/storage of a 25-cubic yard roll-off box. Zinc chloride sludge generated from the Weak Water Treatment Plant was placed into the roll-off box for off-Site disposal. The roll-off box was lined with plastic and covered with a tarp. The zinc chloride sludge exhibited the hazardous waste toxicity characteristic for cadmium and lead. The sludge-containing roll-off was routinely transported for off-Site disposal within 90 days. No spills or releases of sludge were known to have occurred in this area. No evidence of releases was discovered during the RFA. In addition, it was concluded in the RFA Report that the exposure potential for this SWMU was minimal.

SWMU 4 - Container Storage Area

SWMU 4 was a drum storage area approximately 80 feet by 136 feet located inside a storage building at the south end of the plant building. Concrete containment walls/curbing (approximately 6 inches high) were present at all entrances to the building. The capacity of the containment area is approximately 40,000 gallons. Any spills within this container storage area would have been adequately contained. The capacity of this container storage area was approximately 50 drums or 2,500 gallons. Wastes stored in this area included waters of reaction from the resin manufacturing operations, solid resins, and general miscellaneous refuse. No evidence of releases in this area was discovered during the RFA.

SWMU 5 - Container Storage Area (Empty Drum Storage Dock)

The empty drum storage area is located outside the northwest end of the building and encompasses a 96 feet by 272 feet area. The storage area was situated on soil adjacent to the plant roadway. The storage area does not possess any form of containment. Empty resin drums and some drums containing small amounts of resin were stored and/or consolidated in this area. Stained soils were noted in this area during the RFA. Soil sample S7, collected a few yards from the storage area during the 1987 CERCLA Site Inspection, showed phenol at 910 parts per million (ppm) and di-n-butylphthalate at 240 ppm. In addition, a spill of resin occurred in this area on October 23, 1986. The spill was contained with absorbent and the soil beneath the spill area was excavated and disposed of at an appropriate off-Site disposal facility.

The RFI further characterized the nature and extent of contamination in the vicinity of SWMU 5 (see Section 6.4.4).

SWMU 6 - Container Storage Area (Solvent Waste)

A drum storage area is located outside of the southwest end of the Spauldite® Sheet Building. The storage area was built on a concrete pad. A six-inch containment wall surrounds the outer edge of the concrete pad. Any spills within the area would have been adequately contained. Drums containing water with methanol and toluene were usually stored here. No releases were known to have occurred in this area. It was noted in the RFA Report that the exposure potential from this storage area was minimal.

SWMU 7 - Resin Drum Landfill

During the period between February 1978 to September 1978, 750 drums of resin wastes were landfilled on the southeast portion of the Facility. Chemicals potentially contained in the resin include phenol, formaldehyde, dibutylphthalate, analine oil, cresol, methanol, and toluene.

The 50 feet by 70 feet by 15 feet (depth) landfill was constructed in clay soils. Approximately four feet of clay soils with vegetation covered the landfill. The drums' liquid resins likely polymerized to a solid over time.

Two groundwater monitoring wells were installed near the south and north ends of the landfill. Groundwater flow in the vicinity of the landfill is believed to be toward the north. Phenol concentrations as high as 0.26 mg/L have been detected prior to 1992. However, in some samples, concentrations of phenol were higher upgradient of the landfill. Groundwater samples collected during the RFI do not indicate significant contamination outside the limits of the landfill.

The Resin Drum Landfill has been classified by the NYSDEC as a Class "2" site under Title 6, New York State Codes, Rules and Regulations, Part 375 (6 NYCRR 375). The Resin Drum Landfill site has been designated by NYSDEC site registry number 915050B.

The Resin Drum Landfill was further investigated as part of the Resin Drum Landfill RI. Section 6.4.2 describes the results.

SWMU 8 - Laminant Dust (Asbestos-Containing) Landfill

Forty (40) tons of fiberglass, asbestos, cellulose, and resin dusts were disposed of in a 25 feet by 70 feet by 15 feet (depth) landfill between the fall of 1977 to September 1978. The dusts were double-bagged in polyethylene bags and then landfilled. The landfill was constructed in natural clay soils and was covered by a clay soil cap. The clay soil cap is well vegetated. This landfill is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as a Class 2a site (Site No. 915050C).

Possible pollutant migration pathways observed during the RFA were through the groundwater and soil. However, since the solid wastes were double-bagged and the soil permeability is low, the RFA Report concluded that any containment migration would likely be minimal and the exposure potential from the landfill is minimal. This was confirmed during the RFI which characterized the nature and extent of contamination in the Laminant Dust Landfill. Section 6.4.8 presents the results.

SWMU 9 - Zinc Chloride Sludge and Drum Landfill

A 60 cubic yard landfill was located beneath the plant floor and was contained within concrete block walls. It contained zinc chloride sludge and drummed lab chemicals, resin, and solvents. The pit had received five-gallon pails of various lab chemicals, 12 to 20 drums of resin solvent mixtures, and 55 cubic yards of zinc chloride sludge contaminated with cadmium and lead. In August 1985, the pit was excavated, backfilled, and a new concrete floor was poured over the pit. The excavated material was disposed of at an appropriate permitted off-Site disposal Facility.

Since the pit was contained by concrete walls, pollutant migration beyond the pit area could not have occurred. According to the RFA Report, the exposure potential of this area is minimal since the wastes in the pit have been removed.

SWMU 10 - Resin Dust Landfill

In 1977, approximately 500 cubic yards of phenolic, epoxy, and melamine resin dusts and some asbestos substrate dusts were landfilled inside the plant building. The wastes are contained within concrete walls and were covered with a concrete floor. Since the solid wastes are contained in concrete, the potential for contaminant migration is considered minimal. According to the RFA Report, the exposure potential for this SWMU is minimal.

SWMU 11, 12, 13, 14 - Sludge Settling Ponds (Lagoons)

Four unlined lagoons excavated into the native clay were used to collect wet grinding waste liquids/slurry from plastic laminate and vulcanized fibre grinding operation. The grinding wastes were discharged to the lagoons where solids were allowed to settle and the clarified water allowed to drain into the Site's storm sewer system. The grinding wastes discharged to SWMUs 11, 12, and 13 consisted of resins (phenolic, epoxy, and melamine), cellulose, fiberglass, and asbestos from the Spauldite® Sheet operations. The grinding wastes discharged to SWMU 14 consisted of vulcanized fibre wastes.

SWMU 11 operated from 1930 to 1972 and had dimensions of 54 feet by 27 feet by 15 feet. SWMU 12 also operated from 1930 to 1972 and its dimensions were 120 feet by 30 feet by 4 feet. SWMU 13 operated from 1939 to 1968 and had the dimensions of 35 feet by 35 feet by 15 feet. SWMU 14 operated from 1930 to 1967 and its dimensions were 36 feet by 24 feet by 10 feet.

Some seepage of contaminants from the sludges into the underlying soils could have occurred since the lagoons were unlined. However, due to the low permeability of the native clay present at the Site and beneath the lagoons, any migration of contamination from the lagoons would have been minimal. The underlying soils in each of the lagoons were excavated and backfilled with clean fill at the time of closure. The exact dates of closure are unknown. According to NYSDEC files, the lagoons were properly closed and no further action was required. The USGS collected soil samples from the lagoons in 1982 as part of a Phase I investigation. No significant amounts of contamination were noted and further action was not required by the NYSDEC at that time.

The sludge settling ponds are listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Class 5 sites (Site No. 915050A) which are defined to be sites that have been completely remediated or closed and require no further maintenance.

The RFI further characterized the nature and extent of any residual contamination in sludge settling ponds. Sections 6.4.10, 6.4.11, 6.4.3, and 6.4.12 describe the RFI results for SWMUs 11, 12, 13, and 14, respectively.

SWMU 15, 16, 17, 18 - Vulcanized Fibre Leaching Tanks

As part of the vulcanized fibre sheet and fibre tube processes, the fibre (sheets or tubes) was dipped in a concentrated aqueous solution of zinc chloride (70 Baume). The zinc chloride was allowed to react with the fibre matrix to create the vulcanized fibre product. Fresh water was added to the far end of the leaching tanks and gradually increased in zinc chloride concentration to the front of the tanks where the fibre was introduced. The water with the highest concentration of zinc chloride (7 to 8 Baume) was referred to as strong water. Water in the middle of the leaching system, with a medium zinc chloride concentration (400 ppm), was called weak water.

The fibre tube leaching system consisted of a series of wooden tanks contained in concrete containment pits. The concrete pits, in use since 1923, were sloped toward the ends to separate weak water from the strong water. Approximately 90 leaching tanks are contained by the pits. The main purpose of the containment is to contain any spillage from the wooden leaching tanks to aid in the transfer of the water along the process path. The Fibre Tube weak water containment pit is SWMU 15 and the Fibre Tube strong water pit is SWMU 16.

The vulcanized fibre sheet leaching system, in use since 1923, operated similarly to the fibre tube leaching system. Concrete containment pits sloped toward the end to separate the weak water from the strong water and contain several process lines consisting of wooden or concrete leaching tanks. The strong water was collected in the strong water containment pit and pumped to the evaporation system for recycling of zinc chloride. Any weak water collected in the weak water containment pit was transferred to storage to await treatment in the Weak Water Treatment Plant. The Fibre Sheet Weak Water Containment Pits are designated as SWMU 17 and the Fibre Sheet Strong Water Pits as SWMU 18. Two strong water storage tanks located adjacent to the Fibre Sheet Strong Water Pit are included as part of SWMU 18.

Prior to 1977, weak water from the respective pits was discharged directly to facility sewer lines which discharged to the Niagara River.

At the end of 1977, the Weak Water Treatment Plant was put into operation and the weak water was diverted from the sewer to the treatment plant for zinc removal.

The RFA did not find any evidence of a release to the environment from the concrete containment pits. The wooden tanks and concrete pits in the Fibre Tube and Fibre Sheet operations were routinely cleaned out as part of normal plant operations. As part of the plant decommissioning activities, these tanks and pits were decontaminated in late 1992 and early 1993 and are out of service. Minimal damage (some spalling and minor cracks) to the concrete pits was noted during the decommissioning activities. No evidence of releases from the containment pits to the environment were observed during the decommissioning/cleaning of the pits in 1992/1993.

SWMU 19 - Evaporation System

Since 1923, the strong water from the vulcanized fibre leaching process had been processed through an evaporation system to recover zinc chloride for reuse. The evaporation system included eight wooden storage tanks, a concrete containment pit for the tanks, evaporation chambers, a mixing tank, a filter press, and the associated piping.

The strong water from the fibre leaching process, with a zinc chloride concentration of 7 Baume, was pumped into the wooden storage tanks to await processing. The strong water was pumped from the storage tanks to a first effect evaporation chamber, where steam was used to boil the water, concentrating the zinc chloride. The effluent from the first effect chamber was sent to a second effect evaporation chamber, in series, wherein further concentration occurred. This second effect chamber operated under a vacuum and used the water vapor from the first effect chamber as its heat source. This first effect water vapor, which contained zinc chloride, was pumped to weak water storage tanks to await processing in the Weak Water Treatment Plant. The water vapor from the second effect chamber, containing small amounts of zinc chloride, was discharged to the F-Line and/or treated at the Weak Water

Treatment Plant and discharged to the Niagara River in accordance with the Facility's State Pollutant Discharge Elimination System (SPDES) permit.

The effluent from the second effect chamber was fed to a finishing set chamber, where the zinc chloride mixture was concentrated to 70 Baume. The water vapor from the finishing set chamber was handled the same way as the vapor steam from the second effect chamber. Steam was used as the heat source in the finishing set chamber.

The effluent from the finishing set chamber was purified by mixing with zinc sulfate to precipitate impurities such as calcium. The sulfates were then filtered out using diatomaceous earth as a filter aid. The resultant filter cake (sludge) had high levels of cadmium. The filter cake was stored in the sludge bin (SWMU 3) to await disposal as a hazardous waste at an appropriate permitted off-Site disposal facility. The effluent from the filter press was pumped to a storage tank and reused in the vulcanized fibre process.

In early 1987, high levels of zinc (above permitted limits) were detected in the evaporation system discharge to the plant sewer line (F-Line). The zinc-contaminated water had leaked from a strong water storage tank containment pit into an adjoining covered pit under the flooring, and subsequently leaked into a tunnel leading to the F-Line sewer. Upon correcting the problem with the storage tank containment pit and draining the adjoining pit, the zinc concentration dropped to within permit limits.

The evaporation system was decontaminated and decommissioned in late 1992 to early 1993 as part of the plant-wide decommissioning activities.

SWMU 20 - Weak Water Storage Tanks

Zinc chloride contaminated condensate from the evaporation system (weak water) was stored in three sets of seven interconnected concrete storage compartments. Excess weak water from the vulcanized fibre leaching pits was also discharged into these tanks. Each tank has the dimensions of 9 feet by 7 feet 8 inches by 6 feet. The tanks are located within the building adjacent to the evaporation system. These tanks stored weak water prior to treatment at the Weak Water Treatment Plant.

No evidence of past releases has been found. In the event of a spill, the weak water could have migrated out of the tank area but would have remained within the building. The exposure potential from the weak water storage tank system was considered minimal in the RFA Report. As part of the plant-wide decommissioning activities, the weak water storage tanks were decontaminated and decommissioned.

SWMU 21 - Weak Water Treatment Plant

The weak water treatment plant was designed to remove zinc from the wastewater generated by the vulcanized fibre process prior to discharge to the Niagara River. The plant had been operating since about 1977.

Several individual units make up the plant. These include: a weak water storage tank, mixing tank, a precoat tank, a flocculation tank, a flash mix tank, a lamella, and a drum rotary vacuum filter.

The zinc removal was accomplished by raising the pH of the weak water using a hydrated lime slurry and allowing zinc hydroxide to precipitate while discharging the clean supernatant water. The solids were allowed to settle further before being dewatered and sent for disposal at an appropriate off-Site disposal facility.

The treatment plant is designed to treat influent wastewater at 125 gallons per minute with a 400 ppm zinc concentration. The effluent from the plant was discharged to the plant sewer (K-Line) which leads to the Niagara River, under the terms and conditions of the SPDES Permit No. NY0002364. Effluent is closely monitored using a conductivity meter. Should a release have occurred into the sewer line, it would have been easily detected. Any spills within the treatment plant would have been contained within the building. According to the RFA Report, the exposure potential for the wastewater treatment plant was considered to be minimal. The Weak Water Treatment Plant was decommissioned and decontaminated as part of the plant decommissioning activities.

SWMU 22 - Reaction Waters Storage Tanks

Three 2,800 gallon vertical steel tanks, located within the varnish making room (which had secondary containment for the tanks) at the northwest end of the building, were used to store water that was a byproduct of the condensation polymerization reaction used to produce resins. The water was contaminated with phenol and formaldehyde containing residue from the polymerization reaction. The tanks had been in service since 1942 and were decommissioned as part of the plant-wide decommissioning activities in 1992. These reaction waters were pumped into three tanks located outside in the aboveground storage tank farm (SWMU 23). From the tank farm, the reaction waters went to the boiler house where they were burned off in the boilers in accordance with the terms and conditions of the air discharge permits for the boilers. Any leaks or releases from the three tanks would have been contained within the concrete floor and secondary containment system of the room.

SWMU 23 - Aboveground Storage Tank Farm

The aboveground storage tank farm, located just outside of the southwest end of the building, consisted of eight 10,000 gallon steel tanks. The tanks were surrounded by a clay-bermed containment area.

Five of these tanks were obtained from a local roofing company and were never used by Spaulding. Tanks No. 1, 2, and 4 contained approximately 1,400 gallons of residual asphalt material. Tank No. 3 was empty except for solid residual asphalt and Tank No. 5 contained approximately 1,600 gallons of the residual asphalt material.

The material in the five tanks was a viscous (taffy-like) asphalt cutback with an upper layer of water contaminated with hydrocarbons leached from the asphalt cutback. The asphalt apparently was cut with a naphtha. The asphalt cutback is a characteristic hazardous waste (D001 and D008) by exhibiting the characteristic of ignitability and toxicity characteristic of lead and is a listed NYS hazardous waste (B007) and TSCA waste by containing polychlorinated biphenyls (PCBs) at concentrations between 70 and 170 ppm.

The tanks were surrounded by earthen berms for containment. Within the containment area, one of the tanks leaked asphalt onto the ground. Twenty-two (22) tons of soil within the containment berms were excavated and disposed of at a PCB permitted landfill. Analysis of post excavation soil samples resulted in PCB concentrations of 2.94 ppm to 12.11 ppm, well within the EPA PCB Cleanup Policy recommended guideline of 25 ppm for industrial facilities. However, at least one of the soil samples exceeded the NYSDEC soil cleanup objectives of 1 ppm for surface soils and 10 ppm for subsurface soils. The five asphalt tanks were subsequently emptied and disposed of as part of the plant-wide decommissioning activities.

The other three aboveground storage tanks, known as the reaction water tanks, were located in-line with the asphalt tanks and had the same capacity and construction. The reaction waters were generated in the resin manufacturing process from the condensation of phenol with formaldehyde to produce a phenol-formaldehyde (resole) resin. The reaction waters were pumped into the boiler house where they were burned off in the boilers in accordance with the terms and conditions of the air discharge permits for the boiler. Analysis of the reaction water indicated the following compounds and concentrations: phenol-4.4 percent; formaldehyde-2.2 percent; methanol-5.13 percent; toluene-0.11 percent; acetone-120 ppm; ammonia-77 ppm; sodium hydroxide-350 ppm; and cresylic acid-78.6 ppm. In addition, there was considerable carryover of phenolic resin solids. These resins settled out in the tanks. Two of the tanks were completely filled with resins. The third tank was only partially filled. The three reaction water tanks were drained, filled to eliminate any void spaces, and removed in March 1996 as part of the plant-wide decommissioning activities. The filled tanks were disposed of at an appropriate off-Site landfill facility in accordance with the applicable rules and regulations. The Aboveground Storage Tank Farm Area (SWMU 23) was investigated as part of the RFI (see Section 6.4.10).

SWMU 24 - Zinc Hydroxide Sludge Concrete Storage Tank

During the period from October 1978 to June 1985, approximately 175 tons of zinc hydroxide sludge, contaminated with lead, were stored in a 95 feet by 85 feet by 4 feet concrete storage tank within the building. The concrete tank is located below floor level, adjacent to the zinc hydroxide sludge landfill (SWMU 9). The tank is surrounded on two sides by soil and a concrete tunnel on the remaining two sides.

In 1985, the unit was closed by removing the sludge and disposing of it at an appropriate permitted off-Site landfill. The tank and surrounding area was decontaminated using high pressure water washers.

Given the short life span of the tank (eight years) and since the tank has been decontaminated, the release potential was considered minimal in the RFA Report.

SWMU 25 - Paper Mill Wastewater Storage Tank

Approximately 2 million gallons per day of wastewater containing excess paper stock (cellulose fibre) was generated by the paper making process. The majority of the paper stock contained in the effluent was extracted and recycled back into the process. The remaining water was pumped to a concrete tank (SWMU 25) located below floor level inside the old boiler house. The concrete pit is surrounded by soil on three sides and a basement on the remaining side. The wastewater stored in this tank was then discharged to the plant sewer (I-Line) leading to the Town of Tonawanda Publicly Owned Treatment Works (POTW). The paper stock containing small amounts of coloring pigments was non-volatile and is considered non-hazardous. As a result, the release potential from the wastewater storage tank was minimal according to the RFA Report.

SWMU 26 - Paper Sludge Land Application Area

Between 1983 and 1986, sludge comprised mainly of cellulose fibres generated by the paper mill was spread on the ground for drying at the south end of the plant Site. Approximately 1.5 million pounds per year of the paper sludge containing small amounts of coloring pigment was spread over a 5,000 square yard area. The exact composition of the coloring pigments is unknown. Once dry, the paper fibre was scooped up with a front end loader and disposed of at a sanitary landfill. The area is presently vegetated.

In April 1986, two paper sludge samples and two soil samples collected from the land application area were analyzed and found to be non-hazardous (EP toxicity metals only). Soil samples were collected from the area in early 1987 as part of the 1987 CERCLA Site inspection. The area was subsequently inspected by the NYSDEC on July 11, 1987 and found to be properly closed.

The former paper sludge land application was further characterized as part of the RFI (see Section 6.4.13).

SWMU 27, 28, 29, 30, 31, 32, 33, 34 - Boilers and Incinerators

Steam for use at the facility was generated in four boilers. These are designated as SWMUs 27 through 30. The boilers, active from 1972 to 1992, operated on natural gas and burned at 1300°F to 1500°F. Solvent fumes from the resin making and coating processes were drawn through a common duct and used as the feed air to the boilers. The solvent fumes consisted primarily of methanol with some phenolic compounds and other chemicals contained in the resins.

Resin hydrolysis reaction waters containing phenol were burned in three of the boilers (SWMUs 27 through 29) by injection via an atomizing gun. Waste oil and mineral spirits were also once burned in these boilers. This was discontinued in 1984.

The fourth boiler (SWMU 30) was equipped with solids handling capability. Prior to 1984, rubber, battery cases, and resin laminates/dusts were burned in the boiler.

Solid wastes were burned in incinerators (SWMUs 31 through 33) on Site up until 1984. SWMU 31 operated from 1981 to 1984 and burned waste resins, lab chemicals, and waste oil. SWMU 32 operated from 1911 to approximately 1957. Fibre scrap, scrap wood, scrap plastic laminate, and paper were incinerated in this unit. The entire unit was removed from the Site at an unknown date. Cellulose fibre, wood, paper, and plastic laminate scraps were incinerated in SWMU 33 from 1955 to 1973. The incinerator has since been closed and removed from the Site. The exact closure date is unknown.

SWMU 34, an incinerator, was used as an after burner for solvent fumes. It ceased operation in 1986.

NYSDEC air permits regulated the exhaust gases from the boilers and incinerators.

SWMU 35 - Laboratory Waste Storage Area

This storage area was located outside of the laboratory building. Laboratory waste drums (three were noted in the RFA) were placed on pallets on top of the ground, with no secondary containment system present.

SWMU 36 - Aboveground/Underground Storage Tanks

Five steel USTs and two steel ASTs were located in the tank farm area which lies just to the west of the Rag Shed Building. The tanks were used to store bulk raw materials prior to their transfer to process tanks situated in the production areas. The five USTs (emptied and cleaned in November 1992 and removed in May/June 1995) in this area consisted of: two 15,000 gallon, carbon steel, methanol tanks (Tanks No. 43 and 44); one 15,000 gallon, carbon steel, 50 percent methanol and 50 percent toluene mixture tank (Tank No. 45); one 15,000 gallon, carbon steel, 50 percent sodium hydroxide solution tank (Tank

No. 48); and one out-of-service, 3,750 gallon, carbon steel tank (Tank No. 47) formerly used to store benzene. Two ASTs (Tank Nos. 42 and 47) were also located within this area. Both ASTs were 15,000 gallon carbon steel tanks and had earthen clay containment berms surrounding the tanks. The south tank (Tank No. 47) was used at alternating times to store methanol or ethanol and the north tank (Tank No. 42) stored methanol.

When in use, the USTs all passed precision leak tests on several occasions. The last testing occurred in July 1991. The benzene tank (Tank No. 46) was not tested since it was closed prior to the promulgation of the Federal UST regulations. An automatic tank gauging system had been installed for leak detection on the other USTs.

Associated with these tanks were six underground pipes running a distance of 240 feet to 300 feet from the tank farm pump houses to the plant Spauldite® Sheet Department. These lines were abandoned and new aboveground piping installed in the mid to late 1980s.

The tank farm had been in place and operating since prior to 1945. During this period of operation, spills, overflows, and pipe leaks may have occurred. In recent times (post 1970s) these spills and leaks were reported to the NYSDEC, and remedial action was taken and documented.

All seven ASTs/USTs were emptied and cleaned in late 1992, and were removed from 1993 to 1995 as part of the plant-wide decommissioning program. The RFI characterized the nature and extent of contamination in the vicinity of SWMU 36 (see Section 6.4.6).

SWMU 37 - Spauldite® Sump Area

A number of hydraulic units are located in the Spauldite® press basement (located beneath the Spauldite® presses). Repairing oil leaks on these units was a continuous process. Consequently, cooling water collected in a sump via floor trench drains was contaminated with hydraulic oil. It is also believed that oil from the Therminol Building Unit (see SWMU 38) may have found its way into the sump. In mid to late 1992, the Spauldite® Sheet Basement Sump was found to contain PCBs in the oil and water collected in the sump which formerly discharged to the K-Line storm sewer. The sump discharge was immediately disconnected and any water and oil collected in the sump were removed from the Spauldite® Sheet Basement Sump and placed in drums. The basement sump was subsequently cleaned after plugging all inlet piping or eliminating sources of oil and water to the sump. During cleaning of the sump, any cracks or damage to the concrete walls and floors of the sump were patched with hydraulic cement. A 1/2-inch diameter drain pipe with a shutoff valve was installed into the wall of the sump to drain any groundwater which may have collected beneath the basement floor. Periodically, when water was noted to be present on the basement floor, the drain pipe was opened to drain groundwater from beneath the basement floor. Groundwater was collected in drums and sampled for analyses of PCBs.

After completion of the sump cleaning activities, wipe tests were taken from the sump walls for analyses of PCBs. The results of the wipe tests indicate that less than 10 µg/100 sq. cm PCBs were present, indicating that the sump had been adequately decontaminated. Washwater generated from the decontamination of the Spauldite® Sheet Basement Sump was also collected and placed in drums.

All drums of oil, water, water and oil mixture, washwater, and groundwater from the sump were sampled and analyzed for PCBs. Based on the analytical results, drums containing PCBs at 50 ppm or more were classified as hazardous wastes, consolidated, and disposed of at an appropriate off-Site permitted Treatment, Storage, and Disposal Facility (TSDF). Drums of oil containing less than 50 ppm PCBs are non-hazardous wastes and were sent for recycling or disposal at an appropriate off-Site TSDF.

Drums of water and water/oil mixture from the Spauldite® Sheet Basement Sump which contained less than 50 ppm PCBs were considered to be a non-hazardous waste and were stored for on-Site treatment. In early 1993, a Granular Activated Carbon (GAC) water treatment system was designed and constructed to treat the drummed non-hazardous waste water, water/oil mixture, and groundwater being collected from the drain pipe in the Spauldite® Sheet Basement Sump.

The GAC treatment system was designed to remove oils, if any, and PCBs, and discharged treated water to the Niagara River via the K-Line storm water outfall. The "Operations Plan, Carbon Adsorption Treatment System", dated May 1993, was submitted to the NYSDEC to describe the system, and was subsequently approved by the NYSDEC. The treatment system was put into operation in May 1993 and has been operated under the terms and conditions of an Interim Order on Consent (File No. 91-1B R9-3425-91-04) entered into by Spaulding and the NYSDEC. Each 10,000 gallon batch of treated water was tested to ensure that it met the PCB discharge criteria of less than 65 ppt (parts per trillion) prior to discharging to the Niagara River (Section 2.5.6 also describes the GAC treatment system).

The GAC treatment system treated approximately 600 55-gallon drums of wastewater from May 1993 to late 1993, and was shut down in the winter of 1993 due to freezing. In 1994, the GAC treatment system was relocated and the system was redesigned to allow for the collection, continuous treatment, and discharge of PCB-contaminated storm water/groundwater from an isolated section of the K-Line storm sewer, groundwater in the Spauldite® Sheet Basement Sump, and other remediation-related water approved by the NYSDEC. Since mid to late 1994, the GAC treatment system has been operating under the terms and conditions of Schedule A of the RCRA Corrective Action Order on Consent, as described in the revised Operations Plan for the Carbon Adsorption Treatment System, Revision No. 3, dated May 10, 1995.

SWMU 38 - Therminol Building Unit/Drain Tiles/Contaminated Soils

This SWMU consists of a therminol heat exchanger contained within a small building (with concrete floors and curbing) and drain tiles. PCB-contaminated soils are located in the vicinity of the Therminol Unit. The Therminol Unit was utilized from the mid 1960s to early 1970 as a heat exchanger for the Spauldite® Sheet presses. The unit used PCB (85 percent) oil as the heating media. Because the unit had not operated properly, PCB oils were released from the unit to the ground outside the Therminol Building. The exact amount of oil released to the ground is unknown. Two soil samples collected from the area immediately adjacent to the northeast side of the Therminol Building were collected and found to contain 10,100 ppm and 13,900 ppm PCBs. The majority of the area surrounding the Therminol Building is now paved with asphalt; however, during the operation of the unit the area had a gravel/soil surface. In February and March 1995, Spaulding drained and dismantled the Therminol Unit as part of the plant decommissioning activities in accordance with Schedule A of the RCRA Corrective Action Order on Consent.

PCBs from the Therminol Unit were released to the nearby soil. Some migration of PCBs into nearby drain tiles and the Spauldite® Sheet Basement Sump (SWMU 37) and the K-Line sewer system has occurred. Accordingly, the K-Line sewer was cleaned of all sediments in June 1993 (see Section 2.5.4) and a section of the K-Line sewer immediately adjacent to the Therminol Building and the Spauldite® Sheet Basement was isolated in the fall of 1994 to allow for the collection and treatment of PCB-contaminated storm water/groundwater in accordance with the RCRA Corrective Action Order on Consent. The Operations Plan for the Carbon Adsorption Treatment System (Revision No. 31, dated May 10, 1995) describes the current system. Untreated storm water discharged via the remaining sections of the K-Line storm sewer is monitored under the terms and conditions of Schedule A of the RCRA Corrective Action Order on Consent.

The extent of PCB presence in the soil near the Therminol Unit was investigated in May and June 1995 (see Sections 2.4.4) as part of the RFI. The results of this investigation are presented in the NYSDEC-approved report entitled, "PCB Soil Investigation Report, Therminol Building", dated August 1996 and is summarized in Section 6.4.9.

2.3.3 Areas of Concern

AOCs are defined in the RCRA Corrective Action Order on Consent as an area at the Facility or an off-Site area, which is not at this time known to be a SWMU, where hazardous waste and/or hazardous constituents are present, or are suspected to be present as a result of a release from the Facility. The term shall include areas of potential or suspected contamination as well as actual contamination. Such area(s) may require study and a determination of what, if any, corrective action may be necessary.

A total of nine AOCs were identified by the NYSDEC and one additional AOC was identified by Spaulding (see Table 2.1). Descriptions of each of the AOCs are presented in the following.

AOC 39 and AOC 44 - Site Process Sewer System (K-Line, F-Line, and I-Line)

Spaulding's process sewer system consists of three distinct sewer lines (K-Line, F-Line, and the I-Line). The K-Line (AOC 39) and F-Line discharged both process water and storm water to the City of Tonawanda storm water sewer system under the terms and conditions of the plant SPDES Permit No. NY0002364. The effluent from the K-Line and F-Line are eventually discharged to the Niagara River.

The I-Line is a sanitary sewer line which discharged process waters from the paper mill operations, under the terms and conditions of Spaulding's Town of Tonawanda Industrial Sewer Connection Permit No. 202, to the City of Tonawanda sanitary sewer system. These waters were eventually treated at the Town of Tonawanda Wastewater Treatment Facility. The I-Line received sanitary wastes, all wastewater generated by the Paper Mill operations, and some storm water from roof drains (rerouted to discharge to the surface in October 1992 and June 1995). Wastewaters from the Paper Mill were neutralized to a pH ranging from 5.5 to 9.5 prior to discharge to the I-Line. The I-Line discharge was routinely sampled and monitored in accordance with the plant industrial sewer permit. Hazardous substances other than those allowed in the permit were not known to have been released to the I-Line.

The F-Line and K-Line (AOC 39) received storm water and process waters. The F-Line received cooling water from the zinc chloride evaporation system. The discharge from the F-Line has been sampled weekly in accordance with the plant SPDES permit. Sediments at the F-Line sampling weir were sampled for analyses of PCBs and were found to contain 2.66 ppm PCBs (Aroclor 1248).

The K-Line received process waters consisting of treated water from the Weak Water Treatment Plant; overflow from the raw water (from the Niagara River) reservoir; non-contact cooling water from the pump cooler, cooling rolls, resin coolers, and evaporator coolers; boiler water (boiler blow down, boiler condensate, and compressor cooling water); and backwash and rinse water from the boiler water softener system. PCBs were found to be present in the K-Line sewer sediments in 1992.

Two sediment samples were collected from the K-Line in September 1992 and submitted to ACTS Testing Labs, Inc. for PCB analysis. The results of this analysis were as follows:

i) MH"D" - 2 ppm (Aroclor 1248); and
ii) K-Line Monitoring Station - 1030 ppm (Aroclor 1248).

The source of the PCBs in the sediment was believed to be the former discharge from the Spauldite® Sheet Basement Sump (SWMU 37) in which elevated PCB levels were detected. Discharge from this sump was eliminated on August 29, 1992.

In addition to the sediment sample data collected from the K-Line, the discharge at the K-Line Monitoring Station (Outfall 003) has been monitored routinely for PCBs. The data show there has been minimal impact to the discharge waters from the presence of PCBs in the sediment at the K-Line Monitoring Station. The primary reason for this is the impact that the monitoring weir has upon the hydraulics of this outfall. The weir construction (e.g., 3 foot height) serves to reduce the outfall discharge velocity, thereby encouraging sediment deposition in the areas immediately upgradient of the weir. In fact, the lower reaches of the storm sewer system (i.e., MH"F" and MH"L") likely surcharge under elevated flows or storm events, further reducing system velocities and minimizing sediment release past the weir area. This was demonstrated by the monitoring performed on the outlet side of the weir where no sediments were observed. Conversely, the inlet side of the weir has two or more inches of sediment present.

Sediments in the entire K-Line system were later sampled for PCB analyses. The results of the sampling program are reported in the "K-Line Sediment Sampling Report, Spaulding Composite Company, Inc., Tonawanda, New York", dated December 2, 1992. Section 2.4.3 describes the sampling program. PCBs were detected in the K-Line sediments at levels ranging from ND(4) ppm to 1065 ppm. Because of the presence of PCBs in the K-Line sediments, Spaulding proposed to clean the K-Line sewer as proposed in the "Storm Sewer Cleaning, Scope of Work" dated October 15, 1992 and the "Sewer Cleaning Work Plan" dated December 2, 1992. By letter dated December 16, 1992, the NYSDEC approved the K-Line Sewer Cleaning Program with some additional modifications to the Sewer Cleaning Program. The sewer cleaning work was completed in June 1993. The sewer cleaning activities included the removal of sediment and flushing of the sewer and an inspection of the cleaned sewer (by videotape). The NYSDEC was on Site throughout the entire operation and, after viewing the videotape, concurred with CRA that the K-Line storm sewer was clean and free of sediments. Section 2.5.4 further describes this project.

A small section of the K-Line which is believed to contain low levels of PCBs was isolated in October 1994. A buried bypass sewer was installed between manholes MHD and MHA-A. The K-Line sewer was isolated between manholes MHE and MHL (see Plan 3). Since October 1994, water from this isolated K-Line sewer has been collected and treated on-Site in the GAC treatment system and discharged in accordance with the RCRA Corrective Action Order on Consent. The treated water and untreated storm water in the K-Line is routinely sampled for analyses of PCBs. The analytical results are presented in Spaulding's Monthly Progress Reports.

AOC 40 - Off-Site Storm Sewer

The off-Site storm sewer system consists of the City of Tonawanda storm sewer lines on Wheeler Street, Enterprise Street, and Gibson Street. These City storm sewers discharge to the Niagara River and received both storm water and process waters (K-Line and F-Line) from the Facility. The RFI provided for the sampling of sediment in the off-Site storm sewers. However, no sediment was found at the time of inspection of the sewers (see Section 6.7.2).

AOC 41 - Contaminated Sediments in the Niagara River

Storm water and some process water from the Facility are eventually discharged to the Niagara River via the City storm water sewer in accordance with the terms and conditions of the plant SPDES permit. Potential impact from the Facility's discharges to Niagara River sediments is extremely difficult to evaluate because other Niagara River sediments likely contain similar constituents discharged from other Facilities (i.e. PCB, lead, zinc, cadmium).

AOC 42 - Site Utility Bedding

Major underground utilities include the storm sewers and process sewer which are identified as AOCs 39, 43, and 44, and sanitary sewers. The beddings for these utilities were investigated as part of the RFI in order to determine if the utility beddings are a contaminant migration pathway. The results of sampling indicate that the utility bedding is not a contaminant migration pathway (see Section 6.5).

AOC 43 - Site Storm Sewer System

Storm water (no process waters) from the Spaulding Facility is discharged through approximately 13 point source discharges or outfalls to the City storm sewer system. Plan 3 illustrates the location of these outfalls (outfall numbers 004 through 013, inclusive) and the associated drainage areas. Discharges from these outfalls were sampled as part of the preparation of

Spaulding's Storm Water Permit Application. The analyses were performed by Wadsworth/Alert Laboratory in Canton, Ohio. The analytical results were presented in the storm water permit application which was submitted to the NYSDEC by cover letter dated November 23, 1992. Low levels of PCBs were detected in two outfalls (Outfall No. 004 and Outfall No. 010) at 11 μg/L (or ppb) and 2 μg/L (or ppb), respectively. Historical soil sample data reported in the RFA report indicated the presence of low levels of PCBs in the subsurface soils near SWMU 13. The area surrounding SWMU 13 is drained by Outfall No. 4 indicating that this SWMU may be a possible source of the contamination. Sources of the PCBs found in Outfall 010 were unknown. Based on the dry-weather flow observations performed during preparation of the storm water permit application, non-storm water flows were not observed in any of the storm water outfalls. Additional storm water samples were collected during the RFI from Outfall No. 4 and No. 10 to confirm these results. PCBs were not detected in storm water outfalls. Section 6.7.1 presents the surface water quality data collected during the RFI.

AOC 45 - Railroad Spur

The portion of the railroad spur that is of concern runs a length of about 385 feet between the main plant building (at the Paper Mill) and the Rag Shed Building. Along this length of track were several unloading pipe connections where phenol, formaldehyde, cresylic acid, methanol, and sodium hydroxide solution were unloaded from rail tank cars. It is possible that other chemicals were also unloaded from rail tank cars in this area. Rail delivery of chemicals continued from 1943 to 1985. It is suspected that there were leaks and/or spills onto the ground during unloading operations along the tracks during this period of operation. In addition, it appears that on the south end of this stretch of tracks sodium hydroxide liquor from digested rag stock had, in the past, leached through structural cracks in the Paper Mill concrete foundations and possibly saturated soils in and around the tracks.

The RFI characterized the nature and extent of contamination in the vicinity of the railroad spur (see Section 6.4.5).

AOC 46 - Drum Storage Dock

The drum storage dock is located inside the north end of the Facility adjacent to the east wall of the chemical storage room and the Bulk Chemical Unloading Area (AOC 47). It was reported in 1965 that drums of waste resin/solvent mixtures (225 to 550 gallons) were dumped into the ground and mixed with flyash. The present drum storage dock was then built on elevated pilings above this area.

The RFI characterized the nature and extent of contamination in the vicinity of the former drum storage dock (see Section 6.4.4).

AOC 47 - Bulk Chemical Unloading Area

This area includes the areas immediately adjacent to the north wall and east wall of the bulk chemical storage room in the Spauldite® Sheet Department. Along the north wall is a concrete unloading pad and an asphalt road. Concern focuses on spills and leaks that may have occurred over many years during the unloading of phenol, cresylic acid, cresylic acid type S, aniline, formaldehyde, dibutyl phthalate, and phenolic resins to bulk storage tanks.

The RFI characterized the nature and extent of contamination in the Bulk Chemical Unloading Area (see Section 6.4.4).

AOC 48 - Transformer Explosion Area

This AOC is a rectangular strip located just west of the Paper Mill. Sometime in the early 1960s an electrical transformer containing PCBs allegedly exploded, potentially contaminating the surrounding area. In addition, it is believed that a transformer switch in the area may have exploded in 1979. Exact details or reports on these two incidents are not available. It is not known how the affected areas were cleaned up. The sediment in the K-Line sewer was sampled in November 1992 (see Section 2.4.3). The nearby storm sewer manhole showed elevated PCB concentrations (35 ppm at Manhole D-D) in the sediments.

These sediments in this manhole were removed during the June 1993 sewer cleaning project (see Section 2.5.4).

The RFI characterized the nature and extent of contamination in the Transformer Explosion Area (AOC 48) (see Section 6.4.7).

2.3.4 Grouping of SWMUs and AOCs

The 38 SWMUs and 10 AOCs identified at this Facility have been grouped into five SWMU/AOC Groups in order to efficiently investigate the potential environmental impacts. Table 2.1 and Figure 1.3 identify SWMUs/AOCs in each of the five SWMU/AOC Groups.

The SWMU/AOC Groups were organized based primarily on the location of the individual SWMUs and AOCs. SWMU/AOC Groups A, B, and C are comprised of SWMUs and AOCs located outside of the main plant building whereas SWMU/AOC Group D almost exclusively includes SWMUs and AOCs situated under the roof within the main plant building and the Rag Storage Building. Group E includes the remaining SWMUs/AOCs. Organization of the SWMUs and AOCs in this manner results in SWMU/AOC Groups that are reasonably compact in plan, but, chemically diverse.

A description of each SWMU/AOC Group is as follows:

Group A	This Group is located at the southeast corner of the plant property between the plant and Hackett Drive. Only two SWMUs (SWMU-7: Resin Drum Landfill; and SWMU-13: Sludge Setting Pond) are included in this Group. A separate RI/FS Work Plan for the Resin Drum Landfill was prepared and submitted to NYSDEC.
Group B	This Group is located at the extreme northern quadrant of the plant property. Group B contains three SWMUs (5, 35, and 36) and four AOCs (45, 46, 47, and 48). In general, Group B encompasses an

area where a large portion of the bulk organic chemicals used at this Facility were staged and stored.

Group C	This Group is located south of the Main Plant Building just beyond the walls of the Fibre Sheet Departments. Group C is comprised of ten SWMUs (4, 8, 11, 12, 14, 23, 26, 32, 33, and 38) located outside.
Group D	This Group consists almost exclusively of SWMUs situated within the interior of the main plant building and the Rag Storage Building. Group D contains 22 SWMUs which were associated with the entire range of organic and inorganic chemicals used and produced at this Facility. Two SWMUs included in this Group are located outside of the buildings, including SWMU 6-Container Storage Area and SWMU 34-Solvent Flume After Burner. These two SWMUs were included in Group D because they are contiguous to Group D, but not to either Groups B or C.
Group E	This Group differs from Groups A through D in that it is not comprised of continuous SWMUs and AOCs located within a relatively compact area. Group E is comprised primarily of AOCs 39 and 44 which are the process sewer systems (F, I, and K-Line sewers), other buried Site utilities (AOCs 40, 42, and 43) and AOC 41, contaminated sediments in the Niagara River.

2.4 PREVIOUS INVESTIGATIONS

2.4.1 CERCLA Site Investigation and RCRA Facility Assessment

In the late 1980s, CDM Federal Program Corporation (CDM), contractors to the USEPA, performed a RCRA Facility Assessment (RFA) at the Facility. The draft RFA Report prepared by CDM identified and assessed 36 SWMUs and several potential AOCs. Data on surface water, soil, and groundwater were collected at the Facility by NUS Corporation in April 1987 during a CERCLA Site Investigation and were summarized in the CDM RFA Report.

2.4.2 Historic Resin Drum Landfill Groundwater Monitoring

Two monitoring wells were installed in 1978, north (downgradient) and south (upgradient), of the Resin Drum Landfill (Spaulding records indicate that these wells were 40 feet deep, however, these wells were found to be approximately 24 to 32 feet deep during the RFI. These wells have been routinely sampled for analyses (primarily for total phenols and total chlorinated hydrocarbons) from 1978 to 1991 for various Site-specific parameters. Analytical results have been submitted to the NYSDEC following each groundwater sampling event. Sporadic and unconfirmed levels of total phenols and various other organic constituents have been identified in groundwater during the historical monitoring of the two upgradient and downgradient wells. These monitoring data are presented in Appendix B of the Remedial Investigation/Feasibility Study Work Plan for the Resin Drum Landfill, dated August 1993. Review of these data indicate that installation and sampling of additional monitoring wells was required to confirm the historical groundwater results. Accordingly, the Resin Drum Landfill RI was performed.

2.4.3 K-Line Sediment PCB Investigation

In November 1992, sediment samples were collected by CRA at selected locations from the K-Line storm sewer on and adjacent to the plant property in accordance with the report entitled, "Storm Sewer Cleaning, Scope of Work," dated October 15, 1992. The samples were analyzed for PCBs in order to determine the extent of PCB presence within the K-Line storm sewer sediments and the corresponding levels of PCBs. The results of the sediment sampling program are presented in the report entitled, "K-Line Sediment Sampling Report," dated December 1992. PCBs were detected at concentrations ranging up to 1065 ppm.

During performance of the flow diversion and sewer cleaning/sediment removal tasks, the routine weekly outfall monitoring was performed manually, if necessary, in accordance with the SPDES permit.

2.4.4 Therminol PCB Investigation

SWMU 38 includes a therminol heat exchanger contained within a small building (with concrete floors and curbing) and drain tiles. The Therminol Unit was utilized from the mid 1960s to early 1970 as a heat exchanger for the Spauldite® Sheet presses. The unit used PCB (85 percent) oil as the heating media. Because the unit had not operated properly, PCB oil was released to an open drum which occasionally overflowed to the ground outside the Therminol Building. The exact amount of oil released to the ground is unknown. The majority of the area surrounding the Therminol Building is now paved with asphalt; however, during operation of the unit, the area around the building was a gravel/soil surface. Soil in the vicinity of the Therminol Building was contaminated with PCBs (PCB-1248).

In February and March 1995, Spaulding drained and dismantled the Therminol Unit in accordance with the terms and conditions of Schedule A to the Order on Consent. Spaulding then performed a focused investigation of this area to delineate the horizontal and vertical extent of PCB contamination in the subsurface soil around the Therminol Building. Field activities were performed on May 31, 1995 through June 5, 1995 in accordance with the NYSDEC-approved Work Plan entitled, "Work Plan - PCB Soil Investigation around the Therminol Building" (PCB Work Plan), dated April 1995, and associated project support documents. Field activities included soil sample collection and analysis for PCBs. The report entitled, "PCB Soil Investigation Report, Therminol Building," dated August 1996, describes the sampling activities performed, presents the results, and identifies conclusions and recommendations to address the PCB contamination at SWMU 38. Section 6.4.9 summarizes the investigation results and identifies the extent of PCB contamination in the soil.

2.5 PREVIOUS AND ONGOING REMEDIAL ACTIVITIES

In addition to the remedial activities identified below, Spaulding had responded to spills or releases which occurred at the Site in the past. In many cases, Spaulding responded to the spills by excavating and disposing of impacted soils (i.e., Resin Spill - Section 2.2.2.5, Spaulding Solvent Spill - Section 2.2.2.6, Methanol Pipe Leak - Section 2.2.2.7). Section 2.2.2 describes these spills and releases and Spaulding's subsequent remedial action/spill response.

2.5.1 Settling Pond Closures

Four unlined settling ponds or lagoons (SWMUs 11 through 14, inclusive) excavated into the native clay were located along the west and south sides of the Main Plant Building. The lagoons were used to collect and settle out wet grinding wastes from 1930 to 1972. The lagoons were excavated and backfilled in the late 1970's; however, the exact dates of closure are unknown. The contaminated sludge and soils were removed from the lagoons and were reportedly disposed of at Seaway Landfill in Tonawanda, New York. Imported clean fill was used to backfill the lagoons. According to NYSDEC files, the lagoons were properly closed and no further action was required. These lagoons are listed in the Registry of Inactive Hazardous Waste Disposal Sites as Class 5 sites which are defined to be "sites that have been completely remediated or closed and require no further maintenance".

2.5.2 Removal of SWMUs 9, 24, and 26

SWMU 9, the Zinc Chloride Sludge and Drum Landfill, was a 60 cubic yard landfill located beneath the plant floor inside the Main Plant Building. The landfill contained zinc chloride sludge contaminated with cadmium and lead, drummed lab chemicals, and resin solvent mixtures. The landfill was excavated in August 1985. All wastes contained within the concrete containment pit were removed and the pit was backfilled and a new concrete floor installed over it.

SWMU 24, the Zinc Hydroxide Sludge Storage Tank, was a concrete tank which was filled with lead-contaminated zinc hydroxide sludge. In 1985, the sludge was removed and disposed of at a permitted off-Site secure landfill. The tank and surrounding area were decontaminated using high pressure water washers.

SWMU 26, the Paper Sludge Land Application Area, was a 5,000 square yard area located at the south end of the plant site where paper sludge was spread on the ground for drying. In April 1986, two paper sludge samples and two soil samples collected from the land application area were analyzed and found to be non-hazardous. In 1987, the area was closed by excavation and removal of the paper fibre. The NYSDEC inspected the area and found it to be properly closed.

2.5.3 Plant Decommissioning Activities

By letter dated October 2, 1992, Spaulding voluntarily developed and submitted the report entitled "Plant Decommissioning Work Plan, Spaulding Composites Company, Tonawanda, New York" (Work Plan) to the NYSDEC. The Work Plan described the scope of the plant decommissioning activities, detailed the procedures to be followed, and provided a method of documentation for the decommissioning activities. All decommissioning activities were performed by Spaulding personnel or contractors to Spaulding with technical guidance and support provided by CRA.

Spaulding initiated decommissioning activities at the Site in August 1992. The majority of the decommissioning activities were completed from September 1992 to February 1993 with the remaining miscellaneous decommissioning activities completed in mid 1995.

Schedule A to the RCRA Corrective Action Order on Consent, effective October 1994, also provided for the completion of the plant decommissioning activities including the decontamination and decommissioning of the Therminol Unit, SWMU 23 - Aboveground Storage Tank Farm, SWMU 36 - Underground/Aboveground Storage Tanks, SWMU 21 - Weak Water Treatment Plant; the plugging of the remaining gas well at the Site; cleaning/removal of sediment from the K-Line sewer; decommissioning of PCB transformers at the Site; off-Site disposal of all solid and hazardous wastes; and the routine monitoring of the storm water sewer outfalls for the K-Line and F-Line.

The decommissioning activities are documented in the Plant Decommissioning Final Report, dated August 1995 and approved by the NYSDEC by letter dated August 30, 1995, and are also described in the monthly progress reports for the Site. Plant decommissioning activities were performed in accordance with the Work Plan and in accordance with the terms and conditions of Schedule A to the Order on Consent.

General decommissioning activities included the following:

i) incremental shutdown of all facility processes and equipment;

ii) utilization, sale, and/or removal/disposal of all unused inventory;

iii) inventory of all ASTs and USTs at the Site upon shutdown consisting of the identification of the contents of the tanks and an estimate of the quantity to be removed;

iv) removal and reclamation, sale, and/or disposal of liquid residual tank contents and tank cleaning including all appurtenances;

v) inventory of all equipment on Site;

vi) draining and reclamation and/or disposal of all hydraulic fluids and fuels, if any, from all equipment;

vii) removal and reclamation, sale, and/or disposal of all miscellaneous flammable materials (i.e. paper, cloth, and oils) and, where appropriate and practicable, other miscellaneous combustible materials (i.e. loose pieces of wood, coal, and tires);

viii) documentation of all decommissioning activities;

ix) health and safety monitoring;

x) cutting service of all utilities to the plant facilities except minimal service required to operate the Main Office Building;

xi) securement of plant facilities;

xii) cleaning and removal of the asphalt tanks, the R1X tanks, brine tank, and the USTs and ASTs (SWMU 36);

xiii) K-Line sewer cleaning and bypass sewer installation;

xiv) draining, sale, and/or removal of all unused PCB and non-PCB transformers;

xv) capping of the gas well #1;

xvi) removal of sections of the Therminol Unit which still contains PCBs;

xvii) rerouting of some roof drains;

xviii) consolidation and off-Site disposal of drummed materials (i.e. maintenance chemicals, lab packs, etc.) and capacitors; and

xix) removal of coal from the old boiler house.

The NYSDEC observed many of the decommissioning activities completed at the Site. Following completion of these activities, a Decommissioning Report was submitted to and accepted by the NYSDEC.

2.5.4 K-Line Storm Sewer Cleaning

In June 1993, the K-Line storm sewer sections from Manhole MH-D to the K-Line monitoring station and from Manhole MH-E-E to the K-Line monitoring station were flushed and the sediments removed in accordance with the report entitled, "Sewer Cleaning Work Plan," dated December 1992.

The sewer cleaning and sediment removal activities involved the following tasks:

i) precleaning activities which included flow reduction/elimination, flow diversion, flow prevention (sewer plugging), and standing water removal;
ii) sediment removal and sewer flushing from the entire K-Line storm sewer;
iii) washwater and sediment handling and disposal; and
iv) sewer inspection.

The entire K-Line sewer was videotaped following the cleaning operations for final determination of sewer integrity and cleanliness. The NYSDEC was on-Site throughout the entire operation and, after viewing the videotape, concurred with CRA that the K-Line storm sewer was clean and free of sediments.

The sediments were placed in roll-offs and sent off-Site for disposal. Washwater generated during the cleaning process was collected and treated at the on-Site treatment facility and discharged to the K-Line outfall in accordance with the terms and conditions of an interim Order on Consent for operation of the treatment facility.

2.5.5 Transformer Spill Cleanup

On October 21, 1994, it was discovered that an out-of-service PCB transformer had been vandalized, resulting in a spill of the PCB transformer liquid (PCB-1260). The PCB transformer was staged in a building awaiting transfer off-Site. All visible fluids were removed and the affected ground outside the building was covered with plastic after removing large debris. A temporary fence was installed at least three feet beyond the spill areas inside and outside of the building. The transformer was then drained, sealed, cleaned, and subsequently sent off-Site for disposal. All visibly contaminated soil and asphalt west of the building were excavated and loaded into a lined roll-off. Soil samples were collected in the excavated area and analyzed for PCBs. After confirmation that the excavated zone was clean (PCBs <25 ppm), the area was backfilled. All materials and debris generated during cleaning of the spill areas were placed into a lined roll-off box for off-Site disposal. The building floor was scrubbed and rinsed and wipe samples were collected for analysis to determine if the cleaned areas had been properly decontaminated. These wipe samples indicated PCBs above 10 $\mu g/100\ cm^2$. After several other unsuccessful attempts to clean the floor, Spaulding decided to breakup and remove the floor. The concrete floor was broken up and placed in a dumpster for off-Site disposal in April 1996. The concrete was disposed of as a hazardous waste at CWM's Model City landfill in June 1996. The transformer spill cleanup was deemed complete by the NYSDEC by letter dated August 16, 1996.

2.5.6 On-Site Carbon Adsorption Treatment System

During the early decommissioning activities, the Spauldite® Sheet Basement Sump (SWMU 37) was found to contain PCBs in the oil and water collected in the sump which formerly discharged to the K-Line storm sewer. The sump discharge was immediately disconnected and any water and oil collected in the sump were removed from the sump and placed in drums. The sump was subsequently decontaminated and all generated wash water was collected and also placed in drums. Samples were collected from the drums and analyzed for PCBs. Drums of wastewater, groundwater, and water/oil from the sump which were found to contain less than 50 ppm PCBs were considered non-hazardous wastes.

Non-hazardous wastewaters collected from the sump were treated on-Site by a small GAC treatment system for removal of oils, if any, and PCBs, and discharged to the K-Line storm sewer outfall under Schedule A of the Interim Consent Order. In early 1993, a GAC water treatment system was constructed to treat water generated from the basement sump and other wastewaters generated on-Site. Section 2.3.2 describes the GAC treatment system under the description of SWMU 37.

In 1994, Spaulding proposed to isolate and treat the PCB contaminated storm water in the K-Line storm sewer. The contaminated section of the sewer was isolated as follows:

i) a new buried bypass sewer line was installed between manholes MHD and manhole MHA-A in October 1994; and

ii) the outlet in manhole MHD which drains to MHE and the outlet in manhole MHL which drains to the K-Line outfall were plugged in order to isolate the K-Line section between manholes MHE and MHL.

Spaulding relocated the GAC treatment system to the Treater No. 5 Building in September 1994 since this building was more accessible and could be easily heated. The treatment system was also modified to increase the treatment capacity to 15 gpm and allow for the collection and treatment of storm water from the isolated section of the K-Line storm sewer which contains PCBs. Operation of the treatment system began in early October 1994. A detailed description of the treatment system can be found in the report entitled, "Operations Plan, Carbon Adsorption Treatment System," Revision No. 3, dated May 10, 1995.

Storm water from the isolated section of the K-Line storm sewer is pumped from the L-Line spur collection chamber, treated, and discharged continuously under the terms and conditions of Schedule A of the RCRA Corrective Action Order on Consent (Index No. B9-0399-92-03), executed by the NYSDEC and Spaulding in the fall of 1994.

2.5.7 Gas Well Closure

Spaulding Well #1 was plugged on December 21, 1994. The gas well was subsequently inspected by NYSDEC on January 10, 1995 and no detectable leaks were observed. A plugging report (plugging permit No. 92-12180-P) was submitted to the NYSDEC following the inspection, and an approval letter was received from the NYSDEC on January 19, 1995. Copies of the plugging report and NYSDEC approval letter are included as Appendix C to the report entitled, "Plant Decommissioning Final Report," dated August 1995.

3.0 REGIONAL SETTING

3.1 DEMOGRAPHICS AND ZONING

The Spaulding Site is located in the City of Tonawanda, Erie County, approximately 1 mile south of the Niagara River and 1 mile to the east of Two Mile Creek. The City of Tonawanda lies along Tonawanda Creek and the Niagara River, extending approximately 1.5 miles and 1.75 miles along each waterway, respectively. The city boundaries extend approximately 1 to 1.5 miles southward from the river and canal.

The northeast side of the property, where the plant entrance is located, faces Wheeler Street. Across Wheeler Street is the plant parking lot, several small commercial establishments, and vacant land. The southeast side of the property faces Hackett Street. Across Hackett Street are several large industrial buildings used for metal fabrication and warehousing. Extending further to the east and several hundred yards away from the plant is a large, old industrial manufacturing complex formerly occupied by the Remington-Rand Company, and now used for warehousing and distribution operations.

There is a strip of vacant, undeveloped land at the southwestern portion of the property beyond which is Hinds Street. No manufacturing operations were known to have occurred on this vacant land. There are residences and a small cluster of stores across Hinds Street.

Adjacent to the northwest property boundary are a number of residential properties with backyards adjacent to the Site's fenceline. The remaining portion of the northwest side of the property faces Dodge Avenue, beyond which is open land and residential properties.

Land use in the general area gradually changes from mixed industrial, commercial, and residential to mostly residential as one travels from southeast to northwest along Wheeler Street toward the Niagara River.

Four parks are located within a 1-mile radius of the Site, within the boundaries of the City of Tonawanda. The major employers in the area are Tops Friendly Markets, Inc., and the Tonawanda City school system. Plan 4 depicts the zoning boundaries in the vicinity of the Site.

3.2 PHYSIOGRAPHY

The topography of the plant site and the surrounding area is generally flat. The regional topography is presented on Plan 1, and the Site topography is shown on Plan 2.

3.3 CLIMATE

The climate of the City of Tonawanda area is classified as humid continental, consisting of cool-wet winters and hot-wet summers. The mean monthly temperature and precipitation data, recorded at the Niagara Falls International Airport located approximately 10 miles northwest of the Site, are presented in Table 3.1. The mean annual temperature in 1996 was 47.5°F. The coldest average temperature in 1996 occurred in January (22.4°F) and the warmest in August (71.2°F). The average annual snowfall is 91.9 inches and the average total annual precipitation is 34.67 inches. The prevailing wind direction in the City of Tonawanda area is south to southwest.

3.4 REGIONAL GEOLOGY

The Site is located in the Erie-Ontario Lowlands of New York State. The surficial geology of this region and much of the rest of western New York State reflects the effects of Pleistocene glaciation of the Wisconsin Stage, which is generally agreed to have ended approximately 10,000 years before the present (B.P.). As the final pulse of Pleistocene glaciation, the Wisconsin Stage glaciers obliterated remnants of former glacial stages and deposited a variety of unconsolidated sediments in the area. The Quaternary

Geology Map of New York State (Muller, 1977) indicates that most of the surface sediments of the area are glacial deposits of Wisconsin Stage Pleistocene origin with lesser amounts of post-Pleistocene Holocene deposits.

Wisconsin Stage glaciation, in its advance and retreat, deposited widespread amounts of ground moraine (also known as till or hardpan). These deposits are mixtures of finely ground rock flour (which rapidly weathers to clay), silt and a variety of sharp edged gravels and cobbles. The compaction of this material on the bedrock surface by the undersides of the glacier accounts for its notable hardness. Till is typically poorly sorted and dense with low permeability. The glacial retreat and resultant meltwaters deposited, and in some cases stratified, a variety of other sand and gravel deposits. East-west trending end moraines, linear mounds of poorly sorted gravel, sand, and silt deposited at the edge of an ice sheet in equilibrium, are present throughout the area.

As the glacial ice retreated, its meltwaters, trapped between the ice front to the north and bedrock hills or end moraines to the south, formed large shallow lakes and smaller meltwater ponds. These bodies of water provided quiescent settling basins for large volumes of rock flour and silt which continued to be generated at the ice sheet front. The Site is located in the basin and near the southern shoreline of one of these, the former Lake Tonawanda. Lake Tonawanda formed between the bedrock ridge of the Onondaga Escarpment to the south and the retreating ice front and extended over much of Erie and Niagara Counties and as far as 50 miles to the east. Numerous outlets over the Niagara Escarpment drained Lake Tonawanda until drainage was concentrated in the Niagara Gorge at Lewiston approximately 10,900 years B.P. (Calkin and Brett, 1978). Glaciolacustrine deposits of clay, silt, and fine sand from 40 to 70 feet thick cover much of the former basin of Lake Tonawanda and overlie the till that was deposited previously. This sediment is typically a red-brown silty clay with very low permeability. It may contain discontinuous silt and sand stringers and may exhibit cyclical bedding characteristics. Remnant beach strands are also commonly associated with the silty clay.

Other post-glacial deposits in the area include lacustrine sediments, minor amounts of beach sand and gravel, wetland deposits (peat and muck), and artificial fill.

Below the overburden, the western New York area is underlain by a thick succession of Paleozoic sedimentary rocks. These strata dip south-southwestward at an approximate average dip of 40 feet per mile. The rocks are thus exposed at the surface, where not covered by Pleistocene deposits, in broad east-west trending bands, becoming increasingly older to the north. In the Site area the surface rocks are all members of the Upper Silurian (390 million years B.P.) Salina Group (Rickard and Fisher, 1970). The Salina Group consists of four formations, from youngest to oldest: the Vernon Shale, the Syracuse Formation (dolomites, anhydrites, and shales), the Camillus Shale, and the Bertie Formation (dolomite). These rocks are approximately 400 feet thick below northern Erie County. They were deposited in highly saline embayments and lagoons, many nearly landlocked, of the shallow Upper Silurian Sea. The presumably arid climate of that time caused rapid evaporation of these embayments and the precipitation of dolomite, anhydrite, and halite . Also deposited were red and green shales, siltstones, and lesser amounts of black shales. Overlying the Salina Group is a thick sequence of Middle Devonian limestones and dolostones (Akron, Bois Banc, and Onondaga Formations). Underlying the Salina Group is the 175 foot dolomite sequence of the Lockport Group.

Below the Site, the uppermost bedrock unit is the Camillus Shale. The Camillus extends across northern Erie County in an east-west trending belt approximately 6 to 8 miles wide. The thickness of the Camillus Shale in northern Erie County is approximately 80 to 100 feet. The Camillus Shale typically varies from thin-bedded shale to massive mudstone, varying in color from brownish gray to gray with occasional green or red beds (Buehler and Tesmer, 1963). Thin lenses and veins of gypsum are common. More massive beds also occur, occasionally as thick as 5 feet. Interbedded limestone and dolostone beds are also common.

3.5 REGIONAL HYDROGEOLOGY

The overburden of the region is primarily glacial in origin and consists of lake sediment deposits, sand, and gravel deposits and till. Appreciable quantities of sand and gravel occur primarily to the south of the Site area, in upland valleys, where they may provide significant quantities of potable water. Till typically yields only small volumes of water. The glaciolacustrine sediments found in abundance in the Site area generally are not waterbearing, yielding only small volumes of water. They are essentially aquitards, preventing appreciable movement of water horizontally or vertically. Thin seams or stringers of silty or sandy material within the unit may allow limited horizontal movement of groundwater, although the seams and stringers are not laterally extensive and relatively infrequent in occurrence. The lake sediments provide a low permeability base which may support seasonal perched water tables in more recent alluvium or fill materials, where present.

In the general area of the Site, groundwater flow in the upper bedrock underlying the overburden is generally toward the Niagara River or its tributaries. The limestone and dolostone formations above and below the Salina Group shales transmit groundwater readily along solution widened bedding planes and vertical fractures. Shale beds typically are of low permeability. The Camillus Shale formation below the Site includes significant interbeds of gypsum, dolostone, and limestone. Solution widening of bedding plane fractures and vertical fractures in these interbeds increases the transmissivity of the formation as a whole. The solubility of gypsum is especially high compared to the carbonate rocks and the dissolution of gypsum in bedding planes, fracture infillings, and vugs would provide zones of high transmissivity within the formation. The reported average yield of 37 wells emplaced in the Salina Group was 415 gallons per minute (gpm); however, the wide range in well yields from Salina rocks (25 to 3,000 gpm) makes this average of little value in predicting the probable yield of new wells (Reck and Simmons, 1952). The high yields reported in some wells are due to infiltration from the nearby Niagara River.

3.6 GROUNDWATER USAGE

The nearby Niagara River and extensive municipal water treatment and supply systems provide potable water to residents and industry. The high mineral content of groundwater from rock formations beneath the area makes the groundwater unsuitable as a drinking water supply and impractical for most industrial uses except possibly for cooling and air conditioning. Groundwater from the Salina Formation is especially high in mineral content, averaging 1,790 ppm total hardness and 4,500 ppm dissolved solids.

According to the City Water Department, the drilling of wells for potable water supply is prohibited within the City limits.

3.7 SURFACE WATER USAGE

The area within one mile of the Site contains open water areas including portions of the Niagara River, Tonawanda Creek, Two Mile Creek, and Ellicott Creek, and a number of their tributaries. These water bodies are shown on Plan 1. The Niagara River is a Class A water body; the remaining surface waters are Class C water bodies.

NYSDEC "Water Quality Regulations" (6 NYCRR Chapter 10, Parts 700 - 705) describe Class A and Class C surface water by suitability for use:

> "The best usages of Class A waters are a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival."
>
> "The best usage of Class C waters is fishing. These waters shall be suitable for primary and secondary recreation, although other factors may limit the use for these purposes."

4.0 DESCRIPTION OF FIELD ACTIVITIES

4.1 GENERAL

The RI and RFI activities were intended to gather information required to fill the data gaps identified in the RFI and RI/FS Work Plans. The RI and RFI activities were performed in several phases. Table 4.1 presents a summary of the completion dates for the various RI and RFI activities.

The following field activities were performed:

i) RI and RFI Phase I Release Determination Sampling
- collection of soil samples from 23 boreholes;
- collection of soil/waste samples from two test pits in the Laminant Dust Landfill and four test pits in the Resin Drum Landfill;
- collection of waste samples from four drums removed from the Resin Drum Landfill and two bags of dust in the Laminant Dust Landfill; and
- collection of a groundwater sample from a test pit excavated within the Resin Drum Landfill.

ii) Hydrogeologic Investigation
- installation of 15 monitoring wells;
- collection of soil samples for geotechnical testing;
- monitoring well development;
- in situ hydraulic conductivity testing;
- hydraulic monitoring; and
- groundwater sampling.

iii) Surface Water and Sediment Sampling
- off-Site storm sewer inspection;
- Site storm water sampling from nine outfalls; and
- RI surface water and sediment sampling from a drainage ditch adjacent to the Resin Drum Landfill.

iv) <u>Site Utility Bedding Investigation</u>
  - collection of soil and groundwater samples from four test pits excavated near the utilities at the Site property boundary.

v) <u>Phase II Soil Sampling</u>
  - collection of surface and subsurface soil samples from 56 locations; and
  - field analyses for PCBs of selected soil samples.

In addition to the above, Spaulding proposed and completed an RFI Phase II focused soil investigation of PCB presence in the vicinity of SWMU 38 - Therminol Unit/Drain Tiles/Contaminated Soil. The results of this program are presented in the "PCB Soil Investigation Report, Therminol Building", dated August 28, 1996 which was submitted to the NYSDEC under separate cover.

Except as noted in the subsections below, all of the RI and RFI sampling activities were performed in accordance with the procedures and protocols specified in the following NYSDEC-approved project-specific documents:

i) RI/FS Resin Drum Landfill Work Plan;
ii) RFI Work Plan;
iii) Quality Assurance Project Plan (QAPP);
iv) Health and Safety Plan (HASP);
v) Field Sampling Plan (FSP);
vi) Project Management Plan; and
vii) Data Management Plan (DMP).

Soil, waste, and groundwater samples were analyzed for all or some of the following parameters:

i) Target Compound List (TCL) Volatile Organic Compounds (VOCs);

ii) TCL semi-volatiles or Base/Neutral Acid Extractable Compounds (BNAs);

iii) Polychlorinated Biphenyls (PCBs);

iv) Target Analyte List (TAL) metals;

v) Site-specific compounds:
  - toluene,
  - methyl ethyl ketone (2-butanone),
  - aniline,
  - cresylic acid (cresols or 2-, 3-, 4-methyl phenols),
  - xylenol (2,4-dimethylphenol),
  - methanol,
  - ethanol,
  - formaldehyde, and
  - total recoverable phenols; and

vi) the RCRA hazardous waste characteristics:
  - ignitability,
  - corrosivity,
  - reactivity,
  - Toxicity Characteristic Leaching Procedure (TCLP) VOCs,
  - TCLP semi-volatiles, and
  - TCLP metals.

Plan 5 identifies all of the borehole, test pit, and monitoring well locations installed and sampled at the Site.

4.2 PHASE I SAMPLING ACTIVITIES

4.2.1 Phase I Borehole Sampling

A NYSDEC field representative was present during the sampling and well installation activities and approved all selected borehole monitoring well locations and any modifications to the work plans or protocols. All of the Phase I drilling activities were performed by SJB Services, Inc. (SJB) of

Buffalo, New York with oversight from Conestoga-Rovers & Associates' (CRA's) field representative. The Phase I activities were performed in April, May, and June 1995.

A total of 23 boreholes were drilled and sampled at the Site during the Phase I activities. Table 4.2 identifies the borehole sampling location, the sampling depths, and the SWMU number or SWMU group that the borehole was intended to investigate. Plan 5 illustrates the sample locations. Figure 1.3 identifies the SWMUs and SWMU groups.

Continuous split-spoon soil samples were collected at each location in accordance with appropriate Standard Operating Procedures (SOPs) presented in the FSP, except as noted in Section 4.2.4. Appendix A presents the borehole stratigraphic logs, except for borehole BH-F7 (see the PCB Soil Investigation Report, Therminol Building). Organic vapor readings, as measured by a photoionization detector (PID), for each borehole sample interval are presented in the stratigraphic logs. Soil samples were collected for chemical analyses at the depths specified in Tables 4.2 and 4.3. Table 4.2 summarizes the observations made during the drilling and sampling of the boreholes.

4.2.2 Phase I Test Pit Sampling

Resin Drum Landfill (SWMU 7)

Four test pits (TP-R1, TP-R2, TP-R3, and TP-R4) were excavated within the limits of the Resin Drum Landfill to depths up to 7.5 feet below ground surface (BGS). Drums, remnants of drums, steel pails, and/or bags of dust (apparently laminant dust) were encountered approximately 2 feet below the ground surface in the test pits. The 2 feet of soil overlying the drums consisted of topsoil and reworked native soil fill. Appendix B presents the test pit logs which also presents the organic vapor readings (ranged up to 50 ppm as measured by a PID) and observations. Table 4.2 summarizes the observations and PID readings. After completion of the sampling activities, the material excavated was returned to the test pits in the reverse order of when they were removed and the clay cover was repaired.

Soil samples collected from TP-R1 and TP-R2 were composited into one sample for chemical analyses and soil samples from TP-R3 and TP-R4 were composited into one sample for chemical analyses (see Table 4.3). Organic vapors ranged up to 50 ppm, as measured by a PID, in the test pits (see Table 4.2). Plan 5 identifies the test pit locations.

Groundwater was encountered in all four test pits excavated within the landfill. A sheen was noted to be present in the groundwater. One groundwater sample was collected from TP-R2 for chemical analyses to characterize the perched groundwater within the landfill.

One competent drum was removed from each of the four test pits and the waste materials in the four drums were sampled for chemical analyses. Except for the waste in the drum from TP-R2, the wastes in the drums removed for the test pits were solid set resin material. The material in the drum (partially crushed) from TP-R2 appeared to be a semi-solid, sludge-like resin material. Table 4.3 identifies the parameters analyzed for in each sample.

In addition, one test pit (TP-R5) was excavated in a mounded area east of the Resin Drum Landfill to an approximate depth of 5 feet BGS and one test pit (TP-R6) was excavated in a low wet area northwest of the Resin Drum Landfill to a depth of 4 feet BGS. Plan 5 identifies these test pit locations. Cinders and reworked native soils were encountered in both test pits. Some olive-green powder material, suspected to be fiber tube grindings, was also encountered in TP-R5. No odors, drums, or groundwater were encountered. No samples were collected for chemical analyses from test pits TP-R5 and TP-R6.

Section 6.4.2 presents the analytical results and an evaluation of the data obtained from the Resin Drum Landfill.

Laminant Dust Landfill - SWMU 8

Eleven test pits (see Plan 5) were excavated in the vicinity of the Laminant Dust Landfill. Bagged wastes or laminant dust were encountered only in TP-L1 and TP-L2. No fill was encountered in any of the remaining nine test pits. Soil samples from the sides and bottoms of test pits TP-L1 and TP-L2 were composited into one soil sample for chemical analyses. Samples of dust from bags found in TP-L1 and TP-L2 were collected and composited in one sample for chemical analyses (see Table 4.3). Organic vapors were not encountered in test pits TP-L1 and TP-L2. Appendix B presents the test pit logs. Table 4.2 summarizes the observations made in TP-L1 and TP-L2. After completion of the sampling activities, the excavated materials were returned to the test pits in the reverse order of when they were removed and the clay cover was repaired.

Section 6.4.8 presents the analytical results for the soil and waste samples collected from the Laminant Dust Landfill.

Aboveground/Underground Storage Tanks - SWMU 36

A soil sample (SC-697) was collected for chemical analyses from temporary soil stockpiles created during the removal of the underground storage tanks (USTs). Table 4.3 identifies the analyses performed on the sample.

Immediately after completion of the removal of the five USTs in SWMU 36, test pit TP-U5 was excavated within the former UST area (beneath the location of the former USTs) to determine the vertical extent of VOC contamination (see Plan 5). Two samples were collected for analyses of TCLP VOCs at approximate depths of 6 feet BGS and the interval 10-12 feet BGS. The soil samples were collected below the water table since the UST excavation was partially filled with water. Organic vapor readings in the excavated soil around and immediately below the former USTs (approximately 16 feet BGS) were greater than 1610 ppm, as measured by a PID. At approximately 12 feet BGS, organic vapor readings in TP-U5 ranged from 10 to 20 ppm.

Four test pits (TP-U1, TP-U2, TP-U3, and TP-U4) were excavated approximately 5 feet BGS around the storage tank areas (see Plan 5) to delineate the horizontal extent of VOC contamination. Elevated organic vapor readings (up to 247 ppm) were only detected in test pit TP-U3. Some discoloration was observed in the clayey silt at approximately 3 to 5 feet BGS in TP-U3.

Section 6.4.6 presents the analytical results collected from SWMU 36.

4.2.3 Geotechnical Soil Sampling

Shelby tube soil samples were collected from the clayey silt soils 14 to 16 feet BGS at location BH-25 and approximately 10 feet north of location OW-8. The Shelby tube soil samples were submitted for laboratory permeability testing, grain size analysis, moisture content, and total organic carbon (TOC) analyses (see Table 4.3).

The geotechnical testing results are presented in Appendix C. Table 4.4 summarizes these testing results. The results indicated that the clay soils contain 65 to 74 percent of clay/silt and laboratory permeabilities of 7.76 x 10^{-8} cm/sec and 1.51 x 10^{-7} cm/sec, which are typical for low permeability aquitards. Section 5.2.1 discusses these results further.

4.2.4 Phase I Sampling Modifications

The following modifications to the sampling protocols specified in the approved RI/FS and RFI Work Plans and the FSP were made with concurrence of the NYSDEC field representative:

i) borehole BH-13 proposed in the RFI Work Plan was not drilled and sampled since the USTs located within SWMU 36 were being removed.

Alternatively, a soil sample was collected for analyses from soil excavated during the UST removals;

ii) borehole BH-17 proposed in the RFI Work Plan was replaced with borehole BH-F7 which was sampled during the PCB Soil Investigation of the Therminol Building (SWMU 38);

iii) two additional boreholes (BH-24 and BH-25) were drilled and sampled in the first ring of boreholes around the Resin Drum Landfill (SWMU 7);

iv) all boreholes (OW-1, OW-3, OW-4, OBW-2, BH-24, and BH-25) advanced around the Resin Drum Landfill were sampled to 20 feet BGS regardless if clean soil was encountered at a shallower depth;

v) soil samples collected during continuous split-spoon sampling were placed in new Ziploc plastic bags until the borehole sampling was completed. Based on the organic vapor screening results, a soil sample interval was selected for chemical analyses and the soil sample was transferred from the plastic bag to the appropriate sample containers;

vi) all boreholes which were not converted to monitoring wells were grouted up to the ground surface and/or backfilled with the cuttings from the borehole;

vii) cuttings from the boreholes deemed to be clean (i.e. no visible contamination or organic vapor readings above background) were spread on the ground near the borehole. All potentially contaminated soils were placed in appropriate drums/containers;

viii) all drums removed from the Resin Drum Landfill were returned to the excavation immediately following sampling. No drums were overpacked or staged at another location on Site;

ix) two additional test pits (TP-R5 and TP-R6) were excavated around the Resin Drum Landfill to investigate suspected fill areas;

x) nine additional test pits were excavated in the vicinity of the Laminant Dust Landfill to try to locate the landfill;

xi) one additional Shelby tube sample was collected from the silt/clay zone approximately 10 feet north of OW-8 for laboratory permeability testing, grain size analysis, moisture content determination, and TOC analysis; and

xii) additional test pits were excavated within the UST removal area to delineate the horizontal and vertical extent of VOC contamination.

The above modifications did not adversely impact the objectives or scope of the RI and RFI programs.

4.2.5 SSPL Development

Based on the results of the Phase I samples, SSPLs were developed for the SWMUs and/or SWMU groups. Section 6.3 describes the results of the Phase I sampling and the development of the SSPLs. Table 4.5 identifies the SSPLs developed for the various SWMUs at the Site, as presented in the NYSDEC-approved SSPL Report, dated July 1996.

4.3 HYDROGEOLOGIC INVESTIGATION

4.3.1 Monitoring Well Installations

Eleven overburden monitoring wells (OW-1, OW-2, OW-3, OW-4, OW-6, OW-7, OW-8, OW-9, OW-10, OW-11, and OW-12), three bedrock monitoring wells (BW-9, BW-10, and BW-12) and one overburden/bedrock interface monitoring well (OBW-2) were installed at the Site. Plan 5 identifies the monitoring well locations. Wells OW-1, OW-2, OBW-2, OW-3, and OW-4 were installed around the Resin Drum Landfill. OW-6, OW-7, OW-8, OW-9, and BW-9 were installed along the eastern Site fenceline parallel to Wheeler Street. BW-10 and OW-10 were installed between the Site building and the adjacent residential properties at the northwestern quadrant of the Site. Well OW-11 was installed near SWMU 11 (Settling Pond) and SWMU 38 (Therminol Unit). OW-12 and BW-12 were installed at the southern corner of the Site and are intended to be upgradient (background) groundwater monitoring wells.

The wells were constructed and installed as specified in the appropriate SOPs in the FSP and the RI and RFI Work Plans except as modified below:

i) Nine feet of sand was encountered directly over the bedrock at well location OBW-2. With concurrence from the NYSDEC field representative, well OBW-2 was installed as an overburden/bedrock interface well instead of a bedrock monitoring well to address the potential presence of Non-Aqueous Phase Liquid (NAPL) in both the sand and upper bedrock zones. It was determined at that time, with concurrence of the NYSDEC field representative, that the information to be gained regarding the potential NAPL presence is much more critical than the small risk that the hydrogeologic formations may be affected by such an installation. In addition, since no organic vapors were detected in the soil from borehole OBW-2, cross-communication of the sand and upper bedrock waterbearing zones would not likely be of concern.

ii) The overburden casings for the three bedrock monitoring wells were set and grouted in place approximately one foot instead of three feet into the bedrock.

iii) All bedrock coring was completed with an "NX" (3-inch diameter) size core barrel instead of an "H" size (4-inch diameter) core barrel.

All of the above modifications were approved by the NYSDEC field representative and did not adversely impact the objectives or scope of the RI and RFI programs.

Appendix D presents the stratigraphic and instrumentation logs for the new monitoring wells. Table 4.6 summarizes the well completion details for the new and existing monitoring wells and the unused water supply well at the Site.

4.3.2 Well Development

A total of eleven overburden and four bedrock wells were developed by Spaulding personnel in the fall of 1995. All wells were developed in accordance with SOPs presented in the FSP except as noted.

Appendix E presents the well development logs. Only one well, OBW-2, recharged at a rate sufficient to allow for the removal of ten well volumes over an eight-hour day. The remaining wells were purged dry on three consecutive days.

The following modifications to the well development protocols specified in the approved FSP were made with concurrence of the NYSDEC field representative:

i) no turbidity readings were taken;

ii) stainless steel bailers used to purge each well were not dedicated but were decontaminated between wells in accordance with SOP#1; and

iii) due to insufficient recharge, the wells were not developed to a silt-free condition. Wells were considered developed after removal of ten volumes or purging to dryness on three consecutive days.

4.3.3 In Situ Hydraulic Conductivity Testing

From November 29 to December 5, 1996, in situ hydraulic conductivity ("slug") tests were performed on monitoring wells at the plant site.

Slug tests were performed on four bedrock and nine overburden wells. Slug testing involved the placement of a pressure transducer into the well below the water table. The pressure transducer was coupled to an electronic data logger. A cylinder of known volume (the "slug") was rapidly inserted into the water column to affect an almost instantaneous rise in the water column. The water level was then allowed to fall back to its former level (the falling head test). The slug was then rapidly withdrawn from the well and the water level allowed to recover to its equilibrium level (the rising head test). Water level measurements from the pressure transducer were then downloaded from the electronic data logger.

Hydraulic conductivity was estimated from the slug test results for the overburden monitoring wells using the method of Bouwer and Rice (1976). The Bouwer and Rice solution is applicable to unconfined aquifers and was used to interpret the test data from the overburden monitoring wells. The parameter estimated for unconfined conditions is hydraulic conductivity (K) expressed in feet per second. This solution was also used for bedrock well OBW-2 which monitors the overburden-bedrock interface. For bedrock wells BW-9, BW-10, and BW-12, the solution method used was that of Cooper, Bredehoeft, and Papadopulos (1967), which is an analytical method used for estimating transmissivity (T) and storage (S) from slug test data from a confined or semi-confined aquifer. The software package AQTESOLV was used to reduce the slug test data using the appropriate solution technique. Appendix F presents the slug test plots generated by AQTESOLV.

Table 4.7 presents the results of the slug tests conducted on the monitoring wells. Hydraulic conductivity ranged from 1.66×10^{-8} ft/sec to 6.52×10^{-7} ft/sec in overburden wells screened completely in the overburden. Section 5.2.1 further discusses these results and the overburden hydrogeology. The mean hydraulic conductivity for well OBW-2, which is screened in the overburden and the top of (weathered) bedrock, was 3.13×10^{-3} ft/sec. Transmissivites calculated for the three bedrock wells were 3.05×10^{-8} ft^2/sec for BW-9, a mean of 2.69×10^{-4} ft^2/sec for BW-10 and 1.24×10^{-3} ft^2/sec for BW-12. Section 5.2.2 further discusses these results and the bedrock hydrogeology.

4.3.4 Hydraulic Monitoring

Four quarterly groundwater elevation measurement rounds were conducted at the Site. Groundwater elevations were measured on December 27, 1995, March 25, 1996, July 22, 1996, and November 21, 1996. Groundwater elevations were obtained for all wells on the Site for each round. Table 4.8 presents the measured groundwater elevations.

4.3.5 Groundwater Sampling

The 15 newly installed monitoring wells, two existing overburden monitoring wells (OW-A1 and OW-B2), and an unused bedrock water supply well (BW-C1), were sampled for the groundwater SSPL (see Table 4.5). Section 6.6 presents the groundwater sampling data collected and evaluates the nature and extent of groundwater at the Site.

Table 4.9 presents the groundwater sample collection summary key. Table 4.10 summarizes the well purging activities and presents the field data collected during the two groundwater sampling rounds. Plan 5 illustrates the monitoring well locations.

The groundwater samples were collected in accordance with the procedures specified in SOP #3 in the approved FSP, except for the following:

i) a pre-cleaned garden hose was used for the discharge on the Grundfos submersible pump instead of dedicated teflon tubing; and

ii) all purge water generated was containerized and treated using the on-Site carbon water treatment system.

The NYSDEC field representative approved all of the above modifications.

4.4 SITE UTILITY BEDDING SAMPLING

4.4.1 General

As part of the RFI Task 3C, four test pits were excavated at the intersection of the property line and the following utilities:

i) I-Line (TP-1);
ii) the storm sewer line to Outfall 005 at the southeast corner of the Site (TP-2);
iii) F-Line (TP-3); and
iv) the sanitary sewer line which runs along the southwest wall of the Site building towards Dodge Avenue (TP-4).

Plan 5 illustrates the test pit locations. A fifth test pit was proposed to be excavated at the intersection of the property line and the K-Line. Due to the close proximity of a water line, a test pit could not be excavated at this location. Alternatively, a soil sample (BH-87) was collected using a Geoprobe® sampler as described in Section 4.5. This modification was approved by the NYSDEC field representative.

Soil and groundwater (if present) samples were collected from the test pits to determine if the utility bedding was a pathway for off-Site contaminant migration. Samples of the soils surrounding the bedding materials were collected at all four test pits as well as a groundwater sample from TP-3 (F-Line). Soil and groundwater samples were analyzed for the groundwater SSPL. Section 6.5 presents the groundwater and soil sample data collected from the utility beddings.

Table 4.11 presents the sample collection summary key. Test pits were excavated with a backhoe by Spaulding personnel under the direction of CRA. Test pits were excavated and sampled in accordance with SOP#7 - Test Pit Excavation, Drum Handling and Sampling Procedure in the approved FSP. Excavated materials were used to backfill the test pit after completion of the sampling activities. Appendix B presents the stratigraphic logs for the four test pits. The following subsections describe the visual observations of each of the test pits.

4.4.2 I-Line (TP-1)

TP-1 was excavated at the northern corner of the Site, immediately downgradient from SWMU 36 (Aboveground/Underground Storage Tanks) and AOC 45 (Rail Spur) (see Plan 5) to a depth of 11.0 feet BGS. The top of the I-Line sewer pipe (24-inch diameter concrete) was encountered at 9.0 feet BGS. The pipe had very little granular bedding material around it. The majority of the backfill material consisted of clayey silts, pieces of rock, and broken pieces of clay pipe.

Soil sample SC-900 was collected from alongside the pipe at 10.5 to 11.0 feet BGS. Organic vapors readings, as measured by a photoionization detector (PID), were below background levels. Groundwater was not present in TP-1.

4.4.3 Outfall 005 (TP-2)

With approval from the NYSDEC field representative, a test pit (TP-2) was excavated approximately 20 feet inside the Site fence along the Outfall 005 storm sewer (see Plan 5) (southeast portion of Site) in order to avoid disturbing the ground surface outside of the Site fence. TP-2 is located immediately downgradient of the Sludge Settling Pond (SWMU 13), the Grinding Oil Tank, and the Resin Drum Landfill (SWMU 7). Measurements taken at a nearby manhole to this storm sewer (8 feet east of TP-2) indicated that the sewer pipe should be 9 to 10 feet BGS. A moist black sandy bedding material was encountered at 10 feet BGS in TP-2. A petroleum odor was present in the black sand with PID readings ranging up to 11.4 ppm. Samples of the bedding material (sample SC-901 and duplicate sample SC-905) were collected from TP-2.

The backfill material above 10 feet BGS consisted of clayey silts and large round cobbles. Groundwater was not encountered in TP-2.

To ascertain whether the petroleum contamination in the sewer bedding extended outside of the Site fence, several boreholes (BH-40A, BH-40B, and BH-40C) were installed by the Geoprobe® method alongside the pipe approximately 30 feet east of the Site fence for visible observations. No visible contamination or elevated PID readings were encountered in any of the borings. No soil sample was collected for analyses from BH-40C (see Table 4.12). Appendix A presents the stratigraphic log for BH-40C. The stratigraphy encountered in BH-40A and BH-40B were the same as that in BH-40C.

4.4.4 F-Line (TP-3)

With approval from the NYSDEC field representative, test pit TP-3 was excavated at a location (near the Wheeler Street entrance to the Site) inside the Site fence to avoid disturbing the ground surface outside of the Site fence. A vitrified clay pipe (VCP) was encountered approximately 3 feet BGS with a gray sand around the VCP. Gravel bedding material was encountered at 6 to 7 feet BGS in TP-3. Native clayey soil was present immediately below the bedding material. A sample (SC-904) of this clayey soil was collected for chemical analyses. Groundwater entered test pit TP-3 at 5.3 feet BGS. Groundwater sample SC-902 and duplicate sample SC-903 were collected from test pit TP-3 for analyses of the groundwater SSPL.

No visible contamination or elevated PID readings were encountered at this location.

4.4.5 Dodge Avenue Sanitary Sewer (TP-4)

Test pit 4 was excavated in the roadway off the southwest corner of the Site building (see Plan 5) to a depth of 7.0 feet BGS. The sanitary sewer pipe was encountered at 6.0 feet BGS within a trench approximately

18 inches wide. A section of the sanitary sewer runs along the Therminol Building (SWMU 8). The bedding material was fine gravel. Soil sample SC-906 was collected from the clayey silts to the side and immediately below the gravel bedding.

No visible contamination or elevated PID readings were encountered at this test pit. Groundwater was not encountered in test pit TP-4.

4.5 PHASE II SOIL SAMPLING

4.5.1 General

In order to delineate the extent of contamination identified during the Phase I soil sampling activities, over 60 additional boreholes were drilled throughout the Site as part of the Phase II soil sampling program. The scope of the Phase II soil investigation program was described in the SSPL Report.

Table 4.12 compares the sample location with the specific SWMU and SWMU group that the borehole was used to investigate.

All borehole soil samples were collected with a Geoprobe® Systems hydraulic probing machine, Model 420U, by Gaynor Associates, Inc., under the oversight of CRA. The soil sampling procedures were consistent with SOP#1 - Geoprobe® Subsurface Soil Sampling Protocols, located in Appendix B to the PCB Soil Investigation Around the Therminol Building Work Plan (PCB Work Plan). The PCB Work Plan and use of the Geoprobe® sampling protocols for the Phase II soil sampling were approved by the NYSDEC.

Soil sample cores ranging from 3/4 to 2 inches in diameter and 2 to 4 feet in length were obtained by hydraulically pushing/advancing the core sampler into the soil. Borehole depths ranged from 5 to 22 feet (see Table 4.12). The location of these boreholes are shown on Plan 5.

Appendix A presents the borehole stratigraphic logs for the deepest borehole advanced within each SWMU group.

4.5.2 Phase II Soil Sample Analyses and PCB Results

Soil samples were collected for chemical analyses at the depth specified in Table 4.11. Table 4.12 identifies the SWMUs boreholes investigated and summarizes the finding in each borehole. Petroleum odor and/or staining were encountered in boreholes installed at SWMU 13 and the former grinding oil tank locations (BH-41 and BH-43), and at SWMU 14 (BH-47, BH-48, BH-49, BH-82, and BH-83). Non-aqueous phase liquid (NAPL) and a chemical odor was encountered at SWMU 48 (BH-69) and SWMU 14 (BH-82).

In addition to the samples sent off-Site for chemical analysis (see Table 4.11), over 85 soil samples were analyzed on-Site for PCBs using a portable Dexsil L2000 PCB/chloride analyzer. The unit was operated in accordance with procedures described in Appendix A of the PCB Work Plan. Duplicate samples were collected for analysis by the Dexsil analyzer at a frequency of one per ten investigative samples. Table 4.13 presents the PCB results obtained from the Dexsil unit.

Confirmatory soil samples were submitted to an off-Site analytical laboratory for analyses of PCBs at a frequency of one per ten samples analyzed in the field. Table 4.13 compares the results of the Dexsil unit to that of the off-Site laboratory. In addition, the NYSDEC submitted split samples to an off-Site laboratory for analysis of PCBs. Table 4.13 also contains additional off-Site laboratory results provided by the NYSDEC field representative from split samples.

The Dexsil PCB results ranged from 2.1 ppm to 1500 ppm, while the confirmatory laboratory PCB results ranged from ND (not detected) to 1000J ppm. Review of the field PCB data and the laboratory data indicates that the field screening results were up to 10 times higher than the corresponding laboratory results where PCBs were present at total concentrations between 10 and 100 ppm (as determined by the laboratory). Field screening results were up to 100 times higher than the laboratory-reported PCB concentration where PCBs were confirmed to be present at a total concentration around 10 ppm (as determined by the laboratory). Comparison of the field screening PCB data from the Dexsil unit with the laboratory analyzed confirmation samples shows the field screening data has a substantially high bias and overpredicts the actual PCB concentration.

4.6 SURFACE WATER AND SEDIMENT SAMPLING

4.6.1 Off-Site Storm Sewer System and Niagara River

The off-Site sewer (AOC 40) was inspected for the purpose of sampling any sediments (RFI Task 3d). However, there were little or no sediments in any of the Gibson Street storm sewer manholes between the K-Line outfall and the river. Therefore, sediment samples could not be collected from the storm sewer. Accordingly, further investigation of the off-Site storm sewer was not warranted or required.

The outfall at the Niagara River of the storm sewer system along Gibson Street was inspected along with the riverbed immediately adjacent to the outfall. Little or no sediments were noted in the shallow portion of the riverbed due to the presence of many rocks and stones. In addition, it was noted that the current in the Niagara River near the Gibson Street storm sewer outfall is rapid and would result in minimal buildup of sediments in this area. Accordingly, further investigation of the Niagara River was not warranted.

4.6.2 On-Site Storm Water Sampling

As part of RFI Task 3b, surface water samples were collected from nine storm water outfalls to confirm the data obtained during the October 1992 storm water sampling event. Grab samples were collected from

Outfalls 004 through 008, and 0010 through 0013 (see Plan 5) in accordance with SOP#4 - Surface Water Sampling Protocols in the FSP, except as noted below:

i) Outfall 009 could not be accessed at the time of sample collection. Accordingly, Outfall 009 was not sampled and Outfall 0012 was sampled instead.

ii) It was discovered that some of the storm water in the drainage ditch along the Resin Drum Landfill may flow off-Site via a drainage ditch at the southeast corner of the Site fence during very large storm events. Accordingly, a sample of storm water was also collected from this location, Outfall 013 (see Plan 5).

iii) Provision to wait for 72 hours of dry weather prior to sampling the storm water was not followed as required in SOP#4 to facilitate the collection of the storm water samples.

The above modifications were approved by the NYSDEC field representative. Table 4.14 presents the surface water sampling key and the parameters analyzed. The storm water samples were collected during a storm event of approximately 1.89 inches of rain (per the Weather Service) on October 5, 1995. Section 6.7.1 presents the storm water sample data collected.

4.6.3 Resin Drum Landfill Drainage Ditch Sampling

Surface water and sediment samples (0 to 6 inch intervals) were collected from the storm water drainage ditch along the Resin Drum Landfill. Samples were collected upstream and downstream of the landfill to determine if the Resin Drum Landfill had impacted the drainage ditch. Plan 5 identifies the sampling locations (SW/SED-UP and SW/SED-DN). Table 4.14 presents the sample key. Section 6.7 presents the sediment and surface water sample data collected.

Surface water samples were collected as described in Section 4.6.2. Sediment samples were collected from the 0 to 6 inch interval in accordance with SOP#8 - Sediment Sampling Protocols in the FSP after collection of all storm water samples and after the rain had stopped.

4.7 CHEMICAL ANALYSES

The samples collected in 1995, with the exception of the alcohols and formaldehyde, were packed in ice and shipped within 48 hours to Laboratory Resources, Inc. (LRI) in New Jersey. The alcohol and formaldehyde samples were packed in ice and delivered to Adirondack Laboratory in New York, a subcontractor to LRI. The geotechnical soil samples were submitted to O'Brien and Gere Laboratories, Inc., a subcontractor to LRI, for permeability testing. The samples collected in 1996 were submitted to Columbia Analytical (Columbia) in Rochester, New York.

The analytical data validation reports are presented in Appendix G. These data validation reports were previously submitted to the NYSDEC in the Site's monthly progress reports and have been approved by the NYSDEC. The analytical data reports, as provided by the laboratories, will be available under separate cover upon request.

The NYSDEC also collected split soil and groundwater samples which were analyzed by RECRA Environmental Laboratories in Amherst, New York. Appendix H presents the NYSDEC split sample data. These data were reviewed by CRA's chemists and data qualifiers were included in the tables as appropriate.

4.8 WASTE MATERIAL HANDLING

All drill cuttings generated during borehole augering were returned to the completed borehole. Cuttings were compacted in place when possible. Drill cuttings generated from well casing installations were spread at the surface adjacent to the completed well.

All groundwater removed from new and existing wells was stored on-Site in a tank. The water was subsequently analyzed, treated on-Site if required, and discharged via the K-Line outfall, with approval from the NYSDEC.

5.0 SITE ENVIRONMENTAL SETTING

5.1 SITE GEOLOGY

5.1.1 Overburden Geology

Overburden materials observed during advancement of soil borings, performance of test pits, and installation of monitoring wells can be grouped into two classes:

i) fill materials associated with Site construction and operation; and

ii) Pleistocene glacial materials deposited during the most recent Wisconsin Stage glacial advance and retreat approximately 12,000 years ago.

The glacial deposits typically consist of a red-brown fine-grained silty clay related to deposition within ancestral Lake Tonawanda during the period of ice margin retreat. Some coarser grained glacial till and stratified sand and gravel deposits were observed in limited quantities. The thickness of the overburden materials varied from 38.5 to 54.9 feet across the plant. Figure 5.1 presents an overburden isopach map of the Site.

All unconsolidated sediments have been classified, in order of occurrence from ground surface, into three main types:

i) fill;
ii) glaciolacustrine sediments; and
iii) till.

Glaciolacustrine sediments volumetrically dominate overburden materials observed at the Site.

Fill materials encountered were primarily reworked silty clay with lesser amounts of sand and gravel. Concrete rubble, crushed stone, cinders, and minor amounts of wood debris, brick, and miscellaneous waste were also encountered, often set in a reworked clay matrix. Fill materials were most prevalent at the eastern corner of the Site and in the Resin Drum Landfill area, the Laminant Dust Landfill area, and the area around SWMUs 11 and 12 (sludge settling ponds). Borehole BH-22, near the Resin Drum Landfill, had the thickest sequence of fill (16.9 feet) recorded on the site. The fill here was mostly sand and gravel with minor amounts of slag, cinders, and concrete, and some pieces of phenolic resin. Approximately 1 to 2 feet of reworked native clay soils was present over the Laminant Dust Bags and an approximately 2 feet thick layer of reworked native clay soils was present over the drums in the Resin Drum Landfill. The clay cover over the two landfills was well vegetated.

The glaciolacustrine deposits encountered at the Site generally consist of a reddish brown silty clay with a small sand component. The clay is typically firm, cohesive, relatively impermeable, and has a high to moderate plasticity. Occasional sandy layers were encountered in some boreholes. The layers were horizontally discontinuous and composed of a poorly sorted, subangular to round sand with a moderate silt and clay component. Grain size analyses of the clay (see Table 4.4) indicate the deposits consist of 65 to 74 percent silt and clay.

Glacial till was observed in three of the four bedrock well boreholes. The till was composed of dark red-brown to gray, hard, silty clay with abundant rock fragments and fine, subrounded to round gravel. Well locations BW-9, BW-10, and BW-12 exhibited varying thicknesses of till. All till encountered was less than five feet in thickness.

5.1.2 Bedrock Geology

The plant is underlain by the dolomitic shale and siltstone of the Camillus Formation. The Camillus Formation, a member of the Salina Group, is Late Silurian in age (420 million years B.P.) and in general consists of light gray to green-gray shale and siltstone with abundant thin to thick anhydrite, gypsum, and salt beds. Interbeds of dolomite and limestone are also present. Four bedrock monitoring wells were constructed during field activities.

The depth to the top of bedrock surface at these locations varied from 38.5 to 54.9 feet.

The upper bedrock beneath the Site consists of a 1.5 to 5 foot weathered zone. Below the weathered zone, the bedrock contained numerous shale partings, gypsum lined partings, gypsum lined vugs, and masses of gypsum. Some of the shaly partings and the gypsum-lined partings were moderately to heavily weathered. Bedrock core recovery was often high but the Rock Quality Designation (RQD), a measure of the fracture density of the rock, was often very poor.

The top of bedrock surface beneath the plant was derived from the depth to rock measurements recorded during the installation of four bedrock monitoring wells. The top of rock surface is interpreted to dip to the northeast, with a strong component of dip to the east at the south end of the plant. The latter is based on the low bedrock surface measured at well OBW-2. Figure 5.2 presents a top of bedrock surface contour map for the Site.

5.2 SITE HYDROGEOLOGY

5.2.1 OVERBURDEN HYDROGEOLOGY

The overburden at the plant varies in thickness from 38.5 to 54.9 feet with the southern portion of the Site having the thickest sequence of unconsolidated sediments. The water table was generally encountered in the fill material/reworked native soils within 2 to 8 feet of the surface during the colder months of the year and from within 4 to 10 feet of the surface during the warmer months of the year.

Results of laboratory hydraulic conductivity tests conducted on two undisturbed clay samples (see Table 4.4) collected from 14 to 16 feet BGS at the Site were low: 1.51E-7 cm/sec and 7.76E-8 cm/sec. Results of in situ hydraulic conductivity testing (see Table 4.7) conducted on overburden monitoring wells yielded values in the range of 1.61E-8 ft/sec (5.06 x 10^{-7} cm/sec) to 6.52E-7 ft/sec (1.98 x 10^{-5} cm/sec). All overburden wells were pumped dry during the groundwater sampling events with most yielding no more than two well volumes. This very low hydraulic conductivity is typical for aquitards and would significantly limit the horizontal and vertical migration of any groundwater contamination in the overburden.

Overburden groundwater elevation contour maps generated from water level measurements (see Table 4.8) obtained during the four quarterly groundwater level monitoring events indicates that groundwater flow in the overburden is to the north-northeast, towards the confluence of Ellicott Creek with the Niagara River approximately 1 mile away. Figures 5.3, 5.4, 5.5, and 5.6 present overburden hydraulic head contour maps prepared from the December 27, 1995, March 25, July 22, and November 21, 1996 water level monitoring events, respectively. As is evident from these figures, groundwater flow patterns changed very little during the course of a year. Overburden hydraulic gradients varied only slightly across the Site from quarter to quarter, with a mean hydraulic gradient of 0.0123.

The average linear velocity of groundwater flow in the overburden can be estimated using the modified Darcy Equation:

$$V = \frac{Ki}{n_e}$$

Where:

V = average linear velocity (L/T)
K = hydraulic conductivity (L/T)
i = hydraulic gradient (unitless)
n_e = effective porosity (unitless)

Using the average hydraulic gradient of 0.0123, the average hydraulic conductivity of 1.6 x 10^{-7} ft/sec, and an estimated effective porosity of 0.3, the resultant estimated average linear horizontal groundwater velocity is 7 x 10^{-9} ft/sec (0.2 ft/year).

The extensive and thick low permeability lacustrine clay layer beneath the Site presents a barrier to significant downward and lateral migration of contaminants. Some transport of contaminants in groundwater could occur in saturated fill materials (where present) above the clay layer. In addition, downward contaminant migration could occur through vertical desiccation cracks in the clay.

5.2.2 BEDROCK HYDROGEOLOGY

The Camillus Formation was cored to an elevation of 526.8 feet above mean sea level at bedrock well BW-12, or 30 feet below the top of rock at this location. No bedrock well installed during field activities penetrated the bottom of the Camillus Formation. Bedrock well cores indicate that the upper Camillus Formation below the Site has a zone of weathered rubble at the bedrock surface from 1.5 to 5 feet thick. Numerous other lightly to heavily-weathered shaly or gypsum-lined partings, rubble zones, and weathered gypsum and shale interbeds, along with weathered vertical fracturing, were recorded during the logging of the bedrock well cores. No weathered zone was able to be correlated among the bedrock wells.

Results of in situ hydraulic conductivity testing (see Table 4.7) on the three bedrock monitoring wells with monitoring intervals solely below the top of bedrock yielded transmissivity values in the range of 3.05 x 10^{-8} ft^2/sec (2.83 x 10^{-5} cm^2/sec) to 1.24 x 10^{-3} ft^2/sec (1.15 cm^2/sec). The estimated hydraulic conductivity for the one bedrock well whose monitoring interval spanned the overburden-bedrock interface was 3.13 x 10^{-3} ft/sec (9.54 x 10^{-2} cm/sec).

Potentiometric surface contour maps for December 27, 1995, March 25, July 22, and November 21, 1996 are presented as Figures 5.7, 5.8, 5.9, and 5.10, respectively. These maps indicate that groundwater flow in the upper bedrock is to the northeast, toward Ellicott Creek, with an average hydraulic gradient of 0.00052. Bedrock groundwater elevation data provided by the NYSDEC for the nearby Bisonite Paints and Town of Tonawanda Landfill and the Spaulding Site indicates that the bedrock groundwater flow in the area is in a more northerly or northwesterly direction than is indicated by plotting only the data from the Spaulding Site. However, the relative flat hydraulic head difference in the area north of the Town of Tonawanda Landfill and the lack of data points north, west, and east of the Spaulding Site make it difficult to determine the precision direction of flow across the area, other than that it is in a northerly direction. Upper bedrock hydraulic head differences between the extreme southwest and extreme northeast of the Site (a distance of over 1500 feet) were less than one foot for all four quarters. The groundwater velocity cannot be accurately estimated for the bedrock based on in situ hydraulic conductivity testing because the effective porosity of the fracture network is unknown.

Bedrock groundwater wells yielded one to two well volumes before being purged to dryness during the groundwater sampling events. The former plant production well, OW-C3, has an 8-inch diameter casing at the surface and extends to 78.3 feet below ground surface. No log for this well is available. This well was not purged dry during the groundwater sampling events. The well yielded 360 gallons (three well volumes) during the July 1996 sampling event. The production well extends deeper into bedrock than the other bedrock monitoring wells and withdraws water from a deeper bedrock fracture zone.

5.3 SITE SURFACE WATER/STORM WATER DRAINAGE

Surface water and storm water are drained from the Site to the City of Tonawanda storm sewer system via surface ditches and a subsurface storm drain system comprised of eight storm water outfalls (Outfalls 004 through 011, inclusive). Plan 3 illustrates the storm water sewers at the Site. These waters are eventually discharged to the Niagara River. Storm waters are also collected in two of the Site's former process/storm water sewer lines, F-Line and K-Line. The effluent from these lines is also discharged to the City storm sewer system and eventually to the Niagara River. However, the section of the K-Line between manholes MHE and MHL was isolated in October 1994 because this section was found to be contaminated with PCBs. Storm water from this isolated section is collected and treated in the on-Site carbon adsorption treatment system.

6.0 NATURE AND EXTENT OF CONTAMINATION

6.1 GENERAL

This section presents and evaluates the analytical data collected during the RI and RFI activities and discusses the nature and extent of contamination, if any, in the Site soil, groundwater, storm water discharges, and sediment.

The sections below compare the RI and RFI data for individual data points to established NYSDEC media-specific criteria. This comparison is used to conservatively assess the quality of the sampled media and to aid in the determination if that media has been impacted by historical Site operations. As provided by the applicable USEPA and NYSDEC rules and regulations, the exceedance of any established generic media-specific standards and criteria does not by itself require remediation. The significance of any identified impacted media to public health and the environment is further evaluated in Sections 7.0 and 8.0 of this report.

The soil and sediment data are compared below to background soil concentrations and to the soil cleanup objectives presented in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels. The NYSDEC TAGM 4046 establishes recommended soil cleanup objectives for sites where it has been determined that remedial activities are required. TAGM 4046 states that the recommended soil cleanup objectives are generic and may not be attainable even when remedial actions have been conducted. For the purposes of the RI and RFI, the soil and sediment data were compared to the NYSDEC-recommended soil cleanup objectives to identify if the detected chemicals are present at levels that warrant further evaluation (i.e. public health evaluation) and to identify areas that have been impacted by historical Site operations.

The NYSDEC-recommended soil cleanup objectives were developed based on the following conservative criteria:

i) Site-specific soil background concentrations;
ii) human health-based levels based on cancer and non-cancer risks;
iii) promulgated or proposed State standards that are protective of groundwater/drinking water quality; and
iv) detection limits.

The soil and sediment data for metals are also compared to published background soil concentrations for typical soils (referenced in TAGM 4046 and other publications) since the number of Site-specific background samples collected may not be representative of all soil types considered to be typical unimpacted background soils and may not be sufficient in quantity to account for the extreme variability of the metals concentrations in the soil matrix. Table 6.1 presents the published and Site-specific background metal concentrations in soils.

The groundwater and surface water data are compared to the New York State (NYS) Ambient Water Quality Standards and Guidance Values presented in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, dated October 22, 1993 in the sections below. The NYS groundwater standards referenced in TOGS 1.1.1 have been established for the protection of a drinking water source. However, it should be noted that the overburden and upper bedrock at the Site and in the surrounding area are not a viable source of potable water because of:

i) limited groundwater availability in those geologic units, as exhibited during the RFI/RI sampling events when almost all of the monitoring wells went dry during development and/or sampling;
ii) the naturally high total dissolved solids concentrations in the groundwater (including the presence of high sulfate concentrations); and
iii) the presence of the Niagara River which is the primary source of drinking water in the nearby communities.

Nonetheless, the NYS drinking water standards were compared to measured concentrations in the Site overburden and shallow bedrock groundwater to conservatively evaluate if the overburden and shallow groundwater quality has been impacted by the historical Site operations.

The surface water data are compared to the surface water criteria referenced in TOGS 1.1.1 for Class A surface water bodies. The water classifications are adopted by the NYSDEC to describe the usage of each water body. The Class A waters should also be suitable for fish propagation and survival and for primary and secondary recreational contact (i.e. boating and swimming). Surface water from the Site discharges to the Niagara River which is a Class A surface water. However, given that the storm water ditches could not support any fish populations and since surface water is only present in the ditches during a rain event, comparison of the surface water data from the ditches to the Class A surface water standards is highly conservative.

6.2 RI ANALYTICAL DATA VALIDATION AND USABILITY SUMMARY

Samples collected for chemical and/or physical analyses included:

i) soil samples;
ii) water samples;
iii) groundwater samples;
iii) surface water samples; and
iv) sediment samples.

The samples submitted for chemical analyses were analyzed by LRI, CAS, or Adirondack. All samples were collected and analyzed in accordance with the cited methods of analysis and the approved QAPP.

Complete analytical data reports for the RI data, as provided by the contract analytical laboratory, will be submitted under separate cover, if requested by the NYSDEC. Appendix G presents the data tables for the groundwater, surface water, sediment, and soil samples collected during the RFI and RI along with the data validation reports.

The analytical data received were assessed and validated based on review of standard quality control criteria which included sample holding times, instrument calibration and performance, surrogate recoveries, laboratory blank analyses, quality control (QC) check standards, matrix spike/matrix spike duplicate analyses, duplicate analyses, and field blank analyses. Appendix G presents the data validation reports for the various sampling events.

On the basis of the formal data validations, all data generated during the RI are acceptable for use with the specific qualifications and exceptions noted herein. The data quality objectives established in the QAPP for the project have been met. The analytical data tables presented herein contain the required data qualifiers.

6.3 PHASE I SAMPLING

6.3.1 Phase I Sampling SSPL Development

As part of RFI Task 2 - Phase I Release Determination, the RFI Phase I soil samples were collected and analyzed for a comprehensive parameter list for the development of an SSPL or SSPL for use in subsequent sampling events. In addition, as part of the Resin Drum Landfill RI Task 5a (Waste Characterization) and RI Task 5b (Soil Investigation), soil, waste, and groundwater samples were collected and analyzed for the same comprehensive parameter list. The data from the RFI Phase I soil sampling and the RI waste characterization and soil investigation sampling events were used for the development of SSPLs for the different SWMUs or SWMU groups and for the Site groundwater monitoring wells.

The results of the RFI Phase I soil sampling and the RI waste characterization and soil investigation sampling were presented in the

Site-Specific Parameter List Report, dated July 31, 1996. The SSPL Report was approved by the NYSDEC as modified by letter dated August 29, 1996. Table 4.5 presents the SSPLs.

Data collected from the following RFI and RI activities were used in the development of the SSPLs:

i) collection and analyses of 35 soil samples from 23 boreholes installed at the Site;

ii) collection and analyses of three soil/waste samples from two test pits excavated in the Laminant Dust Landfill (SWMU 8) and four test pits in the Resin Drum Landfill (SWMU 7);

iii) collection and analyses of six waste samples from four drums in the Resin Drum Landfill and two bags of dust in the Laminant Dust Landfill;

iv) collection and analyses of one soil sample from soil stockpiled from the underground/aboveground storage tank farm area (SWMU 36); and

v) collection and analyses of one groundwater sample from a test pit (TP-22) excavated in the Resin Drum Landfill.

The 44 soil/waste samples and one groundwater sample were analyzed for the TCL VOCs, TCL BNAs, PCBs, TAL metals, formaldehyde, methanol, ethanol, and aniline. In addition, selected soil and waste samples were analyzed for the RCRA hazardous waste characteristics. Table 4.3 presents the sample collection key and Tables 6.2 and 6.3 present the analytical results for the soil/waste samples (for detected compounds only). Table 6.4 presents the analytical results for the groundwater sample collected from within the Resin Drum Landfill. Plan 5 identifies the sample locations. Table 4.2 identifies the SWMUs/AOCs investigated as part of the Phase I sampling event.

6.3.1.1 Release Characterization Results

Table 6.2 compares the soil/waste data for detected compounds only to NYSDEC soil cleanup objectives, as identified in the NYSDEC's TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, (proposed revision dated October 1995). As exhibited in Table 6.2, the following soil samples did not exhibit any exceedance of the NYSDEC soil cleanup criteria for organic compounds:

SWMU Group	*SWMU or Area of Concern (AOC)*	*Borehole Location*		*Sample ID*
	Background	BW-12	0-0.5	SC-656
			2-4	SC-657
A	SWMU 7 - Resin Drum Landfill	OW-1	4-6, 8-10, 12-14	SC-693
			16-18	SC-694
		OBW-2	16-18	SC-708/709
		OW-3	4-6, 8-10, 12-14	SC-690*
			16-18	SC-691/692
		BH-24	2-4, 6-8, 10-12	SC-688
			16-18	SC-689
		BH-25	0-2, 6-8, 10-12	SC-695
			16-18	SC-696
B	SWMU 36 - Former Aboveground/ Underground Storage Tanks	UST Soil Pile Area		SC-697*
C	SWMU 23 - Aboveground Storage Tank Farm (South End)	BH-19	2-4	SC-666
	SWMU 12 - Sludge Settling Pond	BH-23	10-12	SC-668
	SWMU 11 - Sludge Settling Pond	OW-11	8-10	SC-669
	SWMU 26 - Paper Sludge Land Application Area	BH-20	0-2	SC-670
D	General Area	OW-6	4-6	SC-667

Notes:
* Only one minor exceedance of organics.

With respect to the TAL metals, the most predominant metal of concern is zinc. All of the above listed samples (samples that did not exhibit any exceedances of the NYSDEC soil cleanup criteria for organic compounds) contained zinc at concentrations at or near (less than two times) the Site background levels of 64.7J and 95.0J mg/kg except for samples collected at BH-19 (SC-666), BH-20 (SC-670), and OW-3 (SC-690) which are located within or near SWMU 23 - Aboveground Storage Tank Farm, SWMU 26 - Paper Sludge Land Application Area, and SWMU 7 - Resin Drum Landfill, respectively. In addition to the listed samples, several other soil samples contained zinc at concentrations greater than twice the Site Background Levels. These samples include: BW-9 (SC-658), BW-10 (SC-659), BH-18 (SC-665), BH-21 (SC-671), TP-R1 and TP-R2 (SC-672), TP-R3 and TP-R4 (SC-679), BH-22 (SC-681/682), TP-L1 and TP-L2 (SC-683), and OBW-2 (SC-699). The highest zinc concentration was found in the 0-2 foot sample from borehole BH-20 (SC-670).

VOC contamination (above NYSDEC soil cleanup objectives) was found between the Aboveground Storage Tank Farm (SWMU 23) and the Boiler House, within the Resin Drum Landfill (SWMU 7), and the Aboveground/Underground Storage Tanks (SWMU 36). Toluene was also detected in the bagged waste at SWMU 8 (Laminant Dust Landfill). The soil sample collected from around the bagged waste did not contain VOCs (an indication of the integrity of the bags).

PCBs were detected at concentrations above the NYSDEC soil cleanup objective (for subsurface soils) within SWMU 38 - Therminol Unit/Drain Tiles/Contaminated Soils (see PCB Soil Investigation Report - Therminol Building); at location BH-14 within AOC 48 - Transformer Explosion Area; at location BH-21 within SWMU-14 - Sludge Settling Pond at the southwest corner of the Building; and at locations TP-L1 and TP-L2 within SWMU 8 - Laminant Dust Landfill.

Semi-volatile contamination (above the NYSDEC soil cleanup objectives) was found in AOC 46, AOC 47, AOC 48, SWMUs 5, 7, 8, 11, 13, 23, 36, and 38.

A groundwater sample (SC-673) was collected from test pit TP-R2 within the Resin Drum Landfill. Table 6.4 compares the concentrations of detected compounds to NYSDEC groundwater standards and guidance values. The groundwater sample contained high concentrations of volatiles, phenol, cresols, and aniline. Elevated concentrations of metals in the sample may be due to the high turbidity observed in the sample.

Based on the Phase I results, the scope of the Phase II soil investigation was developed and is presented in the SSPL. Section 6.4 describes the soil characterization results for each SWMU or AOC investigated.

6.3.1.2 Waste Characterization Results

Table 6.3 compares the detected compounds in the waste characterization samples to regulatory levels to determine which soil waste samples exhibit the characteristics of a hazardous waste.

The data on Table 6.3 indicate that one of the drums (sample SC-674) from the Resin Drum Landfill exhibits the toxicity hazardous waste characteristic for trichloroethene (TCE) and the hazardous waste characteristic of ignitability. TCE was detected at 33 mg/L by the TCLP. This waste sample was a semi-solid whereas the other three drummed waste samples (SC-675, SC-676/SC-678, SC-677) were solid or set resin material. None of the soil samples collected from the Resin Drum Landfill exhibit hazardous waste characteristics. The groundwater sample (see Table 6.4) collected from test pit TP-R2 contained total cresols (420 mg/L) above the RCRA hazardous waste toxicity characteristic regulatory level of 200 mg/L (total cresols). Accordingly, groundwater within the Resin Drum Landfill exhibits the hazardous waste characteristics for cresols.

Soil samples collected from beneath the underground storage tanks in SWMU 36 exhibit the toxicity hazardous waste characteristic for benzene. Benzene was detected at 7.6 mg/L by TCLP while the regulatory limit is 0.5 mg/L.

Laminant dust samples collected from bagged wastes in the Laminant Dust Landfill (SWMU 8) did not exhibit any of the hazardous waste characteristics.

6.3.2 SSPL Development

The purpose of the SSPL is to allow characterization of the extent of chemical presence in the SWMU/AOC Groups through the analyses of a limited number of key analytes or indicator parameters. Separate SSPLs were developed for each of the SWMU/AOC Groups being investigated and for the Site-wide groundwater investigation program. Where appropriate, separate SSPLs have been developed to investigate specific SWMUs or AOCs. Figure 1.3 identifies the SWMUs, AOCs, and the associated SWMU/AOC groups.

During the development of the SSPL, consideration was given to Site-specific compounds and their breakdown products (as identified in the TCL). The selection of a compound (or isomer family) for placement on the SSPL was determined based on the following criteria:

i) concentration reported in the data;
ii) frequency of detection;
iii) chemical stability;
iv) transport properties;
v) known or reasonably expected major chemicals present at the Site;
vi) toxicity;
vii) reliable, sensitive analytical method; and
viii) relevant and applicable protection standards or guidance values.

If a TCL/TAL compound was not detected in any of the samples, the compound was not considered as a Site-specific parameter. The detected constituent concentrations were considered "low" if the detected concentrations were near or below the Practical Quantitation Limit (PQL) and/or the Contract Required Detection Limit (CRDL), or if the detected concentrations were below the NYSDEC recommended cleanup objective or published soil background metal concentrations. Constituents detected at "low" concentrations were not considered a Site-specific parameter.

The specific criteria for omitting compounds that were detected at concentrations above the NYSDEC Recommended soil cleanup objectives from the SSPL(s) are as follows:

I Detected at levels below the PQL, method detection limits, and/or the CRDL.
II Detected at low concentrations near the PQL or CRDL.
III Low toxicity compound and soil nutrient.
IV [Intentionally blank]
V Detected within published range for eastern USA background soils (see Table 6.1).
VI Probable laboratory artifact.
VII Detected in less than five percent of the samples analyzed at low ppb or ppm concentrations.

If one or more of the above detection criteria are applicable, then the compound was not considered to be a Site-specific parameter.

The development of SSPLs for SWMU Groups A, B, and C is summarized in the SSPL Report and will not be repeated herein. Table 4.5 presents the soil SSPLs and the groundwater SSPL which includes all of the parameters on the soil SSPLs.

6.4 NATURE AND EXTENT OF SOIL CONTAMINATION

6.4.1 Overview and Phase II Data

The RFI and RI soil investigation activities focused on the following SWMUs or AOCs:

SWMU Group	*SWMUs/AOCs*		
A	SWMU 7	-	Resin Drum Landfill
	SWMU 13	-	Sludge Settling Pond
B	SWMU 5		Empty Drum Storage Dock
	AOC 46		Drum Storage Dock
	AOC 47		Bulk Chemical Unloading Area
	AOC 45		Rail Spur
	SWMU 36		Aboveground/Underground Storage Tanks
	AOC 48		Transformer Explosion Area
C	SWMU 8		Laminant Dust Landfill
	SWMU 38		Therminol Building Unit/Drain Tiles/ Contaminated Soils
	SWMU 23		Aboveground Storage Tank Farm
	SWMU 11		Grinding Waste Sludge Settling Pond
	SWMU 12		Sludge Settling Pond
	SWMU 14		Fiber Waste Sludge Settling Pond
	SWMU 26		Paper Sludge Land Application Area
Miscellaneous			Site Utility Bedding
			Former Grinding Oil Tank Location
			Former Fuel Oil Tank Location

Soil samples were collected from these SWMUs/AOCs as part of the Phase II RFI activities. Tables 6.5 through 6.10, inclusive, present the Phase II soil sample data. Table 4.13 presents the field PCB screening data obtained during the Phase II. Table 6.11 presents the soil sample data collected for the Site Utility Soil Bedding.

Both the Phase I and Phase II soil data collected from each of the areas investigated are discussed in the subsections which follow.

6.4.2 SWMU 7 - Resin Drum Landfill

The following soil/waste samples were collected for chemical analyses to investigate the nature and extent of soil contamination in and around the Resin Drum Landfill.

Sample Location	*Sample Interval (feet)*	*Sample ID*	*Data Table*	*Number of Exceedances* (1)
TP-R1 and TP-R2	0 - 7.5	SC-672	Tables 6.2 and 6.3	19
TP-R2	Drummed Waste	SC-674	Tables 6.2 and 6.3	9
TP-R1	Drummed Waste	SC-675	Tables 6.2 and 6.3	9
TP-R3	Drummed Waste	SC-676/SC-678	Tables 6.2 and 6.3	17/11
TP-R4	Drummed Waste	SC-677	Tables 6.2 and 6.3	14
TP-R3 and TP-R4	0 - 4.5	SC-679	Tables 6.2 and 6.3	15
OW-4	4 - 14	SC-686	Tables 6.2 and 6.3	5
OW-4	16 - 18	SC-687	Table 6.2	5
BH-24	2 - 12	SC-688	Tables 6.2 and 6.3	4
BH-24	16 - 18	SC-689	Table 6.2	4
OW-3	4 - 14	SC-690	Tables 6.2 and 6.3	6
OW-3	16 - 18	SC-691/SC-692	Table 6.2	7/1
OW-1	2 - 12	SC-693	Tables 6.2 and 6.3	2
OW-1	16 - 18	SC-694	Table 6.2	2
BH-25	0 - 12	SC-695	Tables 6.2 and 6.3	2
BH-25	16 - 18	SC-696	Table 6.2	1
OBW-2	0 - 12	SC-699	Tables 6.2 and 6.3	10
OBW-2	16 - 18	SC-708/SC-709	Table 6.2	3/3
TP-R2	Groundwater	SC-673	Table 6.4	14

Notes:

(1) Number of parameters exceeding the individual NYSDEC soil cleanup objectives, as provided in TAGM 4046, as shown on Table 6.2.

Soil samples and drummed waste samples collected from within the limits of the Resin Drum Landfill contain elevated levels (approximately one to two orders of magnitude above the NYSDEC soil cleanup objectives) of VOCs, phenols, aniline, and cresols (2-methylphenol, 3&4-methylphenol). The most predominant chemicals detected above the NYSDEC soil cleanup objectives and/or published background metal concentration in the Resin Drum Landfill consist of the parameters in SSPL-A1 (see Table 4.5). A summary of the SSPL-A1 parameters detected in the soil and waste samples collected from the test pits excavated within the landfill are as follows:

Resin Drum Landfill - Drummed Waste Samples

SSPL-A1 Parameters	*Units*	*Soil Cleanup Objective* [(1)]	*Detected Concentration Range*	*Number of Exceedances*
Chloromethane	ppb	--	ND - 60,000J	0/5
Chloroethane	ppb	1,900	ND - 9,700J	1/5
Methylene chloride	ppb	100	ND - 1,400,000J	4/5
Acetone	ppb	200	ND - 890,000J	4/5
Carbon disulfide	ppb	2,700	ND - 650,000J	1/5
2-Butanone	ppb	300	ND - 22,000J	1/5
Trichloroethene	ppb	700	ND - 5,900,000J	1/5
Benzene	ppb	60	ND - 4,600J	1/5
4-Methyl-2-pentanone	ppb	1,000	ND - 6,600,000J	2/5
Toluene	ppb	1,500	160,000J - 8,900,000J	5/5
Ethylbenzene	ppb	5,500	ND - 220,000J	1/5
Styrene	ppb	--	ND - 780,000J	--
Xylene (total)	ppb	1,200	ND - 240,000J	1/5
Phenol	ppb	30 or MDL	38,000 - 2,000,000	5/5
2-Methylphenol	ppb	100 or MDL	4,500J - 1,200,000	5/5
3&4-Methylphenol	ppb	900	ND - 150,000J	2/5
2,4-Dimethylphenol	ppb	--	470J - 57,000J	--
di-n-Butylphthalate	ppb	8,100	ND - 5,600,000J	3/5
Benzo(a)anthracene	ppb	224 or MDL	ND - 15,000J	1/5
Chrysene	ppb	400	ND - 75J	0/5
bis(2-Ethylhexyl)phthalate	ppb	50,000	ND - 6,600,000J	1/5
Benzo(b)fluoranthene	ppb	224 or MDL	ND - 6,700J	1/5
Benzo(k)fluoranthene	ppb	224 or MDL	ND - 6,400J	1/5
Benzo(a)pyrene	ppb	61 or MDL	ND - 6,000J	2/5
Dibenzo(a,h)anthracene	ppb	14 or MDL	ND - 1,100J	1/5
Aniline	ppb	100	ND - 3,100,000	3/5
Methanol	ppb	--	130,000 - 3,100,000J	--
Ethanol	ppb	--	44,000 - 1,300,000	--
Zinc	ppm	SB(95)	ND - 119J	2/5

Resin Drum Landfill - Soil

SSPL-A1 Parameters	*Units*	*Soil Cleanup Objective* [(1)]	*Detected Concentration Range* [(2)]	*Number of Exceedances*
Methylene chloride	ppb	100	ND - 3,600J	1/2
Acetone	ppb	200	20J - 12,000J	1/2
Trichloroethene	ppb	700	ND - 670J	0/2
Benzene	ppb	60	ND - 6J	0/2
Toluene	ppb	1,500	ND - 44,000J	1/2
Ethylbenzene	ppb	5,500	33 - 21,000J	1/2
Xylene (total)	ppb	1,200	ND - 24	0/2
Phenol	ppb	30 or MDL	2,200 - 8,000	2/2
2-Methylphenol	ppb	100 or MDL	600 - 2,600	2/2
3&4-Methylphenol	ppb	900	1,600 - 8,800	2/2
2,4-Dimethylphenol	ppb	--	2,500 - 6,300	0/2
di-n-Butylphthalate	ppb	8,100	11,000 - 29,000	2/2
Benzo(a)anthracene	ppb	224 or MDL	ND - 360J	1/2
Chrysene	ppb	400	ND - 520	1/2
bis(2-Ethylhexyl)phthalate	ppb	50,000	2,200 - 2,900	0/2
Benzo(b)fluoranthene	ppb	224 or MDL	ND - 360J	1/2
Benzo(k)fluoranthrene	ppb	224 or MDL	ND - 390J	1/2
Benzo(a)pyrene	ppb	61 or MDL	ND - 300J	1/2
Dibenzo(a)anthracene	ppb	14 or MDL	ND - 98J	1/2
Aniline	ppb	100	1,500J - 3,200J	2/2
Zinc	ppm	SB (95)	262J - 387J	2/2

Notes:

J	Associated value is estimated.
MDL	Method Detection Limit.
ND	Not Detected.
ppb	Parts Per Billion.
ppm	Parts Per Million.
(1)	Number of exceedances of the NYSDEC Soil Cleanup Objectives specified in TAGM 4046 per total number of analyses.
(2)	Soil samples SC-672 and SC-679.
(3)	Waste samples SC-674, SC-675, SC-676, SC-677, and SC-678.

Only one drum from TP-R2 exhibited the hazardous waste characteristics (see Table 6.3). None of the soil and drums of set/solid resin waste exhibited the hazardous waste characteristics.

Soil samples collected from the perimeter of the landfill at locations OW-4, OW-3, OBW-2, OW-1, BH-24, and BH-25 contained low or non-detectable concentrations of organics (see Table 6.2). A summary of the data are as follows:

SWMU-7 Landfill Perimeter Soils Only

SSPL-A1 Parameters	*Units*	*Soil Cleanup Objective* (1)	*Detected Concentration Range*	*Number of Exceedances*
Methylene chloride	ppb	100	ND - 33J	0/14
Acetone	ppb	200	ND - 22J	0/14
1,1-Dichloroethane	ppb	700	ND - 4J	0/14
Toluene	ppb	1,500	ND - 2J	0/14
Phenol	ppb	30 or MDL	ND - 460	2/14
2-Methylphenol	ppb	100 or MDL	ND - 170J	1/14
3&4-Methylphenol	ppb	900	ND - 730	0/14
2,4-Dimethylphenol	ppb	--	ND - 150J	0/14
di-n-Butylphthalate	ppb	8,100	ND - 690	0/14
Benzo(a)anthracene	ppb	224 or MDL	ND - 3,900	1/14
Chrysene	ppb	400	ND - 2,800	1/14
bis(2-Ethylhexyl)phthalate	ppb	50,000	ND - 810	0/14
Benzo(b)fluoranthene	ppb	224 or MDL	ND - 3,900	1/14
Benzo(k)fluoranthene	ppb	224 or MDL	ND - 1,400	1/14
Benzo(a)pyrene	ppb	61 or MDL	ND - 2,500	2/14
Dibenzo(a,h)anthracene	ppb	14 or MDL	ND - 980	1/14
Zinc	ppm	SB (95)	49.8J - 544J	4/14

Notes:

J	Associated value is estimated.
MDL	Method Detection Limit.
ND	Not Detected.
ppb	Parts Per Billion.
ppm	Parts Per Million.
(1)	Number of exceedances of the NYSDEC Soil Cleanup Objectives specified in TAGM 4046 per total number of analyses.
(2)	Soil samples from OW-4, BH-24, OW-3, OW-1, BH-25, and OBW-2.

With the exception of low level exceedances of metals (i.e. calcium, magnesium, potassium, sodium, thallium) above Site background metal concentrations and/or the soil cleanup objectives (see Table 6.1), soil samples collected from locations OW-1, BH-24, and BH-25 did not contain any other contaminant concentrations above the NYSDEC soil cleanup objectives. Benzo(a)pyrene (62J ppb) is the only organic compound in the soil sample collected from OW-3 that exceeded the NYSDEC soil cleanup objective (61 ppb). Phenol (270J ppb and 460 ppb) and 2-methylphenol (94J ppb and 170J ppb) were the only organics which exceeded the NYSDEC soil cleanup objectives (30 ppb for phenol and 100 ppb for 2-methylphenol) in soil samples collected from borehole OW-4. The polyaromatic hydrocarbons (PAHs) (benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and dibenzo(a,h)anthracene) concentrations detected in borehole OBW-2 ranged from ND up to 3900 ppb and exceeded the respective NYSDEC soil cleanup objectives by approximately one order of magnitude (10 times). Zinc

(246J ppm) was also detected in OBW-2 above the Site background (95 ppm) but was below the published values for background soils (13 to 300 ppm). Other metals were detected above Site background concentrations but below published values for uncontaminated soils in the United States (see Table 6.1).

Based on the soil data collected, the nature and extent of soil contamination in the vicinity of the Resin Drum Landfill have been defined. Based on the waste characterization data for soil, waste, and groundwater samples collected from within the limits of landfill, the soil and drums of solidified resin do not exhibit the RCRA hazardous waste characteristics. The perched groundwater within the landfill and drums of semi-solid resin exhibit some of the hazardous waste characteristics. The horizontal and vertical extent of soil contamination is confined within the immediate vicinity of the original limits (approximately 50 feet by 70 feet by 15 feet BGS) of the landfill (see Plan 6). The native clay/silt soils surrounding the drums have contained any potential lateral and vertical migration of contaminants from the landfill. This is also evidenced by the minimal levels of the SSPL-A1 compounds found in the groundwater monitoring wells installed around the landfill (see Section 6.6).

6.4.3 SWMU 13 - Sludge Settling Pond and Former Grinding Oil Tank

The following soil samples were collected for chemical analyses from the vicinity of SWMU 13 and the Former Grinding Oil Tank:

Location	*Sample Depth*	*Sample ID*	*Data Table*
BH-22	12 - 14'	SC-681/SC-682	Table 6.2
BH-44	0 - 2"	NA	Tables 4.13 and H-1 (Appendix H)
BH-44	1.5 - 2'	SC-915	Tables 4.13 and 6.10
BH-45	0 - 2"	NA	Table 4.13
BH-45	1.5 - 2'	NA	Table 4.13
BH-46	0 - 2"	NA	Table 4.13
BH-46	1.5 - 2'	NA	Table 4.13
BH-41	0 - 2"	SC-907	Table 6.8
BH-41	3 - 4'	SC-909	Table 6.8
BH-41	9 - 10'	SC-908	Table 6.8
BH-42	0 - 2"	SC-910	Table 6.8
BH-43	0 - 2"	SC-911	Table 6.8
BH-43	4 - 8'	SC-912/SC-913	Table 6.8
BH-43	12 - 14'	SC-914	Table 6.8

Notes:
NA Not Applicable

The Phase I soil sample collected from BH-22 characterizes the nature of contamination within SWMU 13. BH-22 contained fill (sand, slag, concrete, phenolic resin) to a depth of approximately 17 feet BGS. The soil sample collected from the 12 to 14 feet interval in BH-22 contained elevated levels of phenolics, cresols, PAHs, aniline, and zinc (see Table 6.2) above the NYSDEC soil cleanup objectives. The elevated levels of these compounds may be attributable to the presence of resin chips in the sampled interval. The SSPL-A2 parameters, as presented in Table 4.5, are the most predominant chemicals detected above the soil cleanup objectives in the vicinity of SWMU 13. Although the SSPL-A2 parameters exceeded the NYSDEC soil cleanup objectives, it should be noted that the recommended soil cleanup objectives were established for the protection of groundwater, and that the detected concentrations for the SSPL-A2 parameters were less than the health-based criteria specified in TAGM 4046 and the health-based RCRA Action Levels (see Appendix I). Since the impact of low level organic soil contamination in SWMU 13 to groundwater was assessed as part of the groundwater investigation, additional soil sampling was not required during Phase II to delineate the extent of the SSPL-A2 parameters, except petroleum products. The Phase II soil samples were collected from this area for analyses of petroleum products and to confirm the PCB sample results (3.14J ppm and 2.91J ppm) from the 1987 CERCLA sampling event.

The following summarizes the RFI soil sample data obtained from SWMU 13 and the grinding oil tank area.

SSPL-A2 Parameters	*Units*	*NYSDEC Soil Cleanup Objective*	*Number of Exceedances* (1)	*Concentration Range*
Phenol	ppb	30	2/2	33,000 - 57,000J
2-Methylphenol	ppb	100	2/2	4900 - 7900J
3&4-Methylphenol	ppb	900	1/2	ND - 12,000
2,4-Dimethylphenol	ppb	-	-	9800 - 17,000J
Di-n-butylphthalate	ppb	8100	2/2	9400 - 18,000J
Aniline	ppb	100	1/2	ND - 2800J
PCBs (Surface Soil)	ppm	100	3/4	0.67J - 3.7
PCBs (Subsurface Soils)	ppm	10	0/6	1.14J-5.4J
Zinc	ppm	95	2/2	254J - 345J
Total Petroleum Hydrocarbons	ppm	-	-	ND - 1100J

Notes:

ND	Not detected.
J	Associated value is estimated.
(1)	Number of exceedances of the NYSDEC soil cleanup objectives specified in TAGM 4046 per total number of analyses.

Low concentrations of PCBs (4.4J and 5.4J mg/kg) were detected below the NYSDEC cleanup level for PCBs in the soil sample collected from BH-22. PCBs were also detected at 3.14 mg/kg and 2.91 mg/kg in the 1987 soil investigation performed by NUS Corporation. In order to confirm these 1987 sample results, additional soil samples were collected during the Phase II activities. Phase II surficial soil samples collected from locations BH-44, BH-45, and BH-46 contained PCBs at concentrations (see Table 4.13) ranging from 0.67J mg/kg to 3.7 mg/kg. Three of the four samples were slightly above the NYSDEC surficial soil cleanup objectives of 1 ppm. Subsurface soil samples from these same boreholes contained PCB concentrations ranging from 1.14J to 5.4J mg/kg, which are all below the NYSDEC soil cleanup objective of 10 ppm. Therefore, PCBs are not of concern in the vicinity of SWMU 13 and the grinding oil tank.

Phase II soil samples collected from borehole locations BH-41, BH-42, and BH-43 (see Table 6.8) contained elevated concentrations (14 ppm to 1100J ppm) of petroleum contamination at location BH-41 (3-4 foot interval) and BH-43 (4-8 foot interval). Plan 5 identifies the sample locations. Petroleum products were also found in nearby test pit location TP-2 which was excavated to investigate the storm water sewer bedding in the vicinity of the Former Grinding Oil Tank. Petroleum hydrocarbons were detected in the soil sample from TP-2 at 130J ppm and 24J ppm. No other petroleum-related constituents (i.e., PAHs, benzene, toluene, ethylbenzene, and xylene) were detected in this sample (see Table 6.11). The petroleum contamination in TP-2 is believed to be related to the petroleum encountered in BH-41 and BH-43 due to the proximity of the storm sewer to these sample locations. Additional boreholes (BH-40A, 40B, and 40C) were advanced along the sewer bedding to visibly determine the extent of petroleum presence (see Section 4.4.3).

Plan 5 identifies the estimated aerial extent of petroleum presence in the vicinity of SWMU 13 and the Former Grinding Oil Tank. This impacted area is approximately 160 feet by 100 feet and petroleum presence extends to an approximate depth of 12 feet below grade.

6.4.4 SWMU 5 - Empty Drum Storage Dock, AOC 46 - Drum Storage Dock, AOC 47 - Bulk Chemical Unloading Area

The following soil samples were collected for chemical analyses to investigate the nature and extent of soil contamination in and around SWMU 5, AOC 46, and AOC 47:

Location	*Sample Depth*	*Sample ID*	*Data Table*
BH-16	0 - 2'	SC-661	Table 6.2
BH-15	2 - 4'	SC-663	Table 6.2
BW-10	0 - 2'	SC-659	Table 6.2
BH-62	0 - 2"	SC-934	Table 6.5
BH-62	6 - 6.5'	SC-936	Table 6.5
BH-62	9 - 10'	SC-935	Table 6.5
BH-63	0 - 2"	SC-937	Table 6.5
BH-63	4'	SC-938	Table 6.5
BH-64	0 - 2"	SC-939	Table 6.5
BH-64	4.5'	SC-940	Table 6.5
BH-65	0 - 2"	SC-941	Tables 6.5 and 4.13
BH-65	2'	SC-943	Tables 6.5 and H-1 (Appendix H)
BH-65	16 - 18'	SC-942	Table 6.5
BH-87	8 - 9'	SC-957	Tables 6.11 and 4.13

The Phase I soil samples collected from locations BH-16, BH-15, and BW-10 indicate that the SSPL-B1 parameters (see Table 4.5) are the most predominant chemicals detected above the NYSDEC soil cleanup objectives in this area. Phase II soil samples were collected to delineate the extent of the presence of the SSPL-B1 parameters.

Soil samples collected from this area contained phenolic compounds at concentrations up to 100,000 µg/kg, cresols up to 74,000 µg/kg, and zinc up to 258 mg/kg. The following summarizes the soil sample results for SSPL-B1 parameters:

SSPL-B1 Parameters	*Units*	*NYSDEC Soil Cleanup Objective*	*Number of Exceedances*	*Concentration Range*
Phenol	ppb	30	8/15	ND - 100,000
2-Methylphenol	ppb	100	5/15	ND - 14,000
3&4-Methylphenol	ppb	900	5/15	ND - 74,000
2,4-Dimethylphenol	ppb	-	-	ND - 38,000
Aniline	ppb	100	3/14	ND - 50,000J
Zinc	ppm	95	6/11	63.6J - 258J
PCBs (Surficial Soil)	ppm	1	1/3	ND - 11.2

Notes:
ND Not detected.
J Associated value is estimated.

Soils with exceedances of the NYSDEC cleanup objective are limited to a small area conservatively estimated to be approximately 160 feet by 140 feet to depths ranging from 4 to 6.5 feet BGS (see Plan 6). Higher concentrations of these compounds were present at the surface. The highest concentrations of the SSPL-B1 parameters were detected in the 0 to 2 inch sample from BH-63. However, the soil sample collected from 4 feet below grade at BH-63 did not exceed any of the NYSDEC soil cleanup objectives and the soil sample collected from BW-10 contained SSPL-B1 parameters at concentrations two orders of magnitude less than those found in BH-63 (0 to 2 inch interval).

The presence of the SSPL-B1 compounds in this area has not adversely impacted the groundwater quality in this area as evidenced by the lack of any exceedances of the New York State groundwater standards in downgradient monitoring well OW-10 and BW-10 (see Table ~~6.2~~**6.13**). In addition, the SSPL-B1 parameters were detected at concentrations well below the health-based RCRA Action Levels (see Section 8.0 and Appendix I).

6.4.5 AOC 45 - Rail Spur

The following soil samples were collected in the vicinity of AOC 45 - Rail Spur:

Location	*Sample Depth*	*Sample ID*	*Data Table*
OW-8	2 - 4'	SC-664	Table 6.2
BH-94	0 - 2"	SC-969	Table 6.5
BH-95	0 - 2"	SC-970	Tables 6.5 and H-1 (Appendix H)
BH-95	3.5 - 4'	SC-971	Tables 6.5 and H-1 (Appendix H)
BH-95	14 - 16'	SC-972	Table 6.5
BH-96	0 - 2"	SC-973	Table 6.5
BH-96	5.0'	SC-974	Table 6.5

The Phase I soil sample collected from OW-8 indicates that the SSPL-B1 parameters (see Table 4.5) are the most predominant chemicals detected along the Rail Spur above the NYSDEC soil cleanup objectives. The Phase II soil samples were collected to delineate the extent of the SSPL-B1 contaminants in this area. Phenolic compounds were detected in the soil sample at concentrations up to 95,000 μg/kg; cresols, up to 54,000 μg/kg; zinc, up to 738 mg/kg. The highest concentrations of these substances were detected in the 2 to 4 foot sample from OW-8 with the exception of zinc, which was detected at the highest concentration in the 0 to 2 foot sample from borehole BH-94. The phenols and cresol concentrations decreased further away from OW-8 and decreased with depth. Results of analysis by the NYSDEC from a split soil sample from the 0 to 2 inch interval of borehole BH-95 indicated exceedances of NYSDEC soil cleanup objectives for the non-SSPL-B1 parameters anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene (see Table H-1 in Appendix H). The following summarizes the exceedances of the NYSDEC soil cleanup objectives:

SSPL-B1 Parameters	*Units*	*NYSDEC Soil Cleanup Objective*	*Number of Exceedances*	*Concentration Range*
Phenol	ppb	30	5/9	ND - 95,000
2-Methylphenol	ppb	100	5/9	ND - 7,900J
3&4-Methylphenol	ppb	900	2/9	ND - 54,000
2,4-Dimethylphenol	ppb	-	-	ND - 34,000J
Aniline	ppb	100	0/7	ND - ND
Zinc	ppm	95	6/7	83.8 - 738

Notes:
ND Not detected.
J Associated value is estimated.

It is estimated that the NYSDEC soil cleanup objectives for the SSPL-B1 parameters are exceeded along the spur line (approximately 400 feet by 20 feet) to an approximate depth of 4 feet below grade (see Plan 6). However, it should be noted that none of the detected SSPL-B1 parameters exceeded the respective RCRA Soil Action Levels (see Section 8.0 and Appendix I).

6.4.6 SWMU 36 - Underground/Aboveground Storage Tanks

The following soil samples were collected in the vicinity of SWMU 36 for chemical analyses:

Location	*Sample Depth*	*Sample ID*	*Data Table*
TP-U5	6'	1A	Table 6.3
TP-U5	12'	1B	Table 6.3
BH-88	10 - 12'	SC-958	Tables 6.7 and H-1
BH-88	20 - 22'	SC-959	Table 6.7
BH-89	4 - 6'	SC-961	Table 6.7
BH-89	20 - 22'	SC-962	Table 6.7
BH-91	6 - 8'	SC-963	Tables 6.7 and H-1
BH-91	16 - 18'	SC-964	Table 6.7
BH-92	9 - 10'	SC-967	Table 6.7
BH-92	20 - 22'	SC-966	Table 6.7
BH-92B	3 - 4'	187263	Table H-1 (Appendix H)
BH-92B	9 - 10'	187264	Table H-1 (Appendix H)
UST Soil Pile Area	0 - 8'	SC 697	Table 6.2
BW-9	0 - 2'	SC 658	Table 6.2

The most predominant chemicals detected above the NYSDEC soil cleanup criteria in this area are benzene (up to 300,000 µg/kg), toluene (up to 56,000 µg/kg), ethanol (up to 83,000 µg/kg), and methanol (up to 14,000 µg/kg). The following summarizes the exceedances of the NYSDEC soil cleanup objectives:

Detected Volatiles	*NYSDEC Soil Cleanup Objective (ppb)*	*Number of Exceedances/ Total Analyses*	*Concentration Ranges (ppb)*
Acetone	200	0/15	ND - 46
Benzene	60	11/15	8J - 300,000
Toluene	1500	3/15	ND - 56,000
Ethanol	-	-	ND - 83,000
Methanol	-	-	ND - 14,000

Notes:
ND Not detected.

The analytical results of the petroleum products scan on NYSDEC split sample of soil from the 3 to 4 foot interval at borehole BH-92B indicated the presence of #2 fuel oil at 14J µg/kg.

Organic vapor readings in the boreholes drilled in the vicinity of SWMU 36 are as follows:

			PCB Concentration (ppm) (1)	
Location	*Sample Depth*	*Data Table*	*Lab* (2)	*Dexsil* (3)
BH-14	12 - 14'	Table 6.2	300J/91J	-
BH-66	0 - 2"	Tables 6.6, 4.13, and H-1	45	199.3
	2'		0.28	4.6
	16 - 18'		0.087J	4.4
BH-67	0 - 2"	Tables 6.6, 4.13, 6.10, and H-1	440/93	500/250
	4'		0.7J	4.2
	16 - 18'		-	2
BH-68	0 - 2"	Tables 6.6, 4.13, and 6.10	ND	5
	3.5 - 4'		-	4.5
	16 - 18'		-	4.2
BH-69	8 - 10'	Tables 4.13 and H-1	-	280
	10 - 12'		1000D	1500
BH-70	4 - 8'	Table 4.13	-	2.1
BH-71	9.5'	Table 4.13	-	4
BH-72	10 - 12'	Table 4.13	-	2.8

Notes:

ND	Not detected.
-	Not analyzed.
J	Associated value is estimated.
(1)	Sum of all detected PCB isomer concentrations.
(2)	As reported by an analytical laboratory.
(3)	As reported in the field by the portable Dexsil PCB/chloride analyzer.

Based on the Phase I soil samples collected from BH-14, the most predominant chemicals detected above the NYSDEC soil cleanup objectives are the SSPL-B2 parameters (see Table 4.5). The Phase II soil samples analytical results indicated that the only parameters detected are PCBs (PCB-1260). The results of analysis of samples split with the NYSDEC indicate exceedances of NYSDEC soil cleanup objectives for the non-SSPL-B2 parameters phenol, 1,2,4-trichlorobenzene, hexachlorobenzene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene.

PCBs are present at concentrations up to 1500 mg/kg (BH-69, 10 to 12 feet). Some transformer oil was also observed in the subsurface soil in the area. Based on the soil sample results, it is estimated the PCBs are present above the NYSDEC soil cleanup objective of 10 mg/kg in an approximate area of 40 feet by 40 feet (see Plan 6) to an approximate depth of 12 feet below grade. Elevated PCB concentrations were not present in the bedding material of a buried sewer pipe at the northwest edge (location BH-22) of the impacted area.

6.4.8 SWMU 8 - Laminant Dust Landfill

The following soil and waste samples were collected for chemical analyses in the vicinity of SWMU 8 as follows:

Location	*Sample Depth*	*Data Table*
TP-L1 and TP-L2	0 - 5'	Table 6.2
TP-L1 and TP-L2	Bagged Waste	Tables 6.2 and 6.3
BH-51	0 - 2"	Table 4.13
BH-51B	1.5'	Tables 4.13 and H-1
BH-51B	3.5'	Table 4.13
BH-52	0 - 2"	Tables 4.13 and H-1
BH-52	3'	Table 4.13
BH-53	0 - 2"	Table 4.13
BH-53	4'	Table 4.13
BH-53	8 - 10'	Table 4.13
BH-54	0 - 2"	Table 4.13
BH-54	2.1'	Tables 4.13 and H-1

Soil and dust samples collected from within the Laminant Dust Landfill (SWMU 8) indicate that the buried laminant dust is not a characteristic hazardous waste. The SSPL-C1 parameters (see Table 4.5) are the most predominant chemicals detected above the NYSDEC soil cleanup objectives in SWMU Group C. The SSPL-C1 parameters detected in soil and waste samples collected from the Laminant Dust Landfill consist primarily of volatiles (methylene chloride and toluene) which were detected in bagged laminant dust only, and semi-volatiles (phenol, cresols, and phthalates), PCBs (Aroclor 1248), and zinc.

The following presents a summary of the data collected from the test pit soil and bagged waste samples for the SSPL-C1 parameters:

SSPL-C1 Parameters	*Units*	*NYSDEC Soil Cleanup Objective*	*TP-L1 and TP-L2* *Soil*	*Bagged Waste*
Methylene Chloride	ppb	100	ND	5,300J
Tetrachloroethene	ppb	1400	ND	ND
Toluene	ppb	1500	ND	450,000J
Ethylbenzene	ppb	5500	ND	ND
Phenol	ppb	30	1400	390,000J
1,2-Dichlorobenzene	ppb	7900	ND	ND
2-Methylphenol (a-cresol)	ppb	100	310J	51,000J
3&4-*Methylphenol* (m&p-cresol)	ppb	900	1100	430,000J
2,4-Dimethylphenol	ppb	-	450	63,000J
Di-n-butylphthalate	ppb	8100	26,000	440,000J
bis(2-Ethylhexyl)phthalate	ppb	50,000	11,000	290,000J
Total PCBs	ppm	10	41	ND
Zinc	ppm	95	1160J	617J

Notes:
ND Not detected.
J Associated value is estimated.

Except for PCBs, these SSPL-C1 parameters were detected at relatively low concentrations in the soil samples (near the NYSDEC soil cleanup objectives and below the RCRA soil action levels (see Appendix I)). Accordingly, Phase II soil samples were collected to delineate the extent of PCB presence.

PCBs were detected in the Phase II soil samples at low concentrations (see Table 4.13) near the NYSDEC soil cleanup objective of 10 ppm, generally at locations where laminant dust was present. The following summarizes the PCB results:

		PCB Concentration (ppm) (1)	
Location	*Sample Depth*	*Lab* (2)	*Dexsil* (3)
BH-51	0 - 2"	-	4.8
BH-51B	1.5'	ND	37
	3.5'	-	68
BH-52	0 - 2"	0.032J	9
	3'	-	7
BH-53	0 - 2"	-	4.9
	4'	-	18
	8 - 10'	-	6.9
BH-54	0 - 2"	-	16.4
	2.1'	ND	25.3

Notes:
ND Not detected.
J Associated value is estimate.
(1) Sum of all detected PCB isomer concentrations.
(2) As reported by an analytical laboratory.
(3) As reported in the field by a portable Dexsil PCB/chloride analyzer.

Reported PCB concentrations are low and not of significant concern given the conservative nature of the Dexsil PCB analyzer, the low reported concentrations, and since PCB presence is limited to small and sporadic areas, generally where laminant dust was present within the landfill. PCBs were not present in the laminant dust. Residual amounts of PCB-contaminated soil from the Therminol Building may have been adhering to the outside of the bags during the transfer/placement of the bags to the laminant dust landfill.

Based on the analytical results and the exploratory boreholes and test pits installed in this area, the limits of the laminant dust landfill are approximately 40 feet by 40 feet and extends down to an approximately 8 to 10 feet below grade (see Plan 6). Elevated PCB concentrations above the NYSDEC soil cleanup objectives are limited to small and sporadic areas within the limits of the landfill (see Plan 6).

6.4.9 SWMU 38 - Therminol Building Unit/Drain Tiles/Contaminated Soils

PCB-1248 was known to have been released to the soil in the vicinity of SWMU 38. The extent of PCB presence was defined in mid 1995. The results of this investigation are presented in the "PCB Soil Investigation Report, Therminol Building", dated August 1996.

PCBs are present at concentrations up to 144,000 ppm, which is above the NYSDEC recommended soil cleanup objectives in the soils around the Therminol Building in an approximate area bounded by the exterior building walls and the K-Line and sanitary sewer lines in the middle of the roadway. At some sample locations, NAPL and elevated PCB concentrations (over 2000 ppm) were present at the fill/native clay interface. Plan 6 illustrates the approximate areal extent of PCB contamination. Approximately 785 cubic yards of soil in this area (approximately 4000 square feet and up to 20 feet BGS) contain PCBs above 10 ppm. This volume estimate assumes that clean soil can be readily segregated from contaminated soil. If clean soil cannot be readily segregated from contaminated soil, it is estimated that approximately 2000 cubic yards could be impacted.

6.4.10 SWMU 23 - Aboveground Storage Tank Farm and SWMU 11 - Sludge Settling Pond

Since SWMU 23 is adjacent to SWMU 11, investigative samples collected characterized both SWMUs. The following soil samples were collected for chemical analyses to investigate the nature and extent of soil contamination in and around SWMUs 23 and 11:

Results of analysis of split spoon soil samples by the NYSDEC indicates that the non-SSPL-C1 parameters di-n-butylphthalate, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and dibenzo(a,h)anthracene also exceed NYSDEC soil cleanup objectives.

It is estimated that the areal extent of soil with the SSPL-C1 volatiles and 1,2-dichlorobenzene above the soil cleanup objectives is limited to a small area of approximately 30 feet by 30 feet extending down to approximately 10 feet BGS. Since there are no exceedances of the groundwater standards for the SSPL-C1 parameters and PCBs in nearby monitoring well OW-11, and since the extent of soil contamination is limited, the presence of these compounds in the soil have had and are expected to have little or no impact to the groundwater quality beneath the Site.

6.4.11 SWMU 12 - Sludge Settling Pond/ Former Fuel Oil Tank Location

A soil sample was collected during the Phase I activities from the 10 to 12 foot interval of BH-23 (see Table 6.2). This soil sample did not contain any contaminant concentrations above the NYSDEC soil cleanup objectives. Accordingly, Phase II soil samples were not collected in the vicinity of SWMU 12.

Soil samples were collected from within the dike of the former fuel oil tanks at locations BH-55, BH-56, and BH-57 for analyses of petroleum hydrocarbons. Table 6.8 presents the data. Petroleum hydrocarbons were not detected in any of the soil samples. Therefore, the historic use of these fuel oil tanks has not adversely impacted the soil quality.

6.4.12 SWMU 14 - Fiber Waste Sludge Settling Pond

A soil sample was collected from the Phase I borehole BH-21 installed in the former sludge settling pond (see Table 6.2). The soil sample only exceeded the NYSDEC soil cleanup objectives for methylene chloride (150J μg/kg), PCBs (Aroclor 1248 at 12J mg/kg), and some metals. The presence of methylene chloride is likely a laboratory artifact. Additional soil samples were collected during the Phase II soil sampling activities to characterize the extent of PCB presence in this area.

Soil samples were collected from BH-47 through BH-50, inclusive, and BH-73 through BH-83, inclusive, for analyses of PCBs. Petroleum odor and staining were observed at locations BH-47, BH-48, BH-49, BH-82, and BH-83. The results of a petroleum products scan on soil samples from BH-48 (0-2") and BH-49 (0-2") split with the NYSDEC show a petroleum product identified as Other-1 present at 3,000 ppm in both samples. A TPH analysis of the 2-4' sample from BH-82 yielded a result of 70,800 ppm. PCBs were detected slightly above the NYSDEC soil cleanup objective at a few isolated locations. The PCB data from soil samples collected from SWMU 14 are as follows:

		PCB Concentration (ppm) (1)	
Location	***Sample Depth***	***Lab*** (2)	***Dexsil*** (3)
BH-47	0 - 2"	ND	7.3
	2'	-	6.7
	4'	-	4.1
BH-48	0 - 2"	0.301J	34/51
	1.5'	2.9J	108
	4.5'	0.079J/0.11	54
BH-49	0 - 2"	0.12J	88/230
	1'	-	4.4
	3.5'	-	2.8/3.8
BH-50	0 - 2"	0.423J	100
	1.2'	-	9.1
	3.2'	-	5.0
BH-73	0 - 2"	-	3.1
BH-74	0 - 2"	3/3.3	0.170J
BH-75	0 - 2"	2.5	8.4
BH-76	0 - 2"	-	7.7
BH-77	0 - 2"	-	5.7/7.5
BH-78	0 - 2"	-	39.7J
BH-79	0 - 2"	-	4.4

Location	*Sample Depth*	*PCB Concentration (ppm)* (1) *Lab* (2)	 *Dexsil* (3)
BH-80	0 - 2"	ND	230J
BH-82	0 - 2"	-	86.3J
	2 - 2.4"	-	4.6
	2 - 4'	37	20.6J/84.5J
	4 - 6'	-	47.1J
	6 - 8'	-	35.8J

Notes:

ND	Not detected.
J	Associated value is estimated.
(1)	Sum of all detected PCB isomer concentrations.
(2)	As reported by an analytical laboratory.
(3)	As reported in the field by a Dexsil PCB/chloride analyzer.

Given the conservative nature of the Dexsil PCB results, the relatively low PCB concentrations found in this area, and the isolated and sporadic PCB detections, PCBs are not of significant concern in this area.

Petroleum products are estimated to be present in an approximate area 100 feet by 120 feet to a depth of approximately 5 feet below grade (see Plan 6).

6.4.13 SWMU 26 - Paper Sludge Land Application Area

During the Phase I activities, a soil sample was collected from BH-20 (see Table 6.2) located in the vicinity of SWMU 26. The only compound that was detected in BH-20 above the NYSDEC soil cleanup objectives is zinc. However, since the detected zinc concentration of 2180J mg/kg is less than the NYSDEC RCRA soil action level (see Appendix I), further soil sampling was not required.

6.4.14 Summary

Plan 6 presents the approximate limits of soil where the NYSDEC soil cleanup objectives have been exceeded. Sections 7.0 and 8.0 further evaluate potential impacts to human health and the environment associated with the presence of these chemicals.

6.5 SITE UTILITY BEDDING

Soil samples were collected from the bedding material of the I-Line, F-Line, K-Line, the sanitary sewer near Dodge Avenue, and the Outfall 005 storm sewer. Table 6.11 presents the utility bedding soil sample data. Zinc, di-n-butylphthalate, 3/4-methylphenol (m/p-cresol), and phenol were detected in the bedding samples, with the bedding sample collected from along the K-Line containing most of these compounds at concentrations above the NYSDEC recommended soil cleanup objectives.

Visible evidence of petroleum contamination and elevated organic vapors were present along the 005 Outfall storm sewer near the Site fenceline (TP-2). This petroleum contamination extended along the sewer approximately 30 feet east of the Site fence and is likely a result of historical operations of the former grinding oil tank. Plan 6 illustrates the approximate limits of the petroleum contamination.

Groundwater was only present in the test pit (TP-3) excavated along the F-Line sewer. Table 6.12 presents the groundwater data collected from TP-3. Zinc and PCB-1254 were the only compounds detected above the NYSDEC groundwater standards. The elevated zinc concentrations were likely attributable to the presence of suspended solids in the sample. Nearby groundwater monitoring well OW-7 did not contain elevated zinc concentrations. PCB-1254 was detected at 0.18J µg/L in the groundwater sample, but was not detected in the duplicate groundwater sample.

Based on the analytical results, further investigation of the Site utility beddings is not warranted.

6.6 NATURE AND EXTENT OF GROUNDWATER CONTAMINATION

The 17 groundwater monitoring wells and 1 former water supply well at the Site were sampled on two occasions for analyses of the groundwater SSPL (see Table 4.5). Chemicals detected in the Site groundwater include 16 VOCs, 5 semi-volatile compounds, PCB (Aroclor 1248), petroleum hydrocarbons, and zinc. Table 6.13 presents the groundwater data collected and Appendix H presents NYSDEC split sample groundwater data. Of the 24 compounds on the groundwater SSPL, the following compounds were detected above the New York State groundwater standards or guidance values:

Compound	*NYS Groundwater Standard (µg/l)*	*Number of Exceedances/ Total Analyses*	*Maximum Detected Concentration (µg/L)*	*Wells with Exceedances*
Acetone	50	3/42	180	OW-8, BW-9
Benzene	0.7	3/42	3.2J	OW-8
cis-1,2-Dichloroethen	5	2/42	26	OBW-2, BW-C3
Toluene	5	3/42	32	OW-8
Trichlorethene	5	1/42	60	BW-C3
Xylene (m,p,o)	5	6/42	11	OW-8
Phenol	1	6/40	190,000	OBW-2, OW-7, OW-8
PCB-1248	0.1	2/40	1.1	BW-C3
Zinc	300	2/40	1640	OW-3, OW-11

Notes:
J Associated value is estimated.

Although there are no groundwater standards available for these parameters, notably high concentrations of ethanol (up to 2500 µg/L), methanol (up to 10,000 µg/L), 3/4-methylphenol (up to 220,000 µg/L), 2-methylphenol (up to 47,000 µg/L), and unknown petroleum hydrocarbons (up to 26,000 µg/L) were also detected. These five compounds were only detected at elevated concentrations in well OW-8. The same five parameters were detected in well OW-7 during the July 1996 sample event at significantly lower concentrations (up to 120 µg/L). However, the occurrence of the detected compounds in well OW-7 during the first round of groundwater sampling may be due to either field or lab induced cross contamination. The samples from well OW-7 were collected approximately one-half hour after the samples from the OW-8 well, however, separate bailers were used to collect the two samples. When the VOC samples were analyzed in the lab, the W-072496-DJT-017 sample from well OW-7 was analyzed immediately after the W-072496-DJT-15 sample from well OW-8, suggesting some impact may have also occurred during analysis. The analytical results of the groundwater sample collected from the OW-7 well in November 1996 showed all tested compounds to be below detection limits.

The highest concentrations of the detected compounds were in OW-8, located in the Railroad Spur (AOC 45). However, there were no exceedances of the groundwater standards in downgradient overburden monitoring well OW-9 or bedrock monitoring well BW-9 (except for acetone). Acetone was detected once above the groundwater standard in BW-9 and is believed to be a laboratory artifact. In addition, the presence of the Rag Shed Building foundation along the Rail Spur minimizes the potential for off-Site migration of contaminated overburden groundwater in the vicinity of OW-8.

The only monitoring well around the Resin Drum Landfill that exceeded groundwater standards is the bedrock interface well OBW-2. Phenol (up to 340J µg/L) and cis-dichloroethene (up to 12 µg/L) were detected above the NYS Class GA groundwater standards during the July 1996 sampling event. However, neither of these two compounds were detected in OBW-2 during the November 1996 sampling event.

The unused water supply well, BW-C3, contained cis-1,2-dichloroethene (26 ppb and 2.7J ppb), trichloroethene (60 ppb and 4.6J ppb), and PCB-1248 (0.15J ppb and 1.1 ppb) at concentrations slightly above the groundwater standards. Well BW-C3 is approximately 78 feet deep and is located adjacent to the Therminol Building. Overburden monitoring well OW-11, is located approximately 160 feet north (downgradient) of BW-C3 and downgradient of the Therminol Building, and did not contain any PCBs or TCE.

The following summarizes the number of exceedances of the groundwater standards on a well-by-well basis:

			Concentration	
Well	***Number of Exceedances***	***Parameter with Exceedance***	***7/96 (ppb)***	***11/96 (ppb)***
OW-1	0	-	-	-
OW-2	0	-	-	-
OW-3	1	Zinc	1640	ND
OW-4	0	-	-	-
OW-A1	0	-	-	-
OW-B2	0	-	-	-
OBW-2	3	cis-1,2-Dichloroethene	12J/2.8J	ND/ND
		Phenol	340J/160J	ND/ND
OW-6	0	-	-	-
OW-7	1	Phenol	68	ND
OW-8	17	Acetone	170/140	ND
		Benzene	2.8J/2.8J	3.2J
		Toluene	25/24	32
		Xylene (m,p,o)	6.4 - 9.7	6.9 - 11
		Phenol	190,000/180,000	100,000

Well	Number of Exceedances	Parameter with Exceedance	Concentration 7/96 (ppb)	Concentration 11/96 (ppb)
OW-9	0	-	-	-
OW-10	0	-	-	-
OW-11	1	Zinc	520	183
OW-12	0	-	-	-
BW-9	1	Acetone	16	180
BW-10	0	-	-	
BW-12	0	-	-	-
BW-C3	4	cis-1,2-Dichloroethene	26	2.7J
		Trichloroethene	60	4.6J
		PCB-1248	0.15J	1.1

Notes:
ND Not detected.
J Associated value is estimated.

As shown above, groundwater contamination at the Site is isolated and limited to a small area within the Railroad Spur (AOC 45). Accordingly, the presence of Site-related contaminants in the soils at the Site has not extensively impacted the overall groundwater quality at the Site. This is attributable to the presence of the low permeability native clay soils at the Site which greatly limits the lateral and vertical movement of groundwater contaminants.

6.7 NATURE AND EXTENT OF SURFACE WATER AND SEDIMENT CONTAMINATION

6.7.1 Surface Water Quality

Storm water samples were collected from nine storm water outfalls to confirm the October 1992 storm water permit sampling results. Table 6.14 presents the surface water sample data. None of the storm water samples collected exceeded applicable NYS surface water quality standards.

In addition, surface water samples (see Table 6.14) were collected from the drainage ditch immediately adjacent to the Resin Drum Landfill at locations upstream and downstream of the landfill. These surface water samples did not exceed any surface water quality standards, except for aluminum and iron. However, these two metals and other metals (for which there were no available surface water quality standard) were detected in the downstream sample at concentrations similar to those concentrations in the upstream sample. Based on these surface water sample data, it is concluded that the Resin Drum Landfill has not adversely impacted the Site surface water quality.

Based on the surface/storm water sample data collected to date, further investigation of the Site storm water is not warranted.

6.7.2 Sediment Quality

The RFI Work Plan provided for the collection and analyses of sediment samples from the City of Tonawanda storm sewer between the Site and the Niagara River, and for the inspection of the outfall area in the Niagara River for the presence of sediments. Little or no sediments were found in the Gibson Street storm sewer manholes and in the shallow portion of the Niagara River within the immediate vicinity of the City storm sewer outfall. Accordingly, further investigation of the City storm sewer and the Niagara River is not warranted.

Sediment samples were also collected in the drainage ditch immediately adjacent to the Resin Drum Landfill at locations upstream and downstream of the landfill. Table 6.15 presents the sediment data. Comparison of analytical results to the NYSDEC document Technical Guidance for Screening Contaminated Sediments (NYSDEC 1994) was not used due to the intermittent nature of standing water in the ditches on-Site and the lack of any significant habitat for aquatic organisms in these ditches. Instead, the sediment data in the ditches at the Site have been compared to the NYSDEC soil cleanup objectives for surficial soils. Phenolic compounds, PAHs, and PCBs were detected above the NYSDEC soil cleanup objectives. However, the detected concentrations in the sediment samples collected downstream of the landfill were similar to or less than those concentrations reported in the upstream samples. In addition, none of the surface water quality standards for these organics were exceeded in the surface water samples collected from these locations. Therefore, the presence of these organics in the sediment has not adversely impacted the surface water quality.

Several metals were detected above the NYSDEC soil cleanup objectives. However, only copper (up to 958J mg/kg) and zinc (up to 7570J mg/kg) were present at concentrations above the published background concentration ranges for typical soils (see Table 6.1). However, surface water samples collected at these locations did not exceed the surface water quality standards for copper and zinc. Accordingly, the presence of these metals has not adversely impacted the surface water quality.

7.0 CONTAMINANT FATE AND TRANSPORT

7.1 TRANSPORT PATHWAYS

Chemical contaminants may potentially be transported from the Site to the off-Site environment via air or water. Airborne transport can occur through volatilization from soil and surfaces to the atmosphere. Volatilization is potentially significant only for chemicals with a high vapor pressure (i.e., VOCs). Airborne transport can also occur through wind erosion of soil particles containing sorbed contaminants.

Waterborne transport from the Site could occur through erosion of contaminated soil and subsequent transport in surface water runoff and via off-Site flow of contaminated groundwater.

7.2 AIRBORNE PATHWAYS

The presence of elevated levels of VOCs at the Site was limited primarily to waste materials buried in drums or bags and to a lesser degree, in the deeper subsurface soils in the vicinity of former storage tanks (SWMUs 36 and 23). Since the buried waste materials and contaminated soils are isolated beneath the clayey soils and since the volume of the buried wastes is estimated to be quite low, it is unlikely that significant volatilization could be occurring.

Most areas where contaminated soils were present are paved or covered with grass. Under these circumstances, most fugitive dust generation is prevented. Based on the lack of significant volatilization and the existing Site cover, the airborne transport pathways for current conditions at the Site are not significant.

7.3 WATERBORNE TRANSPORT

7.3.1 Transport in Surface Water Runoff

An extensive sampling of storm water was conducted as described in Section 6.7. Storm water samples were obtained from outfall locations throughout and downgradient of the Site. The results of the storm water sampling are presented in Section 6.7. Site contaminants were generally not detected or were detected below applicable water quality standards in storm water runoff from the Site. Based on these findings, erosion and transport of contaminated soil in runoff from the Site is not a significant route of off-Site migration. This is further exhibited by the lack of sediment in the off-Site storm sewer.

In addition, water in the isolated section of the K-Line is being collected and treated on-Site to minimize the potential for any off-Site migration of PCBs in the storm water.

7.3.2 Transport in Groundwater

As described in Section 6.6, the presence of elevated chemical concentrations in groundwater is limited to well OW-8 located in the northeast portion of the site, approximately 50 feet from the downgradient Site boundary. It is possible that some off-Site transport of contaminants could be occurring in groundwater flow from this area. However, the presence of the Rag Shed Building foundation may present a barrier to shallow groundwater flow in this area. In addition, based on the interpolated groundwater levels, shallow groundwater is likely intercepted by the Wheeler Street sanitary sewer (approximately 10 feet below grade) and/or bedding material since the sewer pipe is at least 3 feet below the interpolated overburden groundwater level. It should be noted that the groundwater samples collected from monitoring wells OW-9 and BW-9, which are located north and downgradient of OW-8 immediately next to the Site fence, do not exceed any of the groundwater standards for the groundwater SSPL parameters (see Section 6.6). Spaulding intends to characterize off-Site overburden groundwater ~~monitoring well~~ to the east of the Rag Shed Building to determine the extent of migration, if any, of contaminated groundwater in an eastward direction from the Rail Spur Area.

Vertical migration to the bedrock groundwater could occur through desiccation cracks in the glaciolacustrine silty clay. The general absence of upper bedrock groundwater contamination, however, indicates that extensive vertical migration of contaminants is not occurring. The presence of the low hydraulic conductivity clay provides a barrier to vertical migration.

8.0 HEALTH ASSESSMENT

8.1 EXPOSURE ASSESSMENT

Exposure to Site chemicals could occur through direct contact with soil or waste materials or via contact with or ingestion of groundwater. Currently, direct contact exposure to Site soils and waste materials is prevented by the Site's security fence. Therefore, there is no complete pathway for direct contact exposure to soil/waste under the current conditions at the Site.

Exposure to contaminated groundwater at the Site is unlikely because:

i) There is no use of groundwater for potable water supply in the area.

ii) Based on the sampling of the monitoring well network and the utility bedding investigation, groundwater contamination does not appear to have migrated off-Site. This lack of off-Site migration is consistent with the estimated average linear groundwater velocity in the overburden, which is extremely low (0.2 feet/year) (see Section 5.2).

iii) It is hypothesized that off-Site groundwater flow in the overburden is inhibited by the Rag Shed Building foundation and may be intercepted by the Wheeler Street sanitary and storm sewer beddings. To determine if this hypothesis is true, additional investigatory work has been proposed to characterize the off-Site overburden groundwater downgradient of the Rag Shed Building.

In summary, there are no complete pathways for current exposures to Site chemicals. Therefore, the Site in its present state and current use does not pose any significant threat to human health based on information available to date.

8.2 COMPARISON WITH ACTION LEVELS

As has been noted in Section 6.0, subsurface soil at several locations at the Site exceeds NYSDEC Cleanup Objectives established for protection of groundwater and for direct contact residential exposure scenarios. As described in Section 8.1, there are no complete pathways for exposures via groundwater or soils. No future groundwater use is anticipated due to the abundance of surface water supply from the Niagara River. Future uses of the Site itself can be managed such that direct contact exposures are limited (e.g., paving, special excavation requirements, institutional controls). Therefore, from a human health risk perspective, as long as the Site's use is restricted properly, the Site does not pose any significant threat to human health.

In order to evaluate potential human health impacts from contaminated soil at the Site, analytical results from surface (0-2") and near surface (0-2') samples were compared with NYSDEC/USEPA Soil/Sediment RCRA Action Levels as presented in TAGM 3028 - "Contained-In Criteria for Environmental Media" (see Appendix I). These action levels are based on oral ingestion of soil in a residential scenario and are intended to be used as a screening criteria to assess if further action (i.e. performance of a Corrective Measures Study (CMS)) is required. These action levels are highly conservative since the Site is not a residential property.

It should be noted that exceedance of these RCRA Action Levels does not by itself require further action (i.e. CMS or remediation of the impacted media). Other criteria (i.e. detected contaminant concentrations, extent and location of contamination, current and future use of the contaminated area) are typically considered in any decision for determining if, and what, further action may be required.

Exceedances of these Action Levels for soil and waste samples are listed below. Beryllium does not appear on this list even through it exceeded the health based action levels in several shallow soil samples. Since it is not present at levels substantially above those in the Site background soil samples, beryllium is not a contaminant of concern for this Site.

Sample Location	*Matrix*	*Depth (feet)*	*Parameter*	*Concentration (mg/kg)*	*NYSDEC/USEPA Action Level (mg/kg)*
1. *SWMU 7 - Resin Drum Landfill*					
TP-R1 and TP-R2	Soil	0 - 7.5	Benzo(a)anthracene	0.360J	0.220
			Benzo(b)fluoranthene	0.360J	0.220
			Benzo(k)fluoranthene	0.390J	0.220
			Benzo(a)pyrene	0.300J	0.061
			Dibenzo(a,h)anthracene	0.098J	0.014
			Aroclor 1248	2.0J	1.0
OBW-2	Soil	0 - 2,	Benzo(a)anthracene	3.9	0.220
2. *SWMU 13 - Settling Pond*					
BH-44	Soil	0 - 0.2	Total PCBs (Dexsil)	3.0	1.0
			Total PCBs (Laboratory)	0.67J	1.0
BH-45	Soil	0 - 0.2	Total PCBs (Dexsil)	3.4	1.0
BH-46	Soil	0 - 0.2	Total PCBs (Dexsil)	3.7	1.0
3. *SWMU 5, AOCs 46 and 47*					
BH-16	Soil	0 - 2	Benzo(a)anthracene	0.270J	0.220
			Benzo(a)pyrene	0.240J	0.061
			Aroclor 1260	3.3J	1.0
BW-10	Soil	0 - 2	Benzo(a)pyrene	0.160J	0.061
			Dibenzo(a,h)anthracene	0.021J	0.014

Sample Location	*Matrix*	*Depth (feet)*	*Parameter*	*Concentration (mg/kg)*	*NYSDEC/USEPA Action Level (mg/kg)*
4. *AOC 45 - Rail Spur*					
BH-95	Soil	0 - 0.2	Benzo(a)anthracene	23	0.220
			Benzo(k)fluoranthene	28	0.220
			Benzo(k)fluoranthene	10	0.220
			Benzo(a)pyrene	22	0.061
			Dibenzo(a,h)anthracene	2.9J	0.014
5. *SWMU 36 - Aboveground/Underground Tanks*					
BW-9	Soil	0 - 2	Benzo(a)anthracene	0.260J	0.220
			Benzo(k)fluoranthene	0.240J	0.220
			Benzo(a)pyrene	0.220J	0.061
			Dibenzo(a,h)anthracene	0.043J	0.014
6. *AOC 48 - Transformer Explosion Area*					
BH-66	Soil	0 - 0.2	Benzo(a)anthracene	0.92	0.220
			Benzo(b)fluoranthene	0.81	0.220
			Benzo(k)fluoranthene	1.0	0.220
			Benzo(a)pyrene	0.45	0.061
			Dibenzo(a,h)anthracene	0.94	0.014
			Aroclor 1260	45	1.0
BH-67	Soil	0 - 0.2	Benzo(a)anthracene	0.77	0.220
			Benzo(b)fluoranthene	0.69	0.220
			Benzo(k)fluoranthene	0.26J	0.220
			Benzo(a)pyrene	0.53	0.061
			Dibenzo(a,h)anthracene	0.036	0.014
			Aroclor 1260	440	1.0
7. *SWMU 8 - Laminant Dust Landfill*					
TPL1 and TPL2	Soil	0 - 5	Aroclor 1248	41	1.0
BH-51	Soil	0 - 0.2	Total PCBs (Dexsil)	4.8	1.0
BH-53	Soil	0 - 0.2	Total PCBs (Dexsil)	4.9	1.0
BH-54	Soil	0 - 0.2	Total PCBs (Dexsil)	16.4	1.0
8. *SWMU 38 - Therminol Building Unit/Drain Tiles/Contaminated Soils*					
BH-F7	Soil	0 - 4	Aroclor 1248	5.1J	1.0

Sample Location	*Matrix*	*Depth (feet)*	*Parameter*	*Concentration (mg/kg)*	*NYSDEC/USEPA Action Level (mg/kg)*
9. *SWMUs 23 and 11*					
BH-18	Soil	0 - 2	Aroclor 1248	5.7J	1.0
			Aroclor 1260	4.3J	1.0
BH-58	Soil	0 - 0.2	Aroclor 1254	6.0	1.0
BH-59	Soil	0 - 0.2	Aroclor 1254	2.5J	1.0
			Aroclor 1260	4.4J	1.0
BH-60	Soil	0 - 0.2	Aroclor 1254	18.0	1.0
			Aroclor 1260	10.0J	1.0
			Benzo(a)anthracene	0.60	0.220
			Benzo(b)fluoranthene	0.74	0.220
			Benzo(a)pyrene	0.310J	0.061
			Dibenzo(a,h)anthracene	0.059J	0.014
BH-61	Soil	0 - 0.2	Aroclor 1248	18.0	1.0
BH-84	Soil	0 - 0.2	Aroclor 1248	9.5	1.0
BH-86	Soil	0 - 0.2	Aroclor 1248	9.1	1.0
10. *SWMU 14 - Sludge Settling Pond*					
BH-21	Soil	1 - 2	Aroclor 1248	12.0J	1.0
BH-47	Soil	0 - 0.2	Total PCBs (Dexsil)	7.3	1.0
BH-48	Soil	0 - 0.2	Total PCBs (Dexsil)	88	1.0
BH-49	Soil	0 - 0.2	Total PCBs (Dexsil)	100	1.0
BH-50	Soil	0 - 0.2	Total PCBs (Dexsil)	7.3	1.0
BH-73	Soil	0 - 0.2	Total PCBs (Dexsil)	3.1	1.0
BH-74	Soil	0 - 0.2	Total PCBs (Dexsil)	3.0/3.3	1.0
BH-75	Soil	0 - 0.2	Total PCBs (Dexsil)	8.4	1.0
			Aroclor 1260 (NYSDEC)	2.5	1.0
BH-76	Soil	0 - 0.2	Total PCBs (Dexsil)	7.7	1.0
BH-77	Soil	0 - 0.2	Total PCBs (Dexsil)	5.7/7.5	1.0
BH-78	Soil	0 - 0.2	Total PCBs (Dexsil)	39.7	1.0
BH-79	Soil	0 - 0.2	Total PCBs (Dexsil)	4.4/4.4	1.0
BH-80	Soil	0 - 0.2	Total PCBs (Dexsil)	230	1.0

Sample Location	*Matrix*	*Depth (feet)*	*Parameter*	*Concentration (mg/kg)*	*NYSDEC/USEPA Action Level (mg/kg)*
BH-82	Soil	0 - 0.2	Total PCBs (Dexsil)	86.3	1.0
BH-83	Soil	0 - 0.2	Total PCBs (Dexsil)	19.6	1.0
11.	***<u>SWMU 26 - Paper Sludge Land Application Area</u>***				
BH-20	Soil	0 - 2	Aroclor 1254	2.8J	1.0

9.0 CONCLUSIONS

Based on the evaluation of the information and analytical data obtained during the RFI, RI, and previous environmental studies and remediation programs performed at the Site, the following conclusions are drawn:

1. The presence of Site-related chemicals in the Site soils and groundwater does not pose a significant threat to human health or the environment based on the current land use. Potential for human exposure to the impacted media is limited due to the lack of any significant ground invasive activities at the Site and the presence of the Site fence and security.

2. Groundwater contamination at the Site as defined in this report is limited to small, isolated areas. Based on the groundwater data obtained, there is limited potential for off-Site migration of contaminated groundwater given the low concentration detected in most of the overburden monitoring wells. It is hypothesized that the presence of the low permeability clay and building foundation and off-Site sewers on Wheeler Street would inhibit off-Site migration of overburden groundwater from the Rail Spur Area (AOC-45). Spaulding has proposed additional investigation activities to characterize off-Site overburden groundwater to the east of the Rag Shed Building to verify this hypothesis. The investigation results indicate that the Site utility beddings are not an off-Site contaminant groundwater migration pathway.

3. Because of the low permeability clay soils present at the Site, contaminants in the soil have not migrated beyond the original limits of the contamination source areas.

4. Based on the extensive sampling of storm water outfalls conducted at the Site, storm water runoff is not a significant route of off-Site migration of contaminated sediments. This is exhibited by the lack of sediments in the off-Site storm sewer and the lack of any elevated levels of Site-related chemicals in the storm water. In addition, PCB-contaminated water in the isolated section of the K-Line is being collected and treated on-Site prior to discharge to minimize the potential of any off-Site migration of PCBs in the K-Line storm sewer.

5. *SWMU 7 - Resin Drum Landfill:* Analyses of wastes, soil, and groundwater samples from within the landfill indicate that volatiles and phenolic compounds (phenol, cresols, aniline) are the most frequently detected chemicals within the landfill limits. Some of the compounds present in this area exceed NYSDEC soil cleanup objectives (NYSDEC TAGM 4046) and/or RCRA health based action levels (NYSDEC TAGM 3028). Most of the drums encountered within the landfill contained solidified non-hazardous resins. The semi-solid resin and groundwater within the landfill exhibits the characteristics of a hazardous waste. The extent of soil and groundwater contamination is limited to the original limits of the landfill. The native low permeability clay soils surrounding the drums have contained any potential migration of contaminants from the landfill. Groundwater monitoring wells installed around the landfill (within 20 feet of the landfill limits) have exhibited little or no migration of the chemicals from the landfill.

6. *SWMU 13 - Sludge Settling Pond and Former Grinding Oil Tank:* The sludge settling pond had been excavated and was noted to be properly closed by the NYSDEC records. The former grinding oil tank was decontaminated and removed as part of the Plant decommissioning program. Analyses of soil samples collected from the vicinity of SWMU 13 and the former grinding oil tank indicate that the most frequently detected chemical of concern is petroleum products. PCBs were also detected in this area. The detected PCB concentrations in subsurface samples were less than the NYSDEC soil cleanup objective of 10 ppm and therefore are not of significant concern. Three surface soil samples which were analyzed by the Dexsil field screening procedure showed exceedance of the NYSDEC soil cleanup objective and RCRA health based action level for PCBs in surficial soils. Additionally, the NYSDEC soil cleanup objectives for phenols, cresols, aniline, and zinc in subsurface soil were also exceeded. Petroleum is present in an approximate area of 160 feet by 100 feet to a depth up to 12 feet below ground. Some petroleum is present in the nearby storm sewer bedding near the fenceline, but within the Site property boundary.

   Given the relatively low concentration of the compounds in the surface soil and the low toxicity of the petroleum products, the presence of the low permeability clay soils which limits and isolates the petroleum contamination, and since petroleum products can naturally biodegrade in the soils, immediate remedial

~~petroleum products can naturally biodegrade in the soils, immediate remedial~~ action is not warranted at this time. However, access to the impacted soils should be limited.

7. *SWMU 5 - Empty Drum Storage Dock, AOC 46 - Drum Storage Dock, AOC 47 - Bulk Chemical Unloading Area:* Soil samples collected from this area indicate that the phenolic compounds are the most frequently detected chemicals. The phenolic compounds were detected at concentrations well below the health-based RCRA Action Levels, however, the phenolic compounds, aniline and zinc exceed the NYSDEC soil cleanup objectives. The low permeability clay soils in this area has limited the extent of chemical presence in this area and the off-Site migration of contamination. In addition, the presence of these compounds in the area has not adversely impacted the groundwater quality as evidenced by the lack of any exceedance of the groundwater standards in the downgradient monitoring wells.

8. *AOC 45 - Rail Spur:* Soil samples collected from the rail spur indicate that phenolic compounds were the most frequently detected chemicals. Elevated concentrations of these compounds are present above the NYSDEC soil cleanup objectives along a 400-foot section of the northern end of the spur to a depth of approximately 4 feet below grade. The presence of these compounds in the subsurface soil has adversely impacted the groundwater quality along the 400-foot long isolated section of the spur. The reported phenolic compound concentrations were detected above NYSDEC soil cleanup objectives, however, the reported phenolic compound concentrations were below the health-based RCRA Action Levels. and nearby downgradient monitoring wells at the northern corner of the Site did not exceed the groundwater standards for these compounds. In addition, several PAH compounds detected in NYSDEC split soil sample analysis exceeded the NYSDEC soil cleanup objectives and/or RCRA health based action levels. The presence of the low permeability clay soils and the building foundations along the impacted section of rail spur has isolated and limited the extent of groundwater and soil contamination. Two additional monitoring wells will be installed along Wheeler Street to assess whether eastward migration of contaminated groundwater is occurring.

9. *SWMU 36 - Underground/Aboveground Storage Tanks:* Soil samples collected from the former underground/aboveground storage tank locations indicate that volatiles (benzene, toluene, ethanol, and methanol) are the most frequently detected compounds in this area. Detected levels of benzene and toluene exceeded NYSDEC soil cleanup objectives. Elevated concentrations of these volatiles are present in an area approximately 180 feet by 140 feet to an approximate depth up to 25 feet below grade. In addition, health-based RCRA Action Levels for several PAHs were also exceeded in surface soil in this area. Downgradient monitoring wells at the northern corner of the Site did not exceed the groundwater standards for these compounds. The presence of the low permeability clay soils and the building foundations along the adjacent rail spur appear to have isolated and limited the extent of groundwater and soil contamination in the area. Two additional wells along Wheeler Street are planned to assess whether eastward migration of contaminated groundwater from AOC 45 and SWMU 36 is occurring.

10. *AOC 48 - Transformer Explosion:* Soil samples collected from the transformer explosion area indicate that the most frequently detected chemical of concern is PCB-1260. The PCB concentrations and PAH levels detected in NYSDEC split soil samples exceed both NYSDEC soil cleanup objectives and RCRA health based action levels. Elevated PCB concentrations are present within an area approximately 40 feet by 40 feet to an approximate depth of 12 feet below grade. No evidence of PCB migration along the sewer beddings in this area was observed. The presence of the low permeability clay soils has isolated and limited the extent of PCB contamination.

11. *SWMU 8 - Laminant Dust Landfill:* Soil and waste samples collected from the laminant dust landfill indicate that volatiles, phenolic compounds, phthalates, cresols, and PCBs were present in the landfill. However, these compounds (except for PCBs, phenols, and cresols) were present at concentrations below the NYSDEC soil cleanup objectives and the health-based RCRA Action Levels. PCBs were detected sporadically at low concentrations (at or below the NYSDEC soil cleanup objective) in an isolated and limited area approximately 40 feet by 40 feet to 8 to 10 feet below grade. The residual PCB concentrations may be associated with the placement of the laminant dust bags in the landfill. No PCBs

were present in the laminant dust itself. The presence of the low permeability clay soil cap over the landfill isolates and limits any potential exposure to the asbestos and other residual contaminants in the landfill.

12. *SWMU 38 - Therminol Building Unit/Drain Tiles/Contaminated Soils:* Soil samples collected from this area indicate that PCB 1248 is the chemical of concern in this area. Elevated PCB concentrations are present within an approximate 4000 square foot area to depths up to approximately 20 feet below grade. Migration of PCBs from this area is limited by the presence of the low permeability clay soils and by the isolation of a section of the K-Line storm sewer which traverses the impacted area. Storm water/groundwater infiltration in the isolated K-Line storm sewer section is collected, treated, and monitored on-Site for PCB removal prior to discharge to the off-Site storm sewer.

13. *SWMU 23 - Aboveground Storage Tank Farm and SWMU 11 - Sludge Settling Pond:* The sludge settling pond had been excavated and was noted to be properly closed by the NYSDEC records. The aboveground storage tanks were removed as part of the Plant decommissioning program. Soil samples collected from the vicinity of the aboveground storage tank farm and the adjacent former sludge settling pond indicate that volatiles are the primary chemicals of concern. Volatiles were present at elevated concentrations in one small isolated area of approximately 30 feet by 30 feet to approximately 10 feet below grade. However, the reported volatile concentrations are below the health-based RCRA Action Levels. PCBs were detected at levels above NYSDEC soil cleanup objectives and RCRA health based action levels for surficial soils. PAHs and di-n-buthylphthalate were detected in one NYSDEC split surficial soil sample at concentrations above NYSDEC soil cleanup objectives. The presence of volatiles and PCBs are attributable to the aboveground storage tanks.

14. *SWMU 12 - Sludge Settling Pond/Former Fuel Oil Tank Location:* The sludge settling pond had been excavated and was noted to be properly closed by the NYSDEC records. The fuel oil tanks were removed as part of the Plant decommissioning program. Soil samples collected from the vicinity of SWMU 12 and the former fuel oil tank location indicate that historic operations at the Site has not impacted the soil. The soil quality in this area is consistent with the Site background soil quality.

15. *SWMU 14 - Fiber Waste Sludge Settling Pond:* The sludge settling pond had been excavated and was noted to be properly closed by the NYSDEC records. Soil samples collected from this area indicate that PCBs and petroleum products were the chemicals most frequently detected. PCBs were detected in surficial soils at low concentrations, however, they are present at levels above NYSDEC soil cleanup objectives for surficial soils and RCRA health based action levels. PCB levels in the subsurface soils were detected at or near the NYSDEC soil cleanup objective for subsurface soils and are not of significant concern. Petroleum contamination is estimated to be present in an approximate area of 100 feet by 120 feet to a depth of approximately 5 feet below grade.

    Given the low toxicity of the petroleum products, the presence of the low permeability clay soils which limits and isolates the petroleum contamination, the lack of any off-Site migration pathway, and since petroleum products can naturally biodegrade in the soils, immediate remedial action is not warranted at this time. However, access to the impacted soils should be limited.

16. *SWMU 26 - Paper Sludge Land Application Area:* Soil samples collected from this area indicate that the Site-related chemical concentrations except for PCBs were well below the health-based RCRA Action Levels. The low PCB level detected exceeded the NYSDEC soil cleanup objectives for surficial soils and the health based RCRA action levels.

10.0 CERTIFICATION

All activities conducted as part of the Site-wide RCRA Facility Investigation and the Resin Drum Landfill Remedial Investigation were performed in accordance with the RCRA Facility Investigation Work Plan, the Remedial Investigation/Feasibility Study Resin Drum Landfill Work Plan, and associated project support documents, all dated August 1993 and revised by letter dated November 21, 1994. Due to field conditions encountered, some modifications to the program were made with approval of the NYSDEC and are described in this RCRA Facility Investigation and Remedial Investigation Report.

All of Which is Respectfully Submitted,

Wai Chin Lachell

Wai Chin Lachell

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FIGURES

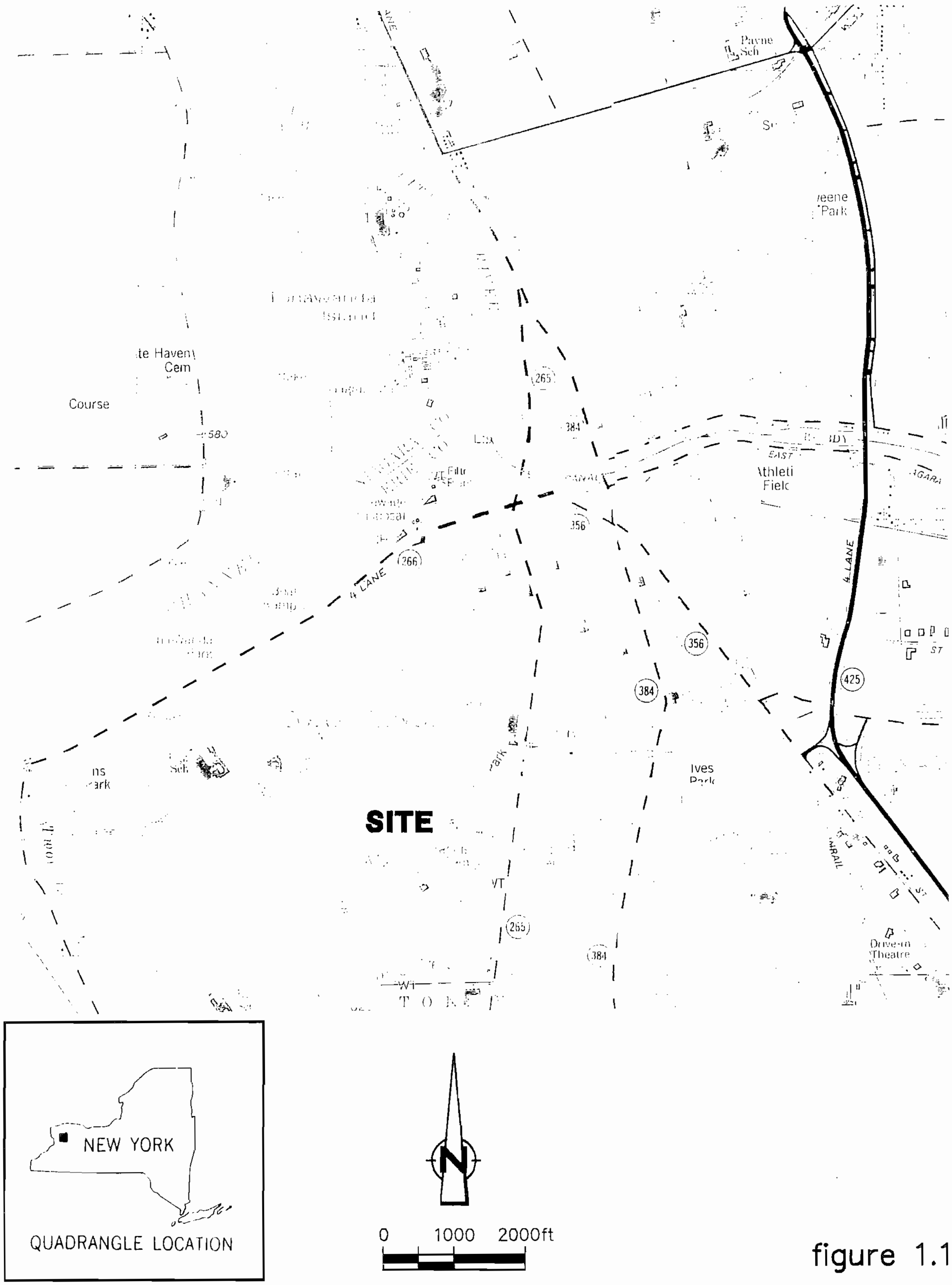

figure 1.1

SITE LOCATION
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

SOURCE: USGS TONAWANDA WEST AND
TONAWANDA EAST QUADRANGLES.

CRA

5039 (16) APR 14/97(NF) REV.0 (M-02)

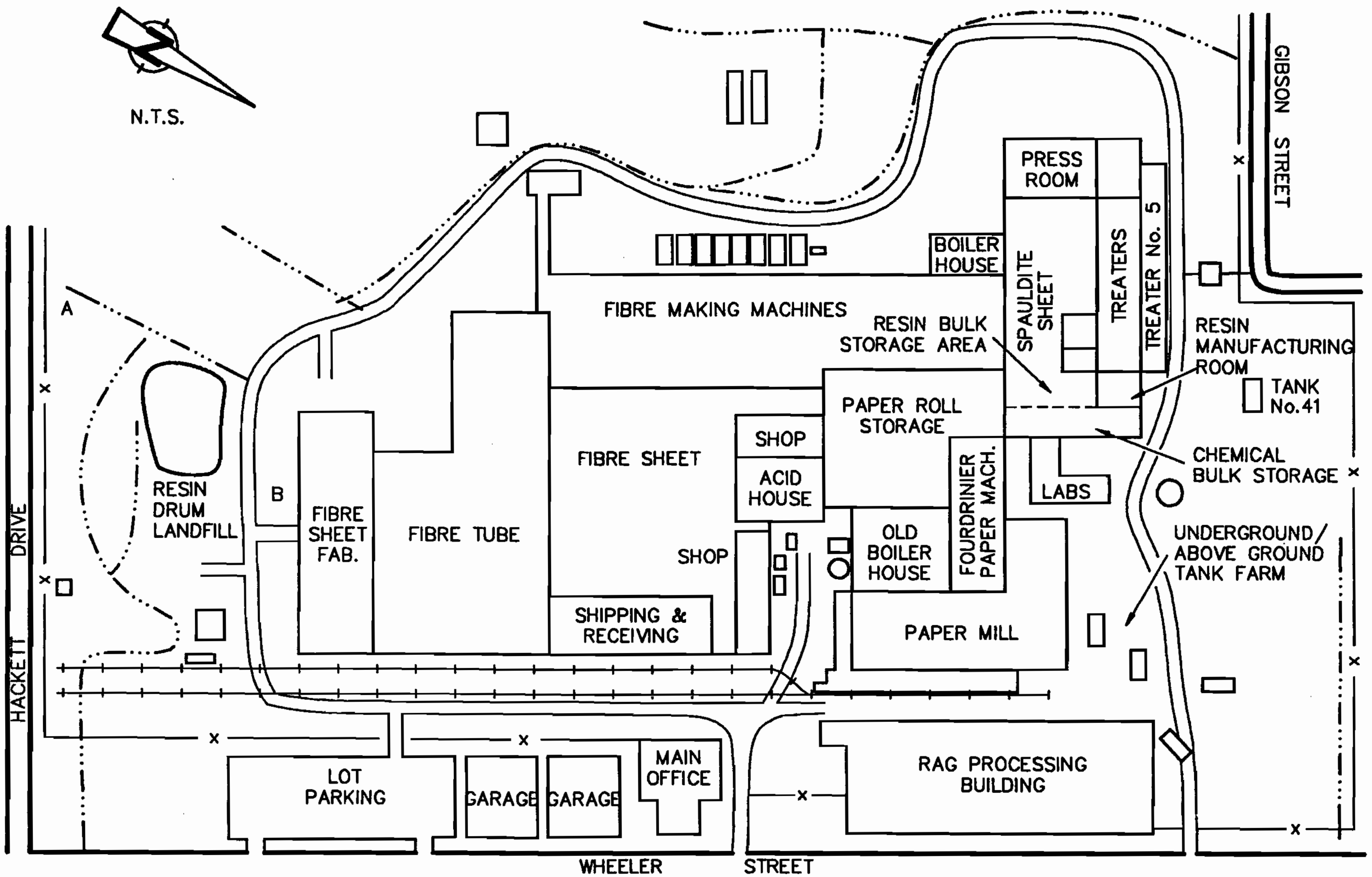

figure 1.2

PLANT LAYOUT
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) APR 14/97(NF) REV.0 (P-53)

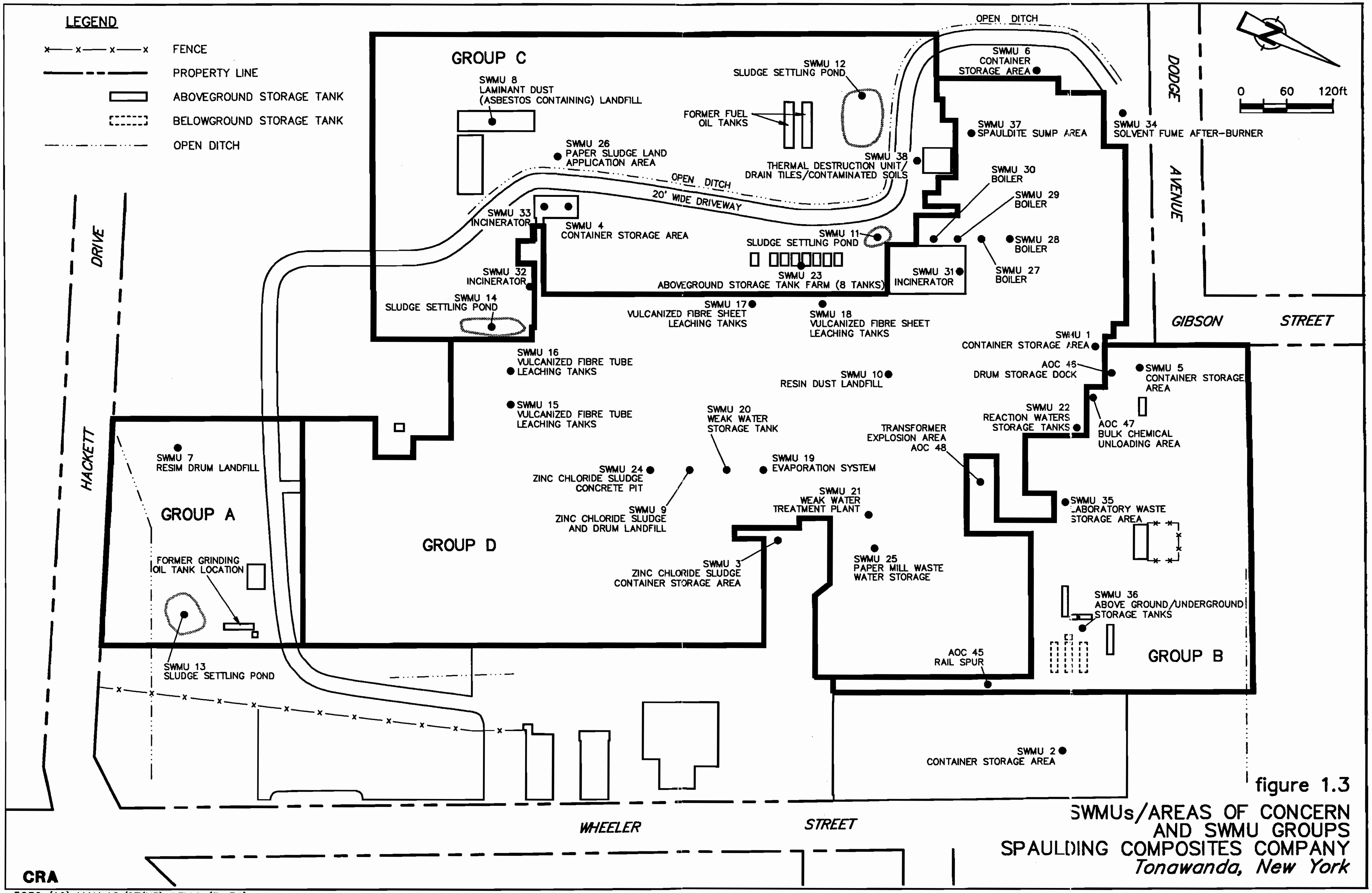

figure 1.3

SWMUs/AREAS OF CONCERN AND SWMU GROUPS
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-54)

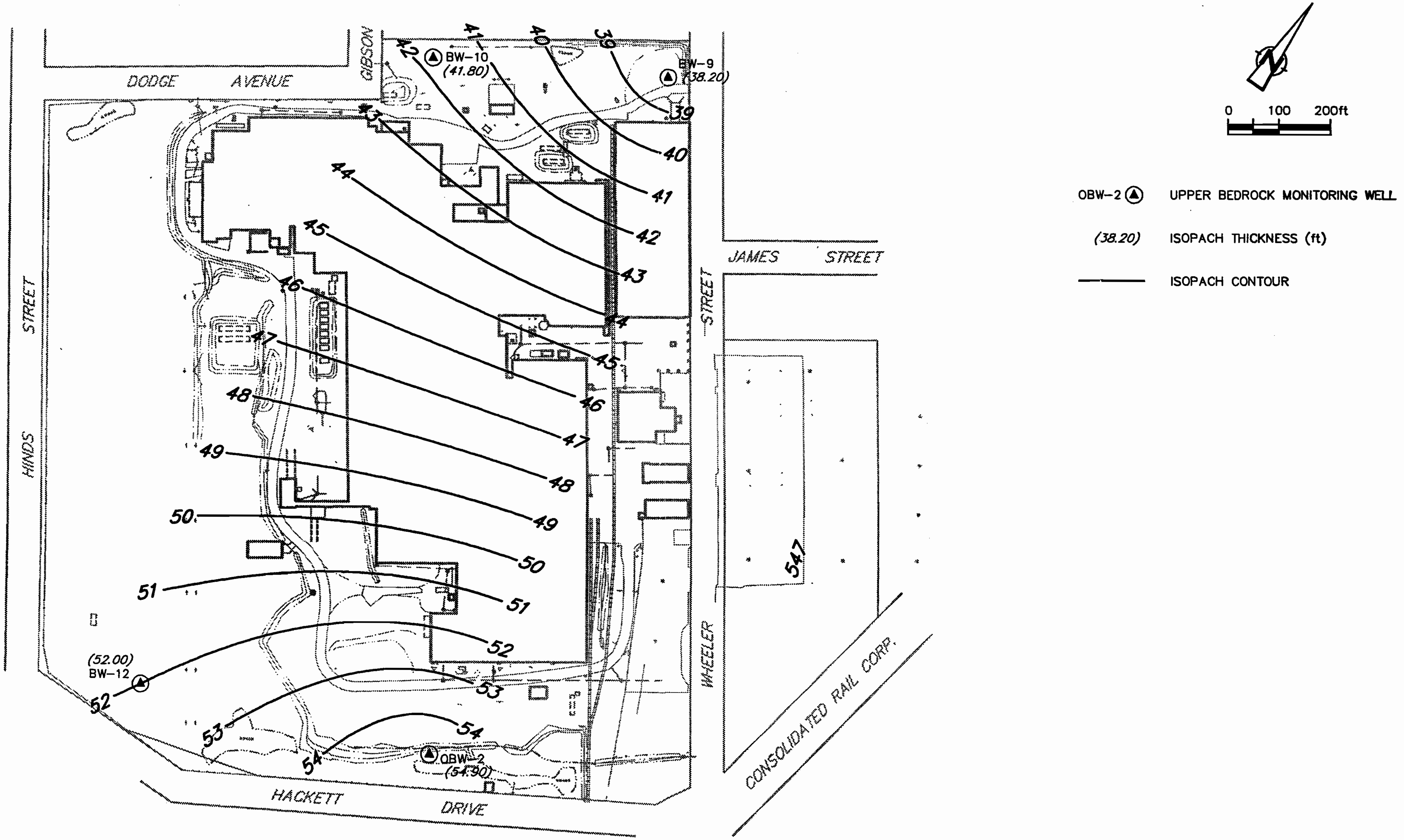

figure 5.1

OVERBURDEN ISOPACH MAP
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) APR 14/97(NF) REV.0 (P-51)

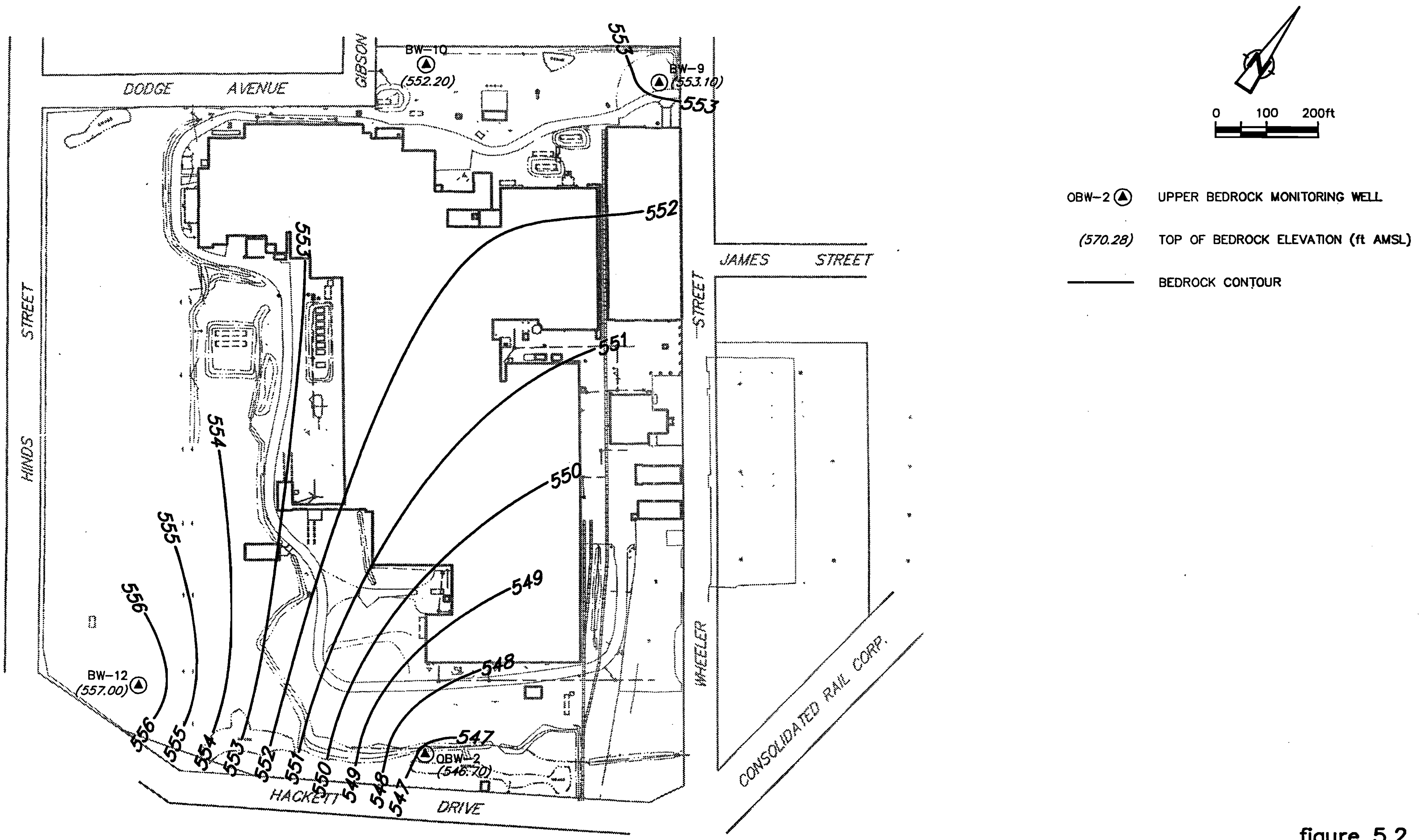

figure 5.2

TOP OF BEDROCK
SURFACE CONTOUR MAP
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) APR 14/97(NF) REV.0 (P-52)

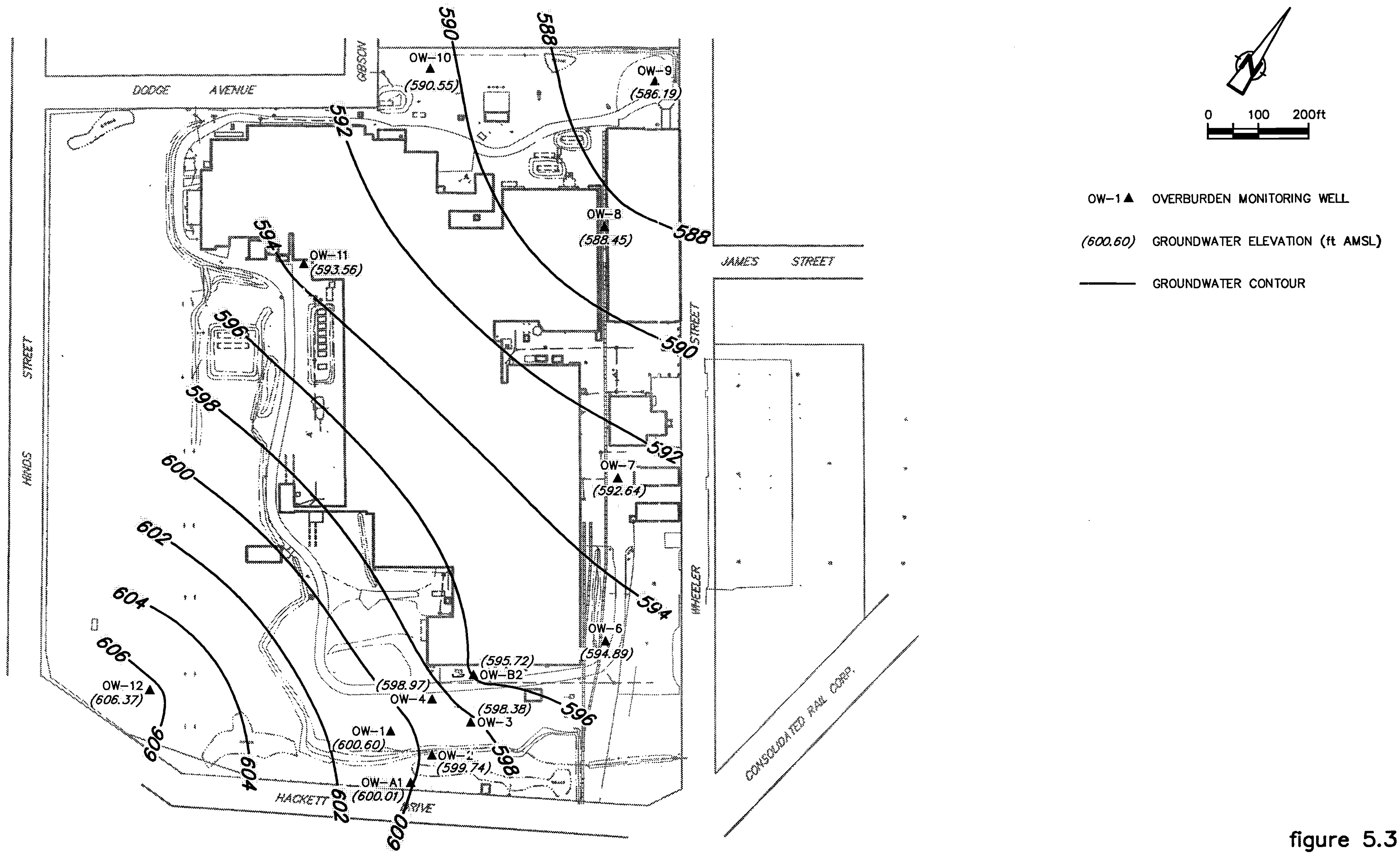

figure 5.3

OVERBURDEN GROUNDWATER CONTOURS
DECEMBER 27, 1995
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

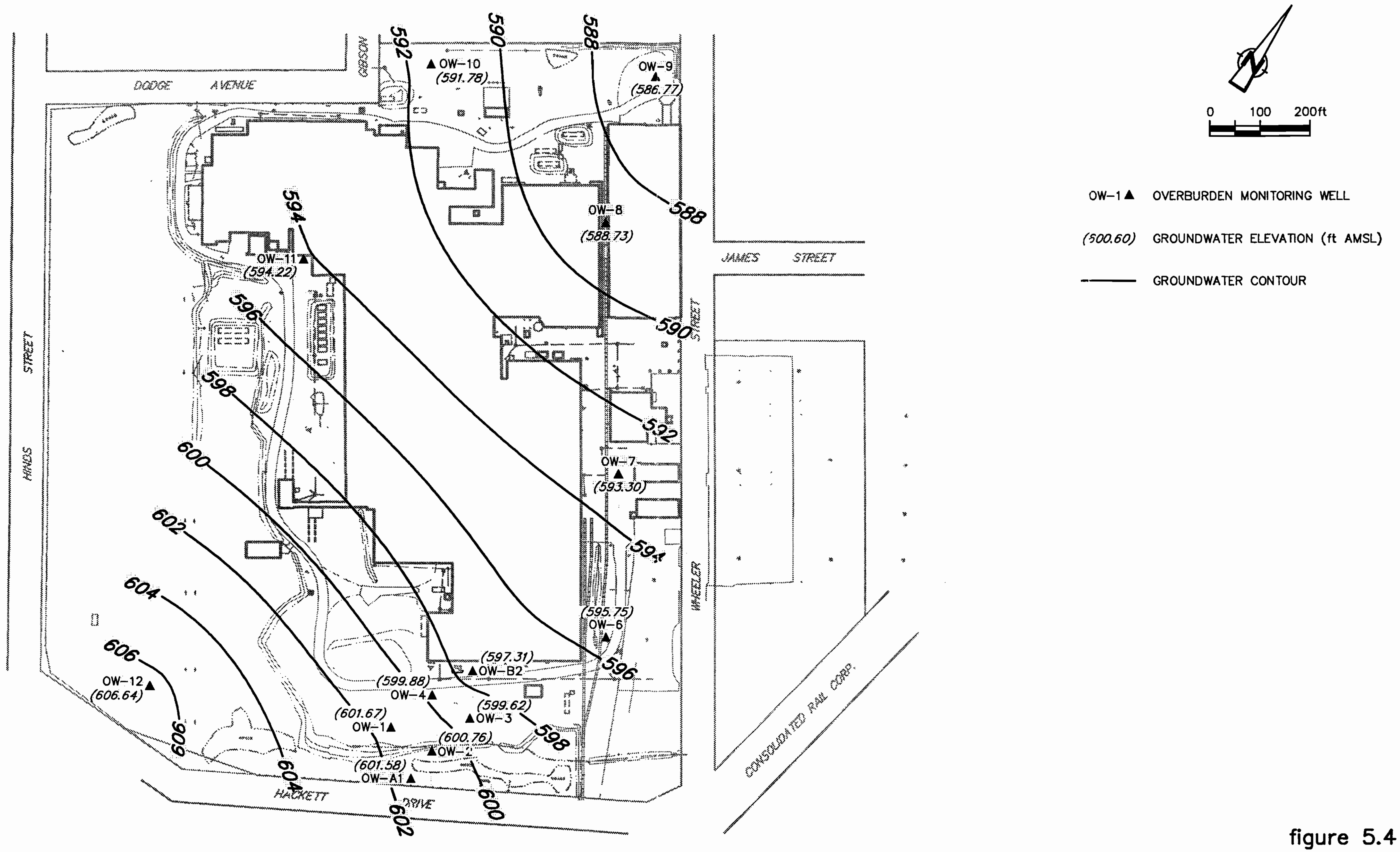

figure 5.4

OVERBURDEN GROUNDWATER CONTOURS
MARCH 25, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-48)

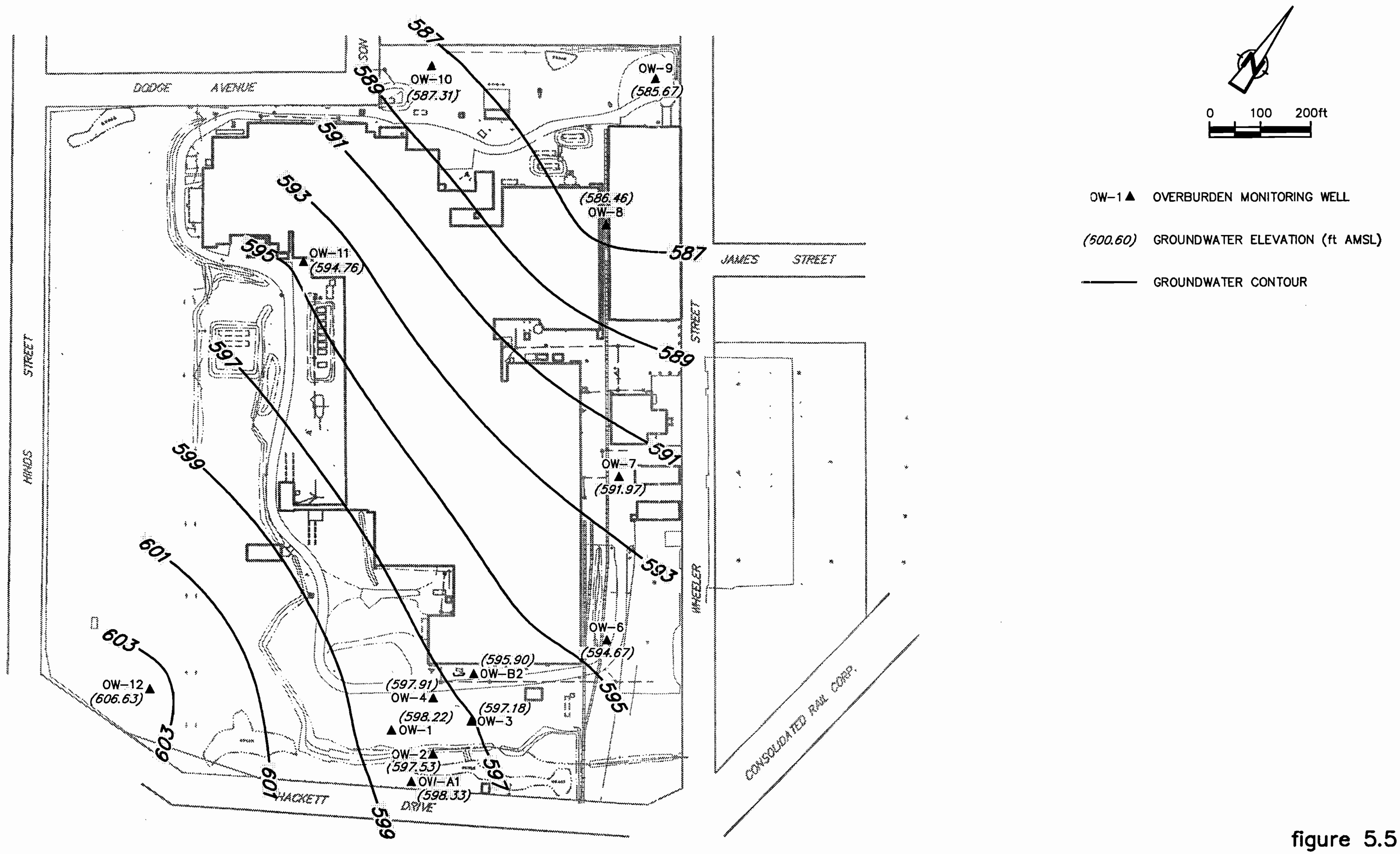

figure 5.5

OVERBURDEN GROUNDWATER CONTOURS
JULY 22, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

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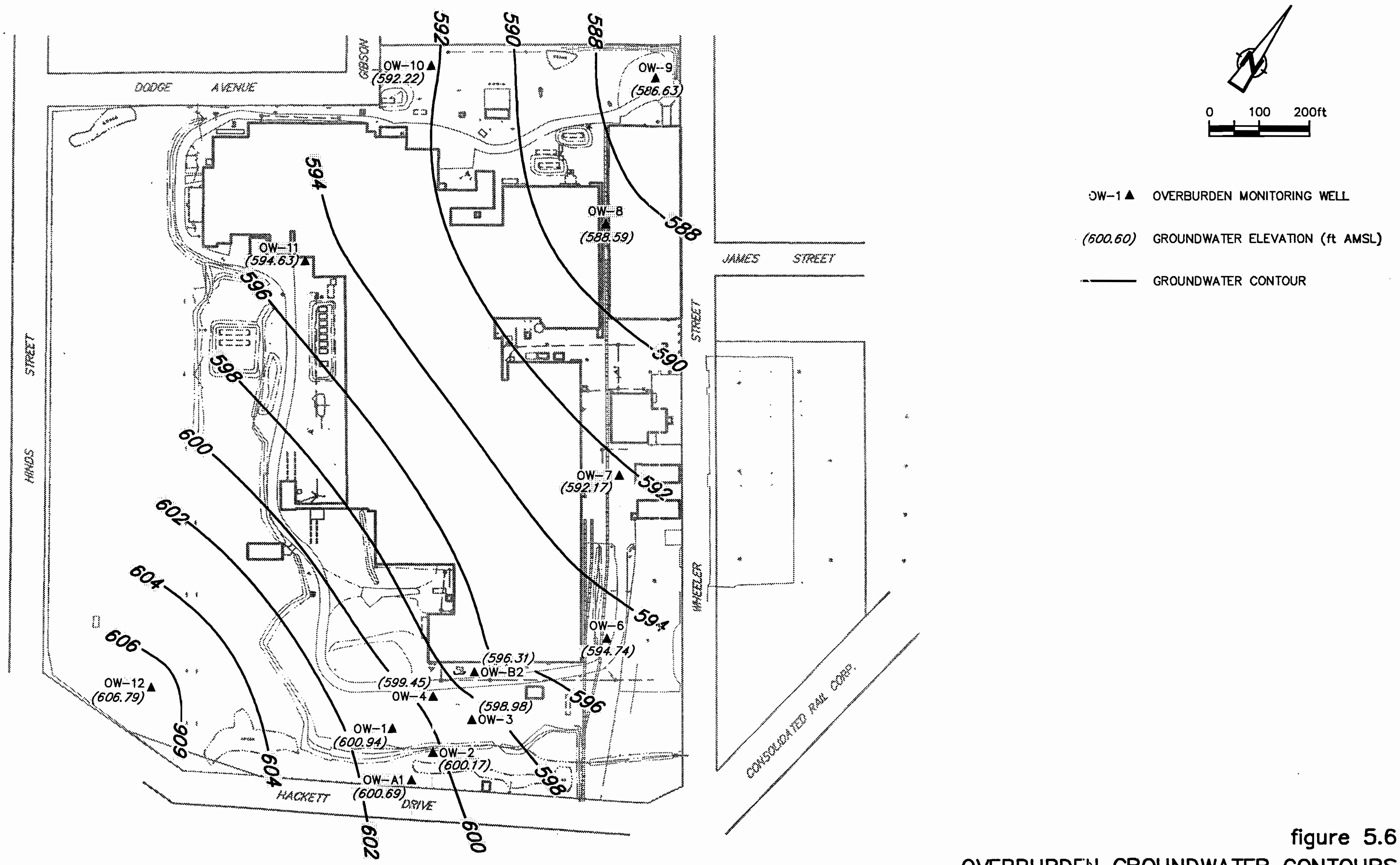

figure 5.6

OVERBURDEN GROUNDWATER CONTOURS
NOVEMBER 21, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-50)

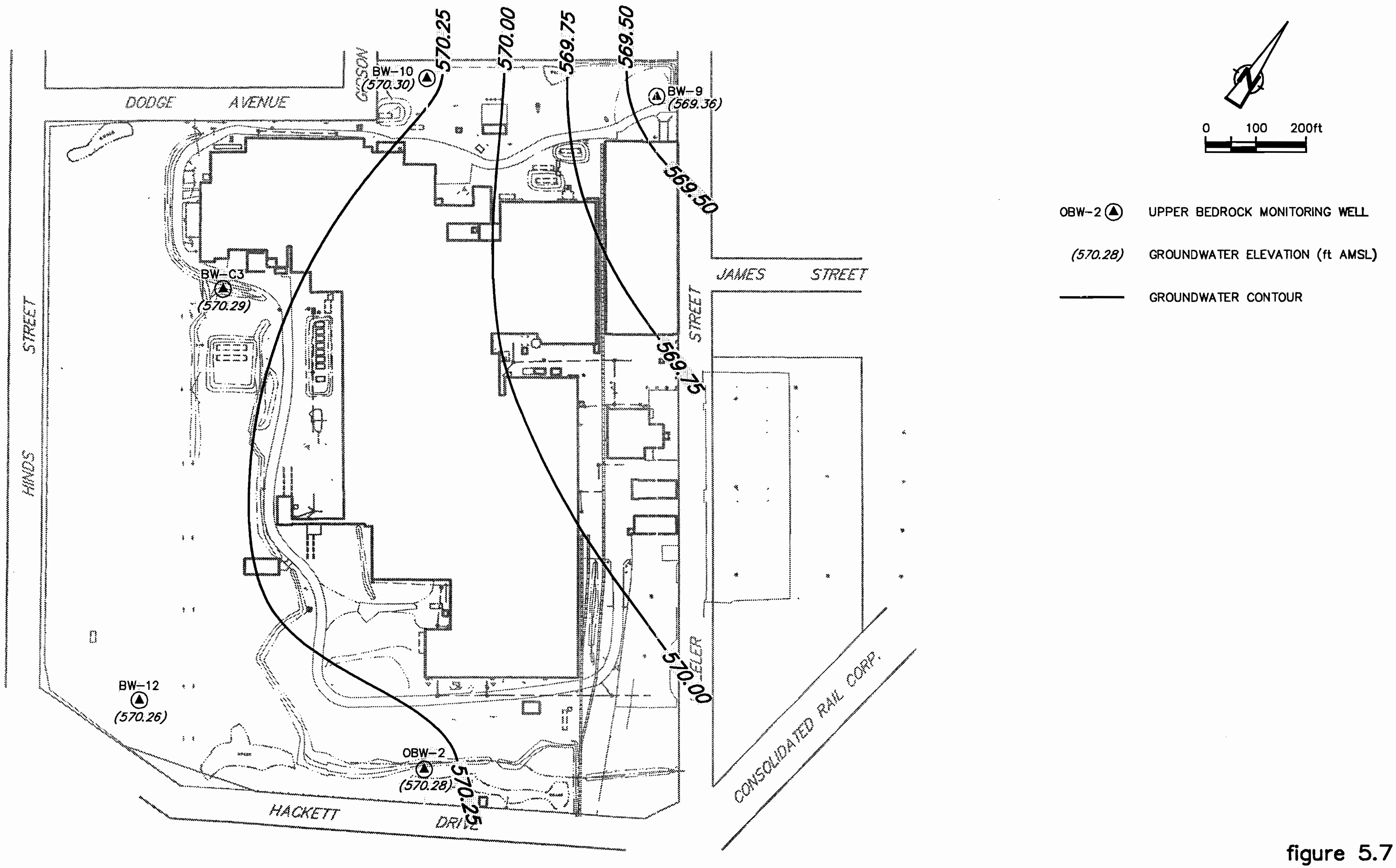

figure 5.7

UPPER BEDROCK GROUNDWATER CONTOURS
DECEMBER 27, 1995
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

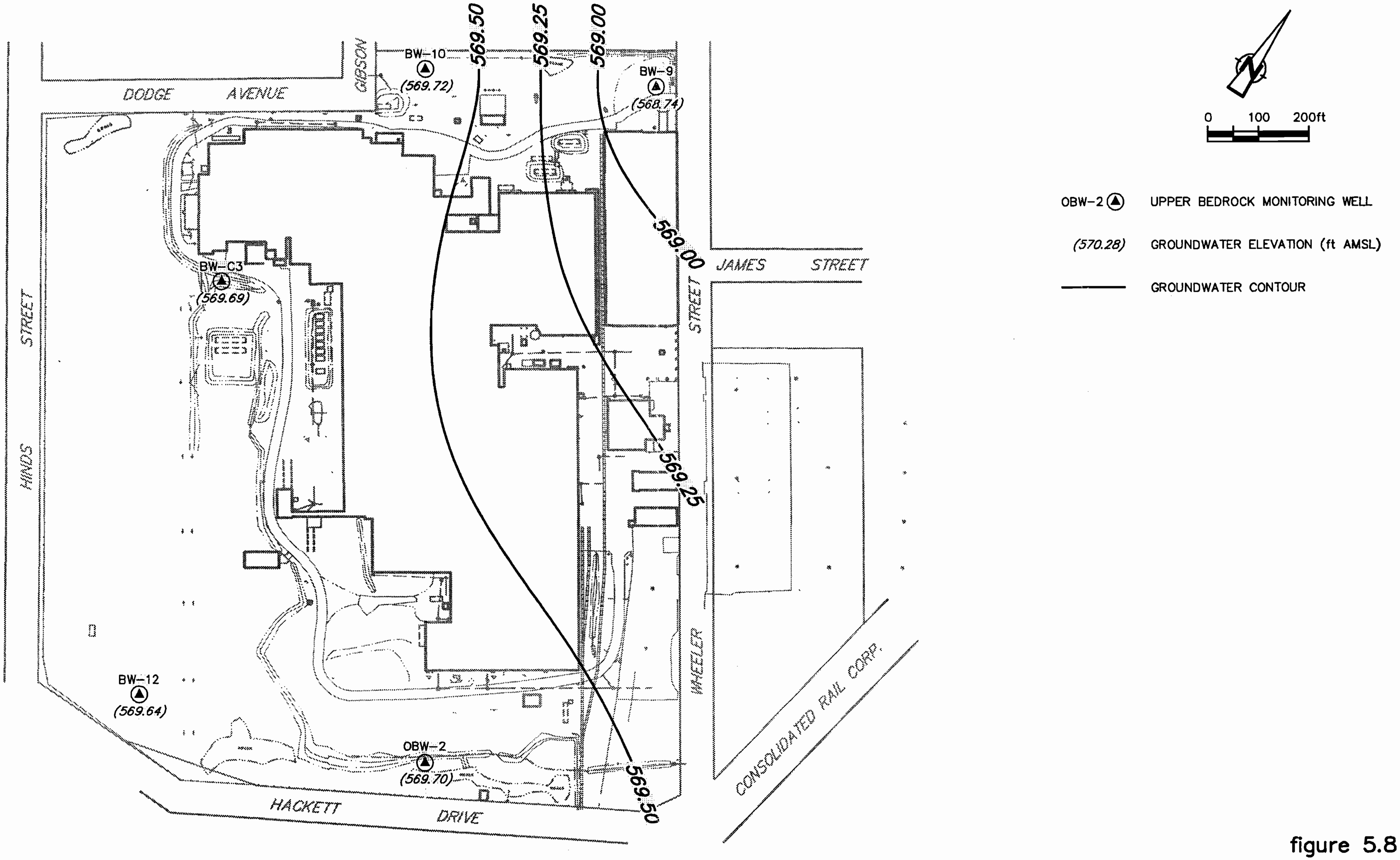

figure 5.8

UPPER BEDROCK GROUNDWATER CONTOURS
MARCH 25, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-44)

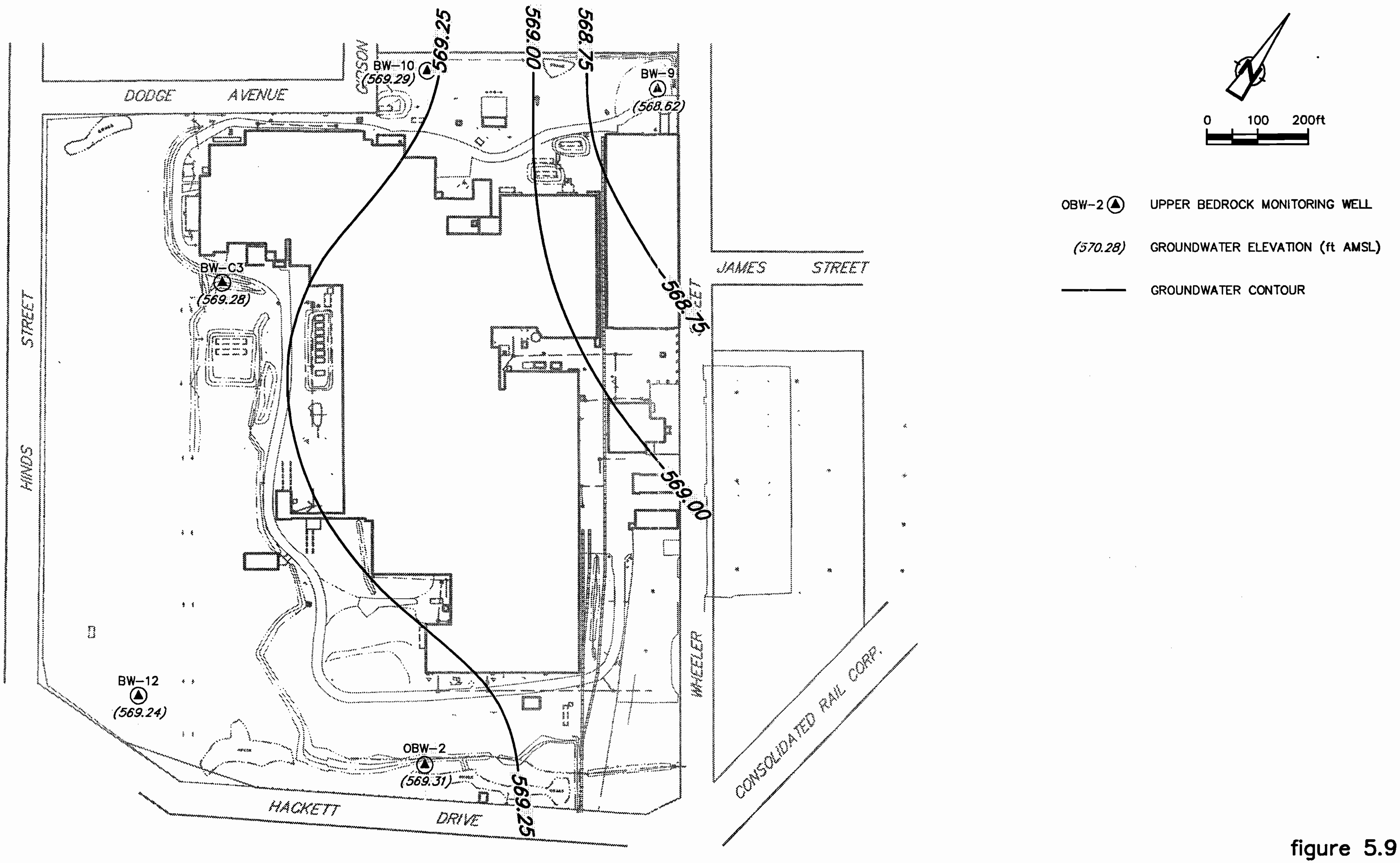

figure 5.9

UPPER BEDROCK GROUNDWATER CONTOURS
JULY 22, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-45)

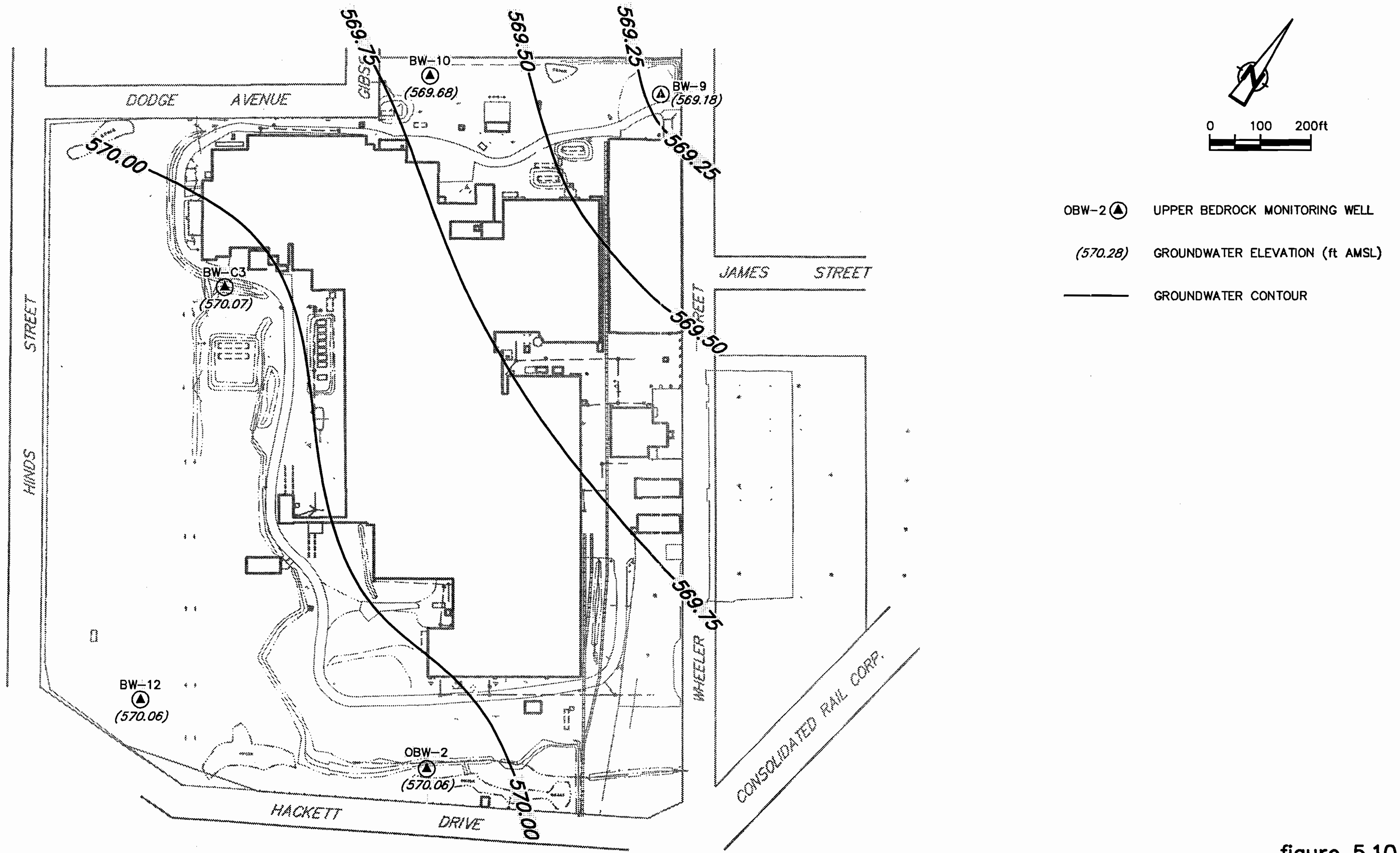

figure 5.10

UPPER BEDROCK GROUNDWATER CONTOURS
NOVEMBER 21, 1996
SPAULDING COMPOSITES COMPANY
Tonawanda, New York

CRA

5039 (16) MAY 12/97(NF) REV.0 (P-46)

TABLES

TABLE 2.1

SUMMARY OF SWMU/AOC GROUPS
RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

		SWMU/AOC Groups				
		A	*B*	*C*	*D*	*E*
	SWMUs					
1.	Container Storage Area (Resin Waste)				X	
2.	Container Storage Area (Rag Shed)				X	
3.	Zinc Chloride Sludge Storage Area				X	
4.	Container Storage Area			X		
5.	Container Storage Area (Empty Drum Storage Dock)		X			
6.	Container Storage Area (Solvent Waste)				X	
7.	Resin Drum Landfill	X				
8.	Laminant Dust (Absestos-Containing)			X		
9.	Zinc Chloride Sludge and Drum Landfill				X	
10.	Resin Drum Landfill				X	
11.	Sludge Settling Pond			X		
12.	Sludge Settling Pond			X		
13.	Sludge Settling Pond	X				
14.	Sludge Settling Pond			X		
15.	Vulcanized Fiber Leaching Tanks (Fibre Tube Weak Water)				X	
16.	Vulcanized Fiber Leaching Tanks (Fibre Tube Strong Water)				X	
17.	Vulcanized Fiber Leaching Tanks (Fibre Sheet Weak Water)				X	
18.	Vulcanized Fiber Leaching Tanks (Fibre Sheet Strong Water)				X	
19.	Evaporation System				X	
20.	Weak Water Storage Tanks				X	
21.	Weak Water Treatment Plant				X	
22.	Reaction Waters Storage Tanks				X	
23.	Aboveground Storage Tank Farm			X		
24.	Zinc Chloride Sludge Concrete Pit				X	
25.	Paper Mill Wastewater Storage Tank				X	
26.	Paper Sludge Land Application Area			X		
27.	Boiler				X	
28.	Boiler				X	
29.	Boiler				X	
30.	Boiler				X	
31.	Incinerator				X	
32.	Incinerator			X		
33.	Incinerator			X		
34.	Solvent Flume After-Burner				X	
35.	Laboratory Waste Storage Area		X			
36.	Aboveground/Underground Storage Tanks		X			
37.	Spauldite® Sump Area				X	
38.	Therminol Building Unit/Drain Tiles/Contaminated Soils			X		

TABLE 2.1

SUMMARY OF SWMU/AOC GROUPS
RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

		SWMU/AOC Groups				
		A	*B*	*C*	*D*	*E*
	AOCs					
39.	K-Line Sewer					X
40.	Off-Site Storm Sewer					X
41.	Contaminated Sediments in the Niagara River					X
42.	Site Utility Bedding					X
43.	Site Storm Sewer Ssytem					X
44.	Site Process Sewer System					X
45.	Rail Spur		X			
46.	Drum Storage		X			
47.	Bulk Chemical Unloading Area		X			
48.	Transformer Explosion		X			

TABLE 3.1

CLIMATOLOGICAL DATA SUMMARY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Month	*Total Precipitation (Inches)*
01/96	2.77
02/96	1.64
03/96	1.22
04/96	4.63
05/96	4.17
06/96	3.89
07/96	1.75
08/96	3.19
09/96	6.09
10/96	3.21
11/96	2.48
12/96	2.97
1996 Total Precipitation:	**38.01**

Month	*Average Temperature (°F)*
01/96	22.40
02/96	25.00
03/96	29.10
04/96	42.10
05/96	54.60
06/96	66.50
07/96	70.20
08/96	71.20
09/96	63.70
10/96	52.80
11/96	36.30
12/96	35.20
1996 Average Temperature:	**47.50**

TABLE 3.1

CLIMATOLOGICAL DATA SUMMARY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Summary for 1986 - 1996

Year	*Total Precipitation (Inches)*
1986	34.82
1987	32.26
1988	27.96
1989	32.54
1990	39.54
1991	30.35
1992	41.40
1993	32.82
1994	36.22
1995	35.52
1996	38.01
1986-1996 Average:	34.68

Year	*Average Temperature (°F)*
1986	48.20
1987	49.66
1988	49.00
1989	47.00
1990	50.00
1991	50.83
1992	46.75
1993	47.00
1994	47.33
1995	46.85
1996	47.50
1986-1996 Average:	48.19

Source: Niagara Falls Airport, Niagara Falls, New York.

TABLE 4.1

RI AND RFI TASK COMPLETION SUMMARY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Activity	*Completion Date*
1. Community Relations	
1.1 Public Meeting	June 28, 1994
1.2 Issuance of Fact Sheets	May - June 1994
2. Contractor Procurement	January - March 1993
3. RI Task 3 and RFI Task 4 - Site Description	March 1997
4. RI Task 5a - Waste Characterization	
4.1 Test Pit Excavation and Sampling	May 8-9, 1995
4.2 Drum Sampling	May 8-9, 1995
5. RI Task 5b - Soil Investigation	
5.1 RI Soil Sampling and Well Installation	May 1995
6. RFI Task 2a - Phase I Release Determination	
6.1 Phase I Soil Sampling and Well Installation	April - May 1995
7. RI Task 5d - Surface Water/Sediment Sampling	October 5-9, 1995
8. RI and RFI Phase I Sample Analyses	
8.1 RI Tasks 5a and 5b, and RFI Task 2a Samples	June - August 1995
8.2 RI Task 5d Surface Water/Sediment Samples	October - December 1995
8.3 Data Validation	
• RI Task 5a, 5b, and RFI Task R2 Samples	September - October 1995
• RI Task 5d	December 1995 to March 1996
9. RFI Phase I SSPL Report	
9.1 Submission of Draft to NYSDEC	November 16, 1995
9.2 NYSDEC Approval	August 29, 1996

TABLE 4.1

RI AND RFI TASK COMPLETION SUMMARY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Activity	*Completion Date*
10. RI Task 5c and RFI Task 3a	
10.1 Well Development	September 25, 1995 - October 31, 1995
10.2 Round 1 Groundwater Sampling	July 22 - 24, 1996
10.3 Round 1 Sample Analyses	
• Data Validation	September 1996
10.4 Round 2 Groundwater Sampling	November 21 - 26, 1996
10.5 Round 2 Sample Analyses	
• Data Validation	February 1, 1996
10.6 In Situ Hydraulic Conductivity Testing	November 29 - December 5, 1995
11. Related Air Monitoring	April - June 1995
12. RFI Task 3b - Surface Water Sampling	
12.1 Sample Collection	October 5 - 6, 1995
12.2 Sample Analyses	January 1996
12.3 Data Validation	March 1996
13. RFI Task 3c - Phase II Site Utility Bedding Sampling	September 3 - 4, 1996
14. RFI Task 3d- Off-Site Sewer Sediment Sampling and K-Line Sediment Sampling	Completed K-Line sampling was completed on 11/13/92. Off-Site storm sewers inspected on 4/12/95 but no sediments were present.
15. RFI Task 3e - Phase II Soil Sampling	September 9 - 12, 1996
16. RFI Phase II Sample Analyses	
16.1 RFI Tasks 3c and 3e Sample Analyses	September - October 1996
16.2 Data Validation	October - November 1996
17. RI Task 7 - Data Evaluation	March 1997
18. RI Task 8 - Assessment of Risks	March 1997
19. RFI Task 4 - Investigation Analyses	March 1997

TABLE 4.1

RI AND RFI TASK COMPLETION SUMMARY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Activity	*Completion Date*
19. RFI Task 4 - Investigation Analyses	March 1997
20. RI Task 9 - Preliminary RAOs Report and RFI Task 5 - Protection Standards Identification	March 1997
21. Preparation of a Draft RFI and RI Report	March 1997

TABLE 4.2

DESCRIPTION OF PHASE I SOIL SAMPLE LOCATIONS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample Location	*Total Sampling Depth (Ft. BGS)*	*Sampled Intervals* [(1)] *(Ft. BGS)*	*SWMU/AOC Number*	*SWMU Group*	*Observations*
Boreholes					
OW-1	20	2-4, 6-8, 10-12, 16-18	7	A	PID readings were 0 ppm.
OW-3	20	4-6, 8-10, 12-14, 16-18	7	A	PID readings were 0 ppm.
OW-4	20	4-6, 8-10, 12-14, 16-18	7	A	PID readings were 0 ppm.
OW-6	20	4-6	-	A, B, D	PID readings were 0 ppm.
OW-7	20	4-6	-	A, B, D	PID readings were 0 ppm.
OW-8	20	2-4	AOC 45	A, B, D	Phenol odor at 2-4 ft. bgs. PID readings were 0 ppm.
OW-11	20	8-10	11, 38	C	Sulfur odor at 0-2 ft. bgs. PID readings were 0 ppm.
OBW-2	55*	0-2, 6-8, 10-12, 16-18	7	A	PID readings were 0 ppm.
BW-9	38.5*	0-2	-	A, B, C, D, E	PID readings were 0 ppm.
BW-10	41.8*	0-2	-	A, B, C, D, E	PID readings were 0 ppm.
BW-12	52.0*	0-0.5**, 2-4	-	Background	PID readings were 0 ppm.
BH-14	20	12-14	AOC 48	B	PID readings ranged from 0-5.3 ppm. NAPL & strong chemical odor at 12-14 ft. bgs.
BH-15	20	2-4	AOC 46 and 47	B	PID readings ranged from 0 - 6.0 ppm. Petroleum odor and staining at 0-4 ft. bgs.
BH-16	20	0-2	5	B	PID readings were 0 ppm.
BH-17 (BH-F7) [(2)]	20	0-4	38	C	NAPL at 10 - 12 ft. bgs.
BH-18	20	0-2	11, 23	C	PID readings ranged from 0 - 25.6 ppm. Strong chemical odor at 0 -10 ft. bgs.
BH-19	20	2-4	11, 23	C	PID readings were 0 ppm.
BH-20	20	0-2	26	C	PID readings were 0 ppm.
BH-21	20	1-2	14	C, D	PID readings ranged from 0 - 0.2 ppm. Trace chemical odor at 0-2.5 ft. bgs.
BH-22	20	12-14	13	A	PID readings were 0 ppm. Pieces of phenolic resin and phenolic odor at 10 -14 ft. bgs.
BH-23	20	10-12	12	C	PID readings were 0 ppm. Fiber tube grindings 3 - 4.1 ft. bgs.
BH-24	20	2-4, 6-8, 10-12, 16-18	7	A	PID readings were 0 ppm.
BH-25	20	0-2, 6-8, 10-12, 16-18	7	A	PID readings were 0 ppm.
Test Pits					
TP-R1	7.5	0-7.5	7	A	PID readings up to 22 ppm. Drums present.
TP-R2	7.5	0-7.5	7	A	PID readings up to 50 ppm. Drums and sheen present.
TP-R3	4.5	0-4.5	7	A	Drums, NAPL, odors present.
TP-R4	4.5	0-4.5	7	A	Drums, NAPL, odors present.
TP-R5	5	visual observations	7	A	Fiber tube grindings present.
TP-R6	4	visual observations	7	A	
TP-L1	5	0-5.0	8	C	PID readings were 0 ppm. Dust bags present.

TABLE 4.2

DESCRIPTION OF PHASE I SOIL SAMPLE LOCATIONS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample Location	*Total Sampling Depth (Ft. BGS)*	*Sampled Intervals [(1)] (Ft. BGS)*	*SWMU/AOC Number*	*SWMU Group*	*Observations*
TP-L2	5	0-5.0	8	C	PID readings were 0 ppm. Dust bags present.
TP-L3	5	visual observations	8	C	No dust bags present.
TP-L4	5	visual observations	8	C	No dust bags present.
TP-L5	5	visual observations	8	C	No dust bags present.
TP-L6	5	visual observations	8	C	No dust bags present.
TP-L7	5	visual observations	8	C	No dust bags present.
TP-L8	5	visual observations	8	C	No dust bags present.
TP-L9	5	visual observations	8	C	No dust bags present.
TP-L10	5	visual observations	8	C	No dust bags present.
TP-L11	5	visual observations	8	C	No dust bags present.
TP-U1	5	visual observations	36	B	PID readings were 0 ppm.
TP-U2	5	visual observations	36	B	PID readings were 0 ppm.
TP-U3	5	visual observations	36	B	PID readings up to 247 ppm. Stained soil at 3-5 ft bgs.
TP-U4	5	visual observations	36	B	PID readings were 0 ppm.
TP-U5	12	6, 10-12	36	B	PID readings up to 1610 ppm at 0-16 ft bgs; 10-20 ppm at 12+ ft bgs.
Miscellaneous					
Soil Pile UST Removal Area		0-8	36	B	

Notes:
* Bedrock/refusal encountered.
** Collected 10 feet west of BW-12.
(1) Intervals sampled for chemical analyses.
(2) Borehole BH-17 was replaced with BH-F7, which was sampled using a Geoprobe unit.
SWMU Solid Waste Management Unit.
AOC Area of Concern.
PID Photoionization Detector
NAPL Non-Aqueous Phase Liquid

TABLE 3

PHASE I SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID	*Source/Sample Location*	*Sample Interval (feet)*	*Date*	*Time*	*Matrix*	*Analysis**	*Comments*
SC-655	Rinse Blank	-	04/20/95	1100	DI Water	(1)	Rinse blank taken off split spoons after decontamination, before collection of SC-656
SC-656	BW-12	2 - 4	04/20/95	1430	Soil	(1)	Background sample
SC-657	8" diameter hole 10 feet west of BW-12	0 - 0.5	04/20/95	1700	Soil	(1)	Background sample
SC-658	BW-9	0 - 2	04/25/95	1600	Soil	(1)	
SC-659	BW-10	0 - 2	04/27/95	1330	Soil	(1)	
SC-660	BH-14	12 - 14	05/01/95	1100	Soil	(1)	PID 5.6 ppm; trace NAPL
SC-661	BH-16	0 - 2	05/01/95	1415	Soil	(1)	
SC-662	BH-14	12 - 14	05/01/95	1530	Soil	(1)	Blind duplicate SC-660
SC-663	BH-15	2 - 4	05/02/95	0900	Soil	(1)	PID 6.0 ppm; strong petroleum odor
SC-664	OW-8	2 - 4	05/02/95	1100	Soil	(1)	Strong phenol odor
SC-665	BH-18	0 - 2	05/02/95	1500	Soil	(1)	PID 26.0 ppm; strong chemical odor; MS/MSD
SC-666	BH-19	2 - 4	05/03/95	1045	Soil	(1)	
SC-667	OW-6	4 - 6	05/03/95	1200	Soil	(1)	PID 11.0 ppm; strong petroleum odor; MS/MSD
SC-668	BH-23	10 - 12	05/03/95	1600	Soil	(1)	
SC-669	OW-11	8 - 10	05/04/95	1000	Soil	(1)	
SC-670	BH-20	0 - 2	05/05/95	1000	Soil	(1)	
SC-671	BH-21	1 - 2	05/05/95	1300	Soil	(1)	Slight aromatic odor - cedary
SC-672	TP-R1 & R2; Resin Drum Landfill	0 - 7.5	05/09/95	1100	Soil	(1), (2)	Composite of soils from sides of test pits; MS/MSD
SC-673	Drum in TP-R2; Resin Drum Landfill	5.0	05/09/95	1115	Groundwater	(1)	MS/MSD
SC-674	Drum in TP-R2; Resin Drum Landfill	-	05/09/95	1105	Waste	(1), (2)	Sampled drum
SC-675	Drum in TP-R1; Resin Drum Landfill	-	05/09/95	1200	Waste	(1), (2)	Sampled drum
SC-676	Drum in TP-R3; Resin Drum Landfill	-	05/09/95	1330	Waste	(1), (2)	Sampled drum
SC-677	Drum in TP-R4; Resin Drum Landfill	-	05/09/95	1400	Waste	(1), (2)	Sampled drum
SC-678	Drum in TP-R3; Resin Drum Landfill	-	05/09/95	1500	Waste	(1), (2)	Blind duplicate of SC-676
SC-679	TP-R3 & R4; Resin Drum Landfill	0 - 4.5	05/09/95	1430	Soil	(1), (2)	Composite of soils from sides of test pits
SC-680	OW-7	4 - 6	05/08/95	1000	Soil	(1)	
SC-681	BH-22	12 - 14	05/08/95	1500	Soil	(1)	Pieces of phenolic resin present in soil
SC-682	BH-22	12 - 14	05/08/95	1600	Soil	(1)	Blind duplicate of SC-681
SC-683	TP-L1 & L2; Laminate Dust Landfill	0 - 5	05/10/95	1330	Soil	(1)	Composite of soils from sides and bottom of test pits
SC-684	TP-L1 & L2; Laminate Dust Landfill	0 -2	05/10/95	1330	Waste	(1), (2)	Composite of laminate dust from disposal bags
SC-685	Rinse Blank	-	05/10/95	1400	DI Water	(1)	Rinse blank taken off split spoons after decontamination before collection of SC-688
SC-686	OW-4	4 - 6 8 - 10 12 - 14	05/10/95	1030	Soil	(1)	Composite of 3 split spoons
SC-687	OW-4	16 - 18	05/10/95	1030	Soil	(1)	Clean sample

TABLE 3

PHASE I SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID	*Source/Sample Location*	*Sample Interval (feet)*	*Date*	*Time*	*Matrix*	*Analysis**	*Comments*
SC-688	BH-24	2 - 4 6 - 8 10 - 12	05/11/95	1000	Soil	(1)	Composite of 3 split spoons
SC-689	BH-24	16 - 18	05/11/95	1000	Soil	(1)	Clean sample
SC-690	OW-3	4 - 6 8 - 10 12 - 14	05/11/95	1400	Soil	(1)	Composite of 3 split spoons
SC-691	OW-3	16 - 18	05/11/95	1400	Soil	(1)	Clean sample
SC-692	OW-3	16 - 18	05/11/95	1400	Soil	(1)	Blind duplicate of SC-691
SC-693	OW-1	2 - 4 6 - 8 10 - 12	05/12/95	1000	Soil	(1)	Composite of 3 split spoons; MS/MSD
SC-694	OW-1	16 -1 8	05/12/95	1000	Soil	(1)	Clean sample
SC-695	BH-25	0 - 2 6 - 8 10 - 12	05/15/95	1030	Soil	(1)	Composite of 3 split spoons
SC-696	BH-25	16 - 18	05/15/95	1030	Soil	(1)	Clean sample
SC-697	Soils pile UST Removal Area	0 - 8	05/15/95	1300	Soil	(1)	PID 2,000 ppm; former BH-13 location
SC-698	BH-25	14 -16	05/15/95	1000	Soil	(3)	Shelby Tube
SC-699	OBW-2	0 - 2 6 - 8 10 - 12	05/16/95	1100	Soil	(1)	Composite of 3 split spoons; MS/MSD
SC-708	OBW-2	16 - 18	05/16/95	1100	Soil	(1)	Clean sample
SC-709	OBW-2	16 - 18	05/16/95	1145	Soil	(1)	Blind duplicate of SC-708; MS/MSD
SC-710	OW-1, OW-3, OW-4 OBW-2, BH-24 & 25	0 - 14	05/17/95	1500	Soil	(2)	Composite of soils around Resin Drum Landfill
SC-711	10 Feet North of OW-8	14-16	05/18/95	1430	Soil	(3)	Shelby Tube
SC-712	BH-F7	0-4	05/31/95	1000	Soil	(1)	MS/MSD
5039-060695-1A	TP-U5, UST excavation	6	06/06/95	1045	Soil	(4)	MS/MSD
5039-060695-1B	TP-U5, UST excavation	10 - 12	06/06/95	1140	Soil	(4)	Grab Sample

Notes:

*	All samples were submitted to Laboratory Resources, Inc. (LRI) in New Jersey; the samples for analyses of alcohols and formaldehyde were submitted to Adirondack Laboratory in New York.
(1)	Target Compound List volatiles, semi-volatiles, (plus cresols and aniline), PCB, Target Analyte List metals, formaldehyde, methanol, ethanol, and total phenols.
(2)	Toxicity Characteristic Leaching Procedure (TCLP) volatiles, semi-volatiles, and metals, ignitability, corrosivity, and reactivity.
(3)	Laboratory permeability testing, grain size analysis, moisture content, and total organic carbon analyses.
(4)	TCLP volatiles
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PID	Organic vapor reading, as measured by a photoionization detector (PID), in ppm meter units.
TCLP	Toxicity Characteristic Leaching Procedure
NAPL	Non-Aqueous Phase Liquid

TABLE 4.4

GEOTECHNICAL SAMPLE RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID:	*SC-698*	*SC-711*
Location:	*BH-25*	*10 Feet North of OW-8*
Depth (feet):	*14-16*	*14-16*
Matrix:	*Soil*	*Soil*
Total Organic Carbon (mg/kg)	2200J	27000J
% Moisture (%)	11.6	10.0
Laboratory Permeability (cm/sec)	7.76×10^{-8}	1.51×10^{-7}
Grain Size Distribution		
• % Gravel	10	21
• % Sand	16	14
• % Silt/% Clay	74	65

Notes:

J Associated value is estimated.

TABLE 4.5

SITE-SPECIFIC PARAMETER LISTS (SSPLs)
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

1.0 SWMU GROUP A

1.1 SSPL-A1 for Resin Drum Landfill

Volatiles:	TCL VOCs
	Methanol
	Ethanol
Semi-Volatiles:	Phenol
	2-Methylphenol
	3&4-Methylphenol
	2,4-Dimethylphenol
	Di-n-butylphthalate
	Benzo(a)anthracene
	Chrysene
	bis(2-Ethylhexyl)pthalate
	Benzo(b)fluoranthene
	Benzo(k)fluoranthene
	Benzo(a)pyrene
	Dibenzo(a,h)anthracene
	Aniline
Metals:	Zinc

1.2 SSPL-A2 for SWMU 13 - Sludge Settling Pond

Semi-Volatiles:	Phenol
	2-Methylphenol
	3&4-Methylphenol
	2,4-Dimethylphenol
	Di-n-butylphthalate
	Aniline
Metals:	Zinc
Misc:	Petroleum Products (NYSDOH Protocol 310.13)

TABLE 4.5

SITE-SPECIFIC PARAMETER LISTS (SSPLs)
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

2.0 SWMU GROUP B

2.1 SSPL-B1 for SWMU Group B (SWMU 5, AOC 46, AOC 47, and AOC 45)

Semi-Volatiles:	Phenol
	2-Methylphenol
	3&4-Methylphenol
	2,4-Dimethylphenol
	Aniline
Metals:	Zinc

2.2 SSPL-B2 for AOC 48 - Transformer Explosion Area

Semi-Volatiles:	1,2,4-Trichlorobenzene
	Hexachlorobenzene
PCBs:	Aroclor 1260

2.3 SSPL-B3 for SWMU 36 - Aboveground/Underground Storage Tanks

Volatiles:	TCL Volatiles
	Methanol
	Ethanol

TABLE 4.5

SITE-SPECIFIC PARAMETER LISTS (SSPLs)
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

3.0 SWMU GROUP C

3.1 SSPL-C1: SWMU Group C / Except SWMU 38-Therminol Unit/Drain Tiles/Contaminated Soils

Volatiles:	Methylene chloride
	Tetrachloroethene
	Toluene
	Ethylbenzene
Semi-Volatiles:	Phenol
	1,2-Dichlorobenzene
	2-Methylphenol
	3&4-Methylphenol
	2-4-Dimethylphenol
	Di-n-butylphthalate
	bis(2-Ethylhexyl)phthalate
PCBs:	Aroclor 1248
Metals:	Zinc

3.2 SSPL-C2: SWMU 38 - Therminol Unit/Drain Tiles/Contaminated Soils

Volatiles:	Benzene
Semi-Volatiles:	Phenol
PCBs:	Aroclor 1248

TABLE 4.5

SITE-SPECIFIC PARAMETER LISTS (SSPLs)
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

4.0 GROUNDWATER SSPL

Volatiles:	TCL VOCs
	Methanol
	Ethanol
Semi-Volatiles:	Phenol
	2-Methylphenol
	2,4-Dimethylphenol
	3 & 4-Methylphenol
	di-n-Butylphthalate
	bis(2-Ethylhexyl)pthalate
	Benzo(a)anthracene
	Chrysene
	Benzo(b)fluoranthene
	Benzo(k)fluoranthene
	Benzo(a)pyrene
	Dibenzo(a,h)anthracene
	Aniline
	1,2,4-Trichlorobenzene
	Hexachlorobenzene
	1,2-Dichlorobenzene
PCBs	
Metals:	Zinc
Miscellaneous:	Petroleum Products (by NYSDOH Protocol 310.13)

Notes:
PCBs Polychlorinated Biphenyls.
TCL Target Compound List.
VOCs Volatile Organic Compounds

TABLE 4.6
MONITORING WELL COMPLETION DETAILS
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Installation Date*	*Type of Well (Diameter)*	*Elevation Ground (feet AMSL)*	*Elevation TOC (feet AMSL)*	*Well Depth BTOC (feet)*	*Borehole Depth BGS (feet)*	*Monitoring Interval*		*Hydrogeologic Zone*	*General Location*
							Depth (feet)	*Elevations (feet AMSL)*		
OBW-2	05/18/95	cased (2")	601.60	603.57	59.97	58.0	48.0 - 58.0	543.6 - 553.6	bedrock interface	Resin Drum landfill
BW-9	04/26/95	cased (2")	591.30	592.84	61.54	60.0	50.0 - 60.0	531.3 - 541.3	bedrock	Downgradient-north
BW-10	04/28/95	cased (2")	594.00	595.39	45.39	44.0	52.1 - 62.1	531.9 - 541.9	bedrock	Downgradient-north-northeast
BW-12	04/24/95	cased (2")	609.00	610.36	73.56	82.2 (1)	62.0 - 72.2	536.8 - 547.0	bedrock	Upgradient-south
OW-1	05/12/95	cased (2")	602.50	605.16	22.66	20.0	10.0 - 20.0	582.5 - 592.5	overburden	Resin Drum Landfill
OW-2	05/15/95	cased (2")	602.40	604.35	21.95	20.0	10.0 - 20.0	582.4 - 592.4	overburden	Resin Drum Landfill
OW-3	05/11/95	cased (2")	601.70	604.32	22.62	20.0	10.0 - 20.0	581.7 - 591.7	overburden	Resin Drum Landfill
OW-4	05/10/95	cased (2")	602.00	603.90	21.90	20.0	10.0 - 20.0	582.0 - 592.0	overburden	Resin Drum landfill
OW-6	05/03/95	cased (2")	599.20	601.58	22.38	20.0	10.0 - 20.0	579.2 - 589.2	overburden	East of Plant-ring road
OW-7	05/08/95	cased (2")	597.00	596.67	19.67	20.0	10.0 - 20.0	577.0 - 587.0	overburden	East of Plant-entrance area
OW-8	05/02/95	cased (2")	596.00	595.98	19.98	20.0	10.0 - 20.0	576.0 - 586.0	overburden	AOC 45 rail spur
OW-9	04/27/95	cased (2")	591.10	593.12	21.02	19.0	9.0 - 19.0	574.1 - 584.1	overburden	Downgradient-north
OW-10	04/28/95	cased (2")	593.90	595.96	26.06	24.0	14.0 - 24.0	572.0 - 582.0	overburden	Downgradient-north-northeast
OW-11	05/05/95	cased (2")	599.90	602.61	22.71	20.0	10.0 - 20.0	582.6 - 592.6	overburden	SWMU 38
OW-12	04/25/95	cased (2")	608.80	610.76	30.96	29.0	19.0 - 29.0	581.8 - 591.8	overburden	Upgradient-south
OW-A1	-	cased (4")	602.8	604.63	34.11	32.3	-	-	overburden	Resin Drum landfill
OW-B2	-	cased (4")	600.4	602.24	25.70	23.9	-	-	overburden	Resin Drum landfill
BW-C3	-	cased (8")	601.4	602.02	78.87	78.3	-	-	bedrock	West Plant-former production well

Notes:

-	Unknown
(1)	The well was cored to a depth of 82.2 feet BGS. The last ten feet of the core hole was then sealed with sand and bentonite.
AMSL	Above Mean Sea Level
BGS	Below Ground Surface
BTOC	Below Top of Casing
TOC	Top of Casing
SWMU	Solid Waste Management Unit
AOC	Area of Concern

Revision No. 2
Revised: September 1998

TABLE 4.7

SUMMARY OF AQUIFER PARAMETERS FROM SLUG TEST RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Slug Test Type*	*Hydraulic Conductivity (K) (feet/second)*	*Mean Hydraulic Conductivity (K) (feet/second)*	*Transmissivity (feet x feet/second)*	*Mean Transmissivity (feet x feet/second)*
Bedrock					
BW9	Falling	--	--	3.05E-08	
BW10	Rising	--	--	2.48E-04	2.69E-04
BW10	Falling	--	--	2.90E-04	
BW12	Falling	--	--	1.24E-03	
					5.03E-04
Overburden/Bedrock Interface					
OBW2	Rising	3.21E-03		--	
OBW2	Falling	3.05E-03		--	
			3.13E-03		
Overburden-Lower					
OWA1	Rising	4.49E-07		--	
OWA1	Falling	3.74E-07	4.12E-07	--	
OWB2	Rising	2.12E-08		--	
OWB2	Falling	2.58E-08	2.35E-08	--	
			2.18E-07		
OW1	Rising	7.26E-08	7.26E-08	--	
OW2	Rising	4.50E-08		--	
OW2	Falling	1.61E-08	3.06E-08	--	
OW3	Falling	2.69E-08	2.69E-08	--	
OW4	Rising	6.52E-07		--	
OW4	Falling	6.51E-07	6.52E-07	--	
OW7	Rising	9.09E-08	9.09E-08	--	
OW7	Falling	1.45E-07	1.18E-07	--	
OW9	Falling	2.68E-07	2.68E-07	--	
OW11	Falling	1.74E-08	1.74E-08	--	
			1.59E-07		

TABLE 4.8

GROUNDWATER LEVEL MEASUREMENTS
SPAULDING COMPOSIES COMPANY, INC.
TONAWANDA, NEW YORK

Well Type	*Well Number*	*Top of Casing Elevation (feet AMSL)*	*12/27/95*	*03/25/96*	*07/22/96*	*11/21/96*
Overburden	OW-1	605.16	600.6	601.67	598.22	600.94
	OW-2	604.35	599.74	600.76	597.53	600.17
	OW-3	604.32	598.38	599.62	597.18	598.98
	OW-4	603.9	598.97	599.88	597.91	599.45
	OW-6	601.58	594.89	595.75	594.67	594.74
	OW-7	596.67	592.94	593.3	591.97	592.17
	OW-8	595.98	588.45	588.73	586.46	588.59
	OW-9	593.12	586.19	586.77	585.67	586.63
	OW-10	595.96	590.55	591.78	587.31	592.22
	OW-11	602.61	593.56	594.22	594.76	594.63
	OW-12	610.76	606.37	606.64	603.63	606.79
	OW-A1	604.63	600.01	601.58	598.33	600.69
	OW-B2	602.24	595.72	597.31	595.9	596.31
Bedrock	OBW-2	603.57	570.28	569.7	569.31	570.06
	BW-9	592.84	569.36	568.74	568.62	569.18
	BW-10	595.39	570.3	569.72	569.29	569.68
	BW-12	610.36	570.26	569.64	569.24	570.06
	BW-C3	602.02	570.29	569.69	569.28	570.07

Notes:
Elevations are based on National Geodetic Vertical Datum (NGVD)
AMSL Above Mean Sea Level

TABLE 4.9

GROUNDWATER SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Sample ID	*Well No.*	*Date Sampled*	*Time*	*Analyses**	*Comments*
Groundwater - Round 1					
W-072296-DJT-001	Rinse Blank	07/22/96	1545	GSSPL	Bailer then used at OW-4
W-072396-DJT-002	OW-2	07/23/96	0930	GSSPL	
W-072396-DJT-003	OW-4	07/23/96	1030	GSSPL	
W-072396-DJT-004	OW-1	07/23/96	1100	GSSPL	
W-072396-DJT-005	OW-3	07/23/96	1130	GSSPL	
W-072396-DJT-006	OW-6	07/23/96	1200	GSSPL	
W-072396-DJT-007	Rinse Blank	07/23/96	1400	GSSPL	Bailer then used at OW-A1
W-072396-DJT-008	OW-A1	07/23/96	1430	GSSPL	MS/MSD
W-072396-DJT-009	OBW-2	07/23/96	1530	GSSPL	
W-072396-DJT-010	OBW-2	07/23/96	1600	GSSPL	Blind duplicate of W-072396-DJT-010
W-072396-DJT-011	OW-B2	07/23/96	1630	GSSPL	
W-072496-DJT-012	Rinse Blank	07/24/96	0800	GSSPL	Bailer then used at BW-12
W-072496-DJT-013	OW-10	07/24/96	1200	GSSPL	
W-072496-DJT-014	OW-9	07/24/96	1415	GSSPL	
W-072496-DJT-015	OW-8	07/24/96	1430	GSSPL	
W-072496-DJT-016	OW-8	07/24/96	1500	GSSPL	Blind duplicate of W-072496-DJT-015
W-072496-DJT-017	OW-7	07/24/96	1530	GSSPL	
W-072496-DJT-018	OW-12	07/24/96	1600	GSSPL	
W-072496-DJT-019	BW-12	07/24/96	1630	GSSPL	
W-072496-DJT-020	BW-10	07/24/96	1700	GSSPL	
W-072596-DJT-021	BW-9	07/25/96	0830	GSSPL	
W-072596-DJT-022	OW-11	07/25/96	0900	GSSPL	
W-072596-DJT-023	BW-C3	07/25/96	1130	GSSPL	
Groundwater - Round 2					
SC-1000	Rinse Blank	11/21/96	1700	GSSPL	Bailer then used at OW-3
SC-1001	OW-B2	11/22/96	1420	GSSPL	
SC-1002	OW-4	11/22/96	1410	GSSPL	
SC-1003	OW-3	11/22/96	1400	GSSPL	
SC-1004	OW-6	11/22/96	1700	GSSPL	Blind Duplicate of SC-1014
SC-1005	OW-7	11/22/96	1700	GSSPL	
SC-1006	OW-A1	11/22/96	1510	GSSPL	MS/MSD
SC-1007	OW-9	11/22/96	1600	GSSPL	
SC-1008	OW-8	11/22/96	1710	GSSPL	
SC-1009	OW-12	11/22/96	1549	GSSPL	
SC-1010	OW-2	11/22/96	1530	GSSPL	
SC-1011	Rinse Blank	11/22/96	1600	GSSPL	Bailer then used at OW-A1
SC-1012	OW-12	11/22/96	1430	GSSPL	
SC-1013	OW-10	11/22/96	1615	GSSPL	
SC-1014	OW-6	11/22/96	1630	GSSPL	
SC-1015	Rinse Blank	11/25/96	0900	GSSPL	Pump then used at BW-12
SC-1016	OBW-2	11/25/96	1400	GSSPL	
SC-1017	OBW-2	11/25/96	1500	GSSPL	Blind Duplicate of SC-1016
SC-1018	BW-10	11/25/96	1445	GSSPL	
SC-1019	OW-11	11/26/96	0800	GSSPL	
SC-1020	BW-9	11/26/96	0900	GSSPL	
SC-1021	BW-12	11/26/96	0945	GSSPL	
SC-1022	BW-C3	11/26/96	1100	GSSPL	

Notes:

PL	Groundwater Site-Specific Parameter List
*	All groundwater samples were submitted to Columbia Analytical Services, Inc.
MS/MSD	Matrix Spike/Matrix Spike Duplicate

TABLE 4.10

GROUNDWATER WELL PURGING AND FIELD DATA SUMMARY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Date Sampled*	*Time Sampled*	*Volume (gallons)*	*pH*	*Conductivity (μ mhos)*	*Temperature (°C)*	*Turbidity (NTUs)*
OW-1	07/22/96	13:52	2.5	7.06	1910	11.3	1200
		14:03	5.0	7.35	1930	11.0	870
		Dry	6.0	-	-	-	-
	07/23/96	11:00	-	6.50	2030	14.6	82
OW-2	07/22/96	14:40	2.5	6.60	750	12.1	1630
		14:47	5.0	7.50	760	11.5	970
		Dry	5.0	-	-	-	-
	07/23/96	9:30	-	6.51	1040	12.7	275
OW-3	07/22/96	15:18	2.5	9.18	530	11.6	1050
		Dry	4.0	-	-	-	-
	07/23/96	11:30	-	6.54	640	11.7	79
OW-4	07/22/96	16:12	2.7	7.00	1430	12.8	4.99
		16:20	5.2	7.54	1520	12.0	730
		Dry	6.0	-	-	-	-
	07/23/96	10:30	-	6.55	1560	16.5	88
OW-6	07/22/96	16:57	2.5	7.00	1580	12.9	118
		17:07	5.0	7.29	1620	12.1	117
		Dry	6.0	-	-	-	-
	07/23/96	12:00	-	6.75	1540	15.9	56
OW-7	07/24/96	8:18	2.4	6.72	910	14.3	480
		8:23	4.8	7.32	1210	13.7	237
		Dry	5.7	-	-	-	-
	07/24/96	15:30	-	8.08	840	16.4	15.1
OW-8	07/23/96	16:45	2.1	6.37	1490	10.7	711
		16:50	4.2	6.73	1720	11.0	1340
		Dry	4.6	-	-	-	-
	07/24/96	14:30	-	6.65	1800	12.1	50
OW-9	07/23/96	17:15	2.2	7.02	5970	12.7	285
		Dry	3.8	-	-	-	-
	07/24/96	14:15	-	7.20	5090	15.7	93
OW-10	07/23/96	17:42	2.8	7.70	1940	11.2	98
		17:50	5.6	7.55	1910	11.7	20
		Dry	6.7	-	-	-	-
	07/24/96	12:00	-	6.87	1610	13.6	153
OW-11	07/24/96	13:50	2.4	6.90	12480	13.1	160
		Dry	3.0	-	-	-	-
	07/25/96	9:00	-	6.59	12530	13.9	186
OW-12	07/24/96	9:44	3.9	7.93	1480	10.4	530
		Dry	7.0	-	-	-	-
	07/24/96	16:00	-	7.08	1300	13.0	54

TABLE 4.10

GROUNDWATER WELL PURGING AND FIELD DATA SUMMARY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Date Sampled*	*Time Sampled*	*Volume* (gallons)	*pH*	*Conductivity* (μ mhos)	*Temperature* (°C)	*Turbidity* (NTUs)
OW-A1	07/23/96	8:23	18.3	6.64	780	11.2	20.8
		Dry	34.0	-	-	-	-
	07/23/96	14:30	-	6.50	1170	13.9	68
OW-B2	07/23/96	10:15	12.6	6.42	370	15.0	194
		Dry	12.6	-	-	-	-
	07/23/96	16:30	-	6.60	680	12.6	84
OBW-2	07/23/96	8:56	4.2	6.45	1850	11.2	1500
		8:58	8.4	6.77	1850	11.3	425
		9:05	12.6	7.07	1466	11.5	1200
		9:07	16.8	7.02	1990	11.7	820
		9:08	21.0	7.00	2050	11.8	416
		15:30	-	6.40	1940	12.3	111
BW-9	07/24/96	10:28	6.0	10.25	2500	12.7	264
		Dry	10.0	-	-	-	-
	07/25/96	8:30	-	10.36	2580	13.4	50
BW-10	07/24/96	11:44	6.1	6.78	2560	12.7	66
		Dry	8.0	-	-	-	-
		17:00	-	6.73	2720	12.2	79
BW-12	07/24/96	9:02	5.1	7.98	2550	10.8	329
		9:18	10.2	8.80	2630	11.4	800
		Dry	12.0	-	-	-	-
		16:30	-	7.02	2700	12.4	62
OW-C3	07/25/96	10:00	120	6.40	2650	13.3	8.3
		10:51	240	6.81	2820	12.9	1.5
		11:08	360	6.88	2810	13.2	0.5
		11:30	-	7.47	1800	13.7	160
OW-1	11/21/96	11:07	3.0	7.27	1330	10.7	178
		Dry	5.0	-	-	-	-
	11/22/96	14:30	-	7.26	1470	9.8	95
OW-2	11/21/96	11:08	2.8	8.16	11.5	660.0	>200
		Dry	4.8	-	-	-	-
	11/22/96	15:30	-	7.21	770	10.8	141
OW-3	11/21/96	10:48	2.7	8.65	450	11.2	>200
		Dry	4.5	-	-	-	-
	11/22/96	14:00	-	7.59	590	10.9	670
OW-4	11/21/96	10:50	3.0	7.81	1060	12.1	>200
		Dry	5.0	-	-	-	-
	11/22/96	14:10	-	7.01	1330	12.1	509

TABLE 4.10

GROUNDWATER WELL PURGING AND FIELD DATA SUMMARY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Date Sampled*	*Time Sampled*	*Volume (gallons)*	*pH*	*Conductivity (μmhos)*	*Temperature (°C)*	*Turbidity (NTUs)*
OW-6	11/21/96	13:49	2.4	7.80	1280	13.2	188
		Dry	4.5	-	-	-	-
	11/22/96	16:30	-	7.36	1320	12.5	50
OW-7	11/21/96	14:46	2.5	7.43	820	15.2	>200
		14:49	5.0	7.75	1040	14.9	>200
		Dry	5.1	-	-	-	-
	11/22/96	17:00	-	7.96	750	14.6	170
OW-8	11/21/96	-	2.0	7.16	1210	11.4	>200
		-	4.0	6.88	1330	11.9	>200
		Dry	4.0	-	-	-	-
	11/22/96	17:10	-	6.97	1330	11.5	40
OW-9	11/21/96	13:04	2.3	7.84	4510	13.2	>200
		Dry	4.0	-	-	-	-
	11/22/96	16:00	-	7.52	470	12.8	40
OW-10	11/21/96	13:20	3.5	7.92	1210	11.2	>200
		-	7.0	7.36	1240	10.6	>200
		Dry	7.0	-	-	-	-
	11/22/96	16:15	-	7.40	1600	10.6	96
OW-11	11/25/96	10:35	2.3	7.45	9610	13.5	63
		Dry	2.5	-	-	-	-
	11/26/96	8:00	-	6.80	10010	12.9	243
OW-12	11/21/96	11:37	4.5	8.01	1090	9.9	>200
		Dry	8.0	-	-	-	-
	11/22/96	15:49	-	7.43	1200	9.9	163
OW-A1	11/21/96	15:20	1.0	7.99	540	11.7	-
		15:25	37.0	7.59	490	12.1	-
		Dry	37.0	-	-	-	-
	11/22/96	15:10	-	7.10	836	10.5	26.2
OW-B2	11/21/96	15:00	12.8	8.15	270	13.4	<50
		Dry	12.8	-	-	-	-
	11/22/96	14:20	-	7.50	540	12.4	45
OBW-2	11/25/96	13:16	4.2	7.69	1260	10.5	>200
		13:18	8.4	7.33	1320	10.9	>200
		13:19	12.6	7.27	1390	10.7	74
		13:21	16.8	7.04	1450	10.9	34
		13:22	21.0	7.06	1510	11.0	25
BW-9	11/25/96	11:10	6.1	9.79	2140	12.1	16.6
		Dry	9.0	-	-	-	-
	11/26/96	9:00	-	8.52	2020	11.6	183

TABLE 4.10

GROUNDWATER WELL PURGING AND FIELD DATA SUMMARY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID	*Date Sampled*	*Time Sampled*	*Volume (gallons)*	*pH*	*Conductivity (μmhos)*	*Temperature (°C)*	*Turbidity (NTUs)*
BW-10	11/25/96	11:34	6.1	7.34	2020	11.3	38
		Dry	8.0	-	-	-	-
		14:45	-	7.53	2020	10.5	66
BW-12	11/25/96	12:00	5.2	8.28	1990	10.2	29
		Dry	7.0	-	-	-	-
	11/26/96	9:45	-	7.04	2060	8.5	15
OW-C3	11/26/97	8:28	122	7.15	1970	11.8	7.0
		9:44	244	6.83	1950	12.2	1.9
		10:41	366	6.87	2000	12.1	1.3
		11:00	-	7.21	1400	11.5	15

TA 1.11

PHASE II UTILITY BEDDING AND SOIL SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Sample ID	*Location*	*Sample Interval (BGS)*	*Date*	*Time*	*Matrix*	*Analyses* [(1)]	*Comments*
SC-900	TP-1	11.0'	09/03/96	1130	Soil	Groundwater SSPL	
SC-901	TP-2	10.0'	09/03/96	1330	Soil	Groundwater SSPL	
SC-902	TP-3	5.3'	09/03/96	1430	Groundwater	Groundwater SSPL	MS/MSD
SC-903	TP-3	5.3'	09/03/96	1600	Groundwater	Groundwater SSPL	Blind Duplicate of SC-902
SC-904	TP-3	6' - 7'	09/03/96	1500	Soil	Groundwater SSPL	MS/MSD
SC-905	TP-2	10.0'	09/03/96	1200	Soil	Groundwater SSPL	Blind Duplicate of SC-901
SC-906	TP-4	6.0'	09/04/96	1030	Soil	Groundwater SSPL	
SC-907	BH-41	0 - 2"	09/09/96	1200	Soil	Petroleum Products	
SC-908	BH-41	9' - 10'	09/09/96	1215	Soil	Petroleum Products	
SC-909	BH-41	3' - 4'	09/09/96	1230	Soil	Petroleum Products	
SC-910	BH-42	0 - 2"	09/09/96	1230	Soil	Petroleum Products	
SC-911	BH-43	0 - 2"	09/09/96	1245	Soil	Petroleum Products	
SC-912	BH-43	4' - 8'	09/09/96	1300	Soil	Petroleum Products	
SC-913	BH-43	4' - 8'	09/09/96	1330	Soil	Petroleum Products	Blind Duplicate of SC-912
SC-914	BH-43	12' - 14'	09/09/96	1315	Soil	Petroleum Products	
SC-915	BH-44	1.5' - 2.0'	09/09/96	1430	Soil	PCBs	
SC-916	BH-48	4.5'	09/09/96	1630	Soil	PCBs	
SC-917	BH-48	4.5'	09/09/96	1700	Soil	PCBs	Blind Duplicate of SC-916
SC-918	BH-56	0 - 2"	09/10/96	0915	Soil	Petroleum Products	
SC-919	BH-55	0 - 2"	09/10/96	0940	Soil	Petroleum Products	
SC-920	BH-57	0 - 2"	09/10/96	1000	Soil	Petroleum Products	
SC-921	BH-58	0 - 2"	09/10/96	1030	Soil	SSPL-C1	
SC-922	BH-58	4' - 6'	09/10/96	1045	Soil	SSPL-C1	
SC-923	BH-58	8' - 10'	09/10/96	1045	Soil	SSPL-C1	
SC-924	BH-59	0 - 2"	09/10/96	1115	Soil	SSPL-C1	
SC-925	BH-59	4' - 6'	09/10/96	1120	Soil	SSPL-C1	
SC-926	BH-59	8' - 10'	09/10/96	1130	Soil	SSPL-C1	
SC-927	BH-59	4' - 6'	09/10/96	1135	Soil	PCBs	
SC-928	BH-60	0 - 2"	09/10/96	1150	Soil	SSPL-C1	
SC-929	BH-60	4' - 6'	09/10/96	1200	Soil	SSPL-C1	
SC-930	BH-60	8' - 10'	09/10/96	1215	Soil	SSPL-C1	
SC-931	BH-61	0 - 2"	09/10/96	1220	Soil	SSPL-C1	
SC-932	BH-61	6' - 7'	09/10/96	1230	Soil	SSPL-C1	

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PHASE II UTILITY BEDDING AND SOIL SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Sample ID	*Location*	*Sample Interval (BGS)*	*Date*	*Time*	*Matrix*	*Analyses* (1)	*Comments*
SC-933	BH-61	8' - 10'	09/10/96	1235	Soil	SSPL-C1	
SC-934	BH-62	0 - 2"	09/10/96	1345	Soil	SSPL-B1	
SC-935	BH-62	9' - 10'	09/10/96	1415	Soil	SSPL-B1	
SC-936	BH-62	6' - 6.5'	09/10/96	1430	Soil	SSPL-B1	
SC-937	BH-63	0 - 2"	09/10/96	1430	Soil	SSPL-B1	
SC-938	BH-63	4'	09/10/96	1435	Soil	SSPL-B1	
SC-939	BH-64	0 - 2"	09/10/96	1450	Soil	SSPL-B1	
SC-940	BH-64	4.5'	09/10/96	1450	Soil	SSPL-B1	
SC-941	BH-65	0 - 2"	09/10/96	1600	Soil	SSPL-B2 (2)	
SC-942	BH-65	16' - 18'	09/10/96	1630	Soil	SSPL-B2 (2)	
SC-943	BH-65	2.0'	09/10/96	1635	Soil	SSPL-B2 (2)	
SC-944	BH-66	0 - 2"	09/10/96	1650	Soil	SSPL-B2	
SC-945	BH-66	2.0'	09/10/96	1700	Soil	SSPL-B2	
SC-946	BH-66	16' - 18'	09/10/96	1730	Soil	SSPL-B2	
SC-947	BH-67	0 - 2"	09/11/96	0730	Soil	SSPL-B2	
SC-948	BH-67	0 - 2"	09/11/96	0730	Soil	PCBs	
SC-949	BH-67	16' - 18'	09/11/96	0800	Soil	SSPL-B2	
SC-950	BH-67	3.1' - 4.0'	09/11/96	0805	Soil	SSPL-B2	
SC-951	BH-68	0 - 2"	09/11/96	0900	Soil	SSPL-B2	
SC-952	BH-68	0 - 2"	09/11/96	0900	Soil	PCBs	
SC-953	BH-68	16' - 18'	09/11/96	0950	Soil	SSPL-B2	
SC-954	BH-74	0 - 2"	09/11/96	1245	Soil	PCBs	
SC-955	BH-86	0 - 2"	09/11/96	1530	Soil	PCBs	
SC-956	BH-84	0 - 2"	09/11/96	1545	Soil	PCBs	
SC-957	BH-87	8' - 9'	09/11/96	1600	Soil	Groundwater SSPL	
SC-958	BH-88	10' - 12'	09/11/96	1715	Soil	SSPL-B3	
SC-959	BH-88	20' - 22'	09/11/96	1810	Soil	SSPL-B3	
SC-960	BH-68	3.5' - 4.0'	09/11/96	0915	Soil	SSPL-B2	
SC-961	BH-89	4' - 6'	09/12/96	0900	Soil	SSPL-B3	
SC-962	BH-89	20' - 22'	09/12/96	0905	Soil	SSPL-B3	
SC-963	BH-91	6' - 8'	09/12/96	1030	Soil	SSPL-B3	
SC-964	BH-91	16' - 18'	09/12/96	1035	Soil	SSPL-B3	
SC-965	BH-85	4.0'	09/12/96	1200	Soil	PCBs	

TABLE 4.11

PHASE II UTILITY BEDDING AND SOIL SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Sample ID	*Location*	*Sample Interval (BGS)*	*Date*	*Time*	*Matrix*	*Analyses* [(1)]	*Comments*
SC-965	BH-85	4.0'	09/12/96	1200	Soil	PCBs	
SC-966	BH-92	20' - 22'	09/12/96	1330	Soil	SSPL-B3	
SC-967	BH-92	9' - 10'	09/12/96	1335	Soil	SSPL-B3	
SC-968	BH-92B	2' - 4'	09/12/96	1430	Soil	Petroleum Products	
SC-969	BH-94	0 - 2"	09/12/96	1545	Soil	SSPL-B1	
SC-970	BH-95	0 - 2"	09/12/96	1630	Soil	SSPL-B1	
SC-971	BH-95	3.5' - 4'	09/12/96	1645	Soil	SSPL-B1	
SC-972	BH-95	14' - 16'	09/12/96	1650	Soil	SSPL-B1	
SC-973	BH-96	0 - 2"	09/12/96	1800	Soil	SSPL-B1	
SC-974	BH-96	5.0'	09/12/96	1815	Soil	SSPL-B1	

Notes:

(1)	All samples were submitted to Columbia Analytical Services, Inc. in Rochester, New York
(2)	These samples were also inadverdently analyzed for the SSPL-B2 parameters instead of the SSPL-B1 parameters. However, semi-volatile data for the SSPL-B1 parameters were available since the same method was run during analyses of the SSPL-B1 parameters.
BGS	Below Ground Surface.
MS/MSD	Matrix Spike/Matrix Spike Duplicate.
PCBs	Polychlorinated Biphenyls.
SSPL	Site-Specific Parameter List.
TCL	Target Compound List.
Groundwater SSPL	- TCL Volatiles, Methanol, Ethanol, SSPL Semi-Volatiles (Phenol, 2-Methylphenol, 2,4-Dimethylphenol, 3&4-Methylphenol, di-n-Butylphthalate, bis(2-Ethylhexyl)phthalate, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, Aniline, 1,2,4-Trichlorobenzene, Hexachlorobenzene, and 1,2-Dichlorobenzene), PCBs, Zinc, Diesel Fuel, Gasoline, Kerosene, and Lube Oil.
SSPL-B1	Phenol, 2-Methylphenol, 2,4-Dimethylphenol, 3&4-Methylphenol, Aniline, Zinc
SSPL-B2	1,2,4-Trichlorobenzene and Hexachlorobenzene
SSPL-B3	TCL Volatiles, Methanol, and Ethanol
SSPL-C1	Methylene Chloride, Tetrachloroethene, Toluene, Ethylbenzene
Petroleum Products	Diesel Fuel, Gasoline, Kerosene, and Lube Oil.

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TABLE 4.12

DESCRIPTION OF PHASE II SOIL SAMPLE LOCATIONS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location	*Total Sampled Depth (BGS)*	*Sampled Intervals (BGS)*	*SWMU/AOC Number*	*SWMU Group*	*Observations*
BH-40A/B/C	12'	Visual Observations	Site Utility Bedding	A	PID readings were 0 ppm.
BH-41	10'	0-2", 3'-4', 9'-10'	Former Grinding Oil Tank	A	PID readings of 0 - 12 ppm. Petroleum odor at 3 ft bgs.
BH-42	8'	0-2"	Former Grinding Oil Tank	A	PID readings were 0 ppm.
BH-43	14'	0-2", 4'-8', 12'-14'	Former Grinding Oil Tank	A	PID readings of 0 - 50 ppm. Petroleum product at 2 - 8 ft bgs.
BH-44	23'	0-2", 1.5'-2'	13	A	
BH-45	2'	0-2", 1.5'-2'	13	A	
BH-46	2'	0-2", 1.5'-2'	13	A	
BH-47	4'	0-2", 2', 4'	14	C	Petroleum odor at 0 - 1.75 ft bgs. Black staining.
BH-48	4.5'	0-2", 1.5', 4'.5'	14	C	Petroleum odor at 0 - 3.5 ft bgs. Black staining.
BH-49	4'	0-2", 1', 3.5'	14	C	Petroleum odor at 1 - 2.4 ft bgs.
BH-50	4'	0-2", 1.2', 3.2'	14	C	
BH-51	4'	0-2"	8	C	No dust bags encountered.
BH-51B	4'	1.5', 3.5'	8	C	10 ft west of BH-51. No dust bags encountered.
BH-52	4'	0-2", 3'	8	C	No dust bags encountered.
BH-52B	4'	Visual Observations	8	C	8 ft north of BH-52. No dust bags encountered.
BH-53	10'	0-2", 4', 8'-10'	8	C	Laminant dust at 4-8 ft bgs
BH-53B	6'	Visual Observations	8	C	10 ft west of BH-53. No dust bags encountered.
BH-54	8'	0-2", 2.1'	8	C	Pieces of resin at 0 - 0.67 ft bgs. No dust bags encountered.
BH-54B	6'	Visual Observations	8	C	6 ft north of BH-54. No dust bags encountered.
BH-55	8'	0-2"	Former Fuel Oil Tanks	C	Pieces of laminant board at 4 ft bgs. PID readings were 0.
BH-56	8'	0-2"	Former Fuel Oil Tanks	C	PID readings were 0 ppm.
BH-57	8'	0-2"	Former Fuel Oil Tanks	C	PID readings were 0 ppm.
BH-58	10'	0-2", 4'-6', 8'-10'	23	C	PID readings were 0 ppm.
BH-59	10'	0-2", 4'-6', 8'-10'	23	C	PID readings were 0 ppm.
BH-60	10'	0-2", 4'-6', 8'-10'	23	C	PID readings of 0 - 20 ppm. Odor & crystallized fill material at 2.4 - 4 ft bgs
BH-61	10'	0-2", 6'-7', 8'-10'	23	C	PID readings were 0 ppm. Blue-green staining at 0.5-8 ft bgs.
BH-62	10'	0-2", 6'-6.5', 9'-10'	5, AOC 46, AOC 47	B	PID readings of 0 - 2 ppm. Phenol odor at 4 - 8 ft bgs
BH-63	8'	0-2", 4'	5, AOC 46, AOC 47	B	PID readings were 0 ppm.
BH-64	8'	0-2", 4.5'	5, AOC 46, AOC 47	B	PID readings were 0 ppm.
BH-65	18'	0-2", 2', 16'-18'	5, AOC 46, AOC 47	B	PID readings were 0 ppm.
BH-66	18'	0-2", 2', 16'-18'	AOC 48	B	PID readings were 0 ppm.
BH-67	18'	0-2", 4', 16'-18'	AOC 48	B	PID readings were 0 ppm.
BH-68	18'	0-2", 3.5'-4', 16'-18'	AOC 48	B	PID readings were 0 ppm.
BH-69	12'	8'-10', 10'-12'	AOC 48	B	Next to sewer line. PID readings of 0-3 ppm. NAPL/chemical odor at 10 ft bgs.
BH-70	8'	4'-8'	AOC 48	B	
BH-71	9.5'	9.5'	AOC 48	B	
BH-72	12'	10'-12'	AOC 48	B	
BH-73	2"	0-2"	14	C	
BH-74	2"	0-2"	14	C	

TABLE 4.12

DESCRIPTION OF PHASE II SOIL SAMPLE LOCATIONS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location	*Total Sampled Depth (BGS)*	*Sampled Intervals (BGS)*	*SWMU/AOC Number*	*SWMU Group*	*Observations*
BH-75	2"	0-2"	14	C	
BH-76	2"	0-2"	14	C	
BH-77	2"	0-2"	14	C	
BH-78	2"	0-2"	14	C	
BH-79	2"	0-2"	14	C	
BH-80	2"	0-2"	14	C	
BH-82	8'	0-2", 2"-24", 2'-4', 4'-6', 6'-8'	14	C	Petroleum product at 2-4 ft bgs.
BH-83	3.5'	3.5'	14	C	Petroleum odor at 0-3.5 ft bgs.
BH-84	4'	0-2", 1.5', 4'	23	C	
BH-85	4'	0-2", 2', 4'	23	C	
BH-86	6'	0-2", 3.5', 6'	23	C	
BH-87	9'	8'-9'	5, AOC 46, AOC 47, Site Utility	B	
BH-88	22'	10'-12', 20'-22'	36	B	PID readings of 0 - 55 ppm.
BH-89	20'	4'-6', 20'-22'	36	B	PID readings of 0 - 150 ppm. Strong chemical odor at 6-8 ft bgs.
BH-90	8'	Visual Observations	36	B	Concrete at 3 ft bgs.
BH-90B	8'	Visual Observations	36	B	PID readings were 0 ppm.
BH-91	22'	6'-8', 16'-18'	36	B	Green staining at 2-3 ft bgs. PID readings of 0 - 100 ppm.
BH-91B	8'	Visual Observations	36	B	PID readings were 0 ppm.
BH-92	22'	9'-10', 20'-22'	36	B	PID readings of 0 - 40 ppm.
BH-92B	8'	2-4'	36	B	PID readings of 0 - 80 ppm. Strong petroleum odor at 1.3-4 ft bgs. Dark green staining at 1.3-3.3 ft bgs.
BH-92C	10'	Visual Observations	36	B	
BH-93	4'	Visual Observations	36	B	PID readings were 0 ppm.
BH-94	8'	0-2"	36, AOC 45	B	PID readings were 0 ppm. Green/black staining at 2-4 ft bgs.
BH-95	16'	0-2", 3.5'-4', 14'-16'	36, AOC 45	B	PID readings of 0 - 55 ppm. Odor at 2-16 ft bgs. Green/black staining 1.5-16 ft bgs.
BH-96	8'	0-2", 5'	36, AOC 45	B	PID readings were 0 ppm.
TP-1	11'	11'	Site utility/I-line	B	PID readings were 0 ppm.
TP-2	10'	10'	Site utility/stormsewer	A	PID readings of 0 - 11.4 ppm. Petroleum odor at 10 feet BGS.
TP-3	7.1'	7.1'	Site utility/stormsewer	B,D	PID readings were 0 ppm.
TP-4	6.1'	6.1'	Site utility/sanitary sewer	C,D	PID readings were 0 ppm.

Notes:

AOC	Area of Concern
SWMU	Solid Waste Management Unit
NAPL	Non-Aqueous Phase Liquid
PID	Photoionizaton Detector

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TABLE 4.13

FIELD PCB ANALYTICAL RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

			Total PCBs Concentration (ppm)		
Borehole Number	***Collection Date***	***Sample Depth***	***Field Screening (1)***	***Spaulding Lab (2)***	***NYSDEC Lab (3)***
BH-44	09/09/96	0-2"	3	-	0.67J
BH-44	09/09/96	1.5-2'	2.9	1.14J	-
BH-45	09/09/96	0-2"	3.4	-	-
BH-45	09/09/96	1.5-2'	2.1	-	-
BH-46	09/09/96	0-2"	3.7	-	-
BH-46	09/09/96	1.5-2'	7.7	-	-
BH-47	09/09/96	0-2"	7.3	-	ND
BH-47	09/09/96	2'	6.7	-	-
BH-47	09/09/96	4'	4.1	-	-
BH-48	09/10/96	0-2"	34	-	0.301J
BH-48	09/10/96	0-2" dup.	51	-	-
BH-48	09/10/96	1.5' (1' above interface)	108	-	2.9J
BH-48	09/10/96	4.5' (1' below interface)	54	0.079J	
BH-48	09/10/96	4.5' dup.	68	0.110J	-
BH-49	09/09/96	0-2"	88	-	0.12J
BH-49	09/09/96	0-2" dup.	230	-	-
BH-49	09/09/96	1' (1' above interface)	4.4	-	-
BH-49	09/09/96	3.5' (1' below interface)	2.8	-	-
BH-49	09/09/96	3.5' dup.	3.8	-	-
BH-50	09/09/96	0-2"	100	-	0.423J
BH-50	09/09/96	1.2'	9.1	-	-
BH-50	09/10/96	3.2'	5.0	-	-
BH-51	09/09/96	0-2"	4.8	-	-
BH-51B	09/10/96	1.5'	37	-	ND
BH-51B	09/10/96	3.5'	68	-	-
BH-52	09/10/96	0-2"	9	-	0.032J
BH-52	09/10/96	3'	7	-	-
BH-53	09/10/96	0-2"	4.9	-	-
BH-53	09/10/96	4' (dust)	18	-	-
BH-53	09/10/96	8.5'	6.9	-	-

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TABLE 4.13

FIELD PCB ANALYTICAL RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Borehole Number	*Collection Date*	*Sample Depth*	*Total PCBs Concentration (ppm)* *Field Screening (1)*	*Spaulding Lab (2)*	*NYSDEC Lab (3)*
BH-54	09/09/96	0-2"	16.4	-	-
BH-54	09/09/96	2.1'	25.3	-	ND
BH-58	09/10/96	0-2"	19.7	-	6.21J
BH-58	09/10/96	4-6'	5.6	-	-
BH-58	09/10/96	4-6' dup.	6	-	-
BH-58	09/10/96	8-10'	5.7	-	-
BH-59	09/10/96	0-2"	21.6	-	6.9J
BH-59	09/10/96	4-6'	5	ND	4.3J
BH-59	09/10/96	8-10'	5	-	-
BH-60	09/10/96	0-2"	115	-	28.0J
BH-60	09/10/96	4-6'	5.2	-	ND
BH-60	09/10/96	8-10'	6.4	-	-
BH-61	09/10/96	0-2"	36	-	82.0
BH-61	09/10/96	6-7'	4.9	-	-
BH-61	09/10/96	8-10'	6.4	-	-
BH-65	09/10/96	0-2"	11.2	-	-
BH-65	09/10/96	2'	3.8	-	ND
BH-65	09/10/96	2' dup.	2.9	-	-
BH-65	09/10/96	16-18'	3.3	-	-
BH-66	09/10/96	0-2"	199.3	-	45
BH-66	09/10/96	2'	4.6	-	0.28
BH-66	09/10/96	16-18'	4.4	-	0.087J
BH-67	09/11/96	0-2"	500	440	93
BH-67	09/11/96	0-2" confirmatory	467	-	-
BH-67	09/11/96	0-2" dup.	250	-	-
BH-67	09/11/96	0-2" dup. confirmatory	173	-	-
BH-67	09/11/96	3.1'-4' (interface)	4.2	-	0.7J
BH-67	09/11/96	16-18'	2	-	-
BH-68	09/11/96	0-2"	5	ND	-
BH-68	09/11/96	3.5-4'	4.5	-	-
BH-68	09/11/96	16-18'	4.2	-	-

TABLE 4.13

FIELD PCB ANALYTICAL RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

			Total PCBs Concentration (ppm)		
Borehole Number	*Collection Date*	*Sample Depth*	*Field Screening (1)*	*Spaulding Lab (2)*	*NYSDEC Lab (3)*
BH-69	09/11/96	11.5'	280	-	-
BH-69	09/11/96	10-12'	1500	-	1000J
BH-70	09/11/96	5' (sewer below bedding)	2.1	-	-
BH-71	09/11/96	9.5'	4	-	-
BH-72	09/11/96	11.1'	2.8	-	-
BH-73	09/11/96	0-2"	3.1	-	-
BH-74	09/11/96	0-2"	3	0.170J	-
BH-74	09/11/96	0-2" dup.	3.3	-	-
BH-75	09/11/96	0-2"	8.4	-	2.5J
BH-76	09/11/96	0-2"	7.7	-	-
BH-77	09/11/96	0-2"	5.7	-	-
BH-77	09/11/96	0-2" dup.	7.5	-	-
BH-78	09/11/96	0-2"	39.7*	-	-
BH-79	09/12/96	0-2"	4.4	-	-
BH-79	09/12/96	0-2" dup.	4.4	-	-
BH-80	09/11/96	0-2"	230*	-	ND
BH-82	09/11/96	0-2"	86.3*	-	-
BH-82	09/11/96	2"-24"	4.6	-	-
BH-82	09/11/96	2-4'	20.6	-	37
BH-82	09/11/96	2-4' dup.	84.5*	-	-
BH-82	09/11/96	4-6'	47.1*	-	-
BH-82	09/11/96	6-8'	35.8*	-	-
BH-83	09/11/96	3.5'	19.6	-	-
BH-84	09/12/96	0-2"	18.4	9.5	-
BH-84	09/12/96	1.5'	2.9	-	-
BH-84	09/12/96	4'	2.7	-	-

TABLE 4.13

FIELD PCB ANALYTICAL RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Borehole Number	*Collection Date*	*Sample Depth*	*Total PCBs Concentration (ppm)*		
			Field Screening (1)	*Spaulding Lab (2)*	*NYSDEC Lab (3)*
BH-85	09/12/96	0-2"	14.2	-	-
BH-85	09/12/96	2'	6.3	-	-
BH-85	09/12/96	4'	3.5	ND	-
BH-85	09/11/96	4' dup.	3.5	-	-
BH-86	09/12/96	0-2"	14.5	9.1	-
BH-86	09/12/96	3.5'	4	-	-
BH-86	09/12/96	6'	48.4*	-	-
BH-87	09/11/96	8-9'	47.6*	ND	-

Notes:

*	Results from re-analyses with a new dexsil unit on September 18, 1996. Results may be high bias.
(1)	Dexsil field screening results reported as Arochor 1242.
(2)	Analytical results as provided by Spaulding's contract laboratory - Columbia Analytical Services, Inc. Total concentration for all detected PCBs reported.
(3)	Analytical results as provided by the NYSDEC's contract laboratory - Recra Environmental, Inc. Total concentration for all detected PCBs reported.
J	Associated value is estimated.
PCB	Polychlorinated Biphenyl

TAl 4.14

SURFACE WATER AND SEDIMENT SAMPLE COLLECTION KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Sample ID	*Source/Sample Location*	*Date*	*Time*	*Matrix*	*Analysis*	*Comments*
SC-1000	Outfall 004	10/05/95	2245	Surface water	(1)	MS/MSD/Dup.
SC-1001	Downstream of Resin Drum Landfill	10/05/95	2300	Surface water	(2)	MS/MSD/Dup.
SC-1002	Upstream of Resin Drum Landfill	10/05/95	2315	Surface water	(2)	
SC-1003	Outfall 013	10/05/95	2330	Surface water	(1)	
SC-1004	Outfall 012	10/05/95	2345	Surface water	(1)	
SC-1005	Outfall 010	10/06/95	0000	Surface water	(1)	
SC-1006	Outfall 005	10/06/95	0015	Surface water	(1)	
SC-1007	Outfall 006	10/06/95	0030	Surface water	(1)	
SC-1008	Outfall 007	10/06/95	0045	Surface water	(4)	
SC-1009	Upstream of Resin Drum Landfill	10/06/95	0100	Surface water	(2)	Blind duplicate of SC-1002
SC-1010	Outfall 011	10/06/95	0115	Surface water	(3)	
SC-1011	Outfall 011	10/06/95	0130	Surface water	(3)	Blind duplicate of SC-1010
SC-1012	Outfall 008	10/06/95	0145	Surface water	(1)	
Trip Blank	-	10/06/95	-	Water	(5)	
SC-1013	Upstream of Resin Drum Landfill	10/09/95	1100	Sediment	(2)	MS/MSD/Dup.
SC-1014	Downstream of Resin Drum Landfill	10/09/95	1030	Sediment	(2)	
SC-1015	Downstream of Resin Drum Landfill	10/09/95	1045	Sediment	(2)	Duplicate of SC-1014

Notes:

(1)	1,1,1-Trichloroethane, benzene, toluene, xylenes, polychlorinated biphenyls, oil and grease.
(2)	Target compound list volatile organic compounds, methanol, ethanol, formaldehyde, polychlorinated biphenyls, target compound list semi-volatile organic compounds (plus cresols and aniline), phenol, and target analyte list metals.
(3)	1,1,1-Trichloroethane, benzene, toluene, xylenes, polychlorinated biphenyls, oil and grease, and formaldehyde.
(4)	1,1,1-Trichloroethane, benzene, toluene, xylenes, polychlorinated biphenyls, oil and grease, total suspended solids, and chemical oxygen demand.
(5)	Target Compound List Volatile Organic Compound
Dup.	Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate

T/ 6.1

BACKGROUND METAL CONCENTRATIONS IN SOIL
RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

	Published Background Concentration Ranges				
Parameter (mg/kg)	*Typical Soils (1),(2)*	*Urban Garden and Orchard Soils (1)*	*Eastern USA Background (3)*	*Site Background Concentration Range (4)*	*NYSDEC Cleanup Objective (3)*
Aluminum	NR	NR	33,000	12,500 - 16,200	16,200 (SB)
Antimony	0.25-.06	NR	NR	ND - 1.0J	1.0 (SB)
Arsenic	<1.0-93.2	31-625 (1) 990-625 (5)	3-12	2.8J - 4.9J	4.9J (SB)
Barium	0-300	NR	15-600	110 - 131	300
Beryllium	<1-5	NR	0-1.75	0.61 - 0.89	0.89 (SB)
Cadmium	0.4-0.57	0.02-13.6	0.1-1	ND	10
Calcium	NR	NR	130-35,000	ND - 73,800	73,800 (SB)
Chromium	7-1,500	NR	1.5-40	17.8 - 21.1	50
Cobalt	3-50	3-140	2.5-60	10.8	30
Copper	3-300	NR	1-50	20.4	25
Iron	0.5-50,000	218-10,900	2,000-550,000	21,800 - 26,100	26,100 (SB)
Lead	<10-70	NR	4-61 undeveloped area, 200-500 urban areas	9.9 - 30.7	200 - 500
Magnesium	NR	NR	100-5,000	4,730 - 16,800	16,800 (SB)
Manganese	20-3000	NR	50-5,000	558 - 657	657 (SB)
Mercury	0.02-1.5	0.6	0.001-0.2	ND	0.1
Nickel	<5-150	NR	0.5-25	24.1 - 24.8	24.8 (SB)
Potassium	NR	NR	8,500-43,000	1,620 - 2,060	2,060 (SB)
Selenium	<0.1-4.0	NR	0.1-3.9	ND	2
Silver	NR	NR	NR	ND	ND (SB)
Sodium	NR	NR	6,000-8,000	ND	ND (SB)
Thallium	0.02-2.8	NR	NR	ND	ND (SB)
Vanadium	0.7-98	NR	1-300	25.6 - 33.8	150
Zinc	13-300	20-12,000	9-50	64.7J - 95.0J	95 (SB)

Notes:
(1) Data are reported from "Trace Elements in Soils and Plants", Kabata Pendias, Alina and Itenryk Pendias, CRC Press, Inc., Boca Raton, Florida, 1985.
(2) Data are reported for various types of surface soils in the United States.
(3) As reported in NYSDEC's TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision, dated October 1995.
(4) Range concentration for the background surface and subsurface soil samples collected at location BW-12.
(5) Average is 282 ppm; as reported in the article "The Chemistry and Phytotoxicty of Arsenic in Soils:
I. Contaminated Field Soils" by E.A. Woolson, J.H. Axley, and P.C. Kearney, 1971.
NR Not Reported.
ND Not Detected.
SB Site Background.
J Associated value is estimated.

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-662*	*SC-661*	*SC-663*	*SC-664*	*SC-665*
	Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-14 Duplicate*	*BH-16*	*BH-15*	*OW-8*	*BH-18*
	Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*12-14*	*0-2*	*2-4*	*2-4*	*0-2*
	Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Volatiles (µg/kg)											
Chloromethane	-	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
Chloroethane	1900	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
Methylene Chloride	100	6 J	13 UJ	3 J	7 J	11 UJ	25 J	12 UJ	54 UJ	13 UJ	7500 U
Acetone	200	12 U	13 UJ	12 U	12 U	11 UJ	57 UJ	12 U	190 UJ	33 UJ	7500 U
Carbon disulfide	2700	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	66	13 U	7500 U
1,1-Dichloroethane	200	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
1,2-Dichloroethene (total)	300	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
2-Butanone	300	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
Trichloroethene	700	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
Benzene	60	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	35 J	13 U	7500 U
4-Methyl-2-pentanone	1000	12 U	13 UJ	12 U	12 U	11 UJ	57 UJ	12 U	54 UJ	13 UJ	7500 U
Tetrachloroethene	1400	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	2300 J
Toluene	1500	12 U	13 UJ	12 U	12 U	11 U	57 U	23	230	13 U	110000 J
Ethylbenzene	5500	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	16 J	13 U	72000
Styrene	-	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	54 U	13 U	7500 U
Xylene (total)	1200	12 U	13 UJ	12 U	12 U	11 U	57 U	12 U	60	13 U	320000 U
Semi-Volatiles (µg/kg)											
Phenol	30 or MDL	400 U	430 U	390 U	630	380 U	380 U	8300	750 J	95000	8000 U
1,3-Dichlorobenzene	1600	400 U	430 U	390 U	410 U	380 U	220 J	2000 U	360 U	440 U	8000 U
1,4-Dichlorobenzene	8500	400 U	430 U	390 U	410 U	380 U	280 J	2000 U	360 U	440 U	6600 J
1,2-Dichlorobenzene	7900	400 U	430 U	390 U	410 U	380 U	200 J	2000 U	360 U	440 U	34000
2-Methylphenol	100 or MDL	400 U	430 U	390 U	140 J	380 U	380 U	1400 J	360 U	7900 J	8000 U
3&4-Methylphenol	900	400 U	430 U	390 U	280 J	380 U	380 U	6800	360 U	54000	8000 U
2,4-Dimethylphenol	-	400 U	430 U	390 U	290 J	380 U	380 U	8200	360 U	34000 J	8000 U
1,2,4-Trichlorobenzene	3400	400 U	430 U	390 U	410 U	30000 J	130000 J	2000 U	260 J	440 U	8000 U
Naphthalene	13000	400 U	430 U	390 U	46 J	380 U	380 U	2000 U	360 U	440 U	2100 J
2-Methylnaphthalene	36400	400 U	430 U	390 U	410 U	380 U	380 U	2000 U	360 U	370 J	8100
Acenaphthylene	41000	400 U	430 U	390 U	410 U	380 U	380 U	2000 U	360 U	440 U	8000 U
Acenaphthene	50000	400 U	430 U	390 U	410 U	380 U	380 U	2000 U	360 U	48 J	8000 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
	Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
	Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
	NYSDEC Cleanup Objective (1)										
Volatiles (µg/kg)											
Chloromethane	-	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	60000 J
Chloroethane	1900	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	9700 J
Methylene Chloride	100	12 UJ	13 UJ	11 UJ	12 UJ	28 J	150 J	3600 J	1400000 J	600000 UJ	4200 J
Acetone	200	130 J	52 UJ	15 J	65 J	11 UJ	65 UJ	12000 J	890000 UJ	890000 J	460000 J
Carbon disulfide	2700	12 U	13 U	11 UJ	67 J	11 UJ	65 UJ	6200 UJ	890000 UJ	650000 J	22000 UJ
1,1-Dichloroethane	200	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,2-Dichloroethene (total)	300	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
2-Butanone	300	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 J
Trichloroethene	700	12 U	13 U	11 U	12 U	11 U	65 U	670 J	5900000 J	600000 UJ	22000 UJ
Benzene	60	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
4-Methyl-2-pentanone	1000	12 UJ	13 UJ	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	6600000 J	22000 UJ
Tetrachloroethene	1400	12 U	13 U	11 U	12 U	11 U	32 J	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Toluene	1500	3 J	13 U	11 U	12 U	11 U	65 U	44000 J	8900000 J	540000 J	300000 J
Ethylbenzene	5500	12 U	13 U	11 U	12 U	11 U	65 U	21000 J	220000 J	600000 UJ	22000 UJ
Styrene	-	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	780000 J	600000 UJ	22000 UJ
Xylene (total)	1200	12 U	13 U	11 U	2 J	11 U	65 U	6200 UJ	890000 UJ	240000 J	22000 UJ
Semi-Volatiles (µg/kg)											
Phenol	30 or MDL	410 UJ	420 U	370 U	410 U	370 U	8700 U	8000	790000	2000000	2000000 J
1,3-Dichlorobenzene	1600	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
1,4-Dichlorobenzene	8500	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
1,2-Dichlorobenzene	7900	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Methylphenol	100 or MDL	410 UJ	420 U	370 U	410 U	370 U	8700 U	2600	120000 J	1200000	78000 J
3&4-Methylphenol	900	410 UJ	420 U	370 U	410 U	370 U	8700 U	8800	200000 U	7700	150000 J
2,4-Dimethylphenol	-	410 UJ	420 U	370 U	410 U	370 U	8700 U	6300	12000 J	470 J	57000 J
1,2,4-Trichlorobenzene	3400	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Naphthalene	13000	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Methylnaphthalene	36400	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Acenaphthylene	41000	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Acenaphthene	50000	410 UJ	420 U	370 U	410 U	370 U	8700 U	69 J	2000 U	2000 U	7200 UJ

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-678*	*SC-677*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
	Location:	*TP-R3 Duplicate*	*TP-R4*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22 Duplicate*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
	Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
	Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Volatiles (µg/kg)											
Chloromethane	-	53000 UJ	20000 UJ	13 UJ	13 UJ	13 UJ	13 UJ	11 UJ	30000 UJ	11 UJ	11 UJ
Chloroethane	1900	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Methylene Chloride	100	14000 J	3200 J	13 U	5 J	8 J	10 J	11 U	5300 J	7 J	11 U
Acetone	200	210000 J	64000 J	20 J	71 J	13 U	18 J	11 U	30000 UJ	11 U	11 U
Carbon disulfide	2700	53000 UJ	20000 UJ	13 UJ	13 UJ	13 UJ	13 UJ	11 UJ	30000 UJ	11 UJ	11 UJ
1,1-Dichloroethane	200	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,2-Dichloroethene (total)	300	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
2-Butanone	300	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Trichloroethene	700	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Benzene	60	53000 UJ	4600 J	6 J	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
4-Methyl-2-pentanone	1000	17000 J	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Tetrachloroethene	1400	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Toluene	1500	500000 J	160000 J	13 U	13 U	5 J	4 J	11 U	450000 J	2 J	11 U
Ethylbenzene	5500	53000 UJ	20000 UJ	33	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Styrene	-	53000 UJ	20000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Xylene (total)	1200	53000 UJ	20000 UJ	24	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Semi-Volatiles (µg/kg)											
Phenol	30 or MDL	61000 J	38000	2200	820	57000 J	33000 J	1400	390000 J	460	270 J
1,3-Dichlorobenzene	1600	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,4-Dichlorobenzene	8500	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,2-Dichlorobenzene	7900	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Methylphenol	100 or MDL	4500 J	6800	600	190 J	7900 J	4900	310 J	51000 J	170 J	94 J
3&4-Methylphenol	900	14000 UJ	8100 U	1600	430 U	21000 U	12000	1100	430000 J	730	370 U
2,4-Dimethylphenol	-	4500 J	3500	2500	150 J	17000 J	9800	450	63000 J	150 J	77 J
1,2,4-Trichlorobenzene	3400	710 UJ	520 U	420 U	430 U	90 J	440 U	370 U	810 UJ	370 U	370 U
Naphthalene	13000	710 UJ	520 U	140 J	430 U	680	490	370 U	810 UJ	370 U	370 U
2-Methylnaphthalene	36400	710 UJ	520 U	110 J	430 U	270 J	140 J	370 U	810 UJ	370 U	370 U
Acenaphthylene	41000	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Acenaphthene	50000	710 UJ	520 U	420 U	430 U	180 J	130 J	370 U	810 UJ	370 U	370 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
	Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3* *Duplicate*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile* *UST Area*
	Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Volatiles (µg/kg)											
Chloromethane	-	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
Chloroethane	1900	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Methylene Chloride	100	11 J	11 U	33 J	21 J	9 J	8 J	15 J	11 U	11 U	13 U
Acetone	200	11 J	22 J	12 U	11 U	11 U	8 J	11 U	11 U	11 U	13 U
Carbon disulfide	2700	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
1,1-Dichloroethane	200	11 U	4 J	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,2-Dichloroethene (total)	300	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
2-Butanone	300	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Trichloroethene	700	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Benzene	60	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	8 J
4-Methyl-2-pentanone	1000	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Tetrachloroethene	1400	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Toluene	1500	11 U	11 U	12 U	2 J	11 U	11 U	11 U	11 U	11 U	320 J
Ethylbenzene	5500	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Styrene	-	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Xylene (total)	1200	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Semi-Volatiles (µg/kg)											
Phenol	30 or MDL	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,3-Dichlorobenzene	1600	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,4-Dichlorobenzene	8500	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,2-Dichlorobenzene	7900	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Methylphenol	100 or MDL	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	110 J
3&4-Methylphenol	900	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	140 J	380 U	110 J
2,4-Dimethylphenol	-	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	79 J	380 U	420 U
1,2,4-Trichlorobenzene	3400	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Naphthalene	13000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Methylnaphthalene	36400	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Acenaphthylene	41000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Acenaphthene	50000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
	Location:	*OBW-2*	*OBW-2*	*OBW-2 Duplicate*	*BH-F7*
	Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)				
Volatiles (µg/kg)					
Chloromethane	-	12 UJ	11 UJ	11 UJ	13 U
Chloroethane	1900	12 U	11 U	11 U	13 U
Methylene Chloride	100	12 U	11 U	11 U	4 J
Acetone	200	12 U	22 J	11 U	39 J
Carbon disulfide	2700	12 UJ	11 UJ	11 UJ	13 UJ
1,1-Dichloroethane	200	12 U	11 U	11 U	13 U
1,2-Dichloroethene (total)	300	12 U	11 U	11 U	5 J
2-Butanone	300	12 U	11 U	11 U	7 J
Trichloroethene	700	12 U	11 U	11 U	11 J
Benzene	60	12 U	11 U	11 U	65
4-Methyl-2-pentanone	1000	12 U	11 U	11 U	13 U
Tetrachloroethene	1400	12 U	11 U	11 U	13 U
Toluene	1500	12 U	11 U	11 U	13 U
Ethylbenzene	5500	12 U	11 U	11 U	13 U
Styrene	-	12 U	11 U	11 U	13 U
Xylene (total)	1200	12 U	11 U	11 U	13 U
Semi-Volatiles (µg/kg)					
Phenol	30 or MDL	370 U	380 U	380 U	250 J
1,3-Dichlorobenzene	1600	370 U	380 U	380 U	420 U
1,4-Dichlorobenzene	8500	370 U	380 U	380 U	420 U
1,2-Dichlorobenzene	7900	370 U	380 U	380 U	420 U
2-Methylphenol	100 or MDL	370 U	380 U	380 U	70 J
3&4-Methylphenol	900	150 J	380 U	380 U	250 J
2,4-Dimethylphenol	-	110 J	380 U	380 U	250 J
1,2,4-Trichlorobenzene	3400	370 U	380 U	380 U	420 U
Naphthalene	13000	1000	380 U	380 U	420 U
2-Methylnaphthalene	36400	580	380 U	380 U	420 U
Acenaphthylene	41000	120 J	380 U	380 U	420 U
Acenaphthene	50000	1400	380 U	380 U	420 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-662*	*SC-661*	*SC-663*	*SC-664*	*SC-665*
	Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-14 Duplicate*	*BH-16*	*BH-15*	*OW-8*	*BH-18*
	Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*12-14*	*0-2*	*2-4*	*2-4*	*0-2*
	Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Semi-Volatiles (µg/kg) (cont.)											
Dibenzofuran	6200	400 U	430 U	390 U	410 U	380 U	380 U	2000 U	360 U	120 J	8000 U
Diethylphthalate	7100	400 U	430 U	390 U	410 U	380 U	380 U	2000 U	360 U	170 J	8000 U
Fluorene	50000	400 U	430 U	390 U	33 J	380 U	380 U	2000 U	360 U	440 U	8000 U
Hexachlorobenzene	410	400 U	430 U	390 U	410 U	260 J	580	2000 U	360 U	440 U	8000 U
Phenanthrene	50000	400 U	430 U	300 J	290 J	69 J	120 J	540 J	320 J	390 J	2200 J
Anthracene	50000	400 U	430 U	61 J	73 J	380 U	26 J	130 J	30 J	58 J	8000 U
Carbazole	-	400 U	430 U	42 J	35 J	380 U	380 U	2000 U	360 U	49 J	8000 U
Di-n-butylphthalate	8100	400 U	430 U	650	810	380 U	660 U	500000 U	700 U	440 U	8000 U
Fluoranthene	50000	400 U	34 J	510	390 J	92 J	160 J	2000 U	56 J	280 J	8000 U
Pyrene	50000	400 U	44 J	490	340 J	58 J	380 U	400 J	52 J	220 J	470 J
Butylbenzylphthalate	50000	400 U	430 U	58 J	410 U	380 U	380 U	2000 U	360 U	440 U	8000 U
Benzo [a] anthracene	224 or MDL	400 U	430 U	260 J	190 J	380 U	380 U	270 J	21 J	78 J	8000 U
Chrysene	400	400 U	430 U	320 J	180 J	33 J	69 J	260 J	32 J	83 J	8000 U
bis (2-Ethylhexyl) phthalate	50000	400 U	430 U	110 J	54 J	380 U	110 J	9200	240 J	160 J	1300 J
Di-n-octylphthalate	50000	400 U	430 U	390 U	410 U	20 J	380 U	1200 J	52 J	440 U	8000 U
Benzo [b] fluoranthene	224 or MDL	400 U	430 U	390 U	130 J	32 J	55 J	2000 U	360 U	57 J	8000 U
Benzo [k] fluoranthene	224 or MDL	400 U	430 U	240 J	150 J	26 J	51 J	2000 U	360 U	54 J	8000 U
Benzo [a] pyrene	61 or MDL	400 U	430 U	220 J	160 J	32 J	53 J	240 J	360 U	38 J	8000 U
Indeno [1,2,3-cd] pyrene	3200	400 U	430 U	120 J	97 J	380 U	30 J	160 J	360 U	440 U	8000 U
Dibenzo [a,h] anthracene	14 or MDL	400 U	430 U	43 J	21 J	380 U	380 U	2000 U	360 U	440 U	8000 U
Benzo [g,h,i] perylene	50000	400 U	430 U	390 U	63 J	380 U	23 J	2000 U	360 U	440 U	8000 U
Aniline	100	200 U	210 U	190 U	210 U	190 U	120 J	50000 J	240	220 U	4000 U
Alcohols (µg/kg)											
Methanol	-	12000 U	13000 U	13000 U	12000 U	11000 U	11000 U	12000 UJ	11000 U	13000 U	12000 U
Ethanol	-	12000 U	13000 U	13000 U	12000 U	11000 U	11000 U	12000 UJ	11000 U	13000 U	12000 U
PCBs (µg/kg)											
Aroclor 1248	10000	39 UJ	42 UJ	38 U	41 U	37000 UJ	37000 UJ	3900 UJ	72 UJ	44 UJ	5700 J
Aroclor 1254	10000	39 UJ	42 UJ	38 U	41 U	37000 UJ	37000 UJ	3900 UJ	72 UJ	44 UJ	40 U
Aroclor 1260	10000	39 UJ	42 UJ	38 U	41 U	300000 J	91000 J	3300 J	1400 J	44 UJ	4300 J

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
	Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
	Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
	NYSDEC Cleanup Objective (1)										
Semi-Volatiles (µg/kg) (cont.)											
Dibenzofuran	6200	410 UJ	420 U	370 U	410 U	370 U	8700 U	40 J	2000 U	2000 U	2500 J
Diethylphthalate	7100	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Fluorene	50000	410 UJ	81 J	370 U	410 U	370 U	8700 U	61 J	2000 U	2000 U	4600 J
Hexachlorobenzene	410	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Phenanthrene	50000	410 UJ	420 U	370 U	410 U	46 J	8700 U	830	2000 U	2000 U	39000 J
Anthracene	50000	410 UJ	420 U	370 U	410 U	370 U	8700 U	79 J	2000 U	2000 U	7200 UJ
Carbazole	-	410 UJ	420 U	370 U	410 U	370 U	8700 U	100 J	2000 U	2000 U	7200 UJ
Di-n-butylphthalate	8100	290 J	420 U	370 U	410 U	1000	8700 U	11000	200000 U	2000 U	5600000 J
Fluoranthene	50000	410 UJ	420 U	370 U	410 U	66 J	8700 U	970	2000 U	2000 U	7200 UJ
Pyrene	50000	410 UJ	420 U	370 U	410 U	53 J	8700 U	690	2000 U	2000 U	36000 J
Butylbenzylphthalate	50000	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Benzo [a] anthracene	224 or MDL	410 UJ	420 U	370 U	410 U	32 J	8700 U	360 J	2000 U	2000 U	15000 J
Chrysene	400	410 UJ	420 U	370 U	410 U	36 J	8700 U	520	2000 U	2000 U	7200 UJ
bis (2-Ethylhexyl) phthalate	50000	410 UJ	75 J	30 J	22 J	320 J	660 J	2900	3000	3700	6600000 J
Di-n-octylphthalate	50000	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	2800 J
Benzo [b] fluoranthene	224 or MDL	410 UJ	420 U	370 U	410 U	28 J	8700 U	360 J	2000 U	2000 U	6700 J
Benzo [k] fluoranthene	224 or MDL	410 UJ	420 U	370 U	410 U	28 J	8700 U	390 J	2000 U	2000 U	6400 J
Benzo [a] pyrene	61 or MDL	410 UJ	420 U	370 U	410 U	25 J	8700 U	300 J	2000 U	2000 U	6000 J
Indeno [1,2,3-cd] pyrene	3200	410 UJ	420 U	370 U	410 U	370 U	8700 U	210 J	2000 U	2000 U	2800 J
Dibenzo [a,h] anthracene	14 or MDL	410 UJ	420 U	370 U	410 U	370 U	8700 U	98 J	2000 U	2000 U	1100 J
Benzo [g,h,i] perylene	50000	410 UJ	420 U	370 U	410 U	370 U	8700 U	160 J	2000 U	2000 U	1800 J
Aniline	100	210 UJ	210 U	190 U	200 U	190 U	4300 U	3200 J	3100000	2000 U	7200 UJ
Alcohols (µg/kg)											
Methanol	-	13000 U	13000 U	11000 U	12000 U	12000 U	13000 U	12000 U	140000	160000	3100000 J
Ethanol	-	13000 U	13000 U	11000 U	12000 U	12000 U	13000 U	12000 U	83000	1300000	550000 J
PCBs (µg/kg)											
Aroclor 1248	10000	41 UJ	42 UJ	38 U	40 U	370 UJ	12000 J	2000 J	40 U	720 J	72 UJ
Aroclor 1254	10000	41 UJ	42 UJ	38 U	76	2800 J	210 UJ	80 UJ	40 U	40 U	72 UJ
Aroclor 1260	10000	110 J	23 J	38 U	40 U	370 UJ	210 UJ	80 UJ	40 U	40 U	72 UJ

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-678*	*SC-677*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
	Location:	*TP-R3 Duplicate*	*TP-R4*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22 Duplicate*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
	Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
	Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Semi-Volatiles (µg/kg) (cont.)											
Dibenzofuran	6200	710 UJ	520 U	420 U	430 U	59 J	51 J	370 U	810 UJ	370 U	370 U
Diethylphthalate	7100	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Fluorene	50000	710 UJ	520 U	420 U	430 U	150 J	110 J	370 U	810 UJ	370 U	370 U
Hexachlorobenzene	410	710 UJ	520 U	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Phenanthrene	50000	210 J	520 U	72 J	430 U	820	540	370 U	810 UJ	370 U	370 U
Anthracene	50000	38 J	520 U	420 U	430 U	200 J	110 J	370 U	810 UJ	370 U	370 U
Carbazole	-	710 UJ	520 U	420 U	430 U	64 J	65 J	370 U	810 UJ	370 U	370 U
Di-n-butylphthalate	8100	48000 J	40000	29000	2000	18000 J	9400	26000	440000 J	690	370 U
Fluoranthene	50000	170 J	520 U	54 J	430 U	1200 J	670 J	29 J	810 UJ	370 U	370 U
Pyrene	50000	160 J	520 U	45 J	430 U	930 J	490 J	23 J	810 UJ	370 U	370 U
Butylbenzylphthalate	50000	710 UJ	520 U	200 J	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Benzo [a] anthracene	224 or MDL	61 J	520 U	420 U	430 U	450	210 J	370 U	810 UJ	370 U	370 U
Chrysene	400	75 J	520 U	420 U	430 U	780	350 J	370 U	810 UJ	370 U	370 U
bis (2-Ethylhexyl) phthalate	50000	43000 J	660 U	2200	2200	1300	2100	11000	290000 J	810	370 U
Di-n-octylphthalate	50000	75 J	520 U	420 U	29 J	420 U	440 U	110 J	810 UJ	23 J	370 U
Benzo [b] fluoranthene	224 or MDL	710 UJ	520 U	420 U	430 U	590	250 J	370 U	810 UJ	370 U	370 U
Benzo [k] fluoranthene	224 or MDL	710 UJ	520 U	420 U	430 U	490	200 J	370 U	810 UJ	370 U	370 U
Benzo [a] pyrene	61 or MDL	61 J	520 U	420 U	430 U	270 J	140 J	370 U	810 UJ	370 U	370 U
Indeno [1,2,3-cd] pyrene	3200	710 UJ	520 U	420 U	430 U	250 J	110 J	370 U	810 UJ	370 U	370 U
Dibenzo [a,h] anthracene	14 or MDL	710 UJ	520 U	420 U	430 U	91 J	49 J	370 U	810 UJ	370 U	370 U
Benzo [g,h,i] perylene	50000	72 J	520 U	420 U	430 U	160 J	73 J	370 U	810 UJ	370 U	370 U
Aniline	100	21000 J	39000 J	1500 J	430 U	520 UJ	2800 J	370 UJ	810 UJ	370 U	740 UJ
Alcohols (µg/kg)											
Methanol	-	3300000 J	130000	12000 U	12000 U	13000 U	13000 U	11000 UJ	24000 UJ	11000 U	11000 U
Ethanol	-	600000 J	44000	12000 U	12000 U	13000 U	13000 U	11000 UJ	24000 UJ	11000 U	11000 U
PCBs (µg/kg)											
Aroclor 1248	10000	70 UJ	260 UJ	650 J	43 UJ	5400 J	4400 J	41000	80 UJ	37 U	37 UJ
Aroclor 1254	10000	70 UJ	260 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ
Aroclor 1260	10000	70 UJ	260 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
	Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3 Duplicate*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
	Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Semi-Volatiles (µg/kg) (cont.)											
Dibenzofuran	6200	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Diethylphthalate	7100	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Fluorene	50000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Hexachlorobenzene	410	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Phenanthrene	50000	370 UJ	370 U	92 J	370 U	370 U	370 U	370 U	110 J	380 U	420 U
Anthracene	50000	370 UJ	370 U	25 J	370 U	370 U	370 U	370 U	28 J	380 U	420 U
Carbazole	-	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Di-n-butylphthalate	8100	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	200 J	22 J	85 J
Fluoranthene	50000	370 UJ	370 U	130 J	370 U	370 U	370 U	370 U	120 J	380 U	420 U
Pyrene	50000	370 UJ	370 U	110 J	370 U	370 U	370 U	370 U	89 J	380 U	420 U
Butylbenzylphthalate	50000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [a] anthracene	224 or MDL	370 UJ	370 U	73 J	370 U	370 U	370 U	370 U	52 J	380 U	420 U
Chrysene	400	370 UJ	370 U	78 J	370 U	370 U	370 U	370 U	44 J	380 U	420 U
bis (2-Ethylhexyl) phthalate	50000	150 J	140 J	90 J	27 J	43 J	26 J	48 J	21 J	380 U	32 J
Di-n-octylphthalate	50000	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [b] fluoranthene	224 or MDL	370 UJ	370 U	69 J	370 U	370 U	370 U	370 U	50 J	380 U	420 U
Benzo [k] fluoranthene	224 or MDL	370 UJ	370 U	80 J	370 U	370 U	370 U	370 U	38 J	380 U	420 U
Benzo [a] pyrene	61 or MDL	370 UJ	370 U	62 J	370 U	370 U	370 U	370 U	41 J	380 U	420 U
Indeno [1,2,3-cd] pyrene	3200	370 UJ	370 U	49 J	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Dibenzo [a,h] anthracene	14 or MDL	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [g,h,i] perylene	50000	370 UJ	370 U	60 J	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Aniline	100	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	180 U	190 U	210 U
Alcohols (µg/kg)											
Methanol	-	11000 U	11000 U	11000 U	11000 U	11000 U	12000 U	11000 U	11000 U	11000 U	13000 U
Ethanol	-	11000 U	11000 U	11000 U	11000 U	11000 U	12000 U	11000 U	11000 U	11000 U	13000 U
PCBs (µg/kg)											
Aroclor 1248	10000	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1254	10000	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1260	10000	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
	Location:	*OBW-2*	*OBW-2*	*OBW-2* *Duplicate*	*BH-F7*
	Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)				
Semi-Volatiles (µg/kg) (cont.)					
Dibenzofuran	6200	920	380 U	380 U	420 U
Diethylphthalate	7100	370 U	380 U	380 U	420 U
Fluorene	50000	1500	380 U	380 U	420 U
Hexachlorobenzene	410	370 U	380 U	380 U	420 U
Phenanthrene	50000	8100	33 J	380 U	420 U
Anthracene	50000	2200	380 U	380 U	420 U
Carbazole	-	2300	380 U	380 U	420 U
Di-n-butylphthalate	8100	560	380 U	100 J	280 J
Fluoranthene	50000	7800	31 J	380 U	420 U
Pyrene	50000	6200 J	37 J	380 U	420 U
Butylbenzylphthalate	50000	370 U	380 U	380 U	420 U
Benzo [a] anthracene	224 or MDL	3900	380 U	380 U	420 U
Chrysene	400	2800	380 U	380 U	420 U
bis (2-Ethylhexyl) phthalate	50000	370 U	27 J	34 J	420 U
Di-n-octylphthalate	50000	370 U	380 U	380 U	420 U
Benzo [b] fluoranthene	224 or MDL	3900	380 U	380 U	420 U
Benzo [k] fluoranthene	224 or MDL	1400	380 U	380 U	420 U
Benzo [a] pyrene	61 or MDL	2500	380 U	380 U	420 U
Indeno [1,2,3-cd] pyrene	3200	1500	380 U	380 U	420 U
Dibenzo [a,h] anthracene	14 or MDL	980	380 U	380 U	420 U
Benzo [g,h,i] perylene	50000	910	380 U	380 U	420 U
Aniline	100	180 U	190 U	190 U	210 U
Alcohols (µg/kg)					
Methanol	-	13000 U	11000 U	11000 U	12000 U
Ethanol	-	13000 U	11000 U	11000 U	12000 U
PCBs (µg/kg)					
Aroclor 1248	10000	37 UJ	37 UJ	37 UJ	5100 J
Aroclor 1254	10000	37 UJ	37 UJ	37 UJ	42 UJ
Aroclor 1260	10000	37 UJ	37 UJ	37 UJ	42 UJ

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-662*	*SC-661*	*SC-663*	*SC-664*	*SC-665*
	Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-14 Duplicate*	*BH-16*	*BH-15*	*OW-8*	*BH-18*
	Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*12-14*	*0-2*	*2-4*	*2-4*	*0-2*
	Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Metals (mg/kg)											
Aluminum	SB (16200)	12500	16200	9670	13300	7770	7730	2170	1030	19800	8510
Antimony	SB (1.0)	0.46 UJ	1.0 J	0.45 UJ	1.4 J	0.43 UJ	0.43 UJ	142 J	0.40 UJ	0.50 UJ	0.45 UJ
Arsenic	SB (4.9)	2.8 J	4.9 J	13.2 J	5.1 J	4.2 J	3.5 J	17.9 J	2.3 J	7.1 J	5.0 J
Barium	300	110	131	108	71.1	41.3	32.5	66.7	16.9	156	96.1
Beryllium	SB (0.89)	0.61	0.89	1.6	0.68 U	0.38 U	0.35 U	0.37 U	0.21 U	1.3 U	1.4
Calcium	SB (73800)	73800	2810 U	28600	13300	63800	73700	48900	177000	7300	106000
Chromium	50	17.8	21.1	10.1	16.0	11.8	11.5	7.4	11.1	26.9	9.2
Cobalt	30	10.8	10.8	11.7	7.6	7.4	5.5	5.0	1.4	14.7	1.4
Copper	25	20.4	20.4	42.3	22.5	20.1	16.5	45.0	49.5	34.8	22.1
Iron	SB (26100)	21800	26100	18100	20100	15700	14000	29800	7090	35500	11500
Lead	200 - 500	9.9	30.7	64.4	21.9	14.9	10.8	18.0	14.9	19.8	47.8
Magnesium	SB (16800)	16800	4730	5420	5790	20600	28900	1610	16100	8360	25200
Manganese	SB (657)	558	657	1090	253	507	476	67.4 U	135	284	749
Mercury	0.1	0.12 U	0.13 U	0.67 J	0.19 J	0.12 U	0.12 U	0.53 J	0.11 U	0.14 U	0.13 U
Nickel	SB (24.8)	24.1	24.8	17.9	18.8	14.2	14.7	11.1	6.5	42.0	6.2
Potassium	SB (2060)	2060	1620	1100	1190	1730	1660	236	401	1900	408
Selenium	2	0.46 UJ	0.50 UJ	0.72 J	0.47 UJ	0.43 UJ	0.43 UJ	0.45 J	0.40 UJ	0.50 UJ	2.3 J
Silver	SB (ND)	0.47 U	0.49 U	0.45 U	0.46 U	0.43 U	0.43 U	0.60	0.42 U	0.50 U	0.47 U
Sodium	SB (ND)	192 U	100 U	263 U	98.0 U	181 U	192 U	86.4 U	148 U	179 U	582 J
Thallium	SB (ND)	0.23 U	0.25 U	0.75	0.23 U	0.22 U	0.22 U	0.22 U	0.20 U	0.25 U	0.23 U
Vanadium	150	25.6	33.8	17.2	26.2	17.6	15.9	10.6	3.8	37.8	3.9
Zinc	SB (95)	64.7 J	95.0 J	376 J	258 J	96.9 J	116 J	123 J	63.6 J	120 J	213 J
General Chemistry											
Total Phenols (mg/kg)	-	5.9 U	6.4 U	5.8 U	6.2 U	5.7 U	5.7 U	59	5.4 U	270	12
Formaldehyde (mg/kg)	-	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.2 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
	Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
	Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
	NYSDEC Cleanup Objective (1)										
Metals (mg/kg)											
Aluminum	SB (16200)	17600	15200	7740	14500	14100	5760	10700 J	1970 J	162 J	98.8 J
Antimony	SB (1.0)	0.47 UJ	0.50 UJ	0.42 UJ	0.48 UJ	0.44 UJ	0.51 UJ	0.24 U	0.25	0.24 U	0.43 UJ
Arsenic	SB (4.9)	4.2 J	3.3 J	2.1 J	4.1 J	4.5 J	94.9 J	2.9 J	1.6 J	0.48 UJ	4.3 UJ
Barium	300	125	137	80.5	127	61.0	140	93.8	23.5	4.0	1.8 UJ
Beryllium	SB (0.89)	0.97 U	0.75 U	0.38 U	0.77 U	0.75 U	0.46 U	0.50 U	0.24 U	0.24 U	0.43 UJ
Calcium	SB (73800)	46700	68300	57700	47300	20600	970 U	63300 J	3660 J	360 U	638 UJ
Chromium	50	23.7	21.0	11.5	23.1	18.2	11.6	15.3	15.4	0.67	0.86 UJ
Cobalt	30	14.5	10.3	5.8	10.4	17.4	4.2	8.7	2.2	0.48 U	0.86 UJ
Copper	25	23.6	22.6	15.0	18.4	19.8	53.9	35.0	285	10.9	1.9 UJ
Iron	SB (26100)	28100	24600	14500	24500	24700	45400	18900 J	4490 J	338 J	350 J
Lead	200 - 500	11.2	10.0	9.4	9.0	25.8	7.0	22.7 J	69.9	1.6	0.43 UJ
Magnesium	SB (16800)	11800	20700	18500	14500	8990	2010	18100	1200	149	244 J
Manganese	SB (657)	855	592	483	477	608	55.3	681 J	104 J	6.6 U	6.4 UJ
Mercury	0.1	0.13 U	0.13 U	0.12 U	0.13 U	0.12 U	0.14 U	0.13 U	0.13 U	0.36	0.37 J
Nickel	SB (24.8)	34.8	25.8	14.1	26.6	18.0	10.7	19.7	5.2 U	1.9 U	3.5 UJ
Potassium	SB (2060)	2510	3240	1690	2960	1250	1600	1400	240 U	181 U	324 UJ
Selenium	2	0.47 UJ	0.50 UJ	0.42 UJ	0.48 UJ	0.44 UJ	4.0 J	0.24 UJ	0.24 UJ	0.24 UJ	0.43 UJ
Silver	SB (ND)	0.48 U	0.49 U	0.42 U	0.76	0.42 U	1.3	0.49 U	0.48 U	0.48 U	0.86 UJ
Sodium	SB (ND)	172 U	278 U	173 U	1670 J	119 U	113 U	143 U	29.9 U	32.2 U	470 J
Thallium	SB (ND)	0.23 U	0.25 U	0.21 U	0.24 U	0.22 U	1.3	0.24 U	0.24 U	0.24 U	0.43 UJ
Vanadium	150	32.8	30.4	16.6	30.2	27.6	20.0	19.3	4.2	0.72 U	1.3 UJ
Zinc	SB (95)	210 J	71.1 J	81.8 J	70.6 J	2180 J	386 J	262 J	117 J	39.7 J	9.5 UJ
General Chemistry											
Total Phenols (mg/kg)	-	6.2 U	6.3 U	5.6 U	6.1 U	5.5 U	8.1	22	58000	11000	120 J
Formaldehyde (mg/kg)	-	1.3 U	1.3 U	1.1 U	2.0	1.2 U	1.3 U	1.2 U	1.4 U	1.1 U	6600 J

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

Sample ID:		*SC-678*	*SC-677*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:		*TP-R3 Duplicate*	*TP-R4*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22 Duplicate*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):		-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:		*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Metals (mg/kg)											
Aluminum	SB (16200)	197 J	9480 J	14800 J	25200 J	11800 J	16000 J	12100 J	2650 J	10100 J	8780 J
Antimony	SB (1.0)	0.57 J	1.4 J	1.5 J	0.29 J	0.25 U	0.41 J	0.22 U	0.48 UJ	0.22 U	0.24 U
Arsenic	SB (4.9)	0.84 UJ	4.0 J	11.5 J	3.1 J	5.9 J	4.1 J	3.5 J	2.1 J	4.4 J	1.4 J
Barium	300	2.9 UJ	93.4	154	107	97.1	136	99.7	53.2 J	97.9	76.1
Beryllium	SB (0.89)	0.42 UJ	0.44 U	0.81 U	1.2 U	0.66 U	0.96 U	0.60 U	0.48 UJ	0.44 U	0.33 U
Calcium	SB (73800)	1140 UJ	65800 J	83500 J	2800 J	53300 J	54700 J	53800 J	6850 J	65400 J	82400 J
Chromium	50	0.84 UJ	21.9	24.0	26.4	15.5	23.3	17.4	92.4 J	14.5	12.5
Cobalt	30	0.84 UJ	10.3	10.4	31.4	10.1	11.6	9.6	7.3 J	7.8	8.4
Copper	25	2.5 UJ	25.5	41.6	7.9	27.4	36.7	25.5	5.0 J	19.4	16.8
Iron	SB (26100)	630 J	17200 J	24600 J	47400 J	21100 J	28700 J	21000 J	3280 J	18500 J	16300 J
Lead	200 - 500	0.94 J	14.8 J	27.9	26.3	22.2 J	50.6 J	39.4	4.2 J	14.8 J	9.7 J
Magnesium	SB (16800)	444 J	22700	30700	6300	14700	15500	15800	21900 J	19600	20800
Manganese	SB (657)	12.3 UJ	599 J	631 J	2190 J	753 J	652 J	537 J	80.5 J	554 J	607 J
Mercury	0.1	0.22 UJ	0.17	0.13 U	0.21	0.13 U	0.14 U	0.11 U	0.25 UJ	0.12 U	0.12 U
Nickel	SB (24.8)	3.4 UJ	40.1	29.0	26.1	23.0	28.8	22.4	206 J	17.0	15.2
Potassium	SB (2060)	316 UJ	1360 U	2440	2250	2060	2700	2280	362 UJ	2590	2320
Selenium	2	0.42 UJ	0.31 UJ	0.25 UJ	0.56 J	0.25 UJ	0.26 UJ	0.22 UJ	0.48 UJ	0.22 UJ	0.22 UJ
Silver	SB (ND)	0.84 UJ	0.63 U	0.50 U	0.52 U	0.51 U	0.52 U	0.44 U	0.97 UJ	0.45 U	0.45 U
Sodium	SB (ND)	693 J	204 U	246	132 U	321	428	178 U	255 UJ	199	195
Thallium	SB (ND)	0.45 J	0.31 U	0.38	0.26 U	0.27 J	0.32 J	0.22 U	0.67 J	0.22 U	0.22 U
Vanadium	150	1.3 UJ	18.0	28.8	41.8	22.2	32.6	24.9	5.3 J	22.1	19.9
Zinc	SB (95)	11.6 UJ	119 J	387 J	79.8 J	254 J	345 J	1160 J	617 J	80.5 J	85.3 J
General Chemistry											
Total Phenols (mg/kg)	-	130 J	610	6.3 U	8.9	58 J	120 J	5.5 U	1570 J	5.6 U	5.6 U
Formaldehyde (mg/kg)	-	7200 J	1.8 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	2.4 UJ	1.1 U	1.1 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

Sample ID:		*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:		*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3 Duplicate*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):		*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:		*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)										
Metals (mg/kg)											
Aluminum	SB (16200)	10600 J	11600 J	7720 J	12400 J	7290 J	8600 J	10600 J	9590	6460	15200
Antimony	SB (1.0)	0.22 U	0.22 U	0.44 U	0.23 U	0.23 U	0.23 U	0.23 U	0.22 UJ	0.73 U	0.53
Arsenic	SB (4.9)	3.6 J	2.6 J	3.0 J	2.7 J	2.0 J	3.2 J	1.1 J	3.6 J	1.9 J	3.3 J
Barium	300	131	86.6	101	152 J	76.0 J	108	89.7	81.8	50.5	135
Beryllium	SB (0.89)	0.45 U	0.48 U	0.33 U	0.49 U	0.30 U	0.34 U	0.49 U	0.38	0.26	0.69
Calcium	SB (73800)	67000 J	75500 J	69300 J	96700 J	64800 J	75100 J	67800 J	53700	51100	44200
Chromium	50	14.1	15.9	14.5	17.8	11.0	12.4	15.9	13.2	9.8	21.0
Cobalt	30	8.8	8.6	6.4	19.0 J	6.6 J	8.0	10.1	7.8	5.2	11.7
Copper	25	18.3	19.3	57.5	26.6 J	15.2 J	18.8	17.5	20.9	11.4	25.0
Iron	SB (26100)	18900 J	20400 J	15800 J	24400 J	14600 J	16800 J	19200 J	16600	12000	24900
Lead	200 - 500	11.5 J	11.1 J	34.3	12.0 J	5.7 J	8.3	8.0	27.1	9.6	21.1
Magnesium	SB (16800)	19000	21800	20800	27300	21700	21800	19400	15700	15200	13700
Manganese	SB (657)	589 J	638 J	549 J	1220 J	472 J	614 J	599 J	532	399	523
Mercury	0.1	0.12 U	0.12 U	0.30	0.12 U	0.12 U	0.12 U	0.12 U	0.11 UJ	0.12 UJ	0.13 UJ
Nickel	SB (24.8)	17.9	18.4	15.6	24.8 J	11.7 J	17.8	18.4	15.1	11.7	27.7
Potassium	SB (2060)	2600	3070	1660	2980	1820	1600	2590	1840	1610	2880
Selenium	2	0.22 UJ	0.22 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.22 UJ	0.23 UJ	0.25 UJ
Silver	SB (ND)	3.45 U	0.45 U	0.46 U	0.45 U	0.45 U	0.45 U	0.45 U	0.44 U	0.46 U	0.50 U
Sodium	SB (ND)	197	214	175 U	238	149 U	152 U	190 U	154	150	501
Thallium	SB (ND)	0.28 J	0.22 U	0.25	0.23 U	0.23 U	0.23 U	0.23 U	0.32 UJ	0.28 UJ	0.35 UJ
Vanadium	150	23.1	25.4	17.0	28.0 J	16.4 J	17.6	23.5	20.1	14.2	29.4
Zinc	SB (95)	75.1 J	88.9 J	544 J	134 J	91.5 J	80.1 J	84.7 J	101 J	49.8 J	86.1 J
General Chemistry											
Total Phenols (mg/kg)	-	5.6 U	5.6 U	5.8 U	5.6 U	5.6 U	5.6 U	5.6 U	5.5 U	5.7 U	6.3 U
Formaldehyde (mg/kg)	-	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U

TABLE 6.2
PHASE I SOIL/WASTE SAMPLES - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
	Location:	*OBW-2*	*OBW-2*	*OBW-2 Duplicate*	*BH-F7*
	Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
	Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
	NYSDEC Cleanup Objective (1)				
Metals (mg/kg)					
Aluminum	SB (16200)	13800	7100	5890	10900
Antimony	SB (1.0)	0.70	0.23 UJ	0.23 U	0.25 U
Arsenic	SB (4.9)	3.7 J	6.2 J	5.8 J	6.9 J
Barium	300	111	78.9	74.9	123
Beryllium	SB (0.89)	0.63	0.29	0.23 U	0.43
Calcium	SB (73800)	13700	59700	73800	55700
Chromium	50	19.5	9.7	8.6	16.0
Cobalt	30	9.1	7.7	5.7	10.8
Copper	25	37.7	13.9	15.5	20.8 J
Iron	SB (26100)	23100	14900	11400	21900
Lead	200 - 500	27.4	11.4	9.7	18.0 J
Magnesium	SB (16800)	8640	18600	26600	16400
Manganese	SB (657)	585	518	513	920
Mercury	0.1	0.31 J	0.12 UJ	0.12 UJ	0.12 U
Nickel	SB (24.8)	20.5	13.7	11.7	21.6
Potassium	SB (2060)	1520	1370	1210	2080
Selenium	2	0.23 UJ	0.23 UJ	0.23 UJ	0.56 J
Silver	SB (ND)	0.45 U	0.45 U	0.46 U	0.52
Sodium	SB (ND)	98.4	152	171	204
Thallium	SB (ND)	0.23 UJ	0.23 UJ	0.23 UJ	0.25 U
Vanadium	150	28.1	13.6	12.5	21.5
Zinc	SB (95)	246 J	61.5 J	64.5 J	101 J
General Chemistry					
Total Phenols (mg/kg)	-	5.9 U	5.7 U	5.7 U	-
Formaldehyde (mg/kg)	-	1.2 U	1.1 U	1.1 U	1.2 U

Notes:

(1) NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.

-	Not Available
J	Associated value is estimated.
MDL	Method Detection Limit
ND	Not Detected
SB	Site Background
U	Non-detect at associated value.
☐	Exceeds Soil Cleanup Objective

TABLE 6.3

PHASE I WASTE CHARACTERIZATION - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-672*	*SC-674*	*SC-675*	*SC-676*	*SC-678* *(Dup. of SC-676)*	*SC-677*	*SC-679*	*SC-684*
	Location:	*TP-R1 & TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*	*TP-R3*	*TP-R4*	*TP-R3 & TP-R4*	*TP-L1 & TP-L2*
	Depth (feet):	*0-7.5*	*-*	*-*	*-*	*-*	*-*	*0-4.5*	*0-2*
	Matrix:	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Soil*	*Bagged Waste*
	Regulatory Limit								
TCLP Volatiles (mg/L)									
Trichloroethene	0.5	0.050 U	33	0.053 J	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Benzene	0.5	0.050 U	1.000 U	0.085 J	0.050 U	0.018 J	0.029 J	0.050 U	0.050 U
2-Butanone	200	0.100 U	0.530 J	0.160 J	0.062 J	0.120 J	0.060 J	0.100 U	0.100 U
Tetrachloroethene	0.7	0.050 U	0.220 J	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
TCLP Semi-Volatiles (mg/L)									
2-Methylphenol	200	0.13	19 J	19	0.02 J	0.05	1.10	0.02 U	0.12 J
3&4-Methylphenol	200	0.15	25 J	0.40 J	0.14	0.15	0.94	0.02 U	0.73 J
TCLP Metals (mg/L)									
Barium	100	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.3
Wet Chemistry									
Reactive Cyanide (mg/kg)	-	0.31 UJ	0.30 UJ	0.30 UJ	0.54 UJ	0.53 UJ	0.39 UJ	0.31 UJ	R
Flashpoint (°F)	<140°F	>160	120	>160	>160	>160	>160	>160	>160
pH (S.U.)	-	8.47	7.97	8.27	7.22	7.71	7.93	8.09	9.43

TABLE 6.3

PHASE I WASTE CHARACTERIZATION - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - MAY 1995

	Sample ID:	*SC-710*	*1A*	*1B*
	Location:	*OW1,OW3,OW4, OBW2, BH24, BH25*	*TP-U5*	*TP-U5*
	Depth (feet):	*0-14*	*6*	*12*
	Matrix:	*Soil*	*Soil*	*Soil*
	Regulatory Limit			
TCLP Volatiles (mg/L)				
Trichloroethene	0.5	0.050 U	0.050 U	0.050 U
Benzene	0.5	0.050 U	$\boxed{7.6}$	$\boxed{0.5}$
2-Butanone	200	0.100 UJ	0.100 U	0.100 U
Tetrachloroethene	0.7	0.050 U	0.050 U	0.050 U
TCLP Semi-Volatiles (mg/L)				
2-Methylphenol	200	0.02 U	-	-
3&4-Methylphenol	200	0.02 U	-	-
TCLP Metals (mg/L)				
Barium	100	1.2	-	-
Wet Chemistry				
Reactive Cyanide (mg/kg)	-	0.51	-	-
Flashpoint (°F)	<140°F	>160	-	-
pH (S.U.)	-	8.46	-	-

Notes:

-	Not analyzed.
J	Associated value is estimated.
R	Rejected.
S.U.	Standard Units.
TCLP	Toxicity Characteristic Leaching Procedure.
U	Non-detect at associated values.
☐	Exceeds Regulatory Limit.

TABLE 6.4

PHASE I GROUNDWATER DATA FROM RESIN DRUM LANDFILL
RCRA FACILIT INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID:		*SC-673*
Location:		*TP-R2*
Depth (feet):		*5.0*
Matrix:		*Groundwater*
	NYS Groundwater Standard (1)	
Volatiles (μg/L)		
Chloromethane		10000 U
Bromomethane		10000 U
Vinyl chloride		10000 U
Chloroethane		10000 U
Methylene Chloride		58000 U
Acetone	50*	45000 J
Carbon disulfide		10000 U
1,1-Dichloroethene		10000 U
1,1-Dichloroethane		10000 U
1,2-Dichloroethene (total)		10000 U
Chloroform		10000 U
1,2-Dichloroethane		10000 U
2-Butanone		10000 U
1,1,1-Trichloroethane		10000 U
Carbon tetrachloride		10000 U
Bromodichloromethane		10000 U
1,2-Dichloropropane		10000 U
cis-1,3-Dichloropropene		10000 U
Trichloroethene		14000 U
Dibromochloromethane		10000 U
1,1,2-Trichloroethane		10000 U
Benzene		10000 U
trans-1,3-Dichloropropene		10000 U
Bromoform		10000 U
4-Methyl-2-pentanone		10000 U
2-Hexanone		10000 UJ
Tetrachloroethene		10000 U
1,1,2,2-Tetrachloroethane	5	1000 J
Toluene	5	140000
Chlorobenzene		10000 U
Ethylbenzene	5	2500 J
Styrene		10000 U
Xylene (total)		10000 U

TABLE 6.4

PHASE I GROUNDWATER DATA FROM RESIN DRUM LANDFILL
RCRA FACILIT INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

	Sample ID:	*SC-673*
	Location:	*TP-R2*
	Depth (feet):	*5.0*
	Matrix:	*Groundwater*
	NYS Groundwater Standard $^{(1)}$	
Semi-Volatiles (µg/L)		
Phenol	1	390000
bis-(2-Chloroethyl) ether		2500 U
2-Chlorophenol		2500 U
1,3-Dichlorobenzene		2500 U
1,4-Dichlorobenzene		2500 U
1,2-Dichlorobenzene		2500 U
2-Methylphenol	NA	180000
2,2'-oxybis (1-Chloropropane)		2500 U
3&4-Methylphenol	NA	240000
N-Nitroso-di-n-propylamine		2500 U
Hexachloroethane		2500 U
Nitrobenzene		2500 U
Isophorone		2500 U
2-Nitrophenol		2500 U
2,4-Dimethylphenol	NA	5100 J
bis (2-Chloroethoxy) methane		2500 U
2,4-Dichlorophenol		2500 U
1,2,4-Trichlorobenzene		2500 U
Naphthalene		2500 U
4-Chloroaniline		2500 U
Hexachlorobutadiene		2500 U
4-Chloro-3-methylphenol		2500 U
2-Methylnaphthalene		2500 U
Hexachlorocyclopentadiene		2500 UJ
2,4,6-Trichlorophenol		2500 U
2,4,5-Trichlorophenol		6300 U
2-Chloronaphthalene		2500 U
2-Nitroaniline		6300 U
Dimethylphthalate		2500 U
Acenaphthylene		2500 U
2,6-Dinitrotoluene		2500 U
3-Nitroaniline		6300 U
Acenaphthene		2500 U

TABLE 6.4

PHASE I GROUNDWATER DATA FROM RESIN DRUM LANDFILL
RCRA FACILIT INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

	Sample ID:	*SC-673*
	Location:	*TP-R2*
	Depth (feet):	*5.0*
	Matrix:	*Groundwater*
	NYS Groundwater Standard [(1)]	
Semi-Volatiles (µg/L)		
2,4-Dinitrophenol		6300 U
4-Nitrophenol		6300 U
Dibenzofuran		2500 U
2,4-Dinitrotoluene		2500 U
Diethylphthalate		2500 U
4-Chlorophenyl-phenylether		2500 U
Fluorene		2500 U
4-Nitroaniline		6300 U
4,6-Dinitro-2-methylphenol		6300 U
n-Nitrosodiphenylamine		2500 U
4-Bromophenyl-phenylether		2500 U
Hexachlorobenzene		2500 U
Pentachlorophenol		2500 U
Phenanthrene		2500 U
Anthracene		2500 U
Carbazole		2500 U
Di-n-butylphthalate	NA	570 J
Fluoranthene		2500 U
Pyrene		2500 U
Butylbenzylphthalate		2500 U
3,3'-Dichlorobenzidine		2500 U
Benzo [a] anthracene		2500 U
Chrysene		2500 U
bis (2-Ethylhexyl) phthalate		2500 U
Di-n-octylphthalate		2500 U
Benzo [b] fluoranthene		2500 U
Benzo [k] fluoranthene		2500 U
Benzo [a] pyrene		2500 U
Indeno [1,2,3-cd] pyrene		2500 U
Dibenz [a,h] anthracene		2500 U
Benzo [g,h,i] perylene		2500 U
Aniline	5	370000

TABLE 6.4

PHASE I GROUNDWATER DATA FROM RESIN DRUM LANDFILL
RCRA FACILIT INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID:		*SC-673*
Location:		*TP-R2*
Depth (feet):		*5.0*
Matrix:		*Groundwater*
	NYS Groundwater Standard (1)	
Alcohols (µg/L)		
Methanol	NA	550000
Ethanol	NA	200000
PCBs (µg/L)		
Aroclor 1016		500 UJ
Aroclor 1221		1000 UJ
Aroclor 1232		500 UJ
Aroclor 1242		500 UJ
Aroclor 1248		500 UJ
Aroclor 1254		500 UJ
Aroclor 1260		500 UJ
Metals (µg/L)		
Aluminum	NA	5920
Antimony	3*	5.1 J
Arsenic	25	16.5
Barium	1000	967
Beryllium	10	3.0 U
Cadmium	NA	7.5
Calcium	-	1110000
Chromium	50	14.1
Cobalt	NA	46.7
Copper	200	226
Iron	300	109000
Lead	25	99.6
Magnesium	35000	175000
Manganese	300	10100
Mercury		0.21 U
Nickel	NA	76.7
Potassium	NA	8750
Selenium		1.0 UJ
Silver	50	3.2
Sodium	20000	20900
Thallium		1.0 U
Vanadium	NA	19.0
Zinc	300	5720

TABLE 6.4

PHASE I GROUNDWATER DATA FROM RESIN DRUM LANDFILL
RCRA FACILIT INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL - JUNE 1995

Sample ID:		*SC-673*
Location:		*TP-R2*
Depth (feet):		*5.0*
Matrix:		*Groundwater*
	NYS Groundwater Standard (1)	
General Chemistry (mg/L)		
Phenols		1000
Formaldehyde		0.05 U

Notes:

(1) Groundwater standards or guidance values for detected compounds only as identified in NYSDEC TOGS 1.1.1, Ambient Water Quality Standards and Guidance Values, dated October 27, 1993.

*	Guidance value.
J	Associated value is estimated.
NA	Not Available.
PCBs	Polychlorinated Biphenyls
U	Non-detect.

TABLE 6.5
PHASE II SSPL-B1 SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		*BH-62*	*BH-62*	*BH-62*	*BH-63*	*BH-63*	*BH-64*	*BH-64*	*BH-65*
Depth:		*0 - 2"*	*6 - 6.5'*	*9 - 10'*	*0 - 2"*	*4'*	*0 - 2"*	*4.5'*	*0 - 2"*
Sample ID:		*SC-934*	*SC-936*	*SC-935*	*SC-937*	*SC-938*	*SC-939*	*SC-940*	*SC-941*
Collection Date:		*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*
	YSDEC Cleanup Objective (1)								
SSPL Semi-Volatiles (μg/Kg)									
Aniline	100	1400 U	1600 U	1600 U	27000	1600 U	1600 U	1600 U	1400 U
3&4-Methylphenol (M+P-Cresol)	900	1500	6700	840 U	74000	820 U	400 J	820 U	720 U
2,4-Dimethylphenol	-	1500	400 J	840 U	38000	820 U	210 J	820 U	720 U
2-Methylphenol	100	740 U	490 J	670 U	14000	670 U	110 J	670 U	720 U
Phenol	30	2500	23000	840 U	100000	820 U	430 J	820 U	720 U
Zinc (mg/Kg)	SB (95)	190	64.1	78.7	258	71.9	153	69.3	NA

Sample Location:		*BH-65*	*BH-65*	*BH-94*	*BH-95*	*BH-95*	*BH-95*	*BH-96*	*BH-96*
Depth:		*2.0'*	*16-18'*	*0 - 2"*	*0 - 2"*	*3.5 - 4'*	*14 - 16'*	*0 - 2"*	*5.0'*
Sample ID:		*SC-943*	*SC-942*	*SC-969*	*SC-970*	*SC-971*	*SC-972*	*SC-973*	*SC-974*
Collection Date:		*09/16/96*	*09/16/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*
SSPL Semi-Volatiles (μg/Kg)									
Aniline	100	1600 U	1500 U	18000 U	15000 U	1800 U	1500 U	1600 U	1800 U
3&4-Methylphenol (M+P-Cresol)	900	830 U	750 U	9000 U	4200 J	920 U	770 U	820 U	910 U
2,4-Dimethylphenol	-	830 U	750 U	2700 J	7900 U	920 U	770 U	980	910 U
2-Methylphenol	100	830 U	750 U	1400 J	2800 J	670 U	670 U	640 J	670 U
Phenol	30	830 U	750 U	5000 J	11000	920 U	770 U	550 J	910 U
Zinc (mg/Kg)	SB (95)	NA	NA	738	422	102	97.8	138	83.8

Notes:

(1)	NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
J	Associated value is estimated.
NA	Not available
SB	Site Background.
SSPL	Site-Specific Parameter List.
U	Non-detect at associated value.
☐	Exceeds Soil Cleanup Objective.

TABLE 6.6
PHASE II SSPL-B2 SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		***BH-65***	***BH-65***	***BH-65***	***BH-66***	***BH-66***	***BH-66***
Depth:		***0 - 2"***	***2.0'***	***16 - 18'***	***0 - 2"***	***2.0'***	***16 - 18'***
Sample ID:		***SC-941***	***SC-943***	***SC-942***	***SC-944***	***SC-945***	***SC-946***
Collection Date:		***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
	NYSDEC Cleanup Objectives (1)						
SSPL Semi-Volatiles (µg/Kg)							
Hexachlorobenzene	0.41	350 U	410 U	370 U	400 U	410 U	380 U
1,2,4-Trichlorobenzene	-	350 U	410 U	370 U	400 U	410 U	380 U
Sample Location:		***BH-67***	***BH-67***	***BH-67***	***BH-68***	***BH-68***	***BH-68***
Depth:		***0 - 2"***	***3.1 - 4.0'***	***16 - 18'***	***0 - 2"***	***3.5 - 4.0'***	***16 - 18'***
Sample ID:		***SC-947***	***SC-950***	***SC-949***	***SC-951***	***SC-960***	***SC-953***
Collection Date:		***09/11/96***	***09/11/96***	***09/11/96***	***09/11/96***	***09/11/96***	***09/11/96***
SSPL Semi-Volatiles (µg/Kg)							
Hexachlorobenzene	0.41	420 U	420 U	380 U	410 U	400 U	390 U
1,2,4-Trichlorobenzene	-	420 U	420 U	380 U	410 U	400 U	390 U

Notes:

(1)	NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
SSPL	Site-Specific Parameter List.
U	Non-detect at associated value.
☐	Exceeds Soil Cleanup Objective.

TABLE 6.7

PHASE II SSPL-B3 SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		*BH-88*	*BH-88*	*BH-89*	*BH-89*	*BH-91*	*BH-91*	*BH-92*	*BH-92*
Depth:		*10-12'*	*20-22'*	*4-6'*	*20-22'*	*6-8'*	*16-18'*	*9-10'*	*20-22'*
Sample ID:		*SC-958*	*SC-959*	*SC-961*	*SC-962*	*SC-963*	*SC-964*	*SC-967*	*SC-966*
Collection Date:		*09/11/96*	*09/11/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*
	NYSDEC Cleanup Objective (1)								
TCL Volatiles (µg/Kg)									
Acetone	200	2700 U	23 U	6100 U	46	6200 U	23 U	3100 U	110 U
Benzene	60	8800	420	300000	110	62000	15	8300	660
Bromodichloromethane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Bromoform	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Bromomethane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
2-Butanone (MEK)	300	1400 U	11 U	3000 U	12 U	3100 U	11 U	1600 U	57 U
Carbon disulfide	2,700	1400 U	11 U	3000 U	12 U	3100 U	11 U	1600 U	57 U
Carbon tetrachloride	600	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Chlorobenzene	1,700	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Chloroethane	1,900	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Chloroform	300	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Chloromethane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Dibromochloromethane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,1-Dichloroethane	200	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,2-Dichloroethane	100	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,1-Dichloroethene	400	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
cis-1,2-Dichloroethene	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
trans-1,2-Dichloroethene	300	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,2-Dichloropropane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
cis-1,3-Dichloropropene	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
trans-1,3-Dichloropropene	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Ethylbenzene	5,500	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
2-Hexanone	-	1400 U	11 U	3000 U	12 U	3100 U	11 U	1600 U	57 U
Methylene chloride	100	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
4-Methyl-2-pentanone (MIB	1,000	1400 U	11 U	3000 U	12 U	3100 U	11 U	1600 U	57 U
Styrene	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,1,2,2-Tetrachloroethane	600	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Tetrachloroethene	1,400	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Toluene	1,500	680 U	4.1 J	56000	4.4 J	2500	5.6 U	790 U	8.0 J
1,1,1-Trichloroethane	800	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
1,1,2-Trichloroethane	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Trichloroethene	700	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Vinyl chloride	200	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
m+p-Xylene	-	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
o-Xylene	1,200	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	790 U	29 U
Alcohols (µg/Kg)									
Ethanol	-	1100 U	1100 U	83000	1200 U	1200 U	1100 U	1300 U	1100 U
Methanol	-	1100 U	1100 U	1200 U	1200 U	1200 U	1100 U	14000	1100 U

Notes:

(1)	NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
J	Associated value is estimated.
TCL	Target Compound List.
U	Non-detect at associated value.
☐	Exceeds NYSDEC Soil Cleanup Objectives.
SSPL	Site-Specific Parameter List.

TABLE 6.8
PHASE II PETROLEUM PRODUCTS SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		*BH-41*	*BH-41*	*BH-41*	*BH-42*	*BH-43*	*BH-43*
Depth:		*0 - 2"*	*3 - 4'*	*9 - 10'*	*0 - 2"*	*0 - 2"*	*4 - 8'*
Sample ID:		*SC-907*	*SC-909*	*SC-908*	*SC-910*	*SC-911*	*SC-912*
Collection Date:		*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*
	NYSDEC Cleanup Objective						
Petroleum Products (µg/Kg)							
Unknown Hydrocarbons*	-	14000 U	14000	12000 U	13000 U	12000 U	12000 U
Fuel oil #2/diesel fuel	-	14000 U	13000 U	12000 U	13000 U	12000 U	1100000 J
Gasoline	-	14000 U	13000 U	12000 U	13000 U	12000 U	12000 U
Kerosene	-	14000 U	13000 U	12000 U	13000 U	12000 U	12000 U
Lube oil	-	NP	NP	NP	NP	NP	NP

Sample Location:		*BH-43*	*BH-43*	*BH-56*	*BH-55*	*BH-57*	*BH-92-B*
Depth:		*4 - 8'*	*12 - 14'*	*0 - 2"*	*0 - 2"*	*0 - 2"*	*2 - 4'*
Sample ID:		*SC-913* *(Dup. of SC-912)*	*SC-914*	*SC-918*	*SC-919*	*SC-920*	*SC-968*
Collection Date:		*09/09/96*	*09/09/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/12/96*
Petroleum Products (µg/Kg)							
Unknown Hydrocarbons*	-	12000 U	11000 U	14000 U	13000 U	15000 U	760000
Fuel oil #2/diesel fuel	-	290000 J	11000 U	14000 U	13000 U	15000 U	12000 U
Gasoline	-	12000 U	11000 U	14000 U	13000 U	15000 U	12000 U
Kerosene	-	12000 U	11000 U	14000 U	13000 U	15000 U	12000 U
Lube oil		NP	NP	NP	NP	NP	NP

Notes:

-	Not available.
*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
U	Non-detect at associated value.

TABLE 6.9
PHASE II SSPL-C1 SOIL SAMPLE DATA
PHASE II SOIL SAMPLING
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		***BH-58***	***BH-58***	***BH-58***	***BH-59***	***BH-59***	***BH-59***
Depth:		***0 - 2"***	***4 - 6'***	***8 - 10'***	***0 - 2"***	***4 - 6'***	***8 - 10'***
Sample ID:		***SC-921***	***SC-922***	***SC-923***	***SC-924***	***SC-925***	***SC-926***
Collection Date:		***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
	NYSDEC Cleanup Objective (1)						
SSPL Volatiles (μg/Kg)							
Ethylbenzene	5,500	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U
Methylene chloride	100	6.2 U	11	5.9 U	7.6 UJ	6.2 U	6.1 U
Tetrachloroethene	1,400	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U
Toluene	1,500	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U

Sample Location:		***BH-60***	***BH-60***	***BH-60***	***BH-61***	***BH-61***	***BH-61***
Depth:		***0 - 2"***	***4 - 6'***	***8 - 10'***	***0 - 2"***	***6 - 7'***	***8 - 10'***
Sample ID:		***SC-928***	***SC-929***	***SC-930***	***SC-931***	***SC-932***	***SC-933***
Collection Date:		***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
SSPL Volatiles (μg/Kg)							
Ethylbenzene	5,500	5.7 UJ	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Methylene chloride	100	18 J	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Tetrachloroethene	1,400	5.7 UJ	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Toluene	1,500	2.6 J	1.4 J	5.9 U	6.0 UJ	1.9 J	6.0 U

Notes:

(1)	NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
J	Associated value is estimated.
SSPL	Site-Specific Parameter List.
U	Non-detect at associated value.

TABLE 6.10
PHASE II CONFIRMATORY PCB SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample Location:		***BH-44***	***BH-48***	***BH-48***	***BH-59***	***BH-67***
Depth:		*1.5 - 2.0'*	*4.5'*	*4.5'*	*4 - 6'*	*0 - 2"*
Sample ID:		*SC-915*	*SC-916*	*SC-917* *(Dup. of SC-916)*	*SC-927*	*SC-948*
Collection Date:		*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/11/96*
	NYSDEC Cleanup Objective (1)					
PCBs (µg/Kg)						
PCB 1016	10,000	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1221	10,000	430 U	85 UJ	91 UJ	84 U	90000 U
PCB 1232	10,000	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1242	10,000	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1248	10,000	320 J	79 J	110 J	41 U	44000 U
PCB 1254	10,000	820 J	42 UJ	45 UJ	41 U	44000 U
PCB 1260	10,000	210 U	42 UJ	45 UJ	41 U	$\boxed{440000}$

Sample Location:		***BH-68***	***BH-74***	***BH-86***	***BH-84***	***BH-85***
Depth:		*0 - 2"*	*0 - 2"*	*0 - 2"*	*0 - 2"*	*4.0'*
Sample ID:		*SC-952*	*SC-954*	*SC-955*	*SC-956*	*SC-965*
Collection Date:		*09/11/96*	*09/11/96*	*09/11/96*	*09/11/96*	*09/12/96*
PCBs (µg/Kg)						
PCB 1016	10,000	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1221	10,000	84 U	88 UJ	7300 U	4000 U	84 U
PCB 1232	10,000	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1242	10,000	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1248	10,000	41 U	43 UJ	9100	9500	41 U
PCB 1254	10,000	41 U	170 J	3600 U	2000 U	41 U
PCB 1260	10,000	41 U	43 UJ	3600 U	2000 U	41 U

Notes:
(1) NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046:
Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
Dup. Field Duplicate.
J Associated value is estimated.
PCBs Polychlorinated Biphenyls.
U Non-detect at associated value.
☐ Exceeds Soil Cleanup Objective.

TABLE 6.11

SITE UTILITY BEDDING SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Utility Location:		*I-Line*	*Storm Sewer*	*Storm Sewer*	*F-Line*	*Sanitary*	*K-Line*
Sample Location:		*TP-1*	*TP-2*	*TP-2*	*TP-3*	*TP-4*	*BH87*
Depth:		*11'*	*10'*	*10'*	*6' - 7'*	*6'*	*8' - 9'*
Sample ID:		*SC-900*	*SC-901*	*SC-905* *(Dup. of SC-901)*	*SC-904*	*SC-906*	*SC-957*
Collection Date:		*09/03/96*	*09/03/96*	*09/03/96*	*09/03/96*	*09/04/96*	*09/11/96*
	NYSDEC Cleanup Objective (1)						
TCL Volatiles (µg/Kg)							
Acetone	200	24 U	120 U	120 U	26 U	23 U	26 U
Benzene	60	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Bromodichloromethane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Bromoform	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Bromomethane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
2-Butanone (MEK)	300	12 U	58 U	60 U	13 U	11 U	13 U
Carbon disulfide	2,700	12 U	58 U	60 U	13 U	11 U	13 U
Carbon tetrachloride	600	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Chlorobenzene	1,700	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Chloroethane	1,900	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Chloroform	300	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Chloromethane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Dibromochloromethane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,1-Dichloroethane	200	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,2-Dichloroethane	100	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,1-Dichloroethene	400	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
cis-1,2-Dichloroethene	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
trans-1,2-Dichloroethene	300	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,2-Dichloropropane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
cis-1,3-Dichloropropene	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
trans-1,3-Dichloropropene	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Ethylbenzene	5,500	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
2-Hexanone	-	12 U	58 U	60 U	13 U	11 U	13 U
Methylene chloride	100	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
4-Methyl-2-pentanone (MIBK)	1,000	12 U	58 U	60 U	13 U	11 U	13 U
Styrene	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,1,2,2-Tetrachloroethane	600	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Tetrachloroethene	1,400	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Toluene	1,500	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,1,1-Trichloroethane	800	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
1,1,2-Trichloroethane	-	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Trichloroethene	700	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Vinyl chloride	200	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
m+p-Xylene	1,200	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
o-Xylene	1,200	6.0 U	29 U	30 U	6.6 U	5.7 U	6.5 U
Alcohols (µg/Kg)							
Ethanol	-	1200 U	1200 U	1200 U	1300 U	1100 U	1300 U
Methanol	-	1200 U	3200	1200 U	2100	1100 U	1300 U

TABLE 6.11

SITE UTILITY BEDDING SOIL SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Utility Location:		*I-Line*	*Storm Sewer*	*Storm Sewer*	*F-Line*	*Sanitary*	*K-Line*
Sample Location:		*TP-1*	*TP-2*	*TP-2*	*TP-3*	*TP-4*	*BH87*
Depth:		*11'*	*10'*	*10'*	*6' - 7'*	*6'*	*8' - 9'*
Sample ID:		*SC-900*	*SC-901*	*SC-905* *(Dup. of SC-901)*	*SC-904*	*SC-906*	*SC-957*
Collection Date:		*09/03/96*	*09/03/96*	*09/03/96*	*09/03/96*	*09/04/96*	*09/11/96*
	NYSDEC Cleanup Objective (1)						
SSPL Semi-Volatiles ($\mu g/Kg$)							
Aniline	100	1600 U	15000 U	16000 U	1700 U	1500 U	1700 U
Benzo (a) anthracene	224	400 U	3900 U	4000 U	430 U	380 U	430 U
Benzo (a) pyrene	61	400 UJ	3900 U	4000 U	430 U	380 U	430 U
Benzo (b) fluoranthene	1,100	400 UJ	3900 U	4000 U	430 U	380 U	430 U
Benzo (k) fluoranthene	1,100	400 UJ	3900 U	4000 U	430 U	380 U	430 U
di-n-Butylphthalate	8,100	410	3900 UJ	4000 UJ	430 U	380 U	12000
Chrysene	400	400 U	3900 U	4000 U	430 U	380 U	430 U
3&4-methylphenol (m+p Cresol)	900	810 U	7800 U	8100 U	880 U	760 U	1500
Dibenzo (a,h) anthracene	14	400 UJ	3900 U	4000 U	430 U	380 U	430 U
1,2-Dichlorobenzene	7,900	400 U	3900 U	4000 U	430 U	380 U	430 U
2,4-Dimethylphenol	-	810 U	7800 U	8100 U	880 U	760 U	710 J
bis (2-Ethylhexyl) phthalate	50,000	400 U	3900 U	4000 U	430 U	380 U	430 U
Hexachlorobenzene	410	400 U	3900 UJ	4000 UJ	430 U	380 U	430 U
2-Methylphenol	100	810 U	7800 U	8100 U	880 U	760 U	670 U
Phenol	30	810 U	7800 U	8100 U	880 U	760 U	520 J
1,2,4-Trichlorobenzene	3,400	400 U	3900 U	4000 U	430 U	380 U	430 U
PCBs ($\mu g/Kg$)							
PCB 1016	10,000	40 U	39 U	40 U	43 U	38 U	43 U
PCB 1221	10,000	81 U	78 U	81 U	88 U	76 U	88 U
PCB 1232	10,000	40 U	39 U	40 U	43 U	38 U	43 U
PCB 1242	10,000	40 U	39 U	40 U	43 U	38 U	43 U
PCB 1248	10,000	40 U	39 U	40 U	43 U	38 U	43 U
PCB 1254	10,000	88	39 U	40 U	43 U	38 U	43 U
PCB 1260	10,000	40 U	39 U	40 U	43 U	38 U	43 U
Petroleum Products ($\mu g/Kg$)							
Unknown Hydrocarbons*	-	12000 U	130000 J	24000 J	13000 U	11000 U	13000 U
Fuel oil #2/diesel fuel	-	12000 U	12000 U	12000 U	13000 U	11000 U	13000 U
Gasoline	-	12000 U	12000 U	12000 U	13000 U	11000 U	13000 U
Kerosene	-	12000 U	12000 U	12000 U	13000 U	11000 U	13000 U
Lube oil	-	NP	NP	NP	NP	NP	NP
Zinc (mg/Kg)	SB (95)	95.6J	98.6J	102J	92.4J	90.0J	221

Notes:

(1)	NYSDEC recommended soil cleanup objective as specified in NYSDEC TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, proposed revision dated October 1995.
*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
PCBs	Polychlorinated Biphenyls.
SB	Site Background.
PL	Site-Specific Parameter List.
	Target Compound List.
U	Non-detect at associated value.
☐	Exceeds Soil Cleanup Objective.

TABLE 6.12

SITE UTILITY BEDDING GROUNDWATER SAMPLE - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Utility Location:		*F-Line*	*F-Line*
Sample Location:		*TP-3*	*TP-3*
Sample ID:		*SC-902*	*SC-903* *(Dup. of SC-902)*
Collection Date:		*09/03/96*	*09/03/96*
	NYSDEC Groundwater Standard (1)		
TCL Volatiles (μg/L)			
Acetone	50 *	10 U	10 U
Benzene	0.7	5.0 U	5.0 U
Bromodichloromethane	50 *	5.0 U	5.0 U
Bromoform	50 *	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U
2-Butanone (MEK)	50 *	10 U	10 U
Carbon disulfide	-	10 U	10 U
Carbon tetrachloride	5	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U
Dibromochloromethane	50 *	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U
1,2-Dichloropropane	5	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U
cis-1,3-Dichloropropene	5	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U
2-Hexanone	50 *	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	-	10 U	10 U
Styrene	5	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U
Alcohols (μg/L)			
Ethanol	-	1000 U	1000 U
Methanol	-	1000 U	1000 U

TABLE 6.12

SITE UTILITY BEDDING GROUNDWATER SAMPLE - DETECTED ONLY DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Utility Location:		*F-Line*	*F-Line*
Sample Location:		*TP-3*	*TP-3*
Sample ID:		*SC-902*	*SC-903* *(Dup. of SC-902)*
Collection Date:		*09/03/96*	*09/03/96*
	NYSDEC Groundwater Standard (1)		
SSPL Semi-Volatiles (µg/L)			
Aniline	5	20 U	20 U
Benzo (a) anthracene	0.002 *	5.0 U	5.0 U
Benzo (a) pyrene	ND	5.0 UJ	5.0 U
Benzo (b) fluoranthene	0.002 *	5.0 UJ	5.0 U
Benzo (k) fluoranthene	0.002 *	5.0 UJ	5.0 U
di-n-Butylphthalate	50	5.0 U	5.0 U
Chrysene	0.002 *	5.0 U	5.0 U
3&4-methylphenol (m+p Cresol)	-	10 U	10 U
Dibenzo (a,h) anthracene	-	5.0 UJ	5.0 U
1,2-Dichlorobenzene	4.7	5.0 U	5.0 U
2,4-Dimethylphenol	-	10 U	10 U
bis(2-Ethylhexyl) phthalate	50	5.0 U	5.0 U
Hexachlorobenzene	0.35	5.0 U	5.0 U
2-Methylphenol	-	10 U	10 U
Phenol	1	10 U	10 U
1,2,4-Trichlorobenzene	5	5.0 U	5.0 U
PCBs (µg/L)			
PCB 1016	0.1	0.065 U	0.065 U
PCB 1221	0.1	0.065 U	0.065 U
PCB 1232	0.1	0.065 U	0.065 U
PCB 1242	0.1	0.065 U	0.065 U
PCB 1248	0.1	0.065 U	0.065 U
PCB 1254	0.1	0.18 J	0.065 UJ
PCB 1260	0.1	0.065 U	0.065 U
Petroleum Products (µg/L)			
Unknown hydrocarbons*	-	100 U	100 U
Fuel oil #2/diesel fuel	-	100 U	100 U
Gasoline	-	100 U	100 U
Kerosene	-	100 U	100 U
Lube oil	-	NP	NP
Metals (mg/L)			
Zinc	0.3	1.07 J	0.711 J

Notes:

(1)	As identified in NYSDEC TOGs 1.1.1, Ambient Water Quality Standards and Guidance Values, dated October 22, 1993.
*	Guidance value.
**	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
PCBs	Polychlorinated Biphenyls.
SSPL	Site-Specific Parameter List.
TCL	Target Compound List.
U	Non-detect at associated value.
Dup	Duplicate.
☐	Exceeds groundwater standard or guidance value.

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		***OW-1***	***OW-1***	***OW-2***	***OW-2***	***OW-3***	***OW-3***	***OW-4***	***OW-4***
Sample ID:		***W-072396-DJT-004***	***SC-1012***	***W-072396-DJT-002***	***SC-1010***	***W-072396-DJT-005***	***SC-1003***	***W-072396-DJT-003***	***SC-1002***
Collection Date:		***07/23/96***	***11/22/96***	***07/23/96***	***11/22/96***	***07/23/96***	***11/22/96***	***07/23/96***	***11/22/96***
	NYSDEC Groundwater Standards (1)								
TCL Volatiles (µg/L)									
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		***OW-1***	***OW-1***	***OW-2***	***OW-2***	***OW-3***	***OW-3***	***OW-4***	***OW-4***
Sample ID:		*W-072396-DJT-004*	*SC-1012*	*W-072396-DJT-002*	*SC-1010*	*W-072396-DJT-005*	*SC-1003*	*W-072396-DJT-003*	*SC-1002*
Collection Date:		*07/23/96*	*11/22/96*	*07/23/96*	*11/22/96*	*07/23/96*	*11/22/96*	*07/23/96*	*11/22/96*
	NYSDEC Groundwater Standards (1)								
Semi-Volatiles (µg/L)									
Aniline	5	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U
Benzo (a) anthracene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (a) pyrene	ND	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (b) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (k) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Di-n-butylphthalate	50	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Chrysene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
3/4-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	-	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
1,2-Dichlorobenzene	4.7	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2,4-Dimethylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	50	5.8	9.1 U	6.0	8.1 U	5.8	9.2 U	6.5	5.0 U
Hexachlorobenzene	0.35	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
PCBs (µg/L)									
Aroclor 1016	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1221	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1232	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1242	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1248	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1254	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Aroclor 1260	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U
Petroleum Products (µg/L)									
Unknown Hydrocarbons**	-	100 UJ	100 U	100 UJ	100 U	520 J	100 U	100 UJ	100 U
Fuel oil #2/diesel fuel	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U
Gasoline	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U
Kerosene	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U	100 UJ	100 U
Lube oil		- -	1000 U	- -	1000 U	- -	1000 U	- -	1000 U
Metals (mg/L)									
Zinc	0.3	0.102 U	0.0203 U	0.0273 U	0.0704 U	1.64	0.0322 U	0.293 U	0.0100 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		***OW-A1***	***OW-A1***	***OW-B2***	***OW-B2***	***OBW-2***	***OBW-2***	***OBW-2***	***OBW-2***
Sample ID:		***W-072396-DJT-008***	***SC-1006***	***W-072396-DJT-011***	***SC-1001***	***W-072396-DJT-009***	***W-072396-DJT-010***	***SC-1016***	***SC-1017***
Collection Date:		***07/23/96***	***11/22/96***	***07/23/96***	***11/22/96***	***07/23/96***	***07/23/96*** ***(Duplicate)***	***11/25/96***	***11/25/96*** ***(Duplicate)***
	NYSDEC Groundwater Standards (1)								
TCL Volatiles (μg/L)									
Acetone	50*	10 U	17 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzene	0.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	12 J	2.8J	5.0 U	5.0 U
1,2-Dichloropropane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	1.2J	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (μg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (μg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		*OW-A1*	*OW-A1*	*OW-B2*	*OW-B2*	*OBW-2*	*OBW-2*	*OBW-2*	*OBW-2*
Sample ID:		*W-072396-DJT-008*	*SC-1006*	*W-072396-DJT-011*	*SC-1001*	*W-072396-DJT-009*	*W-072396-DJT-010*	*SC-1016*	*SC-1017*
Collection Date:		*07/23/96*	*11/22/96*	*07/23/96*	*11/22/96*	*07/23/96*	*07/23/96* *(Duplicate)*	*11/25/96*	*11/25/96* *(Duplicate)*
	NYSDEC Groundwater Standards (1)								
Semi-Volatiles (μg/L)									
Aniline	5	20 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U
Benzo (a) anthracene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
Benzo (a) pyrene	ND	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
Benzo (b) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
Benzo (k) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
Di-n-butylphthalate	50	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
Chrysene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
3/4-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	-	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
1,2-Dichlorobenzene	4.7	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
2,4-Dimethylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	50	5.1 U	5.0 U	5.1 U	5.0 U	25	33	9.6	11
Hexachlorobenzene	0.35	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
2-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1	10 U	10 U	10 U	10 U	340 J	160 J	10 U	10 U
1,2,4-Trichlorobenzene	5	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U
PCBs (μg/L)									
Aroclor 1016	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1221	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1232	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1242	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1248	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1254	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Aroclor 1260	0.1	0.065 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.066 U	0.20 U	0.20 U
Petroleum Products (μg/L)									
Unknown Hydrocarbons**	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 UJ	100 U	100 U
Fuel oil #2/diesel fuel	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 UJ	100 U	100 U
Gasoline	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 UJ	100 U	100 U
Kerosene	-	100 UJ	100 U	100 UJ	100 U	100 UJ	100 UJ	100 U	100 U
Lube oil		- -	1000 U	- -	1000 U	- -	- -	1000 U	1000 U
Metals (mg/L)									
Zinc	0.3	0.0246 U	0.0100 U	0.0679 U	0.0586 U	0.122 U	0.109 U	0.167	0.167

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID: *Sample ID:* *Collection Date:*	*NYSDEC Groundwater Standards (1)*	*OW-6* *W-072396-DJT-006* *07/23/96*	*OW-6* *SC-1014* *11/22/96*	*OW-6* *SC-1004* *11/22/96* *(Duplicate)*	*OW-7* *W-072496-DJT-017* *07/24/96*	*OW-7* *SC-1005* *11/22/96*	*OW-8* *W-072496-DJT-015* *07/24/96*	*OW-8* *W-072496-DJT-016* *07/24/96* *(Duplicate)*	*OW-8* *SC-1008* *11/22/96*
TCL Volatiles (µg/L)									
Acetone	50*	10 U	10 U	10 U	10 U	44 U	170	140	210 U
Benzene	0.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.8J	2.8J	3.2J
Bromodichloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	19	18	26
Carbon disulfide	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.6J	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.4J	3.4J	3.8J
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	-	10 U	10 U	10 U	10 U	10 U	2.0J	1.7J	10 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25	24	32
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	9.5	9.7	11
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.5	6.4	6.9
Ethanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	2500	2500	1000 U
Methanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	10000	10000	6800

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		***OW-6***	***OW-6***	***OW-6***	***OW-7***	***OW-7***	***OW-8***	***OW-8***	***OW-8***
Sample ID:		***W-072396-DJT-006***	***SC-1014***	***SC-1004***	***W-072496-DJT-017***	***SC-1005***	***W-072496-DJT-015***	***W-072496-DJT-016***	***SC-1008***
Collection Date:		***07/23/96***	***11/22/96***	***11/22/96***	***07/24/96***	***11/22/96***	***07/24/96***	***07/24/96***	***11/22/96***
				(Duplicate)				***(Duplicate)***	
	NYSDEC Groundwater Standards (1)								
Semi-Volatiles (µg/L)									
Aniline	5	20 U	5.6 U	5.0 U	20 U	5.0 U	51000 U	51000 U	5000 U
Benzo (a) anthracene	0.002 *	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
Benzo (a) pyrene	ND	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
Benzo (b) fluoranthene	0.002 *	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
Benzo (k) fluoranthene	0.002 *	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
Di-n-butylphthalate	50	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
Chrysene	0.002 *	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
3/4-Methylphenol	-	10 U	11 U	10 U	120	10 U	220000	210000	130000
Dibenzo (a,h) anthracene	-	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
1,2-Dichlorobenzene	4.7	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
2,4-Dimethylphenol	-	10 U	11 U	10 U	60	10 U	73000	70000	49000
Bis (2-ethylhexyl) phthalate	50	6.2	6.5 U	20 U	9.4	6.4 U	13000 U	13000 U	5000 U
Hexachlorobenzene	0.35	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
2-Methylphenol	-	10 U	11 U	10 U	26	10 U	47000	45000	30000
Phenol	1	10 U	11 U	10 U	68	10 U	190000	180000	100000
1,2,4-Trichlorobenzene	5	5.1 U	5.6 U	5.0 U	5.1 U	5.0 U	13000 U	13000 U	5000 U
PCBs (µg/L)									
Aroclor 1016	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1221	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1232	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1242	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1248	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1254	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Aroclor 1260	0.1	0.066 U	0.20 U	0.20 U	0.066 U	0.20 U	0.066 U	0.066 U	0.20 U
Petroleum Products (µg/L)									
Unknown Hydrocarbons**	-	100 UJ	100 U	100 U	100 U	100 U	26000 J	25000 J	26000
Fuel oil #2/diesel fuel	-	100 UJ	100 U	100 U	100 U	100 U	300 UJ	300 UJ	300 U
Gasoline	-	100 UJ	100 U	100 U	100 U	100 U	300 UJ	300 UJ	300 U
Kerosene	-	100 UJ	100 U	100 U	100 U	100 U	300 UJ	300 UJ	300 U
Lube oil		- -	1000 U	1000 U	- -	1000 U	- -	- -	3000 U
Metals (mg/L)									
Zinc	0.3	0.0100 U	0.0100 U	0.0153 U	0.0477 U	0.0164 U	0.0100 U	0.0207 U	0.0113 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		*OW-9*	*OW-9*	*OW-10*	*OW-10*	*OW-11*	*OW-11*	*OW-12*	*OW-12*
Sample ID:		*W-072496-DJT-014*	*SC-1007*	*W-072496-DJT-013*	*SC-1013*	*W-072596-DJT-022*	*SC-1019*	*W-072496-DJT-018*	*SC-1009*
Collection Date:		*07/24/96*	*11/22/96*	*07/24/96*	*11/22/96*	*07/25/96*	*11/26/96*	*07/24/96*	*11/22/96*
	NYSDEC Groundwater Standards (1)								
TCL Volatiles (µg/L)									
Acetone	50 *	25	31 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50 *	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	-	10 U	10 U	10 U	10 U	45	10 U	10 U	10 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	1.4J	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	1.3J	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50 *	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		*OW-9*	*OW-9*	*OW-10*	*OW-10*	*OW-11*	*OW-11*	*OW-12*	*OW-12*
Sample ID:		*W-072496-DJT-014*	*SC-1007*	*W-072496-DJT-013*	*SC-1013*	*W-072596-DJT-022*	*SC-1019*	*W-072496-DJT-018*	*SC-1009*
Collection Date:		*07/24/96*	*11/22/96*	*07/24/96*	*11/22/96*	*07/25/96*	*11/26/96*	*07/24/96*	*11/22/96*
	NYSDEC Groundwater Standards (1)								
Semi-Volatiles (μg/L)									
Aniline	5	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U
Benzo (a) anthracene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (a) pyrene	ND	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (b) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (k) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Di-n-butylphthalate	50	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Chrysene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
3/4-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	-	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
1,2-Dichlorobenzene	4.7	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2,4-Dimethylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	50	9.1	9.5 U	5.1 U	5.2 U	5.6	5.0 U	5.1 U	5.9 U
Hexachlorobenzene	0.35	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
PCBs (μg/L)									
Aroclor 1016	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1221	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1232	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1242	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1248	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1254	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Aroclor 1260	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U	0.066 U	0.20 U
Petroleum Products (μg/L)									
Unknown Hydrocarbons**	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Fuel oil #2/diesel fuel	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Gasoline	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Kerosene	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Lube oil		- -	1000 U	- -	1000 U	- -	1000 U	- -	1000 U
Metals (mg/L)									
Zinc	0.3	0.162 U	0.0100 U	0.0140 U	0.0117 U	0.520	0.183	0.0139 U	0.0100 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		*BW-12*	*BW-12*	*BW-9*	*BW-9*	*BW-10*	*BW-10*	*BW-C3*	*BW-C3*
Sample ID:		*W-072496-DJT-019*	*SC-1021*	*W-072596-DJT-021*	*SC-1020*	*W-072496-DJT-020*	*SC-1018*	*W-072596-DJT-023*	*SC-1022*
Collection Date:		*07/24/96*	*11/26/96*	*07/25/96*	*11/26/96*	*07/24/96*	*11/25/96*	*07/25/96*	*11/26/96*
	NYSDEC Groundwater Standards (1)								
TCL Volatiles (µg/L)									
Acetone	50 *	10 U	10	16	180	10 U	10 U	10 U	10 U
Benzene	0.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	50 *	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50 *	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	26	2.7 J
1,2-Dichloropropane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50 *	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	60	4.6 J
Vinyl chloride	2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (µg/L)	-	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 6.13
GROUNDWATER MONITORING WELL DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK

Well ID:		*BW-12*	*BW-12*	*BW-9*	*BW-9*	*BW-10*	*BW-10*	*BW-C3*	*BW-C3*
Sample ID:		*W-072496-DJT-019*	*SC-1021*	*W-072596-DJT-021*	*SC-1020*	*W-072496-DJT-020*	*SC-1018*	*W-072596-DJT-023*	*SC-1022*
Collection Date:		*07/24/96*	*11/26/96*	*07/25/96*	*11/26/96*	*07/24/96*	*11/25/96*	*07/25/96*	*11/26/96*
	NYSDEC Groundwater Standards (1)								
Semi-Volatiles (μg/L)									
Aniline	5	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U
Benzo (a) anthracene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (a) pyrene	ND	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (b) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Benzo (k) fluoranthene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Di-n-butylphthalate	50	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
Chrysene	0.002 *	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
3/4-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	-	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
1,2-Dichlorobenzene	4.7	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2,4-Dimethylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	50	7.8	26	10	6.8	20	8.8	5.1 U	5.3
Hexachlorobenzene	0.35	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
2-Methylphenol	-	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U
PCBs (μg/L)									
Aroclor 1016	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Aroclor 1221	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Aroclor 1232	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Aroclor 1242	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Aroclor 1248	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.15 J	1.1
Aroclor 1254	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Aroclor 1260	0.1	0.066 U	0.20 U	0.066 U	0.20 U	0.066 U	0.20 U	0.066 UJ	0.20 U
Petroleum Products (μg/L)									
Unknown Hydrocarbons**	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Fuel oil #2/diesel fuel	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Gasoline	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Kerosene	-	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Lube oil		- -	1000 U	- -	1000 U	- -	1000 U	- -	1000 U
Metals (mg/L)									
Zinc	0.3	0.0263 U	0.0281	0.0215	0.0100 U	0.0409 U	0.0190 U	0.0100 U	0.0100 U

Notes:

(1)	As identified in NYSDEC TOGs 1.1.1, Ambient Water Quality Standards and Guidance Values dated, October 22, 1993.
*	Guidance value
**	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
TCL	Target Compound List
U	Non-detect at associated value.
☐	Exceeds groundwater standard or guidance value.

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 004*	*DN*	*UP*	*UP*	*Outfall 013*	*Outfall 012*	*Outfall 010*
		Sample ID:	*SC-1000*	*SC-1001*	*SC-1002*	*SC-1009*	*SC-1003*	*SC-1004*	*SC-1005*
		Collection Date:	*10/05/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/05/95*	*10/05/95*	*10/06/95*
						(Dup of SC-1002)			
	Water Class	*Standard(1)*							
TCL Volatiles (µg/L)									
Chloromethane			-	10 U	10 UJ	10 U	-	-	-
Vinyl chloride			-	10 U	10 UJ	10 U	-	-	-
Bromomethane			-	10 U	10 UJ	10 U	-	-	-
Chloroethane			-	10 U	10 UJ	10 U	-	-	-
1,1-Dichloroethene			-	10 U	10 UJ	10 U	-	-	-
Carbon disulfide			-	10 U	10 UJ	10 U	-	-	-
Acetone			-	10 U	10 UJ	10 U	-	-	-
Methylene chloride			-	25 U	13 UJ	10 U	-	-	-
1,1-Dichloroethane			-	10 U	10 UJ	10 U	-	-	-
1,2-Dichloroethene (Total)	A	5	-	10 U	1.3J	10 U	-	-	-
Chloroform			-	10 U	10 UJ	10 U	-	-	-
1,2-Dichloroethane			-	10 U	10 UJ	10 U	-	-	-
2-Butanone			-	10 U	10 UJ	10 U	-	-	-
1,1,1-Trichloroethane			10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Carbon tetrachloride			-	10 U	10 UJ	10 U	-	-	-
Benzene			10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Trichloroethene	A	3	-	10 U	1.2 J	10 U	-	-	-
1,2-Dichloropropane			-	10 U	10 UJ	10 U	-	-	-
Bromodichloromethane			-	10 U	10 UJ	10 U	-	-	-
trans-1,3-Dichloropropene			-	10 U	10 UJ	10 U	-	-	-
cis-1,3-Dichloropropene			-	10 U	10 UJ	10 U	-	-	-
1,1,2-Trichloroethane			-	10 U	10 UJ	10 U	-	-	-
Dibromochloromethane			-	10 U	10 UJ	10 U	-	-	-
Bromoform			-	10 U	10 UJ	10 U	-	-	-
4-Methyl-2-pentanone			-	10 UJ	10 UJ	10 U	-	-	-
Toluene	A	5	10 U	1.2 J	10 UJ	10 U	10 U	10 U	10 U
Tetrachloroethene			-	10 U	10 UJ	10 U	-	-	-
2-Hexanone			-	10 UJ	10 UJ	10 U	-	-	-
Chlorobenzene			-	10 U	10 UJ	10 U	-	-	-
Ethyl benzene			-	10 U	10 UJ	10 U	-	-	-
Xylene (Total)			10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Styrene			-	10 U	10 UJ	10 U	-	-	-
1,1,2,2-Tetrachloroethane			-	10 U	10 UJ	10 U	-	-	-
Alcohols (µg/L)									
Methanol			-	10000 U	10000 U	10000 U	-	-	-
Ethanol			-	10000 U	10000 U	10000 U	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 005*	*Outfall 006*	*Outfall 007*	*Outfall 011*	*Outfall 011*	*Outfall 008*
		Sample ID:	*SC-1006*	*SC-1007*	*SC-1008*	*SC-1010*	*SC-1011*	*SC-1012*
		Collection Date:	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*
							(Dup of SC-1010)	
	Water Class	*Standard* (1)						
TCL Volatiles (μg/L)								
Chloromethane			-	-	-	-	-	-
Vinyl chloride			-	-	-	-	-	-
Bromomethane			-	-	-	-	-	-
Chloroethane			-	-	-	-	-	-
1,1-Dichloroethene			-	-	-	-	-	-
Carbon disulfide			-	-	-	-	-	-
Acetone			-	-	-	-	-	-
Methylene chloride			-	-	-	-	-	-
1,1-Dichloroethane			-	-	-	-	-	-
1,2-Dichloroethene (Total)	A	5	-	-	-	-	-	-
Chloroform			-	-	-	-	-	-
1,2-Dichloroethane			-	-	-	-	-	-
2-Butanone			-	-	-	-	-	-
1,1,1-Trichloroethane			10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride			-	-	-	-	-	-
Benzene			10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	A	3	-	-	-	-	-	-
1,2-Dichloropropane			-	-	-	-	-	-
Bromodichloromethane			-	-	-	-	-	-
trans-1,3-Dichloropropene			-	-	-	-	-	-
cis-1,3-Dichloropropene			-	-	-	-	-	-
1,1,2-Trichloroethane			-	-	-	-	-	-
Dibromochloromethane			-	-	-	-	-	-
Bromoform			-	-	-	-	-	-
4-Methyl-2-pentanone			-	-	-	-	-	-
Toluene	A	5	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene			-	-	-	-	-	-
2-Hexanone			-	-	-	-	-	-
Chlorobenzene			-	-	-	-	-	-
Ethyl benzene			-	-	-	-	-	-
Xylene (Total)			10 U	10 U	10 U	10 U	10 U	10 U
Styrene			-	-	-	-	-	-
1,1,2,2-Tetrachloroethane			-	-	-	-	-	-
Alcohols (μg/L)								
Methanol			-	-	-	-	-	-
Ethanol			-	-	-	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

	Water		*Location:*	*Outfall 004*	*DN*	*UP*	*UP*	*Outfall 013*	*Outfall 012*	*Outfall 010*
			Sample ID:	*SC-1000*	*SC-1001*	*SC-1002*	*SC-1009*	*SC-1003*	*SC-1004*	*SC-1005*
			Collection Date:	*10/05/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/05/95*	*10/05/95*	*10/06/95*
							(Dup of SC-1002)			
	Class	*Standard* [(1)]								
TCL Semi-Volatiles (µg/L)										
Aniline				-	10 U	10 U	10 U	-	-	-
bis(2-Chloroethyl)ether				-	10 U	10 U	10 U	-	-	-
Phenol				-	10 U	10 U	10 U	-	-	-
2-Chlorophenol				-	10 U	10 U	10 U	-	-	-
1,3-Dichlorobenzene				-	10 U	10 U	10 U	-	-	-
1,4-Dichlorobenzene				-	10 U	10 U	10 U	-	-	-
1,2-Dichlorobenzene				-	10 U	10 U	10 U	-	-	-
2,2'-oxybis(1-Chloropropane)				-	10 U	10 U	10 U	-	-	-
2-Methylphenol				-	10 U	10 U	10 U	-	-	-
Hexachloroethane				-	10 U	10 U	10 U	-	-	-
N-Nitroso-di-n-propylamine				-	10 U	10 U	10 U	-	-	-
3&4-Methylphenol				-	10 U	10 U	10 U	-	-	-
Nitrobenzene				-	10 U	10 U	10 U	-	-	-
Isophorone				-	10 U	10 U	10 U	-	-	-
2-Nitrophenol				-	10 U	10 U	10 U	-	-	-
2,4-Dimethylphenol				-	10 U	10 U	10 U	-	-	-
bis(2-Chloroethoxy)methane				-	10 U	10 U	10 U	-	-	-
2,4-Dichlorophenol				-	10 U	10 U	10 U	-	-	-
1,2,4-Trichlorobenzene				-	10 U	10 U	10 U	-	-	-
Naphthalene				-	10 U	10 U	10 U	-	-	-
4-Chloroaniline				-	10 U	10 U	10 U	-	-	-
Hexachlorobutadiene				-	10 U	10 U	10 U	-	-	-
4-Chloro-3-methylphenol				-	10 U	10 U	10 U	-	-	-
2-Methylnaphthalene				-	10 U	10 U	10 U	-	-	-
Hexachlorocyclopentadiene				-	10 U	10 U	10 U	-	-	-
2,4,6-Trichlorophenol				-	10 U	10 U	10 U	-	-	-
2,4,5-Trichlorophenol				-	25 U	25 U	25 U	-	-	-
2-Chloronaphthalene				-	10 U	10 U	10 U	-	-	-
2-Nitroaniline				-	25 U	25 U	25 U	-	-	-
Dimethyl phthalate				-	10 U	10 U	10 U	-	-	-
Acenaphthylene				-	10 U	10 U	10 U	-	-	-
2,6-Dinitrotoluene				-	10 U	10 U	10 U	-	-	-
Acenaphthene				-	10 U	10 U	10 U	-	-	-
3-Nitroaniline				-	25 U	25 U	25 U	-	-	-
2,4-Dinitrophenol				-	25 UJ	25 UJ	25 UJ	-	-	-
Dibenzofuran				-	10 U	10 U	10 U	-	-	-
2,4-Dinitrotoluene				-	10 U	10 U	10 U	-	-	-
4-Nitrophenol				-	25 U	25 U	25 U	-	-	-
Fluorene				-	10 U	10 U	10 U	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 005*	*Outfall 006*	*Outfall 007*	*Outfall 011*	*Outfall 011*	*Outfall 008*
		Sample ID:	*SC-1006*	*SC-1007*	*SC-1008*	*SC-1010*	*SC-1011*	*SC-1012*
		Collection Date:	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95* *(Dup of SC-1010)*	*10/06/95*
	Water Class	*Standard* (1)						
TCL Semi-Volatiles (µg/L)								
Aniline			-	-	-	-	-	-
bis(2-Chloroethyl)ether			-	-	-	-	-	-
Phenol			-	-	-	-	-	-
2-Chlorophenol			-	-	-	-	-	-
1,3-Dichlorobenzene			-	-	-	-	-	-
1,4-Dichlorobenzene			-	-	-	-	-	-
1,2-Dichlorobenzene			-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane)			-	-	-	-	-	-
2-Methylphenol			-	-	-	-	-	-
Hexachloroethane			-	-	-	-	-	-
N-Nitroso-di-n-propylamine			-	-	-	-	-	-
3&4-Methylphenol			-	-	-	-	-	-
Nitrobenzene			-	-	-	-	-	-
Isophorone			-	-	-	-	-	-
2-Nitrophenol			-	-	-	-	-	-
2,4-Dimethylphenol			-	-	-	-	-	-
bis(2-Chloroethoxy)methane			-	-	-	-	-	-
2,4-Dichlorophenol			-	-	-	-	-	-
1,2,4-Trichlorobenzene			-	-	-	-	-	-
Naphthalene			-	-	-	-	-	-
4-Chloroaniline			-	-	-	-	-	-
Hexachlorobutadiene			-	-	-	-	-	-
4-Chloro-3-methylphenol			-	-	-	-	-	-
2-Methylnaphthalene			-	-	-	-	-	-
Hexachlorocyclopentadiene			-	-	-	-	-	-
2,4,6-Trichlorophenol			-	-	-	-	-	-
2,4,5-Trichlorophenol			-	-	-	-	-	-
2-Chloronaphthalene			-	-	-	-	-	-
2-Nitroaniline			-	-	-	-	-	-
Dimethyl phthalate			-	-	-	-	-	-
Acenaphthylene			-	-	-	-	-	-
2,6-Dinitrotoluene			-	-	-	-	-	-
Acenaphthene			-	-	-	-	-	-
3-Nitroaniline			-	-	-	-	-	-
2,4-Dinitrophenol			-	-	-	-	-	-
Dibenzofuran			-	-	-	-	-	-
2,4-Dinitrotoluene			-	-	-	-	-	-
4-Nitrophenol			-	-	-	-	-	-
Fluorene			-	-	-	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 004*	*DN*	*UP*	*UP*	*Outfall 013*	*Outfall 012*	*Outfall 010*
		Sample ID:	*SC-1000*	*SC-1001*	*SC-1002*	*SC-1009*	*SC-1003*	*SC-1004*	*SC-1005*
		Collection Date:	*10/05/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/05/95*	*10/05/95*	*10/06/95*
						(Dup of SC-1002)			
	Water Class	*Standard* [1]							
TCL Semi-Volatiles (µg/L) (cont.)									
4-Chlorophenyl phenyl ether			-	10 U	10 U	10 U	-	-	-
Diethylphthalate			-	10 U	10 U	10 U	-	-	-
4-Nitroaniline			-	25 U	25 U	25 U	-	-	-
4,6-Dinitro-2-methylphenol			-	25 U	25 U	25 U	-	-	-
N-nitrosodiphenylamine			-	10 U	10 U	10 U	-	-	-
4-Bromophenyl phenyl ether			-	10 U	10 U	10 U	-	-	-
Hexachlorobenzene			-	10 U	10 U	10 U	-	-	-
Pentachlorophenol			-	25 U	25 U	25 U	-	-	-
Phenanthrene			-	10 U	10 U	10 U	-	-	-
Anthracene			-	10 U	10 U	10 U	-	-	-
Carbazole			-	10 U	10 U	10 U	-	-	-
Di-n-butyl phthalate	NA	NA	-	0.5 J	10 U	10 U	-	-	-
Fluoranthene			-	10 U	10 U	10 U	-	-	-
Pyrene			-	10 U	10 U	10 U	-	-	-
Butyl benzyl phthalate			-	10 U	10 U	10 U	-	-	-
3,3'-Dichlorobenzidine			-	10 U	10 U	10 U	-	-	-
Benzo(a)anthracene			-	10 U	10 U	10 U	-	-	-
Chrysene			-	10 U	10 U	10 U	-	-	-
bis(2-Ethylhexyl)phthalate	A	4	-	0.5 J	0.6 J	1.1 J	-	-	-
Di-n-octyl phthalate			-	10 U	10 U	10 U	-	-	-
Benzo(b)fluoranthene			-	10 U	10 U	10 U	-	-	-
Benzo(k)fluoranthene			-	10 U	10 U	10 U	-	-	-
Benzo(a)pyrene			-	10 U	10 U	10 U	-	-	-
Indeno(1,2,3-cd)pyrene			-	10 U	10 U	10 U	-	-	-
Dibenz(a,h)anthracene			-	10 U	10 U	10 U	-	-	-
Benzo(g,h,i)perylene			-	10 U	10 U	10 U	-	-	-
PCBs (µg/L)									
Aroclor-1016			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1221			0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
Aroclor-1232			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1242			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1248			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1254	A	0.01	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1260			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 005*	*Outfall 006*	*Outfall 007*	*Outfall 011*	*Outfall 011*	*Outfall 008*
		Sample ID:	*SC-1006*	*SC-1007*	*SC-1008*	*SC-1010*	*SC-1011*	*SC-1012*
		Collection Date:	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*
							(Dup of SC-1010)	
	Water Class	*Standard* [1]						
TCL Semi-Volatiles (µg/L) (cont.)								
4-Chlorophenyl phenyl ether			-	-	-	-	-	-
Diethylphthalate			-	-	-	-	-	-
4-Nitroaniline			-	-	-	-	-	-
4,6-Dinitro-2-methylphenol			-	-	-	-	-	-
N-nitrosodiphenylamine			-	-	-	-	-	-
4-Bromophenyl phenyl ether			-	-	-	-	-	-
Hexachlorobenzene			-	-	-	-	-	-
Pentachlorophenol			-	-	-	-	-	-
Phenanthrene			-	-	-	-	-	-
Anthracene			-	-	-	-	-	-
Carbazole			-	-	-	-	-	-
Di-n-butyl phthalate	NA	NA	-	-	-	-	-	-
Fluoranthene			-	-	-	-	-	-
Pyrene			-	-	-	-	-	-
Butyl benzyl phthalate			-	-	-	-	-	-
3,3'-Dichlorobenzidine			-	-	-	-	-	-
Benzo(a)anthracene			-	-	-	-	-	-
Chrysene			-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	A	4	-	-	-	-	-	-
Di-n-octyl phthalate			-	-	-	-	-	-
Benzo(b)fluoranthene			-	-	-	-	-	-
Benzo(k)fluoranthene			-	-	-	-	-	-
Benzo(a)pyrene			-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene			-	-	-	-	-	-
Dibenz(a,h)anthracene			-	-	-	-	-	-
Benzo(g,h,i)perylene			-	-	-	-	-	-
PCBs (µg/L)								
Aroclor-1016			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1221			0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U
Aroclor-1232			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1242			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1248			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1254	A	0.01	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.12 J	0.10 U
Aroclor-1260			0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 004*	*DN*	*UP*	*UP*	*Outfall 013*	*Outfall 012*	*Outfall 010*
		Sample ID:	*SC-1000*	*SC-1001*	*SC-1002*	*SC-1009*	*SC-1003*	*SC-1004*	*SC-1005*
		Collection Date:	*10/05/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/05/95*	*10/05/95*	*10/06/95*
						(Dup of SC-1002)			
	Water Class	*Standard* [1]							
TAL Metals (µg/L)									
Aluminum	A	100	-	595 J	439 J	465 J	-	-	-
Antimony			-	3.0 U	3.0 U	3.0 U	-	-	-
Arsenic			-	3.0 U	3.0 U	3.0 U	-	-	-
Barium	A	1000	-	27.6	20.5	23.4	-	-	-
Beryllium			-	1.0 U	1.0 U	1.0 U	-	-	-
Cadmium			-	2.0 U	2.0 U	2.0 U	-	-	-
Calcium	NA	NA	-	26600	15300	16900	-	-	-
Chromium	A	50	-	2.6	2.0 U	2.3	-	-	-
Cobalt			-	2.0 U	2.0 U	2.0 U	-	-	-
Copper	A	200	-	24.1	21.2	26.1	-	-	-
Iron	A	300	-	828 J	567 J	565 J	-	-	-
Lead	A	50	-	9.9 J	8.3 J	7.4 J	-	-	-
Magnesium	A	35,000	-	8510	2630	3170	-	-	-
Manganese	A	300	-	31.6 J	11.5 J	14.6 J	-	-	-
Mercury	A	2	-	0.20 U	0.24 J	0.23 J	-	-	-
Nickel			-	8.0 U	8.0 U	8.0 U	-	-	-
Potassium	NA	NA	-	3360	1030 UJ	2200 J	-	-	-
Selenium			-	3.0 U	3.0 U	3.0 U	-	-	-
Silver			-	1.0 U	1.0 U	1.0 U	-	-	-
Sodium	NA	NA	-	28000	43700	44300	-	-	-
Thallium			-	1.0 U	1.0 U	1.0 U	-	-	-
Vanadium	A	14	-	2.6	2.0 U	2.3	-	-	-
Zinc	A	300	-	148 J	49.8 J	72.1 J	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 005*	*Outfall 006*	*Outfall 007*	*Outfall 011*	*Outfall 011*	*Outfall 008*
		Sample ID:	*SC-1006*	*SC-1007*	*SC-1008*	*SC-1010*	*SC-1011*	*SC-1012*
		Collection Date:	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*
							(Dup of SC-1010)	
	Water Class	*Standard* [(1)]						
TAL Metals (μg/L)								
Aluminum	A	100	-	-	-	-	-	-
Antimony			-	-	-	-	-	-
Arsenic			-	-	-	-	-	-
Barium	A	1000	-	-	-	-	-	-
Beryllium			-	-	-	-	-	-
Cadmium			-	-	-	-	-	-
Calcium	NA	NA	-	-	-	-	-	-
Chromium	A	50	-	-	-	-	-	-
Cobalt			-	-	-	-	-	-
Copper	A	200	-	-	-	-	-	-
Iron	A	300	-	-	-	-	-	-
Lead	A	50	-	-	-	-	-	-
Magnesium	A	35,000	-	-	-	-	-	-
Manganese	A	300	-	-	-	-	-	-
Mercury	A	2	-	-	-	-	-	-
Nickel			-	-	-	-	-	-
Potassium	NA	NA	-	-	-	-	-	-
Selenium			-	-	-	-	-	-
Silver			-	-	-	-	-	-
Sodium	NA	NA	-	-	-	-	-	-
Thallium			-	-	-	-	-	-
Vanadium	A	14	-	-	-	-	-	-
Zinc	A	300	-	-	-	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	***Outfall 004***	***DN***	***UP***	***UP***	***Outfall 013***	***Outfall 012***	***Outfall 010***
		Sample ID:	***SC-1000***	***SC-1001***	***SC-1002***	***SC-1009***	***SC-1003***	***SC-1004***	***SC-1005***
		Collection Date:	***10/05/95***	***10/05/95***	***10/05/95***	***10/06/95***	***10/05/95***	***10/05/95***	***10/06/95***
						(Dup of SC-1002)			
	Water Class	*Standard*$^{(1)}$							
General Chemistry (mg/L)									
Oil and Grease, Total Recoverable	NA	NA	8.0 U	-	-	-	8.0 U	85	8.0 U
Phenolics			-	0.050 U	0.050 U	0.050 U	-	-	-
Chemical Oxygen Demand			-	-	-	-	-	-	-
Total Suspended Solids			-	-	-	-	-	-	-
Formaldehyde (µg/L)			-	50.0 U	50.0 U	50.0 U	-	-	-

TABLE 6.14
SURFACE WATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Location:	*Outfall 005*	*Outfall 006*	*Outfall 007*	*Outfall 011*	*Outfall 011*	*Outfall 008*
		Sample ID:	*SC-1006*	*SC-1007*	*SC-1008*	*SC-1010*	*SC-1011*	*SC-1012*
		Collection Date:	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95*	*10/06/95* *(Dup of SC-1010)*	*10/06/95*
	Water Class	*Standard* (1)						
General Chemistry (mg/L)								
Oil and Grease, Total Recoverable	NA	NA	70	55	8.0 U	16	22	84
Phenolics			-	-	-	-	-	-
Chemical Oxygen Demand			-	-	16	-	-	-
Total Suspended Solids			-	-	36	-	-	-
Formaldehyde (µg/L)			-	-	-	50.0 U	50.0 U	-

Notes:

(1)	Surface water quality standards or guidance values for detected compounds from NYSDEC TOGS 1.1.1-Ambient Water Quality Standards and Guidance Values.
-	Not Analyzed
DN	Downstream of Resin Drum Landfill.
Dup	Field Duplicate
J	Associated value is estimated.
NA	Not Available.
PCBs	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
TAL	Target Analyte List
TCL	Target Compound List
U	Non-detect at associated value.
UP	Upstream of Resin Drum Landfill.
☐	Exceeds surface water standard or guidance value.

TABLE 6.15

SEDIMENT SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Location:	*UP*	*DN*	*DN*
Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
Collection Date:	*10/09/95*	*10/09/95*	*10/09/95* *(Dup of SC-1014)*
Soil Cleanup Objectives [(1)]			
TCL Volatiles (μg/kg)			
Chloromethane	26 UJ	34 UJ	30 UJ
Vinyl chloride	26 UJ	34 UJ	30 UJ
Bromomethane	26 UJ	34 UJ	30 UJ
Chloroethane	26 UJ	34 UJ	30 UJ
1,1-Dichloroethene	26 UJ	34 UJ	30 UJ
Carbon disulfide	26 UJ	34 UJ	30 UJ
Acetone	26 UJ	34 UJ	30 UJ
Methylene chloride	51 UJ	34 UJ	30 UJ
1,1-Dichloroethane	26 UJ	34 UJ	30 UJ
1,2-Dichloroethene (Total)	26 UJ	34 UJ	30 UJ
Chloroform	26 UJ	34 UJ	30 UJ
1,2-Dichloroethane	26 UJ	34 UJ	30 UJ
2-Butanone	26 UJ	34 UJ	30 UJ
1,1,1-Trichloroethane	26 UJ	34 UJ	30 UJ
Carbon tetrachloride	26 UJ	34 UJ	30 UJ
Benzene	26 UJ	34 UJ	30 UJ
Trichloroethene	26 UJ	34 UJ	30 UJ
1,2-Dichloropropane	26 UJ	34 UJ	30 UJ
Bromodichloromethane	26 UJ	34 UJ	30 UJ
trans-1,3-Dichloropropene	26 UJ	34 UJ	30 UJ
cis-1,3-Dichloropropene	26 UJ	34 UJ	30 UJ
1,1,2-Trichloroethane	26 UJ	34 UJ	30 UJ
Dibromochloromethane	26 UJ	34 UJ	30 UJ
Bromoform	26 UJ	34 UJ	30 UJ
4-Methyl-2-pentanone	26 UJ	34 UJ	30 UJ
Toluene	26 UJ	34 UJ	30 UJ
Tetrachloroethene	26 UJ	34 UJ	30 UJ
2-Hexanone	26 UJ	34 UJ	30 UJ
Chlorobenzene	26 UJ	34 UJ	30 UJ
Ethyl benzene	26 UJ	34 UJ	30 UJ
Xylene (Total)	26 UJ	34 UJ	30 UJ
Styrene	26 UJ	34 UJ	30 UJ
1,1,2,2-Tetrachloroethane	26 UJ	34 UJ	30 UJ

TABLE 6.15

SEDIMENT SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

	Location:	*UP*	*DN*	*DN*
	Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
	Collection Date:	*10/09/95*	*10/09/95*	*10/09/95*
				(Dup of SC-1014)
	Soil Cleanup Objectives [1]			
Alcohols (µg/kg)				
Methanol		21000 UJ	19000 UJ	21000 UJ
Ethanol		21000 UJ	19000 UJ	21000 UJ
TCL Semi-Volatiles (µg/kg)				
Aniline	100	2500 J	5700 UJ	1000 UJ
bis(2-Chloroethyl)ether		4300 UJ	5700 UJ	1000 UJ
Phenol	30 or MDL	5400 J	2800 J	1600 J
2-Chlorophenol		4300 UJ	5700 UJ	1000 UJ
1,3-Dichlorobenzene		4300 UJ	5700 UJ	1000 UJ
1,4-Dichlorobenzene		4300 UJ	5700 UJ	1000 UJ
1,2-Dichlorobenzene		4300 UJ	5700 UJ	1000 UJ
2,2'-oxybis(1-Chloropropane)		4300 UJ	5700 UJ	1000 UJ
2-Methylphenol	100 or MDL	1400 J	1100 J	490 J
Hexachloroethane		4300 UJ	5700 UJ	1000 UJ
N-Nitroso-di-n-propylamine		4300 UJ	5700 UJ	1000 UJ
3&4-Methylphenol	900	2400 J	1600 J	690 J
Nitrobenzene		4300 UJ	5700 UJ	1000 UJ
Isophorone		4300 UJ	5700 UJ	1000 UJ
2-Nitrophenol		4300 UJ	5700 UJ	1000 UJ
2,4-Dimethylphenol	-	8500 J	3100 J	1900 J
bis(2-Chloroethoxy)methane		4300 UJ	5700 UJ	1000 UJ

TABLE 6.15

SEDIMENT SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

	Location:	*UP*	*DN*	*DN*
	Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
	Collection Date:	*10/09/95*	*10/09/95*	*10/09/95*
				(Dup of SC-1014)
	Soil Cleanup Objectives (1)			
TCL Semi-Volatiles (µg/kg) (cont.)				
2,4-Dichlorophenol		4300 UJ	5700 UJ	1000 UJ
1,2,4-Trichlorobenzene		4300 UJ	5700 UJ	1000 UJ
Naphthalene	13,000	430 J	17000 J	1100 J
4-Chloroaniline		4300 UJ	5700 UJ	1000 UJ
Hexachlorobutadiene		4300 UJ	5700 UJ	1000 UJ
4-Chloro-3-methylphenol		4300 UJ	5700 UJ	1000 UJ
2-Methylnaphthalene	36,400	4300 UJ	7900 J	590 J
Hexachlorocyclopentadiene		4300 UJ	5700 UJ	1000 UJ
2,4,6-Trichlorophenol		4300 UJ	5700 UJ	1000 UJ
2,4,5-Trichlorophenol		11000 UJ	14000 UJ	2500 UJ
2-Chloronaphthalene		4300 UJ	5700 UJ	1000 UJ
2-Nitroaniline		11000 UJ	14000 UJ	2500 UJ
Dimethyl phthalate	2,000	4300 UJ	310 J	1000 UJ
Acenaphthylene		4300 UJ	5700 UJ	1000 UJ
2,6-Dinitrotoluene		4300 UJ	5700 UJ	1000 UJ
Acenaphthene	50,000	4300 UJ	9800 J	820 J
3-Nitroaniline		11000 UJ	14000 UJ	2500 UJ
2,4-Dinitrophenol		11000 UJ	14000 UJ	2500 UJ
Dibenzofuran	6,200	4300 UJ	9000 J	680 J
2,4-Dinitrotoluene		4300 UJ	5700 UJ	1000 UJ
4-Nitrophenol		11000 UJ	14000 UJ	2500 UJ
Fluorene	50,000	4300 UJ	13000 J	1000 J
4-Chlorophenyl phenyl ether		4300 UJ	5700 UJ	1000 UJ
Diethylphthalate		4300 UJ	5700 UJ	1000 UJ
4-Nitroaniline		11000 UJ	14000 UJ	2500 UJ
4,6-Dinitro-2-methylphenol		11000 UJ	14000 UJ	2500 UJ
N-nitrosodiphenylamine		4300 UJ	5700 UJ	1000 UJ
4-Bromophenyl phenyl ether		4300 UJ	5700 UJ	1000 UJ
Hexachlorobenzene		4300 UJ	5700 UJ	1000 UJ
Pentachlorophenol		11000 UJ	14000 UJ	2500 UJ
Phenanthrene	50,000	370 J	39000 J	4400 J
Anthracene	50,000	4300 UJ	17000 J	1500 J
Carbazole	-	4300 UJ	8900 J	790 J
Di-n-butyl phthalate	8,100	98000 J	27000 J	28000 J
Fluoranthene	50,000	650 J	33000 J	3800 J

TABLE 6.15

SEDIMENT SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

	Location:	*UP*	*DN*	*DN*
	Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
	Collection Date:	*10/09/95*	*10/09/95*	*10/09/95*
				(Dup of SC-1014)
	Soil Cleanup Objectives [(1)]			
TCL Semi-Volatiles (µg/kg) (cont.)				
Pyrene	50,000	450 J	26000 J	3000 J
Butyl benzyl phthalate	50,000	1200 J	5700 UJ	1000 UJ
3,3'-Dichlorobenzidine		4300 UJ	5700 UJ	1000 UJ
Benzo(a)anthracene	224 or MDL	300 J	21000 J	2100 J
Chrysene	400	350 J	16000 J	1800 J
bis(2-Ethylhexyl)phthalate		1200 J	5700 UJ	350 J
Di-n-octyl phthalate		4300 UJ	5700 UJ	1000 UJ
Benzo(b)fluoranthene	224 or MDL	290 J	12000 J	1200 J
Benzo(k)fluoranthene	224 or MDL	400 J	9400 J	1100 J
Benzo(a)pyrene	61 or MDL	330 J	14000 J	1300 J
Indeno(1,2,3-cd)pyrene	3,200	230 J	6400 J	680 J
Dibenz(a,h)anthracene	14 or MDL	4300 UJ	2800 J	340 J
Benzo(g,h,i)perylene	50,000	220 J	5200 J	550 J
PCBs (µg/kg)				
Aroclor-1016		85 UJ	110 UJ	100 UJ
Aroclor-1221		170 UJ	230 UJ	200 UJ
Aroclor-1232		85 UJ	110 UJ	100 UJ
Aroclor-1242		85 UJ	110 UJ	100 UJ
Aroclor-1248	1,000	11000 J	4200 J	3500 J
Aroclor-1254		85 UJ	110 UJ	100 UJ
Aroclor-1260		85 UJ	110 UJ	100 UJ
TAL Metals (mg/kg)				
Aluminum	SB (16,200)	7810 J	11100 J	10800 J
Antimony		R	R	R
Arsenic	SB (4.9)	5.8 J	46.9 J	46.6 J
Barium	300	76.2 J	250 J	278 J
Beryllium	SB (0.89)	0.61 J	0.78 J	0.84 J
Cadmium		2.0 UJ	2.4 UJ	2.9 UJ
Calcium	SB (73,800)	15900 J	21000 J	14300 J
Chromium	50	26.2 J	81.3 J	42.6 J
Cobalt	30	7.4 J	10.9 J	9.5 J
Copper	25	66.7 J	637 J	958 J
Iron	SB (26,100)	14200 J	40700 J	28900 J

TABLE 6.15

SEDIMENT SAMPLE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

	Location:	*UP*	*DN*	*DN*
	Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
	Collection Date:	*10/09/95*	*10/09/95*	*10/09/95* *(Dup of SC-1014)*
	Soil Cleanup Objectives [(1)]			
TAL Metals (mg/kg) (cont'd.)				
Lead	200-500	51.0 J	488 J	568 J
Magnesium	SB (16,800)	7930 J	7720 J	7770 J
Manganese	SB (657)	352 J	1020 J	753 J
Mercury	0.1	1.5 J	0.45 J	R
Nickel	SB (24.8)	31.1 J	57.1 J	53.3 J
Potassium	SB (2,060)	527 UJ	1250 J	632 UJ
Selenium	2	1.5 UJ	2.5 J	2.1 J
Silver	SB (ND)	0.51 UJ	1.5 J	1.2 UJ
Sodium	SB (ND)	277 J	372 J	305 J
Thallium		0.51 UJ	2.0 UJ	1.2 UJ
Vanadium	150	15.3 J	35.9 J	23.9 J
Zinc	SB (95)	1970 J	7730 J	7570 J
Formaldehyde (mg/kg)		1.1 UJ	0.96 UJ	1.1 UJ

Notes:

(1)	NYSDEC recommended soil cleanup objectives for detected compounds in TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, draft revision October 8, 1995.
DN	Downstream of Resin Drum Landfill.
Dup	Field Duplicate
J	Associated value is estimated.
NA	Not Available.
ND	Not Detected.
PCBs	Polychlorinated Biphenyls
R	Data Rejected
RCRA	Resource Conservation and Recovery Act
TAL	Target Analyte List
TCL	Target Compound List
U	Non-detect at associated value.
UP	Upstream of Resin Drum Landfill.
☐	Exceeds Soil Cleanup Objective.

APPENDIX A

RI AND RFI BOREHOLE STRATIGRAPHIC LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

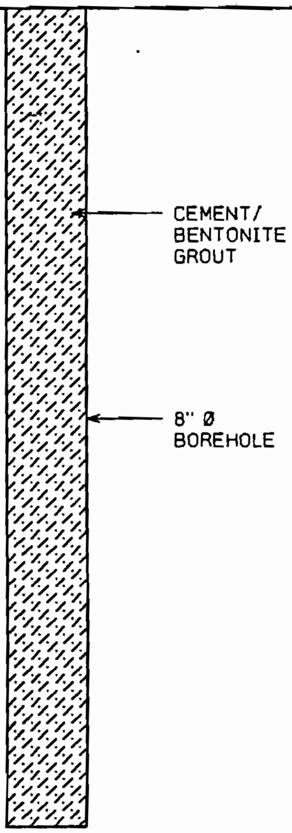
(WL-24)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH23
DATE COMPLETED: MAY 3, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	**599.1**
	MH-SILT (FILL), some clay, trace fine sand, trace fine to medium gravel, subround to round, stiff, red brown, moist	
-2.5		
	- alternating bands of yellow, green and black fiber tube grindings to 4.1ft BGS, no gravel, moist to wet	*594.6*
-5.0	MH-SILT (NATIVE), some clay, trace fine sand, trace fine gravel, angular to subround, massive, red brown, moist, trace rootlets, several gray sandy seams	
-7.5	- little clay, little fine sand, trace fine gravel, subangular to round, hard	
-10.0	- some clay, trace fine sand	
-12.5		
-15.0		
-17.5		
-20.0		*579.1*
	END OF HOLE @ 20.0ft BGS	
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	14	0
2SS	☒	8	0
3SS	☒	5	0
4SS	☒	20	0
5SS	☒	38	0
6SS	☒	51	0
7SS	☒	48	0
8SS	☒	16	0
9SS	☒	47	0
10SS	☒	31	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

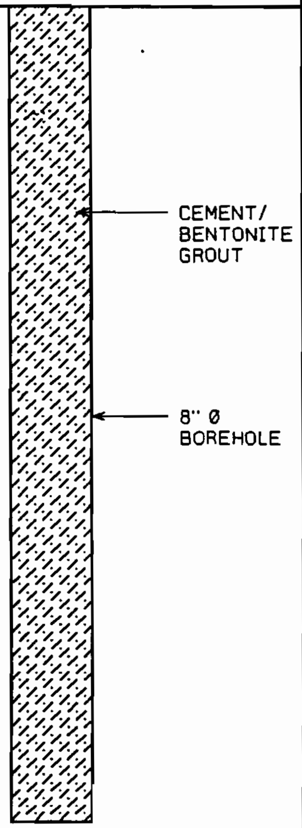
(WL-25)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH24
DATE COMPLETED: MAY 11, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	**601.6**
	CRUSHED STONE (FILL), some silt, some clay, medium dense, gray, dry	
		599.6
-2.5	MH-SILT (NATIVE), some clay, trace fine gravel, angular to subround, very stiff, massive, red brown, moist	
	- trace fine sand	
-5.0		
	- hard	
-7.5		
-10.0		
-12.5		
-15.0		
-17.5		
-20.0		*581.6*
	END OF HOLE @ 20.0ft BGS	
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	11	0
⬭ 2SS	☒	26	0
3SS	☒	28	0
⬭ 4SS	☒	63	0
5SS	☒	31	0
⬭ 6SS	☒	55	0
7SS	☒	55	0
8SS	☒	37	0
⬭ 9SS	☒	41	0
10SS	☒	48	0

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-16)
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PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH14
DATE COMPLETED: MAY 1, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.2					
	MH-SILT (FILL), trace fine sand, medium dense, brown black, dry, vegetative material, rootlets			1SS	☒	13	0.5
-2.5	- some clay, trace fine gravel, red brown, cinders, pieces of brick			2SS	☒	14	0.2
-5.0	- little clay, little fine to medium gravel, angular to round, no cinders or vegetative material, dry to moist	591.7	CEMENT/ BENTONITE GROUT	3SS	☒	6	0
	MH-SILT (NATIVE), some clay, trace fine sand, firm, laminated, red brown, moist, several sandy seams			4SS	☒	37	0
-7.5	- trace rootlets, hard - little clay, some fine sand, trace fine gravel, subangular to round, some wet areas around gravel			5SS	☒	14	0
-10.0	- some clay, trace fine sand, moist to wet, strong chemical odor, trace NAPL		8" Ø BOREHOLE	6SS	☒	40	4.3
-12.5	- trace fine to medium gravel, subangular to round, moist			7SS	☒	33	5.3
-15.0	- trace rootlets			8SS	☒	26	0.7
-17.5	- moist to wet, no odor or NAPL			9SS	☒	47	0
				10SS	☒	29	0
-20.0	END OF HOLE @ 20.0ft BGS	576.2					
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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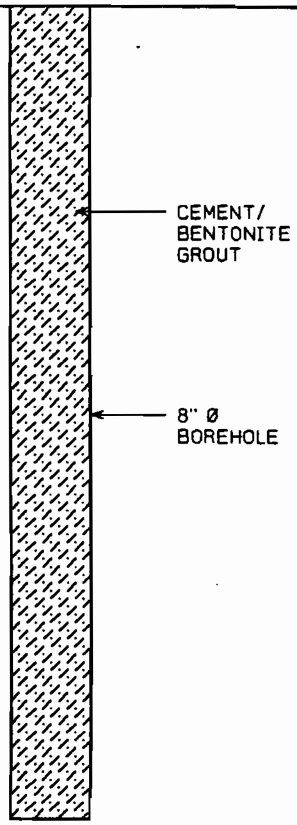
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH15
DATE COMPLETED: MAY 2, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	598.0
	CONCRETE and CRUSHED STONE (FILL), moist to wet, free petroleum liquid, strong petroleum odor, gray black	
-2.5		
	CH-CLAY (NATIVE), some silt, stiff, moderately plastic, massive, moist, black green, no petroleum odor	593.8
-5.0		
	- sand seam (6.2 to 6.5ft BGS)	591.5
-7.5	MH-SILT, some clay, trace fine sand, hard, laminated, red brown, moist	
	- sand and gravel seam (9.4 to 9.6ft BGS)	
-10.0		
	- trace fine gravel, angular to round, less laminated	
-12.5	- little fine to medium gravel, angular to round	
-15.0		
	- massive	
-17.5		
-20.0	END OF HOLE @ 20.0ft BGS	578.0
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	9	[illegible]
2SS	☒	16	5.0
3SS	☒	10	0.4
4SS	☒	49	0
5SS	☒	20	0
6SS	☒	26	0.2
7SS	☒	58	0
8SS	☒	33	0
9SS	☒	36	0
10SS	☒	36	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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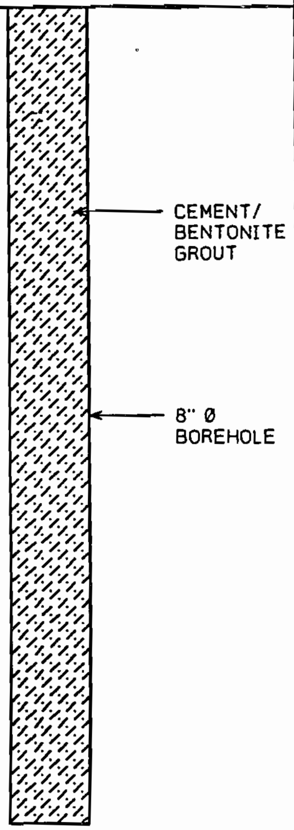
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH16
DATE COMPLETED: MAY 1, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	**597.3**
	CINDERS and BRICK	
		595.3
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, firm, moderately plastic, red brown, moist, trace cinders, pockets of coarse sand	
		593.3
-5.0	CH-CLAY, some silt, stiff, massive, blue green, moist	
		590.6
-7.5	MH-SILT, some clay, trace fine sand, hard, laminated, red brown, moist, trace rootlets - no rootlets	
-10.0		
	- little fine sand, trace fine gravel, subround to round, more massive than laminated, no clay	
-12.5	- some fine sand, trace fine to medium gravel, angular to subround, moist to wet	
	- some clay, trace fine sand, trace fine gravel, moist	
-15.0	- little fine sand, massive	
	- trace fine to medium gravel, subangular to round	
-17.5		
-20.0		*577.3*
	END OF HOLE @ 20.0ft BGS	
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	13	0
2SS	☒	6	0
3SS	☒	11	0
4SS	☒	36	0
5SS	☒	33	0
6SS	☒	33	0
7SS	☒	53	0
8SS	☒	28	0
9SS	☒	34	0
10SS	☒	50	0

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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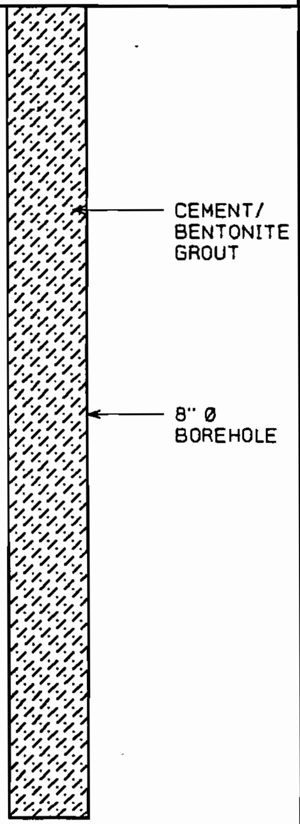
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH18
DATE COMPLETED: MAY 2, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN



DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	**599.6**					
	MH-SILT (FILL), some crushed stone, very dense, light brown to black, dry - cinders, strong chemical odor, moist to wet			1SS	☒	52	25.6
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, very stiff, red brown, moist, strong chemical odor	597.4		2SS	☒	20	1.1
-5.0	- hard, laminated		CEMENT/ BENTONITE GROUT	3SS	☒	33	1.4
-7.5				4SS	☒	34	2.0
				5SS	☒	37	0.6
-10.0	- trace fine gravel, subangular to round, no odor - no gravel		8" Ø BOREHOLE	6SS	☒	29	0
-12.5	- trace fine gravel			7SS	☒	60	0
-15.0	SP-SAND, some silt, trace clay, dense, poorly graded, massive, red brown, moist to wet MH-SILT, some sand, trace clay, hard, massive, red brown, moist	585.6 584.4		8SS	☒	35	0
-17.5	- some clay, trace fine sand, trace fine to medium gravel, angular to round, moist to wet			9SS	☒	37	0
	- moist			10SS	☒	49	0
-20.0	END OF HOLE @ 20.0ft BGS	579.6					
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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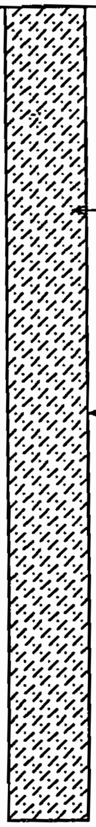
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH19
DATE COMPLETED: MAY 3, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	**599.1**					
	CRUSHED STONE (FILL), gray, wet MH-SILT (NATIVE), some sand, trace to little clay, trace fine gravel, subround to round, moderately plastic, red brown, moist	598.0		1SS	☒	20	0
-2.5	- some clay, trace fine sand, no gravel, trace rootlets, laminated			2SS ⬭	☒	14	0
-5.0	SP-SAND, some silt, trace fine gravel, subround to round, dense, poorly graded, red, dry to moist	594.2 593.6	CEMENT/ BENTONITE GROUT	3SS	☒	38	0
-7.5	MH-SILT, some clay, trace fine sand, trace fine gravel, subround to round, very stiff, red brown, moist			4SS	☒	34	0
	SP-SAND, some silt, trace fine gravel, subround to round, medium dense, poorly graded, red brown, moist to wet	590.9 589.6		5SS	☒	29	0
-10.0	MH-SILT, some clay, trace fine sand, trace fine gravel, subround to round, red brown, moist		8" Ø BOREHOLE	6SS	☒	21	0
-12.5	- some sand, little clay, trace fine to medium gravel, angular to round, very stiff, massive, red brown, moist			7SS	☒	100	0
-15.0	- hard - some clay, trace fine sand, trace fine gravel, angular to round			8SS	☒	37	0
-17.5				9SS	☒	79	0
	- trace fine to medium gravel, angular to round, very stiff			10SS	☒	24	0
-20.0	END OF HOLE @ 20.0ft BGS	579.1					
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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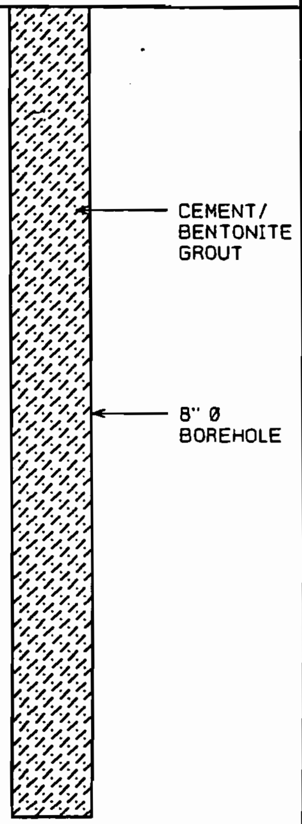
PROJECT NAME: SPAULDING COMPOSITES FFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH20
DATE COMPLETED: MAY 5, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: K. LYNCH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	603.1
	MH-SILT (FILL), some sand, medium dense, brown, abundant rootlets	
-2.5	- little clay, little fine sand, trace fine gravel, round, red brown, dry to moist, trace slag and concrete	*601.3*
	MH-SILT (NATIVE), little clay, little fine sand, red brown, moist	
-5.0	- dry to moist, little mottling	
	- trace fine gravel, round, more laminated	*597.1*
-7.5	SP-SAND, little silt, dense, poorly graded, laminated, red brown, moist to wet	*596.2*
	MH-SILT, little fine sand, little clay, trace fine gravel, round, hard, more massive, red brown, dry to moist, trace iron staining	
-10.0	- moist	
-12.5	- abundant old rootlets	
-15.0	- some clay, trace fine to medium gravel, subangular to subround, massive, trace rootlets	
	- trace fine sand	
-17.5		
-20.0	END OF HOLE @ 20.0ft BGS	*583.1*
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	14	0
2SS	☒	24	0
3SS	☒	36	0
4SS	☒	44	0
5SS	☒	42	0
6SS	☒	36	0
7SS	☒	48	0
8SS	☒	19	0
9SS	☒	15	0
10SS	☒	23	0

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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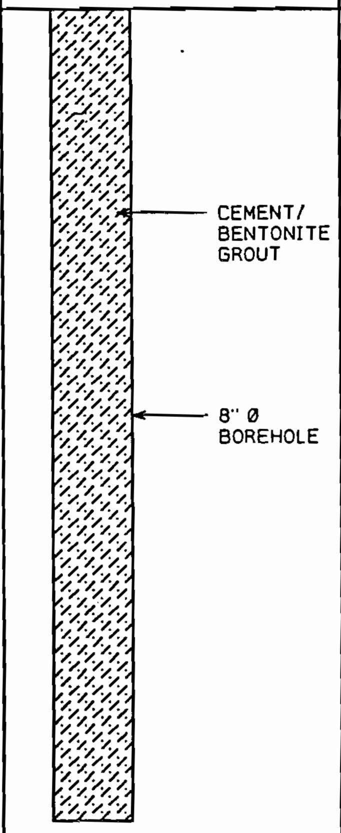
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH21
DATE COMPLETED: MAY 5, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: K. LYNCH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE	601.7
	SW-SAND (FILL), medium dense, well graded, black, trace coal, trace brick, slight aromatic odor - moist to wet	
-2.5		599.0
	MH-SILT (NATIVE), little clay, little sand, stiff, dark brown, dry to moist, some rootlets	597.7
-5.0	- trace fine gravel, moderately plastic, massive, red brown	596.1
	CH-CLAY, little silt, trace fine sand, trace medium gravel, subangular, soft, moderately plastic, red brown, moist	
-7.5		
	MH-SILT, some clay, trace sand, red brown, dry to moist - stiff	
-10.0	- trace clay, little fine sand, little fine gravel, subangular to subround, very stiff, laminated, dry	
-12.5		
	- some fine sand	
-15.0		586.2
	SP-SAND, medium dense, poorly graded, red brown, moist to wet	584.5
-17.5	MH-SILT, little clay, little fine sand, red brown, moist - occasional moist to wet sand seams	
-20.0		581.7
	END OF HOLE @ 20.0ft BGS	
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	10	0
2SS	☒	10	0.2
3SS	☒	4	0
4SS	☒	9	0.2
5SS	☒	29	0
6SS	☒	12	0
7SS	☒	30	0.2
8SS	☒	23	0
9SS	☒	21	0
10SS	☒	22	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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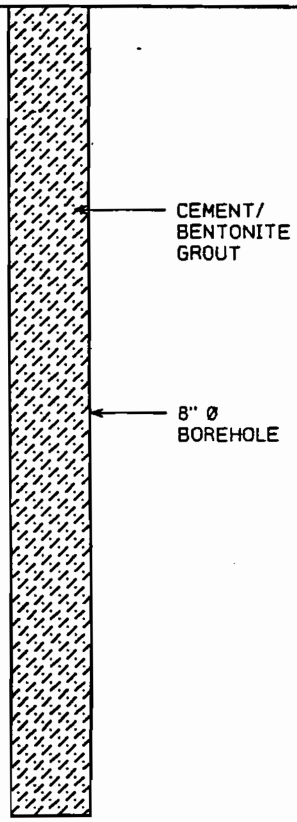
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH22
DATE COMPLETED: MAY 8, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	599.8				
	MH-SILT (FILL), little fine sand, trace fine gravel, medium dense, black, dry, trace cinders		1SS	☒	12	0
	- some clay, trace fine gravel, red brown, moist					
-2.5	- slag, moist to wet		2SS	☒	16	0
	- trace coarse sand, no gravel					
-5.0			3SS	☒	8	0
	- wet					
			4SS	☒	9	0
-7.5						
	- pieces of concrete					
			5SS	☒	9	0
-10.0	- pieces of phenolic resins, phenol odor					
			6SS	☒	4	0
-12.5			7SS	☒	10	0
	- pieces of vegetation					
-15.0			8SS	☒	6	0
		582.9	9SS	☒	18	0
-17.5	MH-SILT (NATVE), some clay, trace fine sand, trace fine to medium gravel, angular to round, very stiff, massive, red brown, moist					
			10SS	☒	24	0
-20.0		*579.8*				
	END OF HOLE @ 20.0ft BGS					
-22.5						
-25.0						
-27.5						
-30.0						
-32.5						

MONITOR INSTALLATION



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
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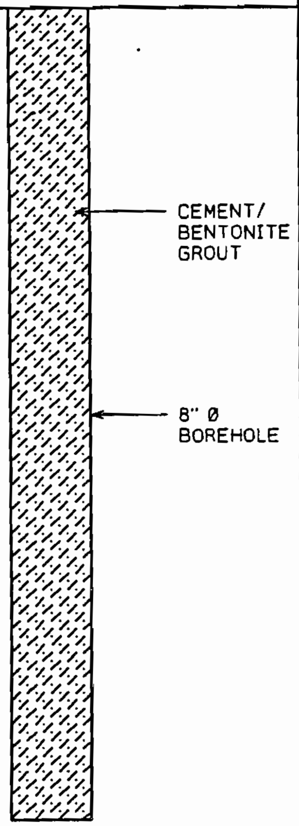
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BH25
DATE COMPLETED: MAY 15, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN



DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	601.3					
	MH-SILT (FILL), little fine sand, trace clay, medium dense, brown black, moist, rootlets	600.6		1SS	☒	10	0
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, red brown, moist - trace rootlets, hard, massive, mottled			2SS	☒	52	0
-5.0	- trace fine gravel, subangular to round, some weathering around gravel			3SS	☒	42	0
-7.5				4SS	☒	69	0
				5SS	☒	58	0
-10.0	- trace fine to coarse sand			6SS	☒	44	0
-12.5				7SS	☒	74	0
-15.0				8ST	☒		0
	- very stiff			9SS	☒	17	0
-17.5	- trace fine to medium gravel, several sand seams			10SS	☒	15	0
-20.0	END OF HOLE @ 20.0ft BGS	581.3					
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭ GRAIN SIZE ANALYSIS ▭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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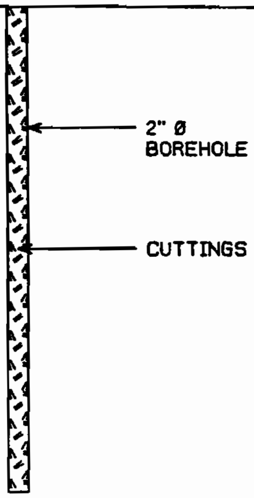
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH40C
DATE COMPLETED: SEPTEMBER 9, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	599.4					
	SP-SAND (FILL), some fine to medium gravel						
-2.5							
							0.0
-5.0							
-7.5							
							0.0
-10.0	MH-SILT (NATIVE), some clay, massive, red brown	*589.4*					0.0
-12.5	END OF HOLE @ 12.0ft BGS	*587.4*					
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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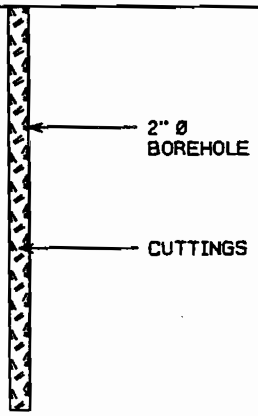
PROJECT NAME; RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH41
DATE COMPLETED: SEPTEMBER 9, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	597.8					
	CINDERS and GRAVEL (FILL)	597.5		SC-907			0.0
	MH-SILT (NATIVE), some clay, mottled, red brown, rootlets						
-2.5	- moderate petroleum odor, no rootlets			SC-909			12.0
	- little fine sand, trace fine gravel, laminated, moist						5.0
-5.0							
-7.5	- some sand, little gravel, subangular, massive, moist						
				SC-908			0.0
-10.0	END OF HOLE @ 10.0ft BGS	587.8					
	NOTES: 1. Samples SC-907, SC-908 and SC-909 analysed for TPH.						
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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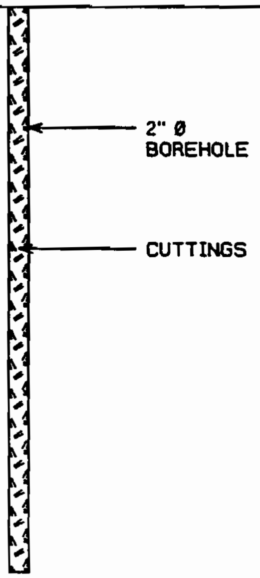
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH43
DATE COMPLETED: SEPTEMBER 9, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	599.2					
	MH-SILT (FILL), dark brown topsoil, rootlets - trace sand, trace fine gravel, subangular to angular			SC-911			0.0
2.5	MH-SILT (NATIVE), some clay, mottled, red brown, moist, verticle desiccation cracks - free petroleum product along desiccation cracks	597.2					30.0
5.0				SC-912			50.0
7.5	- some fine sand, little clay, massive, red brown, dry to moist						10.0
10.0							
12.5	- trace fine gravel, subangular to subround			SC-914			0.0
15.0	END OF HOLE @ 14.0ft BGS NOTES: 1. Samples SC-911, SC-912 and SC-914 analysed for TPH.	585.2					
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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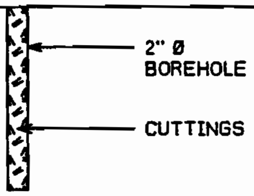
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH48
DATE COMPLETED: SEPTEMBER 9, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	601.8					
	GP-GRAVEL (FILL), some fine sand, black, moist, moderate petroleum odor						
-2.5							
	MH-SILT (NATIVE), some clay, trace fine gravel, subround, massive, red brown, moist	*598.3*					
		597.3		SC-916			
-5.0	END OF HOLE @ 4.5ft BGS NOTES: 1. Samples SC-916 analysed for PCB's.						
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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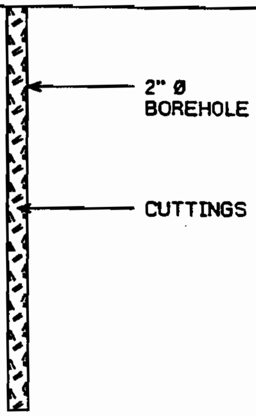
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH53
DATE COMPLETED: SEPTEMBER 10, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	606.6					
	MH-SILT (FILL), some fine sand, topsoil - some clay, mottled, red brown to gray, dry to moist						
-2.5	- layer of laminate dust, yellow-green						
-5.0							
-7.5							
	MH-SILT (NATIVE), little clay, little fine sand, trace fine gravel, subround, red brown, moist	*598.6*					
-10.0	END OF HOLE @ 10.0ft BGS	*596.6*					
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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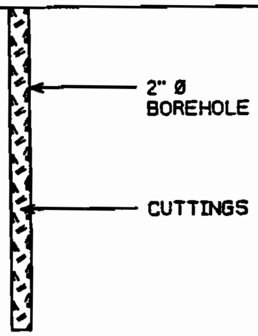
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH55
DATE COMPLETED: SEPTEMBER 10, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	598.8					
	MH-SILT (FILL), some clay, rootlets - trace coarse sand, red brown, moist, no rootlets			SC-919			0.0
-2.5							
	- pieces of laminate, board and wood, dark green to red brown, moist to wet						0.0
-5.0							
		592.8					0.0
	MH-SILT (NATIVE), some clay, trace fine gravel, massive, red brown, moist						
-7.5							
		590.8					
	END OF HOLE @ 8.0ft BGS NOTE: 1. Sample SC-919 analysed for TPH.						
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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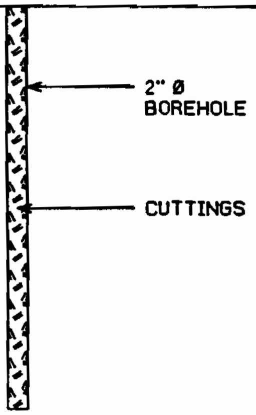
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH60
DATE COMPLETED: SEPTEMBER 10, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN



DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	599.8					
	SP-SAND (FILL), dark red, moist	599.0		SC-928			0.0 20.0
	GP-GRAVEL (FILL), cinders, trace pieces of slag	597.8					0.0
2.5	MH-SILT (FILL), some clay, trace pieces of wood, red brown	596.3					2.0 0.0
	- layer of porous crystallized fill material, slight chemical odor			SC-929			
5.0	- dark green brown staining						
	MH-SILT (NATIVE), some clay, trace rootlets, dark brown to black, very slight phenol odor						
7.5	- mottled, becoming laminated			SC-930			0.0
	- occasional silt lenses						
10.0	END OF HOLE @ 10.0ft BGS	589.8					
12.5	NOTE: 1. Sample SC-928, SC-929 and SC-930 analysed for SSPL-C1.						
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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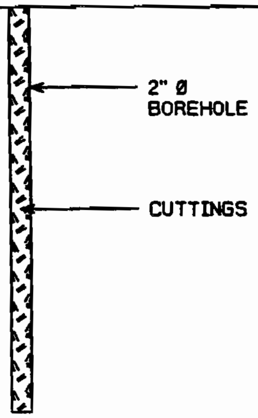
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH61
DATE COMPLETED: SEPTEMBER 10, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	599.4					
	SP-SAND (FILL), little medium gravel, brown to black - layer of blue green, crushed stone like fill material, trace fine sand, no gravel			SC-931			0.0
2.5							
5.0							
	MH-SILT (NATIVE), some clay, dark brown to green staining	*593.4*		SC-932			0.0
7.5				SC-933			
10.0	END OF HOLE @ 10.0ft BGS	*589.4*					
12.5	NOTE: 1. Sample SC-931, SC-932 and SC-933 analysed for SSPL-C1.						
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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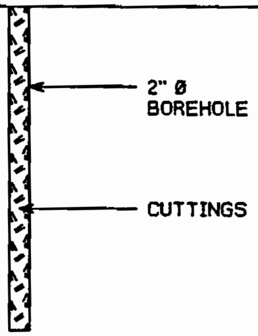
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH64
DATE COMPLETED: SEPTEMBER 10, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	593.8					
	MH-SILT (FILL), some clay, trace fine sand, trace rootlets, mottled, red brown to black, dry to moist			SC-939			0.0
-2.5							
	MH-SILT (NATIVE), some clay, trace fine sand, trace rootlets, becoming laminated, red brown to black, dry to moist	*589.3*		SC-940			0.0
-5.0							
-7.5							
	END OF HOLE @ 8.0ft BGS NOTE: 1. Sample SC-939 and SC-940 analysed for SSPL-B1.	*585.8*					
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-46)
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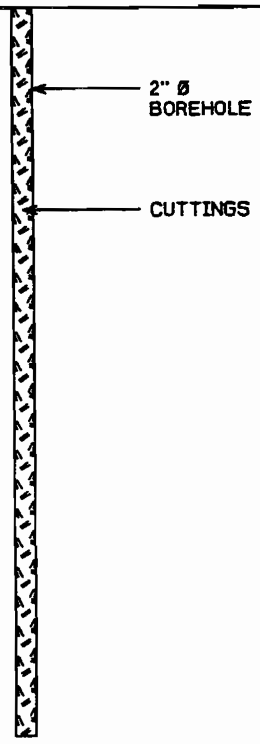
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH67
DATE COMPLETED: SEPTEMBER 11, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN



DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	595.8					
	GRAVEL (FILL), fine grained	*595.3*		SC-947			0.0
	MH-SILT (FILL), some clay, trace fine sand, trace rootlets, brown to red brown			SC-948			
-2.5							
	– 1" sand seam	*592.6*					
	MH-SILT (NATIVE), some clay, trace fine sand, mottled red brown, moist			SC-950			0.0
-5.0	– trace rootlets, occasional silt lenses and desiccation cracks						
-7.5	– massive						0.0
-10.0	– some fine sand, trace fine gravel, no clay, subangular to subround, moist to wet						
	– some clay, trace fine sand, red brown, moist						0.0
-12.5							
	SP-SAND, some silt, little clay, trace fine gravel, moist	*581.8*					
-15.0		*580.8*					
	MH-SILT, some clay, trace fine gravel, trace fine sand, red brown, moist			SC-949			0.0
-17.5							
	END OF HOLE @ 18.0ft BGS	*577.8*					
-20.0	NOTES: 1. Samples SC-947, SC-949 and SC-950 analysed for SSPL-B2. 2. Sample SC-948 analysed for PCB's.						
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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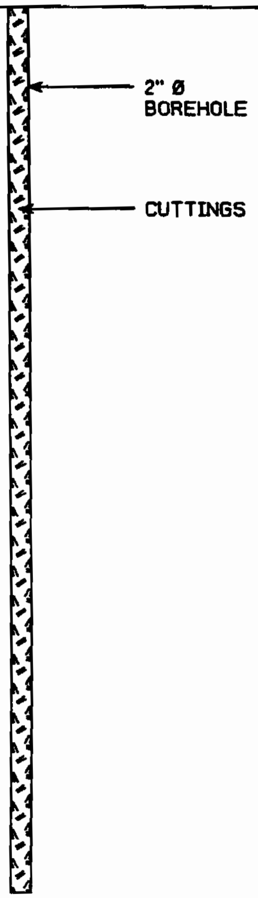
PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH88
DATE COMPLETED: SEPTEMBER 11, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.0					
	MH-SILT (FILL), some gravel						
			2" Ø BOREHOLE				
-2.5							
	MH-SILT (NATIVE), some clay, trace fine sand, red brown, moist, silt lenses	592.5					12.0 5.0
-5.0			CUTTINGS				
-7.5							
	- massive						8.0
-10.0	- some fine sand			SC-958			55.0
		584.0					20.0
-12.5	SP-SAND, little silt, trace fine gravel, massive, red brown						
		582.0					15.0
-15.0	MH-SILT, some clay, little fine sand, massive, red brown.						
							20.0
-17.5							5.0
-20.0				SC-959			0.0
		574.0					
-22.5	END OF HOLE @ 22.0ft BGS						
	NOTE: 1. Samples SC-958 and SC-959 analysed for SSPL-B3.						
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

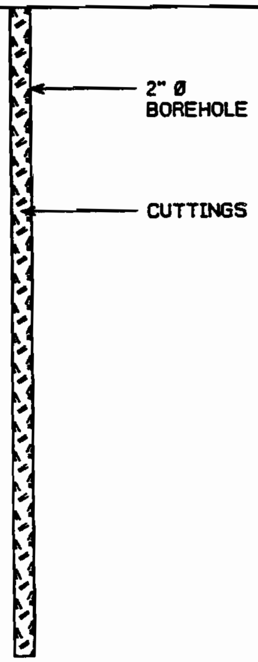
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-48)
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

HOLE DESIGNATION: BH95
DATE COMPLETED: SEPTEMBER 12, 1996
DRILLING METHOD: GEOPROBE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	596.1					
	SP-SAND (FILL), brown, strong chemical odor	*595.6*		SC-970			12.0
	MH-SILT (FILL), some clay, strong chemical odor	*594.6*					
-2.5	- 8" gravel layer						
	MH-SILT (NATIVE), some clay, dark green, black staining, strong chemical odor			SC-971			12.0
-5.0							5.0
-7.5							
-10.0	- less odor						1.8
							3.6
-12.5							
				SC-972			0.0
-15.0							
	END OF HOLE @ 16.0ft BGS	*580.1*					
-17.5	NOTE: 1. Samples SC-970, SC-971 and SC-972 analysed for SSPL-B1.						
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

APPENDIX B

TEST PIT LOGS

TABLE B-1

STRATIGRAPHIC SUMMARY TABLE
TEST PIT EXCAVATIONS
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-MAY 1995

Test Pit Number	*Fill Thickness/ Depth Interval (Ft. BGS)*	*Depth to Native Soil (Ft. BGS)*
TP-L1	3.5/0-3.5	3.5
TP-L2	5.0/0-5.0	5.0
TP-L3	0.5/0-0.5	0.5
TP-L4	0.5/0-0.5	0.5
TP-L5	0.5/0-0.5	0.5
TP-L6	0.5/0-0.5	0.5
TP-L7	0.5/0-0.5	0.5
TP-L8	0.5/0-0.5	0.5
TP-L9	1.0/0-1.0	1.0
TP-L10	1.0/0-1.0	1.0
TP-L11	1.0/0-1.0	1.0
TP-R5	4.2/0-4.2	4.2
TP-R6	1.8/0-1.8	1.8

Notes:
Ft. BGS Feet Below Ground Surface

TEST PIT STRATIGRAPHY LOG

(WL-27)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-R1
DATE COMPLETED: MAY 9, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
	MH-SILT (FILL), dark brown, topsoil - little clay, little gravel, red brown		▨		.5	0		
-2.5	- brown to dark brown staining, occasional metal fragments, crushed 5 gallon steel pails, ash fill		▨		2.0	5-22.0		
-5.0	- crushed 55 gallon drums, solidified resins, red brown, water encountered		▨	1	5.5	NM		
-7.5	BOTTOM OF TEST PIT @ 7.5ft BGS NOTE: 1. Sample number SC-675 analysed for TCLP parameters and ignitability, corrosivity and reactivity.	-7.5						
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

TEST PIT STRATIGRAPHY LOG

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Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-R2
DATE COMPLETED: MAY 9, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
	MH-SILT (FILL), dark brown, topsoil - little clay, trace gravel, red brown to brown		▨					
-2.5			▨					
	- 55 gallon drums, water encountered, sheen on water, black viscous paste leaking from one drum		▨	1 2	3.7 3.7	50.0		
-5.0		-5.9	▨					
	BOTTOM OF TEST PIT @ 5.9ft BGS NOTE: 1. Sample number SC-674 analysed for TCLP parameters and ignitability, corrosivity and reactivity. 2. Sample number SC-673 analysed for TCL parameters.							
-7.5								
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻

TEST PIT STRATIGRAPHY LOG

(WL-29)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-R3
DATE COMPLETED: MAY 9, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
-2.5	MH-SILT (FILL), dark brown, topsoil - some clay - layer of plastic bags filled with olive green and yellow powder, layer extends to 4.5ft BGS		▨					
-5.0	- groundwater, LNAPL present, top of 55 gallon drum layer, white semi solid resin in drums		▨	1	4.5			
-7.5			▨					
	BOTTOM OF TEST PIT @ 8.5ft BGS NOTE: 1. Sample number SC-676 analysed for TCLP parameters and ignitability, corrosivity and reactivity.	-8.5						
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

TEST PIT STRATIGRAPHY LOG

(WL-30)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-R4
DATE COMPLETED: MAY 9, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
-2.5	MH-SILT (FILL), dark brown, topsoil - some clay - top of crushed 55 gallon drums, groundwater, strong phenol odor, LNAPL		▨	1	1.2			
	BOTTOM OF TEST PIT @ 3.0ft BGS NOTE: 1. Sample number SC-677 analysed for TCLP parameters and ignitability, corrosivity and reactivity.	-3.0						
-5.0								
-7.5								
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

TEST PIT STRATIGRAPHY LOG

(WL-31)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-L1
DATE COMPLETED: MAY 10, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
-2.5	MH-SILT (FILL), dark brown, topsoil - little clay, red brown - plastic bags of olive green and mustard yellow moist powder		▨	1 2	.4 .8 .8	0 0 0		
-5.0	BOTTOM OF TEST PIT @ 3.5ft BGS NOTE: 1. Composite sample number SC-683 analysed for TCL parameters. 2. Composite sample number SC-684 analysed for TCLP parameters.	-3.5						
-7.5								
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

TEST PIT STRATIGRAPHY LOG

(WL-32)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

TEST PIT DESIGNATION: TP-L2
DATE COMPLETED: MAY 10, 1995
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: G. GILL

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	.0						
	MH-SILT (FILL), dark brown, topsoil - plastic bags full of yellow orange to mustard yellow moist powder		▨	1 2	.6 .6	0		
-2.5			▨					
-5.0	BOTTOM OF TEST PIT @ 5.0ft BGS NOTE: 1. Composite sample number SC-683 analysed for TCL parameters. 2. Composite sample number SC-684 analysed for TCLP parameters.	-5.0						
-7.5								
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻

TEST PIT STRATIGRAPHIC LOG

(WL-33)
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

TEST PIT DESIGNATION: TP-1
DATE COMPLETED: SEPTEMBER 3, 1996
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	592.3						
	MH-SILT (FILL), little fine sand, black, dry - no sand, some clay, red brown, moist, trace vitrified clay pipe		▨			0.0		
2.5			▨					
5.0			▨			0.0		
7.5			▨					
10.0			▨					
	BOTTOM OF TEST PIT @ 11.0ft BGS	*581.3*		SC-900	11.0	0.0		●
12.5	NOTE: 1. Sample number SC-900 analysed for GW-SSPL.							
15.0								
17.5								
20.0								
22.5								
25.0								
27.5								
30.0								
32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻

TEST PIT STRATIGRAPHIC LOG

(WL-34)
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

TEST PIT DESIGNATION: TP-2
DATE COMPLETED: SEPTEMBER 3, 1996
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	599.8						
	MH-SILT (FILL), some fine sand, black, dry, trace rootlets, trace rotted wood		▨			0.0		
2.5	- some round cobbles, little fine sand, no rootlets, no rotted wood		▨			0.0		
5.0	- some silt, little round cobbles, little clay, red brown, moist		▨					
7.5			▨					
10.0	SP-SAND (FILL), trace silt, poorly graded, gray/black, moist, moderate petroleum odor	*589.8* *589.8*		SC-901 SC-905	10.0 10.0	11.4		● ●
	BOTTOM OF TEST PIT @ 10.0ft BGS							
12.5	NOTES: 1. Sample number SC-901 analysed for GW-SSPL. 2. Sample numer SC-905 is a blind duplicate of SC-901.							
15.0								
17.5								
20.0								
22.5								
25.0								
27.5								
30.0								
32.5								

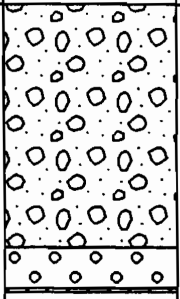
<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻

TEST PIT STRATIGRAPHIC LOG

(WL-35)
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

TEST PIT DESIGNATION: TP-3
DATE COMPLETED: SEPTEMBER 3, 1996
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	596.3						
	CINDERS (FILL), little crushed stone, black, dry							
-2.5	- sand layer, gray, moist, encountered 4" Ø VCP running SW to NE					0.0 0.0		
-5.0	- encountered groundwater			SC-902 SC-903	5.3 5.3			• •
	GP-GRAVEL (FILL), little silt, poorly graded, black, wet	*590.3*				0.0		
-7.5	MH-SILT (NATIVE), some clay, red brown, gray, mottled	*589.2* *589.2*		SC-904	7.1			•
	BOTTOM OF TEST PIT @ 7.1ft BGS							
-10.0	NOTES: 1. Sample number SC-902 (GW) analysed for GW-SSPL, sample number SC-903 is a blind duplicate of SC-902. 2. Sample numer SC-904 (SOIL) analysed for GW-SSPL, MS/MSD volume taken.							
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

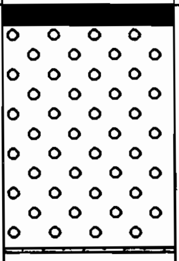
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽

TEST PIT STRATIGRAPHIC LOG

(WL-36)
Page 1 of 1

PROJECT NAME: RFI PHASE II SAMPLING
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES
LOCATION: TONAWANDA, NY

TEST PIT DESIGNATION: TP-4
DATE COMPLETED: SEPTEMBER 4, 1996
TEST PIT METHOD: BACKHOE
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	SAMPLE DESCRIPTION	ELEV. ft. AMSL	GRAPHIC LOG	SAMPLE			ANALYSIS	
				NUMBER	SAMPLE INTERVAL	PID (ppm)	GRAIN SIZE	CHEMICAL
	GROUND SURFACE	597.2						
	ASPHALT	*596.7*				0.0		
	GP-GRAVEL (FILL), little silt, poorly graded, black, moist							
-2.5						0.0		
-5.0								
	MH-SILT (NATIVE), some clay, little fine gravel, subround, massive, red brown, moist	*591.1* *591.1*		SC-906	6.1	0.0		●
-7.5	BOTTOM OF TEST PIT @ 6.1ft BGS							
	NOTE: 1. Sample number SC-906 analysed for GW-SSPL.							
-10.0								
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇

APPENDIX C

GEOTECHNICAL TESTING RESULTS

Laboratory Resources INC.
erboro Division
100 Hollister Road
Teterboro, New Jersey 07608
FAX: 201-288-5311
201-288-3700

LABORATORY ANALYSIS REPORT

Client: Conestoga-Rover
2055 Niagara falls Blvd
Suite 3
Niagara Falls NY 14304

Project Manager: Mr. Paul McMahon
Project: Spaulding -project # 5039

Laboratory Report: T505389

Date Received: 5/19/95 **Date Reported:** 6/28/95

Lab ID No.	Client Sample ID	Matrix	Collection Date & Time
T505389 - 1	SC711	Soil	05/18/95 2:30 PM

Moe R. Amirsoleymani
Quality Assurance Manager

N.J. Certification #02046
N.Y. Certification #11321
P.A. Certification #68-420

TABLE OF CONTENTS

TS05389..

CHAIN OF CUSTODY RECORD

CRA
CONESTOGA-ROVERS & ASSOCIATES
2055 Niagara Falls Blvd. Suite Three
Niagara Falls, NY 14304 (716)297-6150

SHIPPED TO (Laboratory Name): LRI

REFERENCE NUMBER: 5039
RFI RI/FS
Spaulding Composites

SAMPLER'S SIGNATURE: Dave J Tylan

PRINTED NAME: David J. Tylan

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS	REMARKS
①	5.18.95	1430	SC 711	Soil	1		

Note: Please analyze Shelby tube for laboratory permeability testing grain size analysis, moisture content, determination and fractional organic carbon analyses. Contact Paul McMahon at 716 297-6150

TOTAL NUMBER OF CONTAINERS: 1

HEALTH/CHEMICAL HAZARDS:

RELINQUISHED BY: ① Dave J Tylan
DATE: 5.18.95
TIME: 1800

RECEIVED BY: ②
DATE:
TIME:

RELINQUISHED BY: ②
DATE:
TIME:

RECEIVED BY: ③
DATE:
TIME:

RELINQUISHED BY: ③
DATE:
TIME:

RECEIVED BY: ④
DATE:
TIME:

METHOD OF SHIPMENT: FedEx

WAY BILL No. 2588985464

White C –Fully Executed Copy
Yellow I –Receiving Laboratory Copy
Pink –Shipper Copy
Goldenrod –Sampler Copy

SAMPLE TEAM: D. Tylan

RECEIVED FOR LABORATORY BY:
DATE: 5/19/95 TIME: 9:30

№ NF–

Laboratory Resources INC.
A UNITED WATER RESOURCES COMPANY (NYSE)

"WORK TRANSFER RECEIPT"

SENDING DIVISION: (Please Check)

☒ TETERBORO DIVISION
Teterboro, NJ
800-729-0852

☐ LEHIGH VALLEY ANALYTICS DIVISION
Bethlehem, PA
800-729-4268

☐ EASTERN SCIENTIFIC DIVISION
Brooklyn, CT
Inside CT 800-932-1150
Outside CT 800-334-0103

☐ INTECH BIOLABS DIVISION
East Brunswick, NJ
800-729-1397

RECEIVING DIVISION: ____________________

SENT TO: [illegible] Inc	PO #:	JOB #: T505309	QA/QC:	DATE: [illegible]
NEED DAY: [illegible]				

LAB ID #	SAMPLE ID #	SAMPLE DATE	M	QTY	SZ	G	P	HNO_3	H_2SO_4	HCL	NaOH	NON	ANALYSIS
	SC 6[illegible]	[illegible]		1									[illegible]
													[illegible]
													* [illegible]

G – GLASS
P – PLASTIC
M – MATRIX
H_2SO_4 – SULFURIC ACID
HCL – HYDROCHLORIC ACID
NaOH – SODIUM HYDROXIDE
NON – NONPRESERVED
HNO_3 – NITRIC ACID

COMMENTS: [illegible]

PREPARED BY: [illegible]	Date 5/11/[illegible] Time	METHOD OF SHIPMENT:	RELINQUISHED BY:	Date Time	RECEIVED BY: [illegible]	Date [illegible] Time [illegible]

Laboratory Resources INC.
A UNITED WATER RESOURCES COMPANY (NYSE)

100 HOLLISTER RD
TETERBORO, NJ 07608

P.M: DAN GLENN
201-288-3700

"WORK TRANSFER RECEIPT"

SENDING DIVISION: (Please Check)

☑ TETERBORO DIVISION
Teterboro, NJ
800-729-0852

☐ LEHIGH VALLEY ANALYTICS DIVISION
Bethlehem, PA
800-729-4268

☐ EASTERN SCIENTIFIC DIVISION
Brooklyn, CT
Inside CT 800-932-1150
Outside CT 800-334-0103

☐ INTECH BIOLABS DIVISION
East Brunswick, NJ
800-729-1397

RECEIVING DIVISION: OBG LABS

SENT TO:

PO #: T505389

JOB #:

QA/QC: NY ASP/CLP

DATE: 5/19/95

NEED DAY: 6/10/95

LAB ID #	SAMPLE ID #	SAMPLE DATE	M	QTY	SZ	G	P	HNO$_3$	H$_2$SO$_4$	HCL	NaOH	NON	ANALYSIS
T505389	SC711	5/18/95											GRAIN SIZE
													PERMEASIBILITY

Please send TO US (TETERBORO)

TO DO (ANALIZE) FOR TOC.

G – GLASS
P – PLASTIC

M – MATRIX
H$_2$SO$_4$ – SULFURIC ACID

HCL – HYDROCHLORIC ACID
NaOH – SODIUM HYDROXIDE

NON – NONPRESERVED
HNO$_3$ – NITRIC ACID

COMMENTS:

PREPARED BY: Date 5/19/95 Time

METHOD OF SHIPMENT: VIA LRI Driver

RELINQUISHED BY: Date 5/19/95 Time

RECEIVED BY: S. Beard Date 5/23 Time 12:10

O'BRIEN & GERE
LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

T 505309
T 505389.

SURVEY: SPAULDING COMPOSITES (CONESTOGA ROVERS)

LOCATION: —

SAMPLED BY: J.M. DOERNER

ORGANIZATION: O'BRIEN & GERE

LRE JOB ~~STATION~~ NUMBER	SAMPLE LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	COMP. OR GRAB	NO. OF CONTAINERS	ANALYSIS REQUIRED
T505309	SC 698	5-24-95	—	S	G	1	TOC
T505309	SC 711	5-25-95	—	S	G	1	TOC (*)

Relinquished By:	DATE	TIME	Received By:	DATE	TIME
	5-25-95	1800	A R	5/26/95	9:13
Relinquished By:	DATE	TIME	Received By:	DATE	TIME
Relinquished By:	DATE	TIME	Received by Laboratory:	DATE	TIME

COMMENTS:

SEE ATTACHED C.O.C.'s

(*) VERY STRONG ORGANIC ODOR

METHOD OF SHIPMENT:

AIRBORNE TO LRE ON 5-25-95

PLEASE RETURN COOLER TO

5221 Militia Hill Road
Plymouth Meeting, [illegible]
(215) 825-8877

O'BRIEN & GERE LABORATORIES, INC. an O'Brien & Gere Company
5221 Militia Hill Road / Plymouth Meeting, PA 19462 / (610) 825-8877 FAX (610) 825-5623
. . . and 5000 Brittonfield Parkway / PO Box 4942 / Syracuse, NY 13221

DEPE-077
Rev. 2.0, 2/92

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

Page ____ of ____

INTERNAL CHAIN OF CUSTODY

INSTRUCTIONS: Use 1 form for each 20 samples or aliquot.

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample	Laboratory: Laboratory Resources Name: Krishna Daggumati	Location: Teterboro Title: Sample Management Supervis
Field Sample Seal No:	Date Broken 5 / 19 / 95	Military Time Seal Broken:
CaseNo:	Analytical Parameter/Fraction	

SAMPLE NO.	ALIQUOT/EXTRACT NO.	SAMPLE NO.	ALIQUOT/EXTRACT NO.
505389-1			

Date	Time	RELINQUISHED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUSTODY
6/9/95	8:40	PRINTED NAME Shah SIGNATURE	PRINTED NAME JEAN MCBASTIN SIGNATURE	1 moisture
6/9/95		PRINTED NAME JEAN MCBASTIN SIGNATURE	PRINTED NAME Shah SIGNATURE	Ret
6/12		PRINTED NAME Shah SIGNATURE	PRINTED NAME J. CALINDAS SIGNATURE	TOC
6/12		PRINTED NAME J. CALINDAS SIGNATURE	PRINTED NAME Shah SIGNATURE	Ret
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	

SAMPLE LOG-IN SHEET

Lab Name: LABORATORY RESOURCES INC Page 1 of 1

Received by (Print Name): KRISHNA B DAGGUMATI Log-in Date: 5/19/95

Received by (Signature):

Case Number:

SDG Number:

SAS Number:

NYSDEC SAMPLE #	CORRESPONDING SAMPLE TAG #	ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
SC711		T505389-01	Good 5/19/95

REMARKS:

1. Custody Seal(s) [✓ Present]/Absent* [✓ Intact]/Broken
2. Custody Seal Numbers:
3. Chain-of-Custody Records [✓ Present]/Absent*
4. Contract Lab Sample Inform. Sheet (CLSIS) Present/[✓ Absent*]
5. Airbill [✓ Airbill]/Sticker [✓ Present]/Absent*
6. Airbill No.: 2588985464
7. Sample Tags Present/[✓ Absent*] Sample Tag Nos. Listed/[✓ Not Listed] on Chain-of-Custody
8. Sample Condition [✓ Intact]/Broken*/Leaking
9. Does information on custody rec., CLSIS, & sample tags agree [✓ Yes]/No*
10. Date received at Lab: 5/19/95
11. Time Received: 9:30

Sample Transfer

Fraction:

Area #:

By:

On:

* Contact BTSR and attach record of resolution

Reviewed By:

Date:

Logbook No.:

Logbook Page No.:

FORM DC-1

0006

LABORATORY RESOURCES, INC. - TETERBORO 1993
GENERAL CHEMISTRY METHODOLOGY
SOIL MATRIX

PARAMETER	METHOD 1
Acidity	305.1
Alkalinity	310.1
BOD, 5 day	507(4)
BOD, 20 day	507(4)
Chloride	9252
Chlorine, residual	330.5
COD	HACH
Conductivity	9050
Cyanide, Total	9010
Cyanide, Amenable	9010
Ignitability	1010
MBAS, Surfactants	5123(4)
Nitrogen, NH3	350.1(2)
Nitrogen, NO3	9200
Nitrogen, NO2	354.1
Nitrogen, TKN	351.2(2)
Odor	140.1
Petroleum Hydrocarbon, Soil	418.1(5)
pH	9045
Phenolics, Total	9065
Phosphorus, Total	365.2(2)
Solids, Fixed	2090(4)
Solids, Total	CLP
Solids, Volatiles	2090(4)
Sulfate	9038
Sulfide	9030
Sulfite	377.1(2)
TOC	415.1
Hexavalent Chromium	7196M
Turbidity	180.1

(1) = Solid and hazardous waste methods approved by NJDEP ECRA and RCRA and listed in EPA SW 846 3rd Edition, 1986.

(2) = Water and wastewater methods aprroved in the Federal Register in section 40 CFR 136 and listed in EPA 600/4 - 79 - 020.

(4) = Methods cited in Standard Methods 16th Edition, 1986.

(5) = NJDEP modification of EPA Method 418.1.

CLP = Contract Laboratory Program procedure for total solids determination, SO4 7/88, Part F, page 0 - 83.

HACH = Method 8000, Hach Handbook of water Analysis, 1979. Approved in the Federal Register, April 21, 1980, page 26811.

M= NJDEPE Modified

INORGANIC NONCONFORMANCE SUMMARY T505389

General Chemistry

1. The matrix spike recovery was outside of acceptable QC limits due to non-homogeneous sample matrix.

HOLDING TIMES, PRESERVATION TECHNIQUES, AND REQUIRED TECHNIQUES

Name	Container[1]	Preservation	Max. Holding Time
Bacterial Tests:			
Coliform, fecal & total	P,G	Cool,4°C,0.008% $Na_2S_2O_3$	6 hours
Fecal streptococci	P,G	Cool,4°C,0.008% $Na_2S_2O_3$	6 hours
Metals:			
Chromium VI	P,G	Cool,4°C	24 hours
Mercury	P,G	HNO_3 to pH<2	28 days
Metals, except chromium VI & mercury	P,G	HNO_3 to pH<2	6 months
Inorganic Tests:			
Acidity	P,G	Cool,4°C	14 days
Alkalinity	P,G	Cool,4°C	14 days
Ammonia	P,G	Cool,4°C,H_2SO_4 to pH<2	28 days
Biochemical oxygen demand(5)	P,G	Cool,4°C	48 hours
Biochemical oxygen demand(20)	P,G	Cool,4°C	48 hours
Biochemical oxygen demand, carbonaceous	P,G	Cool,4°C	48 hours
Bromide	P,G	None required	28 days
Chemical oxygen demand	P,G	Cool,4°C, H_2SO_4 to pH<2	28 days
Chloride	P,G	None required	28 days
Chlorine, total residual	P,G	None required	Analyze immed.
Color	P,G	Cool,4°C	48 hours
Cyanide, total & amenable to chlorination	P,G	Cool,4°C, NaOH to pH>12, 0.6g ascorbic acid	14 days
Cyanide, reactive	P,G	None required	NA
Fluoride	P	None required	28 days
Hardness	P,G	HNO_3 to pH<2,H_2SO_4 to pH<2	6 months
Hydrogen ion (pH)	P,G	None required	Analyze immed.
Ignitability (flash points)	P,G	None required	NA
Kjeldahl & organic nitrogen	P,G	Cool,4°C,H_2SO_4 to pH<2	28 days
Nitrate	P,G	Cool,4°C	48 hours
Nitrate-Nitrite	P,G	Cool,4°C,H_2SO_4 to pH<2	28 days
Nitrite	P,G	Cool,4°C	48 hours
Odor	P,G	None required	Analyze immed.
Oil & Grease	G	Cool,4°C,H_2SO_4 to pH<2	28 days
Total Organic Carbon	P,G	Cool,4°C,HCl or H_2SO_4 to pH<2	28 days
Orthophosphate	P,G	Filter immediately,Cool,4°C	48 hours
Phosphate, total	P,G	H_2SO_4 to pH<2	28 days
Oxygen, Dissolved Probe	G Bottle & top	None required	Analyze immed.
Winkler	do	Fix in site & store in dark	8 hours
Phenols	G only	Cool,4°C,H_2SO_4 to pH<2	28 days
Phophorus (elemental)	G	Cool,4°C	48 hours
Phosphorus, total	P,G	Cool,4°C,H_2SO_4 to pH<2	28 days
Residue, Total	P,G	Cool,4°C	7 days
Residue, Filterable (TDS)	P,G	Cool,4°C	7 days
Residue, Nonfilterable(TSS)	P,G	Cool,4°C	7 days
Residue, Settleable	P,G	Cool,4°C	48 hours
Residue, volatile	P,G	Cool,4°C	7 days
Silica	P	Cool,4°C	28 days
Specific Conductance	P,G	Cool,4°C	28 days
Sulfate	P,G	Cool,4°C	28 days
Sulfide, reactive	P,G	Cool,4°C	NA
Sulfide, total	P,G	Cool,4°C, add zinc acetate plus sodium hydoxide to pH>9	7 days

Name	Container[1]	Preservation	Max. Holding Time
Sulfite	P,G	None Required	Analyze imme
Surfactants (MBAS)	P,G	Cool,4°C	48 hours
TPH (water)	G	H_2SO_4 to pH<2	7 days
TPH (soil)	G	H_2SO_4 to pH<2	28 days
Temperature	P,G	None Required	Analyze
Turbidity	P,G	Cool,4°C	48 hours
Organic Tests:			
Purgeable halocarbons	G,Teflon-lined septum	Cool,4°C,0.008% $Na_2S_2O_3$	14 days
Purgeable aromatic hydrocarbons	G,Teflon-lined septum	Cool,4°C,0.008% $Na_2S_2O_3$ HCl to pH2	14 days
Acrolein & acrylonitrile	G,Teflon-lined septum	Cool,4°C,0.008% $Na_2S_2O_3$ adjust pH to 4-5	14 days
Phenols	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$	7 days til extraction 40 days after extract.
Benzidines	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$	7 days til extraction
Phthalate esters	G,Teflon-lined cap	Cool,4°C	7 days til extraction 40 days after extract.
Nitrosamines	G,Teflon-lined cap	Cool,4°C,store in dark 0.008% $Na_2S_2O_3$	40 days after extraction
PCBs, acrylonitrile	G,Teflon-lined cap	Cool,4°C	40 days after extraction
Nitroaromatics & isophorone	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$, store in dark	40 days after extraction
Polynuclear aromatic hydrocarbons	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$, store in dark	40 days after extraction
Haloethers	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$.	40 days after extraction
Chlorinated hydrocarbons	G,Teflon-lined cap	Cool,4°C	40 days after extraction
TCDD	G,Teflon-lined cap	Cool,4°C,0.008% $Na_2S_2O_3$.	40 days after extraction
Total organic halogens	G,Teflon-lined cap	Cool,4°C,H_2SO_4 to pH <2	28 days
Pesticides Tests:			
Pesticides	G,Teflon-lined cap	Cool,4°C,pH 5-9	40 days after extraction
Radiological Tests:			
Alpha, beta, & radium	P,G	HNO_3 to pH<2	6 months

---

[1] Polyethylene (P) or Glass (G).

Note: All holding times mentioned above are based upon the date of sample collection.

Test Method for Evaluating Solid Waste Physical/Chemical Methods SW 846 Final Update-I July 1992.

Standard Method for the Examination of Water and Waste Water 18th Edition 1992.

CASE NARRATIVE

Laboratory Resources, New Jersey Division, received one soil samples for Reduced Deliverables Format on May 19, 1995. The samples were analyzed for the parameters outlined in the chain of custody.

The samples were analyzed within the required holding time. Any parameters which were outside of their respective quality control ranges are noted in the non-conformance summaries.

All soil, sludge and sediment samples are reported in dry weight.

Please contact us if there are any questions regarding the enclosed results.

Grain size analysis was subcontracted to O'Brien & Gere. The data is included at the end of this report.

GENERAL CHEMISTRY CONFORMANCE/NONCO

1. Blank Contamination — [✓ No] Yes

If yes, list compounds and concentrations in each blank:

2. Matrix Spike Recoveries Meet Criteria — [✓ No] Yes

If not met, list those compounds and their recoveries which fall outside the acceptable range:

MS out due to nonhomogenous matrix

3. Sample Duplicate Analyses Meet QC Criteria — No [✓ Yes]

If not met, list those compounds and their criteria which fall outside the acceptable range:

4. Analysis Holding Time Met — No [✓ Yes]

If not met, list analyses and number of days exceeded for each sample:

Laboratory Supervisor:

Date: 6-27-95

GENERAL CHEMISTRY ANALYSIS DATA SHEET

Laboratory: Laboratory Resources, Inc.
Division: New Jersey
LRI Report No: T505389
LRI Sample No: 1

Date Collected: 05/18/95
Date Received: 05/19/95

Customer: Conestoga-Rover
Location: NY
Project: Spaulding -project # 5039
Sample Description: SC711

Matrix: Soil
Percent Moisture: 10.0%
Units in Dry Weight

Parameter	Result	QL	Units	Started Date	Started By	Completed Date	Completed By	Dilution
Total Organic Carbon (TOC) by 9060								
Carbon, Total Organic (TOC)	27000	110	mg/kg			06/12/95	JC	

General Chemistry Method Blank Analysis

This blank was analyzed concurrent with the analysis of the workorder:

T505389

Element	Result mg/kg		MDL mg/kg		Dil.
Ammonia-NH3	U		50		1
BOD	U		200		1
COD	U		10000		1
Chloride, Total	U		100		1
Chromium Hexavalen	U		0.50		1
Cyanide, Total	U		0.50		1
MBAS	U		5.0		1
Nitrate	U		10		1
Nitrite	U		1.0		1
Oil & Grease	U		1000		1
pH	U		NA		1
Pet. Hydrocarbons	U		50		1
Phenolics, Total	U		5.0		1
Phosphorus, Total	U		2.5		1
Sulfate	U		500		1
Sulfite	U		100		1
Sulfide	U		100		1
Dissolved Solids	U		10		1
Suspended Solids	U		5.0		1
Kjeldahl Nitrogen	U		50		1
TOC	U	X	40000		1
Cyanide, Reactive	U		0.50		1
Sulfide, Reactive	U		25		1
Alkalinity	U		100		1
Color	U		5.0		1
Fluoride	U		10		1
Orthophosphate	U		1.0		1
Hardness	U		250		1
Organic Chloride	U		0.01%		1
Sulfur	U		0.08%		1
Ash	U		NA		1
BTU	U		NA		1
Ignitability	U		>70°F		1
Moisture	U		NA		1
Chlorine	U		NA		1

(*) Elevated MDLs due to dilution for range

(**) Elevated MDLs due to dilution for interferences

X = Undetected analyte of required analyses.

Laboratory Resources, Inc.

General Chemistry QC Form

Workorder No.: T505389

Matrix: Non-Aqueous

Parameters	Blank Spike	Sample Result	Spike Added	Spiked Sample		Sample Result	Sample Dup.	% Rec.	RPD		Batch QC
	% Rec	mg/Kg **	mg/Kg **	mg/Kg **	% Rec.	mg/Kg**	mg/Kg **	Limits	%RES	%Limit	Sample ID
Ammonia								75-125		15	
Cr Hexavalent								85-115		10	
Cyanide								70-125		5	
Ignitability								----		3 °F	
Kjeldahl Nitrogen								65-135		20	
Nitrate								75-125		10	
Oil & Grease								70-135		50	
pH (Corrosivity)								----		0.2 pH	
Pet. Hydrocarbons								50-140		30	
Phenolics								70-135		50	
% Moisture								----		20	
Reactive Cyanide								80-120		10	
Reactive Sulfide								80-120		10	
TOC	108	1906	2000	4544	132 N	1906	2270	75-125	17	20	T505304-01

Note:The QC is based on a batch system in which a sample is chosen at random for matrix spike and/or duplicate analyses for a given matrix and represents all of the samples included in that batch.

* = Duplicate analysis outside of required quality control limits.

** =Results expressed in mg/Kg wet weight.

N = Matrix Spike recovery outside of required quality control limits.

NA=Not applicable since the sample concentration is 4X the amount of spike added.

ND=Not Determinable

The RPD limits for pH is 0.2 pH units.

The RPD for Ignitability is 3 degrees Fahrenheit.

TOC RUN LOG

Matrix : Soil

A : 6/12 /95
NSIRUMENT : TOC SHIMADZU 5000
ATA FILE : 0
DL, MG/KG : 100.0
NALYST : JC
UPERVISOR : RS

* SAMPLES PRE-TREATED w/ 1N HCl .

SAMPLE ID		SPL #	AMOUNT (mg)	TC			IC			TOC		NOTES
				%	mg/kg	CV, %	%	mg/kg	CV. %	%	mg/kg	
ICV		1	1000	—	1988	8.55	—	—	—	~~148~~	1988	TV = 2000 R = 99.4
ICB		2	1000	—	0.00	0.00	—	—	—	—	0.00	
REFERENCE		3	1000	—	433.5	8.07	—	—	—	—	433.5	TV = 400 R = 108
[illegible]309-4		4	100	—	1906	1.81	—	—	—	—	1906	
"	D	5	~~1~~100 JC 6/12/95	—	2270	50.4	—	—	—	—	2270	RPD = [illegible].4
"	MS	6	1100	—	4544	5.62	—	—	—	—	4544	TV = 2000 SR = 132
5389-1		7	100	—	24705	11.7	—	—	—	—	24705	
		8										
		9										
		10						JC 6/12/95		—		
		11										
CCV - 1		12	1000	—	2145	0.31	—	—	—	—	2145	TV = [illegible]00 R = 107
CCB - 1		13	1000	—	0.00	0.00	—	—	-	—	0.00	

ANALYST : ________ Matrix : Soil

SAMPLE ID	SPL. #	AMOUNT (mg)	TC			IC			TOC		NOTES
			%	mg/kg	cv, %	%	mg/kg	cv, %	%	mg/kg	
	14										
	15										
	16										
	17										
	18										
	19										
	20										
	21										
	22										
	23										
CCV - 2	24										TV = ____ % R = ____ %
CCB - 2	25										

JC 6/12/95

TE : mg / kg = % × 10,000

DATE : 6/12/95
ANALYST: JC

TOC RUN LOG
Matrix: Soil

NEAR CALIBRATION : DATE :_______ ANALYST :_______ CORRELATION COEFFICIENT:__

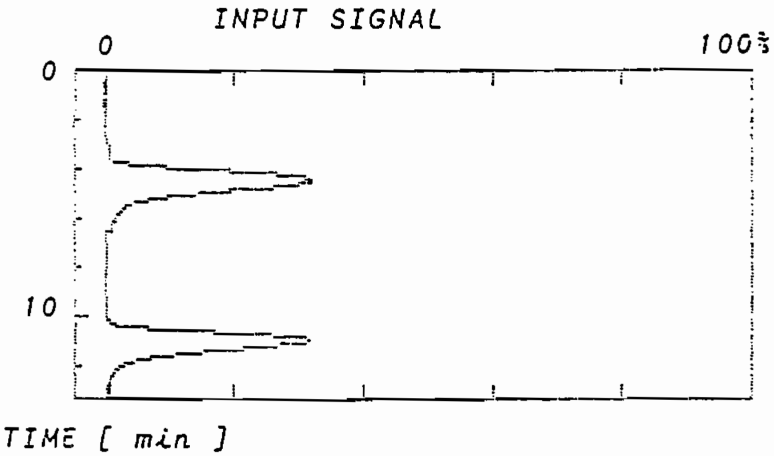
NAME		CONC.		COMPOUND NAME	MANUFACTURER	LRI LOT #	DATE OF PREP.	NOTES
		mg	mg/kg					
CALIBRATION STANDARDS	S1			GLUCOSE		WC-		
	S2			GLUCOSE		WC-		
	S3			GLUCOSE		WC-		
CAL BLK, ICB, CCB		0	0	BLANK SAND		WC-		
ICV, CCV			400,	GLUCOSE		WC-		
REFERENCE			400,	GLUCOSE		WC-		
MS			200,	GLUCOSE		WC-		
MDL			400,	GLUCOSE		WC-		

BENCH SOP

1. Calibrate instrument once a month. Linear correlation coefficient. ≥ 0.995
2. Run standards and samples in duplicate. CV ≤ 20%
3. Run sample duplicate and MS every 20 samples.
4. Criteria for passing QC samples as follows:
   - 4.1 ICB, CCB : < PQL;
   - 4.2 ICV : 90% - 110% of TV
   - 4.3 CCV : 80% - 120% of TV
   - 4.4 Reference : 90% - 110% of TV
   - 4.5 RPD : ± 20%.
   - 4.6 MS : 75% - 125% of TV
5. If RPD is out rerun sample.
6. If MS is out qualify data.

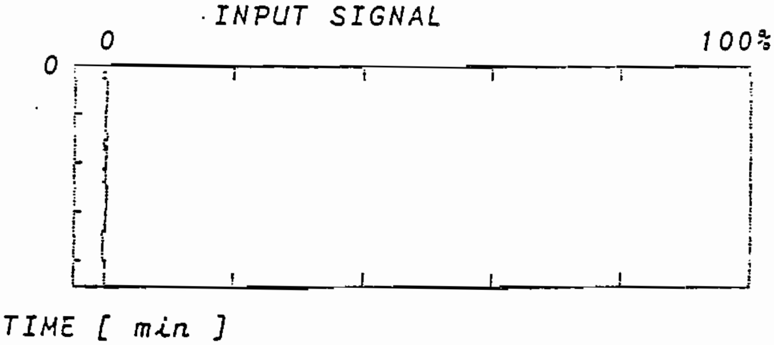
. Record batch QC in QC binder and update plotting daily.

8. Consult with Inorganics Manager for any problems not covered by this bench SOP.



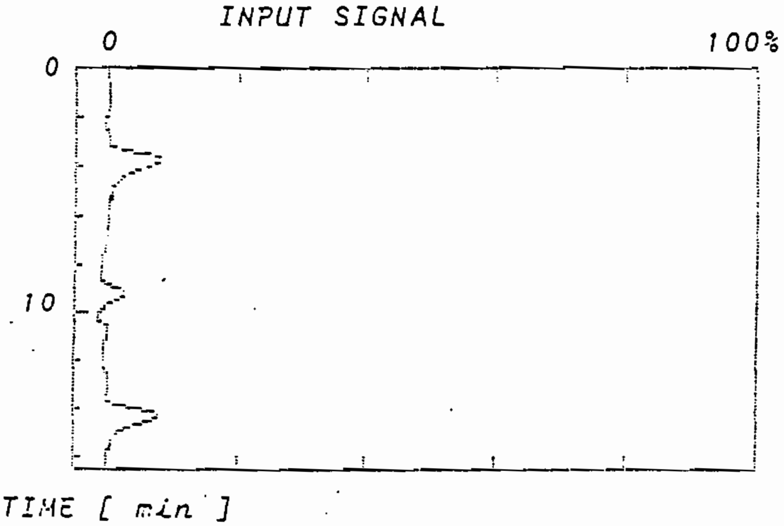
```
SAMPLE#    1    TC
 [x 5, C# 12, DENSITY   1.0mg/µℓ]
    #  AREA ppm     AMNT(mg)
    1 16469  2109   1000
    2 14591  1868   1000
   - - - - - - - - - - - - - -
   MN 15530  1988   1000
   SD       170.0
   CV         8.55%


        DATE  06(JUN)-12-1995  12:10
```



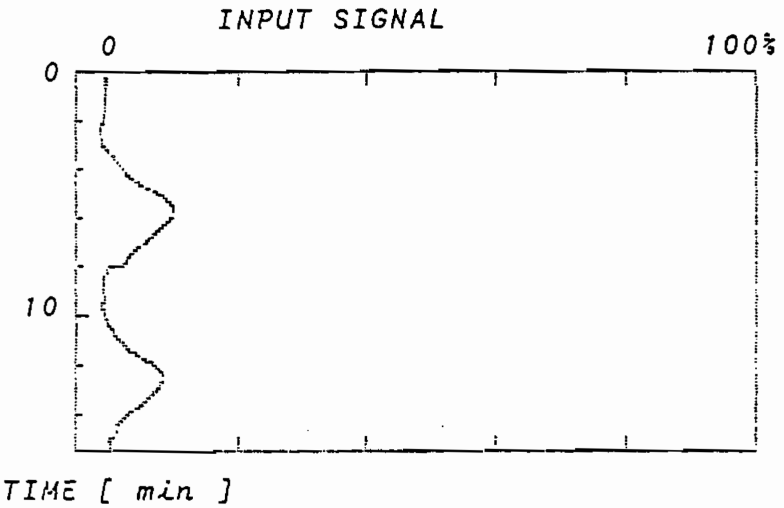
```
SAMPLE#    2    TC
 [x 5,  C# 12, DENSITY    1.0mg/μℓ]
     #   AREA ppm      AMNT(mg)
     1      0 0.000    1000
     2      0 0.000    1000
    - - - - - - - - - - - - - -
    MN      0 0.000    1000
    SD        0.000
    CV          0.00%


        DATE  06(JUN)-12-1995   12:48
```



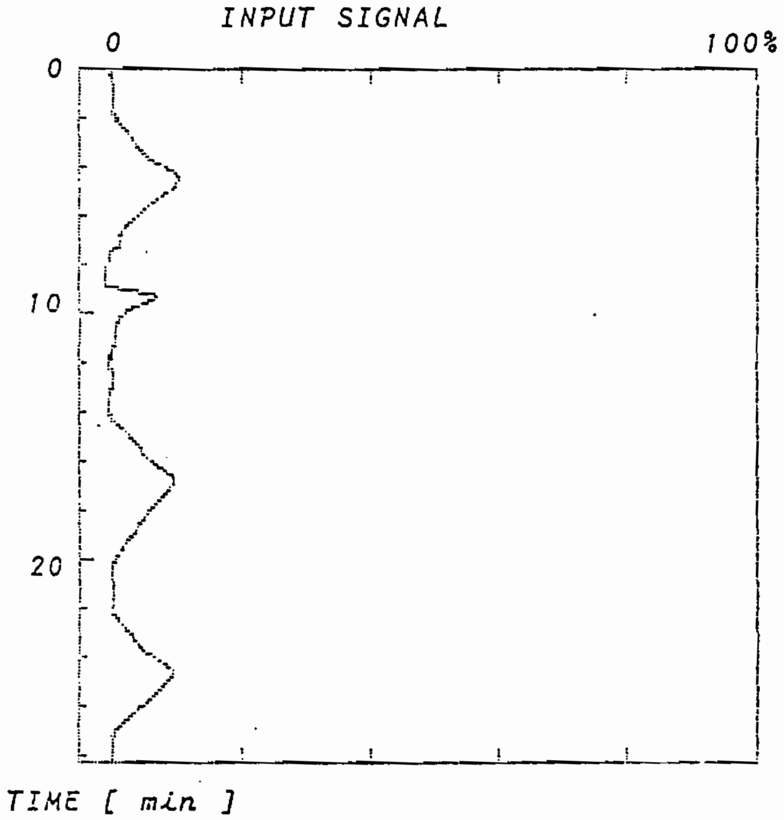
```
SAMPLE#    3    TC
 [x 5,  C# 12, DENSITY    1.0mg/μℓ]
     #   AREA ppm      AMNT(mg)
     1   3523 451.1    1000 \
     2   ~~1399 179.1    1000~~  >  433.5      RPD =  8.07%
     3   3249 416.1    1000 /
    - - - - - - - - - - - - - -
    MN   2723 348.8    1000
    SD        147.9
    CV          42.4%


        DATE  06(JUN)-12-1995   13:13
```



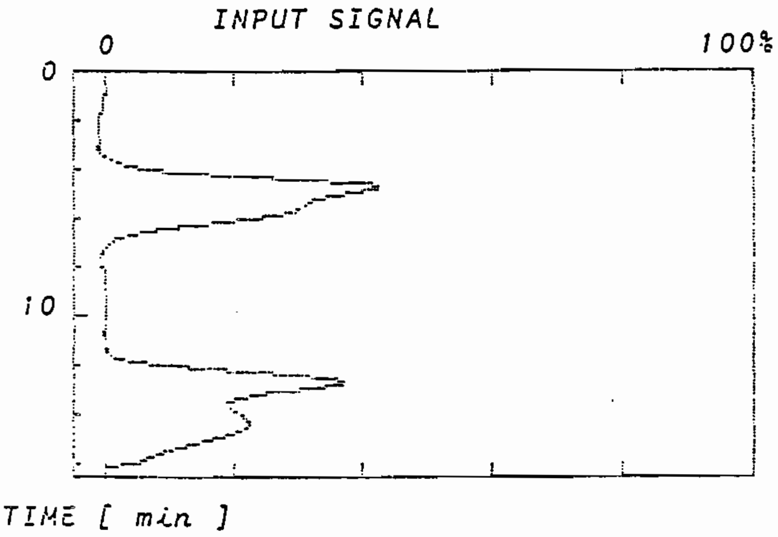
```
SAMPLE#    4    TC
 [x 5, C# 12, DENSITY    1.0mg/µℓ]
    #   AREA ppm     AMNT(mg)
    1   7539   1931 500.0T
    2   7348   1882 500.0
  - - - - - - - - - - - - - -
   MN   7443   1906 500.0
   SD        34.59
   CV          1.81%

        DATE  06(JUN)-12-1995   13:50
```



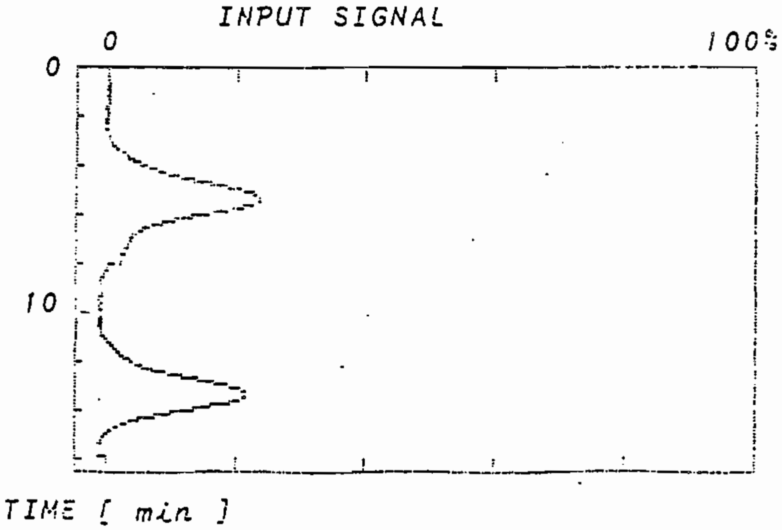
```
SAMPLE#    5    TC
 [x 5, C# 12, DENSITY    1.0mg/μℓ]
    #   AREA ppm     AMNT(mg)
    1   6587   1687 500.0
    2   4028   1031 500.0
    3 14169   3629 500.0T
    4 10669   2732 500.0
   - - - - - - - - - - - - - -
   MN   8863   2270 500.0
   SD          1145
   CV          50.4%


        DATE  06(JUN)-12-1995  14:50
```



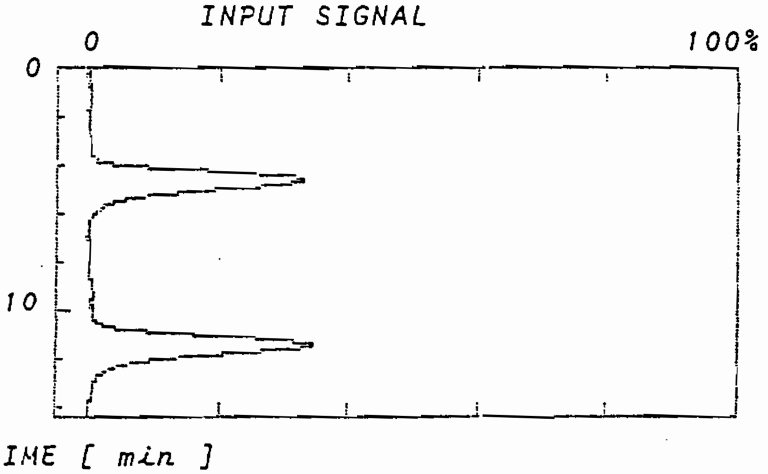
```
SAMPLE#    6    TC
 [x 5, C# 12, DENSITY   1.0mg/μℓ]
    #  AREA ppm     AMNT(mg)
    1 40584  4725   1100
    2 37479  4363   1100T
   - - - - - - - - - - - - - -
   MN 39031  4544   1100
   SD       255.6
   CV        5.62%

       DATE  06(JUN)-12-1995  15:43
```



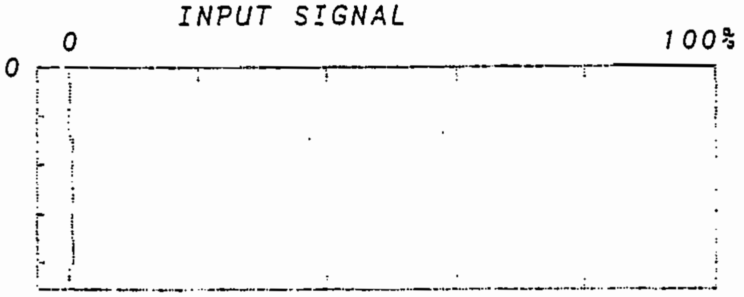
```
SAMPLE#    7    TC
 [x 5, C# 12, DENSITY    1.0mg/µℓ]
     #   AREA ppm     AMNT(mg)
     1  20890 26754  100.0T
     2  17691 22657  100.0
    - - - - - - - - - - - - - - -
    MN  19290 24705  100.0
    SD          2897
    CV          11.7%


         DATE   06(JUN)-12-1995   16:06
```



```
SAMPLE#    8    TC
 [x 5, C# 12, DENSITY    1.0mg/µℓ]
     #   AREA ppm     AMNT(mg)
     1  16714   2140   1000
     2  16789   2150   1000
    - - - - - - - - - - - - - - -
    MN  16751   2145   1000
    SD         6.792
    CV          0.31%


         DATE   06(JUN)-12-1995   16:23
```



```
SAMPLE#    9    TC
 [x 5, C# 12, DENSITY    1.0mg/µℓ]
    #   AREA ppm      AMNT(mg)
    1      0 0.000    1000
    2      0 0.000    1000
  - - - - - - - - - - - - - -
   MN      0 0.000    1000
   SD        0.000
   CV         0.00%


        DATE   06(JUN)-12-1995   16:41



TOC-5000 DATA REPORT
        DATE   06(JUN)-12-1995 16:42

SPL# TC,ppm    RMK     IC       RMK      TOC
  1     1988 12****    ICV  2000 PPM
  2    0.000 12****    ICB
  3    ~~343.5 12****~~  433.5     REF.   480    PPM
  4     1906 12****  5309 -  4
  5     2270 12****    "       4 (DUP)                    RPD=17.4 % Rec
  6     4544 12****    "       4 (MS    2000   PPM)        MS = 132 % Rec
  7    24705 12****
  8     2145 12****  5389 - 1A
  9    0.000 12****   CCV  2000 PPM
                      CCB

ANALYST  :
SAMPLE   :
```

TABLE OF ABBREVIATIONS

ORGANIC QUALIFIERS

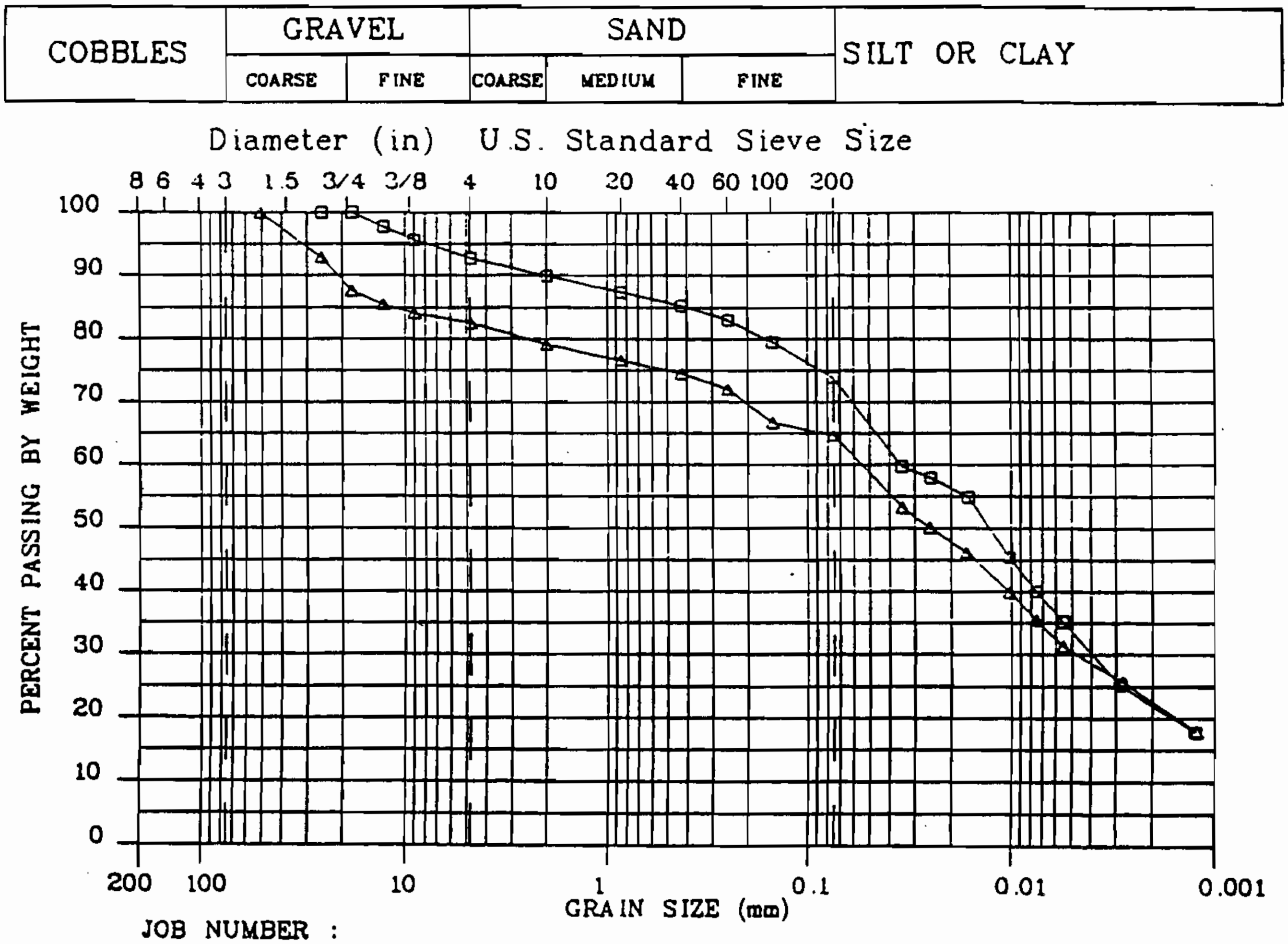
B= Compound also detected in method blank
J= Below method detection limit
E= Exceeds calibration range
D= Dilution performed
U= Undetected
RE= Re-analysis performed

INORGANIC QUALIFIERS

EC= Estimated count
TNTC= Too numerous to count
QL= Quantitation limit
U= Undetected
S= Result quantitated by Method of Standard Additions
*= Duplicate analysis outside of required quality control limits
N= Matrix spike recovery outside of required quality control limits
ND= Not determinable
T= True Color
A= Apparent Color

O'BRIEN & GERE
LABORATORIES, INC.

Particle Size Distribution



JOB NUMBER :
JOB NAME : OBG:CONESTOGA ROVERS

SYM	BORING#	SAMPLE#	DEPTH	DESCRIPTION	W(%)	W_L (%)	W_P (%)
□	SC-696			RED-BROWN SANDY SILTY CLAY			
△	SC-711			RED-BROWN SANDY SILTY CLAY			

O'BRIEN & GERE
LABORATORIES, INC.

Job No.:
Job Name: OBG: Conestoga Rovers
Spaulding Composites

Date: 05-30-95
File No.

Undisturbed Triaxial Variable-Head Permeability Test

ASTM-D-5084

Date Tested	Sample Label	W.Co %	Yd pcf	So %	Oc tsf	W.Cf %	Sf %	k cm/sec
05-26-95	SC-698 ST-1	13.1	126.4	99.3	0.36	12.5	99.5	7.76 X 10^-8
05-26-95	SC-711 ST-2	13.2	125.2	95.7	0.36	13.7	99.9	1.51 X 10^-7

Initial hydraulic gradient used = 20+/-1
Reviewed By E.N. Manuel
E.N.Manuel

Where:
W.C=Initial or Final water Content
Yd=Initial Dry Density
S=Initial or Final Degree of Saturation
Oc=Effect.Consolidation Press.,tsf
k=Coefficient of Permeability at 20 c

PARTICLE ANALYSIS FOR CONESTOGA ROVERS MATERIALS

Sample ID	(% passing sieve) 3/4"	3/8"	# 4	# 10	# 40	#200
SC-711	100	84	82	79	74	65
SC-698	100	96	95	90	85	74

(% total weight) Gravel Size	Sand Size	Silt/Clay Size
21%	14%	65%
10%	16%	74%

C:\labs\graincones.tbl
A:\graincones.tbl

APPENDIX D

MONITORING WELL STRATIGRAPHIC AND INSTRUMENTATION LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

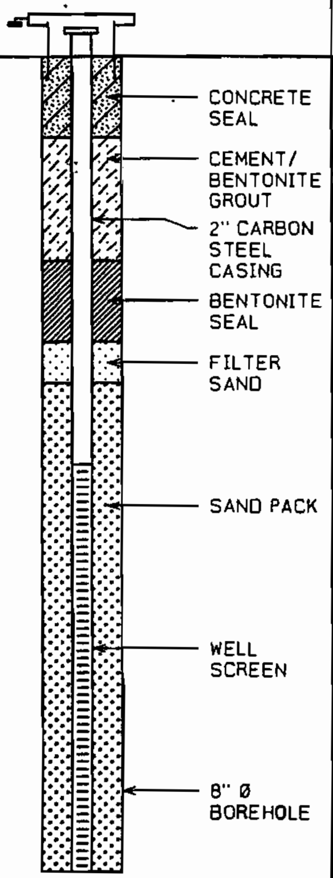
(WL-05)
Page 1 of :

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW1
DATE COMPLETED: MAY 12, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser)	*805.16*
	GROUND SURFACE	*802.5*
	MH-SILT (FILL), little clay, trace fine sand, loose, red brown, moist, trace rootlets	
	- cinders, black	
-2.5	- some clay, red brown, no cinders	*600.2*
	- sand seam (2.0 to 2.3ft BGS), some waste	
	MH-SILT (NATIVE), some clay, trace fine sand, trace fine gravel, subangular to subround, hard, moderately plastic, red brown, moist	
-5.0		
	- some fine sand, trace clay, several sand seams	
-7.5	- some clay, trace fine sand, trace fine gravel, angular to round	
	- trace fine to medium gravel, angular to round	
-10.0	SP-SAND, some silt, trace clay, trace fine gravel, subangular to round, medium dense, poorly graded, massive, red brown, moist	*592.5*
-12.5	MH-SILT, some clay, little fine to medium gravel, subangular to round, trace fine sand, hard, massive, red brown, moist	*590.5*
-15.0	- trace fine to medium gravel, subangular to round, stiff	
	- hard	
-17.5		
	- very stiff	
	- sand seam (18.9 to 19.1ft BGS), moist to wet	*583.4*
-20.0	CH-CLAY, some silt, trace fine sand, trace fine gravel, subangular to round, red brown, moist	*582.5*
	END OF HOLE @ 20.0ft BGS	
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE

NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	4	0
(2SS)	☒	32	0
3SS	☒	29	0
(4SS)	☒	37	0
5SS	☒	27	0
(6SS)	☒	13	0
7SS	☒	33	
8SS	☒	15	
(9SS)	☒	45	0
10SS	☒	20	0

SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-06)
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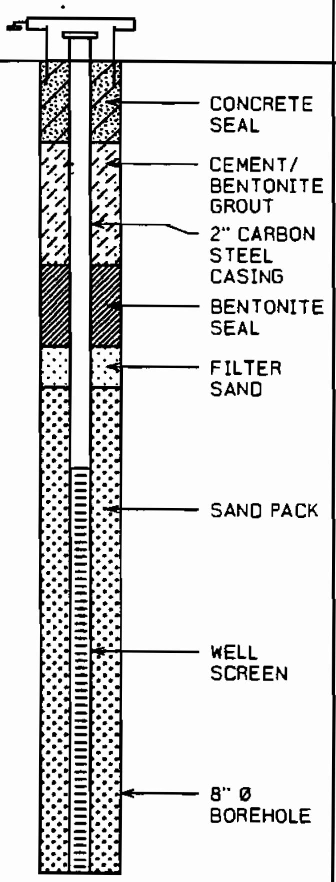
PROJECT NAME: SPAULDING COMPOSITES FFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW2
DATE COMPLETED: MAY 15, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	*604.35* *602.4*					
	Refer to BW2 for stratigraphic details.						
-2.5							
-5.0							
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0	END OF HOLE @ 20.0ft BGS	*582.4*					
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							



SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

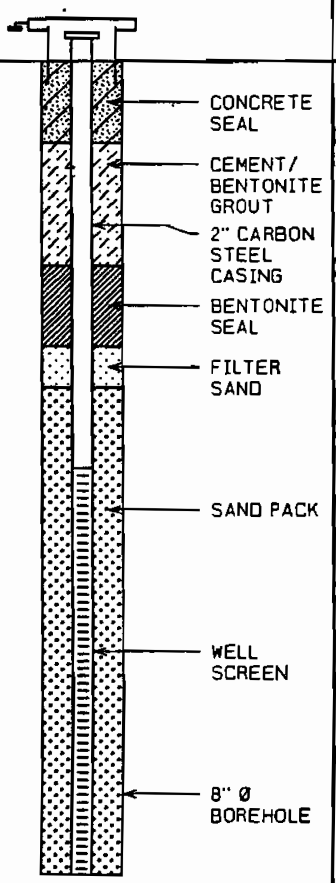
(WL-07)
Page 1 of 1

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW3
DATE COMPLETED: MAY 11, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser)	*604.32*
	GROUND SURFACE	*601.7*
	MH-SILT (FILL), some clay, trace fine to medium gravel, medium dense, black, dry to moist	
-2.5	- moist	
		597.7
-5.0	CH-CLAY (NATIVE), some silt, trace fine sand, soft, red brown and green, moist	
	- humas layer, roots and vegetation (4.4 to 5.0ft BGS)	*595.7*
-7.5	MH-SILT, some clay, trace fine sand, trace fine gravel, angular to round, hard, red brown, moist	
	- several vertical sand seams	
-10.0		
-12.5		*588.8*
	SP-SAND, some silt, trace clay, poorly sorted, red brown, moist to wet	*588.2*
-15.0	MH-SILT, some fine sand, trace clay, trace fine gravel, subangular to round, hard, red brown, moist	
-17.5	- trace fine to medium gravel, angular to round, very stiff	
-20.0	END OF HOLE @ 20.0ft BGS	*581.7*
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	10	0
2SS	☒	13	0
3SS	☒	4	0
4SS	☒	38	0
5SS	☒	35	0
6SS	☒	45	0
7SS	☒	52	0
8SS	☒	NM	0
9SS	☒	58	0
10SS	☒	20	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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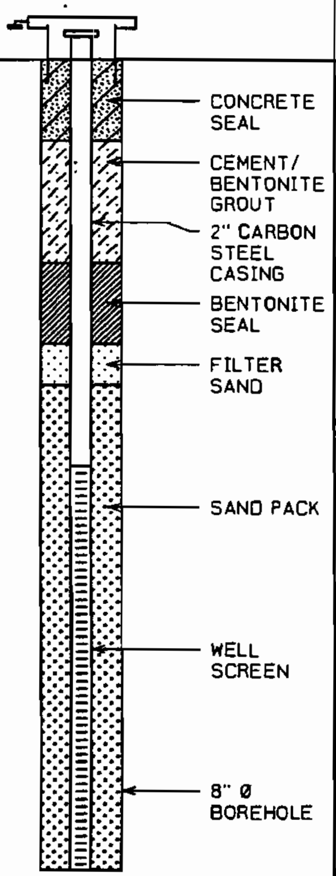
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW4
DATE COMPLETED: MAY 10, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*603.90* *602.0*
	SP-SAND (FILL), medium dense, gray, dry, some crushed stone	*601.6*
-2.5	MH-SILT, some clay, trace fine sand, red brown, moist	*600.0*
	MH-SILT (NATIVE), some clay, trace fine sand, very stiff, some laminations, red brown, moist, mottled	
-5.0	- laminated, several sandy seams	
	- trace fine to medium gravel, angular to subround, massive, water around the larger gravel	
-7.5		
	- hard	
-10.0	- pockets of coarse sand around large gravel	
-12.5		
	- moderately plastic	
-15.0		
-17.5		
-20.0	END OF HOLE @ 20.0ft BGS	*582.0*
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	22	0
2SS	☒	17	0
3SS	☒	27	0
4SS	☒	68	0
5SS	☒	42	0
6SS	☒	34	0
7SS	☒	36	0
8SS	☒	23	0
9SS	☒	32	0
10SS	☒	43	0

SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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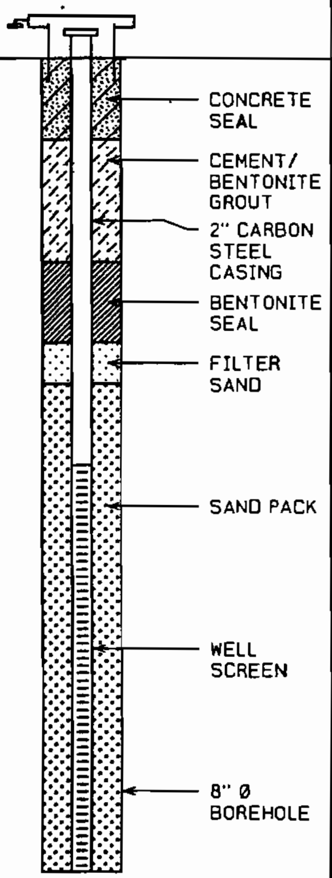
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW6
DATE COMPLETED: MAY 3, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser)	*601.58*
	GROUND SURFACE	*599.2*
	MH-SILT (FILL), trace fine sand, medium dense, black, dry to moist, rootlets - cinders	*598.2*
-2.5	MH-SILT (NATIVE), some clay, little fine sand, trace fine gravel, subround to round, very stiff, red brown, dry to moist - moderately plastic, laminated, moist	
-5.0	- no gravel, several gray sandy seams, strong petroleum odor	
-7.5	- trace fine sand - some fine sand, trace clay, massive, wet	
-10.0		
-12.5	- trace to little fine gravel, angular to subround, moist to wet, less odor - little fine to medium gravel, angular to subround	
-15.0	- trace to little clay, no medium gravel, no odor	
-17.5	- little sand, little clay, trace fine gravel, angular to subround	
-20.0	END OF HOLE @ 20.0ft BGS	*579.2*
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	19	0
2SS	☒	21	0
⬭3SS	☒	17	10.7
4SS	☒	38	5.7
5SS	☒	27	2.2
6SS	☒	15	3.7
7SS	☒	28	0.7
8SS	☒	17	0.3
9SS	☒	45	0
10SS	☒	16	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
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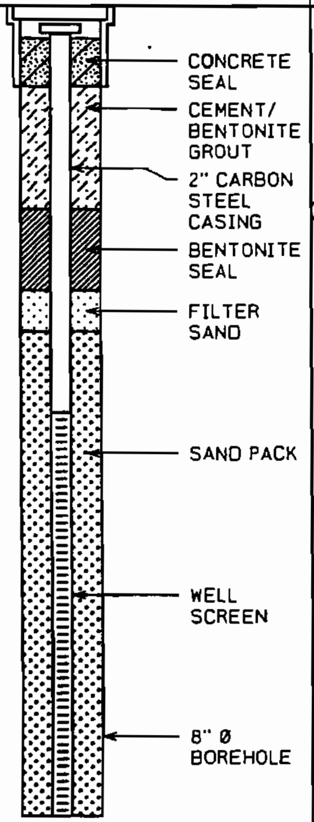
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW7
DATE COMPLETED: MAY 8, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE **REFERENCE POINT (Top of Riser)**	*597.0* *596.87*
	ASPHALT	*596.5*
	MH-SILT (FILL), some sand, trace gravel, medium dense, black, dry to moist	*595.8*
-2.5	MH-SILT (NATIVE), some clay, laminated, gray black, moist	
	- trace fine sand, moderately plastic, red brown	
-5.0	- massive, mottled, dark green black	
	- laminated, red brown, several sandy seams	
-7.5		
-10.0	- some sand, trace clay, moist to wet	
	- some clay, trace fine sand, moist	
	- trace fine to medium gravel, subangular to round, massive, mottled	
-12.5		
-15.0		
-17.5		
-20.0	END OF HOLE @ 20.0ft BGS	*577.0*
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	16	0
2SS	☒	27	0
(3SS)	☒	14	0
4SS	☒	34	0
5SS	☒	24	0
6SS	☒	14	0
7SS	☒	39	0
8SS	☒	20	0
9SS	☒	20	0
10SS	☒	31	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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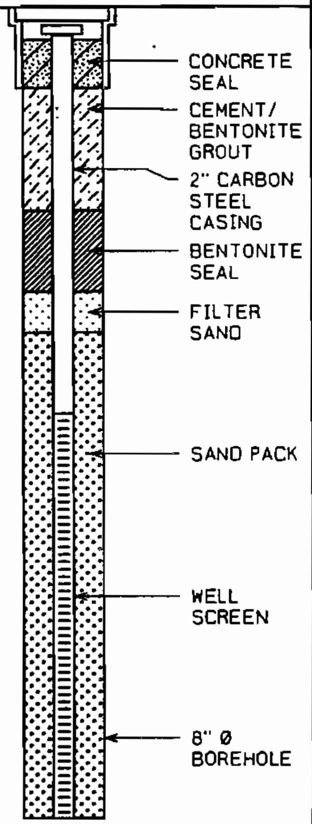
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW8
DATE COMPLETED: MAY 2, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	GROUND SURFACE REFERENCE POINT (Top of Riser)	*596.0* *.00*
	CINDER and GRAVEL (FILL)	595.0
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, trace fine gravel, subangular to round, stiff, laminated, red brown, moist, strong phenol odor	594.0
	CH-CLAY, some silt, stiff, moderately plastic, laminated, green-red brown, moist, phenol odor	591.2
-5.0	MH-SILT, some clay, stiff, moderately plastic, laminated, red brown, moist, phenol odor, trace rootlets	
-7.5	- trace fine sand, very stiff	
-10.0	- hard - little fine to medium gravel, angular to round	
-12.5	- wet sand seam (13.6 to 13.7ft BGS)	
-15.0		
-17.5	- no phenol odor	
-20.0	END OF HOLE @ 20.0ft BGS	576.0
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	14	0
(2SS)	☒	13	0
3SS	☒	10	0
4SS	☒	50	0
5SS	☒	19	0
6SS	☒	34	0
7SS	☒	54	0
8SS	☒	34	0
9SS	☒	59	0
10SS	☒	35	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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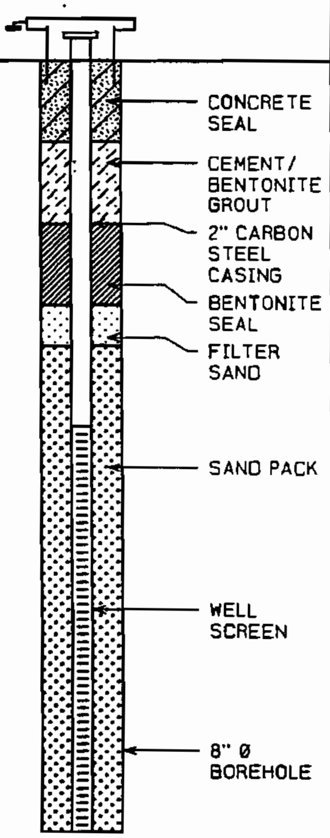
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW9
DATE COMPLETED: APRIL 27, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*593.12* *591.1*					
	Refer to BW9 for stratigraphic details.						
-2.5							
-5.0							
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
	END OF HOLE @ 19.0ft BGS	*572.1*					
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

SCREEN DETAILS
Screened interval:
9.0 to 19.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
6.0 to 7.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
7.0 to 19.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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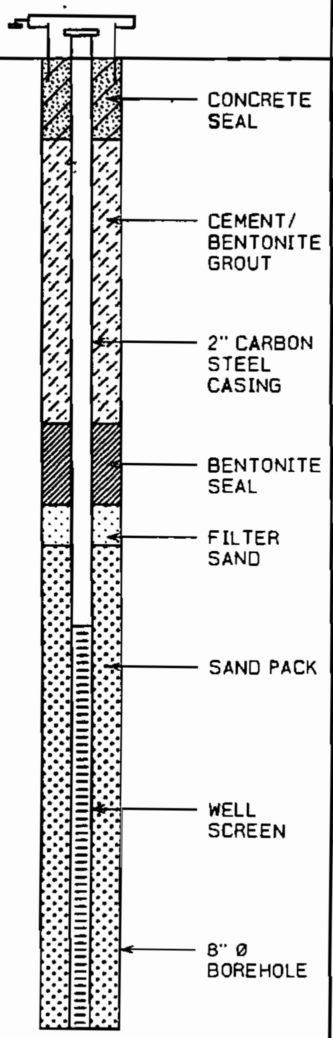
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW10
DATE COMPLETED: APRIL 28, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*595.96* *593.9*					
	Refer to BW10 for stratigraphic details.						
-2.5							
-5.0							
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
	END OF HOLE @ 24.0ft BGS	*569.9*					
-25.0							
-27.5							
-30.0							
-32.5							

SCREEN DETAILS
Screened interval:
14.0 to 24.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
11.0 to 12.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
12.0 to 24.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

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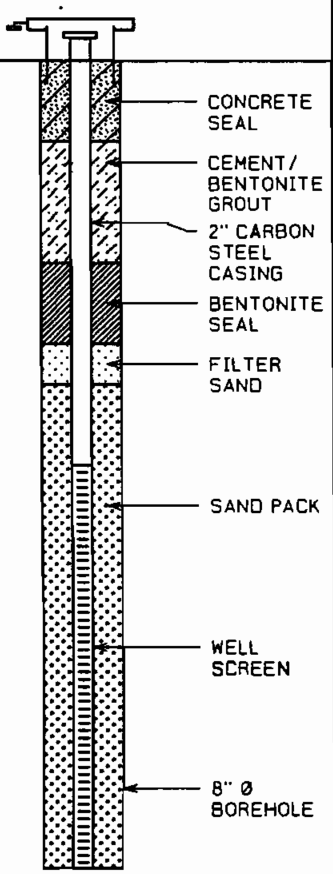
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW11
DATE COMPLETED: MAY 5, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*602.61* *599.9*				
	MH-SILT (FILL), trace fine sand, dense, black, brown, dry to moist		1SS	☒	49	0
-2.5	- stone fill, green gray, dry, strong sulphur odor - crushed stone, gray, wet, no odor		2SS	☒	20	0
-5.0			3SS	☒	18	0
		593.5				
-7.5	MH-SILT (NATIVE), some clay, trace fine sand, hard, laminated, red brown, moist - stained dark green (6.4 to 7.4ft BGS)		4SS	☒	32	0
			5SS	☒	33	0
-10.0	- very stiff, moderately plastic					
			6SS	☒	18	0
-12.5			7SS	☒	40	0
	- massive					
-15.0			8SS	☒	14	0
	- little clay, trace to little fine gravel, subangular to subround		9SS	☒	25	0
-17.5	- little fine gravel, subangular to subround		10SS	☒	32	0
-20.0		*579.9*				
	END OF HOLE @ 20.0ft BGS					
-22.5						
-25.0						
-27.5						
-30.0						
-32.5						

MONITOR INSTALLATION



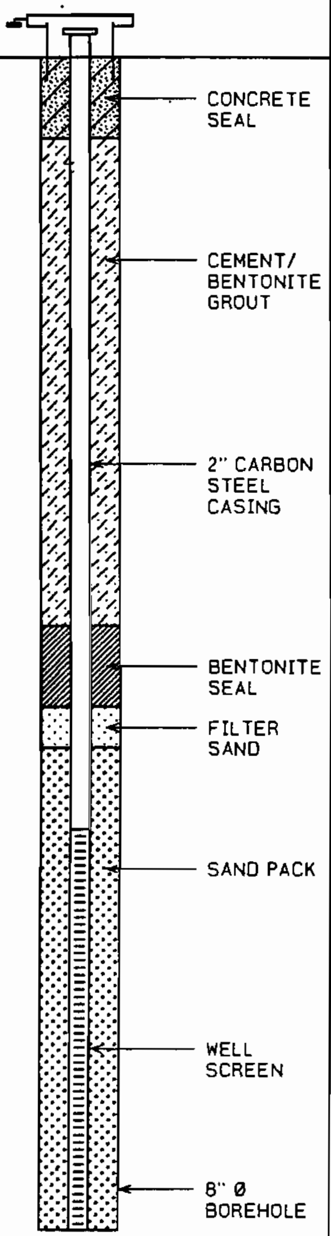
SCREEN DETAILS
Screened interval:
10.0 to 20.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
7.0 to 8.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
8.0 to 20.0ft BGS
Material: Morie #00 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW12
DATE COMPLETED: APRIL 25, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*610.78* *608.8*					
	Refer to BW12 for stratigraphic details.						
-2.5							
-5.0							
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
	END OF HOLE @ 29.0ft BGS	*579.8*					
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-15)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES FFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OW12
DATE COMPLETED: APRIL 25, 1995
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
			SCREEN DETAILS Screened interval: 19.0 to 29.0ft BGS Length: 10ft Diameter: 2" Slot Size: #6 Material: Stainless Steel Filter Sand: 16.0 to 17.0ft BGS Material: Ricci Bros. Filter Sand Sand Pack: 17.0 to 29.0ft BGS Material: Morie #00 Sand				
-37.5							
-40.0							
-42.5							
-45.0							
-47.5							
-50.0							
-52.5							
-55.0							
-57.5							
-60.0							
-62.5							
-65.0							
-67.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

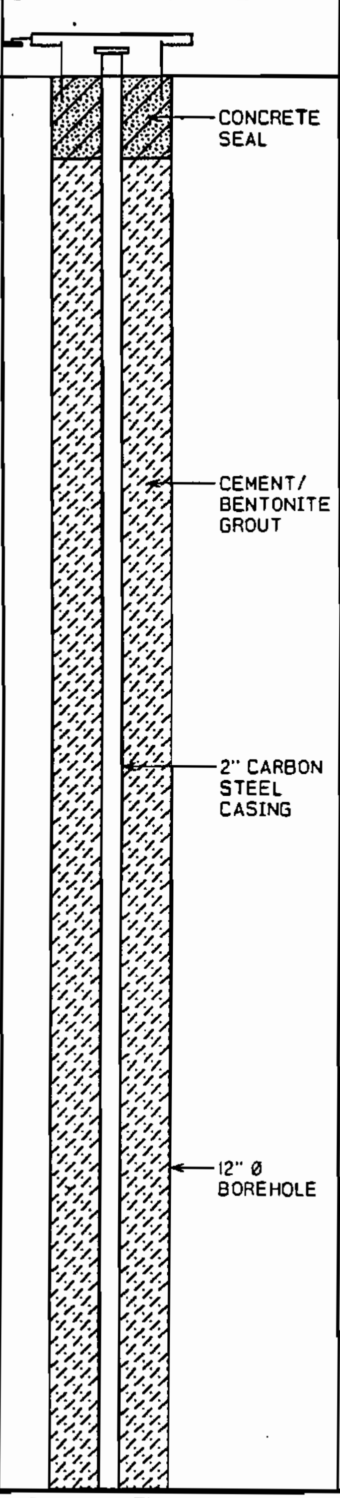
(WL-01)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OBW2
DATE COMPLETED: MAY 18, 1995
DRILLING METHOD: 8 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*603.57* *601.6*				
	MH-SILT (FILL), trace clay, trace fine sand, medium dense, black, moist, topsoil	*601.4*	1SS	☒	10	0
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, stiff, moderately plastic, red brown, moist, mottled		2SS	☒	29	0
	- trace fine gravel, subangular to round, very stiff					
-5.0	- trace to little fine to medium gravel, subangular to round, hard, massive, trace rootlets		3SS	☒	30	0
	- no rootlets		4SS	☒	45	0
-7.5						
			5SS	☒	38	0
-10.0						
			6SS	☒	31	0
	- moist to wet					
-12.5			7SS	☒	36	0
	- very stiff, moist					
-15.0			8SS	☒	17	0
	- sandy pockets					
			9SS	☒	26	0
-17.5	- firm					
			10SS	☒	8	0
-20.0	- no sandy pockets, stiff					
			11SS	☒	10	0
-22.5			12SS	☒	16	0
-25.0			13SS	☒	19	0
	- sand seam, 0.4ft thick (25.6 to 26.0ft BGS)					
	- hard		14SS	☒	50	0
-27.5						
	- sand seam, 0.5ft thick, very stiff (28.4 to 28.9ft BGS)		15SS	☒	22	0
-30.0						
	- no gravel		16SS	☒	18	0
-32.5	- trace fine gravel, subangular to round					
			17SS	☒	26	0
			18SS	☒	31	0

MONITOR INSTALLATION



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

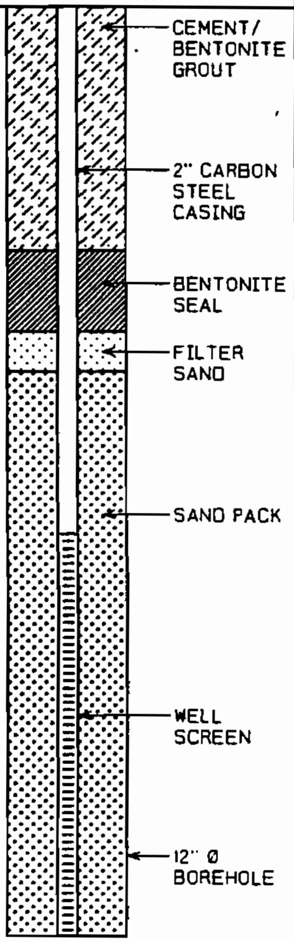
(WL-01)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: OBW2
DATE COMPLETED: MAY 18, 1995
DRILLING METHOD: 8 ¼" HSA
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	- hard	
-37.5	CH-CLAY, some silt, trace fine to medium gravel, subangular to round, hard, moderately plastic, massive, red brown, gray, moist	563.9
-40.0	- no gravel	562.5
	SP-SAND, some fine to medium gravel, angular to subround, dense, poorly graded, red brown, moist	561.6
-42.5	CH-CLAY, some sand, little fine to medium gravel, angular to subround, very stiff, red brown, moist	
-45.0	- no gravel, gray	
	- some silt, trace fine sand, trace fine to medium gravel, angular to subround, hard, gray, red brown, moist	555.6
-47.5	- sand seam, 0.3ft thick (44.7 to 45.0ft BGS) - sand seam, 0.1ft thick (45.9 to 46.0ft BGS)	
-50.0	SP-SAND, little clay, little fine gravel, subangular to round, medium dense, poorly graded, brown gray, moist - some clay, no gravel, red brown gray, mottled	
-52.5	- little to some clay, little fine gravel, subangular to round, gray - trace fine gravel, subround to round, no clay, wet	
-55.0	- some fine to medium gravel, subround to round, fine to coarse sand, well graded - trace clay, fine sand, poorly graded	546.7
-57.5	WEATHERED BEDROCK, gray - split spoon refusal	543.6
	BEDROCK, auger refusal	543.6
-60.0	END OF HOLE @ 58.0ft BGS NOTES: 1. Well installed as an overburden/bedrock interface well, no 6" carbon steel overburden casing. 2. A 2" Ø overburden well (OW2) was installed to a depth of 20.0ft BGS in an adjacent borehole located 11ft east of BW2.	
-62.5		
-65.0		
-67.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
48.0 to 58.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Filter Sand:
43.0 to 44.0ft BGS
Material: Ricci Bros. Filter Sand
Sand Pack:
44.0 to 58.0ft BGS
Material: Sand

SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
18SS	☒	31	0
19SS	☒	46	0
20SS	☒	36	0
21SS	☒	20	0
22SS	☒	56	0
23SS	☒	31	0
24SS	☒	24	0
25SS	☒	14	0
26SS	☒	23	0
27SS	☒	3	0
28SS	☒	144+	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

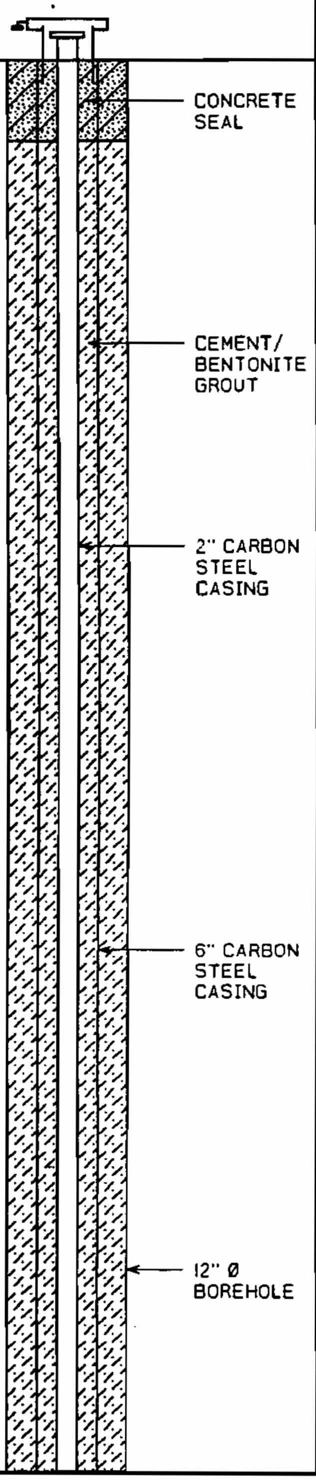
(WL-02)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW9
DATE COMPLETED: APRIL 26, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*592.84* *591.3*
	ASH and CINDER/MH-SILT (FILL), medium dense, black, moist	*590.8*
	MH-SILT (FILL), medium dense, gray brown, moist, glass, wood, coal	*590.3*
-2.5		
	MH-SILT (NATIVE), little clay, trace fine sand, very stiff, moderately plastic, brown to red brown, dry to moist	
-5.0	- some clay, red brown with gray, trace rootlets	
	- trace fine gravel, subangular, laminated, red brown	
-7.5	- trace fine sand, trace fine gravel, subangular to subround, occasional sandy lense, tan to gray, moist	
-10.0	- little clay, little fine sand, trace fine gravel, angular to subround, stiff, moist to wet	
	- some clay, firm, moist	
-12.5	- little clay, trace fine to medium gravel, subangular to subround, very stiff, moist to wet	
	- some clay, massive, moist	
-15.0		
	- trace fine sand, trace fine to medium gravel, subangular to round	
-17.5		
-20.0	- trace fine gravel	
	- trace fine to medium gravel, angular to round	
-22.5		
-25.0		
	- little fine sand, trace fine to medium gravel, subangular to round	
-27.5	- some fine sand, trace to little fine to medium gravel, subangular to round, stiff	
-30.0	- trace fine gravel, subangular to round	
-32.5		
	- little clay, little fine sand, moist to wet	

MONITOR INSTALLATION



SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
⓵SS	☒	24	0
2SS	☒	27	0
3SS	☒	22	0
4SS	☒	34	0
5SS	☒	13	0
6SS	☒	7	0
7SS	☒	26	0
8SS	☒	12	0
9SS	☒	34	0
10SS	☒	32	0
11SS	☒	19	0
12SS	☒	51	0
13SS	☒	18	0
14SS	☒	34	0
15SS	☒	13	0
16SS	☒	12	0
17SS	☒	13	0
18SS	☒	14	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

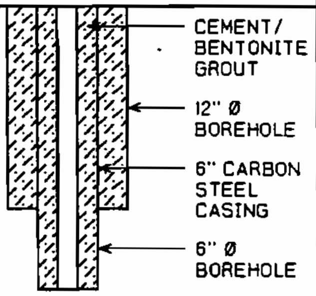
(WL-02)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW9
DATE COMPLETED: APRIL 26, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	- gray brown - hard - trace to little clay, little to some fine sand, trace to little fine gravel, angular to round, gray	
-37.5		553.3
	SP-SAND, little silt, little fine gravel, dense, poorly graded, gray brown, wet	553.1 552.8
-40.0	MH-SILT, some sand, hard, red brown, moist to wet	551.3 551.3
-42.5	WEATHERED BEDROCK, gray - split spoon refusal	
	BEDROCK, auger refusal	
	END OF OVERBURDEN HOLE @ 40.0ft BGS	
-45.0		
-47.5		
-50.0		
-52.5		
-55.0		
-57.5		
-60.0		
-62.5		
-65.0		
-67.5		

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
18SS	☒	14	0
19SS	☒	54	0
20SS	☒	43	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-02)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW9
DATE COMPLETED: APRIL 26, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

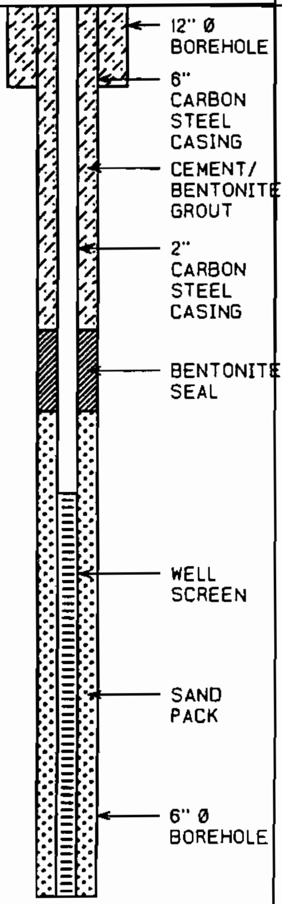
DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL
	Overburden	
		551.3

DEPTH ft. BGS:
- -40.5
- -43.0
- -45.5
- -48.0
- -50.5
- -53.0
- -55.5
- -58.0
- -60.5
- -63.0
- -65.5
- -68.0
- -70.5

DOLOMITIC SHALE (Camillus Formation, Salina Group): light gray and green gray, very thinly bedded, numerous shaly and gypsum lined partings, some slightly weathered, little white and pink gypsum, trace dolostone

- weathered gypsum lined and shaly partings (40.9 to 41.0ft BGS)
- pink gypsum layer, 1/2" thick (@ 41.3ft BGS)
- medium sized pink gypsum vug (@ 41.9ft BGS)
- trace gypsum (@ 42.6ft BGS)
- rubble zone, slightly weathered (43.2 to 44.0ft BGS)
- vertical fracture, tight-rock split along fracture (42.7 to 44.5ft BGS)
- weathered pink gypsum mass, medium sized (@ 44.5ft BGS)
- weathered shaly parting (44.8ft BGS)
- pink gypsum band, 1/16" thick, inclined at 45° angle (44.8 to 45ft BGS)
- weathered shaly and gypsum lined partings (@ 45.1ft BGS)
- weathered zone, some to little gypsum in small masses (45.3 to 45.8ft BGS)
- gypsum layer, 1/2" thick between two slightly weathered gypsum lined partings (@ 46.1ft BGS)
- gypsum mass, moderately weathered (46.5 to 46.6ft BGS)
- closed, tight vertical fracture (46.6 to 47.0ft BGS)
- abundant gypsum, with shale interbeds, slight to moderate weathering along gypsum lined partings (47.2 to 48.1ft BGS)
- large gypsum mass (47.2 to 47.6ft BGS)
- medium sized gypsum filled vug (@ 49.7ft BGS)
- medium sized gypsum mass (50.1 to 50.4ft BGS)
- gypsum lined vertical fracture, closed (50.6 to 51.3ft BGS)
- abundant gypsum, shale interbedded, little to trace dolomite, slight HCL reaction (51.7 to 55.9ft BGS)
- weathered shaly parting (@ 53.1ft BGS)

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
50.0 to 60.0ft BGS
Length: 10ft
Diameter: 2"
Slot Size: #6
Material: Stainless Steel
Sand Pack:
48.0 to 60.0ft BGS
Material: Sand

BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	1	100	0	0
	2	100	24	0
	3	100	13	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(BEDROCK)

(WL-02)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW9
DATE COMPLETED: APRIL 26, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
-75.5 -78.0 -80.5	- medium sized gypsum filled vugs (53.6 to 53.9ft BGS) - numerous small gypsum filled vugs (54.1 to 54.2ft BGS) - massive gypsum (55.2 to 55.9ft BGS) - brown dolostone (55.9 to 56.0ft BGS) - gypsum mass (56.0 to 56.2ft BGS) - brown dolostone, little gypsum, mostly as thin viens, 1/16" thick, or in gypsum lined partings, slight solution pitting, moderate to strong HCL reaction, numerous gypsum lined partings (56.2 to 60.0ft BGS)							
-83.0 -85.5 -88.0 -90.5 -93.0 -95.5 -98.0 -100.5 -103.0 -105.5	END OF HOLE @ 60.0ft BGS NOTES: 1. A 6" carbon steel overburden casing was installed to 40.0ft BGS to permit bedrock drilling. 2. A 2" Ø overburden well (OW9) was installed to a depth of 19.0ft BGS in an adjacent borehole located 9ft west of BW9.	531.3						

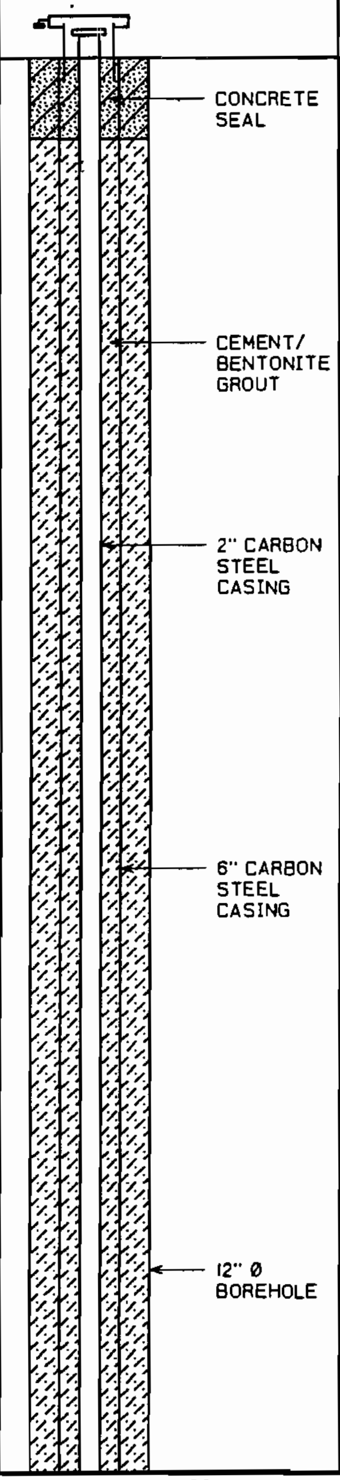
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-03)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW10
DATE COMPLETED: APRIL 28, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) **GROUND SURFACE**	*595.39* *594.0*					
	MH-SILT (FILL), some clay, trace fine sand, trace fine gravel, loose, red brown, dry to moist, trace rootlets			1SS	☒	8	0
-2.5	- little fine sand, little clay, brown - moist	*591.7*		2SS	☒	14	0
-5.0	MH-SILT (NATIVE), some clay, trace fine sand, stiff, laminated, red brown, dry to moist, trace rootlets			3SS	☒	17	0
	- very stiff - sand seam			4SS	☒	43	0
-7.5	- hard - very stiff, gray brown sandy seams, no rootlets			5SS	☒	15	0
-10.0				6SS	☒	10	0
-12.5	- trace fine gravel, angular to subround, massive, wet			7SS	☒	22	0
-15.0	- trace fine gravel, angular to round, moderately plastic, moist			8SS	☒	12	0
	- trace to little fine gravel, angular to round			9SS	☒	30	0
-17.5	- little fine to medium gravel, angular to round, stiff			10SS	☒	10	0
-20.0	- trace fine gravel, subangular to round, very stiff			11SS	☒	20	0
-22.5	- trace to little fine sand, hard, wet			12SS	☒	25	0
-25.0	- very stiff, moist			13SS	☒	21	0
	- trace fine to medium gravel, angular to subround			14SS	☒	44	0
-27.5	- dark red brown, wet			15SS	☒	20	0
-30.0				16SS	☒	26	0
-32.5	- moist			17SS	☒	38	0
	- trace fine gravel, subangular to round			18SS	☒	24	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ◯

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(WL-03)
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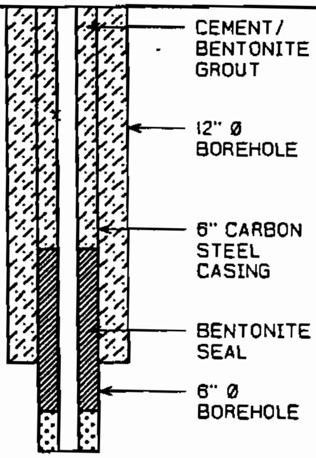
PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW10
DATE COMPLETED: APRIL 28, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WI
CRA SUPERVISOR: D. TYRAN



DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
			18SS	☒	24	0
			19SS	☒	34	0
-37.5						
		555.5				
	CH-CLAY, some silt, trace fine to medium gravel, subangular to round, very stiff, massive, gray, moist		20SS	☒	24	0
-40.0		554.0				
	MH-SILT, some clay, trace to little fine sand, trace fine gravel, subangular to round, hard, moderately plastic, dark red brown, moist		21SS	☒	47	0
		552.2				
-42.5	- some fine sand, trace clay, gray, dry to moist					
	WEATHERED BEDROCK, gray green	550.0				
	BEDROCK, auger refusal	550.0				
-45.0						
	END OF OVERBURDEN HOLE @ 44.0ft BGS					
-47.5						
-50.0						
-52.5						
-55.0						
-57.5						
-60.0						
-62.5						
-65.0						
-67.5						

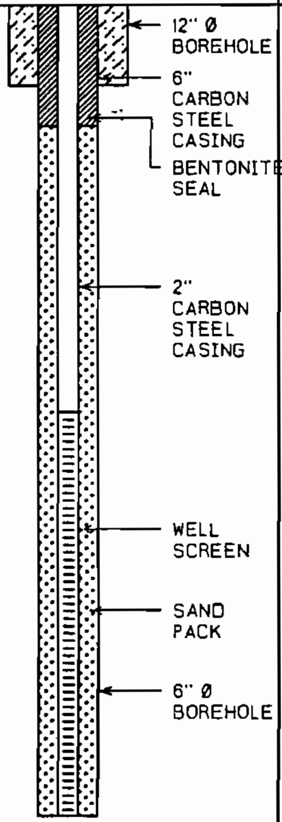
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-03)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW10
DATE COMPLETED: APRIL 28, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	Overburden							
			 					
-44.5	DOLOMITIC SHALE (Camillus Formation, Salina Group): rubble, moderately to highly weathered	550.0						
-47.0	- numerous gypsum lined partings (@ 46.2ft BGS)							
	- small gypsum filled vug (@ 46.2 and 46.6ft BGS)				1	81.7	9.8	0
-49.5	- medium sized gypsum mass (@ 47.3 to 47.5, 47.6 and 48.0ft BGS)							
	- shaly zone, platy, slight HCL reaction, gray (48.4 to 48.5ft BGS)							
-52.0	- medium sized gypsum filled vug (@ 49.6ft BGS)							
	- gypsum lined parting, slight to moderate weathering (@ 50.4ft BGS)							
-54.5	- moderately weathered shaly zone (50.6 to 50.9ft BGS)							
	- moderately weathered shaly zone, gypsum lined parting (@ 51.2ft BGS)							
-57.0	- moderately weathered shaly zone (51.4 to 51.8ft BGS)				2	100	87	25
	- medium sized gypsum mass (51.3 and 52.0 to 52.2ft BGS)							
-59.5	- abundant gypsum with interbedded shaly vienlets or fingers (52.4 to 53.5ft BGS)							
-62.0	- moderately weathered gypsum lined parting (@ 53.8 and 54.2ft BGS)							
	- medium sized gypsum mass (@ 54.3ft BGS)		SCREEN DETAILS Screened interval: 52.1 to 62.1ft BGS Length: 10ft Diameter: 2" Slot Size: #6 Material: Stainless Steel Sand Pack: 45.0 to 62.1ft BGS Material: Sand					
-64.5	- very thin, 1/16" gypsum band (@ 55.2 and 55.6ft BGS)							
-67.0	- more pronounced banding, dolomite and shale, little to trace gypsum, no apparent weathering (54.7 to 57.2ft BGS)							
	- small gypsum filled vug (@ 56.2ft BGS)							
-69.5	- abundant gypsum with trace thin interbedded shale (57.2 to 60.3ft BGS)							
	- lightly weathered shaly parting (@ 57.2, 57.8, 59.5 and 60.3ft BGS)							
-72.0	- more dolomitic, less gypsum, thicker layers, 1/8 to 3/8" thick (60.3 to 61.1ft BGS)							
	- limestone/dolomite layer, strong HCL reaction (60.9 to 61.0ft BGS)							
-74.5	- large gypsum mass (61.1 to 61.6ft BGS)							
	- brown dolostone, massive with abundant very thin gypsum layers, trace dark gray shaly layers (61.6 to 62.0ft							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ⊻ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(BEDROCK)

(WL-03)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES FFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW10
DATE COMPLETED: APRIL 28, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	BGS)							
	END OF HOLE @ 62.1ft BGS NOTES: 1. A 6" carbon steel overburden casing was installed to 43.8ft BGS to permit bedrock drilling. 2. A 2" Ø overburden well (OW10) was installed to a depth of 24.0ft BGS in an adjacent borehole located 8ft south of BW10.	531.9						
79.5								
82.0								
84.5								
87.0								
89.5								
92.0								
94.5								
97.0								
99.5								
102.0								
104.5								
107.0								
109.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

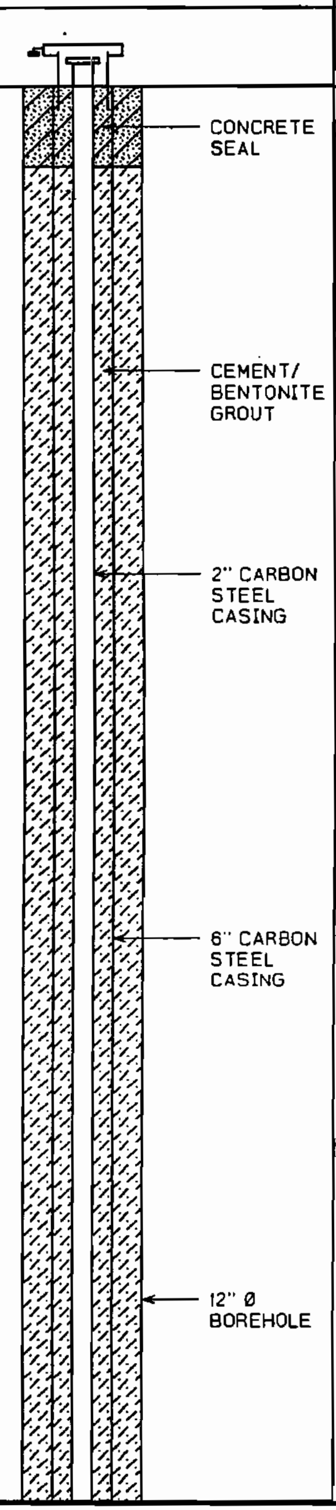
(WL-04)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW12
DATE COMPLETED: APRIL 24, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser)	*610.38*
	GROUND SURFACE	*609.0*
	MH-SILT (FILL), some clay, trace fine sand, firm, dark brown and red brown, moist, trace rootlets	*608.3*
-2.5	MH-SILT (NATIVE), some clay, trace fine sand, very stiff, moderate plasticity, red brown, dry to moist	
	- trace fine gravel, subround	
-5.0	- laminated	
-7.5		
-10.0		
-12.5		
-15.0	- little clay, little fine gravel, subangular to round, massive, some water around larger gravel	
-17.5		
	- little fine sand, little fine to medium gravel, soft, moist	
-20.0		
-22.5		
-25.0		
	- trace fine to coarse gravel	
-27.5	- moist to wet	
-30.0		
-32.5	- little to trace fine to medium gravel, subangular to round, moist	
	- sand seam, 0.3ft thick	

MONITOR INSTALLATION



SAMPLE			
NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	☒	5	0
2SS	☒	26	0
3SS	☒	37	0
4SS	☒	70	0
5SS	☒	49	0
6SS	☒	48	0
7SS	☒	46	0
8SS	☒	38	0
9SS	☒	77	0
10SS	☒	45	0
11SS	☒	18	0
12SS	☒	11	0
13SS	☒	9	0
14SS	☒	30	0
15SS	☒	11	0
16SS	☒	10	0
17SS	☒	5	0
18SS	☒	7	0

<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

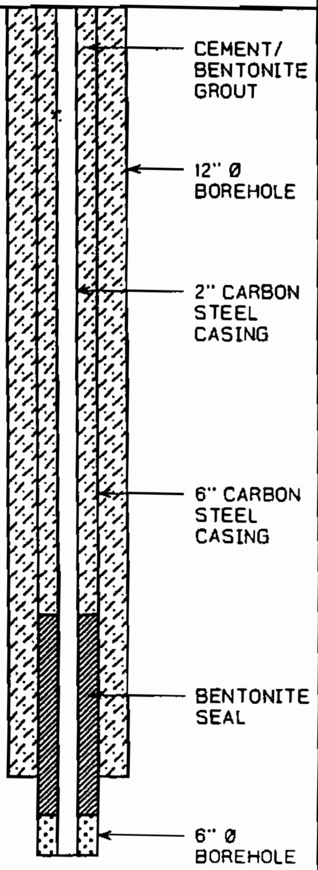
(WL-04)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW12
DATE COMPLETED: APRIL 24, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WF
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
37.5		
40.0	CH-CLAY, some silt, trace fine sand, trace fine gravel, subangular to round, stiff to very stiff, moderate plasticity, massive, red brown, moist	569.0
42.5		
	SM-SAND, fine grained, some silt, trace clay, trace fine gravel, subround to subangular, very stiff, red brown, moist to wet	565.6 565.0
45.0	MH-SILT, some clay, little fine sand, fine gravel, subangular to round, very stiff to hard, moderate plasticity, red brown, moist	
47.5	CH-CLAY, some silt, trace fine sand, fine to medium gravel, gray brown, moist	561.7
50.0	- little silt, red brown - some silt, sandy lenses, rock fragments, angular, gray brown	
52.5	WEATHERED BEDROCK, gray rock fragments - split spoon refusal	557.0
	BEDROCK, auger refusal	555.0 555.0
55.0	END OF OVERBURDEN HOLE @ 54.0ft BGS	
57.5		
60.0		
62.5		
65.0		
67.5		

MONITOR INSTALLATION



SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
18SS	☒	7	0
19SS	☒	22	0
20SS	☒	11	0
21SS	☒	11	0
22SS	☒	9	0
23SS	☒	23	0
24SS	☒	93	0
25SS	☒	33	
26SS	☒	26	
27SS	☒	>100	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG
(BEDROCK)

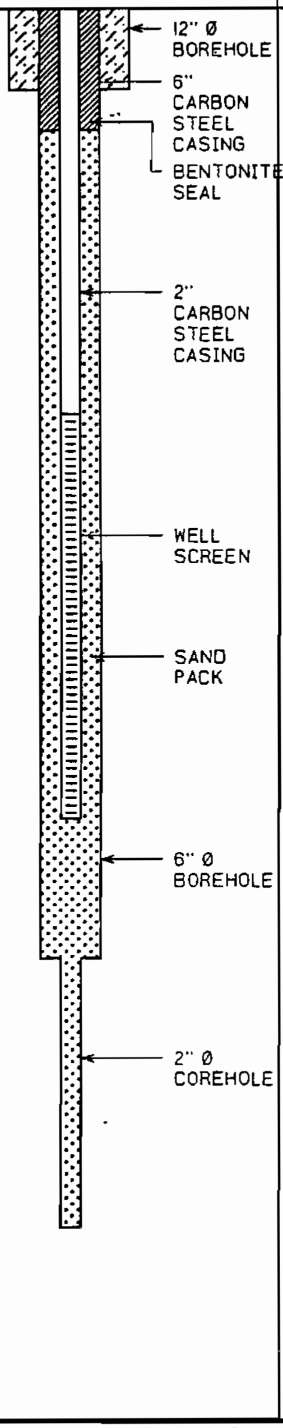
(WL-04)
Page 1 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW12
DATE COMPLETED: APRIL 24, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6" WR
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL
	Overburden	
		555.0
-54.5 -57.0 -59.5 -62.0 -64.5 -67.0 -69.5 -72.0 -74.5 -77.0 -79.5 -82.0 -84.5	DOLOMITIC SHALE (Camillus Formation, Salina Group): light to dark gray, abundant gypsum, trace dolimite, slight HCL reaction, slight to moderate weathering, frequent shaly and gypsum lined partings - low RQD, rubble, moderately to heavily weathered (54.0 to 57.2ft BGS) - vertical fracture, closed (57.2 to 57.8ft BGS) - weathered shaly parting, gypsum lined (@ 57.4, 58.1 and 58.3ft BGS) - weathered rubble zone (58.4 to 58.6ft BGS) - gypsum nudules, 1/2" thick, shaly band (57.0 to 57.05ft BGS) - shaly zone, no gypsum (59.0 to 59.5ft BGS) - abundant gypsum interbedded with shale (59.5 to 61.4ft BGS) - light and green gray dolomitic shale, little gypsum in discrete bands and masses, slightly weathered, abundant shaly partings, occasional cross bedding, thinly bedded to massive (@ 61.4ft BGS) - gypsum bands (62.5 to 62.7ft BGS) - gypsum mass, medium sized (63.3 to 63.7ft BGS) - cross bedded zone, trace gypsum along 45° inclined shaly parting (65.2 to 65.6ft BGS) - moderately weathered shaly parting (65.6 to 65.7ft BGS) - trace gypsum along 45° angle, shaly parting (66.1 to 66.2ft BGS) - gypsum lined 45° inclined shaly break (67.2 to 67.4ft BGS) - gypsum masses interlayed with gray shale (67.6 to 68.2ft BGS) - gypsum layer (68.3 to 68.4ft BGS) - moderately weathered shaly parting (@ 68.4, 68.5 and 69.2ft BGS) - gypsum layers (69.5 to 70.0ft BGS) - more green gray shale (@ 70.0ft BGS) - medium sized gypsum filled vug (70.5 to 70.6ft BGS) - gypsum mass (72.2 to 72.5ft BGS) - pink coloured gypsum layer (72.8 to 72.9 and 74.3 to 74.5ft BGS)	

MONITOR INSTALLATION



BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	1	75.6	9.8	[illegible]
	2	90	12	[illegible]
	3	96	0	[illegible]

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(BEDROCK)

(WL-04)
Page 2 of 2

PROJECT NAME: SPAULDING COMPOSITES RFI RI/FS
PROJECT NUMBER: 5039
CLIENT: SPAULDING COMPOSITES COMPANY INC.
LOCATION: TONAWANDA, NEW YORK

HOLE DESIGNATION: BW12
DATE COMPLETED: APRIL 24, 1995
DRILLING METHOD: 8 ¼" HSA/3" NX CORE/6"
CRA SUPERVISOR: D. TYRAN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	- gypsum filled vugs (74.9 to 75.0, 75.1 to 75.2, 75.5 to 75.6, 75.8 to 76.0 and 76.7 to 76.8ft BGS)		SCREEN DETAILS Screened interval: 62.0 to 72.2ft BGS Length: 10ft Diameter: 2" Slot Size: #6 Material: Stainless Steel Sand Pack: 55.0 to 82.2ft BGS Material: Sand					
-89.5	- occasional red shales interbedded with green gray shale (76.8 to 78.5ft BGS)							
	- pink gypsum layer (78.5 to 78.6ft BGS)							
-92.0	- abundant moderately weathered shaly partings (79.2 to 82.2ft BGS)							
	- medium sized gypsum filled vug (79.7 to 79.9ft BGS)							
-94.5	- gypsum band, 1/4" thick (@ 80.0ft BGS)							
	- gypsum band, 3/16" thick (@ 80.5ft BGS)							
-97.0	END OF HOLE @ 82.2ft BGS NOTES:	*526.8*						
-99.5	1. A 6" carbon steel overburden casing was installed to 54.0ft BGS to permit bedrock drilling.							
-102.0	2. Bedrock was cored to a depth of 82.2ft BGS. The corehole was enlarged to 6" Ø and a 2" stainless steel well was installed to a depth of 72.0ft BGS.							
-104.5	3. The bedrock interval from 72.0 to 82.2ft BGS was backfilled with sand, with a 1.5ft thick bentonite seal from 73.5 to 72.0ft BGS.							
-107.0	4. A 2" Ø overburden well (OW12) was installed to a depth of 26.0ft BGS in an adjacent borehole located 19.0ft east of this well.							
-109.5								
-112.0								
-114.5								
-117.0								
-119.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

APPENDIX E

WELL DEVELOPMENT LOGS

1of2

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10-3-95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-1

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 605.16

STATIC WATER DEPTH 9.1 BTOC

ELEVATION 596.06

BOTTOM DEPTH 22.0 BTOC

ELEVATION 583.16

WATER COLUMN LENGTH 12.9

SCREENED INTERVAL 10.0-20.0 BGS

WELL VOLUME 2.0 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/3 1	10/3 2	10/3 3	10/4 4	10/4 5	6 10/5 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	2.0	4.0	5.1	7.1	7.6	9.6
FIELD pH	8.9	8.6	well went dry	9.2	well went dry	8.9
FIELD TEMPERATURE	62°F	59°F		55°F		55°F
FIELD CONDUCTIVITY	2630	2800		2400		2400
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—	—	—
COLOUR	Lt. grey					
ODOR	Sour					None
COMMENTS						

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CRA 1001/29/FORM SP-09

2 of 2

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 10/3/95
DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry
SUPERVISOR
PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-1
WELL TYPE (diameter/material)
MEASURING POINT ELEVATION
STATIC WATER DEPTH 9.1 BTOC
ELEVATION
BOTTOM DEPTH 22.0 BTOC
ELEVATION
WATER COLUMN LENGTH 12.9
SCREENED INTERVAL
WELL VOLUME 2.0 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	~~1~~ 10/5	~~2~~	~~3~~	~~4~~	~~5~~	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	9.8					9.8
FIELD pH	well went dry					8.9
FIELD TEMPERATURE						57.75
FIELD CONDUCTIVITY						2557.5
CLARITY/TURBIDITY VALUES (NTU)						—
COLOUR						Lt. grey
ODOR						
COMMENTS						

COPIES TO:

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CRA 1001/29/FORM SP-09

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/3/95

DEVELOPMENT CREW MEMBERS Wally, Don, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel bailer

WELL INFORMATION

WELL NUMBER OW-2

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 604.35

STATIC WATER DEPTH 9.7 BTOC

ELEVATION 594.65

BOTTOM DEPTH 22.0 BTOC

ELEVATION 582.35

WATER COLUMN LENGTH 12.3

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 1.9 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/3 1	10/3 2	10/3 3	10/4 4	10/4 5	10/5 6 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	1.9	2.8	3.6	4.5	5.4	6.3
FIELD pH	8.6	8.9	—	9.6	9.3	9.7
FIELD TEMPERATURE	60°F	59°F	—	58°F	57°F	56°F
FIELD CONDUCTIVITY	1150	1010	—	1010	1005	1000
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—	—	—
COLOUR	Blk.	Lt. Blk.	—	LT. Blk	LT. gray	LT. gray
ODOR	none	Sour	—	Sour	none	none
COMMENTS			well dry		well dry @ 5.4	well dry @ 6.5

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CRA 1001/29/FORM SP-09

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/3/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-3

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 604.32

STATIC WATER DEPTH 10.50 BTOC

ELEVATION 593.82

BOTTOM DEPTH 22.0 BTOC

ELEVATION 582.32

WATER COLUMN LENGTH 11.5

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 1.84 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/3 1	10/4 2	10/5 3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	1.8	4.0	5.0			5.4
FIELD pH	8.5	9.0	10.0			9.2
FIELD TEMPERATURE	58°F	55°F	55°F			56°F
FIELD CONDUCTIVITY	600	660	870			710
CLARITY/TURBIDITY VALUES (NTU)	—	—	—			—
COLOUR	clay Brown	clay brown	clay brown			clay brown
ODOR	none	none	none			none
COMMENTS	well dry @ 2.2gal	well dry @ 4.2gal	well dry @ 5.4gal			

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 9/26/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-4

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 603.90

STATIC WATER DEPTH 6.20 BTOC

ELEVATION 597.7

BOTTOM DEPTH 22.0 BTOC

ELEVATION 581.9

WATER COLUMN LENGTH 15.80

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 2.5 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	9/26 1	9/26 2	9/26 3	9/26 4	9/27 5	9/27 6 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	2.5	5.0	7.5	10.0	12.5	15.0
FIELD pH	7.9	7.8	7.6	7.7	7.5	7.6
FIELD TEMPERATURE	61.4°F	59.6°F	59°F	61°F	14.7°C 58.46°F	14.4°C 57.92°F
FIELD CONDUCTIVITY	1200	1200	1300	1400	1750	1710
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—	100+	—
COLOUR	Brown Clay	Brown Clay	Brown clay	Lt Clay	brown	brown
ODOR	mud	mud	mud	none	none	none
COMMENTS	—	—	—	—	—	well dry@ 15.5

COPIES TO:

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2 of 2

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 9/26/95
DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry
SUPERVISOR
PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-4
WELL TYPE (diameter/material)
MEASURING POINT ELEVATION
STATIC WATER DEPTH 6.20 BTOC
ELEVATION
BOTTOM DEPTH 22.0 BTOC
ELEVATION
WATER COLUMN LENGTH 15.80
SCREENED INTERVAL
WELL VOLUME 2.5 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	9/29 7	9/28 8	~~3~~	~~4~~	~~5~~	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	17.5	20.0				20.3
FIELD pH	6.7	7.4				7.5
FIELD TEMPERATURE	14.8°C 58.64°F	13.9°C 57.02°F				59.13°F
FIELD CONDUCTIVITY	1770	1750				1510
CLARITY/TURBIDITY VALUES (NTU)	100+	—				100+
COLOUR	DK Brown	DK Brown				brown
ODOR	none	none				none
COMMENTS	-	well dry @ 20.3				-

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/31/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-6

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 601.58

STATIC WATER DEPTH 7.11 BTOC

ELEVATION 594.47

BOTTOM DEPTH 22.0 BTOC

ELEVATION 579.58

WATER COLUMN LENGTH 14.8

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 2.3 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/31 1	11/1 2	11/2 3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.3	6.1	—			8.9
FIELD pH	9.0	9.1	—			9.05
FIELD TEMPERATURE	52.5 F	52° F	—			52.25
FIELD CONDUCTIVITY	660	580	—			620
CLARITY/TURBIDITY VALUES (NTU)	—	—	—			—
COLOUR	Blk.	Blk.	Blk			Blk
ODOR	Sulpher	Sulpher	Sulpher			Sulpher
COMMENTS	well dry @ 3.8	well dry @ 7.1	well dry @ 8.9			—

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pg 1 of 2

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 9/26/98
DEVELOPMENT CREW MEMBERS Walley, Ron
SUPERVISOR D. Tyran
PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-7
WELL TYPE (diameter/material) 2" Carbon Steel
MEASURING POINT ELEVATION 596.67
STATIC WATER DEPTH 4.79 BTOC
ELEVATION 591.88
BOTTOM DEPTH 20.0 BTOC
ELEVATION 576.67
WATER COLUMN LENGTH 15.21
SCREENED INTERVAL 10.0 - 20.0 BGS
WELL VOLUME 2.4 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1 9/26	2 9/26	3 9/26	4 9/27	5 9/27	6 9/28 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	2.4	4.8	7.2	9.6	12.0	14.4
FIELD pH	660	750	724	7.2	7.1	6.4
FIELD TEMPERATURE	63.4°F	61.6°F	61.5°F	16.7°C 62.06°F	16.4°C 61.52°F	16.5°C 61.70°F
FIELD CONDUCTIVITY	1297	1296	1349	1750	1790	1680
CLARITY/TURBIDITY VALUES (NTU)	188	167	NA	NA	NA	NA
COLOUR	Blk	Blk	—	Lt. Blk	Lt. Blk	Lt. gray
ODOR	none	none	none	none	none	none
COMMENTS			well dry @ 7.7		well dry @ 13gal.	

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2 of 2

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 9/26/88

DEVELOPMENT CREW MEMBERS Walley, Ren

SUPERVISOR

PURGING METHOD Stainless Steel Bailers

WELL INFORMATION

WELL NUMBER OW-7

WELL TYPE (diameter/material)

MEASURING POINT ELEVATION

STATIC WATER DEPTH 4.79 BTOC

ELEVATION

BOTTOM DEPTH 20.0 BTOC

ELEVATION

WATER COLUMN LENGTH 15.21

SCREENED INTERVAL

WELL VOLUME 2.4 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	9/28 7	~~2~~	~~3~~	~~4~~	~~5~~	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	16.8					17.3
FIELD pH	7.2					7.03
FIELD TEMPERATURE	15.6°C 60.08					61.69
FIELD CONDUCTIVITY	1709					1553
CLARITY/TURBIDITY VALUES (NTU)	—					1775
COLOUR	lt gray					blk → gray
ODOR	none					none
COMMENTS	well dry @ 17.3					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/31/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-8

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 595.98

STATIC WATER DEPTH 7.4 BTOC ELEVATION 588.58

BOTTOM DEPTH 20.0 BTOC ELEVATION 575.98

WATER COLUMN LENGTH 12.6

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 2.0 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/31 1	11/1 2	11/2 3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.0	5.5	8.5			9.5
FIELD pH	9.6	9.5	9.6			9.56
FIELD TEMPERATURE	55°F	54°F	60°F			56.3°F
FIELD CONDUCTIVITY	1000	1000	1070			1023.3
CLARITY/TURBIDITY VALUES (NTU)	—	—	—			—
COLOUR	Lt. Brown	Lt. Brown	Lt. Brown			Lt Brown
ODOR	Chemical (phenol-like)	Chemical (phenol-like)	chemical (phenol like)			chemical (phenol-like)
COMMENTS	well dry @ 3.5 gal.	well dry @ 6.5 gal	well dry @ 9.5			—

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/10/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tytan

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-9

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 593.12

STATIC WATER DEPTH 8.4 BTOC

ELEVATION 584.72

BOTTOM DEPTH 21.0 BTOC

ELEVATION 572.12

WATER COLUMN LENGTH 12.6

SCREENED INTERVAL 9.0 - 19.0 BGS

WELL VOLUME 2.0 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.0	4.0	6.2	9.7		10.2
FIELD pH	9.9	9.3	10.0	9.7		9.7
FIELD TEMPERATURE	61.5°F	59.9°F	61°F	61°F		60.85°F
FIELD CONDUCTIVITY	1750	2600	2200	3300		2462.5
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—		—
COLOUR	Lt Gray	→	→	Lt. gray		Lt. gray
ODOR	none	→	→	none		none
COMMENTS		well dry @ 4.2	well dry @ 7.7	well dry @ 10.2		

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/17/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Bill

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-10

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 595.96

STATIC WATER DEPTH 7.2 BTOC

ELEVATION 588.76

BOTTOM DEPTH 26.0 BTOC

ELEVATION 569.96

WATER COLUMN LENGTH 18.8

SCREENED INTERVAL 14.0 - 24.0 BGS

WELL VOLUME 3.0 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/17 1	10/17 2	10/17 3	10/18 4	10/19 5	6 10/19 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	3.0	6.0	9.0	12.0	15.8	18.8
FIELD pH	9.2	9.0	8.9	8.5	8.6	8.4
FIELD TEMPERATURE	54°F	53°F	53°F	56°F	56°F	56°F
FIELD CONDUCTIVITY	1500	670	1100	720	710	680
CLARITY/TURBIDITY VALUES (NTU)	–	–	–	–	–	–
COLOUR	Black					→
ODOR	Sulphur					→
COMMENTS				well Dry @ 12.8 gal.		

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT
DEVELOPMENT CREW MEMBERS
SUPERVISOR
PURGING METHOD

WELL INFORMATION

WELL NUMBER OW-10
WELL TYPE (diameter/material)
MEASURING POINT ELEVATION
STATIC WATER DEPTH
ELEVATION
BOTTOM DEPTH
ELEVATION
WATER COLUMN LENGTH
SCREENED INTERVAL
WELL VOLUME

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	7					TOT/AVG
VOLUME PURGED (# bails/tot. volume)	21.8					21.8
FIELD pH	8.4					8.7
FIELD TEMPERATURE	56°F					54.8°F
FIELD CONDUCTIVITY	750					875
CLARITY/TURBIDITY VALUES (NTU)	-					-
COLOUR	Black					Black
ODOR	Sulphur					Sulphur
COMMENTS						

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/10/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Gerry

SUPERVISOR D. Tyson

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-11

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 602.61

STATIC WATER DEPTH 9.5 FT. BTOC ELEVATION 593.11

BOTTOM DEPTH 22.0 FT. BTOC ELEVATION 580.61

WATER COLUMN LENGTH 12.5

SCREENED INTERVAL 10.0 - 20.0 BGS

WELL VOLUME 2.0 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/10 1	10/11 2	10/12 3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.0	5.5	6.5			6.5
FIELD pH	9.9	10.0				9.95
FIELD TEMPERATURE	71°F	62°F				66.5°F
FIELD CONDUCTIVITY	2700	1970				2335
CLARITY/TURBIDITY VALUES (NTU)	—	—				—
COLOUR	dk gray	dk gray	dk gray			dk gray
ODOR	none	none	none			none
COMMENTS	well dry @ 3.5 gal	well dry @ 5.5 gal	well dry			

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5239

DATE OF WELL DEVELOPMENT 10/24/95

DEVELOPMENT CREW MEMBERS Ron, Gerry

SUPERVISOR D. Tiran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER OW-12

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 610.76

STATIC WATER DEPTH 8.3 FT. BTOC

ELEVATION 602.46

BOTTOM DEPTH 31.0 FT. BTOC

ELEVATION 579.76

WATER COLUMN LENGTH 22.7

SCREENED INTERVAL 19.0 - 29.0 BGS

WELL VOLUME 3.6 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/24 1	10/24 2	10/25 3	10/26 4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	3.6	7.2	–	–		10.2
FIELD pH	9.5	9.0	–	–		9.25
FIELD TEMPERATURE	55°F	54°F	–	–		54.5°F
FIELD CONDUCTIVITY	1000	1000	–	–		1000
CLARITY/TURBIDITY VALUES (NTU)	–	–	–	–		–
COLOUR	Blk	→	→	Blk		Blk
ODOR	none	→	→	none		none
COMMENTS		well dry -	well dry @ 8.7 gal	well dry @ 10.2 gal		

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5859

DATE OF WELL DEVELOPMENT 10/17/95

DEVELOPMENT CREW MEMBERS Wally, Ron, Bill

SUPERVISOR D. Tyrch

PURGING METHOD Stainless Steel Bailers

WELL INFORMATION

WELL NUMBER BW-2

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 603 57

STATIC WATER DEPTH 26.9 FT BTOC

ELEVATION 576.67

BOTTOM DEPTH 60.0 FT. BTOC

ELEVATION 543.57

WATER COLUMN LENGTH 33.1

SCREENED INTERVAL 48.0 - 58.0 BGS

WELL VOLUME 5.3 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/17 1	10/17 2	10/17 3	10/18 4	10/18 5	10/18 6 ~~TOT/AVG~~
VOLUME PURGED (# bails/tot. volume)	5.3	10.6	15.9	21.2	26.5	31.8
FIELD pH	9.8	9.3	9.2	9.5	8.9	8.7
FIELD TEMPERATURE	51°F	51°F	50°F	56°F	58°F	59°F
FIELD CONDUCTIVITY	1600	1100	900	800	880	930
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—	—	—
COLOUR	Blk	Blk	Blk	Dk. gray	Dk gray	Dk. gray
ODOR	None —					→ none
COMMENTS						

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 10/17/95
DEVELOPMENT CREW MEMBERS Wally, Ron, Bill
SUPERVISOR
PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER BW-2
WELL TYPE (diameter/material)
MEASURING POINT ELEVATION
STATIC WATER DEPTH 26.9 FT. BTOC
ELEVATION
BOTTOM DEPTH 60.0 FT. BTOC
ELEVATION
WATER COLUMN LENGTH 33.1
SCREENED INTERVAL
WELL VOLUME 5.3 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	7	8	9	~~4~~	~~5~~	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	37.1	42.4	47.7			47.7
FIELD pH	9.6	8.9	8.6			9.2
FIELD TEMPERATURE	54°F	52°F	53°F			53.8
FIELD CONDUCTIVITY	650	940	460			917.8
CLARITY/TURBIDITY VALUES (NTU)	—	—	—			—
COLOUR	Dk gray	Dk gray	Dk gray			blk → dk. gray
ODOR	none	none	none			none
COMMENTS						

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composite

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 10/10/95

DEVELOPMENT CREW MEMBERS Walley, Ron, Gerry

SUPERVISOR D. Tyran

PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER BW-9

WELL TYPE (diameter/material) 2" Carbon Steel

MEASURING POINT ELEVATION 592.84

STATIC WATER DEPTH 24.1 Ft. BTOC ELEVATION 568.74

BOTTOM DEPTH 62.0 Ft. BToc ELEVATION 530.84

WATER COLUMN LENGTH 37.9

SCREENED INTERVAL 50.0-60.0 BGS

WELL VOLUME 6.0 gal.

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	10/10 1	10/10 2	10/11 3	10/12 4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	6.0	10.5	14.0	17.5		17.5
FIELD pH	9.2	—	—	—		9.2
FIELD TEMPERATURE	56.8°F	—	—	—		56.8°F
FIELD CONDUCTIVITY	800	—	—	—		800
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—		—
COLOUR	Lt. gray	→	→	Lt. gray		Lt. gray
ODOR	none	→	→	none		none
COMMENTS		well dry	well dry	well dry		

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 10/17/95
DEVELOPMENT CREW MEMBERS Walley, Ron, Bill
SUPERVISOR D. Tyrah
PURGING METHOD Stainless Steel Bailer

WELL INFORMATION

WELL NUMBER BW-10
WELL TYPE (diameter/material) 2" Carbon Steel
MEASURING POINT ELEVATION 595.39
STATIC WATER DEPTH 26.4 FT BTOC
ELEVATION 568.99
BOTTOM DEPTH 64.1 FT BTOC
ELEVATION 531.29
WATER COLUMN LENGTH 37.7
SCREENED INTERVAL 52.1 - 62.1 BGS
WELL VOLUME 6.0 gal

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1 10/17	2 10/17	3 10/17	4 10/18	5 10/18	6 ~~TOT/AVG~~ 10/18
VOLUME PURGED (# bails/tot. volume)	6.0	12.0	18.0	24.0	30.0	36.0
FIELD pH	8.7	8.5	8.5	8.7	8.5	8.5
FIELD TEMPERATURE	54°F	53°F	53°F	58°F	56°F	57°F
FIELD CONDUCTIVITY	1860	1800	2300	1300	1100	1300
CLARITY/TURBIDITY VALUES (NTU)	—	—	—	—	—	—
COLOUR	LT Blk					→ LT Blk
ODOR	none					→ none
COMMENTS						

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WELL DEVELOPMENT AND STABILIZATION FORM

4

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 7.22.96
DEVELOPMENT CREW MEMBERS DJT
SUPERVISOR WL
PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER OW-3
WELL TYPE (diameter/material) 2" Black Iron
MEASURING POINT ELEVATION 604.32
STATIC WATER DEPTH 7.14
ELEVATION 597.18
BOTTOM DEPTH 22.65
ELEVATION 581.67
WATER COLUMN LENGTH 15.51
SCREENED INTERVAL 10-20 BGS
WELL VOLUME 2.48 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.5	well	Dry after	40 gallons		
FIELD pH	9.18					
FIELD TEMPERATURE	11.6°C					
FIELD CONDUCTIVITY	530					
CLARITY/TURBIDITY VALUES (NTU)	1050					
COLOUR	Brown					
ODOR	–					
COMMENTS	Lots of Sediments					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 7-22-96
DEVELOPMENT CREW MEMBERS DJT
SUPERVISOR WL
PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER OW-4
WELL TYPE (diameter/material) 2" Black Iron
MEASURING POINT ELEVATION 603.90
STATIC WATER DEPTH 5.99 ELEVATION 597.91
BOTTOM DEPTH 22.17 ELEVATION 581.73
WATER COLUMN LENGTH 16.18
SCREENED INTERVAL 10-20 BGS
WELL VOLUME 2.59

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.6	5.2	Well dry after 6.0 gallons			
FIELD pH	7.00	7.54				
FIELD TEMPERATURE	12.8°C	12.0°C				
FIELD CONDUCTIVITY	1430	1520				
CLARITY/TURBIDITY VALUES (NTU)	499	730				
COLOUR	Grey/BL	→				
ODOR	–	–				
COMMENTS	lots of Sediments	→				

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7-23-96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER OW-10

WELL TYPE (diameter/material) 2" Black Iron

MEASURING POINT ELEVATION 595.96

STATIC WATER DEPTH 8.65 ELEVATION 587.31

BOTTOM DEPTH 26.06 ELEVATION 569.90

WATER COLUMN LENGTH 17.41

SCREENED INTERVAL 14-24 BGS

WELL VOLUME 2.79 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.8	5.6	Well Dry after 6.7 gallons			
FIELD pH	7.70	7.55				
FIELD TEMPERATURE	11.2°C	11.7°C				
FIELD CONDUCTIVITY	1940	1910				
CLARITY/TURBIDITY VALUES (NTU)	NM	NM				
COLOUR	Grey/Black	→				
ODOR	–	–				
COMMENTS	Sediments	→				

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 7-24-96
DEVELOPMENT CREW MEMBERS DJT
SUPERVISOR WL
PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER OW-11
WELL TYPE (diameter/material) 2" Black Iron
MEASURING POINT ELEVATION 602.61
STATIC WATER DEPTH 7.85 ELEVATION 594.76
BOTTOM DEPTH 22.45 ELEVATION 580.16
WATER COLUMN LENGTH 14.60
SCREENED INTERVAL 10-20 BGS
WELL VOLUME 2.34 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	2.4	well Dry	after	3.0 gallons		
FIELD pH	6.90					
FIELD TEMPERATURE	13.1°C					
FIELD CONDUCTIVITY	12480					
CLARITY/TURBIDITY VALUES (NTU)	160					
COLOUR	Grey/Black					
ODOR	-					
COMMENTS	Lots of Sediments					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7-24-96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER OW-12

WELL TYPE (diameter/material) 2" Black Iron

MEASURING POINT ELEVATION 610.76

STATIC WATER DEPTH 7.13

ELEVATION 603.63

BOTTOM DEPTH 31.38

ELEVATION 579.38

WATER COLUMN LENGTH 24.25

SCREENED INTERVAL 19-29 BGS

WELL VOLUME 3.88 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	3.9	Well	Dry after	7.0	gallons	
FIELD pH	7.93					
FIELD TEMPERATURE	10.4°C					
FIELD CONDUCTIVITY	1480					
CLARITY/TURBIDITY VALUES (NTU)	530					
COLOUR	Brown					
ODOR	-					
COMMENTS	-					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7-23-96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD Grundfos Submersible w/Garden hose

WELL INFORMATION

WELL NUMBER OW-A1

WELL TYPE (diameter/material) 4" PVC

MEASURING POINT ELEVATION

STATIC WATER DEPTH 6.30

ELEVATION

BOTTOM DEPTH 34.45

ELEVATION

WATER COLUMN LENGTH 28.15

SCREENED INTERVAL

WELL VOLUME 18.3 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	18.3	Well Dry after 34 gallons				
FIELD pH	6.64					
FIELD TEMPERATURE	11.2°C					
FIELD CONDUCTIVITY	780					
CLARITY/TURBIDITY VALUES (NTU)	20.8					
COLOUR	–					
ODOR	–					
COMMENTS	–					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 7-23-98
DEVELOPMENT CREW MEMBERS DJT
SUPERVISOR WL
PURGING METHOD Grundfos Submersible w/Garden hose

WELL INFORMATION

WELL NUMBER OW-B2
WELL TYPE (diameter/material) 4" PVC
MEASURING POINT ELEVATION
STATIC WATER DEPTH 6.34 ELEVATION
BOTTOM DEPTH 25.70 ELEVATION
WATER COLUMN LENGTH 19.36
SCREENED INTERVAL
WELL VOLUME 12.58 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	12.6	Well Dry after 12.6 gallons				
FIELD pH	6.42					
FIELD TEMPERATURE	15.0°C					
FIELD CONDUCTIVITY	370					
CLARITY/TURBIDITY VALUES (NTU)	194					
COLOUR	-					
ODOR	-					
COMMENTS	-					

COPIES TO:

CRA

CRA 1001/29/FORM SP-09

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites
PROJECT NO. 5039
DATE OF WELL DEVELOPMENT 7-23-96
DEVELOPMENT CREW MEMBERS DJT
SUPERVISOR WL
PURGING METHOD Grundfos Submersible w/Garden hose

WELL INFORMATION

WELL NUMBER OBW-2
WELL TYPE (diameter/material) 2" Black Iron
MEASURING POINT ELEVATION 603.57
STATIC WATER DEPTH 34.26
ELEVATION 569.31
BOTTOM DEPTH 59.95
ELEVATION 543.62
WATER COLUMN LENGTH 25.69
SCREENED INTERVAL 48-58 BGS
WELL VOLUME 4.11 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	4.2	8.4	12.6	16.8	21.0	
FIELD pH	6.45	6.77	7.07	7.02	7.00	
FIELD TEMPERATURE	11.2°C	11.3°C	11.5°C	11.7°C	11.8°C	
FIELD CONDUCTIVITY	1850	1850	1460	1990	2050	
CLARITY/TURBIDITY VALUES (NTU)	1500	425	1200	820	416	
COLOUR	Grey				→	
ODOR	–	–	–	–	–	
COMMENTS	Sediments				→	

COPIES TO:

CRA

CRA 1001/29/FORM SP-09

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7-24-96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER BCW-9

WELL TYPE (diameter/material) 2" Black Iron

MEASURING POINT ELEVATION 592.84

STATIC WATER DEPTH 24.22 ELEVATION 568.62

BOTTOM DEPTH 61.92 ELEVATION 530.92

WATER COLUMN LENGTH 37.70

SCREENED INTERVAL 50-60 BGS

WELL VOLUME 6.03 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	6.0	Well Dry after 10.0 gallons				
FIELD pH	10.25					
FIELD TEMPERATURE	12.7°c					
FIELD CONDUCTIVITY	2500					
CLARITY/TURBIDITY VALUES (NTU)	264					
COLOUR	Brown					
ODOR	-					
COMMENTS	lots of Sediments					

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CRA

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7.24.96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD ~~B~~ Grundfos Submersible w/Garden hose

WELL INFORMATION

WELL NUMBER BW-10

WELL TYPE (diameter/material) 2" Black Iron

MEASURING POINT ELEVATION 595.39

STATIC WATER DEPTH 26.10 ELEVATION 569.29

BOTTOM DEPTH 64.05 ELEVATION 531.34

WATER COLUMN LENGTH 37.95

SCREENED INTERVAL 52.1 - 62.1 BGS

WELL VOLUME 6 07 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	6.1	Well Dry after 8.0 gallons				
FIELD pH	6.78					
FIELD TEMPERATURE	12.7°C					
FIELD CONDUCTIVITY	2560					
CLARITY/TURBIDITY VALUES (NTU)	66					
COLOUR	–					
ODOR	–					
COMMENTS	-					

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7·24·96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR wL

PURGING METHOD SS Bailer

WELL INFORMATION

WELL NUMBER BW-12

WELL TYPE (diameter/material) 2" Black Iron

MEASURING POINT ELEVATION 610.36

STATIC WATER DEPTH 41.12

ELEVATION 569.24

BOTTOM DEPTH 73.10

ELEVATION 537.26

WATER COLUMN LENGTH 31.98

SCREENED INTERVAL 62.0 - 72.2 BGS

WELL VOLUME 5.11 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	5.1	10.2	Well Dry after 12.0 gallons			
FIELD pH	7.98	8.80				
FIELD TEMPERATURE	10.8°c	11.4°c				
FIELD CONDUCTIVITY	2550	2630				
CLARITY/TURBIDITY VALUES (NTU)	329	800				
COLOUR	Brown	→				
ODOR	–	–				
COMMENTS	–	–				

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WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME Spaulding Composites

PROJECT NO. 5039

DATE OF WELL DEVELOPMENT 7-25-96

DEVELOPMENT CREW MEMBERS DJT

SUPERVISOR WL

PURGING METHOD Grundfos Submersible w/Garden hose

WELL INFORMATION

WELL NUMBER OW-C3

WELL TYPE (diameter/material) 8" Black Iron

MEASURING POINT ELEVATION

STATIC WATER DEPTH 32.74

ELEVATION

BOTTOM DEPTH 78.95

ELEVATION

WATER COLUMN LENGTH 46.21

SCREENED INTERVAL

WELL VOLUME 120.14 gallons

Note: For 2" dia well, 1 foot = 0.14 gallons (imp) or 0.16 gallons (us).
1 meter = 2 liters

	1	2	3	4	5	TOT/AVG
VOLUME PURGED (# bails/tot. volume)	120	240	360			
FIELD pH	6.40	6.82	6.88			
FIELD TEMPERATURE	13.3°C	12.9°C	13.2°C			
FIELD CONDUCTIVITY	2650	2820	2810			
CLARITY/TURBIDITY VALUES (NTU)	8.3	1.5	0.5			
COLOUR	-	-	-			
ODOR	-	-	-			
COMMENTS	-	-	-			

COPIES TO:

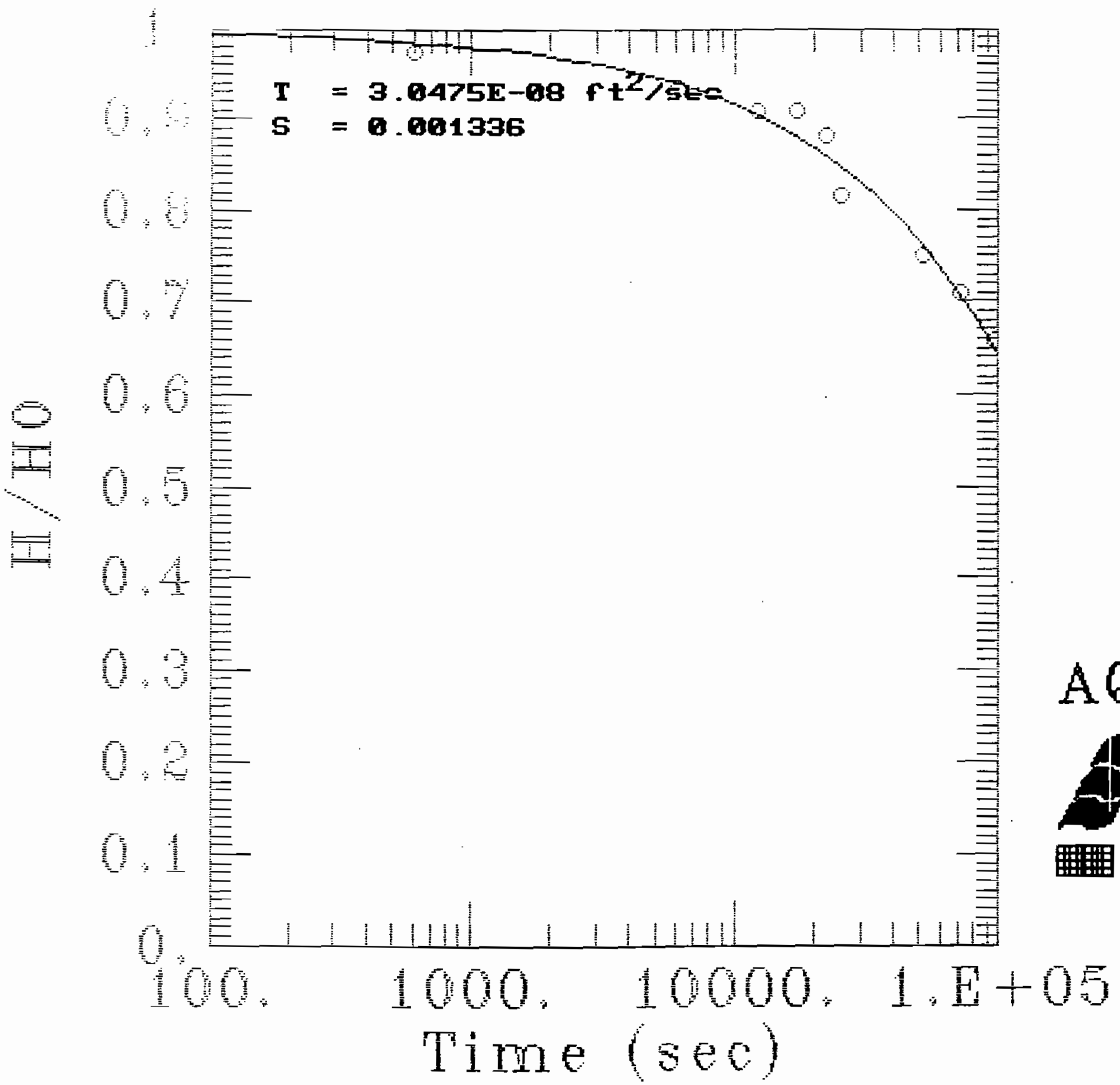
CRA

CRA 1001/29/FORM SP-09

APPENDIX F

IN SITU WELL RESPONSE TESTING PLOTS

BW9 FALLING

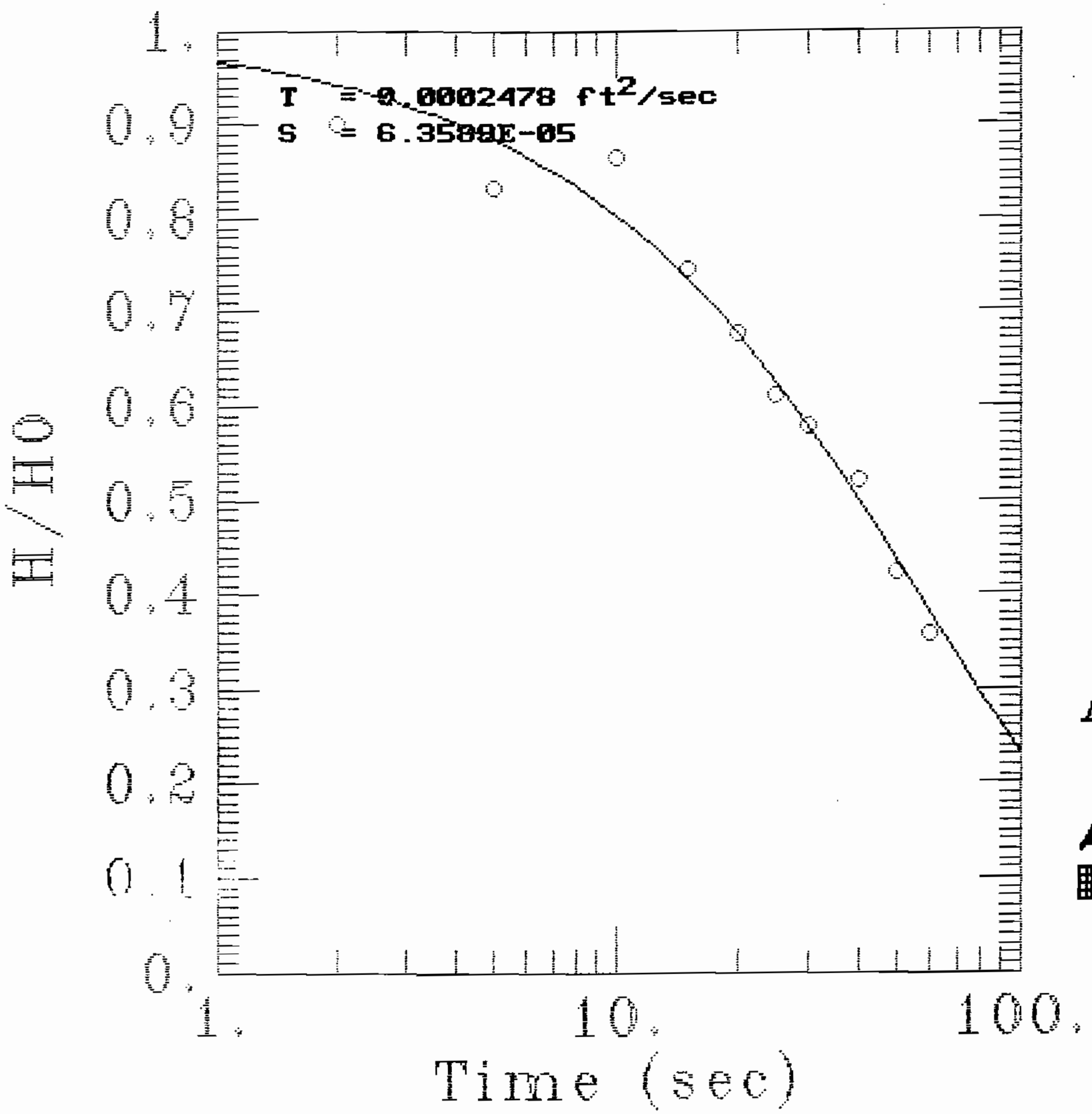


AQTESOLV

GERAGHTY
& MILLER, INC.

Modeling Group

BW10 RISING



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GERAGHTY
& MILLER, INC.

Modeling Group

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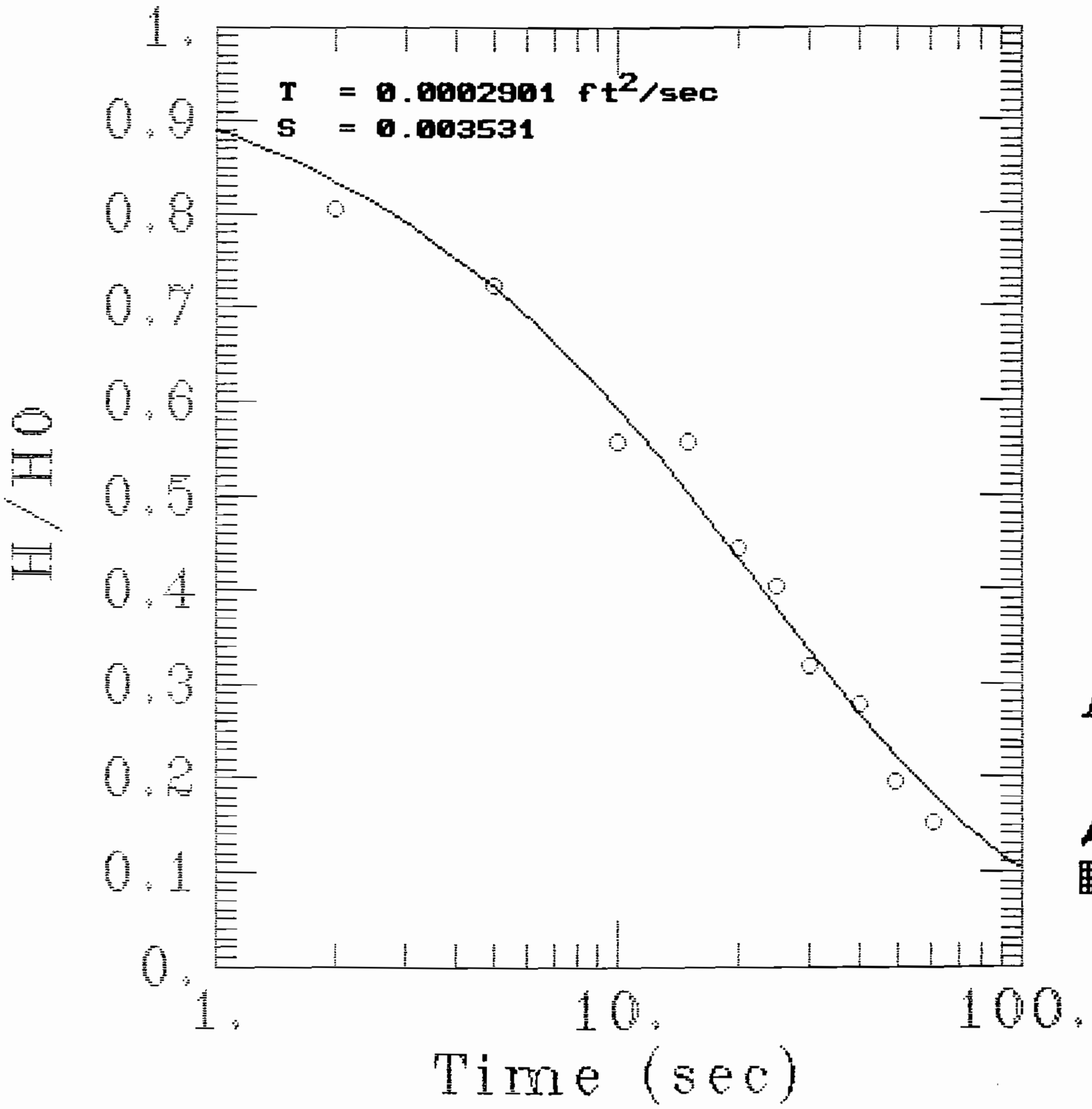

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& MILLER, INC.

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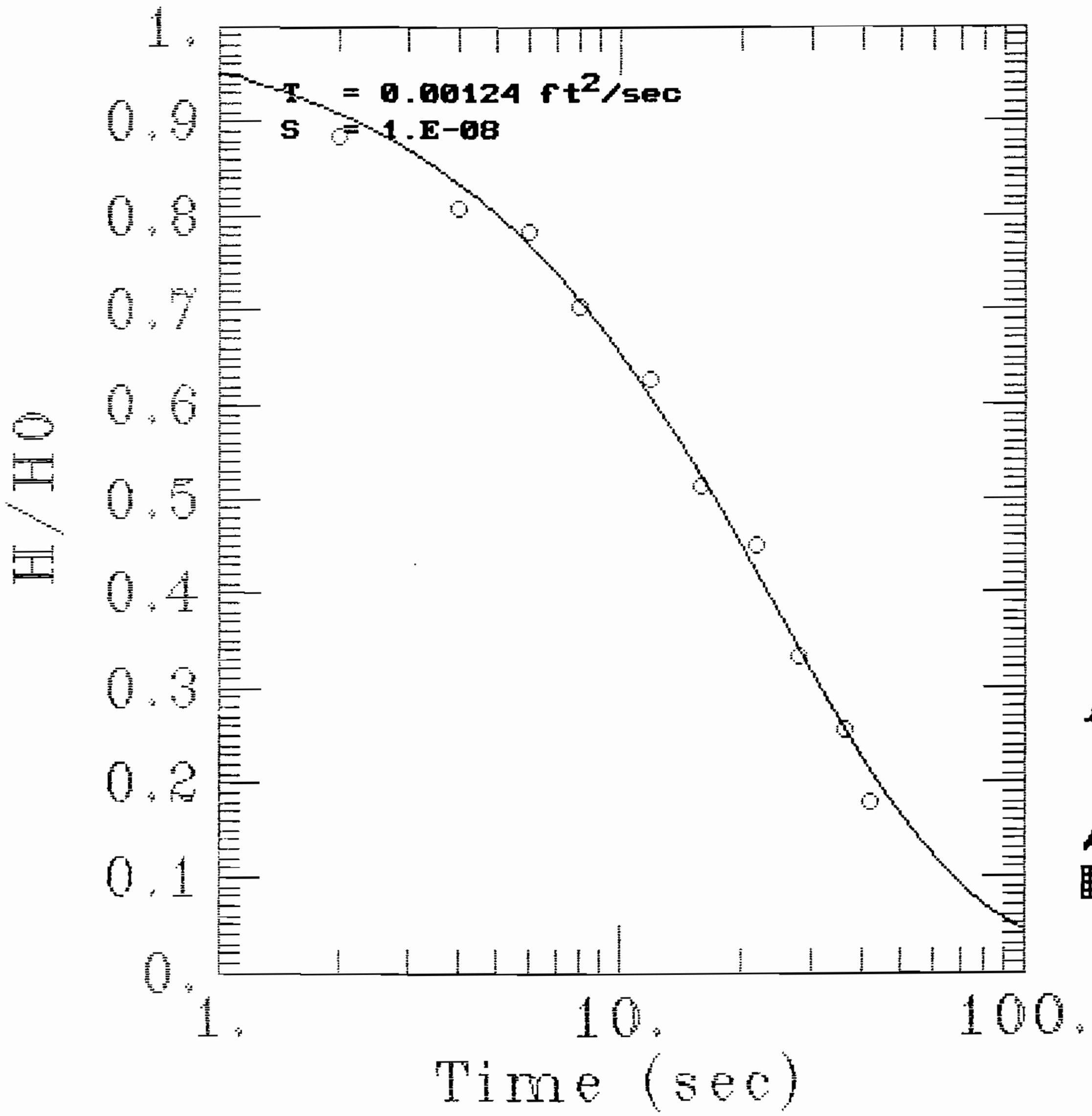

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& MILLER, INC.

Modeling Group

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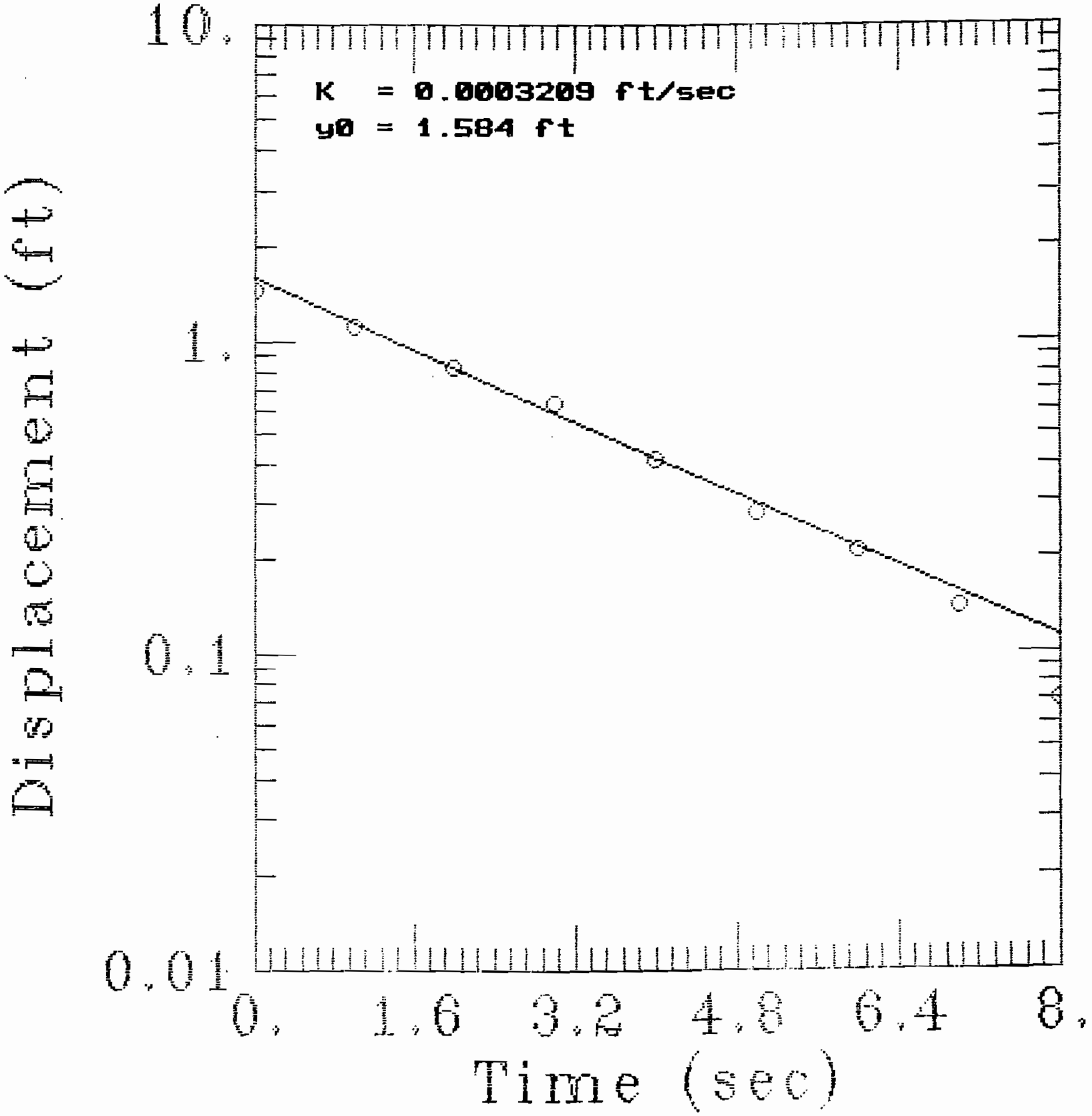

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GERAGHTY
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Modeling Group

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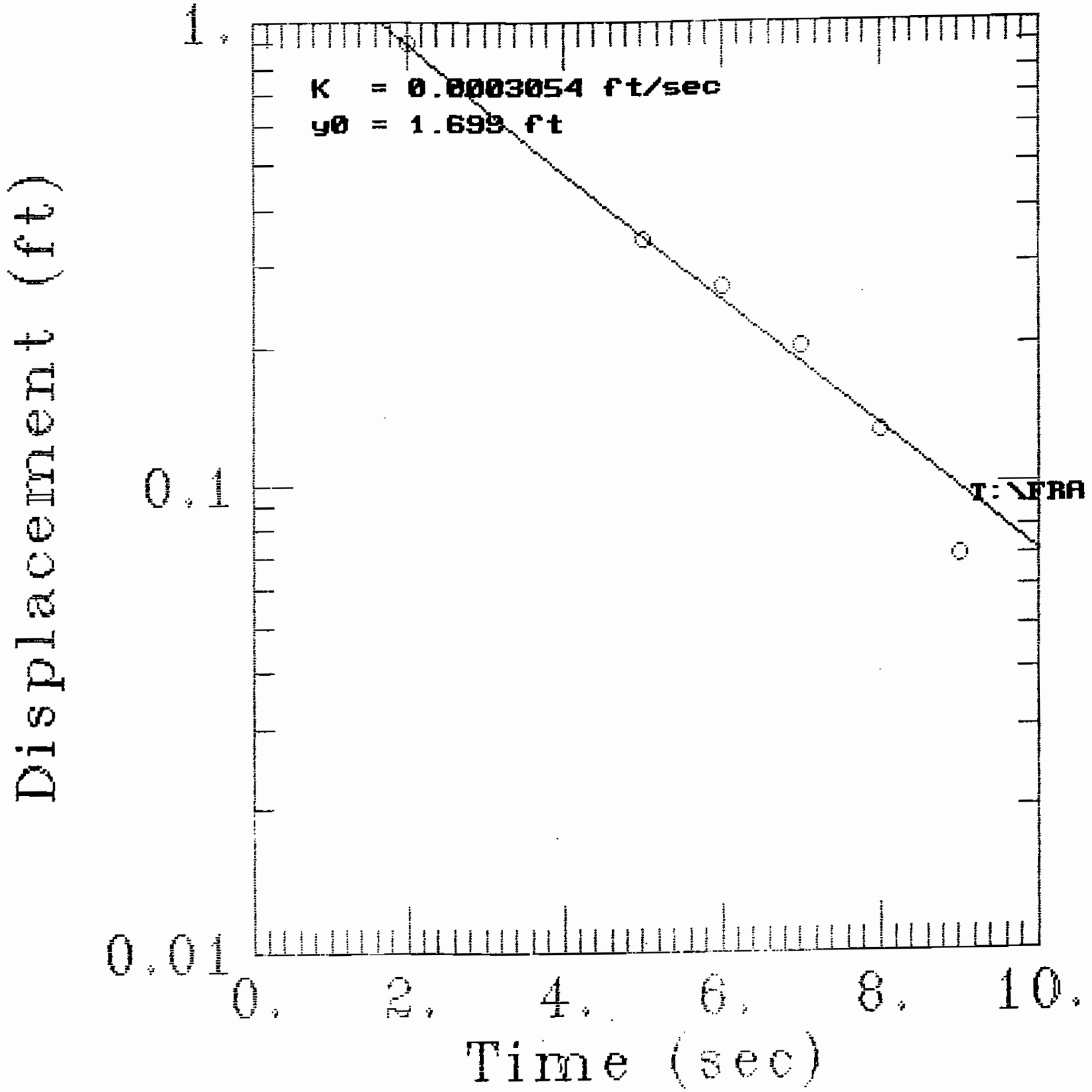

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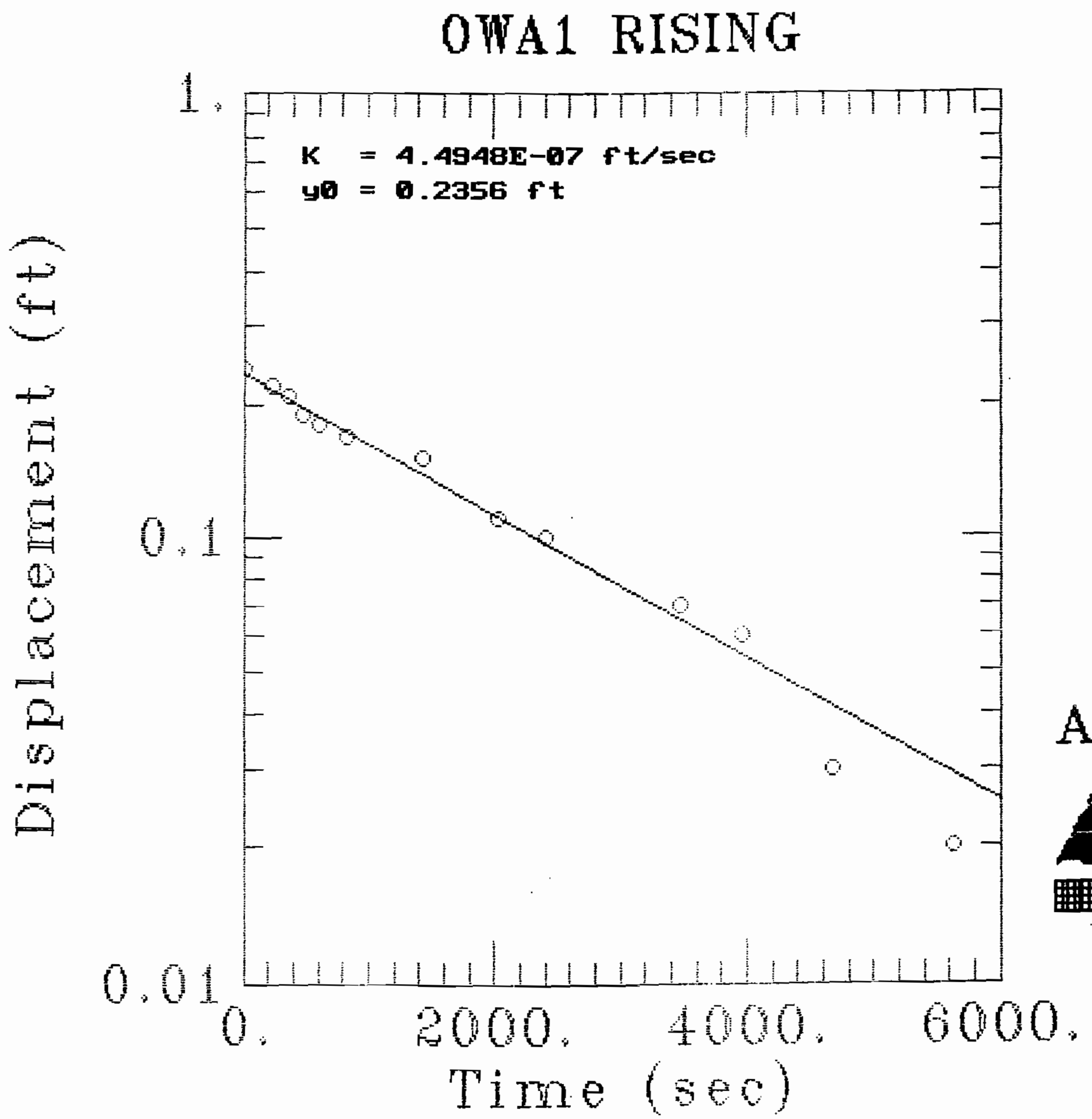

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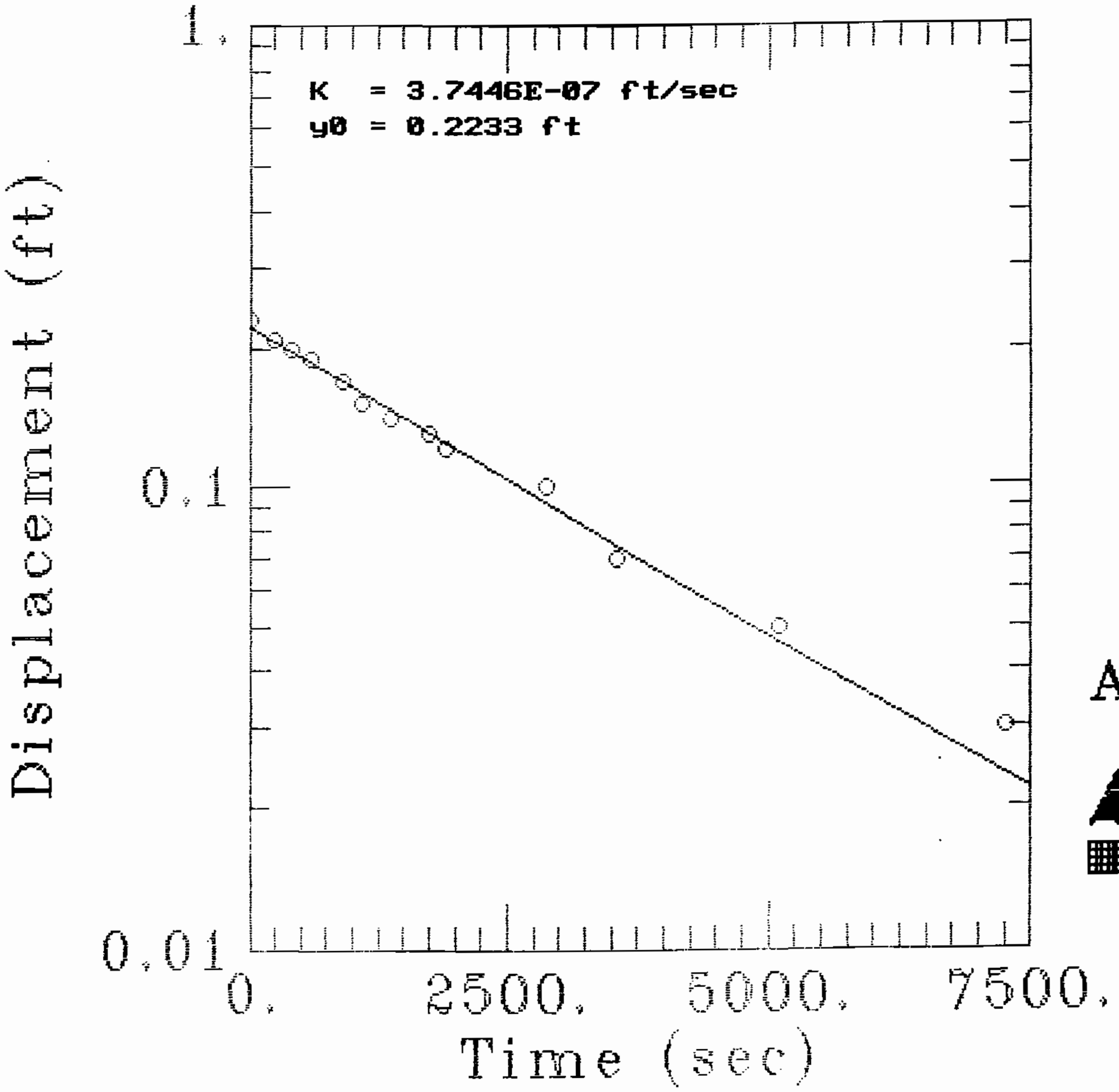

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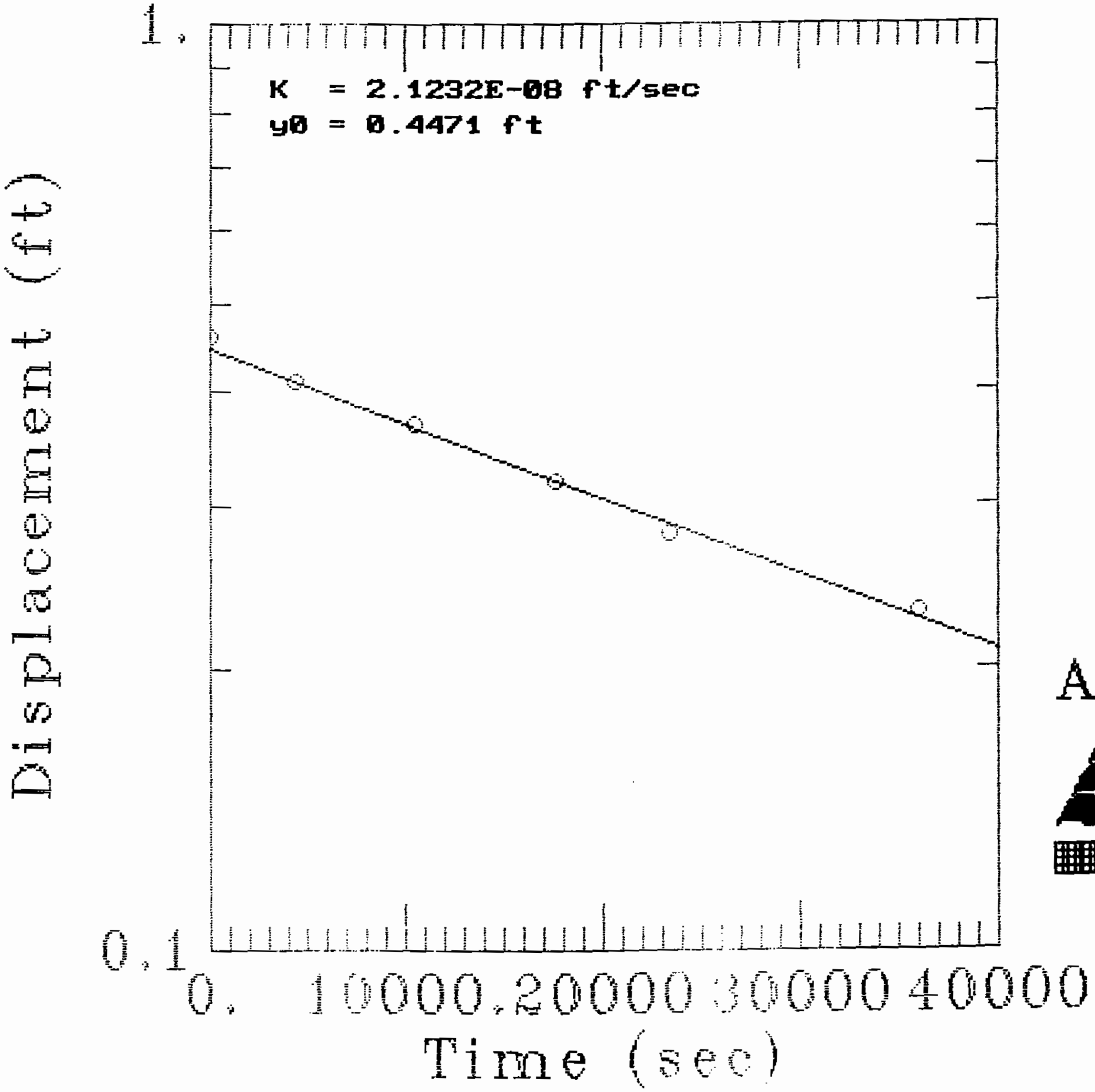

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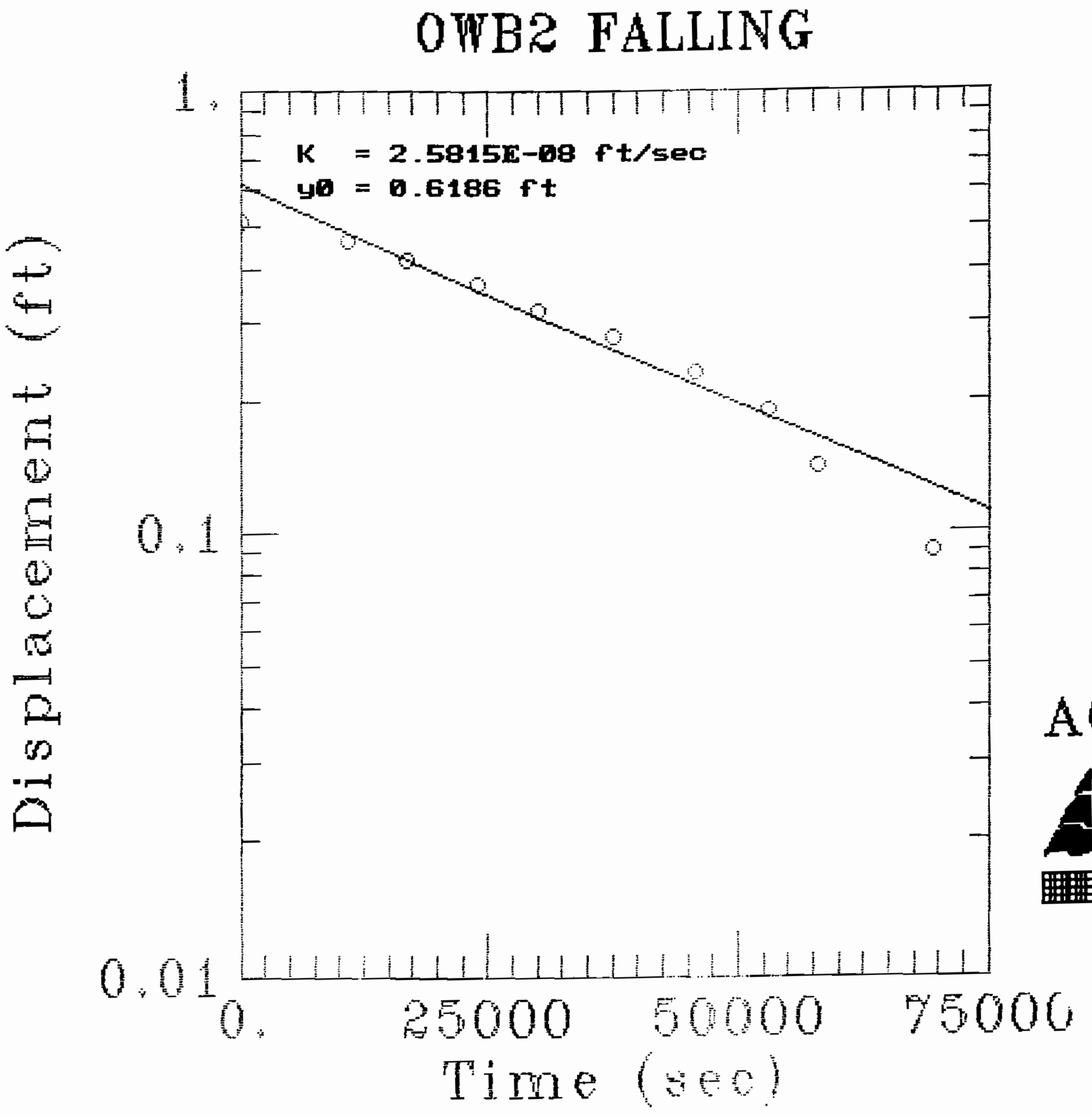

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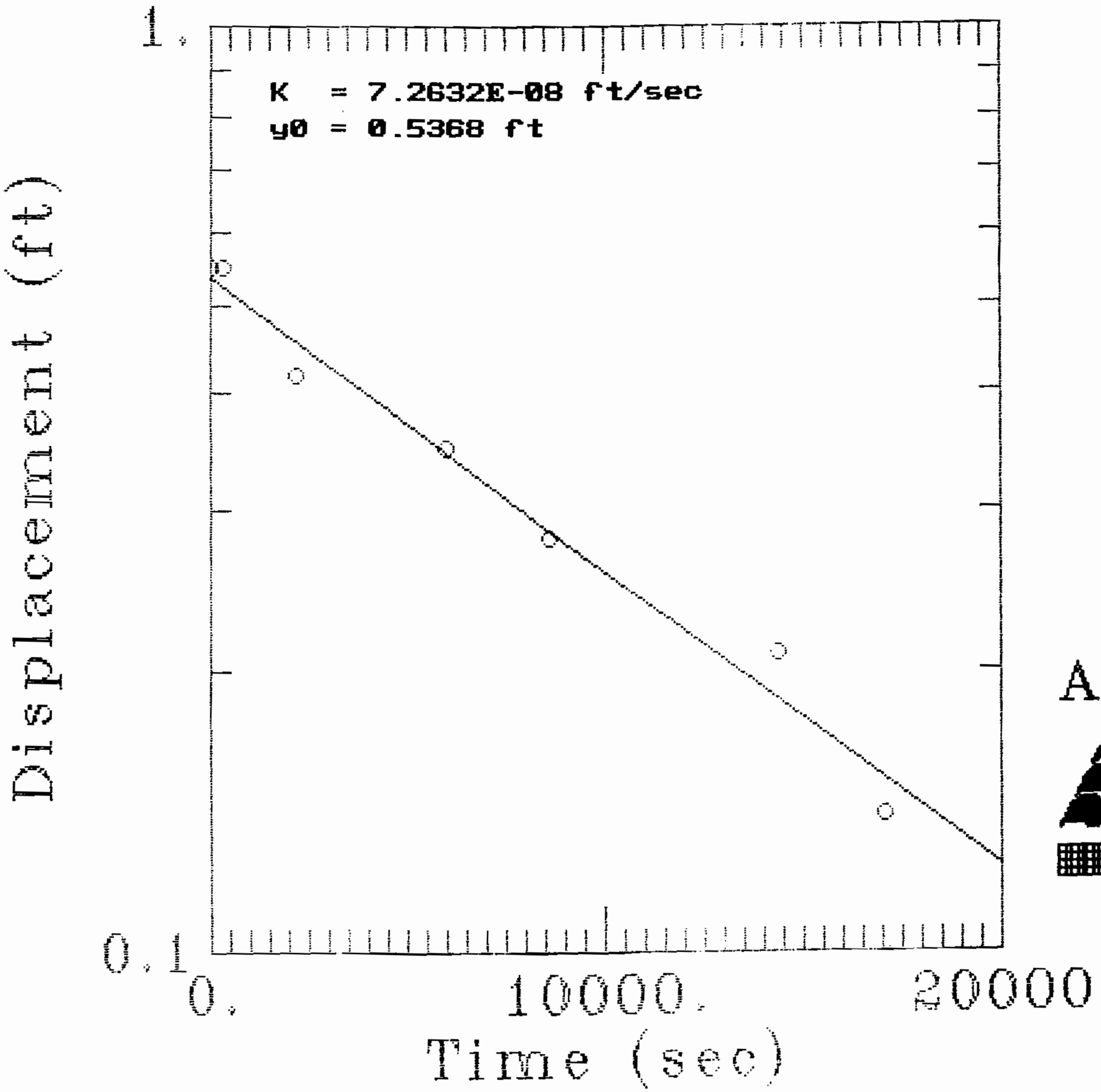
OW1 RISING



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Modeling Group

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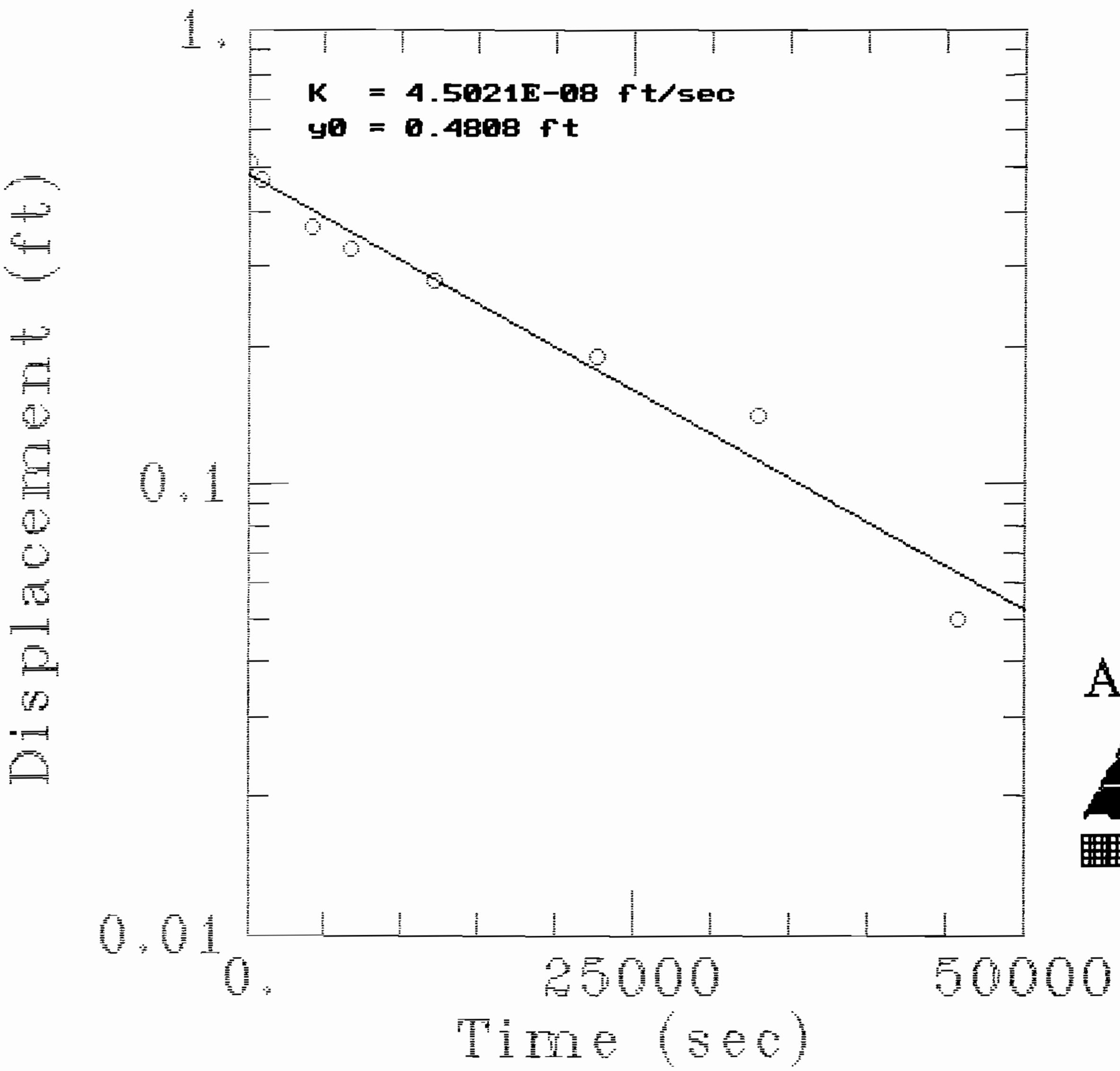

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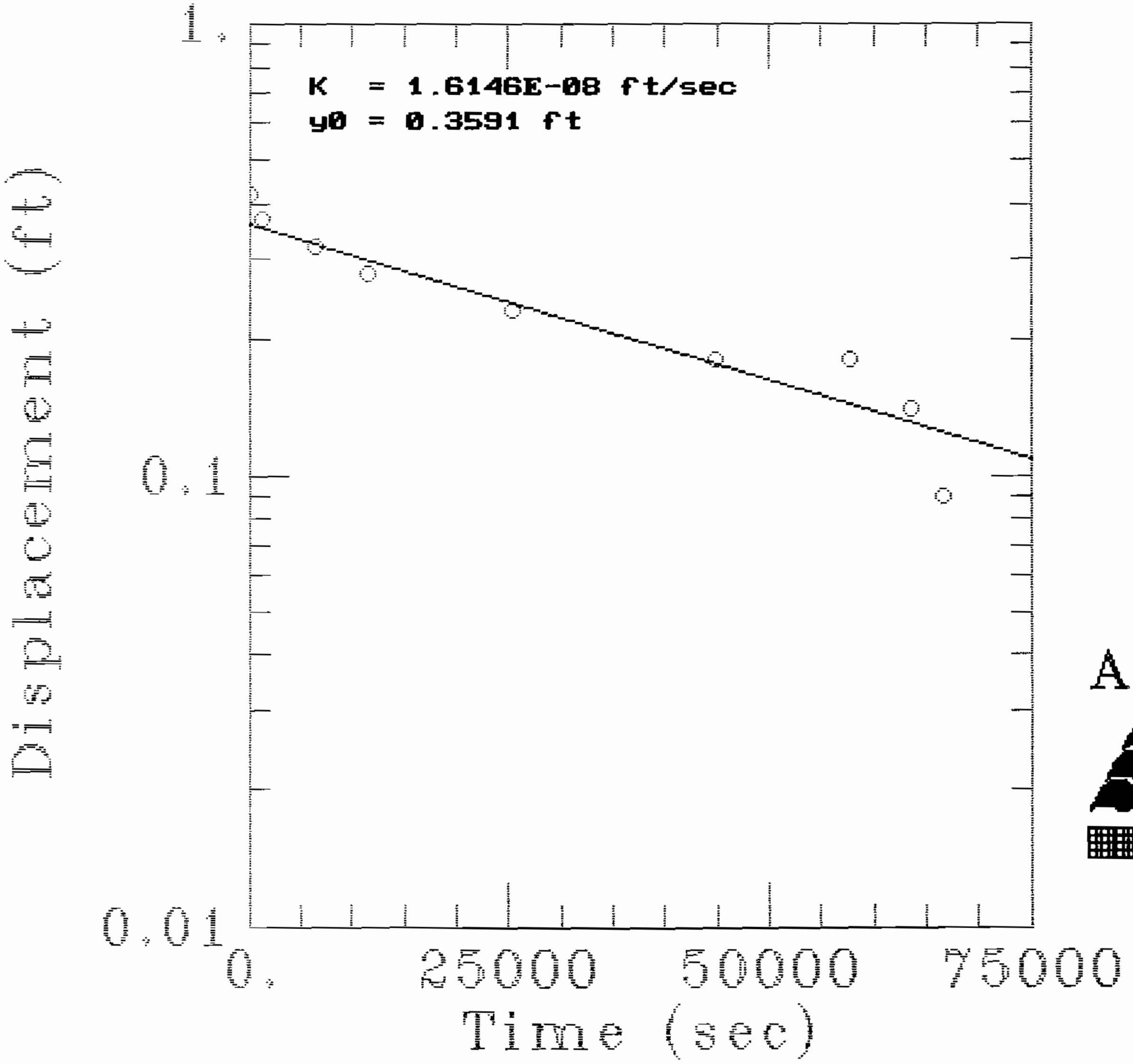

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▦ Modeling Group

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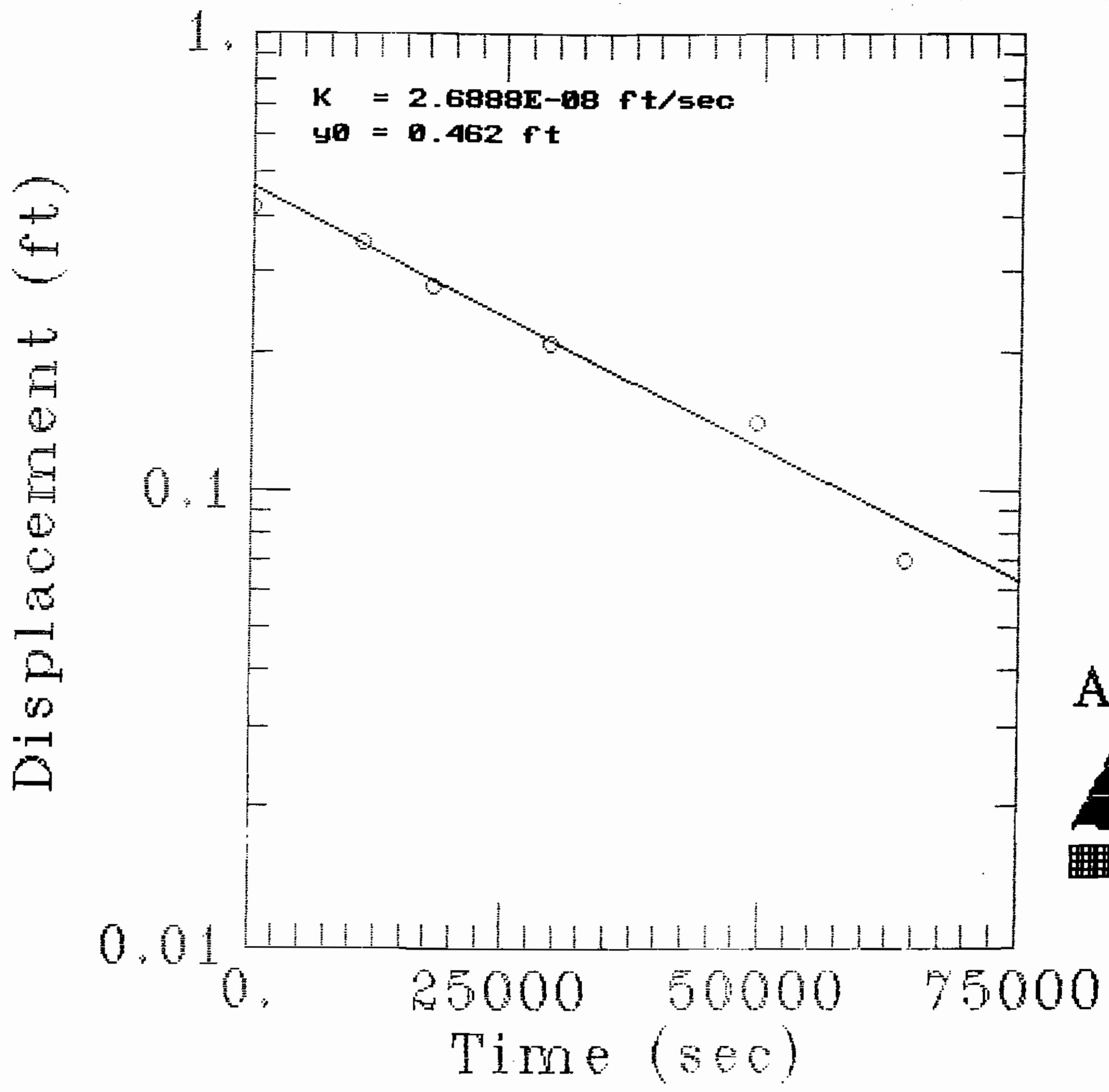

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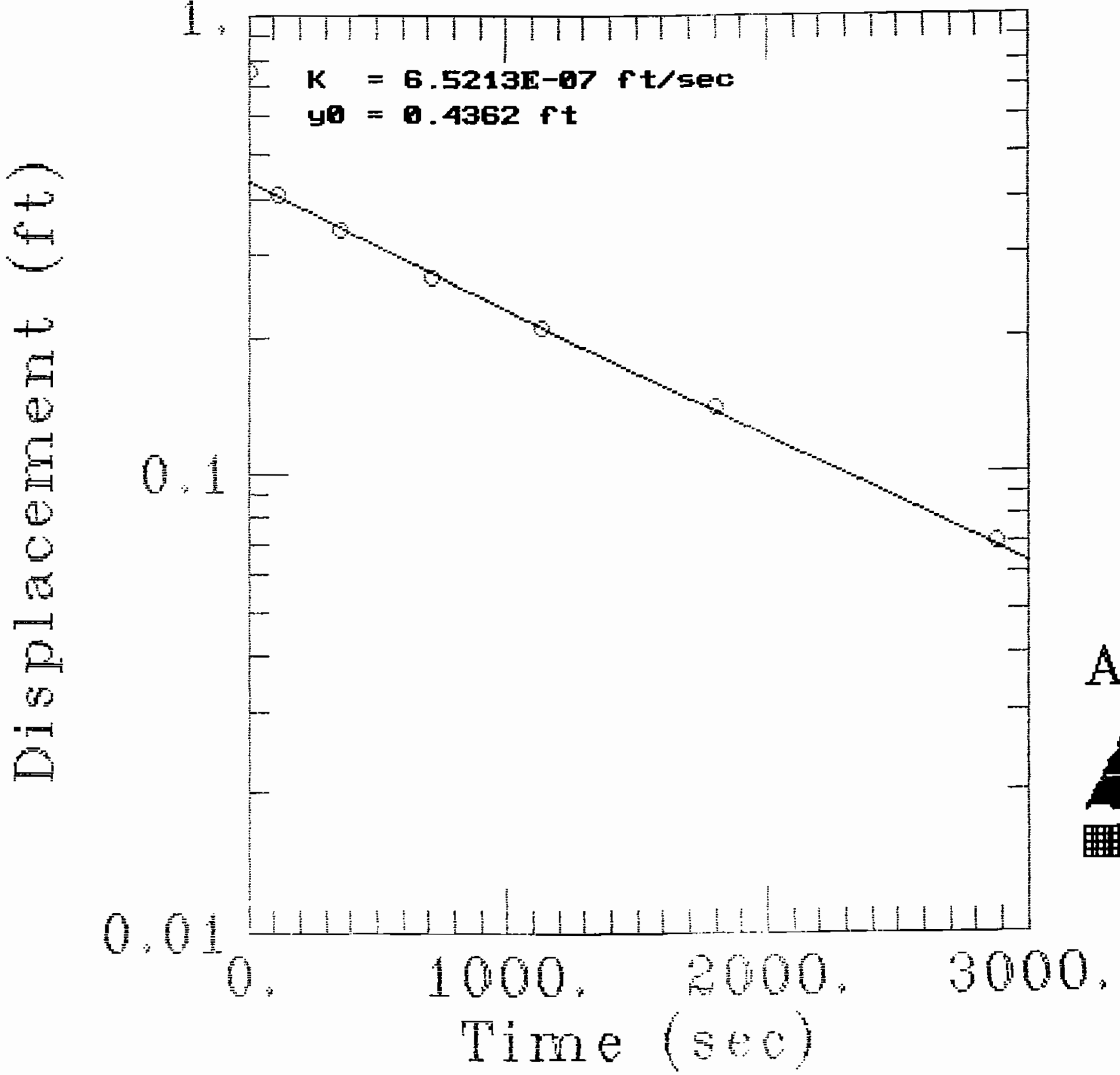
OW4 RISING



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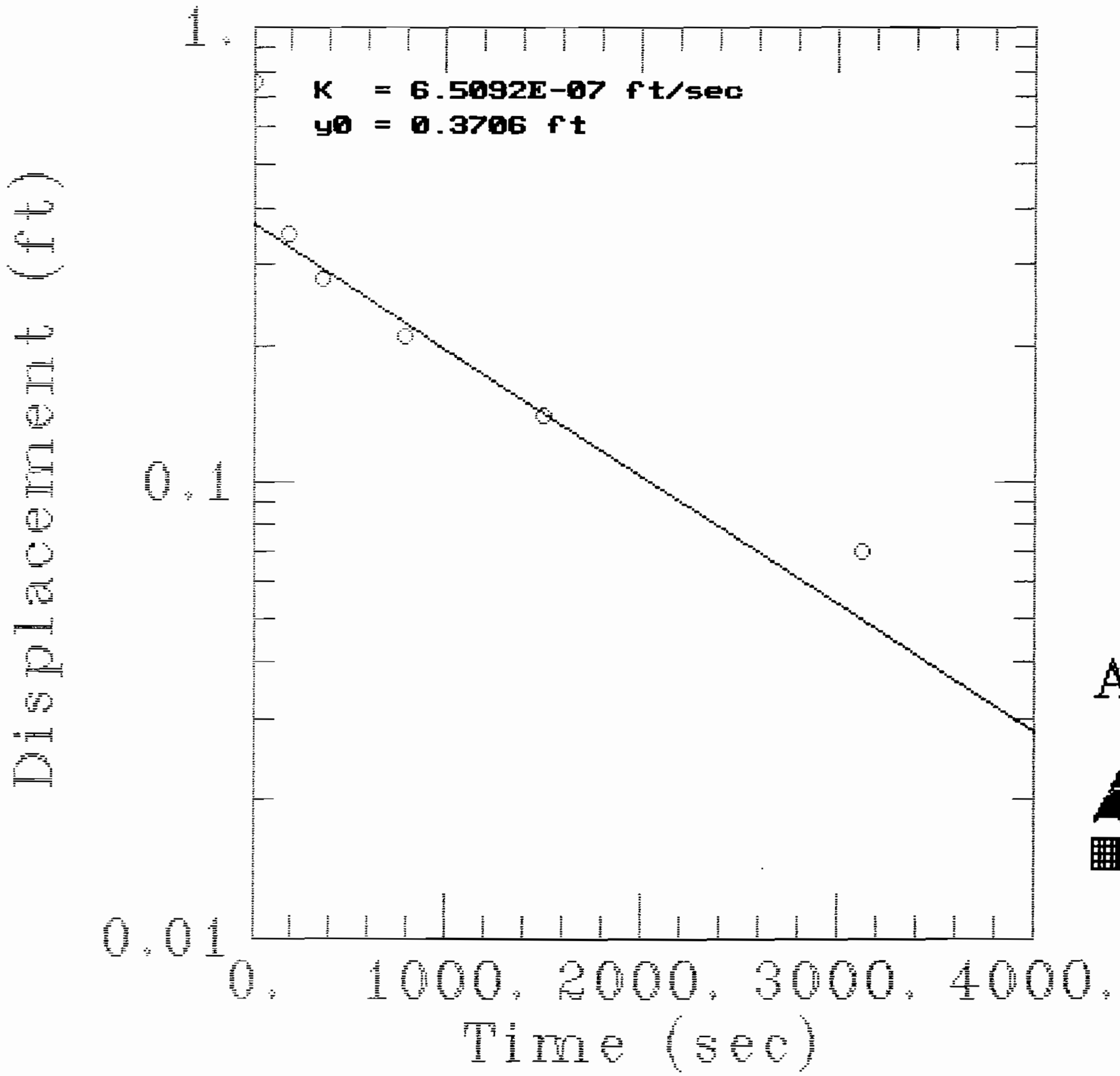

K = 6.5092E-07 ft/sec
y0 = 0.3706 ft

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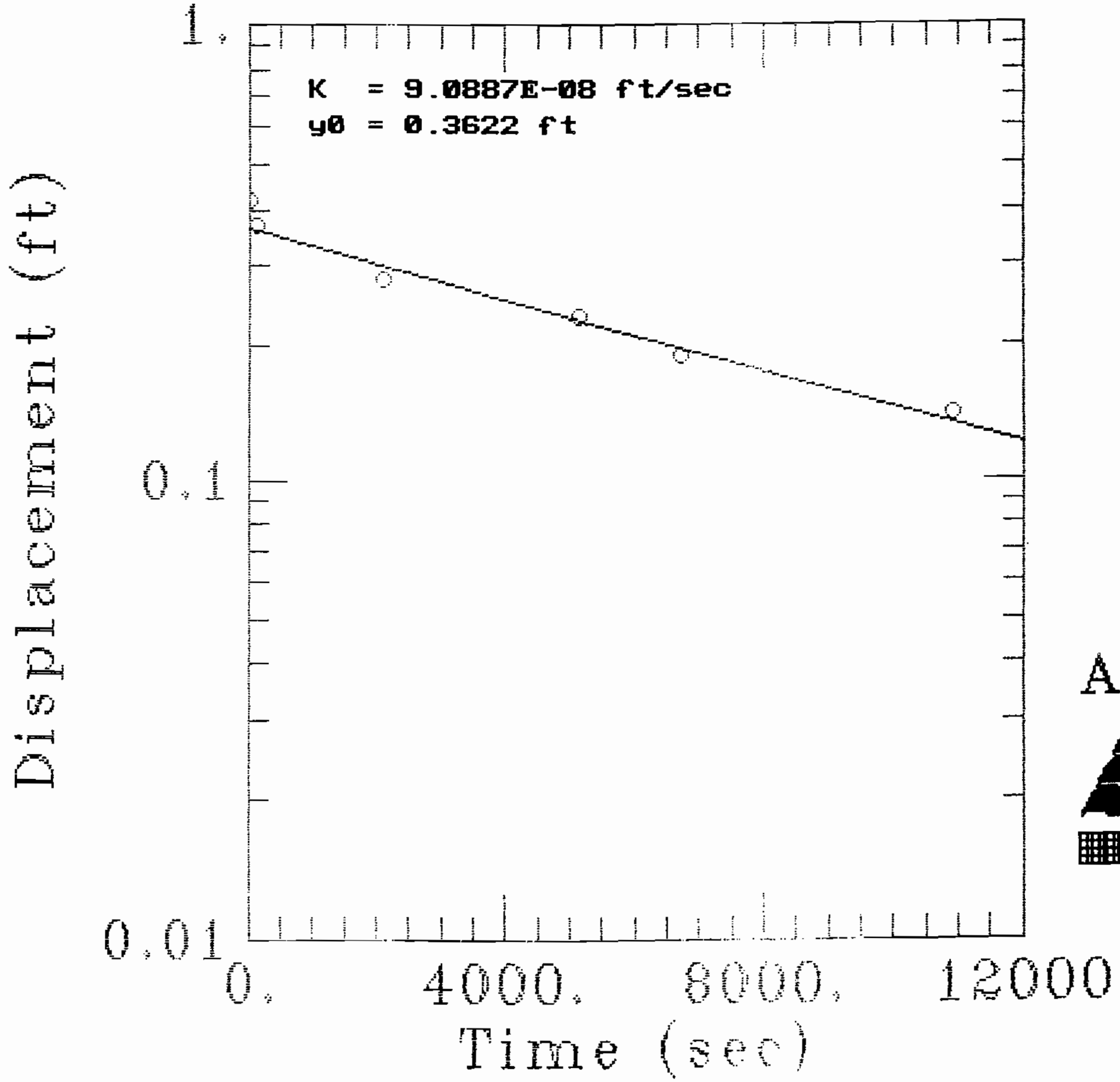
OW7 RISING



AQTESOLV

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Modeling Group

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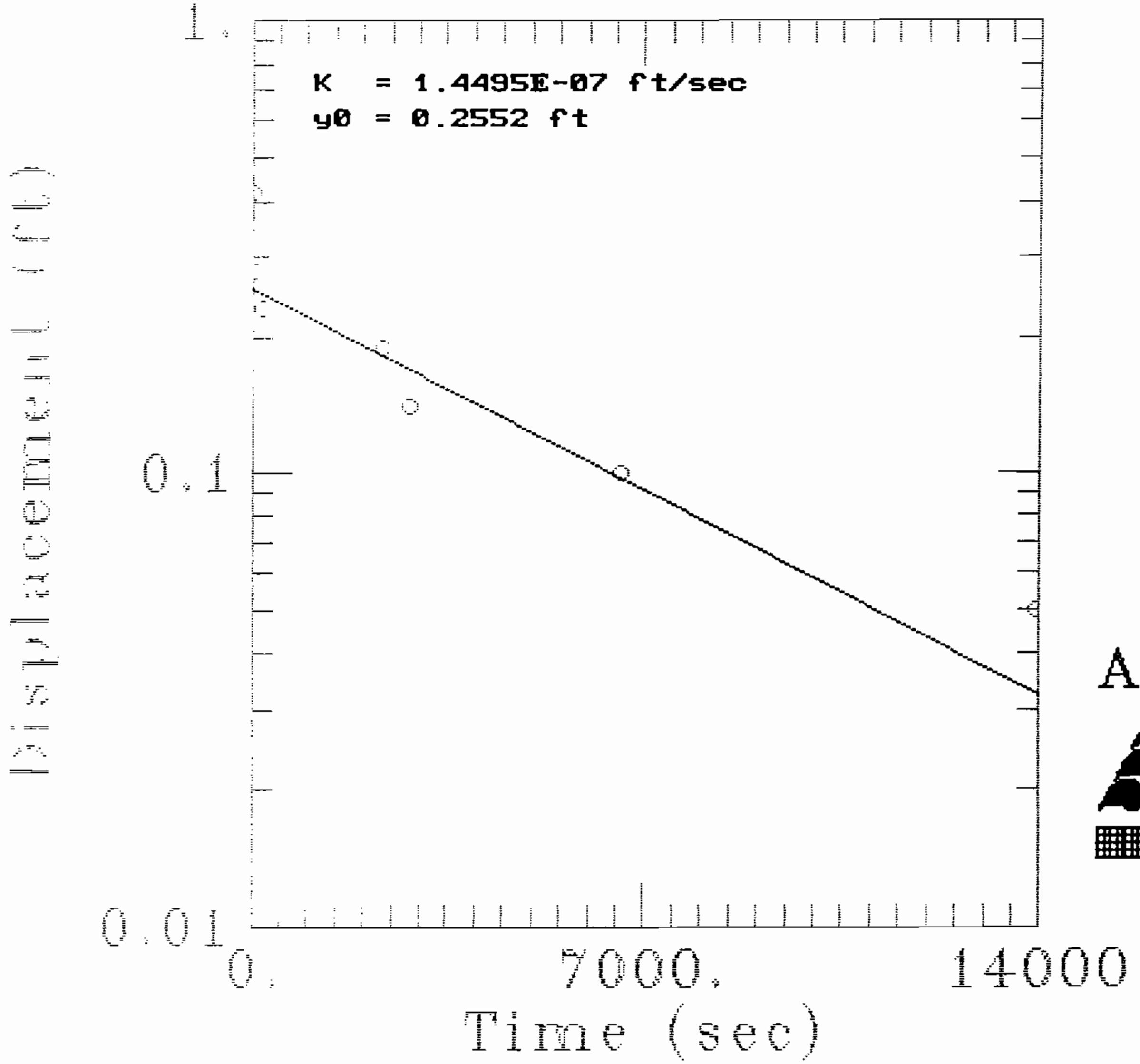

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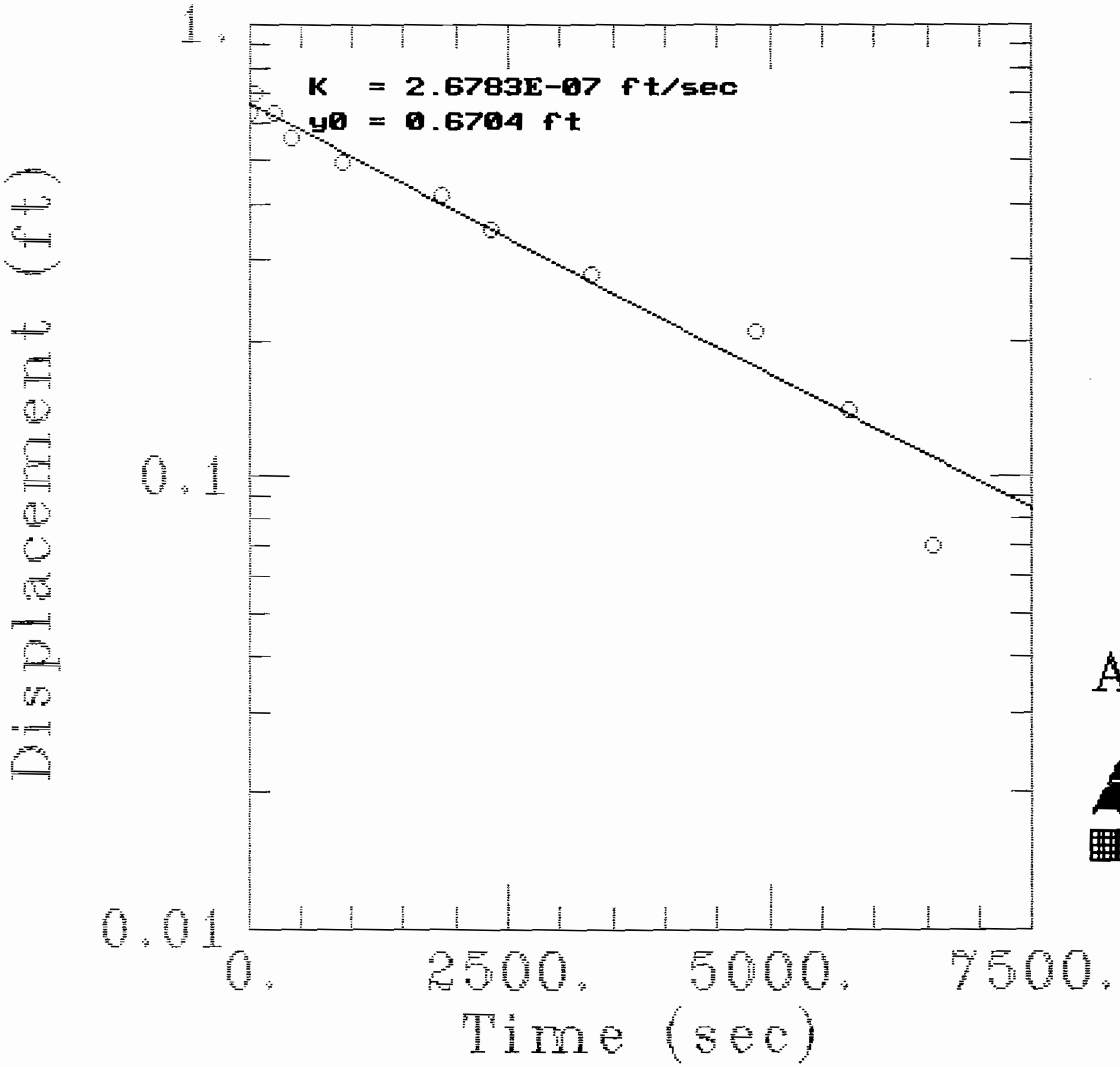
Modeling Group

OW9 FALLING



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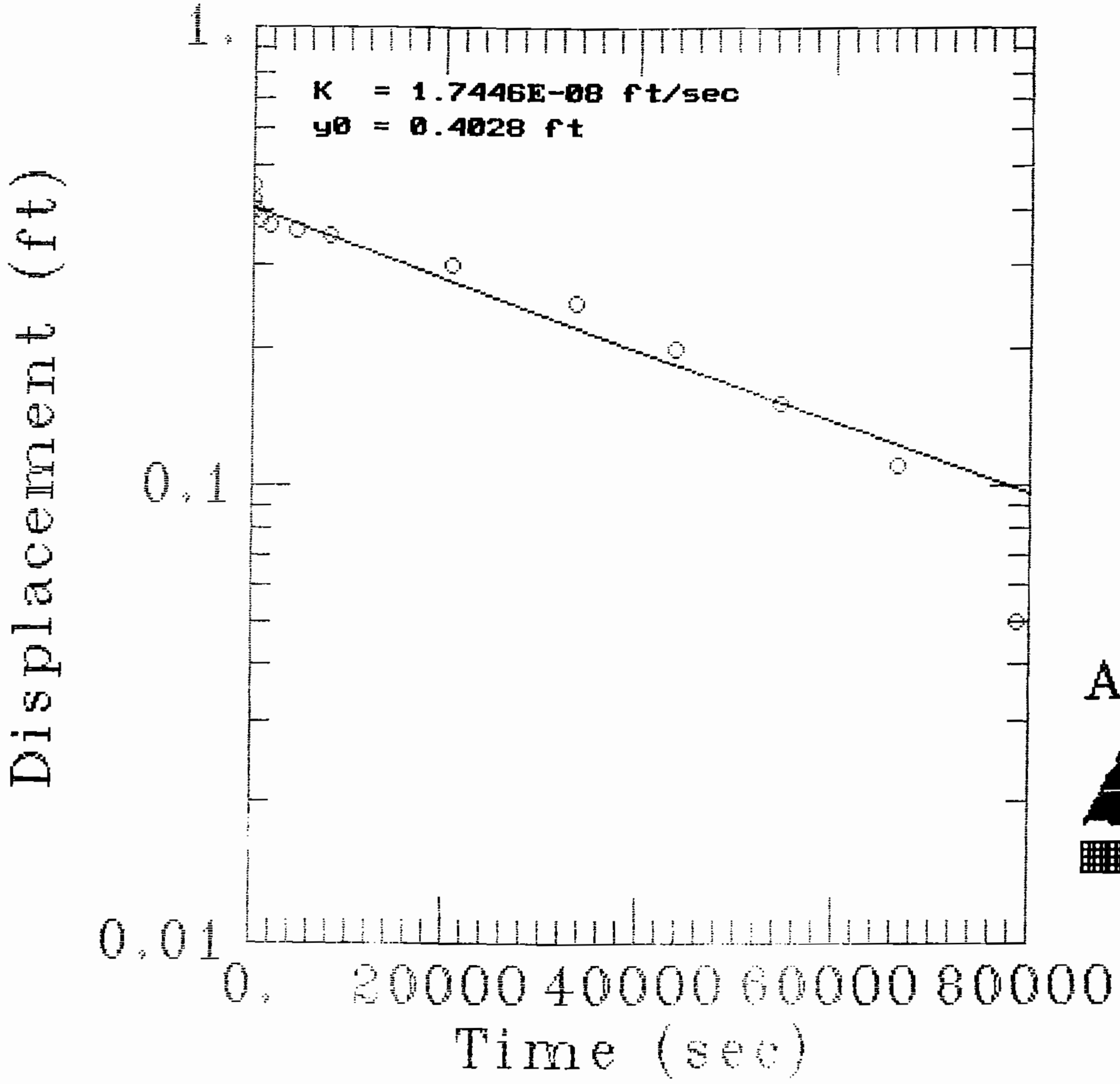

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APPENDIX G

ANALYTICAL DATA VALIDATION REPORTS

ANALYTICAL DATA ASSESSMENT AND VALIDATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SPAULDING COMPOSITES COMPANY, INC.
APRIL-JUNE 1995

PRINTED ON

SEP 27 1995

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TABLE OF CONTENTS

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(Following Report)

1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by Laboratory Resources Inc. (LRI) for soil, sediment, groundwater, and waste samples collected at Spaulding Composites Company, Inc. in Tonawanda, New York (Site) during April, May, and June 1995. The sampling and analyses were performed in support of the RCRA Facility Investigation and Remedial Investigation/Feasibility Study conducted at the Site. For sample identification, a sample collection summary key is presented in Table 1.

Samples were analyzed as specified in Table 1. Summaries of analytical methodology used are presented in Tables 2A, 2B, and 2C. Tentatively identified compounds were reported for Methods 91-1 and 91-2.

Summaries of the analytical data are presented in Tables 3A, 3B, 3C, and 3D. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

i) "National Functional Guidelines for Organic Data Review", June 1991, prepared by the United States Environmental Protection Agency (USEPA); and

ii) "Functional Guidelines for Evaluating Inorganics Analyses", July 1988, prepared by the USEPA Data Review Work Group; and

iii) "Quality Assurance Project Plan (QAPP)", Spaulding Composites Company, Inc., Tonawanda, New York, August 1993.

The validation documents will be referred to as the "Guidelines" hereafter.

Full ASP Category B deliverables were provided by the laboratory for the analyses. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC provided. Due to the nature of the tests, a limited evaluation was performed for the ignitability, reactivity, and corrosivity testing.

2.0 SAMPLE HOLDING TIMES

The criteria specified in the QAPP are summarized in Tables 2A, 2B, and 2C.

Due to laboratory difficulties, several polychorinated biphenyl (PCB) sample extracts were analyzed 4 to 29 days after the 40 day holding time specified in the QAPP. The sample identifications are SC-656, SC-657, SC-660, SC-661, SC-663, SC-665 (sample dilution - affects only Aroclors 1248 and 1260), SC-670, SC-671, SC-672, SC-673, SC-676, SC-677, SC-678, SC-679, SC-680, SC-681, SC-682, SC-688, SC-689, SC-690, SC-691, SC-692, SC-693, SC-694, SC-695, SC-696, SC-697, SC-699, SC-708, SC-709, and SC-712. Sample SC-657 was analyzed one day after the holding time for volatiles analysis. Sample SC-666 was reextracted 15 days after the holding time for semi-volatiles extraction. Since exceeding sample holding times can introduce a low bias in the results, all associated data were qualified as estimated in Table 3A and Table 3B.

In addition, the QAPP specified holding times were occasionally exceeded for toxicity characteristic leaching procedure (TCLP) mercury, methanol, ethanol, and ignitability analyses. All analyses were performed within the technically accepted holding times (mercury - 28 days, methanol and ethanol - 14 days, ignitability - none specified), so no qualification of the data was performed.

All samples were promptly shipped to the laboratory and received at 4°C (±2°C). In addition, the groundwater sample (SC-673) was properly preserved per method requirements.

3.0 GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) TUNING AND MASS CALIBRATION - VOLATILES AND SEMI-VOLATILES

Prior to analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, ASP Methods 91-1 and 91-2 and SW-846 Methods 8240 and 8270 require the analysis of the specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the method before analysis is initiated. Analysis of the tuning compound must then be repeated every twelve hours throughout sample analysis to ensure the continued optimization of the instrument.

All instrument tuning data were reviewed. Tuning compounds were analyzed at the required frequency throughout the volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analyses periods. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

4.0 INSTRUMENT CALIBRATION

4.1 GC/MS CALIBRATION - VOLATILES AND SEMI-VOLATILES

4.1.1 Initial Calibration

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed.

Linearity of the curve and instrument sensitivity were evaluated against the following criteria:

i) all relative response factors (RRFs) must be greater than or equal to 0.05; and

ii) percent relative standard deviation (%RSD) values must not exceed 30 percent.

The initial calibration data for VOCs and SVOCs were reviewed. All RRFs met the above criteria. Some VOC and SVOC calibrations exceeded the %RSD requirements. In most cases the associated sample data were non-detect, so the variability indicated in the curves would not impact the data. The detected results associated with the outlying calibrations were qualified as estimated, based on the indicated variability (see Table 4).

4.1.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

i) all RRF values must be greater than or equal to 0.05; and
ii) percent difference (%D) values must not exceed 25 percent.

All RRFs met the above criteria. Several compounds exceeded the 25 %D criteria for VOC and SVOC calibrations. If the %D was less than 50 percent and was exceeded due to an increase in sensitivity, associated non-detect data were not qualified. All other associated data were qualified as estimated except when the %D exceeded 90, in which case non-detect data were rejected due to the extreme variability in instrument response (see Table 5).

All remaining %Ds were acceptable.

4.2 GC CALIBRATION - PCBs

To ensure that instrument performance was acceptable throughout PCB analysis, the criteria outlined in Method 91-3 for initial and continuing instrument calibration have been evaluated. Since this method requires dual column analysis of all samples, the criteria have been applied to both columns.

4.2.1 Initial Calibration

In order to quantify compounds of interest, calibration of the GC/ECD over a specific concentration range must be performed. Initially, PCBs are calibrated separately at a single concentration.

Retention time windows are also calculated from the initial calibration analyses. These windows are then used to identify all compounds of interest in subsequent analyses.

All initial calibration standards were analyzed at the required frequencies. All criteria were satisfied as specified in Method 91-3.

4.2.2 Continuing Calibration

To ensure that the calibration of the instrument is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis.

A standard for any identified PCB must be analyzed during a valid analytical sequence on the same instrument, within 72 hours of its detection in a sample.

To ensure that compound retention times do not vary over the analysis period, all retention times for continuing calibration compounds must fall within the established retention time windows.

All continuing calibration performed met the above criteria except some sample analyses analyzed outside of the 72 hour period. These results were qualified as estimated (see Table 6).

4.3 GC CALIBRATION - METHANOL

4.3.1 Initial Calibration

To quantify methanol in samples, calibration of the GC over a specific range must be performed. Initially, a five-point calibration curve is analyzed, with a maximum RSD criteria of 20 percent.

The initial calibration data for methanol were reviewed and met the above criteria.

4.3.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve on each analysis data with a maximum %D criteria of 15 percent.

The continuing calibration standards for methanol met the above criteria.

4.4 INORGANICS CALIBRATION

4.4.1 Initial Calibration

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For inductively coupled plasma (ICP) analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For atomic absorption (AA) and cyanide reactivity analyses, a calibration blank and a minimum of three standards (four standards for mercury) must be analyzed to establish the analytical curve. Phenols, formaldehyde, and total organic carbon (TOC) calibration curves were evaluated based on a minimum requirement of a blank and three standards. No initial calibration curves are generated for sulfide and ignitability testing. Resulting correlation coefficients for curves consisting of a blank and three or more standards must be at least 0.995.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

Analytical Method	*Inorganic Species*	*Control Limits*
ICP/AA	Metals	90 - 110%
Cold Vapor AA	Mercury	80 - 120%
Spectrophotometric	Cyanide Reactivity	85 - 115%
General Chemistry	TOC, Phenols, Formaldehyde	85 - 115%

Upon review of the data, it was determined that all inorganic calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that instrumentation used for these analyses were properly calibrated prior to sample analyses.

4.4.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

4.4.3 Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP calibration near the CRDL, a standard must be analyzed which contains specified ICP analytes at a concentration of two times the CRDL, or twice the instrument detection limit (IDL), whichever is greater. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per eight hour working shift. In addition, a standard comprising all AA analytes (except

Mercury) at the CRDL is also analyzed by AA subsequent to initial calibration verification.

General control limits of 80 to 120 percent were used to evaluate the ASP data for metals. Most recoveries were within acceptable limits. Recoveries which were outside of the limits were noted, and all associated data less than five times the CRDL were qualified as estimated (see Table 7). Non-detect data would not be affected by a high bias in the CRDL results, and no qualifications were performed in these instances.

5.0 SURROGATE SPIKE RECOVERIES

In accordance with the methods employed, all samples, blanks, and standards analyzed for VOCs, SVOCs, methanol/ethanol and PCBs were spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency. Surrogate recovery evaluations were performed as specified in the "Guidelines". In some instances, surrogate recoveries could not be evaluated due to necessary sample dilutions.

5.1 VOLATILES

Samples submitted for VOC determinations were spiked with the surrogate compounds 4-bromofluorobenzene, toluene-d_8, and 1,2-dichloroethane-d_4 prior to sample analysis.

Most surrogate recoveries reported for the VOC analyses were within the QAPP control limits, indicating good analytical efficiency. Sample results impacted by outlying surrogate recoveries were qualified as estimated (see Table 8).

5.2 SEMI-VOLATILES

Samples submitted for SVOC determinations were spiked with eight surrogate compounds prior to sample extraction and analysis. Most surrogate recoveries were within the QAPP control limits, indicating good analytical efficiency. Sample SC-688 had several low surrogate recoveries, and all data were qualified as estimated in Table 3A. Sample SC-674 had acid surrogate recoveries of less than ten percent for both the total and TCLP analysis. Per the "Guidelines", all non-detect acid extractable compound results were rejected (see Table 8). All remaining sample results impacted by outlying surrogate recoveries were qualified as estimated (see Table 8).

5.3 PCBs

Samples submitted for chlorinated pesticide/PCB determinations were spiked with the surrogate compounds tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCB) prior to sample preparation. All surrogate recoveries were evaluated against the advisory control limits of 60 to 150 percent, as specified in the "QAPP".

Most samples had acceptable surrogate recoveries on the columns used for reporting. Sample results impacted by outlying surrogate recoveries were qualified as estimated (see Table 8).

5.4 METHANOL AND ETHANOL

Samples submitted for methanol and ethanol analyses were spiked with the surrogate compound n-propanol prior to analysis. All recoveries were evaluated against the laboratory control limits of 50 to 150 percent.

Most samples had acceptable surrogate recoveries. Sample results impacted by outlying surrogate recoveries were qualified as estimated (see Table 8).

6.0 INTERNAL STANDARD RECOVERIES - VOLATILES AND SEMI-VOLATILES

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, internal standard compounds are added to all samples, blanks, and spike samples prior to VOC and SVOC analyses. All results are calculated as a ratio of the internal standard response. The criteria by which the internal standard results are assessed are as follows:

i) internal standard area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard; and

ii) the retention time of the internal standard must not vary more than ±30 seconds from the associated calibration standard.

Most VOC and SVOC internal standard recoveries were acceptable. Sample results impacted by outlying internal standard recoveries were qualified as estimated (see Table 9).

7.0 LABORATORY BLANK ANALYSES

The purpose of assessing the results of laboratory blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory blanks are prepared from deionized water and analyzed as samples.

For this study, laboratory blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

7.1 VOLATILES

Low level volatiles were detected in some of the TCL VOC method blanks. Most of the affected sample results were non-detect, so no qualification of the data was necessary. Detected acetone and methylene chloride results up to ten times and trichloroethene results up to five times the blank levels were qualified as non-detect (see Table 10).

7.2 SEMI-VOLATILES

Low level semi-volatiles were detected in several of the TCL SVOC method blanks. Detected SVOC results up to ten times (common phthalates) and five times (all others) the blank levels were qualified as non-detect (see Table 10).

7.3 PCBs

Analysis of the laboratory blanks yielded non-detect results for all PCBs of interest. This indicates that contamination was not a factor in this analysis.

7.4 METHANOL AND ETHANOL

Analysis of the laboratory blanks yielded non-detect results except for one ethanol method blank. All associated sample results were non-detect, so no sample qualification was necessary.

7.5 INORGANICS ANALYSES

Upon review of the initial calibration blanks, continuing calibration blanks, and preparation blanks, it was noted that metal concentrations were detected above the IDL in the calibration and preparation blanks associated with the samples collected for this project.

In accordance with the "Guidelines" all sample results greater than the instrument detection limit but less than five times the amount detected in the associated blank were qualified as non-detect (see Table 10). All remaining investigative samples associated with contaminated laboratory blanks yielded either non-detect concentrations or concentrations greater than five times the associated laboratory blank concentrations for the analytes of interest. Qualification of the remaining sample data was not required on this basis.

Further, all absolute values of all negative metal concentrations in the laboratory blanks were less than or equal to the CRDL. Corrective action was not required by the laboratory and qualification of the associated sample data was not necessary on this basis.

All remaining inorganic testing blanks were non-detect, indicating that contamination was not a factor in these analyses.

8.0 BLANK SPIKE ANALYSES - ORGANICS

Blank spikes are prepared and analyzed as samples to assess the analytical efficiencies of the method employed, independent of sample matrix effects. Blank spikes were performed for all target compound list analyses.

8.1 VOLATILES

Blank samples were spiked with benzene, chlorobenzene, 1,1-dichloroethene, toluene, and trichloroethene. All blank spike sample analyses yielded recoveries within the method control limits, indicating acceptable analytical accuracy.

8.2 SEMI-VOLATILES

Blank samples were spiked with the specified TCL SVOC compounds. All blank spike sample analyses yielded recoveries within the control limits, indicating acceptable analytical accuracy.

8.3 CHLORINATED PESTICIDES/PCBS

Blank samples were spiked with the specified PCB 1254 prior to extraction. All recoveries reported for the blank spikes were within the method control limits except for one high recovery on June 5, 1995. All positive sample results associated with the blank spike were qualified as estimated (see Table 11).

8.4 METHANOL AND ETHANOL

Blank samples were spiked with methanol and ethanol prior to analysis. All recoveries were within the control limits, indicating acceptable analytical accuracy.

9.0 LABORATORY CONTROL SAMPLE ANALYSES - INORGANICS

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were reported for all inorganics analyses. All LCS samples yielded recoveries within the established control limits (80 to 120 percent for waters, standard manufacturer limits for soils) except for a low cyanide reactivity LCS recovery. All associated data were as estimated (see Table 11).

10.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - ORGANICS

The recoveries of MS/MSD analyses are used to assess the analytical accuracy achieved on individual sample matrices. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

TCL analyses are spiked with method-specified analytes.

10.1 VOLATILES

Samples SC-665, SC-667, SC-693, SC-699, and SC-712 were chosen as MS/MSD samples for the TCL VOC analysis, while samples SC-672 and 5039-060695-1A were also spiked in duplicate for the TCLP VOC analysis. Most recoveries and RPDs were acceptable, indicating good laboratory accuracy and precision. The TCL VOC MS/MSD analysis of sample SC-672 resulted in low recoveries for all parameters. All sample results were qualified as estimated for sample SC-672 and all associated samples (SC-674 to SC-678 and SC-684) in Table 3A due to the overall low bias in the results. Remaining sample results impacted by outlying MS/MSD recoveries and/or RPDs were qualified as estimated (see Table 12).

10.2 SEMI-VOLATILES

Samples SC-667, SC-673, SC-699, and SC-712 were chosen as MS/MSD samples.

Most recoveries and RPDs were acceptable. Sample results impacted by outlying MS/MSD recoveries and/or RPDs were qualified as estimated (see Table 12).

10.3 PCBs

Sample SC-667, SC-693, SC-699, and SC-712 were spiked in duplicate with PCB 1254.

Some recoveries and RPDs were high due to the sample matrix and/or the presence of PCB 1248 in the samples. All associated PCB 1254 results were non-detect, so no further qualification of the data was necessary

10.4 METHANOL AND ETHANOL

Samples SC-667, SC-673, SC-693, SC-709, and SC-712 were spiked in duplicate with methanol and ethanol prior to analysis.

All recoveries and RPDs were acceptable, indicating good laboratory accuracy and precision.

11.0 MATRIX SPIKE ANALYSES - INORGANICS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent. Per the "Guidelines", qualification of data is not required if the sample result exceeds four times the spike concentration added. The samples chosen for spike analyses are as follows:

Sample ID	*Analysis*
SC-667	TAL Metals, Phenols, Formaldehyde
SC-672	TCLP Metals
SC-679	Reactivity
SC-684	Reactivity
SC-693	TAL Metals, Formaldehyde
SC-694	Phenols
SC-698	TOC
SC-699	TAL Metals, Phenols
SC-712	TAL Metals, Phenols, Formaldehyde

The MS analyses of the samples resulted in various outlying spike recoveries. The non-detect cyanide reactivity result for SC-712 was rejected due to an extremely low recovery. All remaining associated sample data impacted were qualified as estimated (see Table 13).

12.0 DUPLICATE SAMPLE ANALYSES - INORGANICS

For inorganic parameters, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as follows:

Sample ID	*Analysis*
SC-667	TAL Metals, Phenols, Formaldehyde
SC-672	TCLP Metals
SC-679	Reactivity
SC-684	Reactivity
SC-693	TAL Metals, Formaldehyde
SC-694	Phenols
SC-698	TOC
SC-699	TAL Metals, Phenols
SC-710	Ignitability
SC-712	TAL Metals, Phenols, Formaldehyde

In accordance with the "Guidelines", laboratory duplicate results should have a maximum RPD of 20 percent for water matrices and 35 percent for soil matrices. For metals, sample results less than five times the CRDL are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL (two times the CRDL for soils).

Most duplicate analyses met the above criteria. Some duplicate analyses of the sediments were outside of limits and all associated sample data were qualified as estimated (see Table 14).

13.0 ICP SERIAL DILUTION

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. A minimum of one per 20 investigative samples is analyzed at a five-fold dilution. For samples yielding analyte concentrations greater than 50 times the IDL, the serial dilution results must agree within 10 percent of the original results.

Serial dilutions were performed on the samples chosen as MS samples. Various metals did not meet the above criteria in the samples. Associated sample data greater than 50 times the IDL were qualified as estimated (see Table 15).

14.0 ICP INTERFERENCE CHECK SAMPLE ANALYSIS (ICS)

To verify that proper inter-element and background correction factors have been established by the laboratory, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period.

ICS analysis results were evaluated for all samples. All ICS recoveries were within the established control limits of 80 to 120 percent. Some false positives were detected, but the associated samples did not have comparable interferent levels and no qualification was performed.

15.0 FURNACE ATOMIC ABSORPTION QC

15.1 DUPLICATE INJECTIONS

All furnace determinations must be performed in duplicate, in order to assess analytical precision. For sample concentrations greater than the CRDL, duplicate injections must agree within 20 percent RSD.

Duplicate injections were performed for all furnace analyses. All precision criteria were met.

15.2 POST-DIGESTION SPIKES

To assess the effects of sample matrices on analytical accuracy, all sample analyses performed on furnace require the analysis of a post-digestion spike. The spike recoveries are assessed against general control limits of 85 to 115 percent. Analyses of samples having original concentrations greater than 50 percent of the spike concentration, and yielding post-digestion spike recoveries outside of the 85 to 115 percent control limits require further analysis using the method of standard additions (MSA).

Samples analyzed for antimony, arsenic, lead, selenium, and thallium were each spiked with known amounts of analytes during instrumental analysis. Some sample analyses yielded spike recoveries outside of control limits. All associated sample results were qualified as estimated (see Table 16).

15.3 METHOD OF STANDARD ADDITIONS (MSA)

When samples are analyzed by MSA, samples are spiked at three different levels. The resulting absorbance values are plotted against the added concentrations and a linear expression is derived. The original sample concentration is calculated as the x-intercept. This analysis method is employed to evaluate the effects of sample matrix interferences on analytical results. The linearity of the relationship derived is deemed acceptable if the correlation coefficient is at least 0.995. If the MSA fails, it is repeated once. If the MSA fails on the replicate analysis, results are qualified as estimated.

MSA analyses were performed on several samples for graphite furnace AA quantitation. All MSA criteria were met except for the arsenic analysis of sample SC-670. The sample result was qualified as estimated (see Table 17).

16.0 TENTATIVELY IDENTIFIED COMPOUNDS (TICS)

Chromatographic peaks recorded during volatile and semi-volatile sample analyses which are not target compounds, surrogates, or internal standards, are potential TICs. The ten largest TICs for TCL volatiles and 20 largest TICs for TCL semi-volatiles that exhibit areas greater than 10 percent of the area of the nearest internal standard are tentatively identified and quantified.

A summary of the TICs, associated samples, and estimated concentration ranges for both VOCs and SVOCs is as follows:

TICs - Volatiles	*Estimated Concentration (μg/kg)*	*Associated Sample IDs*
Unknown Alkanes and Aromatic Hydrocarbons	6-190000	*
Methylbenzene Isomers	23-400	SC-663 SC-679
Alkyl Benzene	50-10000	SC-663 SC-665 SC-679
1,1,2-Trichloro-1,2,2-Trifluoroethane	13-37	SC-695 SC-696 SC-697 SC-708 SC-709 SC-656 SC-657
Chlorobenzene Isomers	11-8500	SC-660 SC-662 SC-663 SC-664 SC-666
TICs - Semi-Volatiles		
Unknowns - General	130-430000	*
Unknowns - Alkanes and Cycloalkanes	150-36000	*
Unknowns - Phthalates	86-3300000	*
Unknowns - Alkyl Phenol	180-940000	*

TICs - Semi-Volatiles	*Estimated Concentration (μg/kg)*	*Associated Sample ID*
Unknown Aromatic Hydrocarbons	150-1500	SC-663 SC-667 SC-681 SC-699
Alpha-meta-benzenemethanol	160-2800	SC-659 SC-662
Hexachloro (1,1'-biphenyl)	3200	SC-660
2,3,4,6'-Tetrachloro (1,1'-biphenyl) isomer	260-2700	SC-681 SC-683
2-Fluoro (1,1'-biphenyl)	530	SC-684
Alkyl benzenes	210-2500	SC-660
4-(Diethylamine) Benzaldehyde	35000	SC-665
3-Methyl-benzoic acid	970	SC-672
2,2'-Methylenebis-phenol	580-320000	SC-672 SC-674 SC-675 SC-677 SC-678 SC-679 SC-680 SC-681 SC-683 SC-684
Phosphoric acid ester isomer	1100-7500	SC-672 SC-679 SC-682 SC-689
Tris (3-methyl) phosphoric acid	1100-11000	SC-672 SC-679 SC-683 SC-689
Tris (4-methyl)phosphoric acid	6500	SC-679
4,4'-Methylenebis-phenol	520-3900	SC-678 SC-679 SC-680 SC-681 SC-683

Notes:

* Were present in the majority of samples.

17.0 FIELD QA/QC

17.1 FIELD DUPLICATES

To assess the analytical and sampling protocol precision, five field duplicates (as identified in Table 1) were collected and submitted "blind" to the laboratory. Most data outside of estimated regions of detection demonstrated acceptable agreement. Data which did indicate variability were qualified as estimated (see Table 18).

17.2 TRIP BLANKS - VOLATILES

To evaluate the possibility of contamination arising from sample shipment and storage activities, trip blanks were collected and submitted for VOC analysis with the water sample.

Methylene chloride was detected in the trip blank. The associated sample result was greater than ten times the level present, and no qualification was necessary.

17.3 RINSE BLANKS

To investigate the possibility of contamination arising from sampling activities, two rinse blanks were collected with the waste and soil samples taken for this study, as specified in Table 1. Various metals were present in the blanks. Associated positive sample data up to five times the field blank contamination present were qualified as non-detect (see Table 19). Data previously qualified due to laboratory method blank detections were not included.

18.0 GENERAL COMMENTS

Three soil samples collected had percent solid values of less than 50. Since the moisture content is likely to create variability in the analyses for these samples, all results for SC-676, SC-678, and SC-684 were qualified as estimated in Table 3A.

Some sample data were obtained from results which exceeded the calibration ranges of the methods employed. Since linearity outside of the calibration range can not be assumed, associated sample results were qualified as estimated (see Table 20).

19.0 CONCLUSION

Based on the assessment detailed in the foregoing, the data produced by LRI are acceptable with the specific exceptions and qualifications noted within.

TABLE

SAMPLE COLLECTION SUMMARY KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID	*Source/Sample Location*	*Sample Interval (feet)*	*Date*	*Time*	*Matrix*	*Analysis*	*Comments*
SC-655	Rinse Blank	-	04/20/95	1100	DI Water	(1)	Rinse blank taken off split spoons after decontamination
SC-656	BW-12	2 - 4	04/20/95	1430	Soil	(1)	Background sample
SC-657	8" diameter hole 10 feet west of BW-12	0 - 0.5	04/20/95	1700	Soil	(1)	Background sample
SC-658	BW-9	0 - 2	04/25/95	1600	Soil	(1)	
SC-659	BW-10	0 - 2	04/27/95	1330	Soil	(1)	
SC-660	BH-14	12 - 14	05/01/95	1100	Soil	(1)	PID 5.6 ppm; trace NAPL
SC-661	BH-16	0 - 2	05/01/95	1415	Soil	(1)	
SC-662	BH-14	12 - 14	05/01/95	1530	Soil	(1)	Blind duplicate SC-660
SC-663	BH-15	2 - 4	05/02/95	0900	Soil	(1)	PID 6.0 ppm; strong petroleum odor
SC-664	OW-8	2 - 4	05/02/95	1100	Soil	(1)	Strong phenol odor
SC-665	BH-18	0 - 2	05/02/95	1500	Soil	(1)	PID 26.0 ppm; strong chemical odor
SC-666	BH-19	2 - 4	05/03/95	1045	Soil	(1)	
SC-667	OW-6	4 - 6	05/03/95	1200	Soil	(1)	PID 11.0 ppm; strong petroleum odor
SC-668	BH-23	10 - 12	05/03/95	1600	Soil	(1)	
SC-669	OW-11	8 - 10	05/04/95	1000	Soil	(1)	
SC-670	BH-20	0 - 2	05/05/95	1000	Soil	(1)	
SC-671	BH-21	1 - 2	05/05/95	1300	Soil	(1)	Slight aromatic odor - cedary
SC-672	TP-R1 & R2; Resin Drum Landfill	0 - 7.5	05/09/95	1100	Soil	(1), (2)	Composite of soils from sides of test pits
SC-673	Drum in TP-R2; Resin Drum Landfill	5.0	05/09/95	1115	Groundwater	(1)	
SC-674	Drum in TP-R2; Resin Drum Landfill	-	05/09/95	1105	Waste	(1), (2)	Sampled drum
SC-675	Drum in TP-R1; Resin Drum Landfill	-	05/09/95	1200	Waste	(1), (2)	Sampled drum
SC-676	Drum in TP-R3; Resin Drum Landfill	-	05/09/95	1330	Waste	(1), (2)	Sampled drum
SC-677	Drum in TP-R4; Resin Drum Landfill	-	05/09/95	1400	Waste	(1), (2)	Sampled drum
SC-678	Drum inTP-R3; Resin Drum Landfill	-	05/09/95	1500	Waste	(1), (2)	Blind duplicate of SC-676
SC-679	TP-R3 & R4; Resin Drum Landfill	0 - 4.5	05/09/95	1430	Soil	(1), (2)	Composite of soils from sides of test pits
SC-680	OW-7	4 - 6	05/08/95	1000	Soil	(1)	
SC-681	BH-22	12 - 14	05/08/95	1500	Soil	(1)	Pieces of phenolic resin present in soil
SC-682	BH-22	12 - 14	05/08/95	1600	Soil	(1)	Blind duplicate of SC-681
SC-683	TP-L1 & L2; Laminate Dust Landfill	0 - 5	05/10/95	1330	Soil	(1)	Composite of soils from sides and bottom of test pits
SC-684	TP-L1 & L2; Laminate Dust Landfill	0 -2	05/10/95	1330	Waste	(1), (2)	Composite of laminate dust from disposal bags
SC-685	Rinse Blank	-	05/10/95	1400	DI Water	(1)	Rinse blank taken off split spoons after decontamination
SC-686	OW-4	4 - 6 8 - 10 12 - 14	05/10/95	1030	Soil	(1)	Composite of 3 split spoons

TABLE 1

SAMPLE COLLECTION SUMMARY KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID	*Source/Sample Location*	*Sample Interval (feet)*	*Date*	*Time*	*Matrix*	*Analysis*	*Comments*
SC-687	OW-4	16 - 18	05/10/95	1030	Soil	(1)	Clean sample
SC-688	BH-24	2 - 4 6 - 8 10 - 12	05/11/95	1000	Soil	(1)	Composite of 3 split spoons
SC-689	BH-24	16 - 18	05/11/95	1000	Soil	(1)	Clean sample
SC-690	OW-3	4 - 6 8 - 10 12 - 14	05/11/95	1400	Soil	(1)	Composite of 3 split spoons
SC-691	OW-3	16 - 18	05/11/95	1400	Soil	(1)	Clean sample
SC-692	OW-3	16 - 18	05/11/95	1400	Soil	(1)	Blind duplicate of SC-691
SC-693	OW-1	2 - 4 6 - 8 10 - 12	05/12/95	1000	Soil	(1)	Composite of 3 split spoons
SC-694	OW-1	16 -1 8	05/12/95	1000	Soil	(1)	Clean sample
SC-695	BH-25	0 - 2 6 - 8 10 - 12	05/15/95	1030	Soil	(1)	Composite of 3 split spoons
SC-696	BH-25	16 - 18	05/15/95	1030	Soil	(1)	Clean sample
SC-697	Soils pile UST Removal Area	0 - 8	05/15/95	1300	Soil	(1)	PID 2,000 ppm; former BH-13 location
SC-698	BH-25	14 -16	05/15/95	1000	Soil	(3)	Shelby Tube
SC-699	BW-2	0 - 2 6 - 8 10 - 12	05/16/95	1100	Soil	(1)	Composite of 3 split spoons
SC-708	BW-2	16 - 18	05/16/95	1100	Soil	(1)	Clean sample
SC-709	BW-2	16 - 18	05/16/95	1145	Soil	(1)	Blind duplicate of SC-708
SC-710	OW-1, OW-3, OW-4 BW-2, BH-24 & 25	0 - 14	05/17/95	1500	Soil	(2)	Composite of soils around Resin Drum Landfill
SC-711	10 Feet North of OW-8	14-16	05/18/95	1430	Soil	(3)	Shelby Tube
SC-712	BH-F7	0-4	05/31/95	1000	Soil	(1)	
5039-060695-1A	Beneath UST	6	06/06/95	1045	Soil	TCLP Volatiles	Grab Sample
5039-060695-1B	Beneath UST	12	06/06/95	1140	Soil	TCLP Volatiles	Grab Sample

Notes:
(1) Target Compound List volatiles, semi-volatiles, (plus cresols and aniline), PCB, Target Analyte List metals, formaldehyde, methanol, ethanol, and total phenols.
(2) Toxicity Characteristic Leaching Procedure (TCLP) volatiles, semi-volatiles, and metals, ignitability, corrosivity, and reactivity.
(3) Laboratory permeability testing, grain size analysis, moisture content, and total organic carbon analyses.
(4) TCLP volatiles
TCLP Toxicity Characteristic Leaching Procedure

TABLE 2A

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY - SOIL/SEDIMENT
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Matrix*	*Analytical Method*	*Collection to Extraction (days)*	*Collection to Analysis (days)*
TCL Volatiles	Soil/Sediment	91-1 (1)	-	14
TCL Semi-Volatiles	Soil/Sediment	91-2 (1)	14	40
PCBs	Soil/Sediment	91-3 (1)	14	40
TAL Metals	Soil/Sediment	CLP-M (1)	-	180
Mercury	Soil/Sediment	CLP-M (1)	-	14
Methanol and Ethanol	Soil/Sediment	8015 (2)	-	7
Formaldehyde	Soil/Sediment	APC-44 (3)	-	14
Total Phenols	Soil/Sediment	9066 (2)	-	28

Notes:

TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
(1)	Referenced from New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP), September 1989, (rev. 12/91).
(2)	Referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA SW-846, Third Edition 1986 and Subsequent Revisions.
(3)	Referenced from "New York State Department of Health Wadsworth Center for Laboratories and Research", May 1991.

TABLE 2B

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY - GROUNDWATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Matrix*	*Analytical Method*	*Collection to Extraction (days)*	*Collection to Analysis (days)*
TCL Volatiles	Groundwater	91-1 (1)	-	14
TCL Semi-Volatiles	Groundwater	91-2 (1)	7	40
PCBs	Groundwater	91-3 (1)	7	40
TAL Metals	Groundwater	CLP-M (1)	-	180
Mercury	Groundwater	CLP-M (1)	-	14
Methanol and Ethanol	Groundwater	8015 (2)	-	7
Formaldehyde	Groundwater	APC-44 (3)	-	14
Total Phenols	Groundwater	9066 (2)	-	28

Notes:

TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
(1)	Referenced from New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP), September 1989, (rev. 12/91).
(2)	Referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA SW-846, Third Edition 1986 and Subsequent Revisions.
(3)	Referenced from "New York State Department of Health Wadsworth Center for Laboratories and Research", May 1991.

TABLE 2C

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY - WASTE CHARACTERIZATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Matrix*	*Analytical Method (1)*	*Holding Time to TCLP Extraction (days)*	*Holding Time to Preparative Extraction (days)*	***Holding Time to Analysis (days)***
TCLP Volatiles	Soil/ Waste	1311/8240	14	-	7
TCLP Semi-Volatiles	Soil/ Waste	1311/8270	14	7	40
TCLP Metals	Soil/ Waste	1311/6010	14	-	180
TCLP Mercury	Soil/ Waste	1311/7470	14	-	14
Ignitability	Soil/ Waste	1010	-	-	14
Corrosivity	Soil/ Waste	9045	-	-	14
Cyanide Reactivity	Soil/ Waste	9010	-	-	14
Sulfide Reactivity	Soil/ Waste	9030	-	-	14

Notes:

TCLP	Toxicity Characteristic Leaching Procedure
(1)	Referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA SW-846, Third Edition 1986 and Subsequent Revisions.

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-661*	*SC-662*	*SC-663*	*SC-664*	*SC-665*
Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-16*	*BH-14*	*BH-15*	*OW-8*	*BH-18*
Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*0-2*	*12-14*	*2-4*	*2-4*	*0-2*
Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Volatiles (µg/kg)										
Chloromethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Bromomethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Vinyl chloride	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Chloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Methylene Chloride	6 J	13 UJ	3 J	7 J	11 UJ	12 UJ	25 J	54 UJ	13 UJ	7500 U
Acetone	12 U	13 UJ	12 U	12 U	11 UJ	12 U	57 UJ	190 UJ	33 UJ	7500 U
Carbon disulfide	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	66	13 U	7500 U
1,1-Dichloroethene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,1-Dichloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,2-Dichloroethene (total)	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Chloroform	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,2-Dichloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
2-Butanone	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,1,1-Trichloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Carbon tetrachloride	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Bromodichloromethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,2-Dichloropropane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
cis-1,3-Dichloropropene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Trichloroethene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Dibromochloromethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
1,1,2-Trichloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Benzene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	35 J	13 U	7500 U
trans-1,3-Dichloropropene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Bromoform	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
4-Methyl-2-pentanone	12 U	13 UJ	12 U	12 U	11 UJ	12 U	57 UJ	54 UJ	13 UJ	7500 U
2-Hexanone	12 U	13 UJ	12 U	12 U	11 UJ	12 U	57 UJ	54 UJ	13 UJ	7500 U
Tetrachloroethene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	2300 J
1,1,2,2-Tetrachloroethane	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Toluene	12 U	13 UJ	12 U	12 U	11 U	23	57 U	230	13 U	110000 J
Chlorobenzene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Ethylbenzene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	16 J	13 U	72000
Styrene	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	54 U	13 U	7500 U
Xylene (total)	12 U	13 UJ	12 U	12 U	11 U	12 U	57 U	60	13 U	320000 U

TABL[illegible]A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-677*	*SC-678*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:	*TP-R4*	*TP-R3*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
Volatiles (µg/kg)										
Chloromethane	20000 UJ	53000 UJ	13 UJ	13 UJ	13 UJ	13 UJ	11 UJ	30000 UJ	11 UJ	11 UJ
Bromomethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Vinyl chloride	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Chloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Methylene Chloride	3200 J	14000 J	13 U	5 J	8 J	10 J	11 U	5300 J	7 J	11 U
Acetone	64000 J	210000 J	20 J	71 J	13 U	18 J	11 U	30000 UJ	11 U	11 U
Carbon disulfide	20000 UJ	53000 UJ	13 UJ	13 UJ	13 UJ	13 UJ	11 UJ	30000 UJ	11 UJ	11 UJ
1,1-Dichloroethene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,1-Dichloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,2-Dichloroethene (total)	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Chloroform	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,2-Dichloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
2-Butanone	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,1,1-Trichloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Carbon tetrachloride	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Bromodichloromethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,2-Dichloropropane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
cis-1,3-Dichloropropene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Trichloroethene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Dibromochloromethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,1,2-Trichloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Benzene	4600 J	53000 UJ	6 J	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
trans-1,3-Dichloropropene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Bromoform	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
4-Methyl-2-pentanone	20000 UJ	17000 J	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
2-Hexanone	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Tetrachloroethene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
1,1,2,2-Tetrachloroethane	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Toluene	160000 J	500000 J	13 U	13 U	5 J	4 J	11 U	450000 J	2 J	11 U
Chlorobenzene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Ethylbenzene	20000 UJ	53000 UJ	33	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Styrene	20000 UJ	53000 UJ	13 U	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U
Xylene (total)	20000 UJ	53000 UJ	24	13 U	13 U	13 U	11 U	30000 UJ	11 U	11 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
Volatiles (µg/kg)										
Chloromethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	60000 J
Bromomethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Vinyl chloride	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Chloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	9700 J
Methylene Chloride	12 UJ	13 UJ	11 UJ	12 UJ	28 J	150 J	3600 J	1400000 J	600000 UJ	4200 J
Acetone	130 J	52 UJ	15 J	65 J	11 UJ	65 UJ	12000 J	890000 UJ	890000 J	460000 J
Carbon disulfide	12 U	13 U	11 UJ	67 J	11 UJ	65 UJ	6200 UJ	890000 UJ	650000 J	22000 UJ
1,1-Dichloroethene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,1-Dichloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,2-Dichloroethene (total)	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Chloroform	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,2-Dichloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
2-Butanone	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 J
1,1,1-Trichloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Carbon tetrachloride	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Bromodichloromethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,2-Dichloropropane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
cis-1,3-Dichloropropene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Trichloroethene	12 U	13 U	11 U	12 U	11 U	65 U	670 J	5900000 J	600000 UJ	22000 UJ
Dibromochloromethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,1,2-Trichloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Benzene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
trans-1,3-Dichloropropene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Bromoform	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
4-Methyl-2-pentanone	12 UJ	13 UJ	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	6600000 J	22000 UJ
2-Hexanone	12 UJ	13 UJ	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Tetrachloroethene	12 U	13 U	11 U	12 U	11 U	32 J	6200 UJ	890000 UJ	600000 UJ	22000 UJ
1,1,2,2-Tetrachloroethane	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Toluene	3 J	13 U	11 U	12 U	11 U	65 U	44000 J	8900000 J	540000 J	300000 J
Chlorobenzene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	890000 UJ	600000 UJ	22000 UJ
Ethylbenzene	12 U	13 U	11 U	12 U	11 U	65 U	21000 J	220000 J	600000 UJ	22000 UJ
Styrene	12 U	13 U	11 U	12 U	11 U	65 U	6200 UJ	780000 J	600000 UJ	22000 UJ
Xylene (total)	12 U	13 U	11 U	2 J	11 U	65 U	6200 UJ	890000 UJ	240000 J	22000 UJ

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Volatiles (µg/kg)										
Chloromethane	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
Bromomethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 UJ	11 UJ	13 UJ
Vinyl chloride	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Chloroethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Methylene Chloride	11 J	11 U	33 J	21 J	9 J	8 J	15 J	11 U	11 U	13 U
Acetone	11 J	22 J	12 U	11 U	11 U	8 J	11 U	11 U	11 U	13 U
Carbon disulfide	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	13 UJ
1,1-Dichloroethene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,1-Dichloroethane	11 U	4 J	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,2-Dichloroethene (total)	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Chloroform	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,2-Dichloroethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
2-Butanone	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,1,1-Trichloroethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Carbon tetrachloride	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Bromodichloromethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,2-Dichloropropane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
cis-1,3-Dichloropropene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Trichloroethene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Dibromochloromethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,1,2-Trichloroethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Benzene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	8 J
trans-1,3-Dichloropropene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Bromoform	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
4-Methyl-2-pentanone	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
2-Hexanone	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Tetrachloroethene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
1,1,2,2-Tetrachloroethane	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Toluene	11 U	11 U	12 U	2 J	11 U	11 U	11 U	11 U	11 U	320 J
Chlorobenzene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Ethylbenzene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Styrene	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U
Xylene (total)	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	13 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
Location:	*BW-2*	*BW-2*	*BW-2*	*BH-F7*
Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
Volatiles (µg/kg)				
Chloromethane	12 UJ	11 UJ	11 UJ	13 U
Bromomethane	12 U	11 UJ	11 UJ	13 U
Vinyl chloride	12 U	11 U	11 U	13 U
Chloroethane	12 U	11 U	11 U	13 U
Methylene Chloride	12 U	11 U	11 U	4 J
Acetone	12 U	22 J	11 U	39 J
Carbon disulfide	12 UJ	11 UJ	11 UJ	13 UJ
1,1-Dichloroethene	12 U	11 U	11 U	13 UJ
1,1-Dichloroethane	12 U	11 U	11 U	13 U
1,2-Dichloroethene (total)	12 U	11 U	11 U	5 J
Chloroform	12 U	11 U	11 U	13 U
1,2-Dichloroethane	12 U	11 U	11 U	13 U
2-Butanone	12 U	11 U	11 U	7 J
1,1,1-Trichloroethane	12 U	11 U	11 U	13 U
Carbon tetrachloride	12 U	11 U	11 U	13 U
Bromodichloromethane	12 U	11 U	11 U	13 U
1,2-Dichloropropane	12 U	11 U	11 U	13 U
cis-1,3-Dichloropropene	12 U	11 U	11 U	13 U
Trichloroethene	12 U	11 U	11 U	11 J
Dibromochloromethane	12 U	11 U	11 U	13 U
1,1,2-Trichloroethane	12 U	11 U	11 U	13 U
Benzene	12 U	11 U	11 U	65
trans-1,3-Dichloropropene	12 U	11 U	11 U	13 U
Bromoform	12 U	11 U	11 U	13 U
4-Methyl-2-pentanone	12 U	11 U	11 U	13 U
2-Hexanone	12 U	11 U	11 U	13 U
Tetrachloroethene	12 U	11 U	11 U	13 U
1,1,2,2-Tetrachloroethane	12 U	11 U	11 U	13 U
Toluene	12 U	11 U	11 U	13 U
Chlorobenzene	12 U	11 U	11 U	13 U
Ethylbenzene	12 U	11 U	11 U	13 U
Styrene	12 U	11 U	11 U	13 U
Xylene (total)	12 U	11 U	11 U	13 U

TABL_ A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-661*	*SC-662*	*SC-663*	*SC-664*	*SC-665*
Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-16*	*BH-14*	*BH-15*	*OW-8*	*BH-18*
Depth (feet):	2-4	0-0.5	0-2	0-2	12-14	0-2	12-14	2-4	2-4	0-2
Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Semi-Volatiles (μg/kg)										
Phenol	400 U	430 U	390 U	630	380 U	8300	380 U	750 J	95000	8000 U
bis-(2-Chloroethyl) ether	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2-Chlorophenol	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
1,3-Dichlorobenzene	400 U	430 U	390 U	410 U	380 U	2000 U	220 J	360 U	440 U	8000 U
1,4-Dichlorobenzene	400 U	430 U	390 U	410 U	380 U	2000 U	280 J	360 U	440 U	6600 J
1,2-Dichlorobenzene	400 U	430 U	390 U	410 U	380 U	2000 U	200 J	360 U	440 U	34000
2-Methylphenol	400 U	430 U	390 U	140 J	380 U	1400 J	380 U	360 U	7900 J	8000 U
2,2'-oxybis (1-Chloropropane)	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
3&4-Methylphenol	400 U	430 U	390 U	280 J	380 U	6800	380 U	360 U	54000	8000 U
N-Nitroso-di-n-propylamine	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Hexachloroethane	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Nitrobenzene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Isophorone	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2-Nitrophenol	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2,4-Dimethylphenol	400 U	430 U	390 U	290 J	380 U	8200	380 U	360 U	34000 J	8000 U
bis (2-Chloroethoxy) methane	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2,4-Dichlorophenol	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
1,2,4-Trichlorobenzene	400 U	430 U	390 U	410 U	30000 J	2000 U	130000 J	260 J	440 U	8000 U
Naphthalene	400 U	430 U	390 U	46 J	380 U	2000 U	380 U	360 U	440 U	2100 J
4-Chloroaniline	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Hexachlorobutadiene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
4-Chloro-3-methylphenol	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2-Methylnaphthalene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	370 J	8100
Hexachlorocyclopentadiene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2,4,6-Trichlorophenol	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2,4,5-Trichlorophenol	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
2-Chloronaphthalene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2-Nitroaniline	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
Dimethylphthalate	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Acenaphthylene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
2,6-Dinitrotoluene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
3-Nitroaniline	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
Acenaphthene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	48 J	8000 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE 1 - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
Semi-Volatiles (µg/kg)										
Phenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	8000	790000	2000000	2000000 J
bis-(2-Chloroethyl) ether	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Chlorophenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	R	2000 U	7200 UJ
1,3-Dichlorobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
1,4-Dichlorobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
1,2-Dichlorobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Methylphenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	2600	120000 J	1200000	78000 J
2,2'-oxybis (1-Chloropropane)	410 UJ	420 U	370 U	410 U	370 U	8700 U	R	2000 U	2000 U	7200 UJ
3&4-Methylphenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	8800	200000 U	7700	150000 J
N-Nitroso-di-n-propylamine	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Hexachloroethane	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Nitrobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Isophorone	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Nitrophenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	R	2000 U	7200 UJ
2,4-Dimethylphenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	6300	12000 J	470 J	57000 J
bis (2-Chloroethoxy) methane	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2,4-Dichlorophenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	R	2000 U	7200 UJ
1,2,4-Trichlorobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Naphthalene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
4-Chloroaniline	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Hexachlorobutadiene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
4-Chloro-3-methylphenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	R	2000 U	7200 UJ
2-Methylnaphthalene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Hexachlorocyclopentadiene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 UJ	2000 UJ	2000 UJ	7200 UJ
2,4,6-Trichlorophenol	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	R	2000 U	7200 UJ
2,4,5-Trichlorophenol	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	R	5000 U	18000 UJ
2-Chloronaphthalene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2-Nitroaniline	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	5000 U	5000 U	18000 UJ
Dimethylphthalate	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Acenaphthylene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
2,6-Dinitrotoluene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
3-Nitroaniline	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	5000 U	5000 U	18000 UJ
Acenaphthene	410 UJ	420 U	370 U	410 U	370 U	8700 U	69 J	2000 U	2000 U	7200 UJ

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-677*	*SC-678*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:	*TP-R4*	*TP-R3*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)										
Phenol	38000	61000 J	2200	820	57000 J	33000 J	1400	390000 J	460	270 J
bis-(2-Chloroethyl) ether	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Chlorophenol	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,3-Dichlorobenzene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,4-Dichlorobenzene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,2-Dichlorobenzene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Methylphenol	6800	4500 J	600	190 J	7900 J	4900	310 J	51000 J	170 J	94 J
2,2'-oxybis (1-Chloropropane)	R	R	R	R	R	R	R	R	R	R
3&4-Methylphenol	8100 U	14000 UJ	1600	430 U	21000 U	12000	1100	430000 J	730	370 U
N-Nitroso-di-n-propylamine	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Hexachloroethane	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Nitrobenzene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Isophorone	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Nitrophenol	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2,4-Dimethylphenol	3500	4500 J	2500	150 J	17000 J	9800	450	63000 J	150 J	77 J
bis (2-Chloroethoxy) methane	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2,4-Dichlorophenol	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
1,2,4-Trichlorobenzene	520 U	710 UJ	420 U	430 U	90 J	440 U	370 U	810 UJ	370 U	370 U
Naphthalene	520 U	710 UJ	140 J	430 U	680	490	370 U	810 UJ	370 U	370 U
4-Chloroaniline	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Hexachlorobutadiene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
4-Chloro-3-methylphenol	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Methylnaphthalene	520 U	710 UJ	110 J	430 U	270 J	140 J	370 U	810 UJ	370 U	370 U
Hexachlorocyclopentadiene	520 UJ	710 UJ	420 UJ	430 UJ	420 UJ	440 UJ	370 UJ	810 UJ	370 UJ	370 UJ
2,4,6-Trichlorophenol	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2,4,5-Trichlorophenol	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
2-Chloronaphthalene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2-Nitroaniline	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
Dimethylphthalate	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Acenaphthylene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
2,6-Dinitrotoluene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
3-Nitroaniline	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
Acenaphthene	520 U	710 UJ	420 U	430 U	180 J	130 J	370 U	810 UJ	370 U	370 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)										
Phenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
bis-(2-Chloroethyl) ether	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Chlorophenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,3-Dichlorobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,4-Dichlorobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,2-Dichlorobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Methylphenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	110 J
2,2'-oxybis (1-Chloropropane)	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
3&4-Methylphenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	140 J	380 U	110 J
N-Nitroso-di-n-propylamine	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Hexachloroethane	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Nitrobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Isophorone	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Nitrophenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,4-Dimethylphenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	79 J	380 U	420 U
bis (2-Chloroethoxy) methane	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,4-Dichlorophenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
1,2,4-Trichlorobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Naphthalene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
4-Chloroaniline	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Hexachlorobutadiene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
4-Chloro-3-methylphenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Methylnaphthalene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Hexachlorocyclopentadiene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,4,6-Trichlorophenol	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,4,5-Trichlorophenol	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
2-Chloronaphthalene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2-Nitroaniline	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
Dimethylphthalate	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Acenaphthylene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,6-Dinitrotoluene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
3-Nitroaniline	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
Acenaphthene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	***SC-699***	***SC-708***	***SC-709***	***SC-712***
Location:	***BW-2***	***BW-2***	***BW-2***	***BH-F7***
Depth (feet):	***0-2,6-8,10-12***	***16-18***	***16-18***	***0-4***
Matrix:	***Soil***	***Soil***	***Soil***	***Soil***
Semi-Volatiles (µg/kg)				
Phenol	370 U	380 U	380 U	250 J
bis-(2-Chloroethyl) ether	370 U	380 U	380 U	420 U
2-Chlorophenol	370 U	380 U	380 U	420 U
1,3-Dichlorobenzene	370 U	380 U	380 U	420 U
1,4-Dichlorobenzene	370 U	380 U	380 U	420 U
1,2-Dichlorobenzene	370 U	380 U	380 U	420 U
2-Methylphenol	370 U	380 U	380 U	70 J
2,2'-oxybis (1-Chloropropane)	370 U	380 U	380 U	420 U
3&4-Methylphenol	150 J	380 U	380 U	250 J
N-Nitroso-di-n-propylamine	370 U	380 U	380 U	420 U
Hexachloroethane	370 U	380 U	380 U	420 U
Nitrobenzene	370 U	380 U	380 U	420 U
Isophorone	370 U	380 U	380 U	420 U
2-Nitrophenol	370 U	380 U	380 U	420 U
2,4-Dimethylphenol	110 J	380 U	380 U	250 J
bis (2-Chloroethoxy) methane	370 U	380 U	380 U	420 U
2,4-Dichlorophenol	370 U	380 U	380 U	420 U
1,2,4-Trichlorobenzene	370 U	380 U	380 U	420 U
Naphthalene	1000	380 U	380 U	420 U
4-Chloroaniline	370 U	380 U	380 U	420 U
Hexachlorobutadiene	370 U	380 U	380 U	420 U
4-Chloro-3-methylphenol	370 U	380 U	380 U	420 U
2-Methylnaphthalene	580	380 U	380 U	420 U
Hexachlorocyclopentadiene	370 U	380 U	380 U	420 U
2,4,6-Trichlorophenol	370 U	380 U	380 U	420 U
2,4,5-Trichlorophenol	940 U	950 U	950 U	1100 U
2-Chloronaphthalene	370 U	380 U	380 U	420 U
2-Nitroaniline	940 U	950 U	950 U	1100 U
Dimethylphthalate	370 U	380 U	380 U	420 U
Acenaphthylene	120 J	380 U	380 U	420 U
2,6-Dinitrotoluene	370 U	380 U	380 U	420 U
3-Nitroaniline	940 U	950 U	950 U	1100 U
Acenaphthene	1400	380 U	380 U	420 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-661*	*SC-662*	*SC-663*	*SC-664*	*SC-665*
Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-16*	*BH-14*	*BH-15*	*OW-8*	*BH-18*
Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*0-2*	*12-14*	*2-4*	*2-4*	*0-2*
Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)										
2,4-Dinitrophenol	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
4-Nitrophenol	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
Dibenzofuran	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	120 J	8000 U
2,4-Dinitrotoluene	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Diethylphthalate	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	170 J	8000 U
4-Chlorophenyl-phenylether	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Fluorene	400 U	430 U	390 U	33 J	380 U	2000 U	380 U	360 U	440 U	8000 U
4-Nitroaniline	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
4,6-Dinitro-2-methylphenol	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
n-Nitrosodiphenylamine	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
4-Bromophenyl-phenylether	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Hexachlorobenzene	400 U	430 U	390 U	410 U	260 J	2000 U	580	360 U	440 U	8000 U
Pentachlorophenol	990 U	1100 U	970 U	1000 U	950 U	4900 U	950 U	910 U	1100 U	20000 U
Phenanthrene	400 U	430 U	300 J	290 J	69 J	540 J	120 J	320 J	390 J	2200 J
Anthracene	400 U	430 U	61 J	73 J	380 U	130 J	26 J	30 J	58 J	8000 U
Carbazole	400 U	430 U	42 J	35 J	380 U	2000 U	380 U	360 U	49 J	8000 U
Di-n-butylphthalate	400 U	430 U	650	810	380 U	500000 U	660 U	700 U	440 U	8000 U
Fluoranthene	400 U	34 J	510	390 J	92 J	2000 U	160 J	56 J	280 J	8000 U
Pyrene	400 U	44 J	490	340 J	58 J	400 J	380 U	52 J	220 J	470 J
Butylbenzylphthalate	400 U	430 U	58 J	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
3,3'-Dichlorobenzidine	400 U	430 U	390 U	410 U	380 U	2000 U	380 U	360 U	440 U	8000 U
Benzo [a] anthracene	400 U	430 U	260 J	190 J	380 U	270 J	380 U	21 J	78 J	8000 U
Chrysene	400 U	430 U	320 J	180 J	33 J	260 J	69 J	32 J	83 J	8000 U
bis (2-Ethylhexyl) phthalate	400 U	430 U	110 J	54 J	380 U	9200	110 J	240 J	160 J	1300 J
Di-n-octylphthalate	400 U	430 U	390 U	410 U	20 J	1200 J	380 U	52 J	440 U	8000 U
Benzo [b] fluoranthene	400 U	430 U	390 U	130 J	32 J	2000 U	55 J	360 U	57 J	8000 U
Benzo [k] fluoranthene	400 U	430 U	240 J	150 J	26 J	2000 U	51 J	360 U	54 J	8000 U
Benzo [a] pyrene	400 U	430 U	220 J	160 J	32 J	240 J	53 J	360 U	38 J	8000 U
Indeno [1,2,3-cd] pyrene	400 U	430 U	120 J	97 J	380 U	160 J	30 J	360 U	440 U	8000 U
Dibenz [a,h] anthracene	400 U	430 U	43 J	21 J	380 U	2000 U	380 U	360 U	440 U	8000 U
Benzo [g,h,i] perylene	400 U	430 U	390 U	63 J	380 U	2000 U	23 J	360 U	440 U	8000 U
Aniline	200 U	210 U	190 U	210 U	190 U	50000 J	120 J	240	220 U	4000 U

TABL[illegible]A
ANALYTICAL RESULTS SUMMARY PHASE 1 - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-666*	*SC-667*	*SC-668*	*SC-669*	*SC-670*	*SC-671*	*SC-672*	*SC-674*	*SC-675*	*SC-676*
Location:	*BH-19*	*OW-6*	*BH-23*	*OW-11*	*BH-20*	*BH-21*	*TP-R1&TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*
Depth (feet):	*2-4*	*4-6*	*10-12*	*8-10*	*0-2*	*1-2*	*0-7.5*	-	-	-
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*
Semi-Volatiles (µg/kg)										
2,4-Dinitrophenol	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	R	5000 U	18000 UJ
4-Nitrophenol	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 UJ	R	5000 U	18000 UJ
Dibenzofuran	410 UJ	420 U	370 U	410 U	370 U	8700 U	40 J	2000 U	2000 U	2500 J
2,4-Dinitrotoluene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Diethylphthalate	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
4-Chlorophenyl-phenylether	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Fluorene	410 UJ	81 J	370 U	410 U	370 U	8700 U	61 J	2000 U	2000 U	4600 J
4-Nitroaniline	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	5000 U	5000 U	18000 UJ
4,6-Dinitro-2-methylphenol	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	R	5000 U	18000 UJ
n-Nitrosodiphenylamine	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
4-Bromophenyl-phenylether	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Hexachlorobenzene	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Pentachlorophenol	1000 UJ	1100 U	940 U	1000 U	930 U	22000 U	1000 U	R	5000 U	18000 UJ
Phenanthrene	410 UJ	420 U	370 U	410 U	46 J	8700 U	830	2000 U	2000 U	39000 J
Anthracene	410 UJ	420 U	370 U	410 U	370 U	8700 U	79 J	2000 U	2000 U	7200 UJ
Carbazole	410 UJ	420 U	370 U	410 U	370 U	8700 U	100 J	2000 U	2000 U	7200 UJ
Di-n-butylphthalate	290 J	420 U	370 U	410 U	1000	8700 U	11000	200000 U	2000 U	5600000 J
Fluoranthene	410 UJ	420 U	370 U	410 U	66 J	8700 U	970	2000 U	2000 U	7200 UJ
Pyrene	410 UJ	420 U	370 U	410 U	53 J	8700 U	690	2000 U	2000 U	36000 J
Butylbenzylphthalate	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
3,3'-Dichlorobenzidine	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	7200 UJ
Benzo [a] anthracene	410 UJ	420 U	370 U	410 U	32 J	8700 U	360 J	2000 U	2000 U	15000 J
Chrysene	410 UJ	420 U	370 U	410 U	36 J	8700 U	520	2000 U	2000 U	7200 UJ
bis (2-Ethylhexyl) phthalate	410 UJ	75 J	30 J	22 J	320 J	660 J	2900	3000	3700	6600000 J
Di-n-octylphthalate	410 UJ	420 U	370 U	410 U	370 U	8700 U	410 U	2000 U	2000 U	2800 J
Benzo [b] fluoranthene	410 UJ	420 U	370 U	410 U	28 J	8700 U	360 J	2000 U	2000 U	6700 J
Benzo [k] fluoranthene	410 UJ	420 U	370 U	410 U	28 J	8700 U	390 J	2000 U	2000 U	6400 J
Benzo [a] pyrene	410 UJ	420 U	370 U	410 U	25 J	8700 U	300 J	2000 U	2000 U	6000 J
Indeno [1,2,3-cd] pyrene	410 UJ	420 U	370 U	410 U	370 U	8700 U	210 J	2000 U	2000 U	2800 J
Dibenz [a,h] anthracene	410 UJ	420 U	370 U	410 U	370 U	8700 U	98 J	2000 U	2000 U	1100 J
Benzo [g,h,i] perylene	410 UJ	420 U	370 U	410 U	370 U	8700 U	160 J	2000 U	2000 U	1800 J
Aniline	210 UJ	210 U	190 U	200 U	190 U	4300 U	3200 J	3100000	2000 U	7200 UJ

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-677*	*SC-678*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:	*TP-R4*	*TP-R3*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)										
2,4-Dinitrophenol	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
4-Nitrophenol	1300 UJ	1800 UJ	1000 UJ	1100 UJ	1100 UJ	1100 UJ	920 UJ	2000 UJ	930 UJ	940 UJ
Dibenzofuran	520 U	710 UJ	420 U	430 U	59 J	51 J	370 U	810 UJ	370 U	370 U
2,4-Dinitrotoluene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Diethylphthalate	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
4-Chlorophenyl-phenylether	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Fluorene	520 U	710 UJ	420 U	430 U	150 J	110 J	370 U	810 UJ	370 U	370 U
4-Nitroaniline	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
4,6-Dinitro-2-methylphenol	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
n-Nitrosodiphenylamine	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
4-Bromophenyl-phenylether	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Hexachlorobenzene	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Pentachlorophenol	1300 U	1800 UJ	1000 U	1100 U	1100 U	1100 U	920 U	2000 UJ	930 U	940 U
Phenanthrene	520 U	210 J	72 J	430 U	820	540	370 U	810 UJ	370 U	370 U
Anthracene	520 U	38 J	420 U	430 U	200 J	110 J	370 U	810 UJ	370 U	370 U
Carbazole	520 U	710 UJ	420 U	430 U	64 J	65 J	370 U	810 UJ	370 U	370 U
Di-n-butylphthalate	40000	48000 J	29000	2000	18000 J	9400	26000	440000 J	690	370 U
Fluoranthene	520 U	170 J	54 J	430 U	1200 J	670 J	29 J	810 UJ	370 U	370 U
Pyrene	520 U	160 J	45 J	430 U	930 J	490 J	23 J	810 UJ	370 U	370 U
Butylbenzylphthalate	520 U	710 UJ	200 J	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
3,3'-Dichlorobenzidine	520 U	710 UJ	420 U	430 U	420 U	440 U	370 U	810 UJ	370 U	370 U
Benzo [a] anthracene	520 U	61 J	420 U	430 U	450	210 J	370 U	810 UJ	370 U	370 U
Chrysene	520 U	75 J	420 U	430 U	780	350 J	370 U	810 UJ	370 U	370 U
bis (2-Ethylhexyl) phthalate	660 U	43000 J	2200	2200	1300	2100	11000	290000 J	810	370 U
Di-n-octylphthalate	520 U	75 J	420 U	29 J	420 U	440 U	110 J	810 UJ	23 J	370 U
Benzo [b] fluoranthene	520 U	710 UJ	420 U	430 U	590	250 J	370 U	810 UJ	370 U	370 U
Benzo [k] fluoranthene	520 U	710 UJ	420 U	430 U	490	200 J	370 U	810 UJ	370 U	370 U
Benzo [a] pyrene	520 U	61 J	420 U	430 U	270 J	140 J	370 U	810 UJ	370 U	370 U
Indeno [1,2,3-cd] pyrene	520 U	710 UJ	420 U	430 U	250 J	110 J	370 U	810 UJ	370 U	370 U
Dibenz [a,h] anthracene	520 U	710 UJ	420 U	430 U	91 J	49 J	370 U	810 UJ	370 U	370 U
Benzo [g,h,i] perylene	520 U	72 J	420 U	430 U	160 J	73 J	370 U	810 UJ	370 U	370 U
Aniline	39000 J	21000 J	1500 J	430 U	520 UJ	2800 J	370 UJ	810 UJ	370 U	740 UJ

TABL. .A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)										
2,4-Dinitrophenol	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
4-Nitrophenol	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
Dibenzofuran	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
2,4-Dinitrotoluene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Diethylphthalate	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
4-Chlorophenyl-phenylether	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Fluorene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
4-Nitroaniline	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
4,6-Dinitro-2-methylphenol	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
n-Nitrosodiphenylamine	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
4-Bromophenyl-phenylether	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Hexachlorobenzene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Pentachlorophenol	940 UJ	940 U	970 U	940 U	940 U	940 U	940 U	920 U	950 U	1000 U
Phenanthrene	370 UJ	370 U	92 J	370 U	370 U	370 U	370 U	110 J	380 U	420 U
Anthracene	370 UJ	370 U	25 J	370 U	370 U	370 U	370 U	28 J	380 U	420 U
Carbazole	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Di-n-butylphthalate	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	200 J	22 J	85 J
Fluoranthene	370 UJ	370 U	130 J	370 U	370 U	370 U	370 U	120 J	380 U	420 U
Pyrene	370 UJ	370 U	110 J	370 U	370 U	370 U	370 U	89 J	380 U	420 U
Butylbenzylphthalate	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
3,3'-Dichlorobenzidine	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [a] anthracene	370 UJ	370 U	73 J	370 U	370 U	370 U	370 U	52 J	380 U	420 U
Chrysene	370 UJ	370 U	78 J	370 U	370 U	370 U	370 U	44 J	380 U	420 U
bis (2-Ethylhexyl) phthalate	150 J	140 J	90 J	27 J	43 J	26 J	48 J	21 J	380 U	32 J
Di-n-octylphthalate	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [b] fluoranthene	370 UJ	370 U	69 J	370 U	370 U	370 U	370 U	50 J	380 U	420 U
Benzo [k] fluoranthene	370 UJ	370 U	80 J	370 U	370 U	370 U	370 U	38 J	380 U	420 U
Benzo [a] pyrene	370 UJ	370 U	62 J	370 U	370 U	370 U	370 U	41 J	380 U	420 U
Indeno [1,2,3-cd] pyrene	370 UJ	370 U	49 J	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Dibenz [a,h] anthracene	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Benzo [g,h,i] perylene	370 UJ	370 U	60 J	370 U	370 U	370 U	370 U	370 U	380 U	420 U
Aniline	370 UJ	370 U	390 U	370 U	370 U	370 U	370 U	180 U	190 U	210 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
Location:	*BW-2*	*BW-2*	*BW-2*	*BH-F7*
Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
Semi-Volatiles (µg/kg)				
2,4-Dinitrophenol	940 U	950 U	950 U	1100 U
4-Nitrophenol	940 U	950 U	950 U	1100 U
Dibenzofuran	920	380 U	380 U	420 U
2,4-Dinitrotoluene	370 U	380 U	380 U	420 U
Diethylphthalate	370 U	380 U	380 U	420 U
4-Chlorophenyl-phenylether	370 U	380 U	380 U	420 U
Fluorene	1500	380 U	380 U	420 U
4-Nitroaniline	940 U	950 U	950 U	1100 U
4,6-Dinitro-2-methylphenol	940 U	950 U	950 U	1100 U
n-Nitrosodiphenylamine	370 U	380 U	380 U	420 U
4-Bromophenyl-phenylether	370 U	380 U	380 U	420 U
Hexachlorobenzene	370 U	380 U	380 U	420 U
Pentachlorophenol	940 U	950 U	950 U	1100 U
Phenanthrene	8100	33 J	380 U	420 U
Anthracene	2200	380 U	380 U	420 U
Carbazole	2300	380 U	380 U	420 U
Di-n-butylphthalate	560	380 U	100 J	280 J
Fluoranthene	7800	31 J	380 U	420 U
Pyrene	6200 J	37 J	380 U	420 U
Butylbenzylphthalate	370 U	380 U	380 U	420 U
3,3'-Dichlorobenzidine	370 U	380 U	380 U	420 U
Benzo [a] anthracene	3900	380 U	380 U	420 U
Chrysene	2800	380 U	380 U	420 U
bis (2-Ethylhexyl) phthalate	370 U	27 J	34 J	420 U
Di-n-octylphthalate	370 U	380 U	380 U	420 U
Benzo [b] fluoranthene	3900	380 U	380 U	420 U
Benzo [k] fluoranthene	1400	380 U	380 U	420 U
Benzo [a] pyrene	2500	380 U	380 U	420 U
Indeno [1,2,3-cd] pyrene	1500	380 U	380 U	420 U
Dibenz [a,h] anthracene	980	380 U	380 U	420 U
Benzo [g,h,i] perylene	910	380 U	380 U	420 U
Aniline	180 U	190 U	190 U	210 U

TABLE [illegible]A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC
TONAWANDA, NEW YORK
APRIL-JUNE 1995

	Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-661*	*SC-662*	*SC-663*	*SC-664*	*SC-665*
	Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-16*	*BH-14*	*BH-15*	*OW-8*	*BH-18*
	Depth (feet):	*2-4*	*0-0.5*	*0-2*	*0-2*	*12-14*	*0-2*	*12-14*	*2-4*	*2-4*	*0-2*
	Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Alcohols (µg/kg)											
Methanol		12000 U	13000 U	13000 U	12000 U	11000 U	12000 UJ	11000 U	11000 U	13000 U	12000 U
Ethanol		12000 U	13000 U	13000 U	12000 U	11000 U	12000 UJ	11000 U	11000 U	13000 U	12000 U
PCBs (µg/kg)											
Aroclor 1016		39 UJ	42 UJ	38 U	41 U	37000 UJ	3900 UJ	37000 UJ	72 UJ	44 UJ	40 U
Aroclor 1221		80 UJ	86 UJ	78 U	83 U	76000 UJ	7900 UJ	76000 UJ	150 UJ	89 UJ	81 U
Aroclor 1232		39 UJ	42 UJ	38 U	41 U	37000 UJ	3900 UJ	37000 UJ	72 UJ	44 UJ	40 U
Aroclor 1242		39 UJ	42 UJ	38 U	41 U	37000 UJ	3900 UJ	37000 UJ	72 UJ	44 UJ	40 U
Aroclor 1248		39 UJ	42 UJ	38 U	41 U	37000 UJ	3900 UJ	37000 UJ	72 UJ	44 UJ	5700 J
Aroclor 1254		39 UJ	42 UJ	38 U	41 U	37000 UJ	3900 UJ	37000 UJ	72 UJ	44 UJ	40 U
Aroclor 1260		39 UJ	42 UJ	38 U	41 U	300000 J	3300 J	91000 J	1400 J	44 UJ	4300 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	SC-666	SC-667	SC-668	SC-669	SC-670	SC-671	SC-672	SC-674	SC-675	SC-676
Location:	BH-19	OW-6	BH-23	OW-11	BH-20	BH-21	TP-R1&TP-R2	TP-R2	TP-R1	TP-R3
Depth (feet):	2-4	4-6	10-12	8-10	0-2	1-2	0-7.5	-	-	-
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Drummed Waste	Drummed Waste	Drummed Waste
Alcohols (µg/kg)										
Methanol	13000 U	13000 U	11000 U	12000 U	12000 U	13000 U	12000 U	140000	160000	3100000 J
Ethanol	13000 U	13000 U	11000 U	12000 U	12000 U	13000 U	12000 U	83000	1300000	550000 J
PCBs (µg/kg)										
Aroclor 1016	41 UJ	42 UJ	38 U	40 U	370 UJ	210 UJ	80 UJ	40 U	40 U	72 UJ
Aroclor 1221	83 UJ	85 UJ	77 U	82 U	740 UJ	440 UJ	160 UJ	81 U	81 U	150 UJ
Aroclor 1232	41 UJ	42 UJ	38 U	40 U	370 UJ	210 UJ	80 UJ	40 U	40 U	72 UJ
Aroclor 1242	41 UJ	42 UJ	38 U	40 U	370 UJ	210 UJ	80 UJ	40 U	40 U	72 UJ
Aroclor 1248	41 UJ	42 UJ	38 U	40 U	370 UJ	12000 J	2000 J	40 U	720 J	72 UJ
Aroclor 1254	41 UJ	42 UJ	38 U	76	2800 J	210 UJ	80 UJ	40 U	40 U	72 UJ
Aroclor 1260	110 J	23 J	38 U	40 U	370 UJ	210 UJ	80 UJ	40 U	40 U	72 UJ

TABL A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-677*	*SC-678*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:	*TP-R4*	*TP-R3*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
Alcohols (µg/kg)										
Methanol	130000	3E+06 J	12000 U	12000 U	13000 U	13000 U	11000 UJ	24000 UJ	11000 U	11000 U
Ethanol	44000	600000 J	12000 U	12000 U	13000 U	13000 U	11000 UJ	24000 UJ	11000 U	11000 U
PCBs (µg/kg)										
Aroclor 1016	260 UJ	70 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ
Aroclor 1221	520 UJ	140 UJ	84 UJ	87 UJ	170 UJ	180 UJ	7400 U	160 UJ	75 U	75 UJ
Aroclor 1232	260 UJ	70 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ
Aroclor 1242	260 UJ	70 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ
Aroclor 1248	260 UJ	70 UJ	650 J	43 UJ	5400 J	4400 J	41000	80 UJ	37 U	37 UJ
Aroclor 1254	260 UJ	70 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ
Aroclor 1260	260 UJ	70 UJ	41 UJ	43 UJ	84 UJ	87 UJ	3600 U	80 UJ	37 U	37 UJ

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Alcohols (μg/kg)										
Methanol	11000 U	11000 U	11000 U	11000 U	11000 U	12000 U	11000 U	11000 U	11000 U	13000 U
Ethanol	11000 U	11000 U	11000 U	11000 U	11000 U	12000 U	11000 U	11000 U	11000 U	13000 U
PCBs (μg/kg)										
Aroclor 1016	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1221	75 UJ	75 UJ	78 UJ	75 UJ	75 UJ	76 UJ	75 UJ	74 UJ	76 UJ	84 UJ
Aroclor 1232	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1242	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1248	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1254	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ
Aroclor 1260	37 UJ	37 UJ	38 UJ	37 UJ	37 UJ	37 UJ	37 UJ	36 UJ	37 UJ	41 UJ

TABLE 5A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

	Sample ID:	***SC-699***	***SC-708***	***SC-709***	***SC-712***
	Location:	***BW-2***	***BW-2***	***BW-2***	***BH-F7***
	Depth (feet):	***0-2,6-8,10-12***	***16-18***	***16-18***	***0-4***
	Matrix:	***Soil***	***Soil***	***Soil***	***Soil***
Alcohols (µg/kg)					
Methanol		13000 U	11000 U	11000 U	12000 U
Ethanol		13000 U	11000 U	11000 U	12000 U
PCBs (µg/kg)					
Aroclor 1016		37 UJ	37 UJ	37 UJ	42 UJ
Aroclor 1221		75 UJ	76 UJ	76 UJ	85 UJ
Aroclor 1232		37 UJ	37 UJ	37 UJ	42 UJ
Aroclor 1242		37 UJ	37 UJ	37 UJ	42 UJ
Aroclor 1248		37 UJ	37 UJ	37 UJ	5100 J
Aroclor 1254		37 UJ	37 UJ	37 UJ	42 UJ
Aroclor 1260		37 UJ	37 UJ	37 UJ	42 UJ

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-656*	*SC-657*	*SC-658*	*SC-659*	*SC-660*	*SC-661*	*SC-662*	*SC-663*	*SC-664*	*SC-665*
Location:	*BW-12*	*10' West of BW-12*	*BW-9*	*BW-10*	*BH-14*	*BH-16*	*BH-14*	*BH-15*	*OW-8*	*BH-18*
Depth (feet):	2-4	0-0.5	0-2	0-2	12-14	0-2	12-14	2-4	2-4	0-2
Matrix:	*Background Soil*	*Background Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Metals (mg/kg)										
Aluminum	12500	16200	9670	13300	7770	2170	7730	1030	19800	8510
Antimony	0.46 UJ	1.0 J	0.45 UJ	1.4 J	0.43 UJ	142 J	0.43 UJ	0.40 UJ	0.50 UJ	0.45 UJ
Arsenic	2.8 J	4.9 J	13.2 J	5.1 J	4.2 J	17.9 J	3.5 J	2.3 J	7.1 J	5.0 J
Barium	110	131	108	71.1	41.3	66.7	32.5	16.9	156	96.1
Beryllium	0.61	0.89	1.6	0.68 U	0.38 U	0.37 U	0.35 U	0.21 U	1.3 U	1.4
Cadmium	0.93 U	0.98 U	0.91 U	0.92 U	0.87 U	0.89 U	0.86 U	0.84 U	1.0 U	0.93 U
Calcium	73800	2810 U	28600	13300	63800	48900	73700	177000	7300	106000
Chromium	17.8	21.1	10.1	16.0	11.8	7.4	11.5	11.1	26.9	9.2
Cobalt	10.8	10.8	11.7	7.6	7.4	5.0	5.5	1.4	14.7	1.4
Copper	20.4	20.4	42.3	22.5	20.1	45.0	16.5	49.5	34.8	22.1
Iron	21800	26100	18100	20100	15700	29800	14000	7090	35500	11500
Lead	9.9	30.7	64.4	21.9	14.9	18.0	10.8	14.9	19.8	47.8
Magnesium	16800	4730	5420	5790	20600	1610	28900	16100	8360	25200
Manganese	558	657	1090	253	507	67.4 U	476	135	284	749
Mercury	0.12 U	0.13 U	0.67 J	0.19 J	0.12 U	0.53 J	0.12 U	0.11 U	0.14 U	0.13 U
Nickel	24.1	24.8	17.9	18.8	14.2	11.1	14.7	6.5	42.0	6.2
Potassium	2060	1620	1100	1190	1730	236	1660	401	1900	408
Selenium	0.46 UJ	0.50 UJ	0.72 J	0.47 UJ	0.43 UJ	0.45 J	0.43 UJ	0.40 UJ	0.50 UJ	2.3 J
Silver	0.47 U	0.49 U	0.45 U	0.46 U	0.43 U	0.60	0.43 U	0.42 U	0.50 U	0.47 U
Sodium	192 U	100 U	263 U	98.0 U	181 U	86.4 U	192 U	148 U	179 U	582 J
Thallium	0.23 U	0.25 U	0.75	0.23 U	0.22 U	0.22 U	0.22 U	0.20 U	0.25 U	0.23 U
Vanadium	25.6	33.8	17.2	26.2	17.6	10.6	15.9	3.8	37.8	3.9
Zinc	64.7 J	95.0 J	376 J	258 J	96.9 J	123 J	116 J	63.6 J	120 J	213 J
General Chemistry										
Phenols (mg/kg)	5.9 U	6.4 U	5.8 U	6.2 U	5.7 U	59	5.7 U	5.4 U	270	12
Formaldehyde (mg/kg)	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.3 U	1.2 U

TABL. A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	SC-666	SC-667	SC-668	SC-669	SC-670	SC-671	SC-672	SC-674	SC-675	SC-676
Location:	BH-19	OW-6	BH-23	OW-11	BH-20	BH-21	TP-R1&TP-R2	TP-R2	TP-R1	TP-R3
Depth (feet):	2-4	4-6	10-12	8-10	0-2	1-2	0-7.5	-	-	-
Matrix:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Drummed Waste	Drummed Waste	Drummed Waste
Metals (mg/kg)										
Aluminum	17600	15200	7740	14500	14100	5760	10700 J	1970 J	162 J	98.8 J
Antimony	0.47 UJ	0.50 UJ	0.42 UJ	0.48 UJ	0.44 UJ	0.51 UJ	0.24 U	0.25	0.24 U	0.43 UJ
Arsenic	4.2 J	3.3 J	2.1 J	4.1 J	4.5 J	94.9 J	2.9 J	1.6 J	0.48 UJ	4.3 UJ
Barium	125	137	80.5	127	61.0	140	93.8	23.5	4.0	1.8 UJ
Beryllium	0.97 U	0.75 U	0.38 U	0.77 U	0.75 U	0.46 U	0.50 U	0.24 U	0.24 U	0.43 UJ
Cadmium	0.96 U	0.99 U	0.84 U	0.96 U	0.85 U	0.98 U	0.98 U	0.96 U	0.97 U	1.7 UJ
Calcium	46700	68300	57700	47300	20600	970 U	63300 J	3660 J	360 U	638 UJ
Chromium	23.7	21.0	11.5	23.1	18.2	11.6	15.3	15.4	0.67	0.86 UJ
Cobalt	14.5	10.3	5.8	10.4	17.4	4.2	8.7	2.2	0.48 U	0.86 UJ
Copper	23.6	22.6	15.0	18.4	19.8	53.9	35.0	285	10.9	1.9 UJ
Iron	28100	24600	14500	24500	24700	45400	18900 J	4490 J	338 J	350 J
Lead	11.2	10.0	9.4	9.0	25.8	7.0	22.7 J	69.9	1.6	0.43 UJ
Magnesium	11800	20700	18500	14500	8990	2010	18100	1200	149	244 J
Manganese	855	592	483	477	608	55.3	681 J	104 J	6.6 U	6.4 UJ
Mercury	0.13 U	0.13 U	0.12 U	0.13 U	0.12 U	0.14 U	0.13 U	0.13 U	0.36	0.37 J
Nickel	34.8	25.8	14.1	26.6	18.0	10.7	19.7	5.2 U	1.9 U	3.5 UJ
Potassium	2510	3240	1690	2960	1250	1600	1400	240 U	181 U	324 UJ
Selenium	0.47 UJ	0.50 UJ	0.42 UJ	0.48 UJ	0.44 UJ	4.0 J	0.24 UJ	0.24 UJ	0.24 UJ	0.43 UJ
Silver	0.48 U	0.49 U	0.42 U	0.76	0.42 U	1.3	0.49 U	0.48 U	0.48 U	0.86 UJ
Sodium	172 U	278 U	173 U	1670 J	119 U	113 U	143 U	29.9 U	32.2 U	470 J
Thallium	0.23 U	0.25 U	0.21 U	0.24 U	0.22 U	1.3	0.24 U	0.24 U	0.24 U	0.43 UJ
Vanadium	32.8	30.4	16.6	30.2	27.6	20.0	19.3	4.2	0.72 U	1.3 UJ
Zinc	210 J	71.1 J	81.8 J	70.6 J	2180 J	386 J	262 J	117 J	39.7 J	9.5 UJ
General Chemistry										
Phenols (mg/kg)	6.2 U	6.3 U	5.6 U	6.1 U	5.5 U	8.1	22	58000	11000	120 J
Formaldehyde (mg/kg)	1.3 U	1.3 U	1.1 U	2.0	1.2 U	1.3 U	1.2 U	1.4 U	1.1 U	6600 J

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-677*	*SC-678*	*SC-679*	*SC-680*	*SC-681*	*SC-682*	*SC-683*	*SC-684*	*SC-686*	*SC-687*
Location:	*TP-R4*	*TP-R3*	*TP-R3&TP-R4*	*OW-7*	*BH-22*	*BH-22*	*TP-L1&TP-L2*	*TP-L1&TP-L2*	*OW-4*	*OW-4*
Depth (feet):	-	-	*0-4.5*	*4-6*	*12-14*	*12-14*	*0-5*	*0-2*	*4-6,8-10,12-14*	*16-18*
Matrix:	*Drummed Waste*	*Drummed Waste*	*Soil*	*Soil*	*Soil*	*Soil*		*Bagged Waste*	*Soil*	*Soil*
Metals (mg/kg)										
Aluminum	9480 J	197 J	14800 J	25200 J	11800 J	16000 J	12100 J	2650 J	10100 J	8780 J
Antimony	1.4 J	0.57 J	1.5 J	0.29 J	0.25 U	0.41 J	0.22 U	0.48 UJ	0.22 U	0.24 U
Arsenic	4.0 J	0.84 UJ	11.5 J	3.1 J	5.9 J	4.1 J	3.5 J	2.1 J	4.4 J	1.4 J
Barium	93.4	2.9 UJ	154	107	97.1	136	99.7	53.2 J	97.9	76.1
Beryllium	0.44 U	0.42 UJ	0.81 U	1.2 U	0.66 U	0.96 U	0.60 U	0.48 UJ	0.44 U	0.33 U
Cadmium	1.3 U	1.7 UJ	1.0 U	1.0 U	1.0 U	1.0 U	0.88 U	1.9 UJ	0.89 U	0.90 U
Calcium	65800 J	1140 UJ	83500 J	2800 J	53300 J	54700 J	53800 J	6850 J	65400 J	82400 J
Chromium	21.9	0.84 UJ	24.0	26.4	15.5	23.3	17.4	92.4 J	14.5	12.5
Cobalt	10.3	0.84 UJ	10.4	31.4	10.1	11.6	9.6	7.3 J	7.8	8.4
Copper	25.5	2.5 UJ	41.6	7.9	27.4	36.7	25.5	5.0 J	19.4	16.8
Iron	17200 J	630 J	24600 J	47400 J	21100 J	28700 J	21000 J	3280 J	18500 J	16300 J
Lead	14.8 J	0.94 J	27.9	26.3	22.2 J	50.6 J	39.4	4.2 J	14.8 J	9.7 J
Magnesium	22700	444 J	30700	6300	14700	15500	15800	21900 J	19600	20800
Manganese	599 J	12.3 UJ	631 J	2190 J	753 J	652 J	537 J	80.5 J	554 J	607 J
Mercury	0.17	0.22 UJ	0.13 U	0.21	0.13 U	0.14 U	0.11 U	0.25 UJ	0.12 U	0.12 U
Nickel	40.1	3.4 UJ	29.0	26.1	23.0	28.8	22.4	206 J	17.0	15.2
Potassium	1360 U	316 UJ	2440	2250	2060	2700	2280	362 UJ	2590	2320
Selenium	0.31 UJ	0.42 UJ	0.25 UJ	0.56 J	0.25 UJ	0.26 UJ	0.22 UJ	0.48 UJ	0.22 UJ	0.22 UJ
Silver	0.63 U	0.84 UJ	0.50 U	0.52 U	0.51 U	0.52 U	0.44 U	0.97 UJ	0.45 U	0.45 U
Sodium	204 U	693 J	246	132 U	321	428	178 U	255 UJ	199	195
Thallium	0.31 U	0.45 J	0.38	0.26 U	0.27 J	0.32 J	0.22 U	0.67 J	0.22 U	0.22 U
Vanadium	18.0	1.3 UJ	28.8	41.8	22.2	32.6	24.9	5.3 J	22.1	19.9
Zinc	119 J	11.6 UJ	387 J	79.8 J	254 J	345 J	1160 J	617 J	80.5 J	85.3 J
General Chemistry										
Phenols (mg/kg)	610	130 J	6.3 U	8.9	58 J	120 J	5.5 U	1570 J	5.6 U	5.6 U
Formaldehyde (mg/kg)	1.8 U	7200 J	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	2.4 UJ	1.1 U	1.1 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-688*	*SC-689*	*SC-690*	*SC-691*	*SC-692*	*SC-693*	*SC-694*	*SC-695*	*SC-696*	*SC-697*
Location:	*BH-24*	*BH-24*	*OW-3*	*OW-3*	*OW-3*	*OW-1*	*OW-1*	*BH-25*	*BH-25*	*Soil Pile UST Area*
Depth (feet):	*2-4,6-8,10-12*	*16-18*	*4-6,8-10,12-14*	*16-18*	*16-18*	*2-4,6-8,10-12*	*16-18*	*0-2,6-8,10-12*	*16-18*	*0-8*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*
Metals (mg/kg)										
Aluminum	10600 J	11600 J	7720 J	12400 J	7290 J	8600 J	10600 J	9590	6460	15200
Antimony	0.22 U	0.22 U	0.44 U	0.23 U	0.23 U	0.23 U	0.23 U	0.22 UJ	0.73 U	0.53
Arsenic	3.6 J	2.6 J	3.0 J	2.7 J	2.0 J	3.2 J	1.1 J	3.6 J	1.9 J	3.3 J
Barium	131	86.6	101	152 J	76.0 J	108	89.7	81.8	50.5	135
Beryllium	0.45 U	0.48 U	0.33 U	0.49 U	0.30 U	0.34 U	0.49 U	0.38	0.26	0.69
Cadmium	0.90 U	0.90 U	0.93 U	0.90 U	0.90 U	0.91 U	0.90 U	0.88 U	0.91 U	1.0 U
Calcium	67000 J	75500 J	69300 J	96700 J	64800 J	75100 J	67800 J	53700	51100	44200
Chromium	14.1	15.9	14.5	17.8	11.0	12.4	15.9	13.2	9.8	21.0
Cobalt	8.8	8.6	6.4	19.0 J	6.6 J	8.0	10.1	7.8	5.2	11.7
Copper	18.3	19.3	57.5	26.6 J	15.2 J	18.8	17.5	20.9	11.4	25.0
Iron	18900 J	20400 J	15800 J	24400 J	14600 J	16800 J	19200 J	16600	12000	24900
Lead	11.5 J	11.1 J	34.3	12.0 J	5.7 J	8.3	8.0	27.1	9.6	21.1
Magnesium	19000	21800	20800	27300	21700	21800	19400	15700	15200	13700
Manganese	589 J	638 J	549 J	1220 J	472 J	614 J	599 J	532	399	523
Mercury	0.12 U	0.12 U	0.30	0.12 U	0.12 U	0.12 U	0.12 U	0.11 UJ	0.12 UJ	0.13 UJ
Nickel	17.9	18.4	15.6	24.8 J	11.7 J	17.8	18.4	15.1	11.7	27.7
Potassium	2600	3070	1660	2980	1820	1600	2590	1840	1610	2880
Selenium	0.22 UJ	0.22 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.22 UJ	0.23 UJ	0.25 UJ
Silver	3.45 U	0.45 U	0.46 U	0.45 U	0.45 U	0.45 U	0.45 U	0.44 U	0.46 U	0.50 U
Sodium	197	214	175 U	238	149 U	152 U	190 U	154	150	501
Thallium	0.28 J	0.22 U	0.25	0.23 U	0.23 U	0.23 U	0.23 U	0.32 UJ	0.28 UJ	0.35 UJ
Vanadium	23.1	25.4	17.0	28.0 J	16.4 J	17.6	23.5	20.1	14.2	29.4
Zinc	75.1 J	88.9 J	544 J	134 J	91.5 J	80.1 J	84.7 J	101 J	49.8 J	86.1 J
General Chemistry										
Phenols (mg/kg)	5.6 U	5.6 U	5.8 U	5.6 U	5.6 U	5.6 U	5.6 U	5.5 U	5.7 U	6.3 U
Formaldehyde (mg/kg)	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U

TABLE 3A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-699*	*SC-708*	*SC-709*	*SC-712*
Location:	*BW-2*	*BW-2*	*BW-2*	*BH-F7*
Depth (feet):	*0-2,6-8,10-12*	*16-18*	*16-18*	*0-4*
Matrix:	*Soil*	*Soil*	*Soil*	*Soil*
Metals (mg/kg)				
Aluminum	13800	7100	5890	10900
Antimony	0.70	0.23 UJ	0.23 U	0.25 U
Arsenic	3.7 J	6.2 J	5.8 J	6.9 J
Barium	111	78.9	74.9	123
Beryllium	0.63	0.29	0.23 U	0.43
Cadmium	0.90 U	0.91 U	0.91 U	1.0 U
Calcium	13700	59700	73800	55700
Chromium	19.5	9.7	8.6	16.0
Cobalt	9.1	7.7	5.7	10.8
Copper	37.7	13.9	15.5	20.8 J
Iron	23100	14900	11400	21900
Lead	27.4	11.4	9.7	18.0 J
Magnesium	8640	18600	26600	16400
Manganese	585	518	513	920
Mercury	0.31 J	0.12 UJ	0.12 UJ	0.12 U
Nickel	20.5	13.7	11.7	21.6
Potassium	1520	1370	1210	2080
Selenium	0.23 UJ	0.23 UJ	0.23 UJ	0.56 J
Silver	0.45 U	0.45 U	0.46 U	0.52
Sodium	98.4	152	171	204
Thallium	0.23 UJ	0.23 UJ	0.23 UJ	0.25 U
Vanadium	28.1	13.6	12.5	21.5
Zinc	246 J	61.5 J	64.5 J	101 J
General Chemistry				
Phenols (mg/kg)	5.9 U	5.7 U	5.7 U	-
Formaldehyde (mg/kg)	1.2 U	1.1 U	1.1 U	1.2 U

TABLE -A
ANALYTICAL RESULTS SUMMARY PHASE I - SOIL/SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Notes:

U	Non-detect at associated value.
J	Associated value is estimated.
R	Data Rejected
Dup.	Duplicate
MW	Monitoring Well
BH	Borehole
TP	Test Pit

TABLE 3B
ANALYTICAL RESULTS SUMMARY PHASE I - GROUNDWATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-673*
Location:	*TP-R2*
Depth (feet):	*5.0*
Matrix:	*Groundwater*
Volatiles (µg/L)	
Chloromethane	10000 U
Bromomethane	10000 U
Vinyl chloride	10000 U
Chloroethane	10000 U
Methylene Chloride	58000 U
Acetone	45000 J
Carbon disulfide	10000 U
1,1-Dichloroethene	10000 U
1,1-Dichloroethane	10000 U
1,2-Dichloroethene (total)	10000 U
Chloroform	10000 U
1,2-Dichloroethane	10000 U
2-Butanone	10000 U
1,1,1-Trichloroethane	10000 U
Carbon tetrachloride	10000 U
Bromodichloromethane	10000 U
1,2-Dichloropropane	10000 U
cis-1,3-Dichloropropene	10000 U
Trichloroethene	14000 U
Dibromochloromethane	10000 U
1,1,2-Trichloroethane	10000 U
Benzene	10000 U
trans-1,3-Dichloropropene	10000 U
Bromoform	10000 U
4-Methyl-2-pentanone	10000 U
2-Hexanone	10000 UJ
Tetrachloroethene	10000 U
1,1,2,2-Tetrachloroethane	1000 J
Toluene	140000
Chlorobenzene	10000 U
Ethylbenzene	2500 J
Styrene	10000 U
Xylene (total)	10000 U

TABLE 3B
ANALYTICAL RESULTS SUMMARY PHASE I - GROUNDWATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-673*
Location:	*TP-R2*
Depth (feet):	*5.0*
Matrix:	*Groundwater*
Semi-Volatiles (µg/L)	
Phenol	390000
bis-(2-Chloroethyl) ether	2500 U
2-Chlorophenol	2500 U
1,3-Dichlorobenzene	2500 U
1,4-Dichlorobenzene	2500 U
1,2-Dichlorobenzene	2500 U
2-Methylphenol	180000
2,2'-oxybis (1-Chloropropane)	2500 U
3&4-Methylphenol	240000
N-Nitroso-di-n-propylamine	2500 U
Hexachloroethane	2500 U
Nitrobenzene	2500 U
Isophorone	2500 U
2-Nitrophenol	2500 U
2,4-Dimethylphenol	5100 J
bis (2-Chloroethoxy) methane	2500 U
2,4-Dichlorophenol	2500 U
1,2,4-Trichlorobenzene	2500 U
Naphthalene	2500 U
4-Chloroaniline	2500 U
Hexachlorobutadiene	2500 U
4-Chloro-3-methylphenol	2500 U
2-Methylnaphthalene	2500 U
Hexachlorocyclopentadiene	2500 UJ
2,4,6-Trichlorophenol	2500 U
2,4,5-Trichlorophenol	6300 U
2-Chloronaphthalene	2500 U
2-Nitroaniline	6300 U
Dimethylphthalate	2500 U
Acenaphthylene	2500 U
2,6-Dinitrotoluene	2500 U
3-Nitroaniline	6300 U
Acenaphthene	2500 U

TABLE 3B
ANALYTICAL RESULTS SUMMARY PHASE I - GROUNDWATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-673*
Location:	*TP-R2*
Depth (feet):	*5.0*
Matrix:	*Groundwater*
Semi-Volatiles (µg/L)	
2,4-Dinitrophenol	6300 U
4-Nitrophenol	6300 U
Dibenzofuran	2500 U
2,4-Dinitrotoluene	2500 U
Diethylphthalate	2500 U
4-Chlorophenyl-phenylether	2500 U
Fluorene	2500 U
4-Nitroaniline	6300 U
4,6-Dinitro-2-methylphenol	6300 U
n-Nitrosodiphenylamine	2500 U
4-Bromophenyl-phenylether	2500 U
Hexachlorobenzene	2500 U
Pentachlorophenol	2500 U
Phenanthrene	2500 U
Anthracene	2500 U
Carbazole	2500 U
Di-n-butylphthalate	570 J
Fluoranthene	2500 U
Pyrene	2500 U
Butylbenzylphthalate	2500 U
3,3'-Dichlorobenzidine	2500 U
Benzo [a] anthracene	2500 U
Chrysene	2500 U
bis (2-Ethylhexyl) phthalate	2500 U
Di-n-octylphthalate	2500 U
Benzo [b] fluoranthene	2500 U
Benzo [k] fluoranthene	2500 U
Benzo [a] pyrene	2500 U
Indeno [1,2,3-cd] pyrene	2500 U
Dibenz [a,h] anthracene	2500 U
Benzo [g,h,i] perylene	2500 U
Aniline	370000

TABLE 3B
ANALYTICAL RESULTS SUMMARY PHASE I - GROUNDWATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-673*
Location:	*TP-R2*
Depth (feet):	*5.0*
Matrix:	*Groundwater*
Alcohols (µg/L)	
Methanol	550000
Ethanol	200000
PCBs (µg/L)	
Aroclor 1016	500 UJ
Aroclor 1221	1000 UJ
Aroclor 1232	500 UJ
Aroclor 1242	500 UJ
Aroclor 1248	500 UJ
Aroclor 1254	500 UJ
Aroclor 1260	500 UJ
Metals (µg/L)	
Aluminum	5920
Antimony	5.1 J
Arsenic	16.5
Barium	967
Beryllium	3.0 U
Cadmium	7.5
Calcium	1110000
Chromium	14.1
Cobalt	46.7
Copper	226
Iron	109000
Lead	99.6
Magnesium	175000
Manganese	10100
Mercury	0.21 U
Nickel	76.7
Potassium	8750
Selenium	1.0 UJ
Silver	3.2
Sodium	20900
Thallium	1.0 U
Vanadium	19.0
Zinc	5720
General Chemistry (mg/L)	
Phenols	1000
Formaldehyde	0.05 U

TABLE 3C

ANALYTICAL RESULTS SUMMARY - WASTE CHARACTERIZATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-672*	*SC-674*	*SC-675*	*SC-676*	*SC-678* (*Dup. of SC-676*)	*SC-677*	*SC-679*	*SC-684*	*SC-710*	*5039-060595-1A*	*5039-060695-1B*
Location:	*TP-R1 & TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*	*TP-R3*	*TP-R4*	*TP-R3 & TP-R4*	*TP-L1 & TP-L2*	*OW1,OW3,OW4, BW2, BH24, BH25*	*Beneath UST*	*Beneath UST*
Depth (feet):	*0-7.5*	*-*	*-*	*-*	*-*	*-*	*0-4.5*	*0-2*	*0-14*	*6*	*12*
Matrix:	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Bagged Waste*	*Soil*	*Soil*	*Soil*
Volatiles (mg/L)											
Vinyl chloride	0.100 U	2.000 U	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
1,1-Dichloroethene	0.050 U	1.000 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Chloroform	0.050 U	1.000 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
1,2-Dichloroethane	0.050 U	1.000 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Carbon tetrachloride	0.050 U	1.000 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 UJ	0.050 U	0.050 U
Trichloroethene	0.050 U	33	0.053 J	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Benzene	0.050 U	1.000 U	0.085 J	0.050 U	0.018 J	0.029 J	0.050 U	0.050 U	0.050 U	7.6	0.50
2-Butanone	0.100 U	0.530 J	0.160 J	0.062 J	0.120 J	0.060 J	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U
Tetrachloroethene	0.050 U	0.220 J	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Chlorobenzene	0.050 U	1.000 U	0.050 UJ	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Semi-Volatiles (mg/L)											
Pyridine	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
1,4-Dichlorobenzene	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
Hexachloroethane	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
2-Methylphenol	0.13	19 J	19	0.02 J	0.05	1.10	0.02 U	0.12 J	0.02 U		
3&4-Methylphenol	0.15	25 J	0.40 J	0.14	0.15	0.94	0.02 U	0.73 J	0.02 U		
Nitrobenzene	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
Hexachlorobutadiene	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
2,4,6-Trichlorophenol	0.02 U	R	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
2,4,5-Trichlorophenol	0.02 U	R	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
2,4-Dinitrotoluene	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
Hexachlorobenzene	0.02 U	0.50 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U		
Pentachlorophenol	0.13 U	R	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U		

TABLE 3C

ANALYTICAL RESULTS SUMMARY - WASTE CHARACTERIZATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-672*	*SC-674*	*SC-675*	*SC-676*	*SC-678 (Dup. of SC-676)*	*SC-677*	*SC-679*	*SC-684*	*SC-710*	*5039-060695-1A*	*5039-060695-1B*
Location:	*TP-R1 & TP-R2*	*TP-R2*	*TP-R1*	*TP-R3*	*TP-R3*	*TP-R4*	*TP-R3 & TP-R4*	*TP-L1 & TP-L2*	*OW1,OW3,OW4, BW2, BH24, BH25*	*Beneath UST*	*Beneath UST*
Depth (feet):	*0-7.5*	-	-	-	-	-	*0-4.5*	*0-2*	*0-14*	*6*	*12*
Matrix:	*Soil*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Drummed Waste*	*Bagged Waste*	*Soil*	*Soil*	*Soil*
Metals (mg/L)											
Arsenic	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Barium	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.3	1.2		
Cadmium	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U		
Chromium	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		
Lead	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U		
Mercury	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U		
Selenium	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		
Silver	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U		
Wet Chemistry											
Reactive Cyanide (mg/kg)	0.31 UJ	0.30 UJ	0.30 UJ	0.54 UJ	0.53 UJ	0.39 UJ	0.31 UJ	R	0.51		
Flashpoint (°F)	>160	120	>160	>160	>160	>160	>160	>160	>160		
Reactive Sulfide (mg/kg)	31 UJ	30 UJ	30 UJ	54 UJ	53 UJ	39 UJ	31 UJ	60 UJ	28 U		
pH (s.u.)	8.47	7.97	8.27	7.22	7.71	7.93	8.09	9.43	8.46		

Notes:

U	Non-detect at associated values.
J	Associated value is estimated.
R	Data is rejected.
S.U.	Standard Units
TCLP	Toxicity Characteristic Leaching Procedure
MW	Monitoring Well
BH	Monitoring Well
TP	Test Pit
Dup.	Duplicate

TABLE 3D

ANALYTICAL RESULTS SUMMARY - TOC
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Sample ID:	*SC-698*	*SC-711*
Location:	*BH-25*	*10 Feet North of OW8*
Depth (feet):	*14-16*	*14-16*
Matrix:	*Soil*	*Soil*
Wet Chemistry		
Total Organic Carbon (mg/kg)	2200J	27000J
% Moisture (%)	11.6	10.0

Notes:

J Associated value is estimated.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTITIAL CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%RSD*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	05/03/95	Acetone	34	SC-693	8J	µg/kg	*
				SC-712	39	µg/kg	J
				SC-708	22	µg/kg	J
				SC-680	71	µg/kg	J
				SC-682	18	µg/kg	J
				SC-679	20	µg/kg	J
				SC-688	11	µg/kg	J
				SC-689	22	µg/kg	J
		Methylene Chloride	36	SC-708	10J	µg/kg	*
				SC-709	8J	µg/kg	*
				SC-695	7J	µg/kg	*
				SC-696	8J	µg/kg	*
				SC-697	7J	µg/kg	*
				SC-680	5J	µg/kg	*
				SC-681	8J	µg/kg	*
				SC-682	10J	µg/kg	*
				SC-686	7J	µg/kg	*
				SC-688	11	µg/kg	J
				SC-690	33	µg/kg	J
				SC-691	21	µg/kg	J
				SC-692	9J	µg/kg	*
				SC-693	8J	µg/kg	*
				SC-694	15	µg/kg	J

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTITIAL CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%RSD*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	05/12/95	Acetone	34	SC-673	45000	µg/L	J
				SC-672	12000	µg/kg	J
				SC-675	890000	µg/kg	J
				SC-678	210000	µg/kg	J
				SC-677	64000	µg/kg	J
				SC-676	460000	µg/kg	J
				SC-684	20000	µg/kg	J

Notes:

TCL	Target Compound List
J	Associated value is estimated.
RSD	Relative Standard Deviation
*	Sample result previously qualified.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCLP Volatiles	5/24/95	2-Butanone	26	SC-710	0.100U	mg/L	J
	5/24/95	Carbon Tetrachloride	43	SC-710	0.050U	mg/L	J
TCL Volatiles	6/13/95	Methylene Chloride	41	SC-712	4J	µg/kg	*
		Carbon Disulfide	69	SC-712	13U	µg/kg	J
		1,1-Dichloroethene	32	SC-712	13U	µg/kg	J
	5/26/95	Chloromethane	38	SC-708	11U	µg/kg	J
				SC-709	11U	µg/kg	J
				SC-695	11U	µg/kg	J
				SC-696	11U	µg/kg	J
				SC-697	13U	µg/kg	J
	5/26/95	Bromomethane	35	SC-708	11U	µg/kg	J
				SC-709	11U	µg/kg	J
				SC-695	11U	µg/kg	J
				SC-696	11U	µg/kg	J
				SC-697	13U	µg/kg	J
	5/26/95	Carbon Disulfide	78	SC-708	11U	µg/kg	J
				SC-709	11U	µg/kg	J
				SC-695	11U	µg/kg	J
				SC-696	11U	µg/kg	J
				SC-697	13U	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	5/27/95	Chloromethane	32	SC-699	12U	µg/kg	J
	5/27/95	Carbon Disulfide	80	SC-699	12U	µg/kg	J
	5/19/95	Chloromethane	26	SC-680	13U	µg/kg	J
				SC-681	13U	µg/kg	J
				SC-682	13U	µg/kg	J
				SC-679	13U	µg/kg	J
				SC-683	11U	µg/kg	J
				SC-686	11U	µg/kg	J
				SC-687	11U	µg/kg	J
				SC-688	11U	µg/kg	J
				SC-689	11U	µg/kg	J
				SC-690	12U	µg/kg	J
				SC-691	11U	µg/kg	J
				SC-692	11U	µg/kg	J
				SC-693	11U	µg/kg	J
				SC-694	11U	µg/kg	J
	5/19/95	Carbon Disulfide	63	SC-680	13U	µg/kg	J
				SC-681	13U	µg/kg	J
				SC-682	13U	µg/kg	J
				SC-679	13U	µg/kg	J
				SC-683	13U	µg/kg	J
				SC-686	11U	µg/kg	J
				SC-687	11U	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	5/19/95	Carbon Disulfide	63	SC-688	11U	µg/kg	J
				SC-689	11U	µg/kg	J
				SC-690	12U	µg/kg	J
	5/19/95	Carbon Disulfide	63	SC-691	11U	µg/kg	J
				SC-692	11U	µg/kg	J
				SC-693	11U	µg/kg	J
				SC-694	11U	µg/kg	J
	5/16/95	2-Hexanone	39	SC-673	10000U	µg/L	J
	5/22/95	Acetone	40	SC-672	12000	µg/kg	J
				SC-675	890000	µg/kg	J
				SC-678	210000	µg/kg	J
		4-Methyl-2-pentanone	37	SC-672	6200U	µg/kg	J
				SC-675	6600000	µg/kg	J
				SC-678	17000	µg/kg	J
				SC-674	890000U	µg/kg	J
		2-Hexanone	32	SC-672	6200U	µg/kg	J
				SC-675	600000U	µg/kg	J
				SC-678	53000U	µg/kg	J
				SC-674	890000U	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	5/4/95	Methylene Chloride	31	SC-658	3J	μg/kg	*
				SC-659	7J	μg/kg	*
	5/5/95	Methylene Chloride	33	SC-660	11U	μg/kg	J
				SC-662	25J	μg/kg	J
				SC-663	54U	μg/kg	J
				SC-664	13U	μg/kg	J
				SC-666	12U	μg/kg	J
				SC-667	13U	μg/kg	J
		Acetone	36	SC-660	11U	μg/kg	J
				SC-662	57U	μg/kg	J
				SC-663	190	μg/kg	J
				SC-664	33	μg/kg	J
				SC-666	130	μg/kg	J
				SC-667	52	μg/kg	J
		4-Methyl-2-pentanone	26	SC-660	11U	μg/kg	J
				SC-662	57U	μg/kg	J
				SC-663	54U	μg/kg	J
				SC-664	13U	μg/kg	J
				SC-666	12U	μg/kg	J
				SC-667	13U	μg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles		2-Hexanone	26	SC-660	11U	µg/kg	J
				SC-662	57U	µg/kg	J
				SC-663	54U	µg/kg	J
				SC-664	13U	µg/kg	J
				SC-666	12U	µg/kg	J
				SC-667	13U	µg/kg	J
	5/10/95	Methylene Chloride	35	SC-668	11U	µg/kg	J
				SC-669	12U	µg/kg	J
				SC-670	28	µg/kg	J
				SC-671	150	µg/kg	J
		Acetone	32	SC-668	15	µg/kg	J
				SC-669	65	µg/kg	J
				SC-670	11U	µg/kg	J
		Carbon disulfide	27	SC-671	65U	µg/kg	J
				SC-668	11U	µg/kg	J
				SC-669	67	µg/kg	J
				SC-670	11U	µg/kg	J
				SC-671	65U	µg/kg	J
	5/11/95	Methylene Chloride	28	SC-661	12U	µg/kg	J
TCL Semi-Volatiles	06/01/95	2,2'-oxybis(1-Chloropropane)	77	SC-666	410U	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Semi-Volatiles	06/01/95	4-Nitrophenol	51	SC-666	1000U	µg/kg	J
	06/06/95	2,2'-oxybis(1-Chloropropane)	96	SC-680	430U	µg/kg	R
				SC-683	370U	µg/kg	R
				SC-684	810U	µg/kg	R
				SC-686	370U	µg/kg	R
				SC-687	370U	µg/kg	R
		Hexachlorocyclopentadiene	55	SC-680	430U	µg/kg	J
				SC-683	370U	µg/kg	J
				SC-684	810U	µg/kg	J
				SC-686	370U	µg/kg	J
				SC-687	370U	µg/kg	J
		4-Nitrophenol	50	SC-680	1100U	µg/kg	J
				SC-683	920U	µg/kg	J
				SC-684	2000U	µg/kg	J
				SC-686	930U	µg/kg	J
				SC-687	940U	µg/kg	J
		Aniline	46	SC-680	230J	µg/kg	*
				SC-683	300J	µg/kg	*
				SC-684	240J	µg/kg	*
				SC-686	120J	µg/kg	*
				SC-687	740	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Semi-Volatiles	06/07/95	2-Methylphenol	27	SC-680	190J	µg/kg	*
				SC-683	310J	µg/kg	*
				SC-684	51000J	µg/kg	*
				SC-686	170J	µg/kg	*
				SC-687	94J	µg/kg	*
		2,2'-oxybis(1-Chloropropane)	108	SC-672	410U	µg/kg	R
				SC-677	520U	µg/kg	R
				SC-678	710U	µg/kg	R
				SC-679	420U	µg/kg	R
				SC-681	420U	µg/kg	R
				SC-682	440U	µg/kg	R
		Hexachlorocyclopentadiene	54	SC-672	410U	µg/kg	J
				SC-677	520U	µg/kg	J
				SC-678	710U	µg/kg	J
				SC-679	420U	µg/kg	J
				SC-681	420U	µg/kg	J
				SC-682	440U	µg/kg	J
		Aniline	42	SC-672	3200	µg/kg	J
				SC-677	39000	µg/kg	J
				SC-678	21000	µg/kg	J
				SC-679	1500	µg/kg	J
				SC-681	520	µg/kg	J
				SC-682	2800	µg/kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Calibration Date*	*Analyte*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Semi-Volatiles	06/08/95	4-Nitrophenol	53	SC-672	1000U	µg/kg	J
				SC-677	1300U	µg/kg	J
				SC-678	1800U	µg/kg	J
				SC-679	1000U	µg/kg	J
				SC-681	1100U	µg/kg	J
				SC-682	1100U	µg/kg	J
		Hexachlorocyclopentadiene	30	SC-673	2500U	µg/L	J
				SC-674	2000U	ug/Kg	J
				SC-675	2000U	ug/Kg	J
				SC-676	7200U	ug/Kg	J
TCLP Semi-Volatiles	06/12/95	2-Methylphenol	39	SC-674	19	mg/L	J
	06/12/95	3&4-Methylphenol	45	SC-674	25	mg/L	J

Notes:

TCLP	Toxicity Characteristic Leaching Procedure
TCL	Target Compound List
%D	Percent Difference
J	Associated value is estimated.
*	Sample result previously qualified.
R	Data Rejected.
U	Non-detect at associated value.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO PCB STANDARD CONFIRMATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Calibration Date/Time*	*Associated Sample ID*	*Date/Time Analyzed*	*Sample Results*	*Qualifier*	*Units*
PCBs	Aroclor 1248	6/19/95 at 2316	SC-661	6/23/95 at 0036	3300	J	µg/kg
			SC-662	6/23/95 at 0215	91000	J	µg/kg
			SC-663	6/23/95 at 0442	1400	J	µg/kg
			SC-665	6/23/95 at 0532	4300	J	µg/kg
	Aroclor 1248	6/20/95 at 0253	SC-665	6/23/95 at 0532	5700	J	µg/kg
	Aroclor 1248	7/23/95 at 0402	SC-712	7/27/95 at 1256	5100	J	µg/kg

Notes:

PCBs	Polychlorinated Biphenyls
J	Associated value is estimated.

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CRDL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Matrix*	*Calibration Date*	*Analyte*	*CRDL Standard Recovery (percent)*	*Control Limits (percent)*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Soil	05/31/95	Antimony	123.1	80-120	SC-657	1.0	mg/kg	J
						SC-659	1.4	mg/kg	J
		06/09/95	Antimony	122	80-120	SC-678	0.57	mg/kg	J
					80-120	SC-679	1.5	mg/kg	J
					80-120	SC-680	0.29	mg/kg	J
					80-120	SC-682	0.41	mg/kg	J
					80-120	SC-687	0.24	mg/kg	J
		06/09/95	Arsenic	130	80-120	SC-677	4.0	mg/kg	J
					80-120	SC-683	3.5	mg/kg	J
					80-120	SC-684	2.1	mg/kg	J
					80-120	SC-689	2.6	mg/kg	J
		06/10/95	Arsenic	137	80-120	SC-690	3.0	mg/kg	J
					80-120	SC-691	2.7	mg/kg	J
					80-120	SC-692	2.0	mg/kg	J
					80-120	SC-694	1.1	mg/kg	J
		06/12/95	Arsenic	122.5	80-120	SC-680	3.1	mg/kg	J
					80-120	SC-688	3.6	mg/kg	J
					80-120	SC-693	3.2	mg/kg	J

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CRDL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Matrix*	*Calibration Date*	*Analyte*	*CRDL Standard Recovery (percent)*	*Control Limits (percent)*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Soil	05/26/95	Selenium	144	80-120	SC-658	0.72	mg/kg	J
			Selenium	74.8	80-120	SC-688	0.22 U	mg/Kg	J
					80-120	SC-690	0.23 U	mg/Kg	J
					80-120	SC-691	0.23 U	mg/Kg	J
					80-120	SC-692	0.23 U	mg/Kg	J
					80-120	SC-693	0.23 U	mg/Kg	J
					80-120	SC-694	0.23 U	mg/Kg	J
			Lead	125	80-120	SC-672	22.7	mg/kg	J
					80-120	SC-677	14.8	mg/kg	J
					80-120	SC-686	14.8	mg/kg	J
					80-120	SC-687	9.7	mg/kg	J
					80-120	SC-688	11.5	mg/kg	J
					80-120	SC-689	11.1	mg/kg	J

Notes:

TAL	Target Analyte List
J	Associated value is estimated.
U	Non-detect at associated value.
CRDL	Contract Required Detection Limit

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
TCLP Volatiles	SC-665	TCMX (1)	37	60-150	Aroclor 1248	5700	ug/Kg	J
		TCMX (2)	37	60-150	Aroclor 1260	4300	ug/Kg	J
	SC-666	TCMX (1)	40	60-150	Aroclor 1016	41U	ug/Kg	J
		TCMX (2)	41	60-150	Aroclor 1221	83U	ug/Kg	J
		DCB (1)	48	60-150	Aroclor 1232	41U	ug/Kg	J
		DCB (2)	48	60-150	Aroclor 1242	41U	ug/Kg	J
					Aroclor 1248	41U	ug/Kg	J
					Aroclor 1254	41U	ug/Kg	J
					Aroclor 1260	110	ug/Kg	J
TCLP Volatiles	SC-675	Toluene-d8	81	88-110	Vinyl chloride	0.100U	ug/L	J
					1,1-Dichloroethene	0.050U	ug/L	J
					Chloroform	0.050U	ug/L	J
					1,2-Dichloroethane	0.050U	ug/L	J
					Carbon tetrachloride	0.050U	ug/L	J
					Trichloroethene	0.053	ug/L	J
					Benzene	0.085	ug/L	J
					2-Butanone	0.160	ug/L	J
					Tetrachloroethene	0.050U	ug/L	J
					Chlorobenzene	0.050U	ug/L	J
PCBs	SC-663	TCMX (1)	21	60-150	Aroclor 1016	72U	ug/Kg	J
					Aroclor 1221	150U	ug/Kg	J
		DCB (1)	510	60-150	Aroclor 1232	72U	ug/Kg	J
					Aroclor 1242	72U	ug/Kg	J
					Aroclor 1248	72U	ug/Kg	J
					Aroclor 1254	72U	ug/Kg	J

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
PCBs	SC-664	TCMX (1)	51	60-150	Aroclor 1016	44U	ug/Kg	J
		TCMX (2)	58	60-150	Aroclor 1221	89U	ug/Kg	J
		DCB (1)	56	60-150	Aroclor 1232	44U	ug/Kg	J
					Aroclor 1242	44U	ug/Kg	J
					Aroclor 1248	44U	ug/Kg	J
					Aroclor 1254	44U	ug/Kg	J
					Aroclor 1260	44U	ug/Kg	J
	SC-667	TCMX (1)	56	60-150	Aroclor 1016	42U	ug/Kg	J
		TCMX (2)	54	60-150	Aroclor 1221	85U	ug/Kg	J
					Aroclor 1232	42U	ug/Kg	J
					Aroclor 1242	42U	ug/Kg	J
					Aroclor 1248	42U	ug/Kg	J
					Aroclor 1254	42U	ug/Kg	J
					Aroclor 1260	23	ug/Kg	J
	SC-670	DCB (1)	213	60-150	Aroclor 1254	2800	ug/Kg	J
		DCB (2)	184	60-150				
	SC-712	DCB (1)	153	60-150	Aroclor 1248	5100	ug/Kg	J
		DCB (2)	170	60-150				
	SC-682	TCMX (1)	15	60-150	Aroclor 1016	87U	ug/Kg	J
		TCMX (2)	10	60-150	Aroclor 1221	180U	ug/Kg	J
		DCB (1)	19	60-150	Aroclor 1232	87U	ug/Kg	J
		DCB (2)	12	60-150	Aroclor 1242	87U	ug/Kg	J
					Aroclor 1254	87U	ug/Kg	J
					Aroclor 1260	87U	ug/Kg	J

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
PCBs	SC-687	TCMX (1)	41	60-150	Aroclor 1016	37U	ug/Kg	J
		TCMX (2)	44	60-150	Aroclor 1221	75U	ug/Kg	J
					Aroclor 1232	37U	ug/Kg	J
					Aroclor 1242	37U	ug/Kg	J
					Aroclor 1248	37U	ug/Kg	J
					Aroclor 1254	37U	ug/Kg	J
					Aroclor 1260	37U	ug/Kg	J
Alcohols	SC-661	n-Propanol	49	50-150	Methanol	12000U	ug/Kg	J
				50-150	Ethanol	12000U	ug/Kg	J
	SC-683	n-Propanol	43	50-150	Methanol	11000U	ug/Kg	J
				50-150	Ethanol	11000U	ug/Kg	J
	SC-684	n-Propanol	15	50-150	Methanol	24000U	ug/Kg	J
				50-150	Ethanol	24000U	ug/Kg	J
TCL Semi-Volatiles	SC-674	Phenol-d5	4	24-113	2-Chlorophenol	2000U	ug/Kg	R
		2-Chlorophenol-d4	2	20-130	2-Nitrophenol	2000U	ug/Kg	R
					2,4-Dimethylphenol	12000	ug/Kg	J
					2,4-Dichlorophenol	2000U	ug/Kg	R
					4-Chloro-3-methylphenol	2000U	ug/Kg	R
					2,4,6-Trichlorophenol	2000U	ug/Kg	R
					2,4,5-Trichlorophenol	5000U	ug/Kg	R
					2,4-Dinitrophenol	5000U	ug/Kg	R
					4-Nitrophenol	5000U	ug/Kg	R
					4,6-Dinitro-2-methylphenol	5000U	ug/Kg	R
					Pentachlorophenol	5000U	ug/Kg	R

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
TCLP Semi-Volatiles	SC-674	Phenol-d5	1	10-110	2,4,5-Trichlorophenol	0.50U	mg/L	R
					2,4,6-Trichlorophenol	0.50U	mg/L	R
					Pentachlorophenol	2.50U	mg/L	R
			4	10-110	2-Methylphenol	19	mg/L	J
					3&4-Methylphenol	25	mg/L	J

Notes:

TCL	Target Compound List
PCBs	Polychlorinated Biphenyls
TCLP	Toxicity Characteristic Leaching Procedure
U	Non-detect at associated value.
J	Associated value is estimated.
R	Data is rejected.
TCMX	Tetrachloro-m-xylene
DCB	Decachlorobiphenyl
(1)	RTX-1701 Column
(2)	RTX5 Column

TABLE 9
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Internal Standard*	*Internal Standard Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	SC-657	1,4-Difluorobenzene	43	50-200	1,1,1-Trichloroethane	13U	µg/kg	J
					Carbon tetrachloride	13U	µg/kg	J
					Bromodichloromethane	13U	µg/kg	J
					1,2-Dichloropropane	13U	µg/kg	J
					trans-1,3-Dichloropropene	13U	µg/kg	J
					Trichloroethene	13U	µg/kg	J
					Dibromochloromethane	13U	µg/kg	J
					1,1,2-Trichloroethane	13U	µg/kg	J
					Benzene	13U	µg/kg	J
					cis-1,3-Dichloropropene	13U	µg/kg	J
					Bromoform	13U	µg/kg	J
					2-Butanone	13U	µg/kg	J
					Dibromomethane	13U	µg/kg	J
		Chlorobenzene-d5	40	50-200	2-Hexanone	13U	µg/kg	J
					4-Methyl-2-pentanone	13U	µg/kg	J
					Tetrachloroethene	13U	µg/kg	J
					1,1,2,2-Tetrachloroethane	13U	µg/kg	J
					Toluene	13U	µg/kg	J
					Chlorobenzene	13U	µg/kg	J
					Ethylbenzene	13U	µg/kg	J
					Styrene	13U	µg/kg	J
					Xylenes	13U	µg/kg	J

TABLE 9
QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Internal Standard*	*Internal Standard Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
TCL Semi-Volatiles	SC-663	1,4-Dichlorobenzene-d10	209	50-200	Phenol	750	µg/kg	J
	SC-676	Chrysene-d12	41	50-200	Pyrene	36000	µg/kg	J
					Butylbenzyl phthalate	7200U	µg/kg	J
					3,3'-Dichlorobenzidene	7200U	µg/kg	J
					Benzo(a)anthracene	15000	µg/kg	J
					Chrysene	7200U	µg/kg	J
TCLP Semi-Volatiles	SC-674	1,4-Dichlorobenzene-d10	215	50-200	2-Methylphenol	19	mg/L	J
					3&4-Methylphenol	25	mg/L	J
	SC-684	1,4-Dichlorobenzene-d10	221	50-200	2-Methylphenol	0.12	mg/L	J
					3&4-Methylphenol	0.73	mg/L	J

Notes:

TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
U	Non-detect at associated value.
J	Associated value is estimated.

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TCL Volatiles	Acetone	VBLK30	33	SC-663	190	µg/kg	190 U
			8	SC-664	33	µg/kg	33 U
			8	SC-667	52	µg/kg	52 U
		VBLK42	6800	SC-684	20000J	µg/kg	30000 U
	Methylene Chloride	VBLK35	9600	SC-673	58000	µg/L	58000 U
		VBLK26	7	SC-695	7J	µg/kg	11 U
			8	SC-696	8J	µg/kg	11 U
			9	SC-697	7J	µg/kg	13 U
			8	SC-708	10J	µg/kg	11 U
			8	SC-709	8J	µg/kg	11 U
	Trichloroethene	VBLK35	3600	SC-673	14000	µg/L	14000 U
TCL Semi-Volatiles	Bis(2-Ethylhexyl)phthalate	PB04/26/95	29J	SC-656	26J	µg/kg	400 U
			31J	SC-657	33J	µg/kg	430 U
		PB06/05/95	23J	SC-712	35J	µg/kg	420 U
		PB05/12/95	77J	SC-677	660	µg/kg	660 U
			55J	SC-687	190J	µg/kg	370 U
	Di-n-octylphthalate	PB04/26/95	20J	SC-656	92J	µg/kg	400 U
			22J	SC-657	100J	µg/kg	430 U
		PB05/02/95	27J	SC-659	150J	µg/kg	410 U
		PB05/09/95	23J	SC-669	24J	µg/kg	410 U
			21J	SC-670	21J	µg/kg	370 U

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TCL Semi-Volatiles	Di-n-butylphthalate	PB04/26/95	24J	SC-657	140J	µg/kg	430 U
		PB05/04/95	220J	SC-660	270J	µg/kg	380 U
			110000J	SC-661	500000	µg/kg	500000 U
			220J	SC-662	660	µg/kg	660 U
			210J	SC-663	700	µg/kg	700 U
			250J	SC-664	420J	µg/kg	440 U
			4600J	SC-665	2700J	µg/kg	8000 U
			240J	SC-667	96J	µg/kg	420 U
	Di-n-butylphthalate	PB05/09/95	72J	SC-668	79J	µg/kg	370 U
			78J	SC-669	98J	µg/kg	410 U
			1700J	SC-671	1600J	µg/kg	8700 U
		PB05/12/95	14000J	SC-674	41000J	µg/kg	200000 U
			140J	SC-675	1100J	µg/kg	2000 U
			26J	SC-687	170J	µg/kg	370 U
		PB05/16/95	37J	SC-688	59J	µg/kg	370 U
			37J	SC-689	33J	µg/kg	370 U
			38J	SC-690	330J	µg/kg	390 U
			37J	SC-691	25J	µg/kg	370 U
			37J	SC-692	75J	µg/kg	370 U
			37J	SC-693	37J	µg/kg	370 U
			37J	SC-694	37J	µg/kg	370 U
	Benzo(g,h,i)perylene	PB04/29/95	48J	SC-658	110J	µg/kg	390 U

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS

RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TCL Semi-Volatiles	Aniline	PB05/21/95	120J	SC-699	120J	µg/kg	180 U
			120J	SC-708	59J	µg/kg	190 U
		PB05/12/95	210J	SC-680	230J	µg/kg	430 U
			200J	SC-681	520	µg/kg	520 U
			180J	SC-683	300J	µg/kg	370 U
			390J	SC-684	240J	µg/kg	810 U
			180J	SC-686	120J	µg/kg	370 U
			180J	SC-687	740	µg/kg	740 U
	3 and 4-Methylphenol	PB05/12/95	72000J	SC-674	170000J	µg/kg	200000 U
			1900J	SC-677	8100	µg/kg	8100 U
			5100J	SC-678	9900J	µg/kg	14000 U
			160J	SC-680	390J	µg/kg	430 U
			7600J	SC-681	20000J	µg/kg	21000 U
			130J	SC-687	330J	µg/kg	370 U
TAL Metals	Beryllium	CCB3	0.28	SC-659	0.68	mg/kg	0.68 U
			0.26	SC-660	0.38	mg/kg	0.38 U
			0.27	SC-661	0.37	mg/kg	0.37 U
			0.26	SC-662	0.35	mg/kg	0.35 U
			0.30	SC-664	1.3	mg/kg	1.3 U
			0.26	SC-666	0.97	mg/kg	0.97 U
			0.27	SC-667	0.75	mg/kg	0.75 U
			0.23	SC-668	0.38	mg/kg	0.38 U
			0.27	SC-669	0.77	mg/kg	0.77 U

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TAL Metals	Beryllium	CCB3	0.24	SC-670	0.75	mg/kg	0.75 U
			0.29	SC-671	0.46	mg/kg	0.46 U
	Sodium	PBS	23	SC-657	100	mg/kg	100 U
			21	SC-659	98	mg/kg	98 U
			20	SC-661	86.4	mg/kg	86.4 U
			23	SC-671	113	mg/kg	113 U
		PBS	8.1	SC-674	29.9	mg/kg	29.9 U
			8.2	SC-675	32.2	mg/kg	32.2 U
	Barium	CCB2	0.65	SC-676	1.8	mg/kg	1.8 U
			0.63	SC-678	2.9	mg/kg	2.9 U
	Beryllium	CCB1	0.27	SC-672	0.50	mg/kg	0.50 U
	Beryllium	CCB1	1.1	SC-673	3.0	ug/L	3.0 U
	Beryllium	CCB3	0.38	SC-674	0.24	mg/kg	0.24 U
			0.50	SC-677	0.44	mg/kg	0.44 U
			0.40	SC-679	0.81	mg/kg	0.81 U
			0.41	SC-680	1.2	mg/kg	1.2 U
			0.41	SC-681	0.66	mg/kg	0.66 U
			0.42	SC-682	0.96	mg/kg	0.96 U
			0.35	SC-683	0.60	mg/kg	0.60 U
			0.36	SC-686	0.44	mg/kg	0.44 U
			0.36	SC-687	0.33	mg/kg	0.33 U

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TAL Metals	Beryllium	CCB3	0.36	SC-688	0.45	mg/kg	0.45 U
			0.36	SC-689	0.48	mg/kg	0.48 U
			0.37	SC-690	0.33	mg/kg	0.33 U
			0.36	SC-691	0.49	mg/kg	0.49 U
			0.36	SC-692	0.30	mg/kg	0.30 U
			0.36	SC-693	0.34	mg/kg	0.34 U
	Beryllium	CCB5	0.32	SC-694	0.49	mg/kg	0.49 U
	Copper	CCB2	2.3	SC-676	1.9	mg/kg	1.9 U
			2.2	SC-678	2.5	mg/kg	2.5 U
	Manganese	CCB2	2.0	SC-675	6.6	mg/kg	6.6 U
			3.5	SC-676	6.4	mg/kg	6.4 U
			3.4	SC-678	12.3	mg/kg	12.3 U
	Nickel	CCB2	2.2	SC-674	5.2	mg/kg	5.2 U
	Antimony	CCB8	0.25	SC-687	0.24	mg/kg	0.24 U
						mg/kg	
		CCB10	0.23	SC-690	0.44	mg/kg	0.44 U
						mg/kg	

TABLE 10

QUALIFIED SAMPLE DATA DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION FEASIBILITY STUDY

SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank ID*	*Blank Result (1)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualified Sample Result*
TAL Metals	Antimony	CCB1	0.30	SC-696	0.73	mg/kg	0.73 U
	Thallium	CCB2	0.26	SC-695	0.32	mg/kg	0.32 U
			0.27	SC-696	0.28	mg/kg	0.28 U
			0.30	SC-697	0.35	mg/kg	0.35 U

Notes:

U	Non-detect at associated value.
(1)	Result reflects individual sample dilutions, weights, volumes, and % solids.
J	Associated value is estimated.
TCL	Target Compound List
TAL	Target Analyte List

TABLE 11

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING LABORATORY CONTROL SAMPLE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*LCS Date*	*Analyte*	*LCS Recovery (percent)*	*Control Limits*	*Associated Samples*	*Sample Result*	*Units*	*Qualifier*
Reactive Cyanide	05/23/95	Reactive Cyanide	74	80-120	SC-672	0.31 U	mg/kg	J
					SC-674	0.30 U	mg/kg	J
					SC-675	0.30 U	mg/kg	J
					SC-676	0.54 U	mg/kg	J
					SC-677	0.39 U	mg/kg	J
					SC-678	0.53 U	mg/kg	J
					SC-679	0.31 U	mg/kg	J
PCBs	06/05/95	Aroclor 1248 (1)	324	40-150	SC-712	5100	µg/kg	J

Notes:

PCBs	Polychlorinated Biphenyls
U	Non-detect at associated value.
J	Associated value is estimated.
(1)	The Aroclor used for the blank spike was 1254.

TABLE 12

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Spike ID*	*Analyte*	*MS Recovery (percent)*	*MSD Recovery (percent)*	*RPD*	*Control Limits (percent)*	*RPD Control Limits (percent)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualifier*
TCL Semi-Volatiles	SC-699	Pyrene	49	32	42	35-142	0-36	SC-695	89 J	µg/kg	*
								SC-699	6200	µg/kg	J
								SC-708	37 J	µg/kg	*
TCL Volatiles	SC-665	Toluene	90	0	NA	59-139	0-21	SC-665	110000	µg/kg	J

Notes:

TCL	Target Compound List
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
J	Associated value is estimated.
*	Sample result previously qualified.
NA	Not Applicable

TABLE 13

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Antimony	SC-667	42.8	75-125	SC-656	0.46 U	J	mg/kg
					SC-657	1.0	J	mg/kg
					SC-658	0.45 U	J	mg/kg
					SC-659	1.4	J	mg/kg
					SC-660	0.43 U	J	mg/kg
					SC-661	142	J	mg/kg
					SC-662	0.43 U	J	mg/kg
					SC-663	0.40 U	J	mg/kg
					SC-664	0.50 U	J	mg/kg
					SC-665	0.45 U	J	mg/kg
					SC-666	0.47 U	J	mg/kg
					SC-667	0.50 U	J	mg/kg
					SC-668	0.42 U	J	mg/kg
					SC-669	0.48 U	J	mg/kg
					SC-670	0.44 U	J	mg/kg
					SC-671	0.51 U	J	mg/kg
	Arsenic	SC-667	53.3	75-125	SC-656	2.8	J	mg/kg
					SC-657	4.9	J	mg/kg
					SC-658	13.2	J	mg/kg
					SC-659	5.1	J	mg/kg
					SC-660	4.2	J	mg/kg
					SC-661	17.9	J	mg/kg
					SC-662	3.5	J	mg/kg
					SC-663	2.3	J	mg/kg
					SC-664	7.1	J	mg/kg
					SC-665	5.0	J	mg/kg
					SC-666	4.2	J	mg/kg
					SC-667	3.3	J	mg/kg
					SC-668	2.1	J	mg/kg

TABLE 13

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Arsenic	SC-667	53.3	75-125	SC-669	4.1	J	mg/kg
					SC-670	4.5	J	mg/kg
					SC-671	94.9	J	mg/kg
	Arsenic	SC-693	67.7	75-125	SC-672	2.9	J	mg/kg
					SC-674	1.6	J	mg/kg
					SC-675	0.48 U	J	mg/kg
					SC-676	4.3 U	J	mg/kg
					SC-677	4.0	J	mg/kg
					SC-678	0.84 U	J	mg/kg
					SC-679	11.5	J	mg/kg
					SC-680	3.1	J	mg/kg
					SC-681	5.9	J	mg/kg
					SC-682	4.1	J	mg/kg
					SC-683	3.5	J	mg/kg
					SC-684	2.1	J	mg/kg
					SC-686	4.4	J	mg/kg
					SC-687	1.4	J	mg/kg
					SC-688	3.6	J	mg/kg
					SC-689	2.6	J	mg/kg
					SC-690	3.0	J	mg/kg
					SC-691	2.7	J	mg/kg
					SC-692	2.0	J	mg/kg
					SC-693	3.2	J	mg/kg
					SC-694	1.1	J	mg/kg
	Arsenic	SC-699	46.0	75-125	SC-695	3.6	J	mg/kg
					SC-696	1.9	J	mg/kg
					SC-697	3.3	J	mg/kg
					SC-699	3.7	J	mg/kg

TABLE

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Arsenic	SC-699	46.0	75-125	SC-708	6.2	J	mg/kg
					SC-709	5.8	J	mg/kg
	Arsenic	SC-712	8.6	75-125	SC-712	6.9	J	mg/kg
	Selenium	SC-667	57.4	75-125	SC-656	0.46 U	J	mg/kg
					SC-657	0.50 U	J	mg/kg
					SC-658	0.72	J	mg/kg
					SC-659	0.47 U	J	mg/kg
					SC-660	0.43 U	J	mg/kg
					SC-661	0.45	J	mg/kg
					SC-662	0.43 U	J	mg/kg
					SC-663	0.40 U	J	mg/kg
					SC-664	0.50 U	J	mg/kg
					SC-665	2.3	J	mg/kg
					SC-666	0.47 U	J	mg/kg
					SC-667	0.50 U	J	mg/kg
					SC-668	0.42 U	J	mg/kg
					SC-669	0.48 U	J	mg/kg
					SC-670	0.44 U	J	mg/kg
					SC-671	4.0	J	mg/kg
	Selenium	SC-693	47.9	75-125	SC-672	0.24 U	J	mg/kg
					SC-674	0.24 U	J	mg/kg
					SC-675	0.24 U	J	mg/kg
					SC-676	0.43 U	J	mg/kg
					SC-677	0.31 U	J	mg/kg
					SC-678	0.42 U	J	mg/kg

TABLE 13

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Selenium	SC-693	47.9	75-125	SC-679	0.25 U	J	mg/kg
					SC-680	0.56	J	mg/kg
					SC-681	0.25 U	J	mg/kg
					SC-682	0.26 U	J	mg/kg
					SC-683	0.22 U	J	mg/kg
					SC-684	0.48 U	J	mg/kg
					SC-686	0.22 U	J	mg/kg
					SC-687	0.22 U	J	mg/kg
					SC-688	0.22 U	J	mg/kg
					SC-689	0.22 U	J	mg/kg
					SC-690	0.23 U	J	mg/kg
					SC-691	0.23 U	J	mg/kg
					SC-692	0.23 U	J	mg/kg
					SC-693	0.23 U	J	mg/kg
					SC-694	0.23 U	J	mg/kg
	Selenium	SC-699	46.7	75-125	SC-695	0.22 U	J	mg/kg
					SC-696	0.23 U	J	mg/kg
					SC-697	0.25 U	J	mg/kg
					SC-699	0.23 U	J	mg/kg
					SC-708	0.23 U	J	mg/kg
					SC-709	0.23 U	J	mg/kg
		SC-712	24.2	75-125	SC-712	0.56	J	mg/kg
	Mercury	SC-667	145.2	75-125	SC-658	0.67	J	mg/Kg
					SC-659	0.19	J	mg/Kg
					SC-661	0.53	J	mg/Kg

TABLE

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Mercury	SC-699	48.0	75-125	SC-695	0.11 U	J	mg/Kg
					SC-696	0.12 U	J	mg/Kg
					SC-697	0.13 U	J	mg/Kg
					SC-699	0.31	J	mg/Kg
					SC-708	0.12 U	J	mg/Kg
					SC-709	0.12 U	J	mg/Kg
	Thallium	SC-699	66.9	75-125	SC-695	0.32	J	mg/Kg
					SC-696	0.28	J	mg/Kg
					SC-697	0.35	J	mg/Kg
					SC-699	0.23 U	J	mg/Kg
					SC-708	0.23 U	J	mg/Kg
					SC-709	0.23 U	J	mg/Kg
	Zinc	SC-699	54.7	75-125	SC-695	101	J	mg/Kg
					SC-696	49.8	J	mg/Kg
					SC-697	86.1	J	mg/Kg
					SC-699	246	J	mg/Kg
					SC-708	61.5	J	mg/Kg
					SC-709	64.5	J	mg/Kg
	Zinc	SC-712	323	75-125	SC-712	101	J	mg/Kg
	Copper	SC-712	133	75-125	SC-712	20.8	J	mg/Kg
	Lead	SC-712	0	75-125	SC-712	18.0	J	mg/Kg

TABLE 13

QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YOKR
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
Cyanide Reactivity	Cyanide Reactivity	SC-684	27	75-125	SC-684	0.60 U	R	mg/Kg
Sulfide Reactivity	Sulfide Reactivity	SC-679	55	75-125	SC-672	31 U	J	mg/Kg
					SC-674	30 U	J	mg/Kg
					SC-675	30 U	J	mg/Kg
					SC-676	54 U	J	mg/Kg
					SC-677	39 U	J	mg/Kg
					SC-678	53 U	J	mg/Kg
					SC-679	31 U	J	mg/Kg
		SC-684	45	75-125	SC-684	60 U	J	mg/Kg
Total Organic Carbon	Total Organic Carbon	SC-698	132	75-125	SC-698	2200	J	mg/Kg
					SC-711	27000	J	mg/Kg

Notes:

TAL	Target Analyte List
U	Non-detect at associated value.
J	Associated value is estimated.
R	Data Rejected.

TABLE 14

QUALIFIED SAMPLE RESULTS DUE TO POOR LABORATORY DUPLICATE PRECISION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*Original Result*	*Duplicate Result*	*RPD*	*RPD Control Limits*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Aluminum	SC-693	8601	12439	36.5	0-35	SC-672	10700	J	mg/kg
							SC-674	1970	J	mg/kg
							SC-675	162	J	mg/kg
							SC-676	98.8	J	mg/kg
							SC-677	9480	J	mg/kg
							SC-678	197	J	mg/kg
							SC-679	14800	J	mg/kg
							SC-680	25200	J	mg/kg
							SC-681	11800	J	mg/kg
							SC-682	16000	J	mg/kg
							SC-683	12100	J	mg/kg
							SC-684	2650	J	mg/kg
							SC-686	10100	J	mg/kg
							SC-687	8780	J	mg/kg
							SC-688	10600	J	mg/kg
							SC-689	11600	J	mg/kg
							SC-690	7720	J	mg/kg
							SC-691	12400	J	mg/kg
							SC-692	7290	J	mg/kg
							SC-693	8600	J	mg/kg
							SC-694	10600	J	mg/kg

TABLE 14

QUALIFIED SAMPLE RESULTS DUE TO POOR LABORATORY DUPLICATE PRECISION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*Original Result*	*Duplicate Result*	*RPD*	*RPD Control Limits*	*Associated Sample ID*	*Sample Results*	*Qualifier*	*Units*
TAL Metals	Zinc	SC-712	101	151	40	0-35	SC-712	101	J	mg/kg

Notes:

TAL	Target Analyte List
RPD	Relative Percent Difference
J	Associated value is estimated.

TABLE 15

QUALIFIED SAMPLE DATA DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACIILTY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Sodium	SC-667	18	SC-665	582	mg/kg	J
				SC-669	1670	mg/kg	J
	Zinc	SC-667	11.7	SC-656	64.7	mg/kg	J
				SC-657	95.0	mg/kg	J
				SC-658	376	mg/kg	J
				SC-659	258	mg/kg	J
				SC-660	96.9	mg/kg	J
				SC-661	123	mg/kg	J
				SC-662	116	mg/kg	J
				SC-663	63.6	mg/kg	J
				SC-664	120	mg/kg	J
				SC-665	213	mg/kg	J
				SC-666	210	mg/kg	J
				SC-667	71.1	mg/kg	J
				SC-668	81.8	mg/kg	J
				SC-669	70.6	mg/kg	J
				SC-670	2180	mg/kg	J
				SC-671	386	mg/kg	J

TABLE 15

QUALIFIED SAMPLE DATA DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACIILTY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Calcium	SC-693	11.5	SC-672	63300	mg/kg	J
				SC-674	3660	mg/kg	J
				SC-677	65800	mg/kg	J
				SC-679	83500	mg/kg	J
				SC-680	2800	mg/kg	J
				SC-681	53300	mg/kg	J
				SC-682	54700	mg/kg	J
				SC-683	53800	mg/kg	J
				SC-684	6850	mg/kg	J
				SC-686	65400	mg/kg	J
				SC-687	82400	mg/kg	J
				SC-688	67000	mg/kg	J
				SC-689	75500	mg/kg	J
				SC-690	69300	mg/kg	J
				SC-691	96700	mg/kg	J
				SC-692	64800	mg/kg	J
				SC-693	75100	mg/kg	J
				SC-694	67800	mg/kg	J
	Iron	SC-693	13	SC-672	18900	mg/kg	J
				SC-674	4490	mg/kg	J
				SC-675	338	mg/kg	J
				SC-676	350	mg/kg	J

TABLE 15

QUALIFIED SAMPLE DATA DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACIILTY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Iron	SC-693	13	SC-677	17200	mg/kg	J
				SC-678	630	mg/kg	J
				SC-679	24600	mg/kg	J
				SC-680	47400	mg/kg	J
				SC-681	21100	mg/kg	J
				SC-682	28700	mg/kg	J
				SC-683	21000	mg/kg	J
				SC-684	3280	mg/kg	J
				SC-686	18500	mg/kg	J
				SC-687	16300	mg/kg	J
				SC-688	18900	mg/kg	J
				SC-689	20400	mg/kg	J
				SC-690	15800	mg/kg	J
				SC-691	24400	mg/kg	J
				SC-692	14600	mg/kg	J
				SC-693	16800	mg/kg	J
				SC-694	19200	mg/kg	J
	Manganese	SC-693	12.5	SC-672	681	mg/kg	J
				SC-674	104	mg/kg	J
				SC-677	599	mg/kg	J
				SC-679	631	mg/kg	J
				SC-680	2190	mg/kg	J

TABLE 15

QUALIFIED SAMPLE DATA DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACIILTY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Manganese	SC-693	12.5	SC-681	753	mg/kg	J
				SC-682	652	mg/kg	J
				SC-683	537	mg/kg	J
				SC-684	80.5	mg/kg	J
				SC-686	554	mg/kg	J
				SC-687	607	mg/kg	J
				SC-688	589	mg/kg	J
				SC-689	638	mg/kg	J
				SC-690	549	mg/kg	J
				SC-691	1220	mg/kg	J
				SC-692	472	mg/kg	J
				SC-693	614	mg/kg	J
				SC-694	599	mg/kg	J
	Zinc	SC-693	19	SC-672	262	mg/kg	J
				SC-674	117	mg/kg	J
				SC-675	39.7	mg/kg	J
				SC-677	119	mg/kg	J
				SC-679	387	mg/kg	J
				SC-680	79.8	mg/kg	J
				SC-681	254	mg/kg	J
				SC-682	345	mg/kg	J
				SC-683	1160	mg/kg	J

TABLE 15

QUALIFIED SAMPLE DATA DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACIILTY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITE COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Zinc	SC-693	19	SC-684	617	mg/kg	J
				SC-686	80.5	mg/kg	J
				SC-687	85.3	mg/kg	J
				SC-688	75.1	mg/kg	J
				SC-689	88.9	mg/kg	J
				SC-690	544	mg/kg	J
				SC-691	134	mg/kg	J
				SC-692	91.5	mg/kg	J
				SC-693	80.1	mg/kg	J
				SC-694	84.7	mg/kg	J
	Zinc	SC-699	10.2	SC-695	101	mg/kg	J
				SC-696	49.8	mg/kg	J
				SC-697	86.1	mg/kg	J
				SC-699	246	mg/kg	J
				SC-708	61.5	mg/kg	J
				SC-709	64.5	mg/kg	J
	Zinc	SC-712	13.7	SC-712	101	mg/kg	J

Notes:

J	Associated value is estimated.
%D	Percent Difference
TAL	Target Analyte List
ICP	Inductively Coupled Plasma

TABLE 16

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING POST-DIGESTION SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Analyte*	*Post-Digestion Spike Recovery (percent)*	*Control Limits*	*Sample Result*	*Units*	*Qualifier*
TAL Metals	SC-663	Selenium	82	85-115	0.40 U	mg/kg	J
	SC-668	Selenium	79	85-115	0.42 U	mg/kg	J
	SC-673	Selenium	68.5	85-115	1.0 U	µg/L	J
	SC-676	Selenium	65.1	85-115	0.43 U	mg/kg	J
	SC-677	Selenium	82.6	85-115	0.31 U	mg/kg	J
	SC-680	Selenium	74.7	85-115	0.56	mg/kg	J
	SC-682	Selenium	84.2	85-115	0.26 U	mg/kg	J
	SC-683	Selenium	74.1	85-115	0.22 U	mg/kg	J
	SC-686	Selenium	84.7	85-115	0.22 U	mg/kg	J
	SC-687	Selenium	77.8	85-115	0.22 U	mg/kg	J
	SC-688	Selenium	77.8	85-115	0.22 U	mg/kg	J
	SC-689	Selenium	81.6	85-115	0.22 U	mg/kg	J
	SC-690	Selenium	73.4	85-115	0.23 U	mg/kg	J
	SC-691	Selenium	64.1	85-115	0.23 U	mg/kg	J
	SC-692	Selenium	71.7	85-115	0.23 U	mg/kg	J
	SC-693	Selenium	79.9	85-115	0.23 U	mg/kg	J
	SC-694	Selenium	73.3	85-115	0.23 U	mg/kg	J
	SC-709	Selenium	81.6	85-115	0.23 U	mg/kg	J
	SC-681	Thallium	115.6	85-115	0.27	mg/kg	J
	SC-682	Thallium	116	85-115	0.32	mg/kg	J
	SC-688	Thallium	119.5	85-115	0.28	mg/kg	J

TABLE 16

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING POST-DIGESTION SPIKE RECOVERIES RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Sample ID*	*Analyte*	*Post-Digestion Spike Recovery (percent)*	*Control Limits*	*Sample Result*	*Units*	*Qualifier*
TAL Metals	SC-666	Antimony	76	85-115	0.47 U	mg/kg	J
	SC-668	Antimony	84	85-115	0.42 U	mg/kg	J
	SC-669	Antimony	72	85-115	0.48 U	mg/kg	J
	SC-670	Antimony	78	85-115	0.44 U	mg/kg	J
	SC-671	Antimony	83	85-115	0.51 U	mg/kg	J
	SC-673	Antimony	31.5	85-115	5.1	µg/L	J
	SC-677	Antimony	126.9	85-115	1.4	mg/kg	J
	SC-695	Antimony	79.7	85-115	0.22 U	mg/kg	J
	SC-708	Antimony	78.7	85-115	0.23 U	mg/kg	J
	SC-676	Arsenic	36.8	85-115	4.3 U	mg/kg	J
	SC-678	Arsenic	64	85-115	0.84 U	mg/kg	J
	SC-678	Lead	83.3	85-115	0.94	mg/kg	J

Notes:

TAL	Target Analyte List
U	Non-detect at associated value.
J	Associated value is estimated.

TABLE 17

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MSA CORRELATION COEFFICIENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Sample ID*	*MSA Correlation Coefficient*	*Correlation Coefficient Acceptable Limits*	*Sample Result*	*Units*	*Qualifier*
Metals	Arsenic	SC-670	0.9897	0.995-1.000	4.5	mg/kg	J

Notes:

J	Associated value is estimated.
MSA	Methods of Standard Addition

TABLE 18

QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Original*		*Duplicate*		*RPD*	*Units*	*Original Qualifier*	*Duplicate Qualifier*
		Sample ID	*Result*	*Sample ID*	*Result*				
TCL Volatiles	Acetone	SC-676	460000	SC-678	210000	75	μg/kg	J	J
	Toluene	SC-676	300000	SC-678	500000	50	μg/kg	J	J
TCL Semi-Volatiles	1,2,4-Trichlorobenzene	SC-660	30000	SC-662	130000	125	μg/kg	J	J
	Phenol	SC-676	2000000	SC-678	61000	188	μg/kg	J	J
	2-Methylphenol	SC-676	78000	SC-678	4500	178	μg/kg	J	J
	3&4-Methylphenol	SC-676	150000	SC-678	9900	175	μg/kg	J	J
	2,4-Dimethylphenol	SC-676	57000	SC-678	4500	171	μg/kg	J	J
	Phenanthrene	SC-676	39000	SC-678	210J	198	μg/kg	J	*
	Di-n-butylphthalate	SC-676	5600000	SC-678	48000	197	μg/kg	J	J
	Pyrene	SC-676	36000	SC-678	160J	198	μg/kg	J	*
	Benzo [a] anthracene	SC-676	15000	SC-678	61J	198	μg/kg	J	*
	bis (2-Ethylhexyl) phthalate	SC-676	6600000	SC-678	43000	197	μg/kg	J	J
	Di-n-octylphthalate	SC-676	2800J	SC-678	75J	190	μg/kg	*	*
	Benzo [a] pyrene	SC-676	6000J	SC-678	61J	196	μg/kg	*	*
	Benzo [g,h,i] perylene	SC-676	1800J	SC-678	72J	185	μg/kg	*	*
	Phenol	SC-681	57000	SC-682	33000	53	μg/kg	J	J
	Fluoranthene	SC-681	1200	SC-682	670	57	μg/kg	J	J
	Pyrene	SC-681	930	SC-682	490	62	μg/kg	J	J
PCBs	Aroclor 1260	SC-660	300000	SC-662	91000	107	μg/kg	J	J
TAL Metals	Aluminum	SC-676	98.8	SC-678	197	66	mg/kg	J	J
	Iron	SC-676	350	SC-678	630	57	mg/kg	J	J
	Magnesium	SC-676	244	SC-678	444	58	mg/kg	J	J
	Lead	SC-681	22.2	SC-682	50.6	78	mg/kg	J	J

TABLE 18

QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE DATA
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

		Original		*Duplicate*					
Parameter	***Analyte***	***Sample ID***	***Result***	***Sample ID***	***Result***	***RPD***	***Units***	***Original Qualifier***	***Duplicate Qualifier***
TAL Metals	Aluminum	SC-691	12400	SC-692	7290	52	mg/kg	J	J
	Barium	SC-691	152	SC-692	76.0	67	mg/kg	J	J
	Cobalt	SC-691	19.0	SC-692	6.6	97	mg/kg	J	J
	Copper	SC-691	26.6	SC-692	15.2	55	mg/kg	J	J
	Iron	SC-691	24400	SC-692	14600	50	mg/kg	J	J
	Lead	SC-691	12.0	SC-692	5.7	71	mg/kg	J	J
	Manganese	SC-691	1220	SC-692	472	88	mg/kg	J	J
	Nickel	SC-691	24.8	SC-692	11.7	72	mg/kg	J	J
	Vanadium	SC-691	28.0	SC-692	16.4	52	mg/kg	J	J
Phenols	Phenols	SC-681	58	SC-682	120	70	mg/kg	J	J

Notes:

TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
RPD	Relative Percent Difference
J	Associated value is estimated.
*	Sample result previously qualified.

TABLE 19

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank Result (1)*	*Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
TAL Metals	Calcium	721	SC-657	2810	2810 U	mg/kg
		567	SC-671	970	970 U	mg/kg
	Manganese	17	SC-661	67.4	67.4 U	mg/kg
	Sodium	66	SC-656	192	192 U	mg/kg
		64	SC-658	263	263 U	mg/kg
		63	SC-660	181	181 U	mg/kg
		63	SC-662	192	192 U	mg/kg
		60	SC-663	148	148 U	mg/kg
		73	SC-664	179	179 U	mg/kg
		68	SC-666	172	172 U	mg/kg
		70	SC-667	278	278 U	mg/kg
		62	SC-668	173	173 U	mg/kg
		61	SC-670	119	119 U	mg/kg
	Calcium	146	SC-675	360	360 U	mg/kg
		261	SC-676	638	638 U	mg/kg
		255	SC-678	1140	1140 U	mg/kg

TABLE 19

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE FIELD BLANKS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Blank Result (1)*	*Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
TAL Metals	Potassium	261	SC-674	240	240 U	mg/kg
		342	SC-677	1360	1360 U	mg/kg
	Sodium	42	SC-672	143	143 U	mg/kg
		54	SC-677	204	204 U	mg/kg
		45	SC-680	132	132 U	mg/kg
		38	SC-683	178	178 U	mg/kg
		84	SC-684	255	255 U	mg/kg
		40	SC-690	175	175 U	mg/kg
		39	SC-692	149	149 U	mg/kg
		39	SC-693	152	152 U	mg/kg
		39	SC-694	190	190 U	mg/kg
	Zinc	2.7	SC-676	9.5	9.5 U	mg/kg
		2.7	SC-678	11.6	11.6 U	mg/kg

Notes:

U	Non-detect at associated value.
(1)	Result reflects individual sample dilutions, weights, volumes, and % solids.

TABLE 20

QUALIFIED SAMPLE RESULTS DUE TO CALIBRATION RANGE EXCEEDANCE
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
APRIL-JUNE 1995

Parameter	*Analyte*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TCL Volatiles	Toluene	SC-697	320	µg/kg	J
	Acetone	SC-676	460000	µg/kg	J
	Toluene	SC-665	110000	µg/kg	J
TCL Semi-Volatiles	2-Methylphenol	SC-676	78000	µg/kg	J
	3 & 4 Methylphenol	SC-676	150000	µg/kg	J
PCBs	Aroclor 1248	SC-675	720	µg/kg	J

Notes:

PCBs	Polychlorinated Biphenyls
TCL	Target Compound List
J	Associated value is estimated.

ANALYTICAL DATA ASSESSMENT AND VALIDATION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS

SPAULDING COMPOSITES COMPANY, INC.

OCTOBER 1995

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1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by Laboratory Resources Inc. (LRI) for surface water and sediment samples collected at Spaulding Composites Company, Inc. in Tonawanda, New York (Site) in October 1995. The sampling and analyses were performed in support of the RCRA Facility Investigation and Remedial Investigation/Feasibility Study conducted at the Site. For sample identification, a sample collection summary key is presented in Table 1.

Samples were analyzed as specified in Table 1. Summaries of the analytical methodology used are presented in Tables 2A and 2B. Tentatively identified compounds were reported for Methods 91-1 and 91-2.

Summaries of the analytical data are presented in Tables 3A and 3B. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

i) "National Functional Guidelines for Organic Data Review", June 1991, prepared by the United States Environmental Protection Agency (USEPA); and

ii) "Functional Guidelines for Evaluating Inorganics Analyses", July 1988, prepared by the USEPA Data Review Work Group; and

iii) "Quality Assurance Project Plan (QAPP)", Spaulding Composites Company, Inc., Tonawanda, New York, August 1993.

The validation documents will be referred to as the "Guidelines" hereafter.

Full ASP Category B deliverables were provided by the laboratory for the analyses. As specified in Table 4.1 of the QAPP, a limited evaluation of the chemical oxygen demand (COD), total suspended solids (TSS) and oil and grease analyses was performed. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC provided.

2.0 SAMPLE HOLDING TIMES

The criteria specified in the QAPP are summarized in Tables 2A and 2B.

Sample SC-1002 was analyzed for volatiles one day after the QAPP specified holding time of 7 days. Since exceeding sample holding times can introduce a low bias in the results, all associated data were qualified as estimated in Table 3A. In addition, the QAPP specified holding time of 14 days for mercury was exceeded by 4 days for the surface water analyses. All analyses were performed within the technically accepted holding time of 28 days, so no qualification of the data was performed.

All samples were promptly shipped to the laboratory and received at 4°C (±2°C). In addition, the surface water samples were properly preserved as specified in Table 5.2 of the QAPP.

3.0 GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) TUNING AND MASS CALIBRATION - VOLATILES AND SEMI-VOLATILES

Prior to analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, ASP Methods 91-1 and 91-2 require the analysis of the specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compounds must then be repeated every twelve hours throughout sample analysis to ensure the continued optimization of the instrument.

All instrument tuning data were reviewed. Tuning compounds were analyzed at the required frequency throughout the volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analyses periods. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

4.0 INSTRUMENT CALIBRATION

4.1 GC/MS CALIBRATION - VOLATILES AND SEMI-VOLATILES

4.1.1 Initial Calibration

To quantify compounds of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed.

Linearity of the curve and instrument sensitivity were evaluated against the following criteria:

i) all relative response factors (RRFs) must be greater than or equal to 0.05; and

ii) percent relative standard deviation (%RSD) values must not exceed 30 percent.

The initial calibration data for VOCs and SVOCs were reviewed. All RRFs met the above criteria. Some VOC calibrations exceeded the %RSD requirements. In most cases the associated sample data were non-detect, so the variability indicated in the curves would not impact the data. The detected results associated with the outlying calibrations were qualified as estimated, based on the indicated variability (see Table 4).

4.1.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

i) all RRF values must be greater than or equal to 0.05; and
ii) percent difference (%D) values must not exceed 25 percent.

All RRFs met the above criteria. Several compounds exceeded the 25 %D criteria for VOC and SVOC calibrations. If the %D was less than 50 percent and was exceeded due to an increase in sensitivity, associated non-detect data were not qualified. All other associated data were qualified as estimated (see Table 5).

All remaining %Ds were acceptable.

4.2 GC CALIBRATION - PCBs

To ensure that instrument performance was acceptable throughout PCB analysis, the criteria outlined in Method 91-3 for initial and continuing instrument calibration have been evaluated. Since this method requires dual column analysis of all samples, the criteria have been applied to both columns.

4.2.1 Initial Calibration

In order to quantify compounds of interest, calibration of the GC/ECD over a specific concentration range must be performed. Initially, PCBs are calibrated separately at a single concentration.

Retention time windows are also calculated from the initial calibration analyses. These windows are then used to identify all compounds of interest in subsequent analyses.

All initial calibration standards were analyzed at the required frequencies. All criteria were satisfied as specified in Method 91-3.

4.2.2 Continuing Calibration

To ensure that the calibration of the instrument is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis.

A standard for any identified PCB must be analyzed during a valid analytical sequence on the same instrument, within 72 hours of its detection in a sample.

To ensure that compound retention times do not vary over the analysis period, all retention times for continuing calibration compounds must fall within the established retention time windows.

All continuing calibration performed met the above criteria.

4.3 GC CALIBRATION - METHANOL AND ETHANOL

4.3.1 Initial Calibration

To quantify methanol and ethanol in samples, calibration of the GC over a specific range must be performed. Initially, a five-point calibration curve is analyzed, with a maximum RSD criteria of 20 percent.

The initial calibration data for methanol and ethanol were reviewed and met the above criteria.

4.3.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve on each analysis data with a maximum %D criteria of 15 percent.

The continuing calibration standards for methanol and ethanol met the above criteria.

4.4 INORGANICS CALIBRATION

4.4.1 Initial Calibration

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For inductively coupled plasma (ICP) analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve. For atomic absorption (AA) analyses, a calibration blank and a minimum of three standards (four standards for mercury) must be analyzed to establish the analytical curve. Phenols and formaldehyde calibration curves were evaluated based on a minimum requirement of a blank and three standards. Resulting correlation coefficients for curves consisting of a blank and three or more standards must be at least 0.995.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

Analytical Method	*Inorganic Species*	*Control Limits*
ICP/AA	Metals	90 - 110%
Cold Vapor AA	Mercury	80 - 120%
General Chemistry	Phenols, Formaldehyde	85 - 115%

Upon review of the data, it was determined that all inorganic calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that instrumentation used for these analyses were properly calibrated prior to sample analyses.

4.4.2 Continuing Calibration

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

4.4.3 Contract Required Detection Limit (CRDL) Standard Analyses

To verify the linearity of the ICP calibration near the CRDL, a standard must be analyzed which contains specified ICP analytes at a concentration of two times the CRDL, or twice the instrument detection limit (IDL), whichever is greater. This standard must be analyzed at the beginning and end of each sample analysis run or a minimum of twice per eight hour working shift. In addition, a standard comprising all AA analytes at the CRDL is also analyzed by AA subsequent to initial calibration verification.

General control limits of 80 to 120 percent were used to evaluate the ASP data for metals. Most recoveries were within acceptable limits. Recoveries which were outside of the limits were noted, and all associated data less than five times the CRDL were qualified as estimated (see Table 6). Non-detect data would not be affected by a high bias in the CRDL results, and no qualifications were performed in these instances.

5.0 SURROGATE SPIKE RECOVERIES

In accordance with the methods employed, all samples, blanks, and standards analyzed for VOCs, SVOCs, methanol/ethanol and PCBs were spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency. Surrogate recovery evaluations were performed as specified in the "Guidelines".

5.1 VOLATILES

Samples submitted for VOC determinations were spiked with the surrogate compounds 4-bromofluorobenzene, toluene-d_8, and 1,2-dichloroethane-d_4 prior to sample analysis.

All surrogate recoveries reported for the VOC analyses were within the QAPP control limits, indicating good analytical efficiency.

5.2 SEMI-VOLATILES

Samples submitted for SVOC determinations were spiked with eight surrogate compounds prior to sample extraction and analysis. All surrogate recoveries met the criteria specified in the QAPP and the "Guidelines", indicating good analytical efficiency.

5.3 PCBs

Samples submitted for chlorinated pesticide/PCB determinations were spiked with the surrogate compounds tetrachloro-m-xylene (TCMX) and decachlorobiphenyl (DCB) prior to sample preparation. All surrogate recoveries were evaluated against the advisory control limits of 60 to 150 percent, as specified in the "QAPP".

The soil samples had acceptable surrogate recoveries on the columns used for reporting except for sample SC-1014, which had high DCB and TCMX surrogate recoveries for column RTX-5. The associated detected PCB result was qualified as estimated to reflect the high bias (see Table 7).

The surface water samples yielded acceptable TCMX recoveries on the columns used for reporting. DCB surrogate recoveries were low (16 to 54 percent) on both columns for all surface water samples except for sample SC-1012. DCB recoveries for the associated method blanks were acceptable. All associated PCB results were qualified as estimated in Table 3A to reflect the low bias.

5.4 METHANOL AND ETHANOL

Samples submitted for methanol and ethanol analyses were spiked with the surrogate compound n-propanol prior to analysis. All recoveries were evaluated against the laboratory control limits of 50 to 150 percent.

All samples had acceptable surrogate recoveries, indicating good analytical efficiency.

6.0 INTERNAL STANDARD RECOVERIES - VOLATILES AND SEMI-VOLATILES

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, internal standard compounds are added to all samples, blanks, and spike samples prior to VOC and SVOC analyses. All results are calculated as a ratio of the internal standard response. The criteria by which the internal standard results are assessed are as follows:

i) internal standard area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard; and

ii) the retention time of the internal standard must not vary more than ±30 seconds from the associated calibration standard.

Most VOC and SVOC internal standard recoveries were acceptable. Sample results impacted by outlying internal standard recoveries were qualified as estimated (see Table 8).

7.0 LABORATORY BLANK ANALYSES

The purpose of assessing the results of laboratory blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory blanks are prepared from deionized water and analyzed as samples.

For this study, laboratory blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

7.1 VOLATILES

Low levels of methylene chloride were detected in most of the VOC method blanks. Detected methylene chloride results up to ten times the blank levels were qualified as non-detect (see Table 9).

7.2 SEMI-VOLATILES

Analysis of the laboratory blanks yielded non-detect results for all compounds of interest. This indicates that contamination was not a factor in this analysis.

7.3 PCBs

Analysis of the laboratory blanks yielded non-detect results for all PCBs of interest. This indicates that contamination was not a factor in this analysis.

7.4 METHANOL AND ETHANOL

Analysis of the laboratory blanks yielded non-detect results for methanol and ethanol, indicating that contamination was not a factor for this analysis.

7.5 INORGANICS ANALYSES

Upon review of the initial calibration blanks, continuing calibration blanks, and preparation blanks, it was noted that metal concentrations were detected above the IDL in the calibration and preparation blanks associated with the samples collected for this project.

In accordance with the "Guidelines" all sample results greater than the instrument detection limit but less than five times the amount detected in the associated blank were qualified as non-detect (see Table 9). All remaining investigative samples associated with contaminated laboratory blanks yielded either non-detect concentrations or concentrations greater than five times the associated laboratory blank concentrations for the analytes of interest. Qualification of the remaining sample data was not required on this basis.

Further, all absolute values of all negative metal concentrations in the laboratory blanks were less than or equal to the CRDL. Corrective action was not required by the laboratory and qualification of the associated sample data was not necessary on this basis.

All remaining inorganic testing blanks were non-detect, indicating that contamination was not a factor in these analyses.

8.0 BLANK SPIKE ANALYSES - ORGANICS

Blank spikes are prepared and analyzed as samples to assess the analytical efficiencies of the method employed, independent of sample matrix effects. Blank spikes were performed at a frequency of one per analytical batch.

8.1 VOLATILES

Blank samples were spiked with benzene, chlorobenzene, 1,1-dichloroethene, toluene, and trichloroethene. All blank spike sample analyses yielded recoveries within the method control limits, indicating acceptable analytical accuracy.

8.2 SEMI-VOLATILES

Blank samples were spiked with the specified SVOC compounds. All surface water blank spike sample analyses yielded recoveries within the control limits, indicating acceptable analytical accuracy. Low recoveries resulted for four SVOCs associated with the blank spike analysis performed with the sediments. Based on acceptable MS/MSD recoveries for these compounds (see Section 10.2), no qualification of the data was performed.

8.3 PCBs

Blank samples were spiked with the specified PCB 1254 prior to extraction. All recoveries reported for the blank spikes were within the method control limits, indicating acceptable analytical accuracy.

8.4 METHANOL AND ETHANOL

Blank samples were spiked with methanol and ethanol prior to analysis. All recoveries were within the control limits, indicating acceptable analytical accuracy.

9.0 LABORATORY CONTROL SAMPLE ANALYSES - INORGANICS

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were reported for all inorganics analyses except TSS. All LCS samples yielded recoveries within the established control limits (80 to 120 percent for waters, standard manufacturer limits for soils), indicating acceptable analytical accuracy.

10.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - ORGANICS

The recoveries of MS/MSD analyses are used to assess the analytical accuracy achieved on individual sample matrices. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

Organics analyses are spiked with method-specified analytes. MS/MSD analyses were performed as specified in Table 1. All recoveries and RPDs were evaluated against the limits specified in the QAPP.

10.1 VOLATILES

All recoveries were acceptable, indicating good laboratory accuracy.

High RPDs resulted from the MS/MSD analysis of sample SC-1000. All associated sample results were non-detect and would not be impacted by the variability. All remaining RPDs were within acceptable limits.

10.2 SEMI-VOLATILES

Most recoveries and RPDs were acceptable. High MS/MSD recoveries for 4-nitrophenol resulted from the analysis of sample SC-1001. All associated sample results were non-detect, and would not be impacted by the high bias. A high RPD for phenol resulted from the analysis of sediment sample SC-1013, and all associated results were qualified as estimated based on the variability (see Table 10).

10.3 PCBs

Samples were spiked in duplicate with PCB 1254. Due to the presence of an elevated level of PCB 1248 in sample SC-1013, the MS/MSD results for the sample were not usable. Analytical accuracy for sediment PCB analyses was based on the blank spike (see Section 8.3).

All remaining recoveries and RPDs were acceptable, indicating good laboratory accuracy and precision.

10.4 METHANOL AND ETHANOL

All recoveries and RPDs were acceptable, indicating good laboratory accuracy and precision.

11.0 MATRIX SPIKE ANALYSES - INORGANICS

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent. Per the "Guidelines", qualification of data is not required if the sample result exceeds four times the spike concentration added. MS analyses were performed as specified in Table 1. Due to laboratory error, no MS analysis was performed for oil and grease.

The MS analyses of the samples resulted in various outlying metal spike recoveries. The non-detect antimony and mercury results associated with the MS analysis of sample SC-1013 were rejected due to extremely low recoveries. All remaining associated sample data impacted were qualified as estimated (see Table 11).

All remaining inorganic MS analyses were within acceptable limits.

12.0 DUPLICATE SAMPLE ANALYSES - INORGANICS

For inorganic parameters, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1.

In accordance with the "Guidelines", laboratory duplicate results should have a maximum RPD of 20 percent for water matrices and 35 percent for soil matrices. For metals, sample results less than five times the CRDL are evaluated based on the difference between the sample and duplicate results, which should not exceed the CRDL (two times the CRDL for soils).

Most duplicate analyses met the above criteria. Some metals duplicate analyses were outside of limits and all detected associated sample data were qualified as estimated (see Table 12).

13.0 ICP SERIAL DILUTION

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. A minimum of one per 20 investigative samples is analyzed at a five-fold dilution. For samples yielding analyte concentrations greater than 50 times the IDL, the serial dilution results must agree within 10 percent of the original results.

Serial dilutions were performed on samples SC-1001 and SC-1013. All analyses met the above criteria except for aluminum from the serial dilution of SC-1001. Associated sample data greater than 50 times the IDL were qualified as estimated (see Table 13).

14.0 ICP INTERFERENCE CHECK SAMPLE ANALYSIS (ICS)

To verify that proper inter-element and background correction factors have been established by the laboratory, ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period.

ICS analysis results were evaluated for all samples. All ICS recoveries were within the established control limits of 80 to 120 percent. Some false positives were detected, but the associated samples did not have comparable interferent levels and no qualification was performed.

15.0 FURNACE ATOMIC ABSORPTION QC

15.1 DUPLICATE INJECTIONS

All furnace determinations must be performed in duplicate, in order to assess analytical precision. For sample concentrations greater than the CRDL, duplicate injections must agree within 20 percent RSD.

Duplicate injections were performed for all furnace analyses. All precision criteria were met.

15.2 POST-DIGESTION SPIKES

To assess the effects of sample matrices on analytical accuracy, all sample analyses performed on furnace require the analysis of a post-digestion spike. The spike recoveries are assessed against general control limits of 85 to 115 percent. Analyses of samples having original concentrations greater than 50 percent of the spike concentration, and yielding post-digestion spike recoveries outside of the 85 to 115 percent control limits require further analysis using the method of standard additions (MSA).

Samples analyzed for antimony, arsenic, lead, selenium, and thallium were each spiked with known amounts of analytes during instrumental analysis. Some selenium sample analyses yielded spike recoveries outside of control limits. All associated sample results were qualified as estimated (see Table 14).

15.3 METHOD OF STANDARD ADDITIONS (MSA)

When samples are analyzed by MSA, samples are spiked at three different levels. The resulting absorbance values are plotted against the added concentrations and a linear expression is derived. The original sample concentration is calculated as the x-intercept. This analysis method is employed to evaluate the effects of sample matrix interferences on analytical results. The linearity of the relationship derived is deemed acceptable if the correlation coefficient is at least 0.995. If the MSA fails, it is repeated once. If the MSA fails on the replicate analysis, results are qualified as estimated.

A MSA analysis was performed on sample SC-1014 for arsenic graphite furnace AA quantitation. All MSA criteria were met.

16.0 TENTATIVELY IDENTIFIED COMPOUNDS (TICS)

Chromatographic peaks recorded during volatile and semi-volatile sample analyses which are not target compounds, surrogates, or internal standards, are potential TICs. The ten largest TICs for volatiles and 20 largest TICs for semi-volatiles that exhibit areas greater than 10 percent of the area of the nearest internal standard are tentatively identified and quantified.

A summary of the TICs is as follows.

Samples SC-1001, SC-1002, and SC-1009 contained the VOC TIC 1,1,2-trichloro-1,2,2-trifluoroethane at estimated concentrations ranging from 7 to 12 micrograms per liter (µg/L). No VOC TICs were reported for the sediment samples.

Samples SC-1001, SC-1002, and SC-1009 contained unknown SVOC TICs at estimated concentrations ranging from 2.1 to 5.1 µg/L. Sample SC-1001 also contained tri(2-chloroethyl)phosphate at an estimated concentration of 2.1 µg/L.

The sediment samples contained unknowns, including aromatic hydrocarbons and alkyl phenols, at estimated concentrations ranging from 790 to 27,000 micrograms per kilogram.

No other TICs were reported for these samples.

17.0 FIELD QA/QC

17.1 FIELD DUPLICATES

To assess the analytical and sampling protocol precision, three field duplicates (as identified in Table 1) were collected and submitted "blind" to the laboratory. Most data outside of estimated regions of detection demonstrated acceptable agreement. Data which did indicate variability were qualified as estimated (see Table 15). Several SVOCs for sediment sample SC-1014 and its field duplicate showed variability, possibly due to the low percent solids and different laboratory dilutions.

17.2 TRIP BLANKS - VOLATILES

To evaluate the possibility of contamination arising from sample shipment and storage activities, trip blanks were collected and submitted for VOC analysis with the water sample.

Methylene chloride was detected in the trip blank. All associated sample results up to ten times the level present were qualified as non-detect (see Table 16).

17.3 RINSE BLANKS

Dedicated sampling equipment was used for this investigation. No rinse blank samples were collected.

18.0 GENERAL COMMENTS

The sediment samples collected had percent solid values of less than 50. Since the moisture content is likely to create variability in the analyses for these samples, all results for SC-1013, SC-1014, and SC-1015 were qualified as estimated in Table 3B.

The PCB extraction procedure for the surface waters was modified in order to meet the project detection limit of 0.065 µg/L. The sample extracts were concentrated an additional ten times. The modified contract required quantitation limits are reported on Table 3A. The modified instrument detection limits are as follows:

PCB 1016 - 0.003 µg/L
PCB 1221 - 0.013 µg/L
PCB 1232 - 0.003 µg/L
PCB 1242 - 0.002 µg/L
PCB 1248 - 0.001 µg/L
PCB 1254 - 0.002 µg/L
PCB 1260 - 0.002 µg/L

All surface water PCB results were non-detect at the project required limit of 0.065 µg/L except sample SC-1011, which contained PCB 1254 at 0.12 µg/L. This sample is a field duplicate of sample SC-1010. The PCB detection was not confirmed by the original sample PCB results.

19.0 CONCLUSION

Based on the assessment detailed in the foregoing, the data produced by LRI are acceptable with the specific exceptions and qualifications noted within.

TABLE 1

SAMPLE COLLECTION SUMMARY KEY
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID	*Source/Sample Location*	*Date*	*Time*	*Matrix*	*Analysis*	*Comments*
SC-1000	Outfall 004	10/05/95	2245	Surface water	(1)	MS/MSD/Dup.
SC-1001	Downstream of Resin Drum Landfill	10/05/95	2300	Surface water	(2)	MS/MSD/Dup.
SC-1002	Upstream of Resin Drum Landfill	10/05/95	2315	Surface water	(2)	
SC-1003	Outfall 013	10/05/95	2330	Surface water	(1)	
SC-1004	Outfall 012	10/05/95	2345	Surface water	(1)	
SC-1005	Outfall 010	10/06/95	0000	Surface water	(1)	
SC-1006	Outfall 005	10/06/95	0015	Surface water	(1)	
SC-1007	Outfall 006	10/06/95	0030	Surface water	(1)	
SC-1008	Outfall 007	10/06/95	0045	Surface water	(4)	
SC-1009	Upstream of Resin Drum Landfill	10/06/95	0100	Surface water	(2)	Blind duplicate of SC-1002
SC-1010	Outfall 011	10/06/95	0115	Surface water	(3)	
SC-1011	Outfall 011	10/06/95	0130	Surface water	(3)	Blind duplicate of SC-1010
SC-1012	Outfall 008	10/06/95	0145	Surface water	(1)	
Trip Blank	-	10/06/95	-	Water	(6)	
SC-1013	Upstream of Resin Drum Landfill	10/09/95	1100	Sediment	(5)	MS/MSD/Dup.
SC-1014	Downstream of Resin Drum Landfill	10/09/95	1030	Sediment	(5)	
SC-1015	Downstream of Resin Drum Landfill	10/09/95	1045	Sediment	(5)	Duplicate of SC-1014

Notes:

(1) Site-specific parameter list volatile organic compounds (SSPL VOCs), polychlorinated biphenyls, oil and grease.

(2) Target compound list volatile organic compounds, methanol, ethanol, formaldehyde, polychlorinated biphenyls, target compound list semi-volatile organic compounds (plus cresols and aniline), phenol, and metals.

(3) Site-specific parameter list volatile organic compounds, polychlorinated biphenyls, oil and grease, and formaldehyde.

(4) Site-specific parameter list volatile organic compounds, polychlorinated biphenyls, oil and grease, total suspended solids, and chemical oxygen demand.

(5) Target compound list volatile organic compounds, semi-volatile organic compounds (plus cresols and aniline), polychlorinated biphenyls, target analyte list metals, methanol, ethanol, and formaldehyde.

(6) Target Compound List Volatiles

Dup. Duplicate

SSPL VOCs 1,1,1-Trichloroethane, benzene, toluene, xylenes

TABLE 2A

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY - SURFACE WATER
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Matrix*	*Analytical Method*	*Collection to Extraction (days)*	*Collection to Analysis (days)*
TCL/SSPL Volatiles	Surface Water	91-1 (1)	-	7
TCL Semi-Volatiles	Surface Water	91-2 (1)	7	40
PCBs	Surface Water	91-3 (1)	7	40
TAL Metals	Surface Water	CLP-M (1)	-	180
Mercury	Surface Water	CLP-M (1)	-	14
Methanol and Ethanol	Surface Water	8015 (2)	-	7
Formaldehyde	Surface Water	APC-44 (3)	-	14
Total Phenols	Surface Water	9066 (2)	-	28
Oil and Grease	Surface Water	413.1 (4)	-	28
Total Suspended Solids	Surface Water	160.2 (4)	-	7
Chemical Oxygen Demand	Surface Water	8000 (5)	-	28

Notes:

TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
SSPL	Site-Specific Parameter List
(1)	Referenced from New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP), September 1989, (rev. 12/91).
(2)	Referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA SW-846, Third Edition 1986 and Subsequent Revisions.
(3)	Referenced from "New York State Department of Health Wadsworth Center for Laboratories and Research", May 1991.
(4)	Referenced from "Methods for Chemical Analysis of Water and Waste", USEPA 600/4-79-020, March 1983.
(5)	Referenced from "Hach Handbook of Water Analysis", 1979.

TABLE 2B

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY - SEDIMENT
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Matrix*	*Analytical Method*	*Collection to Extraction (days)*	*Collection to Analysis (days)*
TCL Volatiles	Sediment	91-1 (1)	-	14
TCL Semi-Volatiles	Sediment	91-2 (1)	14	40
PCBs	Sediment	91-3 (1)	14	40
TAL Metals	Sediment	CLP-M (1)	-	180
Mercury	Sediment	CLP-M (1)	-	14
Methanol and Ethanol	Sediment	8015 (2)	-	7
Formaldehyde	Sediment	APC-44 (3)	-	14

Notes:

TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
(1)	Referenced from New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP), September 1989, (rev. 12/91).
(2)	Referenced from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA SW-846, Third Edition 1986 and Subsequent Revisions.
(3)	Referenced from "New York State Department of Health Wadsworth Center for Laboratories and Research", May 1991.

TABLE 3A
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1000***	***SC-1001***	***SC-1002***	***SC-1009***	***SC-1003***	***SC-1004***	***SC-1005***	***SC-1006***	***SC-1007***
Collection Date:	***10/05/95***	***10/05/95***	***10/05/95***	***10/06/95***	***10/05/95***	***10/05/95***	***10/06/95***	***10/06/95***	***10/06/95***
				(Dup of SC-1002)					
TCL Volatiles (µg/L)									
Chloromethane	-	10 U	10 UJ	10 U	-	-	-	-	-
Vinyl chloride	-	10 U	10 UJ	10 U	-	-	-	-	-
Bromomethane	-	10 U	10 UJ	10 U	-	-	-	-	-
Chloroethane	-	10 U	10 UJ	10 U	-	-	-	-	-
1,1-Dichloroethene	-	10 U	10 UJ	10 U	-	-	-	-	-
Carbon disulfide	-	10 U	10 UJ	10 U	-	-	-	-	-
Acetone	-	10 U	10 UJ	10 U	-	-	-	-	-
Methylene chloride	-	25 U	13 UJ	10 U	-	-	-	-	-
1,1-Dichloroethane	-	10 U	10 UJ	10 U	-	-	-	-	-
1,2-Dichloroethene (Total)	-	10 U	1.3J	10 U	-	-	-	-	-
Chloroform	-	10 U	10 UJ	10 U	-	-	-	-	-
1,2-Dichloroethane	-	10 U	10 UJ	10 U	-	-	-	-	-
2-Butanone	-	10 U	10 UJ	10 U	-	-	-	-	-
1,1,1-Trichloroethane	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	-	10 U	10 UJ	10 U	-	-	-	-	-
Benzene	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	-	10 U	1.2 J	10 U	-	-	-	-	-
1,2-Dichloropropane	-	10 U	10 UJ	10 U	-	-	-	-	-
Bromodichloromethane	-	10 U	10 UJ	10 U	-	-	-	-	-
trans-1,3-Dichloropropene	-	10 U	10 UJ	10 U	-	-	-	-	-
cis-1,3-Dichloropropene	-	10 U	10 UJ	10 U	-	-	-	-	-
1,1,2-Trichloroethane	-	10 U	10 UJ	10 U	-	-	-	-	-
Dibromochloromethane	-	10 U	10 UJ	10 U	-	-	-	-	-
Bromoform	-	10 U	10 UJ	10 U	-	-	-	-	-
4-Methyl-2-pentanone	-	10 UJ	10 UJ	10 U	-	-	-	-	-
Toluene	10 U	1.2 J	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	-	10 U	10 UJ	10 U	-	-	-	-	-
2-Hexanone	-	10 UJ	10 UJ	10 U	-	-	-	-	-
Chlorobenzene	-	10 U	10 UJ	10 U	-	-	-	-	-
Ethyl benzene	-	10 U	10 UJ	10 U	-	-	-	-	-
Xylene (Total)	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	-	10 U	10 UJ	10 U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	10 U	10 UJ	10 U	-	-	-	-	-

TABLE .
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1008***	***SC-1010***	***SC-1011***	***SC-1012***
Collection Date:	***10/06/95***	***10/06/95***	***10/06/95*** ***(Dup of SC-1010)***	***10/06/95***
TCL Volatiles (µg/L)				
Chloromethane	-	-	-	-
Vinyl chloride	-	-	-	-
Bromomethane	-	-	-	-
Chloroethane	-	-	-	-
1,1-Dichloroethene	-	-	-	-
Carbon disulfide	-	-	-	-
Acetone	-	-	-	-
Methylene chloride	-	-	-	-
1,1-Dichloroethane	-	-	-	-
1,2-Dichloroethene (Total)	-	-	-	-
Chloroform	-	-	-	-
1,2-Dichloroethane	-	-	-	-
2-Butanone	-	-	-	-
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U
Carbon tetrachloride	-	-	-	-
Benzene	10 U	10 U	10 U	10 U
Trichloroethene	-	-	-	-
1,2-Dichloropropane	-	-	-	-
Bromodichloromethane	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-
Dibromochloromethane	-	-	-	-
Bromoform	-	-	-	-
4-Methyl-2-pentanone	-	-	-	-
Toluene	10 U	10 U	10 U	10 U
Tetrachloroethene	-	-	-	-
2-Hexanone	-	-	-	-
Chlorobenzene	-	-	-	-
Ethyl benzene	-	-	-	-
Xylene (Total)	10 U	10 U	10 U	10 U
Styrene	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-

TABLE 3A
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID: ***Collection Date:***	*SC-1000* *10/05/95*	*SC-1001* *10/05/95*	*SC-1002* *10/05/95*	*SC-1009* *10/06/95* *(Dup of SC-1002)*	*SC-1003* *10/05/95*	*SC-1004* *10/05/95*	*SC-1005* *10/06/95*	*SC-1006* *10/06/95*	*SC-1007* *10/06/95*
Alcohols (µg/L)									
Methanol	-	10000 U	10000 U	10000 U	-	-	-	-	-
Ethanol	-	10000 U	10000 U	10000 U	-	-	-	-	-
TCL Semi-Volatiles (µg/L)									
Aniline	-	10 U	10 U	10 U	-	-	-	-	-
bis(2-Chloroethyl)ether	-	10 U	10 U	10 U	-	-	-	-	-
Phenol	-	10 U	10 U	10 U	-	-	-	-	-
2-Chlorophenol	-	10 U	10 U	10 U	-	-	-	-	-
1,3-Dichlorobenzene	-	10 U	10 U	10 U	-	-	-	-	-
1,4-Dichlorobenzene	-	10 U	10 U	10 U	-	-	-	-	-
1,2-Dichlorobenzene	-	10 U	10 U	10 U	-	-	-	-	-
2,2'-oxybis(1-Chloropropane)	-	10 U	10 U	10 U	-	-	-	-	-
2-Methylphenol	-	10 U	10 U	10 U	-	-	-	-	-
Hexachloroethane	-	10 U	10 U	10 U	-	-	-	-	-
N-Nitroso-di-n-propylamine	-	10 U	10 U	10 U	-	-	-	-	-
3&4-Methylphenol	-	10 U	10 U	10 U	-	-	-	-	-
Nitrobenzene	-	10 U	10 U	10 U	-	-	-	-	-
Isophorone	-	10 U	10 U	10 U	-	-	-	-	-
2-Nitrophenol	-	10 U	10 U	10 U	-	-	-	-	-
2,4-Dimethylphenol	-	10 U	10 U	10 U	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	10 U	10 U	10 U	-	-	-	-	-
2,4-Dichlorophenol	-	10 U	10 U	10 U	-	-	-	-	-
1,2,4-Trichlorobenzene	-	10 U	10 U	10 U	-	-	-	-	-
Naphthalene	-	10 U	10 U	10 U	-	-	-	-	-
4-Chloroaniline	-	10 U	10 U	10 U	-	-	-	-	-
Hexachlorobutadiene	-	10 U	10 U	10 U	-	-	-	-	-
4-Chloro-3-methylphenol	-	10 U	10 U	10 U	-	-	-	-	-
2-Methylnaphthalene	-	10 U	10 U	10 U	-	-	-	-	-
Hexachlorocyclopentadiene	-	10 U	10 U	10 U	-	-	-	-	-
2,4,6-Trichlorophenol	-	10 U	10 U	10 U	-	-	-	-	-
2,4,5-Trichlorophenol	-	25 U	25 U	25 U	-	-	-	-	-
2-Chloronaphthalene	-	10 U	10 U	10 U	-	-	-	-	-
2-Nitroaniline	-	25 U	25 U	25 U	-	-	-	-	-
Dimethyl phthalate	-	10 U	10 U	10 U	-	-	-	-	-
Acenaphthylene	-	10 U	10 U	10 U	-	-	-	-	-
2,6-Dinitrotoluene	-	10 U	10 U	10 U	-	-	-	-	-
Acenaphthene	-	10 U	10 U	10 U	-	-	-	-	-
3-Nitroaniline	-	25 U	25 U	25 U	-	-	-	-	-
2,4-Dinitrophenol	-	25 UJ	25 UJ	25 UJ	-	-	-	-	-
Dibenzofuran	-	10 U	10 U	10 U	-	-	-	-	-

TABLE [illegible]
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID: ***Collection Date:***	***SC-1008*** ***10/06/95***	***SC-1010*** ***10/06/95***	***SC-1011*** ***10/06/95*** ***(Dup of SC-1010)***	***SC-1012*** ***10/06/95***
Alcohols (µg/L)				
Methanol	-	-	-	-
Ethanol	-	-	-	-
TCL Semi-Volatiles (µg/L)				
Aniline	-	-	-	-
bis(2-Chloroethyl)ether	-	-	-	-
Phenol	-	-	-	-
2-Chlorophenol	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-
2,2'-oxybis(1-Chloropropane)	-	-	-	-
2-Methylphenol	-	-	-	-
Hexachloroethane	-	-	-	-
N-Nitroso-di-n-propylamine	-	-	-	-
3&4-Methylphenol	-	-	-	-
Nitrobenzene	-	-	-	-
Isophorone	-	-	-	-
2-Nitrophenol	-	-	-	-
2,4-Dimethylphenol	-	-	-	-
bis(2-Chloroethoxy)methane	-	-	-	-
2,4-Dichlorophenol	-	-	-	-
1,2,4-Trichlorobenzene	-	-	-	-
Naphthalene	-	-	-	-
4-Chloroaniline	-	-	-	-
Hexachlorobutadiene	-	-	-	-
4-Chloro-3-methylphenol	-	-	-	-
2-Methylnaphthalene	-	-	-	-
Hexachlorocyclopentadiene	-	-	-	-
2,4,6-Trichlorophenol	-	-	-	-
2,4,5-Trichlorophenol	-	-	-	-
2-Chloronaphthalene	-	-	-	-
2-Nitroaniline	-	-	-	-
Dimethyl phthalate	-	-	-	-
Acenaphthylene	-	-	-	-
2,6-Dinitrotoluene	-	-	-	-
Acenaphthene	-	-	-	-
3-Nitroaniline	-	-	-	-
2,4-Dinitrophenol	-	-	-	-
Dibenzofuran	-	-	-	-

TABLE 3A
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID: ***Collection Date:***	*SC-1000* *10/05/95*	*SC-1001* *10/05/95*	*SC-1002* *10/05/95*	*SC-1009* *10/06/95* *(Dup of SC-1002)*	*SC-1003* *10/05/95*	*SC-1004* *10/05/95*	*SC-1005* *10/06/95*	*SC-1006* *10/06/95*	*SC-1007* *10/06/95*
TCL Semi-Volatiles (µg/L) (cont.)									
2,4-Dinitrotoluene	-	10 U	10 U	10 U	-	-	-	-	-
4-Nitrophenol	-	25 U	25 U	25 U	-	-	-	-	-
Fluorene	-	10 U	10 U	10 U	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	10 U	10 U	10 U	-	-	-	-	-
Diethylphthalate	-	10 U	10 U	10 U	-	-	-	-	-
4-Nitroaniline	-	25 U	25 U	25 U	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	25 U	25 U	25 U	-	-	-	-	-
N-nitrosodiphenylamine	-	10 U	10 U	10 U	-	-	-	-	-
4-Bromophenyl phenyl ether	-	10 U	10 U	10 U	-	-	-	-	-
Hexachlorobenzene	-	10 U	10 U	10 U	-	-	-	-	-
Pentachlorophenol	-	25 U	25 U	25 U	-	-	-	-	-
Phenanthrene	-	10 U	10 U	10 U	-	-	-	-	-
Anthracene	-	10 U	10 U	10 U	-	-	-	-	-
Carbazole	-	10 U	10 U	10 U	-	-	-	-	-
Di-n-butyl phthalate	-	0.5 J	10 U	10 U	-	-	-	-	-
Fluoranthene	-	10 U	10 U	10 U	-	-	-	-	-
Pyrene	-	10 U	10 U	10 U	-	-	-	-	-
Butyl benzyl phthalate	-	10 U	10 U	10 U	-	-	-	-	-
3,3'-Dichlorobenzidine	-	10 U	10 U	10 U	-	-	-	-	-
Benzo(a)anthracene	-	10 U	10 U	10 U	-	-	-	-	-
Chrysene	-	10 U	10 U	10 U	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	0.5 J	0.6 J	1.1 J	-	-	-	-	-
Di-n-octyl phthalate	-	10 U	10 U	10 U	-	-	-	-	-
Benzo(b)fluoranthene	-	10 U	10 U	10 U	-	-	-	-	-
Benzo(k)fluoranthene	-	10 U	10 U	10 U	-	-	-	-	-
Benzo(a)pyrene	-	10 U	10 U	10 U	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	10 U	10 U	10 U	-	-	-	-	-
Dibenz(a,h)anthracene	-	10 U	10 U	10 U	-	-	-	-	-
Benzo(g,h,i)perylene	-	10 U	10 U	10 U	-	-	-	-	-

TABL 4
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1008***	***SC-1010***	***SC-1011***	***SC-1012***
Collection Date:	***10/06/95***	***10/06/95***	***10/06/95***	***10/06/95***
			(Dup of SC-1010)	
TCL Semi-Volatiles (µg/L) (cont.)				
2,4-Dinitrotoluene	-	-	-	-
4-Nitrophenol	-	-	-	-
Fluorene	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-
Diethylphthalate	-	-	-	-
4-Nitroaniline	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	-	-
N-nitrosodiphenylamine	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-
Hexachlorobenzene	-	-	-	-
Pentachlorophenol	-	-	-	-
Phenanthrene	-	-	-	-
Anthracene	-	-	-	-
Carbazole	-	-	-	-
Di-n-butyl phthalate	-	-	-	-
Fluoranthene	-	-	-	-
Pyrene	-	-	-	-
Butyl benzyl phthalate	-	-	-	-
3,3'-Dichlorobenzidine	-	-	-	-
Benzo(a)anthracene	-	-	-	-
Chrysene	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	-	-	-
Di-n-octyl phthalate	-	-	-	-
Benzo(b)fluoranthene	-	-	-	-
Benzo(k)fluoranthene	-	-	-	-
Benzo(a)pyrene	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	-	-	-
Dibenz(a,h)anthracene	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-

TABLE 3A
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	*SC-1000*	*SC-1001*	*SC-1002*	*SC-1009*	*SC-1003*	*SC-1004*	*SC-1005*	*SC-1006*	*SC-1007*
Collection Date:	*10/05/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/05/95*	*10/05/95*	*10/06/95*	*10/06/95*	*10/06/95*
				(Dup of SC-1002)					
PCBs (µg/L)									
Aroclor-1016	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1221	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
Aroclor-1232	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1242	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1248	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1254	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
Aroclor-1260	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ	0.10 UJ
TAL Metals (µg/L)									
Aluminum	-	595 J	439 J	465 J	-	-	-	-	-
Antimony	-	3.0 U	3.0 U	3.0 U	-	-	-	-	-
Arsenic	-	3.0 U	3.0 U	3.0 U	-	-	-	-	-
Barium	-	27.6	20.5	23.4	-	-	-	-	-
Beryllium	-	1.0 U	1.0 U	1.0 U	-	-	-	-	-
Cadmium	-	2.0 U	2.0 U	2.0 U	-	-	-	-	-
Calcium	-	26600	15300	16900	-	-	-	-	-
Chromium	-	2.6	2.0 U	2.3	-	-	-	-	-
Cobalt	-	2.0 U	2.0 U	2.0 U	-	-	-	-	-
Copper	-	24.1	21.2	26.1	-	-	-	-	-
Iron	-	828 J	567 J	565 J	-	-	-	-	-
Lead	-	9.9 J	8.3 J	7.4 J	-	-	-	-	-
Magnesium	-	8510	2630	3170	-	-	-	-	-
Manganese	-	31.6 J	11.5 J	14.6 J	-	-	-	-	-
Mercury	-	0.20 U	0.24 J	0.23 J	-	-	-	-	-
Nickel	-	8.0 U	8.0 U	8.0 U	-	-	-	-	-
Potassium	-	3360	1030 UJ	2200 J	-	-	-	-	-
Selenium	-	3.0 U	3.0 U	3.0 U	-	-	-	-	-
Silver	-	1.0 U	1.0 U	1.0 U	-	-	-	-	-
Sodium	-	28000	43700	44300	-	-	-	-	-
Thallium	-	1.0 U	1.0 U	1.0 U	-	-	-	-	-
Vanadium	-	2.6	2.0 U	2.3	-	-	-	-	-
Zinc	-	148 J	49.8 J	72.1 J	-	-	-	-	-

TABL

ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1008***	***SC-1010***	***SC-1011***	***SC-1012***
Collection Date:	***10/06/95***	***10/06/95***	***10/06/95*** ***(Dup of SC-1010)***	***10/06/95***
PCBs (µg/L)				
Aroclor-1016	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1221	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U
Aroclor-1232	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1242	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1248	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
Aroclor-1254	0.10 UJ	0.10 UJ	0.12 J	0.10 U
Aroclor-1260	0.10 UJ	0.10 UJ	0.10 UJ	0.10 U
TAL Metals (µg/L)				
Aluminum	-	-	-	-
Antimony	-	-	-	-
Arsenic	-	-	-	-
Barium	-	-	-	-
Beryllium	-	-	-	-
Cadmium	-	-	-	-
Calcium	-	-	-	-
Chromium	-	-	-	-
Cobalt	-	-	-	-
Copper	-	-	-	-
Iron	-	-	-	-
Lead	-	-	-	-
Magnesium	-	-	-	-
Manganese	-	-	-	-
Mercury	-	-	-	-
Nickel	-	-	-	-
Potassium	-	-	-	-
Selenium	-	-	-	-
Silver	-	-	-	-
Sodium	-	-	-	-
Thallium	-	-	-	-
Vanadium	-	-	-	-
Zinc	-	-	-	-

TABLE 3A
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID: ***Collection Date:***	***SC-1000*** ***10/05/95***	***SC-1001*** ***10/05/95***	***SC-1002*** ***10/05/95***	***SC-1009*** ***10/06/95*** ***(Dup of SC-1002)***	***SC-1003*** ***10/05/95***	***SC-1004*** ***10/05/95***	***SC-1005*** ***10/06/95***	***SC-1006*** ***10/06/95***	***SC-1007*** ***10/06/95***
General Chemistry (mg/L)									
Oil and Grease, Total Recoverable	8.0 U	-	-	-	8.0 U	85	8.0 U	70	55
Phenolics	-	0.050 U	0.050 U	0.050 U	-	-	-	-	-
Chemical Oxygen Demand	-	-	-	-	-	-	-	-	-
Total Suspended Solids	-	-	-	-	-	-	-	-	-
Formaldehyde (µg/L)	-	50.0 U	50.0 U	50.0 U	-	-	-	-	-

TABL)
ANALYTICAL RESULTS SUMMARY - SURFACE WATERS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1008***	***SC-1010***	***SC-1011***	***SC-1012***
Collection Date:	***10/06/95***	***10/06/95***	***10/06/95***	***10/06/95***
			(Dup of SC-1010)	
General Chemistry (mg/L)				
Oil and Grease, Total Recoverable	8.0 U	16	22	84
Phenolics	-	-	-	-
Chemical Oxygen Demand	16	-	-	-
Total Suspended Solids	36	-	-	-
Formaldehyde (µg/L)	-	50.0 U	50.0 U	-

Notes:

U	Non-detect at associated value.
-	Not Analyzed
J	Associated value is estimated.
RCRA	Resource Conservation and Recovery
Dup	Field Duplicate
TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls

TABLE 3B

ANALYTICAL RESULTS SUMMARY - SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	***SC-1013***	***SC-1014***	***SC-1015***
Collection Date:	***10/09/95***	***10/09/95***	***10/09/95***
			(Dup of SC-1014)
TCL Volatiles (µg/kg)			
Chloromethane	26 UJ	34 UJ	30 UJ
Vinyl chloride	26 UJ	34 UJ	30 UJ
Bromomethane	26 UJ	34 UJ	30 UJ
Chloroethane	26 UJ	34 UJ	30 UJ
1,1-Dichloroethene	26 UJ	34 UJ	30 UJ
Carbon disulfide	26 UJ	34 UJ	30 UJ
Acetone	26 UJ	34 UJ	30 UJ
Methylene chloride	51 UJ	34 UJ	30 UJ
1,1-Dichloroethane	26 UJ	34 UJ	30 UJ
1,2-Dichloroethene (Total)	26 UJ	34 UJ	30 UJ
Chloroform	26 UJ	34 UJ	30 UJ
1,2-Dichloroethane	26 UJ	34 UJ	30 UJ
2-Butanone	26 UJ	34 UJ	30 UJ
1,1,1-Trichloroethane	26 UJ	34 UJ	30 UJ
Carbon tetrachloride	26 UJ	34 UJ	30 UJ
Benzene	26 UJ	34 UJ	30 UJ
Trichloroethene	26 UJ	34 UJ	30 UJ
1,2-Dichloropropane	26 UJ	34 UJ	30 UJ
Bromodichloromethane	26 UJ	34 UJ	30 UJ
trans-1,3-Dichloropropene	26 UJ	34 UJ	30 UJ
cis-1,3-Dichloropropene	26 UJ	34 UJ	30 UJ
1,1,2-Trichloroethane	26 UJ	34 UJ	30 UJ
Dibromochloromethane	26 UJ	34 UJ	30 UJ
Bromoform	26 UJ	34 UJ	30 UJ
4-Methyl-2-pentanone	26 UJ	34 UJ	30 UJ
Toluene	26 UJ	34 UJ	30 UJ
Tetrachloroethene	26 UJ	34 UJ	30 UJ
2-Hexanone	26 UJ	34 UJ	30 UJ
Chlorobenzene	26 UJ	34 UJ	30 UJ
Ethyl benzene	26 UJ	34 UJ	30 UJ
Xylene (Total)	26 UJ	34 UJ	30 UJ
Styrene	26 UJ	34 UJ	30 UJ
1,1,2,2-Tetrachloroethane	26 UJ	34 UJ	30 UJ
Alcohols (µg/kg)			
Methanol	21000 UJ	19000 UJ	21000 UJ
Ethanol	21000 UJ	19000 UJ	21000 UJ
TCL Semi-Volatiles (µg/kg)	*(µg/kg)*	*(µg/kg)*	*(µg/kg)*
Aniline	2500 J	5700 UJ	1000 UJ
bis(2-Chloroethyl)ether	4300 UJ	5700 UJ	1000 UJ
Phenol	5400 J	2800 J	1600 J
2-Chlorophenol	4300 UJ	5700 UJ	1000 UJ
1,3-Dichlorobenzene	4300 UJ	5700 UJ	1000 UJ
1,4-Dichlorobenzene	4300 UJ	5700 UJ	1000 UJ
1,2-Dichlorobenzene	4300 UJ	5700 UJ	1000 UJ
2,2'-oxybis(1-Chloropropane)	4300 UJ	5700 UJ	1000 UJ
2-Methylphenol	1400 J	1100 J	490 J
Hexachloroethane	4300 UJ	5700 UJ	1000 UJ
N-Nitroso-di-n-propylamine	4300 UJ	5700 UJ	1000 UJ
3&4-Methylphenol	2400 J	1600 J	690 J
Nitrobenzene	4300 UJ	5700 UJ	1000 UJ
Isophorone	4300 UJ	5700 UJ	1000 UJ
2-Nitrophenol	4300 UJ	5700 UJ	1000 UJ
2,4-Dimethylphenol	8500 J	3100 J	1900 J
bis(2-Chloroethoxy)methane	4300 UJ	5700 UJ	1000 UJ

TABLE 3B

ANALYTICAL RESULTS SUMMARY - SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
Collection Date:	*10/09/95*	*10/09/95*	*10/09/95*
			(Dup of SC-1014)
TCL Semi-Volatiles (µg/kg) (cont.)			
2,4-Dichlorophenol	4300 UJ	5700 UJ	1000 UJ
1,2,4-Trichlorobenzene	4300 UJ	5700 UJ	1000 UJ
Naphthalene	430 J	17000 J	1100 J
4-Chloroaniline	4300 UJ	5700 UJ	1000 UJ
Hexachlorobutadiene	4300 UJ	5700 UJ	1000 UJ
4-Chloro-3-methylphenol	4300 UJ	5700 UJ	1000 UJ
2-Methylnaphthalene	4300 UJ	7900 J	590 J
Hexachlorocyclopentadiene	4300 UJ	5700 UJ	1000 UJ
2,4,6-Trichlorophenol	4300 UJ	5700 UJ	1000 UJ
2,4,5-Trichlorophenol	11000 UJ	14000 UJ	2500 UJ
2-Chloronaphthalene	4300 UJ	5700 UJ	1000 UJ
2-Nitroaniline	11000 UJ	14000 UJ	2500 UJ
Dimethyl phthalate	4300 UJ	310 J	1000 UJ
Acenaphthylene	4300 UJ	5700 UJ	1000 UJ
2,6-Dinitrotoluene	4300 UJ	5700 UJ	1000 UJ
Acenaphthene	4300 UJ	9800 J	820 J
3-Nitroaniline	11000 UJ	14000 UJ	2500 UJ
2,4-Dinitrophenol	11000 UJ	14000 UJ	2500 UJ
Dibenzofuran	4300 UJ	9000 J	680 J
2,4-Dinitrotoluene	4300 UJ	5700 UJ	1000 UJ
4-Nitrophenol	11000 UJ	14000 UJ	2500 UJ
Fluorene	4300 UJ	13000 J	1000 J
4-Chlorophenyl phenyl ether	4300 UJ	5700 UJ	1000 UJ
Diethylphthalate	4300 UJ	5700 UJ	1000 UJ
4-Nitroaniline	11000 UJ	14000 UJ	2500 UJ
4,6-Dinitro-2-methylphenol	11000 UJ	14000 UJ	2500 UJ
N-nitrosodiphenylamine	4300 UJ	5700 UJ	1000 UJ
4-Bromophenyl phenyl ether	4300 UJ	5700 UJ	1000 UJ
Hexachlorobenzene	4300 UJ	5700 UJ	1000 UJ
Pentachlorophenol	11000 UJ	14000 UJ	2500 UJ
Phenanthrene	370 J	39000 J	4400 J
Anthracene	4300 UJ	17000 J	1500 J
Carbazole	4300 UJ	8900 J	790 J
Di-n-butyl phthalate	98000 J	27000 J	28000 J
Fluoranthene	650 J	33000 J	3800 J
Pyrene	450 J	26000 J	3000 J
Butyl benzyl phthalate	1200 J	5700 UJ	1000 UJ
3,3'-Dichlorobenzidine	4300 UJ	5700 UJ	1000 UJ
Benzo(a)anthracene	300 J	21000 J	2100 J
Chrysene	350 J	16000 J	1800 J
bis(2-Ethylhexyl)phthalate	1200 J	5700 UJ	350 J
Di-n-octyl phthalate	4300 UJ	5700 UJ	1000 UJ
Benzo(b)fluoranthene	290 J	12000 J	1200 J
Benzo(k)fluoranthene	400 J	9400 J	1100 J
Benzo(a)pyrene	330 J	14000 J	1300 J
Indeno(1,2,3-cd)pyrene	230 J	6400 J	680 J
Dibenz(a,h)anthracene	4300 UJ	2800 J	340 J
Benzo(g,h,i)perylene	220 J	5200 J	550 J
PCBs (µg/kg)			
Aroclor-1016	85 UJ	110 UJ	100 UJ
Aroclor-1221	170 UJ	230 UJ	200 UJ
Aroclor-1232	85 UJ	110 UJ	100 UJ
Aroclor-1242	85 UJ	110 UJ	100 UJ
Aroclor-1248	11000 J	4200 J	3500 J
Aroclor-1254	85 UJ	110 UJ	100 UJ
Aroclor-1260	85 UJ	110 UJ	100 UJ

TABLE 3B

ANALYTICAL RESULTS SUMMARY - SEDIMENTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Sample ID:	*SC-1013*	*SC-1014*	*SC-1015*
Collection Date:	*10/09/95*	*10/09/95*	*10/09/95*
			(Dup of SC-1014)
TAL Metals (mg/kg)			
Aluminum	7810 J	11100 J	10800 J
Antimony	R	R	R
Arsenic	5.8 J	46.9 J	46.6 J
Barium	76.2 J	250 J	278 J
Beryllium	0.61 J	0.78 J	0.84 J
Cadmium	2.0 UJ	2.4 UJ	2.9 UJ
Calcium	15900 J	21000 J	14300 J
Chromium	26.2 J	81.3 J	42.6 J
Cobalt	7.4 J	10.9 J	9.5 J
Copper	66.7 J	637 J	958 J
Iron	14200 J	40700 J	28900 J
Lead	51.0 J	488 J	568 J
Magnesium	7930 J	7720 J	7770 J
Manganese	352 J	1020 J	753 J
Mercury	1.5 J	0.45 J	R
Nickel	31.1 J	57.1 J	53.3 J
Potassium	527 UJ	1250 J	632 UJ
Selenium	1.5 UJ	2.5 J	2.1 J
Silver	0.51 UJ	1.5 J	1.2 UJ
Sodium	277 J	372 J	305 J
Thallium	0.51 UJ	2.0 UJ	1.2 UJ
Vanadium	15.3 J	35.9 J	23.9 J
Zinc	1970 J	7730 J	7570 J
Formaldehyde (mg/kg)	1.1 UJ	0.96 UJ	1.1 UJ

Notes:

U	Non-detect at associated value.
J	Associated value is estimated.
RCRA	Resource Conservation and Recovery Act
Dup	Field Duplicate
TCL	Target Compound List
TAL	Target Analyte List
PCBs	Polychlorinated Biphenyls
R	Data Rejected

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Compound*	*Calibration Date*	*%RSD*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	Methylene chloride	10/12/96	61.4	SC-1009	2J	µg/L	*
	Methylene chloride	10/4/96	37.6	SC-1013	51	µg/kg	J
				SC-1014	33J	µg/kg	*
				SC-1015	16J	µg/kg	*

Notes:

%RSD	Relative Standard Deviation
J	Associated value is estimated.
*	Result previously qualified as estimated by laboratory.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Compound*	*Calibration Date*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	4-Methyl-2-Pentanone	10/12/95	30.0	SC-1001	10 U	µg/L	J
	2-Hexanone	10/12/95	29.4	SC-1001	10 U	µg/L	J
	Acetone	10/13/95	80.5	SC-1002	10 U	µg/L	J
	Methylene Chloride	10/12/95	28.3	SC-1009	2J	µg/L	*
	Chloromethane	10/16/95	29.4	SC-1013	26 U	µg/kg	J
	Chloromethane	10/17/95	38.4	SC-1014	34 U	µg/kg	J
				SC-1015	30 U	µg/kg	J
	Vinyl chloride	10/17/95	29.9	SC-1014	34 U	µg/kg	J
				SC-1015	30 U	µg/kg	J
Semi-Volatiles	2,4-Dinitrophenol	11/06/95	34.0	SC-1001	25 U	µg/L	J
				SC-1002	25 U	µg/L	J
				SC-1009	25 U	µg/L	J
				SC-1013	11000 U	µg/kg	J
	bis(2-Ethylhexyl)phthalate	11/06/95	34.3	SC-1001	0.5J	µg/L	*
				SC-1002	0.6J	µg/L	*
				SC-1009	1.1J	µg/L	*
				SC-1013	1200J	µg/kg	*
	Benzo(b)fluoranthene	11/08/96	28.4	SC-1015	1200	µg/kg	J
		11/09/96	29.7	SC-1014	12000	µg/kg	J
	Benzo(k)fluoranthene	11/08/96	28.0	SC-1015	1100	µg/kg	J

Notes:

%D	Percent Difference
U	Non-detect at associated value.
J	Associated value is estimated.
*	Result previously qualified as estimated by laboratory.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CRDL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Calibration Date*	*CRDL Standard Recovery (percent)*	*Control Limits (percent)*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
TAL Metals	Arsenic	10/26/95	134	80-120	SC-1013	5.8	mg/kg	J
	Cadmium	10/26/95	126	80-120	SC-1013	2.0	mg/kg	J
					SC-1014	2.4	mg/kg	J
					SC-1015	2.9	mg/kg	J
	Mercury	10/24/95	135	80-120	SC-1002	0.24	µg/L	J
					SC-1009	0.23	µg/L	J
	Thallium	10/25/95	125	80-120	SC-1014	2.0	mg/kg	J
					SC-1015	1.2	mg/kg	J

Notes:

CRDL	Contract Required Detection Limit
J	Associated value is estimated.

TABLE 7

QUALIFIED SAMPLE DATA DUE TO OUTLYING SURROGATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Sample ID*	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
PCBs	SC-1014	Decachlorobiphenyl	171	60-150	PCB-1248	4200	µg/kg	J
		Tetrachloro-m-xylene	168	60-150				

Notes:

J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Sample ID*	*Internal Standard*	*Internal Standard Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Qualifier*	*Units*
Volatiles	SC-1013	Chlorobenzene-d5	45	50-200	2-Hexanone	26U	J	µg/kg
					4-Methyl-2-pentanone	26U	J	µg/kg
					Tetrachloroethene	26U	J	µg/kg
					1,1,2,2-Tetrachloroethane	26U	J	µg/kg
					Toluene	26U	J	µg/kg
					Chlorobenzene	26U	J	µg/kg
					Ethylbenzene	26U	J	µg/kg
					Styrene	26U	J	µg/kg
					Xylenes	26U	J	µg/kg

Notes:

U	Non-detect at associated value.
J	Associated value is estimated.

TABLE 9

QUALIFIED SAMPLE RESULTS DUE TO CONTAMINATION INTRODUCED DURING ANALYSIS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Blank Result(1)*	*Associated Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
Metals	Thallium	1.4	SC-1001	1.0	1.0 U	µg/L
	Thallium	0.8	SC-1014	2.0	2.0 U	mg/kg
		0.7	SC-1015	1.2	1.2 U	mg/kg
	Cadmium	1.3	SC-1013	2.0	2.0 U	mg/kg
		1.7	SC-1014	2.4	2.4 U	mg/kg
		1.5	SC-1015	2.9	2.9 U	mg/kg
	Antimony	1.5	SC-1013	2.4	2.4 U	mg/kg
		2.1	SC-1014	4.7	4.7 U	mg/kg
		1.8	SC-1015	6.0	6.0 U	mg/kg
Volatiles	Methylene chloride	8.6J	SC-1001	25	25 U	µg/L
		5.7J	SC-1002	13	13 U	µg/L
	Methylene chloride	11J	SC-1013	51	51 U	µg/kg
		9.3J	SC-1014	33J	34 U	µg/kg
		8.2J	SC-1015	16J	30 U	µg/kg

Notes:
(1) Blank result corrected to reflect individual sample weights and %solids.
U Non-detect at associated value.

TABLE 10

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Spike ID*	*Analyte*	*MS Recovery (percent)*	*MSD Recovery (percent)*	*RPD*	*Control Limits (percent)*	*RPD Control Limits (percent)*	*Associated Sample ID*	*Sample Result*	*Units*	*Qualifier*
Semi-Volatiles	SC-1013	Phenol	38	72	62	26-90	0-35	SC-1013	5400	µg/kg	J
								SC-1014	2800J	µg/kg	*
								SC-1015	1600	µg/kg	J

Notes:

J	Associated value is estimated.
*	Result previously qualified as estimated by laboratory.
RPD	Relative Percent Difference
MS	Matrix Spike
MSD	Matrix Spike Duplicate

TABLE 11

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Associated Samples*	*Sample Results*	*Units*	*Qualifier*
Metals	Iron	SC-1001	171	75-125	SC-1001	828	µg/L	J
					SC-1002	567	µg/L	J
					SC-1009	565	µg/L	J
	Lead	SC-1001	164	75-125	SC-1001	9.9	µg/L	J
					SC-1002	8.3	µg/L	J
					SC-1009	7.4	µg/L	J
	Manganese	SC-1001	126	75-125	SC-1001	31.6	µg/L	J
					SC-1002	11.5	µg/L	J
					SC-1009	14.6	µg/L	J
	Zinc	SC-1001	138	75-125	SC-1001	148	µg/L	J
					SC-1002	49.8	µg/L	J
					SC-1009	72.1	µg/L	J
	Antimony	SC-1013	28	75-125	SC-1013	2.4U	mg/kg	R
					SC-1014	4.7U	mg/kg	R
					SC-1015	6.0U	mg/kg	R
	Mercury	SC-1013	0	75-125	SC-1013	1.5	mg/kg	J
					SC-1014	0.45	mg/kg	J
					SC-1015	0.31U	mg/kg	R

Notes:

U	Non-detect at associated value.
J	Associated value is estimated.
R	Data Rejected
MS	Matrix Spike

TABLE 12

QUALIFIED SAMPLE DATA DUE TO POOR LABORATORY DUPLICATE PRECISION
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Analyte	*Sample ID*	*Original Result*	*Duplicate Result*	*RPD*	*RPD Control Limit*	*Associated Sample IDs*	*Sample Results*	*Qualifier*	*Units*
Aluminum	SC-1001	595	817	31	0-20	SC-1001	595	J	µg/L
						SC-1002	439	J	µg/L
						SC-1009	465	J	µg/L
Iron	SC-1001	828	1190	36	0-20	SC-1001	828	J	µg/L
						SC-1002	567	J	µg/L
						SC-1009	565	J	µg/L
Manganese	SC-1001	31.6	60.4	63	0-20	SC-1001	31.6	J	µg/L
						SC-1002	11.5	J	µg/L
						SC-1009	14.6	J	µg/L
Zinc	SC-1001	148	195	27	0-20	SC-1001	148	J	µg/L
						SC-1002	49.8	J	µg/L
						SC-1009	72.1	J	µg/L
Mercury	SC-1013	1.5	0.26U	NA	0-35	SC-1013	1.5	J	mg/kg
						SC-1014	0.45	J	mg/kg

Notes:

J	Associated value is estimated.
RPD	Relative Percent Difference

TABLE 13

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING ICP SERIAL DILUTION RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESGIATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Serial Dilution Sample ID*	*%D*	*Sample Result*	*Units*	*Qualifier*
Metals	Aluminum	SC-1001	26	595	µg/L	J

Notes:

J	Associated value is estimated.
%D	Percent Difference

TABLE 14

QUALIFIED SAMPLE DATA DUE TO OUTLYING POST-DIGESTION SPIKE RECOVERIES
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Sample ID*	*MS (percent)*	*Control Limits Recovery (percent)*	*Sample Results*	*Units*	*Qualifier*
Metals	Selenium	SC-1014	80	85-115	2.5	mg/kg	J
		SC-1015	84	85-115	2.1	mg/kg	J

Notes:

J	Associated value is estimated.
MS	Matrix Spike

TABLE 15

QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

		Original		*Duplicate*				
Parameter	*Analyte*	*Sample ID*	*Result*	*Sample ID*	*Result*	*RPD*	*Units*	*Qualifier(1)*
Metals	Potassium	SC-1002	1030U	SC-1009	2200	NA	µg/L	J
	Zinc	SC-1002	49.8	SC-1009	72.1	37	µg/L	J
	Chromium	SC-1014	81.3	SC-1015	42.6	62	mg/Kg	J
Semi-volatiles	Phenol	SC-1014	2800J	SC-1015	1600	54	µg/kg	J
	2-Methylphenol	SC-1014	1100J	SC-1015	490J	77	µg/kg	J
	3&4-Methylphenol	SC-1014	1600J	SC-1015	690J	79	µg/kg	J
	Naphthalene	SC-1014	17000	SC-1015	1100	176	µg/kg	J
	2-Methylnaphthalene	SC-1014	7900	SC-1015	590J	172	µg/kg	J
	Dibenzofuran	SC-1014	9000	SC-1015	680J	172	µg/kg	J
	Fluorene	SC-1014	13000	SC-1015	1000J	171	µg/kg	J
	Phenanthrene	SC-1014	39000	SC-1015	4400	159	µg/kg	J
	Anthracene	SC-1014	17000	SC-1015	1500	178	µg/kg	J
	Carbazole	SC-1014	8900	SC-1015	790J	166	µg/kg	J
	Fluoranthene	SC-1014	33000	SC-1015	3800	159	µg/kg	J
	Pyrene	SC-1014	26000	SC-1015	3000	159	µg/kg	J
	Benzo(a)anthracene	SC-1014	21000	SC-1015	2100	164	µg/kg	J
	Chrysene	SC-1014	16000	SC-1015	1800	160	µg/kg	J
	Benzo(b)fluoranthene	SC-1014	12000	SC-1015	1200	194	µg/kg	J
	Benzo(k)fluoranthene	SC-1014	9400	SC-1015	1100	158	µg/kg	J
	Benzo(a)pyrene	SC-1014	14000	SC-1015	1300	166	µg/kg	J
	Indeno(1,2,3-cd)pyrene	SC-1014	6400	SC-1015	680J	162	µg/kg	J
	Dibenz(a,h)anthracene	SC-1014	2800J	SC-1015	340J	157	µg/kg	J
	Benzo(g,h,i)perylene	SC-1014	5200J	SC-1015	550J	162	µg/kg	J
	Acenaphthene	SC-1014	9800	SC-1015	820J	169	µg/kg	J

Notes:

RPD	Relative Percent Difference
U	Non-detect at associated value.
J	Associated value is estimated.
NA	Not Applicable
(1)	Qualifier applied to both original and duplicate sample result.

TABLE 16

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE TRIP BLANK
RCRA FACILITY INVESTIGATION AND REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SURFACE WATER AND SEDIMENTS
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
OCTOBER 1995

Parameter	*Analyte*	*Blank ID/Date*	*Blank Result*	*Associated Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
Volatiles	Methylene chloride	10/6/95	4.5J	SC-1001	25	25 U	μg/L
				SC-1002	13	13 U	μg/L
				SC-1009	2J	10 U	μg/L

Notes:
J Associated value is estimated.
U Non-detect at associated value.

ANALYTICAL DATA ASSESSMENT AND VALIDATION
GROUNDWATER MONITORING PROGRAM - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

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(Following Report)

1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by Columbia Analytical Services, Inc. (CAS) for groundwater samples collected at Spaulding Composites Company, Inc. in Tonawanda, New York (Site) in July 1996. A sample collection summary key is presented in Table 1.

Samples were analyzed as specified in Table 1. A summary of the analytical methods used is presented in Table 2.

The analytical data are presented in Table 3. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

i) "National Functional Guidelines for Organic Data Review", June 1991, prepared by the United States Environmental Protection Agency (USEPA); and

ii) "Functional Guidelines for Evaluating Inorganics Analyses", July 1988, prepared by the USEPA Data Review Work Group; and

iii) "Quality Assurance Project Plan (QAPP)", Spaulding Composites Company, Inc., Tonawanda, New York, August 1993.

A standard SW-846 analytical report was provided by the laboratory for the analyses. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC provided.

2.0 SAMPLE HOLDING TIMES

The holding times criteria specified in the QAPP are summarized in Table 2.

All samples were prepared and analyzed within the required holding times with the exception of some samples analyzed for petroleum products. Since exceeding sample holding times can introduce a low bias in the results, all associated data were qualified as estimated in Table 4.

All samples were properly preserved, shipped to the laboratory, and received at 4°C (±2°C).

3.0 SURROGATE SPIKE RECOVERIES

Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency. In accordance with the methods employed, all samples, blanks, and standards analyzed for VOCs, SVOCs, and PCBs were spiked with the required surrogate compounds prior to sample extraction and/or analysis. The recoveries were assessed using the criteria specified in the QAPP.

All surrogate recoveries were acceptable with the following exceptions:

i) All SVOC surrogate recoveries in samples W-072496-DJT-015 and W-072496-DJT-016 were diluted out and could not be evaluated. The data for these samples were assessed based on the results of matrix spike/matrix spike duplicate (MS/MSD) and blank spike (BS) analyses.

ii) Low PCB surrogate recoveries were reported for samples W-072396-DJT-011, W-072596-DJT-022, and W-072596-DJT-023. Associated sample results were qualified as estimated to reflect the indicated low bias (see Table 5).

4.0 INTERNAL STANDARD RECOVERIES - VOLATILES AND SEMI-VOLATILES

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, internal standard compounds are added to all samples, blanks, and spike samples prior to VOC and SVOC analyses. All results are calculated as a ratio of the internal standard response.

The internal standards were assessed using the criteria specified by the National Functional Guidelines.

All VOC and SVOC internal standard area counts and retention times were acceptable.

5.0 LABORATORY BLANK ANALYSES

The purpose of assessing the results of laboratory blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory blanks are prepared from deionized water and analyzed as samples.

For this study, laboratory blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

All laboratory blanks were non-detect for the analytes of interest, indicating that contamination was not a factor in these analyses.

6.0 BLANK SPIKE ANALYSES - ORGANICS

Blank spikes are prepared and analyzed as samples to assess the analytical accuracy of the method employed, independent of sample matrix effects. Blank spikes were performed at a frequency of one per analytical batch.

All blank spike recoveries were within the QAPP-required control limits, indicating acceptable analytical accuracy.

7.0 LABORATORY CONTROL SAMPLE ANALYSES - ZINC

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were reported for zinc analysis. All LCS samples yielded recoveries within the QAPP-required control limit, indicating acceptable analytical accuracy.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - ORGANICS

The recoveries of MS/MSD analyses are used to assess the analytical accuracy achieved on individual sample matrices. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

Organics analyses were spiked with the QAPP-specified analytes. MS/MSD analyses were performed on sample W-072396-DJT-008. All recoveries and RPDs were within the control limits specified in the QAPP, indicating good laboratory accuracy and precision for all organic parameters.

9.0 MATRIX SPIKE (MS) ANALYSIS - ZINC

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent.

An acceptable MS analysis was performed on sample W-072396-DJT-008.

ANALYTICAL RESULTS AND QA/QC REVIEW
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

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10.0 DUPLICATE SAMPLE ANALYSES - ZINC

For inorganic parameters, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed for sample W-072396-DJT-008.

The duplicate sample results were less than five times the CRDL and were evaluated based on the difference between the sample and duplicate results. The difference did not exceed the CRDL, indicating acceptable analytical precision.

11.0 FIELD QA/QC

11.1 FIELD DUPLICATES

To assess the analytical and sampling protocol precision, two field duplicates (as identified in Table 1) were collected and submitted "blind" to the laboratory. Most data outside of estimated regions of detection demonstrated acceptable agreement. Data which did indicate variability were qualified as estimated (see Table 6).

11.2 TRIP BLANKS - VOLATILES, METHANOL, AND ETHANOL

To evaluate the possibility of contamination arising from sample shipment and storage activities, trip blanks were collected and submitted for VOC analysis. One trip blank, collected July 25, 1996, was analyzed for VOCs, methanol, and ethanol.

All trip blanks were non-detect for the compounds of interest.

11.3 RINSE BLANKS

To evaluate the possibility of contamination arising from sample equipment or inefficient cleansing protocols between wells, three rinsate blanks were collected and submitted for all parameters.

All rinsate blank results were non-detect for the analytes of interest with the exception of zinc detected in two of the three rinsate blank. All associated sample results up to five times the level present in the rinsate blanks were qualified as non-detect (see Table 7).

12.0 GENERAL COMMENTS

Petroleum products were present in some investigative samples. For identification purposes, the sample analysis peak patterns did not match the petroleum standards of interest. These peaks were identified as unknown hydrocarbons and quantitated from an n-dodecane standard.

13.0 CONCLUSION

Based on this assessment, the data produced by CAS are acceptable with the specific qualifications noted.

TABLE 1

SAMPLE COLLECTION SUMMARY
GROUNDWATERS - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Sample ID	*Well I.D.*	*Collection Date*	*Analyses*	*Comments*
W-072296-DJT-001	Rinse Blank	07/22/96	SSPL	
W-072396-DJT-002	OW-2	07/23/96	SSPL	
W-072396-DJT-003	OW-4	07/23/96	SSPL	
W-072396-DJT-004	OW-1	07/23/96	SSPL	
W-072396-DJT-005	OW-3	07/23/96	SSPL	
W-072396-DJT-006	OW-6	07/23/96	SSPL	
W-072396-DJT-007	Rinse Blank	07/23/96	SSPL	
W-072396-DJT-008	OW-A1	07/23/96	SSPL	MS/MSD
W-072396-DJT-009	OBW-2	07/23/96	SSPL	
W-072396-DJT-010	OBW-2	07/23/96	SSPL	Duplicate of W-072396-DJT-009
W-072396-DJT-011	OW-B2	07/23/96	SSPL	
W-072496-DJT-012	Rinse Blank	07/24/96	SSPL	
W-072496-DJT-013	OW-10	07/24/96	SSPL	
W-072496-DJT-014	OW-9	07/24/96	SSPL	
W-072496-DJT-015	OW-8	07/24/96	SSPL	
W-072496-DJT-016	OW-8	07/24/96	SSPL	Duplicate of W-072496-DJT-015
W-072496-DJT-017	OW-7	07/24/96	SSPL	
W-072496-DJT-018	OW-12	07/24/96	SSPL	
W-072496-DJT-019	BW-12	07/24/96	SSPL	
W-072496-DJT-020	BW-10	07/24/96	SSPL	
W-072596-DJT-021	BW-9	07/25/96	SSPL	
W-072596-DJT-022	OW-11	07/25/96	SSPL	
W-072596-DJT-023	OW-C3	07/25/96	SSPL	

Notes:

MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
SSPL	Site Specific Parameter List includes Target Compound List Volatile Organic Compounds (TCL VOCs); Selected Semi-Volatiles Organic Compounds (SVOCs); Polychlorinated Biphenyls (PCBs); Methanol; Ethanol; Petroleum Products; and Zinc.

TABLE 2

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Parameter	*Method (1)*	*Holding Time Criteria (2)*
TCL VOCs	SW-846 8260	7 days from collection to analysis
Methanol, Ethanol	SW-846 8015	7 days from collection to analysis
SVOCs	SW-846 8270	7 days from collection to extraction 40 days from extraction to analysis
PCBs	SW-846 8080	7 days from collection to extraction 40 days from extraction to analysis
Petroleum Products	NYSDOH 310-13	7 days from collection to analysis
Zinc	SW-846 6010	6 months from collection to analysis

Notes:

(1) Methods are referenced from "Test Methods for the Evaluation of Solid Hazardous Waste Physical/Chemical Methods", SW-846, Third Edition, September 1986 (with updates), and "Petroleum Products in Water (Hydrocarbon Scan), New York State Department of Health (NYSDOH), Handbook 9 (310-13), August 1982.

(2) Holding times criteria referenced from the QAPP.

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID:	*OW-2*	*OW-4*	*OW-1*	*OW-3*	*OW-6*	*OW-A1*	*OBW-2*
Sample ID:	*W-072396-DJT-002*	*W-072396-DJT-003*	*W-072396-DJT-004*	*W-072396-DJT-005*	*W-072396-DJT-006*	*W-072396-DJT-008*	*W-072396-DJT-009*
Collection Date:	*07/23/96*	*07/23/96*	*07/23/96*	*07/23/96*	*07/23/96*	*07/23/96*	*07/23/96*
TCL Volatiles (μg/L)							
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 J
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.2J
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID: *Sample ID:* *Collection Date:*	*OW-2* *W-072396-DJT-002* *07/23/96*	*OW-4* *W-072396-DJT-003* *07/23/96*	*OW-1* *W-072396-DJT-004* *07/23/96*	*OW-3* *W-072396-DJT-005* *07/23/96*	*OW-6* *W-072396-DJT-006* *07/23/96*	*OW-A1* *W-072396-DJT-008* *07/23/96*	*OBW-2* *W-072396-DJT-009* *07/23/96*
Semi-Volatiles (µg/L)							
Aniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo (a) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (a) pyrene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (b) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (k) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Di-n-butylphthalate	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Chrysene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
3/4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
1,2-Dichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	6.0	6.5	5.8	5.8	6.2	5.1 U	25
Hexachlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	340 J
1,2,4-Trichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
PCBs (µg/L)							
Aroclor 1016	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1221	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1232	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1242	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1248	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1254	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Aroclor 1260	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.065 U	0.066 U
Petroleum Products (µg/L)							
Unknown Hydrocarbons*	100 UJ	100 UJ	100 UJ	520 J	100 UJ	100 UJ	100 UJ
Fuel oil #2/diesel fuel	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ
Gasoline	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ
Kerosene	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ	100 UJ
Metals (mg/L)							
Zinc	0.0273 U	0.293 U	0.102 U	1.64	0.0100 U	0.0246 U	0.122 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID:	*OBW-2*	*OW-B2*	*OW-10*	*OW-9*	*OW-8*	*OW-8*
Sample ID:	*W-072396-DJT-010*	*W-072396-DJT-011*	*W-072496-DJT-013*	*W-072496-DJT-014*	*W-072496-DJT-015*	*W-072496-DJT-016*
Collection Date:	*07/23/96*	*07/23/96*	*07/24/96*	*07/24/96*	*07/24/96*	*07/24/96*
	(Duplicate)					*(Duplicate)*
TCL Volatiles (µg/L)						
Acetone	10 U	10 U	10 U	25	170	140
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	2.8J	2.8J
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	19	18
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	2.6J	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	2.8J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	3.4J	3.4J
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	2.0J	1.7J
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	25	24
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	6.5	6.4
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	9.5	9.7
Ethanol (µg/L)	1000 U	1000 U	1000 U	1000 U	2500	2500
Methanol (µg/L)	1000 U	1000 U	1000 U	1000 U	10000	10000

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID: ***Sample ID:*** ***Collection Date:***	***OBW-2*** ***W-072396-DJT-010*** ***07/23/96*** ***(Duplicate)***	***OW-B2*** ***W-072396-DJT-011*** ***07/23/96***	***OW-10*** ***W-072496-DJT-013*** ***07/24/96***	***OW-9*** ***W-072496-DJT-014*** ***07/24/96***	***OW-8*** ***W-072496-DJT-015*** ***07/24/96***	***OW-8*** ***W-072496-DJT-016*** ***07/24/96*** ***(Duplicate)***
Semi-Volatiles (µg/L)						
Aniline	20 U	20 U	20 U	20 U	51000 U	51000 U
Benzo (a) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
Benzo (a) pyrene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
Benzo (b) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
Benzo (k) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
Di-n-butylphthalate	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
Chrysene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
3/4-Methylphenol	10 U	10 U	10 U	10 U	220000	210000
Dibenzo (a,h) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
1,2-Dichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	73000	70000
Bis (2-ethylhexyl) phthalate	33	5.1 U	5.1 U	9.1	13000 U	13000 U
Hexachlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
2-Methylphenol	10 U	10 U	10 U	10 U	47000	45000
Phenol	160 J	10 U	10 U	10 U	190000	180000
1,2,4-Trichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	13000 U	13000 U
PCBs (µg/L)						
Aroclor 1016	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1221	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1232	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1242	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1248	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1254	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Aroclor 1260	0.066 U	0.066 UJ	0.066 U	0.066 U	0.066 U	0.066 U
Petroleum Products (µg/L)						
Unknown Hydrocarbons*	100 UJ	100 UJ	100 U	100 U	26000 J	25000 J
Fuel oil #2/diesel fuel	100 UJ	100 UJ	100 U	100 U	300 UJ	300 UJ
Gasoline	100 UJ	100 UJ	100 U	100 U	300 UJ	300 UJ
Kerosene	100 UJ	100 UJ	100 U	100 U	300 UJ	300 UJ
Metals (mg/L)						
Zinc	0.109 U	0.0679 U	0.0140 U	0.162 U	0.0100 U	0.0207 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID: ***Sample ID:*** ***Collection Date:***	*OW-7* *W-072496-DJT-017* *07/24/96*	*OW-12* *W-072496-DJT-018* *07/24/96*	*BW-12* *W-072496-DJT-019* *07/24/96*	*BW-10* *W-072496-DJT-020* *07/24/96*	*BW-9* *W-072596-DJT-021* *07/25/96*	*OW-11* *W-072596-DJT-022* *07/25/96*	*OW-C3* *W-072596-DJT-023* *07/25/96*
TCL Volatiles (μg/L)							
Acetone	10 U	10 U	10 U	10 U	16	10 U	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	45	10 U
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.4J	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3J	26
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	60
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Well ID:	***OW-7***	***OW-12***	***BW-12***	***BW-10***	***BW-9***	***OW-11***	***OW-C3***
Sample ID:	***W-072496-DJT-017***	***W-072496-DJT-018***	***W-072496-DJT-019***	***W-072496-DJT-020***	***W-072596-DJT-021***	***W-072596-DJT-022***	***W-072596-DJT-023***
Collection Date:	***07/24/96***	***07/24/96***	***07/24/96***	***07/24/96***	***07/25/96***	***07/25/96***	***07/25/96***
Semi-Volatiles (μg/L)							
Aniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo (a) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (a) pyrene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (b) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Benzo (k) fluoranthene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Di-n-butylphthalate	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
Chrysene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
3/4-Methylphenol	120	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
1,2-Dichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
2,4-Dimethylphenol	60	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	9.4	5.1 U	7.8	20	10	5.6	5.1 U
Hexachlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
2-Methylphenol	26	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	68	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U
PCBs (μg/L)							
Aroclor 1016	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Aroclor 1221	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Aroclor 1232	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Aroclor 1242	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Aroclor 1248	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.15 J
Aroclor 1254	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Aroclor 1260	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 UJ	0.066 UJ
Petroleum Products (μg/L)							
Unknown Hydrocarbons*	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Fuel oil #2/diesel fuel	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Gasoline	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Kerosene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Metals (mg/L)							
Zinc	0.0477 U	0.0139 U	0.0263 U	0.0409 U	0.0215	0.520	0.0100 U

Notes:

*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
TCL	Target Compound List
U	Non-detect at associated value.

TABLE 4

QUALIFIED SAMPLE DATA DUE TO HOLDING TIME EXCEEDANCES
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Parameter	*Sample ID*	*Compound*	*Holding Time (days)*	*Holding Time Criteria (days)*	*Sample Result*	*Units*	*Qualifier*
Petroleum Products	W-072396-DJT-002	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-003	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-004	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-005	Unknown Hydrocarbons	14	7	520	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-006	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-008	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-009	Unknown Hydrocarbons	14	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-010	Unknown Hydrocarbons	14	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072396-DJT-011	Unknown Hydrocarbons	8	7	100 U	μg/L	J
		Fuel oil #2/diesel fuel			100 U	μg/L	J
		Gasoline			100 U	μg/L	J
		Kerosene			100 U	μg/L	J
	W-072496-DJT-015	Unknown Hydrocarbons	13	7	26000	μg/L	J
		Fuel oil #2/diesel fuel			300 U	μg/L	J
		Gasoline			300 U	μg/L	J
		Kerosene			300 U	μg/L	J
	W-072496-DJT-016	Unknown Hydrocarbons	12	7	25000	μg/L	J
		Fuel oil #2/diesel fuel			300 U	μg/L	J
		Gasoline			300 U	μg/L	J
		Kerosene			300 U	μg/L	J

Notes:

U Non-detect at associated value.

Associated value is estimated.

TABLE 5

QUALIFIED SAMPLE DATA DUE TO OUTLYING SURROGATE RECOVERIES
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Parameter	*Surrogate*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Sample ID*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
PCBs	Decachlorobiphenyl	24	(30-150)	W-072396-DJT-011	Aroclor 1016	0.066 U	µg/L	J
					Aroclor 1221	0.066 U	µg/L	J
					Aroclor 1232	0.066 U	µg/L	J
					Aroclor 1242	0.066 U	µg/L	J
					Aroclor 1248	0.066 U	µg/L	J
					Aroclor 1254	0.066 U	µg/L	J
					Aroclor 1260	0.066 U	µg/L	J
	Decachlorobiphenyl	15	(30-150)	W-072596-DJT-022	Aroclor 1016	0.066 U	µg/L	J
	Tetrachloro-meta-xylene	14	(30-150)		Aroclor 1221	0.066 U	µg/L	J
					Aroclor 1232	0.066 U	µg/L	J
					Aroclor 1242	0.066 U	µg/L	J
					Aroclor 1248	0.066 U	µg/L	J
					Aroclor 1254	0.066 U	µg/L	J
					Aroclor 1260	0.066 U	µg/L	J
	Decachlorobiphenyl	11	(30-150)	W-072596-DJT-023	Aroclor 1016	0.066 U	µg/L	J
					Aroclor 1221	0.066 U	µg/L	J
					Aroclor 1232	0.066 U	µg/L	J
					Aroclor 1242	0.066 U	µg/L	J
					Aroclor 1248	0.15	µg/L	J
					Aroclor 1254	0.066 U	µg/L	J
					Aroclor 1260	0.066 U	µg/L	J

Notes:

J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls
U	Non-detect at associated value.

TABLE 6

QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
GROUNDWATER - ROUND 1
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

		Original		*Duplicate*				
Parameter	*Analyte*	*Sample ID*	*Result*	*Sample ID*	*Result*	*RPD*	*Units*	*Qualifier (1)*
VOCs	cis-1,2-Dichloroethene	W-072396-DJT-009	12	W-072396-DJT-010	2.8J	124	µg/L	J
SVOCs	Phenol	W-072396-DJT-009	340	W-072396-DJT-010	160	72	µg/L	J

Notes:

J Associated value is estimated.

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS
GROUNDWATER - ROUND 1

SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Parameter	*Rinse Blank Date*	*Analyte*	*Blank Result*	*Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
Metals	07/23/96	Zinc	0.144	W-072396-DJT-002	0.0273	0.0273 U	mg/L
				W-072396-DJT-003	0.293	0.293 U	mg/L
				W-072396-DJT-004	0.102	0.102 U	mg/L
				W-072396-DJT-008	0.0246	0.0246 U	mg/L
				W-072396-DJT-009	0.122	0.122 U	mg/L
				W-072396-DJT-010	0.109	0.109 U	mg/L
				W-072396-DJT-011	0.0679	0.0679 U	mg/L
Metals	07/24/96	Zinc	0.0855	W-072496-DJT-013	0.014	0.0140 U	mg/L
				W-072496-DJT-014	0.162	0.162 U	mg/L
				W-072496-DJT-016	0.0207	0.0207 U	mg/L
				W-072496-DJT-017	0.0477	0.0477 U	mg/L
				W-072496-DJT-018	0.0139	0.0139 U	mg/L
				W-072496-DJT-019	0.0263	0.0263 U	mg/L
				W-072496-DJT-020	0.0409	0.0409 U	mg/L

Notes:
U Non-detect at associated value.

LIST OF TABLES
(Following Report)

1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by Columbia Analytical Services, Inc. (CAS) for groundwater and soil samples collected at Spaulding Composites Company, Inc. in Tonawanda, New York (Site) in September 1996. A sample collection summary key is presented in Table 1.

Samples were analyzed as specified in Table 1. A summary of the analytical methods used is presented in Table 2.

The analytical data are presented in Tables 3A through 3H. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

i) "National Functional Guidelines for Organic Data Review", June 1991, prepared by the United States Environmental Protection Agency (USEPA); and

ii) "Functional Guidelines for Evaluating Inorganics Analyses", July 1988, prepared by the USEPA Data Review Work Group; and

iii) "Quality Assurance Project Plan (QAPP)", Spaulding Composites Company, Inc., Tonawanda, New York, August 1993.

The QA/QC assessment was based on information obtained from chain of custody documents, final analytical results summaries, surrogate and internal standard recoveries, matrix and blank spike recoveries, field and sample duplicate results, and method blank results.

2.0 SAMPLE HOLDING TIMES

The holding times criteria specified in the QAPP are summarized in Table 2. All samples were extracted and/or analyzed within the required holding times.

All samples were properly preserved, shipped to the laboratory, and received at 4°C (±2°C).

3.0 SURROGATE SPIKE RECOVERIES

Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency. In accordance with the methods employed, all samples and blanks analyzed for VOCs, SVOCs, and PCBs were spiked with the required surrogate compounds prior to sample extraction and/or analysis. The recoveries were assessed using laboratory control limits.

All surrogate recoveries were acceptable with the following exceptions:

i) Low PCB surrogate recoveries were reported for samples SC-954, SC-916, and SC-917. Associated sample results were qualified as estimated to reflect the indicated low bias (see Table 4).

ii) A high PCB surrogate was reported for sample SC-915. Associated positive sample results were qualified as estimated to reflect a potential high bias (see Table 4).

iii) Slightly low VOC surrogate recoveries were reported for samples SC-924, SC-928, and SC-931. All associated data were qualified as estimated in Table 4 to reflect the low bias.

4.0 INTERNAL STANDARD RECOVERIES - VOLATILES AND SEMI-VOLATILES

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, internal standard compounds are added to all samples, blanks, and spike samples prior to VOC and SVOC analyses. All results are calculated as a ratio of the internal standard response.

The internal standards were assessed using the criteria specified by the National Functional Guidelines.

All VOC and SVOC internal standard area counts and retention times were acceptable with the exception of slightly low VOC and SVOC internal standards. All associated results were qualified as estimated due to the low bias (see Table 5).

5.0 LABORATORY BLANK ANALYSES

The purpose of assessing the results of laboratory blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory blanks are prepared from deionized water and analyzed as samples.

For this study, laboratory blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

All laboratory blanks were non-detect for the analytes of interest, indicating that contamination was not a factor in these analyses.

6.0 BLANK SPIKE ANALYSES - ORGANICS

Blank spikes are prepared and analyzed as samples to assess the analytical accuracy of the method employed, independent of sample matrix effects. Blank spikes were performed at a frequency of one per analytical batch.

All blank spike recoveries were within the laboratory control limits, indicating acceptable analytical accuracy.

7.0 LABORATORY CONTROL SAMPLE ANALYSES - ZINC

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were reported for zinc analysis. All LCS samples yielded recoveries within the laboratory control limit, indicating acceptable analytical accuracy.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - ORGANICS

The recoveries of MS/MSD analyses are used to assess the analytical accuracy achieved on individual sample matrices. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed on samples SC-902 and SC-904. All recoveries and RPDs were within the laboratory control limits, indicating good laboratory accuracy and precision for all organic parameters.

9.0 MATRIX SPIKE (MS) ANALYSIS - ZINC

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent.

MS~~D~~ analyses were performed on samples SC-902 and SC-904. All MS recoveries were acceptable with the exception of the MS analysis performed on sample SC-904. MS recoveries for this sample were slightly high and all associated results were qualified as estimated to reflect a potential high bias (see Table 6).

10.0 DUPLICATE SAMPLE ANALYSES - ZINC

For inorganic parameters, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed for samples SC-902 and SC-904.

All duplicate results were acceptable indicating good overall analytical precision.

11.0 FIELD QA/QC

11.1 FIELD DUPLICATES

To assess the analytical and sampling protocol precision, four field duplicates (as identified in Table 1) were collected and submitted "blind" to the laboratory. Most data outside of estimated regions of detection demonstrated acceptable agreement. Data which did indicate variability were qualified as estimated (see Table 7).

11.2 TRIP BLANKS - VOLATILES, METHANOL, AND ETHANOL

To evaluate the possibility of contamination arising from sample shipment and storage activities, one trip blank was submitted with the groundwater samples collected on September 3, 1996 and analyzed for VOCs, methanol, and ethanol.

All trip blank results were non-detect for the compounds of interest.

11.3 RINSE BLANKS

Rinse blanks were not required due to the use of dedicated sampling equipment.

12.0 GENERAL COMMENTS

Petroleum products were present in some investigative samples. For identification purposes, the sample analysis peak patterns did not match the petroleum standards of interest. These peaks were identified as unknown hydrocarbons and quantitated from an n-dodecane standard.

13.0 CONCLUSION

Based on this assessment, the data produced by CAS are acceptable with the specific qualifications noted.

TABLE 1

SAMPLE COLLECTION SUMMARY
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID	*Location*	*Date*	*Time*	*Interval (BGS)*	*Matrix*	*Analyses*	*Comments*
SC-900	Test Pit - 1	09/03/96	1130	11.0'	Soil	Groundwater SSPL	
SC-901	Test Pit - 2	09/03/96	1330	10.0'	Soil	Groundwater SSPL	
SC-902	Test Pit - 3	09/03/96	1430	5.3'	Groundwater	Groundwater SSPL	MS/MSD
SC-903	Test Pit - 3	09/03/96	1600	5.3'	Groundwater	Groundwater SSPL	Blind Duplicate of SC-902
SC-904	Test Pit - 3	09/03/96	1500	6' - 7'	Soil	Groundwater SSPL	MS/MSD
SC-905	Test Pit - 2	09/03/96	1200	10.0'	Soil	Groundwater SSPL	Blind Duplicate of SC-901
SC-906	Test Pit - 4	09/04/96	1030	6.0'	Soil	Groundwater SSPL	
SC-907	BH 41	09/09/96	1200	0 - 2"	Soil	Petroleum Products	
SC-908	BH 41	09/09/96	1215	9' - 10'	Soil	Petroleum Products	
SC-909	BH 41	09/09/96	1230	3' - 4'	Soil	Petroleum Products	
SC-910	BH 42	09/09/96	1230	0 - 2"	Soil	Petroleum Products	
SC-911	BH 43	09/09/96	1245	0 - 2"	Soil	Petroleum Products	
SC-912	BH 43	09/09/96	1300	4' - 8'	Soil	Petroleum Products	
SC-913	BH 43	09/09/96	1330	4' - 8'	Soil	Petroleum Products	Blind Duplicate of SC-912
SC-914	BH 43	09/09/96	1315	12' - 14'	Soil	Petroleum Products	
SC-915	BH 44	09/09/96	1430	1.5' - 2.0'	Soil	PCBs	
SC-916	BH 48	09/09/96	1630	4.5'	Soil	PCBs	
SC-917	BH 48	09/09/96	1700	4.5'	Soil	PCBs	Blind Duplicate of SC-916
SC-918	BH 56	09/10/96	0915	0 - 2"	Soil	Petroleum Products	
SC-919	BH 55	09/10/96	0940	0 - 2"	Soil	Petroleum Products	
SC-920	BH 57	09/10/96	1000	0 - 2"	Soil	Petroleum Products	
SC-921	BH 58	09/10/96	1030	0 - 2"	Soil	SSPL-C1	
SC-922	BH 58	09/10/96	1045	4' - 6'	Soil	SSPL-C1	
SC-923	BH 58	09/10/96	1045	8' - 10'	Soil	SSPL-C1	
SC-924	BH 59	09/10/96	1115	0 - 2"	Soil	SSPL-C1	
SC-925	BH 59	09/10/96	1120	4' - 6'	Soil	SSPL-C1	
SC-926	BH 59	09/10/96	1130	8' - 10'	Soil	SSPL-C1	
SC-927	BH 59	09/10/96	1135	4' - 6'	Soil	PCBs	
SC-928	BH 60	09/10/96	1150	0 - 2"	Soil	SSPL-C1	
SC-929	BH 60	09/10/96	1200	4' - 6'	Soil	SSPL-C1	
SC-930	BH 60	09/10/96	1215	8' - 10'	Soil	SSPL-C1	

TABLE 1

SAMPLE COLLECTION SUMMARY
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID	*Location*	*Date*	*Time*	*Interval (BGS)*	*Matrix*	*Analyses*	*Comments*
SC-931	BH 61	09/10/96	1220	0 - 2"	Soil	SSPL-C1	
SC-932	BH 61	09/10/96	1230	6' - 7'	Soil	SSPL-C1	
SC-933	BH 61	09/10/96	1235	8' - 10'	Soil	SSPL-C1	
SC-934	BH 62	09/10/96	1345	0 - 2"	Soil	SSPL-B1	
SC-935	BH 62	09/10/96	1415	9' - 10'	Soil	SSPL-B1	
SC-936	BH 62	09/10/96	1430	6' - 6.5'	Soil	SSPL-B1	
SC-937	BH 63	09/10/96	1430	0 - 2"	Soil	SSPL-B1	
SC-938	BH 63	09/10/96	1435	4'	Soil	SSPL-B1	
SC-939	BH 64	09/10/96	1450	0 - 2"	Soil	SSPL-B1	
SC-940	BH 64	09/10/96	1450	4.5'	Soil	SSPL-B1	
SC-941	BH 65	09/10/96	1600	0 - 2"	Soil	SSPL-B2	
SC-942	BH 65	09/10/96	1630	16' - 18'	Soil	SSPL-B2	
SC-943	BH 65	09/10/96	1635	2.0'	Soil	SSPL-B2	
SC-944	BH 66	09/10/96	1650	0 - 2"	Soil	SSPL-B2	
SC-945	BH 66	09/10/96	1700	2.0'	Soil	SSPL-B2	
SC-946	BH 66	09/10/96	1730	16' - 18'	Soil	SSPL-B2	
SC-947	BH 67	09/11/96	0730	0 - 2"	Soil	SSPL-B2	
SC-948	BH 67	09/11/96	0730	0 - 2"	Soil	PCBs	
SC-949	BH 67	09/11/96	0800	16' - 18'	Soil	SSPL-B2	
SC-950	BH 67	09/11/96	0805	3.1' - 4.0'	Soil	SSPL-B2	
SC-951	BH 68	09/11/96	0900	0 - 2"	Soil	SSPL-B2	
SC-952	BH 68	09/11/96	0900	0 - 2"	Soil	PCBs	
SC-953	BH 68	09/11/96	0950	16' - 18'	Soil	SSPL-B2	
SC-954	BH 73	09/11/96	1245	0 - 2"	Soil	PCBs	
SC-955	BH 86	09/11/96	1530	0 - 2"	Soil	PCBs	
SC-956	BH 84	09/11/96	1545	0 - 2"	Soil	PCBs	
SC-957	BH 87	09/11/96	1600	8' - 9'	Soil	Groundwater SSPL	
SC-958	BH 88	09/11/96	1715	10' - 12'	Soil	SSPL-B3	
SC-959	BH 88	09/11/96	1810	20' - 22'	Soil	SSPL-B3	
SC-960	BH 68	09/11/96	0915	3.5' - 4.0'	Soil	SSPL-B2	
SC-961	BH 89	09/12/96	0900	4' - 6'	Soil	SSPL-B3	

TABLE 1

SAMPLE COLLECTION SUMMARY
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID	*Location*	*Date*	*Time*	*Interval (BGS)*	*Matrix*	*Analyses*	*Comments*
SC-962	BH 89	09/12/96	0905	20' - 22'	Soil	SSPL-B3	
SC-963	BH 91	09/12/96	1030	6' - 8'	Soil	SSPL-B3	
SC-964	BH 91	09/12/96	1035	16' - 18'	Soil	SSPL-B3	
SC-965	BH 85	09/12/96	1200	4.0'	Soil	PCBs	
SC-966	BH 92	09/12/96	1330	20' - 22'	Soil	SSPL-B3	
SC-967	BH 92	09/12/96	1335	9' - 10'	Soil	SSPL-B3	
SC-968	BH 92B	09/12/96	1430	2' - 4'	Soil	Petroleum Products	
SC-969	BH 94	09/12/96	1545	0 - 2"	Soil	SSPL-B1	
SC-970	BH 95	09/12/96	1630	0 - 2"	Soil	SSPL-B1	
SC-971	BH 95	09/12/96	1645	3.5' - 4'	Soil	SSPL-B1	
SC-972	BH 95	09/12/96	1650	14' - 16'	Soil	SSPL-B1	
SC-973	BH 96	09/12/96	1800	0 - 2"	Soil	SSPL-B1	
SC-974	BH 96	09/12/96	1815	5.0'	Soil	SSPL-B1	

tes:

S	Below Ground Surface.
/MSD	Matrix Spike/Matrix Spike Duplicate.
Bs	Polychlorinated Biphenyls.
PL	Site Specific Parameter List.
L	Target Compound List.
oundwater SSPL	- TCL Volatiles, Methanol, Ethanol
	- SSPL Semi-Volatiles: Phenol, 2-Methylphenol, 2,4-Dimethylphenol, 3&4-Methylphenol, di-n-Butylphthalate, bis(2-Ethylhexyl)phthalate, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, Aniline, 1,2,4-Trichlorobenzene, Hexachlorobenzene, and 1,2-Dichlorobenzene.
	- PCBs, Zinc, Diesel Fuel, Gasoline, Kerosene, and Lube Oil.
PL-B1	Phenol, 2-Methylphenol, 2,4-Dimethylphenol, 3&4-Methylphenol, Aniline, Zinc
PL-B2	1,2,4-Trichlorobenzene and Hexachlorobenzene
PL-B3	TCL Volatiles, Methanol, and Ethanol
PL-C1	Methylene Chloride, Tetrachloroethene, Toluene, Ethylbenzene
troleum Products	Diesel Fuel, Gasoline, Kerosene, and Lube Oil.

TABLE 2

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
JULY 1996

Parameter	*Method (1)*	*Holding Time Criteria (2)*
VOCs	SW-846 8260	7 days from collection to analysis
Methanol, Ethanol	SW-846 8015	7 days from collection to analysis
SVOCs	SW-846 8270	7 days from collection to extraction 40 days from extraction to analysis
PCBs	SW-846 8080	7 days from collection to extraction 40 days from extraction to analysis
Petroleum Products	NYSDOH 310-13	7 days from collection to analysis
Zinc	SW-846 6010	6 months from collection to analysis

Notes:

(1) Methods are referenced from "Test Methods for the Evaluation of Solid Hazardous Waste Physical/Chemical Methods", SW-846, Third Edition, September 1986 (with updates), and "Petroleum Products in Water (Hydrocarbon Scan), New York State Department of Health (NYSDOH), Handbook 9 (310-13), August 1982.

PCBs Polychlorinated Biphenyls.

SVOCs Semi-Volatile Organic Compounds.

VOCs Volatile Organic Compounds.

TABLE 3A

ANALYTICAL RESULTS SUMMARY - GROUNDWATER SSPL - GROUNDWATER
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-902*	*SC-903* *(Dup. of SC-902)*
Collection Date:	*09/03/96*	*09/03/96*
TCL Volatiles (µg/L)		
Acetone	10 U	10 U
Benzene	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U
2-Butanone (MEK)	10 U	10 U
Carbon disulfide	10 U	10 U
Carbon tetrachloride	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U
2-Hexanone	10 U	10 U
Methylene chloride	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	10 U	10 U
Styrene	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U
Toluene	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U
Vinyl chloride	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U
Alcohols (µg/L)		
Ethanol	1000 U	1000 U
Methanol	1000 U	1000 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY - GROUNDWATER SSPL - GROUNDWATER
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-902*	*SC-903* *(Dup. of SC-902)*
Collection Date:	*09/03/96*	*09/03/96*
SSPL Semi-Volatiles (µg/L)		
Aniline	20 U	20 U
Benzo (a) anthracene	5.0 U	5.0 U
Benzo (a) pyrene	5.0 UJ	5.0 U
Benzo (b) fluoranthene	5.0 UJ	5.0 U
Benzo (k) fluoranthene	5.0 UJ	5.0 U
di-n-Butylphthalate	5.0 U	5.0 U
Chrysene	5.0 U	5.0 U
3&4-methylphenol (m+p Cresol)	10 U	10 U
Dibenzo (a,h) anthracene	5.0 UJ	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U
2,4-Dimethylphenol	10 U	10 U
bis(2-Ethylhexyl) phthalate	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U
2-Methylphenol	10 U	10 U
Phenol	10 U	10 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U
PCBs (µg/L)		
PCB 1016	0.065 U	0.065 U
PCB 1221	0.065 U	0.065 U
PCB 1232	0.065 U	0.065 U
PCB 1242	0.065 U	0.065 U
PCB 1248	0.065 U	0.065 U
PCB 1254	0.18 J	0.065 UJ
PCB 1260	0.065 U	0.065 U
Petroleum Products (µg/L)		
Unknown Hydrocarbons*	100 U	100 U
Fuel oil #2/diesel fuel	100 U	100 U
Gasoline	100 U	100 U
Kerosene	100 U	100 U
Lube oil	NP	NP
Metals (mg/L)		
Zinc	1.07J	0.711J

Notes:

*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
PCBs	Polychlorinated Biphenyls.
SSPL	Site Specific Parameter List.
TCL	Target Compound List.
U	Non-detect at associated value.

TABLE 3B

ANALYTICAL RESULTS SUMMARY - GROUNDWATER SSPL - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-900*	*SC-901*	*SC-904*	*SC-905* *(Dup. of SC-901)*	*SC-906*	*SC-957*
Collection Date:	*09/03/96*	*09/03/96*	*09/03/96*	*09/03/96*	*09/04/96*	*09/11/96*
TCL Volatiles (µg/Kg)						
Acetone	24 U	120 U	26 U	120 U	23 U	26 U
Benzene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Bromodichloromethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Bromoform	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Bromomethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
2-Butanone (MEK)	12 U	58 U	13 U	60 U	11 U	13 U
Carbon disulfide	12 U	58 U	13 U	60 U	11 U	13 U
Carbon tetrachloride	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Chlorobenzene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Chloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Chloroform	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Chloromethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Dibromochloromethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,1-Dichloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,2-Dichloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,1-Dichloroethene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
cis-1,2-Dichloroethene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
trans-1,2-Dichloroethene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,2-Dichloropropane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
cis-1,3-Dichloropropene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
trans-1,3-Dichloropropene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Ethylbenzene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
2-Hexanone	12 U	58 U	13 U	60 U	11 U	13 U
Methylene chloride	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
4-Methyl-2-pentanone (MIBK)	12 U	58 U	13 U	60 U	11 U	13 U
Styrene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,1,2,2-Tetrachloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Tetrachloroethene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Toluene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,1,1-Trichloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
1,1,2-Trichloroethane	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Trichloroethene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Vinyl chloride	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
m+p-Xylene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
o-Xylene	6.0 U	29 U	6.6 U	30 U	5.7 U	6.5 U
Alcohols (µg/Kg)						
Ethanol	1200 U	1200 U	1300 U	1200 U	1100 U	1300 U
Methanol	1200 U	3200	2100	1200 U	1100 U	1300 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY - GROUNDWATER SSPL - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-900*	*SC-901*	*SC-904*	*SC-905* *(Dup. of SC-901)*	*SC-906*	*SC-957*
Collection Date:	*09/03/96*	*09/03/96*	*09/03/96*	*09/03/96*	*09/04/96*	*09/11/96*
SSPL Semi-Volatiles (μg/Kg)						
Aniline	1600 U	15000 U	1700 U	16000 U	1500 U	1700 U
Benzo (a) anthracene	400 U	3900 U	430 U	4000 U	380 U	430 U
Benzo (a) pyrene	400 UJ	3900 U	430 U	4000 U	380 U	430 U
Benzo (b) fluoranthene	400 UJ	3900 U	430 U	4000 U	380 U	430 U
Benzo (k) fluoranthene	400 UJ	3900 U	430 U	4000 U	380 U	430 U
di-n-Butylphthalate	410	3900 UJ	430 U	4000 UJ	380 U	12000
Chrysene	400 U	3900 U	430 U	4000 U	380 U	430 U
3&4-methylphenol (m+p Cresol)	810 U	7800 U	880 U	8100 U	760 U	1500
Dibenzo (a,h) anthracene	400 UJ	3900 U	430 U	4000 U	380 U	430 U
1,2-Dichlorobenzene	400 U	3900 U	430 U	4000 U	380 U	430 U
2,4-Dimethylphenol	810 U	7800 U	880 U	8100 U	760 U	710 J
bis (2-Ethylhexyl) phthalate	400 U	3900 U	430 U	4000 U	380 U	430 U
Hexachlorobenzene	400 U	3900 UJ	430 U	4000 UJ	380 U	430 U
2-Methylphenol	810 U	7800 U	880 U	8100 U	760 U	670 U
Phenol	810 U	7800 U	880 U	8100 U	760 U	520 J
1,2,4-Trichlorobenzene	400 U	3900 U	430 U	4000 U	380 U	430 U
PCBs (μg/Kg)						
PCB 1016	40 U	39 U	43 U	40 U	38 U	43 U
PCB 1221	81 U	78 U	88 U	81 U	76 U	88 U
PCB 1232	40 U	39 U	43 U	40 U	38 U	43 U
PCB 1242	40 U	39 U	43 U	40 U	38 U	43 U
PCB 1248	40 U	39 U	43 U	40 U	38 U	43 U
PCB 1254	88	39 U	43 U	40 U	38 U	43 U
PCB 1260	40 U	39 U	43 U	40 U	38 U	43 U
Petroleum Products (μg/Kg)						
Unknown Hydrocarbons*	12000 U	130000 J	13000 U	24000 J	11000 U	13000 U
Fuel oil #2/ diesel fuel	12000 U	12000 U	13000 U	12000 U	11000 U	13000 U
Gasoline	12000 U	12000 U	13000 U	12000 U	11000 U	13000 U
Kerosene	12000 U	12000 U	13000 U	12000 U	11000 U	13000 U
Lube oil	NP	NP	NP	NP	NP	NP
Zinc (mg/Kg)	95.6J	98.6J	92.4J	102J	90.0J	221

Notes:

*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
PCBs	Polychlorinated Biphenyls.
SSPL	Site Specific Parameter List.
TCL	Target Compound List.
U	Non-detect at associated value.

TABLE 3C
ANALYTICAL RESULTS SUMMARY - PETROLEUM PRODUCTS - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-907*	*SC-908*	*SC-909*	*SC-910*	*SC-911*	*SC-912*
Collection Date:	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*
Petroleum Products (µg/Kg)						
Unknown Hydrocarbons*	14000 U	12000 U	14000	13000 U	12000 U	12000 U
Fuel oil #2/diesel fuel	14000 U	12000 U	13000 U	13000 U	12000 U	1100000 J
Gasoline	14000 U	12000 U	13000 U	13000 U	12000 U	12000 U
Kerosene	14000 U	12000 U	13000 U	13000 U	12000 U	12000 U
Lube oil	NP	NP	NP	NP	NP	NP
Sample ID:	*SC-913* *(Dup. of SC-912)*	*SC-914*	*SC-918*	*SC-919*	*SC-920*	*SC-968*
Collection Date:	*09/09/96*	*09/09/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/12/96*
Petroleum Products (µg/Kg)						
Unknown Hydrocarbons*	12000 U	11000 U	14000 U	13000 U	15000 U	760000
Fuel oil #2/diesel fuel	290000 J	11000 U	14000 U	13000 U	15000 U	12000 U
Gasoline	12000 U	11000 U	14000 U	13000 U	15000 U	12000 U
Kerosene	12000 U	11000 U	14000 U	13000 U	15000 U	12000 U
Lube oil	NP	NP	NP	NP	NP	NP

Notes:

*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
NP	Not Present.
U	Non-detect at associated value.

TABLE 3D
ANALYTICAL RESULTS SUMMARY - PCBs - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-915*	*SC-916*	*SC-917* *(Dup. of SC-916)*	*SC-927*	*SC-948*
Collection Date:	*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/11/96*
PCBs (μg/Kg)					
PCB 1016	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1221	430 U	85 UJ	91 UJ	84 U	90000 U
PCB 1232	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1242	210 U	42 UJ	45 UJ	41 U	44000 U
PCB 1248	320 J	79 J	110 J	41 U	44000 U
PCB 1254	820 J	42 UJ	45 UJ	41 U	44000 U
PCB 1260	210 U	42 UJ	45 UJ	41 U	440000

Sample ID:	*SC-952*	*SC-954*	*SC-955*	*SC-956*	*SC-965*
Collection Date:	*09/11/96*	*09/11/96*	*09/11/96*	*09/11/96*	*09/12/96*
PCBs (μg/Kg)					
PCB 1016	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1221	84 U	88 UJ	7300 U	4000 U	84 U
PCB 1232	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1242	41 U	43 UJ	3600 U	2000 U	41 U
PCB 1248	41 U	43 UJ	9100	9500	41 U
PCB 1254	41 U	170 J	3600 U	2000 U	41 U
PCB 1260	41 U	43 UJ	3600 U	2000 U	41 U

Notes:

Dup.	Field Duplicate.
J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls.
U	Non-detect at associated value.

TABLE 3E
ANALYTICAL RESULTS SUMMARY - SSPL-B1 - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	***SC-934***	***SC-935***	***SC-936***	***SC-937***	***SC-938***	***SC-939***	***SC-940***
Collection Date:	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
SSPL Semi-Volatiles (μg/Kg)							
Aniline	1400 U	1600 U	1600 U	27000	1600 U	1600 U	1600 U
3&4-Methylphenol (M+P-Cresol)	1500	840 U	6700	74000	820 U	400 J	820 U
2,4-Dimethylphenol	1500	840 U	400 J	38000	820 U	210 J	820 U
2-Methylphenol	740 U	670 U	490 J	14000	670 U	110 J	670 U
Phenol	2500	840 U	23000	100000	820 U	430 J	820 U
Zinc (mg/Kg)	190	78.7	64.1	258	71.9	153	69.3

Sample ID:	***SC-969***	***SC-970***	***SC-971***	***SC-972***	***SC-973***	***SC-974***
Collection Date:	***09/12/96***	***09/12/96***	***09/12/96***	***09/12/96***	***09/12/96***	***09/12/96***
SSPL Semi-Volatiles (μg/Kg)						
Aniline	18000 U	15000 U	1800 U	1500 U	1600 U	1800 U
3&4-Methylphenol (M+P-Cresol)	9000 U	4200 J	920 U	770 U	820 U	910 U
2,4-Dimethylphenol	2700 J	7900 U	920 U	770 U	980	910 U
2-Methylphenol	1400 J	2800 J	670 U	670 U	640 J	670 U
Phenol	5000 J	11000	920 U	770 U	550 J	910 U
Zinc (mg/Kg)	738	422	102	97.8	138	83.8

Notes:

J	Associated value is estimated.
SSPL	Site Specific Parameter List.
U	Non-detect at associated value.

TABLE 3F
ANALYTICAL RESULTS SUMMARY - SSPL-B2 - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-941*	*SC-942*	*SC-943*	*SC-944*	*SC-945*	*SC-946*
Collection Date:	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*
SSPL Semi-Volatiles (µg/Kg)						
Hexachlorobenzene	350 U	370 U	410 U	400 U	410 U	380 U
1,2,4-Trichlorobenzene	350 U	370 U	410 U	400 U	410 U	380 U

Sample ID:	*SC-947*	*SC-949*	*SC-950*	*SC-951*	*SC-953*	*SC-960*
Collection Date:	*09/11/96*	*09/11/96*	*09/11/96*	*09/11/96*	*09/11/96*	*09/11/96*
SSPL Semi-Volatiles (µg/Kg)						
Hexachlorobenzene	420 U	380 U	420 U	410 U	390 U	400 U
1,2,4-Trichlorobenzene	420 U	380 U	420 U	410 U	390 U	400 U

Notes:

SSPL	Site Specific Parameter List.
U	Non-detect at associated value.

TABLE 3G

ANALYTICAL RESULTS SUMMARY - SSPL-B3 - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*SC-958*	*SC-959*	*SC-961*	*SC-962*	*SC-963*	*SC-964*	*SC-966*	*SC-967*
Collection Date:	*09/11/96*	*09/11/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*
TCL Volatiles (µg/Kg)								
Acetone	2700 U	23 U	6100 U	46	6200 U	23 U	110 U	3100 U
Benzene	8800	420	300000	110	62000	15	660	8300
Bromodichloromethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Bromoform	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Bromomethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
2-Butanone (MEK)	1400 U	11 U	3000 U	12 U	3100 U	11 U	57 U	1600 U
Carbon disulfide	1400 U	11 U	3000 U	12 U	3100 U	11 U	57 U	1600 U
Carbon tetrachloride	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Chlorobenzene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Chloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Chloroform	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Chloromethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Dibromochloromethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,1-Dichloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,2-Dichloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,1-Dichloroethene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
cis-1,2-Dichloroethene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
trans-1,2-Dichloroethene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,2-Dichloropropane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
cis-1,3-Dichloropropene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
trans-1,3-Dichloropropene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Ethylbenzene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
2-Hexanone	1400 U	11 U	3000 U	12 U	3100 U	11 U	57 U	1600 U
Methylene chloride	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
4-Methyl-2-pentanone (MIBK)	1400 U	11 U	3000 U	12 U	3100 U	11 U	57 U	1600 U
Styrene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,1,2,2-Tetrachloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Tetrachloroethene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Toluene	680 U	4.1 J	56000	4.4 J	2500	5.6 U	8.0 J	790 U
1,1,1-Trichloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
1,1,2-Trichloroethane	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Trichloroethene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Vinyl chloride	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
m+p-Xylene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
o-Xylene	680 U	5.7 U	1500 U	5.8 U	1600 U	5.6 U	29 U	790 U
Alcohols (µg/Kg)								
Ethanol	1100 U	1100 U	83000	1200 U	1200 U	1100 U	1100 U	1300 U
Methanol	1100 U	1100 U	1200 U	1200 U	1200 U	1100 U	1100 U	14000

Notes:

J	Associated value is estimated.
TCL	Target Compound List.
U	Non-detect at associated value.

TABLE 3H
ANALYTICAL RESULTS SUMMARY - SSPL-C1 - SOILS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	***SC-921***	***SC-922***	***SC-923***	***SC-924***	***SC-925***	***SC-926***
Collection Date:	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
SSPL Volatiles (µg/Kg)						
Ethylbenzene	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U
Methylene chloride	6.2 U	11	5.9 U	7.6 UJ	6.2 U	6.1 U
Tetrachloroethene	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U
Toluene	6.2 U	6.2 U	5.9 U	7.6 UJ	6.2 U	6.1 U

Sample ID:	***SC-928***	***SC-929***	***SC-930***	***SC-931***	***SC-932***	***SC-933***
Collection Date:	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***	***09/10/96***
SSPL Volatiles (µg/Kg)						
Ethylbenzene	5.7 UJ	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Methylene chloride	18 J	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Tetrachloroethene	5.7 UJ	6.2 U	5.9 U	6.0 UJ	6.0 U	6.0 U
Toluene	2.6 J	1.4 J	5.9 U	6.0 UJ	1.9 J	6.0 U

Notes:

J	Associated value is estimated.
SSPL	Site Specific Parameter List.
U	Non-detect at associated value.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Parameter	*Surrogate*	*Sample ID*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
PCBs	Tetrachloro-m-xylene	SC-954	58	60-150	PCB 1016	43 U	µg/Kg	J
					PCB 1221	88 U	µg/Kg	J
					PCB 1232	43 U	µg/Kg	J
					PCB 1242	43 U	µg/Kg	J
					PCB 1248	43 U	µg/Kg	J
					PCB 1254	170	µg/Kg	J
					PCB 1260	43 U	µg/Kg	J
		SC-916	53	60-150	PCB 1016	42 U	µg/Kg	J
					PCB 1221	85 U	µg/Kg	J
					PCB 1232	42 U	µg/Kg	J
					PCB 1242	42 U	µg/Kg	J
					PCB 1248	79	µg/Kg	J
					PCB 1254	42 U	µg/Kg	J
					PCB 1260	42 U	µg/Kg	J
		SC-917	54	60-150	PCB 1016	45 U	µg/Kg	J
					PCB 1221	91 U	µg/Kg	J
					PCB 1232	45 U	µg/Kg	J
					PCB 1242	45 U	µg/Kg	J
					PCB 1248	110	µg/Kg	J
					PCB 1254	45 U	µg/Kg	J
					PCB 1260	45 U	µg/Kg	J
	Decachlorobiphenyl	SC-915	626	60-150	PCB 1248	320	µg/Kg	J
					PCB 1254	820	µg/Kg	J

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SURROGATE RECOVERIES
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Parameter	*Surrogate*	*Sample ID*	*Surrogate Recovery (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
Volatiles	4-Bromofluorobenzene	SC-924	59	74-121	Ethylbenzene	7.6 U	µg/Kg	J
					Methylene Chloride	7.6 U	µg/Kg	J
					Tetrachloroethene	7.6 U	µg/Kg	J
					Toluene	7.6 U	µg/Kg	J
		SC-928	55	74-121	Ethylbenzene	5.7 U	µg/Kg	J
					Methylene Chloride	18	µg/Kg	J
					Tetrachloroethene	5.7 U	µg/Kg	J
					Toluene	2.6 J	µg/Kg	*
		SC-931	68	74-121	Ethylbenzene	6.0 U	µg/Kg	J
					Methylene Chloride	6.0 U	µg/Kg	J
					Tetrachloroethene	6.0 U	µg/Kg	J
					Toluene	6.0 U	µg/Kg	J

Notes:

*	Result previously qualified as estimated by laboratory.
J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls.
U	Non-detect at associated value.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES

PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Parameter	*IS*	*Sample ID*	*IS Area Count (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
SVOCs	Perylene-d12	SC-900	45	50-200	Benzo (a) pyrene	400 U	μg/Kg	J
					Benzo (b) fluoranthene	400 U	μg/Kg	J
					Benzo (k) fluoranthene	400 U	μg/Kg	J
					Dibenzo (a,h) anthracene	400 U	μg/Kg	J
		SC-902	47	50-200	Benzo (a) pyrene	5.0 U	μg/Kg	J
					Benzo (b) fluoranthene	5.0 U	μg/Kg	J
					Benzo (k) fluoranthene	5.0 U	μg/Kg	J
					Dibenzo (a,h) anthracene	5.0 U	μg/Kg	J
	Phenanthrene-d10	SC-901	41	50-200	Hexachlorobenzene	3900 U	μg/Kg	J
					di-n-Butylphthalate	3900 U	μg/Kg	J
		SC-905	41	50-200	Hexachlorobenzene	4000 U	μg/Kg	J
					di-n-Butylphthalate	4000 U	μg/Kg	J
VOCs	Pentafluorobenzene	SC-928	38	50-200	Methylene Chloride	18	μg/Kg	J
	1,4-Difluorobenzene	SC-928	41	50-200	Toluene	2.6 J	μg/Kg	*
	Chlorobenzene-d5	SC-928	28	50-200	Ehylbenzene	5.7 U	μg/Kg	J
					Tetrachloroethene	5.7 U	μg/Kg	J

Notes:

	Result previously qualified as estimated by laboratory.
S	Internal Standard.
	Associated value is estimated.
SVOC	Semi-Volatile Organic Compounds.
U	Non-detect at associated value.
VOCs	Volatile Organic Compounds.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING SPIKE RECOVERIES
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

Analyte	*Sample ID*	*MS Recovery (percent)*	*Control Limits (percent)*	*Associated Samples*	*Sample Results*	*Qualifier*	*Units*
Zinc	SC-904	127	75-125	SC-900	95.6	J	mg/Kg
				SC-901	98.6	J	mg/Kg
				SC-904	92.4	J	mg/Kg
				SC-905	102	J	mg/Kg
				SC-906	90.0	J	mg/Kg

Notes:
J	Associated value is estimated.
MS	Matrix Spike.

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO DISCREPANCIES IN FIELD DUPLICATE RESULTS
PHASE II SOIL SAMPLING
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
SEPTEMBER 1996

		Original		*Duplicate*			*Original*	*Duplicate*	
Parameter	*Analyte*	*Sample ID*	*Result*	*Sample ID*	*Result*	*RPD*	*Qualifier*	*Qualifier*	*Units*
Petroleum Products	Unkown hydrocarbons	SC-901	130000	SC-905	24000	140	J	J	μg/kg
	Fuel oil #2/diesel fuel	SC-912	1100000	SC-913	290000	120	J	J	μg/kg
Metals	Zinc	SC-902	1.07	SC-903	0.711	40	J	J	mg/L
PCBs	PCB 1254	SC-902	0.18	SC-904	0.065U	*	J	J	μg/L

Notes:

*	Value could not be calculated due to one or more values being non-detect.
J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls.
RPD	Relative Percent Difference.
U	Non-detect at associated value.

ANALYTICAL DATA ASSESSMENT AND VALIDATION
GROUNDWATER MONITORING PROGRAM - ROUND 2

SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

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1.0 INTRODUCTION

The following document details an assessment and validation of analytical results reported by Columbia Analytical Services, Inc. (CAS) for groundwater samples collected at Spaulding Composites Company, Inc. in Tonawanda, New York (Site) in November 1996. A sample collection summary key is presented in Table 1.

Samples were analyzed as specified in Table 1. A summary of the analytical methods used is presented in Table 2.

The analytical data are presented in Table 3. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods and the documents entitled:

i) "National Functional Guidelines for Organic Data Review", June 1991, prepared by the United States Environmental Protection Agency (USEPA); and

ii) "Functional Guidelines for Evaluating Inorganics Analyses", July 1988, prepared by the USEPA Data Review Work Group; and

iii) "Quality Assurance Project Plan (QAPP)", Spaulding Composites Company, Inc., Tonawanda, New York, August 1993.

A standard SW-846 analytical report was provided by the laboratory for the analyses. The data quality assessment and validation presented in the following subsections were performed based on the sample results and supporting QA/QC provided.

2.0 SAMPLE HOLDING TIMES

All samples were prepared and analyzed within the required holding times specified in Table 2.

All samples were properly preserved, shipped to the laboratory, and received at 4°C (±2°C).

3.0 SURROGATE SPIKE RECOVERIES

Surrogate recoveries provide a means to evaluate the effects of individual sample matrices on analytical efficiency. In accordance with the methods employed, all samples, blanks, and standards analyzed for VOCs, SVOCs, and PCBs were spiked with the required surrogate compounds prior to sample extraction and/or analysis. The recoveries were assessed using the criteria specified in the QAPP.

All surrogate recoveries were acceptable. Semi-volatile surrogate recoveries for sample SC-1008 could not be assessed due to necessary sample dilution. Acceptable analytical accuracy for this sample was demonstrated by the associated blank spike recoveries.

4.0 INTERNAL STANDARD RECOVERIES - VOLATILES AND SEMI-VOLATILES

To ensure that changes in GC/MS response and sensitivity do not affect sample analysis results, internal standard compounds are added to all samples, blanks, and spike samples prior to VOC and SVOC analyses. All results are calculated as a ratio of the internal standard response.

The internal standards were assessed using the criteria specified by the National Functional Guidelines.

All VOC and SVOC internal standard area counts and retention times were acceptable.

5.0 LABORATORY BLANK ANALYSES

The purpose of assessing the results of laboratory blank analyses is to determine the existence and magnitude of sample contamination introduced during analysis. Laboratory blanks are prepared from deionized water and analyzed as samples.

For this study, laboratory blanks were analyzed at a minimum frequency of one per analytical batch.

All laboratory blanks were non-detect for the analytes of interest, indicating that contamination was not a factor in these analyses.

6.0 BLANK SPIKE ANALYSES - ORGANICS

Blank spikes are prepared and analyzed as samples to assess the analytical accuracy of the method employed, independent of sample matrix effects.

All blank spike recoveries were within the QAPP-required control limits, indicating acceptable analytical accuracy.

7.0 LABORATORY CONTROL SAMPLE ANALYSES - ZINC

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. LCSs were analyzed using the same sample preparation, analytical methods, and QA/QC procedures employed for the investigative samples.

LCSs were reported for zinc analysis. All LCS samples yielded recoveries within the QAPP-required control limit, indicating acceptable analytical accuracy.

8.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES - ORGANICS

The recoveries of MS/MSD analyses are used to assess the analytical accuracy achieved on individual sample matrices. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

Organics analyses were spiked with the QAPP-specified analytes. MS/MSD analyses were performed on sample SC-1006. All recoveries and RPDs were within the control limits specified in the QAPP, indicating good laboratory accuracy and precision for all organic parameters.

9.0 MATRIX SPIKE (MS) ANALYSIS - ZINC

To evaluate the effects of sample matrices on the digestion, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. The established control limits for inorganic matrix spike recoveries are 75 to 125 percent.

An acceptable MS analysis was performed on sample SC-1006.

10.0 DUPLICATE SAMPLE ANALYSES - ZINC

For inorganic parameters, analytical precision is evaluated based on the analysis of duplicate samples. For this study, duplicate samples were prepared and analyzed for sample SC-1006.

The duplicate sample results were non-detect for zinc and precision could not be evaluated.

11.0 FIELD QA/QC

11.1 FIELD DUPLICATES

To assess the analytical and sampling protocol precision, two field duplicates (as identified in Table 1) were collected and submitted "blind" to the laboratory. All data outside of estimated regions of detection demonstrated acceptable agreement.

11.2 TRIP BLANKS - VOLATILES, METHANOL, AND ETHANOL

To evaluate the possibility of contamination arising from sample shipment and storage activities, trip blanks were collected and submitted for VOC analysis. Three trip blanks were collected November 21, 25, and 26, 1996 and analyzed for VOCs, methanol, and ethanol.

All trip blank results were non-detect for the compounds of interest. The trip blank collected on November 25, 1996 was inadvertently not analyzed and could not be assessed.

11.3 RINSE BLANKS

To evaluate the possibility of contamination arising from sample equipment or inefficient cleansing protocols between wells, three rinsate blanks were collected and submitted for all parameters.

All rinsate blank results were non-detect for the analytes of interest with the exception of acetone, chlorobenzene, bis(2-ethylhexyl)phthalate, and zinc in some of the rinsate blanks. The associated detected sample results with similar analyte concentrations were qualified as non-detect (see Table 4). All remaining associated sample results were either non-detect or contained analytes significantly greater than the blank concentrations.

12.0 GENERAL COMMENTS

Petroleum products were present in some investigative samples. For identification purposes, the sample analysis peak patterns did not match the petroleum standards of interest. These peaks were identified as unknown hydrocarbons and quantitated from an n-dodecane standard.

Due to laboratory oversight, the QAPP-specific targeted detection limits for the PCBs were not obtained. Sample results are reported down to the method detection limits.

13.0 CONCLUSION

Based on this assessment, the data produced by CAS are acceptable with the specific qualifications noted.

TABLE 1

SAMPLE COLLECTION SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Sample ID	*Well ID*	*Collection Date*	*Analyses*	*Comments*
SC-1000	Rinse Blank	11/21/96	SSPL	
SC-1001	OW-B2	11/22/96	SSPL	
SC-1002	OW-4	11/22/96	SSPL	
SC-1003	OW-3	11/22/96	SSPL	
SC-1004	OW-6	11/22/96	SSPL	Duplicate of SC-1014
SC-1005	OW-7	11/22/96	SSPL	
SC-1006	OW-A1	11/22/96	SSPL	MS/MSD
SC-1007	OW-9	11/22/96	SSPL	
SC-1008	OW-8	11/22/96	SSPL	
SC-1009	OW-12	11/22/96	SSPL	
SC-1010	OW-2	11/22/96	SSPL	
SC-1011	Rinse Blank	11/22/96	SSPL	
SC-1012	OW-1	11/22/96	SSPL	
SC-1013	OW-10	11/22/96	SSPL	
SC-1014	OW-6	11/22/96	SSPL	
SC-1015	Rinse Blank	11/25/96	SSPL	
SC-1016	OBW-2	11/25/96	SSPL	
SC-1017	OBW-2	11/25/96	SSPL	Duplicate of SC-1016
SC-1018	BW-10	11/25/96	SSPL	
SC-1019	OW-11	11/26/96	SSPL	
SC-1020	BW-9	11/26/96	SSPL	
SC-1021	BW-12	11/26/96	SSPL	
SC-1022	OW-C3	11/26/96	SSPL	

Notes:

MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
SSPL	Site-Specific Parameter List includes Target Compound List Volatile Organic Compounds (TCL VOCs); Selected Semi-Volatiles Organic Compounds (SVOCs); Polychlorinated Biphenyls (PCBs); Methanol; Ethanol; Petroleum Products; and Zinc.

TABLE 2

SAMPLE HOLDING TIMES CRITERIA AND ANALYTICAL METHOD SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Parameter	*Method (1)*	*Holding Time Criteria (2)*
TCL VOCs	SW-846 8240	14 days from collection to analysis (preserved with HCl to pH <2)
Methanol, Ethanol	SW-846 8015	14 days from collection to analysis (preserved with HCl to pH <2)
SVOCs	SW-846 8270	7 days from collection to extraction 40 days from extraction to analysis
PCBs	SW-846 8080	7 days from collection to extraction 40 days from extraction to analysis
Petroleum Products	NYSDOH 310-13	7 days from collection to analysis
Zinc	SW-846 6010	6 months from collection to analysis

Notes:

(1) Methods are referenced from "Test Methods for the Evaluation of Solid Hazardous Waste Physical/Chemical Methods", SW-846, Third Edition, September 1986 (with updates), and "Petroleum Products in Water (Hydrocarbon Scan), New York State Department of Health (NYSDOH), Handbook 9 (310-13), August 1982.

(2) Holding times criteria referenced from the QAPP and/or associated methodologies.

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OW-B2*	*OW-4*	*OW-3*	*OW-7*	*OW-A1*	*OW-9*	*OW-8*
Sample ID:	*SC-1001*	*SC-1002*	*SC-1003*	*SC-1005*	*SC-1006*	*SC-1007*	*SC-1008*
Collection Date:	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*
TCL Volatiles (μg/L)							
Acetone	20 U	10 U	10 U	44 U	17 U	31 U	210 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.2J
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	26
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U	11
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.8J
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	32
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	11
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.9
Ethanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	6800

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OW-B2*	*OW-4*	*OW-3*	*OW-7*	*OW-A1*	*OW-9*	*OW-8*
Sample ID:	*SC-1001*	*SC-1002*	*SC-1003*	*SC-1005*	*SC-1006*	*SC-1007*	*SC-1008*
Collection Date:	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*
Semi-Volatiles (µg/L)							
Aniline	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Benzo (a) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Benzo (a) pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Benzo (b) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Benzo (k) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Di-n-butylphthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
3&4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	130000
Dibenzo (a,h) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	49000
Bis (2-ethylhexyl) phthalate	5.0 U	5.0 U	9.2 U	6.4 U	5.0 U	9.5 U	5000 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	30000
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	100000
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5000 U
PCBs (µg/L)							
Aroclor 1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1221	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1232	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Petroleum Products (µg/L)							
Unknown Hydrocarbons*	100 U	100 U	100 U	100 U	100 U	100 U	26000
Fuel oil #2/diesel fuel	100 U	100 U	100 U	100 U	100 U	100 U	300 U
Gasoline	100 U	100 U	100 U	100 U	100 U	100 U	300 U
Kerosene	100 U	100 U	100 U	100 U	100 U	100 U	300 U
Lube Oil	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	3000 U
Metals (mg/L)							
Zinc	0.0586 U	0.0100 U	0.0322 U	0.0164 U	0.0100 U	0.0100 U	0.0113 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OW-12*	*OW-2*	*OW-1*	*OW-10*	*OW-6*	*OW-6*	*OBW-2*
Sample ID:	*SC-1009*	*SC-1010*	*SC-1012*	*SC-1013*	*SC-1014*	*SC-1004*	*SC-1016*
Collection Date:	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96* *(Duplicate)*	*11/25/96*
TCL Volatiles (µg/L)							
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (µg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (µg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OW-12*	*OW-2*	*OW-1*	*OW-10*	*OW-6*	*OW-6*	*OBW-2*
Sample ID:	*SC-1009*	*SC-1010*	*SC-1012*	*SC-1013*	*SC-1014*	*SC-1004*	*SC-1016*
Collection Date:	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96*	*11/22/96* *(Duplicate)*	*11/25/96*
Semi-Volatiles (µg/L)							
Aniline	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Benzo (a) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Benzo (a) pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Benzo (b) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Benzo (k) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Di-n-butylphthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
3&4-Methylphenol	10 U	10 U	10 U	10 U	11 U	10 U	10 U
Dibenzo (a,h) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	11 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	5.9 U	8.1 U	9.1 U	5.2 U	6.5 U	20 U	9.6
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
2-Methylphenol	10 U	10 U	10 U	10 U	11 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	11 U	10 U	10 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.6 U	5.0 U	5.0 U
PCBs (µg/L)							
Aroclor 1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1221	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1232	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Petroleum Products (µg/L)							
Unknown Hydrocarbons*	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Fuel oil #2/diesel fuel	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Gasoline	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Kerosene	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Lube Oil	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Metals (mg/L)							
Zinc	0.0100 U	0.0704 U	0.0203 U	0.0117 U	0.0100 U	0.0153 U	0.167

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OBW-2*	*BW-10*	*OW-11*	*BW-9*	*BW-12*	*OW-C3*
Sample ID:	*SC-1017*	*SC-1018*	*SC-1019*	*SC-1020*	*SC-1021*	*SC-1022*
Collection Date:	*11/25/96* *(Duplicate)*	*11/25/96*	*11/26/96*	*11/26/96*	*11/26/96*	*11/26/96*
TCL Volatiles (μg/L)						
Acetone	10 U	10 U	10 U	180	10	10 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.7 J
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.6 J
Vinyl chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m+p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Methanol (μg/L)	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U

TABLE 3
ANALYTICAL RESULTS SUMMARY
GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Well ID:	*OBW-2*	*BW-10*	*OW-11*	*BW-9*	*BW-12*	*OW-C3*
Sample ID:	*SC-1017*	*SC-1018*	*SC-1019*	*SC-1020*	*SC-1021*	*SC-1022*
Collection Date:	*11/25/96* *(Duplicate)*	*11/25/96*	*11/26/96*	*11/26/96*	*11/26/96*	*11/26/96*
Semi-Volatiles (μg/L)						
Aniline	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (a) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (a) pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (b) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo (k) fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3&4-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo (a,h) anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
Bis (2-ethylhexyl) phthalate	11	8.8	5.0 U	6.8	26	5.3
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
PCBs (μg/L)						
Aroclor 1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1221	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1232	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.1
Aroclor 1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor 1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Petroleum Products (μg/L)						
Unknown Hydrocarbons*	100 U	100 U	100 U	100 U	100 U	100 U
Fuel oil #2/diesel fuel	100 U	100 U	100 U	100 U	100 U	100 U
Gasoline	100 U	100 U	100 U	100 U	100 U	100 U
Kerosene	100 U	100 U	100 U	100 U	100 U	100 U
Lube Oil	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U
Metals (mg/L)						
Zinc	0.167	0.0190 U	0.183	0.0100 U	0.0281	0.0100 U

Notes:

*	Unknown hydrocarbons quantitated as n-dodecane.
J	Associated value is estimated.
PCBs	Polychlorinated Biphenyls.
TCL	Target Compound List.
U	Non-detect at associated value.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE RINSE BLANKS

GROUNDWATER - ROUND 2
SPAULDING COMPOSITES COMPANY, INC.
TONAWANDA, NEW YORK
NOVEMBER 1996

Parameter	*Analyte*	*Blank ID*	*Blank Result*	*Sample ID*	*Sample Result*	*Qualified Sample Result*	*Units*
Volatiles	Acetone	SC-1011	970	SC-1001	20	20 U	µg/L
				SC-1005	44	44 U	µg/L
				SC-1006	17	17 U	µg/L
				SC-1007	31	31 U	µg/L
				SC-1008	210	210 U	µg/L
Semi-Volatiles	bis(2-ethylhexyl)phthalate	SC-1011	6.0	SC-1003	9.2	9.2 U	µg/L
				SC-1004	20	20 U	µg/L
				SC-1005	6.4	6.4 U	µg/L
				SC-1007	9.5	9.5 U	µg/L
				SC-1009	5.9	5.9 U	µg/L
				SC-1010	8.1	8.1 U	µg/L
				SC-1012	9.1	9.1 U	µg/L
				SC-1013	5.2	5.2 U	µg/L
				SC-1014	6.5	6.5 U	µg/L
Metals	Zinc	SC-1011	0.0238	SC-1001	0.0586	0.0586 U	mg/L
				SC-1003	0.0322	0.0322 U	mg/L
				SC-1004	0.0153	0.0153 U	mg/L
				SC-1005	0.0164	0.0164 U	mg/L
				SC-1008	0.0113	0.0113 U	mg/L
				SC-1010	0.0704	0.0704 U	mg/L
				SC-1012	0.0203	0.0203 U	mg/L
				SC-1013	0.0117	0.0117 U	mg/L
Metals	Zinc	SC-1015	0.0284	SC-1018	0.0190	0.0190 U	mg/L

Notes:
U Non-detect at associated value.

APPENDIX H

NYSDEC SPLIT SOIL AND GROUNDWATER SAMPLE DATA

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187201	187207	187210	187211	187213	187216	187220	187226	187221	187230
	Sample ID:	*BH-44 0"-2"*	*BH-47 0"-2"*	*BH-48 0"-2"*	*BH-48 1'<Clay*	*BH-49 0"-2"*	*BH-50 0"-2"*	*BH-51B 18"*	*BH-52 0"-2"*	*BH-54 Native*	*BH-58 0"-2"*
	Collection Date:	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/09/96*	*09/10/96*
	NYSDEC Cleanup Objectives (1)										
TCL Volatiles (μg/Kg)											
Chloromethane		-	-	-	-	-	-	-	-	-	-
Bromomethane		-	-	-	-	-	-	-	-	-	-
Vinyl chloride		-	-	-	-	-	-	-	-	-	-
Chloroethane		-	-	-	-	-	-	-	-	-	-
Methylene chloride		-	-	-	-	-	-	-	-	-	-
Acetone	200	-	-	-	-	-	-	-	-	-	-
Carbon disulfide		-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene		-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane		-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)		-	-	-	-	-	-	-	-	-	-
Chloroform		-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane		-	-	-	-	-	-	-	-	-	-
2-Butanone		-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane		-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride		-	-	-	-	-	-	-	-	-	-
Bromodichloromethane		-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane		-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene		-	-	-	-	-	-	-	-	-	-
Trichloroethene	700	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane		-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane		-	-	-	-	-	-	-	-	-	-
Benzene	60	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene		-	-	-	-	-	-	-	-	-	-
Bromoform		-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	1000	-	-	-	-	-	-	-	-	-	-
2-Hexanone		-	-	-	-	-	-	-	-	-	-
Tetrachloroethene		-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane		-	-	-	-	-	-	-	-	-	-
Toluene	1500	-	-	-	-	-	-	-	-	-	-
Chlorobenzene		-	-	-	-	-	-	-	-	-	-
Ethyl benzene	5500	-	-	-	-	-	-	-	-	-	-
Styrene		-	-	-	-	-	-	-	-	-	-
Total Xylenes	1200	-	-	-	-	-	-	-	-	-	-
Ethanol		-	-	-	-	-	-	-	-	-	-
Methanol		-	-	-	-	-	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187222	187223	187224	187225	187233	187236	187238	187237	187239	187241
	Sample ID:	*BH-59 0"-2"*	*BH-59 4'-6'*	*BH-60 0"-2"*	*BH-60 4'-6'*	*BH-61 0"-2"*	*BH-65 2'*	*BH-66 Inter.*	*BH-66 0"-2"*	*BH-66 16'-18'*	*BH-67 Inter.*
	Collection Date:	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/11/96*
	NYSDEC Cleanup Objectives (1)										
TCL Volatiles (μg/Kg)											
Chloromethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Bromomethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Vinyl chloride		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Chloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Methylene chloride		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Acetone	200	13 UJ	39 J	11 UJ	39 J	-	-	-	-	-	-
Carbon disulfide		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,1-Dichloroethene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,1-Dichloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,2-Dichloroethene (total)		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Chloroform		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,2-Dichloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
2-Butanone		13 UJ	12 UJ	11 UJ	12 UJ	-	-	-	-	-	-
1,1,1-Trichloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Carbon tetrachloride		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Bromodichloromethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,2-Dichloropropane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
cis-1,3-Dichloropropene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Trichloroethene	700	13 U	12 U	11 U	12 U	-	-	-	-	-	-
Dibromochloromethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,1,2-Trichloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Benzene	60	13 U	0.8 J	11 U	2 J	-	-	-	-	-	-
trans-1,3-Dichloropropene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Bromoform		13 U	12 U	11 U	12 U	-	-	-	-	-	-
4-Methyl-2-pentanone	1000	13 UJ	12 UJ	11 UJ	12 UJ	-	-	-	-	-	-
2-Hexanone		13 UJ	12 UJ	11 UJ	12 UJ	-	-	-	-	-	-
Tetrachloroethene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Toluene	1500	13 U	12 U	4 J	1 J	-	-	-	-	-	-
Chlorobenzene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Ethyl benzene	5500	13 U	12 U	11 U	4 J	-	-	-	-	-	-
Styrene		13 U	12 U	11 U	12 U	-	-	-	-	-	-
Total Xylenes	1200	13 U	12 U	11 U	12 J	-	-	-	-	-	-
Ethanol		-	-	-	-	-	-	-	-	-	-
Methanol		-	-	-	-	-	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187240	187246	187253	187258	187260	187261	187262	187263	187264	187265	187266
	Sample ID:	*BH-67 0"-2"*	*BH-69 10'-12'*	*BH-75 0"-2"*	*BH-82 2'-4'*	*BH-88 10'-12'*	*BH-80 0"-2"*	*BH-91 6'-8'*	*BH-92B 3'-4'*	*BH-92B 9'-10'*	*BH-95 0"-2"*	*BH-95 3.5"-4"*
	Collection Date:	*09/11/96*	*09/11/96*	*9/11/96*	*9/11/96*	*9/11/96*	*9/11/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*
TCL Volatiles (µg/Kg)	*NYSDEC Cleanup Objectives (1)*											
Chloromethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Bromomethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Vinyl chloride		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Chloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Methylene chloride		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Acetone	200	-	-	-	-	19 J	-	2700 U	36 J	1400 U	-	-
Carbon disulfide		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,1-Dichloroethene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,1-Dichloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,2-Dichloroethene (total)		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Chloroform		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,2-Dichloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
2-Butanone		-	-	-	-	10 UJ	-	2700 U	13 UJ	1400 U	-	-
1,1,1-Trichloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Carbon tetrachloride		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Bromodichloromethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,2-Dichloropropane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
cis-1,3-Dichloropropene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Trichloroethene	700	-	-	-	-	0.9 J	-	2700 U	13 U	1400 U	-	-
Dibromochloromethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,1,2-Trichloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Benzene	60	-	-	-	-	350	-	39000	160	20000	-	-
trans-1,3-Dichloropropene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Bromoform		-	-	-	-	10 U	-	2700 U	13 UJ	1400 U	-	-
4-Methyl-2-pentanone	1000	-	-	-	-	36 J	-	2700 U	13 UJ	1400 U	-	-
2-Hexanone		-	-	-	-	10 UJ	-	2700 U	13 UJ	1400 U	-	-
Tetrachloroethene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
1,1,2,2-Tetrachloroethane		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Toluene	1500	-	-	-	-	160	-	1900 J	6 J	280 J	-	-
Chlorobenzene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Ethyl benzene	5500	-	-	-	-	1 J	-	2700 U	12 J	1400 U	-	-
Styrene		-	-	-	-	10 U	-	2700 U	13 U	1400 U	-	-
Total Xylenes	1200	-	-	-	-	17	-	1000 J	13 U	500 J	-	-
Ethanol		-	-	-	-	-	-	4600	510 U	1600	-	-
Methanol		-	-	-	-	-	-	1600	400 U	400 U	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187201	187207	187210	187211	187213	187216	187220	187226	187221	187230
	Sample ID:	*BH-44 0"-2"*	*BH-47 0"-2"*	*BH-48 0"-2"*	*BH-48 1'<Clay*	*BH-49 0"-2"*	*BH-50 0"-2"*	*BH-51B 18"*	*BH-52 0"-2"*	*BH-54 Native*	*BH-58 0"-2"*
	Collection Date:	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/09/96*	*09/10/96*
	NYSDEC Cleanup Objectives (1)										
TCL Semi-Volatiles (μg/Kg)											
Phenol	30 or MDL	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl) ether		-	-	-	-	-	-	-	-	-	-
2-Chlorophenol		-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene		-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	8500	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene		-	-	-	-	-	-	-	-	-	-
2-Methylphenol	100 or MDL	-	-	-	-	-	-	-	-	-	-
2,2'-Oxybis(1-chloropropane)		-	-	-	-	-	-	-	-	-	-
4-Methylphenol	900	-	-	-	-	-	-	-	-	-	-
n-Nitroso-di-n-propylamine		-	-	-	-	-	-	-	-	-	-
Hexachloroethane		-	-	-	-	-	-	-	-	-	-
Nitrobenzene		-	-	-	-	-	-	-	-	-	-
Isophorone		-	-	-	-	-	-	-	-	-	-
2-Nitrophenol		-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	NA	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane		-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol		-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	3400	-	-	-	-	-	-	-	-	-	-
Naphthalene	13,000	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline		-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene		-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol		-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	36,400	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene		-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol		-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol		-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene		-	-	-	-	-	-	-	-	-	-
2-Nitroaniline		-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate		-	-	-	-	-	-	-	-	-	-
Acenaphthylene		-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene		-	-	-	-	-	-	-	-	-	-
3-Nitroaniline		-	-	-	-	-	-	-	-	-	-
Acenaphthene	50,000	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol		-	-	-	-	-	-	-	-	-	-
4-Nitrophenol		-	-	-	-	-	-	-	-	-	-
Dibenzofuran	6200	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene		-	-	-	-	-	-	-	-	-	-
Diethylphthalate		-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether		-	-	-	-	-	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187222	187223	187224	187225	187233	187236	187238	187237	187239	187241
	Sample ID:	*BH-59 0"-2"*	*BH-59 4'-6'*	*BH-60 0"-2"*	*BH-60 4'-6'*	*BH-61 0"-2"*	*BH-65 2'*	*BH-66 Inter.*	*BH-66 0"-2"*	*BH-66 16'-18'*	*BH-67 Inter.*
	Collection Date:	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/11/96*
	NYSDEC Cleanup Objectives (1)										
TCL Semi-Volatiles (µg/Kg)											
Phenol	30 or MDL	5900 J	410 U	39000	120 J	-	420 U	400 U	350 J	360 U	410 U
bis(2-Chloroethyl) ether		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2-Chlorophenol		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
1,3-Dichlorobenzene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
1,4-Dichlorobenzene	8500	430 U	410 U	350 U	440 U	-	420 U	400 U	11 J	360 U	410 U
1,2-Dichlorobenzene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2-Methylphenol	100 or MDL	1600	410 U	5000 J	440 U	-	420 U	400 U	190 J	360 U	410 U
2,2'-Oxybis(1-chloropropane)		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
4-Methylphenol	900	1100	410 U	4300 J	440 U	-	420 U	400 U	640	360 U	410 U
n-Nitroso-di-n-propylamine		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Hexachloroethane		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Nitrobenzene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Isophorone		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2-Nitrophenol		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2,4-Dimethylphenol	NA	400 J	410 U	8200 J	440 U	-	420 U	400 U	570	360 U	410 U
bis(2-Chloroethoxy)methane		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2,4-Dichlorophenol		400 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
1,2,4-Trichlorobenzene	3400	430 U	410 U	350 U	440 U	-	420 U	400 U	51 J	360 U	410 U
Naphthalene	13,000	37 J	410 U	350 U	440 U	-	420 U	400 U	55 J	360 U	410 U
4-Chloroaniline		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Hexachlorobutadiene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
4-Chloro-3-methylphenol		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2-Methylnaphthalene	36,400	430 U	410 U	300 J	440 U	-	420 U	400 U	33 J	360 U	410 U
Hexachlorocyclopentadiene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2,4,6-Trichlorophenol		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2,4,5-Trichlorophenol		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
2-Chloronaphthalene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2-Nitroaniline		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
Dimethyl phthalate		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Acenaphthylene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
2,6-Dinitrotoluene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
3-Nitroaniline		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
Acenaphthene	50,000	430 U	410 U	350 U	440 U	-	420 U	400 U	170 J	360 U	410 U
2,4-Dinitrophenol		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
4-Nitrophenol		1000 UJ	1000 U	860 UJ	1100 U	-	1000 U	980 U	1000 UJ	880 U	990 U
Dibenzofuran	6200	430 U	410 U	350 U	440 U	-	420 U	400 U	85 J	360 U	410 U
2,4-Dinitrotoluene		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Diethylphthalate		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
4-Chlorophenyl phenyl ether		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187240	187246	187253	187258	187260	187261	187262	187263	187264	187265	187266
	Sample ID:	BH-67 0"-2"	BH-69 10'-12'	BH-75 0"-2"	BH-82 2'-4'	BH-88 10'-12'	BH-80 0"-2"	BH-91 6'-8'	BH-92B 3'-4'	BH-92B 9'-10'	BH-95 0"-2"	BH-95 3.5"-4"
	Collection Date:	09/11/96	09/11/96	9/11/96	9/11/96	9/11/96	9/11/96	09/12/96	09/12/96	09/12/96	09/12/96	09/12/96
	NYSDEC Cleanup Objectives (1)											
TCL Semi-Volatiles (µg/Kg)				-								
Phenol	30 or MDL	120 J	380 U	-	-	-	-	-	-	-	3700 J	380 U
bis(2-Chloroethyl) ether		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2-Chlorophenol		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
1,3-Dichlorobenzene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
1,4-Dichlorobenzene	8500	390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
1,2-Dichlorobenzene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2-Methylphenol	100 or MDL	50 J	380 U	-	-	-	-	-	-	-	3200 J	29 J
2,2'-Oxybis(1-chloropropane)		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
4-Methylphenol	900	200 J	380 U	-	-	-	-	-	-	-	8300 U	59 J
n-Nitroso-di-n-propylamine		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Hexachloroethane		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Nitrobenzene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Isophorone		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2-Nitrophenol		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2,4-Dimethylphenol	NA	220 J	380 U	-	-	-	-	-	-	-	4900 J	720
bis(2-Chloroethoxy)methane		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2,4-Dichlorophenol		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
1,2,4-Trichlorobenzene	3400	390 U	4200	-	-	-	-	-	-	-	8300 U	380 U
Naphthalene	13,000	43 J	380 U	-	-	-	-	-	-	-	10000	51 J
4-Chloroaniline		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Hexachlorobutadiene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
4-Chloro-3-methylphenol		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2-Methylnaphthalene	36,400	28 J	380 U	-	-	-	-	-	-	-	3200 J	11 J
Hexachlorocyclopentadiene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2,4,6-Trichlorophenol		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2,4,5-Trichlorophenol		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
2-Chloronaphthalene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2-Nitroaniline		390 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
Dimethyl phthalate		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Acenaphthylene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
2,6-Dinitrotoluene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
3-Nitroaniline		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
Acenaphthene	50,000	150 J	380 U	-	-	-	-	-	-	-	6800 J	10 J
2,4-Dinitrophenol		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
4-Nitrophenol		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
Dibenzofuran	6200	74 J	380 U	-	-	-	-	-	-	-	4600 J	380 U
2,4-Dinitrotoluene		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Diethylphthalate		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
4-Chlorophenyl phenyl ether		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187201	*187207*	*187210*	*187211*	*187213*	*187216*	*187220*	*187226*	*187221*	*187230*
	Sample ID:	*BH-44 0"-2"*	*BH-47 0"-2"*	*BH-48 0"-2"*	*BH-48 1'<Clay*	*BH-49 0"-2"*	*BH-50 0"-2"*	*BH-51B 18"*	*BH-52 0"-2"*	*BH-54 Native*	*BH-58 0"-2"*
	Collection Date:	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/09/96*	*09/10/96*
	NYSDEC Cleanup Objectives (1)										
TCL Semi-Volatiles (μg/Kg (Cont'd.))											
Fluorene	50,000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline		-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol		-	-	-	-	-	-	-	-	-	-
n-Nitrosodiphenylamine		-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether		-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	410	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol		-	-	-	-	-	-	-	-	-	-
Phenanthrene	50,000	-	-	-	-	-	-	-	-	-	-
Anthracene	100	-	-	-	-	-	-	-	-	-	-
Carbazole	NA	-	-	-	-	-	-	-	-	-	-
di-n-Butyl phthalate	8100	-	-	-	-	-	-	-	-	-	-
Fluoranthene	50,000	-	-	-	-	-	-	-	-	-	-
Pyrene	50,000	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate		-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine		-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	224 or MDL	-	-	-	-	-	-	-	-	-	-
Chrysene	400	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	50,000	-	-	-	-	-	-	-	-	-	-
di-n-Octyl phthalate		-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	224 or MDL	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	224 or MDL	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	61 or MDL	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	3200	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	14 or MDL	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	50,000	-	-	-	-	-	-	-	-	-	-
PCBs (μg/Kg)											
PCB-1016		490 U	100 U	90 UJ	1100 U	130 U	500 U	90 U	100 U	100 U	1100 U
PCB-1221		490 U	100 U	90 UJ	1100 U	130 U	500 U	90 U	100 U	100 U	1100 U
PCB-1232		490 U	100 U	90 UJ	1100 U	130 U	500 U	90 U	100 U	100 U	1100 U
PCB-1242	10,000	490 U	100 U	61 J	1300	130 U	500 U	90 U	100 U	100 U	1100 U
PCB-1248	10,000	490 U	100 U	90 UJ	1100 U	130 U	500 U	90 U	100 U	100 U	1100 U
PCB-1254	10,000	470 J	200 U	240 J	1600 J	120 J	370 J	190 U	32 J	200 U	6000
PCB-1260	10,000	200 J	200 U	190 UJ	2200 U	260 U	53 J	190 U	200 U	200 U	210 J

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187222	187223	187224	187225	187233	187236	187238	187237	187239	187241
Sample ID:		*BH-59 0"-2"*	*BH-59 4'-6'*	*BH-60 0"-2"*	*BH-60 4'-6'*	*BH-61 0"-2"*	*BH-65 2'*	*BH-66 Inter.*	*BH-66 0"-2"*	*BH-66 16'-18'*	*BH-67 Inter.*
Collection Date:		*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/11/96*
	NYSDEC Cleanup Objectives (1)										
TCL Semi-Volatiles (µg/Kg (Cont'd.))											
Fluorene	50,000	430 U	410 U	350 U	440 U	-	420 U	400 U	160 J	360 U	410 U
4-Nitroaniline		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
4,6-Dinitro-2-methylphenol		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
n-Nitrosodiphenylamine		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
4-Bromophenyl phenyl ether		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Hexachlorobenzene	410	430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Pentachlorophenol		1000 U	1000 U	860 U	1100 U	-	1000 U	980 U	1000 U	880 U	990 U
Phenanthrene	50,000	430 U	410 U	480	440 U	-	420 U	400 U	1400	360 U	20 J
Anthracene	100	430 U	410 U	40 J	440 U	-	420 U	400 U	320 J	360 U	410 U
Carbazole	NA	430 U	410 U	350 U	440 U	-	420 U	400 U	210 J	360 U	410 U
di-n-Butyl phthalate	8100	430 U	410 U	9700 J	440 U	-	420 U	400 U	1500	360 U	41 J
Fluoranthene	50,000	430 U	410 U	560	440 U	-	420 U	400 U	1800	360 U	45 J
Pyrene	50,000	430 U	410 U	620	440 U	-	420 U	400 U	1600	360 U	41 J
Butyl benzyl phthalate		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
3,3'-Dichlorobenzidine		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Benzo(a)anthracene	224 or MDL	430 U	410 U	600	440 U	-	420 U	400 U	920	360 U	19 J
Chrysene	400	430 U	410 U	540	440 U	-	420 U	400 U	810	360 U	20 J
bis(2-Ethylhexyl)phthalate	50,000	430 U	410 U	1700	210 J	-	420 U	400 U	420 U	360 U	410 U
di-n-Octyl phthalate		430 U	410 U	350 U	440 U	-	420 U	400 U	420 U	360 U	410 U
Benzo(b)fluoranthene	224 or MDL	430 U	410 U	740	440 U	-	420 U	400 U	1000	360 U	19 J
Benzo(k)fluoranthene	224 or MDL	430 U	410 U	100 J	440 U	-	420 U	400 U	450	360 U	8 J
Benzo(a)pyrene	61 or MDL	430 U	410 U	310 J	440 U	-	420 U	400 U	940	360 U	16 J
Indeno(1,2,3-cd)pyrene	3200	430 U	410 U	220 J	440 U	-	420 U	400 U	590	360 U	410 U
Dibenz(a,h)anthracene	14 or MDL	430 U	410 U	59 J	440 U	-	420 U	400 U	130 J	360 U	410 U
Benzo(g,h,i)perylene	50,000	430 U	15 J	140 J	440 U	-	420 U	14 J	370 J	360 U	18 J
PCBs (µg/Kg)											
PCB-1016		5000 U	4900 U	9000 U	100 UJ	9000 U	100 U	100 U	10000 U	90 U	500 U
PCB-1221		5000 U	4900 U	9000 U	100 UJ	9000 U	100 U	100 U	10000 U	90 U	500 U
PCB-1232		5000 U	4900 U	9000 U	100 UJ	9000 U	100 U	100 U	10000 U	90 U	500 U
PCB-1242	10,000	5000 U	4900 U	9000 U	100 UJ	9000 U	100 U	100 U	10000 U	90 U	500 U
PCB-1248	10,000	5000 U	4900 U	9000 U	100 UJ	82000	100 U	100 U	10000 U	90 U	500 U
PCB-1254	10,000	2500 J	4300 J	18000	210 UJ	1800 U	200 U	200 U	20000 U	180 U	1000 U
PCB-1260	10,000	4400 J	10000 U	10000 J	210 UJ	1800 U	200 U	280	45000	87 J	700 J

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187240	187246	187253	187258	187260	187261	187262	187263	187264	187265	187266
	Sample ID:	BH-67 0"-2"	BH-69 10'-12'	BH-75 0"-2"	BH-82 2'-4'	BH-88 10'-12'	BH-80 0"-2"	BH-91 6'-8'	BH-92B 3'-4'	BH-92B 9'-10'	BH-95 0"-2"	BH-95 3.5"-4"
	Collection Date:	09/11/96	09/11/96	9/11/96	9/11/96	9/11/96	9/11/96	09/12/96	09/12/96	09/12/96	09/12/96	09/12/96
	NYSDEC Cleanup Objectives (1)											
TCL Semi-Volatiles (μg/Kg (Cont'd.))												
Fluorene	50,000	130 J	380 U	-	-	-	-	-	-	-	7200 J	380 U
4-Nitroaniline		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
4,6-Dinitro-2-methylphenol		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
n-Nitrosodiphenylamine		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
4-Bromophenyl phenyl ether		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Hexachlorobenzene	410	390 U	$\boxed{440}$	-	-	-	-	-	-	-	8300 U	380 U
Pentachlorophenol		950 U	920 U	-	-	-	-	-	-	-	20000 U	920 U
Phenanthrene	50,000	1400	25 J	-	-	-	-	-	-	-	37000	51 J
Anthracene	100	$\boxed{310\ J}$	12 J	-	-	-	-	-	-	-	$\boxed{9600}$	380 U
Carbazole	NA	170 J	380 U	-	-	-	-	-	-	-	5300 J	380 U
di-n-Butyl phthalate	8100	1700	380 U	-	-	-	-	-	-	-	4000 J	380 U
Fluoranthene	50,000	1500	260 J	-	-	-	-	-	-	-	49000	59 J
Pyrene	50,000	1600	390	-	-	-	-	-	-	-	43000	43 J
Butyl benzyl phthalate		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
3,3'-Dichlorobenzidine		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Benzo(a)anthracene	224 or MDL	$\boxed{770}$	160 J	-	-	-	-	-	-	-	$\boxed{23000}$	21 J
Chrysene	400	$\boxed{760}$	120 J	-	-	-	-	-	-	-	$\boxed{22000}$	23 J
bis(2-Ethylhexyl)phthalate	50,000	390 U	380 U	-	-	-	-	-	-	-	3300 J	250 J
di-n-Octyl phthalate		390 U	380 U	-	-	-	-	-	-	-	8300 U	380 U
Benzo(b)fluoranthene	224 or MDL	$\boxed{690}$	160 J	-	-	-	-	-	-	-	$\boxed{28000}$	24 J
Benzo(k)fluoranthene	224 or MDL	$\boxed{260\ J}$	70 J	-	-	-	-	-	-	-	$\boxed{10000}$	8 J
Benzo(a)pyrene	61 or MDL	$\boxed{530}$	$\boxed{130\ J}$	-	-	-	-	-	-	-	$\boxed{22000}$	380 U
Indeno(1,2,3-cd)pyrene	3200	370 J	120 J	-	-	-	-	-	-	-	$\boxed{12000}$	380 U
Dibenz(a,h)anthracene	14 or MDL	$\boxed{36\ J}$	$\boxed{21\ J}$	-	-	-	-	-	-	-	$\boxed{2900\ J}$	380 U
Benzo(g,h,i)perylene	50,000	250 J	100 J	-	-	-	-	-	-	-	9100 U	380 U
PCBs (μg/Kg)												
PCB-1016		9000 U	9000 U	1000 U	10000 U	-	90 U	-	-	-	-	-
PCB-1221		9000 U	9000 U	1000 U	10000 U	-	90 U	-	-	-	-	-
PCB-1232		9000 U	9000 U	1000 U	10000 U	-	90 U	-	-	-	-	-
PCB-1242	10,000	9000 U	9000 U	1000 U	10000 U	-	90 U	-	-	-	-	-
PCB-1248	10,000	9000 U	9000 U	1000 U	10000 U	-	90 U	-	-	-	-	-
PCB-1254	10,000	19000 U	18000 U	2000 U	21000 U	-	190 U	-	-	-	-	-
PCB-1260	10,000	$\boxed{93000}$	$\boxed{1000000\ J}$	2500 J	$\boxed{37000}$	-	190 U	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187201	*187207*	*187210*	*187211*	*187213*	*187216*	*187220*	*187226*	*187221*	*187230*
Sample ID:		*BH-44 0"-2"*	*BH-47 0"-2"*	*BH-48 0"-2"*	*BH-48 1'<Clay*	*BH-49 0"-2"*	*BH-50 0"-2"*	*BH-51B 18"*	*BH-52 0"-2"*	*BH-54 Native*	*BH-58 0"-2"*
Collection Date:		*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/09/96*	*09/10/96*	*09/09/96*	*09/10/96*
	NYSDEC Cleanup Objectives (1)										
Petroleum Products (mg/Kg)											
Kerosene		-	-	810 U	-	520 U	-	-	-	-	-
Gasoline		-	-	810 U	-	520 U	-	-	-	-	-
SAE 10		-	-	810 U	-	520 U	-	-	-	-	-
SAE 20		-	-	810 U	-	520 U	-	-	-	-	-
SAE 30		-	-	810 U	-	520 U	-	-	-	-	-
SAE 40		-	-	810 U	-	520 U	-	-	-	-	-
Fuel Oil #2		-	-	810 U	-	520 U	-	-	-	-	-
Fuel Oil #6		-	-	810 U	-	520 U	-	-	-	-	-
Other-1		-	-	3000	-	3000	-	-	-	-	-
Other-2		-	-	810 U	-	520 U	-	-	-	-	-
Other-3		-	-	810 U	-	520 U	-	-	-	-	-
TPH (mg/Kg)		-	-	-	-	-	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187222	187223	187224	187225	187233	187236	187238	187237	187239	187241
Sample ID:		*BH-59 0"-2"*	*BH-59 4'-6'*	*BH-60 0"-2"*	*BH-60 4'-6'*	*BH-61 0"-2"*	*BH-65 2'*	*BH-66 Inter.*	*BH-66 0"-2"*	*BH-66 16'-18'*	*BH-67 Inter.*
Collection Date:		*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/10/96*	*09/11/96*
	NYSDEC Cleanup Objectives (1)										
Petroleum Products (mg/Kg)											
Kerosene		-	-	-	-	-	-	-	-	-	-
Gasoline		-	-	-	-	-	-	-	-	-	-
SAE 10		-	-	-	-	-	-	-	-	-	-
SAE 20		-	-	-	-	-	-	-	-	-	-
SAE 30		-	-	-	-	-	-	-	-	-	-
SAE 40		-	-	-	-	-	-	-	-	-	-
Fuel Oil #2		-	-	-	-	-	-	-	-	-	-
Fuel Oil #6		-	-	-	-	-	-	-	-	-	-
Other-1		-	-	-	-	-	-	-	-	-	-
Other-2		-	-	-	-	-	-	-	-	-	-
Other-3		-	-	-	-	-	-	-	-	-	-
TPH (mg/Kg)		-	-	-	-	-	-	-	-	-	-

TABLE H-1

NYSDEC SPLIT SOIL SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

		187240	187246	187253	187258	187260	187261	187262	187263	187264	187265	187266
Sample ID:		*BH-67 0"-2"*	*BH-69 10'-12'*	*BH-75 0"-2"*	*BH-82 2'-4'*	*BH-88 10'-12'*	*BH-80 0"-2"*	*BH-91 6'-8'*	*BH-92B 3'-4'*	*BH-92B 9'-10'*	*BH-95 0"-2"*	*BH-95 3.5"-4"*
Collection Date:		*09/11/96*	*09/11/96*	*9/11/96*	*9/11/96*	*9/11/96*	*9/11/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*	*09/12/96*
	NYSDEC Cleanup Objectives (1)											
Petroleum Products (mg/Kg)												
Kerosene		-	-	-	-	-	-	-	22 U	-	-	-
Gasoline		-	-	-	-	-	-	-	22 U	-	-	-
SAE 10		-	-	-	-	-	-	-	22 U	-	-	-
SAE 20		-	-	-	-	-	-	-	22 U	-	-	-
SAE 30		-	-	-	-	-	-	-	22 U	-	-	-
SAE 40		-	-	-	-	-	-	-	22 U	-	-	-
Fuel Oil #2		-	-	-	-	-	-	-	14 J	-	-	-
Fuel Oil #6		-	-	-	-	-	-	-	22 U	-	-	-
Other-1		-	-	-	-	-	-	-	22 U	-	-	-
Other-2		-	-	-	-	-	-	-	22 U	-	-	-
Other-3		-	-	-	-	-	-	-	22 U	-	-	-
TPH (mg/Kg)		-	-	-	70800	-	2450	-	-	-	-	-

Notes:

-	Not Applicable.
Inter.	Clay/Fill Interface Sample.
J	Associated value is estimated.
NYSDEC	New York State Department of Environmental Conservation.
PCBs	Polychlorinated Biphenyls.
TCL	Target Compound List
U	Non-detect at the associated value.
TPH	Total Petroleum Hydrocarbon
MDL	Method Detection Limit
(1)	NYSDEC Soil Cleanup Objectives for detected compounds only as provided in TAGM 4046: Determination of Soil Cleanup Objectives and Cleanup Levels, draft revision dated October 1995.
☐	Exceeds Soil Cleanup Objective

TABLE H-2

NYSDEC SPLIT GROUNDWATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

	187201	187202	187203	187204	187206	187207	187208	187209	187210
Sample ID:	*OW-1*	*OW-2*	*OW-3*	*OW-4*	*OW-6*	*OW-7*	*OW-8*	*OW-9*	*OW-10*
Collection Date:		*07/23/96*	*07/23/96*						
Volatiles (μg/L)									
Chloromethane	-	10 U	10 U	-	-	-	-	-	-
Bromomethane	-	10 U	10 U	-	-	-	-	-	-
Vinyl chloride	-	10 U	10 U	-	-	-	-	-	-
Chloroethane	-	10 U	10 U	-	-	-	-	-	-
Methylene chloride	-	10 U	10 U	-	-	-	-	-	-
Acetone	-	10 U	10 U	-	-	-	-	-	-
Carbon disulfide	-	10 U	10 U	-	-	-	-	-	-
1,1-Dichloroethene	-	10 U	10 U	-	-	-	-	-	-
1,1-Dichloroethane	-	10 U	10 U	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	10 U	10 U	-	-	-	-	-	-
Chloroform	-	10 U	10 U	-	-	-	-	-	-
1,2-Dichloroethane	-	10 U	10 U	-	-	-	-	-	-
2-Butanone	-	10 U	10 U	-	-	-	-	-	-
1,1,1-Trichloroethane	-	10 U	10 U	-	-	-	-	-	-
Carbon tetrachloride	-	10 U	10 U	-	-	-	-	-	-
Bromodichloromethane	-	10 U	10 U	-	-	-	-	-	-
1,2-Dichloropropane	-	10 U	10 U	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	10 U	10 U	-	-	-	-	-	-
Trichloroethene	-	10 U	10 U	-	-	-	-	-	-
Dibromochloromethane	-	10 U	10 U	-	-	-	-	-	-
1,1,2-Trichloroethane	-	10 U	10 U	-	-	-	-	-	-
Benzene	-	10 U	10 U	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	10 U	10 U	-	-	-	-	-	-
Bromoform	-	10 U	10 U	-	-	-	-	-	-
4-Methyl-2-pentanone	-	10 U	10 U	-	-	-	-	-	-
2-Hexanone	-	10 U	10 U	-	-	-	-	-	-
Tetrachloroethene	-	10 U	10 U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	10 U	10 U	-	-	-	-	-	-
Toluene	-	10 U	10 U	-	-	-	-	-	-
Chlorobenzene	-	10 U	10 U	-	-	-	-	-	-
Ethylbenzene	-	10 U	10 U	-	-	-	-	-	-
Styrene	-	10 U	10 U	-	-	-	-	-	-
Total Xylenes	-	10 U	10 U	-	-	-	-	-	-

TABLE H-2

NYSDEC SPLIT GROUNDWATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

	187211	*187212*	*1872D2*	*1872B9*	*1872W0*	*1872W2*	*1872A1*	*1872B2*	*1872C3*
Sample ID:	*OW-11*	*OW-12*	*OBW-2*	*BW-9*	*BW-10*	*BW-12*	*OW-A1*	*OW-B2*	*BW-C3*
Collection Date:									
Volatiles (μg/L)									
Chloromethane	-	-	-	-	-	-	-	-	-
Bromomethane	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	-	-	-	-	-	-	-	-
Chloroethane	-	-	-	-	-	-	-	-	-
Methylene chloride	-	-	-	-	-	-	-	-	-
Acetone	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-
2-Butanone	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	-	-	-	-	-	-	-	-	-
2-Hexanone	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	-	-	-	-	-	-	-	-
Styrene	-	-	-	-	-	-	-	-	-
Total Xylenes	-	-	-	-	-	-	-	-	-

TABLE H-2

NYSDEC SPLIT GROUNDWATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

	187201	*187202*	*187203*	*187204*	*187206*	*187207*	*187208*	*187209*	*187210*
Sample ID:	*OW-1*	*OW-2*	*OW-3*	*OW-4*	*OW-6*	*OW-7*	*OW-8*	*OW-9*	*OW-10*
Collection Date:		*07/23/96*	*07/23/96*						
Metals (μg/L)									
Calcium	197000	107000	201000	193000	50500	51400	119000	368000	110000
Magnesium	138000	60500	58600	173000	166000	82900	125000	740000	205000
Potassium	4860	3870	14400	12200	4210	7480	3450	11700	7280
Sodium	34100	20000	40100	46900	50800	60000	66700	171000	58100
Wet Chemistry (mg/L)									
Chloride	468	8.2	59.3	146	63.1	167	84.9	65.6	13.0
Sulfate	482	165	170	414	19.7	76.2	125	4320	672
Total Alkalinity	270	366	33.3	447	955	240	1040	426	562
Total Hardness	1210	592	1070	1230	908	459	1050	4360	1220

TABLE H-2

NYSDEC SPLIT GROUNDWATER SAMPLE DATA
SPAULDING COMPOSITES COMPANY
TONAWANDA, NEW YORK
SEPTEMBER 1996

Sample ID:	*187211* *OW-11*	*187212* *OW-12*	*1872D2* *OBW-2*	*1872B9* *BW-9*	*1872W0* *BW-10*	*1872W2* *BW-12*	*1872A1* *OW-A1*	*1872B2* *OW-B2*	*1872C3* *BW-C3*
Collection Date:									
Metals (µg/L)									
Calcium	512000	78500	283000	486000	439000	474000	79300	54600	141000
Magnesium	483000	154000	66500	48200	101000	92700	80400	20100	126000
Potassium	26100	9700	10400	41200	13700	29600	3840	2370	3410
Sodium	1510000	59400	61100	128000	68800	60500	29900	13600	36200
Wet Chemistry (mg/L)									
Chloride	5150	5.5	19.7	12.6	18.2	89.8	89.1	25.9	30.0
Sulfate	263	501	985	1800	2020	1950	154	38.5	640
Total Alkalinity	78.1	543	160	71.7	96.1	105	354	205	521
Total Hardness	5100	984	1100	1540	1870	1810	653	291	999

APPENDIX I

NYSDEC RCRA ACTION LEVELS

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION
ACTION LEVEL
for GROUNDWATER and SOIL/SEDIMENT

Constituent	CAS No.	Groundwater Action Level (µg/L)	Soil/Sediment Action Level (mg/Kg)
ACENAPHTHENE	83-32-9	$2.0 X 10^{1}_{g}$	$5.0 X 10^{3}$
ACEPHATE	30560-19-1	$4.0 X 10^{1}_{h}$	$3.0 X 10^{2}$
ACETONE (2-PROPANONE)	67-64-1	$5:0 X 10^{1}_{g}$	$8.0 X 10^{3}$
ACETONE CYANOHYDRIN	75-86-5	$2.5 X 10^{3}_{h}$	$5.0 X 10^{3}$
ACETONITRILE (METHYL CYANIDE)	75-05-8	$2.1 X 10^{2}_{h}$	$5.0 X 10^{2}$
ACETOPHENONE (1-PHENYL-ETHANONE)	98-86-2	$3.5 X 10^{3}_{h}$	$8.0 X 10^{3}$
ACROLEIN (2-PROPANAL)	107-02-8	5.0	
ACRYLAMIDE	79-06-1	5.0	$1.6 X 10^{-1}$
ACRYLIC ACID	79-10-7	$5.0 X 10^{1}_{g}$	$6.0 X 10^{3}$
ACRYLONITRILE (2-PROPENENITRILE)	107-13-1	5.0	1.30e+00
ALACHLOR	15972-60-8	2.0_{i}	8.60e+00
ALDICARB	116-06-3	7.0	6.00e+00
ALDICARB and METHOMYL		$3.5 X 10^{-1}_{j}$	
ALDRIN	309-00-2	ND	$4.1 X 10^{-2}$
ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	68391-01-5	$5.0 X 10^{1}_{g}$	
ALLYL ALCOHOL	107-18-6	$1.8 X 10^{2}_{h}$	$4.0 X 10^{2}$
ALLYL CHLORIDE (3-CHLORO-1-PROPENE)	107-05-1	5.0	$2.0 X 10^{2}$
ALUMINUM PHOSPHIDE	20859-73-8	$1.4 X 10^{1}$	$3.0 X 10^{1}$
AMETRYN	834-12-8	$5.0 X 10^{1}$	$7.0 X 10^{2}$
AMIBEN	133-90-4	5.0	
4-AMINOBIPHENYL	92-67-1	5.0	
m-AMINOPHENOL	591-27-5	g	$6.0 X 10^{3}$
4-AMINOPYRIDINE	504-24-5	1.0_{j}	2.00e+00
AMMONIA	7664-41-7	$< 2.0 X 10^{3}$	
ANILINE (BENZENAMINE)	62-53-3	5.0	$1.2 X 10^{2}$
ANTHRACENE	120-12-7	$5.0 X 10^{1}_{g}$	$2.0 X 10^{4}$
ANTIMONY, TOTAL	c	3.0_{g}	$3.0 X 10^{1}$
ARAMITE	140-57-8	1.4_{h}	$2.8 X 10^{1}$

NEW YORK STATE DEPARTMENT of ENVIRONMENTAL CONSERVATION
ACTION LEVEL
for GROUNDWATER and SOIL/SEDIMENT

Constituent	CAS No.	Groundwater Action Level (µg/L)	Soil/Sediment Action Level (mg/Kg)
ARSENIC, TOTAL	c	2.5 X 10^{1}_{h}	2.4 X 10^{1}
ATRAZINE	1912-24-9	3.0_{i}	4.0 X 10^{2}
AZYINPHOSMETHYL	86-50-0	4.4	
AZOBENZENE	103-33-3	5.0	6.40e+00
BARIUM, TOTAL	c	1.0 X 10^{3}	6.0 X 10^{2}
BARIUM CYANIDE	542-61-1	2.5 X 10^{3}_{h}	4.0 X 10^{4}
BENEFIN	1861-40-1	3.5 X 10^{1}	2.0 X 10^{4}
BENZALDEHYDE	100-52-7	3.5 X 10^{3}_{h}	8.0 X 10^{3}
BENZ(a)ANTHRACENE (BENZANTHRACENE)	56-55-3	2.0 X 10^{-3}_{g}	2.2 X 10^{-1}
BENZENE	71-43-2	7.0 X 10^{-1}	2.4 X 10^{1}
BENZIDINE	92-87-5	5.0	3.0 X 10^{-3}
BENZISOTHIAZOLE	271-61-4	5.0 X 10^{1}_{g}	
BENZO(b)FLUORANTHENE	205-99-2	2.0 X 10^{-3}_{g}	2.2 X 10^{-1}
BENZO(k)FLUORANTHENE	207-08-9	2.0 X 10^{-3}_{g}	2.2 X 10^{-1}
BENZOIC ACID	65-85-0	1.4 X 10^{5}_{h}	3.0 X 10^{5}
BENZO(a)PYRENE	50-32-8	ND	6.1 X 10^{-2}
BENZOTRICHLORIDE	98-07-7	2.7 X 10^{-3}_{h}	5.4 X 10^{-3}
BENZYL ALCOHOL (BENZENEMETHANOL)	100-51-6	1.4 X 10^{4}_{h}	2.0 X 10^{4}
BENZYL CHLORIDE	100-44-7	2.1 x 10^{-1}_{h}	4.10e+00
BERYLLIUM, TOTAL	c	3.0_{g}	1.6 X 10^{-1}
α-BHC	319-84-6	ND	1.1 X 10^{-1}
β-BHC	319-85-7	ND	3.90e+00
δ-BHC	319-86-8	ND	
1,1-BIPHENYL	92-52-4	5.0	4.0 X 10^{3}
BIS(2-CHLOROETHOXY)METHANE	111-91-1	5.0	
BIS(2-CHLOROETHYL)ETHER	111-44-4	1.0	6.4 X 10^{-1}
BIS(CHLOROMETHYL)ETHER (BCME)	542-88-1	5.0	3.2 X 10^{-2}
BIS(2-CHLORO-1-METHYLETHYL)ETHER	108-60-1	5.0	1.0 X 10^{3}

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BISPHENOL A	80-50-7	f	4.0 X 10^2
BIS(PENTABROMOPHENYL)ETHER	1163-19-5	5.0	8.0 X 10^2
BORIC ACID, BORATES & METABORATES	NA	1.3 X 10^2_j	
BORON, TOTAL	e	1.0 X 10^3	7.0 X 10^1
BROMACIL	314-40-9	4.4	
BROMIDE	NA	2.0 X 10^3	
BROMOBENZENE	108-86-1	5.0	
BROMOCHLOROMETHANE	74-97-5	5.0	
BROMODICHLOROMETHANE	75-27-4	5.0 X 10^1_{gz}	1.00e+00
BROMOFORM (TRIBROMOMETHANE)	75-25-2	5.0 X 10^1_{gz}	8.9 X 10^1
BROMOMETHANE (METHYL BROMIDE)	74-83-9	5.0	8.0 X 10^1
4-BROMOPHENYL PHENYL ETHER	101-55-3	5.0	
BROMOPHOS	2104-96-3	1.8 X 10^2_h	4.0 X 10^2
BROMOXYNIL (2,6-DIBROMO-4CYANOPHENOL)	1689-84-5	f	2.0 X 10^3
BUTACHLOR	23184-66-9	3.5	
1-BUTANOL (BUTYL ALCOHOL)	71-36-3	3.5 X 10^3_h	8.0 X 10^3
BUTOXYETHOXYETHANOL	112-34-5	5.0 X 10^1_g	
BUTOXYPROPANOL	5131-66-8	5.0 X 10^1_g	
BUTYLATE	2008-41-5	5.0 X 10^1	4.0 X 10^3
n-BUTYLBENZENE	104-51-8	5.0	
sec-BUTYLBENZENE	135-98-8	5.0	
tert-BUTYLBENZENE	98-06-6	5.0	
BUTYL BENZYL PHTHALATE	85-68-7	5.0 X 10^1_g	2.0 X 10^4
BUTYL ISOPROPYL PHTHALATE	NA	5.0 X 10^1_g	
CACODYLIC ACID (AGENT BLUE)	75-60-5	1.1 X 10^2_h	2.0 X 10^2
CADMIUM, TOTAL	e	5.0	4.0 X 10^1
CALCIUM CYANIDE	592-01-8	1.4 X 10^3_h	3.0 X 10^3
CAPROLACTAM	105-60-2	1.8 X 10^4_h	4.0 X 10^4
CAPTAFOL	2425-06-1	4.0 X 10^1_h	2.0 X 10^2

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CAPTAN	133-06-2	1.8 X 10^{1}	2.0 X 10^{2}
CARBARYL	63-25-2	2.9 X 10^{1}	8.0 X 10^{1}
CARBAZOLE	86-74-8	5.0	8.00e+00
CARBOFURAN	1563-66-2	4.0 X 10^{1}_{i}	4.0 X 10^{2}
CARBON DISULFIDE	60	3.5 X 10^{2}_{h}	8.0 X 10^{3}
CARBON TETRACHLORIDE (TETRACHLOROMETHANE)	56-23-5	5.0	5.40e+00
CHLORAL (TRICHLOROACETALDEHYDE)	75-87-6	7.0 X 10^{1}_{h}	2.0 X 10^{2}
CHLORANIL	118-75-2	5.0	1.7 X 10^{1}
CHLORDANE	57-74-9	1.0 X 10^{-1}	5.4 X 10^{-1}
CHLORIDES	NA	2.5 X 10^{5}	
CHLORINE CYANIDE	506-77-4	1.8 X 10^{3}_{h}	4.0 X 10^{1}
CHLOROACETIC ACID	79-11-8	7.0 X 10^{1}_{h}	2.0 X 10^{3}
p-CHLOROANILINE (4-CHLOROANALINE)	106-47-8	5.0	2.0 X 10^{2}
CHLOROBENZENE	108-90-7	5.0	2.0 X 10^{1}
CHLOROBENZILATE	510-15-6	7.0 X 10^{2}_{h}	2.00e+00
p-CHLOROBENZOIC ACID	74-11-3	5.0	2.0 X 10^{4}
4-CHLOROBENZOTRIFLUORIDE	98-56-6	5.0	2.0 X 10^{3}
1-CHLOROBUTANE	109-69-3	5.0	3.0 X 10^{4}
p-CHLORO-m-CRESOL (4-CHLORO-3-METHYLPHENOL)	59-50-7	f	
1-CHLORO-2,3-EPOXYPROPANE (EPICHLOROHYDRIN)	106-89-8	3.5_{h}	7.1 X 10^{1}
CHLOROETHANE (ETHYL CHLORIDE)	75-00-3	5.0	5.4 X 10^{2}
CHLOROFORM (TRICHLOROMETHANE)	67-66-3	7.0_{h}	1.1 X 10^{2}
CHLOROMETHYL METHYL ETHER (CMME)	107-30-2	5.0	3.5 X 10^{-3}
2-CHLORONAPHTHALENE	91-58-7	1.0 X 10^{3}	
o-CHLORONITROBENZENE	88-73-3	5.0	2.8 X 10^{1}
p-CHLORONITROBENZENE	100-00-5	5.0	3.9 X 10^{1}
2-CHLOROPHENOL	95-57-8	f	4.0 X 10^{2}
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	7.0 X 10^{2}_{h}	2.0 X 10^{3}
CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	126-99-8	5.0	2.0 X 10^{3}

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CHLOROPROPHAM	101-21-3	5.0	
CHLOROPYRIFOS	2921-88-2	1.1 X 10^{2}_{h}	2.0 X 10^{1}
2-CHLOROTOLUENE (o-CHLOROTOLUENE)	95-49-8	5.0	2.0 X 10^{3}
4-CHLOROTOLUENE (p-CHLOROTOLUENE)	106-43-4	5.0	
4-CHLORO-o-TOLUIDINE	95-69-2	5.0	1.20e+00
4-CHLORO-o-TOLUIDINE HYDROCHLORIDE	3165-93-3	5.0	1.50e+00
5-CHLORO-o-TOLUIDINE	95-79-4	5.0	
CHROMIUM, TOTAL	c	5.0 X 10^{1}	
CHROMIUM, HEXAVALENT (CHROMIUM (VI))	18540-29-9	5.0 X 10^{1}	4.0 X 10^{2}
CHROMIUM, TRIVALENT (CHROMIUM (III))	16065-83-1	3.5 X 10^{4}_{h}	8.0 X 10^{4}
CHRYSENE	218-01-9	2.0 X 10^{-3}_{g}	- -
COPPER, TOTAL	c	< 2.0 X 10^{2}	
COPPER CYANIDE	544-29-3	1.8 X 10^{2}_{h}	4.0 X 10^{2}
m-CRESOL (3-METHYL PHENOL)	108-39-4	f	4.0 X 10^{3}
o-CRESOL (2-METHYL PHENOL)	95-48-7	f	4.0 X 10^{3}
p-CRESOL (4-METHYL PHENOL)	106-44-5	f	4.0 X 10^{2}
CRESOLS	1319-77-3	f	4.0 X 10^{3}
CROTONALDEHYDE (2-BUTENAL)	123-73-3	5.0	3.70e+00
CYANAZINE	21725-46-2	7.0 X 10^{1}	2.0 X 10^{2}
CYANIDE, TOTAL	c	<1.0 X 10^{2}	2.0 X 10^{3}
CYANOGEN	460-19-5	1.1 X 10^{3}	3.0 X 10^{3}
CYANIGEN BROMIDE	506-68-3	5.0	7.0 X 10^{3}
CYCLOHEXYLAMINE	108-91-8	7.0 X 10^{3}_{h}	2.0 X 10^{4}
DACTHAL (DCPA)	1861-31-1	5.0	4.0 X 10^{4}
DALAPON (SODIUM SALT)	NA	5.0 X 10^{1}	2.0 X 10^{2}
2,4-DB	94-82-6	5.0	6.0 X 10^{2}
4,4'-DDD	72-54-8	ND	2.90e+00
4,4'-DDE	72-55-9	ND	2.10e+00
4,4'-DDT	50-29-3	ND	2.10e+00

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DIALLATE	2303-16-4	6.0 X 10^{-1}_{h}	1.2 X 10^{1}
DIAZINON	333-41-5	7.0 X 10^{-1}	7.0 X 10^{1}
DIBENZ(a,h)ANTHRACENE	53-70-3	7.0 X 10^{-4}_{h}	1.4 X 10^{-2}
1,4-DIBROMOBENZENE (p-DIBROMOBENZENE)	106-37-6	5.0	8.0 X 10^{2}
DIBROMOCHLOROMETHANE (CHLORODIBROMOMETHANE)	124-48-1	5.0 X 10^{1}_{gm}	8.30e+00
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	96-12-8	5.0	3.2 X 10^{-2}
DIBROMODICHLOROMETHANE	594-18-3	5.0	8.30e+00
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	5.0	8.2 X 10^{-3}
DIBROMOMETHANE (METHYLENE DIBROMIDE)	74-95-3	5.0	8.0 X 10^{1}
2,2-DIBROMO-3-NITRILOPRIONAMIDE	10222-01-2	5.0 X 10^{1}_{g}	
DI-n-BUTYL PHTHALATE	84-74-2	4.0	8.0 X 10^{3}
DICAMBA	1918-00-9	4.4 X 10^{-1}	2.0 X 10^{3}
DICHLONE	117-80-6	5.0	
1,2-DICHLOROBENZENE (o-DICHLOROBENZENE)	95-50-1	4.7_{j}	7.0 X 10^{3}
1,3-DICHLOROBENZENE (m-DICHLOROBENZENE)	541-73-1	5.0	
1,4-DICHLOROBENZENE (p-DICHLOROBENZENE)	106-46-7	4.7_{j}	2.9 X 10^{1}
3,3'-DICHLOROBENZIDINE	91-94-1	5.0	1.60e+00
1,4-DICHLORO-2-BUTENE	764-41-0	5.0	
trans-1,4-DICHLORO-2-BUTENE	110-57-6	5.0	
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	5.0	2.0 X 10^{4}
1,1-DICHLOROETHANE	75-34-3	5.0	8.0 X 10^{3}
1,2-DICHLOROETHANE (ETHYLENE CHLORIDE)	107-06-2	5.0	7.70e+00
1,1-DICHLOROETHYLENE	75-35-4	5.0	1.2 X 10^{1}
cis-1,2-DICHLOROETHYLENE	156-59-2	5.0	8.0 X 10^{2}
trans-1,2-DICHLOROETHYLENE	156-60-5	5.0	2.0 X 10^{3}
DICHLOROFLUOROMETHANE	75-43-4	5.0_{b}	
2,4-DICHLOROPHENOL	120-83-2	f	2.0 X 10^{2}
2,6-DICHLOROPHENOL	87-65-0	f	
2,4-DICHLOROPHENOXYACETIC ACID (2,4-D)	94-75-7	4.4	8.0 X 10^{2}

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1,2-DICHLOROPROPANE	78-87-5	5.0	1.0 X 10^{1}
1,3-DICHLOROPROPANE	142-28-9	5.0	
2,2-DICHLOROPROPANE	594-20-7	5.0	
1,1-DICHLOROPROPENE	563-58-6	5.0	
1,3-DICHLOROPROPENE	542-75-6	5.0	3.90e+00
cis-1,3-DICHLOROPROPENE	10061-01-5	5.0	
trans-1,3-DICHLOROPROPENE	10061-02-6	5.0	
DICYCLOPENTADIENE	77-73-6	1.1 X 10^{3}_{h}	2.0 X 10^{3}
DIELDRIN	60-57-1	ND	4.4 X 10^{-2}
DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	7.0 X 10^{4}_{s}	2.0 X 10^{5}
DIETHYLFORMAMIDE	617-84-4	3.9 X 10^{3}_{h}	8.0 X 10^{3}
DIETHYL PHTHALATE	84-66-2	4.0	6.0 X 10^{4}
DIETHYLSTILBESTROL (DES)	56-53-1	7.0 X 10^{-4}_{h}	1.4 X 10^{-5}
DIMETHOATE	60-51-5	7.0_{h}	2.0 X 10^{1}
p-(DIMETHYLAMINO)AZOBENZENE	60-11-7	5.0	
2,4-DIMETHYLANILINE (2,4-XYLIDINE)	95-68-1	5.0	9.30e+00
n,n-DIMETHYLANILINE	121-69-7	5.0	2.0 X 10^{2}
3,3'-DIMETHYLBENZIDINE	119-93-7	5.0	7.6 X 10^{-2}
DIMETHYLFORMANIDE (n,n-DIMETHYLFORMANIDE)	68-12-2	5.0 X 10^{1}_{g}	8.0 X 10^{3}
1,1-DIMETHYLHYDRAZINE	57-14-7	4.0 X 10^{-2}_{h}	8.1 X 10^{-1}
1,2-DIMETHYLHYDRAZINE	540-73-8	2.5 X 10^{-4}_{h}	5.0 X 10^{-4}
α,α-DIMETHYLPHENETHYLAMINE	122-09-8	5.0	
2,4-DIMETHYLPHENOL	105-67-9	^{c}	2.0 X 10^{3}
2,6-DIMETHYLPHENOL	576-26-1	^{c}	5.0 X 10^{1}
3,4-DIMETHYLPHENOL	95-65-8	^{c}	8.0 X 10^{1}
DIMETHYL PHTHALATE	131-11-3	5.0 X 10^{1}_{g}	8.0 X 10^{4}
DIMETHYL-p-PHTHALATE	120-61-6	3.6 X 10^{3}_{h}	8.0 X 10^{3}
1,3-DINITROBENZENE (m-DINITROBENZENE)	99-65-0	5.0	8.00e+00
4,6-DINITRO-o-CRESOL	534-52-1	^{c}	8.00e+00

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2,4-DINITROPHENOL	51-28-5	f	2.0 X 10^{2}
2,4-DINITROTOLUENE	121-14-2	5.0	1.00e+00
2,6-DINITROTOLUENE	606-20-2	5.0	1.00e+00
DINOSEB (DNBP)	88-85-7	f	8.0 X 10^{1}
DI-n-OCTYL PHTHALATE	117-84-0	5.0 X 10^{1}_{g}	2.0 X 10^{3}
1,4-DIOXANE	123-91-1	3.5_{h}	6.4 X 10^{1}
DIPHENYLAMINE (N,N-DIPHENYLAMINE)	122-39-4	5.0	2.0 X 10^{3}
1,2-DIPHENYLHYDRAZINE	122-66-7	ND	8.8 X 10^{-1}
DISULFOTON	298-04-4	ND	3.00e+00
DITHANE D-14 (NABAM)	142-59-6	1.8	
DYPHYLLINE	479-18-5	5.0 X 10^{1}_{g}	-
ENDOSULFAN	115-29-7	1.8_{h}	4.00e+00
ENDOTHALL	145-73-3	5.0 X 10^{1}	2.0 X 10^{2}
ENDRIN	72-20-8	ND	2.0 X 10^{2}
ENDRIN ALDEHYDE	7421-93-4	5.0	
2-ETHOXYETHANOL	110-80-5	1.4 X 10^{4}_{h}	3.0 X 10^{4}
2-ETHOXYETHANOL ACETATE	111-15-9	1.1 X 10^{4}_{h}	2.0 X 10^{4}
ETHYL ACETATE	141-78-6	3.2 X 10^{4}_{h}	7.0 X 10^{4}
ETHYL ACRYLATE	140-88-5	7.3 X 10^{-1}_{h}	1.5 X 10^{1}
ETHYL BENZENE	100-41-4	5.0	8.0 X 10^{3}
ETHYL DI-n-PROPYLTHIOCARBOMATE (EPTC)	759-94-4	8.8 x 10^{2}_{h}	2.0 X 10^{3}
ETHYLENE CHLOROHYDRIN	107-07-3	5.0 X 10^{1}_{g}	
ETHYLENE CYANOHYDRIN	109-78-4	1.1 X 10^{4}_{h}	2.0 X 10^{4}
ETHYLENEDIAMINE	107-15-3	7.0 X 10^{2}_{h}	2.0 X 10^{3}
ETHYLENE GLYCOL	107-21-1	5.0 X 10^{1}_{g}	2.0 X 10^{5}
ETHYLENE OXIDE	75-21-8	5.0 X 10^{-1}_{g}	7.00e+00
ETHYLENE THIOUREA	96-45-7	ND	6.00e+00
ETHYL ETHER	60-29-7	1.8 X 10^{4}_{h}	4.0 X 10^{4}
ETHYL METHACRYLATE	97-63-2	3.2 X 10^{3}_{h}	7.0 X 10^{3}

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FERBAM	14484-64-1	4.2	
FLUORANTHENE	206-44-0	5.0 X 10^{1g}	3.0 X 10^{3}
FLUORENE	86-73-7	5.0 X 10^{1g}	3.0 X 10^{3}
FLUORIDES	NA	<1.5 X 10^{3}	5.0 X 10^{3}
FOLPET	133-07-3	5.0 X 10^{1g}	2.0 X 10^{2}
FORMALDEHYDE (METHYL ALDEHYDE)	50-00-0	5.0	2.3 X 10^{1}
FORMIC ACID	64-45-8	7.0 X 10^{4}_{h}	2.0 X 10^{5}
FURAN	110-00-9	3.5 X 10^{1}	8.0 X 10^{1}
FURAZOLIDONE	67-45-8	9.2 X 10^{-1}_{h}	1.8 X 10^{-1}
FURFURAL	98-01-1	1.1 X 10^{2}_{h}	2.0 X 10^{2}
FURIUM	531-82-8	7.0 X 10^{-3}_{h}	1.4 X 10^{-2}
GLYCIDALDEHYDE (2,3-EPOXYPROPANAL)	765-34-4	1.4 X 10^{1}_{h}	3.0 X 10^{1}
GROSS ALPHA RADIATION	NA	5 pCi/L	
GROSS BETA RADIATION	NA	1000 pCi/L	
GUAIFENESIN	93-14-1	5.0 X 10^{1}_{g}	
HEPTACHLOR	76-44-8	ND	1.6 X 10^{-1}
HEPTACHLOR EPOXIDE	1024-57-3	ND	7.7 X 10^{-2}
HEXABROMOBENZENE	NA	5.0	2.0 X 10^{2}
HEXACHLOROBENZENE	118-74-1	3.5 X 10^{-1}	4.1 X 10^{-1}
HEXACHLOROBUTADIENE	87-68-3	5.0	2.0 X 10^{1}
HEXACHLOROCYCLOPENTADIENE	77-47-4	5.0	6.0 X 10^{2}
HEXACHLORODIBENZO-p-DIOXIN[d]	19408-74-3	5.6 X 10^{-5}	1.1 X 10^{-4}
HEXACHLOROETHANE	67-72-1	5.0	8.0 X 10^{1}
HEXACHLOROPHENE	70-30-4	5.0	2.0 X 10^{1}
HEXACHLOROPROPENE	1888-71-7	5.0	
N-HEXANE	110-54-3	2.5 X 10^{3}_{h}	5.0 X 10^{3}
2-HEXANONE	591-78-6	5.0 X 10^{1}_{g}	
HYDRAZINE	302-01-2	1.2 X 10^{-2}_{h}	2.3 X 10^{-1}
HYDRAZINE SULFATE	10034-93-2	1.2 X 10^{-2}_{h}	2.3 X 10^{-1}

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HYDROGEN CYANIDE	74-90-8	7.0 X 10^{2}_{h}	2.0 X 10^{3}
HYDROGEN SULFIDE	7783-06-04	1.1 X 10^{2}_{h}	2.0 X 10^{2}
HYDROQUINONE	123-31-9	f	3.0 X 10^{3}
1-HYDROXYETHYLIDENE-1,1-DIPHOSPHONIC ACID	2809-21-4	5.0 X 10^{1}_{g}	
2-(2-HYDROXY-3,5-DI-TERTPENTYLPHENYL)-BENZOTRIAZOLE	25973-55-1	5.0 X 10^{1}_{g}	
INDENO(1,2,3-cd)PYRENE	193-39-5	2.0 X 10^{-3}_{g}	
IRON, TOTAL	c	3.0 X 10^{2}_{a}	
ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	78-83-1	1.1 X 10^{4}_{h}	2.0 X 10^{4}
ISODRIN	465-73-6	5.0	
ISOPHORONE	78-59-1	5.0 X 10^{1}_{g}	7.0 X 10^{3}
ISOPROPALIN	33820-53-0	5.0	1.0 X 10^{3}
ISOPROPYLBENZENE (CUMENE)	98-82-8	5.0	3.0 X 10^{3}
p-ISOPROPYLTOLUENE	99-87-6	5.0	
KEPONE	143-50-0	ND	
LEAD, TOTAL	c	1.5 X 10^{1}	5.0 X 10^{2}_{k}
LINDANE (γ-BHC)	58-89-9	ND	5.40e+00
LINURON	330-55-2	5.0	2.0 X 10^{2}
MAGNESIUM, TOTAL	c	3.5 X 10^{4}_{g}	
MALATHION	121-75-5	7.0	2.0 X 10^{3}
MALEIC ANHYDRIDE (2,5-FURANDIONE)	108-31-6	3.5 X 10^{3}_{h}	8.0 X 10^{3}
MALEIC HYDRAZIDE	122-33-1	1.4 X 10^{4}_{h}	4.0 X 10^{4}
MALONONITRILE	109-77-3	7.0 X 10^{-1}_{h}	2.00e+00
MANCOZEB (DITHANE M-45)	8018-01-7	1.8	2.0 X 10^{3}
MANEB	12427-38-2	1.8	4.0 X 10^{3}
MANGANESE, TOTAL	c	3.0 X 10^{2}_{a}	8.0 X 10^{3}
MCPA	94-74-6	4.4 X 10^{-1}	4.0 X 10^{1}
MCPB	94-81-5	5.0	8.0 X 10^{2}
MCPP	93-65-2	5.0	8.0 X 10^{1}
MEPHOSFOLAN	950-10-7	7.2_{h}	3.00e+00

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MERCAPTOBENZOTHIAZOLE	149-30-4	5.0 X 10^{1}_{g}	
MERCURY, TOTAL	c	2.0	2.0 X 10^{1}
METHACRYLIC ACID	79-41-4	5.0 X 10^{1}_{g}	
METHACRYLONITRILE (2-METHYL-2-PROPENENITRILE)	126-98-7	5.0	8.00e+00.
METHANOL	67-56-1	1.8 X 10^{4}_{h}	4.0 X 10^{4}
METHOMYL	16752-77-5	3.5 X 10^{-1}	2.0 X 10^{3}
METHOXYCHLOR	72-43-5	3.5 X 10^{1}	4.0 X 10^{3}
2-METHOXYETHANOL	109-86-4	3.5 X 10^{1}_{h}	3.0 X 10^{2}
2-METHOXYETHANOL ACETATE	110-49-6	7.0 X 10^{1}_{h}	2.0 X 10^{2}
2-METHOXYETHYLBENZENE	3558-60-9	5.0 X 10^{1}_{g}	
1-METHOXYETHYLBENZENE	4013-34-7	5.0 X 10^{1}_{g}	-
2-METHOXY-5-NITROANILINE	99-59-2	7.0 X 10^{-1}_{h}	1.5 X 10^{1}
METHYL ACRYLATE	96-33-3	7.0 X 10^{1}_{h}	2.0 X 10^{3}
2-METHYLANILINE	100-61-8	5.0	2.90e+00
2-METHYLANILINE HYDROCHLORIDE	636-31-5	5.0	3.90e+00
3-METHYLCHOLANTHRENE	56-49-5	7.6 X 10^{-1}_{h}	7.4 X 10^{-2}
METHYL CHLORIDE (CHLOROMETHANE)	74-87-3	5.0	5.4 X 10^{2}
4,4'METHYLENE-BIS-(2-CHLOROANILINE)	101-14-4	5.0	5.30e+00
4,4'METHYLENEBIS(N,N'DIMETHYL)ANILINE	1807-55-2	5.0	1.5 X 10^{1}
METHYLENE BISTHIOCYANATE	6317-18-6	5.0 X 10^{1}_{g}	
METHYLENE CHLORIDE (DICHLOROMETHANE)	75-09-2	5.0	9.3 X 10^{1}
4-(1-METHYLETHOXY)-1-BUTANOL	31600-69-8	5.0 X 10^{1}_{g}	
2-METHYLETHYL-1,3-DIOXOLANE	126-39-6	5.0 X 10^{1}_{g}	
METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	5.0 X 10^{1}_{g}	4.0 X 10^{3}
METHYL IODIDE (IODOMETHANE)	74-88-4	5.0	
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	1.8 X 10^{3}_{h}	4.0 X 10^{3}
METHYL MERCURY	22967-92-6	1.1 X 10^{2}_{h}	2.0 X 10^{1}
METHYL METHACRYLATE	80-62-6	5.0 X 10^{1}_{g}	6.0 X 10^{3}
2-METHYL-5-NITROANILINE (5-NITRO-o-TOLUIDINE)	99-55-8	5.0	2.1 X 10^{3}

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METHYL PARATHION	298-00-0	1.5_{j}	2.0×10^{1}
METHYL STYRENE	25013-15-4	5.0	5.0×10^{2}
MEVINPHOS	7786-34-7	5.0	
MIREX	2385-85-5	5.0	4.0×10^{-1}
MOLINATE	2212-67-1	$7.0 \times 10^{1}{}_{h}$	2.0×10^{2}
MOLYBDENUM, TOTAL	c	$1.4 \times 10^{2}{}_{h}$	4.0×10^{2}
NAPHTHALENE	91-20-3	$1.0 \times 10^{1}{}_{g}$	3.0×10^{2}
NIACINAMIDE	98-92-0	5.0×10^{2}	
NICKEL, TOTAL	c	$1.0 \times 10^{2}{}_{g}$	2.0×10^{3}
NITRALIN	4726-14-1	3.5×10^{1}	
NITRATES (as N)	NA	$1.0 \times 10^{4}{}_{j}$	1.3×10^{5}
NITRIC OXIDE	10102-43-9	$3.5 \times 10^{3}{}_{h}$	8.0×10^{3}
NITRITE	NA	$1.0 \times 10^{3}{}_{i}$	8.0×10^{3}
NITRILOTRIACETIC ACID	139-13-9	3.0	
m-NITROANILINE (3-NITROBENZENAMINE)	99-09-2	5.0	
o-NITROANILINE (2-NITROBENZENAMINE)	88-74-4	5.0	
p-NITROANILINE (4-NITROBENZENAMINE)	100-01-6	5.0	
NITROBENZENE	98-95-3	5.0	4.0×10^{1}
NITROFURANTOIN	67-20-9	$2.5 \times 10^{3}{}_{h}$	6.0×10^{3}
NITROFURAZONE	59-87-0	$2.3 \times 10^{-2}{}_{h}$	4.7×10^{-1}
NITROGEN DIOXIDE	10102-44-0	$3.5 \times 10^{4}{}_{h}$	8.0×10^{4}
o-NITROPHENOL (2-NITROPHENOL)	88-75-5	f	
p-NITROPHENOL (4-NITROPHENOL)	100-02-7	f	
2-NITROPROPANE	79-46-9	$3.7 \times 10^{-3}{}_{h}$	7.4×10^{-2}
n-NITROSODI-n-BUTYLAMINE	924-16-3	$6.5 \times 10^{-3}{}_{h}$	1.3×10^{-1}
n-NITROSODI-ETHANOLAMINE	1116-54-7	$1.3 \times 10^{-2}{}_{h}$	2.5×10^{-1}
n-NITROSODIETHYLAMINE	55-18-5	$2.3 \times 10^{-4}{}_{h}$	4.6×10^{-3}
n-NITROSODIMETHYLAMINE	62-75-9	$6.9 \times 10^{-4}{}_{h}$	1.4×10^{-2}
n-NITROSODIPHENYLAMINE	86-30-6	$5.0 \times 10^{1}{}_{w}$	1.4×10^{3}

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n-NITROSODIPROPYLAMINE (DI-n-PROPYLNITROSAMINE)	621-64-7	$5.0 \times 10^{-1}_{h}$	1.0×10^{-1}
n-NITROSODIMETHYLETHYLAMINE	10595-95-6	$1.6 \times 10^{-1}_{h}$	3.2×10^{-2}
n-NITROSO-n-METHYL UREA	684-93-5	$1.2 \times 10^{-2}_{h}$	2.3×10^{-3}
n-NITROSOPYRROLIDINE	930-55-2	$1.7 \times 10^{-1}_{h}$	3.3×10^{-1}
NITROTOLUENES, TOTAL	NA	5.0	8.0×10^{2}
OCTAMETHYLPYROPHOSPHORAMIDE	152-16-9	5.0	2.0×10^{3}
PARAQUAT	4685-14-7	3.0	4.0×10^{2}
PARATHION	56-38-2	1.5_{g}	5.0×10^{2}
PEBULATE	1114-71-2	$1.8 \times 10^{3}_{h}$	4.0×10^{3}
PENDIMETHALIN	40487-42-1	5.0	3.0×10^{3}
PENTACHLOROBENZENE	608-93-5	5.0	6.0×10^{1}
PENTACHLOROETHANE	76-01-7	5.0	
PENTACHLORONITROBENZENE	82-68-8	ND	2.7×10^{1}
PENTACHLOROPHENOL	87-86-5	^{f}	5.80e+00
PHENACETIN	62-44-2	5.0	
PHENANTHRENE	85-01-8	$5.0 \times 10^{1}_{g}$	
PHENOL	108-95-2	^{f}	5.0×10^{4}
PHENOLS, TOTAL	NA	1.0^{f}	
m-PHENYLENEDIAMINE (1,3-BENZENEDIAMINE)	108-45-2	5.0	1.5×10^{3}
o-PHENYLENEDIAMINE (1,3-BENZENEDIAMINE)	95-45-5	5.0	6.0×10^{2}
p-PHENYLENEDIAMINE (1,4-BENZENEDIAMINE)	106-50-3	5.0	2.0×10^{4}
PHENYL ETHER	101-84-8	$1.0 \times 10^{1}_{g}$	
PHENYL MERCURIC ACETATE	62-38-4	2.8_{g}	6.00e+00
2-PHENYL PHENOL	90-43-7	^{f}	3.7×10^{3}
PHENYLPROPANOLAMINE	14838-15-4	$5.0 \times 10^{1}_{g}$	
PHORATE	298-02-2	ND	2.0×10^{1}
PHOSPHINE	7803-51-2	$1.1 \times 10^{1}_{h}$	2.0×10^{1}
PHTHALIC ANHYDRIDE	85-44-9	$7.0 \times 10^{4}_{h}$	2.0×10^{5}
POLYBROMINATED BIPHENYLs (PBBs)	59536-65-1	5.0	7.9×10^{-1}

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POLYCHLORINATED BIPHENYLs (PCBs)	1336-36-3	1.0 X 10^{-1}	1.0 ppm^{e}
POTASSIUM CYANIDE	151-50-8	1.8 X 10^{3}_{h}	4.0 X 10^{3}
POTASSIUM SILVER CYANIDE	506-61-6	7.0 X 10^{3}_{h}	2.0 X 10^{4}
PROFLURALIN	26399-36-0	5.0	6.0 X 10^{2}
PRONAMIDE	23950-58-5	2.8 X 10^{3}_{h}	6.0 X 10^{3}
PROPACHLOR	1918-16-7	3.5 X 10^{1}	1.0 X 10^{3}
PROPANIL	709-98-8	7.0	4.0 X 10^{2}
PROPAZINE	139-40-2	1.6 X 10^{1}	2.0 X 10^{3}
n-PROPYLBENZENE	103-65-1	5.0	
PROPYLENE GLYCOL (1,2-PROPANEDIOL)	57-55-6	7.0 X 10^{5}_{h}	2.0 X 10^{6}
PROPYLENE GLYCOL MONOETHYL ETHER	19089-47-5	2.5 X 10^{4}_{h}	6.0 X 10^{4}
PROPYLENE GLYCOL MONOMETHYL ETHER	1589-49-7	2.5 X 10^{4}_{h}	6.0 X 10^{4}
PROPYLENE OXIDE	75-56-9	1.1 X 10^{-1}_{h}	2.90e+00
PYRENE	129-00-0	5.0 X 10^{1}_{g}	2.0 X 10^{3}
PYRIDINE	110-86-1	5.0 X 10^{1}_{g}	8.0 X 10^{1}
QUINOLINE	91-22-5	2.5 X 10^{-1}_{h}	5.6 X 10^{-1}
RADIUM 226	NA	3 pCi/L	
RADIUM 226 plus RADIUM 228	NA	5 pCi/L	
RDX (CYCLONITE)	121-82-4	3.2_{h}	6.4 X 10^{1}
RESERPINE	50-55-5	3.3 X 10^{-3}_{h}	6.7 X 10^{-2}
RONNEL	299-84-3	5.0	4.0 X 10^{3}
SELENIOUS ACID	7783-00-8	1.1 X 10^{2}_{h}	3.0 X 10^{2}
SELENIUM, TOTAL	e	1.0 X 10^{1}	4.0 X 10^{3}
SELENOUREA	630-10-4	1.8 X 10^{2}_{h}	4.0 X 10^{2}
SILVER, TOTAL	e	5.0 X 10^{1}	4.0 X 10^{3}
SILVER CYANIDE	506-64-9	3.5 X 10^{3}_{h}	8.0 X 10^{3}
SIMAZINE	122-34-9	1.0	5.8 X 10^{1}
SODIUM, TOTAL	e	<2.0 X 10^{4}	
SODIUM CYANIDE	143-33-9	1.4 X 10^{3}_{h}	3.0 X 10^{3}

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SODIUM DIETHYLDITHIOCARBAMATE	148-18-5	1.3	2.6 X 10^{1}
SODIUM METAVANADATE	13718-26-8	3.5 X 10^{1}	8.0 X 10^{1}
STRONTIUM 90	NA	10 pCi/L	
STRYCHNINE and SALTs	57-24-9	5.0 X 10^{1}_{h}	2.0 X 10^{1}
STYRENE (ETHENYLBENZENE)	100-42-5	5.0	2.3 X 10^{1}
SULFATES	NA	2.0 X 10^{5}	
SULFIDES (as H_2S)	NA	5.0 X 10^{1}_{gj}	
TEMOPHOS	3386-96-8	7.0 X 10^{2}_{g}	2.0 X 10^{3}
TERBUFOS	13071-25-6	9.0 X 10^{-3}	2.00e+00
1,2,4,5-TETRACHLOROBENZENE	95-54-3	5.0	2.0 X 10^{2}
2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN[d]	1746-01-2	3.5 X 10^{-5}	4.5 X 10^{-6}
1,1,1,2-TETRACHLOROETHANE	630-20-6	5.0	2.7 X 10^{2}
1,1,2,2-TETRACHLOROETHANE	79-34-5	5.0	3.5 X 10^{1}
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	127-18-4	5.0	1.4 X 10^{2}
2,3,4,6-TETRACHLOROPHENOL	58-90-2	^{f}	2.0 X 10^{2}
p,α,α,α-TETRACHLOROTOLUENE	5216-25-1	1.8 X 10^{-3}_{h}	3.5 X 10^{-2}
TETRAETHYL DITHIOPYROPHOSPHATE (SULFOTEPP)	3689-24-5	1.8 X 10^{1}_{h}	4.0 X 10^{2}
TETRAETHYL LEAD	78-00-2	1.8 X 10^{-3}_{h}	1.0 X 10^{-2}
TETRAHYDROFURAN	109-99-9	5.0 X 10^{1}_{g}	
THALLIC OXIDE	1314-32-5	2.5$_{h}$	6.00e+00
THALLIUM, TOTAL	^{c}	4.0$_{g}$	6.00e+00
THALLIUM ACETATE	563-68-8	3.5$_{h}$	7.00e+00
THALLIUM CARBONATE	6533-73-9	2.8$_{h}$	6.00e+00
THALLIUM CHLORIDE	7791-12-0	2.8$_{h}$	6.00e+00
THALLIUM NITRATE	10102-45-1	3.5$_{h}$	7.00e+00
THALLIUM SELENITE	12039-52-0	3.5$_{h}$	7.00e+00
THALLIUM SULFATE	10031-59-1	2.8$_{h}$	6.00e+00
THEOPHYLLINE	58-55-9	4.0 X 10^{1}_{g}	
2-(THIOCYANOMETHYLTHIO)-BENZOTHIAZOLE (TCMTB)	21564-17-0	1.1 X 10^{3}_{h}	3.0 X 10^{2}

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THIOFANOX	39196-18-4	$1.0 \text{ X } 10^{2}{}_{h}$	$2.0 \text{ X } 10^{1}$
THIOUREA	62-56-6	$1.8 \text{ x } 10^{-1}{}_{h}$	$3.6 \text{ X } 10^{-1}$
THIRAM	137-26-8	1.8	$5.0 \text{ X } 10^{2}$
TIN, TOTAL	e	$2.1 \text{ X } 10^{4}{}_{h}$	$5.0 \text{ X } 10^{4}$
TOLUENE (METHYL BENZENE)	108-88-3	5.0	$2.0 \text{ X } 10^{4}$
2,4-TOLUENEDIAMINE	95-80-7	5.0	$2.2 \text{ X } 10^{-1}$
2,5-TOLUENEDIAMINE	95-70-5	5.0	$5.0 \text{ X } 10^{4}$
2,6-TOLUENEDIAMINE	823-40-5	5.0	$2.0 \text{ X } 10^{4}$
TOLUENE DIISOCYANATE	584-84-9	5.0	
o-TOLUIDINE (2-METHYL BENZENAMINE)	95-53-4	5.0	2.90e+00
p-TOLUIDINE (4-METHYL BENZENAMINE)	106-49-0	5.0	$3.7 \text{ X } 10^{1}$
TOLYLTRIAZOLE	29385-43-1	$5.0 \text{ X } 10^{1}{}_{g}$	
TOXAPHENE	8001-35-2	ND	$6.4 \text{ X } 10^{-1}$
2,4,5-TP (SILVEX)	93-72-1	$2.6 \text{ X } 10^{-1}$	$6.0 \text{ X } 10^{2}$
TRIALLATE	2303-17-5	$4.6 \text{ X } 10^{1}{}_{h}$	$8.0 \text{ X } 10^{2}$
1,2,4-TRIBROMOBENZENE	NA	5.0	$4.0 \text{ X } 10^{2}$
TRIBUTYLTIN OXIDE	56-35-9	$5.0 \text{ X } 10^{1}{}_{g}$	2.40e+00
2,4,6-TRICHLOROANILINE	634-93-5	5.0	$2.0 \text{ X } 10^{2}$
2,4,6-TRICHLOROANILINE HYDROCHLORIDE	NA	5.0	$2.4 \text{ X } 10^{2}$
1,2,3-TRICHLOROBENZENE	87-61-6	5.0	
1,2,4-TRICHLOROBENZENE	120-82-1	5.0	$2.0 \text{ X } 10^{3}$
1,1,1-TRICHLOROETHANE (METHYL CHLOROFORM)	71-55-6	5.0	$7.0 \text{ X } 10^{3}$
1,1,2-TRICHLOROETHANE	79-00-5	5.0	$1.2 \text{ X } 10^{2}$
TRICHLOROETHYLENE (TRICHLOROETHENE)	79-01-6	5.0	$6.4 \text{ X } 10^{1}$
TRICHLOROFLOUROMETHANE (FREON 11)	75-69-4	5.0	$2.0 \text{ X } 10^{4}$
2,4,5-TRICHLOROPHENOL	95-95-4	f	$8.0 \text{ X } 10^{3}$
2,4,6-TRICHLOROPHENOL	88-06-2	f	6.4 X 10
2,4,5-TRICHLOROPHENOXY ACETIC ACID (2,4,5-T)	93-76-5	5.0	$8.0 \text{ X } 10^{2}$
1,1,2-TRICHLOROPROPANE	598-77-6	5.0	$4.0 \text{ X } 10^{2}$

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1,2,3-TRICHLOROPROPANE	96-18-4	5.0	5.0 X 10^{2}
1,2,3-TRICHLOROPROPENE	96-19-5	5.0	4.0 X 10^{1}
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	5.0	2.0 X 10^{5}
TRIFLURALIN	1582-09-8	3.5 X 10^{1}	6.0 X 10^{2}
1,2,4-TRIMETHYLBENZENE	95-63-6	5.0	
1,3,5-TRIMETHYLBENZENE	108-67-8	5.0	
TRIMETHYL PHOSPHATE	512-56-1	9.0 X 10^{-1}_{h}	1.9 X 10^{1}
2,4,6-TRIMETHYLPYRIDINE (2,4,6-COLLIDINE)	108-75-8	5.0 X 10^{1}_{g}	
2,3,6-TRIMETHYLPYRIDINE	1462-84-6	5.0 X 10^{1}_{g}	
sym-TRINITROBENZENE (1,3,5-TRINITROBENZENE)	99-35-4	5.0	4.00e+00
2,4,6-TRINITROTOLUENE (TNT)	118-96-7	5.0	4.0 X 10^{1}
TRIPHENYLPHOSPHATE	115-86-6	5.0 X 10^{1}_{g}	
VANADIUM, TOTAL	e	2.5 X 10^{2}_{h}	6.0 X 10^{2}
VANADIUM PENTOXIDE	1314-62-1	3.5 X 10^{2}_{h}	7.0 X 10^{2}
VANADYL SULFATE	27774-13-6	7.0 X 10^{2}_{h}	2.0 X 10^{3}
VERNOLATE	1929-77-7	3.5 X 10^{1}_{h}	8.0 X 10^{1}
VINYL ACETATE	108-05-4	3.5 X 10^{4}_{h}	8.0 X 10^{4}
VINYL CHLORIDE (CHLOROETHENE)	75-01-4	2.0	3.6 X 10^{-1}
WARFARIN	81-81-2	1.1 X 10^{1}_{h}	2.0 X 10^{1}
XYLENE (DIMETHYL BENZENE), TOTAL	1330-20-7		2.0 X 10^{5}
m-XYLENE (3-DIMETHYL BENZENE)	108-38-4	5.0	2.0 X 10^{5}
o-XYLENE (2-DIMETHYL BENZENE)	75-01-4	5.0	2.0 X 10^{5}
p-XYLENE (4-DIMETHYL BENZENE)	81-81-2	5.0	
ZINC, TOTAL	e	<3.0 X 10^{2}	2.0 X 10^{4}
ZINC CYANIDE	557-21-1	1.8 X 10^{3}_{h}	4.0 X 10^{3}
ZINC PHOSPHIDE	1341-84-7	1.1 X 10^{1}_{h}	2.0 X 10^{2}
ZINEB	12122-67-7	1.78	4.0 X 10^{1}
ZIRAM	137-30-4	4.18	

Footnotes

a Total concentration of iron and manganese should not exceed 500 ug/l.

b Total concentration of these four trihalomethanes shall not exceed 100 ug/l.

c All species in the groundwater and/or soil that contain this element are included in the total.

d Guidance value for total chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans is 0.0000002 µg/L equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). The 2,3,7,8-TCDD equivalent for a congener is obtained by multipling the concentration of that congener by its toxicity equivalence factor (TEF) from the table below. The Guidance value for Class GA waters does not include the congener 2,3,7,8-TCDD.

A guidance value for an idividual congener value can be calculated by dividing 0.0000002 µg/L by the TEF for that congener.

0.000035 µg/L applies only to 2,3,7,8-TCDD

Congener	TEF
2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN	1
Other tetrachlorodibenzo-p-dioxins	0.01
2,3,7,8-PENTACHLORODIBENZO-p-DIOXIN	0.5
Other pentachlorodibenzo-p-dioxins	0.005
2,3,7,8-HEXACHLORODIBENZO-p-DIOXINS	0.05
Other hexachlorodibenzo-p-dioxins	0.0005
2,3,7,8-HEPTACHLORODIBENZO-p-DIOXIN	0.005
Other heptachlorodibenzo-p-dioxins	0.00005
OCTACHLORODIBENZO-p-DIOXIN	0.005
2,3,7,8-TETRACHLORODIBENZOFURAN	0.1
Other tetrachlorodibenzofurans	0.001
2,3,4,7,8-PENTACHLORODIBENZOFURAN	0.5
1,2,3,7,8-PENTACHLORODIBENZOFURAN	0.05
Other pentachlorodibenzofurans	0.005
2,3,7,8-HEXACHLORODIBENZOFURAN	0.1
Other hexachlorodibenzofurans	0.001
2,3,7,8-HEPTACHLORODIBENZOFURAN	0.005
Other heptachlorodibenzofurans	0.00005
OCTACHLORODIBENZOFURAN	0.005

e This value has been adopted by the New York State and USEPA Region II RCRA programs. USEPA promulgated under TSCA a clean soil standard of one (1) part per million for PCBs.

f All phenolic compounds (total phenols) shall not exceed 1 µg/L [NY TOGS (1.1.1)].

g Since 6NYCRR a Part 703 GA Standard does not exist for this constituent, Guidance value from NY T.O.G.S. 1.1.1 was used.

h Since 6NYCRR a Part 703 GA Standard and/or Guidance value does not exist for this constituent, a Health Based value from the EPA Health Effects Assessment Summary Tables was used.

i The effective date for these EPA MCLs is January 31, 1994

j Refer to footnotes in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1.

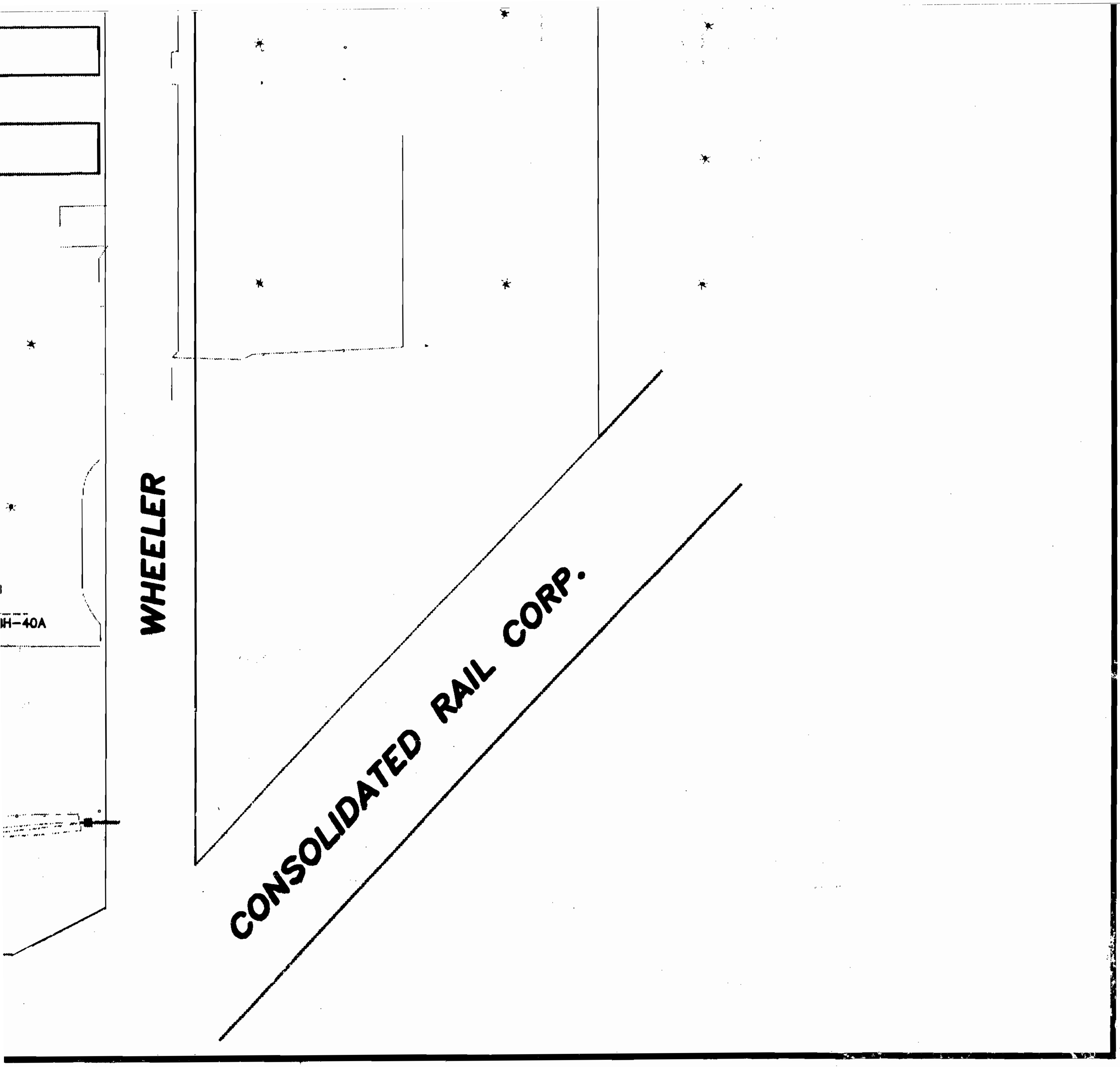
k This is EPA's recommendation based on the Uptake/Biokinetic (UBK) model in assessing total lead exposure and developing a soil lead cleanup level at CERCLA and RCRA sites.

NA Not Available

ND Not Detectable by tests or analytical determinations. The groundwater protection concentration should be written as non-detectable (ND) with a footnote specifying the method detection limit (MDL) for the most sensitive analytical technique (e.g., benzene ND by USEPA Method 602 or 8020 with an MDL = 0.2 ug/l).

References

6 NYCRR Part 703.5(a)(3) - September 15, 1991
10 NYCRR Part 5 - January 6, 1993
EPA MCL - January 31, 1994
NY TOGS (1.1.1) - October 1, 1993
EPA HEAST - August 1,1994



THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initial

SPAULDING COMPOSITES COMPANY

REMEDIAL AND RCRA FACILITY INVESTIGATION

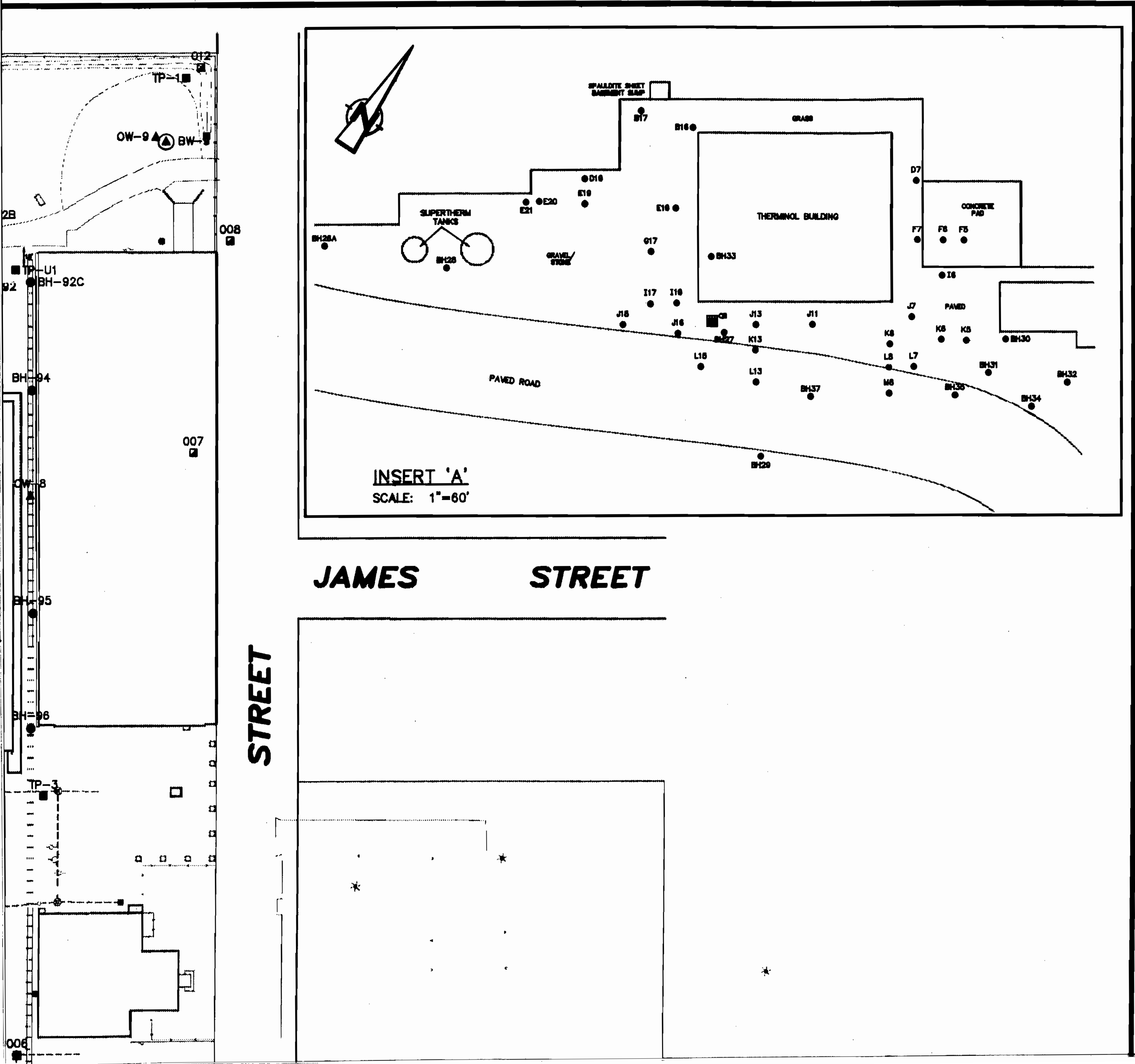
RFI/RI SAMPLING LOCATIONS

CRA CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager: WCL	Reviewed By: WCL	Date: APRIL 1998	
Scale: 1"=80'	Project Nº: 05039-00	Report Nº: 016	Drawing Nº: PLAN 5

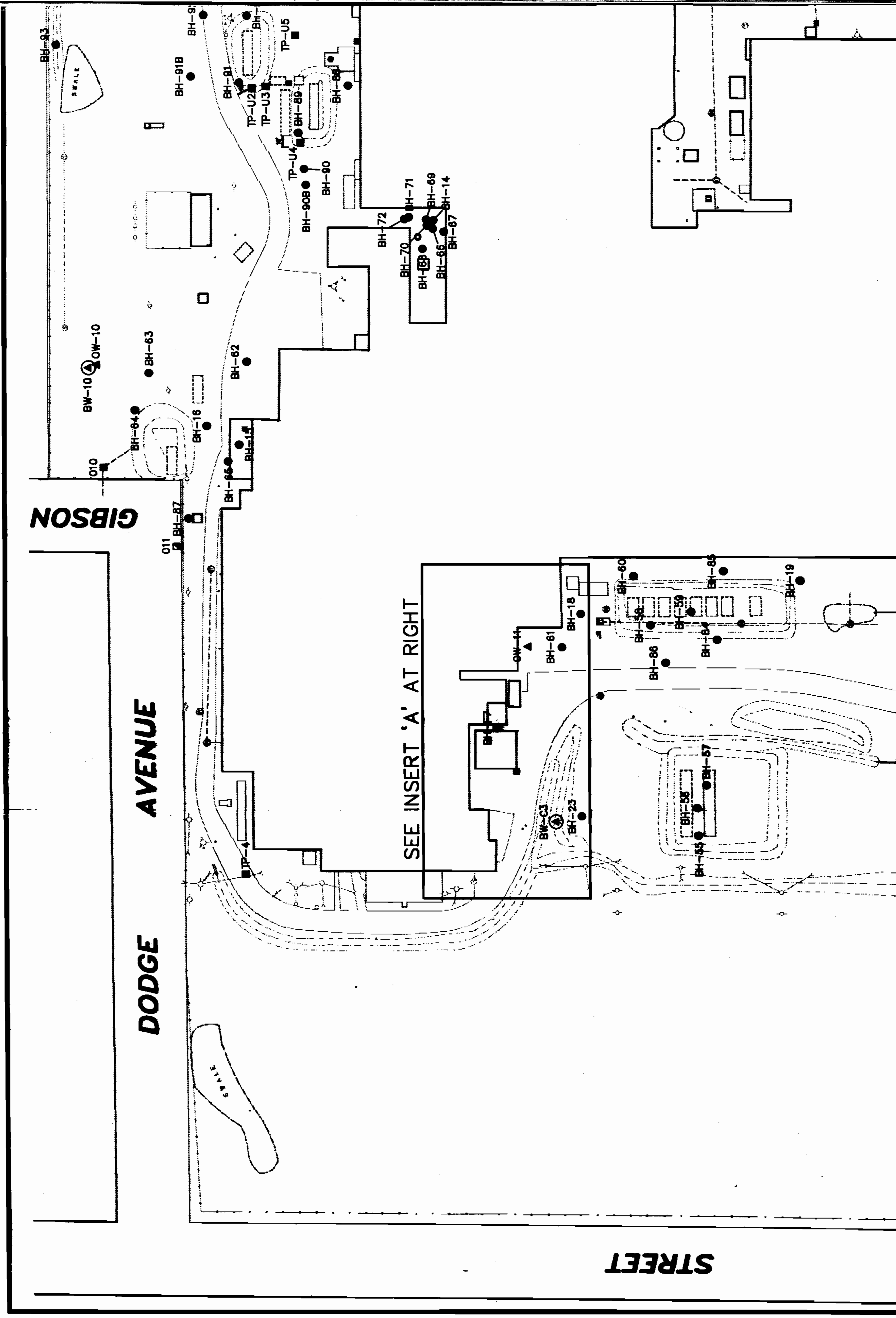
05039-00(016)GN-NF001 APR 09/98

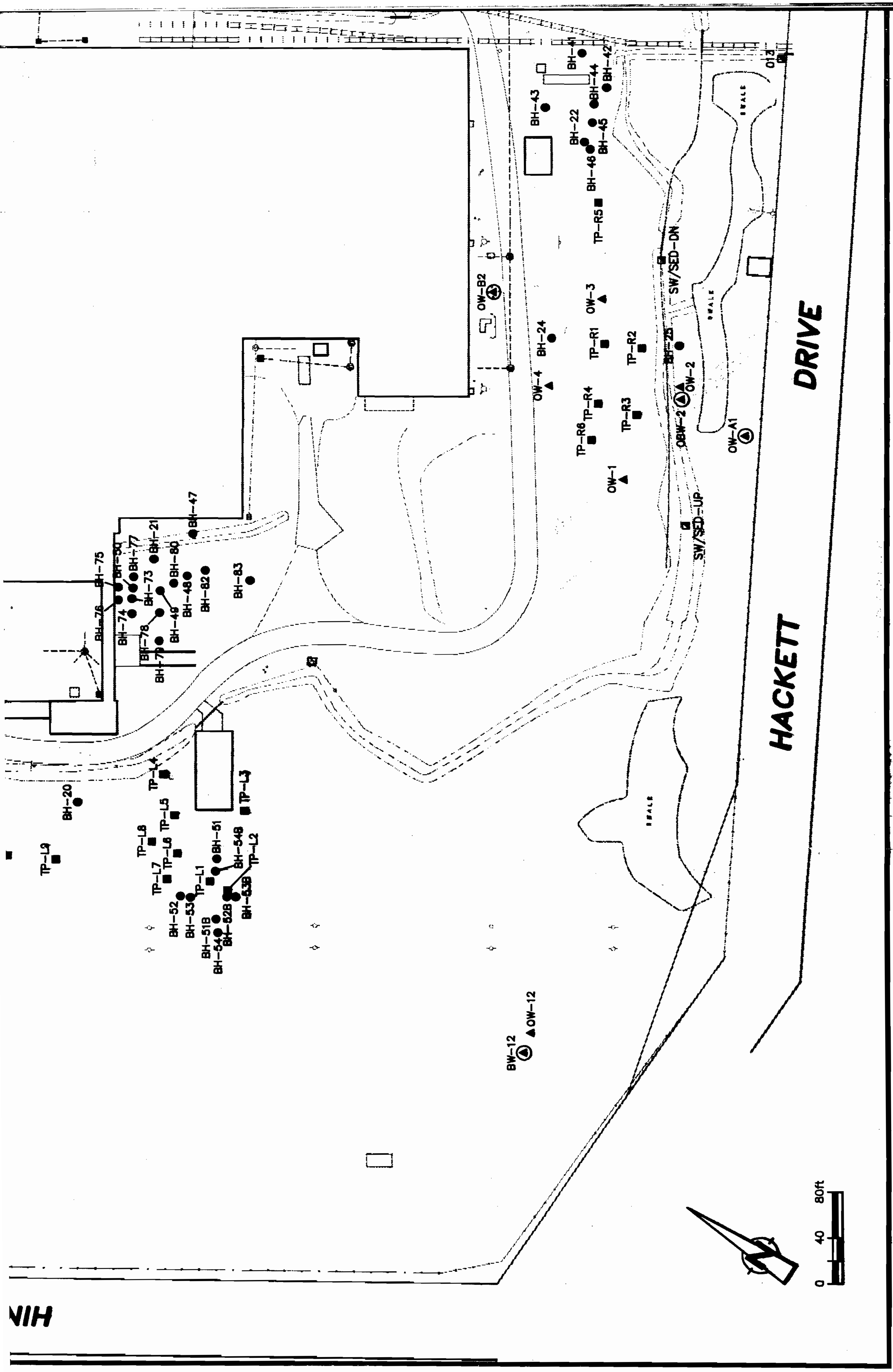


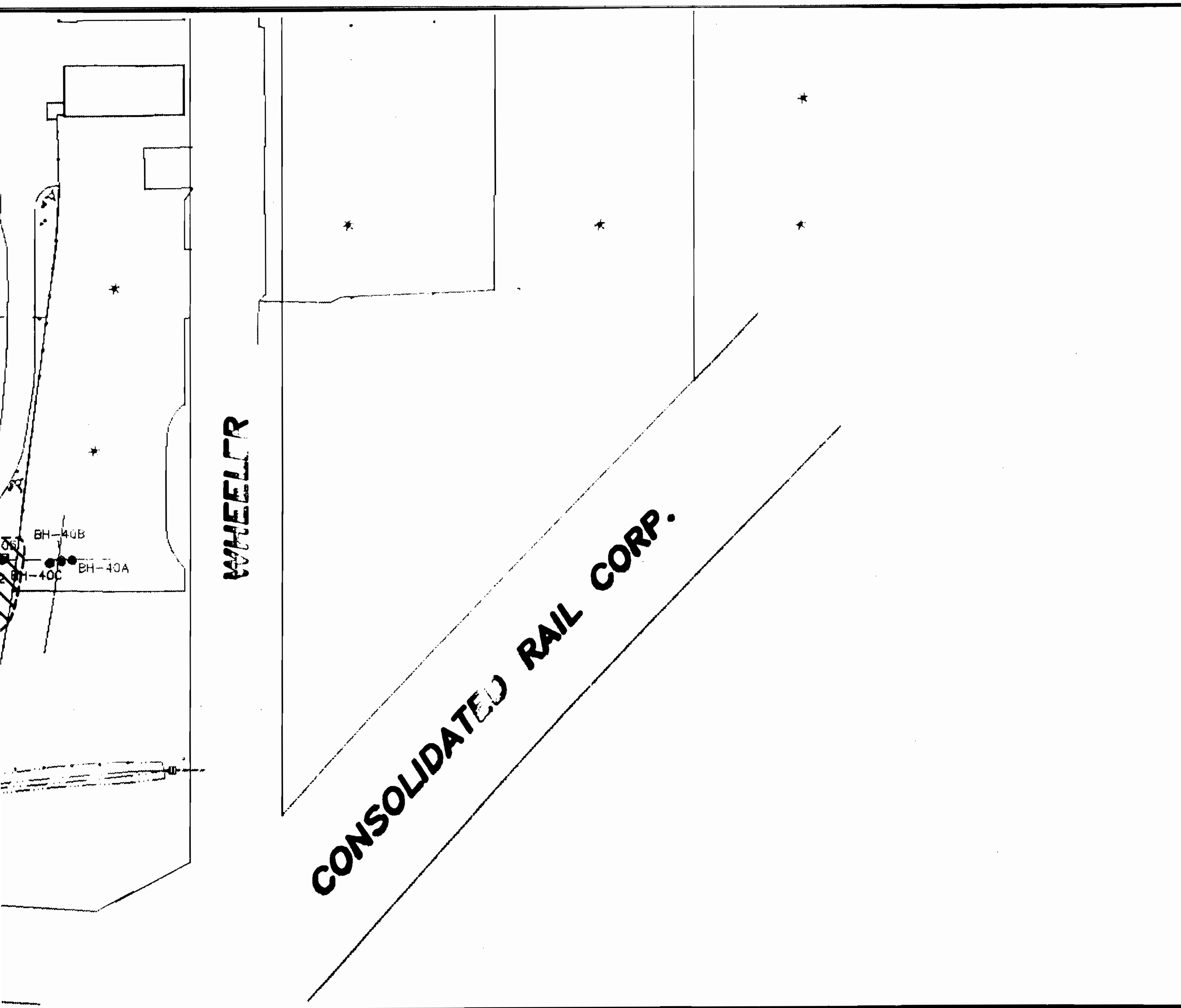
Nº	Revision	Date	Initial
1	BOREHOLE BH-80 ADDED	APRIL 9, 1998	JTM

LEGEND

▫ MP	METAL POST
● WV	WATER VALVE
✷ LP	LIGHT POLE
-○-	UTILITY POLE
⊸	SIGN
⚲	HYDRANT
Ⓢ	SANITARY MH
Ⓢ︎T	STORM MH
---	FENCE
╫	RAILROAD
OW-8 ▲	OVERBURDEN WELL
BW-2 Ⓐ	BEDROCK WELL
BH-40 ●	BOREHOLE
TP-1 ■	TEST PIT (8'x20')
007 ◪	SURFACE WATER/SEDIMENT SAMPLING LOCATION


GIBSON
AVENUE
DODGE
STREET
SEE INSERT 'A' AT RIGHT
SWALE
SWALE
BH-93
BH-91B
BH-91
BH-89
BH-88
BH-90
BH-90B
TP-U2
TP-U3
TP-U4
TP-U5
BH-72
BH-71
BH-69
BH-14
BH-67
BH-70
BH-66
BH-63
OW-10
BW-10
BH-62
BH-64
BH-16
010
BH-65
BH-87
011
TP-4
BH-60
BH-85
BH-19
BH-18
BH-58
BH-59
BH-84
OW-11
BH-61
BH-86
BH-57
BH-56
BH-55
BW-C3
BH-23


HACKETT
DRIVE
HIN
SWALE
SWALE
SWALE
SWALE
BH-41
BH-42
BH-43
BH-44
BH-45
BH-22
BH-46
TP-R5
SW/SED-DN
OW-B2
OW-3
BH-24
TP-R1
TP-R2
BH-25
OW-2
OW-4
TP-R4
OBW-2
TP-R3
TP-R6
OW-A1
OW-1
SW/SED-UP
BH-47
BH-21
BH-75
BH-50
BH-77
BH-80
BH-73
BH-48
BH-82
BH-83
BH-76
BH-74
BH-49
BH-78
BH-79
BH-20
TP-L4
TP-L3
TP-L5
TP-L9
TP-L8
TP-L6
TP-L7
BH-51
BH-54B
TP-L2
TP-L1
BH-52
BH-53
BH-53B
BH-51B
BH-52B
BH-54
OW-12
BW-12
013
0
40
80ft



▨ PETROLEUM CONTAMINATION

▨ SSPL-B2 SEMI-VOLATILE PRESENCE ABOVE NYSDEC SOIL CLEANUP OBJECTIVES

▨ VOC CONTAMINATION ABOVE NYSDEC SOIL CLEANUP OBJECTIVES

▨ APPROXIMATE LIMITS OF PCB PRESENCE ABOVE 10 ppm

Approved

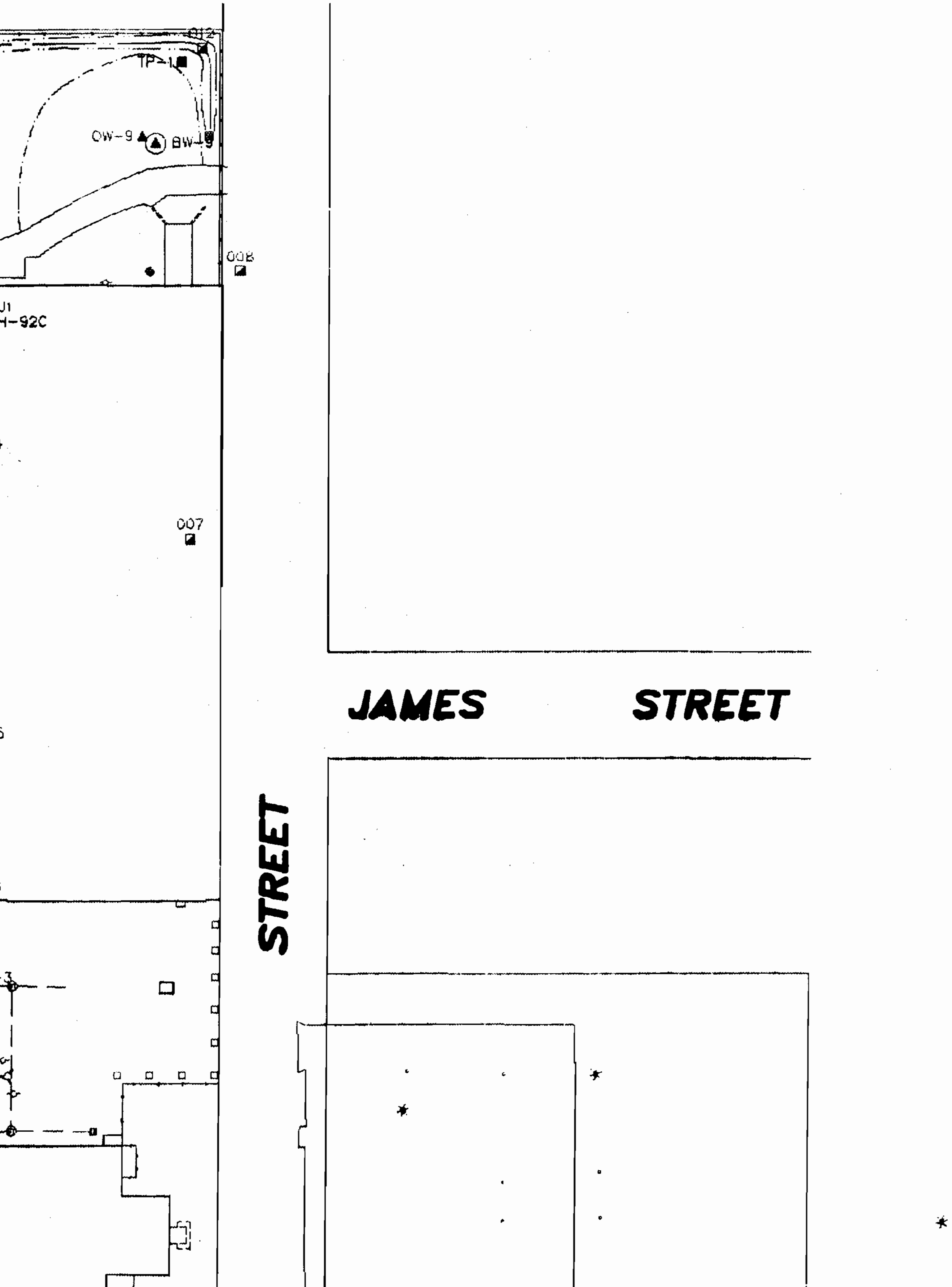
SPAULDING COMPOSITES COMPANY

REMEDIAL AND RCRA FACILITY INVESTIGATION

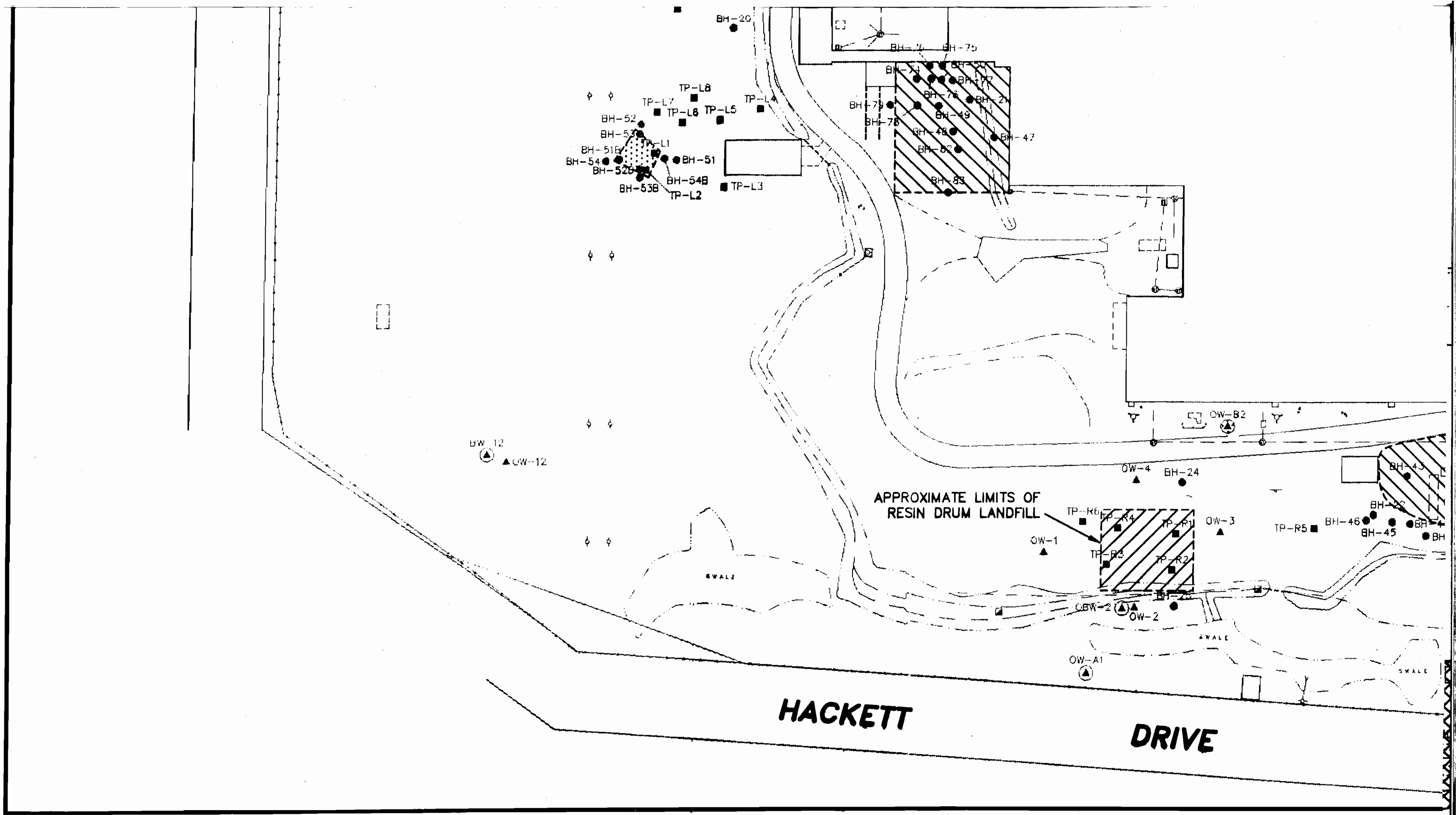
APPROXIMATE LIMITS OF IMPACTED SOILS

CRA
CONESTOGA-ROVERS & ASSOCIATES

Drawn by: JTM
Designed by: WCL
Checked by: WCL
Scale: 1"=80'
Field book:
Date: FEBRUARY 1997
Project Nº: 5039
File Nº: P-42
Rev.Nº: 0
Drawing Nº: PLAN 6



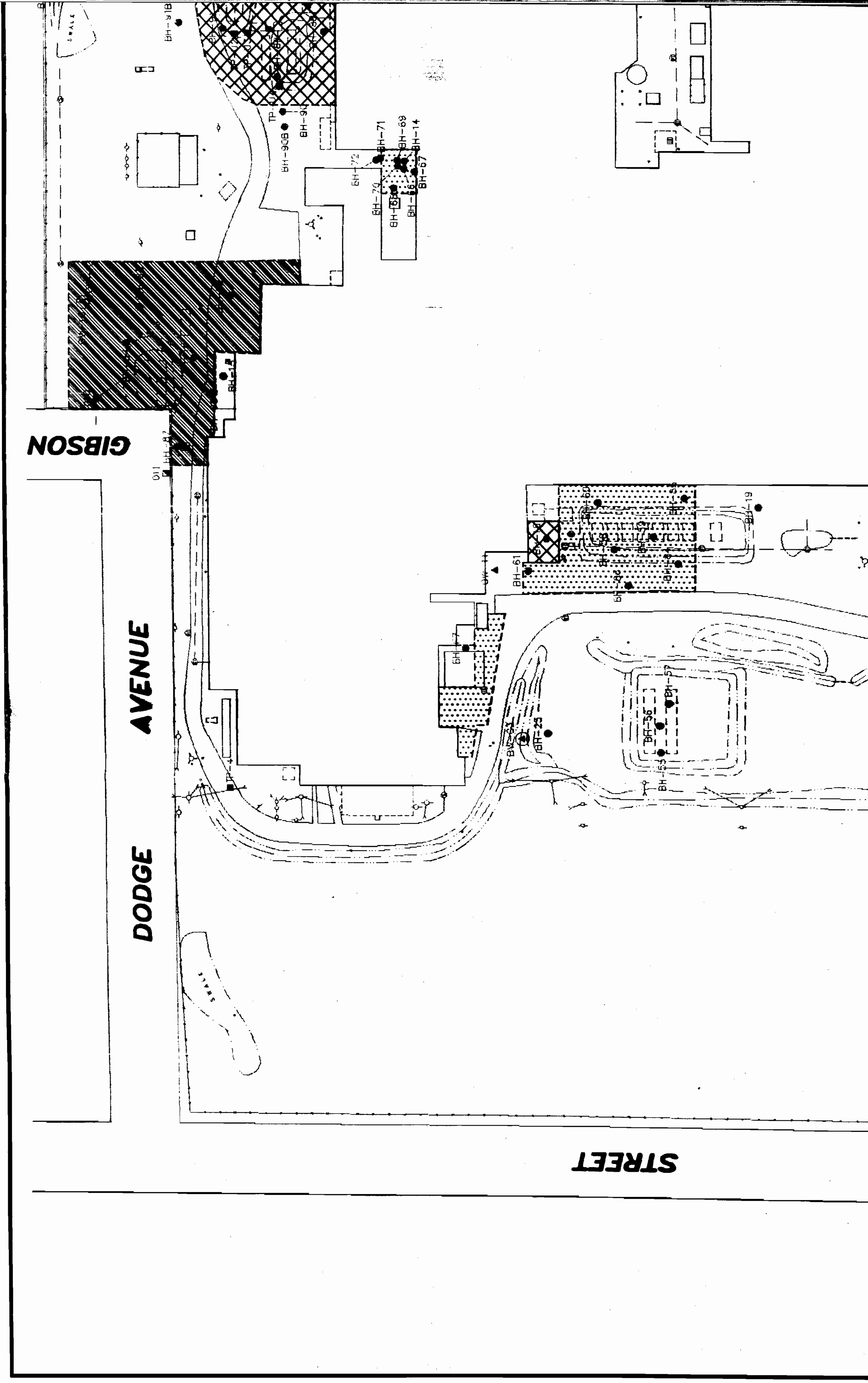
RECEIVED
SEP 1 5 1998
NYSDEC - REG. 9
FOIL
REL UNREL



LEGEND

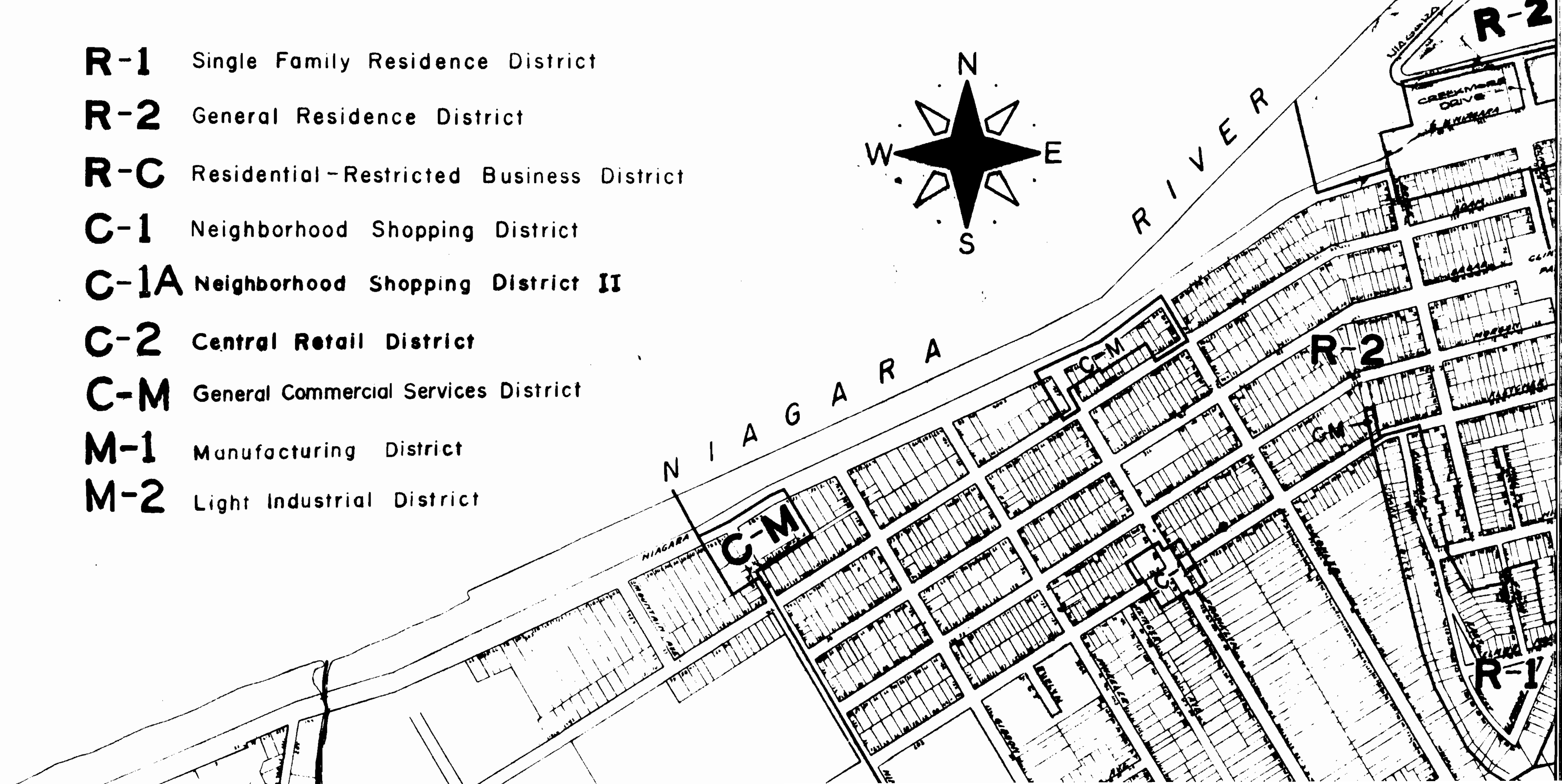
∘ MP	METAL POST
● WV	WATER VALVE
✸ LP	LIGHT POLE
-O-	UTILITY POLE
⊤	SIGN
♁	HYDRANT
(S)	SANITARY MH
(ST)	STORM MH
—×—	FENCE
‖	RAILROAD
OW-8 ▲	OVERBURDEN WELL
BW-2 (▲)	BEDROCK WELL
BH-40 ●	BOREHOLE
TP-1 ■	TEST PIT (8'x20')
007 ◪	SURFACE WATER/SEDIMENT SAMPLING LOCATION

Nº	Revision


GIBSON
AVENUE
DODGE
STREET
SWALE
SWALE
BH-91B
BH-90B
BH-90
BH-71
BH-69
BH-14
BH-72
BH-67
BH-70
BH-66
BH-87
BH-61
BH-19
BH-57
BH-56
BH-53
BH-25
BH-64
BH-60
BH-59

ZONING DISTRICT MAP

CITY of TONAWANDA, N. Y.

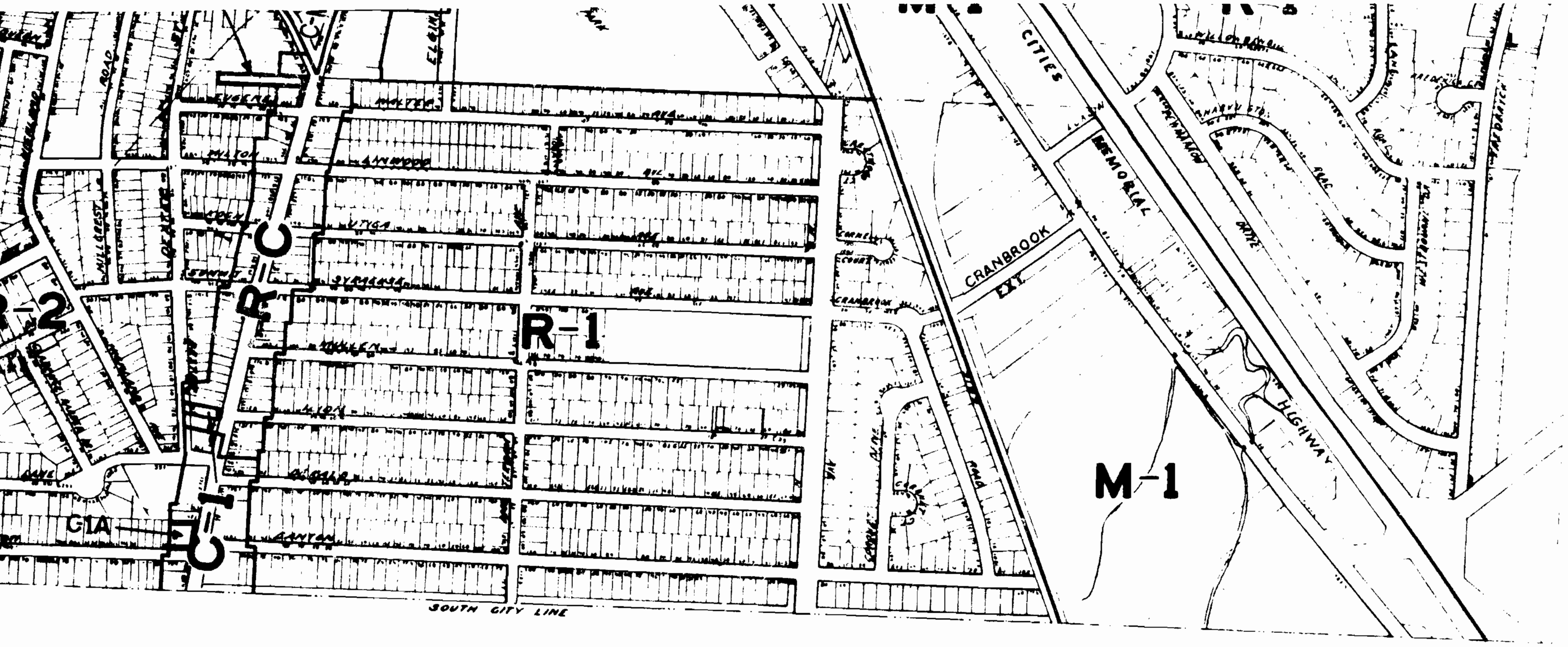


R-1	Single Family Residence District
R-2	General Residence District
R-C	Residential-Restricted Business District
C-1	Neighborhood Shopping District
C-1A	**Neighborhood Shopping District II**
C-2	**Central Retail District**
C-M	General Commercial Services District
M-1	Manufacturing District
M-2	Light Industrial District

Revised

SOURCE:
CITY HALL, TONAWANDA, NEW YORK.

Nº	Revision



Approved

Initial

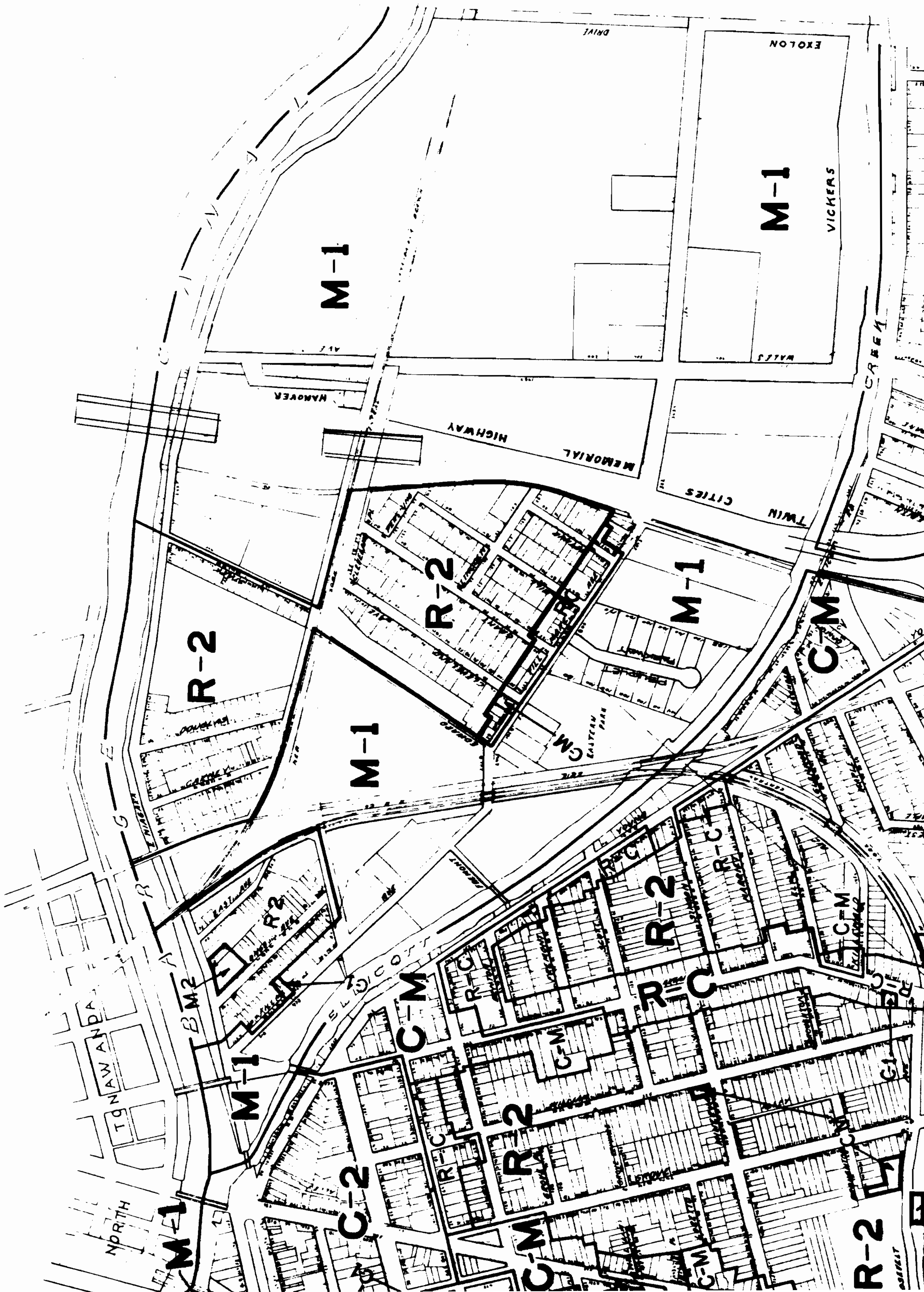
SPAULDING COMPOSITES COMPANY

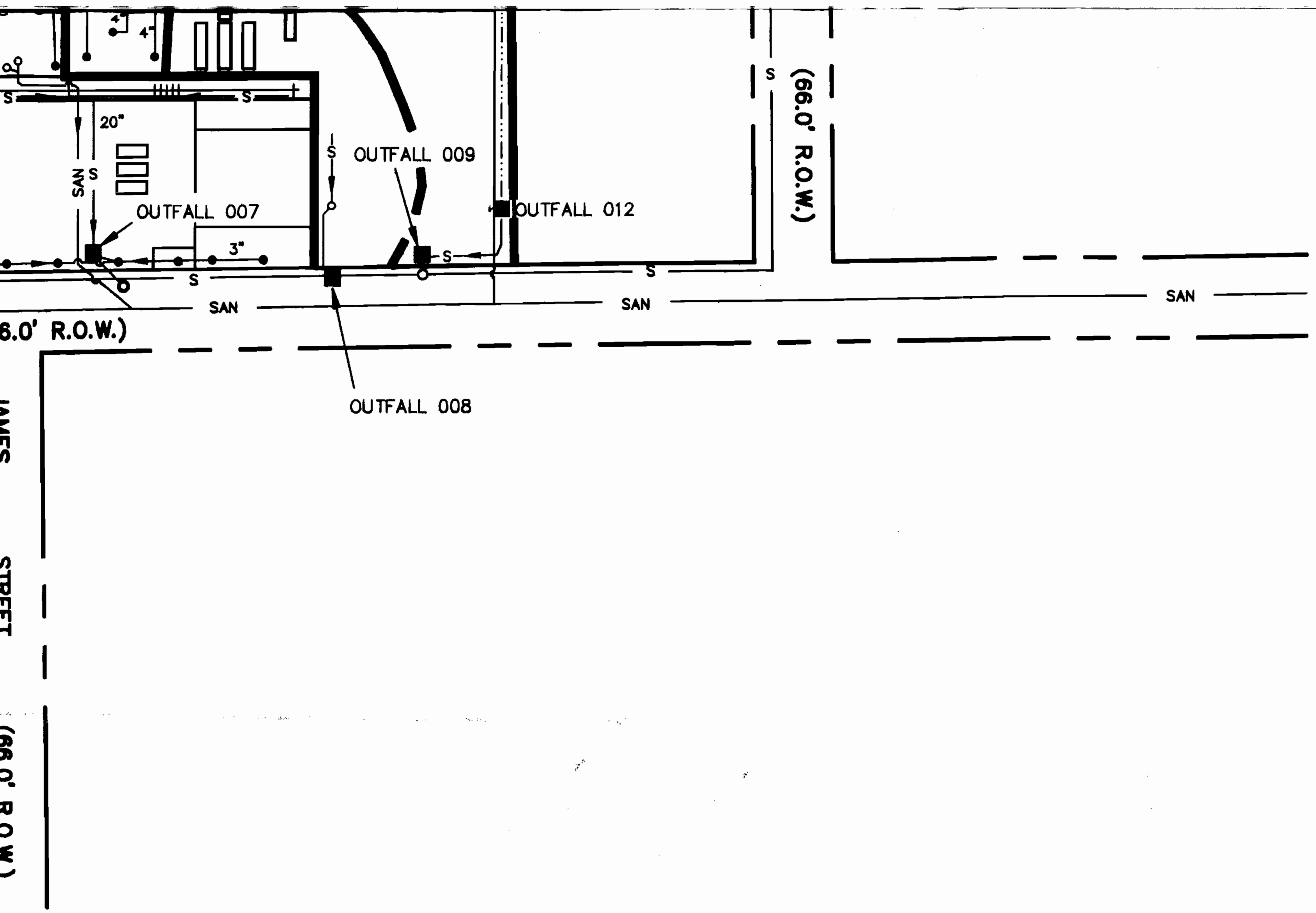
REMEDIAL AND RCRA FACILITY INVESTIGATION

SITE AND VICINITY
ZONING BOUNDARIES

CRA
CONESTOGA-ROVERS & ASSOCIATES

Drawn by: JTM	Scale: 1"=600'	Date: JANUARY 1997	File Nº: M-01	Rev.Nº: 0
Designed by: WCL	Field book:	Project Nº: 5039	Drawing Nº: PLAN 4	
Checked by: WCL				


M-1
M-1
M-1
M-1
M-1
M-1
R-2
R-2
R-2
R-2
R-2
R-2
R-2
C-M
C-M
C-M
C-M
C-M
C-M
R-C
R-C
R-C
R-C
C-2
C-1
M2
BARGE CANAL
ELLICOTT
CREEK
DRIVE
EXOLON
VICKERS
WALES
HANOVER
HIGHWAY
MEMORIAL
TWIN CITIES
EASTERN PARK
TONAWANDA
NORTH



SPAULDING COMPOSITES COMPANY

REMEDIAL AND RCRA FACILITY INVESTIGATION

EXISTING SITE UTILITIES

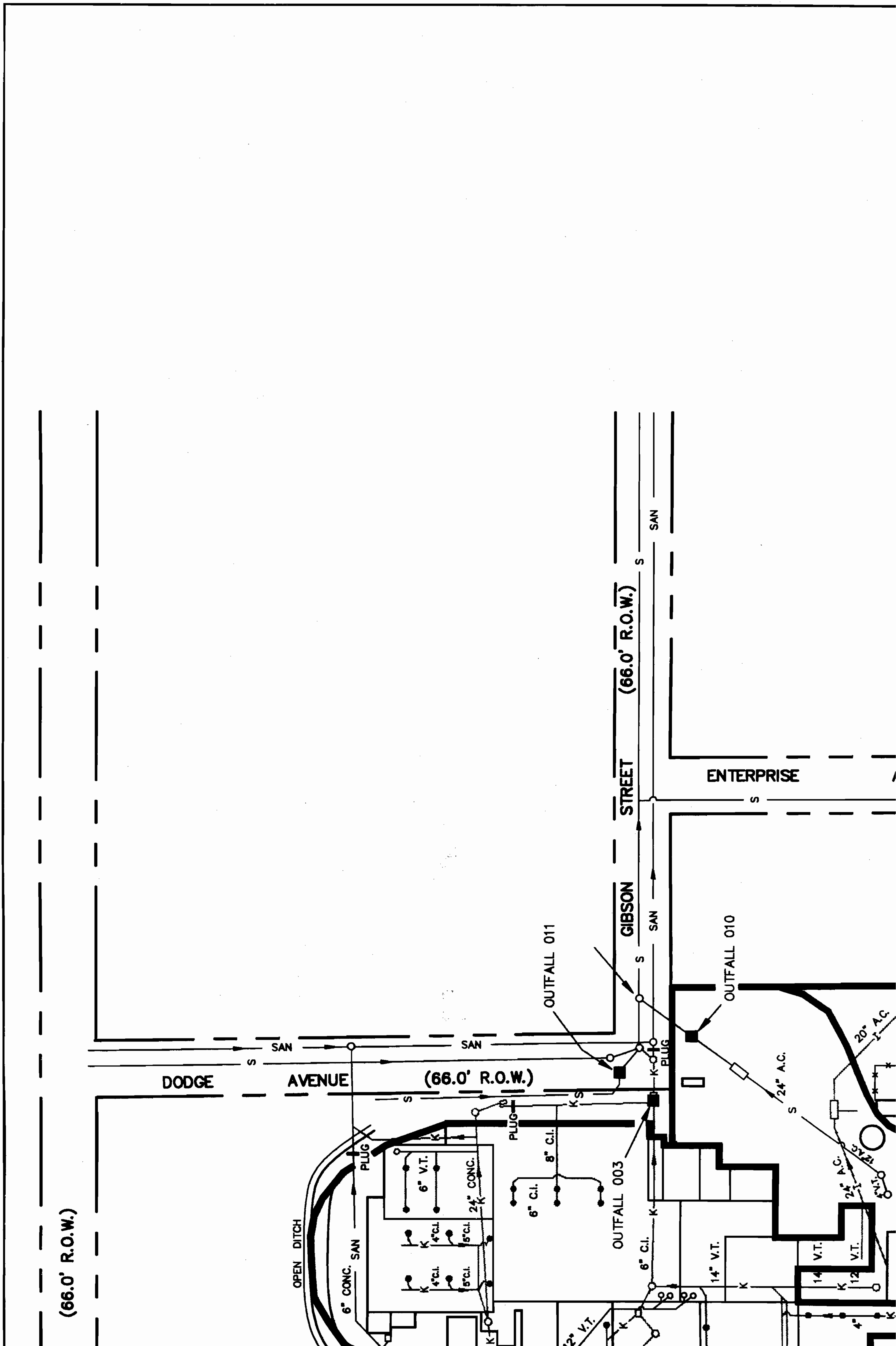
CRA
CONESTOGA-ROVERS & ASSOCIATES

Drawn by: JTM
Designed by: DC
Checked by: WCL

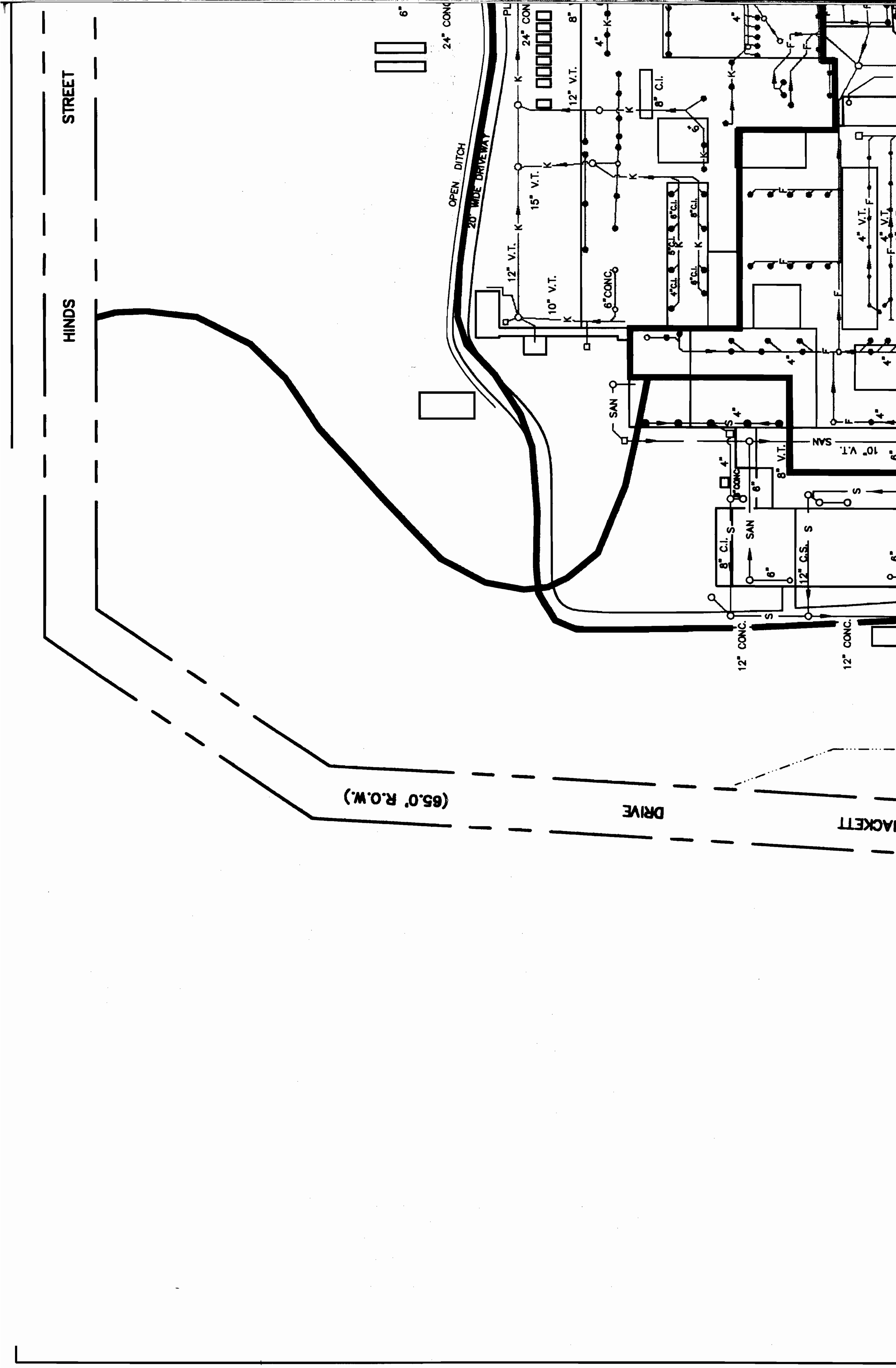
Scale: 1"=100'	Date: FEBRUARY 1997		File Nº: P–39	Rev.Nº: 0
Field book:	Project Nº: 5039		Drawing Nº: PLAN 3	

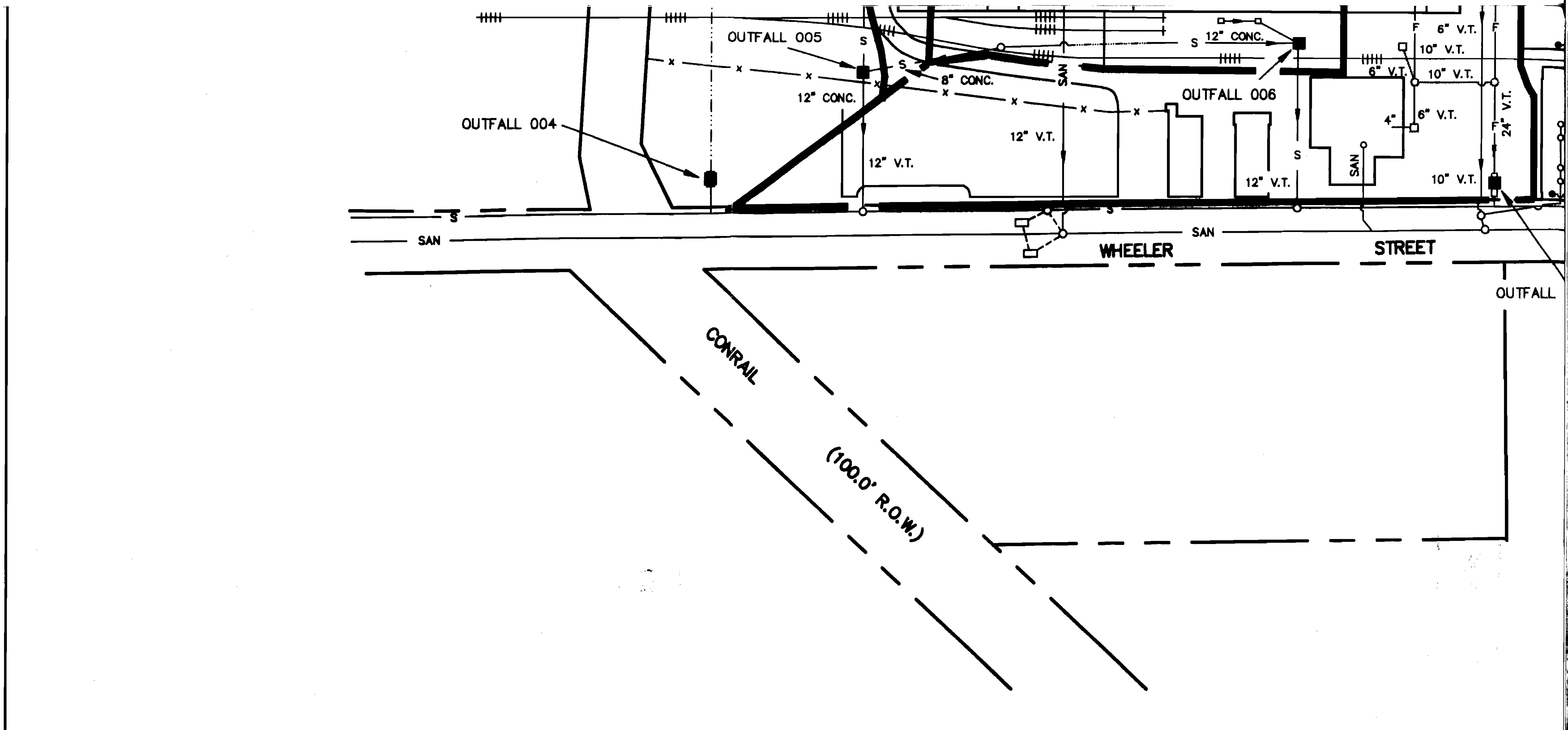
Approved

Initial



(66.0' R.O.W.)
GIBSON
STREET
(66.0' R.O.W.)
SAN
S
ENTERPRISE
DODGE
AVENUE
(66.0' R.O.W.)
OUTFALL 011
OUTFALL 010
OUTFALL 003
PLUG
PLUG
PLUG
20" A.C.
24" A.C.
24" A.C.
6" V.T.
24" CONC.
8" C.I.
6" C.I.
4"C.I.
5"C.I.
6" C.I.
14" V.T.
V.T.
12
14
OPEN DITCH
6" CONC.
K


HINDS
STREET
(65.0' R.O.W.)
DRIVE
ACKETT
OPEN DITCH
20' WIDE DRIVEWAY
6"
24" CONC
24" CONC
PL
12" V.T.
15" V.T.
12" V.T.
10" V.T.
8" C.I.
6"
6"CONC.
6"C.I.
8"C.I.
5"C.I.
4"C.I.
SAN
4"
8" V.T.
10" V.T.
6"CONC
8"
8" C.I.
6"
12" C.S.
12" CONC.
12" CONC.
4" V.T.
S
K
F



BASED ON SURVEY BY KREHBIEL ASSOCIATES, DATED
25 JUNE 1984, SPAULDING COMPOSITES CO. DRAWING
SCC 92-013 DATED 24 SEPTEMBER 1992, AND
CARLSON AND FREIERT DRAWINGS OH-3242-1 AND
OH-3242-2 DATED 16 JULY 1971.

LEGEND

x——x——x	FENCE	——S——	STORM SEWER
━━ ‒ ‒ ━━	PROPERTY LINE	——SAN——	SANITARY SEWER
——╫╫╫——	RAILROAD	●	ROOF DRAIN
——K——	'K' LINE STORM SEWER	——···——···——	OPEN DITCH
——F——	'F' LINE STORM SEWER	■	OUTFALL SAMPLING LOCATION
——I——	'I'-LINE SANITARY SEWER	━━━━	APPROXIMATE STORMWATER DRAINAGE AREA
——G——	HIGH PRESSURE GAS LINE		

Nº	Revision