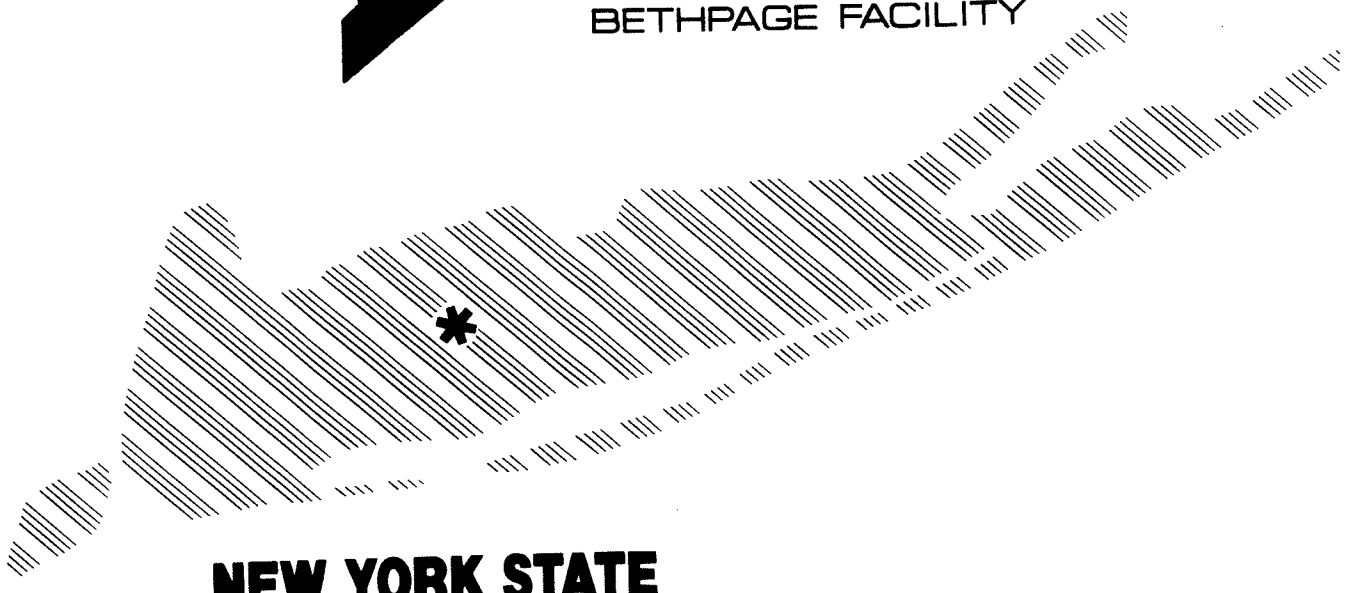
Dvirka and Bartilucci

Consulting Engineers

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY



NEW YORK STATE SITE REGISTRY DELISTING PETITION SITE 10 (Plants 21, 28, 37, 114, 115 and 116) HICKSVILLE, NEW YORK

GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK

Dvirka and Bartilucci
Consulting Engineers

SEPTEMBER 1994

Grumman Aerospace Corporation
Bethpage, New York 11714-3582

September 15, 1994

Langdon Marsh, Acting Commissioner
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

Re: New York State Site Registry Delisting Petition
Site 10 (Plants 21, 28, 37, 114, 115 and 116)
Hicksville, New York

Dear Mr. Marsh:

I am pleased to submit for your review three copies of the enclosed document, entitled "New York State Site Registry Delisting Petition, Site 10 (Plants 21, 28, 37, 114, 115 and 116), Hicksville, New York," for the Grumman Aerospace Corporation property located off South Oyster Bay Road in Hicksville, New York.

The report, prepared by our consultants, Dvirka and Bartilucci Consulting Engineers, documents the past and present use of the site based on a review of available records, and a narrative review of chronological aerial photographs of the area from 1950 through 1988. In addition, a presentation of soil and groundwater sampling results is provided along with a comparison to appropriate standards.

The information presented in this report will assist the New York State Department of Environmental Conservation (NYSDEC) in determining the nature of the use of the site over the past 40 years and to evaluate the merits of the delisting petition. Based on the review of available information and the environmental data, we believe that the property is eligible for removal from the NYSDEC Site Registry of Inactive Hazardous Waste Disposal Sites, and as such, an appropriate modification to the boundaries of Site 1-30-003A is warranted.

If you have any comments and/or questions regarding this matter, do not hesitate to contact me at (516) 575-2385.

Very truly yours,

J. Ohlmann

John Ohlmann, P.E.
Director, Corporate Environmental Protection

JO/ss
Enclosure
cc:encl.:Robert Marino (NYSDEC)
♠1167/JO07294.dec

GRUMMAN AEROSPACE CORPORATION

NEW YORK STATE
SITE REGISTRY DELISTING PETITION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
HICKSVILLE, NEW YORK

PREPARED BY
DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
SYOSSET, NEW YORK

SEPTEMBER 1994

GRUMMAN AEROSPACE CORPORATION

NEW YORK STATE
SITE REGISTRY DELISTING PETITION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
HICKSVILLE, NEW YORK

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Section 1

1.0 INTRODUCTION

Grumman Aerospace Corporation has directed the preparation of this report as part of an effort to satisfy the requirements for delisting Plants 21, 28, 37, 114, 115 and 116 (Site 10), hereafter referred to as "the site", from the New York State Site Registry of inactive hazardous waste disposal sites (Site Code 1-30-003A). The site is located to the north of the intersection of the LIRR and the South Oyster Bay Road Extension in Hicksville, New York. Information presented in this report has been compiled based upon site inspections undertaken on April 2, 1991, May 17, 1991, November 25, 1992 and April 14, 1994; an evaluation of available aerial photographs (1950-1988); various files and records obtained from the Grumman Aerospace Corporation, Paumanock Development Corporation, the Nassau County Department of Health (NCDOH) and the Town of Oyster Bay; along with interviews of various Grumman personnel. The purpose of this report is to determine and document the historical use of the site and the surrounding areas.

Section 2 of this document presents an evaluation of the history, present use and existing conditions at the site, and the likelihood of potential adverse impacts from the federal Superfund site known as Hooker Chemical/Ruco Polymer. The procedures followed throughout the course of the field program are described in Section 3. The soil and groundwater sampling results, and the findings and conclusions of the site assessment, are presented in Section 4.

A location map is included in Appendix A, a current "Site Plan" is included in Appendix B, and aerial photographs of the site from 1950 through 1988 have been included in Appendix C. The report presents boring logs and the results of laboratory analyses of soil and groundwater samples in Appendices D and E, respectively. In addition, relevant documentation obtained through file searches at Grumman Aerospace Corporation, the NCDOH and the Town of Oyster Bay is included in Appendix F.

Correspondence from the New York State Department of Environmental Conservation (NYSDEC) to Grumman Aerospace Corporation provided a list of the "Delisting Petition Information" required for the Grumman properties. In order to facilitate the review of this document, the 14 items requested in the NYSDEC correspondence are listed on Table 1-1 with an appropriate response, or a cross reference to the location of such response in this document. The information supplied in this document is of sufficient detail to enable the NYSDEC to determine the nature of the site's past and present operations, and assess the potential for any on-site contamination.

Table 1-1

DELISTING PETITION INFORMATION

	Requirement	Response
1.	Site Name	Grumman, Bethpage
	Owner	Grumman Aerospace Corporation (exclusive of Plant 21 which is leased by Grumman Aerospace Corporation)
2.	Site Number	1-30-003A
3.	Site Location	North Side of LIRR/ South Oyster Bay Road Extension Intersection Hicksville, Nassau County, NY 11801
4.	Size	Approx. 26.3 Acres
5.	Boundaries	See Appendices A, B and C
6.	Nature of Operation	See Sections 2.1 and 2.2
	Hazardous Waste Disposal	See Section 4
7.	History of Site	See Section 2.1
8.	History of Site Investigations	See Section 2.1 and 3
9.	Waste	See Section 2.2
10.	Affected Resources	See Sections 2.2 and 4
11.	Demographic Information	See Section 2.2
12.	Geographic Information	See Section 2.2
13.	Cleanup Actions	See Section 4
14.	Basis for Delisting	See Section 4

Section 2

2.0 SITE EVALUATION

Location:	North Side of LIRR/South Oyster Bay Road Extension Intersection Hicksville, New York 11801			
Section:	46	Land Use(s):		Office/Storage/ Warehouse/Parking
Block:	N	Plot Size:		Approx. 26.3 acres
Lots:	43, 44, 51, 57, 63, 64, 71 and 72	Grumman-Owned Bldgs.:		28, 37, 114, 115 and 116
		Grumman-Leased Bldgs.:		21
Zoning:	Industrial H	Building Area:	Plant 21:	75,700 square feet
			Plant 28:	25,000 square feet
			Plant 37:	148,900 square feet
			Plant 114:	24,600 square feet
			Plant 115:	77,500 square feet
			Plant 116:	32,400 square feet
			Total:	384,100 square feet

2.1 Site History

As indicated by a review of the earliest available aerial photograph of the site taken in 1950 (see Appendix C), the site appeared to be entirely occupied by active agricultural land with several structures and barns existing in the southeastern corner of the site. From 1950 to 1957, the agriculture-related activities at the site appear to be phased out. Between 1957 and 1962, the farm houses were removed and Plants 114, 115 and 116 were built. In addition, the existing recharge basin located in the southeastern portion of the site was constructed during this period. A portion of Plant 28 was erected by Grumman in 1963 with the remaining structure erected in 1966. Plant 37 was constructed in 1966. Plant 21 was constructed in 1969. The 1969 aerial reveals that the areas to the south and north of Plant 37, and to the west of Plant 115, were utilized for the outdoor storage of materials. The majority of the remaining on-site properties appear to be utilized for parking. The 1972 aerial indicates the removal of the stored materials on-site and the addition of a parking lot to the south of Plant 37. The 1972 aerial also shows what appears to be ponding in the northwestern portion of the site. Between 1972 and 1988, Plant 115 was extended to the west and a paved parking lot appears to have been constructed from this area extending to the western boundary of the site. In addition, a number of trailers were installed adjacent to the western side of Plant 28 and a guard booth constructed at the entrance to the site from South Oyster Bay Road between Plant 21 and Plant 28. With the exception of the removal of the trailers located at Plant 28, an April 14, 1994 site inspection did not identify any apparent on-site changes since the date of the 1988 aerial.

According to interviews with representatives of Grumman Aerospace Corporation, dates of Grumman occupancy for the preceding plants are as follows:

- Plant 21 (Prior to 1974)
- Plant 28 (1963)
- Plant 37 (1966)
- Plant 114 (1987)
- Plant 115 (1985)
- Plant 116 (1980)

Based on a review of available records, the date of Grumman occupancy of Plant 21 could not be determined, although Grumman personnel indicated that Grumman occupied the building from before 1974. According to Grumman personnel, Plant 21 has historically been utilized as a warehouse. This building, while not owned by Grumman, has been utilized as a warehouse facility in support of its manufacturing operations and therefore remains a part of this Delisting Petition. Grumman vacated Plant 21 on December 1, 1993.

According to Nassau County property record cards, it appears that Grumman has been the sole owner of Plant 28. Plant 28 has historically been utilized by Grumman for administrative record keeping, classroom instruction, a medical support facility and personnel recreational use. The western portion of Building 28 continues to be utilized by Grumman Aerospace Corporation predominantly by the "Grumman Employee Services and Recreation" office. The eastern portion of Building 28 has been leased to Magna-Lab, Inc. since approximately 1990 and is utilized for the research and development (R&D) of magnetic resonance imaging (MRI) scanners.

Grumman Aerospace Corporation personnel indicated that Plant 37 has historically, and continues to be, utilized solely as a warehouse for the storage of materials. The northern portion of Plant 37 contains a small quantity of shelf-stored chemicals. However, according to Grumman personnel, no chemical mixing or processing operations have taken place on-site. Based upon interviews with representatives of Grumman Aerospace Corporation, a "first cut" operation previously existed on-site. The "first cut" operation was designed to "rough cut" sheet metal stock with shear machines for distribution to various manufacturing operations for further processing. Grumman Aerospace Corporation personnel also indicated that a scrap metal storage shed previously existed on the southern portion of the site which was designed to store metal remnants

from the "first cut" operation. Grumman personnel indicated that this storage shed was self contained to hold any residual cutting oils on the stored materials. Also, in the northwest corner of Plant 37, an outside covered product storage area existed and was utilized from approximately 1986 to 1988.

A review of Town of Oyster Bay files revealed that Plant 114 was originally owned and occupied by the New York Telephone Company which utilized the building for offices and a garage. A plot plan on file at the Town of Oyster Bay indicates that gasoline tanks were proposed to be located on-site to the west of the existing building. A building permit was issued to the New York Telephone Company on February 9, 1972 for the construction of two 5,000-gallon gasoline tanks. However, a review of available aerial photographs and the November 25, 1992 site inspection did not reveal conclusive evidence on the existence of any tanks. Plant 114 is currently leased to Lonestar Technologies, Ltd., an importer of various types of electronic equipment and supplies, and is utilized predominantly as office space and a warehouse.

Plant 115 was originally owned and occupied by Corona Plate Glass Company, Inc. and Anoroc Products, Inc., both of which were "engaged in the production, sale and storage of bathtub enclosures, shower doors and related products," as indicated in a notarized statement signed on August 3, 1962 by George J. Gang, the President of those corporations (see Appendix F). Plant 115 is currently occupied by Grumman's Aircraft Program Operations division, and is utilized predominantly as office space and a warehouse.

Plant 116 was originally owned and occupied by Transportation Parts Company of New York, Inc., which was "engaged in the manufacture, assembly, sales and repair of motor vehicle parts," as indicated in a notarized statement signed by Philip Kirschner, the President of said corporation, on September 27, 1960 (see Appendix F). Plant 116 is currently utilized by Grumman as a maintenance building, and is comprised predominantly of a small machine shop area, warehouse storage areas and office areas for maintenance management personnel.

A review of Grumman utility maps revealed the presence of several on-site independent sanitary disposal systems which were utilized prior to connection to the Nassau County sewer system. Grumman utility maps depict two sanitary leaching pools located off the eastern side of Plant 21 along with two sanitary cleanouts located off the western side of Plant 21 that may have been connected to the trailers that previously existed in this area. Plant 28 utilized two leaching pools located off the eastern side of the building. Sanitary systems associated with Plant 37

include a domestic waste line located off the southeastern side of the plant that is depicted on Grumman utility maps as leading to a septic tank which discharges to a single leaching pool (labeled as "filled") and a 6-inch domestic waste line located off the northeastern side of the plant that is depicted on Grumman utility maps as discharging to two leaching pools (labeled as "filled"). Grumman utility maps show no indication of any on-site sanitary disposal systems associated with Plant 114. Grumman utility maps indicate that Plant 115 utilized on-site sanitary disposal on the eastern side of the building where four leaching pools (labeled as "filled") are evident. Sanitary disposal systems associated with Plant 116 include a domestic waste line located off the eastern side of the plant that is depicted on Grumman utility maps as discharging to three leaching pools (labeled as "filled") and a domestic waste line located off the western side of the plant that is depicted on Grumman utility maps as discharging to two leaching pools (labeled as "filled").

2.2 General Site Description

Site 10, consisting of Plants 21, 28, 37, 114, 115 and 116, is currently owned by Grumman Aerospace Corporation with the exception of Plant 21. Plant 21 has been leased by Grumman for at least 21 years. The site also includes a recharge basin which, according to Nassau County property record cards, has been leased by Grumman from Nassau County since 1983.

Plants 21, 28, 37, 114, 115 and 116 all have public water and are connected to the Nassau County sewer system. All the plants have gas heat with the exception of Plant 28 which has oil heat. The plants are utilized predominantly for office space and storage. The entire site is zoned Industrial H and comprises approximately 26.3 acres. The site is surrounded by commercial development with areas of medium to high density residential development existing approximately 700 feet from the nearest site boundary. The Site Plan is presented in Appendix B.

Plant 21 comprises approximately 75,700 square feet and, as previously mentioned, has been leased by Grumman for at least 21 years. Grumman vacated Plant 21 on December 1, 1993. Plant 21 was utilized by Grumman predominantly as a warehouse-type area. Other areas located in Plant 21 included computer and office areas. During the April 14, 1994 site inspection, no floor drains were noted.

Plant 28 is owned by Grumman and comprises approximately 25,000 square feet. The eastern half of Plant 28 is leased by Grumman Aerospace Corporation to Magna-Lab Inc., a manufacturer of magnetic resonance imaging (MRI) scanners. Magna-Lab, Inc. conducts research and development (R&D) operations as well as some light assembly work on-site. Based upon interviews with representatives of Magna-Lab, Inc., all associated production and manufacturing work is performed off-site. Magna-Lab, Inc. utilizes a photoprocessing unit on-site which is permitted for the discharge of treated effluent to the Nassau County sewer system. Treated effluent is monitored monthly for silver and pH.

The eastern half of Plant 28, which is leased to Magna-Lab, Inc., consists of the following areas:

- o Office Areas
- o Kitchen Area
- o Magnetic Field Enclosure Room
- o R&D Area
- o Photoprocessing Unit
- o Computer Work Stations
- o Machine Shop Area
  - Grinder
  - Speed saw
  - Lathe
  - Drill press
  - Fork lift
- o Restrooms

The western half of Plant 28 is still occupied by Grumman and consists of the following areas:

- o Retiree Club
- o Locker room and restrooms (no floor drains)

- o "Grumman Employee Services and Recreation" Office area
- o Utility Closet
  - Slop sink
  - Storage of office supplies
- o Boiler Room
  - Oil hot water heater
  - Oil burner
  - Floor drain
- o Equipment Storage Room
- o Computer Area
- o Air Handler Room ("Area 2")
  - Air handler
  - Generator
  - Compressor
  - Floor drain

Plant 37, which comprises approximately 32,900 square feet of area, is owned and operated by Grumman Aerospace Corporation and has historically been utilized as a warehouse for materials storage. The facility is utilized predominately for the storage of aluminum and lead products (i.e., sheet metal, I-beams, etc.). Propane gas cylinders that are utilized for fork lifts are stored in an outside storage area. No floor drains were noted within Plant 37 during the April 14, 1994 site inspection. Heat is supplied from overhead gas-fired units. There are two truck loading docks located in Plant 37. There is a drain outside the loading bays that, according to Grumman Utility Maps, is connected to the Nassau County sewer system.

Plant 37 consists of the following areas:

- o Office Area
- o Warehouse Area
  - Dry material storage

- o Truck Loading Bays
- o Band Saw
- o Speed Saw
- o Battery Charger
- o Restrooms

Plant 114 is leased by Grumman Aerospace Corporation to Lonestar Technologies, Ltd., an importer of various types of electronic equipment and supplies. The total area of Plant 114 comprises approximately 24,600 square feet and consists predominately of the following areas:

- o Office Areas
- o Warehouse Area
  - Miscellaneous electronic products
- o 55-Gallon Drum Storage Area
  - Ethylene glycol
- o Restrooms
- o Inactive Hydraulic Lift
- o Loading Docks
- o "Building Service Room"
  - Telephone wiring
  - Slop sink
- o Air Handler Room
  - Floor drain
- o Kitchen Area
- o Transformer Located on Pole Outside of Plant

Plant 115 is operated by Grumman Aerospace Corporation and is utilized by Aircraft Program Operations. Plant 115 is comprised of approximately 77,500 square feet and consists predominately of the following areas:

- o Drafting/Office Area
- o Conference/Meeting Rooms
- o Boiler Room
  - Gas hot water heater
  - Gas burner
- o Electrical Equipment Room
  - 3 phase insulated transformer
- o Warehouse Storage Area
  - Loading bays
  - Compressor
  - Gas accessory heaters
- o Computer Room
- o Reproduction Room
  - Storage of drawings
  - Storage of toner
  - Drafting tables
- o Restrooms
  - Sanitary lift station
  - Slop sink
  - floor drain
- o Utility Room
- o Kitchen Area

Plant 116 is operated by Grumman Aerospace Corporation and is utilized as a Maintenance Office Building. Plant 116 comprises approximately 32,400 square feet and consists predominately of the following areas:

- o Office Area/Conference Rooms
- o Telephone Room
- o Utility Closet
  - Slop sink
  - Cleaner storage
- o Restrooms
  - Showers
  - Floor drains
- o Electric Hot Water Heater Room
  - Floor drain
- o Electrical Equipment Room
  - Transformer outside of facility
- o Warehouse Area
  - Drummed cleaners/strippers/waxes
  - Drummed emulsifiers
  - Drummed heat transfer fluid (ethylene glycol)
  - Drummed refrigerant (trichlorofluoromethane)
  - Drummed refrigerant (trichloromonofluoromethane)
  - Drummed motor oil (20W-20)
  - Drummed lubricating oil
  - Cylinder storage (refrigerant - chlorodifluoromethane)
  - Nitrogen cylinders
  - Air compressor (in storage)
  - Three phase motors (in storage)

- Truck loading bays
- Miscellaneous parts storage area

o Machine Shop Area

- Battery charger
- Band saw
- Belt sander
- Grinders
- Lawn mowers (in storage for repair)
- Drummed soap
- Drummed transmission fluid
- Drummed 30W oil
- Drummed trichlorofluoromethane
- Tool storage areas
- "Ice-Foe" ice melter storage
- Bench-top work stations
- Spray paint storage area

o "Small Tool Repair" Area

- Miscellaneous dry storage areas

According to interviews with Grumman personnel and a review of Grumman and various agency storage tank records, there is one existing storage tank (Tank #28-01-1) located on-site associated with space heating for Plant 28. Tank #28-01-1 is a 4,000-gallon underground storage tank for #2 fuel oil located adjacent to the south side of Plant 28. This tank has successfully undergone periodic tank tightness testing with the most recent results provided in Appendix F. Plants 115 and 116 originally utilized oil heat, however, both plants have subsequently been converted to gas heat and the associated underground fuel oil tanks have been removed under the supervision of the Nassau County Department of Health. Tanks that have previously been removed from the site include Tank #115-01-1, a 3,000 gallon underground fuel oil storage tank, and Tank #116-01-1, a 5,000 gallon underground fuel oil storage tank. Appropriate documentation of the tank removals can be found in Appendix F.

A November 25, 1992 and April 14, 1994 site inspection revealed that catch basins are located throughout the site which is generally level with good drainage. Based on a review of Grumman utility maps, the catch basins discharge to the on-site recharge basin. Previous site walkovers performed during the field program (August/September 1992) and the April 14, 1994 site inspection revealed no indications of any stressed vegetation. It should also be noted that an off-site parcel of land (Section 46, Block N, Lot 39) located adjacent to the east side of Plant 21 and the south side of Plant 28 contains several businesses and shops that face South Oyster Bay Road. In the rear of the shops is an area where automobiles and automotive parts are stored. This area also contains a structure that appears to be utilized as an automotive garage.

The Soil Conservation Service classifies the majority of the site as Urban Land with the on-site recharge basin and a small portion of the site to the south of Plant 37 as Udipsaments (nearly level). Urban Land is defined as an area with at least 85 percent asphalt, concrete, or other impervious building material, with most of the remaining small areas of soil being well drained Riverhead, Hempstead, or Enfield soils, or excessively drained Udipsaments. Udipsaments (nearly level) are defined as manmade fills or borrow areas, most of which are grass covered with slopes of 0 to 3 percent, which consist of very deep soils that are excessively drained to well-drained. Based on measurements obtained during the installation of groundwater monitoring wells at the site as part of this project, the depth from ground surface to the upper glacial aquifer is approximately 63 feet.

2.3 Hooker Chemical Site

An element related to the delisting of the site is the proximity of the property to the Hooker Chemical/Ruco Polymer NPL site. This site has been on the Federal Superfund list since 1984, and remains active. The site has been the subject of monitoring and investigations intended to identify the extent of contamination and hazard resulting from previous waste disposal practices at this site. A Remedial Investigation and Feasibility Study (RI/FS) has been conducted, with the associated field work completed in February 1990. The RI/FS identified two operable units at the Hooker Chemical site requiring remedial action.

Operable Unit 1 has necessitated the remediation of soil and groundwater contaminated by volatile organic compounds (VOCs) used in the various manufacturing processes employed by the facilities on-site. Based upon communication with the EPA, the RI report was approved on December 7, 1992. The associated Feasibility Study was subsequently completed and a Record of

Decision on a Proposed Remedial Action Plan was signed on January 28, 1994. Based upon recent communication with the EPA, a unilateral administrative order is currently being drafted to address Operable Unit 1. Until the EPA releases all details concerning Operable Unit 1, it is not possible to fully characterize the extent of off-site impacts.

Operable Unit 2 pertains to a relatively small area of soil contaminated by PCBs resulting from releases of the heat transfer fluid Therminol. The migration of PCBs from the on-site structure referred to as the "Pilot Plant" to other portions of the site was enhanced by storm water runoff and on-site truck traffic. However, the extent of contaminated soil is contained entirely on the Hooker Chemical/Ruco Polymer site. No off-site contamination has been identified from Operable Unit 2. Remedial action involving Operable Unit 2 has been completed.

Section 3

3.0 FIELD PROGRAM

The following is a description of the field activities undertaken at the site in support of the delisting petition. Daily Field Activity Reports, which are available in the project file, provide documentation of the field program which included air monitoring, the installation of one monitoring well (S10MW-1) and the sampling of eight groundwater monitoring wells (GM-4S, GM-5S, GM-9S, B28MW-1, B28MW-2, 10594, S9MW-1 and S10MW-1).

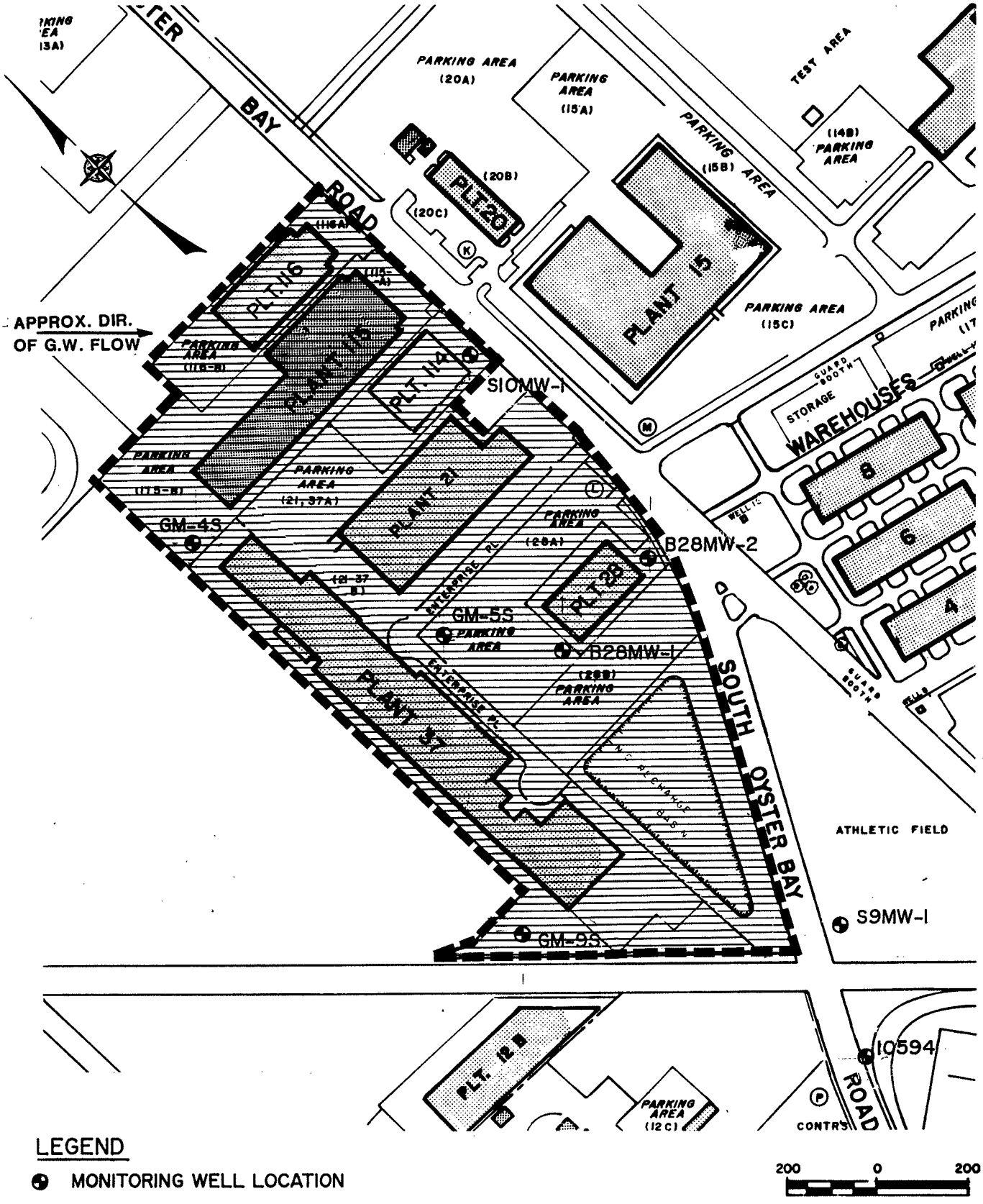
3.1 Volatile Organics Monitoring

During the drilling of the monitoring well, volatile organic vapors were not detected in the workers' breathing zone. The air monitoring results were documented on daily Air Monitoring Forms which are available in the project file. Prior to use, the organic vapor analyzer (OVA-128), which is a flame ionization detector, was calibrated with 95 percent methane gas/zero air. The Equipment Calibration Logs are also available in the project file. As described previously, the split spoon samples were also monitored for volatile organics utilizing the OVA-128, and no significant levels of volatile organics were detected.

3.2 Monitoring Well Installation

There are eight existing monitoring wells that were utilized to characterize groundwater quality in the vicinity of the site. Existing upgradient wells which were utilized included Hooker Chemical/Ruco Polymer wells GM-4S, located to the west of Plant 115, and GM-9S, located to the west of the southern portion of Plant 37. Existing downgradient wells which were utilized include Grumman Aerospace Corporation well B28MW-2, located to the east of Plant 28, Grumman Aerospace Corporation well S9MW-1, located southeast of Plant 37, and USGS well 10594, located to the south of Plant 37. In addition, existing wells located in the central portion of the site which were utilized include Grumman Aerospace Corporation well B28MW-1 and Hooker Chemical/Ruco Polymer well GM-5S. One shallow monitoring well (S10MW-1) was also installed near the southeast corner of Plant 114 and utilized as an additional downgradient well.

Figure 3-1 presents the locations of these wells, and Figure 3-2 presents the construction log for the installed monitoring well. The well was installed in a boring advanced using the hollow stem auger method of drilling. Well construction consisted of 2-inch I.D. PVC screen and casing with threaded joints. The bottom of the 15 foot, 0.010 inch slot screen was sealed with a threaded PVC plug. The bottom of the screen for S10MW-1 was set at a depth of 73 feet below ground surface, and the water table was encountered at a depth of 63 feet.



Source: GAC GENERAL PLAN

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY
SITE 10 (PLANTS 21, 28, 37, 114, 115, AND 116)

WELL LOCATIONS

Dvirka and Bartilucci CONSULTING ENGINEERS

FIGURE 3 - 1

Dvirka and Bartilucci
CONSULTING ENGINEERS

WELL CONSTRUCTION LOG

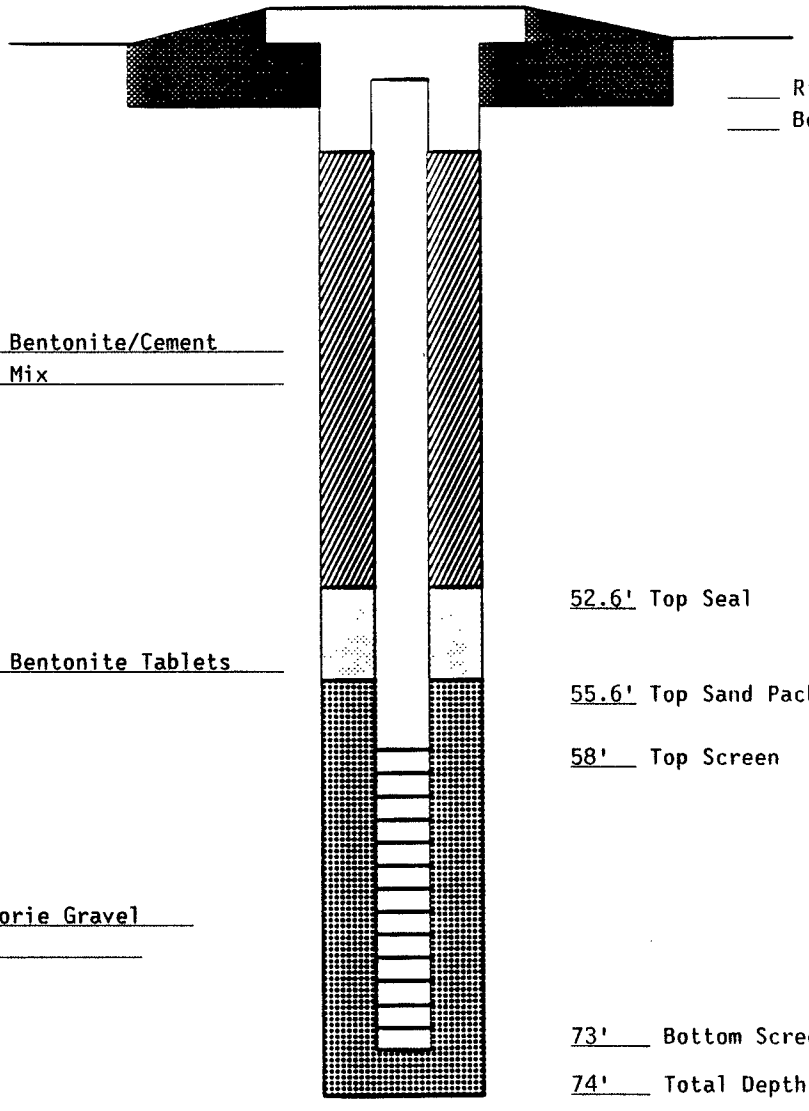
SITE Grumman Aerospace Corporation JOB NO. 1167 WELL NO. S10-MW-1

TOTAL DEPTH 73' SURFACE ELEV. _____ TOP RISER ELEV. _____

WATER LEVELS (DEPTH, DATE, TIME) 62.5' 12:30 pm DATE INSTALLED 8/14/92

RISER DIA 2" MATERIAL PVC LENGTH 58'
SCREEN DIA 2" MATERIAL PVC LENGTH 15' SLOT SIZE 0.010"

SCHEMATIC



Ground Surface

Surface Seal Type
Portland Cement

____ Riser Elevation
____ Bottom Surface Seal

Grout Type Bentonite/Cement Mix

Seal Type Bentonite Tablets

52.6' Top Seal

55.6' Top Sand Pack

58' Top Screen

Sand Pack Type Morie Gravel
Size Number One

73' Bottom Screen

74' Total Depth of Boring

2854G/1167/8

A sandpack was installed around the screen using a tremie pipe. Above the sandpack, a minimum 2-foot thick bentonite seal was installed followed by a cement/bentonite grout for the remainder of the annulus to ground surface also using a tremie pipe. The well was protected with a locking PVC cap and a steel flush mount vault with a bolted cover. Upon completion of well construction, the well was developed using a submersible pump and/or bailed. The well was considered developed when the discharge water measured 50 nephelometric turbidity units (NTUs) or less.

3.3 Monitoring Well Borehole Soil Sampling

During construction of the monitoring well borehole, split spoon samples were collected continuously for the first 10 feet and every 5 feet from that point on to the well completion depth. Appendix D includes the boring log for the monitoring well borehole installed as part of this project.

Seventeen split spoon samples were obtained from the S10MW-1 borehole. The split spoon samples indicated that the soil in the area of S10MW-1 was mostly brown/light tan fine to medium sand with some gravel to a depth of 6 feet, brown medium to coarse sand with little gravel to a depth of 30 feet, gray/brown sandy clay to a depth of 38 feet and light gray/pink/brown fine sand mixed with little sandy clay layers to a depth of 72 feet.

Field screening of the split spoon samples and borehole, taken with an organic vapor analyzer during construction, did not indicate readings above ambient conditions, and there was no apparent indication of contamination in the borehole associated with discoloration, odor or soil texture. A soil sample for laboratory analysis was obtained from the split spoon sample collected at the 4 to 6-foot interval. The soil sample was analyzed for volatile organics using USEPA SW-846 Method 8010/8020 and total petroleum hydrocarbons (TPHCs) using USEPA Method 418.1. The analytical results from the monitoring well borehole soil sample are presented in Section 4.

3.4 Groundwater Sampling

Prior to well sampling, a minimum of three times the volume of standing water in the casing and sandpack from each well (GM-4S, GM-5S, GM-9S, B28MW-1, B28MW-2, 10594, S9MW-1 and S10MW-1) was removed with a bailer. One sample was collected from each well for laboratory analysis. The water samples were analyzed for volatile organics using Method 624 and metals using USEPA SW-846 Method 6010. The analytical results from the groundwater samples are presented in Section 4.

Section 4

4.0 FINDINGS AND CONCLUSIONS

The volatile organic analytical results from the groundwater samples are compared to the New York State Department of Health (NYSDOH) Drinking Water Standards. Soil sample results are compared to recommended soil cleanup objectives as identified in the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM 4046). The results are discussed in detail by matrix in the following sections.

4.1 Monitoring Well Borehole Soil Sampling

One soil sample was collected from the monitoring well borehole and analyzed for volatile organics and total petroleum hydrocarbons (TPHCs). The results of these analyses are presented on Table 4-1 with the associated soil sampling field blank results presented on Table 4-2. In the soil sample collected from S10MW-1, methylene chloride was detected at 5.5 ug/kg. However, since methylene chloride was also detected in the field blank, and the compound is a common laboratory chemical, its presence in the environmental sample can be attributed to laboratory contamination.

The levels of total petroleum hydrocarbons for S10MW-1 are also presented on Table 4-1. In sample S10MW-1, which was collected at a depth of 4 to 6 feet below ground surface, the level of TPHCs was detected at 89 mg/kg utilizing EPA Method 418.1. The concentration of TPHCs detected in this sample is not atypical of shallow subsurface locations overlain by areas of extensive asphalt pavement as is the case at this site. As is mentioned above, there is no evidence of any prior fuel spills or releases, nor was there any evidence of either discoloration or petroleum odors associated with the geologic or laboratory samples collected.

To determine if the TPHCs detected were attributable to the effect of the asphalt parking lot where the well was installed and the subsurface soil sample was collected, the sample was also analyzed utilizing NYSDOH Method 310-13. The initial method utilized to analyze for TPHCs (Method 418.1) is capable of detecting asphalt if present in the sample. Method 310-13 can detect the more common fuel-related components identified in the TPHC analysis; however, it cannot detect asphalt-related constituents. The analytical results for sample S10MW-1 utilizing Method 310-13, presented in Table 4-1, indicate that the fuel-related constituents such as gasoline, lubricating oil, kerosene and fuel oil were not detected above the method detection limit. Therefore, it appears that the TPHCs detected in the soil sample from the borehole associated with S10MW-1 is attributable to asphalt.

TABLE 4-1
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
SOIL SAMPLING
VOLATILE ORGANICS AND TOTAL PETROLEUM HYDROCARBONS

SAMPLE ID	S10MW1S		NYSDEC RECOMMENDED SOIL CLEANUP OBJECTIVES
SAMPLE DEPTH	(4'-6')		
DATE COLLECTED	08/14/92		
MATRIX	SOIL		
%MOISTURE	2		
DILUTION FACTOR	1		
UNITS	(ug/kg)		(ug/kg)
PARAMETER			
Chloromethane		U	----
Bromomethane		U	----
Vinyl chloride		U	200
Chloroethane		U	1900
Methylene chloride	5.5	B	100
1,1-Dichloroethene		U	400
1,1-Dichloroethane		U	200
1,2-Dichloroethene (trans)		U	300
Chloroform		U	300
1,2-Dichloroethane		U	100
1,1,1-Trichloroethane		U	800
Carbon tetrachloride		U	600
Bromodichloromethane		U	----
1,2-Dichloropropane		U	----
cis-1,3-Dichloropropene		U	----
Trichloroethene		U	700
Dibromochloromethane		U	----
1,1,2-Trichloroethane		U	----
Benzene		U	60
trans-1,3-Dichloropropene		U	----
Bromoform		U	----
Tetrachloroethene		U	1400
1,1,2,2-Tetrachloroethane		U	600
Toluene		U	1500
Chlorobenzene		U	1700
Ethylbenzene		U	5500
Xylene (total)		U	1200
2-Chloroethylvinylether		U	----
Trichlorofluoromethane		U	----
1,2-Dichlorobenzene		U	7900
1,3-Dichlorobenzene		U	1600
1,4-Dichlorobenzene		U	8500
Total Petroleum Hydrocarbons (mg/kg)	89		----
Gasoline		U	----
Lubricating Oil		U	----
Kerosene		U	----
Fuel Oil		U	----

QUALIFIERS:
U: Analyzed for but not detected
B: Compound found in method blank as well as sample

NOTE:
----: Not Established

TABLE 4-2
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
SOIL SAMPLING FIELD BLANK
VOLATILE ORGANICS AND TOTAL PETROLEUM HYDROCARBONS

SAMPLE ID	S9FBS	
SAMPLE DEPTH		
DATE COLLECTED	07/27/92	
MATRIX	WATER	
%MOISTURE		
DILUTION FACTOR	1	
UNITS	(ug/l)	
PARAMETER		
Chloromethane		U
Bromomethane		U
Vinyl chloride		U
Chloroethane		U
Methylene chloride	2.9	B
1,1-Dichloroethene		U
1,1-Dichloroethane		U
1,2-Dichloroethene (trans)		U
Chloroform		U
1,2-Dichloroethane		U
1,1,1-Trichloroethane		U
Carbon tetrachloride		U
Bromodichloromethane		U
1,2-Dichloropropane		U
cis-1,3-Dichloropropene		U
Trichloroethene		U
Dibromochloromethane		U
1,1,2-Trichloroethane		U
Benzene		U
trans-1,3-Dichloropropene		U
Bromoform		U
Tetrachloroethene		U
1,1,2,2-Tetrachloroethane		U
Toluene		U
Chlorobenzene		U
Ethylbenzene		U
Xylene (total)		U
2-Chloroethylvinylether		U
Trichlorofluoromethane		U
1,2-Dichlorobenzene		U
1,3-Dichlorobenzene		U
1,4-Dichlorobenzene		U
Total Petroleum Hydrocarbons		U

QUALIFIERS:
U: Analyzed for but not detected
B: Compound found in method blank as well as sample

The results of organic and inorganic analyses of potable water utilized during the construction of monitoring well S10MW-1 are presented on Tables 4-3 and 4-4, respectively. During construction of S10MW-1, potable water was placed inside the well casing to create a pressure head on the underlying saturated soil. This measure was deemed necessary to prevent "surging" of the saturated soil inside the well casing during the removal of the augers. In the potable water sample S10PW, methylene chloride was detected at a concentration of 2 ug/l. However, since methylene chloride was also detected in the field blank and the compound is a common laboratory chemical, its presence in the environmental sample can be attributed to laboratory contamination. As indicated on Table 4-3, copper, lead and zinc were detected in S10PW. However, as indicated on Table 4-3, all inorganic constituents associated with S10PW were detected in concentrations that were well below the NYSDOH drinking water standards.

4.2 Groundwater Sampling

One groundwater sample was collected from each monitoring well (GM-4S, GM-5S, GM-9S, B28MW-1, B28MW-2, 10594, S9MW-1 and S10MW-1) and analyzed for volatile organic and inorganic constituents. The results of the volatile organic analyses of the groundwater samples and the associated field and trip blanks are presented on Tables 4-5 and 4-6, respectively. Methylene chloride was detected above the NYSDOH drinking water standards in GM-4S and GM-5S. However, since methylene chloride was also detected in the field and trip blanks and the compound is a common laboratory chemical, its presence in the environmental samples can be attributed to laboratory contamination.

Tetrachloroethene was detected slightly above the NYSDOH drinking water standard in GM-4S at a concentration of 6 ug/l. However, since GM-4S is an upgradient groundwater monitoring well, the level of tetrachloroethane is not attributable to Site 10. Acetone was detected above the NYSDOH drinking water standard in GM-9S at a concentration of 180 ug/l. However, GM-9S is also an upgradient monitoring well (located directly downgradient of the Hooker/Ruco Polymer NPL site) and, therefore, the level of acetone is not attributable to the site.

2-Butanone was detected above the NYSDOH drinking water standard in S10MW-1 at a concentration of 59 ug/l. S10MW-1 is located downgradient of Plant 114 and the adjacent Hooker/Ruco Polymer NPL site. As previously mentioned, Plant 114 was originally utilized by the New York Telephone Company as office space and a garage. Interviews with Grumman Aerospace Corporation personnel indicated that Plant 114 has historically been utilized for office

TABLE 4-3
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
POTABLE WATER
VOLATILE ORGANICS

SAMPLE ID	S10PW		NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	08/18/92		
SAMPLE VOLUME	5 ml		
DILUTION FACTOR	1		
UNITS	(ug/l)		(ug/l)
PARAMETER			
Chloromethane		U	5
Bromomethane		U	5
Vinyl chloride		U	2
Chloroethane		U	5
Methylene chloride	2	JB	5
Acetone		U	50
Carbon disulfide		U	50
1,1-Dichloroethene		U	5
1,1-Dichloroethane		U	5
1,2-Dichloroethene (total)		U	5
Chloroform		U	100**
1,2-Dichloroethane		U	5
2-Butanone		U	5
1,1,1-Trichloroethane		U	5
Carbon tetrachloride		U	5
Bromodichloromethane		U	5
1,2-Dichloropropane		U	5
cis-1,3-Dichloropropene		U	5
Trichloroethene		U	5
Dibromochloromethane		U	100**
1,1,2-Trichloroethane		U	5
Benzene		U	5
trans-1,3-Dichloropropene		U	5
Bromoform		U	100**
4-Methyl-2-Pentanone		U	5
2-Hexanone		U	5
Tetrachloroethene		U	5
1,1,2,2-Tetrachloroethane		U	5
Toluene		U	5
Chlorobenzene		U	5
Ethylbenzene		U	5
Styrene		U	5
Xylene (total)		U	5

QUALIFIERS:
U: Analyzed for but not detected
J: Compound found below detection limit
B: Compound found in method blank as well as sample

NOTE:
**: Applies to sum of trihalomethanes

TABLE 4-4
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
POTABLE WATER
INORGANIC CONSTITUENTS

SAMPLE ID	S10PW		NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	07/30/92		
MATRIX	WATER		
% SOLIDS	0.0		
UNITS	(ug/l)		(ug/l)
PARAMETER			
Antimony		U	----
Arsenic		U	50
Beryllium		U	----
Cadmium		U	10
Chromium		U	50
Copper	40.6		1000
Lead	12.0		50
Mercury		U	2
Nickel		U	----
Selenium		U	10
Silver		U	50
Thallium		U	----
Zinc	33.4		5000

QUALIFIERS:
U: Analyzed for but not detected

NOTES:
----: Not established

TABLE 4-5
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
GROUNDWATER SAMPLING
VOLATILE ORGANICS

SAMPLE ID	GM4S	GM5S	GM9S	USGS10594	NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	08/28/92	08/28/92	09/02/92	09/02/92	
SAMPLE VOLUME	5 ml	5 ml	5 ml	5 ml	
DILUTION FACTOR	1	1	10	1	
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER					
Chloromethane	U	U	U	U	5
Bromomethane	U	U	U	U	5
Vinyl chloride	U	U	U	U	2
Chloroethane	U	U	U	U	5
Methylene chloride	9 J	7 J	U	U	5
Acetone	U	U	180	U	50
Carbon disulfide	U	U	U	U	50
1,1-Dichloroethene	U	U	U	U	5
1,1-Dichloroethane	U	U	U	U	5
1,2-Dichloroethene (total)	U	U	U	U	5
Chloroform	U	U	U	U	100**
1,2-Dichloroethane	U	U	U	U	5
2-Butanone	U	U	U	U	5
1,1,1-Trichloroethane	U	U	U	U	5
Carbon tetrachloride	U	U	U	U	5
Bromodichloromethane	U	U	U	U	5
1,2-Dichloropropane	U	U	U	U	5
cis-1,3-Dichloropropene	U	U	U	U	5
Trichloroethene	U	U	U	3 J	5
Dibromochloromethane	U	U	U	U	100**
1,1,2-Trichloroethane	U	U	U	U	5
Benzene	U	U	U	U	5
trans-1,3-Dichloropropene	U	U	U	U	5
Bromoform	U	U	U	U	100**
4-Methyl-2-Pentanone	U	U	U	U	5
2-Hexanone	U	U	U	U	5
Tetrachloroethene	6 J	U	U	U	5
1,1,2,2-Tetrachloroethane	U	U	U	U	5
Toluene	U	U	U	U	5
Chlorobenzene	U	U	U	U	5
Ethylbenzene	U	U	U	U	5
Styrene	U	U	U	U	5
Xylene (total)	U	U	U	U	5

QUALIFIERS:
U: Analyzed for but not detected
J: Compound found below detection limit

NOTES:
**: Applies to the sum of trihalomethanes
: Exceeds standard value

TABLE 4-5 (continued)
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
GROUNDWATER SAMPLING
VOLATILE ORGANICS

SAMPLE ID	S9MW1	S10MW1	B28MW1	B28MW2	NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	08/31/92	09/01/92	08/27/92	08/27/92	
SAMPLE VOLUME	5 ml	5 ml	5 ml	5 ml	
DILUTION FACTOR	1	1	1	1	
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER					
Chloromethane	U	U	U	U	5
Bromomethane	U	U	U	U	5
Vinyl chloride	U	U	U	U	2
Chloroethane	U	U	U	U	5
Methylene chloride	4 J	2 J	2 J	2 J	5
Acetone	U	U	U	U	50
Carbon disulfide	U	U	U	U	50
1,1-Dichloroethene	U	U	U	U	5
1,1-Dichloroethane	U	U	U	U	5
1,2-Dichloroethene (total)	U	U	U	U	5
Chloroform	U	U	U	U	100**
1,2-Dichloroethane	U	U	U	U	5
2-Butanone	U	59	U	U	5
1,1,1-Trichloroethane	U	U	U	U	5
Carbon tetrachloride	U	U	U	U	5
Bromodichloromethane	U	U	U	U	5
1,2-Dichloropropane	U	U	U	U	5
cis-1,3-Dichloropropene	U	U	U	U	5
Trichloroethene	U	5 J	U	U	5
Dibromochloromethane	U	U	U	U	100**
1,1,2-Trichloroethane	U	U	U	U	5
Benzene	U	U	U	U	5
trans-1,3-Dichloropropene	U	U	U	U	5
Bromoform	U	U	U	U	100**
4-Methyl-2-Pentanone	U	U	U	U	5
2-Hexanone	U	U	U	U	5
Tetrachloroethene	U	U	U	U	5
1,1,2,2-Tetrachloroethane	U	U	U	U	5
Toluene	U	U	U	U	5
Chlorobenzene	U	U	U	U	5
Ethylbenzene	U	U	U	U	5
Styrene	U	U	U	U	5
Xylene (total)	U	U	U	U	5

QUALIFIERS:
U: Analyzed for but not detected
J: Compound found below detection limit

NOTES:
**: Applies to the sum of trihalomethanes
: Exceeds standard value

TABLE 4-6
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
GROUNDWATER SAMPLING
FIELD BLANK AND TRIP BLANKS
VOLATILE ORGANICS

SAMPLE ID	FIELD BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
DATE COLLECTED	08/27/92	08/27/92	08/31/92	09/02/92
SAMPLE VOLUME	5 ml	5 ml	5 ml	5 ml
DILUTION FACTOR	1	1	1	1
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER				
Chloromethane	U	U	U	U
Bromomethane	U	U	U	U
Vinyl chloride	U	U	U	U
Chloroethane	U	U	U	U
Methylene chloride	3 J	3 J	7 J	2 J
Acetone	5 BJ	6 BJ	U	U
Carbon disulfide	U	U	U	U
1,1-Dichloroethene	U	U	U	U
1,1-Dichloroethane	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U
Chloroform	U	U	U	U
1,2-Dichloroethane	U	U	U	U
2-Butanone	U	U	U	U
1,1,1-Trichloroethane	U	U	U	U
Carbon tetrachloride	U	U	U	U
Bromodichloromethane	U	U	U	U
1,2-Dichloropropane	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U
Trichloroethene	U	U	U	U
Dibromochloromethane	U	U	U	U
1,1,2-Trichloroethane	U	U	U	U
Benzene	U	U	U	U
trans-1,3-Dichloropropene	U	U	U	U
Bromoform	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U
2-Hexanone	U	U	U	U
Tetrachloroethene	U	U	U	U
1,1,2,2-Tetrachloroethane	U	U	U	U
Toluene	U	U	U	U
Chlorobenzene	U	U	U	U
Ethylbenzene	U	U	U	U
Styrene	U	U	U	U
Xylene (total)	U	U	U	U

QUALIFIERS:
U: Analyzed for but not detected
B: Compound found in method blank as well as sample
J: Compound found below detection limit

space and warehousing since Grumman acquisition in 1987, and is currently leased to Lonestar Technologies who continues to utilize the site solely for office space and warehousing. As previously discussed, a review of Grumman utility maps did not show any indication of on-site sanitary disposal systems associated with Plant 114. It is important to note that S10MW-1 is also located downgradient of the Hooker/Ruco Polymer NPL site. Based upon a review of the Record of Decision on a Proposed Remedial Action Plan, 2-butanone was identified as a contaminant of concern associated with Operable Unit 1 of the Hooker/Ruco Polymer facility. As a result, the detected concentration of 2-butanone in S10MW-1 may be attributable to the Hooker/Ruco Polymer NPL site.

The results of inorganic analysis of the groundwater samples and the associated field blank are presented on Table 4-7 and 4-8, respectively. As indicated on Table 4-7, several inorganic constituents were detected in the groundwater samples obtained from the monitoring wells associated with the site. The only inorganic constituents detected above NYSDOH drinking water standards were arsenic, chromium and lead from GM-9S and lead from USGS-10594. However, it should be noted that these samples could not be obtained at a turbidity of less than 50 NTUs. As a result, additional groundwater samples from these locations were filtered to remove soil particles prior to laboratory analysis. As indicated on Table 4-7, the inorganic constituents discussed above, which were detected in the unfiltered samples, were not detected in the filtered samples (GM-9SF and USGS-10594F). Therefore, it appears that the levels of inorganic constituents detected in the unfiltered samples are attributable to soil contamination and are not indicative of groundwater quality. As a result, it can be concluded that all inorganic constituents related to groundwater quality were detected in concentrations that were well below the NYSDOH drinking water standards.

4.3 Conclusions

A review of agency and Grumman files did not reveal any records pertaining to any chemical and/or fuel spills on-site. Agency and Grumman files indicated that the two previously existing tanks associated with Plants 115 (Tank #115-01-1) and 116 (Tank #116-01-1) had failed tightness tests. However, both of the tanks were subsequently removed with regulatory agency determinations that there was no residual contamination. Tank #115-01-1 failed tightness tests performed on December 1, 1988 and December 2, 1988. The tank was subsequently emptied and rendered "out-of-service." Based upon a review of Grumman files, a representative of the NYSDEC witnessed the removal of Tank #115-01-1 on January 10, 1989 and determined that

TABLE 4-7
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37,114, 115 AND 116)
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

SAMPLE ID	GM4S	GM5S	GM9S	GM9SF	S9MW1	NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	08/28/92	08/28/92	09/02/92	09/02/92	08/31/92	
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER						
Antimony	U	U	80.2	U	U	----
Arsenic	U	U	85.2	U	U	50
Beryllium	U	U	2.4 B	1.2 B	3.9 B	----
Cadmium	U	U	U	U	U	10
Chromium	17.3	19.4	66.1	14.7	11.7	50
Copper	21.8 B	U	69.9	U	21.2 B	1000
Lead	U	U	55.4	U	U	50
Mercury	U	0.22	1.1	0.20	U	2
Nickel	25.7 B	U	37.4 B	34.8 B	U	----
Selenium	U	U	U	U	U	10
Silver	U	U	U	U	U	50
Thallium	U	U	U	U	U	----
Zinc	9.5 B	17.2 B	82.4	87.2	16.1 B	5000

QUALIFIERS:
U: Analyzed for but not detected
B: Value less than contract required detection limits but greater than instrument detection limits.
F: Filtered sample

NOTES:
----: Not established
: Exceeds standard value

TABLE 4-7 (continued)
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37,114, 115 AND 116)
GROUNDWATER SAMPLING
INORGANIC CONSTITUENTS

SAMPLE ID	USGS10594	USGS10594F	S10MW1	B28MW1	B28MW2	NYSDOH DRINKING WATER STANDARDS
DATE COLLECTED	09/02/92	09/02/92	09/01/92	08/27/92	08/27/92	
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER						
Antimony	U	U	U	U	U	----
Arsenic	U	U	U	U	U	50
Beryllium	U	U	U	U	U	----
Cadmium	U	U	U	U	U	10
Chromium	23.5	U	U	U	U	50
Copper	114	U	U	U	U	1000
Lead	249	U	U	U	U	50
Mercury	0.54	U	U	0.28	U	2
Nickel	90.9	33.4 B	U	U	U	----
Selenium	U	U	U	U	U	10
Silver	17.3	U	U	U	U	50
Thallium	U	U	U	U	U	----
Zinc	208	22.0	56.0	5.4 B	29.9	5000

QUALIFIERS:
U: Analyzed for but not detected
B: Value less than contract required detection limits but greater than instrument detection limits.
F: Filtered sample

NOTES:
----: Not established

TABLE 4-8
GRUMMAN AEROSPACE CORPORATION
SITE 10 (PLANTS 21, 28, 37, 114, 115 AND 116)
GROUNDWATER SAMPLING
FIELD BLANK
INORGANIC CONSTITUENTS

SAMPLE ID	FIELD BLANK
DATE COLLECTED	08/27/92
UNITS	(ug/l)
PARAMETER	
Antimony	U
Arsenic	U
Beryllium	U
Cadmium	U
Chromium	U
Copper	U
Lead	U
Mercury	U
Nickel	U
Selenium	U
Silver	U
Thallium	U
Zinc	U

QUALIFIERS:
U: Analyzed for but not detected

there was no residual contamination. Tank #116-01-1 failed a tightness test on May 10, 1989 due to a piping failure. The piping was repaired and the system passed a subsequent tightness test performed on May 25, 1989. Tank #116-01-1 was removed on May 14, 1990 due to a change in service from fuel oil to natural gas. A representative of the NCDOH witnessed the removal and determined that there was no contamination. Appropriate documentation of the preceding can be found in Appendix F. A review of agency and Grumman files revealed no records pertaining to any existing on-site storage tanks associated with Plants 21, 37, 114, 115 and 116. Plant 28 continues to utilize a 4,000 gallon underground storage tank for space heating. This tank has successfully undergone tank tightness testing with the most recent test results provided in Appendix F.

With the exception of tetrachloroethene, which was detected in groundwater sample GM-4S at a concentration of 6 ug/l, acetone, which was detected in groundwater sample GM-9S at a concentration of 180 ug/l, and 2-butanone, which was detected in groundwater sample S10MW-1 at a concentration of 59 ug/l, none of the compounds were detected above the referenced standards/guidelines other than those which were attributable to laboratory contamination and elevated turbidity. It is important to note that GM-4S and GM-9S are both upgradient monitoring wells and concentrations of compounds detected in these wells are therefore not attributable to the site. Furthermore, as previously mentioned, S10MW-1 is located downgradient of the Hooker/Ruco Polymer NPL facility. Based upon a review of the Record of Decision on a Proposed Remedial Action Plan, 2-butanone was identified as a contaminant of concern associated with Operable Unit 1 of the Hooker/Ruco Polymer facility. As a result, the detected concentration of 2-butanone in S10MW-1 may be attributable to the Hooker/Ruco Polymer NPL site.

Based on the above referenced findings, we believe that the information presented in this document is sufficient to support the delisting of the site under New York State regulations and, as such, an appropriate modification to the boundaries of Site 1-30-003A is warranted.

Section 5

5.0 REFERENCES

Dvirka and Bartilucci Consulting Engineers; "Sterling Center - Draft Generic Environmental Impact Statement - Volume 1A;" June 1990.

EBASCO, Final Work Plan RI/FS Hooker Chemical/Ruco Polymer Superfund Site, EPA Contract 68-01-7250, Work Assignment No. 186-2443, September 1988.

Legette, Brashear & Graham, Final Field Operations Plan, August 1989.

Legette, Brashear & Graham, Focused Feasibility Study for Remediation of Soils Containing Arochlor 1248 for Occidental Chemical Corp., June 1990.

LKB Aerial Photographs: April 11, 1950; January 20, 1955; January 24, 1957; March 23, 1962; April 11, 1969; April 18, 1972; March 8, 1988.

United States Department of Agriculture, Soil Conservation Service, Soil Survey of Nassau County, New York, February 1987.

USEPA, Declaration for Record of Decision, Hooker Chemical/Ruco Polymer Site, Hicksville, Nassau County, New York, September 1990.

USEPA - Region 2, Proposed Plan Superfund Update Hooker Chemical/Ruco Polymer Site, Hicksville, New York, July 1990.

USEPA - Region II, Record of Decision (Operable Unit 1), Hooker Chemical/Ruco Polymer Site, Town of Oyster Bay, Nassau County, New York, January 1994.

Appendix A

APPENDIX A

LOCATION MAP

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY
SITE 10 (PLANTS 21, 28, 37, 114, 115, AND 116)

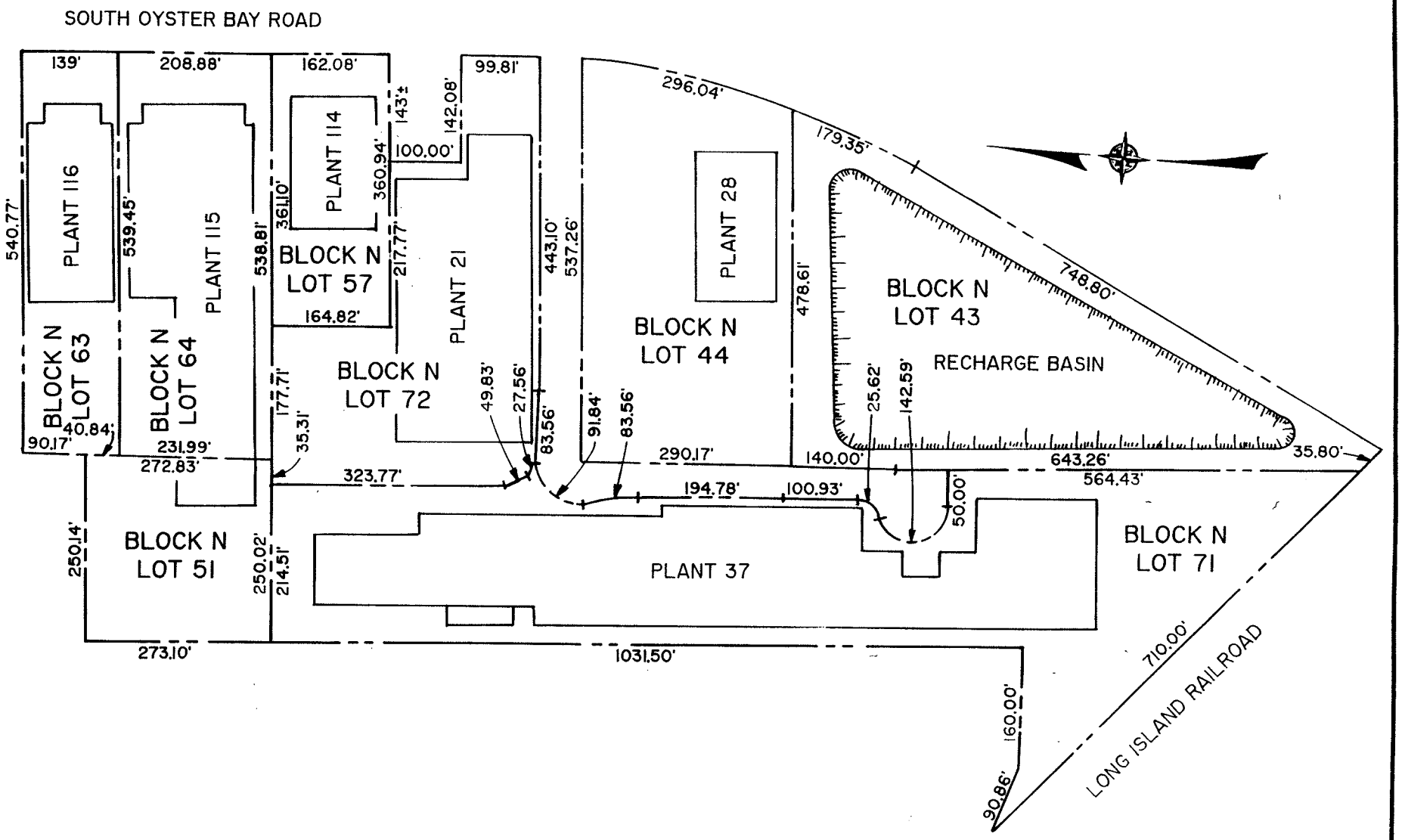
LOCATION MAP

Dvirka and Bartilucci CONSULTING ENGINEERS

Appendix B

APPENDIX B

SITE PLAN



Source: NASSAU COUNTY LAND & TAX MAP - SEC. 46 BLK. N

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY
SITE 10 (PLANTS 21, 28, 37, 114, 115, AND 116)

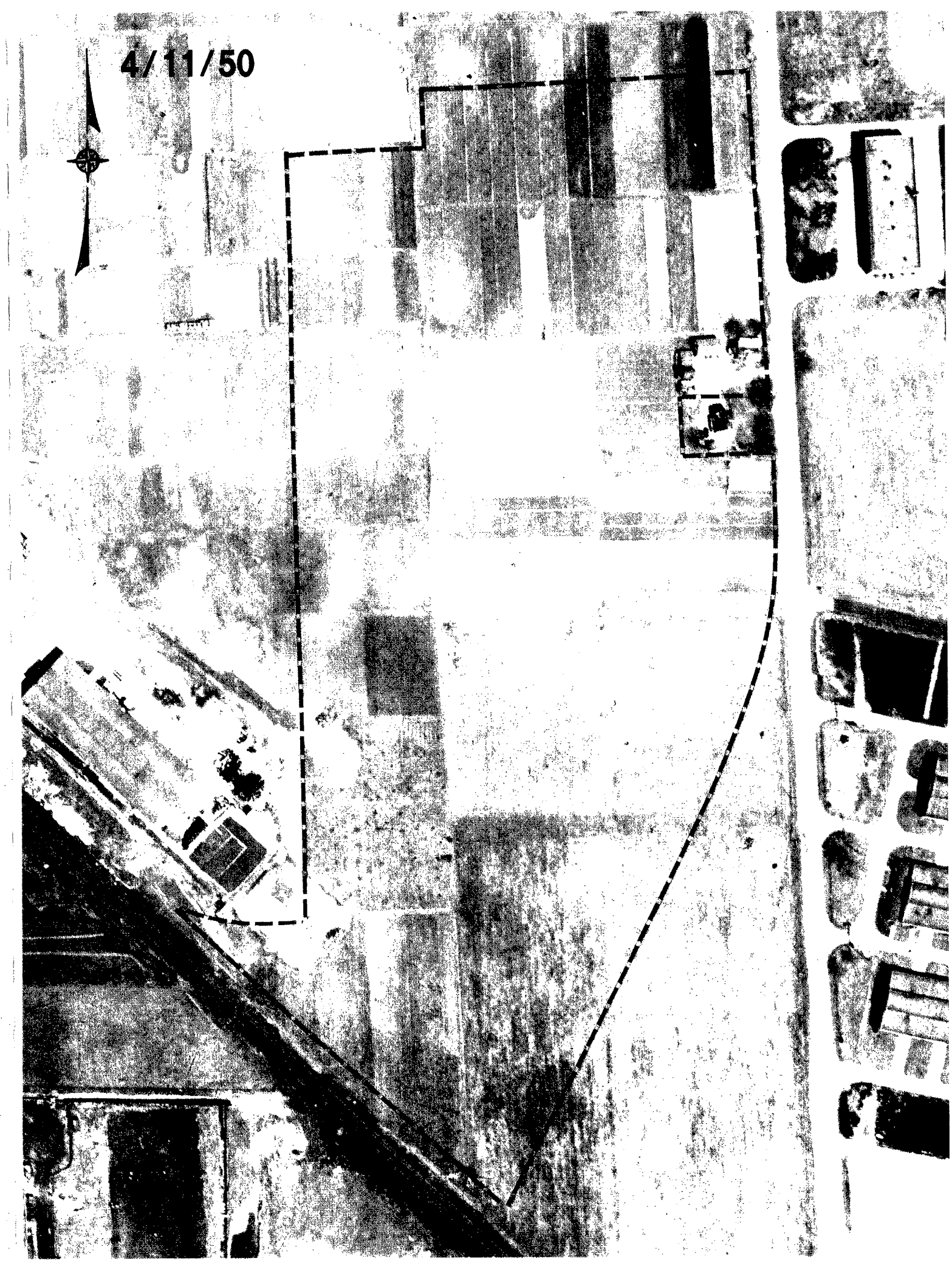
SITE PLAN

Dvirka and Bartilucci CONSULTING ENGINEERS

Appendix C

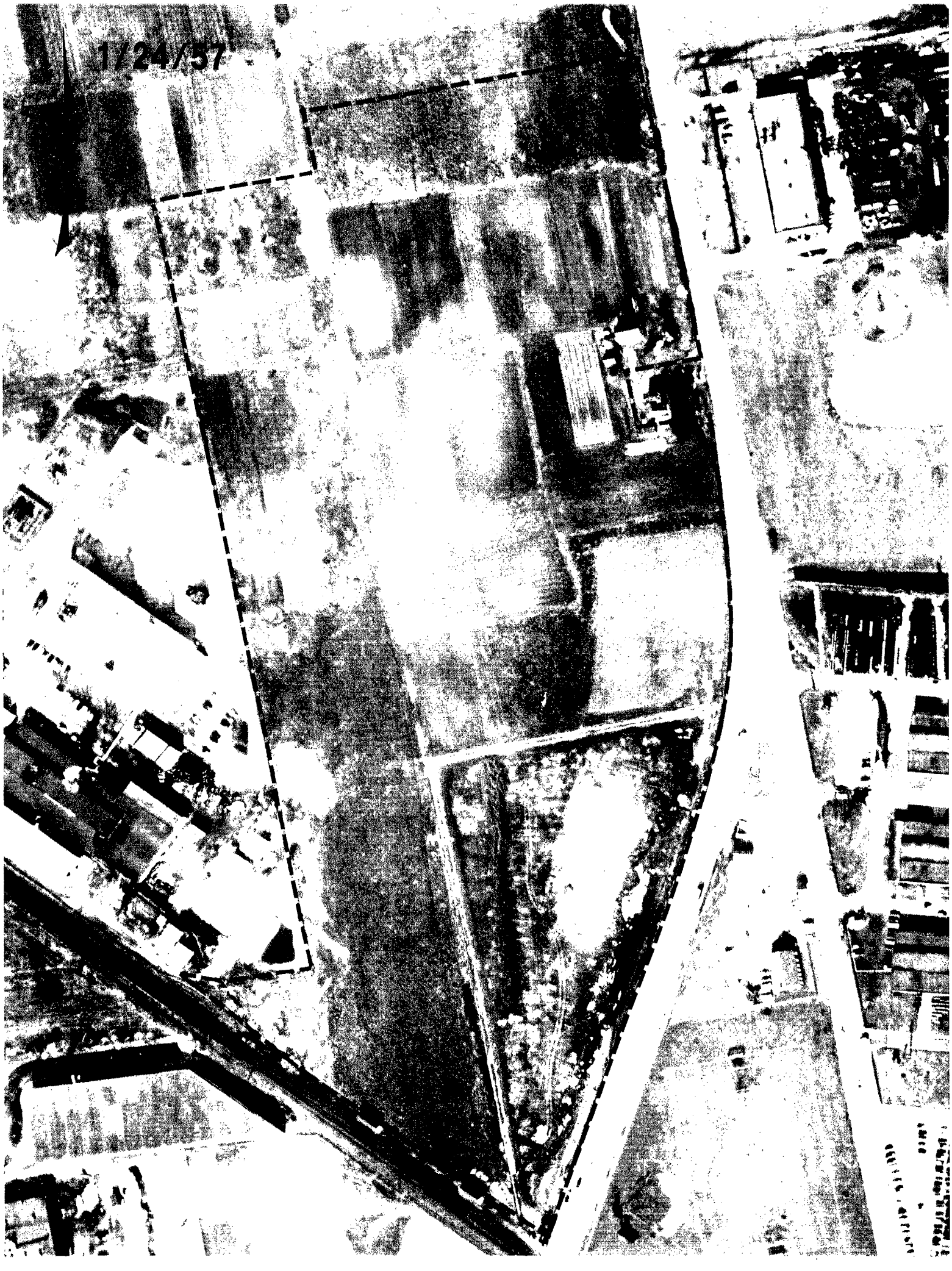
APPENDIX C

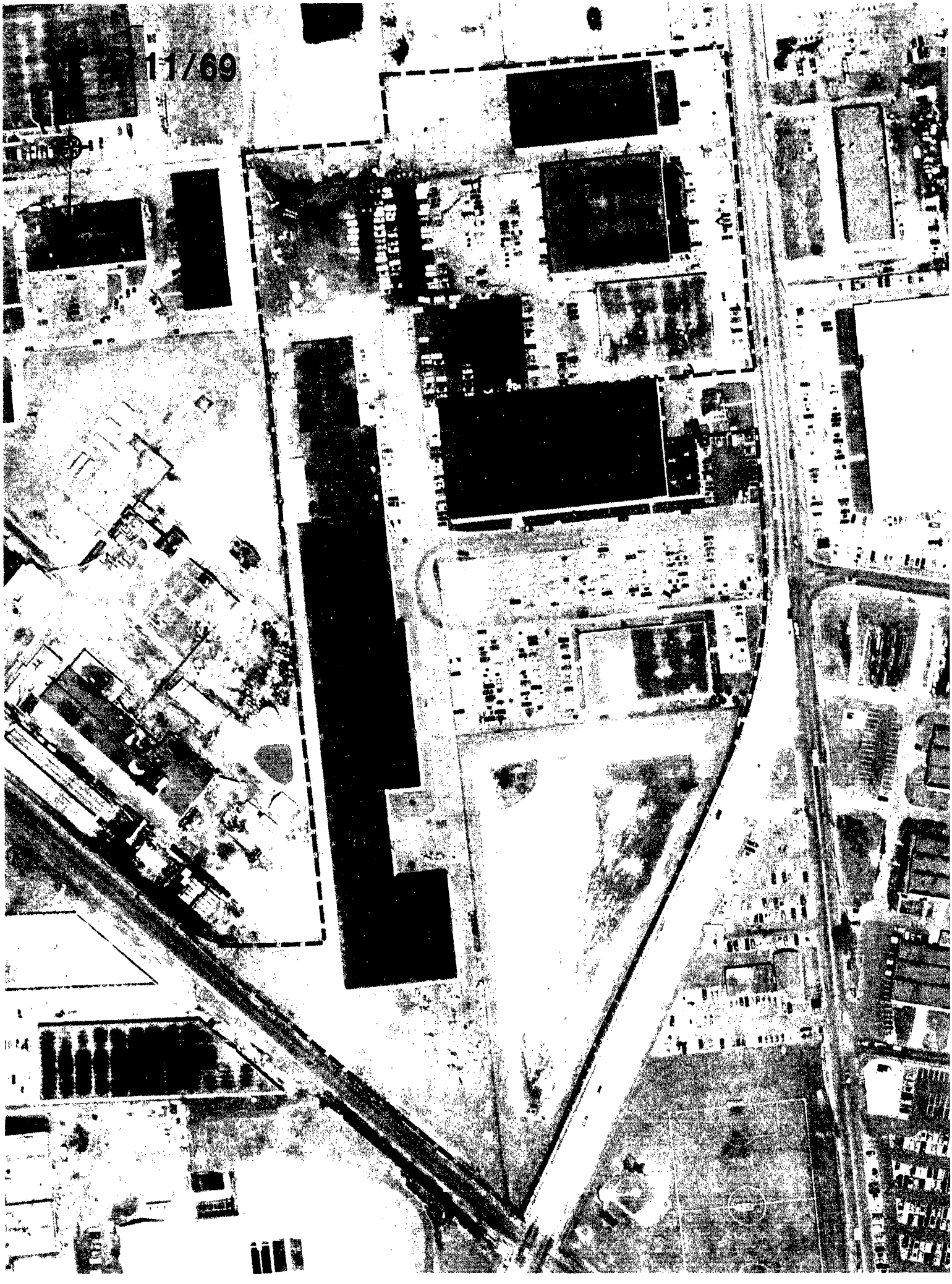
AERIAL PHOTOGRAPHS (1950-1988)



1/20/55

NGINS000120678





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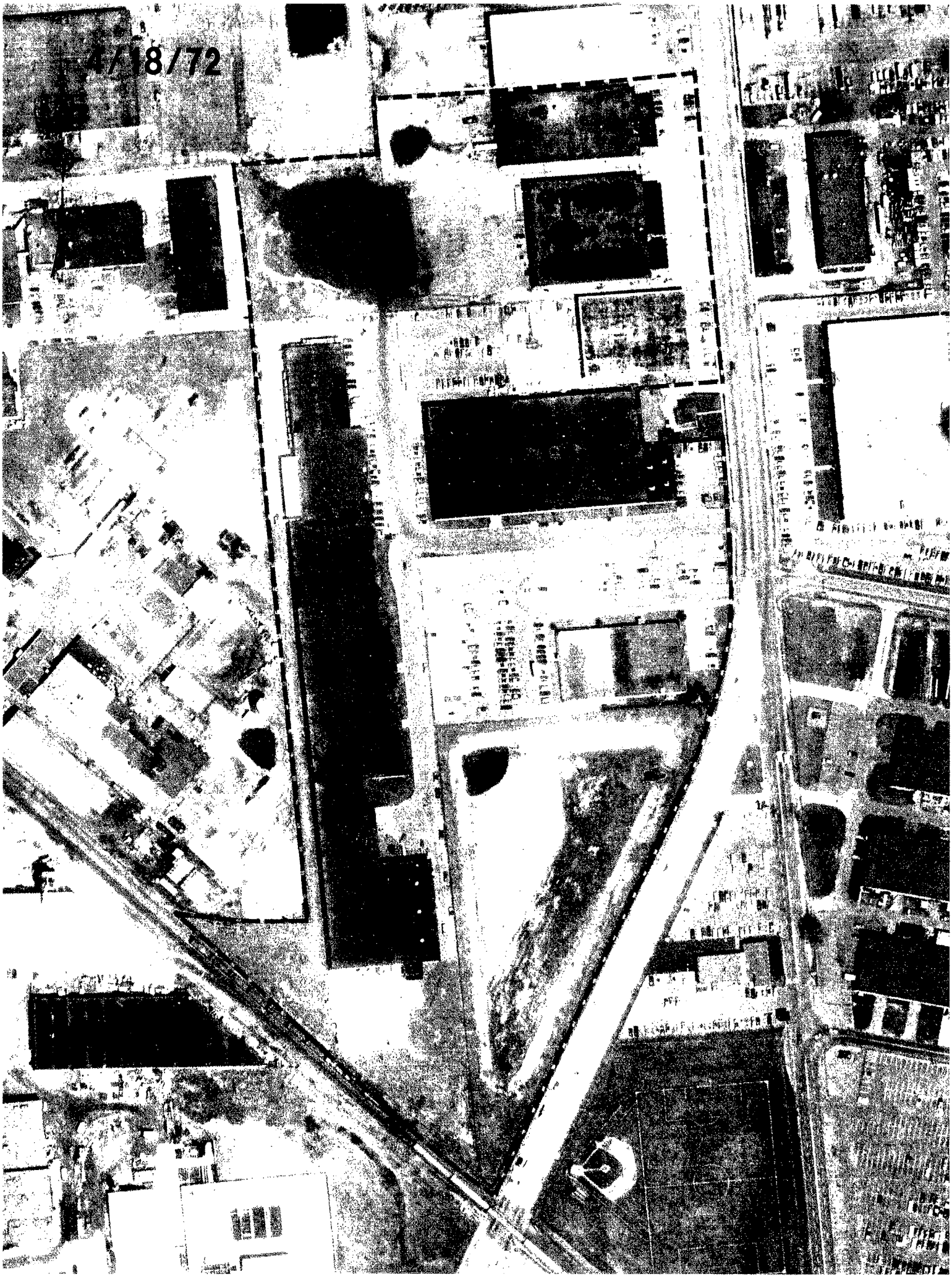
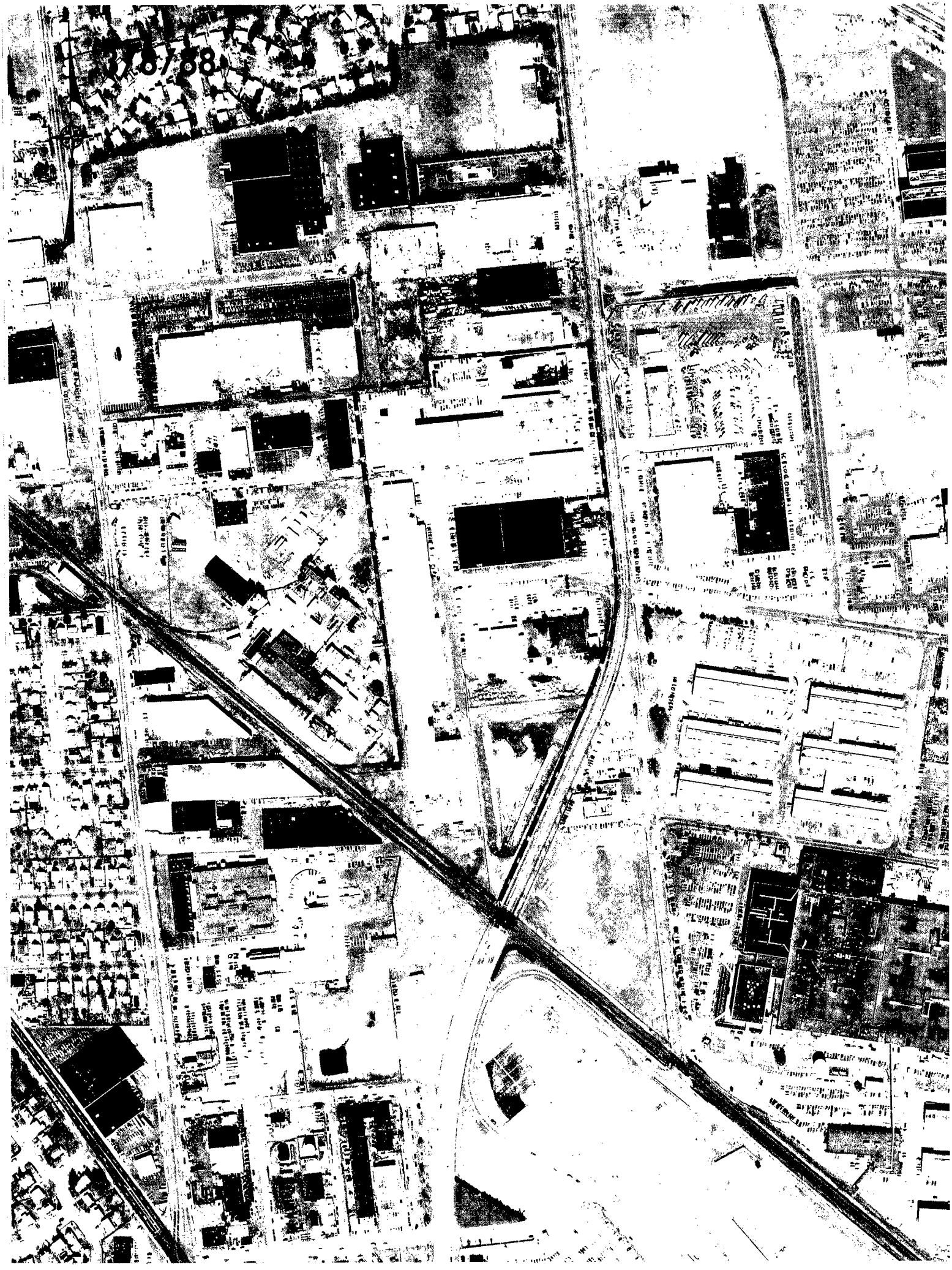

4/18/72



NGINS000120683

Appendix D

APPENDIX D

BORING LOG

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1167
Project Name: Grumman Aerospace

Well/Boring No.: S10-MW-1
Sheet 1 of 1
By: KSR Date: 8/14/92
Chk'd: _____ Date: _____

Drilling Contractor: Fenley and Nicol
Driller: Jim Dinetz Geologist: Keith S. Robins
Drill Rig: B-47 Drilling Method: Hollow Stem Auger
Sample Spoon I.D.: 2" Drive Hammer Wt.: 140 lbs.
Date Started: 8/14/92 Date Completed: 8/14/92

Borehole Completion Depth: 23'
Borehole Diameter: 8"
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-						
-1-	S-1	0-2	20"	14,19, 15,19	0	0-3" Asphalt 3"-10" Dark brown fine medium Sand, trace fine gravel 10"-20" Brown f-m, sand trsilt, trace gravel dry
-2-						
3-	S-2	2-4	20"	12,14, 26,29	0	Brown fm Qtz Sand, little clay lenses, trace fm gravel dry-damp
4-						
5-	S-3	4-6	24"	12,23, 35,54	0	Lt Tan-brown fm Sand, with some-little, fm(lt)c gravel (subangular) Some silt, poorly sorted, loose. dry
6-						
7-	S-4	6-8	24"	9,12, 15,16	0	Brown-orange coarse subrounded Qtz Sand, some fine-medium gravel, loose, poorly sorted. damp
8-						
9-	S-5	8-10	0	NA	—	NO RECOVERY 2 ATTEMPTS, PUSHING a ROCK
10						

Remarks: Soil sample (4'-6') taken for laboratory analysis

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1167
Project Name: Grumman Aerospace

Well/Boring No.: SLO-MW-1
Sheet 1 of 2
By: KSR Date: 8/14/92
Chk'd: _____ Date: _____

Drilling Contractor: Fenley and Nicol
Driller: Jim Ondetz Geologist: Keith S. Robins
Drill Rig: B-47 Drilling Method: Hollow Stem Auger
Sample Spoon I.D.: 2" Drive Hammer Wt.: 140 lbs.
Date Started: 8/14/92 Date Completed: 8/14/92

Borehole Completion Depth: 23'
Borehole Diameter: 8"
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
14						
16	S-6	15-17	12"	5,13, 15,15	0	LT Brown, coarse subrounded Qtz Sand, some gravel, trace cobble, trace silt, damp.
18						
20	S-7	20-22	20"	15,16, 18,20	0	Brown, medium-coarse subrounded Qtz Sand, little fine gravel, trace cobble, trace silt, poorly sorted, loose. damp.
24						
26	S-8	25-27	24"	15,20, 25,26	0	Brown, medium-coarse, subrounded Qtz Sand, little fine gravel, trace silt, trace dk minerals, damp.
28						
30	S-9	30-32	14"	5,10, 14,14	0	0-8" Gray-brown clay-solid compact 8"-14" Brown sandy clay, trace gravel, piece of Iron nodual damp-moist
32						

Remarks: Vertical scale changed from (1') to (2')

Water Level Measurement
_____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1167
Project Name: Grumman Aerospace

Well/Boring No.: S10-MW-1
Sheet 1 of 3
By: KSR Date: 8/14/92
Chk'd: _____ Date: _____

Drilling Contractor: Fenley and Nicol
Driller: Jim Omletz Geologist: Keith S. Robins
Drill Rig: B-47 Drilling Method: Hollow Stem Auger
Sample Spoon I.D.: 2" Drive Hammer Wt.: 140 lbs.
Date Started: 8/14/92 Date Completed: 8/14/92

Borehole Completion Depth: 73'
Borehole Diameter: 8"
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
34						
36	S-10	35-37	24"	3,9, 19,14	0	0-8" Gray-brown Sandy clay 8"-24" Gray-LT Tan fine subrounded Qtz Sand, well graded, little clay lenses, little silt damp
38						
40						
42	S-11	40-42	22"	3,6, 12,15	0	LT Gray-brown fine Qtz Sand, mixed with Gray-black thin clay lenses, slightly plastic, little(-) silt, 2" layer Red Fe+ stained layer, damp-moist
44						
46	S-12	45-47	24"	3,8, 15,17	0	LT Gray-pink, fine subrnd Qtz Sand, little(-) silt, trace muscovite, alt. banning layers Fe+ staining well Graded. damp-moist
48						
50						
52	S-13	50-52	24"	4,8, 15,15	0	PINK-brown-dk orange fine subrnd Qtz Sand, with Gray clayey Sand layers (3"), dk red fine sand tip of spoon, tr gray clay balls, tr silt, compact damp-moist
54						

Remarks:

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

BORING LOG

DVIRKA AND BARTILUCCI

Project No.: 1167
Project Name: Grumman Aerospace

Well/Boring No.: S10-MW-1
Sheet 1 of 4
By: KSR Date: 8/14/92
Chk'd: _____ Date: _____

Drilling Contractor: Fenley and Nicol
Driller: Jim Omletz Geologist: Keith S. Robins
Drill Rig: B-57 Drilling Method: Hollow Stem Auger
Sample Spoon I.D.: 2" Drive Hammer Wt.: 140 lbs.
Date Started: 8/14/92 Date Completed: 8/14/92

Borehole Completion Depth: 73'
Borehole Diameter: 8"
Ground Surface El.: _____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
56 58	S-14	55-57	20"	3,9, 15,30	0	LT Tan-LT gray fine subrd Qtz Sand, trace silt, very well graded, trace muscovite. damp
60 62 64	S-15	60-62	24"	8,35, 48,45	0	Brown-LT gray, very fine-fine Sand, little (-) silt, well graded, compact, damp-moist
66 68	S-16	65-67	20"	3,8, 12,9	0	Gray very fine Qtz Sand, little-some silt, some gray sandy clay lenses, Plastic, compact, dense, trace muscovite saturated
70 72 74	S-17	70-72	24"	3,4, 3,4	0	Gray-LT Brown fine Sand, little silt, well graded. saturated
76						END OF BORING 73'

Remarks:

Water Level Measurement _____ Date _____
_____ Date _____
_____ Date _____
_____ Date _____

BL

Appendix E

APPENDIX E

LABORATORY DATA

1A - NYSDEC

NYTEST ENVIRONMENTAL INC.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX: WATER
CONC. LEVEL: LOW
ANALYSIS DATE: 7/31/92

SAMPLE ID: S9-FB-S
LAB ID: 1343805
DIL FACTOR: 1.00
% MOISTURE: NA

UG/L

CMPD #	CAS Number	VOLATILE COMPOUNDS	
1	74-87-3	Chloromethane	0.5 U.
2	74-83-9	Bromomethane	1.0 U.
3	75-01-4	Vinyl Chloride	1.0 U.
4	75-00-3	Chloroethane	1.0 U.
5	75-09-2	Methylene Chloride	2.9 B
6	75-35-4	1,1-Dichloroethene	0.1 U.
7	75-34-3	1,1-Dichloroethane	0.5 U.
8	156-60-5	1,2-Dichloroethene (trans)	0.5 U.
9	67-66-3	Chloroform	0.5 U.
10	107-06-2	1,2-Dichloroethane	0.1 U.
11	71-55-6	1,1,1-Trichloroethane	0.1 U.
12	56-23-5	Carbon Tetrachloride	0.5 U.
13	75-27-4	Bromodichloromethane	0.5 U.
14	78-87-5	1,2-Dichloropropane	0.5 U.
15	10061-01-5	cis-1,3-Dichloropropene	0.5 U.
16	79-01-6	Trichloroethene	0.5 U.
17	124-48-1	Dibromochloromethane	0.5 U.
18	79-00-5	1,1,2-Trichloroethane	0.1 U.
19	71-43-2	Benzene	1.0 U.
20	10061-02-6	trans-1,3-Dichloropropene	1.0 U.
21	75-25-2	Bromoform	1.0 U.
22	127-18-4	Tetrachloroethene	0.1 U.
23	79-34-5	1,1,2,2-Tetrachloroethane	0.1 U.
24	108-88-3	Toluene	1.0 U.
25	108-90-7	Chlorobenzene	1.0 U.
26	100-41-4	Ethylbenzene	1.0 U.
27	1330-20-7	Xylene (total)	1.0 U.
28	110-75-8	2-Chloroethylvinylether	0.5 U.
29	75-69-4	Trichlorofluoromethane	1.0 U.
30	95-50-1	1,2-Dichlorobenzene	1.0 U.
31	541-73-1	1,3-Dichlorobenzene	1.0 U.
32	106-46-7	1,4-Dichlorobenzene	1.0 U.

1A - NYSDEC

NYTEST ENVIRONMENTAL INC.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX: SOIL
CONC. LEVEL: LOW
ANALYSIS DATE: 8/21/92

SAMPLE ID: S10-MW1S
LAB ID: 1366201
DIL FACTOR: 1.00
% MOISTURE: 2

CMPD #	CAS Number	VOLATILE COMPOUNDS	UG/KG (DRY BASIS)
1	74-87-3	Chloromethane	0.5 U.
2	74-83-9	Bromomethane	1.0 U.
3	75-01-4	Vinyl Chloride	1.0 U.
4	75-00-3	Chloroethane	1.0 U.
5	75-09-2	Methylene Chloride	5.5 B
6	75-35-4	1,1-Dichloroethene	0.1 U.
7	75-34-3	1,1-Dichloroethane	0.5 U.
8	156-60-5	1,2-Dichloroethene (trans)	0.5 U.
9	67-66-3	Chloroform	0.5 U.
10	107-06-2	1,2-Dichloroethane	0.1 U.
11	71-55-6	1,1,1-Trichloroethane	0.1 U.
12	56-23-5	Carbon Tetrachloride	0.5 U.
13	75-27-4	Bromodichloromethane	0.5 U.
14	78-87-5	1,2-Dichloropropane	0.5 U.
15	10061-01-5	cis-1,3-Dichloropropene	0.5 U.
16	79-01-6	Trichloroethene	0.5 U.
17	124-48-1	Dibromochloromethane	0.5 U.
18	79-00-5	1,1,2-Trichloroethane	0.1 U.
19	71-43-2	Benzene	1.0 U.
20	10061-02-6	trans-1,3-Dichloropropene	1.0 U.
21	75-25-2	Bromoform	1.0 U.
22	127-18-4	Tetrachloroethene	0.1 U.
23	79-34-5	1,1,2,2-Tetrachloroethane	0.1 U.
24	108-88-3	Toluene	1.0 U.
25	108-90-7	Chlorobenzene	1.0 U.
26	100-41-4	Ethylbenzene	1.0 U.
27	1330-20-7	Xylene (total)	1.0 U.
28	110-75-8	2-Chloroethylvinylether	0.5 U.
29	75-69-4	Trichlorofluoromethane	1.0 U.
30	95-50-1	1,2-Dichlorobenzene	1.0 U.
31	541-73-1	1,3-Dichlorobenzene	1.0 U.
32	106-46-7	1,4-Dichlorobenzene	1.0 U.

REPORT OF ANALYSIS

Log in No.: 13662

We find as follows:

Results in mg/kg (dry wt. basis):

Sample Identification	Parameter(s) Total Petroleum Hydrocarbons
1366201 S10-MW1S	89.0
Soil Method Blank	<10.0

0000157

nytest environmental inc

REPORT OF ANALYSIS

Log In No.: 14185

We find as follows:

Results in ug/kg (dry wt. basis):

Sample Identification	Parameter(s)
	Total Petroleum Hydrocarbons (310-13)
1418520 S10-MW1S	ND

ND = None Detected

0000026

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9218699

Lab Code: NYTEST Case No.: 13822 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1382204

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1758

Level: (low/med) LOW Date Received: 08/27/92

% Moisture: not dec. ____ Date Analyzed: 09/03/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	5	BJ
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

0000012

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: 9218699

Lab Code: NYTEST Case No.: 13822 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1382205

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1757

Level: (low/med) LOW Date Received: 08/27/92

% Moisture: not dec. ____ Date Analyzed: 09/03/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	6	BJ
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

0000018

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11142 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1387607

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1784

Level: (low/med) LOW Date Received: 08/31/92

% Moisture: not dec. ____ Date Analyzed: 09/04/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

0000016

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11187 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1390504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C8951

Level: (low/med) LOW Date Received: 09/02/92

% Moisture: not dec. ____ Date Analyzed: 09/09/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

0000012

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11187 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1390504

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C8951

Level: (low/med) LOW Date Received: 09/02/92

% Moisture: not dec. ____ Date Analyzed: 09/09/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

0000049

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S10-MW-1

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11187 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1389002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1808

Level: (low/med) LOW Date Received: 08/31/92

% Moisture: not dec. ____ Date Analyzed: 09/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	59	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	5	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GM-45

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11142 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: L384701

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1774

Level: (low/med) LOW Date Received: 08/28/92

% Moisture: not dec. ____ Date Analyzed: 09/04/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	6	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GM-55

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11142 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1384702

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01775

Level: (low/med) LOW Date Received: 08/28/92

% Moisture: not dec. ____ Date Analyzed: 09/04/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GM-9S

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11187 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1390502

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C8956

Level: (low/med) LOW Date Received: 09/02/92

% Moisture: not dec. ____ Date Analyzed: 09/09/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	100	U
75-09-2	Methylene Chloride	100	U
67-64-1	Acetone	180	
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

0000008

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B28-MW1

Lab Name: NYTEST ENV INC Contract: 9218699

Lab Code: NYTEST Case No.: 13822 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1382202

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1761

Level: (low/med) LOW Date Received: 08/27/92

% Moisture: not dec. _____ Date Analyzed: 09/03/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B28-MW2

Lab Name: NYTEST ENV INC Contract: 9218699

Lab Code: NYTEST Case No.: 13822 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1382201

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1760

Level: (low/med) LOW Date Received: 08/27/92

% Moisture: not dec. ____ Date Analyzed: 09/03/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S9-MW-1

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11142 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1387601

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01786

Level: (low/med) LOW Date Received: 08/31/92

% Moisture: not dec. ____ Date Analyzed: 09/04/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

USGS10594

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 11187 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1389003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1809

Level: (low/med) LOW Date Received: 08/31/92

% Moisture: not dec. ____ Date Analyzed: 09/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S10-PW

Lab Name: NYTEST ENV INC Contract: 9218699

Lab Code: NYTEST Case No.: 13699 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1369901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C8859

Level: (low/med) LOW Date Received: 08/18/92

% Moisture: not dec. ____ Date Analyzed: 08/22/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: FLDBLK

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699

Lab Code: 10195 Case No.: 13822 SAS No.: SDG No.: B28MW1

Matrix (soil/water): WATER Lab Sample ID: 822-04

Level (low/med): LOW Date Received: 08/27/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	6.0	U		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	4.0	U		P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FIELD_BLK

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

S10MW1

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13890_ SAS No.: _____ SDG No.: SDG762

Matrix (soil/water): WATER Lab Sample ID: 890-02____

Level (low/med): LOW__ Date Received: 09/01/92

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	6.0	U		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	56.0			P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: B28MW1

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699

Lab Code: 10195 Case No.: 13822 SAS No.: SDG No.: B28MW1

Matrix (soil/water): WATER Lab Sample ID: 822-02

Level (low/med): LOW Date Received: 08/27/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	6.0	U		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	17.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.4	B		P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

B28_MW1

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.: B28MW2

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699

Lab Code: 10195 Case No.: 13822 SAS No.: SDG No.: B28MW1

Matrix (soil/water): WATER Lab Sample ID: 822-01

Level (low/med): LOW Date Received: 08/27/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	6.0	U		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	29.9			P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

B28_MW2

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GM-04S

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13847_ SAS No.: _____ SDG No.: SDG754

Matrix (soil/water): WATER Lab Sample ID: 847-01____

Level (low/med): LOW__ Date Received: 08/28/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U		F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	17.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	21.8	B		P
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U	*	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U	*	CV
7440-02-0	Nickel	25.7	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U	W	F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	9.5	B		P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

GM-05S

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13847_ SAS No.: _____ SDG No.: SDG754

Matrix (soil/water): WATER Lab Sample ID: 847-02____

Level (low/med): LOW__ Date Received: 08/28/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		-		NR
7440-36-0	Antimony_	55.0	U		P_
7440-38-2	Arsenic__	5.0	U		F_
7440-39-3	Barium___		-		NR
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	5.0	U		P_
7440-70-2	Calcium__		-		NR
7440-47-3	Chromium_	19.4	-		P_
7440-48-4	Cobalt___		-		NR
7440-50-8	Copper___	6.0	U		P_
7439-89-6	Iron____		-		NR
7439-92-1	Lead____	3.0	U	*	F_
7439-95-4	Magnesium		-		NR
7439-96-5	Manganese		-		NR
7439-97-6	Mercury__	0.22	-	*	CV
7440-02-0	Nickel___	17.0	U		P_
7440-09-7	Potassium		-		NR
7782-49-2	Selenium_	5.0	U	W	F_
7440-22-4	Silver___	9.0	U		P_
7440-23-5	Sodium___		-		NR
7440-28-0	Thallium_	5.0	U		F_
7440-62-2	Vanadium_		-		NR
7440-66-6	Zinc____	17.2	B		P_
5955-70-0	Cyanide__		-		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DISS9S

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13905_ SAS No.: _____ SDG No.: DISS10

Matrix (soil/water): WATER Lab Sample ID: 905D02___

Level (low/med): LOW__ Date Received: 09/02/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	55.0	U		P_
7440-38-2	Arsenic__	5.0	U	N	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	1.2	B		P_
7440-43-9	Cadmium__	5.0	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	14.7	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	6.0	U	N	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	3.0	U	W	F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.20	_		CV
7440-02-0	Nickel___	34.8	B		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	5.0	U		F_
7440-22-4	Silver___	9.0	U	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	5.0	U		F_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	87.2	_	E	P_
5955-70-0	Cyanide__		_		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

GM-9S_DISSOLVED_____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

S9-MW1

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13876_ SAS No.: _____ SDG No.: SDG758

Matrix (soil/water): WATER Lab Sample ID: 876-01___

Level (low/med): LOW__ Date Received: 08/31/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	55.0	U		P_
7440-38-2	Arsenic__	5.0	U	N	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	3.9	B		P_
7440-43-9	Cadmium__	5.0	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	11.7	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	21.2	B		P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	3.0	U	W	F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	17.0	U		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	5.0	U	W	F_
7440-22-4	Silver___	9.0	U		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	5.0	U		F_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	16.1	B		P_
5955-70-0	Cyanide__		_		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DISS10

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13905_ SAS No.: _____ SDG No.: DISS10

Matrix (soil/water): WATER Lab Sample ID: 905D01___

Level (low/med): LOW__ Date Received: 09/02/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	55.0	U		P_
7440-38-2	Arsenic__	5.0	U	N	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	5.0	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.0	U		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	6.0	U	N	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	3.0	U		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	33.4	B		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	5.0	U		F_
7440-22-4	Silver___	9.0	U	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	5.0	U		F_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	22.0	_	E	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

USGS10594_DISSOLVED

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

USGS10

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699___

Lab Code: 10195_ Case No.: 13905_ SAS No.: _____ SDG No.: DISS10

Matrix (soil/water): WATER Lab Sample ID: 905-01____

Level (low/med): LOW__ Date Received: 09/02/92

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	55.0	U		P_
7440-38-2	Arsenic__	5.0	U	N	F_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	1.0	U		P_
7440-43-9	Cadmium__	5.0	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	23.5	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	114	_	N	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	249	_		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.54	_		CV
7440-02-0	Nickel___	90.9	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	5.0	U		F_
7440-22-4	Silver___	17.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	5.0	U		F_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	208	_	E	P_
5955-70-0	Cyanide__		_		NR

Color Before: BROWN____ Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

USGS10_____

LEAD_AT_A_5X_DILUTION._____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

S10-PW

Lab Name: NYTEST_ENVIRONMENTAL_INC. Contract: 9218699

Lab Code: 10195 Case No.: 13699 SAS No.: _____ SDG No.: SDG736

Matrix (soil/water): WATER Lab Sample ID: 699-01

Level (low/med): LOW Date Received: 08/18/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	55.0	U		P
7440-38-2	Arsenic	5.0	U	N	F
7440-39-3	Barium				NR
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	40.6			P
7439-89-6	Iron				NR
7439-92-1	Lead	12.0		S	F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	N	F
7440-22-4	Silver	9.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	5.0	U	N	F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	33.4			P
5955-70-0	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

Appendix F

APPENDIX F

SUPPLEMENTAL INFORMATION

PLANT 21

NO FILES NOTED OF ENVIRONMENTAL SIGNIFICANCE

PLANT 28

2306G
1167

Building 28

Tanks in service at this location

Tank No.	Location/Use	Contents	Gallons Buried	Gallons Above	Date Installed
28-01-1	Boiler	No. 2 Fuel Oil	4000	--	12-31-64

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

CLIENT
NAME OF SUPPLIER, OWNER OR DEALER: GRUMPPW
ADDRESS (NO & STREET): 50 OYSTER BAY RD.
CITY AND STATE: BETHPAGE NY

DATE OF TEST: 5/11/89
WEATHER: RAINY, COOL
TEMPERATURE: 40°

TANK INFORMATION
CAPACITY (NOMINAL): 4000 GALS.
CAPACITY (CHART): 4010 GALS.
DIMENSIONS: DIAMETER 64
LENGTH 24'

SIZE OF FILL OR TEST OPENING: 2" IN.
TOP OFF TIME: 5/10/87 GALLONS: FILLED
NUMBER OF GALLONS ADDED TO START TEST: 10
TANK NO.: 28-01-1
INCHES OF WATER – BEFORE TEST: 1" AFTER TEST: 1"

CONTENTS (PRODUCT): #2 OIL
TANK MATERIAL: STEEL
APPROX. AGE: 24 yrs
PUMP SYSTEM (TYPE): SUCTION

TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED: .05 ÷ 26.33 (ALM) = .00189 (FACTOR A)

LINE MOVEMENT

1	65	to 52	= 27	LINES
2	64	to 50	= 26	LINES
3	62	to 88	= 26	LINES
		TOTAL	79	LINES ÷ 3 = 26.33 (ALM) LINES

END OF TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED: .05 ÷ 27.33 (ALM) = .00182 (FACTOR A)

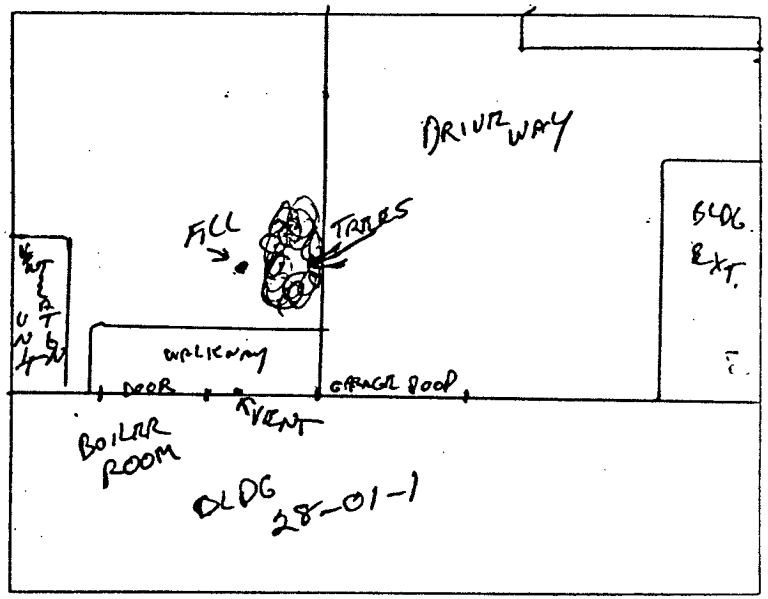
LINE MOVEMENT

1	68	to 96	= 28	LINES
2	67	to 94	= 27	LINES
3	65	to 92	= 27	LINES
		TOTAL	82	LINES ÷ 3 = 27.33 (ALM) LINES

MEASURED API SPECIFIC GRAVITY: 33.0
PRODUCT TEMPERATURE: 56°
API SPECIFIC GRAVITY @ 60° F: 33.3 (FROM TABLE A)
COEFFICIENT OF EXPANSION: .00045085 (FROM TABLE B)

.00045085 (C.O.E.) × 4010 (TOTAL CAPACITY (GAL.)) = 1.80790 (VOL. CHANGE° F) (FACTOR B)

TANK LAYOUT



PRODUCT LINE TESTING

Time (Military)	Reading No.	PRODUCT MONITORING ON LL Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	

SYSTEM

Serial	Number

David Neils GCF 250 5/11/89
TECHNICIAN(S) DATE

GENERAL UTILITIES, INC.

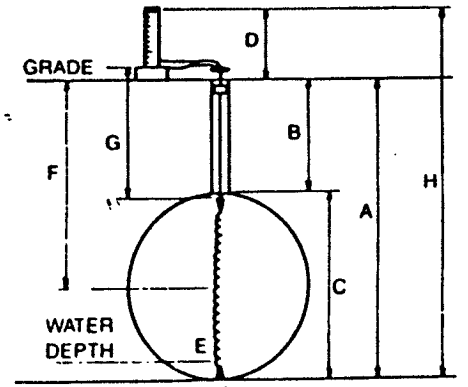
100 FAIRCHILD AVENUE, PLAINVIEW, N.Y. 11803
Central Nassau: 349-8989
Nassau: 922-5722 • Suffolk: 549-3900

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

SYSTEM TEST ☑ TANK ONLY ☐

JOB.
ACCT.
H.D. 131H89 To 2
FACILITY I.D. # 2801
F.M. CONF.

Time (Military)	Reading No.	PRODUCT MONITORING ON LLR Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss	TEMPERATURE COMPENSATION A Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	TEMPERATURE COMPENSATION B Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	NET VOL CHANGE	LLR
11:30	0	68			.00189							57.230			1.80790			
11:36	1	68	57	-11	.00189	[illegible]	.02079					.230	.230	000	1.80790	00000	.02079	
11:42	2	67	63	-4	.00189	.00756						.230	.229	.001	1.80790	.00180	.00576	
11:48	3	68	63	-5	.00189	.00945						.229	.228	.001	1.80790	.00180	.00765	
11:54	4	68	64	-4	.00189	.00756						.228	.227	.001	1.80790	.00180	.00576	
12:00	5	68	64	-4	.00189	.00756						.227	.225	.002	1.80790	.00361	.00395	
12:06	6	67	63	-4	.00189	.00756						.225	.223	.002	1.80790	.00361	.00395	
12:12	7	68	63	-5	.00189	.00945						.223	.221	.002	1.80790	.00361	.00584	
12:18	8	68	63	-5	.00189	.00945						.221	.217	.004	1.80790	.00723	.00222	
12:24	9	69	64	-5	.00189	.00945						.217	.211	.006	1.80790	.01084	.00139	
12:30	10	68	63	-5	.00189	.00945						.211	.209	.002	1.80790	.00361	.00584	
12:36	11	68	63	-5	.00189	.00945						.209	.206	.003	1.80790	.00542	.00403	*
12:42	12	68	64	-4	.00189	.00756						.206	.204	.002	1.80790	.00361	.00395	
12:48	13	68	63	-5	.00189	.00945						.204	.201	.003	1.80790	.00542	.00403	
12:54	14	69	65	-4	.00189	.00756						.201	.199	.002	1.80790	.00361	.00395	
13:00	15	67	64	-3	.00189	.00567						.199	.198	.001	1.80790	.00180	.00387	
13:06	16	68	64	-4	.00189	.00756						.198	.196	.002	1.80790	.00361	.00395	
13:12	17	67	62	-5	.00189	.00945						.196	.194	.002	1.80790	.00361	.00584	
13:18	18	67	62	-5	.00189	.00945						.194	.191	.003	1.80790	.00542	.00403	
13:24	19	67	62	-5	.00189	.00945						.191	.189	.002	1.80790	.00361	.00584	
13:30	20	68	61	-7	.00189	.01323						.189	.186	.003	1.80790	.00542	.00781	
																	.04730	



A.	Tank Bot. to Grade	93.5"
B.	Tank Top to Grade	30.5"
C.	Tank Diameter	63"
D.	Test Level above grade	36.5"
E.	Depth of water in tank	1"
F.	Depth for taking sample	62.5"
G.	Temp. Probe depth (connector)	32.5"
H.	Test level to Tank Bot.	130"
I.	Groundwater above tank bottom	0"
J.	Product Pressure per 1" height	.031 PSI

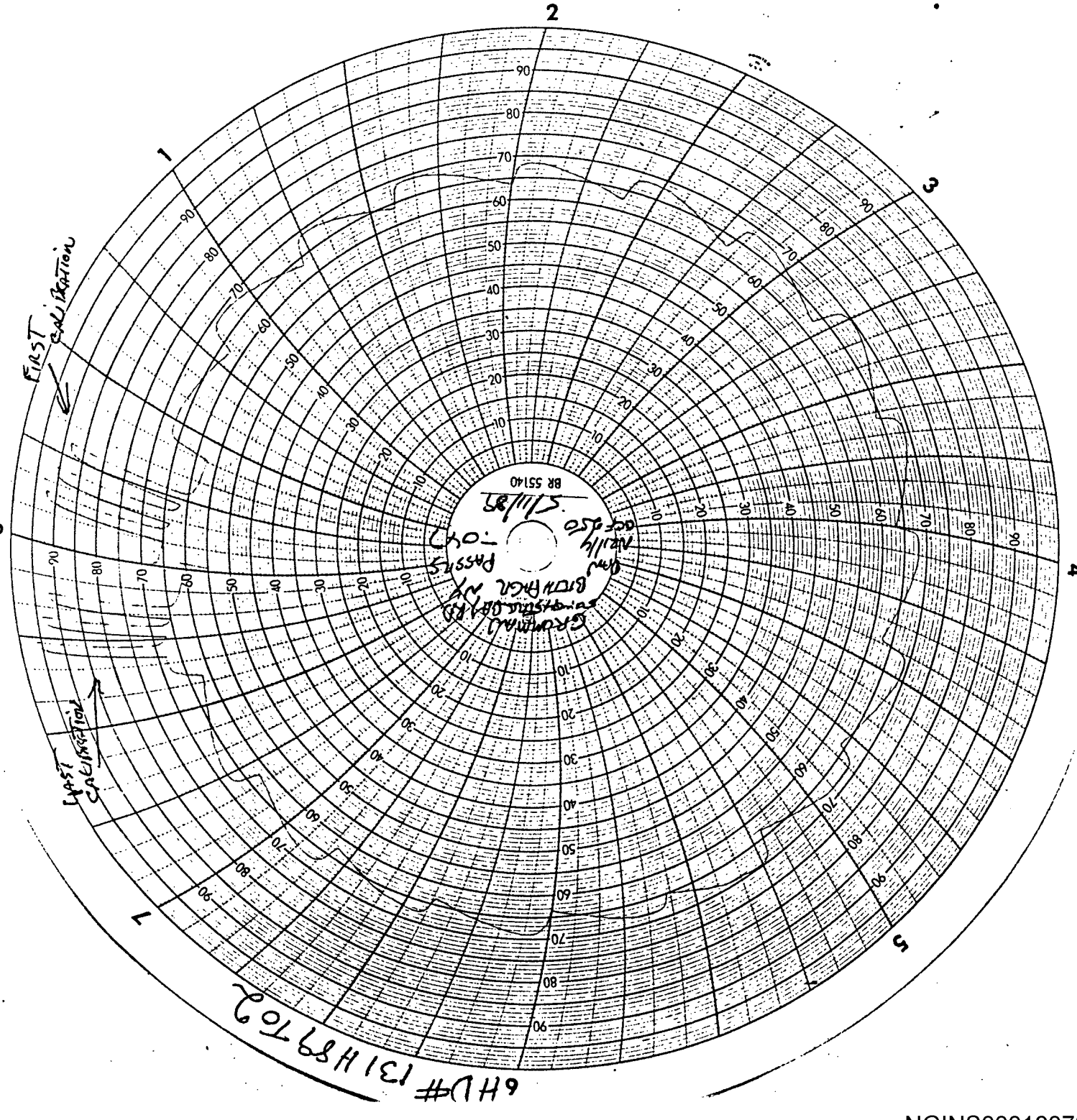
Test Pressure Formula
130 (H) × .031 (J) − (0 (I) × .036) = 4.03 NET TEST PRESSURE

Send Report to: GRUMMAN
Client
Address 50 OYSTER BAY RD.
City, State BETHPAGE N.Y.
Phone ( )
Attn:

.047

CERTIFICATION This is to certify that this tank system was tested on date shown Those indicated Tight meet the criteria established by the National Fire Protection Association Pamphlet 329

Tank No. 28-01-1
Tight yes
Leakage Indicated .047
Technician David O'Neill CCF250
Date Tested 5/11/89



PLANT 37

2306G
1167

NO FILES NOTED OF ENVIRONMENTAL SIGNIFICANCE

NO FILES NOTED OF ENVIRONMENTAL SIGNIFICANCE

PLANT 114

T6B

STATE OF NEW YORK)
COUNTY OF NASSAU) SS.:

GEORGE J. GANG, being duly sworn, deposes and says:

That he is President of CORONA PLATE GLASS CO., INC. and ANOROC PRODUCTS, INC., both of which corporations are presently located at #181-14 Jamaica Avenue, Jamaica 23, New York, and that as such President he has full knowledge of the nature of operations of the said corporations, and he further declares of his own knowledge and information that:

1) The said corporations, CORONA PLATE GLASS CO., INC. and ANOROC PRODUCTS, INC. are engaged in the production, sale and storage of bathtub enclosures, shower doors, patio doors and related products, and

2) That the above operations, processes and products are such as do not require a special use permit under Section H-1A, nor do they constitute prohibited uses under Section H-1B, and further, that no industrial process is included which will emit dust, odor, gas fumes, noise or vibration equal in character or aggregate amount to any use listed as a specific permit use or as a prohibited use as described in the building zone ordinance under Article 10 of the Town of Oyster Bay.

George J. Gang 10109

Sworn to before me this
3rd day of August, 1962

Alberta Gallow

ALBERTA GALLOW
Notary Public, State of New York
No. 30-1365800
Qualified in Nassau County
Commission Expires March 30, 1963

PLANT 115

2306G
1167

ATTACHMENT "A"

BETHPAGE

01-1280

SUBJECT: UNDERGROUND PETROLEUM STORAGE TANKS
LEAK TEST FAILURE

Reference: NYSDEC oil spill #88-07239, Building 115

On 12/1/87, tank 115-01-1, 3000 gallon, No. 2 fuel oil storage tank failed a Petro-Tite Tank Test. The tank was emptied of product. Its removal is scheduled for January, 1989.

0392S

Fenley & Nicol Co. Inc.

1. OWNER Property ☑ Tank(s) ☑	Grumman, P.O. Box 54, Hicksville, NY 11802 (516) 575-8176 — Name / Address / Telephone John Selva // Sammy Kaelk — Name / Address / Representative / Telephone
2. OPERATOR	Same As Above — Name / Address / Telephone
3. REASON FOR TEST (Explain Fully)	Customer Request
4. WHO REQUESTED TEST AND WHEN	John Selva Eng Grumman — Name / Title / Company or Affiliation / Date Address / Telephone

5. TANK INVOLVED (Use additional lines for manifolded tanks)

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
2 North Plantfld	3M		2 Fuel Oil	20-30	Steel

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
North	Uncover	2"	1½"	—	Suction
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc.	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER

Depth to the water table — 104" Is the water over the tank? ☐ Yes ☐ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled ______ hr. ______ Date ______ Arranged by ______ Name ______ Telephone ______

Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.

Terminal or other contact for notices or inquiry ______ Company ______ Name ______ Telephone ______

9. CONTRACTOR, MECHANICS, any other contractor involved

Fenley + Nicol

Al W Raith Jr GCF #213

10. OTHER INFORMATION OR REMARKS

Possible Air

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
North		-.080	12/1/88

12. SENSOR CERTIFICATION

Date ______

Serial No. of Thermal Sensor ______

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1. [signature]

Certification # GCFT #213

2. ______

Certification # ______

Fenley & Nicol Co. Inc. By: ______ Signature

445 Brook Avenue, Deer Park, New York 11729 • (516) 586-4900

NGINS000120737

14. Grumman — Plant II 115 — Bethpage — NY — 12/1/88

Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

15. TANK TO TEST

Plant 115
Identity by position

#2 Fuel Oil
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 3,000 Gallons

By most accurate capacity chart available 3,000 Gallons

From
☐ Station Chart
☑ Tank Manufacturer's Chart
☐ Company Engineering Data
☐ Charts supplied with
☐ Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up ______ in. to ⅛" — 3,000 Gallons — 64 in. Tank Diameter

		Gallons	Total Gallons ea. Reading
Inventory	64"		3000
	Top off		+10
	Water		-0
	Total		3010

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable. Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests
Four pound rule does not apply to doublewalled tanks

Complete section below.

1 Is four pound rule required? Yes ☐ No ☑

2 Height to 12" mark from bottom of tank 107 in.

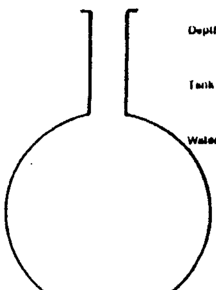
3 Pressure at bottom of tank 4.247 P.S.I.

4 Pressure at top of tank 2.263 P.S.I.

Depth of burial 104 in.

Tank dia 64 in.

Water table — in.



NOTES:

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* ______ in.
Add 30" for "T" probe assy. 30 in.
Total tubing to assemble — approximate ______ in.

20. EXTENSION HOSE SETTING

Tank top to grade* ______ in.
Extend hose on suction tube 6" or more below tank top ______ in.

*If Fill pipe extends above grade, use top of fill.

21. VAPOR RECOVERY SYSTEM

☐ Stage I ☐ Stage II

22. Thermal-Sensor reading after circulation 07404 digits
50/51 °F

23. Digits per °F in range of expected change Between 301 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity

Observed A.P.I. Gravity 31.7
Hydrometer employed 4 H
Observed Sample Temperature 50 °F
Corrected A.P.I. Gravity @ 60°F. From Table A ~~32.7~~
Coefficient of Expansion for involved Product From Table B ______
Transfer COE to Line 25b.

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product #2 Fuel Oil
Hydrometer Employed 4 H
Temperature in Tank After Circulation 50.2 °F
Temperature of Sample 50° °F
Difference (+/-) 0 °F
Observed A.P.I. Gravity 31.7
Reciprocal 2221 Page # 35

3010 ÷ 2221 = 1.3552453
Total quantity in full tank (16 or 17) | Reciprocal | Volume change in this tank per °F
Transfer to Line 26a.

24c. FOR TESTING WITH WATER

see Table C & D

Water Temperature after Circulation Table C ______ °F
Coefficient of Water Table D ______
Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) ______ Total quantity in full tank (16 or 17) × (b) ______ Coefficient of expansion for involved product = (c) ______ gallons Volume change in this tank per °F

26. (a) 1.3552453FS Volume change per °F (25 or 24b) ÷ (b) 301 Digits per °F in test Range (23) = .0045024763 Volume change per dig. Compute to 4 decimal places.

NGINS000120738

27. Sensor Calibration ______ / ______			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE
LOG OF TEST PROCEDURES			Standpipe Level in Inches		32. Product in Graduate		33. Product Replaced (-)	35.	36.	37.	Temperature Adjustment	
28. DATE / TIME (24 hr)	Record details of setting up and running test (Use full length of line if needed)	29. Reading No	Beginning of Reading	Level to which Restored	Before Reading	After Reading	Product Recovered (+)	Thermal Sensor Reading	Change Higher + Lower - (c)	Computation (c) × (a) = Expansion + Contraction -	Volume Minus Expansion (+) or Contraction (-) #33(V) — #37(T)	At Low Level compute Change per Hour (NFPA criteria)
			Range		Change	09595	5/52	304	.0044580		4403	
				42+						Test Factor (a)	.0045	
1210	Primed + Running											
								409 409				
1230	1st Sensor Reading			42								
1245	High Level	1	391	42	.365	.245	-.120	405	-4	-018	-.102	
1300		2	391	42	.245	.130	-.115	403	-2	-009	-.106	
1315		3	391	42	.130	.010	-.120	400	-3	-014	-.106	
1330		4	395	42	.855	.750	-105	399	-1	-005	-.100	
1345		5	399	42	.750	.660	-090	395	-4	-018	-072	
1400		6	398	42	.660	.565	-095	395	0	±000	-095	
		7										
1402	Drop To Low Level			12								
1415	Low Level	1	11.1	12	.545	.510	-035	393	-2	-009	-026	
1430	Tank End Return	2	11.1	12	.510	.470	-040	393	0	±000	-040	
	5min Low Level											
1435		1	11.8	12	.470	.460	-010	391	-2	-009	-001	
1440		2	11.8	12	.460	.450	-010	391	0	±000	-010	-.017
1445		3	11.8	12	.450	.440	-010	390	-1	-005	-005	
1450		4	11.8	12	.440	.430	-010	390	0	±000	-010	
1455		5	11.8	12	.430	420	-010	390	0	±000	-010	-.030
1500		6	11.8	12	420	410	-010	390	0	±000	-010	
1505		7	11.8	12	.410	400	-010	390	0	±000	-010	
1510		8	11.8	12	400	390	-010	389	-1	-005	-005	-.030
1515		9	11.7	12	390	375	-015	389	0	±000	-015	
1520		10	11.8	12	375	365	-010	387	-2	-009	-001	
1535		11	11.8	12	365	355	-010	387	0	±000	-010	-.017

1530		12	11.7	12	355	340	-015	385	-2	-009	-006	
1535		13	11.8	12	340	330	-010	382	-3	-014	+004	
1540		14	11.8	12	330	320	-010	382	0	±000	-010	-007
1545		15	11.8	12	320	310	-010	380	-2	±008	-001	
1550		16	11.7	12	310	295	-015	380	0	±000	-015	
1555		17	11.7	12	295	280	-015	380	0	±000	-015	-016
1600		18	11.8	12	280	270	-010	377	-3	-014	+004	
1605		19	11.8	12	270	260	-010	377	0	±000	-010	
1610		20	11	12	260	245	-015	375	-2	-009	-006	-017
1615		21	11	12	245	235	-010	373	-2	-009	-001	
1620		22	11	12	235	225	-010	370	-3	-014	+004	
1625		23	11	12	225	215	-010	370	0	±000	-010	-016
1630		24	11	12	215	205	-010	370	0	-010	-010	
		25										
		26										
		27										
		28										
		29										
		30										

-.159 / 12 = .0795

Tank System failed @ -.080

P-T Tank Test Data Chart
Additional Info

1 Net Volume Change at Conclusion of Precision Test _____ gph

Signature of Tester: ____________________

Date: ____________________

2. **Statement:**

☐ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator ____________________

Date ____________________

[redacted]

NGINS000120740

DOH - Land

INITIAL REPORT OF PETROLEUM SPILL
Nassau County Department of Health

☑ Add ☐ Change ☐ Delete ☐ Key Change

I.D. No. 88U589

Date of Spill 12/01/88

Time of Spill

Reinspection Date

Estab. Name GRUMMAN PLANT 115 10#1

Tel. No. Area No. Ext.

Estab. Address SOUTH OYSTER BAY RD BETHPAGE

Complainant Name

Compl. Tel.

Complainant Address

Type of Spill
☐ Surface - Land
☐ Surface - Water
☑ Underground

Source of Report
☐ NCDH ☐ Fire Marshal ☐ Contractor
☐ DEC ☐ DPW ☐ USCG
☐ DOT ☐ Spiller ☐ Complaint

Type of Product FO2

Est. Amount of Spill test failure -.080 Petrol

Report Received By:

Date

Time

DEC No.

Date Open DEC

SPDES ☐ No ☐ Yes If yes, number

Spiller	Owner/Representive
Name	Name
Address	Address
Village / Zip	Village / Zip
Telephone	Telephone

Emergency Contact	Contractor
Name / Title	Name F+N
Address	Address
Village / Zip	Village / Zip
Telephone	Telephone

Product Information

	Product	Code	% of Spill	Tank Type	Tank Size	~~Year Installed~~
1	FO2				3K	#
2						
3						
4						
5						

Scavenger Name

Scavenger DEC No.

Brand of Product

Waste Tank Size

Number of Recovery Wells

Number of Other Wells

Recovery Type ☐ Drawdown ☐ Thieving ☐ Excavation ☐ Other

Census Tract | Section | Block | Lot(s)

Coordinates N E | Nearest Intersection

Referred to: ☐ DEC ☐ Fire Marshal ☐ Other (Specify)

Further Action Required ☐ DEC ☐ Legal ☐ Follow-up

Reason Closed DEC ☐ Retested ☐ Excavation ☐ No Visible Product ☐ Other (Specify) | Date

Reason Closed NCDH ☐ Retested ☐ Excavation ☐ No Visible Product ☐ Other (Specify) | Date

Signature of Investigator U/CS | Emp. No. 456 | Date of Investigation | Checked By:

EH 749 11/85

NGINS000120741

Fenley & Nicol Co. Inc.

1. OWNER Property ☑ Tank(s) ☐

Grumman, P.O. Box 5[illegible], Bethpage, NY 11802 (516) 575-8176
Name — Address — Representative — Telephone

John Selva / Tommy Khelil
Name — Address — *Representative — Telephone

2. OPERATOR

Grumman, Plant 115, Bethpage, NY
Name — Address — Telephone

3. REASON FOR TEST (Explain Fully)

#1 above request

4. WHO REQUESTED TEST AND WHEN

#1 Above
Name — Title — Company or Affiliation — Date

Address — Telephone

5. TANK INVOLVED Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
North Plant 115	3,000		#2 F/O	20-25	Steel

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphons	Pumps
North	Uncovered	2"	1 1/2	—	Suct. - Return
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc.	Size, Thrift make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER

Depth to the Water table _____ Is the water over the tank? ☐ Yes ☐ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled _____ hr. _____ Date _____ Arranged by _____
Name — Telephone

Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____
Company — Name — Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

Fenley + Nicol
Roy A. Berg

10. OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
North		-.143	12-2-88

12. SENSOR CERTIFICATION

Date

Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians
1. Roy A. Berg
Certification # LLT 169

2. _____
Certification # _____

Fenley & Nicol Co. Inc. By: Signature Roy A Berg

445 Brook Avenue, Deer Park, New York 11729 • (516) 586-4900

14. Gramm Plt 115 Bethpage N.Y. 12-2-88
Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

15. TANK TO TEST
North
Identity by position
#2 Fuel Oil
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY
Nominal Capacity 3,000 Gallons
By most accurate capacity chart available 3,000 Gallons
From
☐ Station Chart
☐ Tank Manufacturer's Chart
☐ Company Engineering Data
☐ Charts supplied with
☒ Other HARDY TANK CHART

17. FILL-UP FOR TEST

		Gallons	Total Gallons as Reading
Stick Water Bottom before Fill-up	0 in. to ¼"	0 Gallons	64 in. Tank Diameter
Inventory			3,000
	Top off		+ 10
		Transfer total to line 25a	3,010

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK ☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable Check below and record procedure in log (27)

Use maximum allowable test pressure for all tests
Four pound rule does not apply to doublewalled tanks

Complete section below.

1 Is four pound rule required? Yes ☒ No ☐

2 Height to 12" mark from bottom of tank 135 in.

3 Pressure at bottom of tank 4.218 P.S.I.

4 Pressure at top of tank 2.23 P.S.I.

Depth of burial 104 in.

Tank dia 64 in.

Water table 0 in.

NOTES.

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area

Refer to NFPA 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
Bottom of tank to grade* ..... in.
Add 30" for "T" probe assy. ..... 30 in.
Total tubing to assemble — approximate ..... in.

20. EXTENSION HOSE SETTING
Tank top to grade* ..... in.
Extend hose on suction tube 6" or more below tank top ..... in.
*If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 09155 digits
49-50 °F Between
23. Digits per °F in range of expected change 299 digits

COEFFICIENT OF EXPANSION (Complete after circulation)
24a. Corrected A.P.I. Gravity
Observed A.P.I. Gravity .....
Hydrometer employed ..... H
Observed Sample Temperature ..... °F
Corrected A.P.I. Gravity @ 60°F. From Table A .....
Coefficient of Expansion for Involved Product From Table B .....
Transfer COE to Line 25b.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
Type of Product ..... F/O
Hydrometer Employed ..... 4" H
Temperature in Tank After Circulation ..... 49° °F
Temperature of Sample ..... 43 °F
Difference (+/-) ..... -6 °F
Observed A.P.I. Gravity 31.3
Reciprocal 2229 Page # 35
3010 Total quantity in full tank (16 or 17) . 2220 Reciprocal . 1.3558558 Volume change in this tank per °F
Transfer to Line 26a.

24c. FOR TESTING WITH WATER see Table C & D
Water Temperature after Circulation Table C ..... °F
Coefficient of Water Table D .....
Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) ____ Total quantity in full tank (16 or 17) × (b) ____ Coefficient of expansion for involved product = (c) ____ Volume change in this tank per °F gallons

26. (a) 1.3559558 Volume change per °F (25 or 24b) . 299 Digits per °F in test Range (23) = .0045346 Volume change per digit Compute to 4 decimal places. This is test fac

NGINS000120743

27. Sensor Calibration ____ / ____

LOG OF TEST PROCEDURES

28. DATE / TIME (24 hr)	Record details of setting up and running test. (Use full length of line if needed)	29. Reading No.	30. HYDROSTATIC PRESSURE CONTROL: Standpipe Level in inches — Beginning of Reading	Level to which Restored	31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL. — 32. Product in Graduate: Before Reading	After Reading	33. Product Replaced (-) / Product Recovered (+)	34. TEMPERATURE COMPENSATION USE FACTOR (a): Thermal Sensor Reading	36. Change Higher + Lower - (c)	37. Computation (c) × (a) = Expansion + Contraction -	38. NET VOLUME CHANGING EACH READING: Temperature Adjustment — Volume Minus Expansion (+) or Contraction (-) #33(V) — #37(T)	39. ACCUMULATED CHANGE: At Low Level compute Change per Hour (NFPA criteria)
1220	start circulation			42								
1300	First Sensor Reading			42			09	155				
1315		1	39.8	42	.845	.740	-.105	155	0	.000	-.105	
1330		2	39.9	42	.740	.635	-.105	155	0	.000	-.105	
1345		3	40.0	42	.635	.535	-.100	155	0	.000	-.100	
1400		4	40.7	42	.535	.455	-.080	157	+2	+.009	-.089	
1415		5	40.3	42	.590	.510	-.080	159	+2	+.009	-.089	
1430		6	40.7	42	.510	.450	-.060	163	+4	+.018	-.078	
1445		7	40.8	42	.450	.390	-.060	167	+4	+.018	-.078	
1445	Dipped to Low Level			12								
1500		1	11.8	12	.560	.550	-.010	167	0	.000	-.010	
1515		2	11.2	12	.550	.515	-.035	169	+2	+.009	-.044	
1515	start 5 min Readings											
1520		1	11.9	12	.505	.505	-.010	170	+1	+.005	-.015	
1525		2	11.9	12	.505	.490	-.015	170	0	.000	-.015	
1530		3	11.9	12	.490	.480	-.010	170	0	.000	-.010	
1535		4	11.9	12	.480	.465	-.015	170	0	.000	-.015	
1540		5	11.9	12	.465	.455	-.010	171	+1	+.005	-.015	
1545		6	11.9	12	.455	.440	-.015	171	0	.000	-.015	
1550		7	11.8	12	.440	.425	-.015	171	0	.000	-.015	
1555		8	11.9	12	.425	.415	-.010	171	0	.000	-.010	
1600		9	11.9	12	.415	.405	-.010	171	0	.000	-.010	
1605		10	11.9	12	.405	.390	-.015	171	0	.000	-.015	
1610		11	11.9	12	.390	.380	-.010	171	0	.000	-.010	
1615		12	11.9	12	.390	.370	-.010	171	0	.000	-.010	
1620		13	11.8	12	.370	.355	-.015	171	0	.000	-.015	
1625		14	11.9	12	.355	.345	-.010	171	0	.000	-.010	

NGINS000120744

1630		15	11.8	12	.345	.330	-.015	171	0	.000	-.015	
1635		16	11.8	12	.330	.320	-.010	170	-1	-.005	-.005	
1640		17	11.8	12	.320	.305	-.015	170	0	.000	-.015	
1645		18	11.8	12	.305	.295	-.010	170	0	.000	-.010	
1650		19	11.8	12	.295	.280	-.015	169	-1	-.005	-.010	
1655		20	11.8	12	.280	.270	-.010	169	0	.000	-.010	
1700		21	11.8	12	.270	.260	-.010	169	0	.000	-.010	
1705		22	11.8	12	.260	.250	-.010	169	0	.000	-.010	
1710		23	11.8	12	.250	.235	-.015	168	-1	-.005	-.010	
1715		24	11.8	12	.235	.225	-.010	168	0	.000	-.010	
											-.285	
System Doesn't MEET NFPA											-.143	GPH
Criteria												
Roger Berg												

P-T Tank Test Data Chart
Additional Info

1 Net Volume Change at Conclusion of Precision Test ____ gph

Signature of Tester: _____

Date: _____

2 Statement:

☐ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

[redacted]

TR 263

Fenley & Nicol Co. Inc.

145 Brook Avenue, Deer Park, New York 11729 (516) 586-4900 • (718) 204-4993 Gasoline Pump & Tank • Environmental Services

Today's Date: 12/5/89

Customer's Address:

Grumman Aerospace Corp
Mail Stop B08-35
Bethpage NY 11714

Location Of Test:

Plant 15, Bethpage
NCND 000001

Gentlemen: Attn: JOHN SELVA
Facilities

Please be advised that the following tanks have been tested by our firm:

TANK ID.	TYPE OF TEST	RESULT	DATE
3m #246	Petro initial system	Pass @ .080	12/1/89
3m #246	Petro system re-test	Pass @ .143	12/2/89
NOTE: Above tank to be removed by others			

As required by law, we have sent copies of these results to the following authorities:

___ Nassau County Fire Marshal
899 Jerusalem Avenue
Uniondale, NY 11553

X Nassau County Department of Health
240 Old Country Road
Mineola, NY 11501

X New York State Department of Environmental Conservation
State University of New York at Stony Brook
Building 40
Stony Brook, NY 11790

Sincerely,
Scott Schuck, Tank Testing Manager

Field Investigation
Article XI Facility
Nassau County Department of Health

- [X] Initial System Test
- [ ] Tank Only
- [ ] System Retest
- [ ] New Installation Test
- [ ] Tank Removal
- [ ] Installation
- [ ] Periodic Year:

Date of Job 12/1/88/ + 12/2 Time ______
Date Received 11/29/88 Time 2:30 P.M.
Contractor Fenley Nichol
Telephone # 586-4900

Facility ID# 00001
Confirmation# 336 H88 T04
Spill# 88U #89

Establishment Name GRUMMAN South Oyster Bay Road
Address Plant 115 Bethpage N.Y.
Town ______ Telephone # 575-8176
Cross Street: ______
No. of Tanks 1 Type of Test PETRO

	12/1		12/2				
Tank #	115		115				
System Test							
Tank Test							
Size	3000 gallons		3K				
Product	#2 oil		#2 [illegible]				
Leak Rate	-.1050		-.143				
Pass/Fail	fail		FAIL				
Fee	50		50				
Fee Paid							
Retest Needed	YES		[illegible]				

Tank Removal

Tank #							
Visible Hole							
# Holes							
Size							
Location							
Photo							

Excavation: __ Clean __ Contaminated Soil __ Free floating oil

Soil Removed (Y/N)___ Amount ______

Installation: Tank size ______ Approved plans __ Yes __ No

Notes: FAN - believed failure was due to trapped air. Tank is going to be retested as system again on 12/2/88. [illegible]
[illegible] FAN [illegible] 12/2 #2 [illegible] @ -.143 gph

Inspector ______ Supervisor ______

Employee Number 0/45[illegible] Date ______

- [ ] Continued on Reverse Side
- [ ] Computer Entry
- [ ] Data Book Entry

1 - Piping 2 - Tank
3 - Fitting 4 - Other

EH907 4/83 #7108H

NGINS000120747

SENT TO PAT DETMAR 12/5/88.

EXCESS PROPERTY REPORT

Read instructions on reverse side before completing form.

DISPOSITION COORDINATOR

NAME | EXT. | DATE

– CASE NO.

126054

OWNERSHIP
☐ GOVERNMENT ☒ GRUMMAN

PROPERTY CLASSIFICATION
☐ SPECIAL TOOLS ☐ SPECIAL TEST EQUIPMENT ☐ FIXED ASSET ☐ INDUSTRIAL PLANT EQUIP. ☐ MATERIAL ☐ HARDWARE ☐ OFFICE FURN. & EQUIP. ☒ OTHER–EXPLAIN #2 FUEL OIL TANK

SOURCE
☐ GOVERNMENT FURNISHED ☐ GRUMMAN BUILT ☒ PURCHASED

GOVERNMENT PRIME CONTRACT NO.:

JOB ORDER NO.:

IF PART OF SYSTEM, LIST NOMENCLATURE AND PART NO.:

FUNCTION/USE: FUEL OIL STORAGE TANK #11501-1

REASON FOR EXCESS (Be specific and continue in REMARKS if necessary): TANK LEAKS FUEL.

ITEM NO.	NOMENCLATURE/DESCRIPTION (Include Mfgr. Model No., Serial No., Mfgr. Part No., National Stock No., where applicable)	TAG NUMBER	CONDITION CODE	QUANTITY	PRESENT LOCATION	ACQUISITION UNIT COST	ACQUISITION YEAR	OWNER CODE
1	#2 FUEL OIL STORAGE TANK #115-01-1 UNDERGROUND STORAGE TANK FOR BOILER SUPPLY.		S	1	OUT 115		~1960	

*CONDITION CODE — USE COMBINATION OF LETTER AND NUMBER TO DESCRIBE ACTUAL PHYSICAL CONDITION.
N — NEW; E — USED — RECONDITIONED; O — USED — USABLE WITHOUT REPAIR; R — USED — REPAIRS REQUIRED; 1— EXCELLENT; 2— GOOD; 3— FAIR; 4— POOR
USE "X" ALONE FOR SALVAGE
USE "S" ALONE IF CONSIDERED SCRAP

REPORTED BY: JOHN SELVA [signature] — NAME (PRINT & SIGN) | 5922-30 — DEPT./SITE | 54176 — EXT. | 12/5/88 — DATE

☐ DEPARTMENTAL SCREENING COMPLETE. Item(s) excess to using Department.
NAME (PRINT & SIGN) | DEPT. | EXT. | DATE

☐ PROGRAM SCREENING COMPLETE (if applicable) Item(s) excess to using Program.
NAME (PRINT & SIGN) | DEPT. | EXT. | DATE

☐ SCREENING–AGENCY SCREENING COMPLETE
☐ CONDITION OF ITEMS PRECLUDES NEED FOR FURTHER SCREENING
☐ MATERIAL LISTED IS NOT TO BE RE–USED IN GAC
RECOMMEND: ☐ SELL ☐ SALVAGE ☐ SCRAP ☐ RETURN TO GOVT. ☐ OTHER (SEE REMARKS)
NAME (PRINT & SIGN) | DEPT. | EXT. | DATE

☐ CORPORATE SCREENING COMPLETE Item(s) excess to Corporate needs.
☐ SUBSIDIARY SCREENING COMPLETE

DISPOSITION AUTHORIZATION
☐ RE–USE SEND TO:
☐ SELL
☐ SALVAGE
☐ SCRAP
☐ RETURN TO GOVT.
REFERENCE CASE NO.
NAME | PROPERTY DISPOSITION | EXT. 3108 | DATE

DATE EPR RECD. PROP. DISP.:

REMARKS: TANK #115-01-1 FAILED A PETRO TITE LEAK TEST AND MUST BE REMOVED FROM SERVICE AND SCRAPED

REFERENCE ETO NO.

PLANT 116

2306G
1167

TOB

September 27, 1960

STATE OF NEW YORK)
COUNTY OF NASSAU) SS.:

PHILIP KIRSCHNER being duly sworn, deposes and says:

That he is the president of TRANSPORTATION PARTS CO OF N.Y. INC and as such president has full knowledge of the operations of said TRANSPORTATION PARTS CO OF NY INC, and further states that of his own knowledge and belief he makes the following statements:

(1) That said TRANSPORTATION PARTS CO OF N.Y. INC is engaged in the manufacture, assembly, sales and repair of motor vehicle parts.

(2) That the above operations, processes and product is one which would not require a special use permit under Section H-1A, nor is it a prohibited use under Section H-1B and that no industrial process is included which will emit dust, odor, gas, fumes, noise or vibration comparable in character or in aggregate amount to any use listed as a special permit use or as a prohibited use as described in the building zone ordinance, article X of the Town of Oyster Bay.

TRANSPORTATION PARTS CO. OF N.Y. INC

By: _____
President

Sworn to before me this
27th day of September, 1960

JACOB WEISBERG
Notary Public, State of New York
No. 30-4202300
Qualified in Nassau County
Cert. Filed in Kings County
Commission Expires March 30, 1961

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

CLIENT
NAME OF SUPPLIER. GRUMMAN PLANT # 116-01-1
OWNER OR DEALER _____
ADDRESS (NO & STREET) GATE 2 50 OYSTER BAY RD.
CITY AND STATE N.Y.

DATE OF TEST 5/10/89
WEATHER RAINY COOL TEMPERATURE ~~AM~~ 40°

TANK INFORMATION
CAPACITY (NOMINAL) 5000 GALS.
CAPACITY (CHART) _____ GALS.
DIMENSIONS: DIAMETER 72
LENGTH _____

SIZE OF FILL OR TEST OPENING 2" IN.
TOP OFF TIME 5/10/89 GALLONS 109
NUMBER OF GALLONS ADDED TO START TEST _____
TANK NO. ~~9~~ 116-01-1
INCHES OF WATER – BEFORE TEST 0" AFTER TEST 0"

CONTENTS (PRODUCT) #2 OIL
TANK MATERIAL STEEL
APPROX. AGE 24 YRS
PUMP SYSTEM (TYPE) SUCTION

TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED _____ ÷ _____ (ALM) = _____ (FACTOR A)

LINE MOVEMENT
1 _____ to _____ = _____ LINES
2 _____ to _____ = _____ LINES
3 _____ to _____ = _____ LINES
TOTAL _____ LINES ÷ 3 = _____ (ALM) LINES

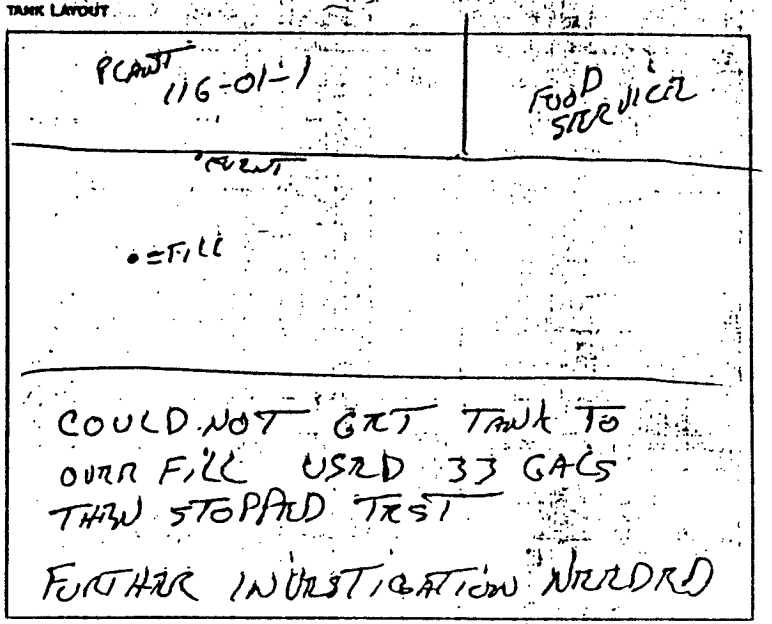
END OF TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED _____ ÷ _____ (ALM) = _____ (FACTOR A)

LINE MOVEMENT
1 _____ to _____ = _____ LINES
2 _____ to _____ = _____ LINES
3 _____ to _____ = _____ LINES
TOTAL _____ LINES ÷ 3 = _____ (ALM) LINES

MEASURED API SPECIFIC GRAVITY 34.0
PRODUCT TEMPERATURE 58.
API SPECIFIC GRAVITY @ 60° F 34.1 (FROM TABLE A)
COEFFICIENT OF EXPANSION .00045445 (FROM TABLE B)

.00045445 C.O.E. × _____ TOTAL CAPACITY (GAL.) = _____ VOL. CHANGE/° F (FACTOR B)

TANK LAYOUT



COULD NOT GET TANK TO OVER FILL USED 33 GALS THEN STOPPED TEST
FURTHER INVESTIGATION NEEDED

PRODUCT LINE TESTING

Time (Military)	Reading No.	PRODUCT MONITORING ON LL				Product +Gain -Loss
		Start	End	+Gain -Loss	X Factor A	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	

SYSTEM

Serial	Number

David Neff GCF-250 5/10/89
TECHNICIAN(S) DATE

CO ... GAS AND PRODUCT DID NOT RISE INTO LINES OR VENT
FURTHER INVESTIGATION NEEDED

GENERAL UTILITIES, INC.

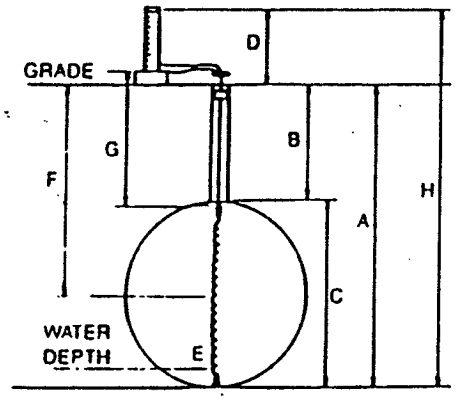
100 FAIRCHILD AVENUE, PLAINVIEW, N.Y. 11803
Central Nassau: 349-8989
Nassau: 922-5722 • Suffolk: 549-3900

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

JOB.
ACCT.
H.D. 130 H89 TO 2
FACILITY I.D. 116-01-1
F.M. CONF.

SYSTEM TEST ☒ TANK ONLY ☐

Time (Military)	Reading No.	PRODUCT MONITORING ON LLR				Product +Gain -Loss	TEMPERATURE COMPENSATION A				+Expansion -Contraction	TEMPERATURE COMPENSATION B					NET VOL. CHANGE	
		Start	End	+Gain -Loss	X Factor A		Start	End	+Gain -Loss	X Factor B		Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction		LLR



A. Tank Bot. to Grade 89"
B. Tank Top to Grade 125"
C. Tank Diameter 91.5"
D. Test Level above grade 41"
E. Depth of water in tank 0"
F. Depth for taking sample 53"
G. Temp. Probe depth (connector) 19.5"
H. Test level to Tank Bot. 130"
I. Groundwater above tank bottom 0"
J. Product Pressure per 1" height .031 PSI

Test Pressure Formula
$\underset{H}{130} \times \underset{J}{.031} - (\underset{I}{0} \times .036) = \underset{\text{NET TEST PRESSURE}}{4.03}$

Send Report to:
Client GRUMMAN PLANT # 116-01-1
Address S.O. OYSTER BAY RD.
City, State BETHPAGE N.Y.
Phone ( )
Attn:

CERTIFICATION This is to certify that this tank system was tested on date shown. Those indicated "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329

Tank No. 116-01-1
Tight NO → WOULD NOT HOLD COLUMN FURTHER INVESTIGATION NEEDED
Leakage Indicated
Technician DAVE NULK CEF 250
Date Tested 5/10/89

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

CLIENT
NAME OF SUPPLIER
OWNER OR DEALER Grumman # 116-01-1 DATE OF TEST 5/22/89
ADDRESS (NO. & STREET) South Oyster Bay Rd. WEATHER Warm + Sunny TEMPERATURE 80°F
CITY AND STATE Bethpage L.I. N.Y.

TANK INFORMATION
CAPACITY (NOMINAL) 5000 GALS. SIZE OF FILL OR TEST OPENING 2" IN. CONTENTS (PRODUCT) #2 oil
CAPACITY (CHART) 5005 GALS. TOP OFF TIME Full GALLONS TANK MATERIAL Steel
DIMENSIONS: DIAMETER 72" NUMBER OF GALLONS ADDED TO START TEST 5 APPROX. AGE 25 years
LENGTH TANK NO. # 116-01-1 PUMP SYSTEM (TYPE) Suction
INCHES OF WATER – BEFORE TEST 0 " AFTER TEST 0 "

TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED .05 ÷ 24.00000 (ALM) = .00208 (FACTOR A)

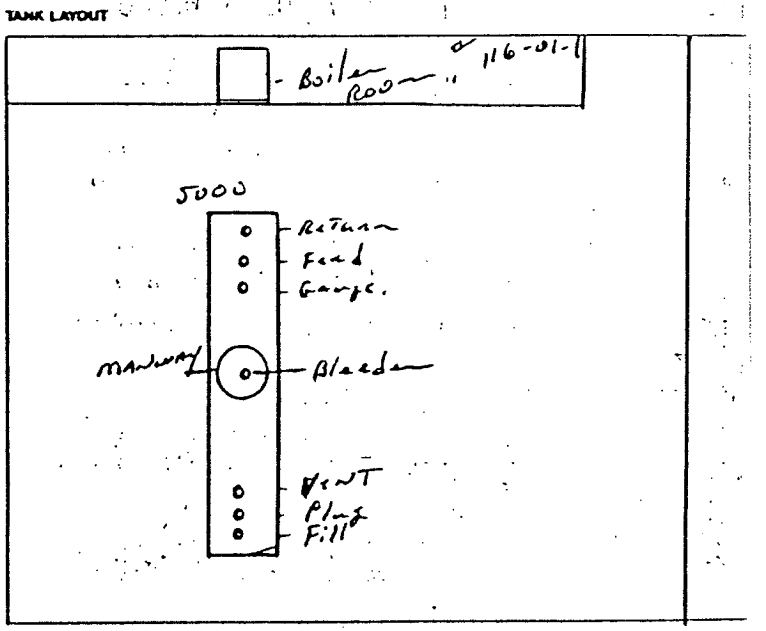
LINE MOVEMENT
1	60	to	85	= 25	LINES
2	61	to	84	= 23	LINES
3	61	to	85	= 24	LINES
			TOTAL	72	LINES ÷ 3 = 24.00000 (ALM) LINES

END OF TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED .05 ÷ 25.00000 (ALM) = .00200 (FACTOR A)

LINE MOVEMENT
1	60	to	87	= 27	LINES
2	63	to	87	= 24	LINES
3	63	to	87	= 24	LINES
			TOTAL	75	LINES ÷ 3 = 25.00000 (ALM) LINES

MEASURED API SPECIFIC GRAVITY @ 350
PRODUCT TEMPERATURE 64°F
API SPECIFIC GRAVITY @ 60° F 347 (FROM TABLE A)
COEFFICIENT OF EXPANSION .00046114 (FROM TABLE B)
.00046114 (C.O.E.) × 5005 (TOTAL CAPACITY (GAL.)) = 2.30800 (VOL. CHANGE F FACTOR B)

TANK LAYOUT



DISCONNECTED PIPING FROM TANK
INSTALLED BLEEDER ON MANWAY

PRODUCT LINE TESTING

Time (Military)	Reading No.	PRODUCT MONITORING ON LL Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	

SYSTEM

Serial	Number

Terence Neilly GCF224 5/22/89
TECHNICIAN(S) DATE

GENERAL UTILITIES, INC.

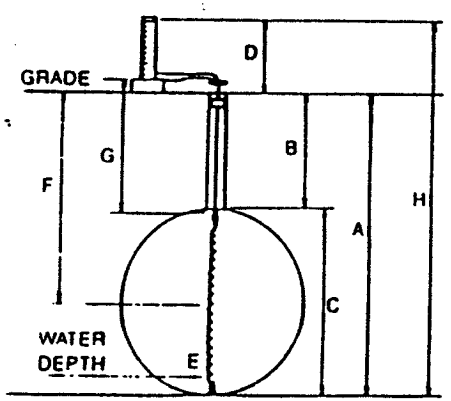
100 FAIRCHILD AVENUE, PLAINVIEW, N.Y. 11803
Central Nassau: 349-8989
Nassau: 922-5722 • Suffolk: 549-3900

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

JOB.
ACCT. # 116-01-1
H.D. 142H89T03
FACILITY I.D. # 2802
F.M. CONF.

SYSTEM TEST ■ X X / 1 2 TANK ONLY ■

Time (Military)	Reading No.	PRODUCT MONITORING ON LLR Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss	TEMPERATURE COMPENSATION A Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	TEMPERATURE COMPENSATION B Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	NET VOL. CHANGE	LLR
1320	0	62			.00208							61.275			2.30800			
1326	1	62	57	-5	.00208	-.01040						.275	.276	+.001	2.30800	+.00230	-.01270	
1332	2	65	66	+1	.00208	+.00208						.276	.272	-.004	2.30800	-.00923	+.01171	
1338	3	66	66	0	.00208	.00000						.272	.272	.000	2.30800	.00000	.00000	
1344	4	66	65	-1	.00208	-.00208						.272	.272	.000	2.30800	.00000	-.00208	
1350	5	65	64	-1	.00208	-.00208						.272	.270	-.002	2.30800	-.00461	+.00253	
1356	6	64	63	-1	.00208	-.00208						.270	.268	-.002	2.30800	-.00461	+.00253	
1402	7	63	63	0	.00208	.00000						.268	.266	-.002	2.30800	-.00461	+.00461	
1408	8	63	63	0	.00208	.00000						.266	.264	-.002	2.30800	-.00461	+.00461	+.03019
1414	9	63	63	0	.00208	.00000						.264	.263	-.001	2.30800	-.00230	+.00230	-.01078
1420	10	63	63	0	.00208	.00000						.263	.262	-.001	2.30800	-.00230	+.00230	+.01041
1426	11	63	63	0	.00208	.00000						.262	.261	-.001	2.30800	-.00230	+.00230	
1432	12	63	63	0	.00208	.00000						.261	.261	.000	2.30800	.00000	.00000	
1438	13	63	63	0	.00208	.00000						.261	.261	.000	2.30800	.00000	.00000	
1444	14	63	64	+1	.00208	+.00208						.261	.262	+.001	2.30800	+.00230	-.00022	
1450	15	64	64	0	.00208	.00000						.262	.262	.000	2.30800	.00000	.00000	
1456	16	64	65	+1	.00208	+.00208						.262	.263	+.001	2.30800	+.00230	-.00022	
1502	17	65	66	+1	.00208	+.00208						.263	.264	+.001	2.30800	+.00230	-.00022	
1508	18	63	59	-4	.00208	-.00832						.264	.263	-.001	2.30800	-.00230	-.00602	
1514	19	59	60	+1	.00208	+.00208						.263	.263	.000	2.30800	.00000	+.00208	-.00946
1520	20	60	62	+2	.00208	+.00416						.263	.266	+.003	2.30800	+.00694	-.00278	+.00138
																		-.00508



A. Tank Bot. to Grade	89	"
B. Tank Top to Grade	47	"
C. Tank Diameter	72	"
D. Test Level above grade	41	"
E. Depth of water in tank	0	"
F. Depth for taking sample	53	"
G. Temp. Probe depth (connector)	19	"
H. Test level to Tank Bot.	130	"
I. Groundwater above tank bottom	0	"
J. Product Pressure per 1" height	.031	PSI

Test Pressure Formula

130 (H) × .031 (J) − (0 (I) × .036) = 4.03 NET TEST PRESSURE

Send Report to: # 116-01-1
Client Grumman
Address South Oyster Bay Rd.
City, State Bethpage L.I. N.Y.
Phone (516) 575-8176
Attn: John Selva

CERTIFICATION This is to certify that this tank system was tested on date shown Those indicated "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329

Tank No. # 116-01-1
Tight Yes
Leakage Indicated .005
Technician Terence Nelly 6CF224
Date Tested 5/22/86

NGINS000120755

DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

CLIENT
NAME OF SUPPLIER.
OWNER OR DEALER Grumman
ADDRESS (NO & STREET) South Oyster Bay Rd.
CITY AND STATE Bethpage L.I. N.Y.

DATE OF TEST 5/25/89
WEATHER Warm & Sunny TEMPERATURE 65°F

TANK INFORMATION
CAPACITY (NOMINAL) 5000 GALS.
CAPACITY (CHART) 5008 GALS.
DIMENSIONS: DIAMETER 72"
LENGTH 24'

SIZE OF FILL OR TEST OPENING 2" IN.
TOP OFF TIME 5/25/89 GALLONS 12
NUMBER OF GALLONS ADDED TO START TEST ?
TANK NO. #116-01-1
INCHES OF WATER – BEFORE TEST 0" AFTER TEST 0"

CONTENTS (PRODUCT) ± Oil
TANK MATERIAL Steel
APPROX. AGE 26 years
PUMP SYSTEM (TYPE) Suction

TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED .05 ÷ 23.66666 (ALM) = .00211 (FACTOR A)

LINE MOVEMENT
1 60 to 85 = 25 LINES
2 61 to 84 = 23 LINES
3 60 to 83 = 23 LINES
TOTAL 71 LINES ÷ 3 = 23.66666 (ALM) LINES

END OF TEST CALIBRATION
SIZE OF CAL. BAR OR ML'S ADDED .05 ÷ 25.00000 (ALM) = .00200 (FACTOR A)

LINE MOVEMENT
1 64 to 90 = 26 LINES
2 66 to 90 = 24 LINES
3 65 to 90 = 25 LINES
TOTAL 75 LINES ÷ 3 = 25.00000 (ALM) LINES

MEASURED API SPECIFIC GRAVITY 34.5
PRODUCT TEMPERATURE 60.0°F
API SPECIFIC GRAVITY @ 60° F 34.5 (FROM TABLE A)
COEFFICIENT OF EXPANSION .00096041 (FROM TABLE B)

.00096041 (C.O.E.) × 5008 (TOTAL CAPACITY (GAL.)) = 2.30573 (VOL. CHANGE/° F) (FACTOR B)

TANK LAYOUT

PRODUCT LINE TESTING

Time (Military)	Reading No.	PRODUCT MONITORING ON LL Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	
					.003	

SYSTEM

Serial	Number

Terence Neilly GCF224 5/25/89
TECHNICIAN(S) DATE

GENERAL UTILITIES, INC.

100 FAIRCHILD AVENUE, PLAINVIEW, N.Y. 11803
Central Nassau: 349-8989
Nassau: 922-5722 • Suffolk: 549-3900

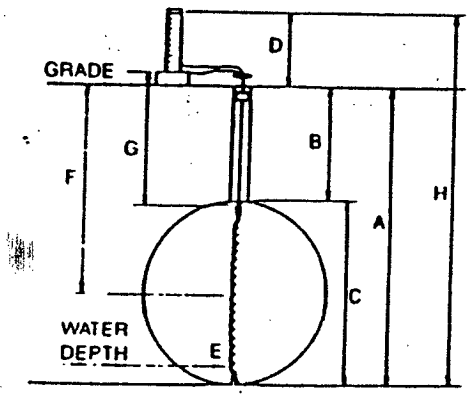
DATA CHART FOR TANK SYSTEM TIGHTNESS TEST
(EZY CHEK)

JOB. [redacted]
ACCT. #116-01-1
H.D. 145 H89704
FACILITY I.D. #2802
F.M. CONF. 3rd TEST

SYSTEM TEST ■ TANK ONLY □

Time (Military)	Reading No.	PRODUCT MONITORING ON LLR Start	End	+Gain -Loss	X Factor A	Product +Gain -Loss	TEMPERATURE COMPENSATION A Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	TEMPERATURE COMPENSATION B Start	End	+Gain -Loss	X Factor B	+Expansion -Contraction	NET VOL CHANGE	LLR
1015	0	61			.00211							62.165			2.30573			
1021	1	61	57	-4	.00211	-.00844						.165	.157	-.008	2.30573	-.01844	+.01000	
1027	2	66	67	+1	.00211	+.00211						.157	.152	-.005	2.30573	-.01152	+.01763	
1033	3	67	64	-3	.00211	-.00633						.152	.149	-.003	2.30573	-.00691	+.00058	
1039	4	64	62	-2	.00211	-.00422						.149	.147	-.002	2.30573	-.00461	+.00039	
1045	5	68	68	0	.00211	.00000						.147	.145	-.002	2.30573	-.00461	+.00461	
1051	6	68	67	-1	.00211	-.00211						.145	.143	-.002	2.30573	-.00461	+.00250	
1057	7	67	65	-2	.00211	-.00422						.143	.140	-.003	2.30573	-.00691	+.00269	
1103	8	65	63	-2	.00211	-.00422						.140	.137	-.003	2.30573	-.00691	+.00269	
1109	9	63	62	-1	.00211	-.00211						.137	.135	-.002	2.30573	-.00461	+.00250	30.
1115	10	67	68	+1	.00211	+.00211						.135	.133	-.002	2.30573	-.00461	+.00672	+.00406
1121	11	68	66	-2	.00211	-.00422						.133	.132	-.001	2.30573	-.00230	-.00192	+.04666
1127	12	66	66	0	.00211	.00000						.132	.131	-.001	2.30573	-.00230	+.00230	
1133	13	66	65	-1	.00211	-.00211						.131	.130	-.001	2.30573	-.00230	+.00019	
1139	14	65	64	-1	.00211	-.00211						.130	.130	.000	2.30573	.00000	-.00211	
1145	15	64	64	0	.00211	.00000						.130	.130	.000	2.30573	.00000	.00000	
1151	16	64	64	0	.00211	.00000						.130	.130	.000	2.30573	.00000	.00000	
1157	17	64	64	0	.00211	.00000						.130	.130	.000	2.30573	.00000	.00000	
1203	18	64	64	0	.00211	.00000						.130	.129	-.001	2.30573	-.00230	+.00230	+.00179
1209	19	64	64	0	.00211	.00000						.129	.129	.000	2.30573	.00000	.00000	-.00403
1215	20	64	64	0	.00211	.00000						.129	.129	.000	2.30573	.00000	.00000	+.00076
																		+.00181

S.O. .00149



A. Tank Bot. to Grade	89	"
B. Tank Top to Grade	17	"
C. Tank Diameter	72	"
D. Test Level above grade	41	"
E. Depth of water in tank	0	"
F. Depth for taking sample	53	"
G. Temp. Probe depth (connector)	19	"
H. Test level to Tank Bot.	130	"
I. Groundwater above tank bottom	0	"
J. Product Pressure per 1" height	.031	PSI

Test Pressure Formula

$\frac{130}{H} \times \frac{.031}{J} - \left(\frac{0}{I} \times .036\right) = \frac{4.03}{\text{NET TEST PRESSURE}}$

Send Report to:
Client Grumman
Address Southoyster Bay Rd.
City, State Bethpage, L.I., N.Y.
Phone (516) 575-5776
Attn: John Selva

CERTIFICATION This is to certify that this tank system was tested on date shown. Those indicated "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329

Tank No. #116-01-1
Tight Yes
Leakage Indicated +.001
Technician Terrance Reilly KCF 224
Date Tested 5/25/89

SPCC TANK NO. 116-01-1
FUEL TYPE Nº 2.
CAPACITY 5000
LOCATION Plt 116.

PART 1

COG. ENG. John Selva — WITNESS AT SITE —

CONTRACTOR General Utilities. — FOREMAN Dan

TYPE OF TEST Hermer

DATE OF TEST 1 5-10-89. — START TIME
2 5-22-89 (Tank Alone)
3 5-25-89

TEST RESULT 1 See Comments. — GALS./HR.
2 PASS
3 PASS — ± .001

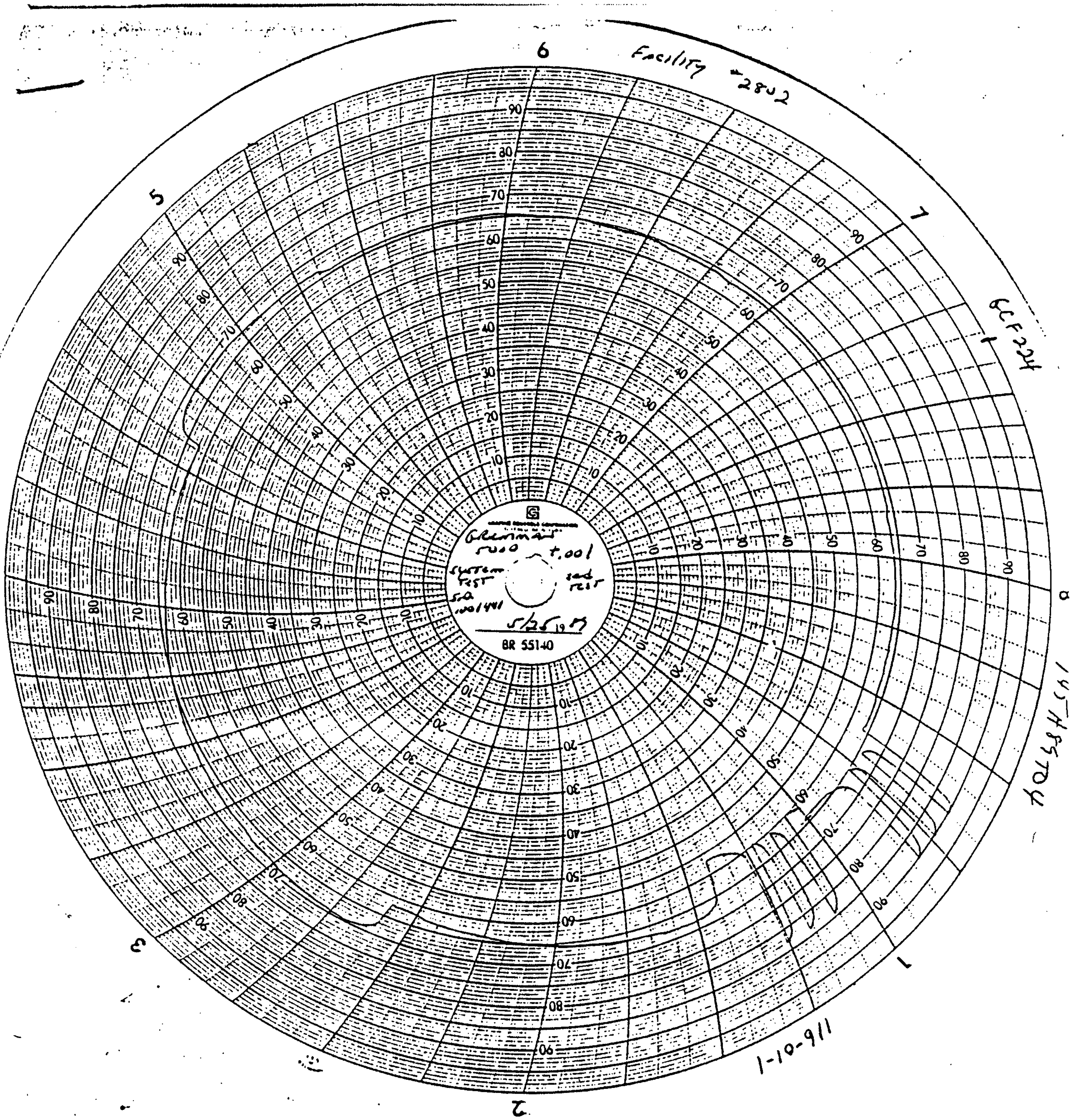
PASS OR FAIL 1 FAIL — TIME
2 PASS.
3

NAVY NOTIFICATION DATE 1 — TIME
2
3

COUNTY NOTIFICATION DATE 1 — TIME
2
3

FIRE MARSHALL NOTIFICATION DATE 1 — TIME
2
3

COMMENTS: 1) 5-10-89 - Tank would not Fill, Possible leak, will excavate as needed and repair.



Facility #2802
GCF 224
Grumman
5000
+.001
System Test
2nd test
S/N 1001441
5/25 19 85
BR 55140
1-10-911

New York State Department of Environmental Conservation
Building 40—SUNY, Stony Brook, New York 11794
(516)751-7900

Thomas C. Jorling
Commissioner

June 1, 1989

CERTIFIED LETTER - RETURN RECEIPT REQUESTED

Grumman Aerospace
Engineering Facilities
Mail Stop B 08/30
Bethpage, NY 11714

Attention: Mr. John Selder

Re: Spill #89-01526
Building 116-01-1

John,
6-9-89.
Tank was repaired and passed system test. Concurred with Chris O'Neill of State. 6-9-89 - A formal reply is not required.

Dear Mr. Selder:

This office has been informed by General Utilities that one 5000 gallon underground #2 fuel oil tank failed a Petrotite systems test. In accordance with Article 12 of the New York State Navigation law, I must determine if there has been any harm to the groundwaters of the State. In order for me to make this determination, you have three options:

1. Prove that it was not a leaking tank by removing all the piping from the tank and separately Petrotite test the tank. If the tank passes the Petrotite test, it is a piping leak. The tank may then be abandoned or the piping can be repaired, attached to the tank, and the system Petrotite tested.

2. Excavate and remove the tank in the presence of a representative from this office so that an inspection of the tank and the soil can be made. If the tank is sound, and there is no evidence of product loss, nothing further need be done. If there is a problem, proceed as in 3 below.

3. Abandon the tank in-place and install several four(4) inch diameter PVC site wells extending ten (10) feet into the groundwater with a screen length of twenty

Please be advised that the in-place abandonment of underground tanks may be prohibited in some areas. You should check with the appropriate local or county authority (health department, fire marshal, environmental control unit) regarding local laws governing the storage of petroleum products.

Please call me at 751-7900 ext. 279 or 751-7725 and let me know which option you will select to resolve this problem. If no response is received from you by June 15, 1989, this office will proceed with the installation of site wells and will seek reimbursement from you in accordance with Article 12 of the New York State Navigation Law.

Very truly yours,

Christopher O'Neill

Christopher O'Neill
Assistant Sanitary Engineer

CON:jf
cc: S. Silvers, NCHD
D. Bartow, NCFM

	DISPOSITION COORDINATOR			CASE NO.
ompleting form.	NAME	EXT.	DATE	126087

PROPERTY CLASSIFICATION

☐ SPECIAL TOOLS ☐ SPECIAL TEST EQUIPMENT ☐ FIXED ASSET ☐ INDUSTRIAL PLANT EQUIP. ☐ MATERIAL ☐ HARDWARE ☐ OFFICE FURN. & EQUIP. ☐ OTHER—EXPLAIN

N BUILT ☒ PURCHASED	GOVERNMENT PRIME CONTRACT NO. 1/1	JOB ORDER NO. —	IF PART OF SYSTEM, LIST NOMENCLATURE AND PART NO.

NOMENCLATURE/DESCRIPTION (Mfr. Part No., National Stock No., where applicable)	REASON FOR EXCESS (Be specific and continue in REMARKS if necessary)
STORAGE TANK For Jet Fuel	HEATING SYSTEM CONVERTED TO NATURAL GAS.

NOMENCLATURE/DESCRIPTION (Mfr. Part No., National Stock No., where applicable)	TAG NUMBER	CONDITION CODE	QUANTITY	PRESENT LOCATION	ACQUISITION UNIT COST	ACQUISITION YEAR	OWNER CODE
1 STORAGE TANK.	PART OF FLD # 116	5	1	116		1964	

LETTER AND NUMBER TO DESCRIBE ACTUAL PHYSICAL CONDITION:
A — USED — USABLE WITHOUT REPAIR 1— EXCELLENT 3— FAIR
B — USED — REPAIRS REQUIRED 2— GOOD 4— POOR

REPORTED BY: JOHN SILVA JR. 5302/30 5X176 2/14/90.
NAME (PRINT & SIGN) DEPT./SITE EXT. DATE

PLETE.

DEPT. EXT. DATE

E. (if applicable)

)

ATOR 2-14-90

DEPT. EXT. DATE

COMPLETE

D FOR FURTHER SCREENING

-USED IN GAC

☐ SCRAP

S)...

DEPT. EXT. DATE

☒ CORPORATE SCREENING COMPLETE
Item(s) Excess to Corporate Needs

JOE D. CAVALLUZZO
PROPERTY ADMINISTRATOR
X53756 · MSB22-030

DISPOSITION AUTHORIZATION

☐ RE-USE SEND TO: _____
☐ SELL
☐ SALVAGE
☐ SCRAP
☐ RETURN TO GOVT.

REFERENCE CASE NO. _____

3108

NAME PROPERTY DISPOSITION EXT. DATE

DATE EPR RECD. PROP. DISP:

REMARKS:

TANK MUST BE SCRAPED. CANNOT BE REUSED AS PER NASSAU CTY EQUIP.

REFERENCE ETO NO. _____

DISTRIBUTION: WHITE — PROPERTY DISPOSITION
GREEN — PROPERTY DISPOSITION — DISPOSAL AUTHORIZATION
CANARY — SCREENING AGENCY FILE
PINK — DEPTL. PROPERTY ADMINISTRATOR FILE
GOLD — ORIGINATOR FILE

Grumman Corporation
Bethpage, New York 11714-3580

VLG THIS COPY FOR

April 27, 1992
FDP - 705

N.Y.S. Dept. of Environmental Conservation
SUNY - Building 40
Stony Brook, N.Y. 11790

Attention: Kathy Gibbons

Subject: TANK TESTING AND REMOVAL RECORDS FOR SPILL NO'S 87-2747, 89-01526, 90-01711

Enclosures:
1) Spill No. 87-2747, Marine Pollution Control Work Orders for Tank Removal and Disposal
2) Spill No. 89-01526, Tank Testing Results
3) Spill No. 90-01711, Tank Testing Results

As requested in your telecon on April 4, 1992 with John Selva of this office, please find the above enclosures. Also, please note the following additional information.

Tank No. 07-05-2 (Spill No. 87-2747), was removed and cleaned by Marine Pollution Control on May 15, 1990. The tank was transported to the Grumman salvage yard in Bethpage and disposed of as scrap metal.

Tank 116-01-1 (Spill No. 89-01526), failed a tightness test on May 10, 1989 due to a piping failure. The piping was repaired and the tank system was retested on May 25, 1989 and passed. On May 14, 1990 the tank was removed by Grumman due to a change in service from fuel oil to natural gas. The removal was inspected by Alan Brussel of the Nassau County Department of Health and found to be clean. The tank was later scrapped at the Grumman salvage yard.

Tank 111-01-1 (Spill No. 90-01711), was tested on May 14, 1990 and failed due to a faulty gauge fitting. The fitting was repaired and the tank system was retested on May 31, 1990 and found to be tight.

Should you have any further questions, please contact me at (516) 575-2385 or J. Selva of this office at (516) 575-8176.

Very truly yours,

GRUMMAN CORPORATION

J. Ohlmann

J. Ohlmann, P.E., Director
Corporate Environmental Technology
and Compliance
Mail Stop: D08-GHQ

JO/JS:tla

bcc: B. Andres
J. Cofman
J. Selva

TLA-703