CLOSURE PLAN

FOR

ELECTROFORMING SLUDGE LAGOONS

GAR ELECTROFORMING

DANBURY, CONNECTICUT

JULY, 1985

REVISED FEBRUARY, 1986

REVISED AUGUST, 1987

Prepared by
Lancy Enviromental Services Company
Lancy International, Inc.
An Alcoa Separations Technology Company

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August 27, 1987

Mr. Frank Ray
Compliance and Safety Officer
GAR Electroforming Division
Electroformers, Incorporated
P.O. Box 340
Danbury, Connecticut 06810

Dear Mr. Ray,

Enclosed please find a review copy of the revised closure plan for your electroplating lagoons. This revision incorporates comments from EPA Region I and findings of the recent soils investigation. Ms. Julian of EPA is pressing to receive this document, so your prompt attention to this matter is needed.

During your review of this document please note that we state GAR is submitting documentation of financial assurance under a separate cover. This must be submitted in order for EPA to approve your plan. Please be advised that Connecticut has been taking legal action against several firms in the state for violation of this requirement. We will be glad to assist you in this matter if you desire.

As always, please feel free to contact us at your convenience if you have any questions. I will be calling you soon.

Sincerely,

Lancy Enviromental Services Company

Roger A. Dhonau
Project Manager

RAD:csb
Enclosure
cc: Jeff Holmes - Lancy Enviromental Services Company

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1.0 INTRODUCTION

1.1 Site History

GAR Electroforming, Division of Electroformers Incorporated (GAR), is a manufacturer of precision electroforms. In their manufacturing process metals are plated onto aluminum mandrels and the mandrels subsequently dissolved in caustic. During this manufacturing process, sulfamate nickel, cyanide copper, pyrophosphate copper, and acid copper plating operations are utilized.

GAR is located in an industrial park in the Beaverbrook area of Danbury, Connecticut. Development of this park began in the early 1960's (Figure 1-1). The GAR facility was constructed in 1963 and was specifically designed for electroforming work. There have been no significant changes in the manufacturing process over this time period. Thus, the wastes generated today are representative of the wastes produced since the facility became operational.

Wastewaters generated by plating operations are batch treated to reduce hexavalent chromium and oxidize cyanides. The pH is then adjusted to precipitate contaminant metals as hydroxides and the resultant sludge is then thickened. Thickened sludge is hauled off by a licensed transporter within the 90 day accumulation time allotted under 40 CFR 262.34. Prior to October, 1985, the sludge was discharged to one of two sludge lagoons. Spent plating solutions are transported off-site to a licensed disposal facility.

The manufacturing facility operates on a standard five day work week, producing approximately 600 gallons of wastewater each day. When this treated wastewater was discharged to the lagoons, the sludge was retained and dried while the treated wastewater percolated through the soil into the local ground water supplies. Due to the low rate of discharge to the lagoons, sludge accumulation had been minimal. Approximately two feet of sludge accumulated in each lagoon during their operating history. All discharge to the lagoons ceased on October 28, 1985. In November of 1986, with the approval of the Connecticut Department of Environmental Protection (CTDEP), GAR removed all sludge from the two lagoons and two feet of underlying material. Subsequent soil testing was performed on July 9, 1987. The two lagoons will be closed under interim status regulations, with closure scheduled for the spring of 1988.

1.2 Regulatory Status

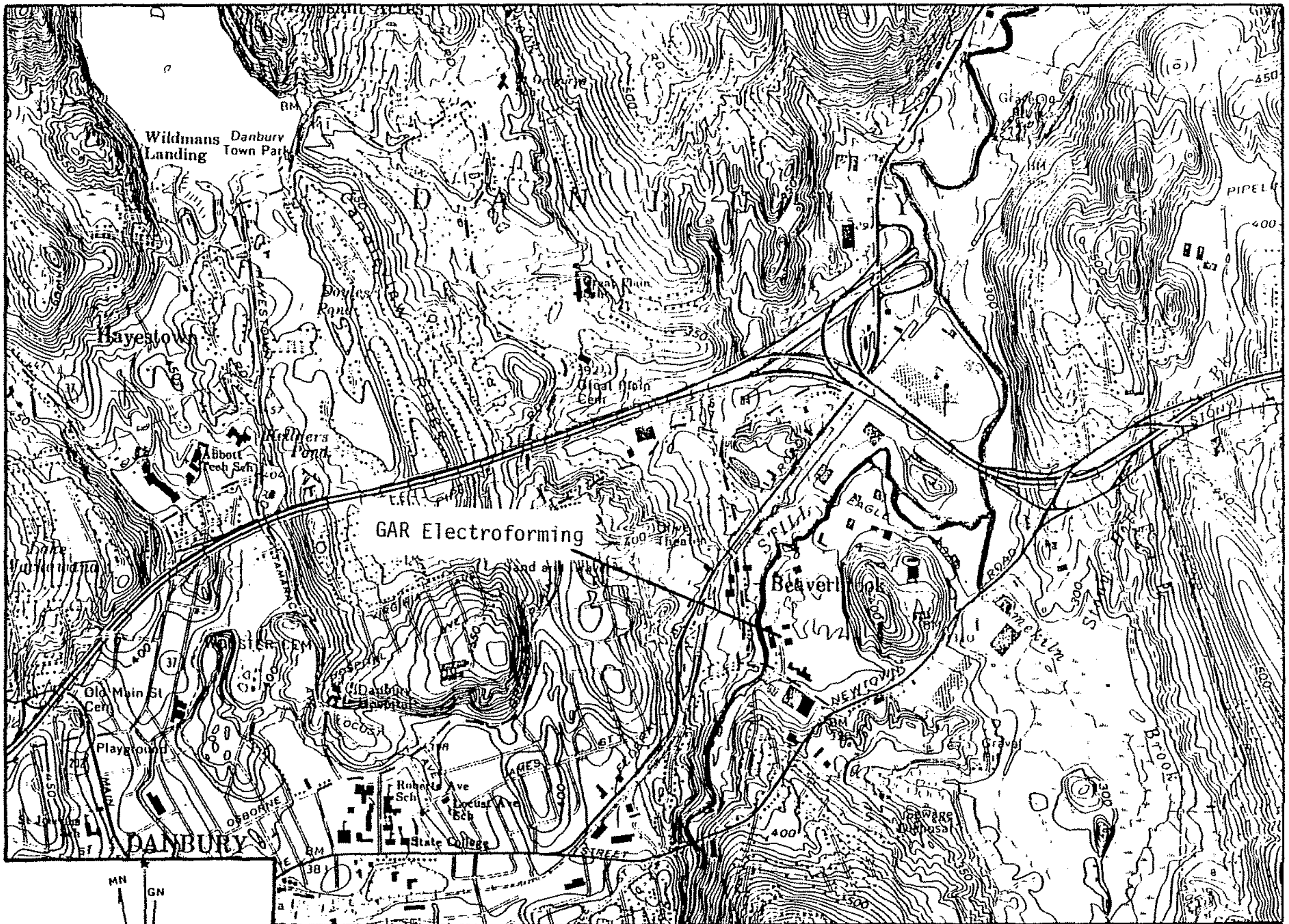
The sludge was by definition a hazardous waste with the EPA waste identification number F006. Thus, the lagoons were considered hazardous waste storage sites, and as such, were subject to regulation by the State of Connecticut under the Resource Conservation and Recovery Act (RCRA). The Connecticut Department of Environmental Protection (CTDEP) had originally allowed GAR to operate this treatment/storage system under a permit for discharge to ground water. However, as a result of increasingly stringent restrictions on discharges to ground water, CTDEP was not able to renew this permit and placed GAR under Administrative Order #3396/HM-49. This order required GAR to install treatment equipment necessary to eliminate the need for the lagoons and once in operation, close the lagoons in accordance with a plan approved by CTDEP.

This document presents a plan of closure, addressing the methodology, schedule, and specific activities that will be involved in closing these lagoons. The original version of this document was submitted in July, 1985. A revised closure plan was submitted to the CTDEP in February of 1986, reflecting the data gathered during the site evaluation. The material contained on the following pages addresses the deficiences noted in the United States EPA, Region I's, April 6, 1987 submittal to GAR and also presents the data acquired during confirmational soils testing. This plan has been prepared in accordance with Connecticut Hazardous Waste Regulation Title 22a, Chapter 449 and federal regulations 40 CFR 265.110-120. Since this unit is the only TSD unit at this facility, this closure represents final closure.

The facility contact for this plan is:

Compliance and Safety Officer
GAR Electroforming Division
Electroformers, Inc.
P.O. Box 340
Danbury, Connecticut 06813
203/744-4300

This person maintains a copy of the latest closure/post-closure plan and all addendums or amendments as provided by 40 CFR 265.112 and 265.118.



MN GN

12½° 222 MILS

1°02' 18 MILS

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

1 .5 0 1 KILOMETER

Figure 1-1
Facility Location

2.0 APPROACH TO CLOSURE

2.1 Closure Performance Standard

This closure plan was designed to: 1) minimize the need for further maintenance and control of the area now occupied by the lagoons, 2) control and minimize emission of hazardous constituants to the extent necessary to protect human health, and 3) minimize or eliminate post-closure escape of hazardous waste, hazardous waste constituants, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere. This standard meets the requirements of (40 CFR 265.111) for closure of interim status facilities.

This closure plan discusses in detail, efforts to be made at the GAR Electroforming facility, to satisfy the closure performance standard.

2.2 Closure Activities Summary

The proposed method of closure for the plating sludge lagoons was developed after an evaluation of several factors, such as waste characteristics, hydrogeologic features of the area, potential for contaminant migration, regulatory considerations and economics. Based upon this evaluation, removal and off-site disposal of the waste and significantly contaminated soil, was determined to be the most appropriate and economical means of closure. This plan incorporates aspects of both clean closure and closure as a disposal facility.

Specific closure activities have been based on past site assessment studies, routine ground water monitoring data, the December 1985 site evaluation and the confirmational soils testing completed in July 1987 as described in Section 5.0.

Closure activities completed to date include:

- o Removal of Sludge and Heavily Contaminated Underlying Materials
- o Removal of Lagoon Distribution System Piping
- o Collection and Analysis of Confirmational Soil Samples

The following activities remain to be completed:

- o Site Restoration
- o Certification of Closure by Registered Professional Engineer
- o Post-Closure Care and Monitoring

Under this scenario, the closure of these lagoons will not meet the definition of clean closure under 40 CFR Section 265.228(b). GAR is therefore required to close their lagoons under 40 CFR Section 265.310 (as a landfill). Thus, GAR will be classified as a hazardous waste disposal facility.

3.0 WASTE CHARACTERISTICS

3.1 Regulatory Classification

The material stored in the lagoons was classified as a hazardous waste under RCRA with an assigned code of F006. The waste contained concentrations of metal hydroxides and trace amounts of cyanide from electroforming operations. The CTDEP issued Administrative Order No. 3396/HM-49 on March 29, 1983, requiring GAR to cease discharge of this waste to the lagoons and to close the lagoons in accordance with all applicable federal and state regulations.

3.2 Chemical Characteristics

The wastes discharged to the lagoons were alkaline (pH approximately 9) and contained metals, both dissolved and as metal hydroxides. In addition, the waste contained trace amounts of cyanides (5-10 mg/kg). It is believed that this cyanide was complexed with iron in the water and not mobile. Routine analyses of the discharge after 1980 indicated that both metal concentrations and cyanide concentrations were normally very low. This discharge was monitored monthly with all results reported to CTDEP in accordance with the terms of GAR's defunct discharge to ground water permit DEP/WPC-034-048.

GAR Electroforming submitted an Alternate Ground Water Monitoring Plan to the CTDEP on January 29, 1985. This plan specified the installation of one (1) upgradient monitoring well and four (4) downgradient monitoring wells to monitor the shallow aquifer in the vicinity of the two (2) lagoons.

This plan was approved by the State on February 7, 1985. The wells were installed in May of 1985, and the initial monitoring event took place on January 13, 1986. All existing ground water monitoring data are included as Attachment A.

Ground water monitoring in the immediate vicinity of the lagoons indicates the presence of a variety of chlorinated volatile organic compounds ranging in concentration from less than 1 ug/l to 935 ug/l. The background monitoring well (well #1) contains the highest concentrations of halogenated organic compounds. It is believed this contamination originates from an off-site source. Since the facility is located in an industrial park constructed adjacent to an area utilized for waste disposal, this is not unexpected.

Of the seven chlorinated compounds detected in the ground water, only one (trichloroethylene) has ever been used at GAR. None of the detected compounds were found in the lagoon sludges.

Concentrations of nickel, copper and cyanide above that of background are present in the ground water. These concentrations are decreasing on the whole as are the concentrations of the organic compounds present. It is suspected that the concentrations of the inorganic compounds will continue to decrease as all sludge and heavily contaminated materials have been removed from the lagoons.

3.3 Maximum Waste Inventory

The amount of sludge in the lagoons was measured as part of the site evaluation after all discharge to the lagoons had ceased. It had been estimated that 88 cubic yards of sludge was present. In November 1986, GAR removed this sludge and approximately two (2) feet of contaminated soil from the lagoons. A total of 247 tons of sludge and contaminated soil was removed from the lagoons which was transported by a licensed hazardous waste transporter to a licensed hazardous waste disposal facility.

3.4 Toxicity

Table 3-1 summarizes the acute and chronic toxicities of compounds that were present in the sludge. As can be seen from this table, there is little concern over acute toxicity of these compounds with the exception of cyanide. However, based upon the routine analysis of wastes discharged to the lagoons, the concentration of cyanide did not present a concern. Some chronic toxicity studies have found nickel hydroxide and chromium hydroxide to be carcinogenic in laboratory animals. Therefore, GAR determined that removal of all sludge and heavily contaminated soil was necessary in order to prevent possible migration of these compounds.

3.5 Mobility

The compounds present in the waste were stable and not amenable to biodegredation. Rainwater may have to released the metals from the immobile hydroxide form, depending upon its acidity. Ground water monitoring data (Attachment A) indicate that there has been no significant movement of these metals. Since the noted organic contamination is comprised primarily of compounds never utilized by GAR and the sludge was found to be free of these same compounds, it is safely contented that GAR, and this unit in particular, is not associated with the noted organic contamination.

TABLE 3-1

TOXICITY SUMMARY
OF
WASTE CONSTITUENTS

Compound	Toxicity
Chromium Hydroxide	Chromium is the only metal anticipated to be present in the sludge which is on the Primary Drinking Water Standards list of toxic metals. Only the hexavalent form of chromium is so listed. Under normal handling procedures, chromium hydroxide (a compound of trivalent chromium) presents little risk. The compound can, however, present health risks if ingested or inhaled.
Copper Hydroxide	Rather low toxicity with a lowest lethal dosage of 200 mg/kg for human ingestion. No known chronic effects.
Aluminum Hydroxide	Very little data available, but laboratory tests of some animals show a potential for this compound to be a mutagen. Actue toxicity is low.
Copper Cyanide	This is a toxic material and is classified as a poison. Laboratory animal tests have indicated leathal dosages at under 50 mg/k of body weight. In addition this cyanide as well as others is highly toxic to aquatic life. Many species of fish are severely affected by concentrations of less than 1 ppm.
Nickel Hydroxide	Acute toxicity is low. This compound and related nickel compounds can cause an "itchy" type of dermatitis when exposure is extensive. Studies by the Internation Agency for Research on Cancer have found this substance to cause cancer in laboratory animals.
Silver Hydroxide	Very little data are available, but acute toxicity is believed to be very low. Acute toxicity in labortory animals have been as high as 2.85 grams/kg. There are no known chronic effects.

Sources: 1) Registry of Toxic Effects of Chemical Substances, 1981-1982, US Department of Health and Human Services.

2) Dangerous Properties of Industrial Materials, Fourth Edition, N. Irving Sax.

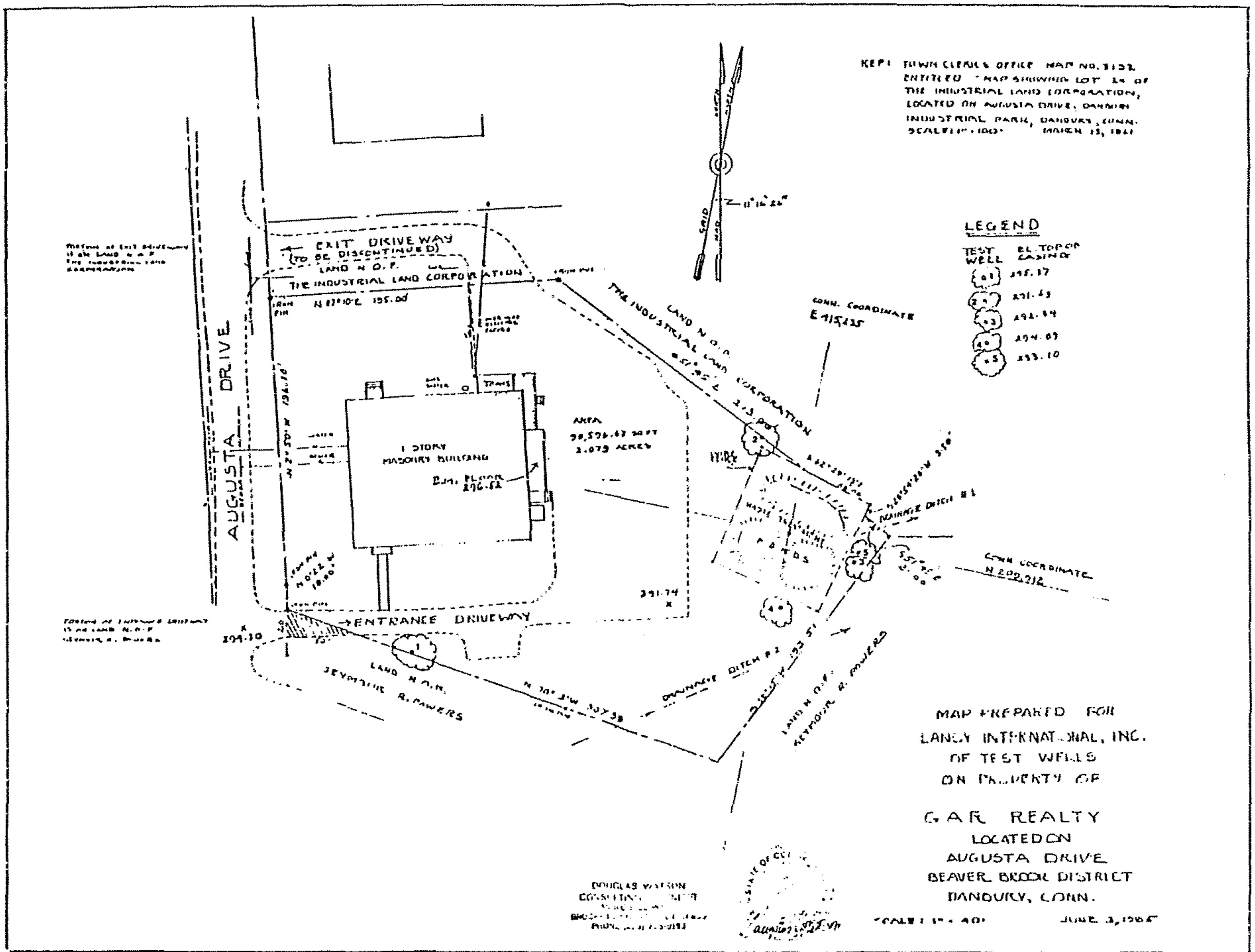


Figure 4-1

Site Map

The rock beneath the plant is mapped as the Ratlum Mountain Schist (formerly referred to as Hartland Formation). The foliation plane of the schist dips to the west at about 50 degrees (the foliation plane is parallel to the original bedding plane). Ratlum Mountain Schist is described as a quartzitic sillimanite-biotite schist with pockets of amphibolite, metaspilite and gneiss. No faults have been mapped in or near the vicinity of this site.

GAR is located in an area surrounded by a belt of Stockbridge Marble (formerly mapped as Inwood Marble). There is a slight chance of finding this marble unit beneath the site. This unit occupies the valley of Still River and Limekiln Brook.

4.3 Soils

Attachment B provides the boring logs for each monitoring well. In general, there is a 34 foot blanket of silt, sand and gravel which covers the igneous bedrock under the GAR property. At well sites 1, 2, and 4 fill was found in the upper five feet of soil. The fill consisted of sand and cobbles. No foreign material such as metal or trash was found. The monitoring wells showed medium brown, fine to coarse sand with a trace of silt. It varies from 16 to 13 feet in thickness. This layer is thickest at the site of monitoring well 1 and thinnest at monitoring well 2. The ground water in this upper most layer of sand acts as a water table aquifer and wells 1 through 4 are all situated in this layer. Water production from this sand layer (0.1 to 4.0 gpd/sq.ft) was less than expected. This low production is suspected to be due to very fine to fine sand in the unit and clogging of the filter fabric with silt from the formation.

Beneath this upper most layer of sand is a layer of grey silt. This unit varies across the site from a silt with very fine sand to a very fine sand with silt and has a medium consistency (3 to 11 blows per 6 inches). This grey silt unit (eleven feet thick at well 5) appears to act as a leaky aquitard, separating the upper most sand aquifer from a deeper sand and gravel unit. The pump drawdown test in well 5 indicated that there was little leakage through the grey silt layer during pumping of the deeper sand and gravel unit during the time of the test (1.7 hr). However, the static water levels in wells 3 and 5 are approximately the same, implying that the two aquifers are hydraulically connected.

The deepest unit encountered was a coarse sand gravel unit at 28 to 34 feet below the surface in well 5. Drilling was stopped at 34 feet because of auger refusal. It is therefore possible that the unit is thicker than the boring log indicates. The sand and gravel of this aquifer consists of weathered igneous material. This unit is more productive than the upper brown sand aquifer (about 53.5 gpd/sq. ft. assuming a thickness of 6 feet) and is interpreted as an confined aquifer. Only monitoring well 5 is situated in this deeper sand and gravel aquifer.

4.4 Hydrology

Measurements of the depth to the groundwater in the monitoring wells indicate the flow direction in the water table aquifer. During June of 1985, three sets of measurements were taken. The first two measurements on 6/1/85 and 6/17/85 were taken during dry weather and the third on 6/26/85 was taken after a rainfall event. Table 4-1 lists the water elevations on these dates. In general, the flow direction seems to be toward the northeast. There is fluctuation in the flow direction after a rainfall event, possibly because of spacial variations in the permeability of the water table aquifer. Fluctuations from the groundwater elevation may also be caused by the discharge of water from the lagoons, creating a ground water mound. The well in the deeper sand and gravel aquifer, has, to date, shown a constant piezometric surface elevation of 287.10' regardless of fluctations in the shallow water table aquifer. One reason for this may be that the lower aquifer is receiving a constant amount of leakage from the silt confining layer.

TABLE 4-1

Hydrogeologic Properties

Well No.	Aquifer Thickness	Water Elevation 6/1/85	6/17/85	6/16/85	Transmissibility gpd/ft	Permeability gpd/sq.ft.
1	15.0 ft.	287.25'	287.24'	288.29'	42.1	2.8
2	11.4 ft.	285.71'	285.71'	287.09'	1.2	0.1
3	10.9 ft.	286.76'	286.75'	287.92'	44.0	4.0
4	13.8 ft.	287.14'	287.14'	289.50'	2.2	0.2
5	6.0 ft.	287.10'	287.10'	287.10'	321.0	53.5

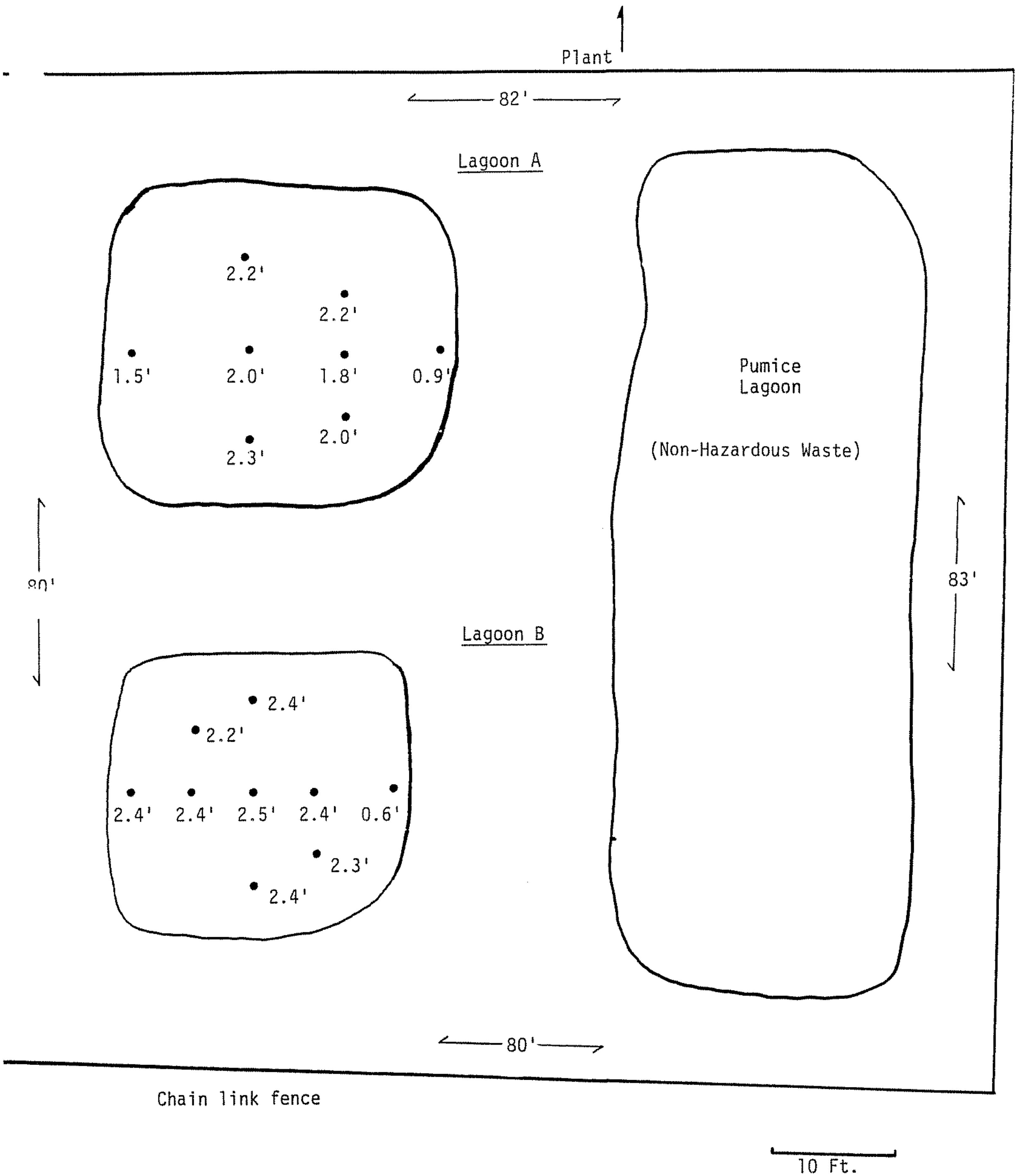
5.0 SITE EVALUATION AND WASTE REMOVAL ACTIVITIES

A site evaluation was performed in accordance with the plan presented within the original closure plan (July, 1985). The following paragraphs present the findings of this evaluation, describe waste removal activities completed in November of 1986, as well as provide the results of the confirmational soils testing completed during July, 1987.

5.1 Sludge Sampling and Quantification

Prior to initiation of the sludge and soil sampling, sludge depth measurements were made at eight (8) points within each lagoon. These measurement location points and depths are presented in Figure 5-1. Data gathered from this process were used to develop the sludge quantity estimate presented in Section 3.3.

Composite samples were collected from each lagoon in accordance with the statistical procedure presented in the preliminary plan. Within each lagoon equal portions of sludge were taken from each of the five locations and placed into a wide mouth one liter glass container. It should be noted that the sludge was highly stratified, a phenomenon common with process/batch treatment operations. Thus in order to obtain a sample representative of the overall sludge composition, a sludge "core" of approximately ten (10) inches in depth was collected at each sampling location. The two resultant composite samples were homogenized in the laboratory prior to analysis. Results of these analyses (See Section 5.3) were used to generate the chemical characteristics discussed in Section 3.2 Actual laboratory data are presented in Attachment C.



Sludge Depth Measurements

Figure 5-1

5.2 Soil Sampling

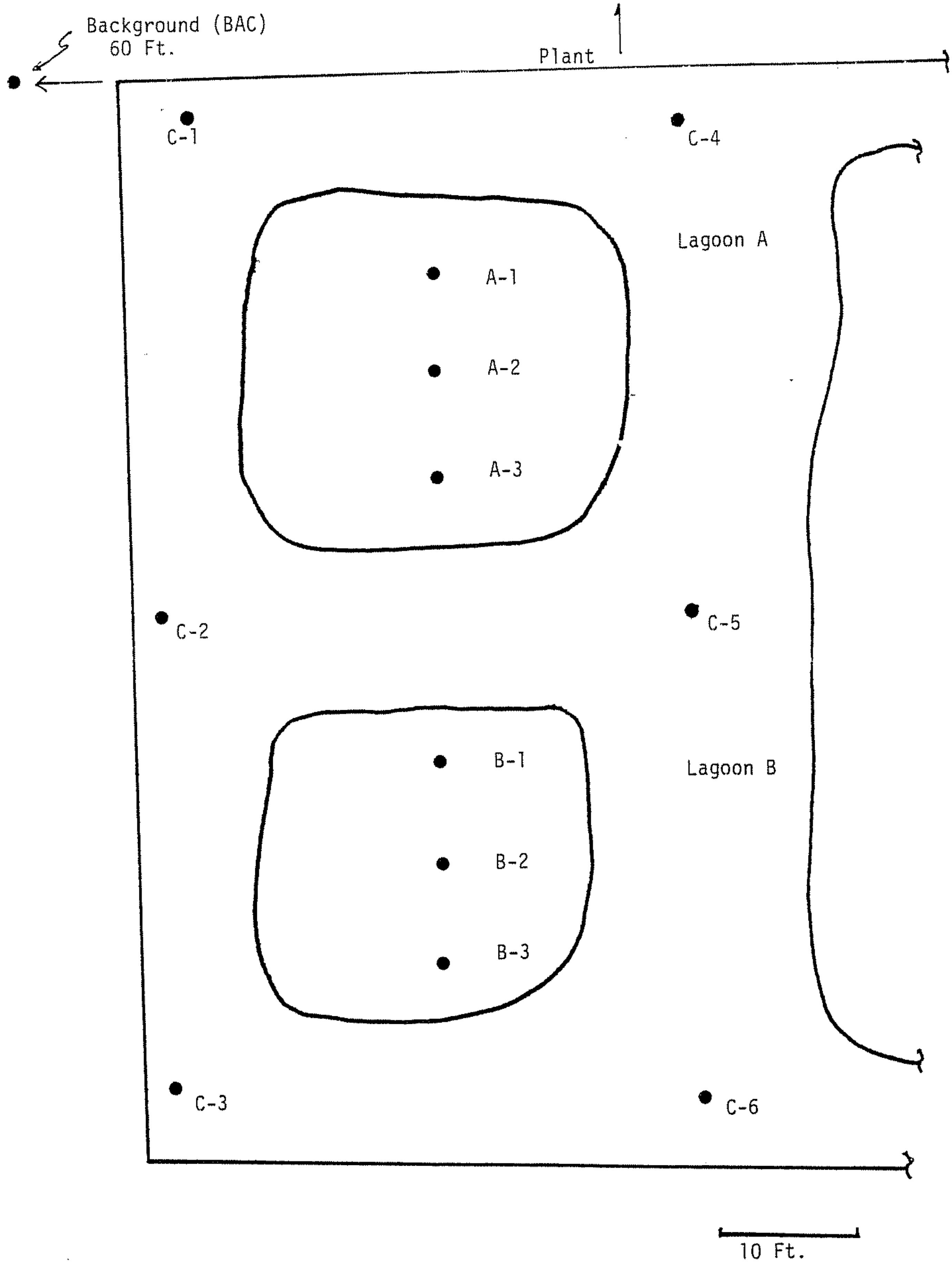
Soil samples were collected at predetermined locations around and beneath the lagoons, and at a background location as indicated in Figure 5-2. The following paragraphs describe the actual field procedures used to obtain the samples and conditions encountered.

Background

The background sample (BAC) was collected at a location sixty feet past the southwest corner of the lagoon fence enclosure along a line formed by the western side of the fence perimeter. This location was in a small wooded area separating GAR from its industrial neighbor. The sample was collected at a depth of three (3) feet below grade and visually appeared to be composed primarily of fine to medium sands with lesser amounts of silt.

Berm

Berm samples (C-1 through C-6) were collected at locations spaced along the berms of the sludge lagoons. These berms were composed of excavated material removed during installation of the lagoons and consisted of medium to course sands with some gravel and cobbles. The presence of cobbles and gravel proved to be an impedance to the sample collection procedure. Consequently sample C-2 was collected at a depth of two (2) feet rather than the planned three (3 feet).



Soil Sample Locations

Figure 5-2

Lagoons

The evaluation plan called for samples to be collected at four depths (in six inch increments) at each location indicated in Figure 5-2. However, in that these samples were in a saturated zone and the soils contained considerable gravel and cobbles, collection of the samples proved to be very difficult. Many samples could not be obtained under the given site conditions. However, a sufficient number of samples were obtained to develop a clearer picture of the vertical extent of contamination. The incompleteness of the data required the collection and analysis of additional samples during the confirmational testing.

5.3 Analytical Plan for Sludge and Soils

The composite samples representing the waste remaining in the lagoons were characteried to determine its classification for disposal. The waste profile which had been developed met both regulatory requirements for manifesting the shipment off-site and for the licensed waste hauler and disposal facility. Table 5-1 shows the waste profile parameter list. These measurements were accomplished by EPA approved procedures for those parameters for which EPA has published methods (SW846, Second Edition). The results of these analyses are presented in Attachment C.

Individual soil samples from the perimeter of the lagoons were subjected to the following analytical scheme:

Parameter	Method
pH	9045
Cadmium	7130
Chromium, Total	7190
Nickel	7520
Cyanide, Total	9010
Aluminum	7020
Copper	7210
Silver	7760
EP Toxicity Leachate	
Arsenic	7060
Barium	7080
Cadmium	7130
Chromium, Total	7190
Lead	7420
Mercury	7471
Selenium	7740
Silver	7760
Nickel	7520
Aluminum	7020
Copper	7210
Zinc	7950
Chromium, Hexavalent[1]	7196
Cyanide, Total[1]	9010

[1]ASTM Method D3987 Leaching Procedure

The following table shows the parameter list for analyses of the two sludge samples. Where applicable, the same methodologies referenced above were utilized.

TABLE 5-1

EXAMPLE WASTE PROFILE PARAMETER LIST

Physical Properties	Chemical Composition
Physical State	Water
Specific Gravity	Calcium Carbonate
Flash Point	Calcium Sulfate
Viscosity	Chromium Oxide
pH	Iron Oxide
Layering	Nickel Oxide
Solids, Total	Volatile Organics
Ash	

Minor Components	Hazardous Characteristics
Arsenic	Corrosivity (pH)
Cadmium	Ignitability
Chloride	Reactivity
Chromium, Hexavalent	EP Toxicity:
Chromium, Trivalent	Arsenic
Copper	Barium
Cyanide, Total	Cadmium
Lead	Chromium
Mercury	Lead
Nickel	Mercury
Sulfur	Nickel
Zinc	Selenium
	Silver

Soil samples collected <u>within</u> the lagoons were analyzed for the following parameters:

(1) Analysis for F006 listing criteria prameters:

Cadmium
Chromium
Nickel
Cyanide, Total

(2) Analysis of additional parameters regulated under GAR's defunct discharge to ground water permit #DEP/WPC-034-048:

Aluminum
Copper
Silver
pH

This analysis plan provided information on both parameters of regulatory concern and key parameters known to have been present in the waste originally stored in these lagoons.

5.4 Past Waste Removal Activities

Because results of the initial soils testing were inconclusive as far as identifying the extent of contamination, GAR elected to remove all sludge from the two lagoons as well as an estimated 90 cubic yards of underlying material. These activities were conducted on November 3 and 4, 1986, under full approval from the CTDEP. The following is a summary of these site activities.

The removal activities were performed by Sealand Environmental Services of Danbury, Connecticut. Approximately 247 tons of sludge and contaminated soil were removed from the two lagoons. This material was transported in lined 20 cubic yard trailers by Service Sanitare Blairville of Quebec (ID #NYD980762140) to Stablex Canada, Inc. (ID #NYD980756415) for disposal. Manifests for the wastes are provided as Attachment D.

The sludge and underlying materials were excavated with a large backhoe. The machine was able to reach all areas of excavation without actually entering the lagoons, thus, only the bucket came in contact with contaminated materials. Excavated materials were placed directly into the transportation vehicles. There was no on-site transfer of materials between vehicles or placement of wastes in a temporary stock pile.

Personnel involved in this remediation task were equipped with level D protection. This level of protection was determined to be adequate for the risks presented by these wastes. All protective clothing was placed in with the final truck load of waste and disposed of at the Stablex facility. No wash waters were generated during decontamination of personal protection equipment.

The loading area and the area between the lagoons and loading area was underlain by a protective plastic sheet to prevent any spillage from contacting the underlying soils. Upon completion of the excavation and loading process, this liner, along with spillage, was rolled and placed in the final truck load of waste.

Due to the high moisture content of the waste and surrounding soils, wind entrainment was not a concern and no special precautions were required.

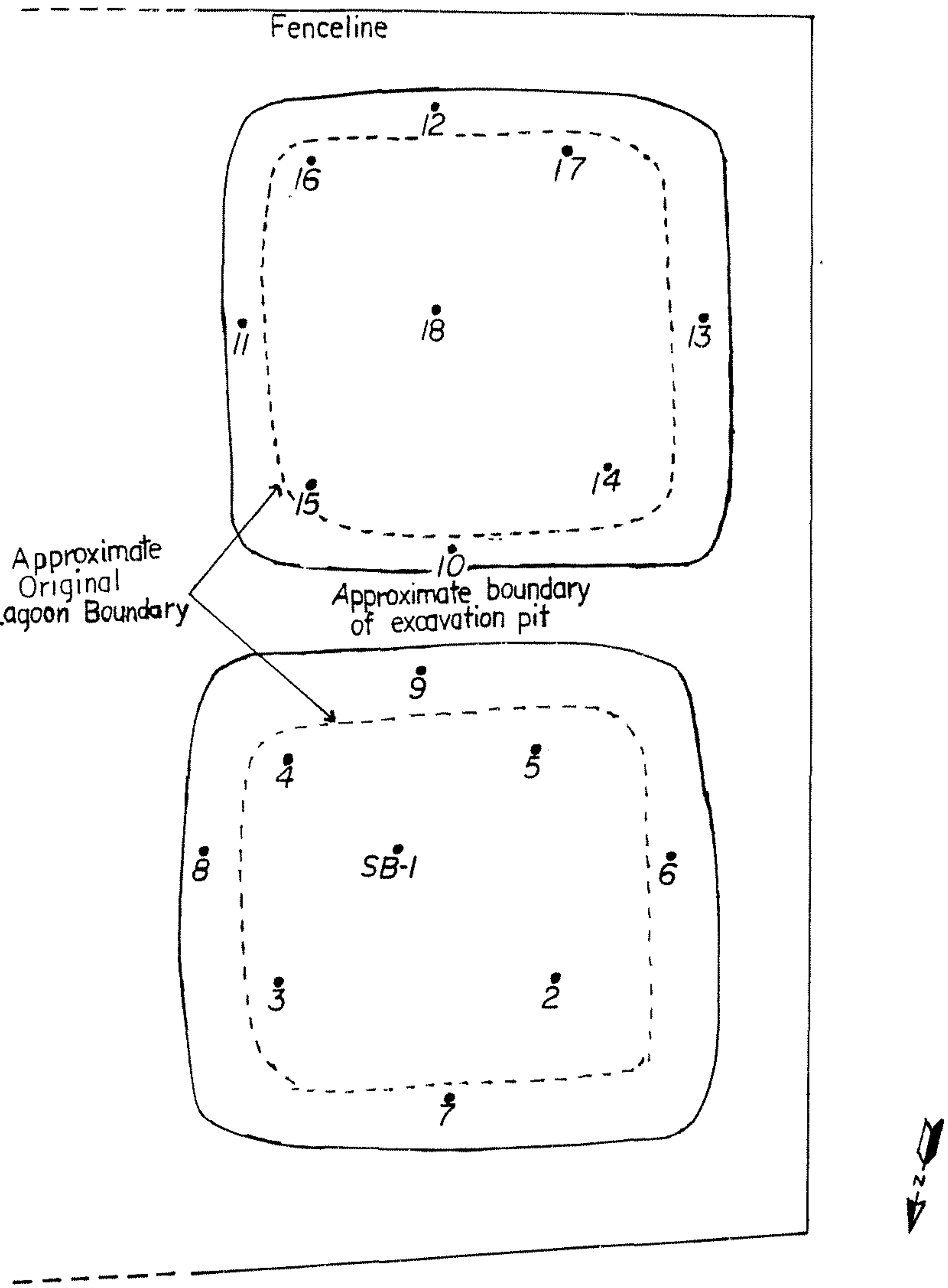
Decontamination of the backhoe was limited to the bucket since this was the only area which came into contact with the waste. Upon completion of the excavation and loading process, the bucket was positioned over the protective plastic sheet and all visible sludge and soil scrapped off. All material removed in this process was collected and placed into the final truck load of waste material for transportation and disposal at a licensed hazardous waste management facility.

5.5 Subsequent Soils Testing

Soil samples were collected on July 9, 1987 with the aid of a manual soil auger. Eighteen (18) samples were obtained from nine (9) locations in each lagoon excavation area at depths of 0 to 6 and 6 to 12 inches as shown in Figure 5-3. Of the eighteen (18) samples, ten (10) were collected from the excavation floor and eight (8) from the excavation walls. The soil auger was washed with water, rinsed with tap water and rinsed again with distilled water between sampling locations.

Samples were immediately placed in prelabeled wide mouth glass jars with teflon lined lids and transported to the laboratory for analysis. Samples from the 0 to 6 inch depth were analyzed first. Several 6 to 12 inch samples were analyzed for documentation purposes only.

Based upon data generated during the preliminary site investigation and at the request of CTDEP, the soil samples were analyzed for the parameters listed in Table 5-2.



SB = SOIL BORING

REVISIONS			LANCY ENVIRONMENTAL SERVICES DIVISION OF LANCY INTERNATIONAL, INC. An Alsco Superrations Technology Company		
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SAMPLING LOCATIONS
GAR Electroforming

TABLE 5-2
Analytical Parameters and Methods
Soil Samples

Parameter	Reference #	Method
Arsenic	1	7060
Barium	1	7080
Cadmium	1	7130
Chromium, Total	1	7190
Copper	1	7210
Lead	1	7420
Nickel	1	7520
Selenium	1	7740
Silver	1	7760
EP Toxicity Leachate:	1	1310
Arsenic	1	7060
Barium	1	7080
Cadmium	1	7130
Chromium, Total	1	7190
Copper	1	7210
Lead	1	7420
Mercury	1	7471
Nickel	1	7520
Selenium	1	7740
Silver	1	7760
Volatile Organics	1	8010, 8020

[1]SW846, Test Methods for Evaluating Solid Waste, Third Edition

The analytical results are included in Attachment E.

5.6 Data Evaluation and Closure Strategy Development

Data from the post excavation soil sampling confirmed that all hazardous waste had been removed, but that considerable waste residues remained in the underlying soil. The sampling of the excavation walls determined that only slight contamination was present when moving horizontally from the excavation sites. Because waste residuals are still present in the underlying soils at levels much higher than background, and ground water contamination exists, clean closure was determined not to be economically feasible. Therefore closure as a disposal facility was selected.

Due to the direct communication of the site ground waters with the base of the lagoons, on-site closure with wastes left on site was not an environmentally sound approach. Such an approach would not meet the closure requirements of 40 CFR 265.111 since waste contituents would continue to enter the local ground water. (See cross section in Attachment F).

Thus removal of the wastes and heavily contaminated soils prior to closure in accordance with 40 CFR 265.310 was determined to be necessary in order to meet the goal of minimizing the threat to human health and the environment (40 CFR 265.111).

This approach has been substantiated by the significant improvements in ground water quality noted since the removal described in Section 5.4. These ground water data show that concentrations for all of the primary waste constituents (copper, chromium, and nickel) have been rapidly returning to natural levels (see Attachment F). Because of the current low levels of these constituents and continued improvement, ground water remediation is not warranted. In addition, there are no drinking water wells utilizing the two monitored zones in the site vicinity. Continued monitoring of these waste constituents are included in the post-closure ground water monitoring program.

In that all wastes and heavily contaminated soils have been removed and the vast majority of remaining contaminated soil is below the ground water table, installation of a full RCRA cap as described in the appropriate guidance manuals is not warranted. A simple single layer 40 mil HDPE membrane is sufficient to isolate those trace constituents above the ground water table from the environment. Details of this approach are described in Section 6.0

6.0 CLOSURE IMPLEMENTATION

In order to meet the closure performance standard as presented in Section 2.1, GAR Electroforming intends to close the lagoons through the following actions:

- Rinsing of the transfer plumbing, disconnection and capping of the plumbing. (completed)
- Collection of rinse water, placement of rinse water in drums for treatment in GAR's existing waste water treatment system for discharge to sanitary sewer under a valid permit. (completed)
- Backfilling of lagoons with clean off-site soils.
- Placement of non-permeable High Density Polyethylene liner.
- Placement of final cover soils.
- Site restoration

Closure Activities Completed to Date

Closure activities were initiated in November 1986, with removal of all sludge and two (2) to three (3) feet of underlying material.

These specific activities including method of waste and underlying material removal, decontamination procedures, loading procedures, method of contaminated material transportation and disposal and the precautionary measures taken to protect human health and the environment were defined in Section 5.4.

The transfer plumbing from GAR's electroforming waste water treatment system to the lagoons was flushed with potable water. All rinse water was collected in 55 gallon drums and pumped into GAR's waste water treatment system at a controlled rate and discharged under the existing permit to the local sanitary sewer system.

The plumbing was then permanently disconnected from the existing waste water treatment system and capped off to prevent further use.

6.1 Backfilling

A local contractor will be utilized for the initial backfilling of the lagoons who has access to various earth moving equipment and hauling vehicles. Dump trucks will be utilized to haul in clean fill material from an off-site source. It is estimated that approximately 250 cubic yards of fill will be necessary, which is equivalent to approximately 3 to 4 feet of soil in each lagoon. The existing berms will be cut down to existing grade and placed in the lagoons prior to placement of clean fill material. The clean fill material will be dumped into the corners of the lagoons and spread with a small bulldozer or backhoe to existing grade. The soils will be compacted in one foot lifts initially by using the bulldozer. The final one foot of fill material will fall within the USDA textural classes of loam, sandy clay loam, silty clay loam, or silty loam and will be compacted to 90% of maximum density according to the Standard Proctor Density Test. A steel roller will be utilized for compaction. A mounded contour will be obtained with a maximum 3% slope toward the perimeter of the two lagoons. Upon compaction, the material will have a permeability less than the underlying and surrounding soils. Plan and sectional views of the lagoons are included as Figures 6-1 and 6-2.

6.2 Decontamination

Following placement of the initial fill material, any equipment that may have come in contact with the contaminated soils in the lagoons will be decontaminated on-site. Decontamination will be limited to the bulldozer and possibly some small hand tools. Decontamination activities will take place on a large plastic sheet. All visual materials on the equipment will be scraped off using hand tools. These materials (soil) will be placed into 55 gallon drums. These soils will be disposed of as hazardous waste along with GAR's other hazardous wastes routinely generated.

Once all soil is placed in the drums, the sides of the plastic sheet will be raised to form a temporary collection basin. The equipment will then be washed with potable water. The equipment will be considered decontaminated once all visual materials are removed. The wash water will be pumped into 55 gallon drums and transferred to GAR's waste water treatment system for final treatment and discharge under existing permit to the sanitary sewer system. Any solids that can be separated from the wash water will also be placed in the 55 gallon drum(s) with the soils removed during the initial stage of decontamination. The plastic sheeting will be disposed of along with the contaminated soils.

It is not anticipated that personnel involved with actual closure of the lagoons will come in direct contact with any contaminated materials. However, as a precautionary measure, equipment operators and laborers involved with the initial backfilling operation will be equipped with protective coveralls, boots, gloves and hard hats. Should these individuals come in contact with contaminated materials, the protective clothing will also undergo decontamination procedures as described above. Any protective coveralls or gloves that are contaminated can be disposed of along with the soils removed during equipment decontamination.

6.3 Synthetic Liner

Following placement and compaction of the fill material and decontamination activities, a 40 mil flexible membrane made of high density polyethylene will be assembled and anchored around the perimeter of the lagoons. An anchor trench will be excavated to contain the liner and hold it in place during installation of the final cover. The trench will be at least one foot wide and 1.5 feet deep. The membrane will be tucked in the trench and the excavated trench material will be placed back in the liner trench. This material will be relatively rock free so as not to puncture the liner. If necessary, off-site fill will be utilized. A manufacturers representative will be present during installation of the liner and will certify that installation was performed in accordance with manufacturers specifications. Plan and sectional views of the lagoons are included as Figures 6-1 and 6-2.

6.4 Cover Soil

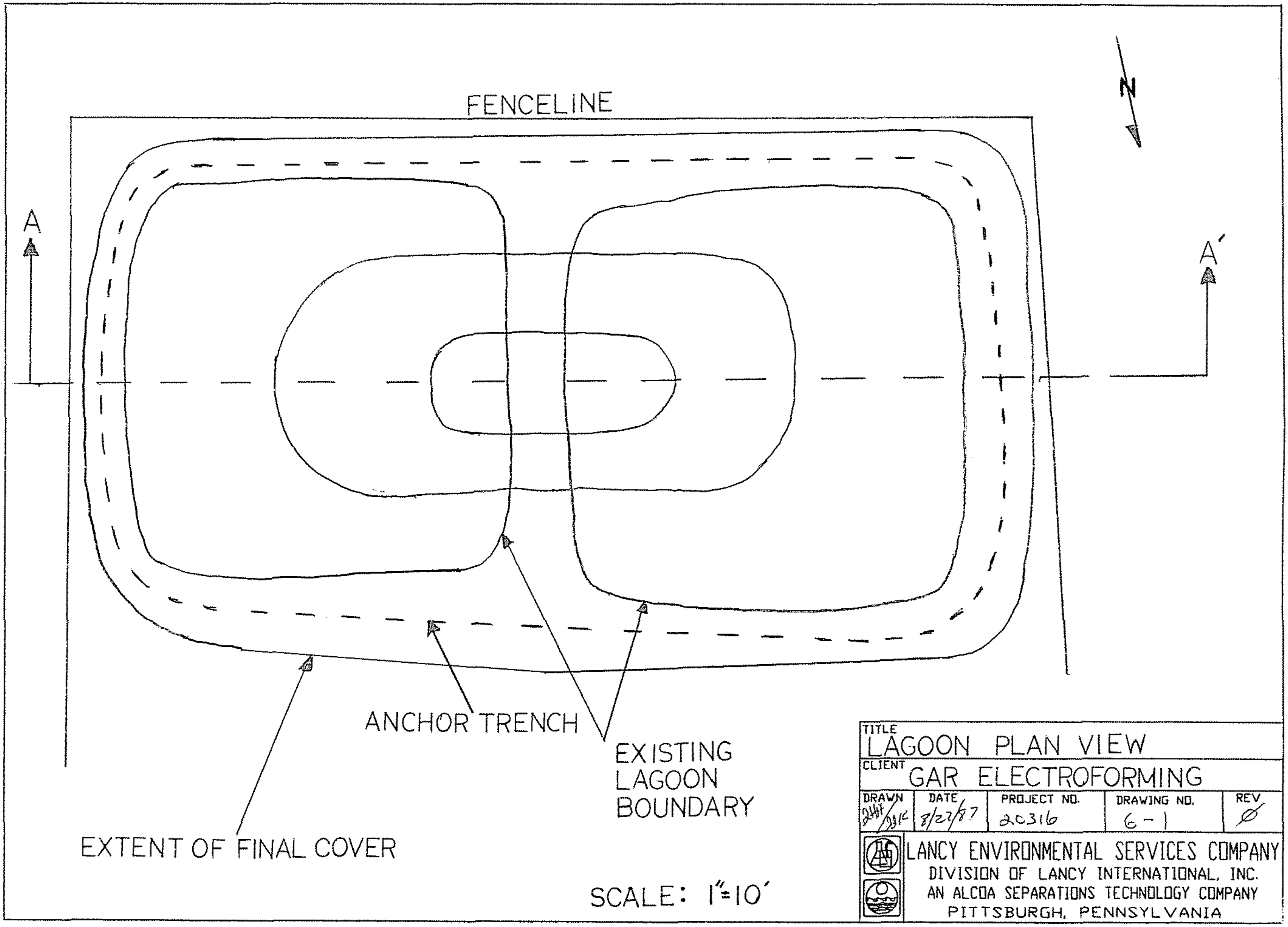
A top soil cover will then be placed on the lagoon liner and contoured from the center toward the perimeter of the two lagoons at a 3% slope. A 24 inch layer of soil will be utilized to maintain a suitable vegetative cover. The initial one foot of cover material will be subjected to compaction by the bulldozer during installation. The final one foot of cover will be placed and rolled with a light weight agricultural roller. It is estimated that approximately 230 cubic yards of soil will be needed for the final cover. These soils will also fall within the USDA textural classification of loam, silty clay loam, sandy clay loam, or silty loam.

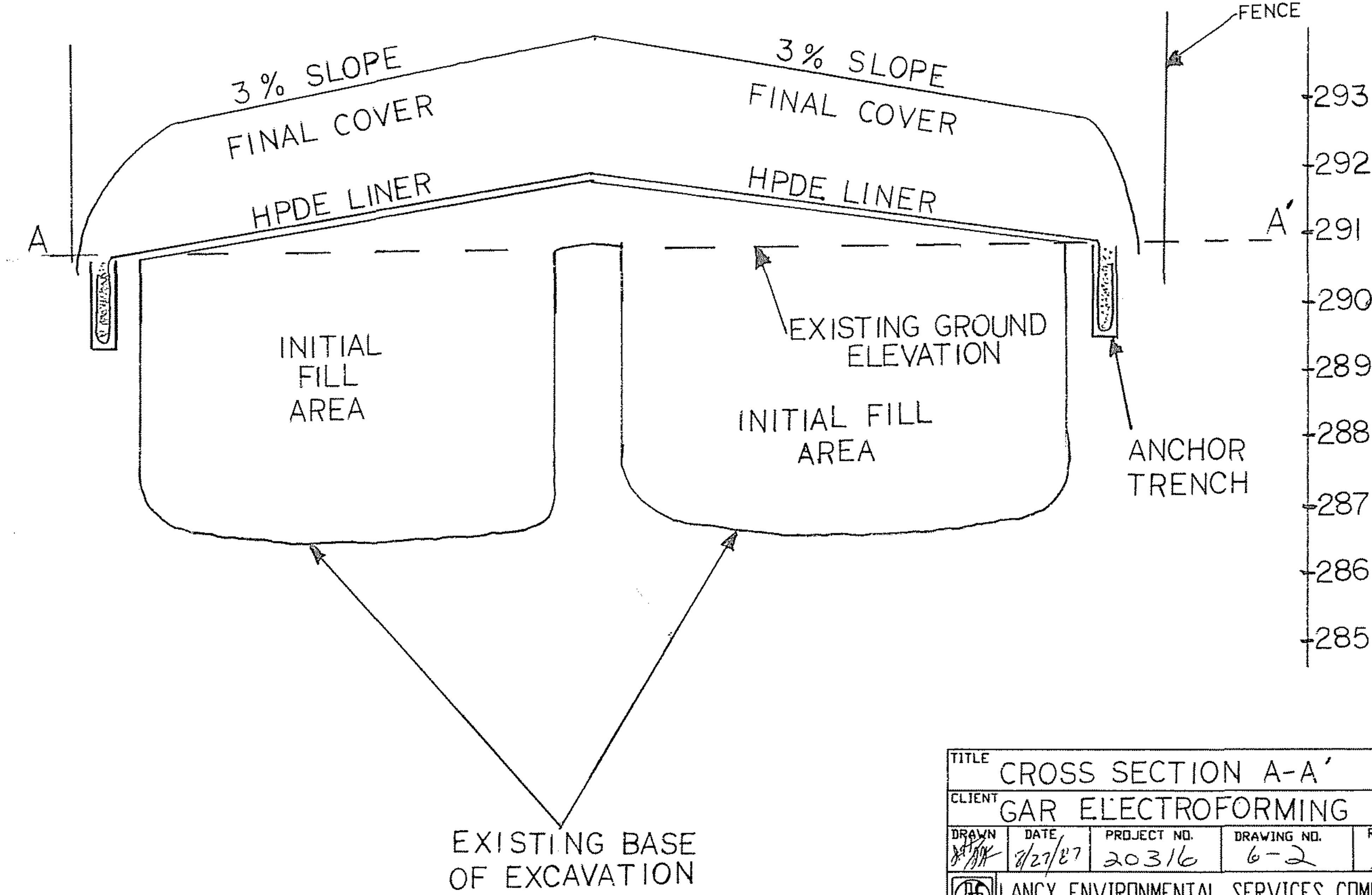
Samples of initial backfill materials and final cover soils will be examined prior to placement. Tests will be performed for compaction as well as permeability if necessary, to assure these materials will satisfy the intent of 40 CFR 265.310(a). Field compaction tests will also be performed on the initial fill soils in place using a nuclear density meter at the compacted surface and 6 to 8 inches below surface to assure a well compacted base layer for proper placement and protection of the HDPE membrane. Plan and sectional views of the lagoons are included as Figures 6-1 and 6-2.

6.5 Re-vegetation

During the placement of final cover, a minimum of 4 representative soil samples will be collected to determine lime and fertilization requirements for optimum growth. The seeding mixture intended for application is Birdsfoot trefoil and oats. The oats will provide for rapid initial growth and the Birdsfoot trefoil, long term stability. Nutrient determination for phosphorous and potassium will be made based on the cation exchange capacity (CEC). The seed mixture specified has minimal nitrogen requirements.

Lime requirements will be determined based on soil pH. Should the soil exceed a pH of 6.0, no lime will be necessary. If the pH is less than 6.0, lime will be added in sufficient quantity to maintain a pH of 6.5.


FENCELINE
N
A
A'
ANCHOR TRENCH
EXISTING
LAGOON
BOUNDARY
EXTENT OF FINAL COVER
SCALE: 1"=10'
TITLE LAGOON PLAN VIEW
CLIENT GAR ELECTROFORMING
DRAWN
DATE 8/27/87
PROJECT NO. 20316
DRAWING NO. 6-1
REV Ø
LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA



TITLE	CROSS SECTION A-A'			
CLIENT	GAR ELECTROFORMING			
DRAWN	DATE 7/27/87	PROJECT NO. 20316	DRAWING NO. 6-2	REV Ø

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA

Once the nutritional requirements are determined, the selected seed mixture and nutrients will be lightly harrowed into the surface using an agricultural roller. Straw or hay mulch will then be applied at a rate of 3.0 to 3.5 tons/acre.

Should vegetative growth be insufficient within six weeks of application, the area will be raked and re-seeded will a similar mixture as specified above.

6.6 Run-on and Run-off Control

Because of the small area affected by closure of the lagoons, and the fact that 3% slopes will be maintained on the final cover soil, no specifically designed run-off control measures have been provided. Run-on will be prevented by the sloped surfaces.

6.7 Schedule

In order for GAR Electroforming to complete closure in an orderly and cost-effective manner, the events and estimated completion dates outlined in the following schedule are proposed:

Activity	Period of Completion Start Date	Finish Date
Mobilization	4/18/88	4/23/88
Placement of Initial Fill Material	4/24/88	4/26/88
Decontamination Procedures	4/27/88	4/28/88
Placement of 40 mil HDPE Liner	4/29/88	5/1/88
Placement of Final Cover Soil	5/2/88	5/3/88
Final Grading and Seeding	5/4/88	5/5/88
Certification of Closure by Registered P.E.	5/21/88	6/10/88

GAR Electroforming does not anticipate that an extension of time beyond that stated above in the schedule will be required. However, if circumstances beyond the control of GAR (force majeure) occur, the time for closure may need to be extended beyond the 180 days from closure plan approval. Should an extension be required, GAR would officially request this extension in writing from the CTDEP as per 40 CFR 265.113(b).

6.8 Cost Estimates

The cost estimates for closure outlined in Table 6-1 are based upon the proposed method of closure outlined in Sections 6.1 through 6.7. These estimates do not include any costs associated with work completed to date (sludge and contaminated soil removal).

Elements which make up the cost factors include:

- management of closure activities
- placement of initial backfill
- decontamination procedures
- placement of 40 mil HDPE liner
- placement of final cover soil
- final grading and seeding
- supervision and certification of closure

TABLE 6-1

CLOSURE COST ESTIMATES

Item			Cost Estimates
I.	Management of Closure Activities (including bid solicitation, and qualification of contractor, logistics, scheduling, and supervision of closure activities)		$ 2,000
II.	Initial Backfilling		
	Surveying Crew - 2 men - $300/day		$ 300
	Bulldozer - $400/day - 2 days		$ 800
	Dump Trucks - $150/day/truck - 3 trucks		$ 450
	Labor - 2 men - $8/hour - 2 days		$ 256
	Steel Roller		$ 300
	Fill Material - 250 yd^3 - $12/$yd^3$		$ 3,000
		Sub-Total	$ 5,106
III.	Decontamination		$ 1,000
IV.	Placement of 40 mil HDPE Liner 3750 ft^2 - $0.75/$ft^2$		$ 2,813
VI.	Placement of Final Cover Soil		
	Surveying Crew - 2 men - $300/day - 2 days		$ 600
	Bulldozer - $400/day - 1 day		$ 400
	Dump Trucks - $150/day/truck - 3 trucks		$ 450
	Labor - 2 man - $8/hour - 2 days		$ 256
	Agricultural Roller		$ 250
	Cover Soil - 230 yd^3 - $20/$yd^3$		$ 4,600
		Sub-Total	$ 6,556
VI.	Seed, Straw, Fertilizer $20/1000 ft^2 - 10,000 ft^2		$ 200
	Soils Testing		$ 200
		Sub-Total	$ 400
VII.	Certification of Closure		
	Registered P.E. - $75/hour X 40 hours		$ 3,000
		Total	$20,875

6.9 Notice in Deed and Notice to Local Land Authority

Because GAR Electroforming will become a disposal facility under federal RCRA and Connecticut hazardous waste regulations, notices must be issued regarding the deed and to local land authorities informing potential purchasers of restrictions associated with GAR's disposal facility. These notices are required under 40 CFR 265.116 and 265.119 and Connecticut Regulations Title 22a, Chapter 449. Within 60 days from completion of closure, GAR will submit the notice of past hazardous waste activities to the local zoning authority along with a survey plat indicating the location and dimensions of the closed lagoons as specified in 40 CFR 265.116. The survey plat will be submitted at the time of closure certification and will note the type and concentrations of residues remaining.

6.10 Financial Assurance

GAR Electroforming is in the process of obtaining financial assurance for closure and post-closure care through a closure letter of credit as specified in 40 CFR 265.143 and 265.145. GAR will provide a copy of the letter of credit to CTDEP by certified mail under separate cover.

6.11 Post-Closure Care

Post-closure care activities will consist mainly of ground water monitoring, periodic site inspections and maintenance of the closed site. Because the lagoons will be considered a disposal facility in accordance with 40 CFR 265.310, post-closure monitoring will be required for a 30 year period. GAR intends to seek a reduction in monitoring requirements following the first five years of ground water monitoring by petitioning the Regional Administratior according to 40 CFR 265.118. The post-closure care plan is provided in section 7.0.

6.12 Certification

To ensure that closure of the lagoons has been completed as outlined in the approved closure plan and in accordance with applicable regulations, periodic inspections of the lagoon area will be made by a Connecticut registered professional engineer during closure activities as specified in 40 CFR 265.115.

The certification statements presented on the following pages are examples of those that will be used by both the owner or operator of the facility and a Connecticut registered professional engineer to document that closure has been completed, as outlined above.

OWNER CERTIFICATION OF CLOSURE

I, ____, of

(Owner or Operator)

____ hereby

(Name and Address of Facility)

state and certify that, to the best of my knowledge and belief, the ________ ____________________________ at the above named facility has been closed in accordance with 40 CFR 265, Subpart G and the facility's closure plan (approved on ____________________), and that closure was completed on the _________ day of ________________, 19____.

____________________________________ ____________________

Signature Date

PROFESSIONAL ENGINEER CERTIFICATION OF CLOSURE

I, ____, a registered

(Name)

professional engineer, hereby certify, to the best of my knowledge and belief, that I have made visual inspection(s) of the ________________________, and closure of the ____________________

(Name and Address of Facility)

has been performed in accordance with 40 CFR 265, Subpart G and the facility's closure plan.

________________________________ ________________

Signature Date

________________________________ ________________

Professional Engineering License Number For State Of

____

Business Address and Telephone Number

7.0 POST-CLOSURE CARE PLAN

Because contaminated soils remain in both lagoons, GAR Electroforming is required to comply with the post-closure regulations of 40 CFR 265.117-265.120, 265.228(c), 265.144 and 265.145. Post-closure care is required for a period of up to 30 years following actual closure activities. These requirements will consist of routine ground water monitoring, site maintenance, and routine inspections.

The contact person at GAR responsible for supervision of post-closure care activities will be:

Compliance and Safety Officer
GAR Electroforming Division
Electroformers, Inc.
P.O. Box 340
Danbury, Connecticut 06813
203/744-4300

Routine site inspections will be made twelve (12) times per year according to a written inspection schedule. Because only contaminated soils are present, a more frequent inspection program is not warranted.

The inspection schedule contains a time table for the entire hazardous waste management area, and identifies the types of potential problems that may arise during the post-closure care period. The following areas will be evaluated during the post-closure inspections:

- o Gate and lock at site entrance
- o Warning signs
- o Lagoon cover areas
- o Ground water monitoring well condition
- o Bench mark integrity
- o General site condition

Table 7-1 defines these inspection items and frequency of inspection in detail.

Any out of order conditions will be reported to the Compliance and Safety Officer or his designated alternate, and recorded on inspection log sheets that will be maintained at GAR's plant office.

7.1 Cover Soils

Maintenance of the cover soil area following establishment of adequate cover will be on an as needed basis. Cover maintenance will consist of mowing, twice per year, to control growth of the vegetative cover and promote rapid run-off. The designated seed mixture generates a low level cover and consequently more frequent mowing is not required.

If erosion or cracking of the final cover is discovered, the affected area would be filled immediately with top soil, compacted with a hand tamper and reseeded with Birdsfoot trefoil and oats and fertilized. Spot seeding or strip sodding may be necessary should erosion be excessive, however, this is not anticipated as a 3% slope on the final cover will minimize this condition.

TABLE 7-1

Post-Closure Inspection Schedule

Area/Equipment	Inspection Item	Minimum Frequency of Inspection
Site Security	Gate at Site Entrance	Monthly
	Chain and Lock	Monthly
Lagoon Cover Soil*	Soil Erosion or Cracking	Monthly
	Vegetative Growth	Monthly
Ground Water Monitoring Wells*	Soil Erosion	Monthly
	Guard Pipes, Caps, and Locks	Monthly
General Site Condition	Bench Mark Integrity	Monthly
	Warning Signs	Monthly

*Inspections will also be conducted immediately following severe weather conditions, including rain storms of moderate intensity.

7.2 Ground Water Monitoring Wells

Well casings and guard pipes will be inspected to assure they are in good condition. All wells are equipped with locking caps and secured with padlocks. These wells are kept locked at all times except during sampling activities. Any erosion that may occur around the well guard pipes should be minimal, but will be repaired with the addition of top soil, hand tamped, seeded and fertilized as described above.

7.3 Site Security

The fence surrounding the hazardous waste management facility will be locked at all times except during site inspections. Should any portion of the fence be damaged, it would be repaired immediately.

7.4 Post-Closure Ground Water Monitoring

Sample Collection and Handling

GAR's ground water monitoring network consists of five wells (MW1 through MW5) as shown in Figure 7-1. These wells were installed under a CTDEP approved Alternate Ground Water Monitoring System Plan. Based on results of routine monitoring, post-closure monitoring will incorporate wells MW2 and MW3. The remaining wells will be maintained, should future data indicate a need to incorporate any of them into the program.

Sampling of monitoring wells will be accomplished by a trained technician experienced in ground water sampling. Depth to water level from top of casing will be measured in each well prior to well evacuation and sample collection. Measurements will be made to the nearest 0.1 foot.

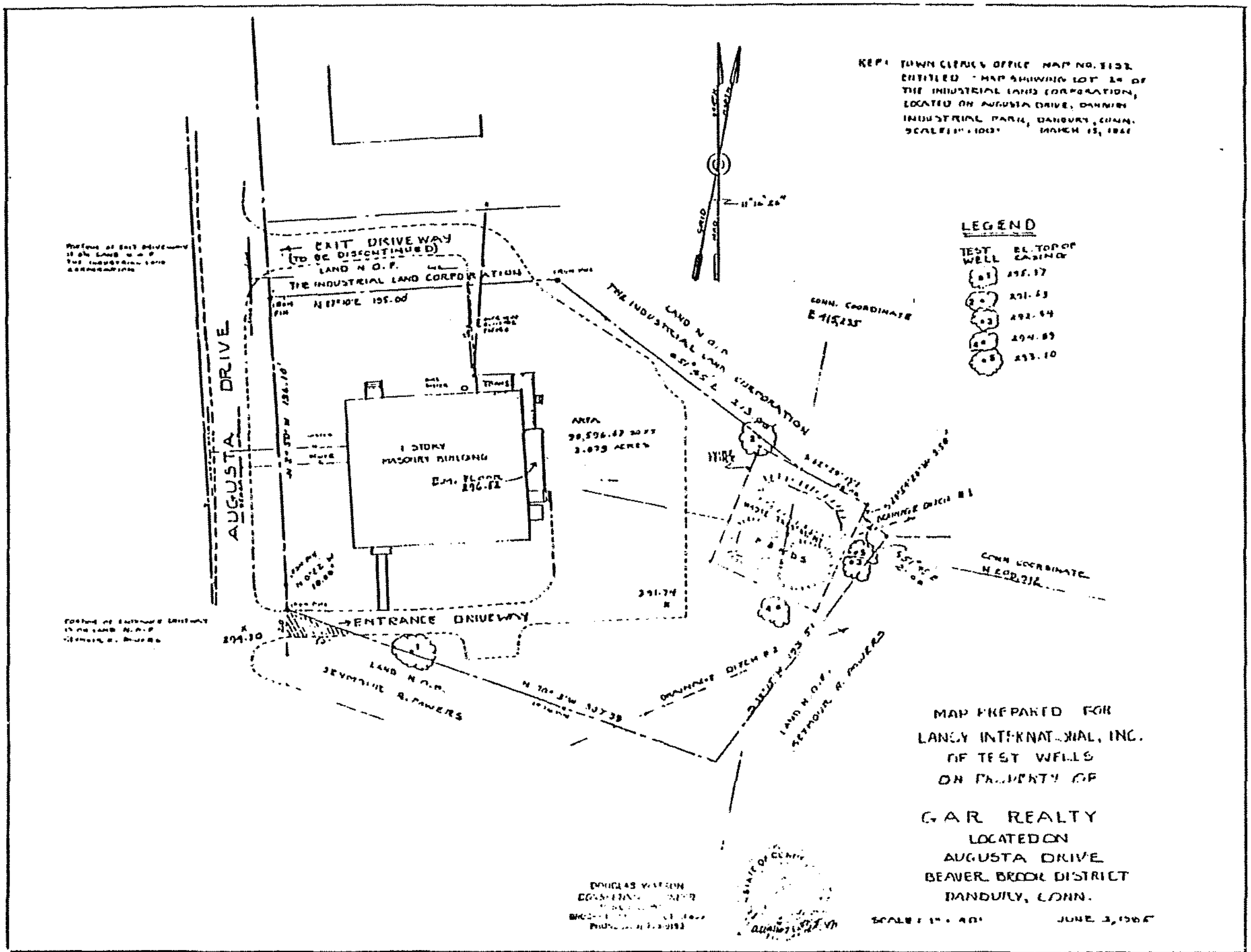


Figure 1
Well Locations

Using data calculated from the water level readings and known well specifications, the equivalent of three (3) times the volume of water standing in the well casing will be bailed from a given well prior to sample acquisition. Bailing will be accomplished with either a PCV or teflon bailer.

Actual well water samples will be collected using a teflon or stainless steel sampler. The bailer will be slowly lowered into the well to avoid aeration of the sample. Water is poured directly from the bailer into the sample bottles. Volatile organics vials will be filled first. All necessary preservatives will have been added to the appropriate sample bottles prior to the initiation of field sampling. Both the bailer and sampler will be thoroughly cleaned after activities at each well are completed. The cleaning procedure incorporates the following steps:

- o Wash with tap water supplied by the facility water system
- o Wash with acetone
- o Wash with distilled water

Handling and Sample Custody

Specifications for sample containers, chemical and physical stabilization, and sample holding times employed will conform to required practices outlined in 40 CFR 136, "Methods for Chemical Analysis of Water and Wastes" (EPA-600/4-79-020), and "Test Methods for Evaluating Solid Wastes", SW846. Samples will be packed in insulated transport cartons which include appropriate sample bottles and preservatives for each set of analyses, as well as "ice" packs to maintain sample refrigeration during transport to the laboratory.

Typical holding times for the analytical facility following receipt of a sample should fall within recommended holding times established by the U.S. EPA.

As a means of tracking samples and establishing Chain-of-Custody, Sampling Record Sheets will be used to record on-site data and descriptive notes on sampling conditions. Space is provided for the entry of the sampler's signature, a witness, the sampling date, time, and location of well. Sampling Record sheets accompany samples in the sample handling kits.

Samples will be received and unpacked in the laboratory shipping/receiving area by the Receiving Clerk who records and signs for the shipment, keeping a record of the date received, number and size of bottles received. The Receiving Clerk will notify the Sample Custodian of shipment arrivals. The following procedures will be utilized in the laboratory:

- Sample Custodian removes the samples from the Shipping/Receiving area to the laboratory where the samples are verified with incoming paperwork (packing slip, etc.) by type of bottle and stabilizer. The paperwork is initialed by the Sample Custodian.

- A Work Sheet is issued to each sample or group of samples. Information concerning the sample (from the Sampling Record) is entered on the Work Sheet to further identify the sample along with parameters to be analyzed, date of sampling, and date sample is received in lab. Sampling Records, along with any associated paperwork are maintained in the office of the Laboratory Supervisor for future inclusion, as necessary, with reports of analysis.

- Each sample is issued a Laboratory Reference Number which is listed in the sample control notebook, on incoming paperwork with the sample, and on the sample container. The numbers run consecutively as defined by the Laboratory Information Management System (LIMS).

- o Samples are placed in a secured, appropriate storage area, e.g. refrigeration, until analysis.
- o Upon completion of analyses, samples are stored for a one month period unless otherwise specified.
- o Analytical results and sample information will be maintained in the laboratory for a period of one year and in the laboratory archive for at least three years.

Sample Frequency

Sampling will normally take place during the first month of each calendar quarter with the report being submitted to CTDEP by the end of the second month of each calendar quarter. Variations from this schedule may occur to meet the needs of concurrent sampling by CTDEP or the constraints of inclimate weather. However, in all instances samples will be collected within each calendar quarter.

Analytical Parameters

Samples collected from each monitoring well will be analyzed for the parameters presented in the table on the following page. This list incorporates known parameters of concern as determined in the ground water quality assessment.

Methodology

All analyses will be performed by a Connecticut certified laboratory. Lancy Environmental Services the current laboratory maintains certification for these parameters and will perform the bulk of the analyses. A subcontracted certified laboratory will be utilized for any parameters for which Lancy does not maintain certification.

Sample analysis will be performed in accordance with the methodologies given in the table below.

Analytical Parameters

Parameter	Methodology[1]
pH	9040
Conductivity	9050
Copper	7210
Cyanide	9010
Nickel	7520
Volatile Organics	8010, 8020

[1] SW846, Test Methods for Evaluating Solid Waste, Third Edition

Reporting Format

All analytical data will be reported to CTDEP on forms supplied by the department's Water Compliance Unit.

7.5 Post-Closure Cost Estimate

The following table is a summary of estimated post-closure costs for the 30 year care period.

Post-Closure Cost Estimate

Total 30 Year Post-Closure Care
Costs in 1987 Dollars

I.	Ground Water Monitoring		
	Sampling - 3 hours/event - 4 events/year 2 men - $8/man hour		$ 5,760
	Analysis - 12 samples/year - $130/sample		$46,800
		Sub-Total	$52,560
II.	Inspection and Maintenance		
	Inspection - 20/year - 1 man 0.5 hours/inspection - $8/man hour		$ 2,400
	Fence Repair		$ 4,500
	Top Soil		$ 1,000
	Seed and Fertilizer		$ 1,000
	Labor for Repairs and Mowing - 2 men - $8/man hour - 3 days per year		$11,520
	Miscellaneous Materials		$ 1,000
		Sub-Total	$21,420
III.	Contingency (10%)		$ 7,398
		Total	$81,378

7.6 Post-Closure Financial Assurance

Financial assurance for post-closure care activities will be incorporated into the financial assurance letter of credit as specified in Section 6.11.

7.7 Certification of Post-Closure Care

Upon completion of the established post-closure care period, GAR will provide a certification signed by an officer of the company and an independent professional engineer, that post-closure care was performed in accordance with the plan described in Section 7.0.

The certification will be in accordance with 40 CFR 265.120 and will be submitted to the EPA regional office within 60 days from completion of post-closure activities.

ATTACHMENT A

GROUND WATER MONITORING DATA

LANCY LABORATORIES
Division, Lancy International, Inc.
525 W. New Castle St., P.O. Box 490
Zelienople, Pennsylvania 16063

ANALYSIS REPORT

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Attention: George A. Ray

Report Date 5/15/86
Collected 4/10/86 by JO
Received 4/15/86 by LS
Analyzed 4/15 - 5/14/86 by Staff
No. of Samples 5
P.O. # Verbal/George Ray

Second Quarter 1986 Groundwater Monitoring

Well #	1	2	3	4	5
Lab Reference #	19215 (mg/L)	19216 (mg/L)	19217 (mg/L)	19218 (mg/L)	19219 (mg/L)
Parameter					
*pH (SU)	6.4	6.4	6.5	6.3	7.0
Specific Conductivity (umhos/cm)	775	1350	4860	390	740
Organic Carbon, Total	7.5	7.0	5.3	6.9	5.7
Cyanide, Total	<0.01	<0.01	0.01	<0.01	<0.01
Chromium, Hexavalent	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium, Total	0.05	<0.05	<0.05	<0.05	0.10
Copper	0.20	0.25	0.28	0.24	1.91
Nickel	0.10	0.50	0.15	0.10	0.50
Silver	<0.01	<0.01	0.03	<0.01	0.01
*Depth of Cased Hole (ft)	26.25	20.25	21.66	22.16	34.91
*Depth to Water (ft)	7.5	4.0	5.0	6.91	5.15

*Field Measurements

C. John Ritzert, Manager-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming
Report Date: 5/15/86
Description: Volatile Organics
PO#/Chg.#: Verbal/George Ray

Well #	1	2	3	4	5
Lab Reference #	19215 (ug/L)	19216 (ug/L)	19217 (ug/L)	19218 (ug/L)	19219 (ug/L)
Parameter					
Benzene	<2	<1	<1	<1	<1
Bromoform	<50	<10	<10	<10	<10
Carbon tetrachloride	<50	<10	<10	<10	<10
Chlorobenzene	<2	<1	<1	<1	<1
Chlorodibromomethane	<50	<10	<10	<10	<10
Chloroform	<10	<2	<2	<2	<2
1,2-Dichlorobenzene	<10	<2	<2	<2	<2
1,3-Dichlorobenzene	<10	<2	<2	<2	<2
1,4-Dichlorobenzene	<10	<2	<2	<2	<2
Dichlorobromomethane	<25	<5	<5	<5	<5
1,1-Dichloroethane	47	<2	4.1	<2	<2
1,2-Dichloroethane	<10	<2	<2	<2	<2
1,1-Dichloroethylene	50	<5	21	<5	<5
1,2-Dichloropropane	<10	<2	<2	<2	<2
Ethylbenzene	<2	<1	<1	<1	<1
Methylene chloride	<25	<5	<5	<5	<5
Trans-1,3-Dichloropropylene	<25	<5	<5	<5	<5
Tetrachloroethylene	165	5.2	170	<5	3.1
Toluene	<2	<1	<1	<1	<1
1,2-trans-Dichloroethylene	135	4.2	30	<2	2.0
1,1,1-Trichloroethane	435	11	78	<2	2.2
1,1,2-Trichloroethane	<10	<2	<2	<2	<2
Trichloroethylene	935	64	695	24	23

C. John Ritzert-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.
525 W. New Castle St., P.O. Box 490
Zelienople, Pennsylvania 16063
An Alcoa Separations Technology Company

Report Date 8/12/86

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Collected 7/10/86 by JO
Received 7/14/86 by LS
Analyzed 7/14 - 8/6/86 by Staff
No. of Samples 5
P.O. # Verbal, Slip #14091

Attention: George A. Ray

Third Quarter 1986 Groundwater Monitoring   Order Entry #268

Well #	1	2	3	4	5
Lab Reference #	20871 (mg/L)	20872 (mg/L)	20873 (mg/L)	20874 (mg/L)	20875 (mg/L)
Parameter					
*pH (SU)	6.8	7.1	6.7	6.9	7.2
Specific Conductivity (umhos/cm)	700	1750	680	360	4600
Organic Carbon, Total	<5.0	5.0	6.1	<5.0	<5.0
Cyanide, Total	0.06	0.01	0.01	0.03	0.03
Chromium, Hexavalent	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium, Total	0.05	0.05	0.05	0.05	0.05
Copper	0.15	0.25	0.70	0.15	0.17
Nickel	0.10	0.70	0.30	0.05	0.10
Silver	<0.01	<0.01	<0.01	<0.01	0.01
*Depth of Cased Hole (ft)	26.25	20.25	21.66	22.16	34.91
*Depth to Water (ft)	17.5	5.083	6.33	8.16	6.29

*Field Measurements

C. John Ritzert, Manager--Technical Services

Form 9810-0983-2M

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming
Report Date: 8/12/86

Description: Halogenated Volatile Organics
PO#/Chg.#: Verbal, Slip #14091

Well #	1	2	3	4	5
Lab Reference #	20871	20872	20873	20874	20875
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Parameter					
Benzyl Chloride	<10	<10	<10	<10	<10
Bis(2-chloroethoxy) methane	<10	<10	<10	<10	<10
Bis(2-chloroisopropyl) ether	<10	<10	<10	<10	<10
Bromobenzene	<10	<10	<10	<10	<10
Bromodichloromethane	<10	<10	<10	<10	<10
Bromoform	<10	<10	<10	<10	<10
Bromomethane	<25	<25	<25	<25	<25
Carbon Tetrachloride	<10	<10	<10	<10	<10
Chloracetaldehyde	<10	<10	<10	<10	<10
Chloral	<10	<10	<10	<10	<10
Chlorobenzene	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10
Chloroform	<10	<10	<10	<10	<10
1-Chlorohexane	<10	<10	<10	<10	<10
2-Chloroethyl vinyl ether	<10	<10	<10	<10	<10
Chloromethane	<25	<25	<25	<25	<25
Chloromethyl methyl ether	<10	<10	<10	<10	<10
Chlorotoluene	<10	<10	<10	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<10
Dibromomethane	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10
Dichlorodifluoromethane	<10	<10	<10	<10	<10
1,1-Dichloroethane	89	<10	<10	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<10
1,1-Dichloroethylene	135	<10	<10	<10	40
trans-1,2-Dichloroethylene	200	<10	15	<10	140
Dichloromethane	<10	<10	<10	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<10
1,3-Dichloropropylene	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10
1,1,1,2-Tetrachloroethane	<10	<10	<10	<10	<10
Tetrachloroethylene	112	<10	12	<10	160
1,1,1-Trichloroethane	145	9.1	<10	<10	60
1,1,2-Trichloroethane	30	<10	<10	<10	21
Trichloroethylene	190	70	90	41	200
Trichlorofluoromethane	<10	<10	<10	<10	<10
Trichloropropane	<10	<10	<10	<10	<10
Vinyl Chloride	<50	<50	<50	<50	<50

C. John Ritzert, Manager-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.
525 W. New Castle St., P.O. Box 490
Zelienople, Pennsylvania 16063
An Alcoa Separations Technology Company

Report Date 11/6/86

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Attention: George A. Ray

Collected 10/7/86 by JO
Received 10/9/86 by LS
Analyzed 10/9 - 11/3/86 by Staff
No. of Samples 5
P.O. # Verbal, Slip #15077

Fourth Quarter 1986 Groundwater Monitoring Order Entry #268

Well #	1	2	3	4	5
Lab Reference #	22405 (mg/L)	22406 (mg/L)	22407 (mg/L)	22408 (mg/L)	22409 (mg/L)
Parameter					
*pH (SU)	6.8	7.1	7.6	7.1	7.0
Specific Conductivity (umhos/cm)	710	145	850	400	5800
Organic Carbon, Total	<5.0	<5.0	<5.0	<5.0	<5.0
Cyanide, Total	<0.01	<0.01	<0.01	<0.01	0.02
Chromium, Hexavalent	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium, Total	<0.05	<0.05	<0.05	0.05	<0.05
Copper	0.05	0.04	0.02	0.04	0.02
Nickel	0.10	0.40	0.15	0.10	0.20
Silver	<0.01	<0.01	<0.01	<0.01	0.01
*Depth of Cased Hole (ft)	26.25	20.25	21.66	22.2	34.91
*Depth to Water (ft)	8.25	4.7	5.83	8.0	6.0

*On site measurements

Lance S Insley, Laboratory Supvr. for CJR

C. John Ritzert, Manager-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming — Report Date: 11/6/86

Description: Halogenated Volatile Organics — PO#/Chg.#: Verbal, Slip #15077

Well #	1	2	3	4	5
Lab Reference #	22405	22406	22407	22408	22409
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Chloromethane	<5.0	<1.0	<1.0	<1.0	<2.0
Bromomethane	<5.0	<1.0	<1.0	<1.0	<2.0
Dichlorodifluoromethane	<5.0	<1.0	<1.0	<1.0	<2.0
Vinyl Chloride	<5.0	<1.0	<1.0	<1.0	<2.0
Chloroethane	<5.0	<1.0	<1.0	<1.0	<2.0
Methylene Chloride	<5.0	<1.0	<1.0	<1.0	<2.0
Trichlorofluoromethane	<5.0	<1.0	<1.0	<1.0	<2.0
1,1-Dichloroethylene	170	<1.0	<1.0	<1.0	24
1,1-Dichloroethane	195	<1.0	<1.0	<1.0	<2.0
Trans-1,2-Dichloroethylene	510	13	2.7	11	68
Chloroform	<5.0	<1.0	<1.0	<1.0	<2.0
1,2-Dichloroethane	1.0	1.0	<1.0	<1.0	<2.0
1,1,1-Trichloroethane	905	6.3	2.4	2.7	76
Carbon Tetrachloride	<5.0	<1.0	<1.0	<1.0	<2.0
Bromodichloromethane	<5.0	<1.0	<1.0	<1.0	<2.0
1,2-Dichloropropane	<5.0	<1.0	<1.0	<1.0	<2.0
Cis-1,3-Dichloropropene	<5.0	<1.0	<1.0	<1.0	<2.0
Trichloroethylene	595	77	30	66	415
Chlorodibromomethane	<5.0	<1.0	<1.0	<1.0	<2.0
1,1,2-Trichloroethane	<5.0	<1.0	<1.0	<1.0	<2.0
Trans-1,3-Dichloropropene	<5.0	<1.0	<1.0	<1.0	<2.0
2-Chloroethylvinyl Ether	<5.0	<1.0	<1.0	<1.0	<2.0
Bromoform	<25	<5.0	<5.0	<5.0	<10
1,1,2,2-Tetrachloroethane	*	*	*	*	*
Tetrachloroethylene	135	11	6.7	6.8	275
Chlorobenzene	<5.0	<1.0	<1.0	<1.0	<2.0
1,3-Dichlorobenzene	<5.0	<1.0	<1.0	<1.0	<2.0
1,2-Dichlorobenzene	<5.0	<1.0	<1.0	<1.0	<2.0
1,4-Dichlorobenzene	<5.0	<1.0	<1.0	<1.0	<2.0
Benzene	<5.0	<1.0	<1.0	<1.0	<2.0
Toluene	<5.0	<1.0	<1.0	<1.0	<2.0
Ethylbenzene	<5.0	<1.0	<1.0	<1.0	<2.0

*Due to the chemical similarity of Tetrachloroethylene and 1,1,2,2-Tetrachloroethane and the inherent limitations of gas chromatography methods, the separation of these two compounds is not always possible. Therefore, the concentration reported for Tetrachloroethylene represents that of either Tetrachloroethylene or 1,1,2,2-Tetrachloroethane or a combination of these two compounds.

Lana S. Ince, Laboratory Supervisor for CJR

C. John Ritzert, Manager-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.
525 W New Castle St., P.O. Box 490
Zelienople, Pennsylvania 16063
An Alcoa Separations Technology Company

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Attention: George A. Ray

Report Date 2/17/87

Collected 1/21/87 by JO
Received 1/23/87 by LS
Analyzed 1/23 - 2/16/87 by Staff
No. of Samples 5
P.O. # 22416 FR, Slip #15105

First Quarter, 1987 Groundwater Monitoring   Project #00829

Well #	1	2	3	4	5
Lab Reference #	24072 (mg/L)	24073 (mg/L)	24074 (mg/L)	24075 (mg/L)	24076 (mg/L)
Parameter					
*pH (SU)	6.5	7.2	6.9	6.9	7.2
Specific Conductivity (umhos/cm)	815	1010	625	350	6850
Organic Carbon, Total	5.2	5.1	8.8	5.0	14
Cyanide, Total	<0.01	<0.01	<0.01	<0.01	0.01
Chromium, Hexavalent	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium, Total	0.05	<0.05	<0.05	<0.05	<0.05
Copper	0.12	0.09	0.12	0.11	0.09
Nickel	0.10	0.25	0.10	0.10	0.15
Silver	<0.01	<0.01	<0.01	<0.01	0.01
*Depth of Cased Hole (ft)	26.25	20.25	21.66	22.16	34.91
*Depth to Water (ft)	7.8	3.66	4.75	6.75	5.0

*On site measurements

C. John Ritzert, Manager-Technical Services

Form 9810-0983-2M

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company GAR Electroforming Report Date 2/17/87

Description Halogenated Volatile Organics PO#/Chg.# 22416 FR, Slip 15105

Well #	1	2	3	4	5
Lab Reference #	24072 (ug/L)	24073 (ug/L)	24074 (ug/L)	24075 (ug/L)	24076 (ug/L)
Chloromethane	<5.0	<1.0	<1.0	<1.0	<5.0
Bromomethane	<5.0	<1.0	<1.0	<1.0	<5.0
Dichlorodifluoromethane	<5.0	<1.0	<1.0	<1.0	<5.0
Vinyl Chloride	<5.0	<1.0	<1.0	<1.0	<5.0
Chloroethane	<5.0	<1.0	<1.0	<1.0	<5.0
Methylene Chloride	<5.0	<1.0	<1.0	<1.0	<5.0
Trichlorofluoromethane	<5.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethylene	<5.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethane	<5.0	<1.0	<1.0	<1.0	<5.0
Trans-1,2-Dichloroethylene	36	4.7	2.1	<1.0	27
Chloroform	<5.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,1-Trichloroethane	130	26	<1.0	<1.0	70
Carbon Tetrachloride	<5.0	<1.0	<1.0	<1.0	<5.0
Bromodichloromethane	<5.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichloropropane	<5.0	<1.0	<1.0	<1.0	<5.0
Cis-1,3-Dichloropropene	<5.0	<1.0	<1.0	<1.0	<5.0
Trichloroethylene	310	25	19	16	345
Chlorodibromomethane	<5.0	<1.0	<1.0	<1.0	<5.0
1,1,2-Trichloroethane	<5.0	<1.0	<1.0	<1.0	<5.0
Trans-1,3-Dichloropropene	<5.0	<1.0	<1.0	<1.0	<5.0
2-Chloroethylvinyl Ether	<5.0	<1.0	<1.0	<1.0	<5.0
Bromoform	<50	<10	<10	<10	<50
1,1,2,2-Tetrachloroethane	*	<1.0	*	<1.0	*
Tetrachloroethylene	77	<1.0	2.6	<1.0	105
Chlorobenzene	<5.0	<1.0	<1.0	<1.0	<5.0
1,3-Dichlorobenzene	<25	<5.0	<5.0	<5.0	<25
1,2-Dichlorobenzene	<25	<5.0	<5.0	<5.0	<25
1,4-Dichlorobenzene	<25	<5.0	<5.0	<5.0	<25
Benzene	<5.0	<1.0	<1.0	<1.0	<5.0
Toluene	<5.0	<1.0	<1.0	<1.0	<5.0
Ethylbenzene	<5.0	<1.0	<1.0	<1.0	<5.0

*Due to the chemical similarity of Tetrachloroethylene and 1,1,2,2-Tetrachloroethane and the inherent limitations of gas chromatography methods, the separation of these two compounds is not always possible. Therefore, the concentration reported for Tetrachloroethylene represents that of either Tetrachloroethylene or 1,1,2,2-Tetrachloroethane or a combination of these two compounds.

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

Report Date 7/28/87

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Attention: George A. Ray

Sample Date 7/6/87 by JO
Received 7/9/87 by FM
Analyzed 7/9 - 7/28/87 by Staff
No. of Samples 5
Purchase Order # 22416FR, Slip 14302

1987 Ground Water Monitoring

Project #00829

Well #	1	2	3	4	5
Lab Reference #	28563 (mg/L)	28564 (mg/L)	28565 (mg/L)	28566 (mg/L)	28567 (mg/L)
Parameter					
*pH (SU)	6.4	6.7	6.7	6.3	7.3
Specific Conductance (umhos/cm)	720	750	440	275	3650
Organic Carbon, Total	31	21	26	19	43
Cyanide, Total	0.01	0.03	0.09	0.23	0.08
Chromium, Hexavalent	0.01	<0.01	<0.01	<0.01	<0.01
Chromium, Total	0.05	<0.05	<0.05	<0.05	0.05
Copper	0.03	0.03	0.02	0.02	0.08
Nickel	<0.05	0.30	<0.05	<0.05	0.10
Silver	<0.01	<0.01	<0.01	<0.01	<0.01
*Depth of Casing Hole (ft)	26.25	20.25	21.66	22.16	34.91
*Depth to Water (ft)	8.3	4.8	5.8	8.0	6.1

*On Site Measurements

for C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ANALYSIS REPORT

GAR Electroforming
Halogenated Volatile Organics

7/28/87
22416 FR

Project #20289

Well #	1	2	3	4	5
Lab Reference #	20563	20564	20565	20566	20567
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Volatile Organics					
Chloromethane	<10	<1.0	<1.0	<1.0	<5.0
Bromomethane	<10	<1.0	<1.0	<1.0	<5.0
Dichlorodifluoromethane	<10	<1.0	<1.0	<1.0	<5.0
Vinyl Chloride	<10	<1.0	<1.0	<1.0	<5.0
Chloroethane	<10	<1.0	<1.0	<1.0	<5.0
Methylene Chloride	<10	<1.0	<1.0	<1.0	<5.0
Trichlorofluoromethane	<10	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethylene	54	2.2	<1.0	<1.0	8.7
1,1-Dichloroethane	26	1.6	<1.0	<1.0	5.0
Trans-1,2-Dichloroethylene	149	6.7	1.4	3.3	33
Chloroform	<10	<1.0	<1.0	<1.0	<5.0
1,2-Dichloroethane	<10	<1.0	<1.0	<1.0	<5.0
1,1,1-Trichloroethane	280	8.0	1.0	1.0	36
Carbon Tetrachloride	<10	<1.0	<1.0	<1.0	<5.0
Bromodichloromethane	<10	<1.0	<1.0	<1.0	<5.0
1,2-Dichloropropane	<10	<1.0	<1.0	<1.0	<5.0
Cis-1,3-Dichloropropene	<10	<1.0	<1.0	<1.0	<5.0
Trichloroethylene	493	33	15	25	238
Chlorodibromomethane	<10	<1.0	<1.0	<1.0	<5.0
1,1,2-Trichloroethane	<10	<1.0	<1.0	<1.0	<5.0
Trans-1,3-Dichloropropene	<10	<1.0	<1.0	<1.0	<5.0
2-Chloroethylvinyl Ether	<10	<1.0	<1.0	<1.0	<5.0
Bromoform	<100	<10	<10	<10	<50
1,1,2,2-Tetrachloroethane	*	*	*	*	*
Tetrachloroethylene	106	5.9	2.4	1.7	108
Chlorobenzene	<10	<1.0	<1.0	<1.0	<5.0
1,3-Dichlorobenzene	<50	<5.0	<5.0	<5.0	<25
1,2-Dichlorobenzene	<50	<5.0	<5.0	<5.0	<25
1,4-Dichlorobenzene	<50	<5.0	<5.0	<5.0	<25
Benzene	<10	<1.0	<1.0	<1.0	<5.0
Toluene	<10	<1.0	<1.0	<1.0	<5.0
Ethylbenzene	<10	<1.0	<1.0	<1.0	<5.0

*Due to the chemical similarity of Tetrachloroethylene and 1,1,2,2-Tetrachloroethane and the inherent limitations of gas chromatography methods, the separation of these two compounds is not always possible. Therefore, the concentration reported for Tetrachloroethylene represents that of <u>either</u> Tetrachloroethylene <u>or</u> 1,1,2,2-Tetrachloroethane <u>or</u> a combination of these two compounds.

C. John Ritzert, Manager-Technical Operations

ATTACHMENT B

BORING LOGS

SOIL SAMPLING LOG

CONNECTICUT TEST BORINGS, INC.

Sub-Surface Specialists

P.O. BOX 69
SEYMOUR, CONNECTICUT
(203) 888-3857

DATE START 4-29-85

DATE FINISH 4-29-85

WEIGHT OF HAMMER 140 300

HAMMER FALL 30 24

GROUND WATER OBSERVATIONS

DATE	TIME	DEPTH
4-29-85	0 hrs.	7'

SAMPLER O.D. 2" I.D. 1 3/8"

TYPE OF RIG Hydraulic Rotary

ESPECIALLY COMPILED FOR

Mr. Roger Dhonau
Lancy Laboratories
525 West New Castle Street
Zelienople, PA 16063

SHEET 1 OF 1

PROJ NO

LOCATION GAR Electro Forming, Inc

LINE & STA. Danbury, CT

OFFSET

GROUND ELEVATION

HOLE NO. B-1

	CASING	SAMPLER	CORE BARREL
TYPE	HSA	SS	
SIZE I.D.	3½"	1 3/8"	

DEPTH BELOW SURFACE	SAMPLE NO DEPTHS ELEV FT	Type of Sample	BLOWS PER 6" ON SAMPLER From 0-6	TO 6-12	12-18	DENSITY OR CONSIST. MOISTURE	PROFILE CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOILS REMARKS	SAMPLE NO	PEN	REC
							6"	Topsoil.			
								Br. f-c sand and f-c gravel, some cobbles (fill).			
	5' to 6'6"	SS	13	18	24	Dense moist	5'		1	18	12
								Br. f-c sand, lit. f-m gravel.			
							8'				
10	10' to 11'6"	SS	6	7	8	M.Comp wet		Br. f-c sand, lit. f-m gravel, tr. silt.	2	18	18
	15' to 16'6"	SS	13	9	10	M.Comp wet		Br. f-c sand, tr. silt.	3	18	18
20	20' to 21'6"	SS	1	4	16	M.Comp wet	21'	Same	4	18	18
							23'	Br. f-c sand, some f-c gravel, tr. silt.			
	25' to 26'6"	SS	3	7	11	M.Comp wet	25'6"	Gry v.f-sand and silt.	5	18	18
30								Bottom of boring 26'6".			
								NOTE: Installed 2" PVC water observation pipe w/10' screen 25' below grade. Used filter fabric on entire length of screen. Installed 6" x 5'3" steel protective pipe w/locking cap.			
40											

NOT RESPONSIBLE FOR SAMPLE STORAGE AFTER 30 DAYS

Proportions used: trace = 0-10%, little = 10-20%, some = 20-35%, and = 35-50%

DRILLER: M.M.

HELPER: D.C.

SOILS ENGINEER

DRILLING INSPECTOR

SAMPLE TYPE
C = CORED W = WASHED
SS = SPLIT SPOON
UP = UNDISTURBED PISTON
TP = TEST PIT
UT = UNDISTURBED THINWALL

COHESIONLESS DENSITY
0-10 LOOSE
10-30 MED. COMP.
30-50 DENSE
50+ VERY DENSE

TOTAL FOOTAGE:
Earth Boring Ft
Rock Coring Ft
HOLE NO

SOIL SAMPLING LOG

CONNECTICUT TEST BORINGS, INC.

Sub-Surface Specialists

P O BOX 69
SEYMOUR, CONNECTICUT
(203) 888-3857

DATE START 4-30-85

DATE FINISH 4-30-85

WEIGHT OF HAMMER 140 300

HAMMER FALL 30" 24

GROUND WATER OBSERVATIONS

DATE	TIME	DEPTH
4-30-85	0 hrs.	2'6"

SAMPLER O.D. 2" I.D. 1 3/8"

TYPE OF RIG Hydraulic Rotary

ESPECIALLY COMPILED FOR

Mr. Roger Dhoneu
Lancy Laboratories
525 West New Castle Street
Zelienople, PA 16063

SHEET 1 OF 1

PROJ NO

LOCATION GAR Electro Forming, Inc.

LINE & STA. Danbury, CT

OFFSET

GROUND ELEVATION

HOLE NO. B-2

	CASING	SAMPLER	CORE BARREL
TYPE	HSA	SS	
SIZE I.D.	3½"	1 3/8"	

DEPTH BELOW SURFACE	SAMPLE NO DEPTHS ELEV FT	Type of Sample	BLOWS PER 6 ON SAMPLER From 0-6	TO 6-12	12-18	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOILS REMARKS	SAMPLE NO	PEN	REC
							6"I	Drk br. topsoil.			
	q							Br. f-c sand and c-f gravel.			
							4'				
	5'to 6'6"	SS	1	1	1	Loose wet		Br. f-c sand w/gravel, tr. silt.	1	18	0
							7'				
10	10'to 11'6"	SS	10	11	10	M.Comp wet		Br. c-f sand w/gravel, tr. silt.	2	18	16
	15'to 16'6"	SS	5	4	7	M.Comp wet	16'4"	Same	3	18	16
	18'to 19'6"	SS	4	6	6	M.Comp wet	19'6"	Gry silt and v.f-sand.	4	18	18
20											
								Bottom of boring 19'6".			
								NOTE: Installed 2" PVC water observation pipe w/10' screen 18' below grade, 2' above grade. Used filter fabric on entire lenghh of screen. Installed 6" x 5'3" steel protective pipe w/locking cap.			
30											
40											

NOT RESPONSIBLE FOR SAMPLE STORAGE AFTER 30 DAYS

Proportions used: trace = 0-10%, little = 10-20%, some = 20-35%, and = 35-50%

DRILLER: M.K.

HELPER: J.E.

SOILS ENGINEER

DRILLING INSPECTOR

SAMPLE TYPE
C = CORED W = WASHED
SS = SPLIT SPOON
UP = UNDISTURBED PISTON
TP = TEST PIT
UT = UNDISTURBED THINWALL

COHESIONLESS DENSITY
0-10 LOOSE
10-30 MED. COMP
30-50 DENSE
50+ VERY DENSE

TOTAL FOOTAGE:
Earth Boring Ft.
Rock Coring Ft
HOLE NO

SOIL SAMPLING LOG

CONNECTICUT TEST BORINGS, INC.

Sub-Surface Specialists
P O BOX 69
SEYMOUR, CONNECTICUT
(203) 888-3857

SHEET 1 OF 1

DATE START 4-29-85
DATE FINISH 4-29-85
WEIGHT OF HAMMER 140 ~~300~~
HAMMER FALL 30 24"

GROUND WATER OBSERVATIONS

DATE	TIME	DEPTH
4-29-85	0 hrs.	3'

SAMPLER O.D. 2" I.D. 1 3/8"
TYPE OF RIG Hydraulic Rotary

ESPECIALLY COMPILED FOR
Mr. Roger Dhonau
Lancy Laboratories
525 West New Castle Street
Zelienople, PA 16063

PROJ NO
LOCATION GAR Electro Forming, Inc
~~LINE & STA.~~ Danbury, CT
OFFSET
GROUND ELEVATION
HOLE NO. B-3

	CASING	SAMPLER	CORE BARREL
TYPE	HSA	SS	
SIZE I.D.	3¼"	1 3/8"	

DEPTH BELOW SURFACE	SAMPLE NO DEPTHS ELEV FT	Type of Sample	BLOWS PER 6" ON SAMPLER From 0-6	TO 6-12	12-18	DENSITY OR CONSIST. MOISTURE	PROFILE CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOILS REMARKS	SAMPLE NO	PEN	REC
							10"	Topsoil, w/boulder.			
							3'	Br. f-c sand, some silt, lit. f-c grav., tr. cobbles.			
	5'to 6'6"	SS	24	26	25	V.Dense wet	8'6"	Br. c-f sand, some f-c gravel, lit. cobbles, tr. silt.	1	18	15
10	10'to 11'6"	SS	9	10	14	M.Comp wet		Br. f-c sand, tr. silt.	2	18	17
	15'to 15'10"	SS	30	50/4		V.Dense wet	17'	Same	3	10	8
20	20'to 21'6"	SS	3	4	5	Loose wet	21'6"	Gry v.f-sand, some silt.	4	18	16
30								Bottom of boring 21'6".			
								NOTE: Installed 2" PVC water observation pipe w/10' screen 20'4" below grade, 8" above grade. Used filter fabric on entire length of screen. Installed 6" x 5'3" steel protective pipe w/locking cap.			
40											

NOT RESPONSIBLE FOR SAMPLE STORAGE AFTER 30 DAYS

Proportions used: trace = 0-10%, little = 10-20%, some = 20-35%, and = 35-50%

DRILLER: M.K.
HELPER: J.B.
SOILS ENGINEER
DRILLING INSPECTOR

SAMPLE TYPE
C = CORED W = WASHED
SS = SPLIT SPOON
UP = UNDISTURBED PISTON
TP = TEST PIT
UT = UNDISTURBED THINWALL

COHESIONLESS DENSITY
0-10 LOOSE
10-30 MED. COMP.
30-50 DENSE
50+ VERY DENSE

TOTAL FOOTAGE:
Earth Boring Ft
Rock Coring Ft
HOLE NO

SOIL SAMPLING LOG

CONNECTICUT TEST BORINGS, INC.

Sub-Surface Specialists

P O BOX 69
SEYMOUR, CONNECTICUT
(203) 888-3857

SHEET 1 OF 1

DATE START 4-29-85
DATE FINISH 4-29-85
WEIGHT OF HAMMER 140 300
HAMMER FALL ....30 24 ....

GROUND WATER OBSERVATIONS

DATE	TIME	DEPTH
4-29-85	0 hrs.	6'6"

SAMPLER O D. 2" I.D 1 3/8"
TYPE OF RIG Hydraulic Rotary

ESPECIALLY COMPILED FOR
Mr. Roger Dhonau
Lancy Laboratories
525 West New Castle Street
Zelienople, PA 16063

PROJ NO
LOCATION GAR Electro Forming, Inc
LINE & STA. Danbury, CT
OFFSET
GROUND ELEVATION
HOLE NO. B-4

	CASING	SAMPLER	CORE BARREL
TYPE	HSA	SS	
SIZE I.D.	3½"	1 3/8"	

DEPTH BELOW SURFACE	SAMPLE NO DEPTHS ELEV FT	Type of Sample	BLOWS PER 6" ON SAMPLER From 0-6	TO 6-12	12-18	DENSITY OR CONSIST. MOISTURE	PROFILE CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOILS REMARKS	SAMPLE NO	PEN	REC
							1'	Topsoil.			
								Br. blk f-c sand, some f-c gravel, tr. cobbles, tr. silt (fill).			
	5'to 6'6"	SS	24	30	24	V.Dense wet		Same	1	18	18
							7'				
10	10'to 11'6"	SS	12	14	13	M.Comp wet		Br. f-c sand, some f-m gravel, tr. silt.	2	18	12
	15'to 16'6"	SS	19	12	13	M.Comp wet		Same (no silt)	3	18	18
20	20'to 21'6"	SS	12	11	12	M.Comp wet	21'		4	18	6
							21'6"	Gry silt, tr. v.f-sand.			
								Bottom of boring 21'6".			
30								NOTE: Installed 2" PVC water observation pipe w/10' screen 20' below grade. Used filter fabric on entire length of screen. Installed 6" x 5'3" steel protective pipe w/locking cap.			
40											

NOT RESPONSIBLE FOR SAMPLE STORAGE AFTER 30 DAYS

Proportions used: trace = 0-10%, little = 10-20%, some = 20-35%, and = 35-50%

DRILLER: M.M.
HELPER: D.C.
SOILS ENGINEER
DRILLING INSPECTOR

SAMPLE TYPE
C = CORED W = WASHED
SS = SPLIT SPOON
UP = UNDISTURBED PISTON
TP = TEST PIT
UT = UNDISTURBED THINWALL

COHESIONLESS DENSITY
0-10 LOOSE
10-30 MED. COMP
30-50 DENSE
50+ VERY DENSE

TOTAL FOOTAGE:
Earth Boring Ft
Rock Coring Ft.
HOLE NO

SOIL SAMPLING LOG

CONNECTICUT TEST BORINGS, INC.

Sub-Surface Specialists

P O BOX 69
SEYMOUR, CONNECTICUT
(203) 888-3857

SHEET 1 OF 1

DATE START 4-29-85

DATE FINISH 4-29-85

WEIGHT OF HAMMER 140 ~~300~~

HAMMER FALL 30 24

GROUND WATER OBSERVATIONS

DATE	TIME	DEPTH
4-29-85	0 hrs.	3'6"

SAMPLER O.D 2" I.D. 1 3/8"

TYPE OF RIG Hydraulic Rotary

ESPECIALLY COMPILED FOR

Mr. Roger Dhonau
Lancy Laboratories
525 West New Castle Street
Zelienople, PA 16063

PROJ NO

LOCATION GAR Electro Forming, Inc

~~LINE & STA~~ Danbury, CT

OFFSET

GROUND ELEVATION

HOLE NO B-5

	CASING	SAMPLER	CORE BARREL
TYPE	FWC	SS	
SIZE I.D.	4"	1 3/8"	

DEPTH BELOW SURFACE	SAMPLE NO DEPTHS ELEV FT	Type of Sample	BLOWS PER 6 ON SAMPLER From 0-6	TO 6-12	12-18	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV	FIELD IDENTIFICATION OF SOILS REMARKS	SAMPLE NO	PEN	REC
							10"	Topsoil w/boulder.			
10								Refer to B-3			
20											
	25'to ~~26'6"~~	SS	6	7	10	M.Comp wet		Gry silt and v.f-sand.	1	18	14
							28'				
30	30'to 31'6"	SS	15	25	25	Dense wet		Gry f-c sand, some f-c grav., tr. cobs. tr. silt.	2	18	15
							34'	Refusal on FWC. Bottom of boring 34'.			
								NOTE: Installed 2" PVC water observation pipe w/5' screen 34' below grade, 1' above grade. Installed 6" x 5'3" steel protective pipe w/locking cap.			
40											

Proportions used: trace = 0-10%, little = 10-20%, some = 20-35%, and = 35-50%

NOT RESPONSIBLE FOR SAMPLE STORAGE AFTER 30 DAYS

DRILLER: M.K.
HELPER: J.B.
SOILS ENGINEER
DRILLING INSPECTOR

SAMPLE TYPE
C = CORED W = WASHED
SS = SPLIT SPOON
UP = UNDISTURBED PISTON
TP = TEST PIT
UT = UNDISTURBED THINWALL

COHESIONLESS DENSITY
0-10 LOOSE
10-30 MED. COMP.
30-50 DENSE
50+ VERY DENSE

TOTAL FOOTAGE:
Earth Boring Ft
Rock Coring Ft
HOLE NO.

ATTACHMENT C

SITE EVALUATION ANALYSIS

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.
525 W. New Castle St., P.O. Box 490
Zelienople, Pennsylvania 16063

GAR Electroforming
P. O. Box 340
Danbury, CT 06810

Attention: George A. Ray

Report Date 2/27/86

Collected 12/12/85 by RD
Received 12/18/85 by LS
Analyzed 12/18 - 2/7/86 by Staff
No. of Samples 19
P.O. # 21365

Site Evaluation Samples

Sample #	A-1-1	A-1-2	A-1-3	A-1-4
Lab Reference #	17324	17325	17326	17327
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.8	8.9	8.9	9.0
Solids, Total	73 %	86 %	78 %	65 %
Cyanide, Total	4.0	0.5	4.1	65
Cadmium	5.8	<2.0	1.6	<1.5
Chromium	110	8.4	110	90
Nickel	8300	635	5800	3200
Aluminum	10000	3000	7800	3200
Copper	5400	575	2000	2500
Silver	100	14	95	610

Sample #	A-2-1	A-2-2	A-3-1	B-2-1
Lab Reference #	17328	17329	17330	17331
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.6	8.4	8.3	8.6
Solids, Total	82 %	81 %	36 %	76 %
Cyanide, Total	2.4	29	9.6	1.5
Cadmium	<2.0	<2.0	5.8	3.0
Chromium	49	100	325	52
Nickel	2800	3600	12000	6300
Aluminum	4800	5400	5000	3800
Copper	815	1000	7100	2900
Silver	37	76	115	22

Note: Analyses reported on a Wet Weight Basis

C. John Ritzert, Manager-Technical Services

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company GAR Electroforming — Report Date 2/27/86

Description Site Evaluation Samples — PO#/Chg.# 21365

Sample #	B-3-1	BAC-1	C-1	C-2
Lab Reference #	17332	17333	17334	17335
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	8.7	5.3	7.7	7.5
Solids, Total	81 %	85 %	90 %	75 %
Cyanide, Total	<0.5	<0.5	<0.5	<0.5
Cadmium	4.9	<2.0	<2.0	<1.5
Chromium	57	16	18	15
Nickel	2400	<10	18	7.5
Aluminum	4100	13000	9000	9600
Copper	1200	9.9	18	16
Silver	14	3.3	3.6	3.0

Sample #	C-3	C-4	C-5	C-6
Lab Reference #	17336	17337	17338	17339
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
pH (SU)	7.2	6.1	7.0	7.3
Solids, Total	87 %	84 %	81 %	90 %
Cyanide, Total	<0.5	<0.5	<0.5	<0.5
Cadmium	<2.0	18	<2.0	<2.0
Chromium	26	25	23	27
Nickel	8.7	420	16	44
Aluminum	13000	14000	12500	12000
Copper	16	15	14	27
Silver	3.5	3.4	1.6	1.8

Note: Analyses reported on a Wet Weight Basis

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming — Report Date: 2/27/86

Description: EP TOX and ASTM Leachates — PO#/Chg.#: 21365

EP TOX Leachates

Sample #	BAC-1	C-1	C-2	C-3
Lab Reference #	17340	17341	17342	17343
	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Parameter				
Arsenic	<0.05	<0.05	<0.05	<0.05
Barium	<2.0	<2.0	2.0	2.0
Cadmium	<0.1	<0.1	<0.1	<0.1
Chromium	<0.5	<0.5	<0.5	<0.5
Lead	<0.5	<0.5	<0.5	<0.5
Mercury	<0.002	<0.002	<0.002	<0.002
Selenium	<0.05	<0.05	<0.05	<0.05
Silver	<0.1	<0.1	<0.1	<0.1
Nickel	<0.5	<0.5	<0.5	<0.5
Aluminum	<1.0	<1.0	<1.0	<1.0
Copper	<0.1	<0.1	<0.1	<0.1
Zinc	0.6	<0.5	<0.5	0.7

ASTM Leachates

Sample #	BAC-1	C-1	C-2	C-3
Lab Reference #	17347	17348	17349	17350
	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Parameter				
Cyanide, Total	0.01	0.02	<0.01	0.02
Chromium, Hexavalent	<0.01	<0.01	<0.01	<0.01

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming   Report Date: 2/27/86

Description: EP TOX and ASTM Leachates   PO#/Chg.#: 21365

EP TOX Leachates

Sample #	C-4	C-5	C-6
Lab Reference #	17344	17345	17346
	(mg/L)	(mg/L)	(mg/L)
Parameter			
Arsenic	<0.05	<0.05	<0.05
Barium	<2.0	<2.0	<2.0
Cadmium	<0.1	<0.1	<0.1
Chromium	<0.5	<0.5	<0.5
Lead	<0.5	<0.5	<0.5
Mercury	<0.002	<0.002	<0.002
Selenium	<0.05	<0.05	<0.05
Silver	<0.1	<0.1	<0.1
Nickel	7.7	<0.5	<0.5
Aluminum	<1.0	<1.0	<1.0
Copper	<0.1	0.2	<0.1
Zinc	0.5	0.9	<0.5

ASTM Leachates

Sample #	C-4	C-5	C-6
Lab Reference #	17351	17352	17353
	(mg/L)	(mg/L)	(mg/L)
Parameter			
Cyanide, Total	0.02	0.01	<0.01
Chromium, Hexavalent	<0.01	0.02	<0.01

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company GAR Electroforming — Report Date 2/27/86

Description Sludges A & B — PO#/Chg.# 21365

Sample	Sludge A	Sludge B
Lab Reference #	17356	17357
Parameter		
Physical State	Semi-Solid	Semi-Solid
Specific Gravity	1.17	1.24
Flash Point	N/A*	N/A*
Viscosity	N/A*	N/A*
pH (SU)	7.9	8.0
Layering	None	None
Solids, Total	21%	30%
Ash	18%	26%
Water	79%	70%
	(mg/Kg)	(mg/Kg)
Carbonate	<35 (g/Kg)	<35 (g/Kg)
Sulfate	3.2	3.9
Calcium	910	1400
Chromium	230	320
Iron	6300	2000
Nickel	31.5 (g/Kg)	44 (g/Kg)
Arsenic	18	20
Cadmium	15	5.6
Chloride	640	390
Chromium, Hexavalent	<0.15	0.88
Copper	38 (g/Kg)	22 (g/Kg)
Cyanide, Total	9.8	5.6
Lead	46	18
Mercury	0.24	0.20
Sulfur	1070	1300
Sulfide	<10	<10
Zinc	1000	160
Corrosivity	Non-Corrosive	Non-Corrosive
Ignitability	Non-Ignitable	Non-Ignitable
Reactivity	Non-Reactive	Non-Reactive

* Not Applicable

Analyses reported on a wet weight basis.

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming — Report Date: 2/27/86

Description: Volatile Organics — PO#/Chg.#: 21365

Sample #	Sludge A	Sludge B
Lab Reference #	17356 (ug/L)	17357 (ug/L)
Parameter		
Benzene	<20	<20
Bromoform	<500	<500
Carbon tetrachloride	<500	<500
Chlorobenzene	<20	<20
Chlorodibromomethane	<500	<500
Chloroform	<100	<100
1,2-Dichlorobenzene	<100	<100
1,3-Dichlorobenzene	<100	<100
1,4-Dichlorobenzene	<100	<100
Dichlorobromomethane	<250	<250
1,1-Dichloroethane	<100	<100
1,2-Dichloroethane	<100	<100
1,1-Dichloroethylene	<250	<250
1,2-Dichloropropane	<100	<100
Ethylbenzene	<20	<20
Methylene chloride	<250	<250
Trans-1,3-Dichloropropylene	<250	<250
Tetrachloroethylene	<250	<250
Toluene	<20	<20
1,2-trans-Dichloroethylene	<100	<100
1,1,1-Trichloroethane	<100	<100
1,1,2-Trichloroethane	<100	<100
Trichloroethylene	<100	<100

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming
Report Date: 2/27/86
Description: EPTOX Leachates
PO#/Chg.#: 21365

Sample	EPTOX Leach Sludge A	EPTOX Leach Sludge B
Lab Reference #	17358 (mg/L)	17359 (mg/L)
Parameter		
Arsenic	<0.05	<0.05
Barium	2.0	<2.0
Cadmium	0.4	0.3
Chromium	<0.5	<0.5
Lead	<0.5	<0.5
Mercury	<0.004	<0.004
Nickel	185	405
Selenium	<0.05	<0.05
Silver	<0.1	<0.1

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ANALYSIS REPORT

LANCY LABORATORIES
Division, Lancy International, Inc.

Company: GAR Electroforming
Report Date: 2/27/86
Description: Pumice Lagoon
PO#/Chg.#: 21365

Sample	Pumice Lagoon
Lab Reference #	17354 (mg/Kg)
Parameter	
pH (SU)	7.2
Cyanide, Total	4.8
Sulfur	53
Cadmium	8.4
Chromium	70
Nickel	630
Corrosivity	Non-Corrosive
Ignitability	Non-Ignitable
Reactivity	Non-Reactive
Sample	EPTOX Pumice Sludge A
Lab Reference #	17355 (mg/L)
Parameter	
Arsenic	<0.05
Barium	2.0
Cadmium	0.2
Chromium	<0.5
Lead	<0.5
Mercury	<0.002
Nickel	11
Selenium	<0.05
Silver	<0.1

C. John Ritzert, Manager-Technical Services

Form 9824-0583-500

ATTACHMENT D

MANIFESTS FOR WASTE REMOVAL

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. 34914 GTD0648 ~~xxxxxx~~ 40 0 0 0 1 — Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming, Augusta Drive
~~xxxxxxxxxx~~ Danbury, CT 06810

4. Generator's Phone (203) 744-5500

A. State Manifest Document Number: MA C028317

B. State Gen. ID

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: NYD980762114O

C. State Trans. ID

7. Transporter 2 Company Name
8. US EPA ID Number

D. Transporter's Phone (413) 527-5600

E. State Trans. ID

9. Designated Facility Name and Site Address
Stablex Canada
760 Bouldindustriel
Blainville, Quebec Canada

10. US EPA ID Number: NYD980756415

F. Transporter's Phone ( )

G. State Facility's ID: Not Required

H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, N.O.S. ORM-E 9189	001	C,M	30	Y	F008
b. Trailer # 1292711 69,000 - Gross					
c. 31,000 - Tare					
37,400 lbs					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. ~~CT Manifest Unavailable~~
BSKGARD01 - Stablex
b. Cost for waste
c.
d.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date (Month Day Year)
George A. Ray, President	[signature]	11 03 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Real Poirier	[signature]	11 03 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date (Month Day Year)

GENERATOR — TRANSPORTER — FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA C028317 COPY 6: DESTINATION STATE-MAILED BY GENERATOR

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. C T D 0 6 4 8 ~~XXXXXXXX~~ 3 4 9 1 4 — Manifest Document No. 0 0 0 0 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming , Augusta Drive
~~[illegible] Drive~~ Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA CD28318
B. State Gen. ID: ~~same~~

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: N Y D 9 8 0 7 6 2 1 4 0
C. State Trans. ID: R 900 986
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Trans. ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada
760 Boul Industrial
Blainville, Quebec Canada
10. US EPA ID Number: N Y D 9 8 0 7 5 6 4 1 5
G. State Facility's ID: Not Required
H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a. Hazardous Waste Solid, N.O.S. ORM-E 9189	0 1	CM	3 0	Y	F 006
b. Trailer # R900986 39,200 - Gross					
c. 3100 kg 39,200 lbs					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)
a. CT Manifest Unavailable
b. BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above
a.   b.   c.   d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date Month Day Year
George A. Ray, President		1 1 0 3 8 6

GENERATOR

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
DENIS MAUOR		1 1 0 3 8 6

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

Form Approved OMB No. 2000-0404. Expires 7-31-86
EPA Form 8700-22 (Rev. 4-85 Previous edition is obsolete)

COPY 6: DESTINATION STATE - MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES. SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE

One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CTD0648 ~~xxxxxxxxx~~ 34914 — Manifest Document No. 00001
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: GAR Electroforming Augusta Drive, ~~xxxxxxxx~~ Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA C028319
B. State Gen. ID: same

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: NYD980762140

C. State Trans. ID: R7H2305
D. Transporter's Phone 613 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Trans. ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: Stablex Canada, 760 Boul Industriel, Blainville, Québec, Canada
10. US EPA ID Number: NYD980756411

G. State Facility's ID: Not Required
H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, N.O.S. ORM-E 9189	001	CM	30	Y	F006
b. Trailer R76 2305 — 72980 - Gross					
c. 31000 - R.E.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)

CT Manifest Unavailable

a. c.

BSKGARD01

b. d.

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from *the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity* of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date Month Day Year
George A. Ray, President	[signature]	11 05 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
Normand Heale	[signature]	11 . 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE

One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator US EPA ID No. 04914 CTD0648 ~~xxxxxx~~ Manifest Document No. 00001	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming, Aggusta Drive
~~xxxxxxxxxx~~ Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number MA C028320
B. State Gen. ID ~~xxxx~~

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: NYD980762140
C. State Trans. ID
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Trans ID
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada
760 Boul Industriel
~~Blainville, Quebec Canada~~
10. US EPA ID Number: ~~NYD980756415~~
G. State Facility's ID: Not Required
H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a. Hazardous Waste Solid, N.O.S. 8189 ORM-E	001	CM	30	Y	F006
b. Trailer # 12806505 Gross					
c. 73940+2400 / 31000 - Rig					
d. 42940					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. CT Manifest Unavailable
b. BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date Month Day Year
George A. Ray, President	[signature]	11 03 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
PIERRE POIRIER	[signature]	11 03 1?

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

GENERATOR
TRANSPORTER
FACILITY

MA C028320 COPY>6: DESTINATION STATE-MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. CTD0648 ~~xxxxxx~~ 34914 — Manifest Document No. 00001
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming , Augusta Drive
~~xxxxxx Drive~~ Danbury, CT 06810

4. Generator's Phone ( )

A. State Manifest Document Number: MA C028321
B. State Gen. ID

5. Transporter 1 Company Name: SERvice Sanitaire Blainville
6. US EPA ID Number: NYD980862140
C. State Trans. ID
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Trans. ID
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada
760 Boul Indus~~triel~~ 211
~~Blainville, Quebec Canada~~
10. US EPA ID Number: ~~NYD980756415~~
G. State Facility's ID: Not Required
H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Sol~~id~~, N .O.S. ~~ORM~~- E	001	CM	30	Y	F006
b. Trailer # RG64691 71820 - Gross					
c. 31000 Kis					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a.
b. CT Manifest Unavailable
BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: George A. Ray, President — Signature: [signature] — Date: Month 11 Day 03 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: GUY POIRIER — Signature: [signature] — Date: Month 11 Day 03 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

PRESS HARD - YOU ARE WRITING THROUGH LIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA CD28326 COPY 6: DESTINATION STATE–MAILED BY GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No.: CTD064834914 Manifest Document No.: 0001
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: MA CD28326

B. State Gen. ID: Same

3. Generator's Name and Mailing Address: GAR Electroforming Division, Augusta Drive, Danbury, CT 06810
4. Generator's Phone (203 744-4300
5. Transporter 1 Company Name: SErvice Sanitare Blainville
6. US EPA ID Number: NYD980762140

C. State Trans. ID:

D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Trans. ID:

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: Stablex Candda Inc., 760 Boul Industairel, Blainville, Canada Quebec
10. US EPA ID Number: NYD980756415

G. State Facility's ID: Not Required

H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a. Hazardous Waste Solid, N.O.S. 9189 ORM-E	001	CM	30	Y	F006
b. Trailer R906836 71500 Total					
c. 31000 lbs 40000					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)

a. ~~CT Manifest Unavailable~~ BSKGARD01
b.
c.
d.

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. and all applicable State laws/regulations Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA. I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment

Printed/Typed Name: GEORGE A RAY — Signature: [signature] — Date: Month 1 Day 04 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: GILLES BOYER — Signature: [signature] — Date: Month 1 Day 07 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: — Signature: — Date: Month Day Year

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No.: C T D 0 6 4 8 3 4 9 1 4 — Manifest Document No.: 0 0 0 0 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
GAR Electroforming Division
Augusta Drive Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA C028324
B. State Gen. ID: same

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: N Y D 9 8 0 7 622 1 4 0
C. State Trans. ID: R845968
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Trans. ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address:
Stablex Canada Inc.
760 Boul Industriel
Blainville, Quebec Canada
10. US EPA ID Number: N Y D 9 8 0 7 5 6 4 1 5
G. State Facility's ID: Not Required
H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, N.O.S. 9189, ORM-E	0 0 1	CM	30	Y	F006
b. Trailer ~~R906830~~ 72000					
c. R848968 31000 / 41000					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. CT Manifest Unavailable
BSKGARDO1
b.
c.
d.

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GEORGE A DAY — Signature: [signature] — Date: Month 11 Day 24 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: LEONARDSI PIERRE — Signature: [signature] — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: — Signature: — Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill immediately call the National Response Center (800) 424-8802.

MA C028324 COPY>6: DESTINATION STATE-MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No: CTD064834914 — Manifest Document No: 00008
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
GAR Electroforming Division
Augusta Drive Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA C028325
B. State Gen. ID: same

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: NYD980762140
C. State Trans. ID:
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Trans. ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address:
Stablex Canada Inc.
760 Boul Industriel
Blainville, Quebec Canada
10. US EPA ID Number: NYD980756415
G. State Facility's ID: Not Required
H. Facility's Phone 413 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, N.O.S. ORM-E 9189	001	CM	30	Y	F006
b. Trailer R1700505 78920 - [illegible]					
c. 32 [illegible] [illegible]					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. CT Manifest Unavailable
b. BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GEORGE A. RAY — Signature: [signature] — Date: Month 1 1 Day 0 4 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: PIERRE POIRIER — Signature: [signature] — Date: Month 1 1 Day 0 4 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA C028325 COPY 5: DESTINATION STATE-MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No: CTD064834914 — Manifest Document No.: 00001

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: GAR Electroforming Division, Augusta Drive DAnbury, CT 06810

4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA C028329

B. State Gen. ID: same

5. Transporter 1 Company Name: Service Sanitare Blainville

6. US EPA ID Number: NYD980762140

C. State Trans. ID:

D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Trans. ID:

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: Stablex Canada Inc., 760 Boul Industriel, Blainville, Quebec Canada

10. US EPA ID Number: NYD980756415

G. State Facility's ID: Not Required

H. Facility's Phone (413) 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazarddus Waste Solid, N.O.S. 9189, ORM-E	001	CM	30	Y	F006
b. Truck R964691 ~~41000~~ - Total					
c. 31000 Truck					
d. ~~3,000~~					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)

a. CT Manifest Unavailable
b. BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above

a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GEORGE A RAY — Signature: [signature] — Date: Month 11 Day 04 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: GUY POIRIER — Signature: [signature] — Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: — Signature: — Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA C028329 COPY 6: DESTINATION STATE-MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA C028327 COPY 6: DESTINATION STATE-MAILED BY GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. CTD064834914 Manifest Document No. 00001
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming Division
Augusta Drive Danbury, CT 06810

4. Generator's Phone (203) 744-4300

A. State Manifest Document Number MA C028327

B. State Gen ID same

5. Transporter 1 Company Name Service Sanitare Blainville
6. US EPA ID Number N Y D 9 8 0 7 6 2 1 4 0

C. State Trans. ID

D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Trans. ID

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada Inc.
760 Boul Industriel
Blainville Quebec Canada
10. US EPA ID Number N Y D 9 8 0 7 5 6 4 1 5

G. State Facility's ID Not Required

H. Facility's Phone 413) 430-9230

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste Solid, N.O.S. 9189 ORM-E	001	CM	30	Y	F006
b. Trailer R926711 Total ~~69580~~ 71					
c. Unit 31,000 40580					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
CT Manifest Unavailable
a.
BSKGARD01
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. and all applicable State laws/regulations Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date Month Day Year
GEORGE A. RAY	[signature]	11 04 86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
RCHL POIRIER	[signature]	11 04 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No: CTD064834914 — Manifest Document No: 00001
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming Division
Augusta Drive Danbury, CT 06810
4. Generator's Phone (203) 744-4300

A. State Manifest Document Number: MA C028328
B. State Gen. ID: R877-016

5. Transporter 1 Company Name: Service Sanitare Blainville
6. US EPA ID Number: NYD980768120
C. State Trans. ID:
D. Transporter's Phone (413) 527-5600

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Trans. ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada Inc.
760 Boul Industriel
Blainville, Quebec Canada
10. US EPA ID Number: NYD980756415
G. State Facility's ID: Not Required
H. Facility's Phone 413 430-9230

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a. Hazardous Waste Solid, N.O.S. 9189, ORM-E	001	CM	30	Y	F006
b. Tare Trailer R877016					
c. Total 7920					
d. 31000 / 40,920					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)
a. CT Manifest Unavailable
b. BSKGARD01
c.
d.

K. Handling Codes for Wastes Listed Above
a. c. b. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name	Signature	Date Month Day Year
GEORGE A RAY	[signature]	11 4 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
SERGE LHAOIE	[signature]	11 04 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA C028328 COPY 6: DESTINATION STATE-MAILED BY GENERATOR

PRESS HARD - YOU ARE WRITING THROUGH EIGHT COPIES SEE REVERSE SIDE FOR DIRECTIONS

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF SOLID AND HAZARDOUS WASTE
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No / Manifest Document No: C T D 0 6 4 8 8 3 9 0 1 2 4 0 0 0 0 1
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
GAR Electroforming Division
Augusta Drive Danbury, CT 06810
4. Generator's Phone 203) 744-4300

A. State Manifest Document Number MA CD28323
B. State Gen. ID same

5. Transporter 1 Company Name: Seakind Environmental Services Inc.
6. US EPA ID Number: N Y D 9 8 0 5 8 2 2 8 0
C. State Trans. ID
D. Transporter's Phone 203 333-5800

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Trans. ID
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
Stablex Canada Inc.
760 Boul Industriel
Blainville, Quebec Canada
10. US EPA ID Number: N Y D 9 8 0 7 5 6 4 1 5
G. State Facility's ID 413 430-9230
H. Facility's Phone ( )

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No
a. Hazardous Waste Solid, N.O.S. 9189 ORM-E	001	CM	30	Y	F006
b. Trailer R156830 71080 - Total					
c. 31000 - Vehicle					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)
a. ~~CT Manifest Unavailable~~
BSKGARD01
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws/regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently avilable to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GEORGE A RAY
Signature: [signature]
Date: Month 11 Day 4 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: CLEMENT St PIERRE
Signature: [signature]
Date: Month 11 Day 4 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name
Signature
Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of emergency or spill, immediately call the National Response Center (800) 424-8802.

MA CD28323 COPY 6: DESTINATION STATE-MAILED BY GENERATOR

ATTACHMENT E

CONFIRMATIONAL SOILS TESTING DATA

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ANALYSIS REPORT

GAR Electroforming Division
Augusta Drive - Commerce Park
Danbury, CT 06810

Attention: George A. Ray

Report Date 8/6/87

Sample Date 7/9/87 by CL
Received 7/10/87 by FM
Analyzed 7/10 - 8/4/87 by Staff
No. of Samples 36
Purchase Order # Verbal

Lagoon Area Soils

Project #20316

Sample	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
Lab Reference #	28726	28727	28728	28729	28761	28730
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Parameter						
Arsenic	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	73	32	99	71	45	43
Cadmium	1.3	<1.0	<1.0	1.0	2.1	<1.0
Chromium, Total	210	31	280	130	390	24
Copper	920	550	640	670	2000	1000
Lead	41	13	52	47	70	15
Nickel	1500	910	2100	1500	3400	800
Selenium	4.0	4.0	5.0	1.0	1.0	1.0
Silver	20	49	19	49	88	4.1

Sample	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12
Lab Reference #	28731	28732	28733	28734	28735	28736
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Parameter						
Arsenic	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	42	82	59	38	24	42
Cadmium	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
Chromium, Total	67	78	190	21	9	180
Copper	200	830	640	210	9.8	310
Lead	19	14	40	13	<10	31
Nickel	1100	380	1000	270	27	670
Selenium	2.0	2.0	1.0	1.0	2.0	<1.0
Silver	3.9	8.9	5.3	4.3	<20	26

James R Waddell

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ANALYSIS REPORT

GAR Electroforming Division
Lagoon Area Soils

8/6/87
Verbal

Project #20316

Sample	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
Lab Reference #	28737	28738	28739	28740	28741	28742
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Arsenic	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	64	26	20	20	100	60
Cadmium	<1.0	1.4	1.7	<1.0	<1.0	<1.0
Chromium, Total	31	50	85	10	120	150
Copper	12	900	1000	63	96	1200
Lead	14	12	19	<10	38	32
Nickel	14	1600	7300	140	460	1600
Selenium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	5.6	21	40	3.6	<2.0	25

EP TOX LEACHATES

Sample	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
Lab Reference #	28743	28744	28745	28746	28747	28748
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Arsenic	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Barium	0.054	0.160	0.020	0.130	0.005	0.270
Cadmium	<0.005	0.014	<0.005	0.006	0.007	0.005
Chromium, Total	0.020	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	2.8	5.7	0.66	2.8	3.4	0.71
Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Mercury	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel	4.2	2.3	4.7	6.8	14	0.63
Selenium	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Silver	0.017	<0.010	<0.010	<0.010	0.15	0.016

Joyce R Waddell

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
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Pittsburgh, PA 15230-0419
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ANALYSIS REPORT

GAR Electroforming Division
Lagoon Area Soils

8/6/87
Verbal

Project #20316

EP TOX LEACHATES

Sample	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12
Lab Reference #	28749	28750	28751	28752	28753	28754
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Arsenic	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Barium	0.130	0.086	0.012	0.210	0.120	0.200
Cadmium	0.014	<0.005	<0.005	0.006	<0.005	0.008
Chromium, Total	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.30	0.47	0.58	0.76	0.03	0.35
Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Mercury	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel	2.3	3.5	4.2	0.90	0.10	2.0
Selenium	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Silver	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

EP TOX LEACHATES

Sample	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18
Lab Reference #	28755	28756	28757	28758	28759	28760
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Arsenic	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Barium	0.110	0.190	0.210	0.160	0.240	0.230
Cadmium	<0.005	0.034	0.019	0.005	<0.005	0.006
Chromium, Total	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper	0.02	7.6	6.8	1.9	0.28	4.2
Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Mercury	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel	0.01	5.3	9.1	0.88	1.2	1.7
Selenium	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Silver	<0.010	<0.010	<0.010	<0.010	<0.010	0.044

James L Waddell

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
DIVISION OF LANCY INTERNATIONAL, INC.
An Alcoa Separations Technology Company
P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ANALYSIS REPORT

GAR Electroforming Division
Lagoon Area Soils

8/6/87
Verbal

Project #20316

Sample	SB-2	SB-3	SB-4	SB-5	SB-14	SB-15
Lab Reference #	28727	28728	28729	28761	28738	28739
	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)
Volatile Organics						
Chloromethane	<5	<5	<5	<5	<5	<5
Bromomethane	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5
Vinyl Chloride	<5	<5	<5	<5	<5	<5
Chloroethane	<5	<5	<5	<5	<5	<5
Methylene Chloride	<5	<5	<5	<5	<5	<5
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethylene	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	5.6	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	<5	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	5.1	<5	10.1
Chlorodibromomethane	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	<5	<5	<5	<5	<5	<5
Bromoform	<50	<50	<50	<50	<50	<50
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5
1,3-Dichlorobenzene	<25	<25	<25	<25	<25	<25
1,2-Dichlorobenzene	<25	<25	<25	<25	<25	<25
1,4-Dichlorobenzene	<25	<25	<25	<25	<25	<25
Benzene	<5	<5	<5	<5	<5	<5
Toluen	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5

C. John Ritzert, Manager-Technical Operations

LANCY ENVIRONMENTAL SERVICES
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P.O. Box 419
Pittsburgh, PA 15230-0419
Phone (412) 772-0044 • FAX (412) 772-0055

ANALYSIS REPORT

GAR Electroforming Division
Lagoon Area Soils

8/6/87
Verbal

Project #20316

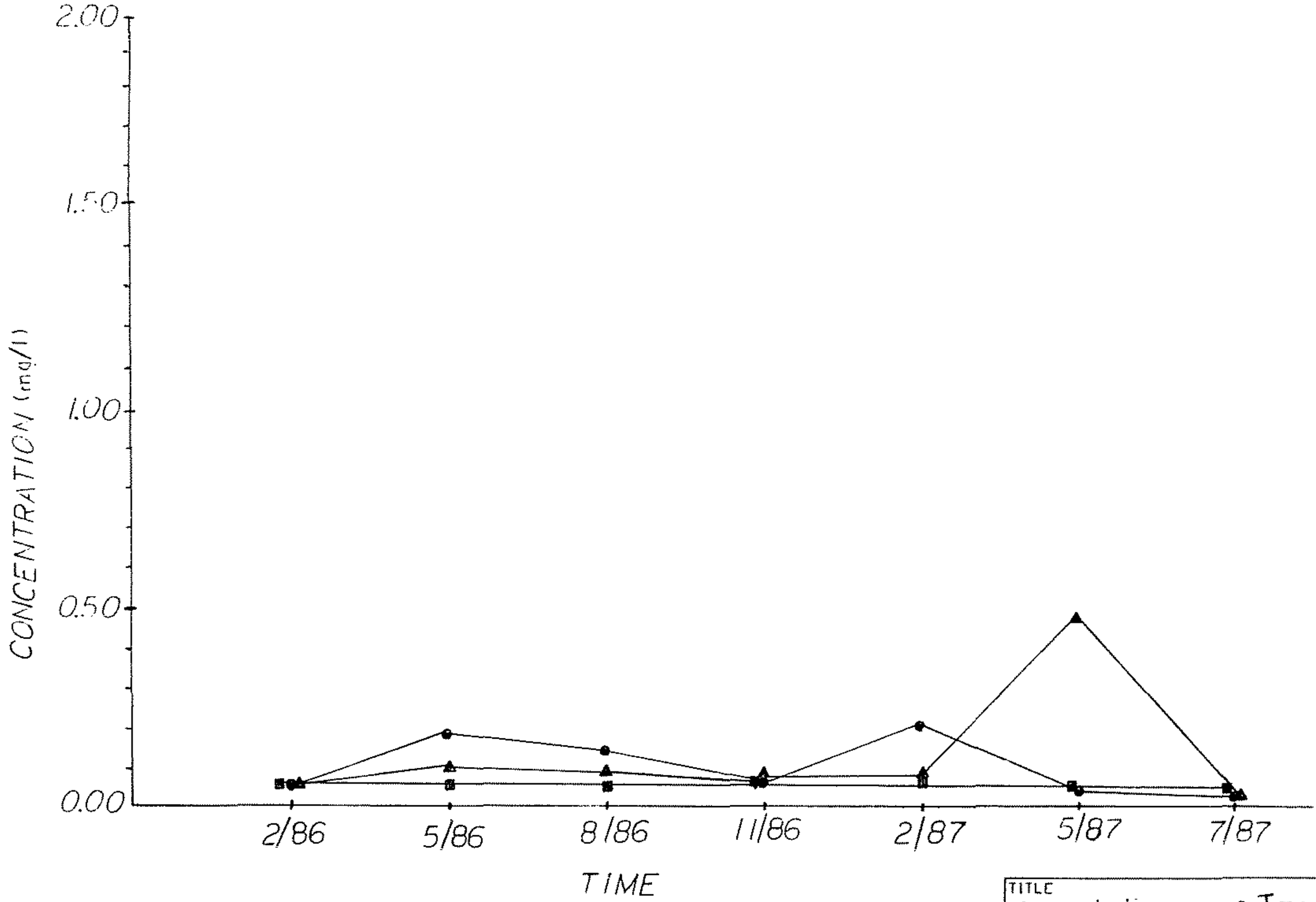
Sample	SB-16	SB-17
Lab Reference #	28740	28741
	(ug/Kg)	(ug/Kg)
Volatile Organics		
Chloromethane	<5	<5
Bromomethane	<5	<5
Dichlorodifluoromethane	<5	<5
Vinyl Chloride	<5	<5
Chloroethane	<5	<5
Methylene Chloride	<5	<5
Trichlorofluoromethane	<5	<5
1,1-Dichloroethylene	<5	<5
1,1-Dichloroethane	<5	<5
Trans-1,2-Dichloroethylene	<5	<5
Chloroform	<5	<5
1,2-Dichloroethane	<5	<5
1,1,1-Trichloroethane	<5	<5
Carbon Tetrachloride	<5	<5
Bromodichloromethane	<5	<5
1,2-Dichloropropane	<5	<5
Cis-1,3-Dichloropropene	<5	<5
Trichloroethylene	<5	<5
Chlorodibromomethane	<5	<5
1,1,2-Trichloroethane	<5	<5
Trans-1,3-Dichloropropene	<5	<5
2-Chloroethylvinyl Ether	<5	<5
Bromoform	<50	<50
1,1,2,2-Tetrachloroethane	<5	<5
Tetrachloroethylene	<5	<5
Chlorobenzene	<5	<5
1,3-Dichlorobenzene	<25	<25
1,2-Dichlorobenzene	<25	<25
1,4-Dichlorobenzene	<25	<25
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5

Janice K. Waddell

C. John Ritzert, Manager-Technical Operations

ATTACHMENT F

MONITORING WELL DATA PLOTS

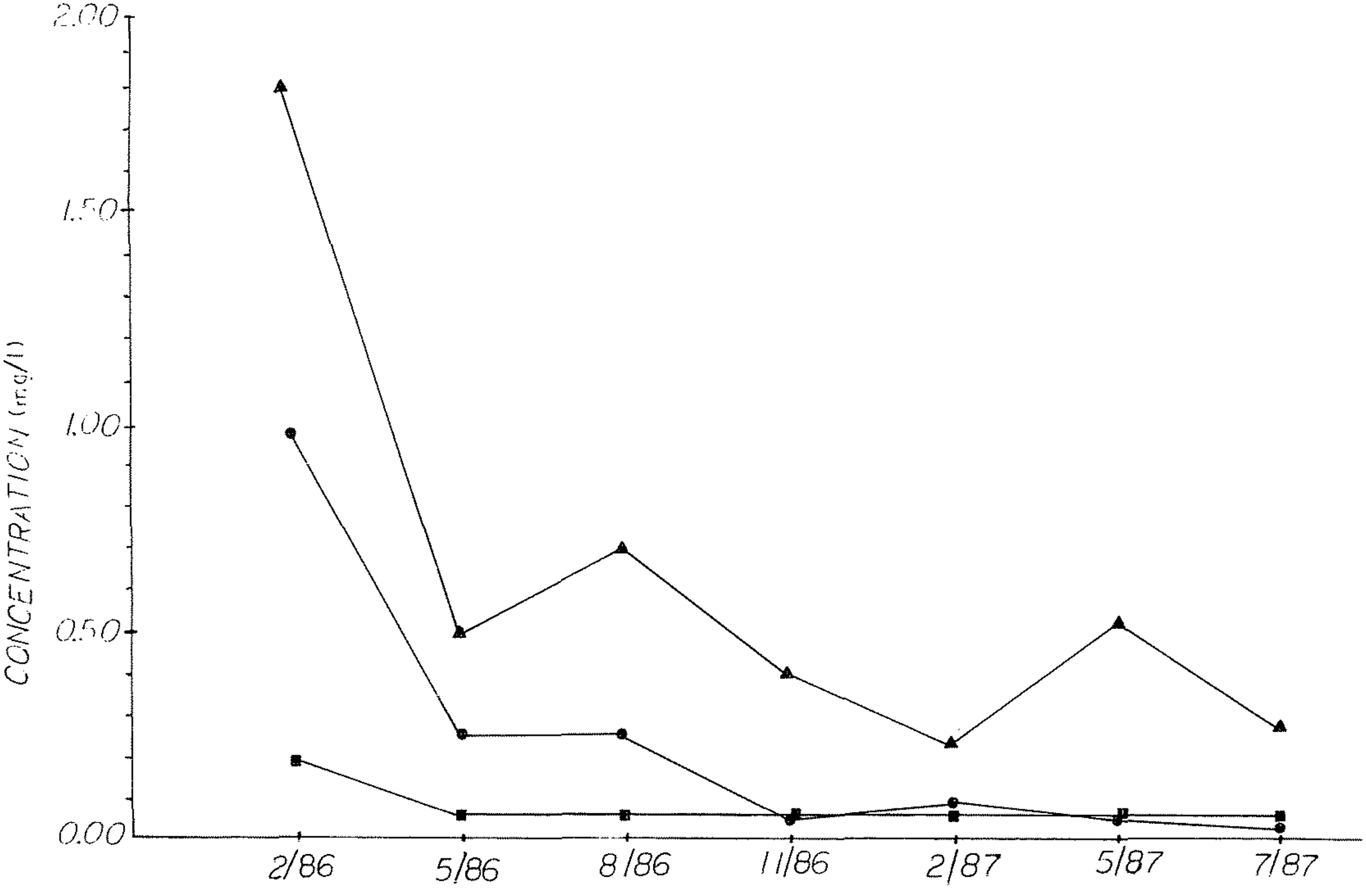


WELL I

- ● COPPER
- ▲ NICKEL
- ■ CHROMIUM

TITLE Concentration versus Time				
CLIENT GAR ELECTROFORMING				
DRAWN DJK	DATE 8/25/87	PROJECT NO.	DRAWING NO. 1	REV

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA



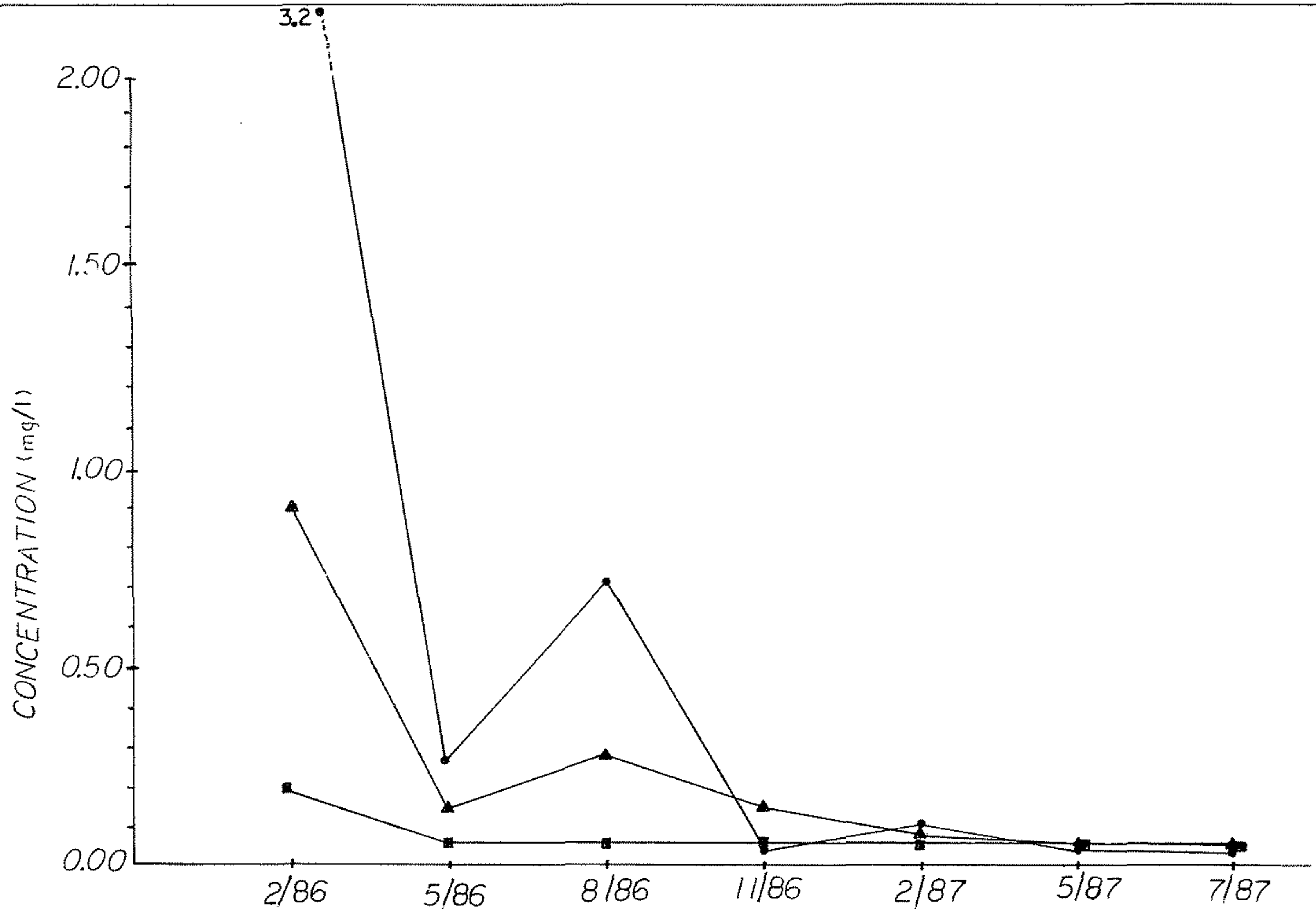
TIME

WELL 2

● COPPER
▲ NICKEL
■ CHROMIUM

TITLE Concentration versus Time				
CLIENT GAR ELECTROFORMING				
DRAWN	DATE	PROJECT NO.	DRAWING NO.	REV
JJK	5/25/87		1	

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA

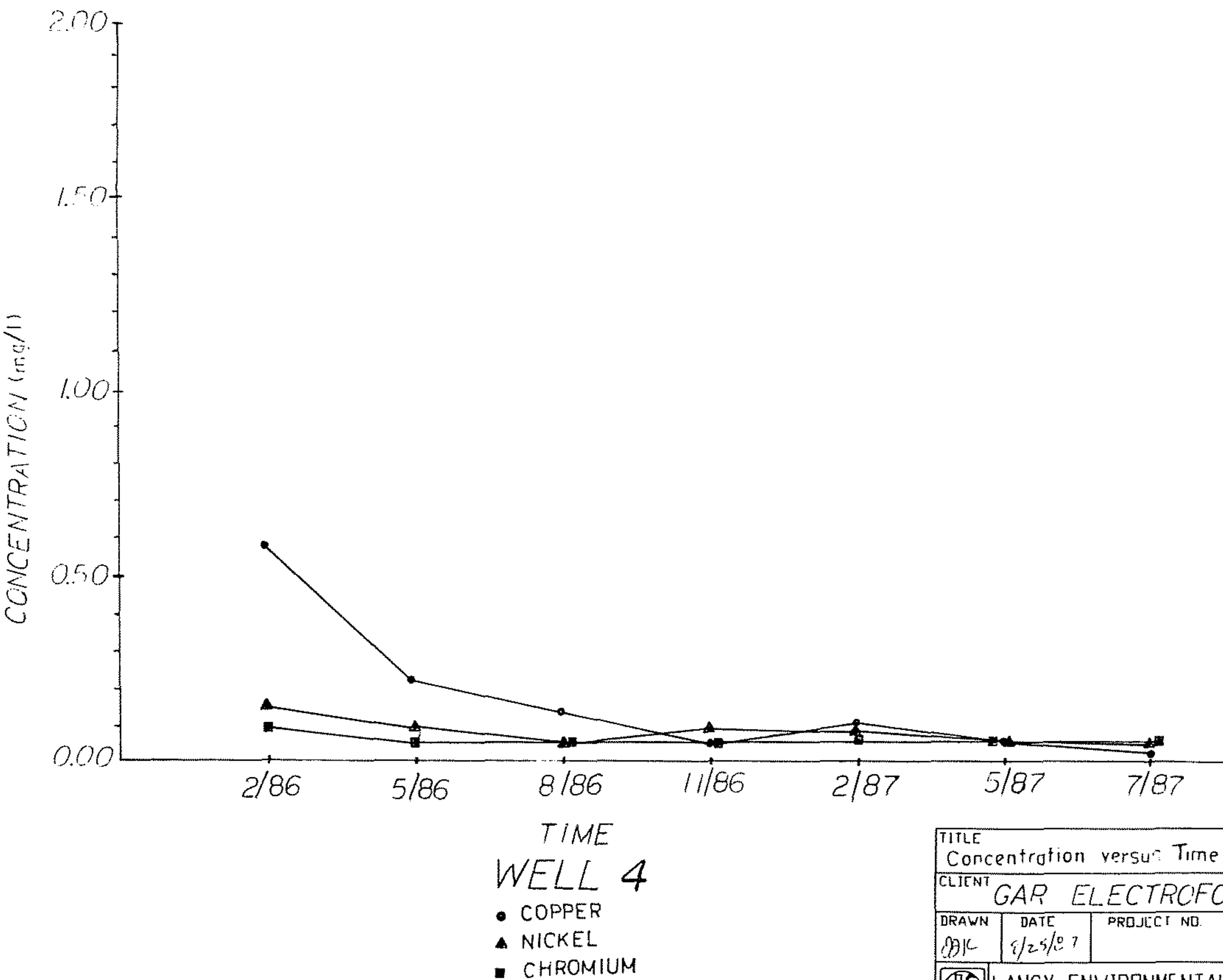


WELL 3

- ● COPPER
- ▲ NICKEL
- ■ CHROMIUM

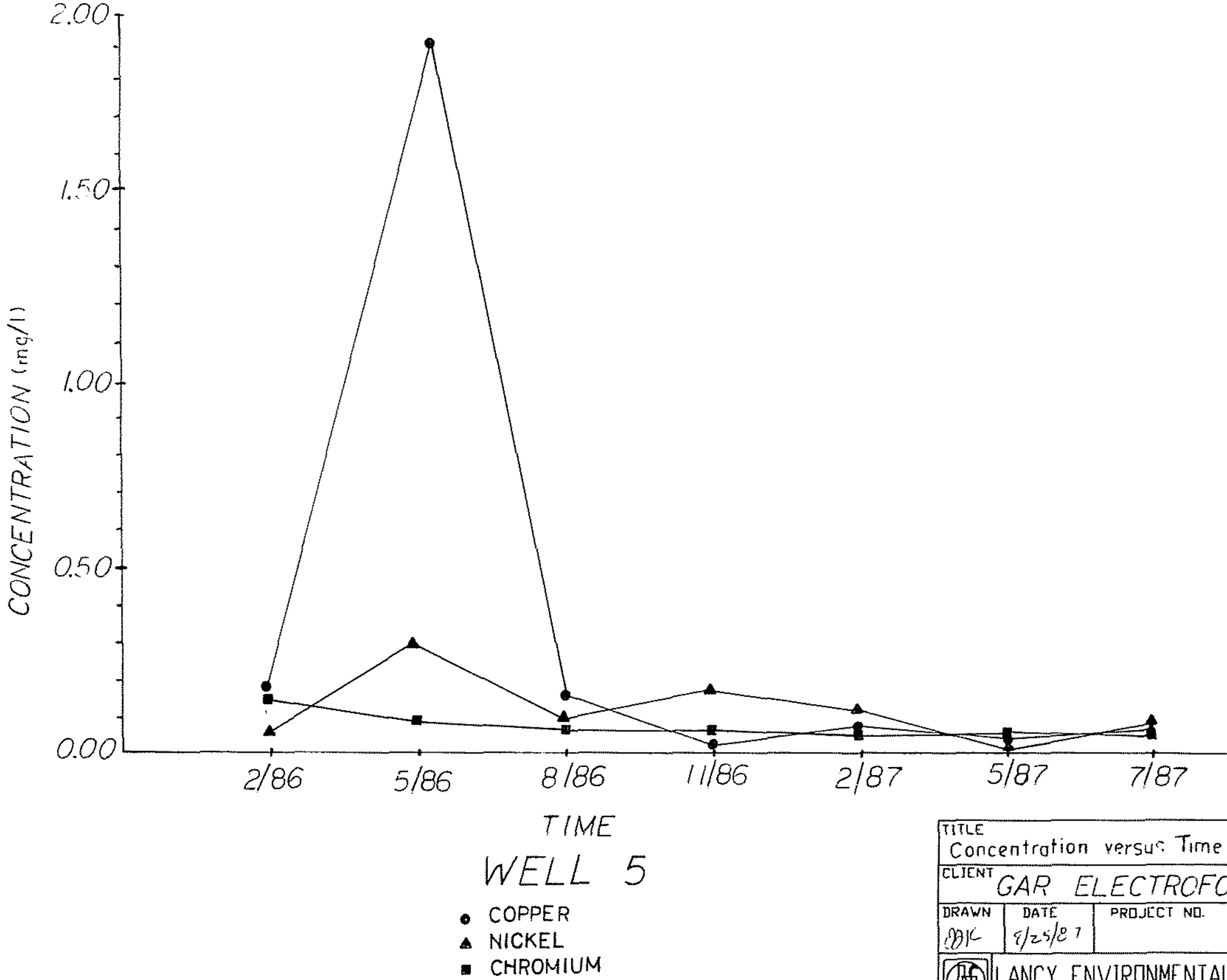
TITLE				
Concentration versus Time				
CLIENT GAR ELECTROFORMING				
DRAWN	DATE	PROJECT NO.	DRAWING NO.	REV
DJC	8/25/87		1	

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA



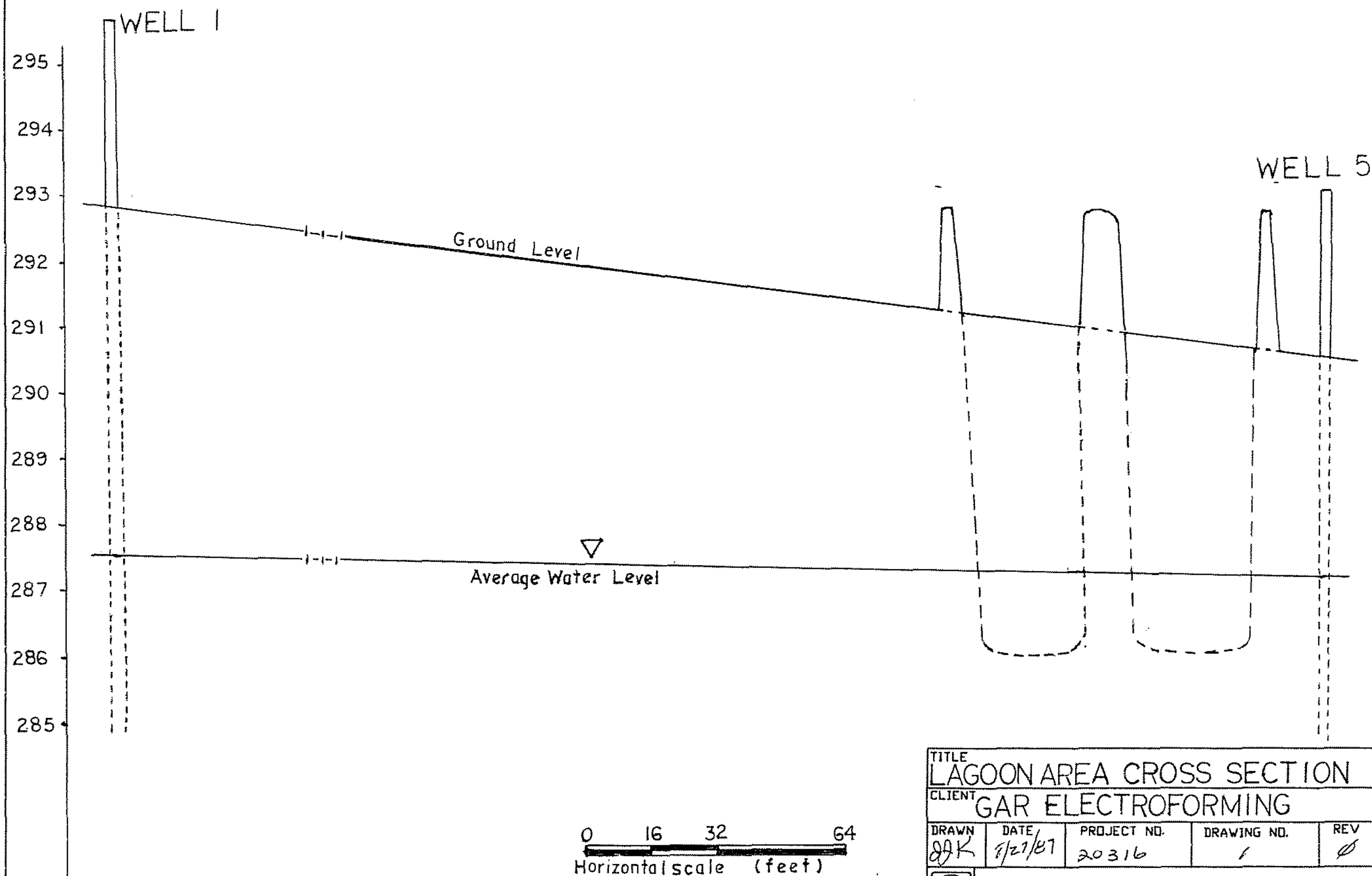
TITLE Concentration versus Time				
CLIENT GAR ELECTROFORMING				
DRAWN	DATE	PROJECT NO.	DRAWING NO.	REV
DJK	8/25/87		1	

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA



TITLE Concentration versus Time				
CLIENT GAR ELECTROFORMING				
DRAWN	DATE	PROJECT NO.	DRAWING NO.	REV
MJK	8/25/87		1	

LANCY ENVIRONMENTAL SERVICES COMPANY
DIVISION OF LANCY INTERNATIONAL, INC.
AN ALCOA SEPARATIONS TECHNOLOGY COMPANY
PITTSBURGH, PENNSYLVANIA



ATTACHMENT F

TITLE LAGOON AREA CROSS SECTION				
CLIENT GAR ELECTROFORMING				
DRAWN JJK	DATE 7/21/87	PROJECT NO. 20316	DRAWING NO. 1	REV Ø

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