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GROUNDWATER SAMPLING
AND ANALYSIS REPORT

PALL CORPORATION
30 SEA CLIFF AVENUE
GLEN COVE, NEW YORK 11542

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1.0 INTRODUCTION

On June 20, 1994, the Pall Corporation facility located at 30 Sea Cliff Avenue, Glen Cove, New York was recommended for inclusion as a Class 2 site in the New York State Registry of Inactive Hazardous Waste Disposal Sites (IHWDS). The New York State Department of Environmental Conservation (NYSDEC) recommended that Pall Corporation be included in the Registry after completion of a Preliminary Site Assessment (PSA) Report for the area known as the "Sea Cliff Avenue Industrial Area." This section of the report provides an overview of the Pall Corp. facility and a brief discussion of the history of the Sea Cliff Avenue Industrial Area.

1.1 Site Location

The Pall Corp. Sea Cliff facility is located on the north side of Sea Cliff Avenue, approximately 1/8 mile west of Route 107 and 1/4 mile south-southeast of the Carney Street Well Field. The property is bordered on the north by August Thomsen, the south by Sea Cliff Avenue, the east by Route 107, and on the west by the Associated Drapery facility. Photocircuits Corporation and Pass and Seymour (formerly Slater Electric Company) are located south of the Pall Corp. facility across Sea Cliff Avenue. Glen Cove Creek is located parallel to the west wall of the Pall facility and runs through the property from the southwest corner to the northwest corner of the site. The neighboring areas consist primarily of industrial areas with some residential areas located about 1/4 to 1/2 mile away to the north, south, east and west. A site location map is presented in Figure 1-1. A site plan showing the Pall facility and the immediately adjacent properties is provided as Figure 1-2.

The topography of the site based upon data provided by Pall Corp. is relatively flat with a gentle slope from the southwest corner of the facility (grade elevation about 55 feet above mean sea level, msl) toward the northeast corner of the site (about 51 feet above msl). Additional site information pertaining to geologic and hydrogeologic conditions is presented in Sections 2.1 and 2.2.

1.2 Site History

Industrial activity in the Sea Cliff Avenue Industrial Area has been documented since the 1940's with the nature of industrial activities highly variable during the period from 1940 to the present. Pall Corporation has operated at the Sea Cliff Avenue facility since 1946. In addition, the property currently owned by August Thomsen was part of the Pall property until 1971 when the property was sold to August Thomsen. The main Pall facility is presently used primarily as a research and development facility related to filtration product manufacture. The August Thomsen property was used by Pall Corporation historically as a research and development facility for Pall's aerospace division. Industrial activities for the other neighboring facilities include

the following:

Photocircuits Corporation:
Powers Chemco operated the facility until 1971 when Kollmorgen Corporation purchased the property. In 1986, ownership of the property was transferred to Photocircuits who is the current owner. The operations at the facility have consisted primarily of printed circuit board manufacturing since at least 1971. Chlorinated solvents have historically been used at the facility.

Pass and Seymour:
Pass and Seymour currently manufactures injection molded plastic components for electronic applications. Similar products had been manufactured at this location for over twenty years prior to Pass and Seymour's occupancy by the former tenant, Slater Electric. Chlorinated solvents have historically been used at the facility.

Associated Draperies:
Associated Draperies has occupied its current location since the early 1970's. Prior to Associated Draperies' occupancy, the site was used by HMS Machine Shop who manufactured aircraft parts from the early 1960's to 1969. Chlorinated solvents may have been used by HMS at the facility.

Carney Street Wellfields:
Carney Street Wellfield was operated by the City of Glen Cove from 1950 to 1977 when volatile organic compounds (VOCs) consisting primarily of chlorinated organics were detected in the wells at the site. The wellfield is also occupied by Glen Cove's Water Department, Emergency Medical services, and a private day care center which was constructed in 1989. No chlorinated solvents have historically been used at the facility.

Since the discovery of VOCs in the Carney Street wells, numerous investigations and studies have been performed by private parties and regulatory agencies to determine the source of contamination in the Carney Street wells. The historical reports were reviewed by NYSDEC to develop the PSA Report that formed the basis for the listing of many of the industrial facilities in the area as Inactive Hazardous Waste Disposal Sites. The following table summarizes the IHWDS status of each of the neighboring industrial facilities after completion of the NYSDEC PSA.

Facility Name	Recommended IHWDS Status
Associated Drapery	Not Listed (NYSDEC Spills)
August Thomsen	Class 2 Site - Part of Pall (proposed)
Carney St. Well Field	Not Listed (NYSDEC Spills)
Pall Corporation.	Class 2 Site - proposed
Pass and Seymour	Class 2 Site - proposed
Photocircuits Corporation	Class 2 Site

Based upon the information presented in the NYSDEC's PSA, all of the facilities included in the Sea Cliff Avenue Industrial Area except for the Associated Drapery Site and the Carney Street Well Field site have used chlorinated solvents (tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, and/or methylene chloride) at some time since the 1940's. However, it should be noted that no chlorinated solvents are currently used at the Pall facility. Additionally, each of the sites have had documented concentrations of these chlorinated solvents present in the soil and/or groundwater at some time.

1.3 Scope and Objectives

In October 1995, Groundwater Technology, Inc. (GTI) was retained by Pall Corporation to conduct sampling and analysis of groundwater beneath the Pall facility. GTI's scope of services was limited to the following:

- Review of historical, regional groundwater quality data povided by Pall Corporation in NYSDEC's PSA dated March 1994 and in C.A. Rich's Summary Tables dated March 1992;
- Collection of depth to water measurements from existing monitoring wells at the Pall facility to determine water elevation contours and assess the likely groundwater flow direction at the facility;
- Development of the existing monitoring wells at the Pall facility prior to groundwater sampling;
- One (1) round of groundwater sampling from six (6) existing monitoring wells at the Pall facility. The samples collected were analyzed for volatile organic compounds.
- Preparation of this Groundwater Sampling and Analysis Report.

The objectives of this project were to obtain high quality, reproducible data to document the current concentrations of chlorinated organics in groundwater underlying Pall's Sea Cliff Avenue facility. Groundwater quality data generated will be used in conjunction with water level data to develop a preliminary opinion

regarding the extent of on-site contamination in groundwater and to evaluate the possibility of off-site sources contributing to the contamination present.

2.0 SITE HYDROGEOLOGY

Data presented in this section has been developed based solely upon review of data provided by Pall Corporation. No new monitoring wells or soil borings were installed under the scope of this project. It should also be noted that although some of the hydrogeologic data generated by others was collected from wells and/or borings on the Pall property, the data presented is intended to be representative of the the entire Sea Cliff Avenue Industrial Area and not any individual site.

2.1 Local Geology

The geologic unit imediately below grade is the part of the Upper Glacial Aquifer which consists of two major components in the Sea Cliff Avenue Industrial Area. The uppermost unit is an upper glacial till composed of both sandy and silty till regions. The predominant geology underlying the Pall facility within the Sea Cliff Avenue Industrial Area is silty till. The silty till in the area has been described as silty, clayey, fine to medium sand with gravel, cobbles, and occasional boulders. The unit is considered to have very low permeability, although site-specific slug or pump test data was not available for GTI review. The silty till extends vertically downward from grade approximately 50 to 60 feet with a maximum thickness of 80 feet recorded in some areas.

The silty till unit is underlain by an interbedded sand and sand and gravel unit of varying composition which is approximately 110 feet thick beneath the Pall facility. The upper "half" of the sand and gravel unit consists predominately of fine to medium sand approximately 60 feet thick. The lower "half" of the unit consists predominately of fine to coarse sand and fine grave that is approximately 50 feet thick. This unit is considered to have moderate to high permeability although occasional lenses of silt have been evident in soil borings. The sand and gravel unit is underlain by the Port Washington Confining Unit which is composed of sandy clay and clay and defines the base of the Upper Glacial Aquifer in the area. The Port Washington Confining Unit is encountered at approximately 200 feet below grade in the Sea Cliff Avenue Industrial Area.

A geologic cross section through the area is included in Figures 2-1a (Plan View) and 2-1b (Section Cut). This geologic section has been reproduced from the NYSDEC PSA and GTI makes no judgement as to its accuracy or completeness. The figures are presented solely for discussion purposes and a point of reference for the text.

2.2 Site Hydrogeology and Water Level Measurements

As discussed in the previous section, the uppermost local hydrogeologic unit underlying the Pall facility is the Upper Glacial Aquifer which varies in thickness in the region but extends from grade to approximately 200 feet below grade in the Sea Cliff Avenue Industrial Area. Historic depth to water measurements collected by the Nassau County Department of Public Works (NCDPW) have indicated that groundwater is typically present at about 2 to 10 feet below grade depending upon the well location. The depth to groundwater in the area, and specifically adjacent to the Pall facility, is influenced by Glen Cove Creek which acts as a discharge area for topographic areas of high elevation adjacent to the creek.

In order to determine the groundwater elevation and to predict the corresponding groundwater flow direction beneath the Pall facility, GTI collected two sets of depth to water measurements on October 26, 1995 and December 5, 1995. The depth to water data obtained and the survey data provided by Pall Corporation is provided in Table 2-1. The data of table 2-1 was then used to develop the groundwater elevation contours of Figure 2-2.[1]

As indicated in Figure 2-2, groundwater flows from southeast to northwest across the Pall property with the groundwater elevation ranginging from approximately 50 feet above msl at the southeast corner of the site to approximately 49 feet above msl at the northwest corner of the site. However, the groundwater elevation data for wells 2P, 3P, 4P, and 5P also indicated a north-northeasterly flow component near the north side of the Pall facility. It cannot be determined from the limited data whether this flow component actually exists or is an anomaly based upon the poor triangulation of the wells and the limited data. Based upon the data available, it appears as if the Photocircuits property is located upgradient of the Pall Corporation facility.

3.0 WELL DEVELOPMENT AND SAMPLING

Groundwater Technology, Inc. collected groundwater samples from the six (6) existing monitoring wells on the Pall Corporation property. The well locations are identified in Figure 1-2. This section of the report describes the well development and sampling procedures performed by GTI to ensure the generation of accurate and useable data.

3.1 Well Development

On October 20, 1995, GTI developed the six monitoring wells on the Pall property identified as MW-1P, MW-2P, MW-3P, MW-4P, MW-5P, and MW-6P. Since the monitoring wells had not been sampled or purged in

[1] Due to the lack of MW-6P data, the December 5, 1995, data set was not used to generate a contour map.

over two years, the wells were re-developed to ensure that groundwater collected from the wells was representative of local groundwater and that sample results would not be influenced by poor well development procedures. Each well was developed by pumping groundwater from the well until pH, specific conductivity, and turbidity measurements stabilized. Stabilization was defined to be completed when three consecutive pH, turbidity and conductivity readings (recorded approximately five minutes apart) were within 10 percent of one another. Although it was desired to develop the wells to less than 50 NTU's, only 5 of the 6 wells were able to achieve turbidity readings less than 50 NTU's after development. The remaining well, MW-3P, was pumped dry and allowed to recharge before re-pumping. Pumping and recharge cycles were continued for three cycles until turbidity readings stabilized near 250 NTU's.

The development water was containerized in 55-gallon drums, labeled and transferred to the drum staging area on site for disposal by Pall Corporation. Monitoring well development logs are provided in Appendix A.

3.2 Well Sampling

On October 26, 1995, GTI performed groundwater sampling of the six (6) monitoring wells at the Pall property and the pump sump located at the east side of the plant.

Prior to sampling, depth to groundwater readings were collected with a decontaminated water level indicator. Following these measurements, a dedicated polyethylene bailer was lowered into each well until approximately one-half of the bailer was submersed into the groundwater. The groundwater in each bailer was visually inspected for color, general appearance, odor, and presence of a sheen on the surface or particulates in the water column. Non-aqueous phase liquids were not observed in any of the wells. The pump sump sample was collected by lowering a pre-cleaned polyethylene bailer into the sump and transferring the liquid directly to the sample glassware.

Following the collection of the initial bailer sample at the wells, each well was purged until at least three well volumes were removed. Purge waters were removed with a decontaminated trash pump. All purge waters from the six (6) monitoring wells were drummed, labeled and transferred to Pall Corporation for disposal. After purging, dedicated polyethylene bailers were used to collect the groundwater samples for VOC analyses. Care was taken to prevent volatilization of the sample prior to placing it in the VOC vial. The sample vials were then immediately placed in an ice-filled cooler prior to shipment to the laboratory. All Chain of Custody procedures were followed and the samples were submitted for laboratory analysis within 48 hours of collection.

4.0 ANALYTICAL RESULTS

Groundwater samples were submitted to GTEL Environmental Laboratories, Inc. (GTEL) of Milford, New Hampshire for volatile organic compound analyses via EPA Method 624. GTEL is a New York State Department of Health (NYSDOH) certified analytical laboratory. Groundwater sample results are summarized in Table 4-1. Complete laboratory analysis reports are provided in Appendix B.

As indicated in Table 4-1, several chlorinated VOCs were detected in the Pall Corporation monitoring wells at concentrations exceeding their respective NYSDEC Class GA Groundwater Quality Standards. Specifically, the following compounds were detected at concentrations above 5 ug/l:

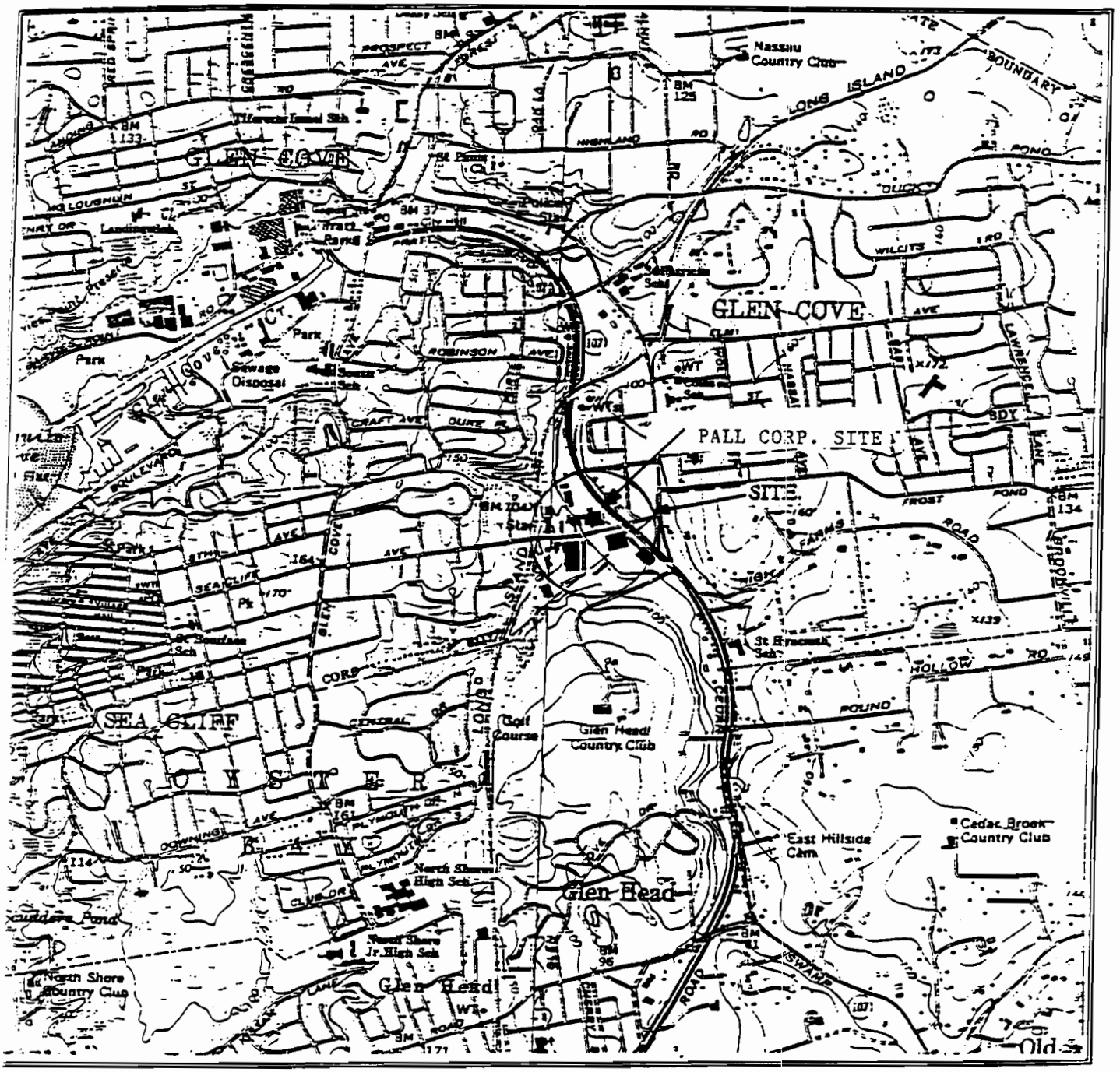
Contaminants Detected Above 5 ug/l

1,1-Dichloroethene*:	Max. concentration of 9.2 ug/l in MW-6P
1,1-Dichloroethane:	Max. concentration of 22 ug/l in the sump pump
1,2-Dichloroethene (total*):	Max. Concentration of 220 ug/l in MW-5P
1,1,1-trichloroethane:	Max. concentration of 47 ug/l in MW-6P
Trichloroethene:	Max. concentration of 18 ug/l in MW-6P
Tetrachloroethene:	Max. concentration of 420 ug/l in MW-2P

* Contaminant also present in method blank at the laboratory

The sample results indicate that the maximum concentrations of 1,1-dichloroethene (1,1-DCE), 1,1,1-trichloroethane (TCA), and trichloroethene (TCE) were present in the upgradient wells away from any Pall facility operations. Based upon this information and the limited groundwater flow direction availiable, an upgradient source of these compounds is likely. However, it should be noted that the upgradient monitoring well (MW-6P) is screened approximately 40 to 50 feet deeper than the other wells sampled as part of this project (MW-6P is screened at about 50 to 60 feet below grade and the other wells are screened approximately 5 to 15 feet below grade). Since tetrachloroethene (PCE) is a dense non-aqueous phased liquid (DNAPL), PCE concentrations at deeper depths may be indicative of a deeper or older plume than can be detected in the shallow, downgradient monitoring wells at the Pall facility. For this reason, the direct comparison of MW-6P results to the results obtained at the downgradient wells should be treated very cautiously.

The presence of PCE in the downgradient well MW-2P at a concentration of 420 ug/l without available data from appropriately sited and screened upgradient wells only indicates that PCE is present underlying the Pall property. However, the source of contamination cannot be confirmed as either upgradient or downgradient due to the lack of current upgradient well data. It is possible, and based upon the review of historical data, probable, that an upgradient source of PCE may exist. Another possible explanation that would explain the detected downgradient concentrations would be an older upgradient source where the leading edge (or an area of higher concentration) of the plume is located at or near MW-2P at this point in time. This is supported by the fact that the typical degradation products of PCE, namely TCE, 1,1-DCE, and 1,2-DCA, are each present in several of the wells.



SITE LONGITUDE – 73.6231° W
SITE LATITUDE – 40. 8518° N

FIGURE 1-1
LOCATION MAP

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Source: U.S.G.S. Sea Cliff and Hicksville Quadrangles
Scale: 1" = 2000'

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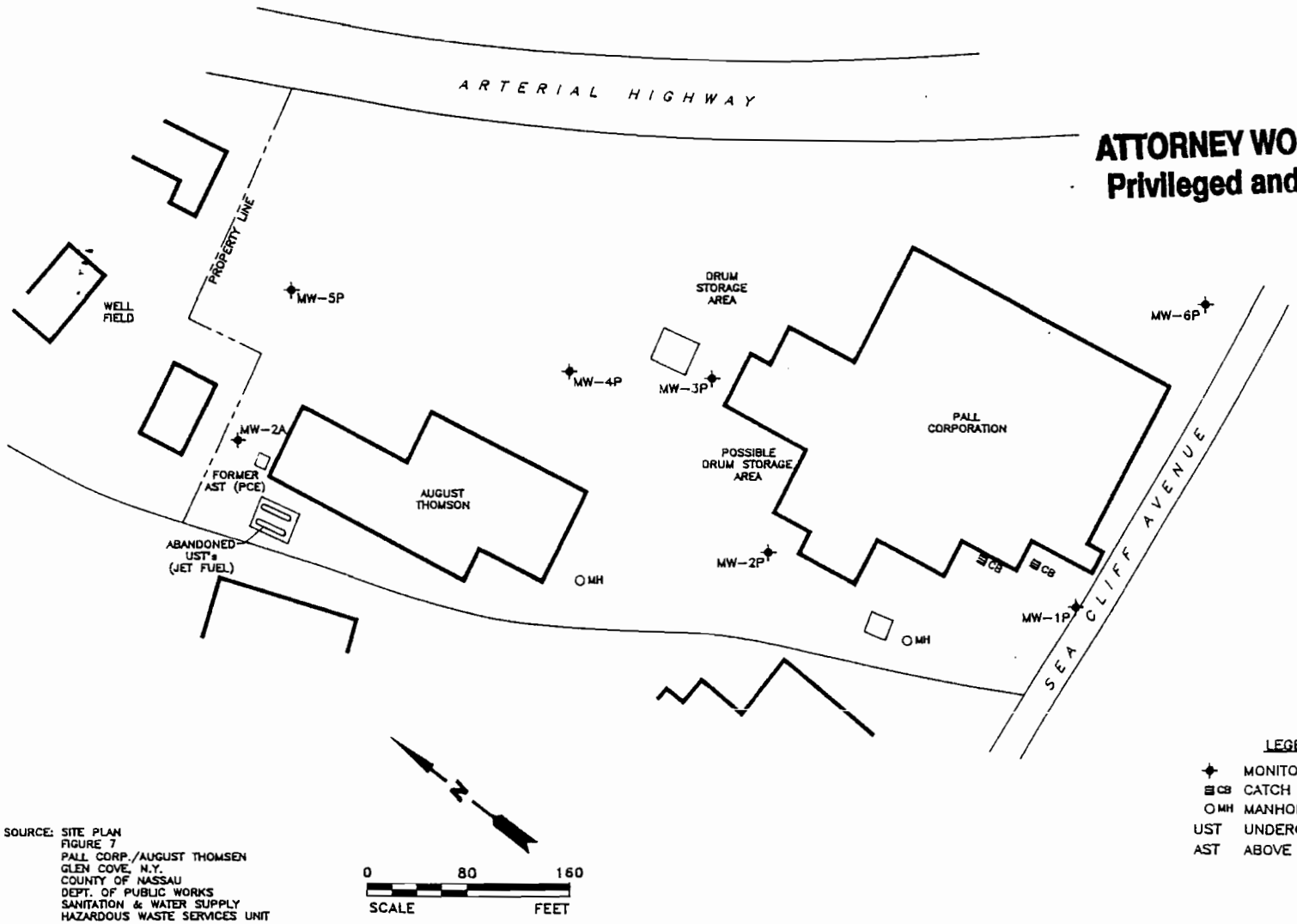


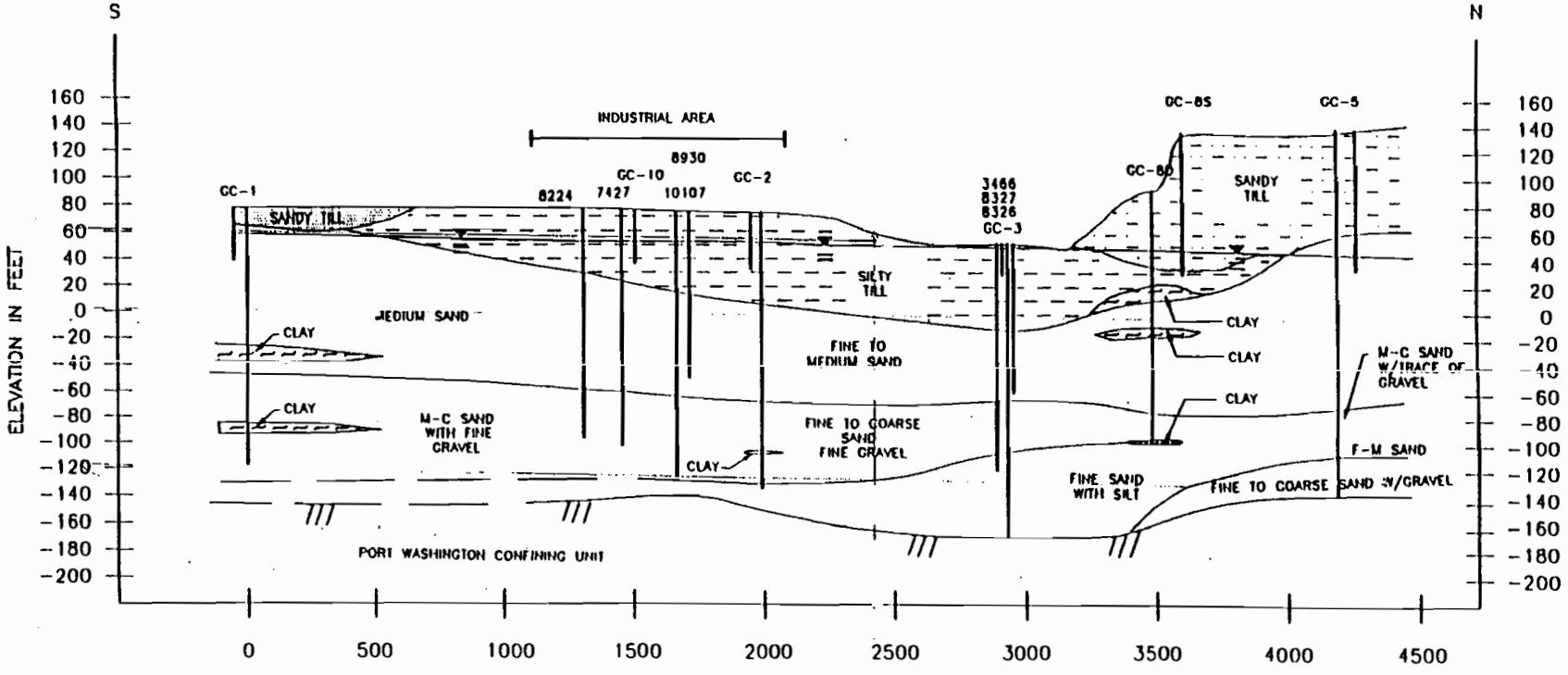
LEGEND

- MONITORING WELL
- CB CATCH BASIN
- MH MANHOLE
- UST UNDERGROUND STORAGE TANK
- AST ABOVE GROUND STORAGE TANK

SOURCE: SITE PLAN
FIGURE 7
PALL CORP./AUGUST THOMSEN
GLEN COVE, N.Y.
COUNTY OF NASSAU
DEPT. OF PUBLIC WORKS
SANITATION & WATER SUPPLY
HAZARDOUS WASTE SERVICES UNIT

GROUNDWATER TECHNOLOGY 101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	CLIENT: PALL CORPORATION/ AUGUST THOMSEN	PROJECT NO.: 04100-0297 PM: DS PE/RG:	DRAWING DATE: 12/20/95 ACAD FILE: 0297ST95	**SITE PLAN**	LOCATION: SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TS FIGURE: 1-2

FIGURE 2-1B
GEOLOGIC CROSS SECTION
WELLS GC-1 THRU GC-8



NOTE: Figure is reproduced from NYSDEC Preliminary Site Assessment Report and is presented for reference only. GTI makes no judgement as to its accuracy or validity.

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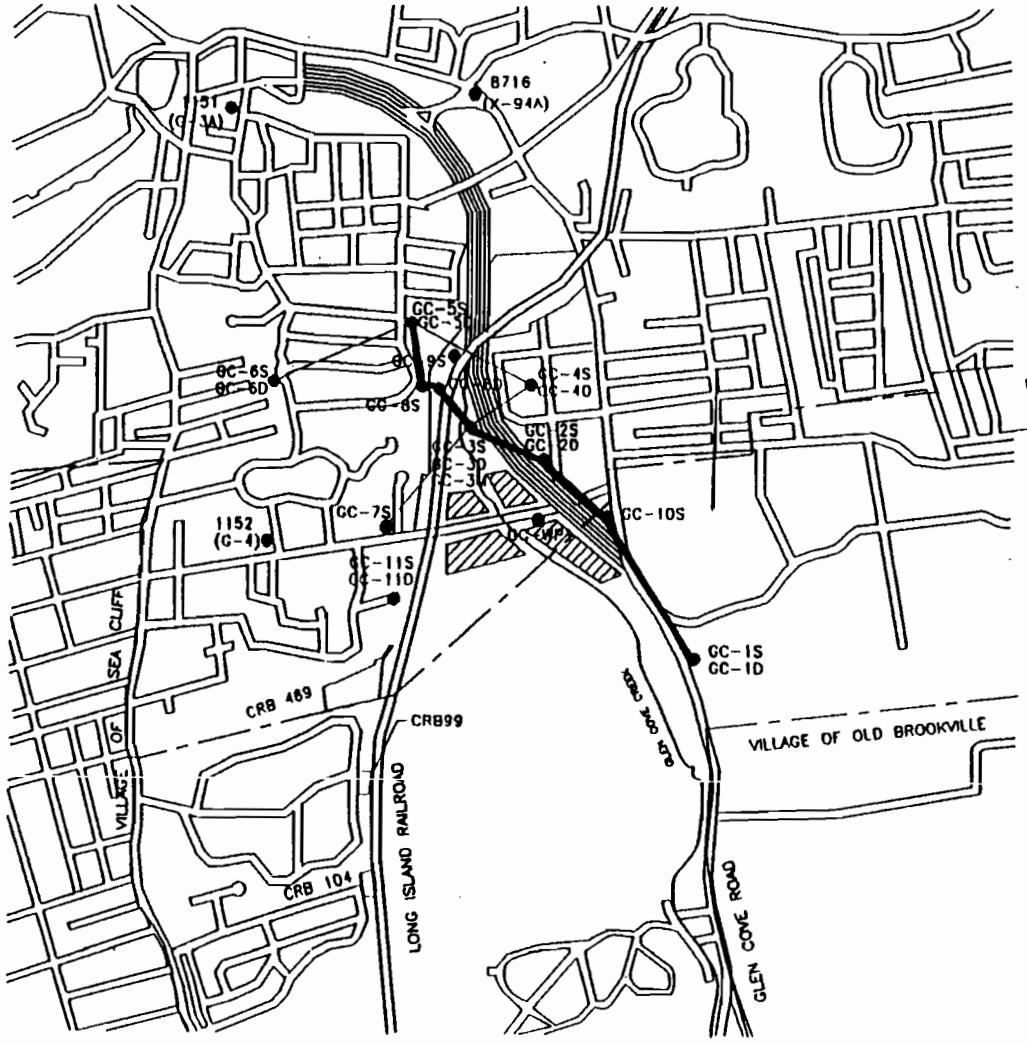


NOTE:

Figure is reproduced from NYSDEC Preliminary Site Assessment Report and is presented for reference only. GTI makes no judgement as to its accuracy or validity.

LEGEND

- GC-7S MONITORING WELL
- 9115 (H-4A) EXISTING NASSAU CO DPW MONITORING WELL
- INDUSTRIAL ZONE
- GEOLOGIC SECTION LOCATION

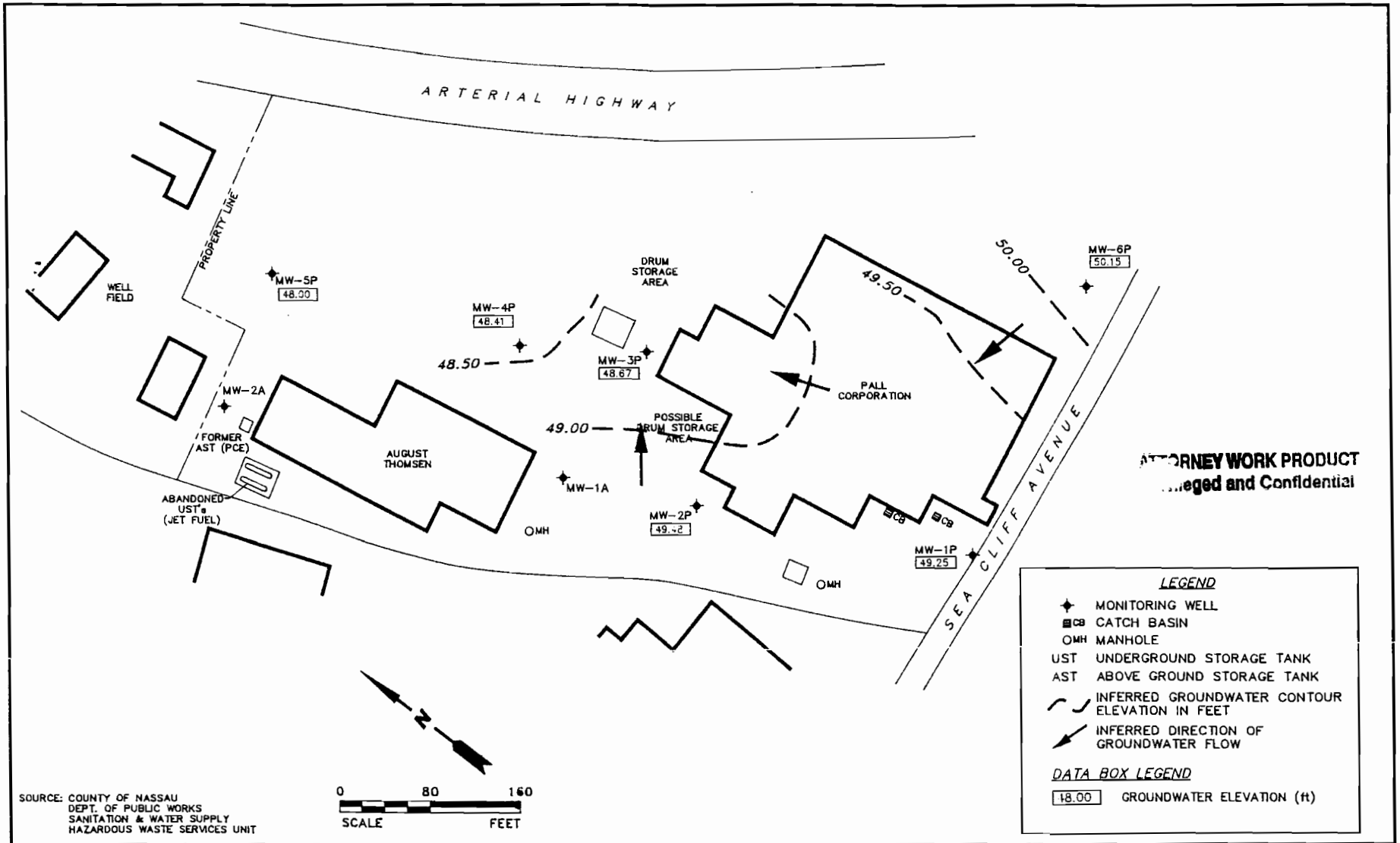
DISTANCE IN FEET
200 600
0 400 800

\DWG\GLENCOV

NO.	REVISION DESCRIPTION	DATE
		9/13/89
A	FOR INFORMATION ONLY	3/22/89

FIGURE 2-1A
Geologic Section
(Plan View)

HAZARDOUS WASTE UNIT	DRAWN BY	DATE	SHEET NO
	JSINNOTT	3/22/89	1 OF 1



GROUNDWATER TECHNOLOGY 101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	CLIENT: PALL CORPORATION/ AUGUST THOMSEN	PROJECT NO.: 04100-0297 PM: DS PE/RG:	DRAWING DATE: 1/9/96 ACAD FILE: 0297WO26	**GROUNDWATER CONTOUR MAP** **26 OCTOBER 1995**	LOCATION: SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TS	FIGURE: **2-2**

TABLE 2-1
DEPTH TO WATER MEASUREMENT DATA

OCTOBER 25, 1995 MEASUREMENTS			
WELL ID	MEASURING POINT ELEVATION (FT)*	DEPTH TO WATER (FT)	WATER TABLE ELEVATION (FT)
1P	55.91	6.66	49.25
2P	54.36	4.88	49.48
3P	53.73	5.06	48.67
4P	52.77	4.36	48.41
5P	51.36	3.36	48.00
6P	56.82	6.67	50.15
DECEMBER 5, 1995 MEASUREMENTS			
WELL ID	MEASURING POINT ELEVATION (FT)*	DEPTH TO WATER (FT)	WATER TABLE ELEVATION (FT)
1P	55.91	7.06	48.85
2P	54.36	5.34	49.02
3P	53.73	5.14	48.59
4P	52.77	4.64	48.13
5P	51.36	3.59	47.77
1A**	53.67	5.05	48.62

* Measuring point elevation data provided in NYSDEC PSA.
Top of casing (north-edge) used as reference.

** Well 1A was gauged during the second round of water levels to provide additional data.

TABLE 4-1
GROUNDWATER ANALYTICAL SUMMARY

PARAMETER	NYSDEC Class GA Standard	MW-1P (UG/L)	MW-2P (UG/L)	MW-3P (UG/L)	MW-4P (UG/L)	MW-5P (UG/L)	MW-6P (UG/L)	Pump Sump (ug/l)
Chloromethane	5*	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Bromomethane	5	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Vinyl Chloride	2	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Chloroethane	5	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Methylene Chloride	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Trichlorofluoromethane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Acrolein	NA	< 20	< 20	< 20	< 20	< 100	< 20	< 20
Acrylonitrile	5	< 20	< 20	< 20	< 20	< 100	< 20	< 20
1,1-Dichloroethene	5	< 5	< 5	< 5	< 5	< 25	**9.2B**	**5.6B**
1,1-Dichloroethane	5	< 5	< 5	< 5	< 5	< 25	**8.9**	**22**
1,2-Dichloroethene (total)	5	**8.6B**	**8.2B**	< 5	< 5	**220B**	**47B**	**26B**
Chloroform	7	< 5	< 5	< 5	< 5	< 25	< 5	< 5
1,2-Dichloroethane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
1,1,1-Trichloroethane	5	< 5	< 5	< 5	< 5	< 25	**47**	< 5
Carbon Tetrachloride	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Bromodichloromethane	50**	< 5	< 5	< 5	< 5	< 25	< 5	< 5
1,2-Dichloropropane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
cis-1,3-Dichloropropene	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Trichloroethene	5	< 5	**7.1**	< 5	< 5	< 25	**18**	**5.3**
Dibromochloromethane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
1,1,2-Trichloroethane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Benzene	0.7	< 5	< 5	< 5	< 5	< 25	< 5	< 5
2-Chloroethyl Vinyl Ether	5*	< 10	< 10	< 10	< 10	< 50	< 10	< 10
trans-1,3-Dichloropropen	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Bromoform	50**	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Tetrachloroethene	5	< 5	**420**	< 5	< 5	< 25	**9.8**	< 5
1,1,2,2-Tetrachloroethane	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Toluene	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Chlorobenzene	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
Xylenes (total)	5	< 5	< 5	< 5	< 5	< 25	< 5	< 5
1,3-Dichlorobenzene	5	< 10	< 10	< 10	< 10	< 50	< 10	< 10
1,4-Dichlorobenzene	4.7	< 10	< 10	< 10	< 10	< 50	< 10	< 10
1,2-Dichlorobenzene	4.7	< 10	< 10	< 10	< 10	< 50	< 10	< 10

NOTES:

NA = Not Available
* = Chemical is classified as a "Principal Organic Contaminant" (POC) with a 50 ug/l standard.
** = Value listed is a Class GA Quality Guidance Value, not a standard.

MONITORING WELL DEVELOPMENT LOG

SITE NAME:
LOCATION:
WELL ID: MW-3P
WELL DIA.: 4"
DRILLER: Delta Well & Pump Co. (Joe Guggino)
TOTAL DEPTH: 14.50
DRILL METHOD:
SCREENED INTERVAL:
SCREEN SIZE: 4" Slot Size: 20 (0.020)
DEVOPMENT METHOD:
FLOW RATE:

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
11:55	0	6.50	1.21	999	Black / Foul odor.
~~11:00~~ 12:00	8	6.53	1.18	999	" "
12:15	16	6.96	1.25	296	" "
12:37	18	6. ~~78~~ 75	1.85	885	" "
1:15	20	6.69	2.38	395	Clearing up.
1:20	22	6.67	2.54	244	"
1:22	25	6.67	2.55	250	"
1:25	30	6.68	2.54	248	"

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* Note - MW-3P went Dry At. 12:00. Water IN well Is verry Black.
- MW-3P went Dry again at 12:37.
- Well went Dry @ 1:25.

GROUNDWATER TECHNOLOGY.

MONITORING WELL DEVELOPMENT LOG

SITE NAME: _____

LOCATION: _____

WELL ID: MW-4P

WELL DIA.: 4" DRILLER: _____

TOTAL DEPTH: 23.84 DRILL METHOD: _____

SCREENED INTERVAL: _____ _____

SCREEN SIZE: _____

DEVOPMENT METHOD: _____

FLOW RATE: _____

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
11.00	0	6.27	.403	434	Black / Foul odor.
11:05	8	6.23	.371	200	" "
11:10	16	6.22	.368	150	"
11:15	24	6.20	.367	131	"
11:20	32	6.20	.366	106	"
11:25	40	6.22	.367	83	"
11:30	48	6.21	.365	68	"
11:35	56	6.19	.365	35	"
11:40	64	6.21	.365	30	"
11:45	72	6.20	.366	33	"

GROUNDWATER TECHNOLOGY

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MONITORING WELL DEVELOPMENT LOG

SITE NAME: Pall Corp.
LOCATION: 30 Sea Cliff Ave.
WELL ID: MW 5P
WELL DIA.: 4"
DRILLER:
TOTAL DEPTH: 13.40
DRILL METHOD:
SCREENED INTERVAL:
SCREEN SIZE:
DEVOPMENT METHOD:
FLOW RATE: [redacted] 1¼ gpm

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
10:22	8	6.03	.572	65	Color Brwn / slt odor
10:25	16	6.46	.539	28	Clear / No odor
10:29	24	6.45	.534	51	" "
10:35	32	6.49	.532	12	" "
10:40	40	6.57	.529	13	" "
10:45	48	6.50	.527	4	" "
10:50	55 gal	6.51	.529	4	" "

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GROUNDWATER TECHNOLOGY

MONITORING WELL DEVELOPMENT LOG

SITE NAME:
LOCATION:

WELL ID: MW-6
WELL DIA.: 4"
TOTAL DEPTH: 57.70
SCREENED INTERVAL:
SCREEN SIZE:

DRILLER:
DRILL METHOD:

DEVOPMENT METHOD:
FLOW RATE:

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
2:08	1	6.60	0.93	61	Clear No oder
2:12	8	6.60	0.91	999	
2:15	16	6.62	.833	53	
2:20	24	6.58	1.07	36	
2:24	32	6.56	1.07	30	
2:28	35	6.56	1.07	28	
2:34	38	6.55	1.06	30	
2:36	40	6.55	1.05	32	
2:40	42	6.55	1.06	33	

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GROUNDWATER TECHNOLOGY

MONITORING WELL DEVELOPMENT LOG

SITE NAME: Pall Corp.
LOCATION: 30 Sea Cliff Ave.
WELL ID: MW-1P
WELL DIA.: 4" DRILLER:
TOTAL DEPTH: 13.90 DRILL METHOD:
SCREENED INTERVAL:
SCREEN SIZE:
DEVOPMENT METHOD:
FLOW RATE:

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
4:41	4	6.30	.274	999	Black
4:43	5	6.36	.291	818	"
4:45	8	6.38	.308	559	"
4:46	10	6.43	.341	626	"
4:48	15	6.42	.367	330	"
4:50	17	6.43	.372	222	Clearing up
4:52	20	6.43	.374	101	"
4:53	23	6.44	.376	54	"
4:55	25	6.43	.376	55	Clear
4:56	27	6.43	.377	39	"
4:58	30	6.43	.377	41	"
5:00	33	6.41	.377	40	"
	55				

GROUNDWATER TECHNOLOGY

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MONITORING WELL DEVELOPMENT LOG

SITE NAME: _____
LOCATION: _____

WELL ID: MW-2P
WELL DIA.: _____ DRILLER: _____
TOTAL DEPTH: _____ DRILL METHOD: _____
SCREENED INTERVAL: _____ _____
SCREEN SIZE: _____

DEVOPMENT METHOD: _____
FLOW RATE: _____

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
3:49	39	6.16	.324	57	
3:51	40	6.17	.324	47	
3:54	41	6.14	.325	44	
3:57	43	6.16	.325	40	
3:59	44	6.14	.326	38	
4:02	45	6.15	.326	33	
4:04	46	6.14	.326	26	
4:06	48	6.13	.326	25	
4:08	49	6.13	.327	19	
4:10	50	6.13	.326	19	
4:13	51	6.12	.327	18	

GROUNDWATER TECHNOLOGY

ATTORNEY WORK PRODUCT
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MONITORING WELL DEVELOPMENT LOG

SITE NAME:
LOCATION:

WELL ID: MW-2P
WELL DIA.: 4" DRILLER:
TOTAL DEPTH: 14.80 DRILL METHOD:
SCREENED INTERVAL:
SCREEN SIZE:

DEVOPMENT METHOD:
FLOW RATE:

TIME:	TOTAL PUMPED	pH	CONDUCTIVITY	TURBIDITY	VISUAL/ODOR
3:02	1	6.23	.312	662	No odor (green/yellow)
3:08	10	6.17	.309	353	" "
3:12	15	6.19	.313	959	" "
3:15	20	6.22	.312	999	" "
3:18	23	6.16	.320	999	" "
3:24	25	6.23	.333	999	" "
3:28	26	6.27	.332	565	" "
3:31	28	6.23	.335	410	
3:34	30	6.23	.328	370	
3:36	32	6.19	.326	257	
3:38	34	6.19	.323	178	
3:41	35	6.20	.324	134	
3:43	36	6.17	.327	92	
3:46	38	6.18	.325	69	

MW-2P went Dry @ 3:18.

NEXT Page.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northeast Region
Meadowbrook Industrial Park
Milford, NH 03055
(603) 672-4835
(603) 673-8105 FAX

ATTORNEY WORK PRODUCT
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To	From
Co.	Co.
Dept.	Phone #
Fax #	Fax #

November 15, 1995

Dan Smith
Groundwater Technology, Inc.
101-1 Colin Drive
Holbrook, NY 11741

RE: GTEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE, NY

Dear Dan Smith:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 10/31/95 under Chain-of-Custody Number(s) 66012.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This Analytical report shall not be reproduced except in full.

GTEL is certified by the State of New York under Lab ID #10599.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Susan C. Uhler
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

TEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE, NY

Method: EPA 624
Matrix: Aqueous

	GTEL Sample Number	M5100553-01	M5100553-02	M5100553-04	M5100553-05
	Client ID	MW-1P	MW-2P	MW-4P	MW-5P
	Date Sampled	10/26/95	10/26/95	10/26/95	10/26/95
	Date Analyzed	11/07/95	11/07/95	11/08/95	11/08/95
	Dilution Factor	1.00	1.00	1.00	5.00

Analyte	Reporting Limit	Units	Concentration:			
Chloromethane	10.	ug/L	< 10.	< 10.	< 10.	< 50.
romomethane	10.	ug/L	< 10.	< 10.	< 10.	< 50.
nyl chloride	10.	ug/L	< 10.	< 10.	< 10.	< 50.
Chloroethane	10.	ug/L	< 10.	< 10.	< 10.	< 50.
thylene chloride	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
ichlorofluoromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
Acrolein	20.	ug/L	< 20.	< 20.	< 20.	< 100
Acrylonitrile	20.	ug/L	< 20.	< 20.	< 20.	< 100
1-Dichloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
1,1-Dichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
1,2-Dichloroethene (total)	5.0	ug/L	8.6 B	8.2 B	< 5.0	220 B
loroform	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
2-Dichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
1,1,1-Trichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
rbon tetrachloride	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
romodichloromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
1,2-Dichloropropane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
cis-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
richloroethene	5.0	ug/L	< 5.0	7.1	< 5.0	< 25.
bromochloromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
1,1,2-Trichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
nzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
2-Chloroethyl vinyl ether	10.	ug/L	< 10.	< 10.	< 10.	< 50.
trans-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
romoform	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
trachloroethene	5.0	ug/L	< 5.0	420	< 5.0	< 25.
1,1,2,2-Tetrachloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
Toluene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
lorobenzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
hylbenzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
Xylenes (total)	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 25.
3-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 50.
4-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 50.
1,2-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 50.

Notes.
lution Factor:
Dilution factor indicates the adjustments made for sample dilution.

624:
EL Milford, NH
M5100553

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ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE, NY

Method: EPA 624
Matrix: Aqueous

GTEL Sample Number	M5100553-03	--	--	--
Client ID	MW-3P	--	--	--
Date Sampled	10/26/95	--	--	--
Date Analyzed	11/07/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
Chloromethane	10.	ug/L	< 10.	--	--	--
Bromomethane	10.	ug/L	< 10.	--	--	--
Vinyl chloride	10.	ug/L	< 10.	--	--	--
Chloroethane	10.	ug/L	< 10.	--	--	--
Methylene chloride	5.0	ug/L	< 5.0	--	--	--
Trichlorofluoromethane	5.0	ug/L	< 5.0	--	--	--
Acrolein	20.	ug/L	< 20.	--	--	--
Acrylonitrile	20.	ug/L	< 20.	--	--	--
1,1-Dichloroethene	5.0	ug/L	< 5.0	--	--	--
1,1-Dichloroethane	5.0	ug/L	< 5.0	--	--	--
1,2-Dichloroethene (total)	5.0	ug/L	< 5.0	--	--	--
Chloroform	5.0	ug/L	< 5.0	--	--	--
1,2-Dichloroethane	5.0	ug/L	< 5.0	--	--	--
1,1,1-Trichloroethane	5.0	ug/L	< 5.0	--	--	--
Carbon tetrachloride	5.0	ug/L	< 5.0	--	--	--
Bromodichloromethane	5.0	ug/L	< 5.0	--	--	--
1,2-Dichloropropane	5.0	ug/L	< 5.0	--	--	--
cis-1,3-Dichloropropene	5.0	ug/L	< 5.0	--	--	--
Trichloroethene	5.0	ug/L	< 5.0	--	--	--
Dibromochloromethane	5.0	ug/L	< 5.0	--	--	--
1,1,2-Trichloroethane	5.0	ug/L	< 5.0	--	--	--
Benzene	5.0	ug/L	< 5.0	--	--	--
2-Chloroethyl vinyl ether	10.	ug/L	< 10.	--	--	--
trans-1,3-Dichloropropene	5.0	ug/L	< 5.0	--	--	--
Bromoform	5.0	ug/L	< 5.0	--	--	--
Tetrachloroethene	5.0	ug/L	< 5.0	--	--	--
1,1,2,2-Tetrachloroethane	5.0	ug/L	< 5.0	--	--	--
Toluene	5.0	ug/L	< 5.0	--	--	--
Chlorobenzene	5.0	ug/L	< 5.0	--	--	--
Ethylbenzene	5.0	ug/L	< 5.0	--	--	--
Xylenes (total)	5.0	ug/L	< 5.0	--	--	--
1,3-Dichlorobenzene	10.	ug/L	< 10.	--	--	--
1,4-Dichlorobenzene	10.	ug/L	< 10.	--	--	--
1,2-Dichlorobenzene	10.	ug/L	< 10.	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 624:
GTEL Milford, NH
M5100553

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE, NY

Method: EPA 624
Matrix: Aqueous

GTEL Sample Number	M5100553-03	--	--	--
Client ID	MW-3P	--	--	--
Date Sampled	10/26/95	--	--	--
Date Analyzed	11/07/95	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:		

Notes: (continued)

"Test Procedures for Analysis of Organic Pollutants", Code of Federal Regulations, 40CFR Part 136, Appendix A. Analyte list modified to include additional compounds.

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ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE. NY

Method: EPA 624
Matrix: Aqueous

	GTEL Sample Number	M5100553-06	M5100553-07	--	--
	Client ID	MW-6P	PUMP SAMPLE	--	--
	Date Sampled	10/26/95	10/26/95	--	--
	Date Analyzed	11/08/95	11/08/95	--	--
	Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Chloromethane	10.	ug/L	< 10.	< 10.	--	--
Bromomethane	10.	ug/L	< 10.	< 10.	--	--
Vinyl chloride	10.	ug/L	< 10.	< 10.	--	--
Chloroethane	10.	ug/L	< 10.	< 10.	--	--
Methylene chloride	5.0	ug/L	< 5.0	< 5.0	--	--
Trichlorofluoromethane	5.0	ug/L	< 5.0	< 5.0	--	--
Acrolein	20.	ug/L	< 20.	< 20.	--	--
Acrylonitrile	20.	ug/L	< 20.	< 20.	--	--
1,1-Dichloroethene	5.0	ug/L	9.2 B	5.6 B	--	--
1,1-Dichloroethane	5.0	ug/L	8.9	22.	--	--
1,2-Dichloroethene (total)	5.0	ug/L	47. B	26. B	--	--
Chloroform	5.0	ug/L	< 5.0	< 5.0	--	--
1,2-Dichloroethane	5.0	ug/L	< 5.0	< 5.0	--	--
1,1,1-Trichloroethane	5.0	ug/L	47.	< 5.0	--	--
Carbon tetrachloride	5.0	ug/L	< 5.0	< 5.0	--	--
Bromodichloromethane	5.0	ug/L	< 5.0	< 5.0	--	--
1,2-Dichloropropane	5.0	ug/L	< 5.0	< 5.0	--	--
cis-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	--	--
Trichloroethene	5.0	ug/L	18.	5.3	--	--
Dibromochloromethane	5.0	ug/L	< 5.0	< 5.0	--	--
1,1,2-Trichloroethane	5.0	ug/L	< 5.0	< 5.0	--	--
Benzene	5.0	ug/L	< 5.0	< 5.0	--	--
2-Chloroethyl vinyl ether	10.	ug/L	< 10.	< 10.	--	--
trans-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	--	--
Bromoform	5.0	ug/L	< 5.0	< 5.0	--	--
Tetrachloroethene	5.0	ug/L	9.8	< 5.0	--	--
1,1,2,2-Tetrachloroethane	5.0	ug/L	< 5.0	< 5.0	--	--
Toluene	5.0	ug/L	< 5.0	< 5.0	--	--
Chlorobenzene	5.0	ug/L	< 5.0	< 5.0	--	--
Ethylbenzene	5.0	ug/L	< 5.0	< 5.0	--	--
Xylenes (total)	5.0	ug/L	< 5.0	< 5.0	--	--
1,3-Dichlorobenzene	10.	ug/L	< 10.	< 10.	--	--
1,4-Dichlorobenzene	10.	ug/L	< 10.	< 10.	--	--
1,2-Dichlorobenzene	10.	ug/L	< 10.	< 10.	--	--

Notes:

Dilution Factor:
Dilution factor indicates the adjustments made for sample dilution.

EPA 624:
GTEL Milford, NH
M5100553

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 041000297
Login Number: M5100553
Project ID (number): 041000297
Project ID (name): PALL CORPORATION GLEN COVE. NY

Method: EPA 624
Matrix: Aqueous

GTEL Sample Number	M5100553-06	M5100553-07	--	--
Client ID	MW-6P	PUMP SAMPLE	--	--
Date Sampled	10/26/95	10/26/95	--	--
Date Analyzed	11/08/95	11/08/95	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:		

Notes: (continued)

"Test Procedures for Analysis of Organic Pollutants", Code of Federal Regulations, 40CFR Part 136, Appendix A. Analyte list modified to include additional compounds.

M5100553-06:
See Report Notes.

M5100553-07:
See Report Notes.

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