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FINAL
SITE INVESTIGATION

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT CALVERTON, NEW YORK

NORTHERN AND CHESAPEAKE DIVISIONS

VOLUME II

PREPARED BY

HALLIBURTON NUS
ENVIRONMENTAL CORPORATION
PITTSBURGH, PENNSYLVANIA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY
(CLEAN) PROGRAM

CONTRACT NUMBER N62472-90-D-1298
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HALLIBURTON NUS
Environmental Corporation

Donohue ENGINEERS ARCHITECTS SCIENTISTS

ENSR™

APPENDIX A

ENVIRONMENTAL/ENERGY SURVEY OF NWIRP CALVERTON, NEW YORK

DECEMBER 1976

NAVY ENVIRONMENTAL SUPPORT OFFICE
Naval Construction Battalion Center
Port Hueneme, California 93043

ENVIRONMENTAL/ENERGY SURVEY OF NWIRP CALVERTON, NY

GRUMMAN AEROSPACE

CONTRACTOR-OPERATOR

NESO 12-016.6

NEPSS

Naval
Environmental
Protection
Support
Service

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ENVIRONMENTAL/ENERGY SURVEY
OF
GOVERNMENT-OWNED, CONTRACTOR-OPERATED (GOCO)
FACILITIES

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP)
OPERATED BY GRUMMAN AEROSPACE CORPORATION
ACTIVITY CODE NO. DOD 466
UIC NO. 96095
CALVERTON, NEW YORK

3 DECEMBER 1976

Prepared for NESO by:

ManTech of New Jersey Corporation
Systems Division
Systems Audits Department

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Section I

A. INTRODUCTION

This report presents information on the status of compliance with current environmental legislation and the progress toward energy conservation achieved at the Naval Weapons Industrial Reserve Plant (NWIRP) operated by Grumman Aerospace Corporation. The survey was conducted in response to a request by the Navy Environmental Support Office (NESO) and Naval Facilities Engineering Command (Codes 102 and 104) to determine the environmental/energy conservation status of eleven of the GOCO facilities administered by the Naval Sea Systems Command, and nine of the GOCO facilities administered by the Naval Air Systems Command. The objectives of the environmental portion of the survey are to ascertain the present status of GOCO compliance with environmental laws and regulations, and provide a baseline from which to measure compliance in the future. The objectives of the energy conservation portion of the survey are to assess the present level of GOCO energy conservation, to determine areas amenable to further reduction in energy consumption, and to ascertain the availability of current and future energy sources.

The majority of information concerning the Grumman facility was obtained at the plant during a two-day site survey conducted by ManTech of New Jersey Corporation personnel on 17-18 November 1976. Mr. John G. Kresky, R.S. investigated environmental issues, and Mr. John W. Hamilton investigated areas of energy conservation.

Grumman and Naval personnel participating in the survey, conducting tours, and assembling plant records were as follows:

For the contractor:

Mr. Carl Petrowski (Assistant Manager, Maintenance Department)
Mr. R. Yezek (Deputy Director, Engineering Department)
Mr. Harold W. George (Chief Engineer, Facilities Department)
Mr. Peter L. Romano (Planning Manager, Facilities Engineering)
Mr. John Ohlmann (Manager, Environmental Control)

Mr. Mac McCown (Manager, Environmental Protection)

Mr. Leon Maggio (Manager, OSHA)

Mr. Robert Wheeler (Process Engineer)

For the Navy Plant Representative Office (NAVPRO):

Mr. T. Repetti (Property Administrator, Facilities Management)

Mr. William Miller (Assistant Property Administrator, Facilities Management)

B. AREA AND PLANT DESCRIPTION

The NWIRP is located in Suffolk County, New York, at the eastern end of Long Island. The major portion of the NWIRP is located within the Town of Riverhead with the remainder in the Town of Brookhaven. The 2900 acre site is situated on relatively flat terrain that is sparsely developed (see Figure 1) at the present time although a number of housing developments are in the planning stage adjacent to the NWIRP. The surrounding area is farm and woodland. The entire site is GOCO. Facilities consist of two aircraft runways, two major assembly buildings, testing areas, an anechoic test chamber, and other smaller support buildings. The buildings, completed in 1954, appear to be structurally sound and well maintained. Facilities on the base are relatively spread out with large buffer areas between buildings.

The NWIRP conducts final assembly and testing, flight testing, refitting, and retrofitting of various military aircraft, including the F-14, A6A and Ea6B models. Heavy manufacturing is not done at the NWIRP. Most aircraft fabrication and primary assembly is conducted at the Grumman plant in nearby Bethpage, New York; then the parts are sent to the NWIRP, Calverton for final assembly and testing. The NWIRP presently employs 2600 people but this fluctuates with production needs.

The NWIRP is relatively well isolated with only very small areas of density housing located at the northwest and northeast sides of the site perimeter.

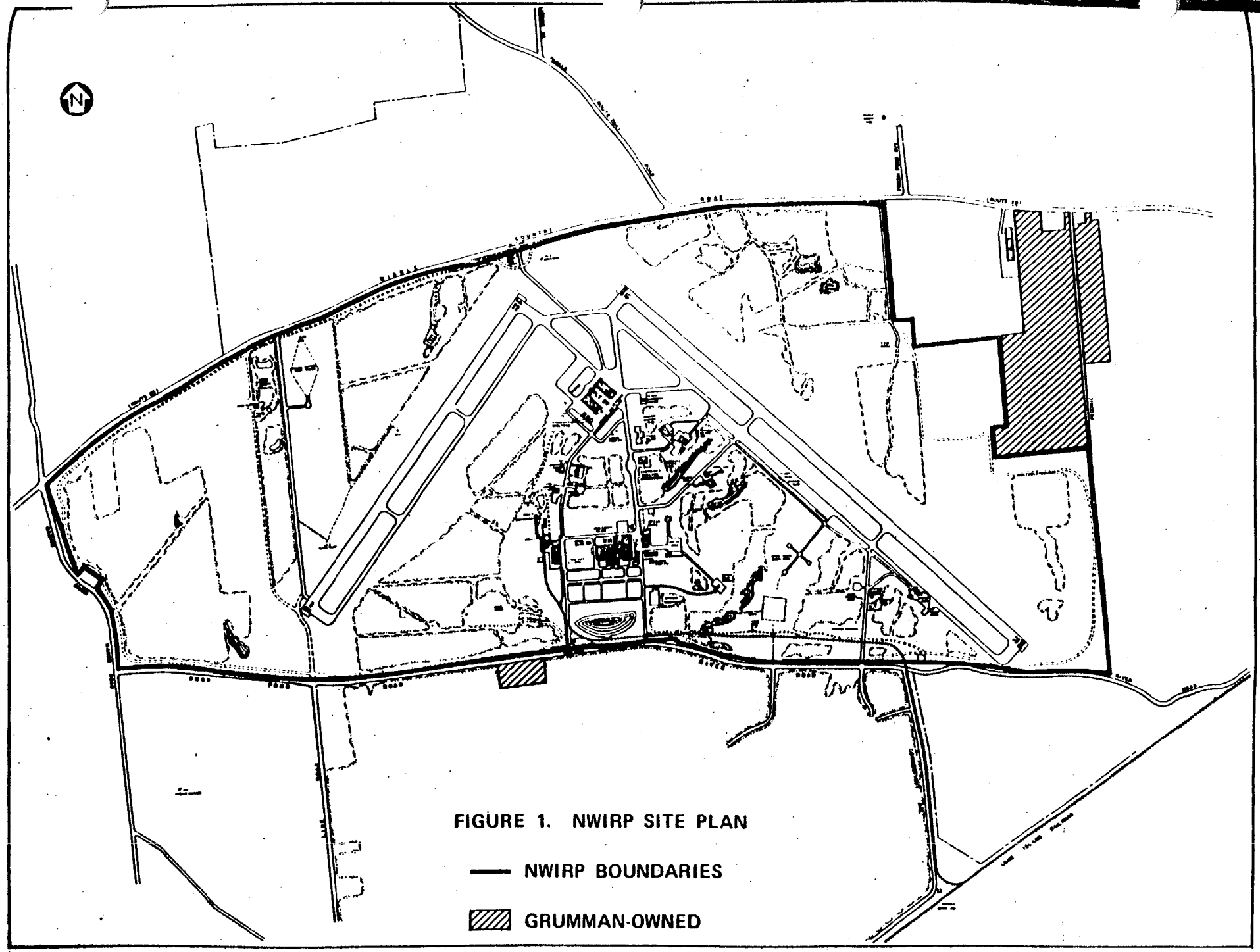


FIGURE 1. NWIRP SITE PLAN

C. FACILITY USE CONTRACT

Grumman, Calverton has facility use contract number N0019-69-L-9057. The contract series expiring on 31 March 1984, consists of three five-year contracts originally negotiated in 1969. The contract periods run sequentially for a total of 15 years before renegotiation. The second five-year period of the lease expires 31 March 1979. GAC is expected to exercise the option to renew the lease for the third five-year period which will expire 31 March 1984. The points of contact within the Naval Air Systems Command (NAVAIR), the major claimant, are as follows:

1. For contractual matters - Mr. John Desloge
   Code AIR-21533D
   Naval Air Systems Command
   Department of the Navy
   Washington, D.C. 20361
   202-692-7560

2. For facilities matters - Mr. Larry DeAtley
   Naval Weapons Engineering Support Activity
   Building 220
   Code ESA 208
   Washington Navy Yard
   Washington, D.C. 20374
   202-433-3340

The contract does not specify which party is responsible for obtaining and insuring compliance with pollution-related permits (NPDES, etc.). The methods for ascertaining and funding both energy conservation and environmental protection needs are twofold. First, the contract stipulates that approved long-term maintenance projects and environmental quality control projects are to be funded by Grumman in lieu of rent payments. Second, any requirement for project-funding in excess of rental fees normally assessed Grumman would be submitted to NAVAIR in an annual capital maintenance or facilities acquisition program proposal.

NOTE: NAVWESA comments dated 28 December 1976 in letter ESA-6511 state that: Lease N00019-69-L-9057 authorizes use of the NWIRP on a rent-free basis in performance of work for the government but does require the payment of rent for performance of commercial work. As consideration for use of the NWIRP during the second five-year period, Grumman is obligated to an average annual expenditure of $1,300,000 for long-term maintenance. Grumman may spend more than this amount. NAVAIR has no funding responsibility for any long-term maintenance; Capital maintenance is not mentioned in the lease.

D. PROBLEMS

Survey of the NWIRP indicated a clean, well-maintained facility. In the light of pollution control and energy conservation achievement goals, several potential and existing problem areas have been identified. It should be noted that these problems were identified primarily on the basis of a brief visual inspection, and that energy related issues need further economic analysis to determine their merit on the basis of cost benefit.

Environmental:

1. Determine the feasibility of installing automatic switching devices on the emergency electrical supply for wells. This also should be considered for wells constructed in the future.
2. Determine the feasibility of dewatering sludge from the on-site wastewater treatment plant before removal to Grumman, Bethpage.
3. Determine the feasibility of oil/water separation of storm water discharge to McKay Lake.
4. Determine feasibility of installing both an impervious, diked surface and controls to eliminate potential contaminated runoff due to fuel spills at the outdoor fuel calibration facility.
5. Provide more efficient air pollution controls at paint facilities - either by redesigning or replacing the existing facilities.
6. Determine the feasibility of installing spill containment devices around the transformers filled with PCB-based coolant.
7. Determine the feasibility of writing an Oil Spill Prevention Control and Countermeasures (SPCC) Plan.
8. Provide industrial wastewater treatment to eliminate hauling of industrial wastes to Bethpage.

Energy:

1. Paint facility extension
2. Warehouse S-7 lighting reduction
3. Hangar lighting reduction in summer
4. Reduction of lighting in receiving areas
5. Oil storage
6. Heat exchange opportunities - boilers, boiler blowdown, compressor cooling water, incinerator
7. Energy usage contingency plan - formal documentation

APPENDIX A
ENVIRONMENTAL

1. ENVIRONMENTAL LAWS AND REGULATIONS

Executive Order 11752 identifies specific federal laws applicable to environmental pollution control. The federal laws cited in this order, as well as other pertinent federal laws, are listed in Table A-1. The Executive order identified those control subjects in these laws which are pertinent to GOCO activites. It also specifies the subsequent levels of regulations which are relevant. Compliance with all applicable federal regulations is required.

For the laws not listed in the Executive order, the control subjects and level of regulation identified in Table A-1 are derived from current information available to NESO.

Federal, state, and local regulatory agencies have translated the requirements of the federal laws into a large number of regulations. In most cases, these regulations are site-specific; that is, the regulations applicable to a given GOCO will depend on the location, types of sources and processes, and the kinds of pollution generated. The wide variety of total regulations applicable to the GOCO activities is not amenable to a short summary.

The National Environmental Policy Act (NEPA), an overriding law relating to all future actions which may have environmental significance, is implicitly understood to be applicable to each of the environmental/pollution categories discussed in this report.

Regulation Sources:

Federal regulations are cited in a standard format which refers to the Code of Federal Regulations (CFR). The first number refers to a Title. Most of the federal regulations applicable to the GOCO are under Title 40, Protection of the Environment. The second number designates the section within the Title in which the specific regulation is found. All proposed and adopted regulations and subsequent changes are published daily in the Federal Register by the National Archives and Records Service of the General Services Administration.

TABLE A-1

Applicable Environmental Laws and Regulations

Acronym	Public Law	Title	Control Subject	Applicable Regulations
FWPCA	PL92-500	Federal Water Pollution Control Act	Effluent limits, Water quality standards, Discharges to sewers	Federal, State, Local
SDWA	PL93-523	Safe Drinking Water Act	Potable water treatment and distribution	Federal, State
CAA	PL91-604	Clean Air Act	Air emission limits, Air quality standards	Federal, State, Local
MPRSA	PL92-532	Marine Protection Research and Sanctuaries Act	Ocean dumping	Federal only
RHA	N/A	Rivers and Harbors Act	Dredge permits	Federal only
SWDA	PL89-272	Solid Waste Disposal Act	Recovery, collection, storage, separation, disposal of solid wastes	Federal only
RRA	PL91-512	Resource Recovery Act	Recovery, collection, storage, separation, disposal of solid wastes	Federal, State
NCA	PL92-574	Noise Control Act	Noise emission standards	Federal only
FEPCA	PL92-516	Federal Environmental Pesticides Control Act	Manufacture, transportation, purchase, use, storage, disposal	Federal
NEPA	PL91-190	National Environmental Policy Act	Planning	Federal
CZMA	PL92-583	Coastal Zone Management Act	Planning	Federal, State

Most Stringent Requirements:

Since a GOCO activity is required to comply with substantive standards set by different levels of authority, it is assumed that compliance with the most stringent regulation will satisfy the needs of all authorities. Therefore, this status report identifies only the most stringent applicable regulation.

2. MAJOR FINDINGS

a. WATER QUALITY

Water quality at the NWIRP facility involves potable and process water, and industrial and sanitary wastewater.

The principal applicable law is the Federal Water Pollution Control Act of 1972 (FWPCA). The Safe Drinking Water Act (SDWA) has limited application. Wastewaters discharged directly to surface waterways must be under permit as issued by EPA and monitored in accordance with the National Pollutant Discharge Elimination System (NPDES) as authorized under Section 402 of the FWPCA. Wastewaters discharged to municipal treatment systems must comply with the limits, prohibitions, and pretreatment requirements established by the local ordinances.

Point source discharges to municipal treatment plants are exempt from NPDES permits; however, the FWPCA prohibits the discharge of pollutants that cannot be effectively removed at the treatment plant.

1. Potable/Process Water

All potable, process and fire protection water used by the NWIRP is supplied by three 12 inch diameter, 145 feet deep wells, located on site, northeast of the steam plant. The wells have a 1000 gallon per minute (gpm) pumping capacity and 75 horsepower motors for driving the submersible pumps. Presently, only one well has emergency power, and the switchover to that system is accomplished manually. Due to the distance between the wells and the work place (i.e., the sewage treatment plant) of the person responsible for the water supply, it is recommended that automatic switching devices be installed on existing wells and wells to be constructed in the future. In an emergency, automatic controls would ensure the continued pumping of water without interruption of service.

The wells are more than adequately isolated and of approved construction. A project (#CF 9096-059-187), with estimated completion by 1977, is presently unde way to eliminate cross connections between water and process lines.

With the exception of water used for boilers, raw incoming water is not treate Boiler feed water is treated by automatic feed with proprietary chemicals obtained from the Dearborn Chemical Company, Ridgewood, New Jersey. Although the additives are coded, it is believed to be an acid-caustic treatment process.

Air conditioning units presently consume the largest amount of water.

Water storage facilities are as follows:

One, 50,000 gallon domestic reserve plus one 100,000 gallon fire reserve in an overhead tank. This tank is regulated by automatic pump controls located at two foot height intervals. The designed head is 150 feet.

Two, 350,000 gallon fire reserve tanks each located on the ground and filled by manual control.

Presently there are no significant problems with the quality or quantity of water supplied to the NWIRP. Future projects proposed to date are associated with the replacement of one of the wells.

2. Wastewater

The NWIRP has four methods for disposal of wastewater generated at this facility. All industrial wastewater from stripping processes, paint spraying facilities and other small activities is transferred to the Grumman Aerospace Corporation (GAC), Bethpage industrial wastewater treatment plant via GAC tank trucks. The major constituent of the waste is rinse water from cleaning, stripping and brush Alodine operations and small quantities of water containing epoxy, polyarethane and paint deflocculants from paint spraying facilities.

At GAC Calverton, an extended aeration activated sludge facility with a capacity of 0.062 million gallons per day (MGD) receives all sanitary wastes with the exception of wastes generated at the few auxilliary buildings that are served by septic tanks. The activated sludge system is operated under permit #NY 0025453 and has an average flow of 0.0229 MGD and a biochemical oxygen demand (BOD) of 49.7 pounds per day influent and 3.5 pounds per day effluent. Raw, underwatered sludge from this system is removed to GAC Bethpage by GAC trucks. It is recommended that the feasibility of dewatering the

sludge before removal to Bethpage be determined due to the economical inefficiency of hauling un-dewatered sludge. The volume of sludge transported can be lowered by 30-50 percent with efficient dewatering. This also would relieve the Bethpage facility of having to dewater sludge from the NWIRP.

Various outbuildings such as flight buildings, storage and test buildings are equipped with septic tanks. The systems are in sandy, well drained soil and are functioning normally.

On 31 May 1974, the Environmental Protection Agency (EPA) issued GAC an NPDES permit for the treated discharge from the NWIRP extended aeration wastewater treatment plant (WWTP). The permit has the following specifications:

Permit #NY 0025453

Issued by Permits Administration Branch, EPA Region II

Receiving Waters - Peconic River

Permit expiration - 31 May 1979

The discharge limitations are as follows:

Discharge Load Allocations	BOD_5	Suspended Solids
30 day average		
lb/day	15	15
kg/day	6.8	6.8
7 day average		
lb/day	23.3	23.3
kg/day	10.6	10.6
Discharge Concentrations		
30 day average (mg/L)	30	30
7 day average (mg/L)	45	45
Minimum % Removal	85%	85%

total flow - 0.062 million gallons per day

fecal coliform bacteria - not more than 200 bacteria per 100 milliliters geometric mean value in 30 consecutive days and not more than 400 bacteria per 100 milliliters geometric mean value in 7 consecutive days

pH - 6.0-9.0

Floating solids or visible foam - none allowed

The monitoring requirements are as follows:

Parameter	Minimum Monitoring Requirements 1/ Measurement Frequency	Sample Type
Total Flow, mgd 2/	Daily	Instantaneous
BOD_5, mg/l	4/yr	Grab
BOD_5, lbs/day	4/yr	Grab
Settleable Solids, ml/l	Daily	Grab
Suspended Solids, mg/l	4/yr	Grab
Suspended Solids, lbs/day	4/yr	Grab
Residual Chlorine, mg/l 2/	Daily	Grab
Fecal Coliform, N per 100 ml 2/	4/yr	Grab
pH	Daily	Grab

1/ Except where indicated, influent and effluent measurement and testing are required

2/ Only effluent testing required

According to the specifications of the permit, the permit expires on 31 May 1979. At least 180 days prior to the expiration date, appropriate forms will have to be filed and fees paid to request a renewal of the permit.

The NWIRP is beginning a project of constructing a temporary prototype industrial wastewater treatment plant to provide the parameters for disposal of paint shop wastes and thereby alleviate the problem of hauling wastes to Bethpage. This plant is still in preliminary planning stages, but contact with the United States Environmental Protection Agency Region II has expedited a modification to the existing permit (NY 0025453) in a letter dated 9 November 1976. This letter details parameters to be followed which includes:

a. Limitations on concentration of wastes prior to mixing with sanitary wastewater

	30 day Average (mg/L)	1 day Maximum (mg/L)
Hexavalent Chromium	0.05	0.1
Chromium Total	0.5	1.0
Flouride	10.0	20.0
Iron	1.0	2.0
Cyanide	0.5	1.0
Phenols	5.0	10.0
BOD	Monitored without limitation	
Suspended Solids	Monitored without limitation	

GAC plans to utilize a process that will effectively destroy phenols by oxidation, reduce chromium, and precipitate heavy metals to meet allowable limits. Because effective treatment of the metals is not anticipated by the sanitary system, these pretreatment values are the final limitations.

A two-stage monitoring analysis must be initiated in order to avoid the 7:1 dilution ratio experienced by combining the industrial and sanitary wastes. The metal concentrations must be monitored before dilution in order to achieve adequate concentration removals.

In addition to the present NPDES effluent parameter limitations, the following parameters must also be monitored:

	30 day Average (mg/l)	1 day Maximum (mg/l)
Phenols	0.5	1.0
Methylene Blue Active Substances	5.0	10.0
Phosphates	5.0	10.0
pH (STD Units)	6.0 (min)	9.0 (max)
BOD (as previously limited)	30.0	45.0
Suspended Solid (as previously limited)	30.0	45.0
COD	Monitored without limitation	
Total Dissolved Solids	Monitored without limitation	
Settleable Solids (as previously limited)	Monitored without limitation	

Finally, all additional parameters will be sampled on the quarterly cycle, as previously required. The daily parameters (Flow, pH, Settleable Solids, Temperature and Residual Chlorine) will remain on the same cycle.

The trial plant will be located east of plant #6 in an area used many years ago for a sewage treatment plant which is presently inactive. A 32 ft. by 50 ft. concrete slab with roof will house four Gatch treatment tanks with associated pumps and piping. Industrial waste will be trucked to the trial facility for pretreatment and discharged into the existing central sewage treatment facility. Any processing of wastes through the initial stages of the prototype process that does not meet the above standards will be hauled as before to the Bethpage facility until the process has been perfected and finalized. Since most of the heavily polluted industrial wastewaters generated in the Grumman aircraft manufacturing process occurs at Bethpage, this waste will not be extremely concentrated.

The NWIRP storm water system discharges non-contact cooling water and storm water through a ditch and culvert system to McKay Lake which in turn empties into Peconic River. The storm system also picks up drainage from many concrete and asphalt paved areas where oil spills could occur. It is recommended that the feasibility be determined of installing an oil/water separator at the discharge point in order to prevent such spilled contaminants from being washed into the lake.

It is calculated that one million gallons of water per day are used for once-through cooling. The NWIRP is presently in the process of upgrading these systems by eliminating once-through cooling wherever feasible. Although this water does not pass through the sewerage system, there are definite

thermal qualities that may be transmitted to McKay Lake. These thermal properties are not presently causing visible signs of eutrophication in the lake, but will aid in speeding the eutrophication process if left uncontrolled. The reduction of once-through cooling will also reduce the demand for fresh water intake which will result in ground water conservation.

The outdoor fuel calibration and fuel removal facilities are involved with the storage and transfer of aircraft fuels. Presently these facilities are located in an area where the ground is subject to seepage and storm runoff into a natural drain. It is recommended that the feasibility be determined of constructing a diked, impervious service for this operation in order to protect the surface waters from contamination.

Beyond the problems discussed, the NWIRP appears to have no other water quality or wastewater problems.

b. AIR QUALITY

The Clean Air Act Amendments of 1970 (PL 91-604) and subsequent amendments are the principal federal law having an impact on air quality at NWIRP. Under this legislation, the country is divided into air quality control regions (AQCR). Each state then has the primary responsibility for assuring air quality within its borders and must submit an implementation plan specifying how the national primary and secondary ambient air quality standards will be maintained within each AQCR.

The NWIRP is under the jurisdiction of the New York State Department of Environmental Conservation. New York has various regulations limiting the types and amounts of pollutants that can be discharged into the air. The two most notable pollutants are particulates and oxides of sulfur. The need for air pollution control devices will depend upon the type and amount of a pollutant produced and the capacity or size of the source.

The State has various regulations limiting the types and amounts of pollutants that can be discharged to the air. Regulations are classified into three sections pertaining to process sources (such as industries), boilers and incinerators. The allowable pollutant loading from any source is based on several factors, including the nature and quantity of the pollutant, the

geographical location, the ambient air quality, and the applicable National and State ambient air quality regulations. The State reviews each source in the light of these factors and issues the required "certificate to operate" which stipulates the type of pollution controls needed and the pollutant loading limitations. Every three years dischargers must submit a certificate renewal application listing changes to the emission sources. The State Air Pollution Control Office reviews the permit applications and uses the information to determine the need for pollution control devices.

The NWIRP has no air pollution control devices on boiler stacks. The emission is tightly regulated by the strict use of low sulfur #6 oil. This widely used method not only has been economically feasible in the past, but also has satisfied the requirements of the State. It should be noted that any change in fuel and/or sulfur content of fuel must be cleared through the State and may result in the requirement of sulfur oxide removal devices.

The following is a list of exhausts and air pollution control devices for which the NWIRP has operation certificates:

Number of Exhausts	Source	Pollution Controls
3	Paint Spray	Spray Towers
1	Exhaust Paint Room	None
2	Wood, Masonite, Micarta, Plastics	Cyclonic separator
3	#6 oil-fired boilers	None
1	Incinerator	Venturi scrubber

Note that all the facility exhaust stacks have certificates. These certificates specify the allowable pollutant loading for each exhaust. Personnel indicated that to date the facility is in compliance with the limitations of all the certificates.

The NWIRP is located in an area that is closely surveyed by air pollution control authorities. Of all the environmental regulations that impact the NWIRP, air quality may be the most highly controlled, mainly due to its proximity to New York City.

Problems:

The paint spraying facilities, although marginally meeting air pollution requirements, are in poor repair and have suffered from many mechanical and energy-related problems. Due to the increased surveillance that can be expected in the future in the field of air quality monitoring and the aforementioned conditions, it is recommended that consideration be given to upgrading or replacing the present facilities.

Outdoor tests are conducted at the NWIRP and are limited primarily to jet engine runup testing and some aircraft overflights. These test facilities are not equipped with air pollution controls. Two problems are encountered in attempting to control these exhaust emissions. First, "state-of-the-art" in air pollution control has not advanced to the point of providing feasible controls for such test facilities, and second, the military is quite reluctant to allow fuel additives for controlling emissions, particularly when the fuel is used for test procedures. Presently, this pollution problem is not serious, primarily because of the remote location of the NWIRP. When the surrounding area becomes more developed, this situation may change.

There are no other known problems with air quality at the NWIRP and there are no other planned projects.

c. SOLID WASTE

The Solid-Waste Disposal Act (SWDA) is the federal law governing solid-waste disposal on land and resource recovery. Federal regulations on disposal methods have also been promulgated. Under the Resource Recovery Act of 1970, solid waste management and resource recovery systems are to preserve and enhance the quality of air, water, and land resources.

Solid waste generated at the NWIRP consists primarily of general office trash, some wood (from crates, skids, etc.) and a very small amount of metal scrap. Personnel could not provide data indicating the amounts of waste produced; however, there are no manufacturing processes to generate large volumes of waste.

All solid waste, with the exception of classified material, is taken to the Riverhead Municipal Landfill by Jackson Trucking of Huntington Station, Long

Island. Jackson Trucking is licensed by both the State and by Suffolk County. The NWIRP does not have a program for separating wastes for reclamation and recycling.

With the exception of classified waste destruction, there is no other on-site disposal of solid wastes. Classified material is destroyed as needed at the NWIRP incinerator. As previously indicated, this facility has a Venturi Scrubber to control emissions.

The present dumpster-compactor system has presented no known environmental problems. There are no planned projects for improvements or changes to the present collection and disposal system.

d. NOISE

The Noise Control Act of 1972 (PL 92-574) directs federal agencies to execute programs for abating noise which jeopardizes health and welfare. Any federal agency engaged in activities resulting in noise emission must comply with Federal, state, interstate, and local requirements respecting control and abatement of environmental noise.

Environmental noise problems are encountered at the NWIRP primarily because of the outdoor flight testing of aircraft and the static testing of aircraft engines. Engine testing is done in an area that provides natural isolation from other operations and the public. The area encompassing the line of engine blast from the testing facilities to the facility property line is heavily wooded, thereby providing extensive natural protection.

On the other hand, flight testing is conducted from the two NWIRP runways (10,000 and 7,000 feet in length) but goes beyond the boundaries of the facility to impact area residents. As a result of previous complaints, the plant has stopped night flying except in rare cases where it is mandatory. Flight paths have been studied and where possible adjusted to minimize impacts on the area residents. R. Dixon Speas Associates, Inc. conducted an Air Installation Compatible Use Zone Study, published in December, 1975. They summarized the problem and proposed remedial actions, centering on the fact that isolation was the best means of noise control. The report suggested that such isolation be accomplished both through cooperation with local government officials to retard the future population growth of the surrounding area, and

through maintenance of a good rapport with affected residents. It should be noted that this is the most recent in a number of noise studies to determine methods of noise control and impact reduction. Most studies approach the situation from a sociological standpoint rather than a technological standpoint, understanding that "state-of-the-art" has not advanced to the point of feasibly reducing noise levels from high performance military aircraft in flight. GAC has also submitted a proposal for construction of a "hush-house". This is a mechanical device to reduce atmospheric noise levels during outdoor testing.

There are no other known significant noise problems associated with the NWIRP.

e. HAZARDOUS MATERIALS

The FWPCA of 1972 addresses the pollution of waters by hazardous substances. This law provides for the establishment of effluent, prohibition and pretreatment standards to which source operators must conform. This law also provides for standards governing the level of pollutants allowed to be discharged to municipal treatment works. Hazardous substance and oil spill prevention and accidental oil spill reporting and cleanup regulations also exist under the FWPCA. Hazardous emissions to the atmosphere are regulated under the Clean Air Act.

Numerous hazardous materials including methylethyl ketone (MEK), paints, phenolics, and degreasers such as Ridolene 53 and Alodine, are routinely used at the NWIRP. As needed, these materials are transported in the metal drums and plastic carboys from GAC Bethpage, via GAC-owned trucks, to the NWIRP. At Calverton, some materials are stored in a small unprotected outdoor area while others are stored as needed at an indoor location that affords protection from the elements. A building located between the two paint shops is utilized for the storage of paints and solvents. This area is well protected and ventilated. It also has proper static grounding facilities as needed and no floor drains.

There is no disposal of hazardous materials at the NWIRP. Spent chemicals are captured in sumps and removed in barrels or by bulk transportation to GAC Bethpage and either treated, taken to New Jersey for disposal, or cleaned and/or regenerated.

There is no spill prevention control and countermeasures (SPCC) plan at the NWIRP. It is recommended that the feasibility of writing such a plan be

determined in light of future expectations concerning increased agency activity in this area.

The NWIRP maintains ten electrical transformers that contain highly toxic polychlorinated biphenyl (PCB)-based compounds as the coolant. The location, type of transformer, and estimated amount of coolant in these units are as follows:

Number of Transformers	Manufacturer of unit	Location of Unit	Estimated Quantity (gallons) in each Transformer	PCB Trade name
4	Niagara	N.E. Corner of Plant #7	172	Askarel
1	Westinghouse	Electrical Equip. Room, Plant #7	93	Inerteen
1	Westinghouse	Power Center, Bldg. #6	400	Inerteen
1	Westinghouse	Fuel Calibration Facility	128	Inerteen
1	Westinghouse	Old Trust Stand Area	126	Inerteen
1	Westinghouse	Engine Test House	274	Inerteen
1	General Elec.	Anechoic Test Chamber	320	Pyranol

Most of these transformers are situated on concrete pads surrounded by gravel and have no spill containment structures.

It is recommended that a determination be made for providing spill containment devices such as diking and impermeable surfaces, for all these transformers having PCB-based coolants in order to eliminate potential contamination of surface waters and area resources.

The NWIRP presently conducts approximately six fire fighting training exercises per year at a site with a diked, concrete pad. The final procedure in this exercise is to completely burn off any excess fuel. Jet gas, paint solvents, oils, gasoline and greases are included in the choice of fuels for

the particular sessions. Prior to conducting a session, personnel are required to obtain permits from the air pollution control agency and the fire department.

With the exception of the problems indicated, there appear to be no other problems with, or planned changes to, the hazardous materials handling and disposal system.

f. PESTICIDES

The Federal Environmental Pesticides Control Act of 1972 (PL 92-516), which includes the Federal Insecticide, Fungicide, and Rodenticide Act, provides for the control of pollution by pesticides. Authority for regulation of pesticide storage and disposal is established under this law. Open dumping and burning and disposal into water and deep wells is prohibited. Certification of applicators is also established.

Pesticides and herbicides are not stored at the NWIRP nor used on-site by plant personnel. Harder Extermination Service, a private, licensed, pest control operation, provides termite and rodent control on a contractual basis.

g. NON-IONIZING ELECTROMAGNETIC RADIATION AND IONIZING RADIATION

The Nuclear Regulatory Commission (NCR) (formerly the Atomic Energy Commission) and the EPA direct policy for protecting the environment from radioactive materials. Regulations pursuant to the federal Occupational Safety and Health Act (OSHA) establish exposure limits for health and safety from radiation.

Radar facilities for the tracking of test aircraft are maintained at the NWIRP. The necessary Federal Communications Commission (FCC) frequency permits and registrations are on file. Radar units on aircraft are tested periodically. The procedure used to protect the surrounding area is to maintain sufficient isolation and use dummy loads.

The facility also operates an anechoic test chamber for complete radiation testing of all avionics contained in production, test, and prototype aircraft. Stringent requirements are met at this unique testing facility to eliminate

external radiation and ensure complete protection from internal radiation leakages. Protection is accomplished through the use of a hermetically sealed chamber of sufficient size to house and suspend the entire aircraft for testing purposes.

Presently there are no known problems with these radar facilities and no planned alterations.

h. OIL SPILLS

Preventive regulations under the Federal Water Pollution Control Act of 1972 (PL 92-500) have been established to significantly reduce the incidence of oil discharges. Intentional discharges of oil or oily wastewater are prohibited by the FWPCA. Nontransportation-related regulations are principally applicable to the storage of fuel that could reasonably be expected to enter a waterway if accidentally spilled. A significant requirement under current legislation is the preparation and implementation of a Spill Prevention Control and Countermeasures (SPCC) Plan.

Oil and various fuels are stored at several locations throughout the NWIRP. The major facilities are as follows:

Number of Tanks	Capacity of Each Tank (gallons)	Contents	Location
1	250,000	#6 Fuel Oil	Above Ground - (diked) Central Steam Plant
2	50,000	JP-4/JP-5	Underground - Fuel Storage Area
6	15,000	Aircraft Fuels	Underground - Fuel Storage Area
1	5,000	Gasoline	Underground - Fuel Storage Area
7	275	Diesel	Above Ground (undiked) with emergency generators

Absorbant materials are on hand to clean up spilled oil and fuels, but there are no documented formal procedures or assigned responsible personnel for handling spills.

The NWIRP does not have a Spill Prevention Control and Countermeasures (SPCC) Plan. It is recommended that provisions be made for writing an SPCC plan to document both the fuel tank inventory and the necessary procedures for handling a spill.

To date there are no records of significant oil or fuel spills.

i. ALL-MEDIA TRAINING

Most of the legislation cited in the preceding sections has either a direct or implied requirement for the training of personnel in environmental control. The FWPCA requires waste treatment plants to provide a minimum of secondary treatment. The SDWA establishes potable water treatment requirements. Resources recycling and recovery, plus oil spill cleanup and prevention all require new or special equipment and procedures. Toxic and hazardous substances also require special handling. Pesticide applicators must be certified. In all cases, operators must be trained to properly handle routine work and emergencies.

Presently, the NWIRP has established formal training for plant personnel. New personnel are instructed in the use of chemicals and other materials by supervisors or more experienced personnel.

j. REGULATORY AGENCIES

The following Federal, State and Local agencies impact the NWIRP:

1. Suffolk County Department of Environmental Control
   1324 Motor Parkway
   Hauppauge, New York 11787
2. Suffolk County Department of Health
   Suffolk County Center
   Riverhead, New York 11901

3. State of New York
   Department of Environmental Conservation
   Region I
   New York S/EC Building #40
   SUNY
   Stony Brook, New York 11790
4. State of New York
   Department of Environmental Conservation
   50 Woff Road
   Albany, New York 12233
5. U. S. Environmental Protection Agency
   Region II
   26 Federal Plaza
   New York, New York 10007

k. POLLUTION CONTROL/ABATEMENT PROJECTS

GAC, through the NAVPRO, submits proposals annually to NAVAIR for approval and funding of necessary pollution control projects. Proposals through LY 1976 and an eight year Long Term Maintenance Program for LY 1976-78 have been submitted. Some of these proposals include environmentally related projects. Refer to LTM LY 1976-83 for environmental projects, line items 20, 26, 31, 32, 34, 41 and 44.

APPENDIX B

SELECTED GRUMMAN FACILITY ENGINEERING SPILL RECORDS

1982-1985

GRUMMAN

MEMORANDUM

CHECK (✓) BOXES AS APPROPRIATE

ACTION ..... ☐
INFO ONLY ..... ☐
REPLY REQUESTED... ☐

FROM: J. Ohlmann | Facil. Engg. | B08/30 GAC
NAME | GROUP NO. & NAME | MAIL STA.-PLT. NO.-COMPANY-EXT.

DATE February 23, 1982

TO: File

NO. FDP-1243

SUBJECT: FUEL SPILL ON THE GROUND AT THE ENGINE TEST HOUSE FACILITY, CALVERTON, ON 2/9/82

While testing a engine, a cross-over valve was inadvertently left open and JP4 was returned to the JP5 tank, which overflowed through the vent line.

The spill was vacuumed up by GAC personnel and "Speedy-Dry" was applied as an absorbent.

On 2/10/82, the spill of 100 - 200 gallons was reported to the N. Y. S. Dept. of Transportation (NYSDOT) in Albany and number 811-655 was assigned. NYSDOT in Hauppauge (John Scherer) and Suffolk County Dept. of Health Services (SCDHS) (Jim Pim) was also notified. It should be noted that N. Y. S. Dept. of Environmental Conservation is automatically informed of spills by NYSDOT (Albany).

On 2/11/82, SCDHS (James Whitney) inspected fuel spill and recommended clean-up of soil by Marine Pollution Control as planned.

On 2/12/82, Marine Pollution Control was retained for clean-up of soil. NYSDOT (Bill Norvac) inspected and supervised clean-up.

On 2/13/82, contaminated soil was trucked to Brookhaven landfill.

On 2/16/82, NYSDOT (Bill Norvac) made final inspection and closed out job.

JO:gms
cc: P. Ferrone

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date 9/7/82
No. FDP-1378

From: J. Ohlmann — B08/30 — 296 — GAC
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: WASTE FUEL SPILL AT FIRE TRAINING FACILITY, CALVERTON, 8/24/82

Reported subject spill at 1:10 P.M. on 8/24/82 to the N. Y. S. Dept. of Transportation (NYSDOT) in Albany (516-457-7362), as required.

- o Description of facility and action taken - Given to NYSDOT.
  - 6,000 gallon holding tank piped to various diked areas for fire simulation and fire fighting.
  - Valve found open and 1,000 - 3,000 gallons spilled.
  - GAC cleaning up liquid now.
  - We will contact Marine Pollution Control for clean-up assistance.
- o Given Spill No. 820923 by NYSDOT.
- o Also reported spill to John Scherrer of NYSDOT in the Hauppauge office.

  Note: N.Y.D. Dept. of Environmental Conservation (NYSDEC) and Suffolk County Dept. of Health Services (SCDHS) contacted by NYSDOT.
- o Notified Bill Miller of Navy regarding spill.
- o 3:00 P.M.:
  - Arrived at the spill site.
  - Marine Pollution Control on the job, sucking up liquid.
  - John Scherrer (NYSDOT) and Jim Whitney (SCDHS) also at the site.
- o Two contaminated dirt samples taken for GAC lab analysis. Test results required for NYSDEC and Brookhaven Landfill.
- o Approximately 1,500 gallons of liquid removed by Marine Pollution Control.
- o Valve locked - Future fire training put "on hold" for future facility upgrade.

8/25/82:

- o Authorities/Marine Pollution Control agree to hold off clean up today because of rain.
- o Parameters for leachate analysis given by phone by Walter Parish, NYSDEC.

cc: T. Cunniffe
R. Yezek

G116B REV. 3
11-81

8/25/82: (continued)

- o Two soil samples given to Q.C. Lab. (Lab. #30317) with parameters for leachate analysis.
- o Bill Miller called - Provided answers to questions for his spill report to NAVAIR and Federal EPA Regional Office. (See lettergram INE-8, dated 8/30/82, from NAVPRO to NAVAIR.)

8/26/82:

- o D. Kost and J. Scherrer (NYSDOT) and Walter Parish and George Schilpp (NYSDEC) on site.
- o Contaminated soil being stockpiled until lab results are complete.
- o Fire fighting diked area being cleaned - stones being removed from moat area - waste fuel put back in holding tank - fuel/water trucked to separator for treatment.

8/27/82:

- o Phoned Parish (NYSDEC) with test results of leachate analysis (see letter from J. Ohlmann to W. Parish, dated 9/7/82) - NYSDEC approval given. I phoned Jim Hile, Brookhaven Landfill - approval also given.
- o Marine Pollution Control clean-up almost complete - removal of contaminated soil around storage tank to be included.
- o Soil sample taken with a hand auger, about 7 ft. down, at a point 6 ft. north of northwest corner of the main diked area.
  - Because soil sample had smell (not really detectable - decay?), four test wells requested.

    Note: Parish took a sample of the soil.

8/30/82:

- o Test wells completed (see sketch for location).
- o Kost inspected - not happy with glue fittings, had requested threaded. O.K.
- o Clean-up complete. Some material sent to Brookhaven Landfill.

8/31/82:

- o Marine Pollution Control removed 227 yards today - all clean-up completed - (included 3 drums of liquid) - per Dave Miller, Supervisor.

9/3/82:

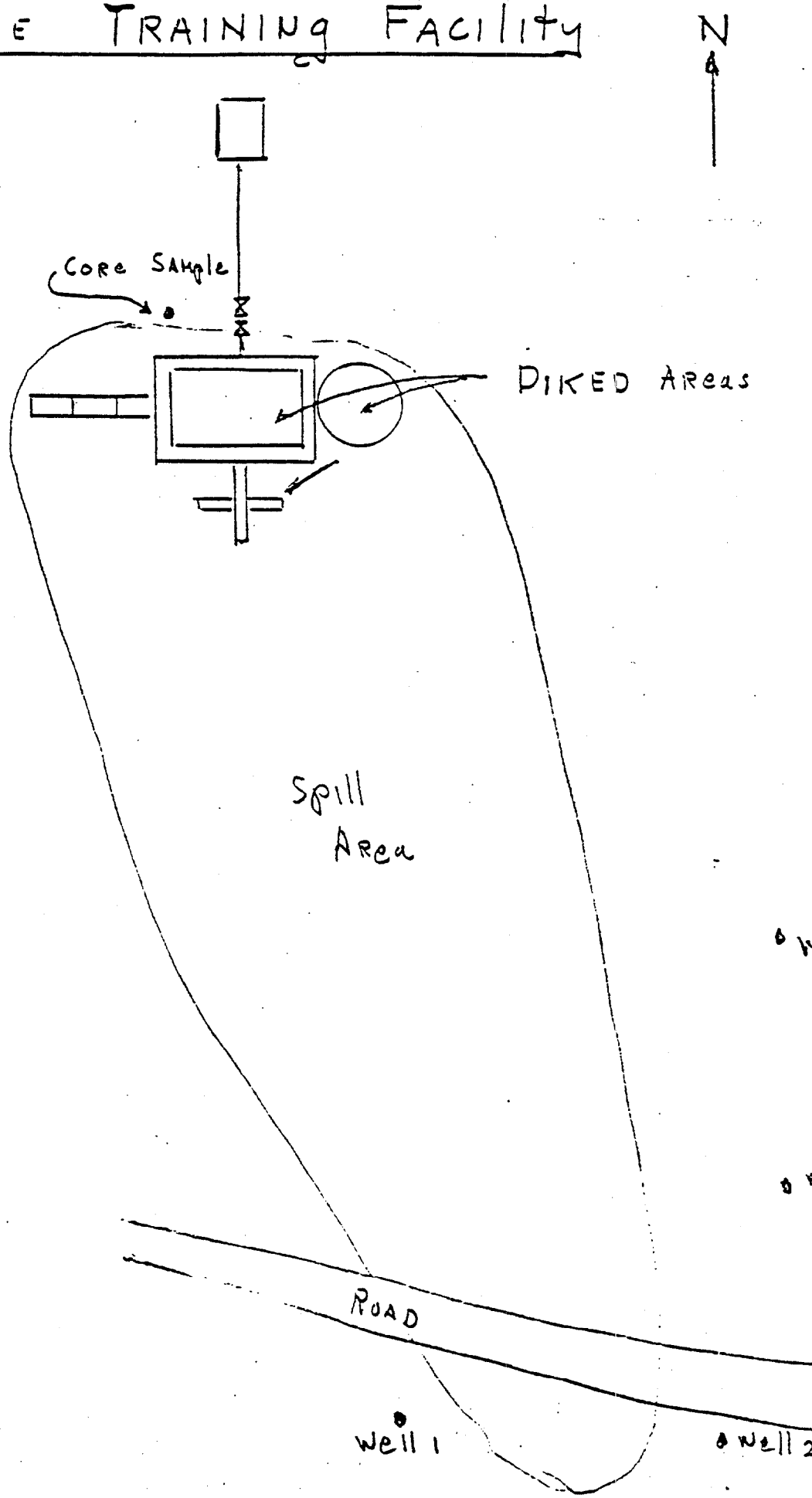
- Kost sampled the surface water from the four test wells. His report will state "found no product floating".
- He will continue to monitor in the future, as he said he found Well #2 had little globules and the water had a sewer odor or tinge. Well #3 also had a little sewer odor. Wells #1 and #4 were O.K.
- Kost also requested that the road be scraped (6" cut) in the area of the spill).
- Contacted Marine Pollution Control to come back for road clean-up.

9/7/82:

- Marine Pollution Control finished road clean-up job and removed 100 yards contaminated soil to Brookhaven Landfill.

JO:gms
Attachments (2)

FIRE TRAINING FACILITY



Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date March 8, 1983
No. FDP-71-383

From: J. Ohlmann — B08/30 — 296 — GAC — 2385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: FUEL SPILL ON PAD AT THE ENGINE RUN-UP AREA IN CALVERTON ON FEBRUARY 24, 1983

JP#5 fuel spill (approximately 30 gallons) on the pad at the Engine Run-Up Area, at 2-3 A.M. on February 24, 1983, from a aircraft fuel cell leak. Spill washed into ground by GAC Fire Fighting Crew. Authorities (N.Y.S.D.O.T., Albany and Hauppauge, and SCDHS) notified at 8 A.M. on February 24, 1983. Marine Pollution Control removed contaminated soil on February 25, 1983.

Suffolk County Dept. of Health Services (SCDHS) inspected spill site on March 2, 1983. See attached SCDHS inspection report.

JO:gms
Attachment

G116B REV. 8
11-81

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date April 25, 1983
No. FDP-122-483

From: J. Ohlmann — B08/30 — 296 — GAC — 2385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: FUEL SPILL AT CALVERTON FLIGHT LINE, MARCH 26, 1983

Reported at 1:30 P.M. (Spill No. 822-197), JP5 spill on concrete bed of Flight Line, to N.Y.S.D.O.T. in Albany. Approximately 25 gallons werecontained on concrete and removed with absorbent. The cause of the incident was a ruptured fule line.

Larry Peterec of N.Y.S.D.O.T. in Hauppauge followed up with a call on 3/28/83.

No problem - No environmental impact.

JO:gms

G116B REV. 9
3-82

GRUMMAN

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date June 22, 1983
No. FDP-174-683

From: J. Ohlmann — 308/30 — 296 — GAC
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: FUEL SPILL AT CALVERTON FUEL DEPOT, JUNE 16, 1983

Approximately 100 - 150 gallons of JP5 fuel spilled on concrete pad and its dirt edge, at 10:30 A.M., while filling a truck.

Speedy-Dri was used to dike the area and water was used to wash to the dike. Liquid material on the concrete pad was sucked up or absorbed and contaminated dirt was removed.

Over-filling of truck was due to a malfunction of the automatic shut-off valve in the truck. This is an air operated valve and truck has been taken out of service to fix air system.

Incident reported at 11:30 A.M. to NYSDOT (Charles Ruk, Hauppauge) and SCDH (Alex Santino). SCDH (E. Governale) inspected spill area on June 21, 1983.

JO:gms

G1168 REV 9
3-82

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date 12/21/83
No. FDP-35-1283

From: J. Ohlmann
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: JP5 SPILL AT CALVERTON FUEL DEPOT ON 12/20/83

At approximately 6:30 P.M., 25-40 gallons of JP5 spilled on the concrete while filling a truck.

The spill was contained, absorbed and removed. There was no environmental impact.

Spill was caused by malfunctioning valve on the truck. This has been repaired.

Spill was reported to NYSDOT (Albany) at approximately 7 A.M., 12/20/83.

JO/gms

G116B REV. 9
8-82

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date April 6, 1984
No. FDP-93-484

From: J. Ohlmann — B08/30 296 GAC 2385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: FUEL SPILL AT CALVERTON FUEL DEPOT, 4/6/84

At 9:15 A.M., while filling a truck, approximately 40 gallons of Jet A fuel spilled on the concrete pad. The spill was contained on the concrete and cleaned up.

The cause of the spill was faulty equipment - a valve on the truck.

NYSDOT (Hauppauge) was notified same morning.

JO:gms

G116B REV. 9
5-83

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date Nov. 27, 1984
No. FDP-288-1184

From: J. Ohlmann — B08/30 296 GAC 52385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: JP4 FUEL SPILL
CALVERTON, EF111 THRUST STAND - 10/6/84

At approximately 2:15 A.M., 40 gallons of JP4 fuel spilled on the Thrust Stand Apron and also ran off into the dirt area. A technician went to depressurize the fuel system in an aircraft and inadvertently selected the "dump" switch. He should have selected "off" position of the pressure switch.

The spill on the apron was absorbed up by GAC personnel with Speedi-Dri. Marine Pollution Conrol excavated the contaminated soil and removed it it an approved landfill.

NYSDEC (Albany) was notified of the spill.

JO:gms

G116B REV. 9
1-84

GRUMMAN

Memorandum

JO

☐ Action ☐ Information Only ☐ Reply Requested

Date Dec. 17, 198
No. FDP-311-128

From: J. Ohlmann JO — B08/30 296 GAC 52385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: JP5 FUEL SPILL, CALVERTON FUEL DEPOT, 11/20/84

At approximately 11:00 A.M., 25 gallons of JP5 spilled on the blue stone area in the Fuel Depot Tank Farm area. The spill occurred from the vent line on tank #9 while a truck was being filled. Tank #7 was actually being pumped, but the pump discharge from each tank is manifolded to a filter and fuel was pumped into tank #9 when its pump check valve did not hold.

Marine Pollution Control will remove any contaminated soil.

N.Y.S.D.O.T. was notified and Pete Jockolits inspected the site on 11/23/84.

Note: It has since been determined to remove 400 yards of contaminated soil, backfill and put in 3 monitoring wells.

JO:gms

3116B REV 9
1-84

GRUMMAN

Memorandum

JO

☐ Action ☐ Information Only ☐ Reply Requested

Date Dec. 21, 1984
No. FDP-27-185

From: J. Ohlmann JO — B08/30 296 GAC 52385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: SWALE CLEAN-UP, FUEL CALIBRATION AREA - CALVERTON

During an inspection by Walter Parish, NYSDEC, on 11/28/84, we were requested to clean up the swale near the oil/water separator discharge behind the Fuel Calibration Area. A previous unnoticed malfunction had caused a stain in the swale area. The stain had not been obvious previously because of the high water table. It had become visible when the water table had dropped.

Marine Pollution Control, Inc. cleaned up the swale, cleaned the oil/water separator and removed the oil and water. Additional area clean-up is still in process.

JO:gms

G116B REV. 9
5-83

GRUMMAN

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date 5 March 1985
No. FDP-49-385

From: J. Ohlmann, Facilities Engg — B08-030-0296 — 52385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: JET A FUEL SPILL, CALVERTON OLD FLIGHT LINE, 2/25/85

At approximately 8:15 a.m., 10 gallons of Jet A spilled on the concrete pad area of the Old Flight Line. The spill occurred from a malfunction with the C2A aircraft fuel system while filling.

This was the same type of spill incident we had on 2/21/85. We thought the malfunction had been corrected.

All spilled material was contained and cleaned up by Grumman. N.Y.S. DOT, Hauppauge, John Schere, was notified of the incident at approximately 10:00 a.m.

JO:w

G:168 REV 9
1-84

GRUMMAN

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date 5 March 1985
No. FDP-48-385

From: J. Ohlmann, Facilities Engg — B08-030-0296 — 52385
Name — Mail Station - Plt. - Group No. - Company — Extension

To: File
Name — Mail Station - Plt. - Group No. - Company — Extension

Subject: JET A FUEL SPILL, CALVERTON OLD FLIGHT LINE, 2/21/85

At approximately 4:00 p.m., 10 gallons of Jet A spilled on the concrete pad area of the Old Flight Line. The spill occurred from overfilling a C2A aircraft.

All spilled material was contained and cleaned up by Grumman. N.Y.S. DOT, Albany was notified of the incident at approximately 8:00 p.m.

NOTE: It has since been determined that the spill was not from overfilling. There is a malfunction with aircraft fuel system while filling.

JO:w

G116B REV 3
1-84

GRUMMAN

Memorandum

☐ Action ☐ Information Only ☐ Reply Requested

Date June 11, 1985
No. FDP-121-685

From: J. Ohlmann
Name — Mail Station · Plt · Group No · Company — Extension

To: File
Name — Mail Station · Plt · Group No · Company — Extension

Subject: FUEL OIL SPILL, CALVERTON RUNWAY, 6/6/85

Approximately 5 gallons (1-10) of Jet Fuel Oil from a EF111 aircraft spilled on the ground on the side of the northwest runway. This was discovered at 3:30 P.M. on 6/6/85 and reported at 4:45 P.M. on 6/6/85 to the New York State Dept. of Transportation (Larry Peterick, Hauppauge office).

The aircraft had a tire blow-out during take-off at 12:00 Noon and half the aircraft slid off the runway onto the side shoulder. It broke the landing gear and dug into the dirt.

The aircraft had to be jacked up for removal via a dolly. It was at this time that the leak was noticed and our Fire Rescue Squad sprayed the area with AFF foam.

The liquid was sucked up by Grumman and Marine Pollution Control will remove the contaminated soil (estimate 8-10 yards).

JO:gms

G1168 REV 9
1-85

APPENDIX C

MARINE POLLUTION CONTROL MONITORING WELL REPORTS

JUNE 1990 TO OCTOBER 1991

ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

Fuel Depot

Spill #82 - 1680

Prepared by:

MPC Environmental Services
June 11, 1990

P.O. Box 2220
375 Dunton Avenue, East Patchogue, N.Y. 11772
516-654-4900 FAX 516-654-4935

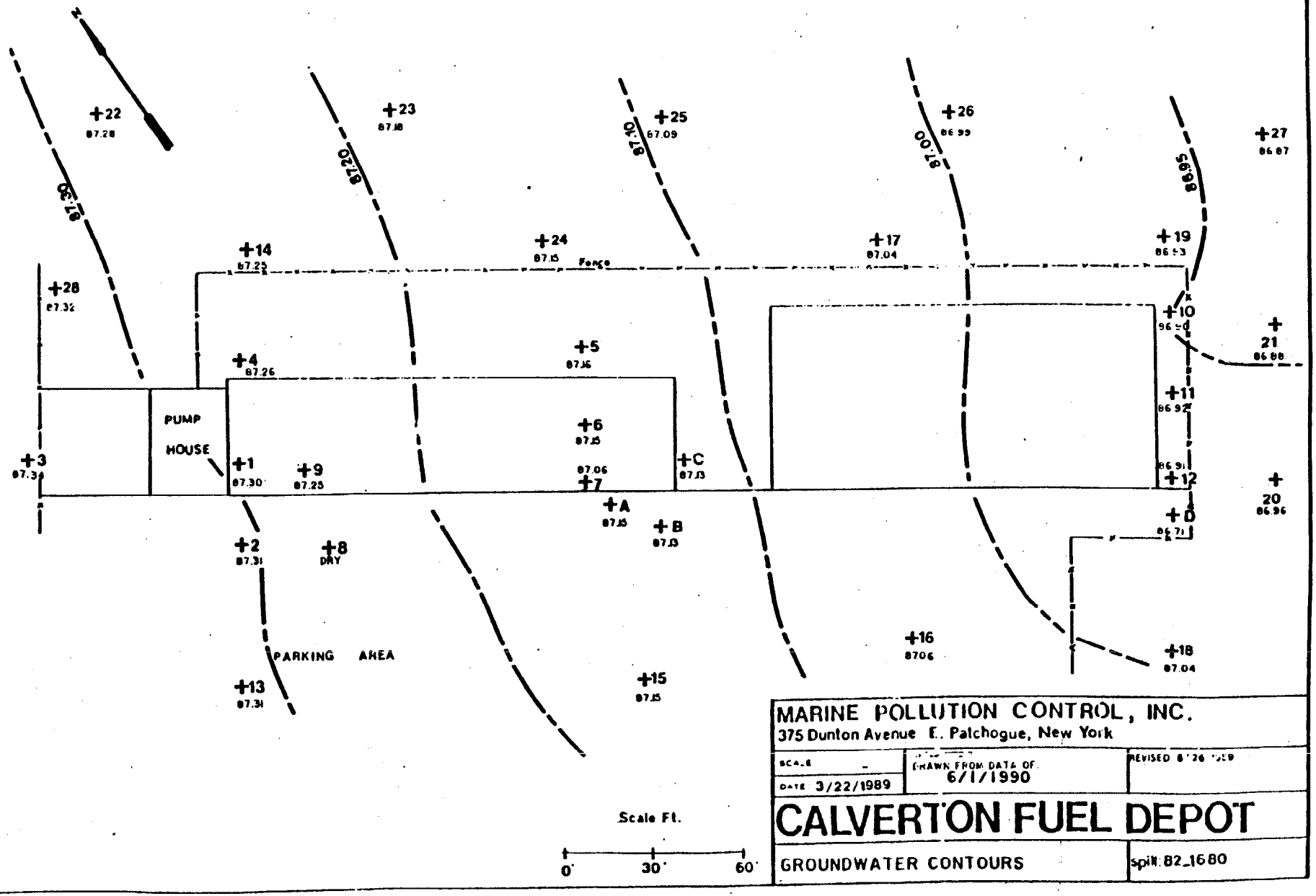
Because Immediate Action Is The Best Remedy.
An Equal Opportunity Employer

Discussion

In order to define the extent of the dissolved plume at the fuel depot, monitoring wells number 22 through 28 were installed on May 10 and 11, 1990 (Figure 1). The location of these wells were selected to determine the boundary of the plume downgradient. The drill logs for these wells are located in the Appendix. All drill cuttings were monitored using a photoionization detector (Photovac Tip II).

On May 17, 1990, the wells were pumped purging 3 to 5 casing volumes of water. Before pumping each well the pump was decontaminated by pumping a solution of alconox and water from a clean drum. The pump was then placed in another clean drum pumping water only, as a final rinse. The order of wells pumped was determined by the amount of contamination detected from the drill cuttings using the Photovac Tip II. Clean wells were pumped first, ending with the dirtiest well. Well sampling was in the same order, using a decontaminated stainless steel bailer to collect the samples.

Wells	Top of pipe elevation
1	102.55
2	101.31
3	101.22
4	103.54
5	103.07
6	102.22
7	102.16
8	101.55
9	103.15
10	103.81
11	103.07
12	104.37
A	101.37
B	101.45
C	102.48
D	103.05
13	100.77
14	101.67
15	100.88
16	101.19
17	101.04
18	101.24
19	99.86
20	100.96
21	99.44
22	100.37
23	101.08
24	100.26
25	100.74
26	100.50
27	97.57
28	100.84



MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE –	DRAWN FROM DATA OF 6/1/1990	REVISED 8/26/1989
DATE 3/22/1989		

CALVERTON FUEL DEPOT

GROUNDWATER CONTOURS

spill 82_1680

FIGURE 1

Once samples were collected, they were packed in ice and brought to Ecotest the following morning. The analysis to be performed were EPA method 602 and DOH 310-19. The lab results are summarized in Table 1, which were used to construct the estimated dissolved plume boundary shown in Figure 2. In order to project the boundary, lab results were used from previous sampling days to project an approximate plume. Monitoring wells number 20 and 21 were last sampled 1 year ago, and since they are downgradient they should be sampled again. For more accuracy all monitoring wells should be sampled at the same time, since dissolved concentrations change with time. However, from the information we have we are able to estimate the extent of the plume downgradient.

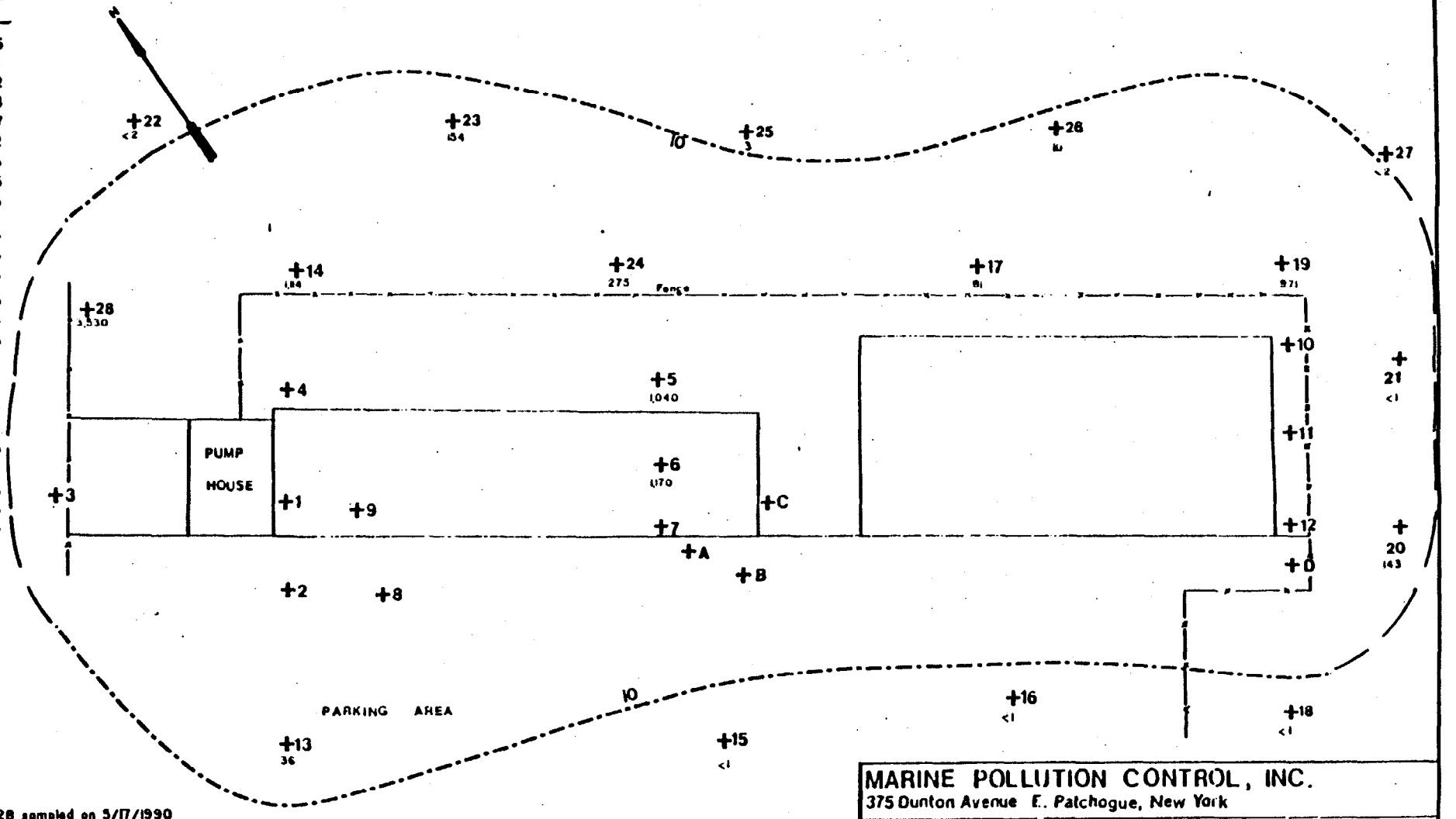
At present there is concern regarding the high concentrations found in monitoring well number 28. Drill cuttings were found to be heavily saturated with a fuel, as indicated by the drill log. In order to determine the source of this contamination MPC Environmental Services recommends that monitoring well number 3 be sampled, since we have no data from that well. We would also recommend installing additional monitoring wells as shown in Figure 3. It is now important to concentrate in the area around monitoring well number 28 to determine where the contamination is orginating from, since it is upgradient of the plume.

Table 1.

Sample Results - Monitoring Wells

Date	Well Number	Total BTX (ppb)	Petroleum Hydro. (ppm)
05/17/90	22	<2	<0.4
05/17/90	23	154	<0.4
05/17/90	24	275	<0.4
05/17/90	25	3	<0.4
05/17/90	26	10	<0.4
05/17/90	27	<2	<0.4
05/17/90	28	3,530	39
06/14/89	13	36	-
06/14/89	14	1,114	-
06/14/89	15	<1	-
06/14/89	16	<1	-
06/14/89	17	81	-
06/14/89	18	<1	-
06/14/89	19	971	-
06/14/89	20	143	-
06/14/89	21	<1	-
04/12/89	5	1,040	-
04/12/89	6	1,170	-

ells	Top of pipe elevation
1	102.55
2	101.31
3	101.22
4	103.54
5	103.07
6	102.22
7	102.16
8	101.55
9	103.15
10	103.81
11	103.07
12	104.37
A	101.37
B	101.45
C	102.48
D	103.05
13	100.77
14	101.67
15	100.88
16	101.19
17	101.04
18	101.24
19	99.86
20	100.96
21	99.44
22	100.37
23	101.08
24	100.26
25	100.74
26	100.50
27	97.57
28	100.84



KEY
Wells 22 thr. 28 sampled on 5/17/1990
Wells 13 thr. 21 sampled on 6/14/1989
Wells 5 & 6 sampled on 4/12/1989
— · — · Estimated plume boundary

MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

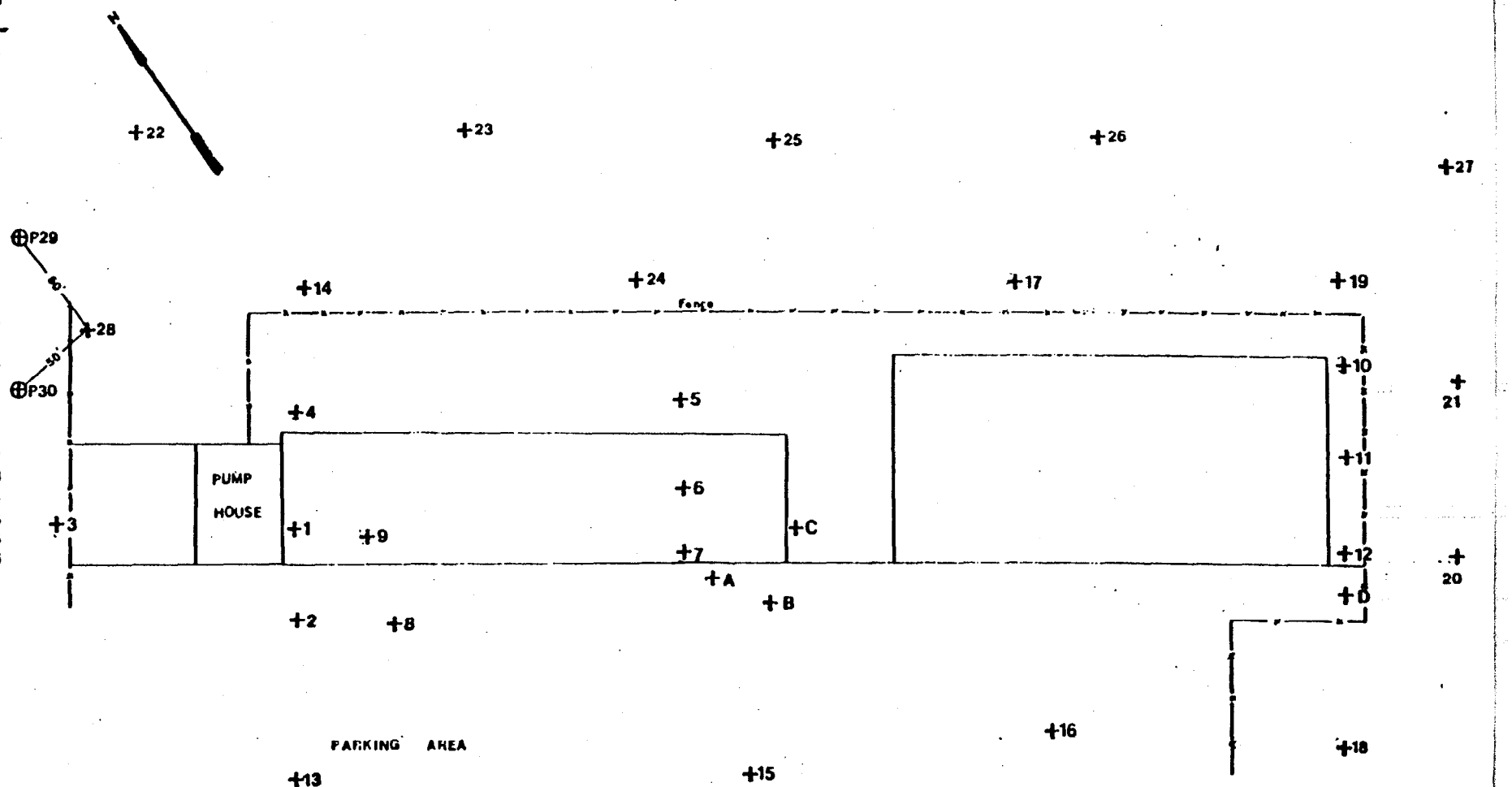
SCALE:	DRAWN FROM DATA OF	REVISED 6/26/1989
DATE 3/22/1989	5/17/90 6/14/89 4/12/89	

CALVERTON FUEL DEPOT

BTX CONCENTRATION [in PPB] | spill 82_1680

FIGURE 2

Wells	Top of pipe elevation
1	102.55
2	101.31
3	101.22
4	103.54
5	103.07
6	102.22
7	102.16
8	101.55
9	103.15
10	103.81
11	103.07
12	104.37
A	101.37
B	101.45
C	102.48
D	103.05
13	100.77
14	101.67
15	100.88
16	101.19
17	101.04
18	101.24
19	99.86
20	100.96
21	99.44
22	100.37
23	101.08
24	100.26
25	100.74
26	100.50
27	97.57
28	100.84



⊕ PROPOSED GROUNDWATER MONITORING WELLS

Scale Ft.

0' 30' 60'

MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE:
APPROVED BY:
REVISED: 6/26/1989
DATE 3/22/1989

CALVERTON FUEL DEPOT

PROPOSED WELL LOCATIONS

Spill: 82_1680

FIGURE 3

Appendix

DRILLING / WELL LOG

Boring/Well #22 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/10/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample From	Depth To	OVA Reading (ppm)	Sample Description
0'	5'	132	FINE-MEDIUM, YELLOW/ORANGE SILTY SAND, 5-10% FINE GRAVEL, POORLY SORTED.
5'	10'	66	FINE-MEDIUM, TAN SAND, NO GRAVEL, WELL SORTED.
10'	15'	54	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
15'	20'	41	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
20'	25'	38	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
25'	30'	18	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL

DRILLING / WELL LOG

Boring/Well #23 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/10/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 8' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLE

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	To	OVA Reading (ppm)	Sample Description
0'	5'	73	FINE-MEDIUM, BROWN SILTY SAND, 10-15% GRAVEL, POORLY SORTED.
5'	10'	41	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
10'	15'	57	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
15'	20'	30	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, DAMP.
20'	25'	17	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTE, WET.
25'	30'	64	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET, SLIGHT ODOR.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			8' OF SOLID PIPE.
			BACKFILL

DRILLING / WELL LOG

Boring/Well #24 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/10/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	To	OVA Reading (ppm)	Sample Description
0'	2'	↑	FINE-MEDIUM, YELLOW/ORANGE SAND, SOME SILT, 5-10% GRAVEL, POORLY SORTED.
2'	5'	33	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
5'	10'	45	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
10'	15'	20	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
15'	20'	19	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, DAMP.
20'	25'	14	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
25'	30'	141	FINE-MEDIUM, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET, SLIGHT ODOR.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL

DRILLING / WELL LOG

Boring/Well #25 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/10/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	Sample Depth To	OVA Reading (ppm)	Sample Description
0'	2'	↑	FINE-MEDIUM, YELLOW/ORANGE SILTY SAND, 10-15% GRAVEL, POORLY SORTED.
2'	5'	33	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
5'	10'	30	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
10'	15'	33	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
15'	20'	27	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, DAMP.
20'	25'	29	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
25'	30'	35	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL

DRILLING / WELL LOG

Boring/Well #26 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/11/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	To	OVA Reading (ppm)	Sample Description
0'	2'	↑	FINE, BLACK TO GRAY SILTY SAND, 5-10% GRAVEL, POORLY SORTED, STRONG SOLVENT ODORS!
2'	5'	1,378	FINE, YELLOW/ORANGE SAND, 5-10% GRAVEL, POORLY SORTED, SLIGHT ODOR.
5'	10'	458	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
10'	15'	386	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
15'	20'	1,982	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, DAMP.
20'	25'	843	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
25'	30'	678	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL FROM MW #27

DRILLING / WELL LOG

Boring/Well #27 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/11/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	To	OVA Reading (ppm)	Sample Description
0'	5'	9	FINE, YELLOW/ORANGE SILTY SAND, <5% GRAVEL, POORLY SORTED.
5'	10'	6	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED.
10'	15'	8	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, DAMP.
15'	20'	7	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
20'	25'	7	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
25'	30'	7	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL

DRILLING / WELL LOG

Boring/Well #28 CLIENT GRUMAN - CALVERTON Page 1 of 1

Location FUEL DEPOT Date 5/11/90

Total Depth Drilled 30' Type of Sample AUGER Interval 5'

Casing Installed 10' Screen Installed 20'

Drilling Method H.S.A. Drilling Fluid Used NONE

Drilling Contractor MPC ENVIRONMENTAL SERV. Driller M. MULLER

Prepared By GEORGE VASSILEV - HYDROGEOLOGIST

Sample Depth From	To	OVA Reading (ppm)	Sample Description
0'	1'		CONCRETE / REBAR
1'	3'	↑	FINE - MEDIUM, YELLOW / ORANGE SILTY SAND, 10-15% GRAVEL, POORLY SORTED.
3'	5'	1,976	BLACK TOPSOIL (FILL MATERIAL ?) SLIGHT ODOR.
5'	10'	56	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, SLIGHT ODOR.
10'	15'	78	FINE, TAN SAND, <5% GRAVEL MODERATELY SORTED, DAMP.
15'	20'	117	FINE, TAN SAND, <5% GRAVEL, MODERATELY SORTED, WET.
20'	25'	1,900	FINE, GRAY STAINED SAND, <5% GRAVEL, MODERATELY SORTED, WET, STRONG ODORS.
25'	30'	1,305	FINE, GRAY STAINED SAND, <5% GRAVEL, MODERATELY SORTED, WET, ODORS.
			WELL CONSTRUCTION
			20' OF 0.020" SCREEN
			10' OF SOLID PIPE
			BACKFILL

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/4 05/29/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1205, MW #22

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6950 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/5 05/29/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1225, MW #23

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	29	
m + p Xylene	ug/L	21	
o Xylene	ug/L	100	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6951 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/6 05/30/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1340, MW #24

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	2	
Toluene	ug/L	68	
Ethyl Benzene	ug/L	23	
m + p Xylene	ug/L	120	
o Xylene	ug/L	62	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn# 6952 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/7 05/30/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1255, MW #25

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	3	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6953 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/8 05/30/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1420, MW #26

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	2	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	8	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6954 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/9 05/30/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1315, MW #27

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	
Petrol. Hydrocarbons	mg/L	<0.4	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6955 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C901562/10 05/30/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:05/17/90 RECEIVED:05/18/90

SAMPLE: Water Sample, fuel depot, 1400, MW #28

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<5	
Toluene	ug/L	110	
Ethyl Benzene	ug/L	220	
m + p Xylene	ug/L	2500	
o Xylene	ug/L	700	
Petrol. Hydrocarbons	mg/L	39	

cc:Ohlmann, Selva, G. Vassilev-MPC

REMARKS:

DIRECTOR

rn= 6956 NYSDOH ID# 10320

SAMPLING DATA SHEET

DATE: 5/17/90 (MPC)
LOCATION: GRUMAN - CALVERTON FUEL DEPOT
SPILL#:
PO#:
ANALYSIS: 602 + PET. HYDROC.
LAB NAME: ECOTEST LAB NUMBER:
TOTAL WELLS SAMPLED: TOTAL WELLS NOT SAMPLED:
SAMPLES COLLECTED BY: GEORGE VASSILEV

① BILL + RESULTS TO ATTEN. OF GRUMAN
② RESULTS TO ATTEN. OF GEORGE VASSILEV (MPC)

WELL#	COMMENTS	WELL#	COMMENTS
1		21	
2		22	Time 1205
3		23	Time 1225
4		24	Time ~~1255~~ 1340
5		25	Time 1255
6		26	Time 1420
7		27	Time 1315
8		28	Time 1400
9		29	
10		30	
11		31	
12		32	
13		33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
20		40	

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/3 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #13, 1115

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	7	
Ethyl Benzene	ug/L	7	
m + p Xylene	ug/L	12	
o Xylene	ug/L	9	

cc:B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR_____

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/2 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #14, 1200

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	44	
Ethyl Benzene	ug/L	140	
m + p Xylene	ug/L	660	
o Xylene	ug/L	270	

cc: B. Andrea, GAC, J. Emington, MPC

REMARKS:

DIRECTOR

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/5 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28555

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #13, 1030

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: R. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR_____

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/7 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #16, 1000

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/4 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #17, 1245

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	1	
Ethyl Benzene	ug/L	24	
m + p Xylene	ug/L	49	
o Xylene	ug/L	6	

cc: B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR_____

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/9 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #18, 1500

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/1 07/03/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28055

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #19, 1330

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	800	
Toluene	ug/L	24	
Ethyl Benzene	ug/L	58	
m + p Xylene	ug/L	64	
o Xylene	ug/L	25	

cc:B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR_____

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/6 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #20, 930

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	72	
Toluene	ug/L	12	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	34	
o Xylene	ug/L	25	

cc: B. Andres, GAC, J. Emington, MPC

REMARKS:

DIRECTOR

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO. C891769/8 07/05/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fuel Depot, SP #82-1680
COLLECTED BY: M.P.C. DATE COL'D:06/14/89 RECEIVED:06/16/89

SAMPLE: Water sample, Well #21, 1415

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: B. Andree, GAC, J. Emington, MPC

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C891056/1 05/01/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MarPollCon DATE COL'D:04/12/89 RECEIVED:04/12/89

SAMPLE: Water sample, Fuel Depot, OW-5, 1230

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	120	
Toluene	ug/L	380	
Ethyl Benzene	ug/L	110	
m + p Xylene	ug/L	350	
o Xylene	ug/L	80	

cc:MPC-John Emington

REMARKS:

DIRECTOR

rn= 4478

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTIN

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C891056/2 05/01/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MarPollCon DATE COL'D:04/12/89 RECEIVED:04/12/89

SAMPLE: Water sample, Fuel Depot, OW-6, 1130

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	70	
Toluene	ug/L	300	
Ethyl Benzene	ug/L	70	
m + p Xylene	ug/L	470	
o Xylene	ug/L	260	

cc:MPC-John Emington

REMARKS:

DIRECTOR

rn= 4479

MPC
ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

June 11, 1990

Mr. John Ohlmann
Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, N.Y. 11714

RE: Calverton - Fuel Depot Spill #82-1680

Enclosed please find a report regarding the fuel depot at the Calverton location. Should there be any questions or comments regarding this site, please do not hesitate to call.

Sincerely,

George Vassilev

George Vassilev
Hydrogeologist

P.O. Box 2220
375 Dunton Avenue, East Patchogue, N.Y. 11772
516-654-4900 FAX 516-654-4935

Because Immediate Action Is The Best Remedy.
An Equal Opportunity Employer

MPC
ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

Fire Training Area

Prepared by:

MPC Environmental Services
January 7, 1991

P.O. Box 610
460 Edwards Avenue, Calverton, NY 11933
516-369-4900 FAX 516-369-4909

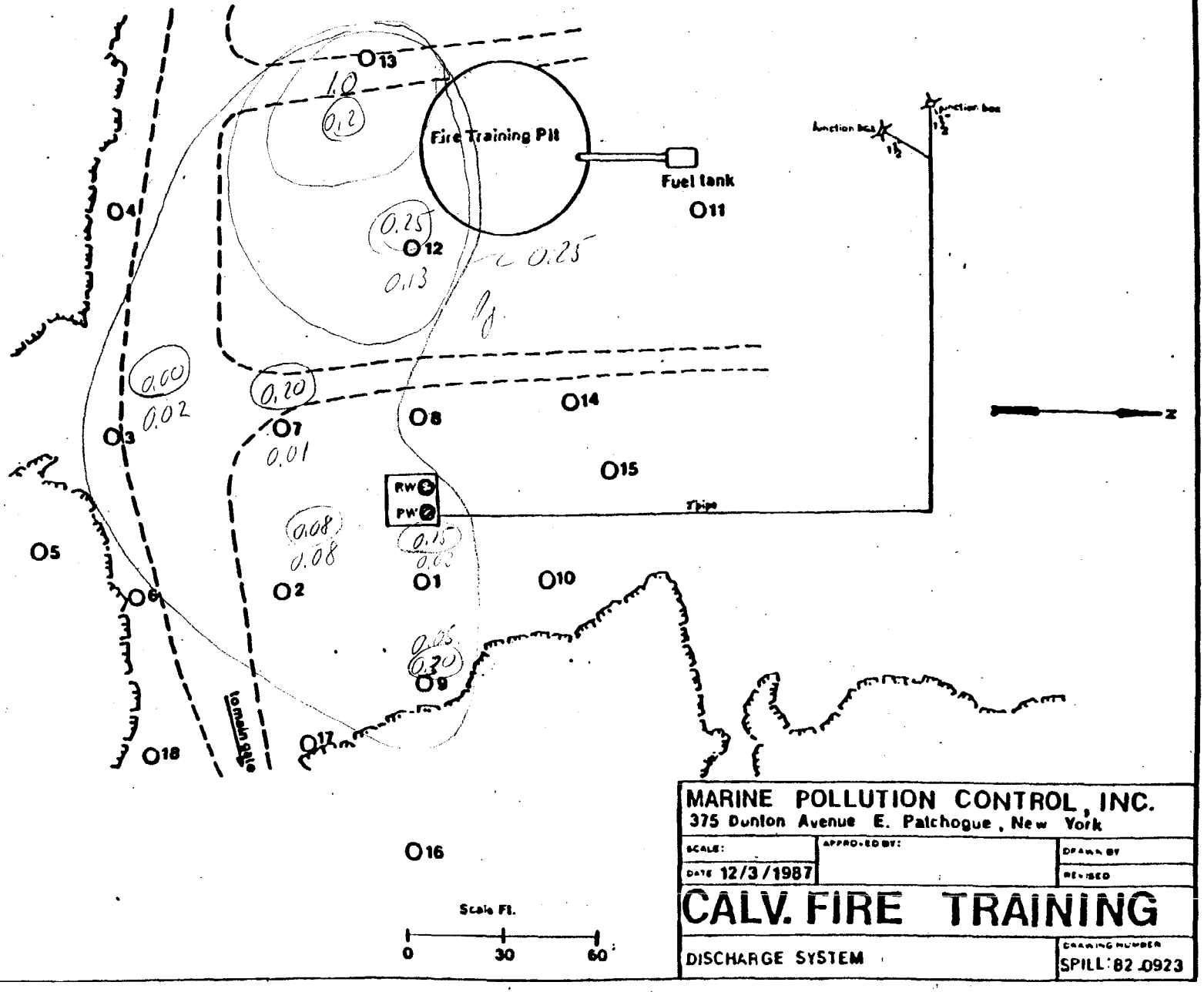
An Equal Opportunity Employer

Background

Subsurface investigation of the Fire Training area at the Calverton plant began as early as 1982 (Figure 1). The area was previously used as a training facility for combating fires fed by various fuels used in the aviation industry. MPC Environmental Services initially installed twelve monitoring wells, 1 through 12, to determine if there was floating product on the water table as a result of these activities. It was apparent that while extinguishing the burning fuels, which were contained in the pit, the volume of water and/or foam required to extinguish the fire caused the pit to overflow. Nine of the initial twelve monitoring wells contained free floating product (wells 1,2,3,6,7,8,9,10 and 12).

Due to the results of the initial investigation, the N.Y.S.D.E.C. required the installation of additional monitoring wells, to further define the extent of the free floating product plume. A copy of this letter from the N.Y.S.D.E.C., dated October 16, 1987, is found in the Appendix. On November 23, 1987, monitoring wells number 13 through 18 were installed by MPC Environmental Services (drill logs are in the Appendix).

WELL	TOP OF PIPE ELEVATION
1	101.87
2	100.78
3	100.72
4	103.10
5	101.76
6	100.78
7	101.73
8	102.32
9	100.39
10	102.32
11	107.74
12	103.32
13	100.01
14	103.92
15	103.38
16	104.84
17	101.28
18	100.00



MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE:	APPROVED BY:	DRAWN BY
DATE 12/3/1987		REVISED

CALV. FIRE TRAINING

DISCHARGE SYSTEM

DRAWING NUMBER SPILL 82-0923

FIGURE 1

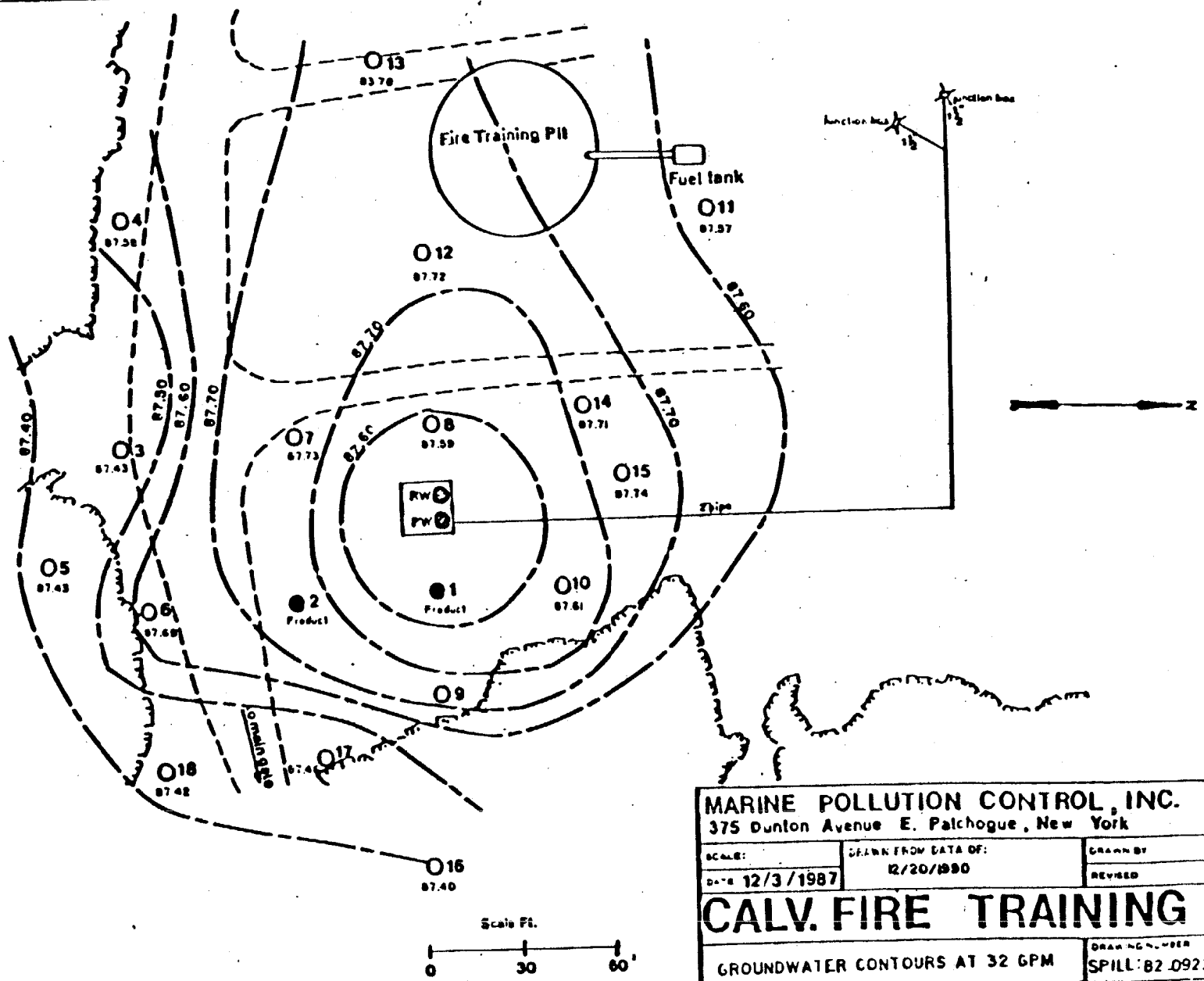
The information collected from all eighteen wells provided enough data to determine the groundwater flow direction, and the selection for both pumping and recovery well locations. A letter describing the background work, dated December 11, 1987, from MPC to Grumman Aerospace is found in the Appendix.

In December of 1987 work began on construction of the recovery system, which consisted of a pumping well utilizing a submersible pump. A separate recovery well was also installed, with a filter scavenger pump to collect the free floating product. Both these wells are four inches in diameter.

Discussion

During 1990 the average pumping rate of the recovery well was 34 gallons per minute (Figure 2). The total amount of product recovered to date is 216.45 gallons. According to weekly monitoring data, from monitoring sheets found in the Appendix, several wells continue to show free floating product. Table 1 is a summary of product thicknesses for 1990. According to this data, well number 1 had free product detected on every visit to the site, except for July 5 when water levels quickly rose. The product thickness ranged from 0.02 feet to a maximum of 0.51 feet on January 16.

WELL	TOP OF PIPE ELEVATION
1	101.87
2	100.78
3	100.72
4	103.10
5	101.76
6	100.78
7	101.73
8	102.32
9	100.39
10	102.32
11	107.74
12	103.32
13	100.81
14	103.92
15	103.38
16	104.84
17	101.29
18	100.00



MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE:	DRAWN FROM DATA OF:	DRAWN BY
DATE 12/3/1987	12/20/1990	REVISED

CALV. FIRE TRAINING

GROUNDWATER CONTOURS AT 32 GPM

DRAWING NUMBER SPILL: 82 0923

FIGURE 2.

Table 1.

Free Floating Product Thicknesses in Monitoring Wells,

Calculated in Feet for 1990

Date	#1	#2	#3	#7	#8	#9	#10	#12	#13	#15
01/04	0.25	0.00	0.06	0.06	T	0.00	0.47	0.00	T	0.00
01/08	0.16	0.00	0.01	T	T	0.00	0.30	0.00	T	0.00
01/16	0.51	0.00	0.16	0.03	0.04	0.38	0.00	0.00	0.00	0.00
01/23	0.05	0.00	0.04	T	T	0.02	0.06	0.00	0.00	0.00
01/31	0.43	0.00	0.13	T	T	0.08	0.25	0.00	0.00	0.00
02/07	0.35	0.00	T	T	T	T	0.20	0.00	0.00	0.00
02/14	0.09	0.00	0.00	0.10	0.03	T	0.97	0.00	T	0.00
02/23	0.15	0.00	0.00	0.15	T	0.00	0.29	0.00	0.00	0.00
02/27	0.06	0.00	0.00	0.07	T	0.00	0.17	0.00	0.00	0.00
03/05	0.08	0.00	0.00	0.09	T	0.00	0.18	0.00	T	0.00
03/15	0.14	0.00	0.00	0.10	0.04	0.00	0.16	0.00	0.00	0.00
03/23	0.10	0.00	0.00	T	0.00	T	0.08	0.00	0.00	0.00
03/29	0.05	0.00	0.95	T	T	0.00	0.09	0.00	0.00	0.00
04/05	0.02	0.00	0.02	T	T	T	0.02	0.00	T	0.00
04/12	0.05	0.00	0.05	0.06	T	0.00	0.12	0.00	0.00	T
04/17	0.40	T	0.03	0.15	0.01	0.00	0.11	0.00	0.00	T
04/25	0.21	T	T	0.17	T	0.00	0.18	0.00	0.00	T
05/02	0.12	0.00	0.00	0.12	0.00	0.00	0.15	0.00	0.00	0.00
05/10	0.21	0.01	0.00	0.15	0.01	0.00	0.09	0.00	0.00	0.00
05/17	0.14	0.00	0.00	0.098	T	0.00	0.19	0.00	0.00	0.00

T = Trace

Table 1. (Continued)

Free Floating Product Thicknesses in Monitoring Wells,

Calculated in Feet for 1990

Date	#1	#2	#3	#7	#8	#9	#10	#12	#13	#15
05/24	0.21	T	0.00	T	0.05	0.00	0.09	0.00	0.00	0.00
06/01	0.31	T	0.00	0.14	0.00	0.00	0.21	T	0.00	0.00
06/07	0.13	T	0.00	0.00	T	0.00	0.04	0.00	0.00	0.00
06/13	0.14	0.01	0.00	0.19	0.01	0.00	0.09	0.00	0.00	0.00
06/21	0.14	0.00	0.00	0.08	T	0.00	0.15	0.00	0.00	0.00
06/29	0.13	0.00	0.00	0.04	0.00	0.00	0.20	0.00	0.00	0.00
07/05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/13	0.40	0.00	0.06	0.02	T	0.00	0.30	0.00	0.00	0.00
07/20	0.13	0.00	0.10	0.04	T	T	0.10	0.00	0.00	0.00
07/27	0.38	0.00	0.15	T	T	0.04	0.06	0.00	0.00	0.00
08/03	0.06	T	0.26	0.08	T	0.11	T	0.00	0.00	0.00
08/10	0.03	T	0.12	T	T	0.26	0.01	0.00	0.00	0.00
08/16	0.42	0.02	0.12	0.01	0.02	0.17	0.02	0.00	0.00	0.00
08/23	0.23	T	0.09	T	T	0.13	0.05	0.00	0.00	0.00
08/31	0.31	T	0.11	T	T	0.20	0.12	T	0.00	0.00
09/05	0.25	0.05	0.07	T	0.00	0.15	0.30	T	0.00	T
09/14	0.18	T	T	T	0.00	0.05	0.16	0.00	0.00	0.00

T = Trace

Table 1. (Continued)

Free Floating Product Thicknesses in Monitoring Wells,

Calculated in Feet for 1990

Date	#1	#2	#3	#7	#8	#9	#10	#12	#13	#15
09/21	0.15	0.05	T	T	0.00	0.07	0.13	0.00	0.00	0.00
09/27	0.10	0.07	T	T	0.00	0.08	0.15	0.00	0.00	0.00
10/04	0.18	0.05	T	T	T	0.10	0.09	0.00	0.00	0.00
10/11	0.15	0.05	T	T	0.00	0.07	T	0.00	0.00	0.00
10/18	0.25	T	T	T	T	0.07	T	0.00	0.00	0.00
10/24	0.20	0.15	T	0.10	0.00	T	T	0.00	0.00	0.00
11/01	0.19	0.21	0.07	0.16	0.01	0.07	0.00	0.01	0.00	0.00
11/14	0.35	0.30	T	0.10	0.00	T	T	0.00	0.00	0.00
11/17	0.20	0.18	0.11	0.13	0.00	T	T	0.00	0.00	0.00
11/20	0.20	0.08	0.01	0.02	T	T	T	T	T	0.00
11/28	0.39	0.27	0.08	T	0.00	0.08	T	0.00	0.00	0.00
12/07	0.28	0.15	T	T	T	T	T	0.00	T	0.00
12/13	0.33	0.42	0.08	T	0.00	T	T	0.00	0.00	0.00
12/20	0.44	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

T = Trace

Well number 2 had a product thickness which ranged from a trace to 0.42 feet on December 13. The product thickness for well number 3 ranged from a trace to a maximum of 0.95 feet on March 29, which may have been the result of a drop in water levels, or an inaccurate reading. In well number 7 product was detected on every visit except for July 5. The product thickness ranged from a trace to a maximum of 0.19 feet on June 13.

Free floating product in well number 8 ranged from a trace to a maximum of 0.05 feet on May 24. Well number 9 had a product thickness which ranged from a trace to a maximum of 0.26 feet on August 10. The highest recorded product thickness at the site was detected in well number 10. The product thickness ranged from a trace to a maximum of 0.97 feet, which may have been a result of rising water levels, or an inaccurate reading. Wells number 12, 13 and 15 showed primarily a trace of product during 1990.

Table 2 and Table 3 are summaries of BTX sampling data collected from the recovery system for 1989 and 1990, respectively. The actual lab reports are located in the Appendix. The 1990 data is for water discharge at the junction box (see Figure 1). The influent data for 1989 is from the well head of the pumping well, effluent is from the junction box. According to the data for 1989, low concentrations of discharge were detected on May 31, at 27.3 ppb. The data for 1990 indicates that BTX concentrations were below detectable limits.

Table 2.

BTX Influent and Effluent Discharge Samples in ppb for 1989

Date	BTX In (wellhead discharge)	BTX Out (discharge at box)
03/07	4.0	<1.0
05/31	---	27.3
06/22	<2.0	<2.0
07/19	<4.0	<4.0
05/16	<4.0	<4.0
11/16	---	<4.0
12/13	<4.0	<4.0

Table 3.

BTX Discharge Samples at Junction Box in ppb for 1990

Date	Discharge
01/31	<2.0
02/15	<2.0
07/27	<2.0
10/08	<4.0
10/30	<2.0
11/29	<2.0

Appendix

Dean
As Expected, Clean up of Calv. Fire Training Area Required. J. Ohl

Copy D. Cassell Ed. Cora
T. Cunniffe J. Giordano
E. Andres
B. Faraday
C. Turney
T. Welsh
R. Yagich

New York State Department of Environmental Conservation
Building 40, SUNY
Stony Brook, NY 11794

(516) 751-7725

Commissioner

October 16, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John Ohlmann
Grumman Aerospace Corp.
Mail Stop B08/30
Bethpage, NY 11714

RE: Spill #82-1680 Fire Training Area at Calverton Plant

Dear Mr. Ohlmann:

This office has recently reviewed the monitoring data for the site wells at the above referenced area. Based on this data we request that you perform the following work:

1. Install additional monitoring wells to define the extent of the contamination. The present floating and dissolved product plumes do not appear to be completely defined. These monitoring wells should be 4-inch diameter PVC pipe with the bottom ten feet machine slotted to 0.02 of an inch and extending five feet into the groundwater. The lcoations of the wells will be determined by a representative of this office.

2. Develop a groundwater contour map for the spill area showing its relationship to the buildings in the area.

3. Install a continuously operating recovery system which depresses the water table and removes the fuel from the groundwater. This system should be capable of removing both floating and dissolved product.

If no response is received from you by November 2, 1987, this Department will perform the necessary work and seek reimbursement at a later date. Reimbursement will be sought in accordance with Article 12 of the NYS Navigation Law by the NYS Attorney General's Office.

Truly yours,

Walter J. Parish

Walter J. Parish
Assistant Sanitary Engineer

WJP:pn
CC: J. Licata
A. Santino, SCDHS

J. OHLMANN

OCT 20 1987

Director Environ. Protection

Tel. 516 - 654-4900

MARINE POLLUTION CONTROL, INC.

P.O. BOX 2220

EAST PATCHOGUE, N.Y. 11772

11 December 1987

Grumman Aerospace Corp.
Mail Stop 808/30
Bethpage, NY 11714
Attn: Mr. John Ohlmann

Dear Sir:

Now that the background work has been done for the recovery operations at both the Fire Training Area and the Fuel Calibration Area in Calverton we are ready to proceed with the installation of the recovery equipment.

This week the pumping wells will be installed in both locations and a pump test performed to determine the pumping rate necessary to establish a proper cone of depression at both locations. At the same time samples will be taken and sent in for BTX analysis. The construction of the wells will be of 4" PVC with 15 ft. of stainless steel well screen per well.

Immediately thereafter the recovery wells will be installed. The Fuel Cal area will have a 26" well installed along with a Filter Scavenger for product recovery in accordance with our previously submitted estimate. At the Fire Training area the depth to water prohibits us from installing a 26" casing to the proper depth. We are proposing to install a 4" well and equip it with a Groundwater Recovery Systems product only pump. The costs should be similar to the other location.

I will be on site during the well installation to discuss with Joe Welsch the discharge point for the water and the electric service.

Enclosed you will find site maps for both locations along with the groundwater contours and the proposed locations for the recovery operations.

Please feel free to call me if you have any questions.

Sincerely,

John Emington

SAMPLE/CORE LOG

Boring/Well 13, 14, 15, 16, 17, 18 Project/No. Grumman Calu Page ____ of ____

Site Location Fire Training Drilling Started 11/23/87 Drilling Completed —

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Return from Auger

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

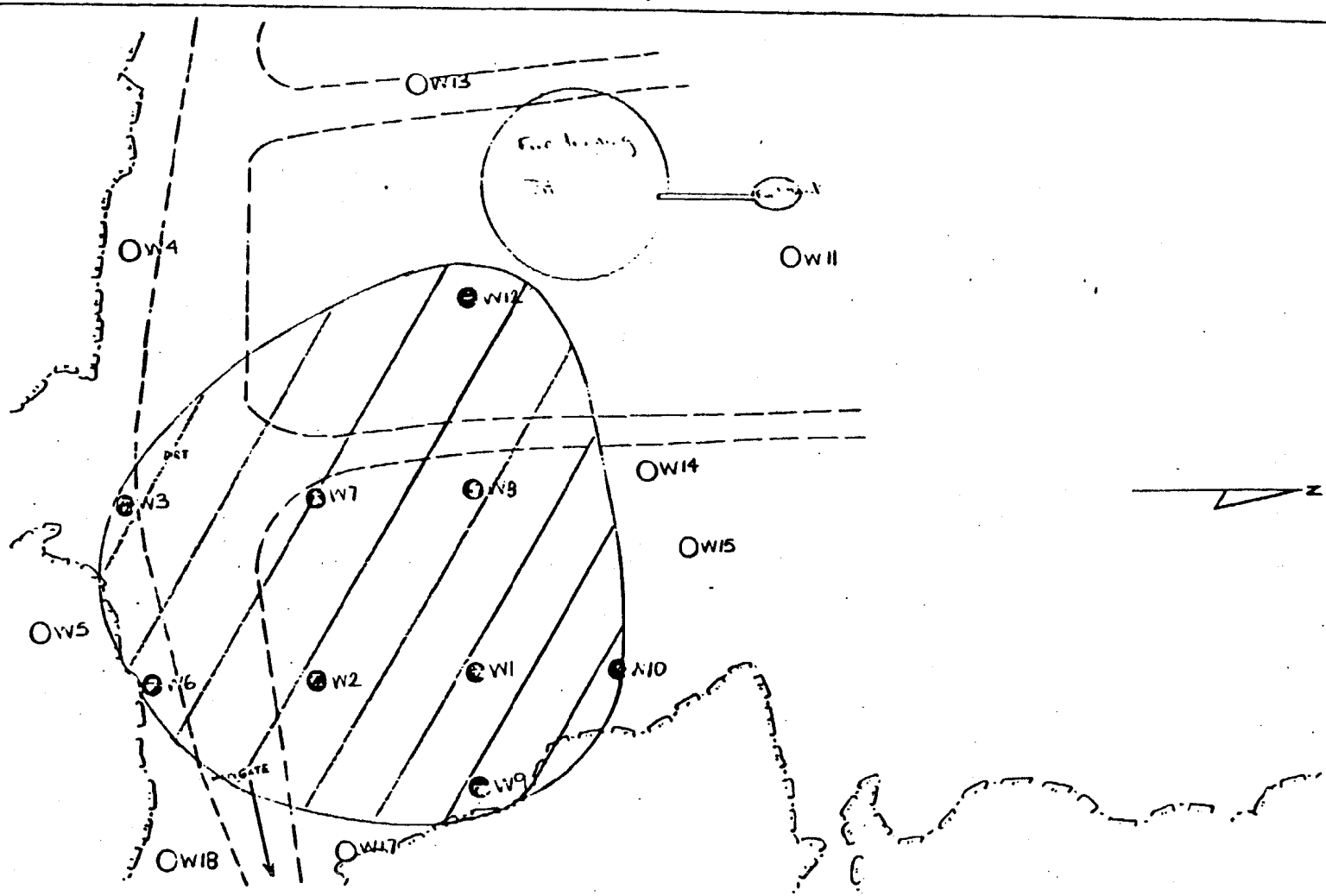
Drilling Fluid Used ____ Drilling Method Auger - Boom Truck

Drilling Contractor MPC Driller Tim Mayed Helper Kevin Jackson

Prepared By John Goff Hammer Weight ____ Hammer Drop ____ inches

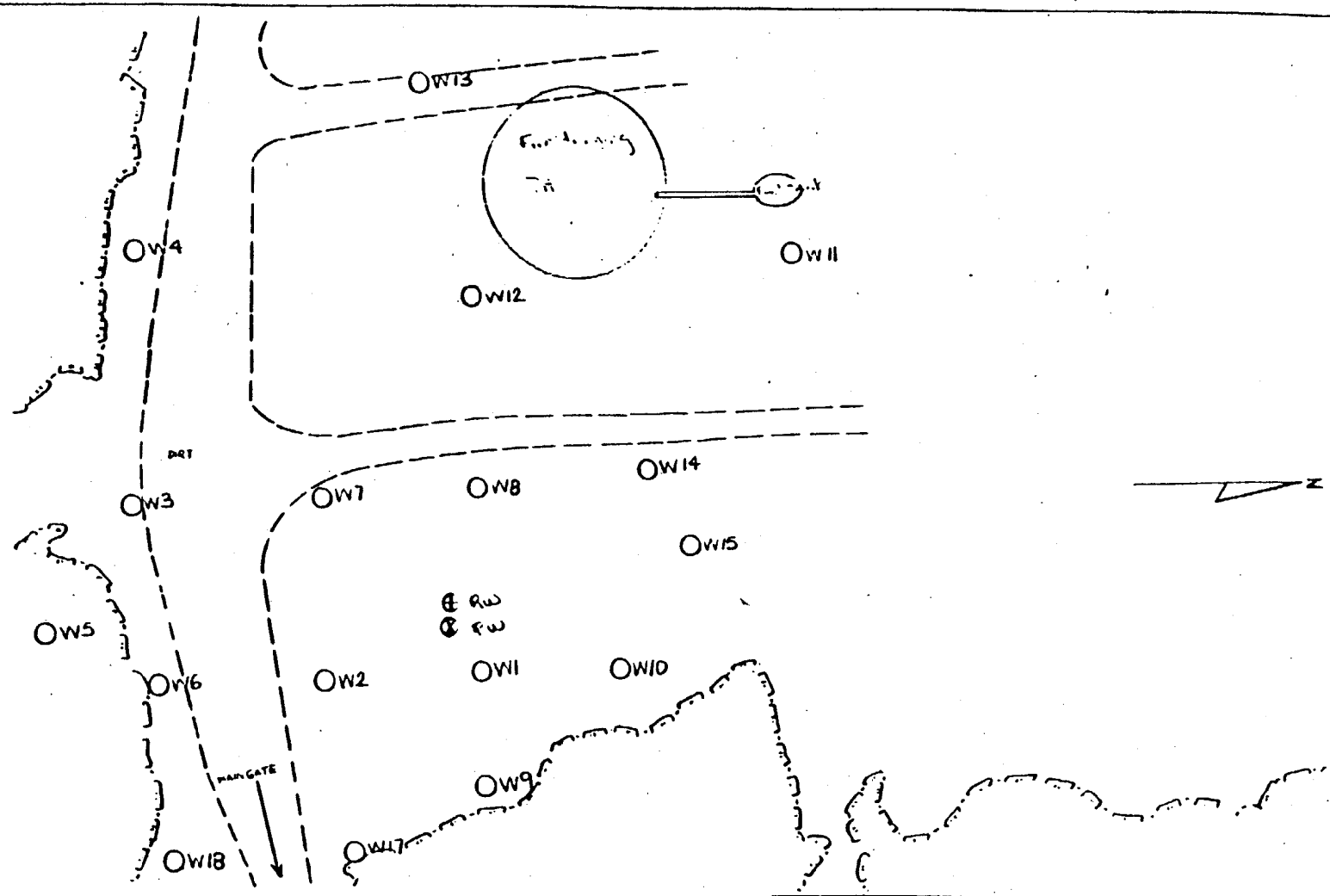
	Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	
#13	0	5'			Black fine sand	Petro Odor 1'-5' *
	5'	10'			Brown fine sand	slight odor *
	10'	20'			Brown fine sand	slight odor *
					(Total Pipe 25' stick up 3'6" Total Drilled 21'6")	
#15	0	15'			light brown, fine sand	No Odor
					(Total Pipe #14 23'6" / #15 23'6"; stick up 2' / 2'; Total Drilled 21'6" / 21'6")	
#16	0	15'			light brown, fine sand	No Odor.
#17	0	15'			light brown, fine sand	unknown odor @ 15'
#18	0	15'			light brown, fine sand	No Odor

	#16	#17	#18
Total Pipe	26'	21'6"	21'6"
Stick up	2'	1'6"	2'
Total Drilled	24'	20'	19'6"



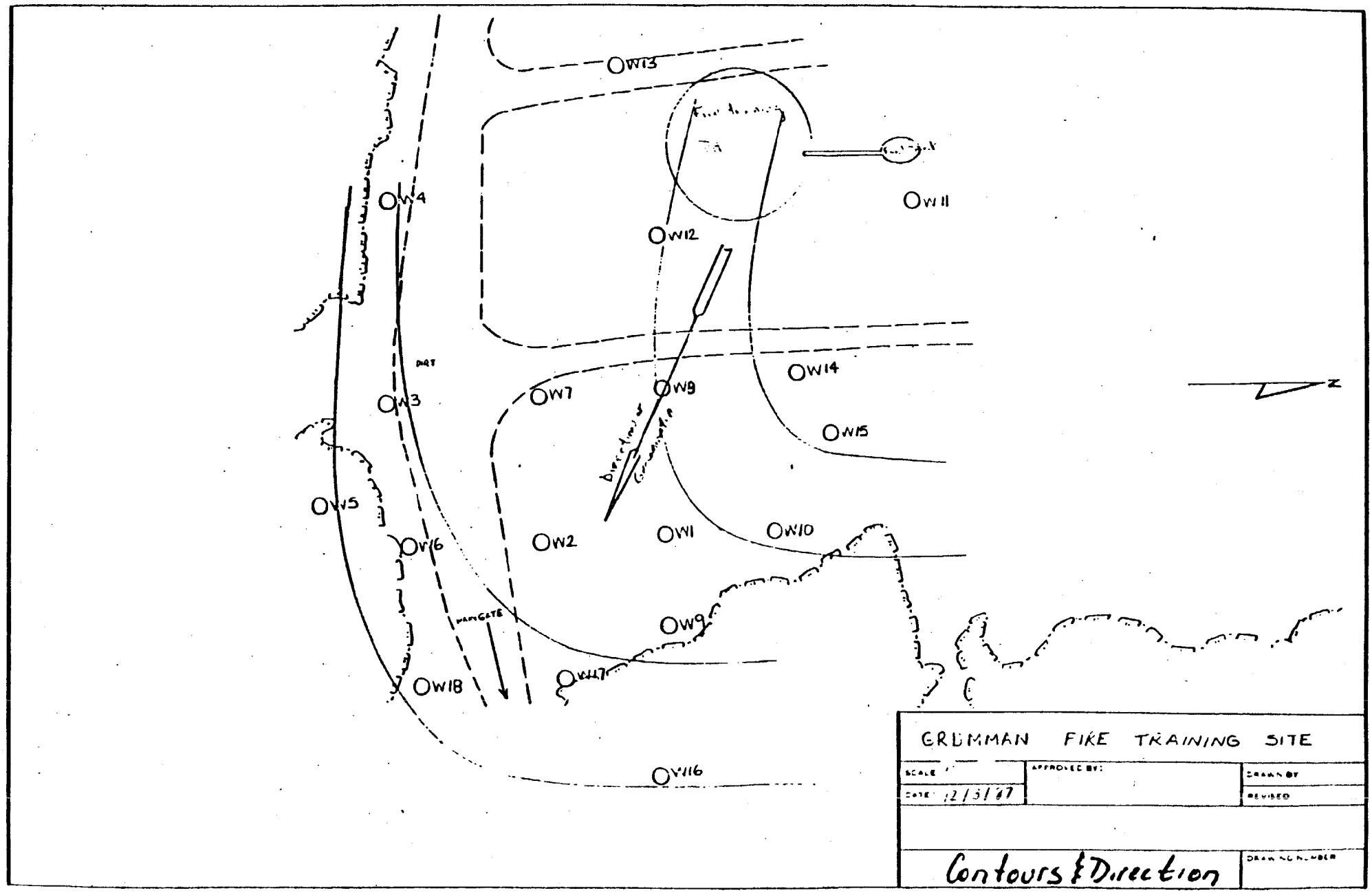
GRUMMAN FIRE TRAINING SITE

SCALE	APPROVED BY:	DRAWN BY
DATE 12/3/87		REVISED
PLUME		DRAWING NUMBER



GRUMMAN FIRE TRAINING SITE

SCALE:	APPROVED BY:	DRAWN BY
DATE: 12/3/87		REVISED
Proposed Recovery Wells		DRAWING NUMBER


OW13
OW11
OW12
OW4
OW14
OW7
OW8
OW3
OW15
OW5
OW2
OW1
OW10
OW6
OW9
OW18
OW17
OW16
N
GRUMMAN FIRE TRAINING SITE
SCALE
APPROVED BY:
DRAWN BY
DATE 12/3/87
REVISED
Contours & Direction
DRAWING NUMBER

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALU. FIRE TRAINING SPILL# 82-0923 DATE 12/20/90 TIME 0900

STORAGE TANK LEVEL 1. 55.40 G. 2.

CUMULATIVE TOTAL 216.45 G. GALLONS BAILED 0.50G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAILED	
1	14.75	14.31	.44	1	14.37		
2	13.60	13.33	.27	2	13.37		
3	13.29			32			
4	15.52			33			
5	14.33			34			
6	13.10			35			
7	14.00			36			
8	14.73			37			
9	17.88			38			
10	14.71			39			
11	20.17			40			
12	15.60			41			
13	16.23			42			
14	16.21			43			
15	15.64			44			
16	17.44			45			
17	13.83			46			
18	12.58			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALV. FIRE TRAINING SPILL# 82-0923 DATE 12/13/90 TIME 0830

STORAGE TANK LEVEL 1 54.90 G. 2

CUMULATIVE TOTAL 215.95 G. GALLONS BAILED 0.50 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	14.62	14.29	.33	1	14.48		
2	13.69	13.27	.42	2	13.39		
3	13.33	13.25	.08	3	13.27		
4	15.54			33			
5	14.33			34			
6	13.10			35			
7	14.02	TRACE		36			
8	14.71			37			
9	17.88	TRACE		38			
10	14.69	TRACE		39			
11	20.13			40			
12	15.56			41			
13	16.21			42			
14	16.19			43			
15	15.64			44			
16	17.44			45			
17	13.83			46			
18	12.58			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: Grumman Calv. Fire Train Area SPILL# 82-0923 DATE 12/7/90 TIME 1100

STORAGE TANK LEVEL 1 54.40 G. 2

CUMULATIVE TOTAL 215.45 G. GALLONS BAILED 0.25 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAILED	
1	14.50	14.22	0.28	1	14.29	14.25	0.04
2	13.40	13.25	0.15	2	13.29	13.28	0.01
3	13.00	TRACE		32			
4	15.50			33			
5	14.27			34			
6	13.05			35			
7	13.90	TRACE		36			
8	14.65	TRACE		37			
9	17.75	TRACE		38			
10	14.61	TRACE		39			
11	20.10			40			
12	15.50			41			
13	16.15	TRACE		42			
14	16.15			43			
15	15.60			44			
16	17.39			45			
17	13.77			46			
18	12.55			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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EAST PATCHOGUE, N.Y. 11772
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LOCATION: Calverton Fire Training SPILL# 82-0923 DATE 11,28,90 TIME 0900

STORAGE TANK LEVEL 1 54.2 G. 2.

CUMULATIVE TOTAL 215.2 G. GALLONS BAILED 1.5 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	14.64	14.25	.39	1	14.39		
2	13.54	13.27	.27	2	13.35		
3	13.29	13.21	.08	3	13.27		
4	15.48			33			
5	14.29			34			
6	13.08			35			
7	14.00	TRACE		36			
8	14.64			37			
9	17.83	17.75	.08	9	17.79		
10	14.64	TRACE		39			
11	20.06			40			
12	15.52			41			
13	16.15			42			
14	16.15			43			
15	15.58			44			
16	17.39			45			
17	13.81			46			
18	12.54			47			
19				48			
20				49			
21				50			

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LOCATION: GRUMMAN CALV. FIRE TRAIN SPILL# 82-0923 DATE 11/20/90 TIME 1015

STORAGE TANK LEVEL 1. 52.7 G. 2.

CUMULATIVE TOTAL 213.7 G. GALLONS BAILED 0.20G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27	AFTER BAILED		
IW				28			
				29			
1	14.40	14.20	0.20	30	14.24	14.21	0.03
2	13.30	13.22	0.08	31	13.27	13.26	0.01
3	13.14	13.13	0.01	32			
4	15.41			33			
5	14.23			34			
6	13.00			35			
7	13.87	13.85	0.02	36			
8	14.60	TRACE		37			
9	17.70	TRACE		38			
10	14.55	TRACE		39			
11	20.00			40			
12	15.45	TRACE		41			
13	16.10	TRACE		42			
14	16.08			43			
15	15.55			44			
16	17.35			45			
17	13.75			46			
18	12.50			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calu. Fire Training SPILL# 82-0923 DATE 11/7/92 TIME 0900

STORAGE TANK LEVEL 1 52.00 2.

CUMULATIVE TOTAL 213G. GALLONS BAILED 0.50 G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					After	Bailed	
1	14.30	14.10	.20	1	14.30		
2	13.33	13.15	.18	2	13.40		
3	13.11	13.00	.11	3	13.10		
4	15.32			33			
5	14.14			34			
6	12.91			35			
7	13.85	13.75	.13	7	13.90		
8	14.50			37			
9	17.65	trace		38			
10	14.45	trace		39			
11	19.92			40			
12	15.37			41			
13	16.00			42			
14	16.00			43			
15	15.42			44			
16	17.25			45			
17	13.65			46			
18	12.40			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: CALVERTON FIRE TRAINING SPILL# 82-0923 DATE 11/14/90 TIME 0900

STORAGE TANK LEVEL 1. 52.50G. 2.

CUMULATIVE TOTAL 213.50G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW					AFTER	BAILED	
				29			
1	14.50	14.15	.35	1	14.30		
2	13.50	13.20	.30	2	13.30		
3	13.15	TRACE		32			
4	15.40			33			
5	14.20			34			
6	13.00			35			
7	13.92	13.82	.10	7	13.90		
8	14.60			37			
9	17.75	TRACE		38			
10	14.55	TRACE		39			
11	19.97			40			
12	15.42			41			
13	16.06			42			
14	16.05			43			
15	15.50			44			
16	17.30			45			
17	13.72			46			
18	12.95			47			
19				48			
20				49			
21				50			

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LOCATION: Grumman (Calverton) Fire train SPILL# 82-0923 DATE 11-1-90 TIME 1200

STORAGE TANK LEVEL 1. 51.50G. 2.

CUMULATIVE TOTAL 212.50G. GALLONS BAILED 0.5G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	OW			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	11.09			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	14.19	14.00	.19	1	14.08		
2	13.22	13.01	.21	2	13.14		
3	13.01	12.94	.07	3	13.02		
4	15.23			33			
5	14.04			34			
6	12.81			35			
7	13.81	13.65	.16	7	13.75		
8	14.41	14.40	.01	8	14.43		
9	17.53	17.52	.01	9	17.56		
10	14.42	14.35	.07	10	14.44		
11	19.83			40			
12	15.27	15.26	.01	12	15.30		
13	15.92			42			
14	15.89			43			
15	15.34			44			
16	17.13			45			
17	13.56			46			
18	12.29			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALV. FIRE TRAINING SPILL# 82-0923 DATE 10,24,90 TIME 1200

STORAGE TANK LEVEL 1. 51 G. 2.

CUMULATIVE TOTAL 212 G. GALLONS BAILED 0.50G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW					AFTER	BAIL	
				29			
1	14.10	13.90	.20	1	14.00		
2	13.10	12.95	.15	2	12.96		
3	12.87	TRACE		32			
4	15.15			33			
5	13.95			34			
6	12.70			35			
7	13.70	13.60	.10	7	13.60		
8	14.32			37			
9	17.45	TRACE		38			
10	14.30	TRACE		39			
11	19.76			40			
12	15.21			41			
13	15.85			42			
14	15.80			43			
15	15.25			44			
16	17.02			45			
17	13.45			46			
18	12.15			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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EAST PATCHOGUE, N.Y. 11772
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LOCATION: Calverton Fire Training SPILL# 82-0923 DATE 10/18/90 TIME 0900

STORAGE TANK LEVEL 1. 50.50 G. 2.

CUMULATIVE TOTAL 211.50 G. GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	14.35	14.10	.25	1	14.20		
2	13.22	TRACE		31			
3	13.07	TRACE		32			
4	14.35			33			
5	14.15			34			
6	12.92			35			
7	13.50	TRACE		36			
8	14.55	TRACE		37			
9	17.70	17.63	.07	9	17.72		
10	14.52	TRACE		39			
11	19.95			40			
12	16.40			41			
13	16.02			42			
14	16.00			43			
15	15.43			44			
16	12.25			45			
17	13.66			46			
18	12.90			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
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LOCATION: Calverton Fire Train SPILL# 82-0923 DATE 10,11,90 TIME 0830

STORAGE TANK LEVEL 1. 50.25 2.

CUMULATIVE TOTAL 211.25 GALLONS BAILED 0.25G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					After	Bail	
1	14.30	14.15	.15	1	14.20		
2	13.25	13.20	.05	2	13.20		
3	13.15	Trace		32			
4	15.35			33			
5	14.18			34			
6	12.95			35			
7	13.52	Trace		36			
8	14.55			37			
9	17.72	17.65	.07	9	17.68		
10	14.52	Trace		39			
11	14.95			40			
12	16.41			41			
13	16.03			42			
14	16.00			43			
15	15.46			44			
16	17.27			45			
17	13.68			46			
18	12.42			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calv. Fire Training SPILL# 82-0923 DATE 10/4/90 TIME 0900

STORAGE TANK LEVEL 1. 506. 2.

CUMULATIVE TOTAL 2116 GALLONS BAILED 0.30

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	14.25	14.07	.18	1	14.15		
2	13.17	13.12	.05	2	13.15		
3	13.03	TRACE		32			
4	15.28			33			
5	14.05			34			
6	12.88			35			
7	13.77	TRACE		36			
8	14.48	TRACE		37			
9	17.70	17.60	.10	9	17.65		
10	14.54	14.45	.09	10	14.45		
11	19.88			40			
12	15.35			41			
13	15.96			42			
14	15.95			43			
15	15.40			44			
16	17.22			45			
17	13.62			46			
18	12.36			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: Calverton Fire Training SPILL# 82-0923 DATE 9/27/90 TIME 0900

STORAGE TANK LEVEL 1 48.75 G. 2.

CUMULATIVE TOTAL 209.75 G GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER BAIL		
1	14.12	14.02	.10	1	14.05		
2	13.10	13.03	.07	2	13.06		
3	12.96	TRACE		32			
4	15.20			33			
5	14.03			34			
6	12.81			35			
7	13.65	TRACE		36			
8	14.40			37			
9	17.60	17.52	.08	9	17.56		
10	14.50	14.35	.15	10	14.38		
11	19.80			40			
12	15.27			41			
13	15.88			42			
14	15.88			43			
15	15.33			44			
16	17.12			45			
17	13.54			46			
18	12.30			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: Calverton Fire Training SPILL# 82-0923 DATE 9/21/90 TIME 0900

STORAGE TANK LEVEL 1 48.5 G. 2

CUMULATIVE TOTAL 209.5 G. GALLONS BAILED 0.5

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2					After Bail		
IW				28			
				29			
1	14.13	13.98	.15	1	14.02		
2	13.05	13.00	.05	2	13.02		
3	12.93	Trace		32			
4	15.14			33			
5	13.99			34			
6	12.76			35			
7	13.62	Trace		36			
8	14.35			37			
9	17.55	17.48	.07	9	17.50		
10	14.44	14.31	.13	10	14.42		
11	19.75			40			
12	15.22			41			
13	15.83			42			
14	15.83			43			
15	15.28			44			
16	17.10			45			
17	13.51			46			
18	12.25			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: CALVERTON FIRE TRAINING SPILL# 82-0923 DATE 9/14/90 TIME 0830

STORAGE TANK LEVEL 1. 48 G. 2.

CUMULATIVE TOTAL 209 G. GALLONS BAILED 1 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW							
					AFTER BAIL		
1	14.10	13.92	.18	1	14.10		
2	12.98	TRACE		31			
3	12.87	TRACE		32			
4	15.09			33			
5	13.93			34			
6	12.72			35			
7	13.56	TRACE		36			
8	14.29			37			
9	17.50	17.45	.05	9	12.46		
10	14.42	14.26	.16	10	14.39		
11	19.68			40			
12	15.15			41			
13	15.75			42			
14	15.77			43			
15	15.72			44			
16	17.05			45			
17	13.48			46			
18	12.22			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: CALIFIRE TRAINING SPILL# 82-0923 DATE 9/5/90 TIME 0900

STORAGE TANK LEVEL 1. 47 G. 2.

CUMULATIVE TOTAL 208 G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27	After Bailed		
IW				28			
				29			
1	14.03	13.78	.25	1	13.85	13.80	.05
2	12.85	12.80	.05	2	12.85	TRACE	
3	12.75	12.68	.07	3	12.75	TRACE	
4	14.93			33			
5	12.80			34			
6	12.58			35			
7	13.40	TRACE		36			
8	14.15			37			
9	17.45	17.30	.15	9	17.31	17.30	0.01
10	14.40	14.10	.30	10	14.11	14.10	0.01
11	19.52			40			
12	15.00	TRACE		41			
13	15.60			42			
14	15.62			43			
15	15.06	TRACE		44			
16	16.90			45			
17	13.32			46			
18	12.06			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: CALVERTON- FIRE TRAINING SPILL# 82-0923 DATE 5/31/90 TIME 8:30

STORAGE TANK LEVEL 1. 47 G. 2.

CUMULATIVE TOTAL 208 G. GALLONS BAILED 0.60

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	13.98	13.79	0.19	22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	10.89			26			
PW 2				27			
IW				28			
				29			
1	13.94	13.63	0.31	1	13.75	TRACE	
2	12.71	TRACE		31			
3	12.67	12.56	0.11	3	12.61	TRACE	
4	14.83			33			
5	13.69			34			
6	12.46			35			
7	13.32	TRACE		36			
8	14.03	TRACE		37			
9	17.35	17.15	0.20	9	17.22	TRACE	
10	14.11	13.99	0.12	10	14.03	TRACE	
11	19.43			40			
12	14.86	TRACE		41			
13	15.50			42			
14	15.57			43			
15	14.97			44			
16	16.81			45			
17	13.22			46			
18	11.97			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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LOCATION: Calverton - Ultraining SPILL# 82-0923 DATE 8/23/90 TIME 0930

STORAGE TANK LEVEL 1. 46 G. 2.

CUMULATIVE TOTAL 207 G. GALLONS BAILED 0.60

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	13.76	13.53	.23	1.	13.57	Trace	
2	12.6	Trace		31			
3	12.56	12.47	.09	3.	12.48	Trace	
4	14.74			33			
5	13.6			34			
6	12.37			35			
7	13.21	Trace		36			
8	13.93	Trace		37			
9	17.19	17.06	.13	9.	17.09	Trace	
10	13.95	13.9	.05	10.	13.92		
11	19.93			40			
12	14.77			41			
13	15.4			42			
14	15.42			43			
15	14.87			44			
16	16.72			45			
17	19.19			46			
18	11.87			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fire Training SPILL# 82-092[illegible] DATE [illegible]-16-90 TIME [illegible]

STORAGE TANK LEVEL 1. 46 G. 2.

CUMULATIVE TOTAL 207 G. GALLONS BAILED 1 GAL.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	OW			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	13.82	13.40	.42	1	13.50	13.48	.02
2	12.49	12.47	.02	2	12.54		
3	12.46	12.34	.12	3	12.42		
4	14.62			33			
5	12.47			34			
6	[illegible]			35			
7	13.10	13.09	.01	7	13.14		
8	13.82	13.80	.02	8	13.86		
9	17.11	16.94	.17	9	17.02		
10	13.79	13.77	.02	10	13.85		
11	19.20			40			
12	14.67			41			
13	15.29			42			
14	15.30			43			
15	14.25			44			
16	16.60			45			
17	13.00			46			
18	11.76			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fire training - Calverton SPILL# 82-0923 DATE 8/10/90 TIME 0900

STORAGE TANK LEVEL 1 45 G. 2.

CUMULATIVE TOTAL 2066 G. GALLONS BAILED 0.75

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	13.7	13.4	.03	1.	13.45	Trace	
2	12.47	Trace		31			
3	12.45	12.39	.12	3.	12.3	Trace	
4	13.6			33			
5	13.47			34			
6	12.25			35			
7	13.08	Trace		36			
8	13.8	Trace		37			
9	17.2	16.94	.26	9.	16.98	Trace	
10	13.79	13.78	.01	10.	13.78		
11	19.2			40			
12	14.61			41			
13	15.26			42			
14	15.29			43			
15	14.75			44			
16	16.6			45			
17	13.01			46			
18	11.75			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALVERTON FIRE TRAINING SPILL# 82-0923 DATE 8/3/90 TIME 9:45

STORAGE TANK LEVEL 1 44G. 2.

CUMULATIVE TOTAL 205G. GALLONS BAILED 0.50G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	AFTER	BAILING	
				29			
1	13.89	13.29	0.60	1	13.28	TRACE	
2	12.38	TRACE		31			
3	12.47	12.21	0.26	3	12.24	TRACE	
4	14.49			33			
5	13.37			34			
6	12.17			35			
7	13.05	12.97	0.08	7	12.98	TRACE	
8	13.71	TRACE		37			
9	16.96	16.85	0.11	9	16.86	TRACE	
10	13.68	TRACE		39			
11	19.06			40			
12	14.51			41			
13	15.14			42			
14	15.18			43			
15	14.63			44			
16	16.51			45			
17	12.92			46			
18	11.67			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton-Firetraining SPILL# 82-0929 DATE 7/27/90 TIME 1000

STORAGE TANK LEVEL 1 446.0 2.

CUMULATIVE TOTAL 205G. GALLONS BAILED 0.50 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	13.6	13.22	.38	1	13.25	Trace	
2	12.29			31			
3	12.3	12.15	.15	3.	12.04	Trace	
4	14.41			33			
5	13.29			34			
6	12.05			35			
7	12.9	Trace		36			
8	13.6	Trace		37			
9	16.82	16.78	.04	9.	16.78	Trace	
10	13.65	13.59	.06	10.	13.59		
11	18.98			40			
12	14.45			41			
13	15.06			42			
14	15.09			43			
15	14.55			44			
16	16.41			45			
17	12.82			46			
18	11.57			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fire training SPILL# 82-0923 DATE 7/20/90 TIME 0990

STORAGE TANK LEVEL 1. 44G. 2.

CUMULATIVE TOTAL 205G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	13.26	13.13	.13	1.	13.17	Trace	
2	12.2			31			
3	12.15	12.05	.10	3.	12.06		
4	14.3			33			
5	13.2			34			
6	12.			35			
7	12.82	12.78	.04	7.	12.84		
8	13.51	Trace		37			
9	16.69	Trace		38			
10	13.58	13.48	.10	10.	13.48	Trace	
11	18.87			40			
12	14.34			41			
13	14.94			42			
14	15.			43			
15	14.45			44			
16	16.34			45.			
17	12.73			46			
18	11.48			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Lirtraining SPILL# 82-0929 DATE 7/23/90 TIME 1030

STORAGE TANK LEVEL 1 4.3 G. 2.

CUMULATIVE TOTAL 204 G. GALLONS BAILED 0.40

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	After	Bailed	
				29			
1	13.46	13.06	.40	1.	13.01	Trace	
2	12.12			31			
3	12.	11.94	.06	3.	11.99		
4	14.22			33			
5	13.11			34			
6	11.98			35			
7	12.71	12.69	.02	7.	12.68	Trace	
8	13.49	Trace		37			
9	16.61			38			
10	13.68	13.38	.30	10.	13.38		
11	18.79			40			
12	14.25			41			
13	14.88			42			
14	14.91			43			
15	14.37			44			
16	16.24			45			
17	12.64			46			
18	11.95			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Firetraining SPILL# 82-0923 DATE 7/5/90 TIME 0830

STORAGE TANK LEVEL 1. 0-43G 2.

CUMULATIVE TOTAL 204G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	12.77			30			
2	11.83			31			
3	11.76			32			
4	13.99			33			
5	12.87			34			
6	11.64			35			
7	12.42			36			
8	13.15			37			
9	16.34			38			
10	13.12			39			
11	18.59			40			
12	13.99			41			
13	14.64			42			
14	14.65			43			
15	14.12			44			
16	16.00			45			
17	12.39			46			
18	11.15			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Firetraing SPILL# 82-0923 DATE 6/29/90 TIME 1030

STORAGE TANK LEVEL 1. 43 G. 2.

CUMULATIVE TOTAL 204 G. GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27	After	Bailed	
IW				28			
				29			
1	13.06	12.93	.13	1.	12.94	Trace	
2	11.98			31			
3	11.84			32			
4	14.07			33			
5	12.99			34			
6	11.78			35			
7	12.60	12.56	.04	7.	12.57	Trace	
8	13.29			37			
9	16.49			38			
10	13.46	13.26	.20	10.	13.27	Trace	
11	18.64			40			
12	14.09			41			
13	14.71			42			
14	14.77			43			
15	14.24			44			
16	16.13			45			
17	12.63			46			
18	11.27			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fire training SPILL# 82-0923 DATE 6/21/90 TIME 1000

STORAGE TANK LEVEL 1 042 G 2.

CUMULATIVE TOTAL 203 G GALLONS BAILED 0.40

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	AFTER	BAILED	
				29			
1	12.92	12.78	.14	1.	12.79	Trace	
2	11.82			31			
3	11.7			32			
4	12.9			33			
5	12.83			34			
6	11.63			35			
7	12.48	12.4	.08	7.	12.4	Trace	
8	13.13	Trace		37			
9	16.3			38			
10	13.25	13.1	.15	10.	13.11	Trace	
11	18.5			40			
12	19.94			41			
13	14.56			42			
14	14.61			43			
15	14.07			44			
16	15.97			45			
17	12.37			46			
18	11.11			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: [illegible] SPILL# 82-[illegible] DATE 6-13-90 TIME 1000

STORAGE TANK LEVEL 1. 42 G. 2.

CUMULATIVE TOTAL 2036 GALLONS BAILED 0.30

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	[illegible]			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	9.59			26			
PW 2	-			27			
IW	-			28			
	-			29	After	[illegible]	
1	12.85	12.71	.14	1	12.70		
2	11.77	[illegible]	.51	2	11.79		
3	11.63			32	-		
4	[illegible]			33	-		
5	[illegible]			34	-		
6	[illegible]			35	-		
7	[illegible]	12.33	.19	7	12.45	12.41	[illegible]
8	13.07	13.06	.01	8	[illegible]		
9	[illegible]			38	-		
10	[illegible]	13.04	.07	10	[illegible]		
11	[illegible]			40			
12	[illegible]			41			
13	14.50			42			
14	14.55			43			
15	14.02			44			
16	15.91			45			
17	12.80			46			
18	11.06			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Firetraining - Galveston SPILL# 82-0929 DATE 6/7/90 TIME 0830

STORAGE TANK LEVEL 1. 42G 2.

CUMULATIVE TOTAL 203G GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.14	13.01	.13	30	13.01	Trace	
2	11.72	Trace		31			
3	11.61			32			
4	13.83			33			
5	12.79			34			
6	11.5			35			
7	12.44	12.29	.15	36	12.3		
8	13.05	Trace		37			
9	16.24			38			
10	12.72	12.68	.04	39	13.01		
11	18.41			40			
12	13.89			41			
13	14.49			42			
14	14.59			43			
15	13.99			44			
16	15.88			45			
17	12.87			46			
18	10.97			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Livetraining - SPILL# 82-0923 DATE 6/1/90 TIME 1000

STORAGE TANK LEVEL 1 0.42 G. 2.

CUMULATIVE TOTAL 203G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.01	12.7	.31	1.	12.79	Trace	
2	11.75	Trace		31			
3	11.64			32			
4	19.87			33			
5	12.75			34			
6	11.53			35			
7	12.46	12.32	.14	7.	12.34		
8	13.07			37			
9	16.25			38			
10	13.25	13.04	.21	10.	13.06	Trace	
11	18.46			40			
12	13.93	Trace		41			
13	14.56			42			
14	14.56			43			
15	14.02			44			
16	15.89			45			
17	12.28			46			
18	11.03			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv. Fire Train Area SPILL# 820923 DATE 5-24-90 TIME 0830

STORAGE TANK LEVEL 1. 4.1 G. 2.

CUMULATIVE TOTAL 2.02 G. GALLONS BAILED 0.30

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27	AFTER	BAILED	
IW				28			
				29			
1	13.00	12.79	0.21	1	12.83	TRACE	
2	11.85	SLIGHT TRACE		31			
3	11.76			32			
4	13.95			33			
5	12.85			34			
6	11.62			35			
7	12.42	TRACE		36			
8	13.20	13.15	0.05	8	13.17	TRACE	
9	16.35			38			
10	13.20	13.11	0.09	10	13.20	TRACE	
11	18.55			40			
12	14.08			41			
13	14.60			42			
14	14.67			43			
15	14.10			44			
16	16.01			45			
17	12.39			46			
18	11.15			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fire training SPILL# 82-0929 DATE 5/17/90 TIME 1200

STORAGE TANK LEVEL 1 0:41 G. 2.

CUMULATIVE TOTAL 202 G GALLONS BAILED 0.40

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	AFTER	BAILING	
				29			
1	12.95	12.81	.14	1	12.83	Trace	
2	11.87			31			
3	11.74			32			
4	13.96			33			
5	12.85			34			
6	11.68			35			
7	12.53	12.44	.09	6	12.5		
8	13.17	Trace		37			
9	16.37			38			
10	13.34	13.15	.19	10	13.18	Trace	
11	18.55			40			
12	14.			41			
13	14.62			42			
14	14.67			43			
15	14.14			44			
16	16.			45			
17	12.39			46			
18	11.1			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman (Calverton) Fire Trail SPILL# 82-0923 DATE 5-10-92 TIME 0900

STORAGE TANK LEVEL 1 4-1 G. 2.

CUMULATIVE TOTAL 202 G. GALLONS BAILED 0.50 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	CN			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	9.79			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	13.08	12.87	.21	1	12.93	TRACE	
2	11.92	11.91	.01	2	11.94		
3	11.78			32			
4	13.99			33			
5	12.91			34			
6	11.70			35			
7	12.62	12.47	.15	7	12.61		
8	13.22	13.21	.01	8	13.25		
9	16.41			38	-		
10	13.27	13.18	.09	10	13.03	13.02	.01
11	18.56			40			
12	14.02			41			
13	14.64			42			
14	14.70			43			
15	14.08			44			
16	16.06			45			
17	12.46			46			
18	11.21			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton-Fire training SPILL# 82-0923 DATE 5/2/90 TIME 0945

STORAGE TANK LEVEL 1. 4060 2.

CUMULATIVE TOTAL 2016. GALLONS BAILED .40

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	12.54			26			
PW 2				27			
IW				28			
				29			
1.	12.98	12.86	.12	1.	12.87		
2	11.9			31			
3	11.77			32			
4	13.99			33			
5	12.9			34			
6	11.68			35			
7	12.58	12.46	.12	7.	12.48		
8	13.2			37			
9	16.4			38			
10	13.32	13.17	.15	10.	13.2	Trace	
11	18.56			40			
12	14.04			41			
13	14.41			42			
14	14.69			43			
15	14.15			44			
16	16.05			45			
17	12.44			46			
18	11.19			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton-Fire training SPILL# 82-0923 DATE 4/25/90 TIME 1000

STORAGE TANK LEVEL 1. 40 G. 2.

CUMULATIVE TOTAL 201 G. GALLONS BAILED 0.40

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	Rain			26			
PW 2				27			
IW				28			
				29			
1	13.02	12.81	.21	30	12.9	Trace.	
2	11.87	Trace		31			
3	11.75	Trace		32			
4	13.98			33			
5	12.87			34			
6	11.63			35			
7	12.62	12.45	.17	36	12.54		
8	13.19	Trace		37			
9	16.36			38			
10	13.32	13.14	.18	39	13.2	Trace	
11	18.56			40			
12	14.04			41			
13	14.42			42			
14	14.67			43			
15	14.13	Trace		44			
16	16.			45			
17	12.4			46			
18	11.13			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fire Plan SPILL# [illegible] DATE 1-17-90 TIME 1200

STORAGE TANK LEVEL 1. 40 G. 2.

CUMULATIVE TOTAL 201 G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	ow			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	9.79			26			
PW 2				27			
IW				28			
				29	After	Bailing	
1	13.26	12.86	.40	30	12.71		
2	11.92	Trace		31			
3	11.83	11.80	.03	32	11.88		
4	14.05			33			
5	12.92			34			
6	11.69			35			
7	12.65	12.50	.15	36	12.53		
8	13.27	13.26	.01	37			
9	16.43			38			
10	13.32	13.21	.11	39	13.27		
11	18.64			40			
12	14.07			41			
13	14.47			42			
14	14.74			43			
15	14.20	Trace		44			
16	16.02			45			
17	12.43			46			
18	11.17			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Firetraining SPILL# 82-0923 DATE 4/12/90 TIME 1030

STORAGE TANK LEVEL 1 396 2.

CUMULATIVE TOTAL 2006 GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.05	13.	.05	1	13.05		
2	12.05			31			
3	11.97	11.92	.05	3	10.98		
4	14.18			33			
5	13.04			34			
6	11.82			35			
7	12.7	12.64	.06	7	12.64	Trace	
8	13.37	Trace		37			
9	16.54			38			
10	13.46	13.34	.12	10	13.37		
11	18.77			40			
12	14.22			41			
13	14.82			42			
14	14.87			43			
15	14.91	Trace		44			
16	16.16			45			
17	12.57			46			
18	11.3			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALV GRUMMAN FIRE TRAIN AREA SPILL# 82-05-23 DATE 4-5-90 TIME 1200

STORAGE TANK LEVEL 1 396. 2

CUMULATIVE TOTAL 200G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.04	13.02	0.02	30			
2	12.10			31			
3	11.97	11.95	0.02	32			
4	14.24			33			
5	13.10			34			
6	12.90			35			
7	12.69	TRACE		36			
8	13.42	TRACE		37			
9	16.57	TRACE		38			
10	13.42	13.40		39			
11	17.42			40			
12	14.27	TRACE		41			
13	14.87			42			
14	14.95			43			
15	14.37			44			
16	16.25			45			
17	12.60			46			
18	11.35			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Hietraining SPILL# 82-0923 DATE 3/29/90 TIME 0900

STORAGE TANK LEVEL 1 39 GAL. 2.

CUMULATIVE TOTAL 200 G GALLONS BAILED 0.03

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	12.83			26			
PW 2				27			
IW				28			
				29			
1	13.21	13.16	.05	1.	13.17	Trace	
2	12.21			31			
3	13.02	12.07	.95	3.	12.07		
4	14.3			33			
5	13.21			34			
6	11.98			35			
7	12.8	Trace		36			
8	13.52	Trace		37			
9	16.72			38			
10	13.6	13.51	.09	10.	13.52	Trace	
11	18.9			40			
12	14.36			41			
13	14.94			42			
14	15.02			43			
15	14.48			44			
16	16.35			45			
17	12.75			46			
18	11.49			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton-Lic Training SPILL# 82-0923 DATE 9/29/90 TIME 1000

STORAGE TANK LEVEL 1 39 G 2.

CUMULATIVE TOTAL 200 G GALLONS BAILED 0.06

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	19.85			26			
PW 2				27			
IW				28			
				29			
1	13.15	19.05	.10	1.	13.05		
2	12.12			31			
3	11.97			32			
4	14.2			33			
5	13.09			34			
6	11.88			35			
7	12.7	Trace		36			
8	13.41			37			
9	16.6	Trace		38			
10	13.48	13.4	.08	10.	13.4		
11	18.79			40			
12	14.25			41			
13	14.83			42			
14	14.9			43			
15	14.36			44			
16	16.25			45			
17	12.65			46			
18	11.39			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: (Grumman) Calverton Fire Train SPILL# 82-0923 DATE 3-15-90 TIME 1030

STORAGE TANK LEVEL 1 39 G. 2.

CUMULATIVE TOTAL 200 G. GALLONS BAILED 112

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	ON			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	9.89			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	13.12	12.98	.14	30	13.05		
2	12.02			31			
3	11.90			32			
4	14.11			33			
5	13.01			34			
6	11.79			35			
7	12.69	12.59	.10	36	12.63		
8	13.36	13.32	.04	37	13.43		
9	16.51			38			
10	13.45	13.29	.16	39	13.36	Trace	
11	18.68			40			
12	14.16			41			
13	14.73			42			
14	14.51			43			
15	14.28			44			
16	16.17			45			
17	12.56			46			
18	11.31			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv. Fire Train Area SPILL# 82-0923 DATE 3-5-90 TIME 0915

STORAGE TANK LEVEL 1 39 G. 2.

CUMULATIVE TOTAL 200 G. GALLONS BAILED 0.20 G.

Flowmeter #1. 33 Gpm Gallons Pumped 862752

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27	AFTER	BAILED	
IW				28			
				29			
1	13.00	12.92	0.08	1	12.96	TRACE	
2	11.95			31			
3	11.87			32			
4	14.05			33			
5	12.95			34			
6	11.73			35			
7	12.60	12.51	0.09	7	12.53	TRACE	
8	13.27	TRACE		37			
9	16.45			38			
10	13.40	13.22	0.18	10	13.28	13.27	0.01
11	18.62			40			
12	14.07			41			
13	14.67	TRACE		42			
14	14.75			43			
15	14.22			44			
16	16.10			45			
17	12.50			46			
18	11.25			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman (Calverton) Fuel Farm SPILL# 82-0923 DATE 2-23-90 TIME 09:30

STORAGE TANK LEVEL 1. 39 G. 2.

CUMULATIVE TOTAL 200 G. GALLONS BAILED 0.25 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	ON			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	After	bailing	
1	12.95	12.80	.15	30	12.84		
2	11.84			31			
3	11.70			32			
4	13.92			33			
5	12.83			34			
6	11.83			35			
7	12.56	12.41	.15	36	12.49		
8	13.15	Trace		37			
9	16.33			38			
10	13.39	13.10	.29	39	13.18		
11	18.50			40			
12	13.97			41			
13	14.54			42			
14	14.63			43			
15	14.10			44			
16	15.99			45			
17	12.38			46			
18	11.14			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CHLU. FIRE TRAINING SPILL# 82-0923 DATE 2/27/90 TIME 1030

STORAGE TANK LEVEL 1 39 G. 2.

CUMULATIVE TOTAL 200G. GALLONS BAILED 0.25G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28	AFTER BAIL		
				29			
1	12.92	12.86	.06	1	12.90		
2	11.92			31			
3	FROZEN			32			
4	14.02			33			
5	12.90			34			
6	11.69			35			
7	12.55	12.48	.07	7	12.60		
8	13.22	TRACE		37			
9	16.40			38			
10	13.21	13.04	.17	10	13.06		
11	18.56			40			
12	14.06			41			
13	14.62			42			
14	14.70			43			
15	14.17			44			
16	16.05			45			
17	12.45			46			
18	11.20			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALW. FIRE TRAINING SPILL# 82-0923 DATE 2-7-90 TIME 1345

STORAGE TANK LEVEL 1. 38.6. 2.

CUMULATIVE TOTAL 199 GAL. GALLONS BAILED 0.50 GAL.

WELL #	DTW	DTP	PRODUCT	#			
RW 1.							
RW 2.							
RW 3.							
RW 4.							
PW 1							
PW 2							
IW							
1	13.25	12.90	0.35		13.00	12.96	0.04
2	11.94						
3	11.60	TRACE					
4	14.10						
5	12.95						
6	11.99						
7	12.52	TRACE					
8	13.26	TRACE					
9	16.40	TRACE					
10	10.45	10.25	0.20		10.30	10.28	0.02
11	18.70						
12	14.11						
13	14.70			42			
14	14.76			43			
15	14.21			44			
16	16.05			45			
17	12.46			46			
18	11.21			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Fire Training SPILL# 82-0923 DATE 2.14.90 TIME 1330

STORAGE TANK LEVEL 1 3.9 GAL. 2.

CUMULATIVE TOTAL 200 GAL. GALLONS BAILED 1 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	12.03			26			
PW 2				27			
IW				28			
				29			
1	12.9	12.81	.09	30			
2	11.86			31			
3	11.79			32			
4	13.98			33			
5	12.85			34			
6	11.89			35			
7	12.53	12.43	.10	36			
8	13.2	13.17	.03	37			
9	16.33			38			
10	14.10	13.13	.97	39			
11	18.57			40			
12	14.03			41			
13	14.62	trace		42			
14	14.67			43			
15	14.12			44			
16	16.0			45			
17	12.39			46			
18	11.19			47			
19				48			
20				49			
21				50			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-49:

82-0923

LOCATION: Cabe Fire Training DATE 1/23/90 TIME 1000

DRAGE TANK LEVEL 1. 38 2. 3. 4.

UMULATIVE TOTAL 199 BAILED 0.19 GAL.

PUMPING RATE RW1 28-727068 RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	13.4	13.35	.05		13.39		
2.	12.4			29.			
3.	12.29	12.25	.04		12.3		
4.	14.5			31.			
5.	13.39			32.			
6.	12.41			33.			
7.	13.	Trace		34.			
8.	13.71	Trace		35.			
9.	16.91	16.89	.02	9	16.90		
10.	13.76	13.7	.06	10	13.78		
11.	19.11			38.			
12.	14.56			39.			
13.	15.14			40.			
14.	15.22			41.			
15.	14.69			42.			
16.	16.55			43.			
17.	12.91			44.			
18.	11.66			45.			
19.				46.			
20.				47.			
[illegible]				48.			
22.				49.			
23.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVIC.
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654 9:

82-0923

LOCATION: Calverton Fire Training DATE 1/31/90 TIME 0845

STORAGE TANK LEVEL 1. 38 GAL. 2. 3. 4.

CUMULATIVE TOTAL 199 GAL. Bailed 0.5 GAL.

PUMPING RATE RW1 RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				24.			
RW 2.				25.			
RW 3.				26.			
RW 4.					After	Bail	
1.	13.56	13.13	.43		13.25		
2.	12.17			29.			
3.	12.17	12.04	.13		12.13		
4.	14.35			31.			
5.	13.15			32.			
6.	12.19			33.			
7.	13.74	Trace		34.			
8.	13.54	Trace		35.			
9.	16.75	16.67	.08		16.71		
10.	13.75	13.50	.25		13.58		
11.	18.96			38.			
12.	14.39			39.			
13.	15.00			40.			
14.	15.04			41.			
15.	14.98			42.			
16.	16.29			43.			
17.	12.67			44.			
18.	16.79			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-493

82-0923

LOCATION: GRUMMAN GALV. FIRE TRAIN AREA DATE 1-8-90 TIME 1100

STORAGE TANK LEVEL 1. 37 GAL. 2. 3. 4.

CUMULATIVE TOTAL 198 GAL. BAILED 0.5 G.

PUMPING RATE RW1 31 RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				24.			
RW 2.				25.			
RW 3.				26.			
RW 4.					AFTER	BAILED	
1.	13.40	13.24	0.16		13.31	13.30	0.01
2.	12.30						
3.	12.13	12.12	0.01				
4.	14.38						
5.	13.26						
6.	12.30						
7.	12.85	TRACE					
8.	13.59	TRACE					
9.	16.79						
10.	13.85	13.55	0.30		13.65	13.63	0.02
11.	18.97			38.			
12.	14.41			39.			
13.	14.99	TRACE		40.			
14.	15.10			41.			
15.	14.57			42.			
16.	16.45			43.			
17.	12.82			44.			
18.	11.56			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-4935

82-0923

LOCATION: CALVERTON FIRE TRAINING DATE 1/16/90 TIME 0900

STORAGE TANK LEVEL 1. .37 2. 3. 4.

CUMULATIVE TOTAL 198 GAL. BAILED 0.75 GAL.

PUMPING RATE RW1 28 G.P.M RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.	AFTER	BAIL	
1.	13.75	13.24	.51	28.	13.46		
2.	12.35			29.			
3.	12.35	12.19	.16	30.	12.29		
4.	14.44			31.			
5.	13.31			32.			
6.	12.35			33.			
7.	12.95	12.92	.03	34.	12.92		
8.	13.71	13.67	.04	35.	15.69		
9.	16.83			36.			
10.	14.02	13.64	.38	37.	13.75		
11.	19.04			38.			
12.	14.50			39.			
13.	15.06			40.			
14.	15.15			41.			
15.	14.62			42.			
16.	16.50			43.			
17.	12.90			44.			
18.	11.62			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

PEDNEAULT ASSOCIATES, INC. TESTING LABORATORIES
1615 NINTH AVENUE · P.O. BOX 205 · BOHEMIA, N.Y. 11716 · (516) 467-8477
AFTER 5 P.M. (516) 567-5579

March 14, 1989

TO: Marine Pollution Control
P. O. Box 2220
375 Dunton Avenue
East Patchogue, NY 11772

RE: P.O.# 2945

Date: Collected 3/7/89 Analyzed 3/7-3/10/89 Report 3/14/89

Sampling Point

1. Grumman - Calverton, NY - Influent (Fire Training Area)
2. Grumman - Calverton, NY - Effluent (Fire Training Area)
3.
4.
5.

Parameters		1	2	3	4	5
Benzene	ug/ℓ	1.4	<1.0			
Toluene	ug/ℓ	<1.0	<1.0			
Xylene	ug/ℓ	2.6	<1.0			
Chlorobenzene	ug/ℓ	<1.0	<1.0			
Ethylbenzene	ug/ℓ	<1.0	<1.0			
Dichlorobenzene	ug/ℓ	<1.0	<1.0			

JOHN PEDNEAULT
Lab Director

Lab Number 51765

jm

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-4 5

82-0923

LOCATION: Calv. Fire Training DATE 1/4/90 TIME 1000

STORAGE TANK LEVEL 1. 36 GAL 2. 3. 4.

CUMULATIVE TOTAL 197 G BAILED 0.38G.

PUMPING RATE RW1 32-646593 RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	12.06			24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	13.39	13.14	.25	1.	13.22		
2.	12.16			29.			
3.	12.1	12.04	.06	3.	12.05		
4.	14.27			31.			
5.	13.17			32.			
6.	12.22			33.			
7.	12.82	12.76	.06	7.	12.79		
8.	13.49	Trace		35.			
9.	16.69			36.			
10.	13.92	13.45	.47	10.	13.52		
11.	15.89			38.			
12.	14.32			39.			
13.	14.9	Trace		40.			
14.	15.			41.			
15.	14.46			42.			
16.	16.34			43.			
17.	12.72			44.			
18.	11.46			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C891830/1 07/07/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:06/22/89 RECEIVED:06/23/89

SAMPLE: Water sample, influent, fire train

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: B. Andres, M.P.C. - J. Emington

REMARKS:

DIRECTOR

n= 7947

PEDNEAULT ASSOCIATES, INC. TESTING LABORATORIES
1615 NINTH AVENUE · P.O. BOX 205 · BOHEMIA, N.Y. 11716 · (516) 467-8477
AFTER 5 P.M. (516) 567-5579

June 9, 1989

TO: NYS Dept. Environmental Conservation
SUNY Building 40
Stony Brook, NY 11794

Date: Collected 5/31/89 Analyzed 5/31-6/5/89 Report 6/9/89

Sampling Point

1. Grumman, Calverton, NY - Fire Training - Wellhead Discharge
2.
3.
4.
5.

Parameters		1	2	3	4	5
Benzene	ug/l	<1.0				
Toluene	ug/l	15.2				
Xylene	ug/l	9.3				
Chlorobenzene	ug/l	<1.0				
Ethylbenzene	ug/l	<1.0				
Dichlorobenzene	ug/l	2.8				
Petroleum Products in Water	mg/l	<0.1				
		trace fuel oil				

Spill # 82-0923

JOHN PEDNEAULT
Lab Director

Lab Number 53376

jm cc: MPC

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C892074/1 07/24/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fire Training
COLLECTED BY: MPC/Client DATE COL'D:07/19/89 RECEIVED:07/19/89

SAMPLE: Water sample, #82-0923, influent, 1100am

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: Barry Andree, J. Emington-MPC

REMARKS:

DIRECTOR

rn= 9133

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C891830/2 07/07/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:06/22/89 RECEIVED:06/23/89

SAMPLE: Water sample, effluent, fire train

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: B. Andres, M.P.C. - J. Emington

REMARKS:

DIRECTOR

1= 794A

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C892369/1 08/29/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton, Fire Training
COLLECTED BY: MarPollCon DATE COL'D:08/16/89 RECEIVED:08/16/89

SAMPLE: Water sample, influent, 1145

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
n Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: B. Andres, MPC-John Emington

REMARKS: Spill #820923

DIRECTOR

10416

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C892074/2 07/24/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton Fire Training
COLLECTED BY: MPC/Client DATE COL'D:07/19/89 RECEIVED:07/19/89

SAMPLE: Water sample, #82-0923, effluent, 1100am

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: Barry Andres, J. Emington-MPC

REMARKS:

DIRECTOR Thomas R. [signature]

rn= 9134

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C893420/1 11/30/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Barry Andres PO#30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:11/16/89 RECEIVED:11/17/89

SAMPLE: Water sample, Fire Training, 1100

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc:Ohlmann, Selva, MPC

REMARKS:

DIRECTOR Thomas R. Jenne

n= 15157 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C892369/2 08/29/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton, Fire Training
COLLECTED BY: MarPollCon DATE COL'D:08/16/89 RECEIVED:08/16/89

SAMPLE: Water sample, Effluent, 1150

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: B. Andree, MPC-John Emington

REMARKS: Spill #820923

DIRECTOR

-n= 10417

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C893664/2 12/27/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Barry Andres-A03-12

PO# 30-28955

URCE OF SAMPLE: Fire Train Area
COLLECTED BY: MPC DATE COL'D:12/13/89 RECEIVED:12/13/89

SAMPLE: Water sample, 930, effluent

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
oluene	ug/L	<2	
hyl Benzene	ug/L	<1	
Xylene	ug/L	<2	
p Xylene	ug/L	<4	

cc:J. Selva, MPC

REMARKS:

DIRECTOR

16276 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C893664/1 12/27/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Barry Andres-A03-12 PO# 30-28955

SOURCE OF SAMPLE: Fire Train Area
COLLECTED BY: MPC DATE COL'D:12/13/89 RECEIVED:12/13/89

SAMPLE: Water sample, 930, influent

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
Xylene	ug/L	<2	
Mp Xylene	ug/L	<4	

cc:J. Selva, MPC

REMARKS:

DIRECTOR

NYS 16275 NYSDOH ID# 10320

FILE ONLY

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C900519/1 02/23/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Firetraining Area, Calverton
COLLECTED BY: MPC DATE COL'D:02/15/90 RECEIVED:02/15/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, GAC, J. Selva, MPC

REMARKS:

DIRECTOR

n= 2132 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C900353 02/05/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: B. Andres

SOURCE OF SAMPLE: Firetraining Area, Spill#82-0923, Job 1067
COLLECTED BY: M.P.Cont. DATE COL'D:01/31/90 RECEIVED:02/01/90

SAMPLE: Wastewater sample, effluent

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc:Ohlmann-B08-30, J.Selva, M.P.C.

REMARKS:

DIRECTOR

1559 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C903280/2 10/19/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton, Fire Train
COLLECTED BY: MPC DATE COL'D:10/08/90 RECEIVED:10/08/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<2	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<2	
m + p Xylene	ug/L	<4	
o Xylene	ug/L	<2	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

n= 15024 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C902412/2 08/03/90

Grumman Aeroepace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey

SOURCE OF SAMPLE: Grumman, Calverton-Fire Training
COLLECTED BY: MPC DATE COL'D:07/27/90 RECEIVED:07/30/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn# 11202 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C903921/2 12/14/90

Grumman Aerospace Corporation
Mail Station A-04-06
Calverton, NY 11933
ATTN: Charles Smith PO# 30-28955

SOURCE OF SAMPLE: Grumman Calverton, Fire Training Area
COLLECTED BY: MPC DATE COL'D:11/29/90 RECEIVED:11/29/90

SAMPLE: Water sample, 8:45

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc:J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn# 18720 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C903553/1 11/07/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:10/30/90 RECEIVED:10/30/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, GAC, J. Selva, MPC

REMARKS:

DIRECTOR

rn= 16285 NYSDOH ID# 10320

The recovery system at the fuel calibration area continues to operate, pumping at an average rate of 81 gallons per minute for 1990 (Figure 1). The total amount of product recovered to date is 1,115.5 gallons. Tables 1 through 3 are summaries of water samples collected at the discharge point, for 1988, 1989 and 1990, respectively. According to the data, the highest discharge concentration for 1988 was on April 26, at 170.2 ppb (for BTX). During 1989 the highest discharge concentration was at 64.7 ppb on May 31. The concentrations continue to decrease with a maximum of 36 ppb detected on October 8, 1990. The lab reports from which this data was obtained is found in the Appendix.

Table 4 is a summary of product thicknesses in the recovery well and wells number 4, 9, 11, 13 and 16. According to the data, the maximum product thickness in the recovery well was 0.25 feet on January 4. Well number 4 showed only a trace on November 20. Well number 9 had a maximum thickness of 0.30 feet on both June 29 and July 13. Monitoring well number 11 had a maximum of 0.22 feet on October 24. The maximum amount of product detected at the fuel calibration area was in well number 13 at 1.10 feet on September 21. Only a trace of product was detected in well number 16 on October 4. Wellsheets from which this data was compiled are found in the Appendix.

ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

Fuel Calibration Area

Prepared by:

MPC Environmental Services
January 11, 1991

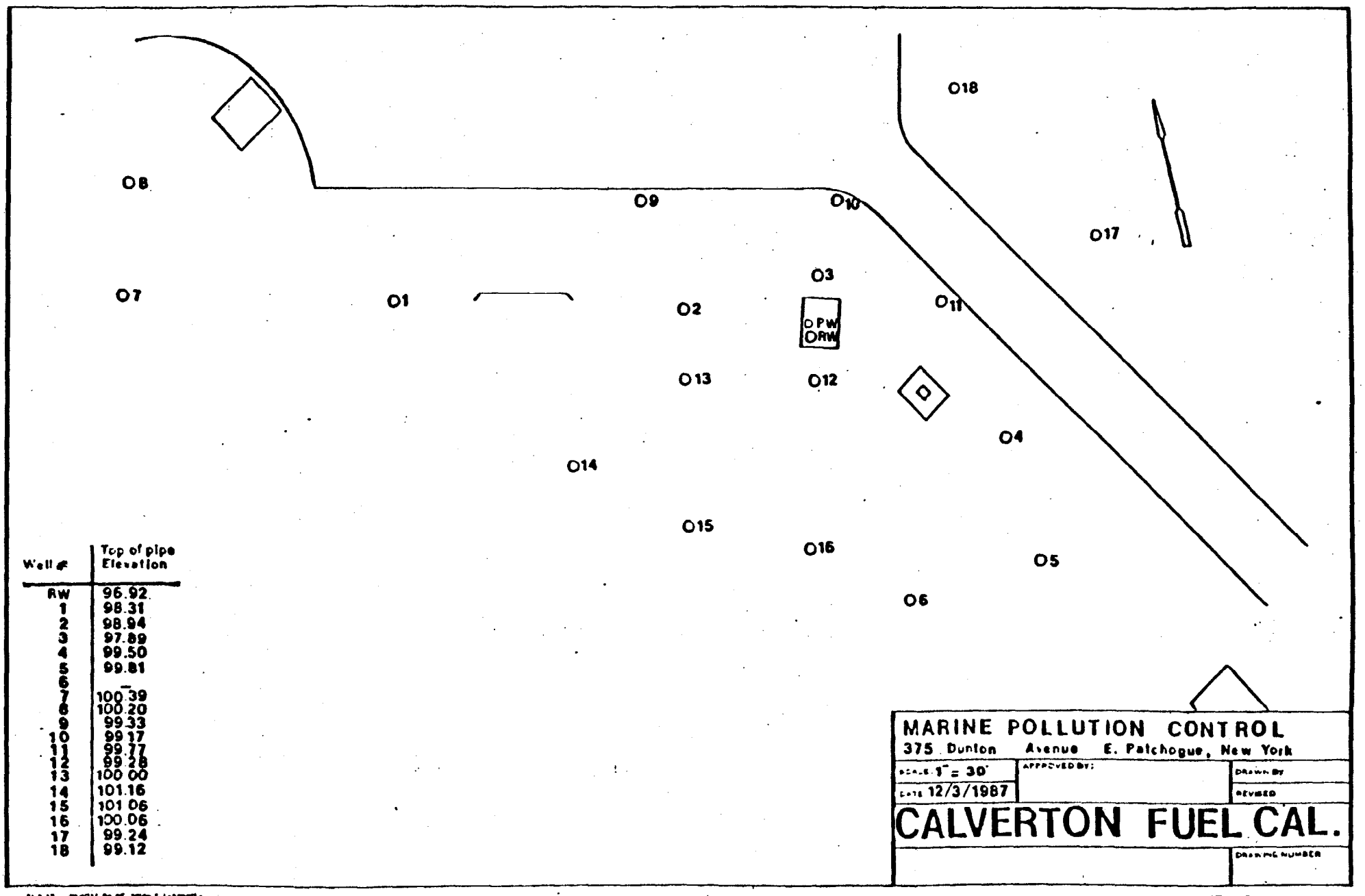
P.O. Box 610
460 Edwards Avenue, Calverton, NY 11933
516-369-4900 FAX 516-369-4909

An Equal Opportunity Employer

Table 1.

BTX Discharge Sample Results for 1988

Date	Discharge (ppb)
03/21	88.3
04/26	170.2



Well #	Top of pipe Elevation
RW	96.92
1	98.31
2	98.94
3	97.89
4	99.50
5	99.81
6	
7	100.39
8	100.20
9	99.33
10	99.17
11	99.77
12	99.28
13	100.00
14	101.16
15	101.06
16	100.06
17	99.24
18	99.12

FIGURE 1.

Table 3.

BTX Discharge Sample Results for 1990

Date	Discharge (ppb)
02/15	<2.0
07/27	8.0
10/08	36.0
10/30	22.0
11/29	18.0

Table 2.

BTX Discharge Sample Results for 1989

Date	Discharge (ppb)
02/17	43.0
05/31	64.7
06/22	4.0
07/19	54.0
11/16	14.0
12/19	48.0

Table 4. (Continued)

Product Thicknesses for 1990 in Feet

Date	RW	#4	#9	#10	#11	#13	#16
05/24	T	0.00	0.00	0.00	0.00	0.00	0.00
06/01	0.00	0.00	T	0.00	T	0.00	0.00
06/07	0.00	0.00	T	0.00	T	0.00	0.00
06/13	0.00	0.00	T	0.00	0.02	0.00	0.00
06/21	0.00	0.00	0.22	0.00	0.00	0.00	0.00
06/29	0.00	0.00	0.30	0.00	0.00	0.00	0.00
07/05	T	0.00	0.00	0.00	0.00	0.00	0.00
07/13	0.00	0.00	0.30	0.00	0.00	0.00	0.00
07/20	0.00	0.00	T	0.00	0.00	0.00	0.00
08/03	0.00	0.00	T	0.00	0.00	0.55	0.00
07/27	0.00	0.00	0.06	0.00	0.00	0.05	0.00
08/10	0.00	0.00	0.05	0.00	0.03	0.32	0.00
08/16	0.00	0.00	0.01	0.00	0.02	0.10	0.00
08/23	0.00	0.00	T	0.00	0.00	T	0.00
08/31	0.00	0.00	T	0.00	T	0.49	0.00
09/05	0.00	0.00	T	0.00	T	0.45	0.00
09/14	0.00	0.00	T	T	T	0.85	0.00
09/21	0.00	0.00	T	0.00	T	1.10	0.00
09/27	0.00	0.00	T	0.00	T	0.65	0.00

T = Trace

Table 4.

Product Thicknesses for 1990 in Feet

Date	RW	#4	#9	#10	#11	#13	#16
01/04	0.25	0.00	0.14	0.00	0.00	0.00	0.00
01/08	0.18	0.00	T	0.00	0.00	0.00	0.00
01/16	0.15	0.00	T	0.00	0.00	0.00	0.00
01/23	0.14	0.00	T	0.00	T	0.00	0.00
01/31	0.21	0.00	T	0.00	T	0.00	0.00
02/07	0.00	0.00	T	0.00	T	0.00	0.00
02/14	0.00	0.00	T	0.00	T	0.00	0.00
02/23	T	0.00	0.02	0.00	0.02	0.00	0.00
02/27	0.00	0.00	0.00	0.00	T	0.00	0.00
03/05	0.00	0.00	T	0.00	0.00	0.00	0.00
03/15	0.00	0.00	T	0.00	T	0.00	0.00
03/23	0.00	0.00	0.00	0.00	T	0.00	0.00
03/29	0.00	0.00	T	0.00	0.00	0.00	0.00
04/25	0.00	0.00	T	0.00	T	0.00	0.00
04/14	0.00	0.00	T	0.00	0.00	0.00	0.00
04/12	0.00	0.00	T	0.00	T	0.00	0.00
04/05	0.00	0.00	0.00	0.00	T	0.00	0.00
05/02	0.00	0.00	T	0.00	T	0.00	0.00
05/10	0.00	0.00	0.03	0.00	0.01	0.00	0.00
05/17	T	0.00	0.00	0.00	T	0.00	0.00

T = Trace

Appendix

Table 4. (Continued)

Product Thicknesses for 1990 in Feet

Date	RW	#4	#9	#10	#11	#13	#16
10/04	0.00	0.00	T	0.00	0.09	1.03	T
10/11	0.00	0.00	0.00	0.00	0.08	1.05	0.00
10/18	0.00	0.00	T	0.00	0.15	0.30	0.00
10/24	0.00	0.00	T	0.00	0.22	0.00	0.00
11/01	0.01	0.00	T	0.00	T	0.01	T
11/07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14	0.00	0.00	0.00	0.00	T	0.00	0.00
11/20	0.00	T	0.00	0.00	0.00	0.00	0.00
11/28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/07	0.00	0.00	0.00	0.00	0.01	0.00	0.00
12/13	0.00	0.00	0.00	0.00	T	0.00	0.00
12/20	0.00	0.00	0.00	0.00	T	0.00	0.00

T = Trace

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C903553/2 11/07/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey

SOURCE OF SAMPLE: Fuel Calibration, Calverton
COLLECTED BY: MPC DATE COL'D:10/30/90 RECEIVED:10/30/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	2	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	16	

cc: J. Ohlmann, GAC, J. Selva, MPC

REMARKS:

DIRECTOR

rn# 16286 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C903921/1 12/14/90

Grumman Aerospace Corporation
Mail Station A-04-06
Calverton, NY 11933
ATTN: Charles Smith PO# 30-28955

SOURCE OF SAMPLE: Grumman Calverton, Calibration Area
COLLECTED BY: MPC DATE COL'D:11/29/90 RECEIVED:11/29/90

SAMPLE: Water sample, 9:05

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	3	
Toluene	ug/L	2	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	13	

cc:J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn= 18719 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C902412/1 08/03/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey

SOURCE OF SAMPLE: Grumman, Calverton-Fuel Calibration
COLLECTED BY: MPC DATE COL'D:07/27/90 RECEIVED:07/30/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	2	
m + p Xylene	ug/L	4	
o Xylene	ug/L	2	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

n= 11201 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C903280/1 10/19/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey

John Ohlman
B08-30

PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton-Fuel Calibration
COLLECTED BY: MPC DATE COL'D:10/08/90 RECEIVED:10/08/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<2	
Toluene	ug/L	7	
Ethyl Benzene	ug/L	<2	
m + p Xylene	ug/L	11	
o Xylene	ug/L	18	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn# 15023 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C893739 12/27/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Barry Andres PO# 30-28955

OURCE OF SAMPLE: Grumman Calverton Fuel Cal Area
COLLECTED BY: MPC DATE COL'D:12/19/89 RECEIVED:12/20/89

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
. nzene	ug/L	2	
Toluene	ug/L	5	
thyl Benzene	ug/L	1	
Xylene	ug/L	17	
o-p Xylene	ug/L	23	

cc: J. Selva, MPC

REMARKS:

DIRECTOR

16557 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C900519/2 02/23/90

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fuel Calib, Calverton
COLLECTED BY: MPC DATE COL'D:02/15/90 RECEIVED:02/15/90

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, GAC, J. Selva, MPC

REMARKS:

DIRECTOR

'n= 2133 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C892074/3 07/24/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Calverton ~~Fire Training~~ Fuel Calibration
COLLECTED BY: MPC/Client DATE COL'D:07/19/89 RECEIVED:07/19/89

SAMPLE: Water sample, #84-0011, effluent, 1300

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	6	
m Xylene	ug/L	18	
o+p Xylene	ug/L	25	

cc: Barry Andres, J. Emington-MPC

REMARKS:

DIRECTOR Thomas R. Flute

rn# 9135

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C893420/2 11/30/89

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Barry Andres PO#30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:11/16/89 RECEIVED:11/17/89

SAMPLE: Water sample, Fuel, Calverton 1430

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	<1	
n Xylene	ug/L	<2	
o+p Xylene	ug/L	9	

cc:Ohlmann, Selva, MPC

REMARKS:

DIRECTOR

NYSDOH ID# 10320

15158

PEDNEAULT ASSOCIATES, INC. TESTING LABORATORIES
1615 NINTH AVENUE · P.O. BOX 205 · BOHEMIA, N.Y. 11716 · (516) 467-8477
AFTER 5 P.M. (516) 567-5579

June 9, 1989

TO: NYS Dept. Environmental Conservation
SUNY Building 40
Stony Brook, NY 11794

Date: Collected 5/31/89 Analyzed 5/31-6/5/89 Report 6/9/89

Sampling Point

1. Grumman, Calverton, NY - Fuel Calibration - Wellhead Discharge
2.
3.
4.
5.

Parameters		1	2	3	4	5
Benzene	ug/l	4.2				
Toluene	ug/l	4.1				
Xylene	ug/l	33.6				
Chlorobenzene	ug/l	<1.0				
Ethylbenzene	ug/l	6.4				
Dichlorobenzene	ug/l	16.4				
Petroleum Products in Water	mg/l	18.5				
		fuel oil				

Spill # 84-0011

JOHN PEDNEAULT
Lab Director

Lab Number 53377

cc: MPC

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777

LAB NO. C891830/3 07/07/89

Grumman Aerospace Corp. (Calverton)
Mail Station A-08-30
Bethpage, NY 11714
ATTN: John Ohlmann PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton
COLLECTED BY: MPC DATE COL'D:06/22/89 RECEIVED:06/23/89

SAMPLE: Water sample, fuel calibration

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	4	

cc: B. Andres, M.P.C. - J. Emington

REMARKS:

DIRECTOR

n# 7949

PEDNEAULT ASSOCIATES, INC. TESTING LABORATORIES
1615 NINTH AVENUE · P.O. BOX 205 · BOHEMIA, N.Y. 11716 · (516) 467-8477
AFTER 5 P.M. (516) 567-5579

April 28, 1988

TO: Marine Pollution Control
P.O. Box 2220
375 Dunton Avenue
East Patchogue, NY 11772

Date: Collected 4/26/88 Analyzed 4/26-4/28/88 Report 4/28/88

Sampling Point

1. Grumman, Calverton, NY - Fuel Calibration Discharge
2.
3.
4.
5.

Parameters		1	2	3	4	5
Benzene	ug/ℓ	7.3				
Toluene	ug/ℓ	4.0				
Xylene	ug/ℓ	92.2				
Ethylbenzene	ug/ℓ	9.5				
Chlorobenzene	ug/ℓ	< 1.0				
Dichlorobenzene	ug/ℓ	57.2				

JOHN PEDNEAULT
Lab Director

Lab Number 46264
MJA

Kemron

Results for EPA 602 Scan
Purgeable Aromatics

Client: Marine Pollution Control

Re: Grumman PO#2923

Sample Identification: Discharge from Pump Well

Date Received: February 16, 1989

Date/Time/Analyst: 2-17-89/13:16/MN
ds 6067-89

Compound	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	4	1
Toluene	3	1
Xylenes[1]	35	1
Ethyl Benzene	1	1

[1]Xylenes as p, m, o isomers

Approved by: Maureen J Nunphius
Laboratory Manager

AIHA Laboratory Accreditation Number 169

New York State Interim Certification Number 10612

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Co. SPILL# 84-0011 DATE 12,20,90 TIME 1130

STORAGE TANK LEVEL 1 127.50G 2.

CUMULATIVE TOTAL 1115.50G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.92			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.33			30			
2	6.92			31			
3	5.92			32			
4	7.50			33			
5	7.79			34			
6	—			35			
7	7.98			36			
8	7.71			37			
9	7.10			38			
10	7.08			39			
11	7.77	TRACE		40			
12	7.42			41			
13	7.67			42			
14	9.06			43			
15	9.00			44			
16	8.04			45			
17	7.23			46			
18	7.04			47			
19				48			
20				49			
21				50			

PEDNEAULT ASSOCIATES, INC. TESTING LABORATORIES
1615 NINTH AVENUE · P.O. BOX 205 · BOHEMIA, N.Y. 11716 · (516) 467-8477
AFTER 5 P.M. (516) 567-5579

March 24, 1988

TO: Marine Pollution Control
P. O. Box 2220
375 Dunton Avenue
East Patchogue, NY 11772

Date: Collected 3/21/88 Analyzed 3/21-3/24/88 Report 3/24/88

Sampling Point

1. Grumman Calverton - Fuel Calibration Area
2.
3.
4.
5.

Parameters		1	2	3	4	5
Benzene	ug/l	1.5				
Toluene	ug/l	3.8				
Xylene	ug/l	48.9				
Chlorobenzene	ug/l	<1.0				
Ethylbenzene	ug/l	4.0				
Dichlorobenzene	ug/l	30.1				

JOHN PEDNEAULT
Lab Director

Lab Number 45648

jm

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv. Fuel Cal Area SPILL# 84-0011 DATE 12/7/90 TIME 0945

STORAGE TANK LEVEL 1. 127.50G 2.

CUMULATIVE TOTAL 1115.50 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.92			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.60			30			
2	6.92			31			
3	5.90			32			
4	7.50			33			
5	7.80			34			
6	—			35			
7	7.98			36			
8	7.71			37			
9	7.14			38			
10	7.10			39			
11	7.01	7.00	0.01	40			
12	7.41			41			
13	7.85			42			
14	9.10			43			
15	9.02			44			
16	8.06			45			
17	7.22			46			
18	7.00			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALVERTON FUEL CAL. SPILL# 84-0011 DATE 12/13/90 TIME 1130

STORAGE TANK LEVEL 1 127.50 G. 2.

CUMULATIVE TOTAL 1115.50 G. GALLONS BAILED 0.00

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.06			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.29			30			
2	7.02			31			
3	6.94			32			
4	7.60			33			
5	7.90			34			
6	—			35			
7	8.08			36			
8	7.83			37			
9	7.29			38			
10	7.31			39			
11	7.83	TRACE		40			
12	7.52			41			
13	8.08			42			
14	9.17			43			
15	9.13			44			
16	8.17			45			
17	7.33			46			
18	7.17			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN/CALV. FUEL CAL. SPILL# 84-0011 DATE 11/20/90 TIME 1145

STORAGE TANK LEVEL 1. 127.50 G. 2.

CUMULATIVE TOTAL 1115.50 G. GALLONS BAILED 0.00

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.05			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.74			30			
2	7.05			31			
3	6.05			32			
4	7.61	TRACE		33			
5	7.92			34			
6	—			35			
7	8.09			36			
8	7.80			37			
9	7.30			38			
10	7.20			39			
11	7.84			40			
12	7.55			41			
13	8.14			42			
14	9.19			43			
15	9.15			44			
16	8.19			45			
17	7.35			46			
18	7.20			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Calibration SPILL# 84-0011 DATE 11,28,90 TIME 1200

STORAGE TANK LEVEL 1 127.50G. 2.

CUMULATIVE TOTAL 1115.50G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.17			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.75			30			
2	7.15			31			
3	6.15			32			
4	7.23			33			
5	8.02			34			
6	—			35			
7	8.19			36			
8	7.92			37			
9	7.42			38			
10	7.33			39			
11	7.96			40			
12	7.67			41			
13	8.29			42			
14	9.29			43			
15	9.25			44			
16	8.29			45			
17	7.46			46			
18	7.31			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Cal. SPILL# 84-0011 DATE 11/7/90 TIME 12:30

STORAGE TANK LEVEL 1 127.50 G 2.

CUMULATIVE TOTAL 115.50 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.85			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.78			30			
2	6.84			31			
3	5.82			32			
4	7.40			33			
5	7.70			34			
6	—			35			
7	7.88			36			
8	7.60			37			
9	6.08			38			
10	7.00			39			
11	7.62			40			
12	7.32			41			
13	7.94			42			
14	8.98			43			
15	8.92			44			
16	7.98			45			
17	7.13			46			
18	6.96			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel/Calir. SPILL# 34-0011 DATE 11/14/90 TIME 1300

STORAGE TANK LEVEL 1. 127.50 G. 2.

CUMULATIVE TOTAL 1115.50 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.90			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.30			30			
2	6.92			31			
3	5.90			32			
4	7.48			33			
5	7.80			34			
6	—			35			
7	7.95			36			
8	7.70			37			
9	7.15			38			
10	7.07			39			
11	7.70	Trace		40			
12	7.41			41			
13	7.80			42			
14	9.06			43			
15	9.00			44			
16	8.06			45			
17	7.22			46			
18	7.03			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel/Calib. SPILL# 84-0011 DATE 10/24/90 TIME 1500

STORAGE TANK LEVEL 1 12,750 G 2.

CUMULATIVE TOTAL 115,550 GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.35			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					After Bail		
1	4.02			30			
2	6.52			31			
3	4.40			32			
4	6.98			33			
5	7.30			34			
6	—			35			
7	7.43			36			
8	7.17			37			
9	5.77	Trace		38			
10	6.50			39			
11	7.35	7.13	.22	11	7.20		
12	6.59			41			
13	6.40			42			
14	8.56			43			
15	8.52			44			
16	7.57			45			
17	6.70			46			
18	6.45			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman / Converter / Fuel / Calibration SPILL# 84-0011 DATE 11-1-90 TIME 1230

STORAGE TANK LEVEL 1 127.50 2.

CUMULATIVE TOTAL 115.50 GALLONS BAILED trace

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.66	7.65	.01	22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29			
1	6.19			30			
2	6.46			31			
3	5.65			32			
4	7.22			33			
5	7.53			34			
6	-			35			
7	7.69			36			
8	7.40			37			
9	6.92	Trace		38			
10	6.81			39			
11	7.45	Trace		40			
12	7.15			41			
13	7.63	7.62	.01	42			
14	8.80			43			
15	8.76			44			
16	7.79			45			
17	6.95			46			
18	6.78			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Cal SPILL# 84-0011 DATE 10/11/90 TIME 1200

STORAGE TANK LEVEL 1. 127.6 2.

CUMULATIVE TOTAL 1115G. GALLONS BAILED 1G

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.25			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					After	Bail	
1	6.41			30			
2	7.24			31			
3	6.23			32			
4	7.85			33			
5	8.15			34			
6	—			35			
7	8.24			36			
8	7.98			37			
9	7.46			38			
10	7.42			39			
11	8.13	8.05	.08		8.08		
12	7.75			41			
13	9.20	8.15	1.05		9.30		
14	9.40			43			
15	9.35			44			
16	8.40			45			
17	7.58			46			
18	7.40			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel/Calibre SPILL# 84-0011 DATE 10/18/90 TIME 1200

STORAGE TANK LEVEL 1. 127.30 G. 2.

CUMULATIVE TOTAL 1115.30 G. GALLONS BAILED 0.30 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.90			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					After	Bail	
1	5.85			30			
2	6.90			31			
3	5.90			32			
4	7.50			33			
5	7.85			34			
6	—			35			
7	7.95			36			
8	7.68			37			
9	7.17	Trace		38			
10	7.10			39			
11	7.85	7.70	.15	11	7.70		
12	7.42			41			
13	8.05	7.75	.30	13	8.37		
14	9.07			43			
15	9.02			44			
16	8.06			45			
17	7.22			46			
18	7.05			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Calib. SPILL# 84-0011 DATE 9/27/90 TIME 1230

STORAGE TANK LEVEL 1. 125.G. 2.

CUMULATIVE TOTAL 1113G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.15			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	6.35			30			
2	7.13			31			
3	6.03			32			
4	7.73			33			
5	8.05			34			
6	—			35			
7	8.12			36			
8	7.85			37			
9	6.97	TRACE		38			
10	7.31			39			
11	8.00	TRACE		40			
12	7.65			41			
13	8.70	8.05	.65	13	8.75		
14	9.27			43			
15	9.23			44			
16	8.30			45			
17	7.46			46			
18	7.27			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Cabil Fuel/Calibration SPILL# 84-0011 DATE 10/4/92 TIME 1200

STORAGE TANK LEVEL 1. 1270. 2.

CUMULATIVE TOTAL 1115G. GALLONS BAILED 1G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.25			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW					AFTER	Bail	
				29			
1	7.16			30			
2	7.22			31			
3	6.23			32			
4	7.81			33			
5	8.12			34			
6	—			35			
7	8.22			36			
8	7.96			37			
9	7.51	TRACE		38			
10	7.40			39			
11	8.11	8.02	.09	11	8.05		
12	7.73			41			
13	9.15	8.12	1.03	13	9.22		
14	9.37			43			
15	9.25			44			
16	8.37	TRACE		45			
17	7.55			46			
18	7.37			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Co. SPILL# 84-0011 DATE 9/14/90 TIME 1300

STORAGE TANK LEVEL 1 112G. 2.

CUMULATIVE TOTAL 1100G. GALLONS BAILED 1.0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.20			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.93			30			
2	7.17			31			
3	6.18			32			
4	7.76			33			
5	8.05			34			
6	—			35			
7	8.15			36			
8	7.85			37	after	build	
9	7.42	TRACE		38			
10	7.33	TRACE		39			
11	8.00	TRACE		40			
12	7.70			41			
13	8.95	8.10	.85	B	8.95		
14	9.31			43			
15	9.27			44			
16	8.32			45			
17	7.47			46			
18	7.30			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton F.E/Calibrat. SPILL# 84-0011 DATE 9/21/90 TIME 1300

STORAGE TANK LEVEL 1 113 G. 2.

CUMULATIVE TOTAL 1101 G. GALLONS BAILED 1.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.30			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	6.54			30			
2	7.17			31			
3	6.18			32			
4	7.77			33			
5	8.08			34			
6	—			35			
7	8.15			36			
8	7.88			37			
9	7.32	TRACE		38			
10	7.35			39			
11	8.02	TRACE		40			
12	7.70			41			
13	9.17	8.07	1.10	13	8.92		
14	9.31			43			
15	9.26			44			
16	8.32			45			
17	7.47			46			
18	7.32			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALVERTON - FUEL CALIBRATION SPILL# 84-0011 DATE 8/31/90 TIME 11:00

STORAGE TANK LEVEL 1 111 G. 2.

CUMULATIVE TOTAL 1099 G. GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.49			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	9.81			26			
PW 2				27			
IW				28			
				29			
1	6.31			30			
2	6.52			31			
3	5.46			32			
4	7.19			33			
5	7.56			34			
6	—			35			
7	7.76			36			
8	7.48			37			
9	6.74	TRACE		38			
10	6.71			39			
11	7.35	TRACE		40			
12	6.98			41			
13	8.06	7.57	0.49	13	7.63	TRACE	
14	8.78			43			
15	8.72			44			
16	7.77			45			
17	7.96			46			
18	6.73			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Co. SPILL# 84-0011 DATE 9/5/90 TIME 1300

STORAGE TANK LEVEL 1. 111 G. 2.

CUMULATIVE TOTAL 1099 G. GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	8.00			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26	AFTER	BAIL	
PW 2				27			
IW				28			
				29			
1	7.02			30			
2	7.00			31			
3	6.00			32			
4	7.59			33			
5	7.90			34			
6	—			35			
7	7.98			36			
8	7.70			37			
9	7.17	TRACE		38			
10	7.16			39			
11	7.82	TRACE		40			
12	7.52			41			
13	8.50	8.05	.45	13	8.46		
14	9.14			43			
15	9.10			44			
16	8.16			45			
17	7.30			46			
18				47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fuel Calibration SPILL# 84-0011 DATE 8-16-90 TIME 1100

STORAGE TANK LEVEL 1. 107 G. 2.

CUMULATIVE TOTAL 1095G. GALLONS BAILED 0.12

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.28			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	6.10			30			
2	6.23			31			
3	5.14			32			
4	6.90			33			
5	7.27			34			
6	-			35			
7	7.47			36			
8	7.17			37			
9	6.51	6.50	.01	9	8.31		
10	6.39			39			
11	7.07	7.05	.02	11	7.46		
12	6.69			41			
13	7.43	7.33	.10	13	10.05		
14	8.49			43			
15	8.42			44			
16	7.46			45			
17	6.65			46			
18	6.43			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Cahurton - Fuel Calibration SPILL# 84-0011 DATE 8/23/90 TIME 1300

STORAGE TANK LEVEL 1. 107 G. 2.

CUMULATIVE TOTAL 1095 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.96	Trace		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.64			30			
2	6.42			31			
3	5.35			32			
4	7.12			33			
5	7.47			34			
6	—			35			
7	7.65			36			
8	7.37			37			
9	6.7	Trace		38			
10	6.61			39			
11	7.31			40			
12	6.9			41			
13	7.55	Trace		42			
14	8.74			43			
15	8.68			44			
16	7.71			45			
17	6.87			46			
18	6.7			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALVERTON - FUEL CALIBRATION SPILL# 84-0011 DATE 8/3/90 TIME 13:30

STORAGE TANK LEVEL 1 97 G. 2.

CUMULATIVE TOTAL 1085 G GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.35			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1	10.25			26			
PW 2				27			
IW				28			
				29			
1	6.66			30			
2	6.39			31			
3	5.34			32			
4	7.06			33			
5	7.42			34			
6	—			35			
7	7.63			36			
8	7.35			37			
9	6.75	TRACE		38			
10	6.58			39			
11	7.25			40			
12	6.86			41	AFTER BAIL		
13	7.98	7.43	0.55	13	8.04	N/P	
14	8.65			43			
15	8.59			44			
16	7.64			45			
17	6.83			46			
18	6.62			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Calibration - Calverton SPILL# 84-0011 DATE 8/10/90 TIME 1330

STORAGE TANK LEVEL 1. 1040. 2.

CUMULATIVE TOTAL 1092 G GALLONS BAILED 0.50

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.26			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1				30			
2	6.33			31			
3	5.26			32			
4	7.05			33			
5	7.4			34			
6	—			35	After	Bailed	
7	7.59			36			
8	7.3			37			
9	6.67	6.62	.05		6.73		
10	6.55			39			
11	7.27	7.24	.03	11.	7.25		
12	6.88			41			
13	7.73	7.41	.32	13.	7.85	7.84	.01
14	8.65			43			
15	8.6			44			
16	7.65			45			
17	6.79			46			
18	6.61			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Cal. SPILL# 84-0041 DATE 7/20/90 TIME 1900

STORAGE TANK LEVEL 1. 97 G 2. _____

CUMULATIVE TOTAL 1085 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.95			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.3			30			
2	6.14			31			
3	5.07			32			
4	6.81			33			
5	7.18			34			
6	—			35			
7	7.98			36			
8	7.1			37			
9	6.41	Trace		38			
10	6.31			39			
11	6.98			40			
12	6.61			41			
13	7.26			42			
14	8.41			43			
15	8.36			44			
16	7.99			45			
17	6.56			46			
18	6.36			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Cal. SPILL# 84-0011 DATE 7/27/90 TIME 14:30

STORAGE TANK LEVEL 1. 97G. 2.

CUMULATIVE TOTAL 1085G. GALLONS BAILED 0.10

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.65			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.01			30			
2	6.6			31			
3	5.6			32			
4	7.18			33			
5	7.5			34	After	Bailed	
6	—			35			
7	7.55			36			
8	7.27			37			
9	6.8	6.74	.06	38.	6.84		
10	6.75			39			
11	7.39			40			
12	7.15			41			
13	7.72	7.67	.05	42.	7.79		
14	8.75			43			
15	8.71			44			
16	7.76			45			
17	6.88			46			
18	6.7			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Col SPILL# 84-0011 DATE 7/5/90 TIME 1000

STORAGE TANK LEVEL 1 63 G. 2.

CUMULATIVE TOTAL 1051G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.75	Trace		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.70			30			
2	5.85			31			
3	4.78			32			
4	6.54			33			
5	6.84			34			
6	—			35			
7	7.11			36			
8	6.82			37			
9	6.06			38			
10	6.01			39			
11	6.68			40			
12	6.31			41			
13	6.98			42			
14	8.13			43			
15	8.07			44			
16	7.11			45			
17	6.26			46			
18	6.04			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Col. SPILL# 84-0011 DATE 7/19/90 TIME 1400

STORAGE TANK LEVEL 1 756. 2.

CUMULATIVE TOTAL 10636 GALLONS BAILED 0.25

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.25	6.74	.51	22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.62			30			
2	5.89			31			
3	3.99			32			
4	6.61			33			
5	6.98			34			
6	—			35			
7	7.14			36	After	Bailed	
8	6.84			37			
9	5.01	4.71	.30	9.	5.12	5.11	.01
10	6.13			39			
11	6.74			40			
12	6.50			41			
13	7.1			42			
14	8.22			43			
15	8.17			44			
16	7.21			45			
17	6.33			46			
18	6.12			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Cal. SPILL# 84-0011 DATE 6/21/90 TIME 1300

STORAGE TANK LEVEL 1 63-G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0.20

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.67			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.51			30			
2	5.71			31			
3	4.66			32			
4	6.4			33			
5	6.76			34			
6	—			35	AFTER	BAILED	
7	7.01			36			
8	6.72			37			
9	6.08	5.86	.22	9.	6.03	Trace	
10	5.9			39			
11	6.57			40			
12	6.29			41			
13	6.88			42			
14	8.04			43			
15	7.97			44			
16	7.			45			
17	6.14			46			
18	5.94			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Cal. SPILL# 84-0011 DATE 6/29/90 TIME 13.30

STORAGE TANK LEVEL 1 636 2.

CUMULATIVE TOTAL 10516 GALLONS BAILED 0.20

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.87			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	6.16			30			
2	5.95			31			
3	4.88			32			
4	6.60			33			
5	6.98			34			
6	—			35			
7	7.21			36			
8	6.93			37			
9	6.42	6.12	.30		6.94	Trace	
10	6.11			39			
11	6.78			40			
12	6.41			41			
13	7.08			42			
14	8.29			43			
15	8.15			44			
16	7.20			45			
17	6.36			46			
18	6.14			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Pal SPILL# 84-0011 DATE 6/7/90 TIME 1230

STORAGE TANK LEVEL 1. 63 G 2.

CUMULATIVE TOTAL 1051 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.41			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.47			30			
2	5.35			31			
3	4.84			32			
4	6.1			33			
5	6.47			34			
6	—			35			
7	6.7			36			
8	6.42			37			
9	4.34	Trace		38			
10	5.41			39			
11	6.24	Trace		40			
12	5.98			41			
13	6.49			42			
14	7.8			43			
15	7.73			44			
16	6.74			45			
17	5.8			46			
18	5.59			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: [illegible] SPILL# [illegible] DATE 6-13-90 TIME [illegible]

STORAGE TANK LEVEL 1 63 G. 2. [illegible]

CUMULATIVE TOTAL 1051 G. GALLONS BAILED [illegible]

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	[illegible]			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	Water	[illegible]	
1	[illegible]			30			
2	[illegible]			31			
3	[illegible]			32			
4	[illegible]			33			
5	6.63			34			
6	-			35			
7	[illegible]			36			
8	[illegible]			37			
9	[illegible]	[illegible]		38	[illegible]		
10	[illegible]			39	-		
11	[illegible]	[illegible]	[illegible]	40	[illegible]		
12	[illegible]			41			
13	[illegible]			42			
14	[illegible]			43			
15	[illegible]			44			
16	[illegible]			45			
17	[illegible]			46			
18	[illegible]			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv Tucl CAL. Area SPILL# 84-0011 DATE 5-24-90 TIME 1100

STORAGE TANK LEVEL 1. 63 G 2.

CUMULATIVE TOTAL 1051 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.05	TRACE		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.28			30			
2	6.04			31			
3	5.00			32			
4	6.60			33			
5	6.90			34			
6	—			35			
7	7.60			36			
8	6.76			37			
9	6.17			38			
10	6.17			39			
11	6.84			40			
12	6.50			41			
13	6.93			42			
14	8.20			43			
15	8.15			44			
16	8.17			45			
17	6.29			46			
18	6.10			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton-Fuel Pal. SPILL# 84-0011 DATE 6/1/90 TIME 1330

STORAGE TANK LEVEL 1. 6.3 G. 2.

CUMULATIVE TOTAL 1051 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.73			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.77			30			
2	5.68			31			
3	4.7			32			
4	6.28			33			
5	6.59			34			
6	—			35			
7	6.78			36			
8	6.49			37			
9	5.47	Trace		38			
10	5.85			39			
11	6.48	Trace		40			
12	6.38			41			
13	6.82			42			
14	7.89			43			
15	7.84			44			
16	6.88			45			
17	5.98			46			
18	5.78			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fuel Cal. SPILL# 84-0011 DATE 5-10-90 TIME 1030

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED trace

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.80			22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	5.68			30			
2	5.80			31			
3	4.74			32			
4	6.46			33			
5	6.83			34			
6	-			35			
7	7.13			36			
8	6.71			37			
9	6.07	6.04	.03	38	6.08		
10	5.98			39			
11	6.65	6.64	.01	40	6.72		
12	6.24			41			
13	6.91			42			
14	8.09			43			
15	8.03			44			
16	7.05			45			
17	6.21			46			
18	6.01			47			
19				48			
0				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Cell SPILL# 84-0011 DATE 5/17/90 TIME 1190

STORAGE TANK LEVEL 1 63 G. 2.

CUMULATIVE TOTAL 1051G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.9	Trace		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.07			30			
2	5.75			31			
3	3.26			32			
4	6.46			33			
5	6.8			34			
6	—			35			
7	6.95			36			
8	6.64			37			
9	4.5			38			
10	6.			39			
11	6.64	Trace		40			
12	6.4			41			
13	5.7			42			
14	8.12			43			
15	8.08			44			
16	7.12			45			
17	6.14			46			
18	5.95			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Shell Col. SPILL# 84-0011 DATE 4/25/90 TIME 1330

STORAGE TANK LEVEL 1. 635 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.46			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.85			30			
2	5.37			31			
3	4.44			32			
4	6.17			33			
5	6.53			34			
6	—			35			
7	6.8			36			
8	6.51			37			
9	5.5	Trace		38			
10	5.68			39			
11	6.95	Trace		40			
12	5.94			41			
13	6.65			42			
14	7.82			43			
15	7.77			44			
16	6.82			45			
17	5.92			46			
18	5.71			47			
19				48			
0				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Col. SPILL# 84-0011 DATE 5/2/90 TIME 1300

STORAGE TANK LEVEL 1 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.58			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.78			30			
2	5.68			31			
3	4.66			32			
4	6.39			33			
5	6.75			34			
6	———			35			
7	7.04			36			
8	6.75			37			
9	5.88	Trace		38			
10	5.9			39			
11	6.57	Trace		40			
12	6.14			41			
13	6.84			42			
14	8.03			43			
15	7.95			44			
16	7.			45			
17	6.14			46			
18	5.94			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Cel. SPILL# 84-0011 DATE 4/12/90 TIME 13:30

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.6			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.			30			
2	5.5			31			
3	4.52			32			
4	6.91			33			
5	6.67			34			
6	—			35			
7	6.97			36			
8	6.7			37			
9	4.91	Trace		38			
10	5.85			39			
11	6.5	Trace		40			
12	6.09			41			
13	6.67			42			
14	7.94			43			
15	7.87			44			
16	6.9			45			
17	6.07			46			
18	5.86			47			
19				48			
				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: [illegible] SPILL# [illegible] DATE 1-17-90 TIME [illegible]

STORAGE TANK LEVEL 1 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.29			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	3.25			30			
2	[illegible]			31			
3	3.84			32			
4	6.01			33			
5	6.38			34			
6	-			35			
7	6.67			36			
8	6.39			37			
9	4.31	TRACE		38			
10	5.47			39			
11	6.19			40			
12	[illegible]			41			
13	[illegible]			42			
14	7.65			43			
15	[illegible]			44			
16	6.61			45			
17	5.78			46			
18	5.64			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Calibration SPILL# 84-0011 DATE 3/29/90 TIME 1300

STORAGE TANK LEVEL 1 63 G. 2

CUMULATIVE TOTAL 1051 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.5	Trace		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.7			30			
2	6.11			31			
	5.05			32			
4	6.76			33			
5	7.12			34			
6	—			35			
7	7.4			36			
8	7.12			37			
9	6.38	Trace		38			
10	6.3			39			
11	6.95			40			
2	6.53			41			
13	7.23			42			
14	8.41			43			
5	8.35			44			
16	7.41			45			
	6.51			46			
18	6.32			47			
				48			
				49			
				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calv Grumman Full Cal Area SPILL# 84-0011 DATE 4-5-90 TIME 1100

STORAGE TANK LEVEL 1. 6.3 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.20			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.05			30			
2	6.01			31			
3	4.82			32			
4	6.65			33			
5	6.95			34			
6	—			35			
7	7.15			36			
8	7.85			37			
9	5.15			38			
10	6.23			39			
11	6.87	TRACE		40			
12	6.57			41			
13	6.90			42			
14	8.27			43			
15	8.24			44			
16	7.25			45			
17	6.35			46			
18				47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman / Calverton / Fuel Calibration SPILL # 84-0011 DATE 3-15-90 TIME 1130

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.44	7.43	.01	22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29			
1	5.43			30			
2	6.43			31			
3	5.43			32			
4	6.96			33			
5	7.27			34			
6	-			35			
7	7.43			36			
8	7.14			37			
9	6.65	TRACE		38			
10	6.58			39			
11	7.20	TRACE		40			
12	6.90			41			
13	7.54			42			
14	8.56			43			
15	8.51			44			
16	7.55			45			
17	6.57			46			
18	6.51			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton - Fuel Cal SPILL# 94-0011 DATE 3/23/00 TIME 1430

STORAGE TANK LEVEL 1 6.3 G. 2.

CUMULATIVE TOTAL 1051 G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.9			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.86			30			
2	5.9			31			
3	4.89			32			
4	6.6			33			
5	6.96			34			
6	—			35			
7	7.26			36			
8	6.98			37			
9	5.6			38			
10	6.15			39			
11	6.78	Trace		40			
12	6.39			41			
13	7.06			42			
14	8.29			43			
15	8.16			44			
16	7.2			45			
17	6.35			46			
18	6.17			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Cnh. Fuel Calibration SPILL# 84-0011 DATE 2/27/90 TIME 1430

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.10			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.05			30			
2	6.25			31			
3	4.19			32			
4	6.75			33			
5	7.06			34			
6	—			35			
7	7.24			36			
8	6.94			37			
9	5.78			38			
10	6.37			39			
11	7.00	Trace		40			
12	6.72			41			
13	7.18			42			
14	8.40			43			
15	8.35			44			
16	7.35			45			
17	6.45			46			
18	6.30			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV. FUEL CAL. SPILL# 84-0011 DATE 3-5-90 TIME 1030

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED

Flowmeter #1. 77 Gpm Gallons Pumped 473886

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.38	TRACE		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.25			30			
2	6.35			31			
3	5.35			32			
4	6.88			33			
5	7.20			34			
6	—			35			
7	7.35			36			
8	7.08			37			
9	6.22	TRACE		38			
10	6.50			39			
11	7.11			40			
12	6.82			41			
13	7.45			42			
14	8.50			43			
15	8.47			44			
16	7.47			45			
17	6.60			46			
18	6.42			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Calibration SPILL# 84-0011 DATE 2/14/90 TIME 0930

STORAGE TANK LEVEL 1 63 G 2.

CUMULATIVE TOTAL 1051 GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.29			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1.	3.88			30			
2	5.21			31			
3	4.31			32			
4	6.07			33			
5	6.4			34			
6	—			35			
7	6.68			36			
8	6.4			37			
9	5.25	Trace		38			
10	5.58			39			
11	6.31	Trace		40			
12	5.99			41			
13	6.49			42			
14	7.72			43			
15	7.67			44			
16	6.7			45			
17	5.82			46			
18	5.68			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman / Calverton / Fuel Cal. SPILL# 84-0011 DATE 2-23-90 TIME 1100

STORAGE TANK LEVEL 1. 63 G. 2.

CUMULATIVE TOTAL 1051 G. GALLONS BAILED 0.06 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.20	Trace		22			
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	-			26			
PW 2	-			27			
IW	-			28			
	-			29	After	Bailing	
1	4.34			30			
2	6.13			31			
3	4.02			32			
4	6.67			33			
5	6.97			34			
6	-			35			
7	7.10			36			
8	6.82			37			
9	4.97	4.95	.02	38	6.80		
10	6.21			39			
11	6.90	6.88	.02	40	7.33		
12	6.61			41			
13	6.78			42			
14	8.26			43			
15	8.22			44			
16	7.26			45			
17	6.35			46			
18	6.19			47			
19				48			
20				49			
21				50			

Tel: 654-4900

MPC ENVIRONMENTAL SERVIC.
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-493

84-0011

CATION: Calverton Fuel Calarkation DATE 1/31/90 TIME 1220

RAGE TANK LEVEL 1. 63 G. 2. 3. 4.

MULATIVE TOTAL 1051 G.

PUMPING RATE RW1 OFF RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.50	6.29	.21	24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	3.75			28.			
2.	5.33			29.			
3.	3.64			30.			
4.	6.04			31.			
5.	6.42			32.			
6.	[illegible]			33.			
7.	6.75			34.			
8.	6.46			35.			
9.	4.21	Trace		36.			
10.	5.50			37.			
1.	6.25	Trace		38.			
12.	5.81			39.			
3.	6.27			40.			
14.	[illegible]			41.			
5.	[illegible]			42.			
16.	[illegible]			43.			
.	5.77			44.			
18.	5.58			45.			
.				46.			
20.				47.			
.				48.			
				49.			
.				50.			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV. FUEL CAL SPILL# 84-0011 DATE 2-7-90 TIME 1115

STORAGE TANK LEVEL 1 63. G. 2.

CUMULATIVE TOTAL 1051 GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	6.30			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1.	3.50			30			
2	5.11			31			
3	4.20			32			
4	6.01			33			
5	6.39			34			
6	—			35			
7	6.67			36			
8	6.44			37			
9	4.79	TRACE		38			
10	5.50			39			
11	6.18	TRACE		40			
12	6.79			41			
13	6.37			42			
14	7.65			43			
15	7.59			44			
16	6.60			45			
17	5.77			46			
18	5.55			47			
19				48			
20				49			
21				50			

el: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-493

84-0011

LOCATION: Calverton Fuel/Calverton DATE 4/16/90 TIME 1300

STORAGE TANK LEVEL 1. 63 G 2. 3. 4.

CUMULATIVE TOTAL 1051 G

PUMPING RATE RW1 OFF RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.23	7.08	.15	24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	4.92			28.			
2.	6.15			29.			
3.	5.08			30.			
4.	6.79			31.			
5.	7.15			32.			
6.	mis			33.			
7.	7.44			34.			
8.	7.17			35.			
9.	10.46	TRACE		36.			
10.	6.31			37.			
11.	6.98			38.			
12.	6.56			39.			
13.	6.88			40.			
14.	8.42			41.			
15.	8.33			42.			
16.	7.39			43.			
17.	6.54			44.			
18.	6.33			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-493

84-0011

OCATION: Cabs Fuel Celebration DATE 1/23/90 TIME 1200

STORAGE TANK LEVEL 1. 63 G 2. 3. 4.

JMULATIVE TOTAL 1051 G

PUMPING RATE RW1 OFF RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.1	6.96	.14	24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	4.46			28.			
2.	5.85			29.			
3.	4.92			30.			
4.	6.7			31.			
5.	7.06			32.			
6.	—			33.			
7.	7.38			34.			
8.	7.09			35.			
9.	5.53	Trace		36.			
10.	6.24			37.			
11.	6.88	Trace		38.			
12.	6.48			39.			
3.	6.79			40.			
14.	8.35			41.			
5.	8.28			42.			
16.	7.31			43.			
7.	6.46			44.			
18.	6.25			45.			
1.				46.			
20.				47.			
.				48.			
22.				49.			
.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-49:

84-0011

LOCATION: Cabe Fuel Col DATE 1/4/90 TIME 1200

STORAGE TANK LEVEL 1. 63 GAL. 2. 3. 4.

CUMULATIVE TOTAL 1051 GAL. BAILED 0.13 G.

PUMPING RATE RW1 62-450779 RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.2	6.95	.25	24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	5.43			28.			
2.	6.04			29.			
3.	4.98			30.			
4.	6.69			31.			
5.	7.06			32.			
6.	—			33.			
7.	7.37			34.			
8.	7.08			35.			
9.	6.98	6.24	.14	9.	6.38	Trace	
10.	6.82			37.			
11.	6.86			38.			
12.	6.48			39.			
13.	7.21			40.			
14.	8.93			41.			
15.	8.26			42.			
16.	7.9			43.			
17.	6.42			44.			
18.	6.21			45.			
19.				46.			
20.				47.			
21.				48.			
				49.			
23.				50.			

Tel: 654-4900

MPC ENVIRONMENTAL SERVICES 84-0011

P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772

Fax: 654-49:

LOCATION: GRUMMAN GALV. FUEL CAL AREA DATE 1-8-90 TIME 1230

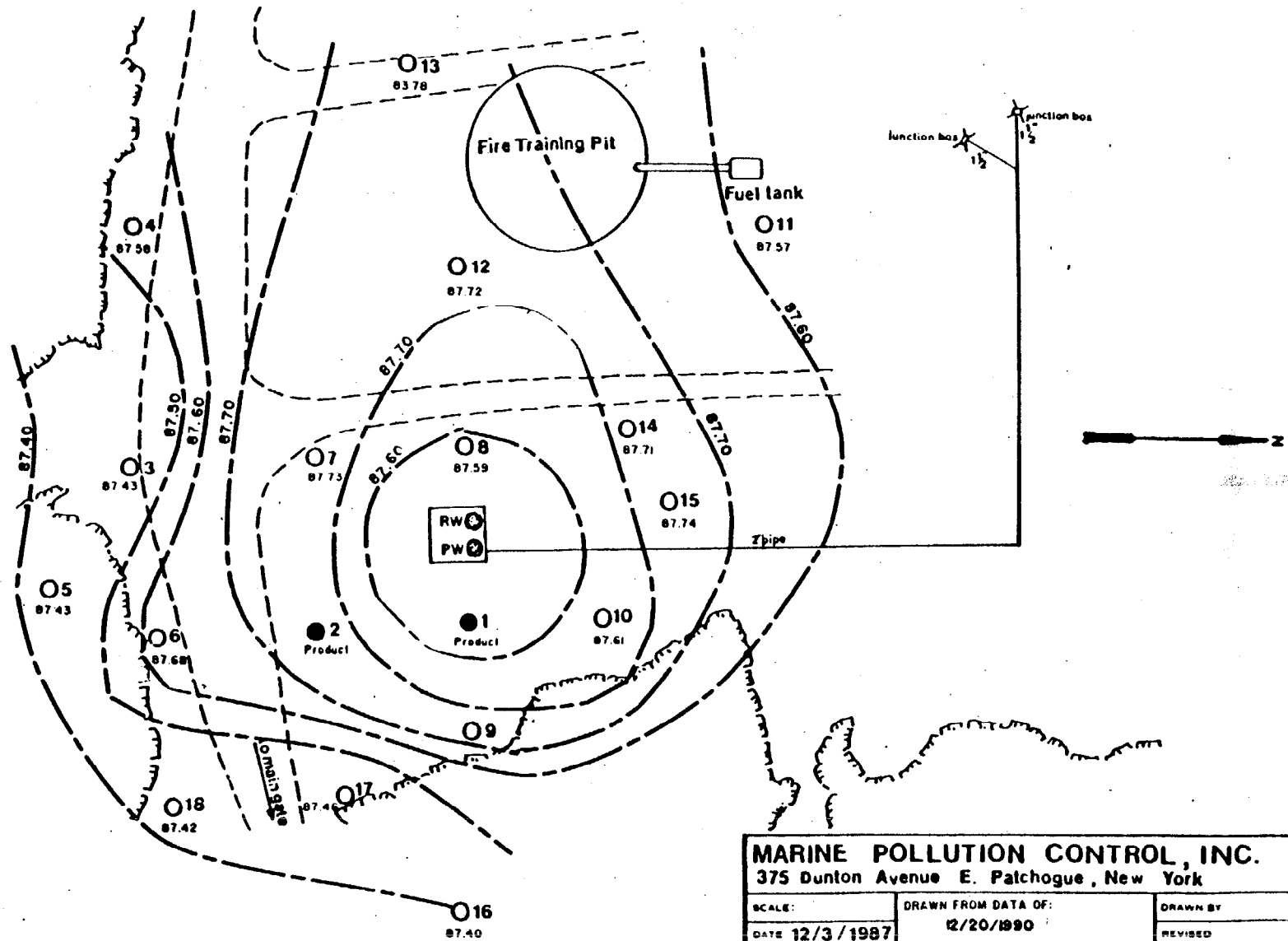
STORAGE TANK LEVEL 1. 63 GAL. 2. 3. 4.

CUMULATIVE TOTAL 1051 GAL.

PUMPING RATE RW1 68 GPM RW2 RW3 RW4

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.70	7.52	0.18	24.			
RW 2.				25.			
RW 3.				26.			
RW 4.				27.			
1.	5.80			28.			
2.	6.59			29.			
3.	3.22			30.			
4.	7.05			31.			
5.	7.35			32.			
6.	—			33.			
7.	7.65			34.			
8.	7.35			35.			
9.	6.59	TRACE		36.			
10.	6.70			37.			
11.	7.27			38.			
12.	7.03			39.			
13.	7.70			40.			
14.	8.75			41.			
15.	8.69			42.			
16.	7.70			43.			
17.	6.70			44.			
18.	6.60			45.			
19.				46.			
20.				47.			
21.				48.			
22.				49.			
23.				50.			

WELL	TOP OF PIPE ELEVATION
1	101.87
2	100.78
3	100.72
4	103.10
5	101.76
6	100.78
7	101.73
8	102.32
9	100.39
10	102.32
11	107.74
12	103.32
13	100.01
14	103.92
15	103.38
16	104.84
17	101.29
18	100.00



MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE:	DRAWN FROM DATA OF:	DRAWN BY
DATE 12/3/1987	12/20/1990	REVISED

CALV. FIRE TRAINING

GROUNDWATER CONTOURS AT 32 GPM

DRAWING NUMBER SPILL: 82-0923

MPC
ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

Fire Training Area

Prepared by:

MPC Environmental Services
October 11, 1991

P.O. Box 610
460 Edwards Avenue, Calverton, NY 11933
516-369-4900 FAX 516-369-4909

An Equal Opportunity Employer

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTIN

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C911990/2 06/11/91

Grumman Aerospace Corporation
Mail Station A-04-06
Calverton, NY 11933
ATTN: Charles Smith PO# 30-28955

SOURCE OF SAMPLE: Grumman Aerospace, Calverton
COLLECTED BY: Client DATE COL'D:05/31/91 RECEIVED:06/03/91

SAMPLE: Water sample, fire training, 0930

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: H. Keahey/GAC, J. Goff/MPC

REMARKS:

DIRECTOR

rn= 8558 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C912780/1 08/12/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:07/31/91 RECEIVED:08/01/91

SAMPLE: Water sample, 9:30

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc: J. Ohlmann, J. Selva-GAC, MPC

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C911534 05/09/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:04/30/91 RECEIVED:04/30/91

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, J. Selva MPC

REMARKS:

DIRECTOR

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C911049/2 04/05/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:03/27/91 RECEIVED:03/27/91

SAMPLE: Water sample, #82-0923, 1000

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, J. Selva-GAC, MPC

REMARKS:

DIRECTOR

rn= 4270 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910373/1 02/06/91

Grumman Aerospace Corporation
Mail Station A-03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:01/31/91 RECEIVED:01/31/91

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	2	
m + p Xylene	ug/L	7	
o Xylene	ug/L	2	

cc:J. Ohlmann, John Selva & MPC

REMARKS:

DIRECTOR

rn= 1499 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910008/2 01/14/91

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fire Training, Calverton
COLLECTED BY: MPC DATE COL'D:01/02/91 RECEIVED:01/02/91

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn= 26 NYSDOH ID# 10320

MPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516)369-4900

Date 10/3/91 Time 0849

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level _____ gallons Recovered to date 234.0 gal.

Pump rate : 32 gpm Tot. gal. pumped 386854 Tot. gal. bailed .25

Well #	DTW	DTP	Product	#	DTW AFTER BAILER	DTP	Product
RW				21			
1	14.32	14.10	0.22	22	14.14	TRACE	
2	13.12	13.10	0.02	23	13.11	TRACE	
3	13.07	13.05	0.02	24	13.05	TRACE	
4	15.36			25	13		
5	14.15			26			
6	12.91			27			
7	13.85	13.75	0.10	28	13.77	TRACE	
8	14.50	TRACE		29			
9	17.61			30			
10	14.48			31			
11	19.96			32			
12	15.40			33			
13	16.01			34			
14	16.00			35			
15	15.46			36			
16	17.22			37			
17	13.65			38			
18	12.39			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-27-91 Time 0900

Location: Firetraining Spill # 82-0923

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : 32 gpm Tot.gal. pumped 359362 Tot.gal.bailed _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				21			
1	14.15	13.98	.17	22	after	bailing	
2	13.15	12.95	.20	1.	14.02	Trace	
3	12.55			2	13.02	Trace	
4	15.27			7	13.86		
5	14.03			8	13.46		
6	12.82			9	17.63		
7	13.85	13.64	.21	28			
8	14.45	14.44	.01	29			
9	17.68	17.51	.17	30			
10	14.4	Trace		31			
11	19.9			32			
12	15.31			33			
13	15.93			34			
14	15.99			35			
15	15.36			36			
16	17.12			37			
17	13.54			38			
18	13.3			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9/20/91 Time 0900

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : 33 gpm Tot.gal. pumped 327514 Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18		1230	
1	14.15	14.05	0.10	19			
2	13.05	TRACE			AFTER BAILED		
3	12.99	TRACE		1	14.09	TRACE	
4	15.29			7	13.72	TRACE	
5	14.06			23			
6	12.85			24			
7	13.80	1370	0.10	25			
8	14.44	TRACE		26			
9	17.55	TRACE		27			
10	14.40			28			
11	19.90			29			
12	15.30			30			
13	15.95			31			
14	15.94			32			
15	15.38			33			
16	17.15			34			
17	13.57			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-13-91 Time 0830

Location: Firetraining Spill # _____

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : 32 gpm Tot.gal. pumped 293313 Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	after	bailing	
1	14.13	13.99	.20	1.	13.93	Trace	
2	13.	12.92	.08	2.	12.96		
3	12.89	12.86	.03	3.	12.84		
4	15.15			7.	13.58		
5	13.98			9.	17.4		
6	12.74			27			
7	13.72	13.59	.13	28			
8	14.29			29			
9	17.94	17.44	.50	30			
10	14.28			31			
11	19.75			32			
12	15.19			33			
13	15.83			34			
14	15.8			35			
15	15.36			36			
16	17.03			37			
17	13.45			38			
18	12.23			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-6-91 Time 0900

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : 33 gpm Tot.gal. pumped 262461 Tot.gal.bailed .10

Well#	DTW	DTP	Product	#	DTW AFTER	DTP BAILED	Product
RW				21			
1	13.95	13.85	0.10	22	13.87	13.86	0.01
2	12.84	TRACE		23			
3	12.77	TRACE		24			
4	15.08			25			
5	13.87			26			
6	12.62			27			
7	13.50	13.47	0.03	28	13.48	TRACE	
8	14.25	TRACE		29			
9	17.35	TRACE		30			
10	14.20			31			
11	19.69			32			
12	15.10			33			
13	15.75			34			
14	15.75			35			
15	15.50			36			
16	16.95			37			
17	13.37			38			
18	12.09			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-30-91 Time 0830

Location: Fire training Spill # 82-0923

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : 32 gpm Tot.gal. pumped 229693 Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	after	bailing	
1	13.83	13.71	.12	1.	13.92		
2	12.71	Trace		3.	12.75		
3	12.71	12.64	.07	7.	13.42		
4	14.95			25			
5	13.73			26			
6	12.50			27			
7	13.42	13.35	.07	28			
8	14.11			29			
9	17.21	Trace		30			
10	14.05			31			
11	19.54			32			
12	14.81			33			
13	15.63			34			
14	15.58			35			
15	15.01			36			
16	16.79			37			
17	13.23			38			
18	11.96			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-22-91 Time 0830

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level 73 gallons Recovered to date 234 gal.

Pump rate : 32 gpm Tot.gal. pumped 1924070 Tot.gal.bailed 1 GAL

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				-	AFTER BAILED		
1	13.75	13.52	0.23	1	13.60	TRACE	
2	12.70	12.52	0.18	2	12.58	TRACE	
3	12.63	12.50	0.13	3	12.58	12.57	0.01
4	14.85						
5	13.57						
6	12.32						
7	13.31	13.21	0.10	7	13.25	TRACE	
8	13.98			26			
9	17.00	TRACE		27			
10	14.27			28			
11	19.50			29			
12	14.90			30			
13	15.58			31			
14	15.50			32			
15	14.90			33			
16	16.60			34			
17	13.02			35			
18	11.75						

HPC ENVIRONMENTAL SERVICES
P.O. BOX 610
Calverton, NY 11933
Tel: (516)369-4900

) action Firetraining Spill# 84-0923 Date 8-16-91 Time 0900
:orage tank level 1. 72 gal 2. _____ gal Total gallons bailed 0.50 gal
: pump rate 32 gpm Total gallons pumped 1646.39 Pressure _____ psi
:-ulative total 233 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
MW				10	12.46		
	14.48	14.17	.31	10			
2	13.25	13.15	.10	20			
	13.22	13.12	.10	21			
4	15.4			22			
	14.23			23			
6	13.			24			
	14.02	13.85	.17	25			
8	14.57			26			
9	17.92	17.67	.25	27			
10	14.54			28			
11	20.01			AFTER BAILING			
12	15.43			#	DTW	DTP	Product
13	16.12			1.	14.2	Trace	
14	16.76			2.	13.12		
15	15.53			3.	13.15		
16	17.3			7.	13.84	Trace	
17	13.72			9.	17.7	Trace	

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-9-91 Time 1200

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 8 J-0923

Storage tank level 71.50 gallons Recovered to date 232.50 gal.

Pump rate : 33 gpm Tot.gal. pumped _____ Tot.gal.bailed .50

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	12.55		
1	14.41	14.21	0.20	19			
2	13.45	13.21	0.24	20			
3	13.17	TRACE		21			
4	15.45			22	AFTER BAILED		
5	14.25			23 1	17.24	TRACE	
6	13.05			24 2	13.25	13.24	0.01
7	13.87	TRACE		25 9	17.79	TRACE	
8	14.06			26			
9	17.85	17.75	0.10	27			
10	14.60			28			
11	20.05			29			
12	15.47			30			
13	16.10			31			
14	16.11			32			
15	15.57			33			
16	17.36			34			
17	13.77			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-31-91 Time 0915

Location: GRUMMAN CALV. FLCE. TRAIN AREA Spill # 82-0923

Storage tank level 71 gallons Recovered to date 232 gal.

Pump rate : 32 gpm Tot.gal. pumped 091766 Tot.gal.bailed 50

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	12.39		
1	14.29	14.13	0.16	19			
2	13.33	13.13	0.20	20			
3	13.04	TRACE		21			
4	15.33				AFTER BAILED		
5	14.14			1	14.19	TRACE	
6	12.92			2	14.21	14.19	0.02
7	13.81	13.75	0.06	7	13.77	TRACE	
8	14.50			9	17.67	17.64	0.03
9	17.71	17.62	0.09	27			
10	14.48	TRACE		28			
11	19.92			29			
12	15.34			30			
13	15.98			31			
14	15.99			32			
15	15.45			33			
16	17.25			34			
17	13.67			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-26-91 Time 1030

Location: Grumman - Firetraining Spill # 82-0923

Storage tank level 70.50 gallons Recovered to date 231.50 gal.

Pump rate : 33 gpm Tot.gal. pumped 0689750 Tot.gal.bailed .50

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	12.37		
1	14.19	13.98	.21	19			
2	13.17	13.	.17	20	after	bailing	
3	12.97	12.92	.05	1.	14.03		
4	15.22			2.	13.01		
5	14.01			3.	12.93	Trace	
6	12.81			7.	13.67		
7	13.72	13.64	.08	9.	17.51		
8	14.4			26			
9	17.6	17.48	.12	27			
10	14.39			28			
11	19.8			29			
12	15.25			30			
13	15.9			31			
14	15.88			32			
15	15.32			33			
16	17.11			34			
17	13.54			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-17-91 Time 1000

Location: Grumman Calverton Fire Training Spill # 82-0923

Storage tank level 70 gallons corrections → Recovered to date 231 gal.

Pump rate : 35 gpm Tot.gal. pumped 322160 Tot.gal.bailed .25

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	Seal-on				After	Bailing	
1	14.22	14.00	.22	1	14.04		
2	13.06	13.03	.03	2	13.07		
3	13.02	12.91	.11	3	12.96		
4	15.14				-		
5	13.98				-		
6	12.76				-		
7	13.68	13.64	.04	7	13.91		
8	14.34				-		
9	17.68	17.52	.16	9	17.62		
10	14.34						
11	19.73						
12	15.20						
13	15.81						
14	15.83						
15	15.29						
16	17.12						
17	13.52						
18	12.26						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516) 369-4900

Date 7-10-91 Time 1330

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level 60.83 gallons Recovered to date 221.87 gal.

Pump rate : 32 gpm Tot.gal. pumped 003174 Tot.gal.bailed .20

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					AFTER BAILED		
1	14.05	13.85	0.20	1	13.89	13.88	0.01
2	12.90	TRACE					
3	12.82	12.78	0.04	3	12.78	TRACE	
4	15.05			25			
5	13.90			26			
6	12.68			27			
7	13.50	TRACE		28			
8	14.30			29			
9	17.55	TRACE		30			
10	14.22			31			
11	19.65			32			
12	15.10			33			
13	15.70			34			
14	15.75			35			
15	15.20			36			
16	17.76			37			
17	13.43			38			
18	12.20			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-27-91 Time 1000

Location: Calverton - Fire training Spill # 82-0923

Storage tank level 60.63 gallons Recovered to date 221.67 gal.

Pump rate : 33 gpm Tot.gal. pumped 951061 Tot.gal.bailed 0.50

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					After	Bailing	
1	13.93	13.62	.31	1.	13.61	Trace	
2	12.65	Trace		3.	12.52		
3	12.65	12.51	.14	7.	13.25		
4	14.79			9.	17.15	Trace	
5	13.65						
6	12.43						
7	13.29	13.25	.04	28			
8	14.			29			
9	17.32	17.12	.20	30			
10	13.96			31			
11	19.37			32			
12	14.85			33			
13	15.45			34			
14	15.5			35			
15	14.95			36			
16	16.76			37			
17	13.2			38			
18	12.			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-21-91 Time 0830

Location: GRUMMAN CALV FIRE TRAIN AREA Spill # 82-0923

Storage tank level 60.13 gallons Recovered to date 221.17 gal.

Pump rate : 3 1/gpm Tot.gal. pumped 962971 Tot.gal.bailed .25

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					11.85		
1	13.80	13.52	0.28				
2	12.60	TRACE					
3	14.47	TRACE			AFTER	BAILED	
4	14.71			1	13.58	TRACE	
5	13.57						
6	12.35						
7	13.17	TRACE					
8	13.92	TRACE					
9	17.09			27			
10	13.90			28			
11	19.30			29			
12	14.75			30			
13	15.38			31			
14	15.42			32			
15	14.85			33			
16	16.70			34			
17	13.10			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-14-91 Time 0830

Location: Calverton - Firetraining Spill # 82-0929

Storage tank level 59.88 gallons Recovered to date 220.92 gal.

Pump rate : 32 gpm Tot.gal. pumped 09113 Tot.gal.bailed 0.12

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.76		
1	13.54	13.44	.10				
2	12.49						
3	12.35				AFTER BAILED		
4	14.62			1.	13.44	Trace	
5	13.47			7.	13.09		
6	12.27						
7	13.13	13.09	.04				
8	13.84	Trace					
9	17.	Trace					
10	13.82						
11	19.23						
12	14.68						
13	15.28						
14	15.69						
15	14.8						
16	16.64						
17	13.02						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-7-91 Time 1000

Location: GRUMMAN CALV. FIRE TRAINING AREA Spill # 82-0923

Storage tank level 59.76 gallons Recovered to date 220.80 gal.

Pump rate : 33 gpm Tot.gal. pumped 837822 Tot.gal.bailed .25

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					AFTER BAILED		
1	13.70	13.40	0.30	1	13.50	13.46	0.04
2	12.45			20			
3	12.30	TRACE		21			
4	14.55			22			
5	13.42			23			
6	12.20			24			
7	13.02			25			
8	13.75			26			
9	16.95			27			
10	13.80			28			
11	19.15			29			
12	14.59			30			
13	15.20			31			
14	15.25			32			
15	14.71			33			
16	16.58			34			
17	12.97			18	11.75		

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Firetraining Spill# 82-0923 Date 5-30-91 Time 0830

orage tank level 59.5 gal Cumulative total 220.55 Total gallons bailed 0.06

umping rate .32 gpm Total gallons pumped 820129 Pressure ____ psi

Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

oil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

l Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
MW				18	11.66		
	13.46	13.33	.13	19			
3	12.98	Trace		20			
	12.24			21			
4	14.47			22			
	13.36			23			
6	12.13			24			
	12.96	Trace		25			
	13.7			26			
9	16.88			27			
10	13.7			28			
11	19.08			29			
12	14.54			30			
13	15.13			AFTER BAILING			
14	15.18			#	DTW	DTP	Product
15	14.66			1.	13.53	13.5	.03
16	16.52						
17	12.92						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Calc Fire Training Area Spill# 82-0923 Date 5-24-91 Time 11:00

Storage tank level 59.45 gal Cumulative total 220.49 Total gallons bailed 20

Pumping rate 30 gpm Total gallons pumped 792570 Pressure ____ psi

Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Oil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Pool Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.58		
1	13.45	13.27	0.18	19			
2	12.32			20			
3	12.21			21			
4	14.41			22			
5	13.30			23			
6	12.10			24			
7	12.90	TRACE		25			
8	13.65			26			
9	16.85			27			
10	13.62			28			
11	19.00			29			
12	14.70			30			
13	15.05			AFTER BAILING			
14	15.15			#	DTW	DTP	Product
15	14.60			1	13.30	TRACE	
16	16.50						
17	12.85						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

: ation Firetraining Spill# 82-0923 Date 5-17-91 Time 0830
torage tank level 1. 59.25 gal 2. _____ gal Total gallons bailed 0.12 gal
. ping rate 32 gpm Total gallons pumped 259920 Pressure _____ psi
umulative total 220.29 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.52		
1	13.25	13.15	.10	19			
2	12.19			20			
3	12.5			21			
4	14.27			22			
5	13.18			23			
6	11.97			24			
7	12.77	Trace		25			
8	13.5			26			
9	16.7			27			
10	13.5			28			
11	18.9			AFTER BAILING			
12	14.94			#	DTW	DTP	Product
13	14.36			1.	13.14	Trace	
14	15.						
15	14.47						
16	16.34						
17	12.73						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

. cation Grumman Calverton Fire training Spill # 82-0923 Date 5-10-91 Time 0830
Storage tank level 1. 59.13 gal 2. _____ gal Total gallons bailed 0.08 gal
mping rate _____ gpm Total gallons pumped _____ Pressure _____ psi
mulative total 220.17 gal

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW	Spa-cn			18	11.40		
1	13.18	13.09	.09	19			
2	12.12			20			
3	12.00			21			
4	14.23			22			
	13.12			23			
6	11.91			24			
7	12.73	12.71	.02	25			
8	13.45			26			
9	16.63			27			
10	13.43			28			
11	18.83			AFTER BAILING			
12	14.29			#	DTW	DTP	Product
13	14.89			1	13.11		
14	14.94			7	12.74		
15	14.41						
16	16.26						
17	12.66						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Grumman Calv Fire Trail Spill# 82-0923 Date 5-3-91 Time 1100

orage tank level 59.05 gal Cumulative total 220.09 Total gallons bailed .05

umping rate 28 gpm Total gallons pumped 698604 Pressure ____psi

Stripper Blower ON/OFF ____ Temp _____ fpm _____ Battery _____

Venting System ON/OFF ____ Temp _____ fpm _____ Battery _____

ool Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.40		
1	13.18	13.10	0.08	19			
2	12.11			20			
3	12.00			21			
	14.27			22			
5	13.10			23			
6	11.90			24			
7	12.70	TRACE		25			
8	13.45	TRACE		26			
9	16.65			27			
10	13.46			28			
11	18.85			29			
12	14.30			30			
13	14.90			AFTER BAILING			
14	14.95			#	DTW	DTP	Product
15	14.42			1	13.11	TRACE	
16	16.25						
17	12.65						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Firetraining Area Spill# 82-0923 Date 4-26-91 Time 0900
Storage tank level 59 gal Cumulative total 220.04 Total gallons bailed 0.12
Pumping rate 24 gpm Total gallons pumped 676621 Pressure ____ psi
Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____
Soil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW							
1	13.23	13.10	.13	17	12.64		
2	12.11	Trace		18	11.37		
3	12.			19			
4	14.25			20			
5	13.1			21			
6	11.88			22			
7	12.78	12.73	.05	23			
8	13.47			24			
9	16.6			25			
10	13.45			26			
11	18.9			27			
12	14.95			AFTER BAILING			
13	14.33			#	DTW	DTP	Product
14	14.96			1.	13.1	Trace	
15	14.42			7.	12.74	Trace	
16	16.23						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Calv. Fire Train Area Spill# 82-0923 Date 4/19/91 Time 0845

Storage tank level 28.88 gal Cumulative total 29.92 Total gallons bailed 10

Pumping rate 31 gpm Total gallons pumped 651650 Pressure _____ psi

Air Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

Soil Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

Pool Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.71		
1	13.55	13.43	0.12	19			
2	12.46			20			
3	12.33			21			
4	14.57			22			
5	13.42			23			
6	12.21			24			
7	13.07	TRACE		25			
8	13.80			26			
9	16.95			27			
10	13.78			28			
11	19.19			29			
12	14.62			30			
13	15.23			AFTER BAILING			
14	15.29			#	DTW	DTP	Product
15	14.75			1	13.46	13.45	0.01
16	16.58						
17	13.00						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Corp. Fire Training Area Spill # 820923 Date 4/12/91 Time 0830

Storage tank level 98.77 gal Cumulative total 219.82 Total gallons bailed 0.10 G.

Pumping rate 28 gpm Total gallons pumped 626964 Pressure ____ psi

Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Oil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Pool Levels 1 ____ 2 ____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.70		
1	13.50	13.40	0.10	19			
2	12.45			20			
3	12.35			21			
	14.55			22			
5	13.40			23			
6	12.00			24			
7	13.32	TRACE		25			
8	13.77	SLIGHT TRACE		26			
9	16.95			27			
10	13.77			28			
11	19.16			29			
12	14.60			30			
13	15.20			AFTER BAILING			
14	15.26			#	DTW	DTP	Product
15	14.75			1	13.44	TRACE	
16	16.59						
17	12.96						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Calverton Fire Training Spill# 82-0923 Date 4-5-91 Time 0900

Storage tank level 1. 58.67 gal 2. _____ gal Total gallons bailed 0.50 gal

Pumping rate 37 gpm Total gallons pumped 599617 Pressure _____ psi

Cumulative total 219.72 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	13.64	13.44	.20	18	11.61		
1	13.44	13.32	.12	19			
2	12.33			20			
3	12.20			21			
4	14.43			22			
5	13.31			23			
6	12.11			24			
7	12.98	12.93	.05	25			
8	13.68	13.67	.01	26			
9	16.84			27			
10	13.67			28			
11	19.06			AFTER BAILING			
12	14.49			#	DTW	DTP	Product
13	15.11			RW	13.53		
14	15.16			1	13.35		
15	14.63			7	12.97		
16	16.50			8	13.70		
17	12.86						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Firetraining Spill# 82-0923 Date 3-27-91 Time 0845

Storage tank level 58.17 gal Cumulative total 219.22 Total gallons bailed 0.12

Pumping rate 35 gpm Total gallons pumped 552704 Pressure ____ psi

Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Soil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Pool Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.56		
1	13.4	13.28	.12	19			
2	12.3			20			
3	12.17			21			
[illegible]	14.41			22			
5	13.29			23			
6	12.06			24			
7	12.9	Trace		25			
8	13.64	Trace		26			
9	16.79			27			
10	13.62			28			
11	19.03			29			
12	14.47			30			
13	15.09			AFTER BAILING			
14	15.12			#	DTW	DTP	Product
15	14.6			1.	13.4	Trace	
16	16.43						
7	12.83						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Lifetraining Spill# 82-0923 Date 3-22-91 Time 0900
torage tank level 1. 58.05 gal 2. _____ gal Total gallons bailed 0.40 gal
Pumping rate 30 gpm Total gallons pumped 527036 Pressure — psi
umulative total 219.10 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.58		
1	13.42	13.3	.12	19			
2	12.33			20			
3	12.2			21			
4	14.43			22			
5	13.29			23			
6	12.08			24			
7	13.05	12.91	.14	25			
8	13.67	Trace		26			
9	16.83			27			
10	13.66	Trace		28			
11	19.1			AFTER BAILING			
12	14.5			#	DTW	DTP	Product
13	15.13			1.	13.42	Trace	
14	15.16			7.	13.06	Trace	
15	14.63						
16	16.45						
17	12.85						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Calv. Fire Train Spill# 82-0923 Date 3/15/91 Time 0930

Storage tank level 17.65 gal Cumulative total 218.70 Total gallons bailed :10

Pumping rate 31 gpm Total gallons pumped 497188 Pressure ____psi

Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Oil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Pool Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.66		
1	13.51	13.40	0.11	19			
2	12.43			20			
3	12.30			21			
4	14.55			22			
5	13.40			23			
6	12.17			24			
7	13.05	12.97	0.08	25			
8	13.75			26			
9	16.90			27			
10	13.75			28			
11	19.19			29			
12	14.60			30			
13	15.20			AFTER BAILING			
14	15.27			#	DTW	DTP	Product
15	14.71			1	13.43	13.41	0.02
16	16.55			7	13.00	TRACE	
17	12.95						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Calv. Fire Train Area Spill# 82-0923 Date 3/8/91 Time 0845

Storage tank level 17.55 gal Cumulative total 218.60 Total gallons bailed <.20

Pumping rate 33 gpm Total gallons pumped 466256 Pressure ____ psi

Air Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Soil Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

Pool Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.60		
1	13.50	13.32	0.18	19			
2	12.35	TRACE		20			
3	12.30			21			
4	14.55			22			
5	13.35			23			
6	12.12			24			
7	13.05	12.95	0.10	25			
8	13.75			26			
9	16.85			27			
10	13.73			28			
11	19.19			29			
12	14.60			30			
13	15.22			AFTER BAILING			
14	15.25			#	DTW	DTP	Product
15	14.70			1	13.40	13.36	0.04
16	16.47			7	12.98	12.96	0.02
17	12.90						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Calverton Fire training Spill# 82-0923 Date 2.28.91 Time 1100

torage tank level 1. 57.35 gal 2. _____ gal Total gallons bailed 0.25 gal

umping rate 32 gpm Total gallons pumped 431050 Pressure _____ psi

umulative total 218.40 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18			
1	13.83	13.71	.13	19			
2	12.73			20			
3	12.60			21			
4	14.83			22			
5	13.71			23			
6	13.50			24			
7	17.35	trace		25			
8	14.08			26			
9	17.29	17.21	.08	27			
10	14.06			28			
11	19.48			AFTER BAILING			
12	14.92			#	DTW	DTP	Product
13	15.52			1	13.73		
14	15.54			9	17.23		
15	15.02						
16	16.85						
17	13.25						

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALV. FIRE TRAINING SPILL# 82-0923 DATE 2/14/91 TIME 0900

STORAGE TANK LEVEL 1 56.98 GAL. 2.

CUMULATIVE TOTAL 218.03 GAL GALLONS BAILED 0.13 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.58	13.50	.08		13.50		
2	12.50			31			
3	12.37			32			
4	14.60			33			
5	13.48			34			
6	12.29			35			
7	13.19	13.08	0.11		13.08		
8	13.83			37			
9	17.00			38			
10	13.83			39			
11	19.23			40			
12	14.67			41			
13	15.25			42			
14	15.33			43			
15	14.79			44			
16	16.64			45			
17	13.04			46			
18	11.77			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
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EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV FIRE TRAIN AREA SPILL# 82-0923 DATE 2/8/91 TIME 1030

STORAGE TANK LEVEL 1 56.85 GAL. 2.

CUMULATIVE TOTAL 217.90 GAL. GALLONS BAILED 0

32 Gpm TGP - 340082

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.52	13.50	0.02	30			
2	12.51			31			
3	12.37			32			
4	14.60			33			
5	13.47			34			
6	12.26			35			
7	13.08	TRACE		36			
8	13.86	TRACE		37			
9	17.00			38			
10	13.85			39			
11	19.25			40			
12	14.65			41			
13	15.29			42			
14	15.34			43			
15	14.80			44			
16	16.65			45			
17	13.04			46			
18	11.77			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fire training SPILL# 82-0923 DATE 1-31-91 TIME 0900

STORAGE TANK LEVEL 1. 56.85 GAL. 2.

CUMULATIVE TOTAL 217.90 GAL GALLONS BAILED 0.25 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	13.65	13.52	.13	22	13.60		
RW 2.	-			23			
RW 3.	-			24			
RW 4.	-			25			
PW 1	10.52			26			
PW 2	-						
IW	-						
	-				AFTER	BAILED	
1.	13.46	13.38	.08	1	13.44		
2	13.40			31			
3	12.38			32			
4	14.54			33			
5	13.39			34			
6	12.15			35			
7	13.07	13.01	.06	7	13.10		
8	13.74	13.73	.01	8	13.76		
9	16.89			9			
10	13.74	13.73	.01	10	13.76		
11	19.23			40			
12	14.59			41			
13	15.24			42			
14	15.26			43			
15	14.71			44			
16	16.53			45			
17	12.91			46			
18	11.65			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calv. Fire Training SPILL# 82-0923 DATE 1/24/91 TIME 0830

STORAGE TANK LEVEL 1 56.60 GAL. 2.

CUMULATIVE TOTAL 217.65 GAL. GALLONS BAILED 0.25

Pump is OFF

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW					After	Bailed	
1	13.48	13.39	.08	1	13.44		
2	12.44	TRACE		31			
3	12.35			32			
4	14.64			33			
5	13.46			34			
6	12.23			35			
7	13.27	13.02	.25	7	13.08		
8	13.79	TRACE		37			
9	16.92			38			
10	13.77			39			
11	19.33			40			
12	14.71			41			
13	15.35			42			
14	15.31			43			
15	14.75			44			
16	16.54			45			
17	12.96			46			
18	11.71			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv Fire Train SPILL# 82-0923 DATE 1/16/91 TIME 0915

STORAGE TANK LEVEL 1. 56.35 GAL 2.

CUMULATIVE TOTAL 217.40 GAL GALLONS BAILED .20

SYSTEM IS OFF

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	13.65	TRACE		30			
2	12.65	TRACE		31			
3	12.61			32			
4	14.90			33			
5	13.70				AFTER	BAILED	
6	12.45						
7	13.50	13.27	0.23	7	13.34	13.31	0.03
8	14.05	TRACE		37			
9	17.15			38			
10	14.05			39			
11	19.65			40			
12	14.95			41			
13	15.62			42			
14	15.60			43			
15	15.05			44			
16	16.78			45			
17	13.20			46			
18	11.90			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

GRUMMAN, CALVERTON

Location FIRE TRAININGAREA Spill# 82-0923 Date 2/21/91 Time 0830

Storage tank level 1. 57.10 gal 2. _____ gal Total gallons bailed 0.12 gal

Pumping rate 32 gpm Total gallons pumped 399134 Pressure _____ psi

Cumulative total 218.15 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	11.90		
1	13.72	13.60	.12	19			
2	12.63			20			
3	12.49			21			
4	14.72			22			
5	13.60			23			
6	12.38			24			
7	13.28	13.22	.06	25			
8	13.96	trace		26			
9	17.12			27			
10	13.95	trace		28			
11	19.35			AFTER BAILING			
12	14.78			#	DTW	DTP	Product
13	15.40			1	13.63	13.62	.01
14	15.46			7	13.22		
15	14.91						
16	16.75						
17	13.15						

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALV. FIRE TRAINING SPILL# 82-0923 DATE 1991 TIME 0900

STORAGE TANK LEVEL 1 56:15 GAL. 2

CUMULATIVE TOTAL 217.20 GAL. GALLONS BAILED 0.25 G.

system is OFF

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
					AFTER	BAIL	
1	14.00	13.92	.08	1	13.96		
2	13.02	12.98	.04	2	13.00		
3	12.88			32			
4	15.17			33			
5	14.00			34			
6	12.75			35			
7	13.77	13.56	.21	7	13.64		
8	14.33			37			
9	17.46			38			
10	14.29			39			
11	19.88			40			
12	15.25			41			
13	15.90			42			
14	15.83			43			
15	15.29			44			
16	17.08			45			
17	13.48			46			
18	12.21			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Firetraining SPILL# 82-0923 DATE 1-2-91 TIME 0900

STORAGE TANK LEVEL 1. 55.90 G. 2.

CUMULATIVE TOTAL 216.95 GAL. GALLONS BAILED 0.40 G.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW					AFTER	BAILED	
1	14.18	14.05	.13	1.	14.05	Trace	
2	13.2	13.04	.16	2.	13.05	Trace	
3.	13.01	12.97	.04	3.	12.97	Trace	
4	15.27			33			
5	14.05			34			
6	12.82			35			
7	13.91	13.67	.24	7.	13.7	Trace	
8	14.44			37			
9	17.54	Trace		38			
10	14.41	Trace		39			
11	19.91			40			
12	15.31			41			
13	15.96			42			
14	15.94			43			
15	15.39			44			
16	17.14			45			
17	19.57			46			
18	12.3			47			
19				48			
20				49			
21				50			

ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

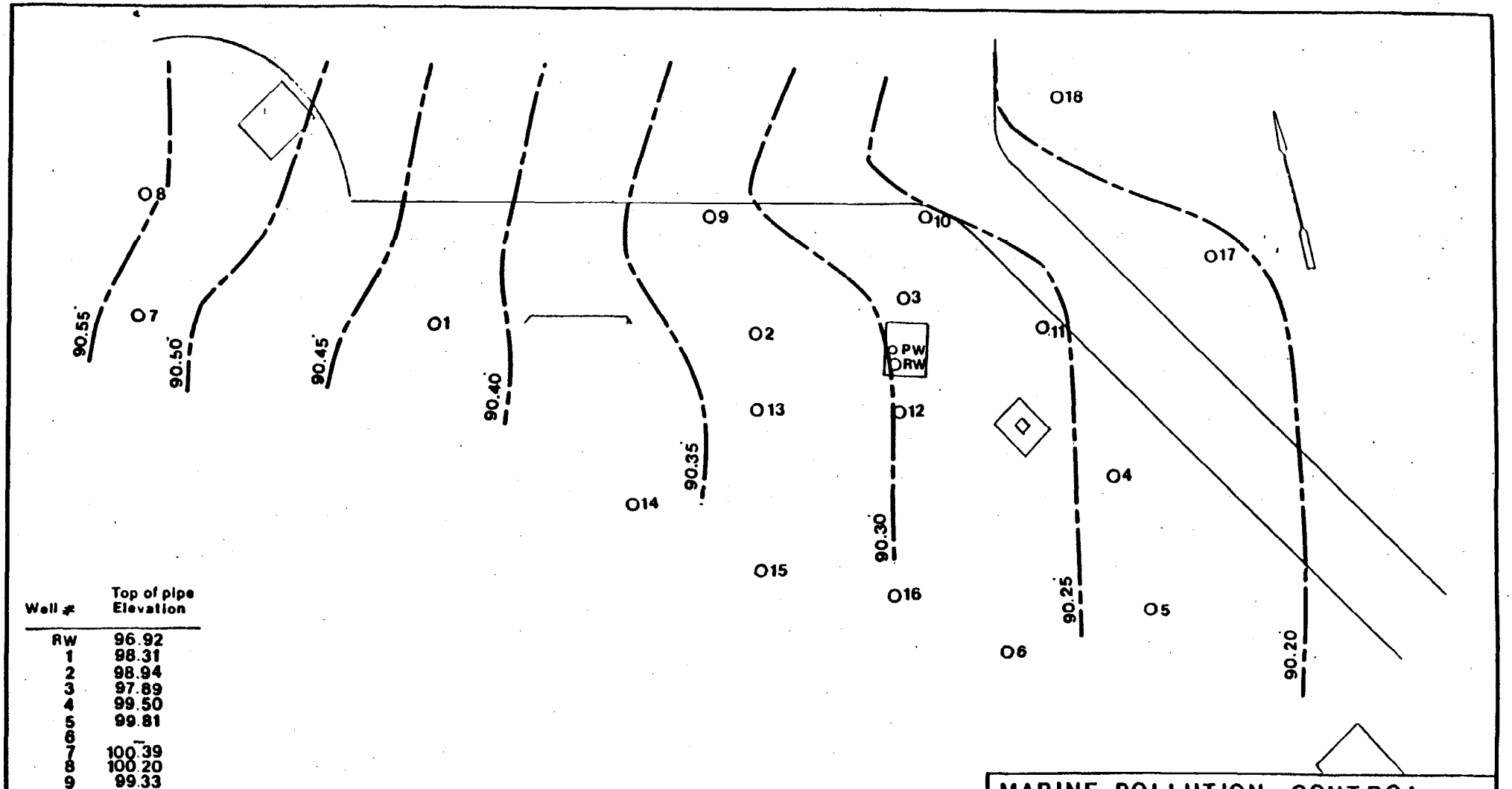
Fuel Calibration Area

Prepared by:

MPC Environmental Services
October 11, 1991

P.O. Box 610
460 Edwards Avenue, Calverton, NY 11933
516-369-4900 FAX 516-369-4909

An Equal Opportunity Employer



Well #	Top of pipe Elevation
RW	96.92
1	98.31
2	98.94
3	97.89
4	99.50
5	99.81
6	—
7	100.39
8	100.20
9	99.33
10	99.17
11	99.77
12	99.28
13	100.00
14	101.16
15	101.06
16	100.06
17	99.24
18	99.12

MARINE POLLUTION CONTROL
375 Dunton Avenue E. Patchogue, New York

SCALE 1" = 30'
APPROVED BY:
DRAWN BY
DATE 12/3/1987
REVISED

CALVERTON FUEL CAL.

GROUND WATER CONTOUR MAP
Contour drawn according to relative elevation

DRAWING NUMBER
Spill 84-0011

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C912780/2 08/12/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fuel Calibration, Calverton
COLLECTED BY: MPC DATE COL'D:07/31/91 RECEIVED:08/01/91

SAMPLE: Water sample, 10:30

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<2	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	<4	

cc:J.Ohlmann, J.Selva-GAC, MPC

REMARKS:

DIRECTOR

rn= 12429 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C911990/1 06/11/91

Grumman Aerospace Corporation
Mail Station A-04-06
Calverton, NY 11933
ATTN: Charles Smith PO# 30-28955

SOURCE OF SAMPLE: Grumman Aerospace, Calverton
COLLECTED BY: Client DATE COL'D:05/31/91 RECEIVED:06/03/91

SAMPLE: Water sample, fuel cal. area, 0900

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	<1	
m Xylene	ug/L	<2	
o+p Xylene	ug/L	22	

cc: H. Keahey/GAC, J. Goff/MPC

REMARKS:

DIRECTOR

rn= 8557 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C911049/1 04/05/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fuel Calibration, Calverton
COLLECTED BY: MPC DATE COL'D:03/27/91 RECEIVED:03/27/91

SAMPLE: Water sample, #84-0011, 1200

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	2	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	33	
o Xylene	ug/L	11	

cc: J. Ohlmann, J. Selva-GAC, MPC

REMARKS:

DIRECTOR

rn= 4269 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910373/2 02/06/91

Grumman Aerospace Corporation
Mail Station A-03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fuel Calibration, Calverton
COLLECTED BY: MPC DATE COL'D:01/31/91 RECEIVED:01/31/91

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	2	
Toluene	ug/L	4	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	6	
o Xylene	ug/L	11	

cc:J. Ohlmann, John Selva & MPC

REMARKS:

DIRECTOR

rn= 1500 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910008/1 01/14/91

Grumman Aerospace Corporation
Mail Station A03-12
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Fuel Calibration, Calverton
COLLECTED BY: MPC DATE COL'D:01/02/91 RECEIVED:01/02/91

SAMPLE: Water sample

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	6	

cc: J. Ohlmann, J. Selva, MPC

REMARKS:

DIRECTOR

rn= 25 NYSDOH ID# 10320

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 10/3/91 Time 0945

Location: Grumman Calv. Fuel Cal. Area Spill # 84-0011

Storage tank level _____ gallons Recovered to date 180.7 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.88	7.70	0.18	21			
1	6.60			22			
2	6.77			23			
3	5.75			24			
4	7.40			25			
5	7.74			26			
6	—			27			
7	7.90			28			
8	7.60			29			
9	7.07			30			
10	6.95			31			
11	7.60	TRACE		32			
12	7.25			33			
13	7.90	TRACE		34			
14	8.96			35			
15	8.91			36			
16	7.95			37			
17	7.16			38			
18	6.96			39			
19				40			
20				41			

NPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516) 369-4500

Date 9-27-91 Time 1200

Location: Fuel Calibration Spill # 84-0011

Storage tank level _____ gallons. Recovered to date _____ gal.

Pump rate: on gpm Tot. gal. pumped _____ Tot. gal. bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
MW	7.52	7.48	.04	21			
1	5.49			22			
2	6.32			23			
3	5.5			24			
4	7.18			25			
5	7.5			26			
6	———			27			
7	7.64			28			
8	7.34			29			
9	6.66			30			
10	6.68			31			
11	7.34	Trace		32			
12	7.03			33			
13	7.62	Trace		34			
14	8.74			35			
15	8.7			36			
16	7.76			37			
17	6.92			38			
18	6.71			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9/20/91 Time 1015

Location: Grumman Corp. Fuel Cal Area Spill # 84-0011

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed .05

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.92	7.75	0.17	18	7.00		
1	6.40			19			
2	6.80			20			
3	5.80			21			
4	7.45			22			
5	7.77			23			
6	—			24			
7	7.90			25			
8	7.63			26			
9	6.85				AFTER BAILED		
10	6.99						
11	7.75	7.65	0.10		7.68		
12	7.30			30			
13	7.93	7.92	0.01	31			
14	9.00			32			
15	8.95			33			
16	8.00			34			
17	7.21			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-13-91 Time 1300

Location: Fuel Calibration Spill # _____

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : on gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.74	7.58	.16	18	6.88		
1	6.76			19			
2	6.68			20			
3	5.65			21			
	7.91			22			
5	7.65			23			
6	—			24			
7	7.8			25			
8	7.52			26			
9	7.			27			
10	6.85			28	after	bailing	
11	7.54	7.47	.07	11.	7.44		
12	7.15			30			
13	7.85	7.78	.07	13.	7.86		
14	8.86			32			
15	8.81			33			
16	7.85			34			
7	7.05			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-6-91 Time 1045

Location: GRUMMAN-CALW. FUEL CAL. AREA Spill # _____

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed .25

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.42	7.35	0.07	21			
1	5.52			22			
2	5.75			23			
3	5.27			24			
4	7.03			25			
5	7.37			26			
6	—			27			
7	7.51			28			
8	7.21			29			
9	6.47			30			
10	6.55			31			
11	7.55	7.15	0.40	32	7.27	7.25	0.02
12	6.89			33	7.52		
13	7.57	7.50	0.07	34			
14	8.60			35			
15	8.55			36			
16	7.60			37			
17	6.77			38			
18	6.60			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-30-91 Time 1100

Location: Gulcolabration Spill # 84-0011

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : on gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.97	7.27	.10	21			
1	6.33			22	after	bailing	
2	6.37			23			
3	5.33			13.	8.13	Trace	
4	6.98			25			
5	7.39			26			
6	———			27			
7	7.47			28			
8	7.18			29			
9	6.64	Trace		30			
10	6.51			31			
11	7.08			32			
12	6.88			33			
13	8.33	7.29	1.04	34			
14	8.54			35			
15	8.48			36			
16	7.54			37			
17	6.72			38			
18	6.52			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-22-91 Time 1130

Location: Grumman Calv. Fuel Depot Area Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.55 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	15.27		
1	16.30	TRACE		19	14.06		
2	15.09			20	13.69		
3	14.90			21	14.40		
4	17.35			22	14.20		
5	17.00			23	15.00		
6	16.15			24	14.20		
7	16.14			25	14.77		
8	DRY			26	14.65		
9	16.95			27	11.85		
10	18.00			28	14.59		
11	17.24			29	14.30		
12	18.51			30	14.40		
13	14.47			A	15.27		
14	15.50			B	15.36		
15	14.80			C	16.41		
16	15.17			D	17.20		
17	15.10			35			

MPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516) 369-4900

Date 8-16-91 Time 1030

Location: Fuel Depot, Calverton Grumman Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.55 gal.

Pump rate : _____ gpm Tot. gal. pumped _____ Tot. gal. bailed 0.04

Well #	DTW	DTP	Product	#	DTW	DTP	Product
KW				21	14.42		
1	17.1			22	14.94		
2	16.52			23	15.75		
3	15.72			24	14.98		
4	18.87			25	15.52		
5	17.74			26	15.39		
6	16.93			27	12.6		
7	16.92			28	15.38		
8	DRY			29	15.05		
9	17.74	17.67	.07	30	15.22		
10	18.75			A.	16.32		
11	18.			B.	16.15		
12	19.3			C.	17.19		
13	15.3			D.	17.96		
14	16.26			35			
15	15.56			36			
16	15.97			37	after	bailing	
17	15.85			9.	17.69	Trace	
18	16.02			39			
19	14.8			40			
20	15.81			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-9-91 Time 0930

Location: GRUMMAN GALV. FUEL DEPOT AREA Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.51 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	16.17		
1	17.22			19	14.95		
2	15.98			20	14.55		
3	15.84			21	15.95		
4	18.25			22	15.07		
5	17.90			23	15.90		
6	17.06			24	15.10		
7	17.05			25	15.64		
8	DRY			26	15.51		
9	17.82	TRACE		27	12.73		
10	18.90			28	15.50		
11	18.15			29	15.20		
12	19.45	TRACE		30	15.35		
13	15.42			A	15.19		
14	16.37			B	15.29		
15	15.70			C	17.32		
16	16.10			D	18.11		
17	16.00			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-31-91 Time 1145

Location: Grumman Calv. Fuel Depot Area Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.51 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0.02

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	16.10		
1	17.19			19	14.83		
2	15.08			20	14.46		
3	15.79			21	15.88		
4	18.19			22	15.02		
5	17.83	TRACE		23	15.79		
6	16.99			24	15.01		
7	16.97			25	15.56		
8	DRY			26	15.42		
9	17.83	17.79	0.04	27	12.62		
10	18.81			28	15.43		
11	18.04	TRACE		29	15.29		
12	19.34	TRACE		30	15.16		
13	15.37			A	16.13		
14	16.32			B	16.22		
15	15.62			C	17.25		
16	16.02			D	18.04		
17	15.91						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516) 369-4900

Date 7-26-91 Time 1100

Location: Grumman - Fuel Depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.49 gal.

Pump rate : _____ gpm Tot. gal. pumped _____ Tot. gal. bailed .12

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	14.36		
1	17.06			22	14.94		
2	15.82			23	15.66		
3	15.66			24	14.92		
4	18.07			25	15.45		
5	17.67	Trace		26	15.93		
6	16.9			27	12.52		
7	16.87			28	15.32		
8	DRY			29	15.05		
9	17.77	17.69	.14	30	15.17		
10	18.7			A	15.96		
11	17.92	Trace		B	16.1		
12	19.25			C	17.19		
13	15.26			D	17.93		
14	16.2				after	bailing	
15	15.51			9.	17.67		
16	15.93						
17	15.78						
18	15.99						
19	14.74						
20	15.76						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-17-91 Time 1230

Location: Grumman Calverton Fuel Calibration Spill # 84-0011

Storage tank level 175 gallons ← corrections → Recovered to date 1163 gal.

Pump rate : CW gpm Tot.gal. pumped 299876 Tot.gal.bailed .75

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.11	8.45	.16				
1	7.58						
2	7.46						
3	6.44						
4	8.09						
5	8.45						
6	-						
7	8.52						
8	Sampling						
9	7.75						
10	7.64				After	sampling	
11	8.41	8.26	.15	11	8.76		
12	7.94						
13	9.06	8.31	.75	13	10.28	10.18	.10
14	9.64						
15	9.59						
16	8.66						
17	7.81						
18	7.63						
19							
20							

MPC ENVIRONMENTAL SERVICES
P.O. Box 610 Calverton, NY 11933
Tel: (516) 369-4900

Date 7-10-91 Time 1245

Location: GRUMMAN CALW. FUEL CAL. AREA Spill # 84-0011

Storage tank level 129.15 gallons Recovered to date 1117.15 gal.

Pump rate : ON gpm Tot. gal. pumped _____ Tot. gal. bailed .50

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.45	8.35	0.10	21			
1	6.95			22			
2	7.35			23			
3	6.35			24			
4	7.95			25			
5	8.30			26			
6	—						
7	8.39						
8	8.10						
9	7.64				AFTER BAILED		
10	7.55						
11	8.32	8.12	0.20	11	8.17	TRACE	
12	7.84						
13	8.59	8.30	0.29	13	8.35	TRACE	
14	9.50			35			
15	9.45			36			
16	8.50			37			
17	7.70			38			
18	7.53			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-27-91 Time 1000

Location: Calverton - Fuel Calibration Spill # 84-0011

Storage tank level 128.65 gallons Recovered to date 1116.65 gal.

Pump rate : ON gpm Tot.gal. pumped _____ Tot.gal.bailed 0.10

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.15	8.02	.13				
1	7.17				After	Bailing	
2	7.05			R.W.	8.1	8.06	.04
3	6.04						
4	7.65						
5	7.98						
6	—						
7	8.1						
8	7.84						
9	7.36						
10	7.24						
11	7.87						
12	7.57						
13	8.17						
14	9.2						
15	9.16						
16	8.22						
17	7.41						
18	7.22						
19							
20							

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-21-91 Time 0945

Location: Grumman Calv. Fuel Cal Area Spill # 84-0011

Storage tank level 128.55 gallons Recovered to date 1116.55 gal.

Pump rate : ON gpm Tot.gal. pumped _____ Tot.gal.bailed 0.10

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.04	7.97	0.07	18	7.11		
1	7.02						
2	6.99						
3	5.95						
4	7.55				AFTER	BAILED	
5	7.90			RW	8.04	7.97	0.07
6	—						
7	8.00						
8	7.72						
9	7.18						
10	7.15						
11	7.76						
12	7.45						
13	8.05						
14	9.12						
15	9.08						
16	8.12						
17	7.30						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-14-91 Time 1100

Location: Calverton - Fuel Calibration Spill # 84-0011

Storage tank level 128.45 gallons Recovered to date 1116.45 gal.

Pump rate : on gpm Tot.gal. pumped — Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.8	Trace		18	6.97		
1	6.8			19			
2	6.84			20			
3	5.8			21			
	7.44			22			
5	7.76			23			
6	—			24			
7	7.88			25			
8	7.6			26			
9	7.06			27			
10	6.98			28			
11	7.62			29			
12	7.3			30			
13	7.9			31			
14	9.			32			
15	8.95			33			
16	8.			34			
17	7.15			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-7-91 Time 1130

Location: Grumman Calv. Fuel Cal. Area Spill # 84-0011

Storage tank level 128.45 gallons Recovered to date 1116.45 gal.

Pump rate : ON gpm Tot.gal. pumped 799876 Tot.gal.bailed 0

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.87	7.80	0.07	18	6.87		
1	6.19			19			
2	6.75			20			
3	5.70			21			
4	7.31			22			
5	7.65			23			
6	—			24			
7	7.80			25			
8	7.50			26			
9	6.95			27			
10	6.90			28			
11	7.55			29			
12	7.20			30			
13	7.80			31			
14	8.90			32			
15	8.84			33			
16	7.90			34			
17	7.05			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

..uation Fuel Calibration Spill# 84-0011 Date 5-30-91 Time 1200

..age tank level 128.45 gal Cumulative total 1116.45 Total gallons bailed 0.20

..mping rate (on) gpm Total gallons pumped _____ Pressure _____ psi

Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

..1 Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
1	7.58	7.35	.23				
1	5.8			17	6.8		
	6.38			18	6.63		
	5.9			19			
	7.05			20			
	7.4			21			
6	———			22			
	7.62			23			
8	7.34			24			
	6.65			25			
0	6.57			26			
1	7.25			27			
2	6.82			AFTER BAILING			
3	7.47			#	DTW	DTP	Product
4	8.64			P.W.	7.44	7.96	.08
5	8.6						
6	7.65						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Grumman Calv.

cation FUEL CAL AREA Spill# 84-0011 Date 5-24-91 Time 1200

age tank level 128.25 gal Cumulative total 1116.25 Total gallons bailed .25

mping rate ON gpm Total gallons pumped _____ Pressure _____psi

Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
	7.75	7.65	0.10	18	6.73		
	6.71			19			
	6.60			20			
	5.59			21			
	7.20			22			
	7.50			23			
	—			24			
	7.67			25			
	7.40			26			
	6.85			27			
	6.77			28			
	7.40			29			
	7.10			30			
	7.70			AFTER BAILING			
	8.76			#	DTW	DTP	Product
	8.70			RW.	7.75	7.65	.10.
	7.75						
	6.90						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

ction Fuel Calibration Spill# 84-0011 Date 5-12-96 Time 1100
rage tank level 1. 128 gal 2. _____ gal Total gallons bailed 0.25 gal
ing rate DEF gpm Total gallons pumped _____ Pressure _____ psi
ulative total 1116. gal

Spill#	DTW	DTP	Product	#	DTW	DTP	Product
	7.6	7.35	.25	10	6.56		
1	6.28			10			
2	6.43			20			
3	5.42			21			
4	7.01			22			
	7.32			23			
6	—			24			
	7.5			25			
8	7.22			26			
	6.7			27			
10	6.59			28			
	7.21			AFTER BAILING			
12	6.92			#	DTW	DTP	Product
	7.52			P.W.	7.58	7.48	.10
14	8.6						
	8.55						
16	7.59						
17	6.72						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

: tion Grumman Calverton Fuel Calibration Spill# 84-0011 Date 5-10-91 Time 1000
orage tank level 1. 127.75 gal 2. _____ gal Total gallons bailed 0 gal
ping rate ON gpm Total gallons pumped 799876 Pressure _____ psi
ulative total 1115.75 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.28	7.24	.04	18	6.39		
1	5.49			19			
2	6.28			20			
3	3.79			21			
4	6.84			22			
5	7.16			23			
6	-			24			
7	7.32			25			
8	7.02			26			
9	4.48			27			
10	5.25			28			
11	7.05			AFTER BAILING			
12	6.78			#	DTW	DTP	Product
13	7.32						
14	8.45						
15	8.40						
16	7.43						
17	6.56						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

tion Grumman Calv Fuel Cal Spill# 84-0011 Date 5-3-91 Time 1200

r ge tank level 127.75 gal Cumulative total 115.75 Total gallons bailed 0

ing rate OFF gpm Total gallons pumped — Pressure ____ psi

stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

l Levels 1 _____ 2 _____

l#	DTW	DTP	Product	#	DTW	DTP	Product
	7.20	TRACE		18	6.27		
	4.90			19			
	6.15			20			
	5.11			21			
	6.75			22			
	7.05			23			
	—			24			
	7.22			25			
	6.95			26			
	6.30			27			
	6.30			28			
	6.95			29			
	6.65			30			
	6.98			AFTER BAILING			
	8.35			#	DTW	DTP	Product
	8.30						
	7.35						
	6.45						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ation Fuel Calibration Spill# 84-0011 Date 4-26-91 Time 1100

ge tank level 127.75 gal Cumulative total 115.756 Total gallons bailed 0.10

ping rate off gpm Total gallons pumped 799852 Pressure ____ psi

itripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

l Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

ell#	DTW	DTP	Product	#	DTW	DTP	Product
	6.60	6.50	.10				
	4.64			17	6.00		
	5.58			18	5.78		
	4.52			19			
4	6.24			20			
	6.58			21			
6	—			22			
	6.90			23			
0	6.68			24			
	6.87			25			
10	5.72			26			
1	6.43	Trace		27			
12	6.05			AFTER BAILING			
13	6.64			#	DTW	DTP	Product
4	7.86			R.W.	6.50		
15	7.77						
16	6.82						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Grumman Calv. Fuel Cal Spill# 84-0011 Date 4/19/91 Time 0945

orage tank level 127.65 gal Cumulative total 115.65G Total gallons bailed 0

mping rate OFF gpm Total gallons pumped _____ Pressure _____ psi

ir Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

il Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

Pool Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.37	7.33	0.04	18	6.50		
1	5.04			19			
2	6.26			20			
3	3.49			21			
	6.92			22			
5	7.25			23			
6	—			24			
7	7.58			25			
8	7.29			26			
9	6.42			27			
10	6.52			28			
11	7.04			29			
12	6.84			30			
13	7.33			AFTER BAILING			
14	8.60			#	DTW	DTP	Product
15	8.57						
16	7.58						
17	6.62						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

cation Grumman Calverton Site Area Spill# 84-0011 Date 4/10/91 Time 1000

age tank level 127.65 gal Cumulative total 1115.65 Total gallons bailed 0

oing rate OFF gpm Total gallons pumped _____ Pressure _____ psi

Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

ol Levels 1 _____ 2 _____

ill#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.34	7.32	0.02	18	6.47		
	6.35			19			
	6.20			20			
	3.15			21			
	6.90			22			
5	7.22			23			
	—			24			
7	7.57			25			
	7.31			26			
	6.61			27			
10	6.51			28			
1	7.10			29			
12	6.83			30			
3	7.45			AFTER BAILING			
14	8.60			#	DTW	DTP	Product
5	8.50						
16	7.54						
7	6.60						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

. cation Grumman Calverton Fuel Calibration Spill# 84-0011 Date 4-5-91 Time 1100
torage tank level 1. 127.65 gal 2. _____ gal Total gallons bailed trace gal
mping rate 38 gpm Total gallons pumped 799792 Pressure _____ psi
mulative total 1115.65 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.13	Trace		18	6.26		
1	5.11			19			
2	5.99			20			
3	7.77			21			
4	6.70			22			
5	7.03			23			
6	-			24			
7	7.39			25			
8	7.11			26			
9	6.44			27			
10	6.30			28			
11	6.91	6.90	.01	AFTER BAILING			
12	6.65			#	DTW	DTP	Product
13	7.29			11	6.90		
14	8.42						
15	8.33						
16	7.35						
17	6.39						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Fuel Calibration Spill# 84-0011 Date 3-27-91 Time 1300

Gage tank level 1. 1227.64 gal 2. _____ gal Total gallons bailed 0 gal

Pumping rate 48 gpm Total gallons pumped 72680 Pressure _____ psi

Cumulative total 1115.64 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	6.95	Trace		18	6.06		
	4.26			19			
2	5.8			20			
	2.72			21			
	6.51			22			
	6.85			23			
	———			24			
7	7.2			25			
	6.91			26			
9	6.09			27			
0	6.07			28			
11	6.71	Trace		AFTER BAILING			
12	6.48			#	DTW	DTP	Product
13	7.						
14	8.2						
15	8.14						
16	7.16						
17	6.21						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

ıation Fuel Calibration Spill# 84-0011 Date 3-22-91 Time 1900

rage tank level 1. 127.64 gal 2. _____ gal Total gallons bailed 0 gal

ımping rate 63 gpm Total gallons pumped 796236 Pressure _____ psi

ulative total 1115.64 gal

ell#	DTW	DTP	Product	#	DTW	DTP	Product
RW	6.94			18	6.04		
	4.17			19			
2	5.85			20			
3	2.84			21			
	6.5	Trace		22			
5	6.83			23			
6	—			24			
7	7.18			25			
8	6.9			26			
9	6.14			27			
10	6.06			28			
11	6.7	Trace		AFTER BAILING			
12	6.45			#	DTW	DTP	Product
13	7.06						
14	8.2						
15	8.14						
16	7.15						
17	6.2						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Grumman Calv Fuel Cal Spill# 84-0011 Date 3/15/91 Time 1030

torage tank level 127.64 gal Cumulative total 1115.64 Total gallons bailed 0

mping rate 52 gpm Total gallons pumped 790439 Pressure ____ psi

ir Stripper Blower ON/OFF ____ Temp ____ fpm ____ Battery ____

il Venting System ON/OFF ____ Temp ____ fpm ____ Battery ____

ool Levels 1 ____ 2 ____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.09			18	6.20		
1	3.95			19			
2	6.00			20			
3	2.86			21			
4	6.82			22			
5	6.99			23			
6	—			24			
7	7.30			25			
8	7.00			26			
9	4.60			27			
10	4.70			28			
11	6.82	TRACE		29			
12	6.59			30			
13	6.65			AFTER BAILING			
14	8.31			#	DTW	DTP	Product
15	8.29						
16	7.29						
17	6.35						

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516) 369-4900

Spill # 84-0011

...TION: Grumman Calv. Fuel Cal Area DATE 3/8/91 TIME 0930

...E TANK LEVEL 1. 127.64 GAL 2. 3. 4.

...LATIVE TOTAL 1115.64 GAL.

...PING RATE RW1 47 Gpm RW2 RW3 RW4

...ELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
...RW 1.	6.91			24.			
...W 2.				25.			
...W 3.				26.			
...W 4.				27.			
	4.82			28.			
	5.80			29.			
	2.95			30.			
	6.42			31.			
	6.75			32.			
	—			33.			
	5.22			34.			
	5.55			35.			
	5.90			36.			
10.	6.00			37.			
	6.70	TRACE		38.			
12.	6.40			39.			
	6.80			40.			
	8.12			41.			
	8.05			42.			
	7.07			43.			
	6.15			44.			
	6.00			45.			
				46.			
				47.			
				48.			
				49.			
				50.			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location GRUMMAN, CALVERTON FUEL CALIBRATION AREA Spill# 84-0011 Date 2/21/91 Time 1200

Storage tank level 1. 127.64 gal 2. _____ gal Total gallons bailed 0 gal

Pumping rate ON gpm Total gallons pumped — Pressure _____ psi

Cumulative total 1115.64 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.68	trace		18	6.38		
1	4.90			19			
2	6.64			20			
3	5.65			21			
4	7.29			22			
5	7.60			23			
6	—			24			
7	7.81			25			
8	7.53			26			
9	6.68			27			
10	6.86			28			
11	7.50	trace		AFTER BAILING			
12	7.20			#	DTW	DTP	Product
13	7.29						
14	8.88						
15	8.83						
16	7.86						
17	7.01						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Calverton Fuel Cul. Spill# 84-0011 Date 2-28-91 Time 1430

orage tank level 1. 127.64 gal 2. _____ gal Total gallons bailed 0 gal

umping rate ON gpm Total gallons pumped 784929 Pressure _____ psi

nulative total 1115.64 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.71			18	6.81		
1	5.02			19			
2	6.75			20			
[illegible]	3.56			21			
[illegible]	7.25			22			
5	7.56			23			
6	—			24			
7	7.88			25			
8	7.60			26			
9	6.62			27			
10	6.88			28			
11	7.46			AFTER BAILING			
12	7.21			#	DTW	DTP	Product
13	7.79						
14	8.92						
15	8.85						
16	7.88						
	6.96						

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

R H

LOCATION: Calverton Fuel/Calibration SPILL# 89 0011 DATE 2/28/91 TIME 1430

STORAGE TANK LEVEL 1. 12½ P w FROZEN 2.

CUMULATIVE TOTAL GALLONS BAILED

T.G.P. 784929 O.K.

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7'8½"	7.71		22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5'0¼"	5.02		30			
2	6'9"	6.75		31			
3	3'6¾"	3.56		32			
4	7'3"	7.25		33			
5	7'6¾"	7.56		34			
6	—			35			
7	7'10½"	7.88		36			
8	7'7¼"	7.60		37			
9	6'7¾"	6.62		38			
10	6'10½"	6.88		39			
11	7'5½"	7.46		40			
12	7'2½"	7.21		41			
13	7'9½"	7.79		42			
14	8'11"	8.92		43			
15	8'10¼"	8.85		44			
16	7'10½"	7.88		45			
17	6'11½"	6.96		46			
18	6'9¾"	6.81		47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Cal. SPILL# 84-0011 DATE 2/14/91 TIME 1200

STORAGE TANK LEVEL 1 127.64 GAL. 2.

CUMULATIVE TOTAL 115.64 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.33			30			
2	6.58			31			
3	9.00			32			
4	7.15			33			
5	7.46			34			
6	—			35			
7	7.64			36			
8	7.37			37			
9	7.04			38			
10	5.40			39			
11	7.33			40			
12	7.08			41			
13	7.75			42			
14	8.77			43			
15	8.73			44			
16	7.73			45			
17	6.85			46			
18	6.71			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv Fuel Gal Area SPILL# 84-0011 DATE 2/8/91 TIME 1230

STORAGE TANK LEVEL 1 127.64 GAL. 2

CUMULATIVE TOTAL 1115.64 GAL. GALLONS BAILED 0

116 Gpm TGP 776241

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.60	7.59	0.01	22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.39			30			
2	6.57			31			
3	5.55			32			
4	7.15			33			
5	7.45			34			
6	—			35			
7	7.66			36			
8	7.39			37			
9	6.45			38			
10	6.72			39			
11	7.35	TRACE		40			
12	7.05			41			
13	7.67			42			
14	8.72			43			
15	8.69			44			
16	7.72			45			
17	6.85			46			
18	6.70			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calibration Fuel Calibration SPILL # 84-0011 DATE 1-31-91 TIME 1030

STORAGE TANK LEVEL 1 127.64 GAL 2.

CUMULATIVE TOTAL 1115.64 GAL. GALLONS BAILED 0.02 GAL

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.36	7.34	.02	22			
RW 2.	–			23			
RW 3.	–			24			
RW 4.	–			25			
PW 1	–			26			
PW 2	–			27			
IW	–			28			
	–			29			
1.	4.93			30			
2	6.36			31			
3	4.89			32			
4	6.93			33			
5	7.23			34			
6	–			35			
7	7.46			36			
8	7.19			37			
9	5.97				AFTER BAILING		
10	6.49						
11	7.17	7.14	.03		7.19		
12	6.86			41			
13	7.42			42			
14	8.53			43			
15	8.46			44			
16	7.51			45			
17	6.67			46			
18	6.49			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CAHUERTON FUEL CALIBRATION SPILL# 84.0011 DATE 1,24,91 TIME 1200

STORAGE TANK LEVEL 1. 127.62 GAL 2.

CUMULATIVE TOTAL 1115.62 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.13			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.62			30			
2	6.10			31			
3	5.10			32			
4	6.71			33			
5	7.00			34			
6	—			35			
7	7.25			36			
8	6.96			37			
9	6.33			38			
10	6.27			39			
11	6.92	TRACE		40			
12	6.62			41			
13	7.25			42			
14	8.29			43			
15	8.25			44			
16	7.27			45			
17	6.42			46			
18	6.25			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv. Fuel Cal Area SPILL# 84-0011 DATE 1/16/91 TIME 1100

STORAGE TANK LEVEL 1. 127.62 GAL. 2.

CUMULATIVE TOTAL 1115.62 GAL GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.13			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	3.90			30			
2	6.10			31			
3	5.05			32			
4	6.70			33			
5	7.00			34			
6	—			35			
7	7.24			36			
8	6.97			37			
9	6.20			38			
10	6.26			39			
11	6.93	6.92	0.01	40			
12	6.62			41			
13	6.90			42			
14	8.30			43			
15	8.25			44			
16	7.27			45			
17	6.45			46			
18	6.25			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calu. Fuel Calibration SPILL# 89-0011 DATE 1,9,91 TIME 1300

STORAGE TANK LEVEL 1 127.62 G. 2.

CUMULATIVE TOTAL 1115.62 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.73			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	5.83			30			
2	6.71			31			
3	5.71			32			
4	7.27			33			
5	7.58			34			
6	—			35			
7	7.75			36			
8	7.50			37			
9	5.37			38			
10	6.15			39			
11	7.50	TRACE		40			
12	7.21			41			
13	7.83			42			
14	8.85			43			
15	8.79			44			
16	7.83			45			
17	7.00			46			
18	6.85			47			
19				48			
20				49			
21				50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Calibration Area SPILL# 84-0011 DATE 1-2-91 TIME 1100

STORAGE TANK LEVEL 1. 127.62 G. 2.

CUMULATIVE TOTAL 1115.62 G. GALLONS BAILED 0.12

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	7.5			22			
RW 2.				23			
RW 3.				24			
RW 4.				25			
PW 1				26			
PW 2				27			
IW				28			
				29			
1	4.48			30			
2	6.49			31			
3	5.5			32			
4	7.07	Trace		33			
5	7.38			34			
6	—			35			
7	7.58			36			
8	7.91			37			
9	6.68			38	AFTER	BAILED	
10	6.64			39			
11	7.42	7.26	.16	11.	7.28	Trace	
12	7.			41			
13	7.41			42			
14	8.68			43			
15	8.6			44			
16	7.64			45			
17	6.81			46			
18	6.62			47			
19				48			
20				49			
21				50			

TEL. 516 - 654-4900

MARINE POLLUTION CONTROL, INC.

P.O. BOX 2220

EAST PATCHOGUE, N.Y. 11772

March 26, 1984

Grumman - Calverton
Plan 1" = 30'

MWN-1

	0'-1'	Light brown - med./fine sand
S-1	1'-2'	Dark brown - med./fine sand, slight odor
S-2	2'-3'	Gray brown - med./fine sand, strong odor/moist
S-3	3'-5'	Gray brown - fine sand, strong odor/moist
S-4	5'-6'	Light gray brown - fine sand, strong odor/moist
S-5	6'-10'	Dark gray brown - fine sand, strong odor/moist
S-6	10'-15'	Light gray - wet fine sand/silt, odor (DTW = 3')

DTW = 4.22' from T.O.C.

MWN-2

S-1	0'-1'	Gray brown - med. sand, strong odor/dry
S-2	1'-6'	Dark gray brown - med./fine sand, heavy odor
S-3	6'-10'	Light gray brown - med./fine silty sand, odor (DTW = 3-4')

DTW = 3.86' from T.O.C.

MWN-3

S-1	0'-4'	Dark gray brown - med. sand, odor @ 1' (moist @ 2')
S-2	4'-8'	Light gray - med./silty sand, odor - moister material
S-3	8'-10'	Light gray - med./silty sand, strong odor - very moist (DTW = 3')

DTW = 2.92' from T.O.C.

MWN-4

S-1	0'-3'	Brown sand loam (5% gravel), slight odor @ 1', dry fill
S-2	3'-7'	Lighter brown - med. sand (5% gravel) - less odor, dry
S-3	7'-10'	Light white/brown - med. sand, no odor - moist

DTW = 4.44' from T.O.C.

MWN-5

S-1	0'-4'	Yellow brown - med./fine sand loam, no odor - dry
S-2	4'-6'	Lighter yellow/tan - med. sand, no odor
S-3	6'-10'	White/tan - med. sand, no silt/no odor - very moist

DTW = 4.71' from T.O.C.

MWN-6

S-1	0'-3'	Brown - med. sandy loam with aggregates, dry - no odor
S-2	3'-6'	Lighter brown - med. sand, no aggregates, dry - no odor
S-3	6'-10'	White/tan - med. sand, no silts, moist - no odor

DTW = 4.84' from T.O.C.

MWN-7

S-1	0'-4'	Brown - med. sand with aggregates, dry - no odor
S-2	4'-6'	Light brown sand - med./fine, dry - no odor
S-3	6'-10'	Yellow/brown - med. sand, some silt, moist - no odor

DTW = 4.98' from T.O.C.

MWN-8

S-1	0'-3'	Light brown - med./fine sand, some silt, dry - no odor
S-2	3'-6'	Gray brown - med. sand, moist - no odor
S-3	6'-10'	Dark gray brown - med. sand, moister - slight odor (10-10 flush oil possibly)

DTW = 4.87 from T.O.C.

SAMPLE/CORE LOG

Boring/Well 14,15 Project/No. Grumman - Galveston Page 1 of 2

Site Location Fuel Calibration Drilling Started 11/20/87 Drilling Completed ——

Total Depth Drilled _____ feet Hole Diameter _____ inches Type of Sample/Coring Device Return from Auger

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used _____ Drilling Method Auger - Boom Truck

Drilling Contractor MPC Driller Tim Mayel Helper Kevin Jackson

Prepared By John Goff Hammer Weight _____ Hammer Drop _____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	5'	-	-	Fine sand, light brown
5'	9'	-	-	Fine, gray sand slight odor (petro) -> 5'-7' *
9'	13'	-	-	Fine to silty gray sand
13'	15	-	-	gray turning to gray-brown silt
				Total Pipe = 17'
				stick-up = 3'
				Total Drilled 14'
0	5'			Fine, light brown sand
5'	9'			Fine gray sand, faint odor (petro)
9'	13'			Fine to silty gray sand
13'	15'			gray turning to brown silt
				Total Pipe 17' 6"
				stick up 2' 6"
				Total Drilled 15'

SAMPLE/CORE LOG

Boring/Well 16, 17, 18 Project/No. Grumman - Calverton Page 2 of 2

Site Location Fuel Calibration Drilling Started 11/20/87 Drilling Completed —

Total Depth Drilled _____ feet Hole Diameter _____ inches Type of Sample/Coring Device Return From Auger

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used _____ Drilling Method Auger - Boom Truck

Drilling Contractor _____ Driller J. Mayer Helper K. Jackson

Prepared By John Goff Hammer Weight _____ Hammer Drop _____ inches

	Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
16	0	5'			Fine brown sand
	5'	9'			Fine to silty light tan sand
	9'	11'			tan turning to gray silt faint unknown odor
	11'	13'			gray silt
	13'	15'			gray turning to brown silt
					Total Pipe 17'
					Stick up 2'
					Total Drilled 15'
7	0'	15'			Fine to silty sand, lt brown turning to light tan No Odor
					Total Pipe 16'
					stick up 1'
					Total Drilled 15'
*18	0'	8'			fine tan sand
	8'	9'			Gray fine sand No Odor Total Pipe 16' 6"
	9'	15'			light tan sand stick up 1' 6"
					Total Drilled 15'

wells 14 - 18 checked w/ their for product - * 14 showed trace (11/20/87)

ENVIRONMENTAL SERVICES
A Division of Marine Pollution Control

Grumman - Calverton

Fuel Depot

Spill #82 - 1680

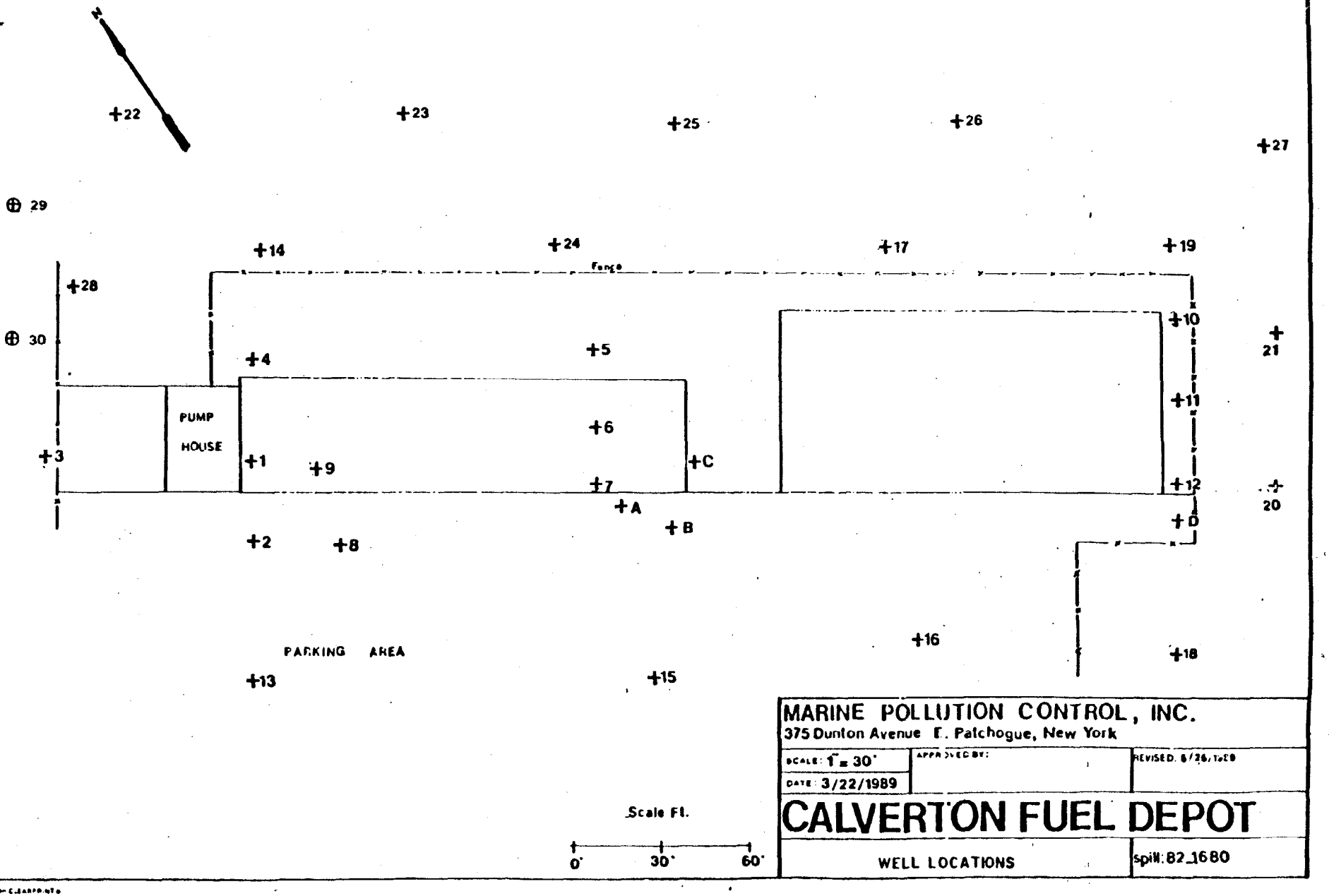
Prepared by:

MPC Environmental Services
October 11, 1991

P.O. Box 610
460 Edwards Avenue, Calverton, NY 11933
516-369-4900 FAX 516-369-4909

An Equal Opportunity Employer

ells	Top of pipe elevation
1	102.55
2	101.31
3	101.22
4	103.54
5	103.07
6	102.22
7	102.16
8	101.55
9	103.15
10	103.81
11	103.07
12	104.37
A	101.37
B	101.45
C	102.48
D	103.05
13	100.77
14	101.67
15	100.88
16	101.19
17	101.04
18	101.24
19	99.86
20	100.96
21	99.44
22	100.37
23	101.08
24	100.26
25	100.74
26	100.50
27	97.57
28	100.84



MARINE POLLUTION CONTROL, INC.
375 Dunton Avenue E. Patchogue, New York

SCALE: 1" = 30'
DATE: 3/22/1989
APPROVED BY:
REVISED: 6/26/1989

CALVERTON FUEL DEPOT

WELL LOCATIONS

spill: 82_1680

FIGURE

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910476/1 02/14/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton, Fuel Depot
COLLECTED BY: MPC DATE COL'D:02/07/91 RECEIVED:02/08/91

SAMPLE: Water Sample, MW#30, 1400

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	<1	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	<1	
Petrol. Hydrocarbons	mg/L	0.4	

cc:Ohlmann, Selva & G. Vassilev-MPC

REMARKS:

DIRECTOR Thomas [signature]

rn= 1946 NYSDOH ID# 10320

ECOTEST LABORATORIES, INC. ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO. C910476/2 02/14/91

Grumman Aerospace Corporation
Mail Station A03-116
Bethpage, NY 11714
ATTN: Harvey Keahey PO# 30-28955

SOURCE OF SAMPLE: Grumman, Calverton, Fuel Depot
COLLECTED BY: MPC DATE COL'D:02/07/91 RECEIVED:02/08/91

SAMPLE: Water Sample, MW#29, 1429

ANALYTICAL PARAMETERS			ANALYTICAL PARAMETERS
Benzene	ug/L	<1	
Toluene	ug/L	20	
Ethyl Benzene	ug/L	<1	
m + p Xylene	ug/L	<2	
o Xylene	ug/L	9	
Petrol. Hydrocarbons	mg/L	1.6	

cc:Ohlmann, Selva & G. Vassilev-MPC

REMARKS:

DIRECTOR Thomas R. Stone

rn= 1947 NYSDOH ID# 10320

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 10/3/91 Time 1100

Location: Grumman Calv. Fuel Depot Area Spill # 89-1680

Storage tank level _____ gallons Recovered to date 110.55 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	15.41		
1	16.77	TRACE		22	14.66		
2	15.55			23	15.45		
3	15.40			24	14.61		
4	17.80			25	15.15		
5	17.40			26	15.00		
6	16.58			27	12.17		
7	16.57			28	15.05		
8	DRY			29	14.75		
9	17.40			30	14.92		
10	18.37			31 A	15.71		
11	17.60			32 B	15.80		
12	18.90			33 C	16.84	S. TRACE	
13	15.00			34 D	17.63		
14	15.95			35			
15	15.22			36			
16	15.60			37			
17	15.47			38			
18	15.65			39			
19	14.40			40			
20	14.02			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-27-91 Time 1100

Location: Fuel Depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	13.92		
1	16.6	Trace		22	14.5		
2	15.34			23	15.24		
3	15.22			24	14.46		
4	17.61			25	14.98		
5	17.26			26	14.83		
6	16.45			27	12.06		
7	16.45			28	14.88		
8	DRY			29	14.55		
9	17.27			30	14.72		
10	18.26			A.	15.57		
11	17.51			B.	15.68		
12	18.81			C.	16.7		
13	14.81			D	17.5		
14	15.76			35			
15	15.1			36			
16	15.5			37			
17	15.33			38			
18	15.56			39			
19	14.3			40			
20	15.34			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9/20/91 Time 1130

Location: GRUMMAN CALV. FUEL DEPOT AREA Spill # 82-1650

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	15.60		
1	16.70	TRACE		19	14.35		
2	15.47			20	13.97		
3	15.35			21	15.35		
4	17.75			22	14.59		
5	17.35			23	15.35		
6	16.52			24	14.55		
7	16.51			25	15.02		
8	DRY			26	14.95		
9	17.35			27	12.10		
10	18.30			28	15.00		
11	17.55			29	14.71		
12	18.85			30	14.85		
13	FLOODED			A	15.65		
14	15.88			B	15.75		
15	15.17			C	16.76	TRACE	
16	15.55			D	17.55		
17	15.45						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-13-91 Time 1030

Location: Fuel Depot Spill # 89-1680

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	13.8		
1	16.56			22	14.43		
2	15.39			23	15.18		
3	15.2			24	14.42		
4	17.6			25	14.94		
5	17.2			26	14.79		
6	16.36			27	11.94		
7	16.36			28	14.84		
8	DRY			29	14.57		
9	17.2			30	14.71		
10	18.15			A.	15.51		
11	17.4			B.	15.61		
12	18.71			C.	16.64		
13	14.77			D.	17.38		
14	15.71			35			
15	15.01			36			
16	15.4			37			
17	15.27			38			
18	15.43			39			
19	14.18			40			
20	15.2			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 9-6-91 Time 1145

Location: GRUMMAN CALV. FUEL DEPOT AREA Spill # _____

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	15.07		
1	16.40	TRACE		22	14.29		
2	15.20			23	15.05		
3	15.05			24	14.25		
4	17.45			25	14.80		
5	17.05			26	14.65		
6	16.21			27	11.83		
7	16.20			28	14.68		
8	DRY			29	14.40		
9	17.05			30	15.05		
10	18.01			A	15.35		
11	17.25			B	15.45		
12	18.60	TRACE		C	16.50		
13	14.62			D	17.25		
14	15.57			35			
15	14.85			36			
16	15.27			37			
17	15.13			38			
18	15.31			39			
19	14.05			40			
20	13.07			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-30-91 Time 0930

Location: Fuel Depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date _____ gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	13.50		
1	16.28			22	14.19		
2	15.02			23	14.92		
3	14.92			24	14.13		
4	17.30			25	14.65		
5	16.92			26	14.50		
6	16.08			27	11.67		
7	16.08			28	14.57		
8	DRY			29	14.30		
9	16.92			30	14.43		
10	17.84			A.	15.21		
11	17.08			B.	15.29		
12	18.39			C.	16.33		
13	Flooned			D.	17.06		
14	15.44			35			
15	14.71			36			
16	15.09			37			
17	14.97			38			
18	15.14			39			
19	14.89			40			
20	14.90			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-22-91 Time 1000

Location: GRUMMAN CALO. FUEL CAL. AREA Spill # 84-0011

Storage tank level 180.67 gallons Recovered to date 1168.67 gal.

Pump rate : OD gpm Tot.gal. pumped _____ Tot.gal.bailed 1.5 GAL

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	7.10	7.00	0.10	18	6.20		
1	4.58			19			
2	4.99			20			
3	4.95			21			
4	6.70			22			
5	7.07			23			
6	—			24			
7	7.20			25			
8	6.90			26			
9	5.60				AFTER BAILED		
10	6.15						
11	7.25	6.80	0.45	11	7.02	7.00	0.02
12	6.55						
13	7.95	7.05	0.90	13	7.38	TRACE	
14	8.30			32			
15	8.22			33			
16	7.30			34			
17	6.40			35			

MPC ENVIRONMENTAL SERVICES
P.O. Box 610
Calverton, NY 11933
Tel: (516)369-4900

Location Lulcalibration Spill # 84-004 Date 8-16-91 Time 1300

Storage tank level 1. 179.17 gal 2. _____ gal Total gallons bailed 2 gal

Pumping rate on gpm Total gallons pumped _____ Pressure _____ psi

Cumulative total 1167.17 gal

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.52	8.3	.22	18	7.58		
1	6.7			19			
2	6.99			20			
3	6.36			21			
4	8.01			22			
5	8.33			23			
6	———			24			
7	8.44			25			
8	8.15			26			
9	7.52			27			
10	7.56			28			
11	8.38	8.16	.22	AFTER BAILING			
12	7.87			#	DTW	DTP	Product
13	9.4	8.23	1.17	11.	8.2		
14	9.55			13.	9.72	9.39	.03
15	9.5			RW	8.45	8.35	.10
16	8.56						
17	7.76						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 8-9-91 Time 1030

Location: GRUMMAN CALV. FUEL CAL AREA Spill # 84-0011

Storage tank level 177.17 gallons Recovered to date 1165.17 gal.

Pump rate : ON gpm Tot.gal. pumped _____ Tot.gal.bailed .80 GAL

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.88	8.80	0.08	18	7.79		
1	7.60			19			
2	7.60			20			
3	6.56			21			
4	8.22			22			
5	8.55			23			
6	—			24			
7	8.65			25			
8	8.39			26			
9	7.90			27			
10	7.80			28			
11	8.37	TRACE		29	AFTER BAILED		
12	8.09			30			
13	9.40	8.40	1.00	31	8.76	8.72	0.04
14	9.76			32			
15	9.71			33			
16	8.75			34			
17	8.00			35			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-31-91 Time 1030

Location: Grumman Calv. Fuel Cal Area Spill # 84-0011

Storage tank level 176.37 gallons Recovered to date 1164.37 gal.

Pump rate : ON gpm Tot.gal. pumped _____ Tot.gal.bailed 1.25

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.51	8.42	0.09	18	7.67		
1	7.31						
2	7.46						
3	6.44						
4	8.08						
5	8.42						
6	—				AFTER BAILED		
7	8.50						
8	8.25						
9	7.75						
10	7.65						
11	8.50	8.26	0.24	11	8.37	8.33	0.04
12	7.94						
13	9.42	8.31	1.11	13	8.83	8.79	0.04
14	9.62						
15	9.58						
16	8.62						
17	7.83						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-26-91 Time 1030

Location: Grumman - Fuel Calibration Spill # 84-0011

Storage tank level 175.12 gallons Recovered to date 1163.12 gal.

Pump rate : on gpm Tot.gal. pumped 799826 Tot.gal.bailed 0.12

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW	8.35	8.32	.03		after	bailing	
1	6.83			11	8.15	Trace	
2	7.34			23			
3	6.93			24			
4	7.99			25			
5	8.31			26			
6	———			27			
7	8.4			28			
8	8.13			29			
9	7.64			30			
10	7.54			31			
11	8.28	8.15	.13	32			
12	7.85			33			
13	8.63			34			
14	9.54			35			
15	9.48			36			
16	8.53			37			
17	7.72			38			
18	7.53			39			
19				40			
20				41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-17-91 Time 1130

Location: Grumman Calverton Fuel depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.37 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0.02

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	–			21	13.86		
1	17.03	17.01	.02	22	14.87		
2	15.96			23	15.65		
3	15.64			24	14.89		
4	18.03			25	15.42		
5	17.66			26	15.30		
6	16.87			27	12.50		
7	16.86			28	15.29		
8	Dry			29	15.09		
9	17.76	17.73	.03	30	15.12		
10	18.70			A	15.98		
11	17.96			B	16.08		
	17.95	17.93	.02	C	17.12		
13	15.23			D	17.92		
14	16.17				After Bailing		
15	15.51			1	17.04		
16	15.91			9	17.78		
17	15.78			12	17.97		
18	15.99						
19	14.72						
20	15.75						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 7-10-91 Time 1130

Location: GRUMMAN CALV. FUEL DEPOT AREA Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.35 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Well #	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	14.25		
1	16.95			22	14.82		
2	15.70			23	15.57		
3	15.56			24	14.84		
4	17.95			25	15.30		
5	17.60			26	15.20		
6	16.75			27	12.40		
7	16.74			28	15.20		
8	DRY			29	14.95		
9	17.56	TRACE		30	15.05		
10	18.55			A	15.89		
11	17.80			B	15.99		
12	19.12			C	17.02		
13	15.15			D	17.85		
14	16.10			35			
15	15.40			36			
16	TRUCK			37			
17	15.67			38			
18	15.89			39			
19	14.60			40			
20	15.64			41			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-27-91 Time 1000

Location: Fuel Depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.35 gal.

Pump rate :_____ gpm Tot.gal. pumped_____ Tot.gal.bailed_____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				21	13.95		
1	16.96			22	14.53		
2	15.44			23	15.3		
3	15.3			24	14.52		
4	17.67			25	15.02		
5	17.31			26	14.9		
6	16.51			27	12.11		
7	16.51			28	14.95		
8	DRY			29	14.66		
9	17.29			30	14.78		
10	18.3			A.	15.87		
11	17.54			B.	15.73	—	
12	18.84			C.	16.76	—	
13	Flooded			D.	17.52	—	
14	15.81			[illegible]			
15	15.13			[illegible]			
16	15.55			[illegible]	—		
17	15.39			[illegible]			
18	15.58			[illegible]			
19	14.32			[illegible]			
20	15.35			[illegible]			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-21-91 Time 1100

Location: Grumman Calv. Fuel Depot Area Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.35 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed _____

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					15.47		
1	16.51				14.21		
2	15.31				15.25		
3	15.18				13.90		
4	17.57				14.40		
5	17.20				15.20		
6	16.35				14.40		
7	16.34				14.94		
8	DRY				14.80		
9	17.19				11.99		
10	18.19				14.81		
11	17.41				14.52		
12	18.74				14.70		
13	14.78			A	15.52		
14	15.70			B	15.60		
15	15.02			C	16.62		
16	15.41			D	17.44		
17	15.27						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-14-91 Time 1100

Location: Fuel Depot Spill # 82-1680

Storage tank level _____ gallons Recovered to date 110.35 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW					13.71		
1	16.63				14.3		
2	15.21				15.06		
3	15.06				14.3		
4	17.45				14.82		
5	17.07				14.7		
6	16.27				11.87		
7	16.27				14.71		
8	DRY				14.43		
9	17.09				14.56		
10	18.05			A.	15.4		
11	17.3			B.	15.5		
12	18.61			C.	16.52		
13	14.64			D.	17.3		
14	15.56						
15	14.89						
16	15.3						
17	16.16						
18	15.35						
19	14.1						
20	15.12						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 6-7-91 Time 1230

Location: GRUMMAN CALV. FUEL DEPOT AREA Spill # 82-1680

Storage tank level — gallons Recovered to date 110.35 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0

Air Stripper Blower: ON/OFF _____ fpm _____ temp _____ battery _____

Soil Venting System: ON/OFF _____ fpm _____ temp _____ battery _____

Pool Levels (feet) : Pool 1 _____ Pool 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	15.49		
1	16.40			19	14.00		
2	15.12			20	15.05		
3	15.00			21	13.65		
4	17.40			22	14.22		
5	17.00			23	15.03		
6	16.17			24	14.20		
7	16.16			25	14.72		
8	DRY			26	14.60		
9	17.00			27	11.80		
10	17.95			28	14.75		
11	17.22			29	14.35		
12	17.51			30	14.50		
13	14.59			A	15.31		
14	15.50			B	15.41		
15	14.80			C	16.44		
16	15.21			D	17.25		
17	15.30			35			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Depot SPILL# 82-1680 DATE 5-30-91 TIME 1000

STORAGE TANK LEVEL 1 — 2.

CUMULATIVE TOTAL 110.356 GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.2		
RW 2.				23	14.92		
RW 3.				24	14.16		
RW 4.				25	14.66		
PW 1				26	14.59		
PW 2				27	11.72		
IW				28	14.6		
				29	14.92		
1	16.33			30	14.41		
2	15.1			A.	15.26		
3	14.95			B.	15.36		
4	17.32			C.	16.4		
5	16.94			D.	17.15		
6	16.19			35			
7	16.19			36			
8	DRY			37			
9	16.95			38			
10	17.9			39			
11	17.15			40			
12	18.47			41			
13	14.59			42			
14	15.46			43			
15	14.78			44			
16	15.18			45			
17	15.			46			
18	15.8			47			
19	13.94			48			
20	14.98			49			
21	13.58			50			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610 Calverton, NY 11933
Tel:(516)369-4900

Date 5.24.91 Time 1315

Location: GRUMMAN CALVERTON FUEL DEPOT Spill # 82-1680

Storage tank level 0 gallons Recovered to date 110.35 gal.

Pump rate : _____ gpm Tot.gal. pumped _____ Tot.gal.bailed 0

Well#	DTW	DTP	Product	#	DTW	DTP	Product
KW				21	13.50		
1	16.22			22	14.10		
2	15.00			23	14.85		
3	14.89			24	14.06		
4	17.25			25	14.60		
5	16.85			26	14.44		
6	16.02			27	11.62		
7	16.00			28	14.49		
8	DRY			29	14.20		
9	16.90			30	14.35		
10	17.81			A	15.16		
11	17.07			B	15.25		
12	18.39			C	16.30		
13	14.45			D	17.11		
14	15.37			35			
15	14.70			36			
16	15.10			37			
17	14.95			38			
18	15.12			39			
19	13.89			40			
20	14.90			41			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Depot SPILL# 82-1680 DATE 5-17-91 TIME 1000

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35G GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	13.96		
RW 2.				23	14.71		
RW 3.				24	13.93		
RW 4.				25	14.46		
PW 1				26	14.31		
PW 2				27	11.5		
IW				28	14.35		
				29	14.08		
1	16.1			30	14.21		
2	14.86			A	15.03		
3	14.7			B	15.13		
4	17.11			C.	16.16		
5	16.72			D	16.92		
6	15.91			35			
7	15.91			36			
8	DRY			37			
9	16.72			38			
10	17.69			39			
11	16.93			40			
12	18.24			41			
13	14.32			42			
14	14.93			43			
15	14.55			44			
16	14.94			45			
17	14.8			46			
18	14.98			47			
19	13.72			48			
20	14.76			49			
21	13.95			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calverton Fuel depot SPILL# 82-1680 DATE 5-10-91 TIME 1130

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 G. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	-			22	Flooded		
RW 2.	-			23	14.56		
RW 3.	-			24	13.77		
RW 4.	-			25	Flooded		
PW 1	-			26	14.16		
PW 2	-			27	11.33		
IW	-			28	14.21		
	-			29	13.95		
1	15.94			30	14.05		
2	14.72			A	14.68		
3	14.56			B	14.98		
4	17.00			C	16.00		
5	16.56			D	16.78		
6	15.75			35			
7	15.75			36			
8	Dry			37			
9	16.57			38			
10	17.53			39			
11	16.77			40			
12	18.08			41			
13	13.78			42			
14	15.09			43			
15	14.38			44			
16	14.79			45			
17	14.63			46			
18	14.83			47			
19	13.57			48			
20	13.18			49			
21	14.60			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV. FUEL DEPOT SPILL# 82-1680 DATE 5.3.91 TIME 1300

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	TRUCK		
RW 2.				23	14.50		
RW 3.				24	13.72		
RW 4.				25	14.25		
PW 1				26	14.06		
PW 2				27	11.25		
IW				28	14.15		
				29	14.00		
1	15.85			30	13.89		
2	14.65			A	14.80		
3	14.50			B	14.90		
4	16.90			C	15.90		
5	16.50			D	16.70		
6	15.65			35			
7	15.67			36			
8	DRY			37			
9	16.50			38			
10	17.45			39			
11	16.70			40			
12	18.00			41			
13	FLOODED			42			
14	15.03			43			
15	14.30			44			
16	14.70			45			
17	14.60			46			
18	14.75			47			
19	13.47			48			
20	14.50			49			
21	13.10			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Depot SPILL# 89-1680 DATE 4-26-91 TIME 1100

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	13.81		
RW 2.				23	14.6		
RW 3.				24	13.81		
RW 4.				25	14.34		
PW 1				26	14.17		
PW 2				27	11.34		
IW				28	14.24		
				29	14.18		
1	15.98			30	14.09		
2	4.75			A	14.91		
3	1[illegible].09			B.	14.99		
4	17.			C.	16.02		
5	16.6			D.	16.77		
6	15.78			35			
7	15.78			36			
8	DRY			37			
9	16.6			38			
10	17.54			39			
11	16.78			40			
12	18.08			41			
13	14.16			42			
14	15.12			43			
15	14.4			44			
16	14.79			45			
17	14.66			46			
18	14.82			47			
19	14.57			48			
20	14.6			49			
21	13.19			50			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Grumman Land Fuel Depot Spill# 82-1680 Date 4/19/91 Time 1030

Storage tank level _____gal Cumulative total 110.35G Total gallons bailed 0

Pumping rate _____gpm Total gallons pumped _____ Pressure _____psi

Air Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

Soil Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

Pool Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	15.33		
1	16.48			19	14.06		
2	15.25			20	15.08		
3	15.08			21	13.71		
4	17.48			22	14.36		
5	17.08			23	15.08		
6	16.25			24	14.29		
7	16.26			25	14.80		
8	DRY			26	14.67		
9	17.09			27	11.84		
10	18.04			28	14.72		
11	17.29			29	14.58		
12	18.58			30	14.46		
13	14.68			A	15.42		
14	15.62			B	15.50		
15	14.92			C	16.51		
16	15.32			D	17.31		
17	15.17						

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

ocation Grumman Gov Fuel Depot Area Spill# 82-168D Date 4/18/91 Time 1100

orage tank level _____gal Cumulative total 110.35 Total gallons bailed 0

mping rate _____gpm Total gallons pumped _____ Pressure _____psi

r Stripper Blower ON/OFF _____ Temp _____ fpm _____ Battery _____

il Venting System ON/OFF _____ Temp _____ fpm _____ Battery _____

ool Levels 1 _____ 2 _____

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW				18	15.30		
1	16.45			19	14.00		
2	15.20			20	15.05		
3	15.06			21	13.65		
	17.45			22	14.26		
5	17.06			23	15.05		
6	16.23			24	14.27		
7	16.22			25	14.80		
8	DRY			26	14.65		
9	17.06			27	11.81		
10	17.99			28	14.75		
11	17.23			29	14.45		
12	18.55			30	14.58		
13	14.67						
14	15.60			A	15.40		
15	14.89			B	15.46		
16	15.25			C	16.50		
7	15.10			D	17.25		

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

Location Gammon Calverton Fuel depot Spill# 82-1630 Date 4-5-91 Time 1200

Storage tank level 1. — gal 2. ____ gal Total gallons bailed 0 gal

Pumping rate — gpm Total gallons pumped — Pressure ____ psi

Cumulative total 110.35 gal

Well#	DTW	DTP	Product	#	DTW	DTP	Product
RW	-			18	15.14		
1	16.31			19	13.88		
2	15.07			20	14.90		
3	14.93			21	13.51		
4	17.31			22	14.14		
5	16.90			23	14.89		
6	16.09			24	14.11		
7	16.11			25	14.63		
8	Dry			26	14.47		
9	16.92			27	11.63		
10	17.84			28	14.56		
11	17.09						
12	18.39						
13	14.50			A	15.22		
14	15.44			B	15.30		
15	14.72			C	16.33		
16	15.11			D	17.13		
17	14.96						

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Depot SPILL# 82-1680 DATE 3-27-91 TIME 1100

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.07		
RW 2.				23	14.81		
RW 3.				24	14.01		
RW 4.				25	14.55		
PW 1				26	14.39		
PW 2				27	11.55		
IW				28	14.48		
				29	14.21		
1	16.22			30	14.36		
2	14.98			31 A.	15.12		
3	14.83			32 B.	15.21		
4	17.22			33 C.	16.24		
5	16.81			34 D.	16.98		
6	16.			35			
7	16.01			36			
8	DRY.			37			
9	16.83			38			
10	17.74			39			
11	17.			40			
12	18.29			41			
13	14.43			42			
14	15.35			43			
15	14.63			44			
16	15.01			45			
17	14.86			46			
18	15.01			47			
19	13.79			48			
20	14.81			49			
21	13.4			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Fuel Depot SPILL# 82-1680 DATE 3-22-91 TIME 1130

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35 GAL GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.08		
RW 2.				23	14.8		
RW 3.				24	14.02		
RW 4.				25	14.52		
PW 1				26	14.38		
PW 2				27	11.53		
IW				28	14.47		
				29	14.2		
1	16.21			30	14.33		
2	15.			M.	15.11		
3	14.82			B.	15.2		
4	17.21			C.	16.24		
5	16.81			D.	16.97		
6	16.01			35			
7	16.			36			
8	DRY.			37			
9	16.83			38			
10	17.75			39			
11	16.96			40			
12	18.3			41			
13	14.37			42			
14	15.35			43			
15	14.62			44			
16	15.			45			
17	14.84			46			
18	15.01			47			
19	13.76			48			
20	14.8			49			
21	13.39			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2228
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV. FUEL DEPOT SPILL# 82-1680 DATE 3/15/91 TIME 1115

DRAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.12		
RW 2.				23	14.85		
RW 3.				24	TRUCK		
RW 4.				25	12.30	(flooded)	
PW 1				26	14.40		
PW 2				27	11.55		
IW				28	13.86		
				29	14.25		
1.	FLOODED			30	FLOODED		
	15.00			A	15.10		
3	14.85			B	15.23		
4	17.25			C	16.25		
5	16.85			D	17.05		
6	16.00			35			
7	16.00			36			
8	DRY			37			
9	16.82			38			
10	17.75			39			
11	16.99			40			
12	18.30			41			
13	FLOODED			42			
14	15.39			43			
15	14.65			44			
16	15.06			45			
17	14.90			46			
18	15.09			47			
19	13.07			48			
0	14.80			49			
21	13.40			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: GRUMMAN CALV FUEL DEPOT SPILL# 82-1680 DATE 3/8/91 TIME 1030

ORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.20		
RW 2.				23	14.91		
RW 3.				24	14.12		
RW 4.				25	14.67		
PW 1				26	14.47		
PW 2				27	11.64		
IW				28	14.59		
				29	14.30		
1.	16.30			30	14.45		
2	15.07			A	15.21		
3	TRUCK			B	15.31		
4	17.30			C	16.35		
5	16.90			D	17.10		
6	16.07			35			
7	16.07			36			
8	DRY			37			
9	16.90			38			
10	17.85			39			
11	17.07			40			
12	18.40			41			
13	14.50			42			
14	15.47			43			
15	14.75			44			
16	15.11			45			
17	14.97			46			
18	15.14			47			
19	13.90			48			
0	14.90			49			
21	13.50			50			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

LOCATION: Calverton Fuel depot SPILL# 82-1680 DATE 2-21-91 TIME 1000

STORAGE TANK LEVEL 1 _____ 2 _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.50		
RW 2.				23	15.23		
RW 3.				24	14.45		
RW 4.				25	14.98		
PW 1				26	14.80		
PW 2				27	12.00		
IW				28	14.90		
				29	14.76		
1	16.65			30	14.62		
2	15.42			A	15.57		
3	15.27			B	15.66		
4	17.64			C	16.70		
5	17.25			D	17.42		
6	16.45			35			
7	16.46			36			
8	DRY			37			
9	17.26			38			
10	18.20			39			
11	17.45			40			
12	18.75			41			
13	14.80			42			
14	15.70			43			
15	15.08			44			
16	15.47			45			
17	15.31			46			
18	15.50			47			
19	14.23			48			
20	15.26			49			
21	13.86			50			

MPC ENVIRONMENTAL SERVICES
P.O.Box 610
Calverton, NY 11933
Tel:(516)369-4900

82-1680

LOCATION: Calverton Fuel Depot DATE 2/28/91 TIME 1300

STORAGE TANK LEVEL 1. _____ 2. _____ 3. _____ 4. _____

CUMULATIVE TOTAL 110.35 GAL.

PUMPING RATE RW1 _____ _____ RW3 _____ RW4 _____

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
A	15.67			24.	14.58		
B	15.77			25.	15.08		
C	16.81			26.	14.94		
D	17.54			27.	12.10		
1.	16.77			28.	15.00		
2.	15.50			29.	14.73		
3.	15.37			30.	14.85		
4.	17.75			31.			
5.	17.35			32.			
6.	16.54			33.			
	16.54			34.			
8.	DRY			35.			
9.	17.37			36.			
10.	18.33			37.			
11.	17.58			38.			
12.	18.88			39.			
13.	14.98			40.			
14.	15.88			41.			
15.	15.19			42.			
16.	15.56			43.			
17.	15.42			44.			
18.	15.62			45.			
19.	14.35			46.			
20.	15.37			47.			
21.	13.98			48.			
	14.60			49.			
2.	15.35			50.			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: CALVERTON FUEL DEPOT SPILL# 82-1680 DATE 2/14/91 TIME 1030

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
A	15.42			22	14.33		
B	15.52			23	15.08		
C	16.56			24	14.31		
D	17.29			25	FLOODED		
PW 1				26	CAR		
PW 2				27	16.85		
IW				28	14.75		
				29	14.46		
1	16.50			30	14.62		
2	15.27			31			
3	15.13			32			
4	17.50			33			
5	17.10			34			
6	16.29			35			
7	16.29			36			
8	DRY			37			
9	17.13			38			
10	18.08			39			
11	17.31			40			
12	18.62			41			
13	19.67			42			
14	15.62			43			
15	FLOODED			44			
16	16.33			45			
17	15.17			46			
18	15.37			47			
19	14.08			48			
20	15.10			49			
21	13.71			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv. Fuel Depot Area SPILL# 821680 DATE 2/8/91 TIME 1130

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.30		
RW 2.				23	15.07		
RW 3.				24	14.30		
RW 4.				25	14.85		
PW 1				26	14.65		
PW 2				27	11.81		
IW				28	14.75		
				29	14.62		
1	16.50			30	14.47		
2	15.29			A	15.40		
3	15.10			B	15.50		
4	17.50			C	16.50		
5	17.10			D	17.30		
6	16.25			35			
7	16.24			36			
8	DRY			37			
9	17.10			38			
10	18.01			39			
11	17.25			40			
12	18.58			41			
13	14.70			42			
14	15.67			43			
15	TRUCK			44			
16	15.30			45			
17	15.13			46			
18	15.34			47			
19	14.06			48			
20	15.10			49			
21	13.68			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman / Calverton / Fuel depot SPILL# 82-1680 DATE 1-31-91 TIME 1130

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.	-			22	14.15		
RW 2.	-			23	14.86		
RW 3.	-			24	14.10		
RW 4.	-			25	14.62		
PW 1	-			26	14.44		
PW 2	-			27	11.61		
IW	-			28	14.56		
	-			A	15.21		
1.	16.30			B	15.29		
2	15.09			C	16.32		
3	14.94			D	17.04		
4	17.31			33			
5	16.89			34			
6	16.08			35			
7	16.09			36			
8	Dry			37			
9	16.91			38			
10	17.80			39			
11	17.06			40			
12	18.36			41			
13	14.52			42			
14	15.44			43			
15	14.23			44			
16	15.10			45			
17	14.94			46			
18	15.14			47			
19	13.84			48			
20	14.90			49			
21	13.48			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Depot SPILL# 82-1680 DATE 1,24,91 TIME 1000

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
A	15.08			22	14.04		
B	15.17			23	14.77		
C	16.19			24	13.98		
D	16.85			25	14.50		
PW 1				26	13.29		
PW 2				27	11.44		
IW				28	14.46		
				29			
1	16.19			30			
2	14.96			31			
3	14.83			32			
4	17.19			33			
5	16.77			34			
6	15.94			35			
7	15.94			36			
8	DRY			37			
9	16.79			38			
10	17.64			39			
11	16.88			40			
12	18.21			41			
13	14.39			42			
14	15.33			43			
15	14.56			44			
16	14.94			45			
17	14.79			46			
18	14.96			47			
19	13.67			48			
20	14.69			49			
21	13.29			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Grumman Calv Fuel Depot SPILL# 821680 DATE 1/16/91 TIME 1000

STORAGE TANK LEVEL 1 _____ 2. _____

CUMULATIVE TOTAL _____ GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.32		
RW 2.				23	15.04		
RW 3.				24	14.22		
RW 4.				25	TRUCK		
PW 1				26	15.57		
PW 2				27	11.70		
IW				28	13.20		
				A	15.20		
1	16.40			B	15.40		
2	15.25			C	16.45		
3	15.07			D	17.15		
4	17.45			33			
5	17.02			34			
6	16.20			35			
7	16.19			36			
8	DRY			37			
9	17.05			38			
10	17.90			39			
11	17.15			40			
12	18.45			41			
13	ICE			42			
14	15.58			43			
15	14.80			44			
16	—			45			
17	15.07			46			
18	15.20			47			
19	13.95			48			
20	14.95			49			
21	13.56			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton Fuel Depot SPILL# 82-1680 DATE 1/9/91 TIME 1030

STORAGE TANK LEVEL 1. _____ 2. _____

CUMULATIVE TOTAL 110.35 GAL. GALLONS BAILED 0

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
A	FLOODED			22	FLOODED		
B	FLOODED			23	15.33		
C	16.79			24	14.54		
D	17.50			25	CAR		
PW 1				26	14.88		
PW 2				27	12.04		
IW				28	FLOODED		
				29			
1	16.73			30			
2	15.50			31			
3	15.37			32			
4	17.77			33			
5	17.37			34			
6	16.50			35			
7	16.50			36			
8	DRY			37			
9	17.37			38			
10	18.25			39			
11	17.50			40			
12	18.83			41			
13	FLOODED			42			
14	15.88			43			
15	FLOODED			44			
16	15.54			45			
17	15.37			46			
18	15.54			47			
19	14.25			48			
20	15.29			49			
21	15.83			50			

MPC ENVIRONMENTAL SERVICES
P.O. BOX 2220
EAST PATCHOGUE, N.Y. 11772
(516) 654-4900

LOCATION: Calverton- Fuel Depot SPILL# 82-1680 DATE 1-2-90 TIME 1030

STORAGE TANK LEVEL 1. 2.

CUMULATIVE TOTAL 110.35 G GALLONS BAILED 0.00

WELL #	DTW	DTP	PRODUCT	#	DTW	DTP	PRODUCT
RW 1.				22	14.56		
RW 2.				23	15.9		
RW 3.				24	14.5		
RW 4.				25	15.01		
PW 1				26	14.89		
PW 2				27	11.98		
IW				28	14.97		
				A	15.6		
1	16.67			B.	15.68		
2	15.46			C.	16.72		
3	Truck.			D.	17.41		
4	17.7			33			
5	17.27	Trace		34			
6	16.47			35			
7	16.47			36			
8	DRY			37			
9	17.31			38			
10	18.18			39			
11	17.42			40			
12	18.74			41			
13	14.9			42			
14	15.84			43			
15	15.1			44			
16	15.46			45			
17	15.32			46			
18	15.48			47			
19	14.21			48			
20	15.24			49			
21	13.83			50			

W13

SAMPLE/CORE LOG

Boring/Well P1 Project/No. 82-1680 Page ____ of ____

Site Location Grumman Calverton Fuel depot Drilling Started 5/11/89 Drilling Completed 5/11/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller ____ Helper ____

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Topsoil, brown silty sand no odor
2	5			Lt. brown fine - med sand poorly sorted
				10% gravel no odor.
5	10			tan med sand poorly sorted no odor
10	15			Lt. tan med sand, small to coarse
				poorly sorted no odor
15	20			Lt. tan med sand slight odor
				* PI - 1.0 ppm
22	25			Grey tan med sand strong odor
				* PI - 150-162
25	30			Grey tan med sand strong odor
				* PI = 120-170
				Casing
				4" PVC w/ locking cap + 12" manhole
				20' .020 screen
				10' blank

W 14

SAMPLE/CORE LOG

Boring/Well P-2 Project/No. 82-1680 Page ____ of ____

Site Location Calverton Fuel Depot Drilling Started 5/11/89 Drilling Completed 5/11/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller ____ Helper ____

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Topsoil brown silty sand
2	5			tan med sand w/ a few pebbles
				No odor
5	20			lt. tan med sand fairly well sorted
				* No odor slight odor 15-20
				PI down
20	25			* strong odor @ 22' very strong @ 25'
				sand grey in color becoming darker
				w depth ≈ 150 ppm
25	30			* grey med sand strong odor
				sample taken
				Casing
				4" PVC w/ 12" manhole + locking cap
				20' .020 screen
				10' blank

W15

SAMPLE/CORE LOG

Boring/Well P3 Project/No. 82-1680 Page ____ of ____

Site Location Grumman Calverton Fuel depot Drilling Started 5/11/89 Drilling Completed 5/11/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Topsoil, brown silty sand
2	5			brown med sand w/ a few pebbles
				No odor
5	10			Tan med sand poorly sorted, sub-angular
				No odor
10	25			Lt. tan med sand fairly well sorted
				sub angular - sub rounded No odor
25	30			Lt tan med sand sub-rounded No odor
				Casing
				4" PVC w/ locking cap 12" manhole
				20' 0.020 screen
				10' blank

W16

SAMPLE/CORE LOG

Boring/Well P-4 Project/No. 82-1680 Page ____ of ____

Site Location Grumman Calverton Fuel depot Drilling Started 5/11/89 Drilling Completed 5/11/89

Total Depth Drilled 30' feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return / split spoon

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2'			Topsoil, med grain sand w/ small
				% gravel no odor
2	5			Tan med grain sand fairly well sorted
				sub-rounded no odor
5	15			Lt. tan med grain sand, well sorted
				no odor
	Core Rec			
15	17			Lt tan med-sand well sorted
				No odor
20	22			tan coarse-med sand, poorly sorted
				10% pebbles sample sat. no odor
25	27			med - coarse sand poorly sorted
				no odor sample sat.
30	32			Same as previous
				Casing
				4" PVC casing w/ locking cap
				12" manhole
				20' .020 screen
				10' blank

W17

SAMPLE/CORE LOG

Boring/Well P-5 Project/No. 82-1680 Page ____ of ____

Site Location Galveston Fuel depot, Arkansas Drilling Started 5/12/89 Drilling Completed 5/12/8

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sasik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Topsoil, med brown sand
2	5			lt brown med sand Fairly well
				sorted - rounded NO odor
5	10			tan med sand, well sorted, rounded
				NO odor
10	20			SAME AS previous, lighter in color
20	30			SAME AS previous, NO odor
				CASING
				4" PVC 12" mh w/ locking cap
				20' .020 screen
				10' blank

W18

SAMPLE/CORE LOG

Boring/Well P6 Project/No. 82-1680 Page ____ of ____

Site Location Brunman Calverton Fuel depot Drilling Started 5/12/89 Drilling Completed 5/12/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger - Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			topsoil, brown silty sand
				no odor
2	5			tan med. sand fairly well sorted
				no odor
5	15			lt. tan med sand fairly well
				sorted no odor
15	20			lt tan med sand well sorted
				no odor
20	30			lt. tan med sand well sorted
				sub rounded no odor
				casing
				4" PVC 12" manhole w/ locking cap
				20' screen .020
				10' blank

W19

SAMPLE/CORE LOG

Boring/Well P-7 Project/No. 82-1680 Page ____ of ____

Site Location Grumman Calverton Fuel depot Drilling Started 5/12/89 Drilling Completed 5/12/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device AUGER RETURN

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method H.S. Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Topsoil, brown med sand
2	5			lt Brown med sand, fairly well sorted
				No odor
5	10			tan med sand well sorted sub-rounded
				No odor
10	15			lt tan med sand. well sorted, rounded,
				No odor
15	20			same as previous no odor
20	30			same as previous very faint odor
				.7-.5 Tp II @ 25' odor fainter w/
				depth
				CASING
				4" PVC 12" mh w/locking cap
				20' .020 screen
				10' blank

W20

SAMPLE/CORE LOG

Boring/Well P8 Project/No. 82-1680 Page ____ of ____

Site Location Grumman Calverton Fuel depot Drilling Started 5/12/89 Drilling Completed 5/12/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____ feet

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sosik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	3			topsoil, brown silty sand 5% gravel
3	5			tan med sand fairly well sorted
				No odor
5	15			lt. tan med sand fairly well sorted
				No odor
15	70			lt tan med sand fairly well sorted
				& strong odor @ 18' tip 70 ppm
20	30			lt tan grey med sand fairly well sorted
				& Tip 90.0 strong odor
				CASING
				4" PVC w/locking cap 12" manhole
				70' .020 screen
				10' blank

SAMPLE/CORE LOG

W21

Boring/Well P-9 Project/No. 82-1680 Brunman Page ____ of ____

Site Location Calverton Fuel depot Drilling Started 5/12/89 Drilling Completed 5/12/89

Total Depth Drilled ____ feet Hole Diameter ____ inches Type of Sample/Coring Device Auger Return

Length and Diameter of Coring Device ____ Sampling Interval ____

Land-Surface Elev. ____ feet ☐ Surveyed ☐ Estimated Datum ____

Drilling Fluid Used ____ Drilling Method Auger

Drilling Contractor MPC Driller Don Klaus Helper Scott

Prepared By Charlie Sasik Hammer Weight ____ Hammer Drop ____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			top soil, brown med sand
2	5			tan med sand, fairly well sorted
				no odor
5	15			lt tan med sand, well sorted sub
				rounded no odor
15	20			lt tan-grey med sand, well sorted
				* very slight odor 2.1-3.2 ppm Tip
20	30			same as previous odor - fainter
				* w/ depth 3.2-.09 ppm Tip
				casing
				4" PVC 12" mh w/locking cap
				20' .020 screen
				10' blank

APPENDIX D

SELECTED WATER SUPPLY DATA

BROOKHAVEN NATIONAL LABORATORY
SITE ENVIRONMENTAL REPORT FOR CALENDAR YEAR 1989

R.P. Miltenberger, B.A. Royce, S.S. Chalasani,
D. Morganelli, and J.R. Naidu

December 1990

SAFETY AND ENVIRONMENTAL PROTECTION DIVISION

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, LONG ISLAND, NEW YORK 11973
UNDER CONTRACT NO. DE-AC02-76CH00016 WITH THE
UNITED STATES DEPARTMENT OF ENERGY

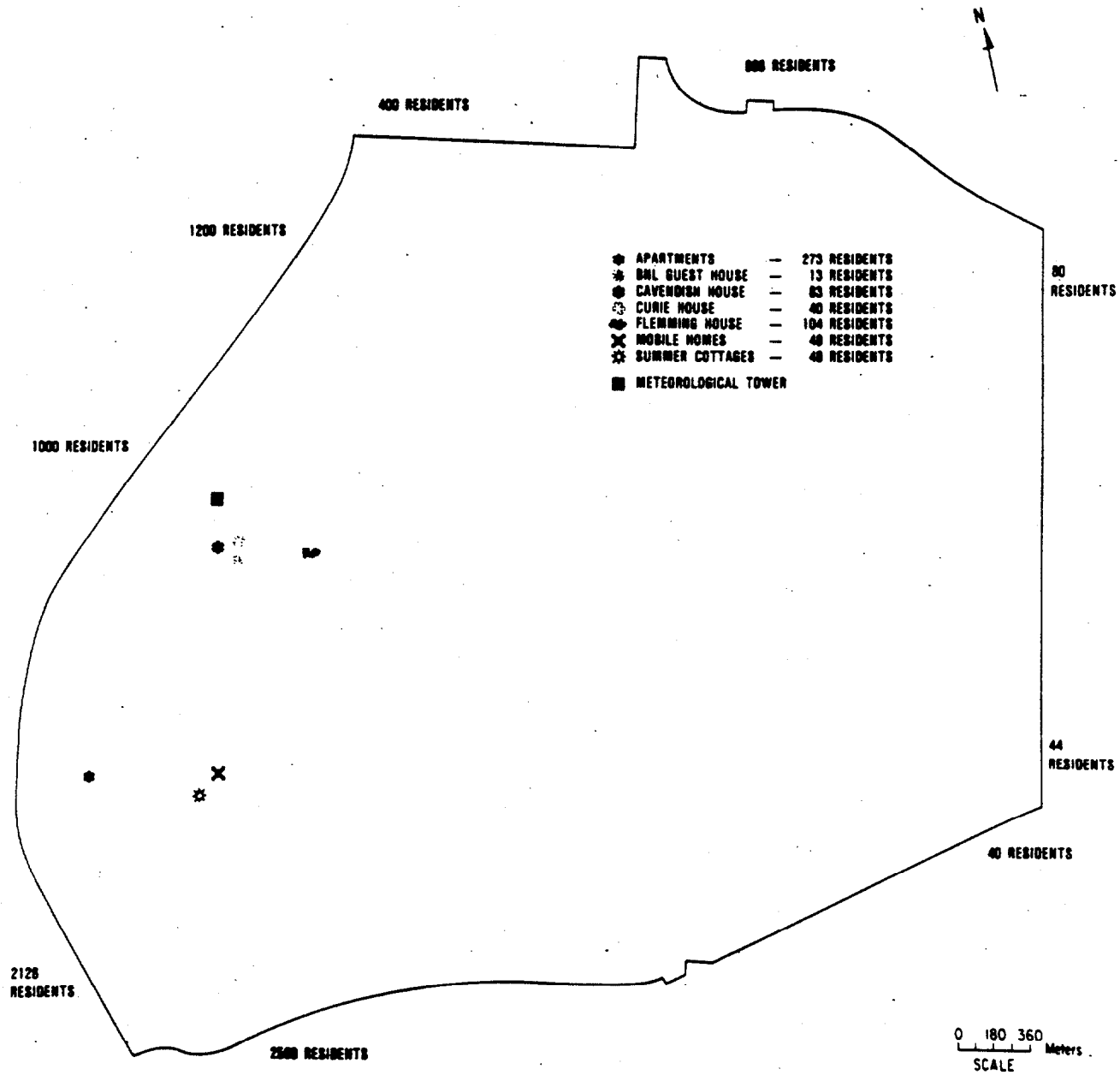


Figure 2: Brookhaven National Laboratory Local and On-site Population Distribution

Sediment and vegetation samples were collected and analyzed for gamma emitting radionuclides at control locations and along the Peconic River downstream of BNL effluent releases to Station T, located about three km beyond the site boundary. Elevated radionuclide concentrations in these parameters are observed out to Donahue's Pond.

2.9 Potable Water Supply

Gross alpha, beta and tritium concentrations in on-site potable well samples were generally at or near the minimum detection limit (MDL). The daily grab sample of potable water collected from a central building on-site exhibited the same results. The highest average tritium concentration in on-site potable well water (Well No. 4) was 650 pCi/L [24 Bq/L] (the MDL for tritium was typically 300 pCi/L [111 Bq/L]). This concentration if consumed for one year at a rate of two liters per day would correspond to a committed effective dose equivalent to the on-site resident of 0.03 mrem (0.0003 mSv). Other nuclides, including cesium-137, cobalt-60, sodium-22, and strontium-90 were detected in several wells. The strontium-90 concentration is consistent with off-site potable concentrations and is thus related to world-wide fallout. The committed effective dose equivalent from ingesting the maximum concentrations for the remaining radionuclides would be 0.015 mrem (0.00015 mSv) and the total dose from all radionuclides would be 0.045 mrem (0.00045 mSv) or 1.1% of the dose limit specified in the SDWA. These doses represent an upper limit to the dose actually received because the concentrations used to derive these doses were obtained from analyzing samples from the individual well heads and does not account for mixing that would occur when the water is distributed throughout the site.

Metal analyses performed on potable water samples indicate that silver, arsenic, cadmium, chromium, and zinc were not detected in any sample. Trace quantities of lead (0.002 mg/L), and manganese (0.05 - 0.07 mg/L) were detected in potable well water collected at the well head. All observed values of lead and manganese were substantially below the NYS DWS of 0.050 mg/L and 0.3 mg/L. Iron was detected in water collected at the well head from Well Nos. 4, 6, and 7. Water from these wells is treated at the BNL Water Treatment Plant prior to use in the domestic water distribution system. Sodium was detected in all potable wells in concentrations ranging from 9.2 to 15.9 mg/L.

In previous years, organic compounds had occasionally been detected in the BNL potable water supply wells in concentrations significantly below Federal and State DWS. The organic compound which had been detected most frequently was 1,1,1-trichloroethane. Prior to 1989, this compound had a DWS of 0.05 mg/L (50 µg/L). However, the New York State Department of Health (NYSDOH) adopted standards to limit organic chemical contamination of public drinking water supplies in 1989 [17]. These new DWS established a limit of 0.005 mg/L (5 µg/L) for 52 principal organic compounds (including 1,1,1-trichloroethane) which became effective on January 9, 1989.

During the course of the year, two potable wells were found to contain 1,1,1-trichloroethane in excess of the new DWS. In accordance with NYS potable water supply regulations, replicate samples were collected from each well to confirm the presence of 1,1,1-trichloroethane. Potable Well No. 10 was removed from service as a potable supply well in March 1989 and permanently removed from

service in June 1989. The results of quarterly testing of Potable Well No. 11 in October found 1,1,1-trichloroethane in excess of the NYS DWS and the well was voluntarily removed from service as a potable supply. In accordance with NYS requirements, three samples were collected at one week intervals in November. The average was 8.3 µg/L for 1,1,1-trichloroethane and the well was permanent removed from service in December, 1989. BNL is investigating the purchase of carbon filtration units for these wells.

2.10 Ground Water Surveillance

Ground water surveillance data are compared to both RCGs and Drinking Water Standards. By comparing ground water data to the RCGs, the Laboratory can demonstrate that releases from past practices did not exceed regulatory limits in place at that time. Comparison of surveillance well data to EPA, NYSDEC and NYSDOH DWS, demonstrates the Laboratory's commitment to remediate ground water which does not meet current regulatory criteria and to protect the ground water resource as a future potable water supply.

2.10.1 Radiological Analyses

In 1989, 137 ground water surveillance wells were monitored for radiological parameters. Radiological data are presented grouped by sector of the BNL site. In the east sector of the site (meadow marsh-upland recharge area; Peconic River on-site including STP sand filter bed area and the Peconic River off-site), gross beta, tritium, and strontium-90 concentrations were detected which were above ambient concentrations only in the on-site areas near the Peconic River. Cobalt-60, cesium-137 and beryllium-7 were found in concentrations at or near the systems MDL in only two wells of the 24 that were monitored in this area. The observed concentrations are attributable to tile collection field losses at the STP and recharge of the Peconic River. In 1989, the highest annual average gross beta concentration was 9% of the NYS DWS concentration limit; tritium was 26% of the NYS DWS concentration limit; strontium-90 was 116% of the NYS DWS concentration limit (value based only on one measurement); cobalt-60 was 0.04% of the NYS DWS dose limit; cesium-137 was 0.1% of the NYS DWS dose limit and beryllium was 0.01% of the NYS DWS dose limit [17,18]. At a single surveillance well located adjacent to the Peconic River and several hundred meters downstream of the site boundary, all parameters were within ambient concentrations or below system detection limits except for strontium-90. The average strontium-90 concentration was 116% of the NYS DWS concentration limit.

Along the northwest, west and south boundary of the site, 19 wells were monitored. No activity above ambient levels or significantly in excess of the system MDL was found in ground water samples collected from these areas.

In the center of the site, 32 surveillance wells were monitored. Radionuclides detected in ground water samples that were attributable to BNL operations were found near the old Bubble Chamber area (Building 965), Building 811, Building 830, the Major Petroleum Facility (MPF) and near Building 118. The highest annual concentrations detected for this area expressed as a percent of the NYS DWS concentration limit were: 23% gross beta; 17% tritium; and 29% strontium-90. Radionuclides that are not regulated by concentration are regulated by dose. The highest annual concentration detected for the remaining

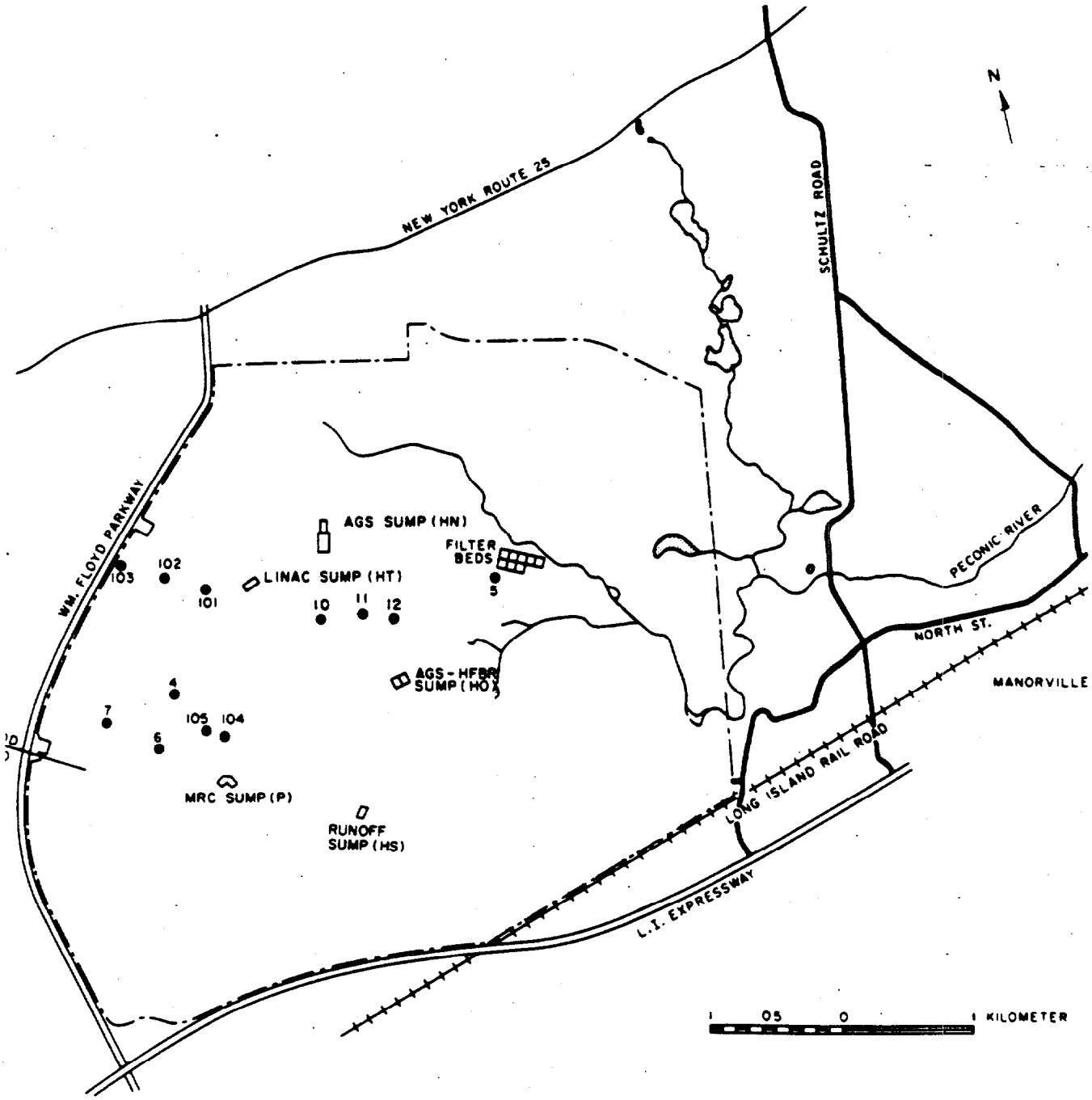


Figure 15:
On-Site: Potable and supply wells and recharge sumps.

fresh water bodies (Figure 19). In 1989, fish samples from the Peconic River were collected at Location HM and Forge Pond. Control samples were collected from Swan Lake and an on-site recharge basin (HS). Specific information regarding the sampling point, distance from the BNL effluent release point, species of fish collected and analytical results are presented in Appendix D, Table 38. In calendar year 1989, gamma spectroscopy analysis was performed on these samples. The Peconic River fish contained cesium-137 concentrations which ranged from background levels at Forge Pond (50 - 300 pCi/kg-wet [1.9 - 11.1 Bq/kg-wet]) to 11,000 pCi/kg-wet [407 Bq/kg-wet] at Location HM. In 1988, fish samples were collected from the Peconic River at Locations EA, HM, Donahue's Pond and Forge Pond. Control samples were collected from Swan Pond. These samples were analyzed for strontium-90 during 1989 and the results are also reported in Appendix D, Table 38. Typical concentrations at Swan Pond ranged from 30 to 200 pCi/kg-wet (1.1 to 74 Bq/kg-wet) while on-site strontium-90 concentrations in fish flesh ranged from 50 to 5,000 pCi/kg-wet (1.9 to 190 Bq/kg-wet).

The Forge Pond analytical data for cesium-137 is not statistically different from the control data and is due to weapons test fallout. Strontium-90 data from Forge and Donahue's Pond indicate the presence of levels that can be attributed to BNL releases. Cesium-137 and strontium-90 concentrations detected at Locations EA and HM are clearly related to BNL effluent discharges. The maximum individual and collective dose from the aquatic biological pathway was calculated based on the 1989 cesium-137 and 1988 strontium-90 concentrations that were observed in samples collected off-site. Based on these results, the maximum individual committed effective dose equivalent was estimated to be 0.91 mrem (0.0091 mSv) and the collective committed effective dose equivalent was estimated to be 0.155 person-rem (0.00155 person-Sv).

In addition to fish samples, sediment and vegetation samples were collected and analyzed for gamma emitting radionuclides. The results are presented in Appendix D, Table 39. Analytical data for water samples collected at the time of sampling are also presented in this table. The presence of cesium-137 and cobalt-60 concentrations indicate BNL related contribution. Other radionuclides detected in these samples are cosmogenic or primordial in origin.

3.3.7 Potable Water and Process Supply Wells

Potable Well Nos. 4, 6, 7, 10, 11, and 12 supplied the majority of potable water for use at BNL during 1989. Due to mechanical problems, Well No. 4 was used to supply potable water on a limited basis during the first quarter of 1989. This Well was used on a regular basis during the rest of the calendar year. Potable Well Nos. 10 and 11 were removed from service effective March and October 1989 respectively, because the average concentration of 1,1,1-trichloroethane exceeded the New York State DWS of 5 µg/L. Process supply Well Nos. 101, 102, and 103 were used periodically during 1989 to provide cooling water to the AGS facility. Process supply Well No. 104 provided secondary cooling water to the MRR.

The Laboratory's potable water wells and cooling water supply wells are screened from a depth of about 15 m to about 46 m, in the Upper Glacial aquifer, with one exception. Well No. 104 is screened at multiple depths: 40 to 43 m in the Upper Glacial and 60 to 90 m in the Magothy aquifer. As was shown in

Figure 15, most of these wells are located west or to the northeast and are upgradient of the Laboratory's principle facilities in the local ground water flow pattern. As was indicated in Figure 16, about 20.3 MLD were pumped from these wells in 1989. Grab samples were obtained from the potable wells and supply Well No. 104 on a quarterly basis and analyzed for radioactivity, water quality indices, metals, chlorocarbon compounds, trihalomethane compounds, and BTX.

Process supply Well Nos. 101, 102, and 103 were not sampled in 1989 by Safety and Environmental Protection Division (S&EP). Water chemistry analyses were performed by the facility operators as needed to meet their operational requirements.

3.3.7.1 Radiological Analyses

The average radionuclide concentrations are reported in Appendix D, Table 40. The presence of cobalt-60 and sodium-22 in Potable Well Nos. 10, 11, and 12 appears to be related to Laboratory operations. Radionuclide concentrations in potable water are all small fractions of the applicable water standards or guides and do not pose a safety or health risk to individuals who drink or use the water on-site. The dose resulting from consuming 100% of the daily water intake from the highest concentration water sources would result in a committed effective dose equivalent of 0.015 mrem (0.00015 mSv). Quality Control samples consisting of distilled and tap water from Building 535 are analyzed daily for gross alpha, gross beta and tritium. These results are presented in Appendix D, Table 41 and can be used for comparison with other ground water sample results.

3.3.7.2 Nonradiological Analyses

The water quality and metals data for the Laboratory potable supply wells are shown in Appendix D, Tables 42 and 43 respectively. With the exception of pH, indices of water quality such as nitrates, sulfates, and chlorides were all well within the limits established in the NYS DWS [17,18]. The pH values in these wells ranged from 5.7 - 7.7 and are typical of Long Island [35,36].

Samples from potable wells were analyzed monthly for residual chlorine and the presence of coliform bacteria. The analytical results were included in the monthly reports submitted to the SCDHS. The analyses indicated that bacteria were not detected in samples and the BNL potable supply is well within the requirements of the EPA National Primary Drinking Water Standards [19] and the New York State Sanitary Code [17].

The majority of metals including silver, arsenic, cadmium, chromium, copper, mercury and lead were not detected in the Laboratory supply system or detected at concentrations near the analysis detection limit. Manganese and zinc were detected at trace levels. Iron was not detected in water samples collected at the well heads of Potable Well Nos. 10, 11, and 12. Iron was detected at ambient levels in Well Nos. 4, 6 and 7. The water from these latter wells is treated at the WTP to remove iron. Water distributed from the WTP (WTP-EFF) had no detectable iron. Sodium was detected in all wells at ambient concentrations.

BROOKHAVEN NATIONAL LABORATORY

SAFETY AND ENVIRONMENTAL PROTECTION

FAX: (516) 282-7497

FAX TRANSMITTAL SHEET

Date: 10-21-91

From: D. Paquette

To: MR. RANDY PATERCITY

Company: NUS

Regarding: BNL WATER USAGE

Note: If there are any problems with this fax, please call (516) - 282 - 7406.

Number of Pages (including this sheet): 2

215-971-9715

1991 BNL WATER USAGE REPORT 1991

LI WELL PER	ARMY	ARMY		W-1656	W-2210	W-2210	W-3156	W-3156	W-3389	W-1656	W-1656	W-1656	W-1656	W-1656	W-2537	W-3117	
WELL #	S2476	S3197	S6697	S-17836	S-22151	S-22150	S-66944	S-72038	S-85965	S-15949	S-15950	S-15951	S-14977	S-18703	S-29723	S-63771	
BNL WELL #	1	2	3	4	6	7	10	11	12	101	102	103	104	105	NONE	9	MONTHI
BUILDING	93	168	610	614	618	619	634	635	637	915	916	917	490	492	535	463	TOTAI
STATUS	O.O.S	O.O.S	O.O.S.				O.O.S.	O.O.S									
JANUARY	O.O.S	O.O.S	O.O.S	O.O.S.	20200.10	38457.4	O.O.S.	O.O.S.	34792.2	O.O.S.	27654	O.O.S.	O.O.S.	O.O.S.	O.O.S.	78.03	121181.
FEBRUARY	O.O.S	O.O.S	O.O.S	10835.6	7979.90	37322.4	O.O.S.	O.O.S.	31612.3	4614	33839	O.O.S.	O.O.S.	O.O.S.	O.O.S.	63.31	126266.
MARCH	O.O.S	O.O.S	O.O.S	28769.1	105.80	41987.8	O.O.S.	O.O.S.	34972.4	4975	41682	O.O.S.	O.O.S.	O.O.S.	O.O.S.	60.12	152552.
APRIL	O.O.S	O.O.S	O.O.S	33214	287.90	47909.5	O.O.S.	O.O.S.	38672.1	O.O.S.	40071	O.O.S.	O.O.S.	O.O.S.	O.O.S.	209.74	160364.
MAY	O.O.S	O.O.S	O.O.S	28031.9	3344.90	46273.7	O.O.S.	O.O.S.	45067.2	O.O.S.	42876	O.O.S.	O.O.S.	O.O.S.	O.O.S.	84.52	165178.
JUNE	O.O.S	O.O.S	O.O.S	21493.6	527.80	36546.9	O.O.S.	O.O.S.	36085.4	O.O.S.	33250	O.O.S.	O.O.S.	O.O.S.	O.O.S.	103.69	128007.
JULY	O.O.S	O.O.S	O.O.S	21875.3	4061.50	44380.4	O.O.S.	O.O.S.	39647.1	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	54.84	110019.
AUGUST	O.O.S	O.O.S	O.O.S	44353.1	572.40	28361.6	O.O.S.	O.O.S.	23574.5	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	54.471	96916.0
SEPTEMBER	O.O.S	O.O.S	O.O.S	45955.1	146.40	22863.5	O.O.S.	O.O.S.	21734.9	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	O.O.S.	51.729	90751.6
OCTOBER																	0
NOVEMBER																	0
DECEMBER																	0
TOTAL	0	0	0	234527.7	37226.70	344105.2	0	0	[redacted]	[redacted]	218872	0	0	0	0	760.45	1151237.

All readings in Thousands of gallons

TOWN OF RIVERHEAD

TOWN HALL
200 HOWELL AVENUE
RIVERHEAD, NEW YORK 11901-2596
(516) 727-3200

FAX TRANSMITTAL SHEET

DATE: 10/24/91

TIME: 3:45 PM

NUMBER OF PAGES (incl. cover sheet): 3

TO: RANDY R. PATARCITY

COMPANY: NUS CORP.

FAX NUMBER: 215-971-9715

#2 7261
#3 15117
#1 313522

****

FROM: GARY J. PENOZICK

RE: RIVERHEAD WATER DISTRICT

COMMENTS:

PUMP DATA

*Contact sender if you do not receive all pages or copy is not legible. FAX (516)727-6712, Town Hall (516)727-3200

State of New York
Department of Environmental Conservation
Water Supply Unit

(516) 751-7900

Pumpage Report for 1990 in Thousands of Gallons

Report Prepared By: MICHAEL BENEDICT

WATER DISTRICT Address: 1035 PULASKI STREET, RIVERHEAD, NY 11901

Tel. No. (516) 727-3205

(#1)	Well# S-7261 (#2)	Well# S-5117 (#3)	Well# S-3027 (#4-1)	Well# S-34739 (#4-2)	Total
750	Auth. GPM 1000	Auth. GPM 1000	Auth. GPM 1000	Auth. GPM 1200	
625	Act. GPM 635	Act. GPM 950	Act. GPM 1000	Act. GPM 1000	
		8,138,000	3,988,000	7,984,000	
		6,473,000	3,736,000	7,695,000	
		4,999,000		17,690,000	
		7,859,000		16,704,000	
		13,940,000		17,414,000	
		21,537,000	2,876,000	23,195,000	
		15,992,000	19,663,000	10,330,000	
		15,829,000	9,239,000	16,997,000	
		12,698,000	9,266,000	15,130,000	
		7,658,000	7,920,000	7,006,000	
		8,168,000	5,963,000	6,815,000	
		8,947,000	4,475,000	6,363,000	
		132,238,000	67,126,000	153,323,000	

Storage Facilities:

	No.	Capacity	Capacity	Capacity
Elevated tank(s)				
Ground storage tank(s)	2	750,000	150,000	
Standpipe(s)	2	855,000	1,000,000	
Hydro-pneumatic tank(s)				

ved in own District or Franchise area: 19,500 (2)Population served outside service area 2,500
sumers metered: 100 (4) Number of services: 5,272 (5)Peak day rate: 5,365,000 (6)Date occurred 8/3/90
abandoned give well number, date of last use or date of abandonment:
ells which can be operated by other than electric power: 6

Building 40 - Rm. 219
SUNY Campus
Stony Brook, N.Y. 11794

Utility Name: RIVERHEAD

	Well # S-1322
	Auth. GPM 7
	Act. GPM 6
January	4,616,000
February	4,086,000
March	4,796,000
April	4,970,000
May	8,039,000
June	4,912,000
July	5,532,000
August	5,366,000
September	9,674,000
October	10,278,000
November	6,532,000
December	4,905,000
Total	73,706,000

Notes: (1) Population serv
(3) Percent of cons
If any wells were a
Number of active we

State of New York
Department of Environmental Conservation
Water Supply Unit

(516) 751-7900

Pumpage Report for 19 90 in Thousands of Gallons

Report Prepared By: Michael Benedict

D WATER DISTRICT Address: 1035 PULASKI STREET, RIVERHEAD, NY 11901 Tel. No. (516) 727-3905

(#5)	Well# S-34272 (#7-1)	Well# S-89133 (#7-2)	Well#	Well#	Total
0	Auth. GPM 300	Auth. GPM 1200	Auth. GPM	Auth. GPM	
0	Act. GPM 270	Act. GPM 1200	Act. GPM	Act. GPM	
					56,859,000
					47,119,000
					54,100,000
					59,841,000
					68,115,000
	15	1,793,000			97,753,000
	380	16,204,000			114,304,000
		17,028,000			100,238,000
		13,883,000			88,017,000
	1,573,000	8,598,000			71,525,000
	213,000	8,158,000			59,206,000
		14,353,000			65,186,000
	2,181,000	80,017,000			882,263,000

Storage Facilities:	No.	Capacity	Capacity	Capacity
Elevated tank(s)				
Ground storage tank(s)				
Standpipe(s)				
Hydro-pneumatic tank(s)				

ved in own District or Franchise area:_____ (2)Population served outside service area_____
sumers metered:____ (4) Number of services:_____ (5)Peak day rate:_____ (6)Date occurred_____
abandoned give well number, date of last use or date of abandonment:_____
ells which can be operated by other than electric power:____

Building 40 - Rm. 219
SUNY Campus
Stony Brook, N.Y. 11794

Utility Name: RIVERHEAD

	Well# S-66685
	Auth. GPM 1200
	Act. GPM 1200
January	32,133,000
February	25,129,000
March	26,615,000
April	30,308,000
May	28,722,000
June	43,425,000
July	46,203,000
August	35,779,000
September	27,366,000
October	28,492,000
November	23,357,000
December	26,143,000
Total	373,672,000

Notes: (1) Population ser
(3) Percent of con
If any wells were
Number of active w

DATE: 10/3/91

FAX #: (516) 821 - 5388

FROM: SHOREWOOD WATER CORP.
799 RT.25 A
ROCKY POINT, NEW YORK 11778

MAILING ADDRESS:
P.O. 9000
SHOREHAM, NEW YORK 11786
TEL 516 744 6444

TO: Randy Patarcity

NUS Corp.

(215) 971-0900

NUMBER OF PAGES INCLUDING COVER: 2

PLEASE ACKNOWLEDGE RECEIPT . THANK YOU.

TABLE 1
SHOREWOOD WATER CORPORATION

WELLS

Well No.	Year of Construction	Rated Capacity (gpm)	Power	Depth ft.	Minimum Well Diameter (in.)
1	1950	325	Electric	186	8
2	1956	300	Electric	175	8
3	1974	500	Electric	212	16
4	1970	1,050	Electric and Diesel	144	16
5	1980	1,000	Electric	146	16
6	1982	1,050	Electric and Diesel	230	20
7	1990	1,390	Electric and Standby Diesel-Generator	384	20
	Total	5,615 (8.09 mgd)			

©1085

APPENDIX E

SOIL BORING LOGS/CHAIN-OF-CUSTODY FORMS

BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON
PROJECT NO.: 3273 DATE: 7-29-91 BORING NO.: 1
ELEVATION: DRILLER: Unitech - JAY FRECH
WATER LEVEL DATA: FIELD GEOLOGIST: Kevin KILMARTIN
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONCRETE	REMARKS
801	0	6/4	3" ID			LT. BRN	4": SANDY LOAM, roots, organic		NO elevated HNU
0955		3/4	13"/24"			BLK	9": CLAYEY SILT with cinders, some pebbles		reading in headspace
	2								
	4								
		1/2	3" ID			BLK	9": CLAYEY SILT with pebbles, cinders, woody fragments		NO elevated HNU reading opening spoon.
0959	6	3/2	13"/24"			BRN	4": SILTY LOAM with a few pebbles		
	8								
801A	10	4/2	3" ID			BLK	CLAY TO SILTY CLAY with some coarse SAND & WOOD fragments		NO elevated HNU Headspace readings
1003		2/2	24"/24"						(background is 30 ppm
	12								
	14								
801B		1/2	3" ID	▼ Spoon is wet		BLK	BLACK, cinder-like silt to clay. Some BLUE, plastic or "latexy" type material		HNU headspace elevated 20 ppm
1008	16	1/1	12"/24"						
	18								

REMARKS: TD of borehole is 17 feet.

BORING 1

PAGE 1 : 1

BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP CAIVERTON — BORING NO.: 2
PROJECT NO.: 3273 — DATE: 7-26-91 — DRILLER: UniTech - JAY FREC
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONDITIONS	REMARKS
802	0	4/7	3" ID			BRN	10": brown, coarse SAND		HNU Headspace elevated +7 ppm
1028		9/8	24"/24"			BLK	14": BLACK, CLAYEY fine SAND TO CLAYEY SILT.		
	2								
	4								
802A		4/7	3" ID			BLK	SILTY CLAY TO fine SAND		HNU elevated +2 ppm opening spoon
1033	6	4/7	24"/24"						(background is 7 ppm)
	8								
	10	1/2	3" ID			BLK	CLAYEY SILT TO		HNU elevated +1 p opening spoon
1040		1/2	7"/24"				SILTY CLAY		
	12								
	14								
		3/3	3" ID			BLK	6" very black SILT		NO elevated HNU reading
1045	16	3/4	24"/24"			OR-BRN	18" orange brn, coarse SAND		
	18								
	20	3/3	3" ID	▼ Spoon is wet		OR-BRN	SAND with Clay		HNU reading of 12 ppm (background is 7 ppm)
1110		3/4	10"/24"						
	22								Limited volume for BNA/METAL/CYANID
	24								

REMARKS: TD of borehole is 22'

BORING 2

PAGE 1 : 1

BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP CALVERTON
PROJECT NO.: 3273 DATE: 7-26-91 BORING NO.: 4
ELEVATION: FIELD GEOLOGIST: Kevin KILMARTIN DRILLER: UniTech - JAY Freck
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth (ft.)) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: MATERIAL CLASSIFICATION	USCS OR ROCK CONDITIONS	REMARKS
804	0	3	3" ID			BRN	6": BROWN COARSE SAND		HNU reading 8 ppm
804C		4				OR-BRN	12": orange-brown coarse SAND WITH SOME CLAY		
804 MS		10	24"			BLK	6": BLACK ASH WITH CINDERS		
804MSD		8	24"						
1120	2								
	4								
804A		2	3" ID			OR-brn	6": orange-brown coarse SAND with CLAY		HNU reading 10 ppm
1140	6	2	18"			LT. BrN	12": LT. BrN Coarse SAND		
		3	24"						
	8								
	10	2	3" ID			BRN	6": Brown coarse SAND		HNU reading 8 ppm
1145		3	24"			LT. BrN	18": Light Brown coarse SAND		
		5							
		6							
	12								
	14								
804B		3	3" ID	Spoon is wet		LT. BrN	Coarse SAND with Gravel		HNU reading 7 ppm
1155	16	3	24"						
		3	24"						
	18								

REMARKS TD of borehole is 22'. Two ADDITIONAL 0-2' spoons TAKEN for ADDITIONAL MATERIAL for SAMPLES 804C, 804MS, and 804MSD.

BORING 4

PAGE 1 : 1

BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON — BORING NO.: 3
PROJECT NO.: 3273 — DATE: 7-26-91 — DRILLER: UniTech - JAY Free
ELEVATION: — FIELD GEOLOGIST: KEVIN KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR ROD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BORE USE CONCESS	REMARKS
803 803C	0	4/6	3" ID			LT. BRN TO DK. BLK	2": LT. BRN COARSE SAND 18" DK. BLK., organic, MEDIUM		NO elevated HNu READINGS
803MS 803MSD		6/15	24"/24"			LT. BRN TO GRAY	TO coarse sand with clay 4": LT. BRN TO GRAY, MEDIUM TO		opening spoon.
0927	2						coarse sand with pebbles		
	4								
803A		9/10	3" ID			BLK	6": BLACK CLAY		HNu elevated + ?
0940	6	11/10	24"/24"			LT. BRN	18": COARSE SAND WITH GRAVEL		PP.
	8								
	10	5/5	3" ID			rd-brn 6"	reddish-brown coarse SAND		No elevated
0945		5/6	24"/24"			LT.-brn 18"	Light-brown Coarse SAND		HNu readings.
	12								
	14								
		5/5	3" ID			LT. BRN	Coarse SAND		NO elevated HNu READINGS
0950	16	6/7	24"/24"						
	18								
803B	20	5/5	3" ID	▼ Spoon is WET		LT. BRN	Coarse SAND		
0955		5/6	24"/24"						
	22								
	24								

REMARKS: TD of borehole is 22'. Two additional 0-2' spoons taken at 0930 & 0932 for additional material for samples 803C, 803MS, & 803MSD.

BORING 3

PAGE 1 : 1

BORING LOG NUS CORPORATION

PROJECT: NWIRP CALVERTON BORING NO.: 5
PROJECT NO.: 3273 DATE: 7-24-91 DRILLER: UniTECH, JAY Frec
ELEVATION: FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK BROKENESS	REMARKS
805	0	2 / 2	3" ID				3" bioturbated. Black to brownish -		No elevated
1035		5 / 4	24" / 24"			BLK to brn-blk	black fine sand.		HNU readings.
	2								
	4								
805A		12 / 13	3" ID			BLK or-brn	5" topsoil, root zone		Slightly (~1 ppm) elevated headspa
0950	6	13 / 15	24" / 24"			or-brn	Coarse, well-sorted, orange-brown sand		on HNU.
	8								
	10	5 / 6	3" ID			BLK	Coarse, well-sorted orangish to tannish -		Slightly (~1 ppm) elevated headspac
1007		6 / 7	24" / 24"			or to Tn-brn	brown sand,		upon opening spoo
	12								
	14								
		7 / 9	3" ID						
1012	16	10 / 11	24" / 24"			Tn to buff	very clean, well sorted, coarse sand		No HNU above
									background
	18								
805B	20	3 / 3	3" ID	▼			very clean, well-sorted, coarse sand,		No elevated
1019		3 / 3	24" / 24"				Saturated		HNU
	22								
	24								

REMARKS TD of borehole 22 ft. Driller did not take 0-2' spoon in original hole. Rig moved 18" to take 0-2' spoon

BORING 5

PAGE 1 : 1

BORING LOG — NUS CORPORATION

PROJECT: NWIRP Calverton — BORING NO.: 6
PROJECT NO.: 3273 — DATE: 7-24-91 — DRILLER: UniTech - Jay Freci
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BOREHOLE CONDITIONS	REMARKS
806	0	3/4	3"ID			LT brn	light brown silty sand. Roots & organics in upper 4"		No elevated HNu
1134		5/3	24"/24"			DK brn to blk	Dark brown to black, silt and fine sand		
	2								
	4								
806A		3/4	3"ID			BLK	8" black silt to fine sand		
1143	6	4/3	24"/24"			or to or-brn	Coarse, well-sorted, orangish to orange-brown sand		Headspace elevate HNu of 5.4
	8								
	10	3/4	3"ID				Coarse to very coarse,		Headspace elev 0.8
1150		5/6	24"/24"			Tn-brn to buff	buff to tannish-brown uniform sand		
	12								
	14								
806B		3/4	3"ID			buff to	very coarse, well-sorted,		No headspace
1157	16	6/8	24"/24"			LT. brn	uniform sand. Lower 10" is saturated.		
	18								

REMARKS: TD of borehole 17 ft.

BORING 6

PAGE 1 : 1

BORING LOG NUS CORPORATION

PROJECT: NWIRP CALVERTON BORING NO.: 7
PROJECT NO.: 3273 DATE: 7-24-91 DRILLER: UniTech - JAY Freck
ELEVATION: FIELD GEOLOGIST: Kevin KiLMARTin
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: MATERIAL CLASSIFICATION	USCS OR ROCK BROKENESS	REMARKS
807	0	3 / 4	3" ID			WT TO LT. BRN	8" coarse whitish to light brown sand.		No headspace elevated HNU
1236		5 / 4	24" / 24"			or. TO or-brn	16" coarse to very coarse orange to orange-brown sand		
	2								
	4								
		3 / 3	3" ID			or. to or.-brn	coarse sand		No elevated headspace HNU
1242	6	4 / 4	12" / 24"			buff to LT. TAN	coarse to very coarse uniform sand		
	8								
807A	10	6 / 7	3" ID			buff to LT. TAN	very uniform, massive, coarse sand		No elevated headspace HNU
1247		8 / 8	24" / 24"						
	12								
	14								
807B		2 / 3		▼ GW @15'		buff to LT. TAN	massive, very uniform, very coarse sand		Headspace HNU is 11 ppm
1255	16	3 / 4							(background 0.2)
	18								

REMARKS TD of borehole 17 ft.

BORING 7

PAGE 1 : 1

BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON — BORING NO.: 8
PROJECT NO.: 3273 — DATE: 7-25-91 — DRILLER: UniTech - JAY Fre K
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BORE HOLE CONDITIONS	REMARKS
808MS 808 808C	0	2 / 2	3" ID			BLK	black-stained coarse sand		HNU elevated +16 when spoon opened
0823		3 / 4	24" / 24"			orange-brown	clean, coarse, orange-brown sand.		"fuel oil" smell
	2								
	4								
808A		2 / 4	3" ID				buff to light tan		HNU 15 ppm (background is 12 pp)
0831	6	6 / 16	24" / 24"			buff to LT. TAN	SAND.		
	8								
	10	2 / 3	3" ID						HNU 14 ppm
0838		4 / 4	24" / 24"			buff to LT. TAN	very coarse sand		(background 12 ppm)
	12								
	14								
808B		3 / 3	3" ID	▼ Spoon wet		BLK	5": black stained coarse sand with cobbles		HNU elevated +4 ppm upon opening spoon.
0842	16	4 / 5	24" / 24"			buff to LT. TAN	19": coarse to very coarse sand		
	18								

REMARKS: TD of borehole 17'. 2 additional boreholes taken from 0-2' at 0850 and 0852 to provide enough material for samples 808C, 808MS, and 808MSD.

BORING 8

PAGE 1 of 1

BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton — BORING NO.: 9
PROJECT NO.: 3273 — DATE: 7-25-91 — DRILLER: UniTech - JAY Frech
ELEVATION: — FIELD GEOLOGIST: Kevin Kilmartin
WATER LEVEL DATA:
(Date, Time & Conditions) RAINING: HNU not Giving Consistent readings

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BORE HOLE CONDITIONS	REMARKS
S09	0	8/11	3" ID			or-brn	1": Root zone 15": Coarse sand w/minor clay		Strong fuel odor HNU of 20 ppm
0902		13/18	24"/24"			brn-blk to blk	8": Coarse sand stained brownish black to black		(background is 12 pp
	2								
	4								
		4/4	3" ID			Lt Tan to Buff	Coarse to very coarse		HNU of 20 ppm (background is 12 pp
0910	6	5/5	24"/24"				Sand		
	8								
S09A	10	3/3	3" ID			Lt Tan to Buff	Coarse to very coarse		HNU of 30 ppm (background is 12 pp
0918		3/4	24"/24"				Sand		
	12								
	14								
S09B		1/1	3" ID	▼ wet Spoon		Lt Tan to Buff	Coarse to very coarse sand.		Headspace of 32 ppm (background is 12 ppm
0922	16	2/2	24"/24"		6":	Black	Lower 6" stained black		Strong fuel or organ smell.
	18								

REMARKS: TD of borehole 17'

BORING 9

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BORING LOG — NUS CORPORATIO

PROJECT: NWIRP CALVERTON — BORING NO.: 10
PROJECT NO.: 3273 — DATE: 7-25-91 — DRILLER: UniTech: JAY FRE K
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions) wet, rainy (Affecting HNU?)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BOREHOLE CONDITIONS	REMARKS
810,DOC 810 MS	0	3 / 3	3" ID			or to or-brn	0.5" root zone		Headspace elevat 3 ppm above
810MSD 1053		4 / 4	24" / 24"				Coarse to v. coarse sand		background is 13ppm
	2								bits of plywood, plastic, & other
									debris in spoon
	4								
1105		∞	0" / 24"						sample could not be obtained. spoon
	6								was "bouncing" o
									debris with no penetration
	8								
810A	10	11 / 12	3" ID			dk. brn to blk.	4": organic (woody) coarse sand		Low recovery, sample is for
1110		13 / 12	18" / 24"			buff to lt. tan	4": clean, coarse to very coarse sand		VOA only.
	12								No elevated HNU
	14								
810B		5 / 6	3" ID	▼		buff to lt. tan	Coarse to very coarse		No elevated HNU Headspace
1116	16	7 / 7	24" / 24"	lower 19" of spoon is wet			sand		
	18								

REMARKS: TD of borehole is 17'. Two additional 0-2' spoons were taken at 1055 & 1057 to obtain material sufficient for 810C, 810MS, & 810MSD.

BORING 10

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton
PROJECT NO.: 3273 DATE: 7-25-91 BORING NO.: 11
ELEVATION: DRILLER: UniTech - JAY Freck
WATER LEVEL DATA: FIELD GEOLOGIST: Kevin Kilmartin
(Date, Time & Conditions) Raining

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY / SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONCRETE	REMARKS
S11	0	2/3	3"/ID			BLK / Buff	2": organic, root zone / 22": coarse to very		Background 13 ppm
1122		4/5	24"/24"			TO LT. TAN	Coarse sand.		Headspace 14 ppm
	2								
	4								
		3/3	3"/ID			Buff TO	Coarse to very		No elevated HNU
1134	6	4/5	?/24"			LT. TAN	coarse sand.		Spoon jammed at shoe, sample was
									"poured" out.
	8								
S11A	10	3/4	3"/ID			Buff TO LT. TAN	Coarse to v. coarse sand,		No elevated HNU
1147		7/8	24"/24"				Some banding of heavy minerals.		
	12								
	14								
S11B		3/3	3"/ID	▼		Buff TO	very coarse sand with pebbles.		No elevated HNU
1155	16	5/6	14"/24"	Lower 15" of spoon are wet		LT. TAN			
	18								

REMARKS TD of borehole is 17'.

BORING 11

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BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON — BORING NO.: 12
PROJECT NO.: 3273 — DATE: 7-25-91 — DRILLER: Unitech - JAY Frech
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY / SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BOREHOLE CONDITIONS	REMARKS
812	0	3/5	3" ID			DK BRN	16": dk brown, organic STICKY CLAY		No elevated HN
1245		7/7	24"/24"			OR-BRN	8": orange-brown, clayey Medium SAND w/ pebbles.		
	2								
	4								
812A		6/8	3" ID			OR-BRN	8": orange-brown coarse SAND		No elevated HNU
1250	6	12/15	24"/24"			Buff TO LT. TAN	16": buff to light tan, very coarse SAND.		
	8								
	10	5/6	3" ID			or-brn TO buff	Coarse TO very coarse SAND.		No elevated HN
1257		7/9	24"/24"			TO LT. BRN.			
	12								
	14								
812B		5/6	3" ID	▼ lower 20" of Spoon are wet.		Buff TO LT. TAN	Coarse TO very coarse SAND		No elevated HNU
1303	16	7/8	24"/24"						
	18								
	20								

REMARKS: TD of borehole is 17'

BORING 12

PAGE 1 of 1

BORING LOG — **NUS CORPORATION**

PROJECT: CALVERTON NWIRP — BORING NO.: 13
PROJECT NO.: 3273 — DATE: 7-30-91 — DRILLER: UniTech (JAY FRECK
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BOREHOLE CONDITIONS	REMARKS
813	0	3/8	3" ID			DK BRN	4": DK. brown SILTY LOAM		HNu background: 4 pp
0822		13/14	24"/24"			LT BRN	20": coarse sand w/ some cement pebbles: fill		HNu Headspace: 13 pp
	2								
	4								
813A			3" ID			DK BRN	10": Dark brown coarse SAND		HNu background: 3.5
0827	6		24"/24"	▼		LT. TAN TO BUFF	14": very coarse sand		HNu headspace: 130 pp
				H2O at ±6'9"					Strong kerosene-like ODOR
	8								

REMARKS: TD of borehole is 7 feet.

BORING 13

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP CALVERTON — BORING NO.: 14
PROJECT NO.: 3273 — DATE: 7-30-91 — DRILLER: UniTech - JAY Freck
ELEVATION: — FIELD GEOLOGIST: Kevin C KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BORE HOLE CONDITIONS	REMARKS
814	0	2/7	3" ID			LT BRN	4": Coarse sand		HNU Background 3.5
0846		10/6	24"/24"			LT. TO DK. BRN	20": very STICKY CLAY		HNU Headspace 34 ppm
	2								
	4								
814A		10/7	3" ID			GRY TO DK. GRY	CLAYEY, MEDIUM-grained SAND.		HNU Background 3.5
0852	6	4/2	24"/24"						HNU Headspace 180 ppm
				▼					
	8			H_2O at ±7'2"					

REMARKS: TD of borehole is 7 feet.

BORING 14

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BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON
PROJECT NO.: 3273
DATE: 7-30-91
BORING NO.: 15
DRILLER: UniTech - JAY FRECK
ELEVATION:
FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONCRETE	REMARKS
815	0	4	3" ID			DK BRN	3": soil zone		HNU Background 1.
815C		6							
815MS		8	24"				21": interbedded sticky clay with medium to coarse grained sand		HNU Headspace 7.5
815MSD		15	24"						
0942	2								
	4								
815A		5	3" ID	▼		LT TAN TO BUFF	very coarse-grained sand with some reddish-orange staining		HNU Background 1.5
0952	6	6	24"	H_2O is at ± 5'8"					HNU Headspace 5.0
		8							
	8								

REMARKS: TD of borehole is 7 feet. One additional 0-2 ft. spoon taken at 0945 to provide additional sample for 815C, 815MS, 815MSD.

BORING 15

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP CALVERTON — BORING NO.: 16
PROJECT NO.: 3273 — DATE: 7-30-91 — DRILLER: UniTECH - JAY Frec
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	BORE HOLE CONDITIONS	REMARKS
816 816C	0	4 / 15	3" ID			DK. BRN	4": SILTY LOAM		HNU Background 4
816MS 816MSD		15 / 22	24" / 24"			LT. BRN	20": CLAYEY SILT; appears "varved"		HNU Headspace 6.5 ppm
0906	2								
	4								
		7 / 9				LT TAN	very coarse, very		HNU Background 2
	6	11 / 15		▼ H_2O is at ± 6 ft.		TO BUFF	uniform, SAND		HNU Headspace 12
	8								

REMARKS: TD of borehole is 7 feet. Two additional 0-2 ft. Spoons taken at 0911 and 0917 to provide additional sample for 816C, 816MS, and 816MSD.

BORING 16

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BORING LOG

NUS CORPORATION

PROJECT: NWIRP CALVERTON

PROJECT NO.: 3273

DATE: 7-30-91

BORING NO.: 17

DRILLER: UniTech - JAY FRECH

ELEVATION:

FIELD GEOLOGIST: Kevin KILMARTIN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR ROD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	MATERIAL DESCRIPTION: COLOR	MATERIAL DESCRIPTION: MATERIAL CLASSIFICATION	USCS OR ROCK CODES	REMARKS
817	0	2/2				DK BRN	4": SILTY LOAM		NO elevated HNU in HEADSPACE
1058		6/7				BUFF TO LT. TAN	20": very uniform and coarse-grained SAND		
817C	2								
	4								
817A		3/4		▼ Spoon is wet		BUFF TO LT. TAN	very coarse-grained		NO elevated HNU in HEADSPACE
1103	6	5/7					SAND		
	8								

REMARKS TD of borehole is 7 feet

BORING 17

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton — BORING NO.: 18
PROJECT NO.: 3273 — DATE: 7-30-91 — DRILLER: Unitech (JAY Freck)
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK SYMBOLS	REMARKS
S18	0	11 / 6	3" ID			BRN WT-GRY	4": organic brown clay; roots 5": whitish gray coarse sand		HNU headspace elevated + 7.5 above
0740		8 / 11	24" / 24"			BRN	with pebbles; "FILL" 15": Brown, medium-grained sand with silty clay		background of 4 ppm
S18C	2								
	4								
S18A		6 / 6	3" ID			buff TO LT. TAN	Coarse grained, uniform sand		HNU headspace elevated +4 above backgrou[nd]
0745	6	9 / 9	23" / 24"						of 6 ppm.
S18B		3 / 4	3" ID			buff TO LT. TAN	Coarse grained sand		HNU headspace elevated +3.5 above backgrou[nd]
0806	8	3 / 5	24" / 24"	▼ H2O at 8'2"					of 3.5 ppm.
0748	10	3 / 3				Buff	Coarse sand with some silty clay		No elevated HNU readings.
		4 / 4							
	12								

REMARKS: TD of borehole is 12'. Rig was moved 3 feet south of original borehole 18 in order to obtain sample from 7-9 feet. (had augered through this interval in original borehole only to encounter saturated conditions)

BORING 18

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BORING LOG NUS CORPORATION

PROJECT: NWIRP CAIVERTON BORING NO.: 19
PROJECT NO.: 3273 DATE: 7-30-91 DRILLER: UniTech - JAY Frec
ELEVATION: FIELD GEOLOGIST: Kevin KiLMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONSISTENCY	REMARKS
819	0	1/3	3" ID			DK BRN	4": SILTY CLAY LOAM		HNU BACKground 1.0
1025		4/5	24"/24"			BUFF TO LT. TAN	20": very coarse grained SAND		HNU Headspace 4.
	2								
	4								
819A		3/5	3" ID			LT. TAN TO BUFF	very coarse-grained SAND		NO elevated
1030	6	7/10	24"/24"			TO LT. GRY			HNU in Headspac
819B		4/8	3" ID	▼		LT. TAN TO BUFF	very coarse-grained SAND		NO elevated
1033	8	6/6	24"/24"	H_2O at ± 7'2"		TO LT. GRY			HNU in Headspac
	10								

REMARKS TD of borehole is 9 feet

BORING 19

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton — BORING NO.: 20
PROJECT NO.: 3273 — DATE: 7-26-91 — DRILLER: Unitech - JAY Freck
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONSCKS	REMARKS
S20 S20C	0	1 / 1	3" ID			DK. BRN	6" medium to coarse SAND		NO elevated HEADSPACE HNU
S20MS S20MSD		2 / 2	24" / 24"			LT. TAN TO Buff	18" Coarse to very coarse SAND		
0744	2								
	4								
S20A		5 / 3	3" ID			Brn TO Buff	8": medium to very coarse-Grained SAND		NO elevated HEADSPACE HNU
0748	6	5 / 7	24" / 24"			Buff TO LT. TAN	16": coarse to very coarse SAND		
	8								
	10	3 / 2				Buff TO	coarse to very coarse		NO elevated HNU opening
0754		3 / 3				LT. TAN	SAND.		spoon.
	12								
	14								
S20B		3 / 3	3" ID	▼ Spoon is wet		Buff TO	coarse to very coarse		NO elevated HEADSPACE HNU
0821	16	3 / 4	24" / 24"			LT. TAN	SAND		
	18								

REMARKS: TD of borehole is 17'. Two additional 0-2' Spoons taken at 0830 & 0833 for additional material for samples S20C, S20MS, & S20MSD.

BORING 20

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP CALVERTON
PROJECT NO.: 3273
DATE: 7-26-91
BORING NO.: 21
DRILLER: Unitech - JAY Freck
ELEVATION:
FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CLASS	REMARKS
S21	0	4/3	3"ID			DK BRN	5": dk brn sticky clay		NO elevated HEADSPACE HNU
0652		7/9	24"/24"				19" coarse to very coarse sand with pebbles		
	2								
	4								
S21A		15/17	3"ID			LT. TAN TO BUFF	coarse to very coarse sand		NO elevated HEADSPACE HNU
0659	6	19/17	24"/24"						
	8						Cuttings change from a light to a much darker color.		
	10	11/11	3"ID			OR-BRN TO BUFF	4": coarse sand		NO elevated HNU opening spoon
0703		12/10	24"/24"			GRAY TO DK GRAY	20": clay		
	12								
	14								
		10/14	3"ID			LT. TO DK. GRAY	coarse sand		NO elevated HNU opening spoon
0707	16	17/19	24"/24"						
	18								
S21B	20	3/4	3"ID	▼ Spoon is wet.		DK. GRAY TO TAN	very coarse sand with large pebbles.		NO elevated HEADSPACE HNU.
0712		5/7	18"/24"						
	22								

REMARKS: TD of borehole is 22'

BORING 21

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton — BORING NO.: 22
PROJECT NO.: 3273 — DATE: 7-29-91 — DRILLER: UniTech - JAY Freck
ELEVATION: — FIELD GEOLOGIST: Kevin KiLMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY / SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY, CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK SYMBOL	REMARKS
S22	0	4 / 6	3" ID			GRY	6": Gray SILTY SAND with clay And concrete chips; fill		HNU headspace elevated +20 ppm
1445		6 / 8	24" / 24"			BRN	18": brown, coarse, SILTY SAND		(background is 4 ppm)
	2								
	4								
S22A		4 / 6	3" ID			DK BRN	DARK brown fine SAND with SOME CLAY		HNU elevated +44 opening spoon
1453	6	8 / 10	20" / 24"			TAN TO Buff	Light TAN TO buff, very Coarse SAND.		Headspace maximum reading is elevated +3 ppm.
	8								
	10	3 / 5	3" ID			TAN TO BUFF	very coarse & uniform SAND		HNU elevated +21 opening spoon
1458		10 / 15	24" / 24"						(background is 4 ppm)
	12								
	14								
		3 / 4	3" ID	▼		LT. TAN	Coarse, very uniform SAND		HNU elevated +1 ppm opening spoon
	16	5 / 6	24" / 24"	water at ±15'6"					HNU headspace elevated +1 ppm.
	18								

REMARKS: TD of borehole 17', original borehole where S22 was taken encountered concrete at 3'. Hole was abandoned & rig was moved 4 feet to the northeast for remainder of samples (0-2' was not resampled)

BORING 22

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BORING LOG — **NUS CORPORATION**

PROJECT: NWIRP Calverton — BORING NO.: 23
PROJECT NO.: 3273 — DATE: 7-29-91 — DRILLER: UniTech - JAY FreCK
ELEVATION: — FIELD GEOLOGIST: Kevin KiLMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY / SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONCESS	REMARKS
823 823C	0	5 / 6	3" ID			DK. BrN	8": Dark Brown Coarse Sand		HNU headspace elevated 1.5 ppm
1412		8 / 9	22" / 24"			LT. BrN	14": Light Brown silty sand, some clay & Coarse sand		(background is 4.5)
	2								
	4								
823A		5 / 6	3" ID			LT-DK BrN	4": fine sand		HNU elevated +30 ppm opening spoon
1415	6	8 / 8	24" / 24"			or-brn	20": very coarse sand		HNU headspace elevated +20 ppm
	8								
	10	3 / 4	3" ID			Buff TO	very coarse sand		HNU elevated +12 ppm opening spoon
1419		5 / 6	24" / 24"			LT-TAN			(background is 4 ppm)
	12								
	14								
823B	(part)	5 / 6				Buff TO	very coarse sand		HNU elevated +7 ppm opening spoon
1422	16	6 / 7				LT-TAN	(bottom of spoon [TRAP] is wet)		sample taken from bottom 12 inches
823B	(part)	6 / 8				Buff TO	very coarse sand		HNU elevated +10 ppm opening spoon
1426	18	8 / 9				LT. TAN			(sample taken from upper 12 inches)
									Headspace of combin sample elevated
	20								+7 ppm.

REMARKS: TD of borehole is 19 feet.

BORING 23

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BORING LOG — NUS CORPORATION

PROJECT: NWIRP CALVERTON — BORING NO.: 24
PROJECT NO.: 3273 — DATE: 7-29-91 — DRILLER: UniTech - JAY Freck
ELEVATION: — FIELD GEOLOGIST: Kevin KILMARTIN
WATER LEVEL DATA: (Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft.) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS OR ROCK CONSISTENCY	REMARKS
824	0	4/5				DK BRN / RD BRN	6" DK. brown sandy loam / 6" Red-brown Coarse Sand		
1115		6/9				LT BRN / BROWN	4" LT. Brown coarse sand / 8" Brown Coarse Sand		
	2								
	4								
824A		7/9				BRN	10": Brown coarse sand		HNu reading
1120	6	11/11				LT. BRN	14": light brown coarse sand		25 ppm
	8								
	10	4/5				LT. BRN	Light brown Coarse Sand		HNu reading
1127		6/8							25 ppm
	12								
	14								
824B		2/3				LT. BRN	Light brown Coarse Sand		HNu reading
1135	16	2/3		▼ water at ± 16' 06"					30 ppm
	18								

REMARKS: TD of borehole is 17 feet.

BORING 24

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NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.:

SITE NAME: NWIRP Calverton

SAMPLERS (SIGNATURE): [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCL VOA	SVOA	Pb 239 2				REMARKS
001	7/15/91	1158		X	MW-14	4	2	1	1				
002		1330		X	MW-13	4	2	1	1				
003		1330		X	MW-13A	4	2	1	1				
004		1330		X	MW-13 MS	4	2	1	1				
005		1330		X	MW-13 MSD	4	2	1	1				
006		0800		X	Trip Blank	2	2						
007		1455		X	Rinsate	4	2	1	1				

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/15/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: [illegible]	

SENT BY:Xerox Telecopier 7020 ; 8-17-91 ;10:54AM ; 2159718715→ 4127881080;# 3

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: 1162472-90-D-1248 CTO # 2

SITE NAME: Calverton

SAMPLERS (SIGNATURE): R. Bates

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCL VOA	SVOA	8200 2DPZ	VOA/BOA/Lead			REMARKS
008	7/16/91	855		X	MW-15	4	2	1	1				
009		1020		X	MW-16	4	2	1	1				
010		1030		X	MW-16 FP	1	X 7/16/91			1			Free Oil from Monit. Well
011		1230		X	MW-19	4	2	1	1				
012		1340		X	MW-18	4	2	1	1				
013		1427		X	MW-17	4	2	1	1				
014		1445		X	Rinsate #2	4	2	1	1				Do not analyze - re NEESA
015		1400		X	Trip Blank #2	2	2						

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R. Bates	7/16/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Federal Express Airbill #[illegible]	

#3

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 N62472-90-D-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): Ralf Patrick S Kevin Kilmartin

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCL VOA	SVOA (BNA)	Lead 239.2	Total Metals	Cyanide	pest/PCB	REMARKS
016	7/17/91	0820		X	PW-3	6	2	1		1	1	1	Freon 13 possible TIC
017		0820		X	PW-3A	6	2	1		1	1	1	
018		0820		X	PW-3MS	6	2	1		1	1	1	
019		0820		X	PW-3MSD	6	2	1		1	1	1	
020		0820		X	PW-3 MS/MSD	2				1	1		
021		0855		X	PW-2	4	2	1	1				
022		0905		X	PW-1	4	2	1	1				
023		1055		X	MW-8	4	2	1	1				
024		1158		X	MW-7	4	2	1	1				
025		1325		X	MW-9	4	2	1	1				
026		1430		X	MW-12	4	2	1	1				
027		1445		X	Rinsate #3	4	2	1	1				
028		1450		X	Trip Blank #3	2	2						

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R Patrick	7/17/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Exp Airbill #9991555307	

NUS 440 24 0484

SENT BY:Xerox Telecopier 7020 ; 8-17-91 ;10:55AM ; 2158718715→ 4127881080;# 4

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;10:56AM ; 2159718715→ 4127881080;# 5

#4

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO # 2 N-62470-90-D-1290

SITE NAME: Calverton

SAMPLERS (SIGNATURE): Rob Patrick Kevin Kilmartin N-62470-90

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	PCB/PEST	Lead 239.2	Total metals	Cyanides	REMARKS
029	7/18/91	0900		X	MW-11	4	2	1		1			
030		0935		X	MW-10	4	2	1		1			
031		1420		X	MW-1	6	2	1	1		1	1	
032		1345		X	MW-2	6	2	1	1		1	1	
033		1205		X	Rinsate #4	4	2	1		1			(VOA's not HCl pres.) call if problem DO NOT ANALYZE AS PER NEESA!
034		1500		X	Field Blank #1	7	2	1	1	1	1	1	
035		1210		X	Trip Blank #4	2	2						
036		0900		X	MW-11 FP	1	X	X		X			Only

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/18/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via FED Exp Airbill No [illegible]	

NUS 44 [illegible]

#5

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTG # 2 N62470-90-D-1290

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	PCB/HEST	Total Metals	Cyanide	VOA/BNA/PCB/HEST Total Met/(CN)	REMARKS
037	7/23/9	1037		X	MW-3	6	2	1	1	1	1		
038	↓	1255		X	MW-4	6	2	1	1	1	1		
039		1255		X	MW-4 FP	1						1	Oily Free Product
040		1435		X	MW-5	6	2	1	1	1	1		
041		1435		X	MW-5 FP	1						1	Oily Free Product
042		1310		X	Rinsate #5	6	2	1	1	1	1		
043	↓	1315		X	Trip Blank #5	2	2						

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/23/9 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Express Airbill No 9991555304	

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;10:57AM ; 2159719715→ 4127881080;# 6

#6

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 N62470-90-D-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	PEST/PCB	BNA/PEST/PCB	Total metals	Cyanide	REMARKS
044	7/24/91	0800		X	Trip Blank #6	2	2						
045		1105		X	MW-6	6	2	1	1		1	1	
046		1035		X	Soil-05	5	2			1	1	1	
047		0950		X	Soil-05A	5	2			1	1	1	
048		1019		X	Soil-05B	5	2			1	1	1	
049		1134		X	Soil-06	5	2			1	1	1	
050		1143		X	Soil-06A	5	2			1	1	1	
051		1157		X	Soil-06B	5	2			1	1	1	
052		1236		X	Soil-07	5	2			1	1	1	
053		1242		X	Soil-07A	5	2			1	1	1	
054		1255		X	Soil-07B	5	2			1	1	1	
055		1510		X	Rinsate #6	5	2			1	1	1	DO NOT ANALYZE AS PER NEESA.

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/24/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed. Exp. Airbill No: 0991555346	

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;10:57AM ; 2159719715→ 4127681080;# 7

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO#2 N62470-90-D-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature] [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	BNA/PEST/PCB	Total Metals	Cyanide		REMARKS
056	7/25/91	0823		X	Soil-08	5	2		1	1	1		
057		0831		X	Soil-08A	5	2		1	1	1		
058		0842		X	Soil-08B	5	2		1	1	1		
059		0823		X	Soil-08C	5	2		1	1	1		
060		0823		X	Soil-08MS	5	2		1	1	1		
061		0823		X	Soil-08MSD	5	2		1	1	1		
062		0902		X	Soil-09	5	2		1	1	1		
063		0918		X	Soil-09A	5	2		1	1	1		
064		0922		X	Soil-09B	5	2		1	1	1		
065		1053		X	Soil-10	5	2	1		1	1		
066		1110		X	Soil-10A	2	2						VOA only
067		1116		X	Soil-10B	5	2	1		1	1		
068		1053		X	Soil-10C	5	2	1		1	1		
069		1053		X	Soil-10MS	5	2	1		1	1		

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/25/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via FedEx Airbill No 9991555803	

ENT BY:Xerox Telecopier 7020 ; 9-17-91 ;10:58AM ; 2159719715→ 4127881080;# 6

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;10:59AM ; 2159718715→ 4127881080;# 9

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 N62470-90-D-1298.

SITE NAME: Calverton

SAMPLERS (SIGNATURE): R.G. Patoruz [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	BNA/PEST/PCB	Total Metals	Cyanide		REMARKS
070	7/25/91	1053		X	Soil-10-MSD	5	2	1	X 4 oz	1	1		
071	↓	1122		X	Soil-11	5	2	1		1	1		
072		1147		X	Soil-11A	5	2	1		1	1		
073		1155		X	Soil-11B	5	2	1		1	1		
074		1245		X	Soil-12	2	2						
075		1250		X	Soil-12A	5	2	1		1	1		
076		1303		X	Soil-12B	5	2	1		1	1		
077		1455		X	Rinsate #7	6	2		2	1	1		
078	↓	1455		X	Trip Blank #7	2	2						

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R.G. Patoruz	7/25/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Ex Airbill No 9[illegible]155580[illegible]	

#8

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 N62470-90-D-1298
SITE NAME: Calverton
SAMPLERS (SIGNATURE): [illegible] R S Patty

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	Pest	Total Metals	Cyanide	PAH	BTEX	REMARKS
079	7/26/91	0652		X	Soil-21	2						1	1	
080		0659		X	Soil-21A	2						1	1	
081		0712		X	Soil-21B	2						1	1	
082		0744		X	Soil-20	2						1	1	
~~083~~		~~0744~~		~~X~~	~~Soil-20~~ RD 7/26/91									
084		0744		X	Soil-20C	2						1	1	
085		0744		X	Soil-20MS	2						1	1	
086		0744		X	Soil-20MSD	2						1	1	
087		0748		X	Soil-20A	2						1	1	
088		0821		X	Soil-20B	2						1	1	
089		0927		X	Soil-03	5	2	1		1	1			
090		0927		X	Soil-03C	5	2	1		1	1			
091		0927		X	Soil-03MS	5	2	1		1	1			
092		0927		X	Soil-03MSD	5	2	1		1	1			

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R S Patty	7/26/91 1600				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Ex Airbill NO 999155576	

SENT BY:Xerox Telecopier 7020 ; 8-17-91 ;11:00AM ; 2159718715→ 4127881080;#10

#8B

SENT BY:Xerox Telecopier 7020 ; 8-17-91 ;11:01AM ; 2159718715→ 4127881080;#11

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: C10#2 D-62470-90-D-1298

SITE NAME: Calvorton

SAMPLERS (SIGNATURE): Kevin Kluch / R Stokes

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	PEST	Total Metals	Cyanide		REMARKS
093	7/26	0940		X	Soil-03A	5	2	1		1	1		
094		0955		X	Soil-03B	5	2	1		1	1		
095		1028		X	Soil-02	5	2	1		1	1		
096		1033		X	Soil-02A	5	2	1		1	1		
097		1110		X	Soil-02B	5	2	1		1	1		Limited volume
098		1120		X	Soil-04	5	2	1		1	1		
099		1120		X	Soil-04C	5	2	1		1	1		
100		1120		X	Soil-04MS	5	2	1		1	1		
101		1120		X	Soil-04MSD	5	2	1		1	1		
102		1140		X	Soil-04A	5	2	1		1	1		
103		1155		X	Soil-04B	5	2	1		1	1		
104		1355		X	Trip Blank #8	2	2						
105		1400		X	Rinsate #8	5	2	1		1	1		Only 1 VOA is not spiked
106	↓	1405		X	Field Blank #2	6	2	1	1	1	1		

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R Stokes	7/26/91 1600				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Federal Express Airbill No 9901555751	

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 U-62470-D-90-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature] R.S. Patos

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SVOA	Total Metals/Cyanide	Lead 239.2	Total Metals	Cyanide	REMARKS
107	7/29/91	0955		X	Soil-01	4	2	1	1				Total metals/cyanide in 1 jar
108		1003		X	Soil-01A	4	2	1	1				↓
109		1008		X	Soil-01B	4	2	1	1				
110		1115		X	Soil-24	4	2	1		1			
111		1120		X	Soil-24A	4	2	1		1			
112		1135		X	Soil-24B	4	2	1		1			
113		1338		X	Rinsate #9	6	2	1		1	1	1	
114		1412		X	Soil-23	4	2	1		1			
115		1415		X	Soil-23A	4	2	1		1			
116		1422		X	Soil-23B	4	2	1		1			
117		1445		X	Soil-22	4	2	1		1			
118		1453		X	Soil-22A	4	2	1		1			
119		1503		X	Soil-22B	4	2	1		1			
120		1422		X	Soil-23C	4	2	1		1			

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
R Patos	7/29/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Ex. Airbill # 7991555770	

NUS 440-34 0484

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;11:03AM ; 2158718715→ 4127881080;#13

9B

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO#2 N-62470-90-D-1296

SITE NAME: Calverton

SAMPLERS (SIGNATURE): Kevin Gilmartin RG Patons

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA						REMARKS
121	7/29/91	1600		X	Trip Blank #9	2	2						
	5[illegible]												
RG Patons													
				7/2									

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RG Patons	7/29/91 1800				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Ex airbill # 979 1555 77[illegible]	

NUS [illegible]

10A

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO#2 A-62470-90-D-1298

SITE NAME: Calvertan

SAMPLERS (SIGNATURE): [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	Lead 2297				REMARKS
122	7/30/91	0740		X	Soil-18	3	1	1	1				
123		0745		X	Soil-18A	3	1	1	1				
124		0806		X	Soil-18B	3	1	1	1				
125		0740		X	Soil-18C	3	1	1	1				
126		0822		X	Soil-13	3	1	1	1				
127		0827		X	Soil-13A	3	1	1	1				
128		0846		X	Soil-14	3	1	1	1				
129		0852		X	Soil-14A	3	1	1	1				
130		0906		X	Soil-16	3	1		1				
131		0925		X	Soil-16A	3	1	1	1				
132		0906		X	Soil-16C	3	1	1	1				
133		0906		X	Soil-16MS	3	1	1	1				
134		0906		X	Soil-16MSD	3	1	1	1				
135		0942		X	Soil-15	3	1	1	1				

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/30/91 1600				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed Ex Bill No 9491555350	

NUS 440 34 0484

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;11:03AM ; 2159719715→ 4127881080;#14

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;11:04AM ; 2159719715→ 4127881080;#15

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: C.O.#2 N-62470-90 D-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature] [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	Lead 239.2	PCB/PEST	Total Metals	Cyanide	REMARKS
136	7/30/91	0942		X	Soil-15C	3	1	1	1				
137		0942		X	Soil-15MS	3	1	1	1				
138		0942		X	Soil-15MSD	3	1	1	1				
139		0952		X	Soil-15A	3	1	1	1				
140		1025		X	Soil-19	3	1	1	1				
141		1030		X	Soil-19A	3	1	1	1				
142		1033		X	Soil-19B	3	1	1	1				
143		1058		X	Soil-17	3	1	1	1				
144		1058		X	Soil-17C	3	1	1	1				
145		1103		X	Soil-17A	3	1	1	1				
146		1135		X	Trip Blank 10	2	2						
147		1140		X	Rinsate 10	4	2	1	1				DO NOT ANALYZE AS PER NEESA
148		1355		X	Field Blank 3	7	2	1	1	1	1	1	
149		1327		X	Sed-03	3	1	1	1				

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[signature]	7/30/91 1600				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Fed. Ex Airbill 9991555350	

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;11:05AM ; 2159719715→ 4127881080;#16

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: 90-0-1298 N-62470-[illegible] CTO#2

SITE NAME: Calerton

SAMPLERS (SIGNATURE): [signature] [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	BNA	Lead 239.2				REMARKS
150	7/30/91	1337		X	Sed-04	3	1	1	1				
151	↓	1345		X	Sed-05	3	1	1	1				

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/30/91 1600				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via FedEx Airbill # 9871555350	

SENT BY:Xerox Telecopier 7020 ; 9-17-91 ;11:06AM ; 2159719715→ 4127881080;#17

NUS CORPORATION — **CHAIN OF CUSTODY RECORD**

PROJECT NO.: CTO #2 N-62470-90-D-1298

SITE NAME: Calverton

SAMPLERS (SIGNATURE): [signature] [signature]

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SVOA	Total metals/cyanide	Total metals	Cyanide	PCB/PEST	REMARKS
152	7/31	1350		X	Sed-01	3	1	1	1				
153		1320		X	Sed-02	3	1	1	1				
154		1342		X	SW-01	6	2	1		1	1	1	
155		1304		X	SW-02	6	2	1		1	1	1	
156		1304		X	SW-02A	6	2	1		1	1	1	
157		1304		X	SW-02MS	6	2	1		1	1	1	
158		1304		X	SW-02MSD	6	2	1		1	1	1	
159		1250		X	Trip Blank-11	2	2						

RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
[signature]	7/31/91 1700				
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE/TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME:	REMARKS: Shipped via Airbill No 9991555766	

NUS 44(94

APPENDIX F

DAILY FIELD ACTIVITY REPORTS

FIELD TRIP SUMMARY REPORT

SUNDAY

Date: _____ Personnel: _____

Weather: _____ Onsite: _____

Site Activities: _____

MONDAY

Date: 7/8/91 Personnel: Randy Patarcity

Weather: Sunny 90°F Onsite: Kevin Kilmartin

Site Activities: Arrived on site. Met w/ George Busch (Grumman) and set up field office. Began purchasing field expendables. Called to find pricing on steel 55 gal drums

TUESDAY

Date: 7/9/91 Personnel: R Patarcity

Weather: Sunny 80°F Onsite: K. Kilmartin

Site Activities: Met with Vince Bertolino (DPRO) - escorted on site tour. Inventoried equipment shipped from Pittsburgh NUS. Continued purchasing of field equipment

WEDNESDAY

Date: 7/10/91 Personnel: R Patarcity

Weather: Sunny 70°F Onsite: K. Kilmartin

Site Activities: Met with Gary Pendzick of Riverhead Water District re public supply areas. Recieved & inventoried Pitts. NUS field equipment. Continued purchasing field equipment; Discussed QA & sampling procedures with Dave Brayack - NUS Pitts Project Manager

FIELD TRIP SUMMARY REPORT

THURSDAY

Date: 7/11/91 Personnel: R Patarcity

Weather: Sunny 75°F Onsite: K. Kilmartin

Site Activities: Accepted delivery of 18 steel drums RP, KK, Joe Brayack & A. Morgraf - NUS Health & Safety have conference call re-Site Specific H&S training Received & inventoried Pitts NUS equipment Continued Field purchases.

FRIDAY

Date: 7/12/91 Personnel: R. Patarcity

Weather: Onsite: K. Kilmartin

Site Activities: No work at Calverton - RP & KK visited M. Simonson at Grumman Bethpage - reviewed sites for Bethpage R.I. Returned to NUS Devon PA

SATURDAY

Date: Personnel:

Weather: Onsite:

Site Activities:

FIELD TRIP SUMMARY REPORT

SUNDAY

Date: 7-14-91 Personnel: R Patarcity

Weather: Onsite: K. Kilmartin

Site Activities: RP & KK drove to Holiday Inn Riverhead NY on Sunday night.

MONDAY

Date: 7-15-91 Personnel: R Patarcity

Weather: Sunny 80°F Onsite: K. Kilmartin

Site Activities: Received sample bottleware from NET Atlantic labs. Began well purging & sampling at Fuel Depot (Site 7). 2 wells completed. 7 samples (incl. blanks MS/MSD & dups) shipped.

TUESDAY

Date: 7/16/91 Personnel: R Patarcity

Weather: Sunny 85°F Onsite: K. Kilmartin

Site Activities: Continued MW sampling in Fuel depot (Site 7). 5 wells completed. Sampled free product in 2 wells. 4 drums purge & decon water generated to date. Received equipment from NUS Pittsburgh. 8 samples shipped (blanks.

WEDNESDAY

Date: 7-17-91 Personnel: R Patarcity

Weather: Sunny, Breezy 85°F Onsite: K. Kilmartin

Site Activities: Met Charles Smith - Grumman - Sample 3 production wells on-site. Began sampling MW's in Fuel calibration area (Site 6A). Completed sampling of 4 wells at 6A. 13 samples shipped incl dups & QA samples

FIELD TRIP SUMMARY REPORT

THURSDAY

Date: 7/18/91 Personnel: R Patarcity

Weather: Sunny 90°F Onsite: K. Kilmartin

Site Activities: Completed MW sampling in Fuel Calib. area (2 well 1 Free product) Began sampling at Fire training area (Site 2) 2 wells completed Received SCBA's from Pittsburgh NUS. 8 samples, incl. Dup's & QA samples were shipped

FRIDAY

Date: 7-19-91 Personnel: R Patarcity

Weather: Onsite: K. Kilmartin

Site Activities: No Field work completed. RP & KK returned to NUS Devon PA.

SATURDAY

Date: Personnel:

Weather: Onsite:

Site Activities:

FIELD TRIP SUMMARY REPORT

SUNDAY

Date: _____ Personnel: _____

Weather: _____ Onsite: _____

Site Activities: _____

MONDAY

Date: 7/22/91 Personnel: R Patarcity

Weather: _____ Onsite: K. Kilmartin

Site Activities: RP & KK drove to Riverhead NY in evening

TUESDAY

Date: 7-23-91 Personnel: R Patarcity

Weather: Hazy Humid 85°C Onsite: K. Kilmartin

Site Activities: Continued sampling MWs in Fire training area. 3 wells completed, 2 Free product samples. Unitech Drilling of Vineland, NJ arrived (Jay Freck & Mike Conover). Set up decon pad for drill rig. Unitech obtained decon water from Riverhead Water. 7 samples total ship

WEDNESDAY

Date: 7-24-91 Personnel: R Patarcity Alan Margraft N

Weather: Sunny 85°F Onsite: K. Kilmartin Jay Freck - UTO

Dave Brayack NUS Mike Conover - UT

Site Activities: NUS personnel & Unitech met for H&S meeting. Completed MW sampling (1 well) at Fire training area. 3 soil borings completed. 9 soil samples collected. 12 samples including dups & QA samples shipped

FIELD TRIP SUMMARY REPORT

SUNDAY

Date: 7/25/91 Personnel: R Patarcity Mike Conover

Weather: Overcast showers High 70's Onsite: K Kilmartin Ed Janeras UTD

Ja Freck UTD

Site Activities: Finished soil borings in Fire training area (2 borings 6 samples). Completed 3 borings in Picnic Disposal area (9 samples) Total samples shipped incl. dups & QA was 23.

MONDAY

Date: 7-26-91 Personnel: R Patarcity M. Conover UTD

Weather: Fog to clearing 80° F. Onsite: K Kilmartin E. Janeras UTD

J Freck UTD

Site Activities: Completed 2 borings on runway 32-14 (Sites 6B & 6C, 6 samples collected Began soil borings at NE Pond Disposal area (Site 1) 3 borings, 9 samples collected Total samples shipped incl. QA & dups was 27. NUS returned to Devon PA, UTD to NJ.

TUESDAY

Date: Personnel:

Weather: Onsite:

Site Activities:

WEDNESDAY

Date: Personnel:

Weather: Onsite:

Site Activities:

FIELD TRIP SUMMARY REPORT

SUNDAY

Date: 7-28-91 Personnel: RPotarcity

Weather: Onsite: K. Kilmartin

Site Activities: RP & KK drove to Riverhead, NY on Sun night.

MONDAY

Date: 7-29-91 Personnel: RPotarcity M. Conover UTD

Weather: overcast 75°F Onsite: K. Kilmartin E. Janeras UTD

J. Fleck UTD

Site Activities: 1 soil boring completed at NE Pond (3 samples) 3 borings completed in Fuel Depot (Site 7) (9 samples) Total samples shipped incl. dups & QA was 15.

TUESDAY

Date: 7/30/91 Personnel: RPotarcity M Conover UTD

Weather: p.cloudy 80°F Onsite: K. Kilmartin E. Janeras UTD

J. Fleck UTD

Site Activities: 7 borings completed in Fuel Calib. area (Site 6A) 19 samples collected. 3 sediments collected from ditch at Site 6A UTD dismantled & drummed the decon pad - left site. Total samples shipped incl. dups & QA's was 30.

WEDNESDAY

Date: 7-31-91 Personnel: RPotarcity

Weather: overcast 80°F Onsite: K. Kilmartin

Site Activities: 2 surface water & 2 sed collected from NE pond. Total samples shipped incl dups & QAs was 8. Began drum inventory & marking. Began to return Field equipment to NUS ATTs.

FIELD TRIP SUMMARY REPORT

THURSDAY

Date: 8-1-91 Personnel: R Potarcity

Weather: Sunny 80°F Onsite: K. Kilmartin

Site Activities: Completed drum inventory, marking, covering 34 total drums & 2 empties secured on site. Measured & located all soil lo... Continued return of field equipment. Met with Gary Fendrick of Riverhead Water district.

FRIDAY

Date: 8/2/91 Personnel: R Potarcity

Weather: Sunny 85°F Onsite: K. Kilmartin

Site Activities: Completed shipping of field equipment - Cleared... Field office. Met G. Busch & V. Bertolino to give drum invent... Met. Larry Anderson of Shorewood Water Co and Dave Paquette f... Brookhaven Nat Lab to get water supply info. Returned to Deva...

SATURDAY

Date: Personnel:

Weather: Onsite:

Site Activities:

APPENDIX G

SAMPLE LOG SHEETS

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location SO1-01

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-29-91 0955			
Sampled By: RP			
Signature(s): R Pates			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Metals
- CN

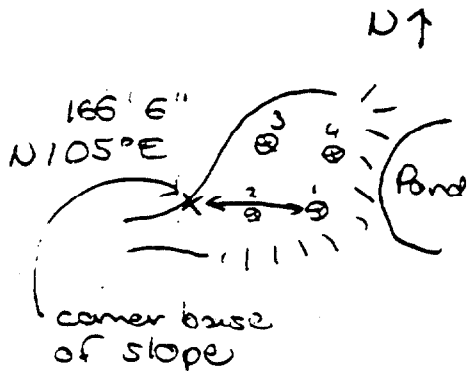
Observations / Notes

4" light brown sandy loam organic w/roots

9" black clayey silt w/cinders & pebbles

NO elev HNU reading

Blow count 6-4-3-4



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-01A

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 10-12'			
Sample Date & Time: 7-29-91 1003			
Sampled By:			
Signature(s):			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

Black clay to silty clay w/some coarse sand Large wood fragments
No elev HNU reading
Blow count 1003

Loc: See Soil-01

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-01B

Sample Method: Split Spoon

Depth Sampled: 15'-17'

Sample Date & Time: 7-29-91 1008

Sampled By: RP

Signature(s): [illegible]

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- metals
- CN

Observations / Notes

Black cinder like silt to clay.
Blue plastic or granular material at bottom of spoon.
HNU headspace elevated: 20 ppm
Blow count 1-2-1-1

Loc: See Soil-01

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-02

Sample Method: Split Spoon

Depth Sampled: 0-2'

Sample Date & Time: 7-26-91 1028

Sampled By: RP

Signature(s): RPatS

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

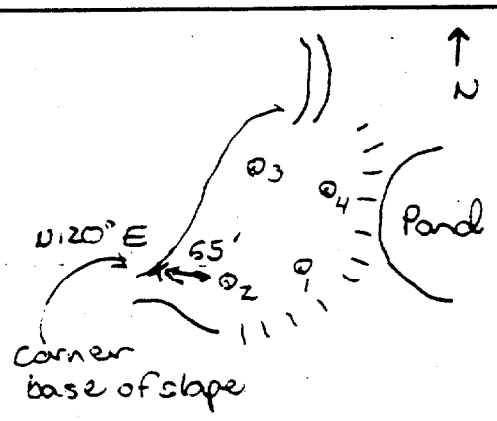
Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

10" brown coarse sand w/roots
14" black clayey silt & fine sand
HNU headspace 7ppm; spoon 5ppm over background.
Blow count 4-7-9-8



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-02A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-26-91 1033			
Sampled By: RP			
Signature(s): [illegible]			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

Very black silty clay to fine sand

HNU open spoon 9 ppm background 7 ppm

Blow count 4-7-14-7

Loc: See Soil-02

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [ ] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-02B

Sample Method: Split Spoon

Depth Sampled: 20'-22'

Sample Date & Time: 7-26-91 1110

Sampled By: RP

Signature(s): [illegible]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOC
- BNA
- Metals
- CN

Observations / Notes

Orange brown coarse sand w/clay
HNU spoon elev 5ppm over background
water table @ 20 feet
Blow count 3-3-3-4

Loc: See Soil-02

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-03, 03-C, 03MS, 03M

Sample Method:	Split Spoon
Depth Sampled:	0-2'
Sample Date & Time:	7-26-91 0927
Sampled By:	RP
Signature(s):	[signature]

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

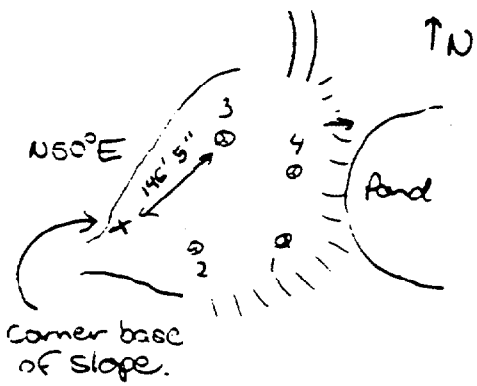
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Metals
- CN

Observations / Notes

0-2" lt br. coarse sand
2-20" dark black organic med to coarse sand w/clay
20-24" lt br. to gray med to coarse sand w/gravel
NO elev HNU
Blow count 4-6-6-15



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-03A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-26-91 0940			
Sampled By: RP			
Signature(s): RPatel			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

6" Blackish clay
18" lt br. coarse sand w/gravel
HNU spoon - 3ppm over backgrd.
Blow count 9-10-11-10

Loc: See Soil-03

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-03 B

Sample Method: Split Spoon

Depth Sampled: 20-22'

Sample Date & Time: 7-26-91 0955

Sampled By: RP

Signature(s): [illegible]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

Light brown coarse sand
No elevated HNU
water table @ 20 feet
Blow count 5-5-5-6

LOC: See Soil-03

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-04

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-26-91 1120			
Sampled By: RP			
Signature(s): [signature]			

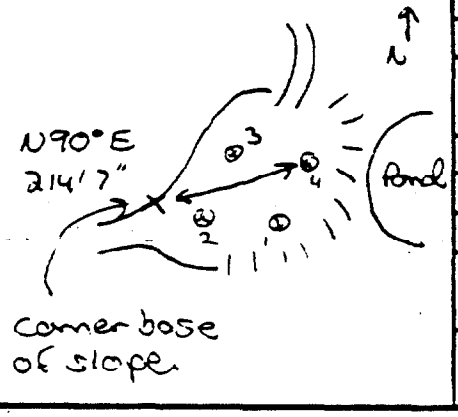
Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

18" brown coarse sand orange w/clay
6" black ash matl w/cinders
HNU 1ppm over background
Blow count 3-4-6-8



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-04A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-26-91 1140			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Metals
- CN

Observations / Notes

6" orange brown coarse sand w/clay
12" light brown coarse sand
HNU spoon 10 ppm background 7 ppm
Blow count 2-2-2-3

Loc: See Soil-04

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-04 B

Sample Method: Split Spoon

Depth Sampled: 15'-17'

Sample Date & Time: 7-26-91 1155

Sampled By: RP

Signature(s): RPata J

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOC
- BNA
- Metals
- CN

Observations / Notes

24" light brown coarse sand w/gravel
water table @ 15 ft
NO elev HNU reading
Blow count 3-3-3-3

Loc: See Soil-04

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-05

Sample Method: Split Spoon	
Depth Sampled: 0'-2'	
Sample Date & Time: 7-24-91 10:35	
Sampled By: RP	
Signature(s): RPatis	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

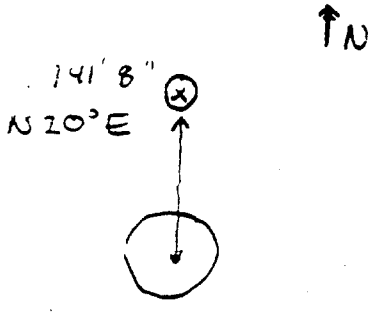
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- PEST/PCB
- metals
- CN

Observations / Notes

Black to brown/black Fine sand.
No elev HNU
Blow count 2-2-5-4



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-05 A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-24-91 0950			
Sampled By: RP			
Signature(s): RPata			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
VOA
BNA
Pest / PCB
metals
CN.

Observations / Notes

Coarse wells sorted orange-brown sand.
No elev HNU
Blow count 12-13-13-15

LOC: See Soil-05

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-5B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 20'-22'			
Sample Date & Time: 7-24-91 1019			
Sampled By: RP			
Signature(s): RPatis			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- metals
- CN

Observations / Notes

well sorted clean coarse sand
100 elev HNU
Blow count 3-3-3-3
100% saturated

Loc: See Soil-05

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-06

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0'-2'			
Sample Date & Time: 7-24-91 1134			
Sampled By: RP			
Signature(s): RPatts			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

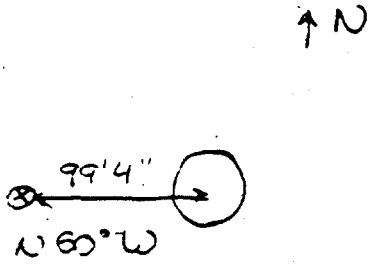
Observations / Notes

12" light brown silty sand - 4" organic at surface

12" dark brown to black silt & fine sand

No elev HNU

Blow count 3-4-5-3



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIPP Project Site Number 3273

NUS Source No. _____ Source Location Soil-06-A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-24-91 1143			
Sampled By: RP			
Signature(s): [illegible]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

8" black silt to fine sand
20" coarse well sorted orange to brown sand
HNU jar headspace 6ppm vs 0.6 background.
Blow count 3-4-4-3

Loc: See Soil-06

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-06 B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15'-17'			
Sample Date & Time: 7-24-91 1157			
Sampled By: RP			
Signature(s): RPatty			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Buff to light brown very coarse well sorted sand.
NO elev HNU
Blow count 3-4-6-8
water table 16' 02"

Loc: See Soil-06

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRF Project Site Number 3273

NUS Source No. _____ Source Location Soil-07

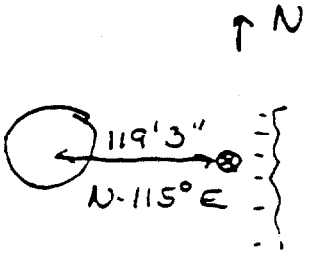
	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0'-2'			
Sample Date & Time: 7-24-91 1236			
Sampled By: RP			
Signature(s): RPatty			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest / PCB
- Metals
- CN

Observations / Notes

8" white to light brown sand - min. organic
16" coarse to v. coarse orange - orange brown sand
Area may have been excavated.
No elev HNU
Blow count 3-4-5-4



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-07A

Sample Method: Split Spoon

Depth Sampled: 10'-12'

Sample Date & Time: 7-24-91 1247

Sampled By: RP

Signature(s): RPatts

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

well sorted v. coarse buff to light tan sand.

NO elev HNU

Blow count 6-7-8-8

Loc: See Soil-07

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-07B

Sample Method: Split Spoon	
Depth Sampled: 15'-17'	
Sample Date & Time: 7-24-91 1255	
Sampled By: RP	
Signature(s): RPatty	

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest / PCB
- Metals
- CN

Observations / Notes

well sorted v. coarse light tan to buff sand.
HNU open spoon 13.5 ppm, headspace 11 ppm
background 0.2 ppm
Blow count 2-3-3-4
water table 15 Feet

* spoon had oily sheen

Loc: See Soil-07

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location SO.1-08, 08C MS, MSD

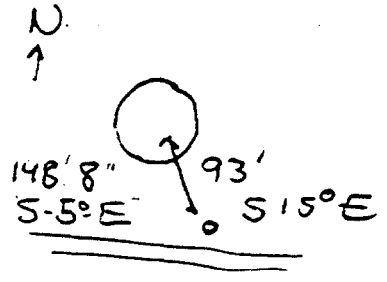
Sample Method: Split spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-25-91 0823			
Sampled By: RP			
Signature(s): [illegible]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

13" black stained coarse sand
11" clean coarse orange brown sand
Fuel Oil Smell
HNU 16 ppm on open spoon
background 0.4 ppm
Blow count 2-2-3-4



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name: Calverton NWIRP Project Site Number: 3273

NUS Source No. _____ Source Location: So.1-08A

Sample Method:	Split Spoon
Depth Sampled:	5'-7'
Sample Date & Time:	7-25-91 0831
Sampled By:	RP
Signature(s):	R Patis

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- metals
- CN

Observations / Notes

4" coarse well sorted orange brown sand
20" coarse to v. coarse buff to light tan sand
A black organic layer separates
HNU 15 ppm - background 12 ppm
Blow count 2-4-6-6

Loc: See So.1-08

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-08 B

Sample Method: Split Spoon	
Depth Sampled: 15'-17'	
Sample Date & Time: 7-25-91 0842	
Sampled By: RP	
Signature(s): [signature]	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

5" black coarse sand w/cobbles
19" coarse to v. coarse buff to lt. tan sand
Spoon is fully saturated
HNU open spoon 2 ppm, headspace 4 ppm over background.
Blow count 3-3-4-5

Loc: See Soil-08

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-09

Sample Method: Split Spoon

Depth Sampled: 0'-2'

Sample Date & Time: 7-25-91 0902

Sampled By: RP

Signature(s): [illegible]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

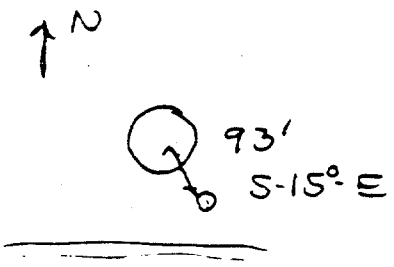
Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Surface stained brownish black
1" root zone
16" coarse orange-brown sand - clayey
8" stained brown to black
Strong fuel odor HNU spoon 20 ppm
background 12 ppm
Blow count 8-11-13-18



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Galveston NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-09 A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 10'-12'			
Sample Date & Time: 7-25-91 0918			
Sampled By: RP			
Signature(s): [illegible]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN.

Observations / Notes

Coarse to v. coarse lt. tan to buff sand
HNU spoon 30ppm background 12ppm
Blow count 3-3-3-4

Loc: See Soil-09

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-09 B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15'-17'			
Sample Date & Time: 7-25-91 0922			
Sampled By: RP			
Signature(s): RPatW			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

12" coarse to v. coarse lt. brow to buff sand
6" stained black
Entire spoon saturated.
NNU spoon 19ppm headspace 20ppm
bckgrd 12ppm
Blow count 1-1-2-2

LOC: See Soil-09

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-10, 10C, NS, MSD

Sample Method: Split Spoon	
Depth Sampled: 0'-2'	
Sample Date & Time: 7-25-91 1053	
Sampled By: RP	
Signature(s): RPatorcity	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

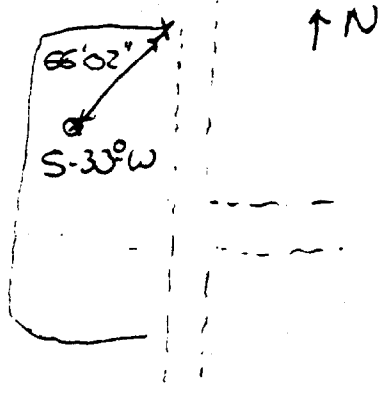
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Coarse to v. coarse orange to orange br sand.
Bits of plastic, pylwood & wood debris
HNU headspace 6ppm Background 3ppm
Blow count 3-3-4-4.



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-10 A

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 10'-12'			
Sample Date & Time: 7-25-91 1110			
Sampled By: RP			
Signature(s): [illegible]			

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
VOA

Observations / Notes
4" dark brown to black woody (organic) sand
4" clean buff to lt. tan coarse to v. coarse sand
No elev. HNU.
Blow count 11-12-13-12

Loc: See Soil-10

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

Page ____ of ____

Case # ____

By ____

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other ____

Project Site Name: Calverton NWIRP Project Site Number: 3273

NUS Source No. ____ Source Location: Soil-10B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15'-17'			
Sample Date & Time: 7-25-91 1116			
Sampled By: RP			
Signature(s): RPatts			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Coarse to v.coarse Lt. tan to buff sand
No elev. HNU
water table 15'05"
Blow count 5-6-7-7

Loc: See Soil-10

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-11

Sample Method: Split Spoon	
Depth Sampled: 0-2'	
Sample Date & Time: 7-25-91 1122	
Sampled By: RP	
Signature(s): RPatorcy	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

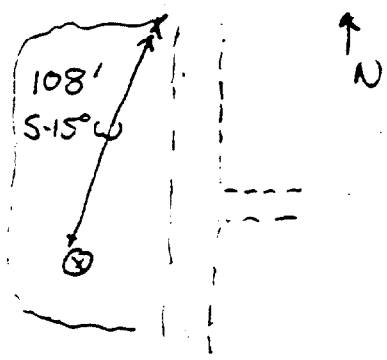
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

2" dark organic coarse sand
22" coarse to v.coarse tan to buff sand
more orange at top
No elev HNU
Blow count 2-3-4-5



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-11 A

Sample Method: Split Spoon	
Depth Sampled: 10'-12'	
Sample Date & Time: 7-25-91 1147	
Sampled By: RP KK	
Signature(s): R. Patton for KK	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Coarse to v.coarse lt. tan to buff sand
Some mineral banding (iron)
No elev. HNU
Blow count 3-4-7-8

Loc: See Soil-11

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil- 11 B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15-17'			
Sample Date & Time: 7-25-91 1155			
Sampled By: RP			
Signature(s): RPatarity			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

Very coarse sand w/pebbles. lt. tan to buff.
No elev HNU
water table 15'09"
Blow count 3-3-5-6.

Loc: See Soil-11

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-12

Sample Method:	Split Spoon
Depth Sampled:	0'-2'
Sample Date & Time:	2-25-91 1245
Sampled By:	RD
Signature(s):	RPatrick

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

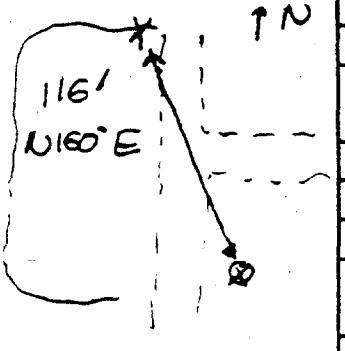
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

2" root zone
16" dark brown organic sticky clay moist
8" orange brown clayey medium sand w/some pebbles.
No elev HNU
Blow count 3-5-5-7



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-12A

Sample Method:	Split Spoon
Depth Sampled:	5'-7'
Sample Date & Time:	7-25-91 1250
Sampled By:	RP
Signature(s):	R Patorcz

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

8" orange brown coarse sand
16" buff to lt. tan very coarse sand
No elev HNU.
Blow count 6-8-12-15

Loc: See Soil-12

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-12B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15-17'			
Sample Date & Time: 7-25-91 1303			
Sampled By: RP			
Signature(s): RPotts			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab	Sample Data		
[ ] Composite	Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)	
[ ] Grab - Composite			

Analysis:
- VOA
- BNA
- Pest/PCB
- Metals
- CN

Observations / Notes

coarse to v. coarse buff to lt. tan sand
No elev HNU
water table 15'06"
blow count 5-6-7-8

Loc: See Soil-12

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil 13

Sample Method: Split Spoon

Depth Sampled: 0-2'

Sample Date & Time: 7-30-91 0822

Sampled By: RP

Signature(s): RPatts

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

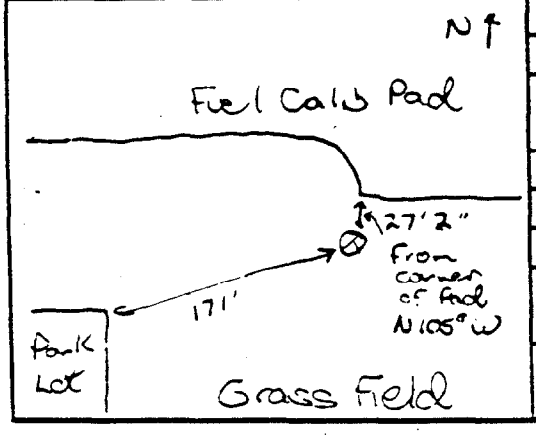
Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

4" dark brown silty loam
20" coarse lt. brown silty sand w/ concrete pebbles - probable fill area
HNU spoon 4.5 ppm headspace 13 ppm
background 4 ppm
Blow count 3-8-13-14



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name: Calverton NWIRP Project Site Number: 3273

NUS Source No. _____ Source Location: Soil-13A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-30-91 0827	
Sampled By: RP	
Signature(s): [signature]	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

10" dark brown coarse sand
14" very coarse lt tan to buff sand
Strong kerosene odor
HNU Spoon 20 ppm headspace 130 ppm
background 3.5 ppm
Water table 6'09"
Blow count - not recorded

Loc: See Soil-13

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-14

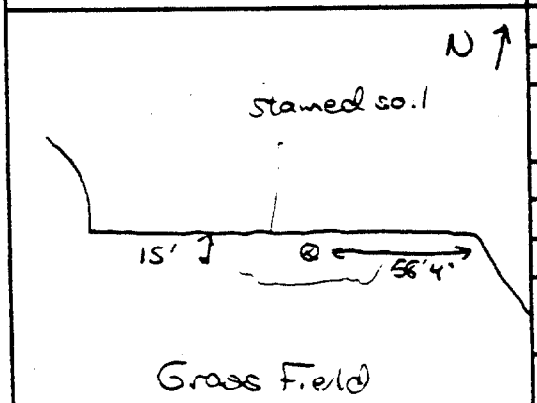
	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-30-91 0846			
Sampled By: RP			
Signature(s): RPatel			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

4" coarse lt brown sand - from area of stressed vegetation
20" lt to dark brown sticky clay
NWW spoon 28 ppm headspace 34 ppm
background 3.5 ppm
Blow count 2-7-10-6



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-14 A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-30-91 0852	
Sampled By: RP	
Signature(s): RPatorus	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

24" gray to dark gray clayey med. sand
HNU spoon 18 ppm headspace 180 ppm
background 3.5 ppm
water table 6'02"
Blow count 10-7-4-2

Loc: See Soil-14

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil- 1.5, 15C, 15MS, 1.5M

Sample Method: Split Spoon	
Depth Sampled: 0-2'	
Sample Date & Time: 7-30-91 0942	
Sampled By: RP	
Signature(s): RPatos	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

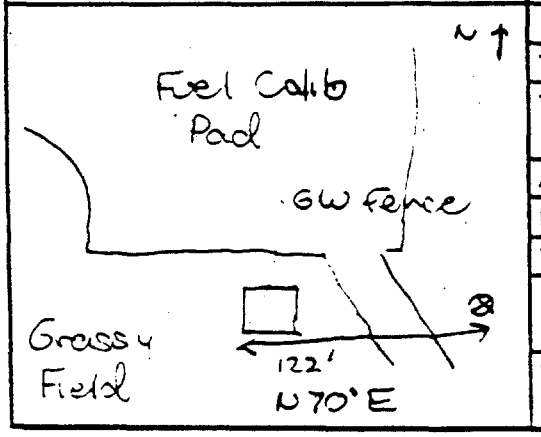
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

3" organic 100m
21" interbedded dark brown stick clay with med to coarse sand.
Core breaks on horiz. plane ~ 1/4-1/2" thick
HNU spoon 2ppm headspace 7.5ppm
background 1.5 ppm
Blow count 4-6-8-15



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-15A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-30-91 0952	
Sampled By: RP	
Signature(s): R Patan	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

- VOA
- BNA
- Lead

Observations / Notes

24" lt tan to buff very coarse sand
Some orange iron staining
HNU spoon 1.5 ppm headspace 5 ppm
background 1.5 ppm
water table 5'08"
Blow count 5-6-6-8

Loc: See Soil-15

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-15, 15C, 15MS, 15MSD

Sample Method:	Split Spoon
Depth Sampled:	0-2'
Sample Date & Time:	7-30-91 0906
Sampled By:	RP
Signature(s):	RPatorius

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

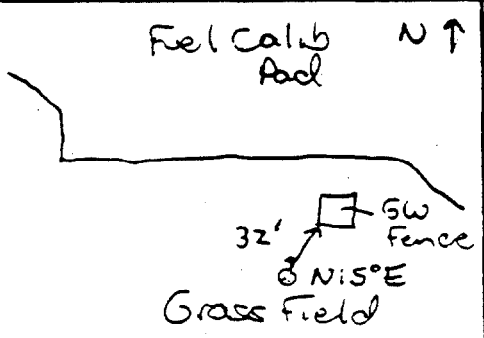
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

4" dark brown silty loam
20 lt brown dry clayey silt - breaks along horizontal plane into 1/4-1/2" layers
HNU spoon 5ppm headspace 6.5 ppm background 4ppm
Blow count 4-15-15-22



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-16A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-30-91 0925	
Sampled By: RP	
Signature(s): RPatoruj	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

4" lt. to dark brown clayey silt to fine sand
20" very coarse lt tan to buff sand uniform
HNU spoon 2.5 ppm headspace 12 ppm
background 2 ppm
Water table 6'00"
Blow count 7-9-11-15

Loc: See Soil-16

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-17,17C

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0'-2'			
Sample Date & Time: 7-30-91 1058			
Sampled By: RP			
Signature(s): RPatas			

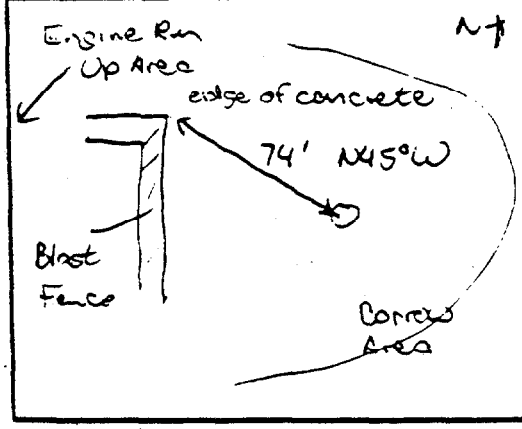
Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

4" dark brown silty loam
20" lt tan to buff uniform v. coarse sand
No elev HNU
Blow count 2-2-6-7



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-17A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-30-91 1103	
Sampled By: RP	
Signature(s): [illegible]	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

24" lt tan to buff v. coarse sand.
No elev HNU.
Water table 5 feet.
Blow count 3-4-5-7

Loc: See Soil-17

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page _____ of _____

Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil 18, 18C

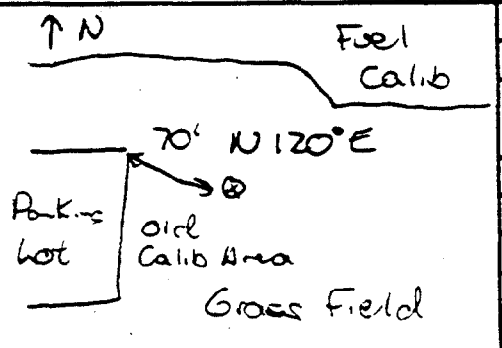
Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-30-91 0740			
Sampled By: RP			
Signature(s): RPotter			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

4" brown clay w/roots & organic
5" whitish coarse gray sand w/gravel
maybe "fill"
15" brown med sand w/ silty clay
HNU spoon 5ppm, headspace 11.5ppm
background 4 ppm
Blow count 11-6-8-11



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-18B

Sample Method: Split Spoon	
Depth Sampled: 7'-9'	
Sample Date & Time: 7-30-91 0806	
Sampled By: RP	
Signature(s): R [signature]	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

24" coarse buff to lt tan sand
HNU spoon 4ppm headspace 7ppm
background 3.5ppm
water table 8'02"
Blow count 3-4-3-5

Loc: See Soil-18

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
A Halliburton Company

SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____
Case # _____
By _____

Project Site Name Calverton NWIRP Project Site Number 3273
NUS Source No. _____ Source Location Soil 18 A

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-30-91 0745			
Sampled By: RP			
Signature(s): RPatterson			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
VOA
BNA
Lead

Observations / Notes
3' Med brown sand
20" coarse sand uniform, buff to lt. tan.
HNU spoon 6ppm headspace 10ppm
Background 6ppm
Blow count 6-6-9-9

Loc. See Soil 18

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page ____ of ____

Case # ____

By ____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other ____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. ____ Source Location Soil-19

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-30-91 1025			
Sampled By: RP			
Signature(s): RPatorej			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

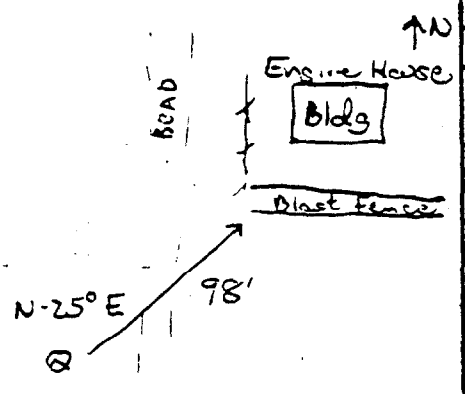
4" soil layer dark brown silty clay loam - moss covered

20' buff to light tan v. coarse sand.

HNU spoon 1 ppm headspace 4 ppm

background 1.0 ppm

Blow count 1-3-4-5



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-19 A

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-30-91 1030			
Sampled By: RP			
Signature(s): R Patterson			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- GVA
- Lead

Observations / Notes

24" very coarse lt tan to buff to lt gray sand.

No elev HNU.

Blow count 3-5-7-10

LOC: See Soil 19

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

NUS CORPORATION
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SAMPLE LOG SHEET

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Case # _____

By _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-19B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 7'-9'			
Sample Date & Time: 7-30-91 1030			
Sampled By: RP			
Signature(s): RPow			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

24' v. coarse lt tan to buff to lt gray sand
No elev HNU.
Water table 7'02"
Blow count 4-8-6-6

Loc: See Soil-19

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

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Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-20, 20E, 20MS, 20MS

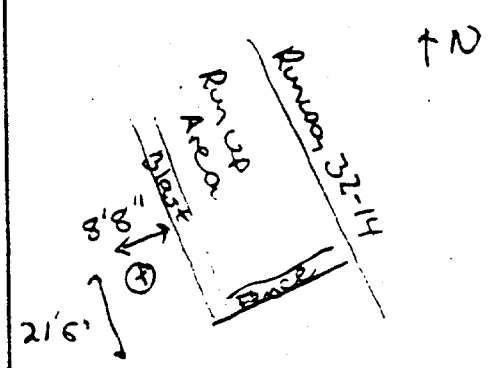
Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-25-91 0744			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- BTEX
- PAH

Observations / Notes

2-6" dark brown med to coarse sand
6-24" lt tan to buff coarse to v. coarse sand
No elev HNU
Blow count 1-1-2-2



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-20A

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-26-91 0748			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

BTEX
PAH

Observations / Notes

8" interbedded brown & buff sands
Brown is med to coarse, buff coarse to v. coarse
15" coarse to v. coarse buff to lt tan sand
NO elev HNU
Blow count 5-3-5-7

LOC - See Soil-20

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-20B

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 15'-17'			
Sample Date & Time: 7-25-91 0821			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

BTEX
PAH

Observations / Notes

Buff to tan coarse to v. coarse sand.
No elev NNU
Blow count 3-3-3-4
water table 15 ft

Loc: See Soil-20

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location So.1-21

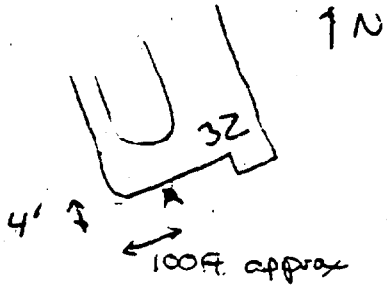
Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-26-91 0652			
Sampled By: RP			
Signature(s): [illegible]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- BTEX
- PAH

Observations / Notes

5" dark brown sticky clay
19" lt tan to buff coarse to v. coarse sand w/pebbles
No elev HNU
Blow count 4-5-7-9



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil 21 A

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 5'-7'			
Sample Date & Time: 7-26-91 0659			
Sampled By: RP			
Signature(s): RPatay			

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
BTEX
PAH

Observations / Notes
4" Dark brown sticky clay w/organic matter
21' coarse to v coarse lt tan to buff sand
NO elev HNU.
Blow count 15-17-19-17

Loc: See Soil-21

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location So.1-21B

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 20'-22'			
Sample Date & Time: 7-26-91 0712			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
☒ Low Concentration			
☐ High Concentration			
☒ Grab			
☐ Composite			
☐ Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- BTEX
- PAH

Observations / Notes

Dark gray to tan v.coarse sand w/large gravel
No elev HNU reading
Water table approx 20 feet
Blow count 3-4-5-7

Loc - See So.1-21

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____
Case # _____
By _____

Project Site Name Calverton NWIRP Project Site Number 3273
NUS Source No. _____ Source Location Soil-22

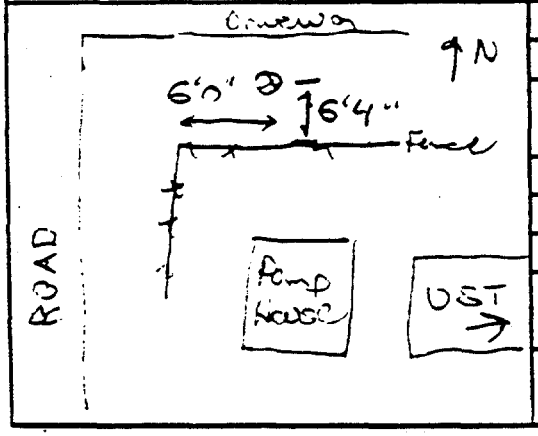
	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-29-91 1445			
Sampled By: RF			
Signature(s): R. Foster			

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
VOA
BNA
Lead

Observations / Notes
6" gray silty sand w/clay, concrete chips + fill
18" brown coarse silty sand.
concrete at 3 feet.
HNU spoon 4.5 ppm headspace 24 ppm
background 4 ppm
Blow count 4-6-5-8



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-22A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-29-91 1453	
Sampled By: RP	
Signature(s): [signature]	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

4" dark brown fine sand w/clay
15' lt tan to buff very coarse sand
HNU spoon 48 ppm headspace 7 ppm
background 4 ppm
Blow count 4-6-8-10

Loc: See Soil-22

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

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Case # ____

By ____

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other ____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. ____ Source Location Soil-22B

Sample Method: Split Spoon

Depth Sampled: 15'-17'

Sample Date & Time: 7-29-91 1503

Sampled By: RP

Signature(s): R[illegible]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

24" coarse buff to ltan sand
Uniform grain size.
water table 15'06"
HNU spoon 5 ppm, headspace 5ppm
background 1ppm
Blow count 3-4-5-6

hoc: See Soil-22

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

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Case # _____

By _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil 23

Sample Method: Split Spoon	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-29-91 1412			
Sampled By: RP			
Signature(s): [illegible]			

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

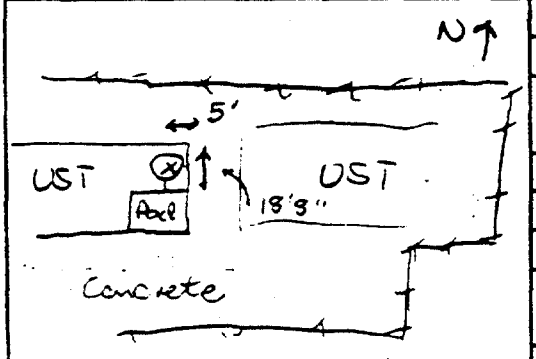
Observations / Notes

8' dark brown coarse sand

14" lt brown silty sand some clay & coarse sand

HNU headspace 6ppm background 4.5 ppm

Blow count 5-6-8-9



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-23A

Sample Method: Split Spoon	
Depth Sampled: 5'-7'	
Sample Date & Time: 7-29-91 1415	
Sampled By: RP	
Signature(s): RPatis	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

4" light to dark brown fine sand
20' very coarse orange-brown sand.
HNU spoon 30ppm headspace 20ppm
background 4ppm.
Blow count 5-6-8-8

See Soil-23

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-23B

Sample Method: Split Spoon	
Depth Sampled: 15'-17'	
Sample Date & Time: 7-29-91 1422	
Sampled By: RP	
Signature(s): RPatos	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:

VOA
BNA
Lead

Observations / Notes

24" coarse to v. coarse buff to lt. tan sand
water table approx 17 feet
HNU spoon 11 ppm background 4 ppm
Blow count 5-6-5-7

Loc. See Soil-23

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page _____ of _____

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Case # _____

By _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-24

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 0-2'			
Sample Date & Time: 7-29-91 1115			
Sampled By: RP			
Signature(s): [illegible]			

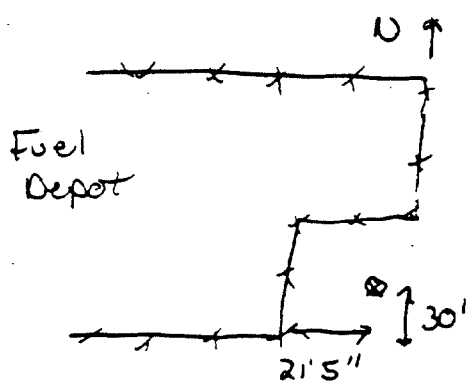
Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

6" Dark brown sandy loam
4" lt brown coarse sand
8" brown coarse sand
No elev HNU
Blow count 4-5-6-9



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page _____ of _____

Case # _____

By _____

Project Site Name Colverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-24 A

Sample Method: Split spoon

Depth Sampled: 5'-7'

Sample Date & Time: 7-29-91 1120

Sampled By: RP

Signature(s): RPatel

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- ONA
- Lead.

Observations / Notes

10" dark brown coarse sand
14" Lt brown coarse sand
HNU 25 ppm background 5 ppm
Blow count 7-9-11-11

Loc: See Soil-24

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

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Case # _____

By _____

- ☐ Surface Soil
- ☒ Subsurface Soil
- ☐ Sediment
- ☐ Lagoon / Pond
- ☐ Other _____

Project Site Name Calverton NWIRP Project Site Number 3273

NUS Source No. _____ Source Location Soil-24 B

	Composite Sample Data		
Sample Method: Split Spoon	Sample	Time	Color / Description
Depth Sampled: 15'-17'			
Sample Date & Time: 7-29-91 1135			
Sampled By: RP			
Signature(s): RPat-5			

Type of Sample
- ☒ Low Concentration
- ☐ High Concentration
- ☒ Grab
- ☐ Composite
- ☐ Grab - Composite

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

Analysis:
- VOA
- BNA
- Lead

Observations / Notes

24" light brown coarse sand
HNU spoon 30ppm background 5ppm
water table 16'6"
Blow count 2-3-2-3

LOC: See Soil-24

	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-1 Source Location W-13

	Purge Data				
Total Well Depth: 22'02"					
Well Casing Size & Depth: 4" PVC 22'02"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 16'00"					
One Casing Volume: 4.03 gal					
Start Purge (hrs.): 1245					
End Purge (hrs.): 1410					
Total Purge Time (min.): 85					
Total Amount Purged (gal.): 15					
Monitor Reading: No elev HNU					
Purge Method: Hand bail					
Sample Method: direct pour					
Depth Sampled: 22'					
Sample Date & Time: 7-18-91 1420	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	6.20	—	16.1°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Blackish turbidity w/ oily sheen
Slight solvent odor
casing in good condition
measurements to T.O.C.
Casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
Metals	HNO_3	AB #			
CN	NaOH	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- ☐ Monitoring Well Data
- ☐ Domestic Well Data
- ☐ Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-2 Source Location W-4

Total Well Depth: 24'06"	Purge Data				
Well Casing Size & Depth: 4" PVC 24'06"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 15'04"					
One Casing Volume: 5.99 gal					
Start Purge (hrs.): 1300					
End Purge (hrs.): 1330					
Total Purge Time (min.): 30					
Total Amount Purged (gal.): 28.8					
Monitor Reading: NDO 15 ppm					
Purge Method: Hand bail					
Sample Method: direct pour					
Depth Sampled: 24'					
Sample Date & Time: 7-18-91 1345	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	6.50	195	15.2°C		

Signature(s): [signature]

Type of Sample
- ☒ Low Concentration
- ☐ High Concentration
- ☒ Grab
- ☐ Composite
- ☐ Grab - Composite

Observations / Notes:
Light brown slightly turbid
No odor
Casing in good condition
measurements to T.O.C.
Casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
DNA	—	Tag #			
Pest/PCB	—				
Total Metals	HNO_3	AB #			
CN	NaOH	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-3 Source Location W-11

	Purge Data				
Total Well Depth: 25'01"					
Well Casing Size & Depth: 4" PVC 25'01"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 20'00"					
One Casing Volume: 3.32 gal					
Start Purge (hrs.): 0930					
End Purge (hrs.): 1030					
Total Purge Time (min.): 60					
Total Amount Purged (gal.): 11					
Monitor Reading: HNU 2.4 ppm					
Purge Method: Hand bail					
Sample Method: direct pour					
Depth Sampled: 25'					
Sample Date & Time: 7/23/91 1037	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	4.36	130	11.6°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Brown turbidity - slight oil sheen
casing bent or misaligned
measurement to T.O.C.
casing height=

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
CN	CN	AB #			
Total Metals	HNO_3	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name: NWIRP Calverton Project Site Number: 3273

NUS Source No.: MW-4 Source Location: W-10

	Purge Data				
Total Well Depth: 19'08"					
Well Casing Size & Depth: 4" PVC 19'08"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 14'06"					
One Casing Volume: 3.37 gal					
Start Purge (hrs.): 1210					
End Purge (hrs.): 1230					
Total Purge Time (min.): 20					
Total Amount Purged (gal.): 13.2					
Monitor Reading: HNU 15 ppm					
Purge Method: hand bail					
Sample Method: direct pour					
Depth Sampled: 19'					
Sample Date & Time: 7-23-91 1255	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	4.71	80	10.5°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Petroleum odor Brown turbidity
1.2" oil layer measured in well
Casing was oil stained
measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
DNA	—	Tag #			
Pest/PCB	—				
CN	CN	AB #			
Total Metals	HNO_3	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-4 FP Source Location W-10

	Purge Data				
Total Well Depth: 19'08"					
Well Casing Size & Depth: 4" PVC 19'08"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 14'06"					
One Casing Volume: 3.37 gal					
Start Purge (hrs.): 1210					
End Purge (hrs.): 1230					
Total Purge Time (min.): 20					
Total Amount Purged (gal.): 13.2					
Monitor Reading: HNU 15 ppm					
Purge Method: hand bail					
Sample Method: direct pour					
Depth Sampled: 19'					
Sample Date & Time: 7-23-91 1255	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP					

Signature(s): [signature]

Observations / Notes:
Free product sample
yellow-clear oily liquid
1.2" layer floating in well

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA/BNA/PEST/PCB	—	Traffic Report # or SAS#			
CN/METALS	·	Tag #			
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-5 FP Source Location W-6

	Purge Data				
Total Well Depth: 19'05"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 19'05"					
Static Water Level: 13'01"					
One Casing Volume: 4.14 gal					
Start Purge (hrs.): 1400					
End Purge (hrs.): 1425					
Total Purge Time (min.): 25					
Total Amount Purged (gal.): 14.4					
Monitor Reading: NW 10ppm					
Purge Method: hand bail					
Sample Method: direct pour					
Depth Sampled: 19'					

Sample Date & Time: 7-23-91 1435	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP				

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Free product sample
yellow-clear oily liquid
0.9" layer floating in well

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA/BNA/PEST/PCB	—	Traffic Report # or SAS#			
Metals/CN	·	Tag #			
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

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- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-5 Source Location W-6

	Purge Data				
Total Well Depth: 19'05"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 19'05"					
Static Water Level: 13'01"					
One Casing Volume: 4.14 gal					
Start Purge (hrs.): 1400					
End Purge (hrs.): 1425					
Total Purge Time (min.): 25					
Total Amount Purged (gal.): 14.4					
Monitor Reading: HNU 10 ppm					
Purge Method: Hand Bail					
Sample Method: direct pour					
Depth Sampled: 19'					

Sample Date & Time: 7-23-91 1435	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	6.09	300	13.4°C	

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
petroleum odor - brown turbidity
0.9" oil layer measured in well
measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
PCB/PEST	—				
Total Metals	HNO_3	AB #			
CN	NaOH	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name: MWIRP Calverton Project Site Number: 3273

NUS Source No.: MW-6 Source Location: W-16

Total Well Depth: 26'01"	Purge Data				
Well Casing Size & Depth: 4" PVC 26'01"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 17'03"					
One Casing Volume: 5.77 gal					
Start Purge (hrs.): 1340					
End Purge (hrs.): 1400					
Total Purge Time (min.): 20					
Total Amount Purged (gal.): 18					
Monitor Reading: NRD 5ppm					
Purge Method: hand bail					
Sample Method: direct pour					
Depth Sampled: 26'					
Sample Date & Time: 7-24-91 1405	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: AP	4.74	200	11.4°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Brown turbidity - No odor
pH reading is suspect - meter error
casing in good condition
measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
Total Metals	HNO_3	AB #			
CN	NaOH	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. MW-7 Source Location W-8

	Purge Data				
Total Well Depth: 10'02"					
Well Casing Size & Depth: 4" PVC 10'02"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 8'06"					
One Casing Volume: 1.09 gal					
Start Purge (hrs.): 1150					
End Purge (hrs.): 1156					
Total Purge Time (min.): 6					
Total Amount Purged (gal.): 4.5					
Monitor Reading: NO elev. NAV					
Purge Method: hand bail					
Sample Method: direct pour					
Depth Sampled: 10'					
Sample Date & Time: 7-17-91 1158	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	5.49	80	21.7°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Brown turbidity - large amounts of fine grain sand in well
No odor
Casing bent or misalisned
Measurements to T.O.C.
Casing height =

Analysis:	Preservative	SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. MW-8 Source Location W-7

	Purge Data				
Total Well Depth: 10'08"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 10'08"					
Static Water Level: 8'09"					
One Casing Volume: 1.25 gal					
Start Purge (hrs.): 1040					
End Purge (hrs.): 1055					
Total Purge Time (min.): 15					
Total Amount Purged (gal.): 5					
Monitor Reading: No elev HNU					
Purge Method: Hand bail					
Sample Method: Direct pour					
Depth Sampled: 10'					
Sample Date & Time: 7-17-91 1055	**Sample Data**				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	7.09	160	21.3°C		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Brown turbidity - large amounts of fine grain sand in well
No odor.
Casing bent or misaligned
Measurements to T.O.C.
Casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-9 Source Location W-1

	Purge Data				
Total Well Depth: 10' 09"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 10' 09"					
Static Water Level: 7' 09"					
One Casing Volume: 1.96 gal					
Start Purge (hrs.): 1305					
End Purge (hrs.): 1315					
Total Purge Time (min.): 10					
Total Amount Purged (gal.): 8					
Monitor Reading: HNU 30ppm					
Purge Method: Hol Bail					
Sample Method: Direct pour					
Depth Sampled: 10'					

Sample Date & Time: 7-17-91 1325	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: KK	6.56	200	19.5°C	

Signature(s):

Observations / Notes:
Gray/brown turbidity
petroleum odor
measurements to T.O.C.
casing height =

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOC	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. MW-10 Source Location W-18

	Purge Data				
Total Well Depth: 16'02"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 16'02"					
Static Water Level: 7' 10"					
One Casing Volume: 5.44 gal					
Start Purge (hrs.): 0914					
End Purge (hrs.): 0925					
Total Purge Time (min.): 11					
Total Amount Purged (gal.): 18					
Monitor Reading: No elev HNU					
Purge Method: Hol. bail					
Sample Method: direct pour					
Depth Sampled: 16'					

Sample Date & Time: 7-18-91 0935	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RD	633	230	19.9°C	

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Light brown turbidity
No odor
casing in good condition
measurements to T.O.C.
casing height=

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
PO	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name: NWIRP Calverton
Project Site Number: 3273
NUS Source No.: MW-11
Source Location: W-11

	Purge Data				
Total Well Depth: 11'00"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 11'00"					
Static Water Level: 8'05"					
One Casing Volume: 1.69 gal					
Start Purge (hrs.): 0840					
End Purge (hrs.): 0848					
Total Purge Time (min.): 8					
Total Amount Purged (gal.): 6					
Monitor Reading: HNU 150 ppm					
Purge Method: Hand bail					
Sample Method: direct pour					
Depth Sampled: 11'					

Sample Date & Time: 7-18-91 0900	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	6.40	270	22.7°C	

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Slight brown turbidity
Strong kerosene odor
1/4" Free product layer in bailer
measurements to T.O.C.
Casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS #			
BNA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-11 FP Source Location W-11

	Purge Data				
Total Well Depth: 11'00"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 11'00"					
Static Water Level: 8'05"					
One Casing Volume: 1.69 gal					
Start Purge (hrs.): 0840					
End Purge (hrs.): 0848					
Total Purge Time (min.): 8					
Total Amount Purged (gal.): 6					
Monitor Reading: HNU 150 ppm					
Purge Method: new bail					
Sample Method: direct pour					
Depth Sampled: 11'					
Sample Date & Time: 7-18-91 0900	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RA					

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:

Free product sample
Strong kerosene odor
1/4" free product layer in bailer
measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA-BNA-Pb	—	Traffic Report # or SAS #			
		Tag #			
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

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- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-12 Source Location W-5

	Purge Data				
Total Well Depth: 10'03"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 10'03"					
Static Water Level: 8'06"					
One Casing Volume: 1.14					
Start Purge (hrs.): 1416					
End Purge (hrs.): 1427					
Total Purge Time (min.): 11					
Total Amount Purged (gal.): 5					
Monitor Reading: no elev HNU					
Purge Method: Hand Bail					
Sample Method: Direct pour					
Depth Sampled: 10'					

Sample Date & Time: 7-17-91 1430	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	648	80	20.3°C	

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Gray/brown turbidity
No odor
Casing in poor condition - was loose below grade and may rec. surface flow
Measurement = to T.O.C.
Casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-13,13A,MS/MSD Source Location W-14

Total Well Depth: 30'02"	
Well Casing Size & Depth: 4" PVC 30'02"	
Static Water Level: 16'06"	
One Casing Volume: 10.23 gal	
Start Purge (hrs.): 1240	
End Purge (hrs.): 1325	
Total Purge Time (min.): 45	
Total Amount Purged (gal.): 39	
Monitor Reading: No elev HNU	
Purge Method: Hal Bail	
Sample Method: Direct Pour	
Depth Sampled: 30'	
Sample Date & Time: 7/15/91 1330	
Sampled By: RP	
Signature(s): R Patorcs	

Purge Data

Volume	pH	S.C.	Temp. (°C)	Color & Turbidity

Sample Data

pH	S.C.	Temp. (°C)	Color & Turbidity
638	150	13°C	

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:

Brown turbidity
Slight oleum odor w/minor oil sheen
Measurements to T.O.C
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. MW-14 Source Location W-3

	Purge Data				
Total Well Depth: 24' 01"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 24' 01"					
Static Water Level: 16' 00"					
One Casing Volume: 5.27 gal					
Start Purge (hrs.): 1003					
End Purge (hrs.): 1045					
Total Purge Time (min.): 42					
Total Amount Purged (gal.): 21.6 gal					
Monitor Reading: No elev. NNU					
Purge Method: Hand Bail					
Sample Method: Direct Pour					
Depth Sampled: 24'					

Sample Date & Time: 7/15/91 1158	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	5.97	295	12°C	

Signature(s): [signature]

Observations / Notes:
Slightly turbid w/ slightly oily sheen Lt Brown color

Flush mount well in roadway

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

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Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. MW-15 Source Location W-13

	Purge Data				
Total Well Depth: 25'00"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 25'00"					
Static Water Level: 15'09"					
One Casing Volume: 6.04 gal					
Start Purge (hrs.): 0845					
End Purge (hrs.): 0855					
Total Purge Time (min.): 10					
Total Amount Purged (gal.): 19.2					
Monitor Reading: No elev HNU					
Purge Method: Hand Bail					
Sample Method: Direct Pour					
Depth Sampled: 25'					

Sample Date & Time: 7/16/91 0855	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	622	250	18.7°C	

Signature(s): [signature]

Observations / Notes:
Blackish gray turbidity. Septic odor
Slight oily sheen & petrol. odor
Flush mount in roadway. Poorly sealed. May recieve surface runoff.

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

Page ____ of ____

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other ____

Case # ____

By ____

Project Site Name NWIPP Calverton Project Site Number 3273

NUS Source No. MW-16 FP Source Location W-5

	Purge Data				
Total Well Depth: 25'03"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 25'03"					
Static Water Level: 17' 10"					
One Casing Volume: 4.84 gal					
Start Purge (hrs.): 0955					
End Purge (hrs.): 1015					
Total Purge Time (min.): 20					
Total Amount Purged (gal.): 15.6					
Monitor Reading: NO clear HNU					
Purge Method: Hand Bail					
Sample Method: Direct pour					
Depth Sampled: 25'					

Sample Date & Time: 7-16-91 1020	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP				

Signature(s): [illegible]

Observations / Notes:
Free product sample
light yellow oily liquid 1/8"-1/4"
liquid skimmed from bailer

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA-SVOA-Pb	—	Traffic Report # or SAS#			
		Tag #			
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-16 Source Location W-5

	Purge Data				
Total Well Depth: 25'03"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 25'03"					
Static Water Level: 17' 10"					
One Casing Volume: 4.84 gal					
Start Purge (hrs.): 0955					
End Purge (hrs.): 1015					
Total Purge Time (min.): 20					
Total Amount Purged (gal.): 15.6					
Monitor Reading: No elev. NDD					
Purge Method: Hand Bail					
Sample Method: Direct Pour					
Depth Sampled: 25'					

Sample Date & Time:	Sample Data			
7/16/91 1020	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP	630	160	18.5°C	

Signature(s): RPatore

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Generally clear Thin 1/8"-1/4" yellow-clear oil layer Kerosene odor
Measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-17 Source Location W-26

	Purge Data				
Total Well Depth: 29' 10"					
Well Casing Size & Depth: 4" PVC 29' 10"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level: 16'00"					
One Casing Volume: 9.03 gal					
Start Purge (hrs.): 1354					
End Purge (hrs.): 1420					
Total Purge Time (min.): 26					
Total Amount Purged (gal.): 27.6					
Monitor Reading: No elev. HNU					
Purge Method: Hand Bail					
Sample Method: Direct Pour					
Depth Sampled: 29'					
Sample Date & Time: 7-16-91 1427	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: RP	6.42	280	17.6		

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
Reddish turbidity No odor
Flush mount at edge of parking lot

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-18 Source Location W-21

Total Well Depth: 29'05"	
Well Casing Size & Depth: 4" PVC 29'05"	
Static Water Level: 14'05"	
One Casing Volume: 9.80 gal	
Start Purge (hrs.): 1300	
End Purge (hrs.): 1335	
Total Purge Time (min.): 35	
Total Amount Purged (gal.): 30	
Monitor Reading: No elev HNU	
Purge Method: Hand Ball	
Sample Method: Direct Pour	
Depth Sampled: 29'	
Sample Date & Time: 7-16-91 1340	
Sampled By: RP	
Signature(s): R Patorcz	

Purge Data

Volume	pH	S.C.	Temp. (°C)	Color & Turbidity

Sample Data

pH	S.C.	Temp. (°C)	Color & Turbidity
6.67	260	15.2°C	

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
clear initially - developed brown turbidity. No odor.
casing in good condition
Measurements to T.O.C.
casing height =

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

Page ____ of ____

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. MW-19 Source Location W-18

	Purge Data				
Total Well Depth: 30'00"	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Well Casing Size & Depth: 4" PVC 30'00"					
Static Water Level: 16'03'					
One Casing Volume: 8.98 gal					
Start Purge (hrs.): 1205					
End Purge (hrs.): 1227					
Total Purge Time (min.): 22					
Total Amount Purged (gal.): 27.6					
Monitor Reading: NO HNU reading					
Purge Method: Hand Bail					
Sample Method: Direct Pour					
Depth Sampled: 30'					

Sample Date & Time: 7-16-91 1230	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RJ	6.20	120	15.7°C	

Signature(s): [illegible]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
clear at first - developed sandy brown turbidity NO odor casing in good condition Measurements to TOC casing height =

Analysis:	Preservative	SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
SVOA	—	Tag #			
Pb	HNO_3				
		AB #			
		Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- [ ] Monitoring Well Data
- [ ] Domestic Well Data
- [x] Other Prod well

Page ____ of ____

Case # ____

By ____

Project Site Name NWERP Calverton Project Site Number 3273

NUS Source No. PW-1 Source Location Prod. well #1

	Purge Data				
Total Well Depth: 146 Ft					
Well Casing Size & Depth: 12" iron	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level:					
One Casing Volume:					
Start Purge (hrs.):					
End Purge (hrs.):					
Total Purge Time (min.):					
Total Amount Purged (gal.): 34,000					
Monitor Reading:					
Purge Method:					
Sample Method:					
Depth Sampled:					

Sample Date & Time: 7-17-91 0905	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: KK				

Signature(s):

Observations / Notes:
well pump was run for 34,000 gal before sampling
Sample from spigot below pump

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
CN	NaOH	AB #			
Total Metals	HNO_3	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- ☐ Monitoring Well Data
- ☐ Domestic Well Data
- ☒ Other Prod. well

Page ____ of ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. PW-2 Source Location Prod. well #2

Total Well Depth: ft	Purge Data				
Well Casing Size & Depth: 12" iron	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level:					
One Casing Volume:					
Start Purge (hrs.):					
End Purge (hrs.):					
Total Purge Time (min.):					
Total Amount Purged (gal.): 110,000					
Monitor Reading:					
Purge Method:					
Sample Method:					
Depth Sampled:					
Sample Date & Time: 7-17-91 0855	Sample Data				
	pH	S.C.	Temp. (°C)	Color & Turbidity	
Sampled By: KK					

Signature(s):

Type of Sample
- ☒ Low Concentration
- ☐ High Concentration
- ☒ Grab
- ☐ Composite
- ☐ Grab - Composite

Observations / Notes:
well pump was run for 110,000 gal before sampling.
Sample from spigot below pump.
Clear, no odor.
May have TCE contamination

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
CN	NaOH	AB #			
Total Metals	HNO_3	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

- ☐ Monitoring Well Data
- ☐ Domestic Well Data
- ☒ Other Prod well

Page ____ of ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. PW-3, 3A, MS/MSD Source Location Prod well #3

	Purge Data				
Total Well Depth: 147 ft					
Well Casing Size & Depth: 12" iron	Volume	pH	S.C.	Temp. (°C)	Color & Turbidity
Static Water Level:					
One Casing Volume:					
Start Purge (hrs.):					
End Purge (hrs.):					
Total Purge Time (min.):					
Total Amount Purged (gal.): 60000					
Monitor Reading:					
Purge Method:					
Sample Method:					
Depth Sampled:					

Sample Date & Time: 7/17/91 0820	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Sampled By: RP				

Signature(s): RPatel

Type of Sample
- ☒ Low Concentration
- ☐ High Concentration
- ☒ Grab
- ☐ Composite
- ☐ Grab - Composite

Observations / Notes:
well pump was run for 60,000 gal before sampling
Sample from spigot below pump
Clear, no odor
May have Freon 13 or TCE contam.

Analysis:	Preservative	Shipping Information	Analysis #	Analysis #	Analysis #
VOA	HCl	Traffic Report # or SAS#			
BNA	—	Tag #			
Pest/PCB	—				
CN	CN	AB #			
Total Metals	HNO_3	Date Shipped			
		Time Shipped			
		Lab			
		Volume			

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Spring
- ☒ Lake
- ☐ Stream
- ☐ Other _____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

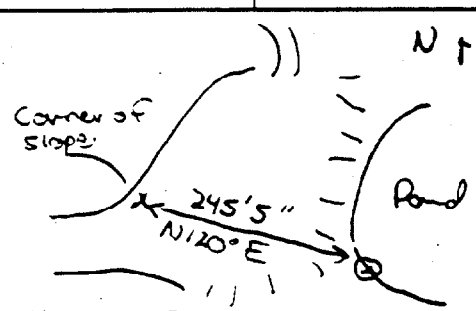
NUS Source No. SW-1 Source Location Pond Disposal Area SW Corner

Sample Method: bottles immersed	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Depth Sampled: pond edge				
Sample Date & Time: 7-31-91 1342				
Sampled By:				
Signatures:				

clear no odor
pond has some floating organic material
pond is glacial & land locked
Matches SW-1
Location is in SW corner of the pond.

Type of Sample
- ☐ Low Concentration
- ☐ High Concentration
- ☐ Grab
- ☐ Composite
- ☐ Grab - Composite

Analysis:	Preservative



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

Page ____ of ____

- [ ] Surface Soil
- [ ] Subsurface Soil
- [x] Sediment
- [ ] Lagoon / Pond
- [ ] Other ____

Case # ____

By ____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. Sed-01 Source Location Pond Disposal Area SW Corner

Sample Method: Stainless steel trowel

Depth Sampled: 6" into sediment

Sample Date & Time: 7-31-91 1350

Sampled By: RP

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Composite Sample Data

Sample	Time	Color / Description

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

# Analysis:	CHECK IF COLLECTED
VOA	✓
BNA	✓
Total metals	✓
CN	✓

Observations / Notes

Gray clay underlain by brown medium sand
Much organic content
HNU background 1 ppm
Jar headspace 2.5 ppm
Matches SW-1 location

SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #	Analysis #	Analysis #
Traffic Report # or SAS#					
Tag #					
AB #					
Date Shipped					
Time Shipped					
Lab					
Volume					

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SAMPLE LOG SHEET

Page _____ of _____

- ☐ Spring
- ☒ Lake
- ☐ Stream
- ☐ Other _____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. SW-2, 2A MS/MSD Source Location Pond Disposal Area - Mid Face

Sample Method: bottles immersed	Sample Data			
	pH	S.C.	Temp. (°C)	Color & Turbidity
Depth Sampled: pond edge				

Sample Date & Time: 7-31-91 1304

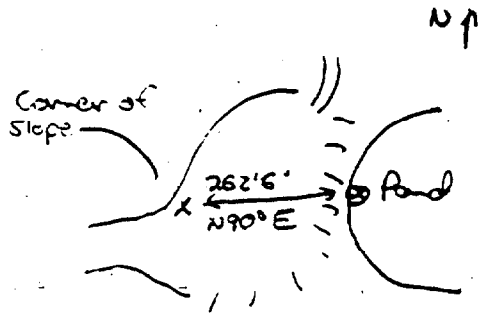
Sampled By: RP

Signature: [signature]

Type of Sample
- ☒ Low Concentration
- ☐ High Concentration
- ☒ Grab
- ☐ Composite
- ☐ Grab - Composite

Analysis:	Preservative
VOA	HCl
BNA	—
PEST/PCB	—
Total Metals	HNO_3
CN	NaOH

clear no odor.
pond has some organic material floating
pond is glacial & landlocked
Matches SW-2
Location is midway on disposal area face



	Organic	Inorganic
Traffic Report #		
Tag #		
AB #		
Date Shipped		
Time Shipped		
Lab		
Volume		

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SAMPLE LOG SHEET

- [ ] Surface Soil
- [ ] Subsurface Soil
- [x] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____
Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. Sed-02 Source Location Pond Disposal Area Mid Fo

Sample Method: Stainless steel trowel	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: 6" into sediment			
Sample Date & Time: 7-31-91 1320			
Sampled By: RP			
Signature(s): [signature]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

# Analysis:	CHECK IF COLLECTED
VOA	✓
BNA	
Total Metals	✓
CN.	

Observations / Notes
Gray clay underlain by brown medium sand.
Much organic content.
NWR Background 1.0 ppm
Jar headspace 2.0 ppm
Matches SW-2 location

SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #	Analysis #	Analysis #
Traffic Report # or SAS#					
Tag #					
AB #					
Date Shipped					
Time Shipped					
Lab					
Volume					

SAMPLE LOG SHEET

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- [ ] Surface Soil
- [ ] Subsurface Soil
- [x] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. Sed-03 Source Location Fuel Calib Ditch Downstream

Sample Method: Stainless Steel Trowel	
Depth Sampled: Surface to 3"	
Sample Date & Time: 7-30-91 1327	
Sampled By: RP	
Signature(s): RS Patas	

Composite Sample Data

Sample	Time	Color / Description

Type of Sample

- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

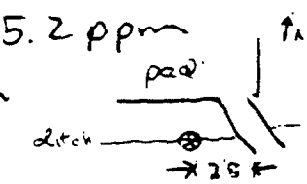
Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

# Analysis:	CHECK IF COLLECTED
VOA	✓
BNA	✓
Pb	✓

Observations / Notes

Reddish brown coarse sand
Appears to be iron stained
HNU Background 1.2 ppm
Surface soil (disturbed) 5.2 ppm
Jar headspace 13 ppm



SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #	Analysis #	Analysis #
Traffic Report # or SAS#					
Tag #					
AB #					
Date Shipped					
Time Shipped					
Lab					
Volume					

SAMPLE LOG SHEET

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- [ ] Surface Soil
- [ ] Subsurface Soil
- [x] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____
Case # _____
By _____

Project Site Name NWIRP Calverton Project Site Number 3273
NUS Source No. Sed-04 Source Location Fuel Calib. Ditch Midstream

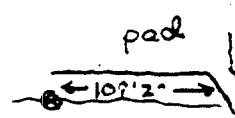
	Composite Sample Data		
Sample Method: Stainless steel trowel	Sample	Time	Color / Description
Depth Sampled: Surface to 3"			
Sample Date & Time: 7-30-91 1337			
Sampled By: RP			
Signature(s) [illegible]			
Type of Sample			
[x] Low Concentration			
[ ] High Concentration			
[x] Grab			
[ ] Composite			
[ ] Grab - Composite			

Sample Data	
Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

# Analysis:	CHECK IF COLLECTED
VOA	✓
BNA	✓
Pb	✓

Observations / Notes

Brown to graybrown clayey, silty sand
Black organic surface layer w/decaying grass & leaves
NNU Background = 1.5 ppm
Jar Headspace 26 ppm



SHIPPING INFORMATION	Analysis #	Analysis #	Analysis #	Analysis #	Analysis #
Traffic Report # or SAS#					
Tag #					
AB #					
Date Shipped					
Time Shipped					
Lab					
Volume					

SAMPLE LOG SHEET

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- [ ] Surface Soil
- [ ] Subsurface Soil
- [x] Sediment
- [ ] Lagoon / Pond
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name NWIRP Calverton Project Site Number 3273

NUS Source No. Sed-05 Source Location Fuel Calib Ditch Upstream

Sample Method: Stainless steel trowel	Composite Sample Data		
	Sample	Time	Color / Description
Depth Sampled: Surface to 3"			
Sample Date & Time: 7-30-91 1345			
Sampled By: RP			
Signature(s): [signature]			

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Sample Data

Color	Description: (Sand, Clay, Dry, Moist, Wet, etc.)

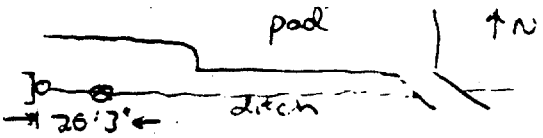
# Analysis:	CHECK IF COLLECTED
VOC	✓
BNA	✓
Pb	✓

Observations / Notes

light brown medium sand

HNU Background 1.5 ppm

HNU Jar headspace 13 ppm



Shipping Information	Analysis #	Analysis #	Analysis #	Analysis #	Analysis #
Traffic Report # or SAS#					
Tag #					
AB #					
Date Shipped					
Time Shipped					
Lab					
Volume					

APPENDIX H

APPORTIONED POPULATION CALCULATIONS

DRINKING WATER APPORTIONMENT CALCULATIONS

Brookhaven National Laboratory

Total population served: 609 residents
3000 workers

well NO.	Yearly Prod. volume *	In 4-mile radius	% system total	population
4	234,528	no	25%	155/763
5	not used	yes	0.0	0
6	37,227	no	4%	25/121
7	344,103	no	37%	227/1120
10	not used	yes	0.0	0
11	not used	yes	0.0	0
12	306,158	yes	33%	202/996
	922,016			202/996

* well production in thousands of gallons.

total population percentage served by wells within 4-miles of site.

workers : 996
residents : 202

Riverhead Water District

Total population served 22,500

well No	Yearly Prod volume	In 4-mile radius	% System total	population
1	73,706,000	no	8.3%	1880
2	not used	no	0.0%	0
3	132,238,000	no	15.0%	3372
4-1	67,126,000	no	7.6%	1712
4-2	153,323,000	no	17.4%	3910
5-1	373,672,000	no	42.4%	9530
5-2	not used	no	0.0%	0
7-1	2,181,000	yes	0.2%	56
7-2	80,017,000	yes	9.1%	2040
	882,263,000			2096

total population percentage served by wells within 4 mile radius of site

residents 2040 + 56 = 2096

Shorewood Water Company

Total population served 12000

well NO	Yearly Prod. Volume	In 4 mile radius	% System total	population
1	*	no		
2	*	no		
3	*	no		
4	not used	yes		
5	114,000,000	yes	23%	2763
6	*	no		
7	*	no		
	495,000,000			2763

* information not available
wells 4 & 5 are the only wells located within the 4 mile radius

total population served by wells within a 4-mile radius of site.

residents 2763

APPENDIX I

SOIL BACKGROUND CALCULATIONS

NWIRP, Bethpage, New York, Background Samples (Validated Data)
Samples collected in August 1991 in support of a Remedial Investigation
CLEAN contract, CTO 0003

	SB202	SB204	SB205	SB329	Mean	STD	Mean plus 1.645 times STD
Al	6350	9370	2900	10100	7,180	3,269	12,558
Sb	-	-	-	-	NC		<5.5
As	1.5	2.9	3	2.6	2.5	0.7	3.6
Ba	14.9	29.9	6.2	22.6	18	10	35
Be	<0.8	<0.84	<0.98	-	NC		<0.98
Cd	<0.99	<1.0	<1.2	<1.1	NC		<1.2
Ca	80.1	32	37.35	583	183	266	621
Cr	-	-	-	12.7	NC	-	13
Co	-	-	<5.6	<4.9	NC	-	<5.6
Cu	-	-	-	-	NC	-	<5.0
Fe	-	-	-	11400	NC	-	11,400
Pb	-	-	-	7.8	NC	-	7.8
Mg	1030	1560	522	1080	1,048	422	1,742
Mn	-	-	-	167	NC	-	167
Hg	0.05	0.055	0.14	0.055	0.08	0.04	0.15
Ni	<5.0	-	<6.2	<5.4	NC	-	<6.2
K	478	644	503	353	495	118	689
Se	<1.0	<1.1	<1.3	<0.56	NC	-	<1.3
Ag	<0.25	<0.26	<0.31	<0.2	NC	-	<0.31
Na	-	-	-	190	NC	-	190
V	-	-	-	17.9	NC	-	18
Zn	-	-	-	20	NC	-	20
CN	<2.1	<2.2	<2.6	<2.25	NC	-	<2.6

Mean = Arithmetic mean;
STD = Standard Deviation, with n-1 samples
Reported number is 1/2 detection limit; used for non-detects when at least one other reported result is positively detected.