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Remedial Action

PHASE II REMEDIAL INVESTIGATION/ FEASIBILITY STUDY WORK PLAN

Pall Corporation Facility
NYSDEC IHWDS No. 1-30-053B
30 Sea Cliff Avenue
Glen Cove, New York

Prepared for:

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P.O. Drawer 19764
3200 Beechleaf Court
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and

Pall Corporation
2200 Northern Boulevard
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Prepared by:

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Date Submitted:

February 15, 1999

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February 15, 1999

Mr. Richard Gaborow
NYSDEC, Bureau of Eastern Remedial Action
Division of Environmental Remediation
50 Wolf Road
Albany, New York 12233-7010

Re: Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, NY
NYSDEC IHWDS No. 1-30-053B

Dear Mr. Gaborow:

Enclosed are three (3) copies of the final Phase II Remedial Investigation / Feasibilty Study (RI/FS) Work Plan for the above referenced facility.

All comments received to date from the New York Department of Environmental Conservation (NYSDEC) have been addressed in the revised Phase II RI/FS Work Plan with the exception that a provision allowing for additional work has not been included. Language allowing for additional work is already included in the Order on Consent and has not been included in the Phase II RI/FS Work Plan consistent with NYSDEC's previous request that the work plan documents not include any legal language. As per your February 4, 1999, letter, it is our understanding that this submittal will be approved by the NYSDEC as the final RI/FS Work Plan.

Please review the enclosed document and, if acceptable, issue a letter approving the Phase II RI/FS Work Plan. It is our intent to start work shortly following NYSDEC approval. We will inform you at least 72 hours prior to the start of any field work on the project. If you have any questions or comments, please do not hesitate to contact me at (516) 472-4000.

Sincerely,
IT Corporation

Daniel J. Smith, P.E.
Project Manager

cc: M.A. Bartlett / Pall (one copy)
K. Olson / Maupin Taylor & Ellis (one copy)
C. Vasudevan / NYSDEC (one copy)
R. Becherer / NYSDEC Region 1 (one copy)
J. Byrne / NYSDEC (one copy)
G. Anders Carlson / NYSDOH (two copies)

LIST OF FIGURES

LIST OF REFERENCES

1. TAMS Consultants, Inc. and GZA GeoEnvironmental of New York, Preliminary Focused Remedial Investigation Data Report, Pall Corporation, Site No. 1-30-053B, Glen Cove, New York (prepared for the NYSDEC), July 1998;

2. McLaren Hart Environmental Engineering Corporation, Remedial Investigation/Interim Remedial Measure Work Plan, Photocircuits Corporation, 31 Sea Cliff Avenue, Glen Cove, New York, March 25, 1997;

3. Fluor Daniel GTI, Inc. Groundwater Sampling and Analysis Report, Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, New York, December 30, 1996;

4. McLaren Hart Environmental Engineering Corporation, Results of Preliminary Site Investigation, 31 and 45A Sea Cliff Avenue properties, Glen Cove, New York, November 14, 1996 (*if available to Pall*);

5. GT Engineering, P.C. (Groundwater Technology, Inc.), Groundwater Sampling and Analysis Report, Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, New York, March 13, 1996;

6. Nassau County Department of Public Works, Engineering Investigations at Inactive Hazardous Waste Sites, Preliminary Site Assessment, March 1994;

7. H2M Group, Source Area Investigation, Sea Cliff Industrial Area, Glen Cove, New York, September 1992;

8. Nassau County Department of Public Works and Nassau County Department of Health, Investigation of Contaminated Aquifer Segment, City of Glen Cove, Nassau County, New York, June, 1990;

9. NUS Corporation, Final Draft Site Inspection Report, Photocircuits Division/Kollmorgen Corporation, Glen Cove, LI, NY, September 15, 1989.

1.0 INTRODUCTION

This Phase II Remedial Investigation Work Plan (RI Work Plan) outlines additional investigation activities to be performed at Pall Corporation's (Pall's) 30 Sea Cliff Avenue facilities located in Glen Cove, Town of North Hempstead, Nassau County, New York (see Figure 1-1: Site Plan). The Pall property is listed by the New York State Department of Environmental Conservation (NYSDEC) as an Inactive Hazardous Waste Disposal Site (NYSDEC Site No. 1-30-053B). The NYSDEC has also listed the August Thomsen property located at 36 Sea Cliff Avenue as part of the Pall Inactive Hazardous Waste disposal Site. The terms "site" or "property" when used to describe the subject facilities shall include the 30 and 36 Sea Cliff Avenue properties. The scope of work proposed is based upon review of existing site data and a preliminary scoping meeting held with the NYSDEC on November 2, 1998, and is contingent upon obtaining access to those locations not owned or controlled by Pall but at which the NYSDEC has determined certain investigation activities are required.

The investigation planned for the site includes the installation and sampling of additional monitoring wells and soil borings throughout the site to better delineate the nature and extent of contamination at the site. Groundwater samples will be collected from the newly installed monitoring wells and the existing wells at the site. A limited off-site groundwater investigation will also be included on the properties that are located adjacent to the northeast-northwest portions of the site in order to identify the apparent center of the contaminant plume located near the northern border of the Pall property.

The following sections of this work plan, when implemented in conjunction with the Site Health and Safety Plan (HASP) the Quality Assurance Project Plan (QAPP), and review of previous investigation data, will meet the objectives of the Remedial Investigation as outlined in NYSDEC Technical and Administrative Guideline No. 4025, Guidelines for Remedial investigation/Feasibility Studies (NYSDEC TAGM 4025, March 31, 1989) and United States Environmental Protection Agency (USEPA) Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (USEPA, October 1988).

1.1 Objectives

This Phase II RI has been designed to meet the following objectives:

- Investigate and determine the nature and extent of soil and groundwater contamination at the site;
- Investigate and confirm the absence or presence of on-site source areas of contamination at previously identified "apparent source areas" during past studies;

- Investigate and delineate any on-site source areas (both vertical and horizontal);
- Collect sufficient water elevation data to confirm the potentiometric surface of the groundwater table and the inferred groundwater flow direction;
- Investigation possible historic and current upgradient groundwater contaminants migrating onto the Pall property;
- Perform a limited investigation of the extent of the off-site and downgradient plume of contamination as indicated in this RI/FS Work Plan
- Collect sufficient data to investigate and evaluate appropriate remedial technologies for interim remedial measures and full-scale remediation, if necessary.
- Meet the Remedial Investigation requirements set forth by the NYSDEC and USEPA to eliminate or limit the need for additional investigation activities.

1.2 Site Description and Location

The Pall facility is located at 30 Sea Cliff Avenue, approximately 1/8 mile west of Route 107 and 1/4 mile south-southeast of the Carney Street Well Field. The current Pall property is bordered on the north by the August Thomsen portion of the site, the south by Sea Cliff Avenue, the east by Route 107, and on the west by the Associated Draperies Facility. Photocircuits Corporation (Photocircuits) and the 45A site (formerly owned by Pass and Seymour and Slater Electric Company and now owned by Photocircuits) are located south of the Pall site across Sea Cliff Avenue. Glen Cove Creek is situated parallel to the west side of the site and runs from the southwest corner, through the site, to the northwest corner. Areas surrounding the site consist primarily of industrial areas with some residential areas located approximately 1 to 2 miles north, south, east, and west of the site.

What is currently the August Thomsen property at 36 Sea Cliff Avenue, was owned by the Pall Corporation until 1971, at which time August Thomsen purchased the property. For this reason, the NYSDEC considers the August Thomsen property part of the Pall site.

The topography of the site is relatively flat with a gentle slope from the southwest corner of the site (grade elevation approximately 55 feet above mean sea level [msl]) toward the northeast corner of the site (approximately 51 feet above mean sea level). Based upon historic groundwater elevation data, groundwater flows predominantly from southeast to northwest across the site. However, local groundwater elevation variations imply that there may also be a southwesterly component of the groundwater flow direction along Glen Cove Creek. On the basis of the predominant groundwater flow direction, it appears that Photocircuits and the former 45A site properties are located hydraulically upgradient from the Pall Corporation site.

1.3 Site History

The following sections provide a brief history of the site. Section 1.3.1 focuses on ownership and use history whereas Section 1.3.2 provides an overview of historic environmental studies at the site and immediately adjacent properties. The information presented is based upon readily available, public information and discussions with Pall personnel.

1.3.1 General Site History

The site is located in the Sea Cliff Avenue Industrial Area that has been documented as an area of variable industrial use from the 1940s to the present. Pall has operated it's Sea Cliff Avenue facility since the early 1950s. The Pall facility is currently used in a reduced capacity for limited manufacturing of filtration products. The facility is scheduled to be phased-out in the future. The August Thomsen property was owned by Pall until 1971. During the period that Pall owned the August Thomsen property, it was used by Pall's subsidiary, Glen Components, Inc., as a precision machine shop providing parts to Pall's other divisions, primarily Aircraft Porous Media, Inc. According to Pall personnel, there are no chlorinated solvents currently being used at the site. Chlorinated solvents had been used at the site until approximately 1971 at which time their use was discontinued.

Industrial activities have occurred in the past and are currently occurring on neighboring properties, including Photocircuits, the 45A site, and Associated Draperies. These industrial properties are subject to NYSDEC regulatory enforcement action. Pall, Photocircuits, and the 45A site properties are listed as Class 2 Inactive Hazardous Waste Disposal Sites (IHWDS) by the NYSDEC. Associated Draperies is listed as a NYSDEC Spills site.

1.3.2 Previous Sea Cliff Avenue Industrial Area Environmental Studies

The Sea Cliff Avenue Industrial Area has been the subject of several environmental studies in the past. A number of these studies relate to the Pall site and other facilities that are located in the Sea Cliff Industrial Area. IT Corporation reviewed and considered the documents referenced below in preparing this RI Work Plan:

1. TAMS Consultants, Inc. and GZA GeoEnvironmental of New York, Preliminary Focused Remedial Investigation Data Report, Pall Corporation, Site No. 1-30-053B, Glen Cove, New York (prepared for the NYSDEC), July 1998;

2. McLaren Hart Environmental Engineering Corporation, Remedial Investigation/Interim Remedial Measure Work Plan, Photocircuits Corporation, 31 Sea Cliff Avenue, Glen Cove, New York, March 25, 1997;

3. Fluor Daniel GTI, Inc. Groundwater Sampling and Analysis Report, Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, New York, December 30, 1996;

4. McLaren Hart Environmental Engineering Corporation, Results of Preliminary Site Investigation, 31 and 45A Sea Cliff Avenue properties, Glen Cove, New York, November 14, 1996 (*if available to Pall*);

5. GT Engineering, P.C. (Groundwater Technology, Inc.), Groundwater Sampling and Analysis Report, Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, New York, March 13, 1996;

6. Nassau County Department of Public Works. Engineering Investigations at Inactive Hazardous Waste Sites, Preliminary Site Assessment, March 1994;

7. H2M Group, Source Area Investigation, Sea Cliff Industrial Area, Glen Cove, New York, September 1992;

8. Nassau County Department of Public Works and Nassau County Department of Health, Investigation of Contaminated Aquifer Segment, City of Glen Cove, Nassau County, New York, June, 1990;

9. NUS Corporation, Final Draft Site Inspection Report, Photocircuits Division/Kollmorgen Corporation, Glen Cove, LI, NY, September 15, 1989.

A report entitled Final Draft, Site Inspection Report, Photocircuits Div./Kollmorgen Corp., Glen Cove, Long Island, New York (NUS Corporation, September 15, 1989) documents site history at the Photocircuits facility and the closing of the Carney Street well field. According to the report, the Carney Street well field was closed in July 1977 due to the presence of chlorinated solvents in the water supply wells. According to a report written by the Nassau County Department of Public Works (NCDPW) entitled, Engineering Investigations at Inactive Hazardous Waste Sites, Preliminary Site Assessment (NCDPW, March 1994) concentrations of methylene chloride, PCE, 1,1,1 – trichloroethane (TCA), TCE, 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), and toluene were reported in soils collected at the Photocircuits site in excess of State cleanup objectives. It was reported that groundwater samples collected from the Photocircuits property were contaminated with methylene chloride, PCE, and TCA at concentrations which ranged from 13 to 420 times the State maximum contaminant levels (MCLs) for these compounds in groundwater. The report also stated that various volatile organic compounds (VOCs) were detected in soils collected from the Pall property however, xylene was the only compound detected in the soil at a concentration in excess of State cleanup criteria. Several volatile organic compounds were detected in shallow groundwater beneath the Pall site.

A report entitled, Groundwater Sampling and Analysis Report, Pall Corporation, 30 Sea Cliff Avenue, Glen Cove, NY (Fluor Daniel GTI, December 30, 1996) compiled laboratory analytical results of groundwater samples which were collected from six (6) existing monitoring wells at the Pall Facility. Laboratory results indicate that several chlorinated VOCs (Vinyl Chloride, 1,1-DCA, 1,2-DCE, TCA, TCE, and PCE) exceeded their respective NYSDEC Class GA Groundwater Quality Standards. The report stated that the highest concentrations of PCE and TCE occurred in MW-2P. In addition, the report examined the various industrial activities that have occurred in the Sea Cliff Avenue Industrial Area during the period from 1940 to the present. The report indicated that Pall Corporation and several facilities located in close proximity to the Pall Corporation property have historically utilized chlorinated solvents for their in-house production processes.

The Remedial Investigation/Interim Remedial Measure Work Plan, Photocircuits Corp., 31 Sea Cliff Avenue, Glen Cove, NY (McLaren/Hart Environmental Engineering Corp ,March 25, 1997) provided a strategy for the implementation of a site investigation and remediation activities at the Photocircuits site. The report provided a site location map and description for various facilities surrounding the site including, Pall Corporation (located to the North), Glen Head County Club (located to the South), and the 45A site (located to the west). The report states that preliminary investigations by McLaren/Hart indicated that groundwater flow in the vicinity of the Photocircuits site is to the northwest. In addition, the report describes a chemical storage area on the Photocircuits property which is comprised of drums and approximately 20 ASTs with capacities ranging from 1,000 to 8,000 gallons.

A report prepared by TAMS Consultants, Inc. (TAMS) and GZA GeoEnvironmental of New York (GZA) for the NYSDEC, entitled Preliminary Focused Remedial Investigation Data Report, Pall Corporation, 30-36 Sea Cliff Avenue, Glen Cove, NY (TAMS/GZA, July 1988) summarized the findings of an investigation of the Pall Corporation site. The report discussed groundwater and soil sample results that indicated the presence of VOC compounds in the soil and groundwater underlying the Pall site. As in past investigations at the Pall site, VOCs in soils were detected at concentrations that did not exceed NYSDEC soil cleanup objectives in use at the time of the studies. Contaminant concentrations in groundwater were above NYSDEC Class GA Groundwater Quality Standards and NYSDEC MCLs in several sections of the Pall and August Thomsen properties with the highest concentrations detected near the northern (downgradient) property line. Each of these compounds was also detected at the upgradient property line in varying concentrations. The groundwater flow velocity through the aquifer at the site ranges from 300 to 2,000 feet per year as estimated in the NYSDEC report. Contaminant flow rates for PCE were estimated at between 20 and 200 ft/year after considering other soil and contaminant specific properties such as organic carbon content of the soil and octanol/water partition coefficients. NYSDEC identified several "apparent source areas" warranting additional investigation and/or remediation. These areas are further addressed in the proposed scope of this Phase II RI Work Plan.

1.4 Overview of Work Plan Documents

This Work Plan includes the Field Sampling Plan (FSP) and Community Participation Plan (CPP). The Health and Safety Plan (HASP) and Quality Assurance Project Plan (QAPP) are under separate covers and are incorporated into this Phase II RI Work Plan by reference.

2.0 SCOPE OF WORK (FIELD SAMPLING PLAN)

The following sections of this Work Plan include all aspects of the FSP and will discuss the soil and groundwater investigation that will be completed as part of this Phase II RI. The findings of previous investigations at the site (most notably the Preliminary Focused Remedial Investigation Report, TAMS/GZA, July 1998) are discussed where necessary to fully describe the rationale behind the work to be performed as part of this Phase II RI.

2.1 Review of Historic Data and Studies

A review of the reports that were summarized in Section 1.3.2 of this document was conducted during the development of this scope of work. As part of the Phase II RI, available data from past studies will be re-evaluated in light of newly acquired data to ensure that a full site characterization is developed.

2.2 On-site Investigation Activities

The primary objective of the on-site investigation is to accurately determine the nature and extent of subsurface contamination beneath the site. The on-site investigation to be performed will build upon the data previously generated by the NYSDEC and will include soil borings and additional groundwater monitoring well installations. The detailed scope of work to be implemented during the on-site investigation phase of the Phase II RI is described in the following sections.

2.2.1 Soil Investigation

As a result of the previous investigations that have taken place at the site, an extensive amount of data exists concerning soil conditions at the site. For this reason, the proposed soil investigation is limited to areas that are not fully delineated. Two primary areas are the focus of the additional soil investigation work to be performed: the Pall drum storage shed and the northwest corner of the August Thomsen property. Although some trace soil contamination has been detected in other areas of the site, the level of sampling performed to date is sufficient to delineate the nature and extent of soil impacts in these.

2.2.1.1 Identification of Data Gaps

Following historic investigations, very few soil data gaps exist at the site. The most recent NYSDEC investigation (July 1998) included over 40 soil borings. As a result of this extensive soil characterization program, the majority of the site has soil data available every 30 to 40 linear feet so that a reasonable estimate of the extent of soil impacts can already be inferred. There are several exceptions to this generalization that form the basis for the proposed additional soil investigation. The northwest corner of the August Thomsen portion of the site near the previous stream sediment sampling event has not been thoroughly investigated. This area of the site will be sampled as part of the on-site soil investigation. In addition, there were several minor PCE detections in soils near the Pall drum storage area that have not been fully delineated. Several soil borings will be installed in this area to complete the delineation initiated in previous studies.

2.2.1.2 Soil Boring Locations and Depths

Eight (8) new soil borings are proposed to address the data gaps described previously. Proposed soil borings SB-1, SB-2 and SB-3 are to be located at the north-northwest side of the August Thomsen property as indicated in Figure 2-1. Information from these three new soil boring locations will be reviewed in conjunction with data from the five (5) previous soil borings installed in this area to define the extent of soil contamination, if any, in this area. Soil borings will be installed to a maximum depth of ten feet below the water table and two (2) soil samples will be collected from each soil boring and analyzed for VOCs in accordance with the QAPP procedures. One soil sample will be collected from approximately 3 feet below grade. The second soil sample will be collected from the depth indicating the highest PID reading during the field screening. In the absence of an elevated PID reading, the second soil sample from each soil boring will be collected from immediately above the water table.

The second area to be sampled during this Phase II RI soil investigation is the Pall drum storage shed area. Three (3) new soil borings (SB-4, SB-5 and SB-6) will be installed to the south, southeast, and north of the drum storage shed as indicated in Figure 2-1. These locations were selected to fill in the data gaps between the previously installed soil borings designated as SGB-20 through SGB-26 and existing monitoring wells MW-3P and MW-4P. After completion of the new soil borings, the area extending radially outward from the center of the shed will have been thoroughly explored to fully delineate any contamination associated with operation of the drum storage area. The rationale for selecting the depth of soil samples at SB-4, SB-5 and SB-6 will be the same as that used for SB-1 through SB-3.

The third and final area to be sampled during the Phase II RI soil investigation is the area near the west-northwest corner of the Pall Building. Two soil borings (SB-7 and SB-8) will be installed in this area in the vicinity of previously installed SB-38 (see Figure 2-1). At SGB-38, VOCs detected included PCE at 66 ug/kg, TCE at 29 ug/kg and 1,2-DCE at 48 ug/kg. Although, each of these concentrations is well below NYSDEC Recommended Soil Cleanup Objectives, the two new soil borings installed near SGB-38 (SB-7 will be located approximately 15 feet north of SB-38 and SB-8 will be located approximately 15 feet west of SB-38) will serve to delineate the contamination in the vicinity of SGB-38 more thoroughly.

Pall considered additional soil borings in locations near SGB-7 and APS-3. In the case of SGB-7 and APS-3, total chlorinated VOCs and BTEX were less than 25 ug/kg and 500 ug/kg respectively. Each of these results are significantly below any State soil cleanup objectives so no additional sampling is justified at these two locations. Other samples located around these two locations in all directions also contained no VOCs above NYSDEC recommended soil cleanup objectives so that delineation is also considered complete.

The only other area identified by NYSDEC as an "apparent source area" where the soil is not being investigated in more detail during this proposed soil investigation program is at the northeast corner of the Pall property. Six (6) soil borings have already been performed in this area (each no more than 30 to 40 feet apart) and VOCs were non-detectable with the exception of minor detections of non-chlorinated, common laboratory contaminants. The entire northeast area is already well delineated through the previous soil investigation programs in the area and additional soil borings will not provide any useful data to better delineate contaminants.

2.2.1.3 Soil Boring Installation

One of two techniques (Geoprobe or Hollow Stem Auger) will be utilized for the collection of the soil samples. For soil samples collected with the Geoprobe unit, boreholes will be advanced into the overburden and soil samples will be collected using a truck mounted Geoprobe unit. An MC (macro-bore) type soil sampler will be utilized to continually collect soil samples at four foot intervals. At a certain point (which varies with each boring), there is a danger of the boring caving in on itself. At this point, a LB (large-bore) type soil sampler will be utilized for completion of the boring. The LB is driven to the top of the desired sample interval using the Geoprobe. The Geoprobe unit includes a hydraulic push/hammer that is used to advance the sampler. Chase rods are then fitted down the drill rods and LB sampler to unscrew the bottom pin which then allows the underlying soils to enter the LB. The LB is then driven an additional two feet to collect the soils from the desired two-foot interval. Upon advancing to the desired depth, the boring rods and LB are removed from the borehole, the LB unthreaded from the rods, and an acetate liner containing the soil sample removed from the LB.

Some soil samples may be collected with a Hollow Stem Auger (HSA) prior to monitoring well

installation (proposed soil borings SB-1 and SB-4 correspond to proposed well locations). Once the auger is advanced to the desired depth, a split spoon sampling device will be placed inside the auger stems and pounded two feet into the soil located at the end of the auger. Once removed from the auger stems, the split spoon will provide a soil sample with a two-foot interval similar to that of the LB sampler described above.

Prior to advancing the first boring and before each subsequent boring, the samplers, rods, and split spoons will be thoroughly decontaminated. Each item will first be washed with an Alconox and deionized water mixture, then rinsed off with deionized water. Additional sampling details are provided in the QAPP.

2.2.1.4 Field Screening

Soil samples collected will be field screened with a photoionization detector (PID) for the presence or absence of VOCs. The PID is a field screening tool which detects levels of total VOCs in the air. The PID unit consists of a pump which takes in ambient air and passes it by a lamp with a known ionization potential. The lamp is able to detect levels of VOCs which have ionization potentials lower than that of the lamp. Soil samples will be collected from each boring for laboratory analysis based upon the field PID screening results. The rationale for selecting soil sample depths is presented in Section 2.2.1.2.

A graphic log of each soil boring will be prepared with appropriate stratification lines, sample identifications, PID readings, sample depth intervals, and dates.

2.2.1.5 Analytical Parameters and Rationale

Soil samples submitted to the laboratory will be analyzed for VOCs in accordance EPA Method 8240. The soil samples will only be analyzed for VOCs because historic studies have not indicated significant levels of compounds other than VOCs at the site.

QA/QC sample collection and analysis including the collection of trip blanks, field blanks, duplicates, and matrix spike (ms)/matrix spike duplicate (MSD) samples will be conducted at the site as per the QAPP.

2.2.2 Groundwater Investigation

The primary objective of the groundwater investigation that will be carried out at the site is to fill the gaps in groundwater monitoring well coverage which exist at the site in order to clarify the vertical and horizontal extent of groundwater contamination beneath the site. This objective will be accomplished

by installing additional groundwater monitoring wells at various depths at the site. A secondary objective of the proposed groundwater investigation will be to better define upgradient VOC concentrations (both horizontally and vertically) and groundwater flow.

2.2.2.1 Identification of Data Gaps

Although the areal coverage of monitoring wells at the site is fairly comprehensive, the three-dimensional nature of contaminant transport at the site necessitates a three-dimensional understanding of the aquifer. Therefore, the primary groundwater data gaps are associated with the lack of groundwater contaminant concentration data as a function of depth.

Chlorinated VOCs (i.e. PCE) and petroleum constituent VOCs (i.e. BTEX) in the soil and groundwater beneath the site are the focus of this RI. Chlorinated VOCs are denser than water and therefore sink through the groundwater table, whereas the petroleum constituents are less dense than water and will float on top of the water table when present in groundwater. Well triplets are proposed for the site due to the previously mentioned physical characteristics of the two types of VOCs.

In order to eliminate groundwater data gaps at the site associated with the vertical migration of contaminants, well triplets (one shallow well, one medium depth well, and one deep well) will be completed throughout the site. Information from the newly formed well triplets will assist Pall in determining the level of contaminants as a function of depth and will also serve to obtain valuable information related to the evaluation of cost-effective remedial technologies.

2.2.2.2 New Well Installations and Rationale

Fifteen (15) new monitoring wells will be installed at various locations around the site. The fifteen new wells will be strategically placed with existing wells to form a total of seven well triplets (total of 21 wells). In addition to the newly formed well triplets, three existing monitoring wells will also be used for shallow groundwater monitoring. The existing and proposed monitoring well locations are graphically illustrated in Figure 2-2.

The fifteen (15) new monitoring wells will consist of seven (7) deep wells, six (6) intermediate depth wells, and (2) shallow wells. The following is a description of each proposed well installation and the rationale behind the proposed approach:

- One (1) new deep monitoring well (designated MW-6PD) will be installed immediately adjacent to existing monitoring wells MW-6P and MW-7P. By installing a single deep well at this location, existing wells MW-6P (intermediate depth) and MW-7P (shallow depth) could be used in conjunction with the newly installed deep well to form an

upgradient well triplet. Information from this well triplet will assist Pall Corporation in determining the level of contaminants migrating on-site from upgradient properties as a function of depth. This information is critical to fully understanding the dynamics of the aquifer system and the three-dimensional transport of contaminants in the region. Considering the confirmed upgradient source of contaminants.

- One (1) new monitoring well triplet (total of 3 wells to be designated MW-8PS, MW-8PI, and MW-8PD) will be installed between existing wells MW-6P and MW-1P at the upgradient property line. Information from this well triplet will assist Pall Corporation in determining the level of contaminants migrating on-site from upgradient properties as a function of depth. This well location will also help to better define the local groundwater flow direction at the southern side of the Pall site.

- One (1) new monitoring well couplet (total of 2 wells to be designated MW-1PI and MW-1PD) will be installed immediately adjacent to existing MW-1P at the upgradient property line. By installing a deep/intermediate well couplet at this location, existing well MW-1P (shallow depth) could be used in conjunction with the newly installed intermediate and deep wells to form an upgradient well triplet. Information from this well triplet and the other proposed upgradient wells will assist Pall Corporation in determining the level of contaminants migrating on-site from upgradient properties to the southwest as a function of depth

- One (1) new monitoring well couplet (total of 2 wells to be designated MW-5PI and MW-5PD) will be installed immediately adjacent to existing well MW-5P. By installing a deep/intermediate well couplet at this location, existing well MW-5P (shallow depth) could be used in conjunction with the newly installed intermediate and deep wells to form a downgradient well triplet. This location is in the center of the previous Geoprobe sampling program where elevated levels of PCE were detected in shallow groundwater samples and lower levels of PCE and other chlorinated compounds were detected in deeper Geoprobe borings. The newly installed well couplet (a triplet with the existing well) will help to better define the extent of VOC contamination in this area as a function of depth.

- Two (2) new monitoring well couplets (total of 4 wells, to be designated MW-2AI, MW-2AD, MW-4PI, and MW-4PD) will also be installed to form two new well triplets new existing monitoring wells MW-2A and MW-4P. These newly formed well triplets will be used to obtain better horizontal and vertical assessment of groundwater quality. Proposed wells MW-2AI and MW-2AD will assist in evaluating the VOC concentrations near the August Thomsen facility at the northwest corner of the site. Proposed wells MW-4PI and MW-4PD will better characterize groundwater quality in the vicinity of the Pall drum storage shed.

- One (1) new well triplet (to be designated MW-10PS, MW-10PI, and MW-10PD) will be installed at approximately the midpoint between the northeast and northwest boundary at the downgradient property line. These well triplets will help define the extent of downgradient plumes and will also serve as sentry wells for downgradient receptors such as the Carney Street well field.

All new deep wells (MW-##PD) will be installed to a depth of 105 feet below grade and screened from 90 to 100 feet below grade. New intermediate depth wells (MW-##PI) will be installed to a depth of approximately 55 feet below grade and screened from 40 to 50 feet below grade. The new shallow wells (MW-##PS) will be installed to a depth of approximately 15 feet below grade and screened from 10 to 15 feet below grade. All wells will be constructed of 2-inch diameter PVC, screened with 0.020 slot well screen, and completed at grade as flush mount monitoring wells. Well construction details are provided for shallow, intermediate and deep groundwater monitoring wells in Figures 2-4S, 2-4I, and 2-4D, respectively. Well drilling logs and completion diagrams will be developed during installation. Split spoon soil samples will be collected at 5 foot intervals and field screened for the presence or absence of VOCs.

The new monitoring wells will be installed by first creating a borehole to the desired well depth utilizing steel hollow stem augers (HSAs). Once the borehole is completed, the PVC sections of the monitoring well will be threaded together and placed down the center of the HSAs. A sand filter pack will then be placed so that it extends approximately 1 to 2 feet above the top of the screened portion of the monitoring well to about 6 inches below the bottom of the screen. The placement of the sand pack will be coordinated with the withdrawal of the HSAs so that the well screen is not exposed to the native formation, thereby reducing the possibility of caving of native material about the screen whenever possible. Following installation of the sand filter pack, a 3-foot thick bentonite seal will be installed to prevent grout from penetrating the sand filter pack. The remainder of the borehole will then be grouted. A flush mount pad of concrete construction with lockable cap will be cemented in place at the ground surface. The pad will be approximately 2 feet by 2 feet and 4 inches thick and installed so the surface of the concrete slopes downward and away from the well, thereby directing runoff water away from the monitoring well.

2.2.2.3 Well Development

Following installation, the groundwater monitoring wells will be developed. Development will consist of pumping groundwater from each monitoring well until pH, specific conductivity, and turbidity measurements stabilize. Stabilization will be achieved when three consecutive pH, specific conductivity, and turbidity readings (recorded approximately five minutes apart) are within 10 percent of one another. If stability cannot be obtained, the wells will be developed for a minimum of ½ hour of continuous pumping.

If well yields are not sufficient to allow ½ hour of continuous pumping, the well will be fully evacuated (i.e., pumped dry) and allowed to fully recharge for a minimum of three times.

Development water will be containerized in 55-gallon drums, labeled, and transferred to a drum staging area specified by Pall for future disposal. Monitoring well data will be utilized to characterize development waters for proper disposal. Alternatively, a temporary storage tank may also be utilized for storage of development waters prior to bulk removal for proper disposal.

2.2.2.4 Well Purging and Sampling

In addition to the nine (9) groundwater monitoring wells which currently exist at the site (MW-1P, MW-2P, MW-3P, MW-4P, MW-5P, MW-6P, MW-7P, MW-1A, and MW-2A), groundwater samples will be collected from the newly installed groundwater monitoring wells and submitted for laboratory analysis.

Prior to sampling, depth to water readings will be collected from each monitoring well with a decontaminated water level indicator. Water level measurements will also be collected form the existing piezometers installed during the Phase I RI by TAMS/GZA on behalf of the NYSDEC and from the southern, northern and midpoint portions of the Glen Cove Creek adjacent to the Pall property. Provided access can be obtained, depth to water measurements at off-site wells at the Associated Draperies and Photocircuits properties will also be measured during the RI.

Following the collection of depth to water measurements, a dedicated disposable polyethylene bailer will be lowered into each monitoring well and partially submerged into the groundwater. The groundwater in each bailer will be visually inspected for color, general appearance, odor, and presence or absence of a sheen on the surface or particulates in the water column.

Following the collection of the initial bailer groundwater sample at each monitoring well, each monitoring well will be purged until at least three well volumes of groundwater are removed. Purge waters will be removed with a decontaminated trash pump. All purge waters from each of the twenty-four (24) monitoring wells (fifteen new wells and nine existing wells) will be drummed, labeled, and transported to the specified drum staging area prior to proper disposal. Monitoring well data will be utilized to characterize purge waters for proper disposal. Alternatively, a temporary storage tank may also be utilized for storage of purge waters prior to bulk removal for proper disposal.

2.2.2.5 Analytical Parameters and Rationale

Groundwater samples submitted to the laboratory will be analyzed for VOCs in accordance with EPA Method 624. The groundwater samples will be analyzed for only VOCs because historic studies have not indicated significant levels of compounds other than VOCs at the site.

QA/QC groundwater sample collection and analysis including the collection of trip blanks, field blanks, duplicates, and matrix spike (ms)/matrix spike duplicate (MSD) samples will be performed at the site as per the QAPP.

2.3 Off-Site Groundwater Investigation

Pall will conduct a limited off-site groundwater investigation north of the downgradient property line. Pall is performing this limited investigation at NYSDEC's request

The off-site groundwater investigation will consist of the installation of five Geoprobe borings outside the northern, downgradient fence line of the site and the sampling of existing wells GC-3S. GC-3M, GC-3D, GC-5S, GC-5D, GC-8S, GC-8D, and GC-9S on the Nassau County Department of Public Works property. Two groundwater samples will be collected from each Geoprobes boring (one shallow groundwater sample at about 5 feet into the water table and one intermediate/deep groundwater sample at about 50 feet into the water table) and submitted for laboratory analysis.

2.3.1 Groundwater Sample Locations

The off-site Geoprobe sampling locations have been selected to confirm whether or not the elevated VOC concentrations detected previously at SGB-29 and SGB-35 are representative of the maximum concentrations in the area (i.e., the plume "center") or whether more elevated concentrations are present in the area. To meet this objective, the proposed Geoprobe groundwater sample locations of Figure 2-3 were selected. Sample locations GP-40 and GP-41 were selected to determine if SGB-29 represents the approximate "center" of the northwest plume near the former August Thomsen property (i.e., the SGB-29 plume). Sample locations GP-43, GP-44, and GP-45 were selected to determine if SGB-35 represents the approximate "center" of the northeast plume (i.e., the SGB-35 plume). GP-42 is to be located approximately halfway between the two downgradient plumes to help define the east-west extent of the plumes.

2.3.2 Groundwater Sample Collection Procedures

Off-site groundwater samples from Geoprobe borings will be collected using an SP15 screen point sampler. To collect groundwater samples using this sampler, a clean unit is threaded onto the leading

end of a probe rod and driven to the desired sampling interval. While the sampler is driven to the desired depth, O-ring seals at the drive head and expandable drive point provide a watertight system. Once at the desired depth, the tool string is retracted while the screen is held in place. The O-ring at the drive head maintains the seal at the top of the screen. As a result, any liquid entering the sampler, must pass through the screen. The screen point sampler utilizes a screen with a slot size of 0.004 inches and an exposed length of up to 41 inches. The water sample will be brought to the surface using dedicated polyethylene tubing fitted with a stainless steel check valve. By oscillating the tubing up and down, the water will be brought to the surface. The water sample will then be placed in appropriate laboratory supplied containers and placed into a cooler.

The existing off-site monitoring wells identified in Section 2.3 will be sampled following the same sampling procedures identified for on-site monitoring wells in Section 2.2.2.4.

2.3.3 Analytical Parameters and Rationale

Groundwater samples submitted to the laboratory will be analyzed for VOCs in accordance with EPA Method 624. The groundwater samples will be analyzed for VOCs only because historic studies have not indicated significant levels of compounds other than VOCs at the site.

QA/QC groundwater sample collection and analysis including the collection of trip blanks, field blanks, duplicates, and matrix spike (ms)/matrix spike duplicate (MSD) samples will be performed at the site as per the QAPP.

2.4 Surveying and Water Table Elevations

A surveyor will be contracted to measure the vertical and horizontal locations of the new monitoring wells at the site. Existing survey data will be utilized for those monitoring wells that already exist at the site and off-site. At least two existing monitoring well points will be re-surveyed to ensure consistency of survey data.

A water level survey that will consist of the collection of two rounds of water level data from each monitoring well (on-site and off-site as identified in this Work Plan) will be conducted. The stream gauges and existing piezometers will also be included in the elevation survey. Water level elevations will then be calculated for each monitoring well based on the surveyed elevation of each monitoring well and measured depths to water. A groundwater elevation contour map will then be plotted for the site and inferred groundwater flow directions developed. Groundwater potentiometric surface maps will be developed for shallow, intermediate, and deep groundwater zones.

2.5 Identification of NYS Standards, Criteria, and Guidelines (SCG)

Based on the results of the tasks completed, IT Corporation will identify applicable and relevant and appropriate NYS Standards, Criteria and Guidelines (SCGs). The SCGs are intended to provide a listing of standards, requirements, criteria, or limitations that legally apply to remedial work to be completed at the site. The SCGs to be reviewed can be divided into three categories:

- Chemical-specific SCGs define acceptable exposure levels to be used in evaluating remedial alternatives;
- Action-specific SCGs may set controls or restrictions for particular treatment and disposal activities related to the management of hazardous waste, such as RCRA minimum technology standards; and
- Location-specific SCGs may set restrictions on activities within specific locations, such as work in flood plains and wetlands.

SCGs identified at this stage of the project will be from a variety of regulatory agencies which may or may not impact future site work. For example, some action-specific SCGs may not be relevant to a remedial action, subsequently proposed at the site.

2.6 Phase II Remedial Investigation Report

The Phase II Remedial Investigation Report prepared for this site will include at a minimum:

- Summary of previous NYSDEC and other study data;
- Description of new work performed at the site (including site maps, boring logs, sampling descriptions and logs, well completion details, field screening data, etc.);
- Characteristics of the site area (including surface features, geology, hydrogeology, etc.);
- A summary of the analytical and physical data obtained to define possible source areas and groundwater quality at the site;
- Figures and tables depicting newly obtained data as well as data previously developed during the GZA Preliminary Focused Remedial Investigation. Areal and vertical groundwater contamination and elevation data will be presented.
- A screening of possible remedial alternatives that would be appropriate at the site

based upon the available data and reasonable cleanup objectives; and

- Conclusions and recommendations.

3.0 INTERIM REMEDIAL MEASURES

Based upon the existing data and the results of this Phase II RI, Pall may choose to initiate one or more Interim Remedial Measures to address any areas of immediate concern.

Available data suggests that an Air Sparge/Soil Vapor Extraction (AS/SVE) technology would be the most efficient and cost effective form of IRM available. *In situ* air sparging is a commonly used remediation technology that was developed in the late 1980s as a method for treating dissolved volatile organic compounds (VOCs) in groundwater. Air sparging involves the injection of air under pressure into saturated zone soils. The injected air displaces water and creates air-filled porosity in the saturated soils, volatilizes and removes dissolved and adsorbed phase VOCs, and transfers oxygen into the groundwater. As a result, both physical removal and aerobic biodegradation of contamination in groundwater and saturated zone soil are enhanced. Air sparging has been used to remediate both chlorinated solvents and petroleum hydrocarbons.

Air sparging offers a means of remediating soils and groundwater without the need for active groundwater pumping, and in most cases, a properly designed air sparging system has been shown to produce significant and permanent reductions in groundwater contaminant concentrations. As a result there has been a steady increase in application of air sparging, and hundreds of systems are currently in operation.

The efficacy of air sparging is determined principally by the degree of contact between the injected air and the contaminated soil and groundwater. It is generally agreed that the injected air forms channels through the saturated soil matrix. When there is a high density of uniformly distributed air channels and/or significant mixing between channels, then air sparging is expected to be effective. Air sparging is less likely to be effective when the density of air channels is low or non-uniformly distributed and when there is little or no mixing of the water between the air channels.[1]

Based upon the conditions present at the site, air sparging is likely to be an effective remedy. However, additional study may be required (i.e., pilot testing) before implementation of an AS/SVE IRM at the site.

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1 Information on air sparging is reproduced from Performance of Air Sparging Systems: A Review of Case Studies, David H. Bass, Sc.D., CHMM and Richard A. Brown, Ph.D., Fluor Daniel GTI, Norwood, MA. Fluor Daniel GTI has performed hundreds of successful air sparging projects and has reviewed the site data available in considering the use of AS/SVE at the Pall site.

4.0 FEASIBILITY STUDY

Investigative data collected will be reviewed to identify appropriate remedial approaches during a Feasibility Study (FS). The FS phase of this RI/FS will focus on the selection of the most-cost-effective technology to remediate the site to meet appropriate cleanup objectives. Alternative remedial approaches will be investigated to ensure protection of human health and the environment. As a minimum, the remedial alternatives selected for evaluation will be reviewed and evaluated for compliance with ARARs and SCGs; short term and long-term effectiveness; implementability; reduction of toxicity, mobility and/or volume; and costs. The FS will be completed for on-site and off-site areas as outlined in this RI/FS Work Plan and will be signed and sealed by a licensed Professional Engineer registered in the State of New York.

Where applicable, the use of "presumptive remedies" such as air sparging and soil vapor extraction will be used to streamline the feasibility study.

5.0 CITIZEN PARTICIPATION PLAN

IT Corporation (IT) and the Pall Corporation realize the importance of providing the public with significant and timely information regarding the RI taking place at the site. Community relations/participation activities serve to keep communities informed of activities at the site and assist the NYSDEC in anticipating and responding to community concerns. IT will provide support, documents, mailings, etc. as needed by the NYSDEC throughout all citizen participation activities during the RI/FS.

6.0 PROJECT MANAGEMENT/STAFFING PLAN

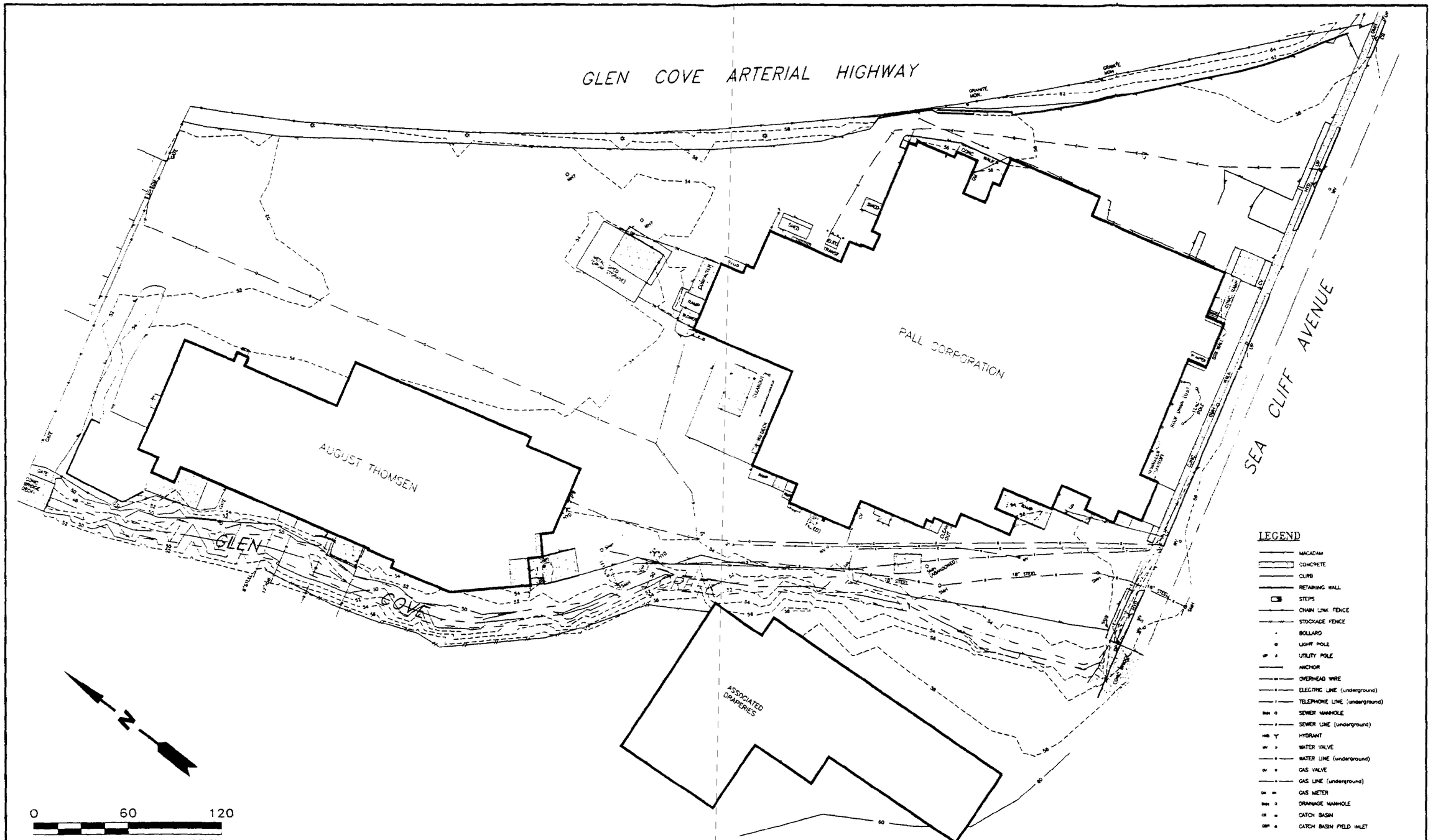
Since the key element of any remedial investigation is the project team, a project team with extensive NYSDEC Inactive Hazardous Waste Disposal Site and USEPA Superfund site experience has been assembled. The proposed project team organization is presented in Figure 6-1.

The project manager for this project will be ***Daniel J. Smith, P.E.*** Mr. Smith has over 13 years of environmental experience on Long Island and has been actively involved with various aspects of the Sea Cliff Avenue Industrial Area environmental issues for almost a decade. He is well versed in RI/FS work and has either been the project manager or an active team member on at least 6 NYSDEC IHWDS sites on Long Island. In addition to managing RI/FS work, Mr. Smith has also designed and constructed numerous AS/SVE systems (i.e., a technology likely to be implemented at the site at some time) including serving as the Lead Engineer on what will likely be the world's largest AS/SVE system when constructed at an USEPA Superfund site in New Jersey next year.

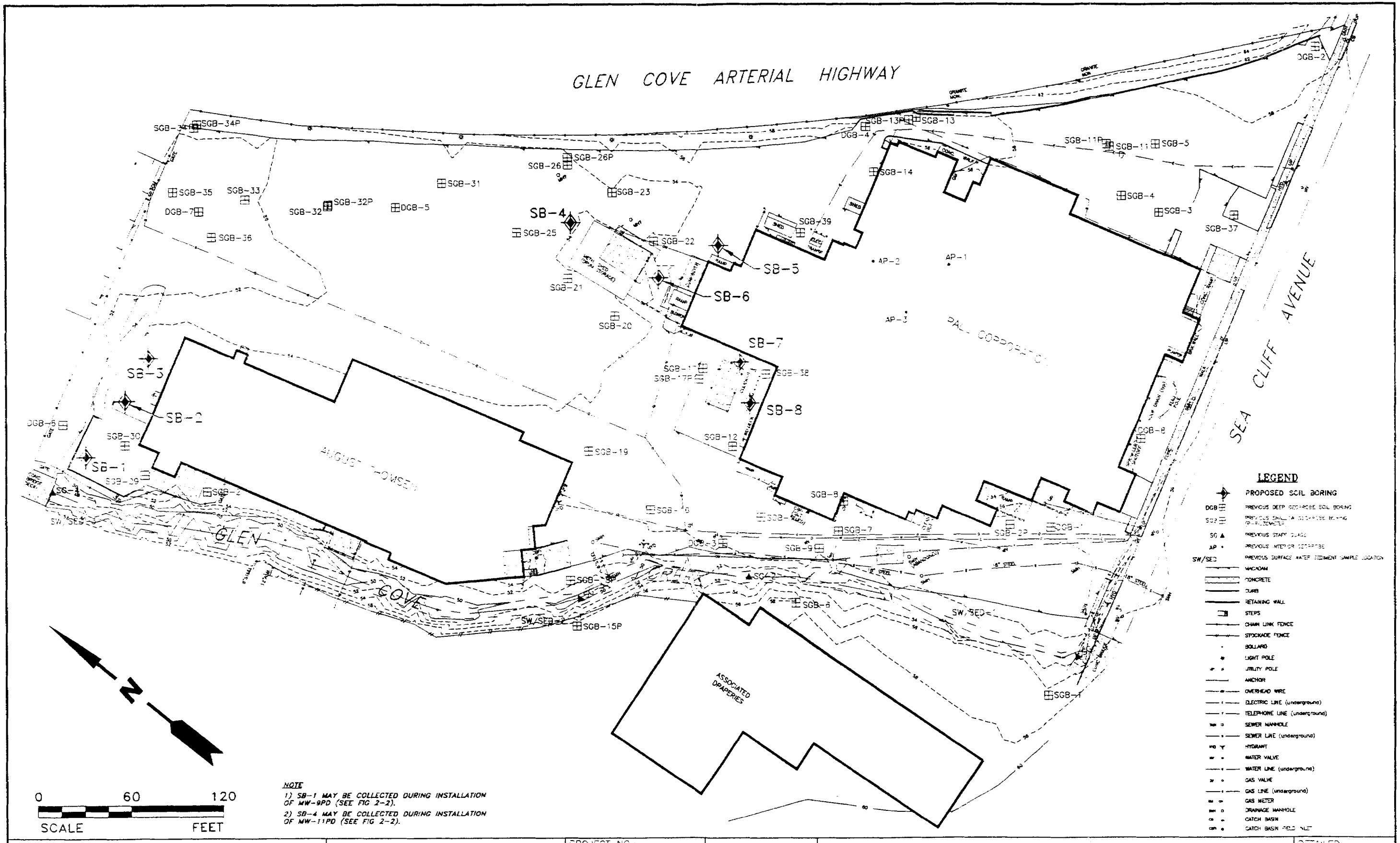
Field sampling and oversight of contractors will be performed by personnel experienced in proper field sampling techniques. All analytical work will be performed by a NYS ELAP Certified Analytical Laboratory.

7.0 PROJECT SCHEDULE

The preliminary project schedule is presented in Figure 7-1. This schedule is contingent upon finalization of an acceptable Order on Consent and NYSDEC review and approval of the proposed scope of services.



101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	PALL CORPORATION PHASE II REMEDIAL INVESTIGATION	PROJECT NO.: 107933 PM: DS PE/RG:	DRAWING DATE: 11/16/98 ACAD FILE: 7933ST98	**SITE PLAN**	LOCATION: 30-36 SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TRS FIGURE: **1-1**



NOTE

1) SB-1 MAY BE COLLECTED DURING INSTALLATION OF MW-9PD (SEE FIG 2-2).

2) SB-4 MAY BE COLLECTED DURING INSTALLATION OF MW-11PD (SEE FIG 2-2).

IT CORPORATION 101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	PALL CORPORATION PHASE II REMEDIAL INVESTIGATION	PROJECT NO.: 107933 PM: DS PE/RG:	DRAWING DATE: 2/15/99 ACAD FILE: 7933SB98	**PROPOSED SOIL BORING PLAN**	LOCATION: 30-36 SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TRS FIGURE: **2-1**

GLEN COVE ARTERIAL HIGHWAY

SEA CLIFF AVENUE

PALL CORPORATION

ASSOCIATED DRAPERIES

AUGUST THOMSEN

GLEN COVE CREEK

MW-5PI
MW-5P
MW-5PD
MW-10PS
MW-10PI
MW-10PD
MW-2A
MW-2AI
MW-2AD
MW-4P
MW-4PI
MW-4PD
MW-3P
MW-1A
MW-2P
MW-1H
MW-2H
MW-6PD
MW-6P
MW-7P
MW-8PD
MW-8PI
MW-8PS
MW-1P
MW-1PI
MW-1PD

LEGEND

MW-#PS — PROPOSED "SHALLOW" MONITORING WELL
MW-#PI — PROPOSED "INTERMEDIATE" MONITORING WELL
MW-#PD — PROPOSED "DEEP" MONITORING WELL

MW⊕ EXISTING MONITORING WELL
MACADAM
CONCRETE
CURB
RETAINING WALL
STEPS
CHAIN LINK FENCE
STOCKADE FENCE
BOLLARD
LIGHT POLE
UTILITY POLE
ANCHOR
OVERHEAD WIRE
ELECTRIC LINE (underground)
TELEPHONE LINE (underground)
SEWER MANHOLE
SEWER LINE (underground)
HYDRANT
WATER VALVE
WATER LINE (underground)
GAS VALVE
GAS LINE (underground)
GAS METER
DRAINAGE MANHOLE
CATCH BASIN
CATCH BASIN FIELD INLET

N

0 80 160
SCALE FEET

IT CORPORATION	101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	PALL CORPORATION PHASE II REMEDIAL INVESTIGATION	PROJECT NO.: 107933	DRAWING DATE: 2/15/98	**PROPOSED MONITORING WELL PLAN**	LOCATION: SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TRS
			PM: DS / PE/RG:	ACAD FILE: 7933MW98			FIGURE: **2-2**

NOTE:
MONITORING WELLS GC-8S, GC-8D, GC-5S, GC-5D AND GC-9S WILL ALSO BE SAMPLED.

NCDPW MONITORING WELL (SHALLOW, INTERMEDIATE, DEEP) GC-3S, GC-3M & GC-3D

CARNEY STREET SUPPLY WELL (8327)

CARNEY STREET SUPPLY WELL (8326)

GENERATOR BUILDING

WATER DEPT. CONTROL BLDG.

CARNEY STREET SUPPLY WELL (3466)

DAY CARE CENTER

EMS GARAGE

GP-40 GP-41 GP-42 GP-43 GP-44 GP-45

SGB-34P SGB-35 SGB-33 SGB-36 SGB-30 SGB-29 DGB-6 MW-2A MW-5P

GLEN COVE ARTERIAL HIGHWAY

AUGUST THOMSEN

PALL CORPORATION

ASSOCIATED DRAPERIES

SEA CLIFF AVENUE

GLEN COVE CREEK

SW/SED

LEGEND

EXISTING WELLS TO BE SAMPLED

GP-41 NEW GEOPROBE LOCATION FOR GROUNDWATER SAMPLING

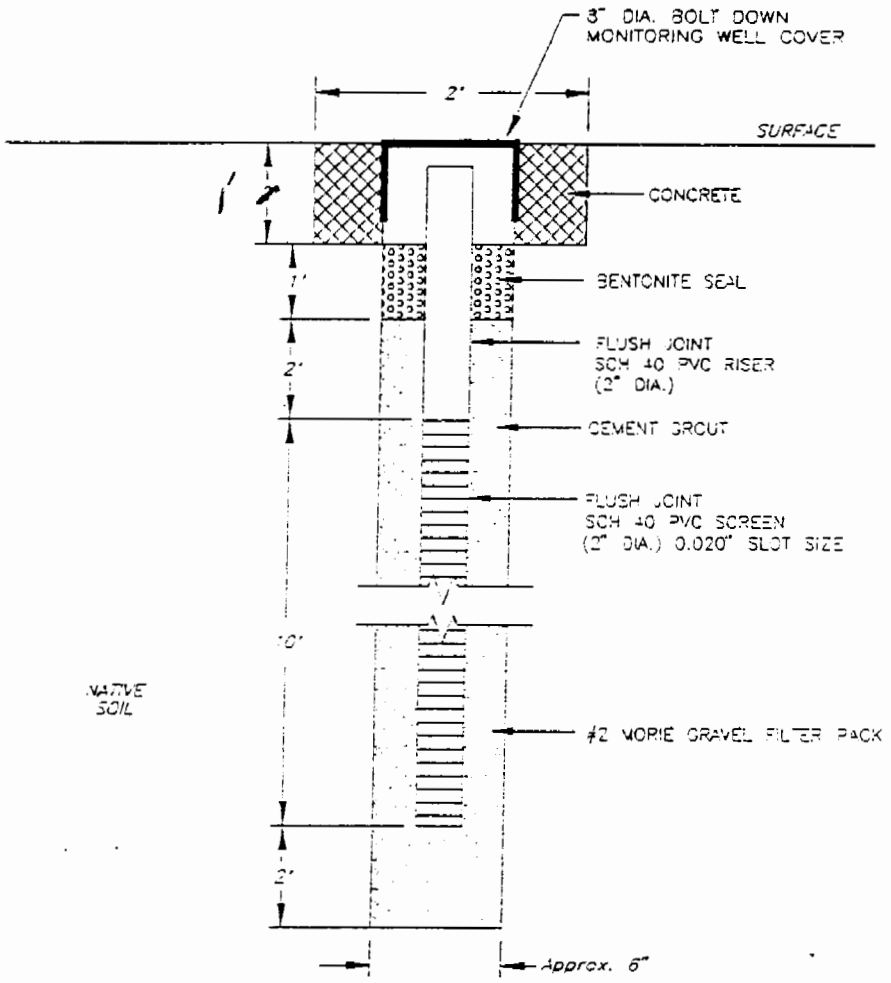
MACADAM
CONCRETE
CURB
RETAINING WALL
STEPS
CHAIN LINK FENCE
STOCKADE FENCE
BOLLARD
LIGHT POLE
UTILITY POLE
ANCHOR
OVERHEAD WIRE
ELECTRIC LINE (underground)
TELEPHONE LINE (underground)
SEWER MANHOLE
SEWER LINE (underground)
HYDRANT
WATER VALVE
WATER LINE (underground)
GAS VALVE
GAS LINE (underground)
GAS METER
DRAINAGE MANHOLE
CATCH BASIN
CATCH BASIN FIELD INLET

N

0 80 160
SCALE FEET

101-1 COLIN DRIVE HOLBROOK, N.Y. 11741 (516) 472-4000	PALL CORPORATION PHASE II REMEDIAL INVESTIGATION	PROJECT NO.: 107933 PM: DS PE/RG:	DRAWING DATE: 1/20/99 ACAD FILE: 79330FST	**PROPOSED OFF-SITE INVESTIGATION PLAN**	LOCATION: 30-36 SEA CLIFF AVENUE GLEN COVE, NEW YORK	DETAILED: TRS FIGURE: **2-3**

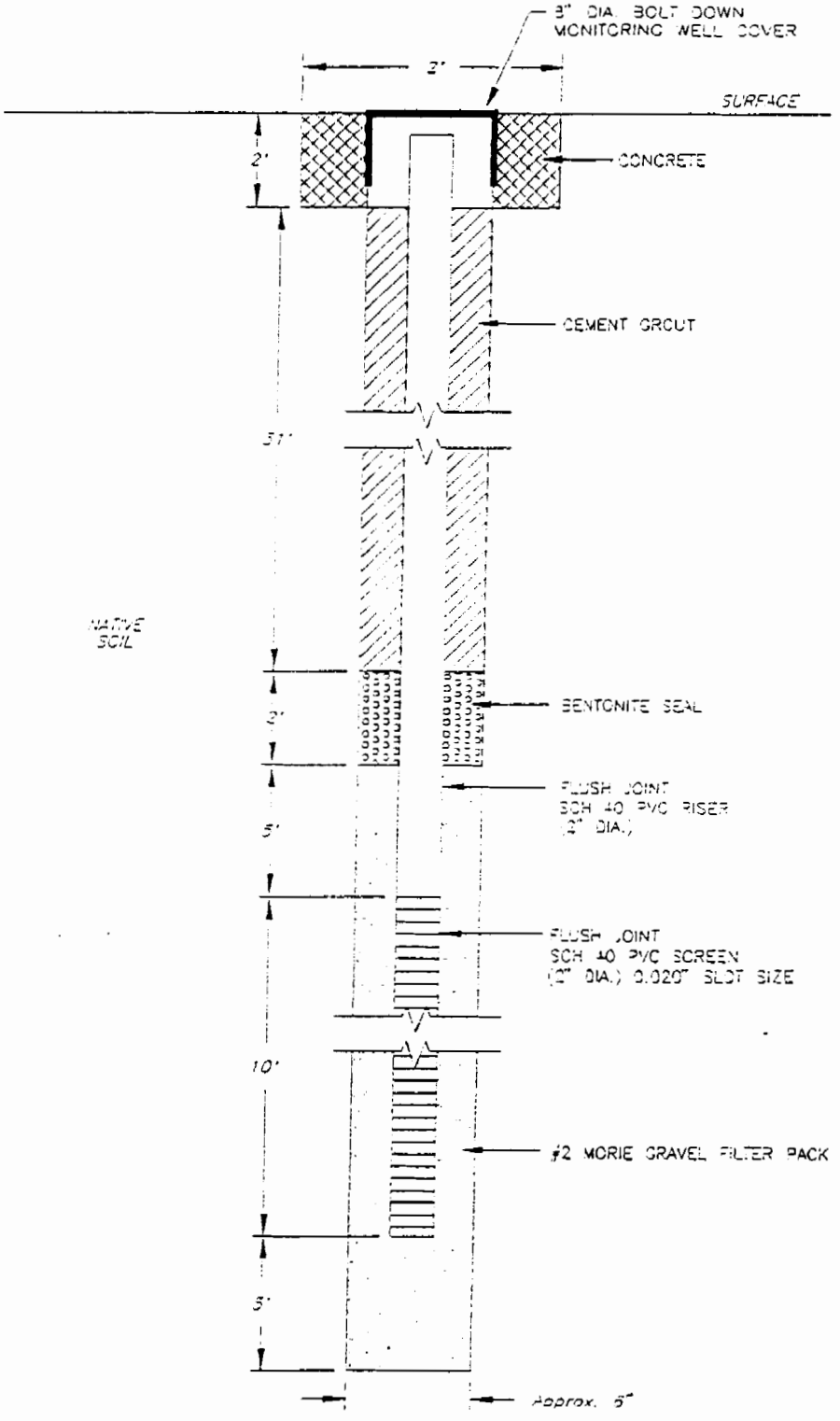
FIGURE 2-4S
SHALLOW GROUNDWATER MONITORING WELL DETAIL



(NOT TO SCALE)

IT CORPORATION

FIGURE 2-41
INTERMEDIATE GROUNDWATER MONITORING WELL DETAIL



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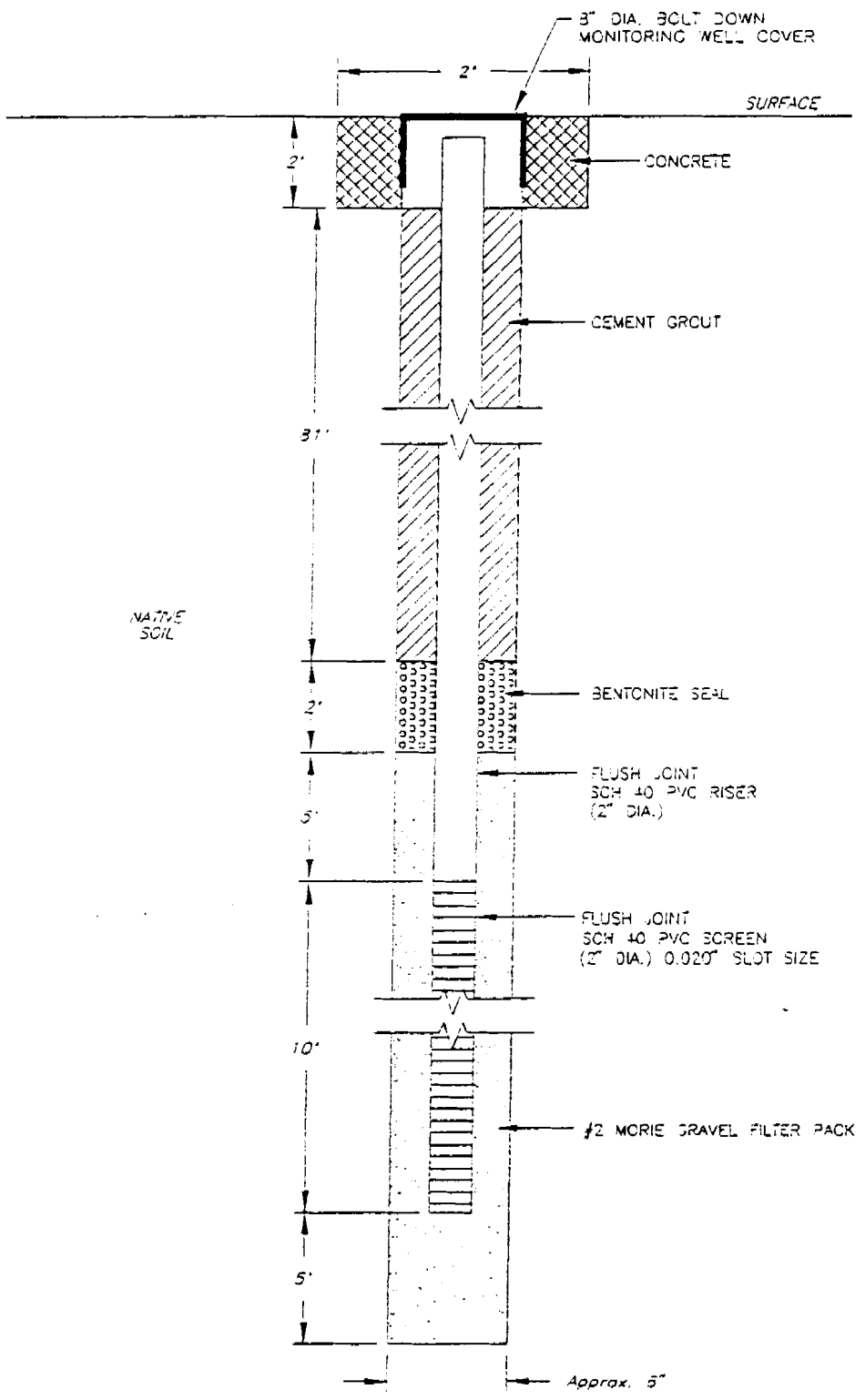
IT CORPORATION

FIGURE 2-4D

DEEP GROUNDWATER MONITORING WELL DETAIL



(NOT TO SCALE)

IT CORPORATION

Figure 6-1
Proposed Project Team

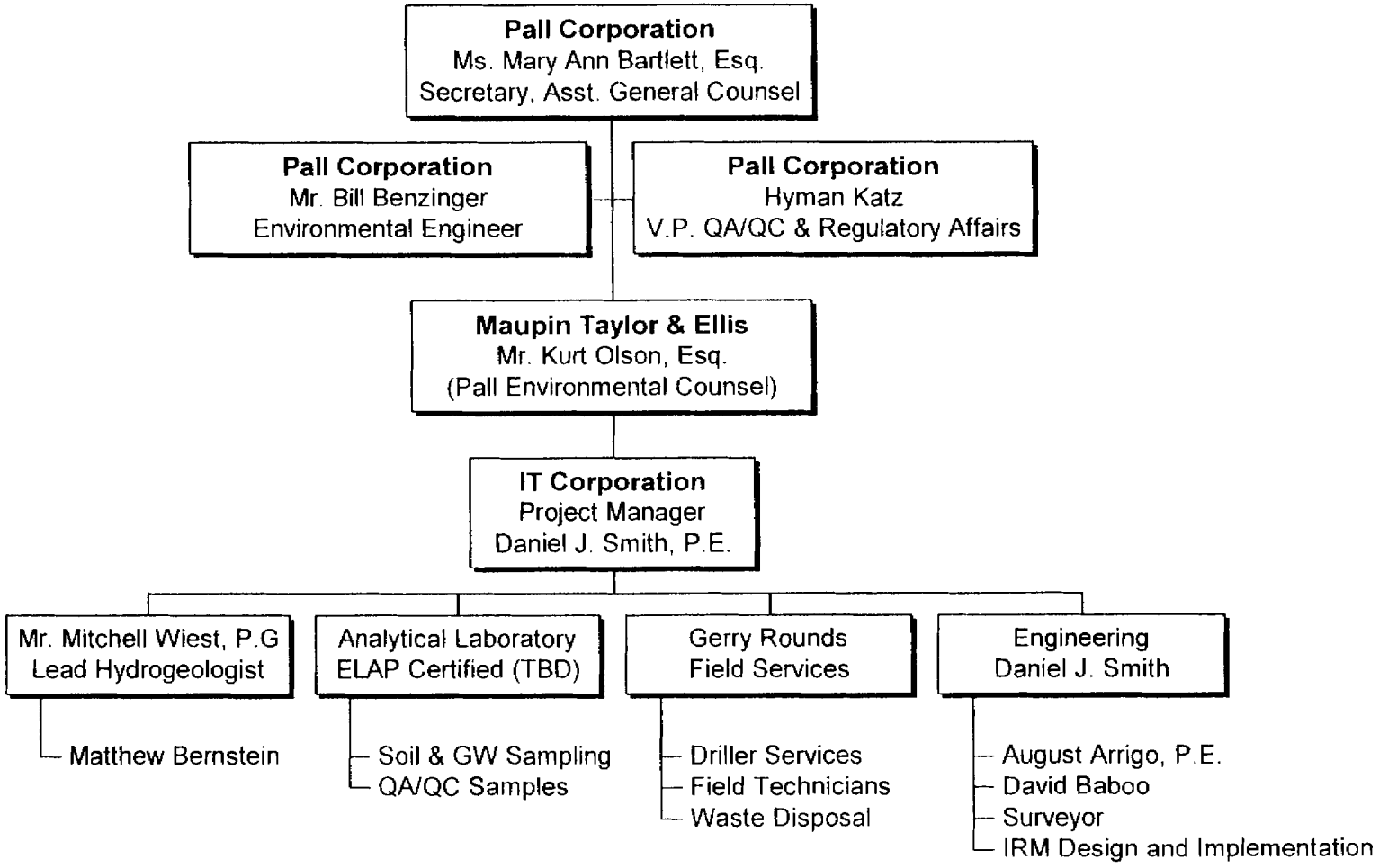
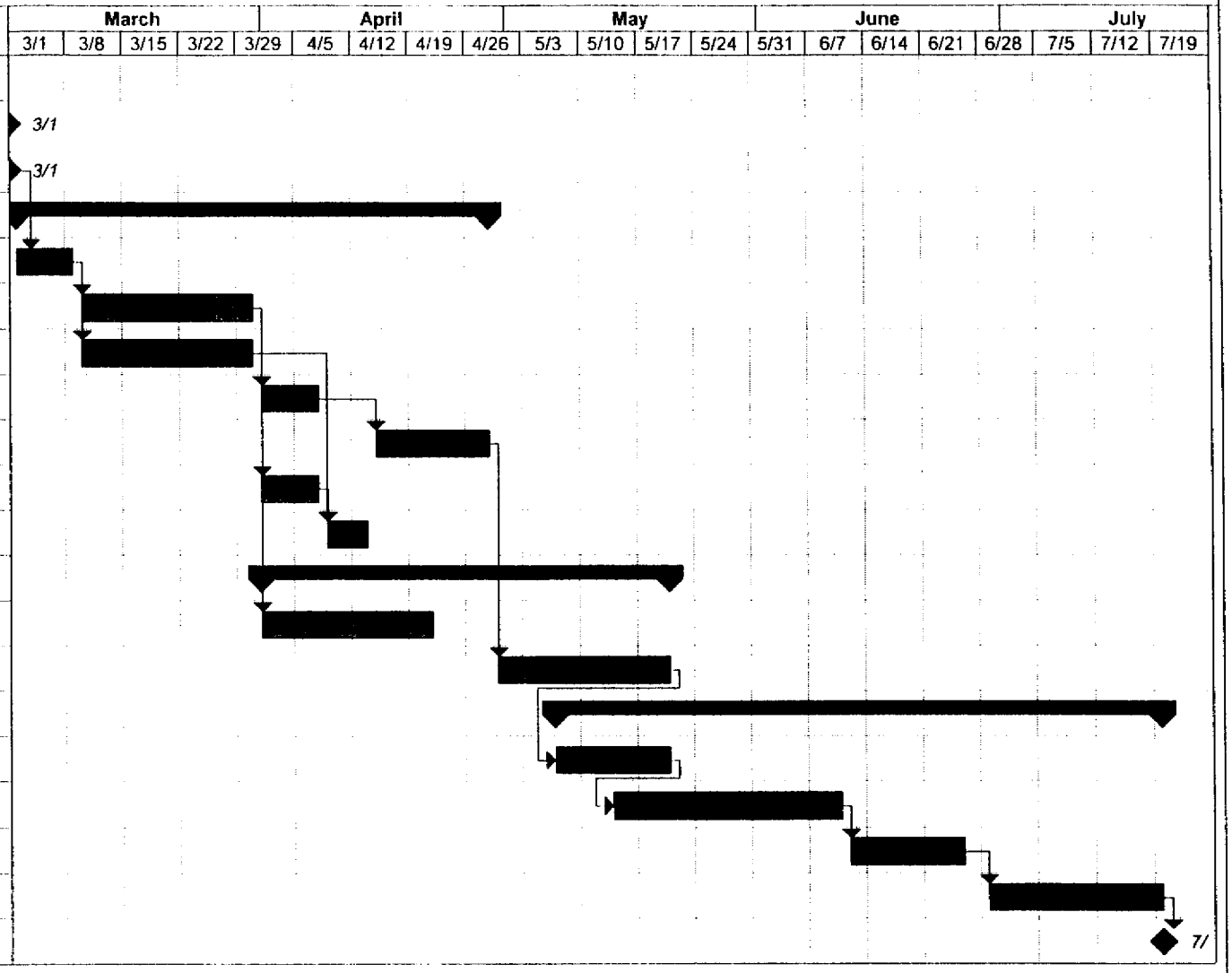


Figure 7-1
Preliminary Project Schedule

ID	Task Name
1	**1 Administrative Tasks**
2	1.1 NYSDEC Approval of Work Plans
3	1.2 Order on Consent Signed
4	**2 Field Work**
5	2.1 Mobilization of Field Crews
6	2.2 Geoprobe Soil Borings/GW Sampling
7	2.3 On-site Well Installations
8	2.4 Well Development
9	2.5 Groundwater Well Sampling
10	2.6 Surveying
11	2.7 Elevation Measurements
12	**3 Analytical**
13	3.1 Soil Analyses
14	3.2 On-site Groundwater Analyses
15	**4 Reporting**
16	4.1 Preliminary Data Reviews
17	4.2 Draft RI/FSReport
18	4.3 Pall & NYSDEC Reviews
19	4.4 Final RI/FS Report
20	4.5 Project Complete



Pall Corporation - 30 Sea Cliff Ave.
IT Corporation
107933-0100

Task
Task Progress
Critical Task
Critical Task Progress
Milestone
Summary
Rolled Up Task
Rolled Up Critical Task
Rolled Up Milestone
Rolled Up Progress