

**ENGINEERING INVESTIGATIONS AT
INACTIVE HAZARDOUS WASTE SITES
IN THE STATE OF NEW YORK
PHASE II INVESTIGATIONS**

Penetrex Processing, Inc., Site
Village of Glenwood Landing, Nassau County
NYSDEC I.D. No. 130034

Supporting Documentation

Prepared for:

**DIVISION OF HAZARDOUS WASTE REMEDIATION
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
50 Wolf Road
Albany, New York 12233-7010

LMSE-93/0172&576/046

Prepared By:

LAWLER, MATUSKY & SKELLY ENGINEERS
Environmental Science & Engineering Consultants
One Blue Hill Plaza
Pearl River, New York 10965

March 1993

SUPPORTING DOCUMENTATION

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- IV SAMPLING REPORT

PART I
REFERENCE DOCUMENTATION

REFERENCE 1

130034

**PHASE II INVESTIGATION
PENETREX SITE
GLENWOOD LANDING, NEW YORK**

Shea & Gould

New York, New York

August 1989



BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS

REFERENCE 2

SUPPLEMENTAL
PHASE II INVESTIGATION
PENETREX SITE
GLENWOOD LANDING, NEW YORK

Shea & Gould

New York, New York

February 1990



BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE

ENGINEERS & GEOSCIENTISTS

REFERENCE 3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING

NEW YORK, NEW YORK 10278

JUL - 1 1992

Mr. Edward A. Maikish, P.E.
Project Manager
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, New York 10965

Re: Freedom of Information Request No. (2)RIN-0849-92
Dated: March 11, 1992
New York State Inactive Hazardous Waste Disposal Sites

Dear Mr. Maikish:

Your request for information has been referred to this branch for a response. You may also receive additional information from other branches within this Regional Office. The Permits Administration Branch maintains manual and computerized files for the RCRA program (active hazardous waste sites), the NPDES program (surface water discharges), the PSD program (air quality), and a computerized database containing air compliance data. We have reviewed one or more of these sources as appropriate to respond to your request.

Enclosed are copies and/or computer listings of the available information.

Please include the above referenced request number on any inquiries regarding this response. Any questions may be addressed to Christine Fazio of my office at (212) 264-4333.

Sincerely yours,

Joseph A. Cloe for
Laura J. Livingston, Chief
Permits Administration Branch

Enclosures

PROGRAM ID: --- U. S. ENVIRONMENTAL PROTECTION AGENCY ---PAGE:
HIDP1 01 * * * * * PCFIC V.0. .2 * * * * * DATE:06/29/77
(DATABASE ID: 120P.NY)
HID BUMP REPORT -- HANDLER 1 FILE
ALL DATA

HANDLER ID: NY0281079064 NAME: FORMER PREMISES OF PENETREX, INC.
PREVIOUS ID: SECONDARY ID:
EXISTENCE DATE:

LOCATION ADDRESS MAILING ADDRESS

ONE SHORE ROAD ONE SHORE ROAD

GLENWOOD LANDING GLENWOOD LANDING
NY 11547 N.Y. 11547

COUNTY NAME: NASSAU COUNTY CODE: NY059
CONGRESSIONAL DISTRICT: LEGISLATIVE DISTRICT: NY05C
LAND TYPE: RIVER BASIN CODE:

HANDLER ACCESSIBILITY INDICATOR:
LATITUDE: LONGITUDE: LAT/LONG SOURCE:

REGION: 02 SEND TO MERGE: Y
OFF SITE: NON-NOTIFIER:

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

GROUNDWATER MONITOR: GROUNDWATER STATION DATE:
DTR TSD REG VIOL FLAG: FORMAL ENFORCEMENT:
GEN REG VIOL FLAG: TRAIL REG VIOL FLAG:
SDR REG VIOL FLAG: C/PC REG VIOL FLAG:
FIN REG VIOL FLAG: GEN LANDFILL VIOL FLAG:
TSD LANDFILL REG VIOL FLAG: CORRECT ACTION VIOL FLAG:
ACKNOWLEDGEMENT DATE: ACKNOWLEDGEMENT FLAG:

(DATABASE ID: K202.NY8

HID DUMP REPORT -- HANDLER 2 FILE
CONTACT SEGMENT

HANDLER ID: NY0981072064 NAME: FORMER PREMISES OF BENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

CONTACT TYPE: N ADDRESS TYPE: L

FIRST NAME: SAMUEL LAST NAME: SAMBERGER
TITLE: LANDLORD PHONE: 2125551212
STREET1: ONE SHORE ROAD STREET2:
CITY: GLENWOOD LANDING STATE: NY ZIP: 11547

PROGRAM ID: --- U. S. ENVIRONMENTAL PROTECTION AGENCY --PAGE: 1
HIR#0003 *** RCRIIS V.3.0.2 *** DATE:06/29/92

(DATABASE ID: K203.NYR

HIS DUMP REPORT -- HANDLER 2 FILE
OWNER/OPERATOR SEGMENT

HANDLER ID: NYD981079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SEQUENCE NO: 1

INDICATOR: CU OWNER TYPE: P CHANGE DATE:
NAME: OWNERNAME
PHONE: 2125551212
STREET1: NOT REQUIRED
CITY: NOT REQUIRED STATE: NY ZIP: 99999

PROGRAM ID: --- U. S. ENVIRONMENTAL PROTECTION AGENCY --PAGE: 1
HIRPDI: 64 * * * RCRI8 V.B.C.2 * * * DATE: 06/29/92

(DATABASE ID: K2DB.NYR

MID DUMP REPORT -- HANDLER 2 FILE
SIC CODE SEGMENT

HANDLER ID: NYD981079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SEQ	PRIMARY	SIC	
NO	IND	CODE	SOURCE
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0		0000	

PROGRAM ID: --- U. S. ENVIRONMENTAL PROTECTION AGENCY ---

PAGE:

HIRP0006 * * * RCRI 7.3.0.2 * * *
(DATABASE ID: K200.NYR)

DATE: 06/27/

HIS DUMP REPORT -- HANDLER 2 FILE
SOURCE/RECEIPT DATE/COMMENTS/ACTIVITY SEGMENTS

HANDLER ID: NY09R1079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SOURCE: N

RECEIPT DATE:

850528

-----ACTIVITY INDICATORS-----

GEN TRANS TSD DBL UIC RECY HWF MKRT HWF OTH HWF
TO BURNER TO BURNER MARKTER BURNER

1

-----OFF SPEC----- SPEC
MRKT TO OTHER USED OIL UTILITY INDUST INDUST
BURNER MKRTR BURNER BURNER BOILER BOILER FURNACE

-----RCRA REG STATUS----- '-----RCRA REG STATUS DESC-----

GEN TRANS TSD DBL GEN TRANS TSD DBL

2

-----STATE REG STATUS----- '-----STATE REG STATUS DESC-----

GEN TRANS TSD DBL GENERATOR TRANSPORTER

TSD BURNER/LENDER

-----TRANSPORTATION METHOD-----

AIR RAIL HIGHWAY WATER OTHER

PROGRAM ID: --- U. S. ENVIRONMENTAL PROTECTION AGENCY --PAGE: 1
HIRP0007 * * * RCRI3 V.3.0.2 * * * DATE: 06/29

(DATABASE ID: R2DB.NYR

HID DUMP REPORT -- HANDLER 2 FILE
WASTE SEGMENTS

HANDLER ID: NY0081079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SOURCE OF INFORMATION: W

WASTE STRNG	DATE	DESC	AMT	UOM	AMT IN TONS
----------------	------	------	-----	-----	-------------

1	05/28/85				
---	----------	--	--	--	--

WASTE CHAR DESC	WASTE CHAR AMT	WASTE CHAR UOM
-----------------	----------------	----------------

WASTE CODES:

F001

PROGRAM ID:
HIRP0007

--- U. S. ENVIRONMENTAL PROTECTION AGENCY ---

* * * RCRI V.3.C.2 * * *

DATE: 06/29/92

(DATABASE ID: K2DB.NYR

MID DUMP REPORT -- HANDLER 2 FILE
WASTE SEGMENTS

HANDLER ID: NYD981079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SOURCE OF INFORMATION: N

WASTE STRNG	DATE	DESC	AMT	UOM	AMT IN TONS
-----	-----	-----	---	---	-----

1	05/28/85				
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WASTE CHAR DESC	WASTE CHAR AMT	WASTE CHAR UOM
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WASTE CODES:

F001

PROGRAM ID:
HIRP0006

--- U. S. ENVIRONMENTAL PROTECTION AGENCY --- PAGE: 1

* * * RCRIS V.3.0.2 * * *
(DATABASE ID: K208.NYS

DATE: 06/29/9

HID DUMP REPORT -- HANDLER 2 FILE
PROCESS SEGMENTS

HANDLER ID: NYD981079064 NAME: FORMER PREMISES OF PENETREX, INC.
LOCATION CITY: GLENWOOD LANDING COUNTY: NASSAU

TRANSPORTER UNIVERSE: FULLY REGULATED UNIVERSE: X
LAND DISPOSAL UNIVERSE: INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE: SMALL GENERATOR UNIVERSE:

SOURCE OF INFORMATION: N

PROCESS CODE: PROCESS SEQ: COMMERCIAL AVAILABILITY:

AMT TYP STATUS UOM PROCESS AMT NO. UNITS DATE

UNIT TYPE #UNITS WASTE CAPACITY UOM REG STATUS

PROGRAM ID:
HIRP0009

--- U. S. ENVIRONMENTAL PROTECTION AGENCY ---PAGE:

* * * RCRI5 V.3.0.2 * * *

DAT:06/

(DATABASE ID: K2DB.NYR

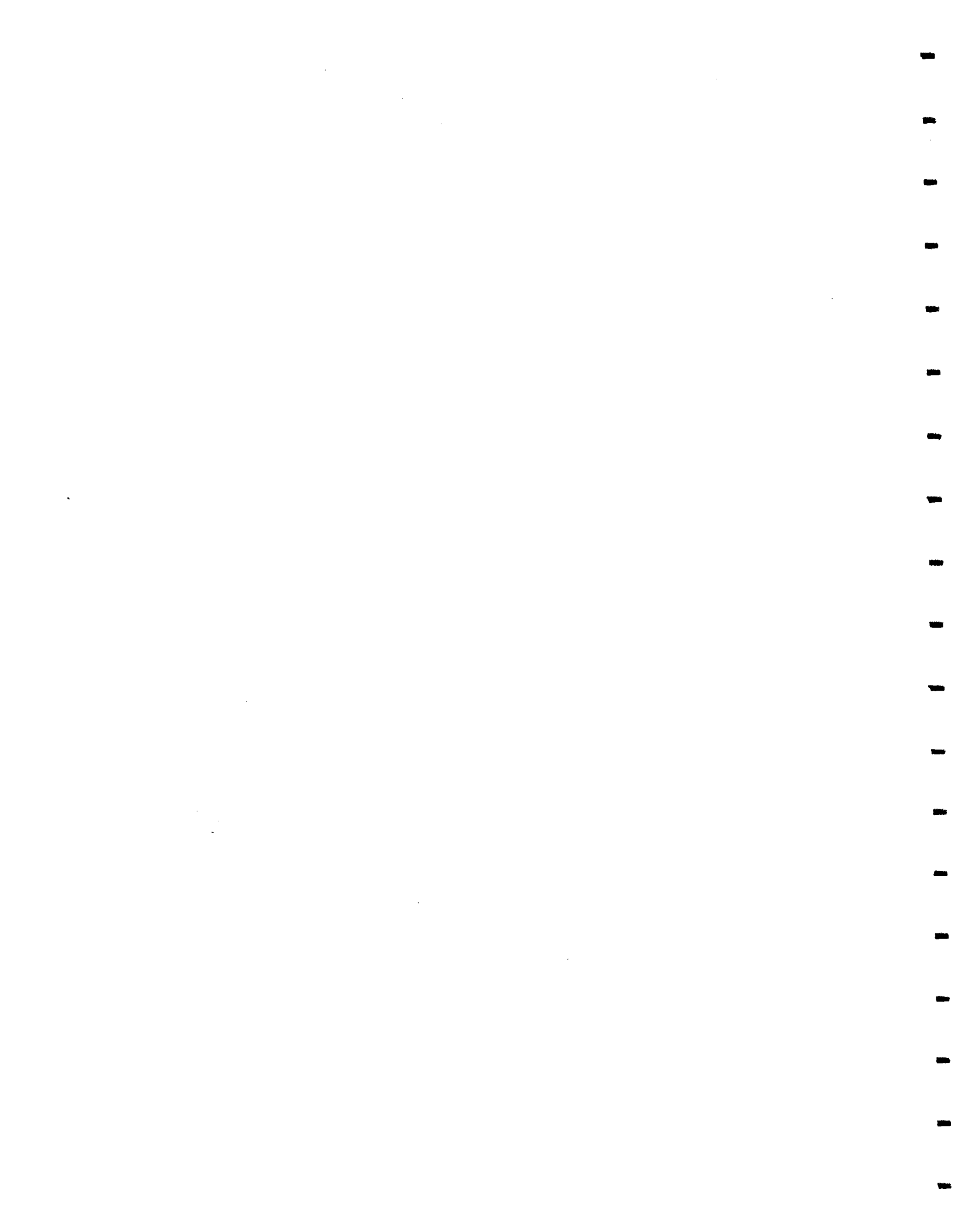
HID DUMPS REPORTS -- HANDLER1 & HANDLER2 FILE.
ALL DATA

TOTAL OF UNIVERSES SELECTED

TRANSPORTER UNIVERSE:	0	FULLY REGULATED UNIVERSE:
LAND DISPOSAL UNIVERSE:	0	INCINERATOR UNIVERSE:
STORAGE/TREATMENT UNIVERSE:	0	SMALL GENERATOR UNIVERSE:

NUMBER OF HANDLERS SELECTED IN REPORT 1
END OF HIRP0009 REPORT

REFERENCE 5



official
compilation
**CODES
RULES**
and
REGULATIONS



of
the
STATE OF NEW YORK

6 CONSERVATION (A-4)

PART 703

SURFACE WATER AND GROUNDWATER QUALITY STANDARDS AND GROUNDWATER EFFLUENT STANDARDS

(Statutory authority: Environmental Conservation Law, §§ 3-0301[2][m], 15-0313, 17-0301, 17-0303, 17-0809)

<p>Sec. 703.1 Substance form 703.2 Narrative water quality standards 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity 703.4 Water quality standards for coliforms</p>	<p>Sec. 703.5 Water quality standards for taste-, color- and odor-producing, toxic and other deleterious substances 7703.6 Groundwater effluent standards and limitations for discharges to class GA waters 703.7 Severability</p>
--	--

Historical Note

Part (§§ 703.1-703.4) filed March 20, 1967; repealed, new filed April 28, 1972; repealed, new (§§ 703.1-703.11) filed Aug. 2, 1978; repealed, new (§§ 703.1-703.7) filed Aug. 2, 1991 eff. 30 days after filing.

Section 703.1 Substance form. A water quality standard, guidance value or groundwater effluent standard includes all (total) forms of the substance, unless indicated otherwise. Where a standard or guidance value is for a specific form of the substance, water quality-based effluent limitations for SPDES permits may include other forms of the substance to account for changes in the substance that occur in the receiving water.

Historical Note

Sec. filed March 20, 1967; repealed, new filed: April 28, 1972; Aug. 2, 1978; Aug. 2, 1991 eff. 30 days after filing.

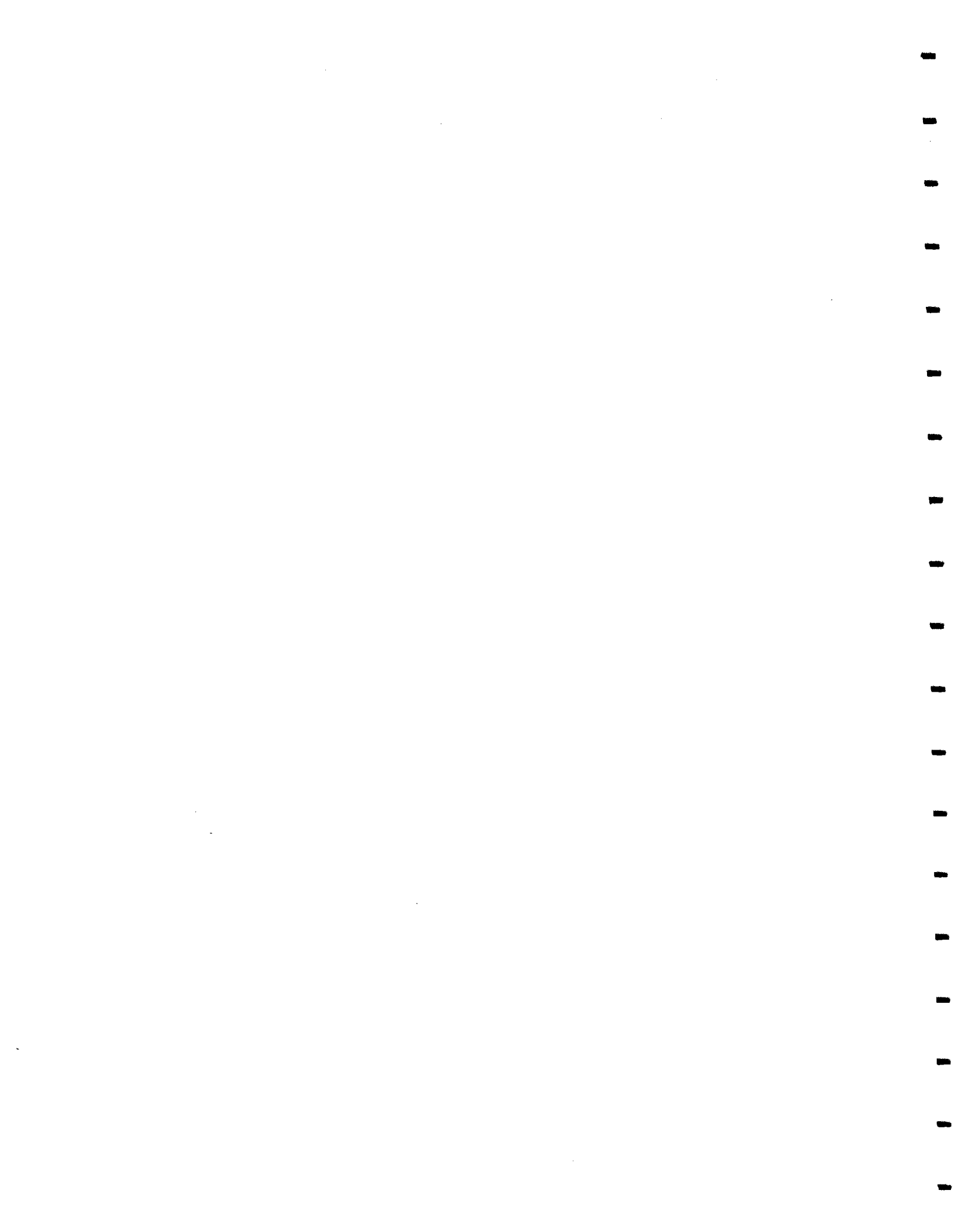
703.2 Narrative water quality standards. Narrative standards for specific water classes are provided in this section. Narrative standards for classes N and AA-Special are provided in Part 701 of this Title.

<i>Parameter</i>	<i>Classes</i>	<i>Standard</i>
Taste-, color-, and odor-producing, toxic and other deleterious substances	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special, GA, GSA, GSB	None in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages.
Turbidity	AA, A, B, C, D, SA, SB, SC, I, SD	No increase that will cause a substantial visible contrast to natural conditions.
Suspended, colloidal and settleable solids	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.
Oil and floating substances	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.
Garbage, cinders, ashes, oils, sludge and other refuse	SA, SB, SC, I, SD	None in any amounts.
Phosphorus and nitrogen	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.

Article 3

ANNOTATIONS
to Notes & Administrative Notes

REFERENCE 6





**NEW JERSEY
ADMINISTRATIVE
CODE**

**SUPPLEMENTED BY THE
NEW JERSEY REGISTER**

CHAPTER 26B
ENVIRONMENTAL CLEANUP RESPONSIBILITY
ACT RULES

Authority

N.J.S.A. 13:1K-6 et seq., specifically N.J.S.A. 13:1K-10.

Source and Effective Date

R.1987 d.528, effective December 21, 1987.
See: 19 N.J.R. 681(a), 19 N.J.R. 2435(a).

Executive Order 66(1978) Expiration Date

Pursuant to the requirements and criteria of Executive Order 66(1978), this chapter expires on December 21, 1992 (operative January 1, 1988).

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7:26B-1.11	Forms
7:26B-1.12	Right of entry and inspection
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7:26B-3.5	Department inspection and records review

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SUBMITTAL OF RESULTS FROM THE
SAMPLING PLAN**

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7:26B-4.2	Sampling plan implementation
7:26B-4.3	Submission of sampling results

REFERENCE 10



THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS

James Dragun, Ph.D.



Hazardous Materials Control Research Institute
Silver Spring, Maryland

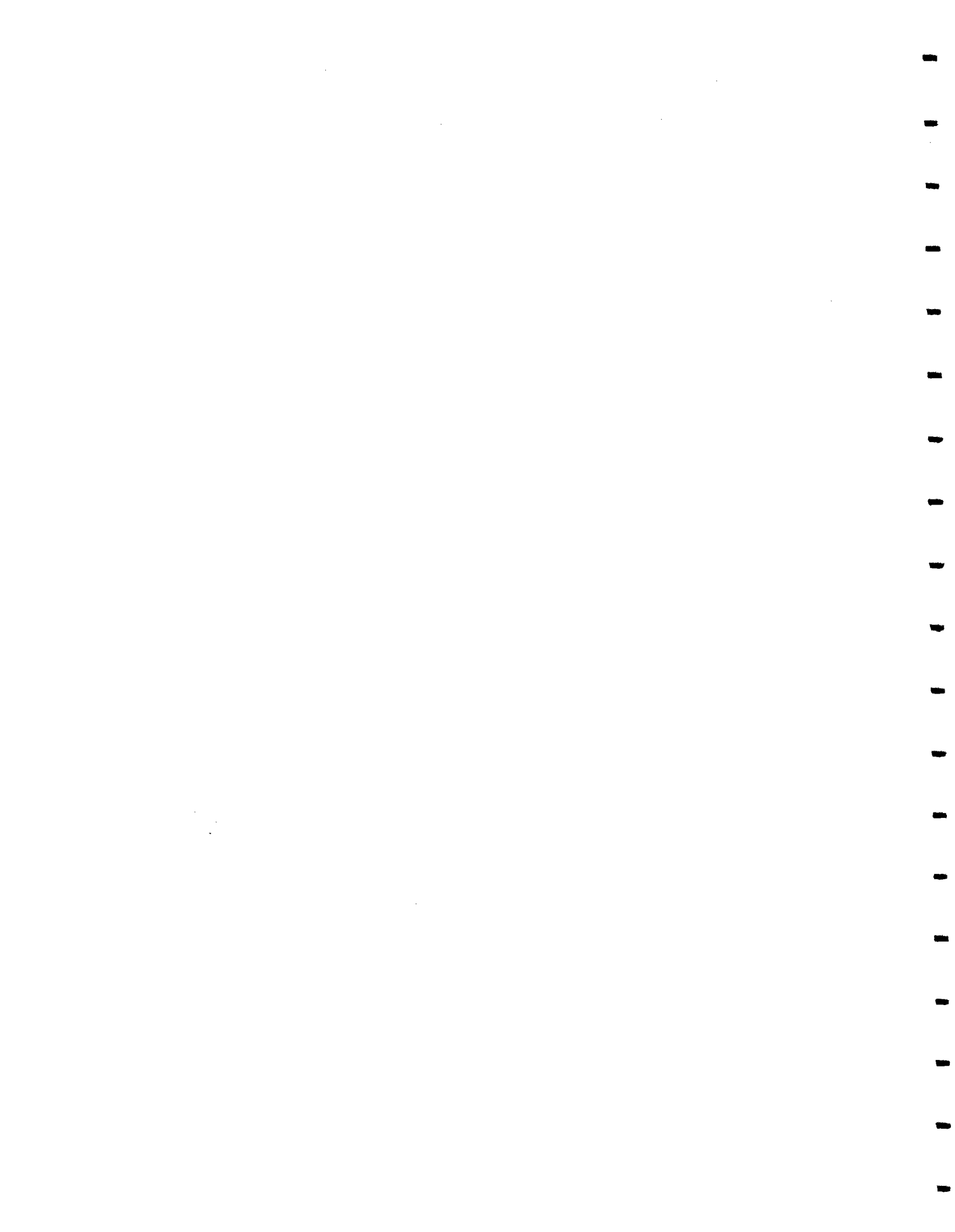
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Printed in the United States of America.

Published by The Hazardous Materials Control Research Institute
9300 Columbia Boulevard
Silver Spring, Maryland 20910

REFERENCE 11



1561 (11)

GEOHYDROLOGY OF THE LLOYD AQUIFER,

LONG ISLAND, NEW YORK

by Murray Garber

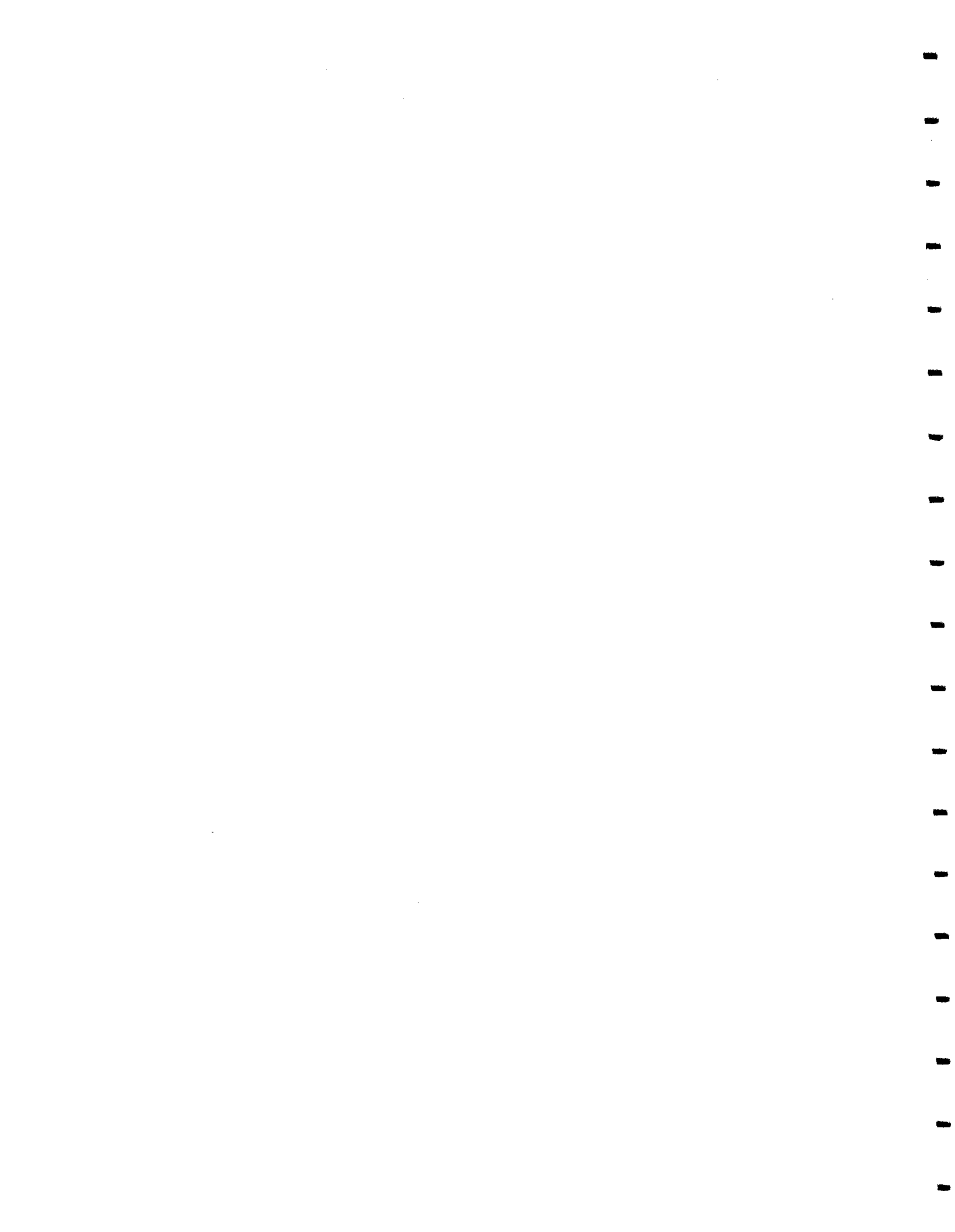
U.S. GEOLOGICAL SURVEY

Water-Resources Investigations
Report 85-4159

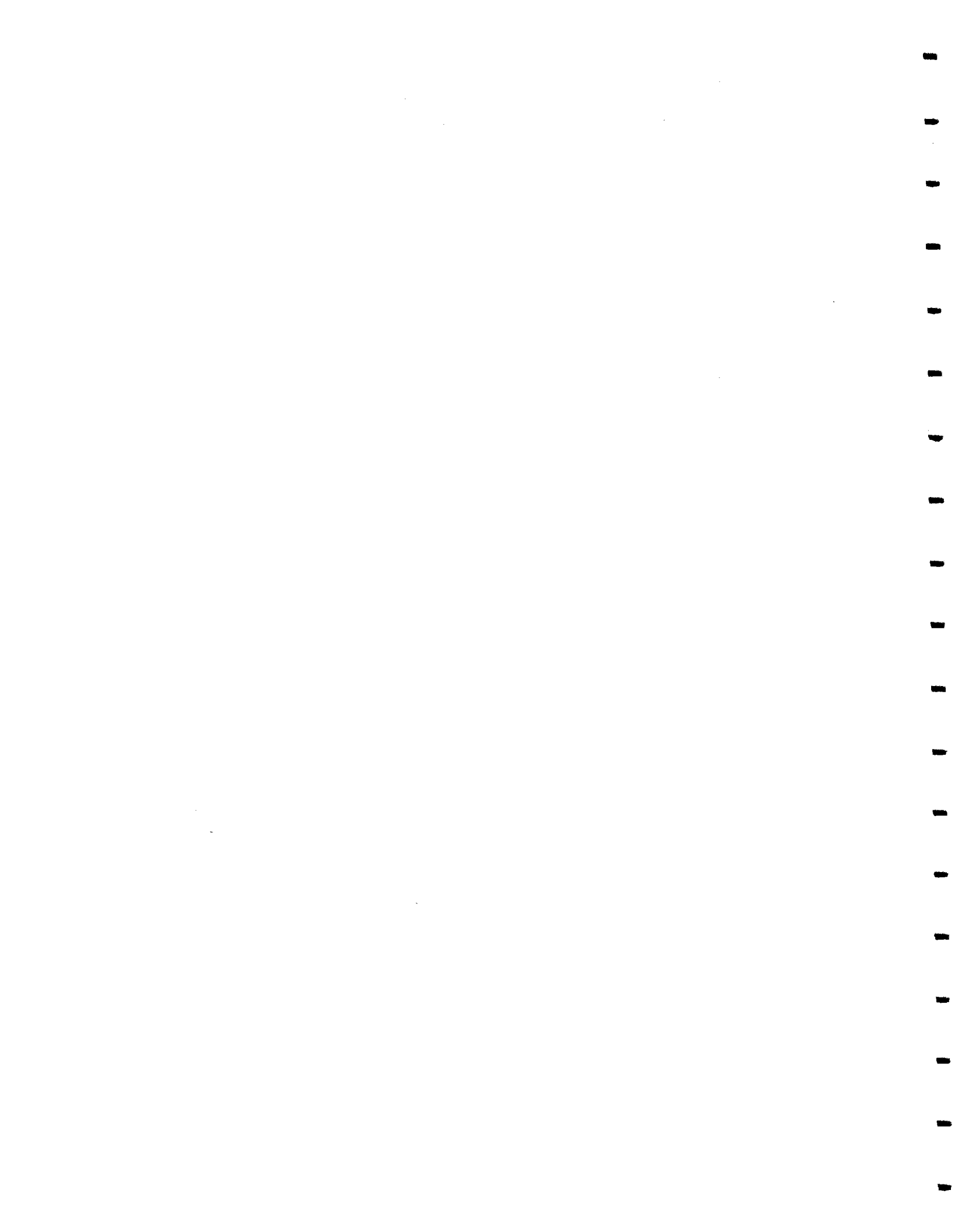


Syosset, New York

1986



REFERENCE 12



COSULICH & QUIRK
50 CHURCH STREET
NEW YORK 7, N. Y.

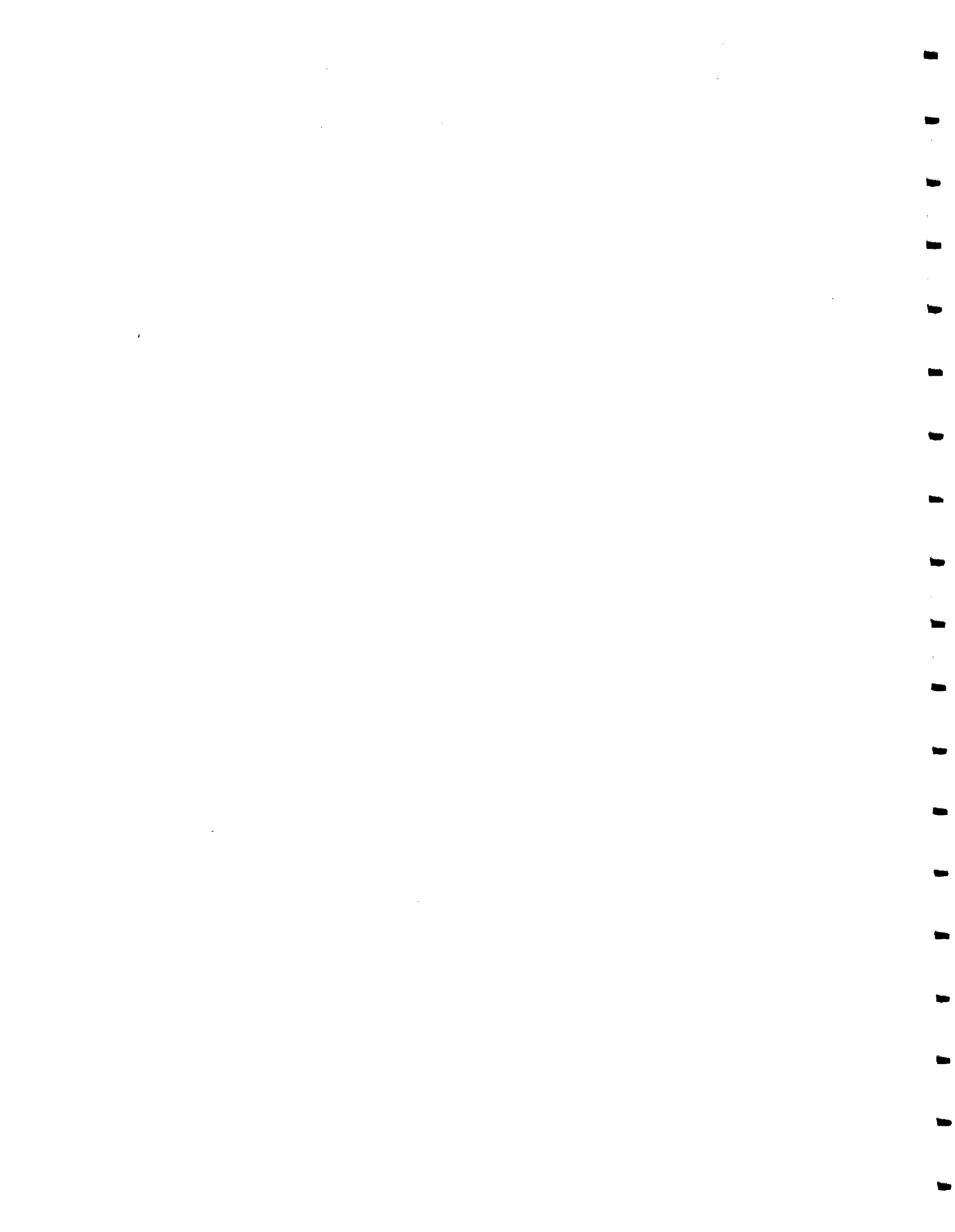
Hydrology of the Babylon-Islip Area Suffolk County Long Island, New York

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1768

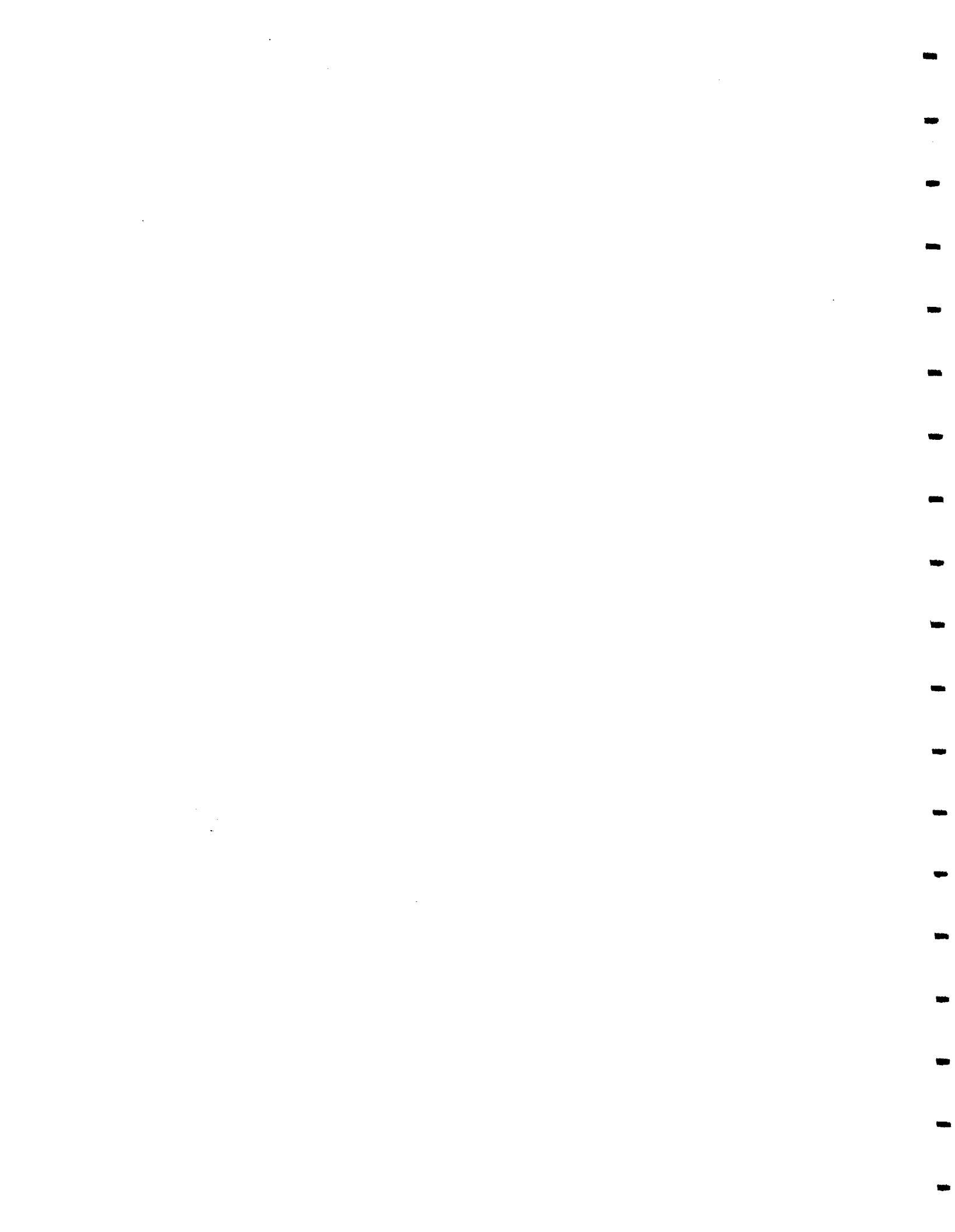
*Prepared in cooperation with the Suffolk
County Board of Supervisors, Suffolk
County Water Authority, and the New
York State Water Resources Commission*



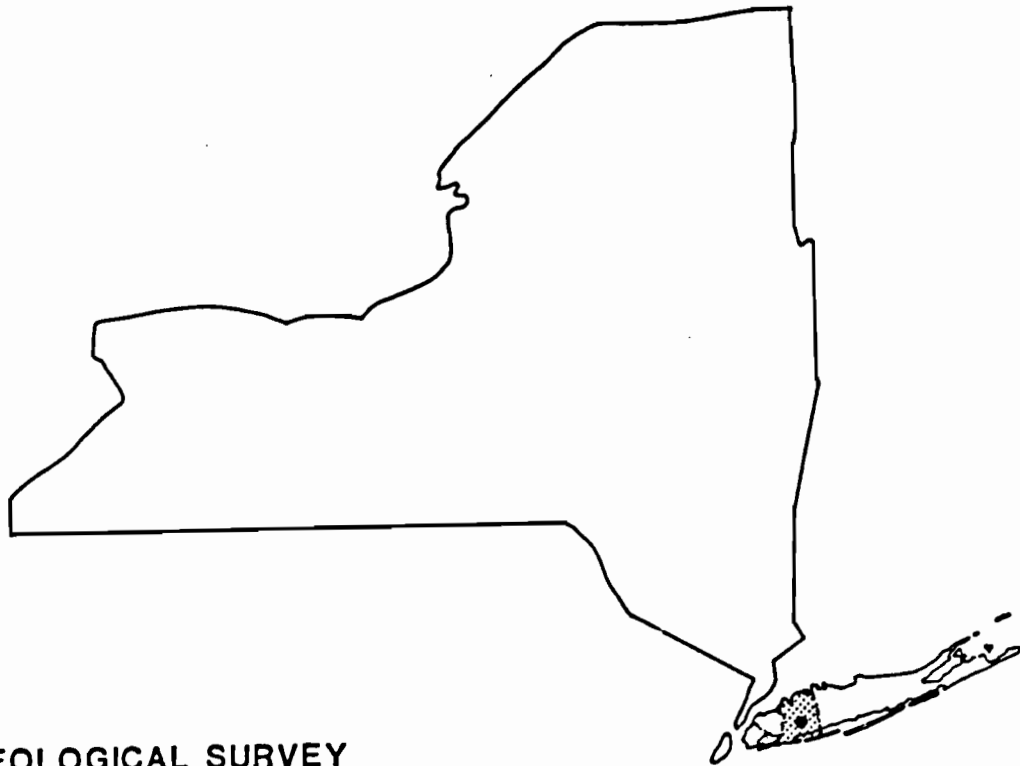
S8
5
4



REFERENCE 13



Estimation of Hydraulic Characteristics of the Upper Glacial and Magothy Aquifers at East Meadow, New York, by Use of Aquifer Tests



U.S. GEOLOGICAL SURVEY
Water-Resources Investigations
Report 87-4211

Prepared in cooperation with the
NASSAU COUNTY DEPARTMENT
OF PUBLIC WORKS



REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22161

**ON OF HYDRAULIC CHARACTERISTICS OF THE UPPER GLACIAL AND MAGOTHY
AT EAST MEADOW, NEW YORK, BY USE OF AQUIFER TESTS**

R. Prince and Brian J. Schneider

LOGICAL SURVEY

sources Investigations Report 87-4211

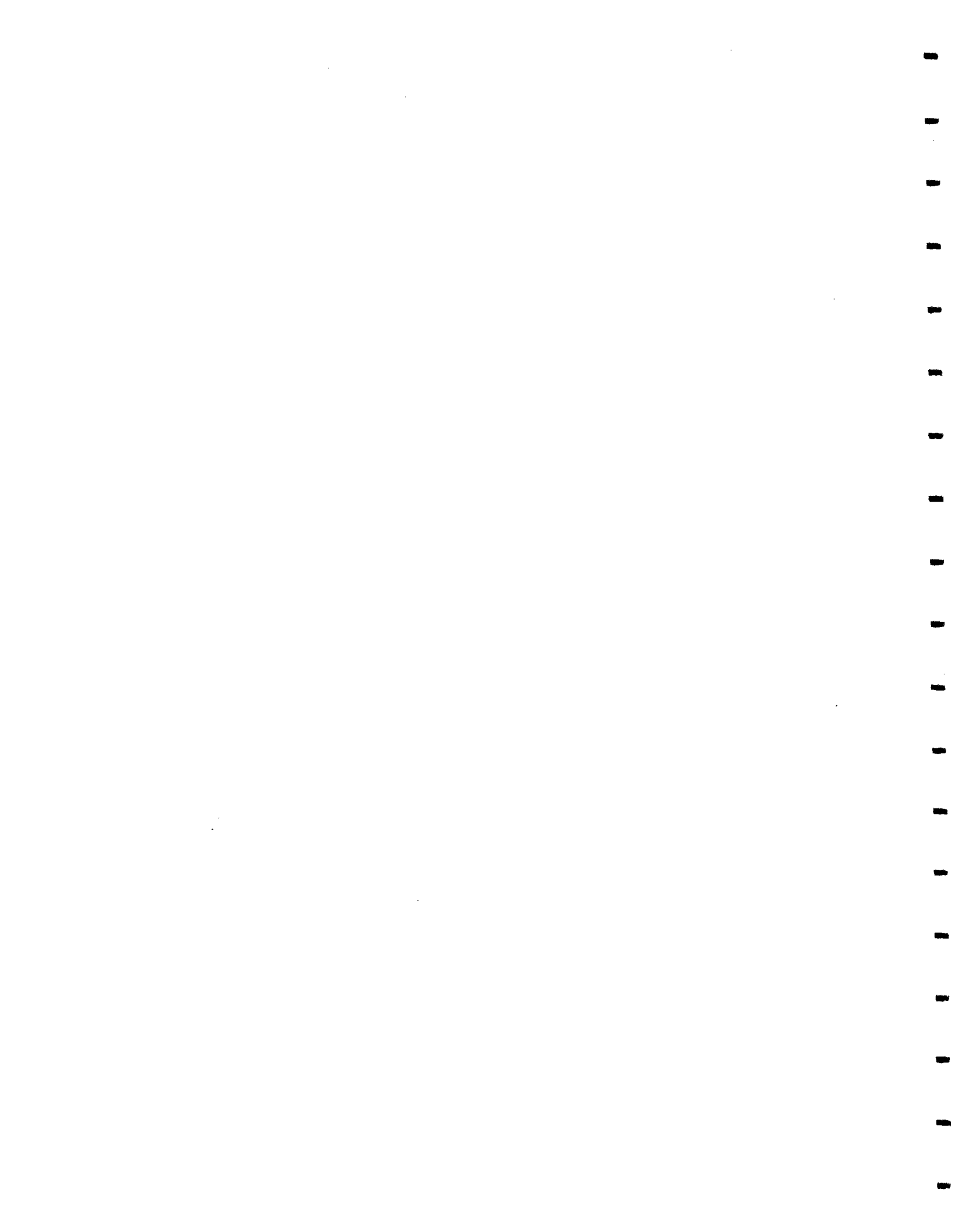
red in cooperation with the
U COUNTY DEPARTMENT OF PUBLIC WORKS



Syosset, New York

1989

REFERENCE 14



11
GW-11

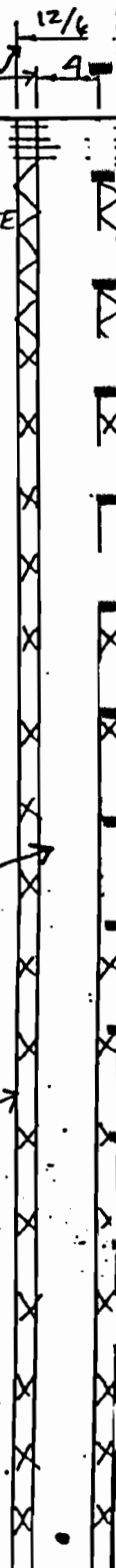
PAULUS SOKOLOWSKI & SARTOR GEOTECHNICAL CONSULTANTS				WELL LOG				WELL No. GW-6	
PROJECT GLENWOOD LANDING POWER STATION							SHT. NO. 1 OF 1		
CLIENT LILCO WELL MONITORING INSTALLATION							PROJ. NO. 0260-0014-24		
CONTRACTOR MARINE POLLUTION CONTROL							ELEVATION		
GROUND WATER				Boring	CAS.	SAMP.	CORE	TUBE	DATUM
DATE	TIME	DEPTH	CASING	TYPE		N			DATE START 12-3-87
12-3-87	13:05	12'	10'	DIA.		O			DATE FINISH 12-3-87
				WT.		N			DRILLER T. MAYER
				FALL		E			PS&S REP. R.W.G

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	REMARKS	WELL FLUSH
1					BLACK TO DARK BROWN SILTY SAND W/ANGULAR GRAVEL + COBBLES (SM)	VISUAL OBSERVATION BASED ON AUGER CUTTINGS	0" → 12/6 WELL FLUSH 0" → 4"
2							
3							
4							
5					TAN BROWN GRAVELLY SAND, LITTLE SILT W/ ROUNDED COBBLES (SP)	ASSORTED GRAVEL & PEBBLES	5' OF 4" SCH 40 PVC RISER
6							
7							GRAVEL PACK
8							
9							
10					TAN BROWN SILTY SAND W/ANGULAR PEBBLES (SM)	STRONG ODOR COAL + FLY ASH	
11							
12						MOIST CUTTINGS	
13							
14					BEIGE VERY FINE SAND W/ SILT.	COHESIVE ODOR	13' OF 4" 20 SLOT SCH 40 PVC SCREEN
15					DARK BROWN SILTY SAND (SM)		
16							
17							NATURAL SAND PACK
18					Do S3		
19							
20							
21							
22							
23					C.D. @ 22.0'		

UPGRADIENT WELL

PAULUS SOKOLOWSKI & SARTOR GEOTECHNICAL CONSULTANTS		WELL LOG			WELL No. GW-8 GW-1			
PROJECT GLENWOOD LANDING POWER STATION					SHT. NO. 1 OF 3			
CLIENT LILCO WELL MONITORING INSTALLATION					PROJ. NO. 0260-0014-24			
CONTRACTOR MARINE POLLUTION CONTROL					ELEVATION			
GROUND WATER			Boring	CAS.	SAMP.	CORE	TUDE	DATUM
DATE	TIME	DEPTH	CASING	TYPE	N			DATE, START 1-7-88
1-7-88	11:30	60'	65'	DIA.	O			DATE FINISH 1-7-88
				WT.	N			DRILLER J. McGill
				FALL	E			PS&S REP. R.W.G.

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	REMARKS	WELL FLUSH
1					DARK BROWN MEDIUM SAND W/ LITTLE SILT QUARTZ PEBBLES + COBBLES (SP)	VISUAL OBSERVATIONS BASED ON AUGER CUTTINGS	CEMENT COLLAR
2							2 nd BENTONITE SEAL
3							
4							
5					DARK BROWN MEDIUM SAND W/ LITTLE SILT, QUARTZ PEBBLES + COBBLES (SP)		
6							
7							
8							
9							
10							
11							50' OF 4" SCH 40 PVC RISER
12							
13							
14					DARK BROWN MEDIUM SAND W/ GRAVEL, QUARTZ PEBBLES AND COBBLES (SP)		
15							
16							NATURAL SAND PACK
17							
18							
19							
20					DARK BROWN MEDIUM SAND W/ GRAVEL, QUARTZ PEBBLES + COBBLES (SP)		
21							
22							
23							

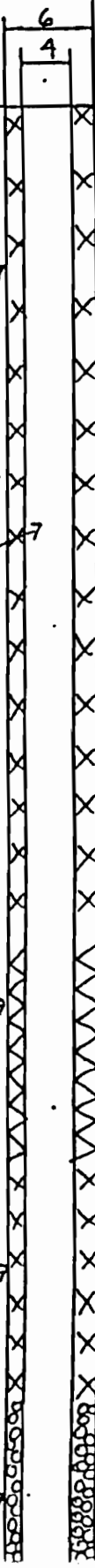


GW-12

PAULUS, SOKOLOWSKI AND SARTOR CONSULTING ENGINEERS MONITORING WELL LOG WELL No. ~~GW-8~~

PROJECT GLENWOOD LANDING POWER STATION SHT. NO. 2 OF 3
 CLIENT LILCO PROJ. NO. 0260-0014-24

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOLS	STRATIGRAPHY	REMARKS	WELL
24							
25					BROWN MEDIUM SAND		
26					w/ LITTLE GRAVEL + QUARTZ PEBBLES (sp)		NATURAL SAND PACK →
27							
28							
29						VISUAL OBSERVATION BASED ON AUGER CUTTINGS	
30					BROWN MEDIUM SAND		
31					w/ LITTLE GRAVEL + QUARTZ PEBBLES (sp)		PVC RISER →
32							
33							
34							
35					BROWN MEDIUM SAND		
36					w/ LITTLE GRAVEL + QUARTZ PEBBLE (sp)		
37							
38							
39							
40							1ST BENTONITE SEAL →
41							
42							
43							
44							NATURAL SAND PACK →
45					TAN BROWN MEDIUM SAND		
46					w/ GRAVEL + QUARTZ PEBBLES (sp)		
47							
48							GRAVEL PACK →
49							



GW-12

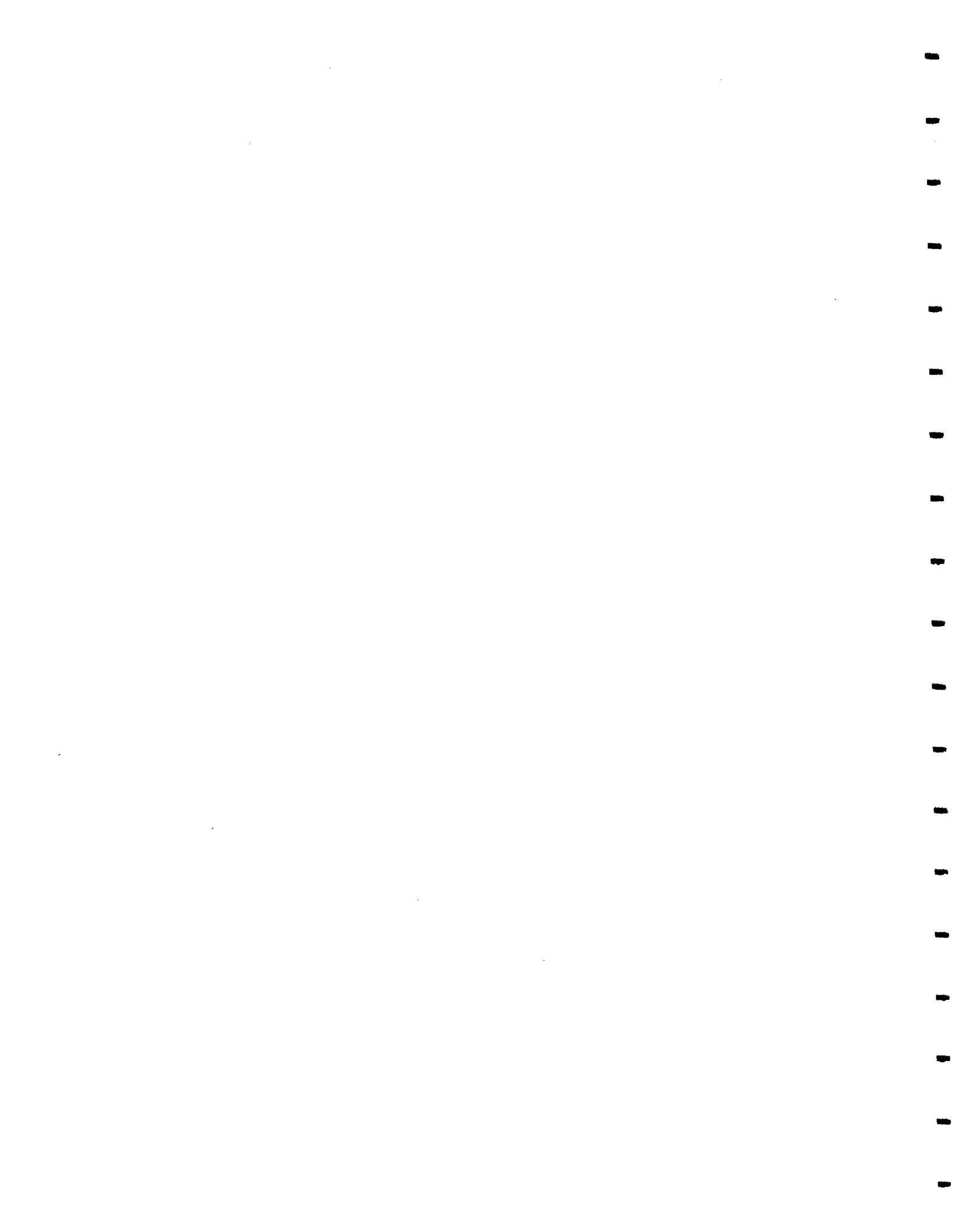
PAULUS, SOKOLOWSKI AND SARTON CONSULTING ENGINEERS	MONITORING WELL LOG	WELL No. GW-8
PROJECT GLENWOOD LANDING POWER STATION		SHT. NO. 3 OF 3
CLIENT LILCO		PROJ. NO. 0260-0014-24

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	STRATIGRAPHY	REMARKS	WELL
50					TAN BROWN MEDIUM SAND W/ GRAVEL + QUARTZ PEBBLES (SP)	VISUAL OBSERVATIONS BASED ON AUGER CUTTINGS	<p>GRAVEL PACK 2</p>
51							
52							
53							
54							
55					TAN BROWN MEDIUM SAND W/ QUART		
56							
57							
58							
59							
60					TAN BROWN MEDIUM SAND, LITTLE QUARTZ PEBBLES (SP)	<p>20' OF 4" 20 SLOT SCH 40 PVC SCREEN</p> <p>CAP PLUG</p>	
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							

C.D. @ 72.0'

PART II

SUBCONTRACTOR OR SUBCONSULTANT REPORTS



PART II.i
DATA VALIDATION REPORT



DATA VALIDATION REPORT

This section consists of the report from Data Validation Services concerning the analyses conducted on the samples collected from the Penetrex Processing, Inc., site (NYSDEC I.D. No. 130034). Data Validation Services determined that all the target compound list (TCL) volatile organic compound (VOC) and target analyte list (TAL) metal analyses performed on the groundwater samples collected from the site were in compliance with 1991 NYSDEC Analytical Services Protocol (ASP). LMS conferred with the validator and concluded that the data are usable without qualification.



Data Validation Services

Cobble Creek Road P. O. Box 208

North Creek, N. Y. 12853

Phone 518-251-4429

RECEIVED

SEP 16 1992

LMS ENGINEERS

TO: Lawler, Matusky & Skelly Engineers

FROM: Judy Harry, Data Validation Services *Judy Harry*

DATE: 9-15-92

RE: Validation report for Penetrex Site
LMS Project No. 576-046 NYSDEC ID No. 130034
Aquatec, Inc. Case No. 31972 SDG No. 161806

Review has been completed for the Penetrex Site data packaged submitted by Aquatec, Inc. Six groundwater samples were analysed for volatile compounds and total and dissolved metals, according to the most recent NYSDEC ASP CLP methodologies. Matrix spikes/duplicates, and field and trip blanks were processed.

In summary, the samples were processed in compliance with the protocol, with the exception that specific internal chain-of-custody documentation was not available for this project. The sample handling and preparation sections of the data package are very complete with all associated processing documentation. Technician/analyst/reviewer signatures or initials are present for all levels of handling.

Recommended qualification of sample reported results is as follows:

1. The nickel and zinc duplicate correlation in the total metals analysis of sample PXMW-2 was not good, with the following values:

<u>Element</u>	<u>Sample Value</u>	<u>Duplicate Value</u>	<u>Control Limit</u>
Nickel	140 ug/L	13.6 ug/L	+ - 39.7 ug/L
Zinc	241	49.4	+ - 19.9

Consequently, the reported values for zinc and nickel in the unfiltered samples should be considered estimated. Duplicate correlation was good in the filtered samples.

Other quality control results and concerns not affecting sample reported results are as follows:

VOLATILE ANALYSIS

Holding times, surrogate recoveries, method blank, and instrumental tune criteria were met for sample processing. Matrix spike blank and sample (PXMW-2) matrix spike recoveries were within required/recommended limits. All instrument initial and continuing calibration responses were compliant.

Sample reported results are substantiated by the raw data.

METALS

All criteria required by the protocol were reviewed and found to be compliant/ acceptable, unless specifically noted elsewhere in this text.

Matrix spike and duplicate analyses were conducted on both the filtered and unfiltered versions of sample PXMW-2. All spike recoveries and duplicate correlation values determined from the filtered sample were acceptable. The matrix spike recoveries for aluminum, nickel, and zinc in the unfiltered version of PXMW-2 were below the recommended limit of 75%, at 65, 72, and 60%, respectively. The duplicate correlation outlying values for nickel and zinc in the unfiltered version are discussed earlier. Protocol requires uniform flagging of all samples of like matrix within a given SDG, and all filtered and unfiltered sample report forms are appropriately flagged with the laboratory qualifiers for spike/duplicate outliers. However, it should be noted that the matrix effects are likely a function of the suspended particulate in the samples.

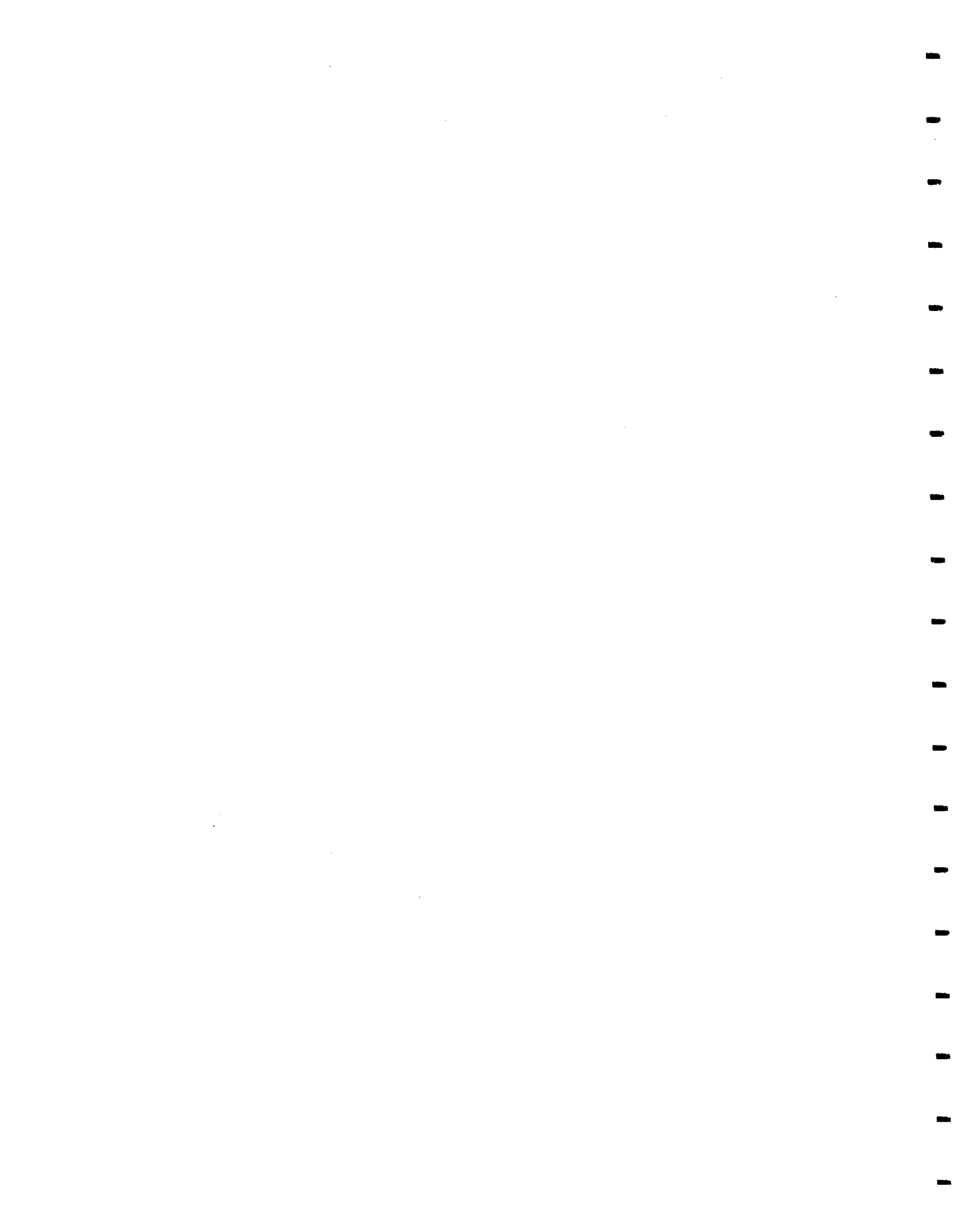
All sample reported results are substantiated by the raw data.

COMPLIANCY CHART

Project: Penetrex Site
 LMS Project No. 576-046 NYSDEC ID No. 130034
 SDG Nos: Aquatec Case No. 31972 SDG 161806
 Protocol: 1991 NYSDEC ASP

RecDate	Sample ID	Matrix	VOA	BNA	Pest/PCB	Tot Met	Filt Met	CN	Other	Noncompl
06-12-92	LCGW-11	Aqueous	OK	NR	NR	OK	OK	NR	NO	1
06-12-92	LCGW-12	Aqueous	OK	NR	NR	OK	OK	NR	NO	1
06-12-92	PXMW-1	Aqueous	OK	NR	NR	OK	NR	NR	NO	1
06-12-92	PXMW-2	Aqueous	OK	NR	NR	OK	OK	NR	NO	1
06-12-92	PXMW-3	Aqueous	OK	NR	NR	OK	OK	NR	NO	1
06-12-92	PXMW-5	Aqueous	OK	NR	NR	OK	OK	NR	NO	1
06-12-92	Fld Blk	Aqueous	OK	NR	NR	OK	NR	NR	NO	1
06-12-92	Trip Blk	Aqueous	OK	NR	NR	NR	NR	NR	NO	1

1. No internal chain-of-custody documentation is provided with this data package (NYSDEC ASP pgs. B-38 and F-2).



PART II.ii

ANALYTICAL DATA PACKAGE





aquatec INC.
An InChcape Company

CORPORATE OFFICES
55 SOUTH PARK DRIVE
COLCHESTER, VT 05446

LABORATORY LOCATIONS
55 SOUTH PARK DRIVE
COLCHESTER, VT 05446

75 GREEN MOUNTAIN DRIVE
SOUTH BURLINGTON, VT 05403

150 HERMAN MELVILLE BOULEVARD
NEW BEDFORD, MA 02740

August 13, 1992

Dr. William Ahlert
Lawler, Matusky and Skelly Engineers
One Blue Hill Plaza
Pearl River, NY 10965

Re: Aquatec Project 92039
ETR No.: 31972
Case: 31972; SDG 161806

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on the Penetrex site samples received from Lawler, Matusky and Skelly Engineers.

The samples were received intact by Aquatec on June 12, 1992.

Laboratory numbers were assigned to the field samples and associated laboratory quality control samples. They were designated as follows:

<u>LMS Sample ID</u>	<u>Aquatec Lab No.</u>	<u>Sample Matrix</u>
----------------------	------------------------	----------------------

Samples Received June 12, 1992
ETR No. 31972

Trip Blank	161806	Liquid
Field Blank	161807	Liquid
LCGW-11	161808	Liquid
LCGW-11F	161809	Filtrate
LCGW-12	161811	Liquid
LCGW-12F	161812	Filtrate
PXMW-1	161813	Liquid
PXMW-2	161814	Liquid
PXMW-2MS	161814MS	Liquid
PXMW-2MSD	161814MD	Liquid
PXMW-2REP	161814DP	Liquid
PXMW-2F	161815	Filtrate
PXMW2FMS	161815MS	Filtrate
PXMW-2FREP	161815DP	Filtrate
PXMW-3	161816	Liquid

000001

Dr. William Ahlert
August 13 , 1992
Page 2

<u>LMS Sample ID</u>	<u>Aquatec Lab No.</u>	<u>Sample Matrix</u>
Samples Received June 12, 1992 ETR No. 31972 (continued)		
PXMW-3F	161817	Filtrate
PXMW-5	161818	Liquid
PXMW-5F	161819	Filtrate
MSB	161820	Liquid
Holding Blank	161821	Liquid


In order to accommodate reporting forms, the following sample identification has been truncated: Field Blank to FBlank.

Please note that client identifications have been affixed with an "F" for samples designated for filtered metal analyses.

Matrix analyses for aluminum, nickel and zinc as well as the duplicate analysis for nickel and zinc were outside the established control limits. All data has been flagged according to contract specifications.

Based on screen information, samples PXMW-1, PXMW-2, PXMW-3 and PXMW-5 required dilution analyses prior to their analysis for volatile organics.

Sincerely,


Neal E. Van Wyck
Laboratory Director

NEV/jmg

Enclosure

92039B29JUN92

000002

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER
Trip blank	161806	✓					
Field blank	161807	✓					
LCGW-11	161808	✓					
LCGW-11	161809						
LCGW-12	161811	✓					
LCGW-12	161812						
Pxmw-1	161813	✓					
Pxmw-2	161814	✓					
Pxmw-2MS	161819MS	✓					
Pxmw-2MSD	161819MSD	✓					
Pxmw-2REP	161819DP						
Pxmw-2	161815						
Pxmw-2MS	161815MS						
Pxmw-2-REP	161815DP						
Pxmw-3	161816	✓					
Pxmw-3	161817						
Pxmw-5	161818	✓					
Pxmw-5	161819						
MSB	161820	✓					
^{Sub} _{5/13/14} Holding blank	161821	✓					

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)

* HSL, Priority Pollutant

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

Sample ID	Matrix	Metals Requested	Date Rec'd	Date Analyzed
161807	Liquid	CLP Metals	6/12/92	6/18/92-7/14/92
161808	"	"	"	"
161809	Filtrate	"	"	"
161811	Liquid	"	"	"
161812	Filtrate	"	"	"
161813	Liquid	"	"	"
161814	"	"	"	"
161814ms	"	"	"	"
161814DP	"	"	"	"
161815	Filtrate	"	"	"
161816	Liquid	"	"	"
161817	Filtrate	"	"	"
161818	Liquid	"	"	"
161819	Filtrate	"	"	"

000007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Low Level Med. Level	Date Analyzed
161806	Liquid	—	6/12/92	Low	6/16/92
161807	"	6/10/92	"	"	"
161808	"	"	"	Low	6/16/92
161811	"	"	"	"	"
161813	"	"	"	"	6/17/92
161814	"	"	"	"	"
161819ms	"	"	"	"	"
161816	"	"	"	Low	6/17/92
161818	"	"	"	"	"
161820	"	—	—	"	"
161814MP	"	6/10/92	6/12/92	Low	6/17/92

000005
9/89

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AUG 14 1992
LMS ENGINEERS

Sample Data Summary Package

Lab Code: AQUAI

Case #: 31972

SDG #: 161806

Contract #: 92039 LMS



aquatec INC.

A Member of the Inhcape Environmental Group
55 SOUTH PARK DRIVE, COLCHESTER, VERMONT 05446
(802) 655-1203, FAX (802) 655-1248



aquatec INC.
An Incheape Company

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August 13, 1992

Dr. William Ahlert
Lawler, Matusky and Skelly Engineers
One Blue Hill Plaza
Pearl River, NY 10965

RECEIVED
AUG 14 1992
LMS ENGINEERS

Re: Aquatec Project 92039
ETR No.: 31972
Case: 31972; SDG 161806

Dear Dr. Ahlert:

Enclosed are the results of analyses performed on the Penetrex site samples received from Lawler, Matusky and Skelly Engineers.

The samples were received intact by Aquatec on June 12, 1992.

Laboratory numbers were assigned to the field samples and associated laboratory quality control samples. They were designated as follows:

<u>LMS Sample ID</u>	<u>Aquatec Lab No.</u>	<u>Sample Matrix</u>
Samples Received June 12, 1992 ETR No. 31972		
Trip Blank	161806	Liquid
Field Blank	161807	Liquid
LCGW-11	161808	Liquid
LCGW-11F	161809	Filtrate
LCGW-12	161811	Liquid
LCGW-12F	161812	Filtrate
PXMW-1	161813	Liquid
PXMW-2	161814	Liquid
PXMW-2MS	161814MS	Liquid
PXMW-2MSD	161814MD	Liquid
PXMW-2REP	161814DP	Liquid
PXMW-2F	161815	Filtrate
PXMW2FMS	161815MS	Filtrate
PXMW-2FREP	161815DP	Filtrate
PXMW-3	161816	Liquid

000001

Dr. William Ahlert
August 13 , 1992
Page 2

<u>LMS Sample ID</u>	<u>Aquatec Lab No.</u>	<u>Sample Matrix</u>
Samples Received June 12, 1992 ETR No. 31972 (continued)		
PXMW-3F	161817	Filtrate
PXMW-5	161818	Liquid
PXMW-5F	161819	Filtrate
MSB	161820	Liquid
Holding Blank	161821	Liquid

In order to accommodate reporting forms, the following sample identification has been truncated: Field Blank to FBlank.

Please note that client identifications have been affixed with an "F" for samples designated for filtered metal analyses.

Matrix analyses for aluminum, nickel and zinc as well as the duplicate analysis for nickel and zinc were outside the established control limits. All data has been flagged according to contract specifications.

Based on screen information, samples PXMW-1, PXMW-2, PXMW-3 and PXMW-5 required dilution analyses prior to their analysis for volatile organics.

Sincerely,


Neal E. Van Wyck
Laboratory Director

NEV/jmg

Enclosure

92039B29JUN92

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AUG 14 1992
LMS ENGINEERS

000002

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.:161806

SOW No.: 3/90_

EPA Sample No.	Lab Sample ID
FBLANK	161807
LCGW11	161808
LCGW11F	161809
LCGW12	161811
LCGW12F	161812
PXMW1	161813
PXMW2	161814
PXMW2D	161814DP
PXMW2S	161814MS
PXMW2F	161815
PXMW2FD	161815DP
PXMW2FS	161815MS
PXMW3	161816
PXMW3F	161817
PXMW5	161818
PXMW5F	161819

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161807 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.8	U	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	1.7	U		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	98.4	U		P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	27.1	B		P
7439-92-1	Lead	0.90	U		F
7439-95-4	Magnesium	136	U		P
7439-96-5	Manganese	1.2	U		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	2020	U		P
7782-49-2	Selenium	1.00	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	99.4	U		P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	7.4	B	N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LCGW11

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161808 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1170	-	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	9.9	B		F
7440-39-3	Barium	69.2	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	26000			P
7440-47-3	Chromium	4.0	B		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	34.8			P
7439-89-6	Iron	18000	-		P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	5310	-		P
7439-96-5	Manganese	1460	-		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	5330			P
7782-49-2	Selenium	1.00	U	W	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	61200			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	25.0	-	N*	P
	Cyanide		-		NR

Color Before: BEIGE_ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LCGW11F

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161809 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.8	U	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	2.8	B		F
7440-39-3	Barium	55.6	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	25300			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	10100			P
7439-92-1	Lead	0.90	U		F
7439-95-4	Magnesium	5120			P
7439-96-5	Manganese	1410			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	4080	B		P
7782-49-2	Selenium	1.00	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	59600			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	25.4		N*	P
	Cyanide				NR

Color Before: BEIGE_ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LCGW12

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI _____ Case No.: 31972 _____ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER _____ Lab Sample ID: 161811 _____

Level (low/med): LOW _____ Date Received: 06/12/92

% Solids: _____ 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4590	-	N	P
7440-36-0	Antimony	16.6	U		P
7440-38-2	Arsenic	3.5	B		F
7440-39-3	Barium	38.8	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	11900			P
7440-47-3	Chromium	11.0			P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	22.2	B		P
7439-89-6	Iron	12200			P
7439-92-1	Lead	6.3			F
7439-95-4	Magnesium	4770	B		P
7439-96-5	Manganese	18.1			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	2930	B		P
7782-49-2	Selenium	0.99	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	9140			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	64.3			P
7440-66-6	Zinc	46.5		N*	P
	Cyanide				NR

Color Before: ORANGE _____ Clarity Before: CLOUDY _____ Texture: _____

Color After: COLORLESS _____ Clarity After: CLOUDY _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LCGW12F

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161812 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.9	U	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	7.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	11000			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	11.7	B		P
7439-92-1	Lead	0.90	U		F
7439-95-4	Magnesium	4400	B		P
7439-96-5	Manganese	1.2	U		P
7439-97-6	Mercury	0.30			CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	2200	B		P
7782-49-2	Selenium	1.00	U	W	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	8820			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	24.6		N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW1

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161813 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	452	-	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	19.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	15200			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	765			P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	2210	B		P
7439-96-5	Manganese	3090			P
7439-97-6	Mercury	0.12	B		CV
7440-02-0	Nickel	5.9	U	N*	P
7440-09-7	Potassium	2320	B		P
7782-49-2	Selenium	0.99	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	17400			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	15.3	B	N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW2

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI _____ Case No.: 31972 _____ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER _____ Lab Sample ID: 161814 _____

Level (low/med): LOW _____ Date Received: 06/12/92

% Solids: _____ 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2210	-	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	3.7	B		F
7440-39-3	Barium	33.8	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	5.9			P
7440-70-2	Calcium	31600			P
7440-47-3	Chromium	4.8	B		P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	13.2	B		P
7439-89-6	Iron	7510			P
7439-92-1	Lead	4.8		S	F
7439-95-4	Magnesium	4020	B		P
7439-96-5	Manganese	561			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	140		N*	P
7440-09-7	Potassium	6940			P
7782-49-2	Selenium	1.4	B		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	32100			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	13.9	B		P
7440-66-6	Zinc	241		N*	P
	Cyanide				NR

Color Before: TAN _____ Clarity Before: CLOUDY _____ Texture: _____

Color After: COLORLESS _____ Clarity After: CLEAR _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW2F

Lab Name: AQUATEC _____ Contract: 92039 _____
 Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806
 Matrix (soil/water): WATER Lab Sample ID: 161815_____
 Level (low/med): LOW_ Date Received: 06/12/92
 % Solids: ___0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.9	U	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	17.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	31200			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	53.0	B		P
7439-92-1	Lead	0.90	U		F
7439-95-4	Magnesium	3890	B		P
7439-96-5	Manganese	68.1			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	8300			P
7782-49-2	Selenium	1.0	B		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	31400			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	26.2		N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW3

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161816 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	408	-	N	P
7440-36-0	Antimony	16.6	U		P
7440-38-2	Arsenic	15.2			F
7440-39-3	Barium	76.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	2.5	B		P
7440-70-2	Calcium	41000			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	16.4	B		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	21600			P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	5170			P
7439-96-5	Manganese	510			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	18.4	B	N*	P
7440-09-7	Potassium	3610	B		P
7782-49-2	Selenium	1.00	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	33800			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	22.3		N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW3F

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161817 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.7	U	N	P
7440-36-0	Antimony	16.4	U		P
7440-38-2	Arsenic	10.0			F
7440-39-3	Barium	57.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	38800			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	16.5	B		P
7440-50-8	Copper	2.6	U		P
7439-89-6	Iron	6540			P
7439-92-1	Lead	0.89	U		F
7439-95-4	Magnesium	4970			P
7439-96-5	Manganese	483			P
7439-97-6	Mercury	0.13	B		CV
7440-02-0	Nickel	12.6	B	N*	P
7440-09-7	Potassium	4410	B		P
7782-49-2	Selenium	0.99	U		F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	32700			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	6.7	B	N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW5

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Lab Sample ID: 161818 _____

Level (low/med): LOW_ Date Received: 06/12/92

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1560	-	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	4.3	B		F
7440-39-3	Barium	31.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	32600			P
7440-47-3	Chromium	3.6	B		P
7440-48-4	Cobalt	10.0	B		P
7440-50-8	Copper	9.6	B		P
7439-89-6	Iron	6540			P
7439-92-1	Lead	3.2			F
7439-95-4	Magnesium	4100	B		P
7439-96-5	Manganese	535			P
7439-97-6	Mercury	0.13	B		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	8740			P
7782-49-2	Selenium	1.00	U	W	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	32700			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	10.8	B		P
7440-66-6	Zinc	37.1		N*	P
	Cyanide				NR

Color Before: TAN _____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PXMW5F

Lab Name: AQUATEC _____ Contract: 92039 _____
 Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806
 Matrix (soil/water): WATER Lab Sample ID: 161819_____
 Level (low/med): LOW_ Date Received: 06/12/92
 % Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.9	U	N	P
7440-36-0	Antimony	16.5	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	18.7	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.9	U		P
7440-70-2	Calcium	32400			P
7440-47-3	Chromium	1.9	U		P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	3.8	B		P
7439-89-6	Iron	38.6	B		P
7439-92-1	Lead	0.89	U		F
7439-95-4	Magnesium	4080	B		P
7439-96-5	Manganese	81.5			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.0	U	N*	P
7440-09-7	Potassium	7010			P
7782-49-2	Selenium	0.99	U	W	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	33000			P
7440-28-0	Thallium	1.6	U		F
7440-62-2	Vanadium	3.5	U		P
7440-66-6	Zinc	31.9		N*	P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____
 Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI _____ Case No.: 31972 _____ SAS No.: _____ SDG No.: 161806

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum	41.1	U	41.1	U	41.1	U	41.1	U	41.100	U	P
Antimony	16.6	U	16.6	U	16.6	U	16.6	U	16.600	U	P
Arsenic	1.9	U	1.9	U	1.9	U			1.900	U	F
Barium	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Beryllium	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Cadmium	1.9	U	1.9	U	1.9	U	1.9	U	1.900	U	P
Calcium	99.0	U	99.0	U	99.0	U	99.0	U	99.000	U	P
Chromium	1.9	U	1.9	U	1.9	U	1.9	U	-2.069	B	P
Cobalt	4.6	U	4.6	U	4.6	U	4.6	U	4.600	U	P
Copper	2.6	U	2.6	U	2.6	U	2.6	U	2.600	U	P
Iron	10.7	B	22.1	B	36.4	B	37.0	B	10.600	U	P
Lead	0.9	U	0.9	U	0.9	U	0.9	U	0.900	U	F
Magnesium	136.9	U	136.9	U	136.9	U	136.9	U	136.900	U	P
Manganese	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Mercury	0.1	U	0.1	U	0.1	U			0.120	U	CV
Nickel	6.0	U	6.0	U	6.0	U	6.0	U	6.000	U	P
Potassium	2028.9	U	2028.9	U	2028.9	U	2028.9	U	2028.900	U	P
Selenium	1.0	U	1.0	U					1.000	U	F
Silver	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Sodium	100.1	U	100.1	U	100.1	U	-106.9	B	100.100	U	P
Thallium	1.6	B	1.8	B	1.9	B	2.0	B	1.600	U	F
Vanadium	3.5	U	3.5	U	3.5	U	3.5	U	3.500	U	P
Zinc	2.3	U	2.3	U	2.3	U	2.3	U	4.188	B	P
Cyanide											NR

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3
BLANKS

Lab Name: AQUATEC _____

Contract: 92039 _____

Lab Code: AQUAI_

Case No.: 31972_

SAS No.: _____

SDG No.: 161806

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum			41.1	U						P	
Antimony			16.6	U						P	
Arsenic	1.9	U	1.9	U	1.9	U	1.9	U		F	
Barium			1.7	U						P	
Beryllium			0.5	U						P	
Cadmium			1.9	U						P	
Calcium			99.0	U						P	
Chromium			1.9	U						P	
Cobalt			4.6	U						P	
Copper			2.6	U						P	
Iron			46.8	B						P	
Lead			0.9	U	0.9	U				F	
Magnesium			136.9	U						P	
Manganese			1.2	U						P	
Mercury										NR	
Nickel			6.0	U						P	
Potassium			2028.9	U						P	
Selenium	1.0	U	1.0	U	1.0	U	1.0	U		F	
Silver			3.8	U						P	
Sodium			100.1	U						P	
Thallium			2.7	B						F	
Vanadium			3.5	U						P	
Zinc			2.3	U						P	
Cyanide										NR	

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3
BLANKS

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum										NR	
Antimony										NR	
Arsenic										NR	
Barium										NR	
Beryllium										NR	
Cadmium										NR	
Calcium										NR	
Chromium										NR	
Cobalt										NR	
Copper										NR	
Iron										NR	
Lead	0.9	U	0.9	U						F	
Magnesium										NR	
Manganese										NR	
Mercury										NR	
Nickel										NR	
Potassium										NR	
Selenium			1.0	U						F	
Silver										NR	
Sodium										NR	
Thallium										NR	
Vanadium										NR	
Zinc										NR	
Cyanide										NR	

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3
BLANKS

Lab Name: AQUATEC _____ Contract: 92039 _____
 Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806
 Preparation Blank Matrix (soil/water): _____
 Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	1	C	1	C	2	C	3	C	C		
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	1.0	U	1.0	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

PXMW2FS

Lab Name: AQUATEC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2063.7601	40.9200 U	1986.29	103.9		P
Antimony	75-125	542.4570	16.5273 U	496.57	109.2		P
Arsenic	75-125	46.3081	1.8975 U	39.70	116.6		F
Barium	75-125	2017.0821	17.5229 B	1986.29	100.7		P
Beryllium	75-125	52.9348	0.4978 U	49.66	106.6		P
Cadmium	75-125	50.4618	1.8917 U	49.66	101.6		P
Calcium							NR
Chromium	75-125	203.0986	1.8917 U	198.63	102.2		P
Cobalt	75-125	504.9161	4.5798 U	496.57	101.7		P
Copper	75-125	253.4512	2.5886 U	248.29	102.1		P
Iron	75-125	1147.0851	52.9669 B	993.15	110.2		P
Lead	75-125	21.1493	0.8988 U	19.85	106.5		F
Magnesium							NR
Manganese	75-125	575.2309	68.1203	496.57	102.1		P
Mercury	75-125	0.8690	0.1200 U	0.98	88.7		CV
Nickel	75-125	502.0360	5.9737 U	496.57	101.1		P
Potassium							NR
Selenium	75-125	10.9865	1.0287 B	9.92	100.4		F
Silver	75-125	50.8094	3.7834 U	49.66	102.3		P
Sodium							NR
Thallium	75-125	47.1318	1.5979 U	49.62	95.0		F
Vanadium	75-125	514.0530	3.4847 U	496.57	103.5		P
Zinc	75-125	529.7448	26.2346	496.57	101.4		P
Cyanide							NR

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

PXMW2S

Lab Name: AQUATEC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	3504.4090	2209.3139	1981.57	65.4	N	P
Antimony	75-125	534.0335	16.4830	495.39	107.8		P
Arsenic	75-125	39.7781	3.7083	39.62	91.0		F
Barium	75-125	2032.1015	33.8099	1981.57	100.8		P
Beryllium	75-125	52.6999	0.4965	49.54	106.4		P
Cadmium	75-125	50.5697	5.8534	49.54	90.3		P
Calcium							NR
Chromium	75-125	204.6963	4.8377	198.16	100.9		P
Cobalt	75-125	507.3814	8.2077	495.39	100.8		P
Copper	75-125	263.5490	13.1963	247.70	101.1		P
Iron		8118.4980	7508.6883	990.79	61.5		P
Lead	75-125	22.7516	4.7546	19.81	90.8		F
Magnesium							NR
Manganese	75-125	1060.1407	560.5203	495.39	100.9		P
Mercury	75-125	1.0500	0.1200	0.98	107.1		CV
Nickel	75-125	498.3652	140.3038	495.39	72.3	N	P
Potassium							NR
Selenium	75-125	9.9049	1.3937	9.90	86.0		F
Silver	75-125	49.9059	3.7732	49.54	100.7		P
Sodium							NR
Thallium	75-125	47.1276	1.5928	49.52	95.2		F
Vanadium	75-125	524.0266	13.8715	495.39	103.0		P
Zinc	75-125	538.8883	241.3862	495.39	60.1	N	P
Cyanide							NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

PXMW2A

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water) : WATER_ Level (low/med): LOW_

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Added (SA)	%R	Q	M
Aluminum		4270.00	2225.00	2000.0	102.2		P
Antimony		521.90	16.60	500.0	104.4		P
Arsenic							NR
Barium		2013.00	34.05	2000.0	98.9		P
Beryllium		52.13	0.50	50.0	104.3		P
Cadmium		54.67	5.90	50.0	97.5		P
Calcium							NR
Chromium		204.10	4.87	200.0	99.6		P
Cobalt		505.70	8.27	500.0	99.5		P
Copper		261.50	13.29	250.0	99.3		P
Iron		8609.00	7562.00	1000.0	104.7		P
Lead							NR
Magnesium							NR
Manganese		1060.00	564.50	500.0	99.1		P
Mercury							NR
Nickel		631.00	141.30	500.0	97.9		P
Potassium							NR
Selenium							NR
Silver		3.80	3.80	500.0	0.0		P
Sodium							NR
Thallium							NR
Vanadium		518.90	13.97	500.0	101.0		P
Zinc		735.90	243.10	500.0	98.6		P
Cyanide							NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

PXMW2FA

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI _____ Case No.: 31972 _____ SAS No.: _____ SDG No.: 161806

Matrix (soil/water) : WATER _____ Level (low/med): LOW _____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Added (SA)	%R	Q	M
Aluminum		1981.00	41.10 U	2000.0	99.0		P
Antimony		520.40	16.60 U	500.0	104.1		P
Arsenic							NR
Barium		1951.00	17.60 B	2000.0	96.7		P
Beryllium		51.15	0.50 U	50.0	102.3		P
Cadmium		47.97	1.90 U	50.0	95.9		P
Calcium							NR
Chromium		196.30	1.90 U	200.0	98.2		P
Cobalt		489.90	4.60 U	500.0	98.0		P
Copper		243.60	2.60 U	250.0	97.4		P
Iron		1104.00	53.20 B	1000.0	105.1		P
Lead							NR
Magnesium							NR
Manganese		558.30	68.42	500.0	98.0		P
Mercury							NR
Nickel		486.90	6.00 U	500.0	97.4		P
Potassium							NR
Selenium							NR
Silver		3.80 U	3.80 U	500.0	0.0		P
Sodium							NR
Thallium							NR
Vanadium		497.20	3.50 U	500.0	99.4		P
Zinc		516.90	26.35	500.0	98.1		P
Cyanide							NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

PXMW2D

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		2209.3139	2247.0565	1.7		P
Antimony		16.4830 U	16.5636 U			P
Arsenic		3.7083 B	5.1556 B	32.7		F
Barium		33.8099 B	34.5739 B	2.2		P
Beryllium		0.4965 U	0.4989 U			P
Cadmium	5.0	5.8534	1.8958 U	200.0		P
Calcium		31605.6002	31829.9741	0.7		P
Chromium		4.8377 B	4.5719 B	5.6		P
Cobalt		8.2077 B	8.9872 B	9.1		P
Copper		13.1963 B	12.0834 B	8.8		P
Iron		7508.6883	7978.4474	6.1		P
Lead	3.0	4.7546	2.3155 B	69.0		F
Magnesium		4015.4900 B	4046.0986 B	0.8		P
Manganese		560.5203	591.9976	5.5		P
Mercury		0.1200 U	0.1240 B	200.0		CV
Nickel	39.7	140.3038	13.6001 B	164.7	*	P
Potassium	4964.8	6938.7350	7693.0752	10.3		P
Selenium		1.3937 B	1.1268 B	21.2		F
Silver		3.7732 U	3.7917 U			P
Sodium		32052.4278	32149.2716	0.3		P
Thallium		1.5928 U	1.5955 U			F
Vanadium		13.8715 B	13.4205 B	3.3		P
Zinc	19.9	241.3862	49.3514	132.1	*	P
Cyanide						NR

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

PXMW2FD

Lab Name: AQUATEC _____ Contract: 92039 _____

Lab Code: AQUAI_ Case No.: 31972_ SAS No.: _____ SDG No.: 161806

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		40.9200 U	40.7698 U			P
Antimony		16.5273 U	16.4666 U			P
Arsenic		1.8975 U	1.8938 U			F
Barium		17.5229 B	18.4010 B	4.9		P
Beryllium		0.4978 U	0.4960 U			P
Cadmium		1.8917 U	1.8847 U			P
Calcium		31212.6643	31851.9988	2.0		P
Chromium		1.8917 U	1.8847 U			P
Cobalt		4.5798 U	4.5630 U			P
Copper		2.5886 U	2.5791 U			P
Iron		52.9669 B	46.0272 B	14.0		P
Lead		0.8988 U	0.8970 U			F
Magnesium		3891.8757 B	3980.7559 B	2.3		P
Manganese	14.9	68.1203	69.2987	1.7		P
Mercury		0.1200 U	0.1200 U			CV
Nickel		5.9737 U	5.9518 U			P
Potassium	4978.1	8299.4823	6554.9053	23.5		P
Selenium		1.0287 B	0.9967 U	200.0		F
Silver		3.7834 U	3.7695 U			P
Sodium		31371.9634	32109.9097	2.3		P
Thallium		1.5979 U	1.6974 B	200.0		F
Vanadium		3.4847 U	3.4719 U			P
Zinc	19.9	26.2346	26.0490	0.7		P
Cyanide						NR

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161807

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161807V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK

ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD_BLANK

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161807

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161807V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW-11

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161808

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E161808V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

CAS NO.

COMPOUND

Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCGW-11

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161808

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: E161808V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW-12

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161811

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161811V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCGW-12

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161811

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161811V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PXMW-1

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161813

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161813DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 16.7

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3	Chloromethane	170	U
74-83-9	Bromomethane	170	U
75-01-4	Vinyl Chloride	170	U
75-00-3	Chloroethane	170	U
75-09-2	Methylene Chloride	22	BJ
67-64-1	Acetone	170	U
75-15-0	Carbon Disulfide	170	U
75-35-4	1,1-Dichloroethene	170	U
75-34-3	1,1-Dichloroethane	47	J
540-59-0	1,2-Dichloroethene (total)	2300	
67-66-3	Chloroform	170	U
107-06-2	1,2-Dichloroethane	170	U
78-93-3	2-Butanone	170	U
71-55-6	1,1,1-Trichloroethane	270	
56-23-5	Carbon Tetrachloride	170	U
75-27-4	Bromodichloromethane	170	U
78-87-5	1,2-Dichloropropane	170	U
10061-01-5	cis-1,3-Dichloropropene	170	U
79-01-6	Trichloroethene	180	
124-48-1	Dibromochloromethane	170	U
79-00-5	1,1,2-Trichloroethane	170	U
71-43-2	Benzene	170	U
10061-02-6	trans-1,3-Dichloropropene	170	U
75-25-2	Bromoform	170	U
108-10-1	4-Methyl-2-Pentanone	170	U
591-78-6	2-Hexanone	170	U
127-18-4	Tetrachloroethene	460	
79-34-5	1,1,2,2-Tetrachloroethane	170	U
108-88-3	Toluene	170	U
108-90-7	Chlorobenzene	170	U
100-41-4	Ethylbenzene	170	U
100-42-5	Styrene	170	U
1330-20-7	Xylene (total)	170	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PXMW-1

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161813

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161813DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 16.7

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	10.70	410	JNX

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PXMW-2

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161814

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161814DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 12.5

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	10.65	370	JNX

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PXMW-3

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161816

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161816DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 13.9

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	10.65	2300	JNX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PXMW-5

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161818

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161818DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 15.2

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

CAS NO.

COMPOUND

Q

74-87-3	Chloromethane	150	U
74-83-9	Bromomethane	150	U
75-01-4	Vinyl Chloride	150	U
75-00-3	Chloroethane	150	U
75-09-2	Methylene Chloride	21	BJ
67-64-1	Acetone	150	U
75-15-0	Carbon Disulfide	150	U
75-35-4	1,1-Dichloroethene	150	U
75-34-3	1,1-Dichloroethane	150	U
540-59-0	1,2-Dichloroethene (total)	3300	
67-66-3	Chloroform	150	U
107-06-2	1,2-Dichloroethane	150	U
78-93-3	2-Butanone	150	U
71-55-6	1,1,1-Trichloroethane	440	
56-23-5	Carbon Tetrachloride	150	U
75-27-4	Bromodichloromethane	150	U
78-87-5	1,2-Dichloropropane	150	U
10061-01-5	cis-1,3-Dichloropropene	150	U
79-01-6	Trichloroethene	210	
124-48-1	Dibromochloromethane	150	U
79-00-5	1,1,2-Trichloroethane	150	U
71-43-2	Benzene	150	U
10061-02-6	trans-1,3-Dichloropropene	150	U
75-25-2	Bromoform	150	U
108-10-1	4-Methyl-2-Pentanone	150	U
591-78-6	2-Hexanone	150	U
127-18-4	Tetrachloroethene	610	
79-34-5	1,1,2,2-Tetrachloroethane	150	U
108-88-3	Toluene	150	U
108-90-7	Chlorobenzene	150	U
100-41-4	Ethylbenzene	150	U
100-42-5	Styrene	150	U
1330-20-7	Xylene (total)	150	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PXMW-5

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161818

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161818DV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 15.2

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	10.65	440	JNX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161806

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161806V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	2	BJ
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (total)	10	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP_BLANK

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161806

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161806V

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

2A
 WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
	-----	-----	-----	-----	-----	-----
01	FIELD BLANK	93	91	94	0	0
02	LCGW-11	109	107	107	0	0
03	LCGW-12	94	90	92	0	0
04	MSB	89	88	96	0	0
05	PXMW-1	93	91	94	0	0
06	PXMW-2	93	91	93	0	0
07	PXMW-3	89	91	96	0	0
08	PXMW-5	93	94	95	0	0
09	TRIP BLANK	91	92	93	0	0
10	PXMW-2MS	89	89	93	0	0
11	PXMW-2MSD	90	86	96	0	0
12	VBLKX5	107	103	107	0	0
13	VBLKX8	95	94	92	0	0

QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)
 SMC2 (BFB) = Bromofluorobenzene (86-115)
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A
VOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: AQUATEC, INC.

Contract: 42039

Lab Code: AQUAI

Case No.: 31788

SAS No.: _____

SDG No.: 160806

Matrix Spike - EPA Sample No.: MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0.0	35.1	70 -	61-145
Trichloroethene	50.0	0.0	43.9	88 -	71-120
Benzene	50.0	0.0	40.3	81 -	76-127
Toluene	50.0	0.0	40.8	82 -	76-125
Chlorobenzene	50.0	0.0	44.6	89 -	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix Spike - EPA Sample No.: PXMW-2

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	625.0	0	437.4	70	61-145
Trichloroethene	625.0	187.2	745.0	89	71-120
Benzene	625.0	0	487.1	78	76-127
Toluene	625.0	0	498.0	80	76-125
Chlorobenzene	625.0	0	547.1	88	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	625.0	464.1	74	6	14	61-145
Trichloroethene	625.0	767.1	93	4	14	71-120
Benzene	625.0	502.5	80	3	11	76-127
Toluene	625.0	520.0	83	4	13	76-125
Chlorobenzene	625.0	569.9	91	3	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: L#161814 CLI#PXMW-2 ETR#31972 400UL/5ML
GC/MS OWAD

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBKX5

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Lab File ID: EJRB001CV

Lab Sample ID: VBKX5

Date Analyzed: 06/16/92

Time Analyzed: 1607

GC Column: PACK ID: 2.00 (mm)

Heated Purge: (Y/N) N

Instrument ID: OWAE

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCGW-11	161808	E161808V	1921

COMMENTS: BLANK
GC/MS OWAE

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKX8

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Lab File ID: DJMB001BV

Lab Sample ID: VBLKX8

Date Analyzed: 06/16/92

Time Analyzed: 2051

GC Column: PACK ID: 2.00 (mm)

Heated Purge: (Y/N) N

Instrument ID: OWAD

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	FIELD_BLANK	161807	D161807V	2300
02	LCGW-12	161811	D161811V	2207
03	MSB	161820	D161820V	0650
04	PXMW-1	161813	D161813DV	0111
05	PXMW-2	161814	D161814DV	0207
06	PXMW-3	161816	D161816DV	0258
07	PXMW-5	161818	D161818DV	0347
08	TRIP_BLANK	161806	D161806V	2350
09	PXMW-2MS	161814MS	D161814MSDV	0504
10	PXMW-2MSD	161814MD	D161814MDDV	0559

COMMENTS: BLANK SMO#VBLKX8
GC/MS OWAD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX8

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: VBLKX8

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: DJMB001BV

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	UU
75-01-4	Vinyl Chloride	10	UUU
75-00-3	Chloroethane	10	UUU
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	UUU
75-15-0	Carbon Disulfide	10	UUU
75-35-4	1,1-Dichloroethene	10	UUU
75-34-3	1,1-Dichloroethane	10	UUU
540-59-0	1,2-Dichloroethene (total)	10	UUU
67-66-3	Chloroform	10	UUU
107-06-2	1,2-Dichloroethane	10	UUU
78-93-3	2-Butanone	10	UUU
71-55-6	1,1,1-Trichloroethane	10	UUU
56-23-5	Carbon Tetrachloride	10	UUU
75-27-4	Bromodichloromethane	10	UUU
78-87-5	1,2-Dichloropropane	10	UUU
10061-01-5	cis-1,3-Dichloropropene	10	UUU
79-01-6	Trichloroethene	10	UUU
124-48-1	Dibromochloromethane	10	UUU
79-00-5	1,1,2-Trichloroethane	10	UUU
71-43-2	Benzene	10	UUU
10061-02-6	trans-1,3-Dichloropropene	10	UUU
75-25-2	Bromoform	10	UUU
108-10-1	4-Methyl-2-Pentanone	10	UUU
591-78-6	2-Hexanone	10	UUU
127-18-4	Tetrachloroethene	10	UUU
79-34-5	1,1,2,2-Tetrachloroethane	10	UUU
108-88-3	Toluene	10	UUU
108-90-7	Chlorobenzene	10	UUU
100-41-4	Ethylbenzene	10	UUU
100-42-5	Styrene	10	UUU
1330-20-7	Xylene (total)	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKX5

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: VBLKX5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EJRB001CV

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBKX5

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: VBKX5

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: EJRB001CV

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/16/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161820

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161820V

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	35	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	44	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	40	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	41	
108-90-7	Chlorobenzene	45	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
 VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161820

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161820V

Level: (low/med) LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PXMW-2MS

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161814MS

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161814MSDV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK

ID: 2.00 (mm)

Dilution Factor: 12.5

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	120	U
74-83-9	Bromomethane	120	U
75-01-4	Vinyl Chloride	120	U
75-00-3	Chloroethane	120	U
75-09-2	Methylene Chloride	33	BJ
67-64-1	Acetone	120	U
75-15-0	Carbon Disulfide	120	U
75-35-4	1,1-Dichloroethene	440	
75-34-3	1,1-Dichloroethane	120	U
540-59-0	1,2-Dichloroethene (total)	2800	
67-66-3	Chloroform	120	U
107-06-2	1,2-Dichloroethane	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	390	
56-23-5	Carbon Tetrachloride	120	U
75-27-4	Bromodichloromethane	120	U
78-87-5	1,2-Dichloropropane	120	U
10061-01-5	cis-1,3-Dichloropropene	120	U
79-01-6	Trichloroethene	740	
124-48-1	Dibromochloromethane	120	U
79-00-5	1,1,2-Trichloroethane	120	U
71-43-2	Benzene	490	
10061-02-6	trans-1,3-Dichloropropene	120	U
75-25-2	Bromoform	120	U
108-10-1	4-Methyl-2-Pentanone	120	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	470	
79-34-5	1,1,2,2-Tetrachloroethane	120	U
108-88-3	Toluene	500	
108-90-7	Chlorobenzene	550	
100-41-4	Ethylbenzene	120	U
100-42-5	Styrene	120	U
1330-20-7	Xylene (total)	120	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PXMW-2MSD

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Matrix: (soil/water) WATER

Lab Sample ID: 161814MD

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: D161814MDDV

Level: (low/med) LOW

Date Received: 06/12/92

% Moisture: not dec.

Date Analyzed: 06/17/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 12.5

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

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

CAS NO.

COMPOUND

Q

74-87-3	Chloromethane	120	U
74-83-9	Bromomethane	120	U
75-01-4	Vinyl Chloride	120	U
75-00-3	Chloroethane	120	U
75-09-2	Methylene Chloride	34	BJ
67-64-1	Acetone	120	U
75-15-0	Carbon Disulfide	120	U
75-35-4	1,1-Dichloroethene	460	
75-34-3	1,1-Dichloroethane	120	U
540-59-0	1,2-Dichloroethene (total)	3000	
67-66-3	Chloroform	120	U
107-06-2	1,2-Dichloroethane	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	410	
56-23-5	Carbon Tetrachloride	120	U
75-27-4	Bromodichloromethane	120	U
78-87-5	1,2-Dichloropropane	120	U
10061-01-5	cis-1,3-Dichloropropene	120	U
79-01-6	Trichloroethene	770	
124-48-1	Dibromochloromethane	120	U
79-00-5	1,1,2-Trichloroethane	120	U
71-43-2	Benzene	500	
10061-02-6	trans-1,3-Dichloropropene	120	U
75-25-2	Bromoform	120	U
108-10-1	4-Methyl-2-Pentanone	120	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	490	
79-34-5	1,1,2,2-Tetrachloroethane	120	U
108-88-3	Toluene	520	
108-90-7	Chlorobenzene	570	
100-41-4	Ethylbenzene	120	U
100-42-5	Styrene	120	U
1330-20-7	Xylene (total)	120	U

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Lab File ID (Standard): DJM050BHV

Date Analyzed: 06/16/92

Instrument ID: OWAD

Time Analyzed: 1924

GC Column: PACK

ID: 2.00 (mm)

Heated Purge: (Y/N) N

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	54146	8.35	199262	18.70	187827	23.45
UPPER LIMIT	108292	8.85	398524	19.20	375654	23.95
LOWER LIMIT	27073	7.85	99631	18.20	93914	22.95
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 FIELD BLANK	43030	8.25	158293	18.65	148916	23.40
02 LCGW-12	45721	8.30	166744	18.70	158731	23.45
03 MSB	40484	8.30	144962	18.65	146588	23.40
04 PXMW-1	42854	8.30	153002	18.65	145624	23.45
05 PXMW-2	42616	8.30	152170	18.65	142736	23.45
06 PXMW-3	40404	8.30	143200	18.65	136978	23.45
07 PXMW-5	41251	8.30	145697	18.65	137355	23.40
08 TRIP BLANK	43498	8.35	154855	18.70	145367	23.50
09 PXMW-2MS	40627	8.25	144836	18.65	145877	23.40
10 PXMW-2MSD	40821	8.25	147709	18.60	144426	23.40
11 VBLKX8	49919	8.30	175587	18.65	165586	23.40

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = +0.50 minutes of internal standard RT.
 RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AQUATEC INC

Contract: 92039

Lab Code: AQUAI

Case No.: 31972

SAS No.:

SDG No.: 161806

Lab File ID (Standard): EJRO50CHV

Date Analyzed: 06/16/92

Instrument ID: OWAE

Time Analyzed: 1342

GC Column: PACK

ID: 2.00 (mm)

Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
12 HOUR STD	48057	8.45	221426	19.60	197377	24.60
UPPER LIMIT	96114	8.95	442852	20.10	394754	25.11
LOWER LIMIT	24028	7.95	110713	19.10	98688	24.10
EPA SAMPLE NO.						
01 LCGW-11	39150	8.40	185212	19.70	166962	24.70
02 VBLKX5	43554	8.40	201658	19.70	180313	24.70

IS1 (BCM) = Bromochloromethane

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

PART III
HEALTH AND SAFETY PLAN



LAWLER, MATUSKY & SKELLY ENGINEERS

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: PENETREX PROCESSING
Address: Roslyn Shore Road
Job No.: 576-046

HASP Preparer: Kevin McCarty
City/State: Glenwood Landing, NY

APPROVALS:

Project Manager: Ed Maikish *E Maikish*

Safety Officer: Karen Wright

PROJECT PERSONNEL:

On-Site Coordinator: Kevin McCarty

On-Site Health and Safety Officer: Kevin McCarty

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: June 9, 1992

HAZARDOUS/SUBSTANCES (known or suspected, contaminated media or in storage container, etc.):

Contaminants identified during previous Site Assessment investigation :

VOCs: 1,2-Dichloroethene, trichloroethene, tetrachloroethene

METALS: Barium, Chromium, Mercury, Arsenic

HAZARD ASSESSMENT:

The hazards of concern to workers at this site include contact with contaminated soils and potentially contaminated surface waters. See Table 1 for the toxic effects, TLVs, IDLHs, etc. for the contaminants identified or suspected of being present at the site.

SITE WORK ZONES (designate exclusion zone, contamination reduction zone and support zone):

Dedicated equipment will be used during the sampling; the parking area has been designated as the personnel decontamination zone as shown in Figure 1.

Exclusion and work zones are designated in Figure 1. As the sampling locations are dispersed throughout the site, each sampling and work location will serve as an exclusion zone.

SITE ACCESS: (describe procedures to control site access)

The parking area, south of the manufacturing building, is unrestricted.

The on-site Health and Safety Officer will keep a log book to record health and safety information and to document subcontractor personnel working on-site and any other site visitors. At a minimum, the following information will be included in the log book on a daily basis:

- Date and time of observations
- Weather conditions
- Personnel on-site
- Air monitoring equipment in use
- Work activity conducted
- Level of protection
- Air monitoring equipment readings obtained during work activity
- Any health and safety-related issues or situations
- Any communications with regulatory agencies

MONITORING PROCEDURES:

Monitoring the site for identity and concentration of contamination in all media:

Monitoring with a photoionization detector (PID) and with a combustible gas meter (CGI) with oxygen detector will be conducted continuously during intrusive sampling (drilling). Personal protective equipment will be upgraded to Level C if airborne hazards are present in the breathing zone, i.e., PID or OVA readings of 0.5 ppm above background for a period of 1 minute are detected on the air monitoring equipment. In addition, if the PID reading exceeds 50 ppm or if the reading on the CGI exceeds 10% of the LEL, the site should be evacuated immediately. Background readings will be taken in the support zone and meter calibration will also occur in the support zone.

Medical monitoring procedures for evidence of personnel exposure, i.e., analyses specific to site not covered in general LMS physical:

None required for the activities to be conducted.

Personnel monitoring procedures:

None required for the sampling activities to be conducted.

DECONTAMINATION AND DISPOSAL:

Decontamination Procedures (contaminated personnel, surfaces, materials, instruments, equipment, etc.):

Personnel decontamination procedures will consist of the following:

1. Boots will be scrubbed with a water/industrial soap solution in a boot wash basin with a long handle brush, followed by a potable water rinse.
2. Remove and dispose of outer gloves.
3. Disposable tyvek clothing will be removed and placed in a plastic trash bag. All wastes will be transported back to LMS' lab for proper disposal.
4. Remove and dispose of inner gloves.
5. Hands, face, and any other potentially contaminated area will be thoroughly washed with a water/mild soap solution, rinsed, and dried.

All equipment used for sampling will be properly wrapped and brought back to LMS' laboratory for proper disposal.

Disposal Procedures (contaminated equipment, supplies, disposable, washwater):

If PID readings are below 5 ppm, soil cuttings may be returned to the holes and decontamination rinse water may be poured on the ground. If the PID readings exceed 5 ppm, all work derived wastes will be drummed and properly disposed of. Disposable tyveks and other wastes will be brought back to LMS Laboratory for appropriate disposal.

EMERGENCY PROCEDURES:

In the event of personnel exposure, the following emergency procedures should be adhered to:

- Skin contact:
 - Remove all contaminated clothing
 - Wash exposed body areas with a potable water flush (5 minutes)
 - Cover with blanket or dress in clean clothing
 - Transport victim to hospital if necessary
 - Notify Safety Officer
- Inhalation:
 - Move victim to clean air
 - Transport victim to hospital if necessary
 - Notify Safety Officer
- Ingestion:
 - Contact Poison Control Center for specific instructions
 - Notify Safety Officer

In the event of personnel injury:

Victim should be stabilized and provided on-site first aid. If the injury involves a potential trauma to the spinal cord, the victim shall remain where injured, if safely possible, and be moved only by trained emergency medical technicians. Minor injuries such as small lacerations, cuts, and strains shall be initially treated on-site by the first aid qualified member of the field team. Ambulance and hospital support shall be provided for all major injuries such as head wounds, broken bones, and deep lacerations.

In the event of potential or actual fire or explosion:

In the event of fire, attempt to extinguish it with a Class A,B,C fire extinguisher if it is safe to do so. If the fire is out of control:

- Evacuate site
- On-site Health & Safety Office shall verify that all team members are present by checking site logbook
- Notify the Fire Department

- Contact the Safety Officer and Project Manager

In the event of potential or actual ionizing radiation exposure:

Not applicable, no evidence of radioactivity has been detected to date nor was any detected during air monitoring investigations conducted by the NYSDEC.

In the event of environmental accident (spread of contamination outside site):

Attempt to control, divert, absorb, neutralize, or secure the source if direct contact or inhalation hazards are not present. If direct contact or inhalation hazards are present, do not attempt remedial measures.

EMERGENCY SERVICES:

Emergency Medical Facility (see Figure 2 for map of route to hospital):

St. Francis Hospital
Port Washington Blvd.
Munsey Park, NY (516) 562-6000

Directions: Left out of site. Right on Glenwood Rd. Right on Bryant Rd. East on Northern Blvd.(25a). North (right) on Port Washington Blvd.(101) Hospital is on the left approx. 1000 ft.

Police Department: Glen Cove (516) 676-1000

Poison Control Center: 542-2323

Coast Guard: 261-6868

USCG/DOT National Response Center: 1-800-424-8802

Fire Department: 0 to report a fire, give town and telephone number

Ambulance: (516) 626-3200

TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS:

(Attach Table including specific description of protective gear and action levels to upgrade or downgrade Lop) .

See table 2.

SITE MAP:

See Figure 1 for the outline of the site and the sampling locations.

TRAINING:

All personnel shall participate in a medical monitoring program as required by 29 CFR 1910.120(f). At least one member of the field team shall be Red Cross certified in First Aid and Cardio Pulmonary Resuscitation (CPR). All personnel shall have received health and safety training as required by 29 CFR 1910.120(e).

AFFIDAVIT

All personnel who enter the site must sign the attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

AFFIDAVIT

I, _____, (name) of _____ (company name) have read the Health and Safety Plan (HASP) for the Penetrex Processing _____ (site description and project description). I have also read the LMS generic HASP. I agree to conduct all on-site work in conformity with the requirements of both HASPs. In addition, I acknowledge that failure to comply with the designated procedures in the Health and Safety Plans may lead to my removal from the site.

Signed _____

Date _____

TABLE 2
TASK SPECIFIC LEVELS OF PROTECTION

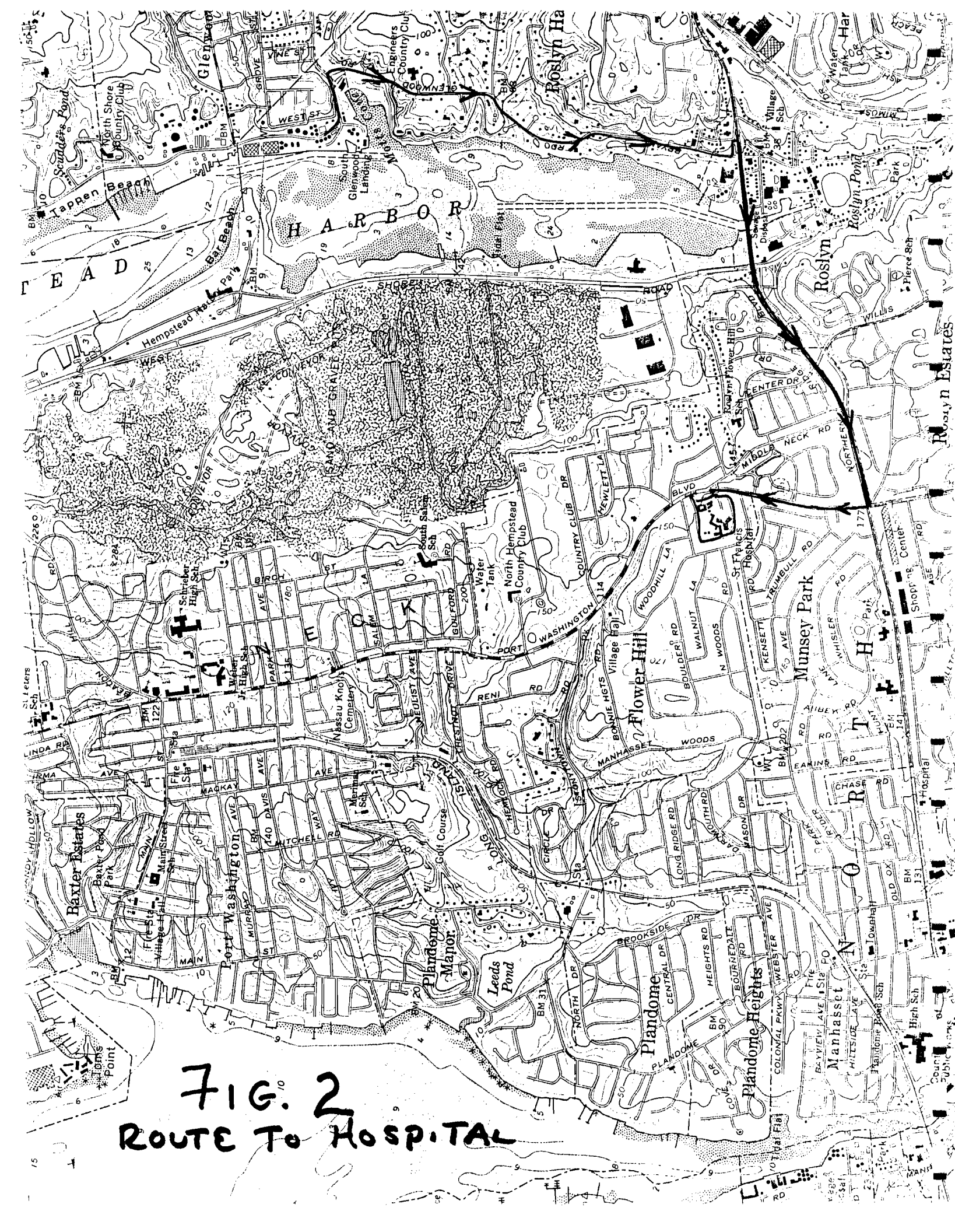
<u>TASK</u>	<u>LEVEL OF PROTECTION</u>	<u>DESCRIPTION</u>
1. Soil Sampling	D	Hard Hat, Safety Glasses, Safety Shoes, Overboots, Tyvek and Latex Gloves.
2. Surface/Groundwater Water Sampling Shoes, Overboots,	D	Safety Glasses, Safety and Latex Gloves. Waders may be necessary.

ACTION LEVELS

If PID or OVA reading in breathing zone is greater than > 0.5 ppm above background and the source of the reading is unknown, must upgrade to Level C respiratory protection (organic vapor cartridge and HEPA filter). If readings exceed 5 ppm in the breathing zone, stop work and call LMS. Draeger tubes may be used to determine the source of the readings to aid in the upgrade or downgrade of levels of protection.

If the explosimeter reading is greater than $> 10\%$ of the LEL, then work must stop until the readings subside either naturally or through the use of ventilation.

FIG. 2
ROUTE TO HOSPITAL



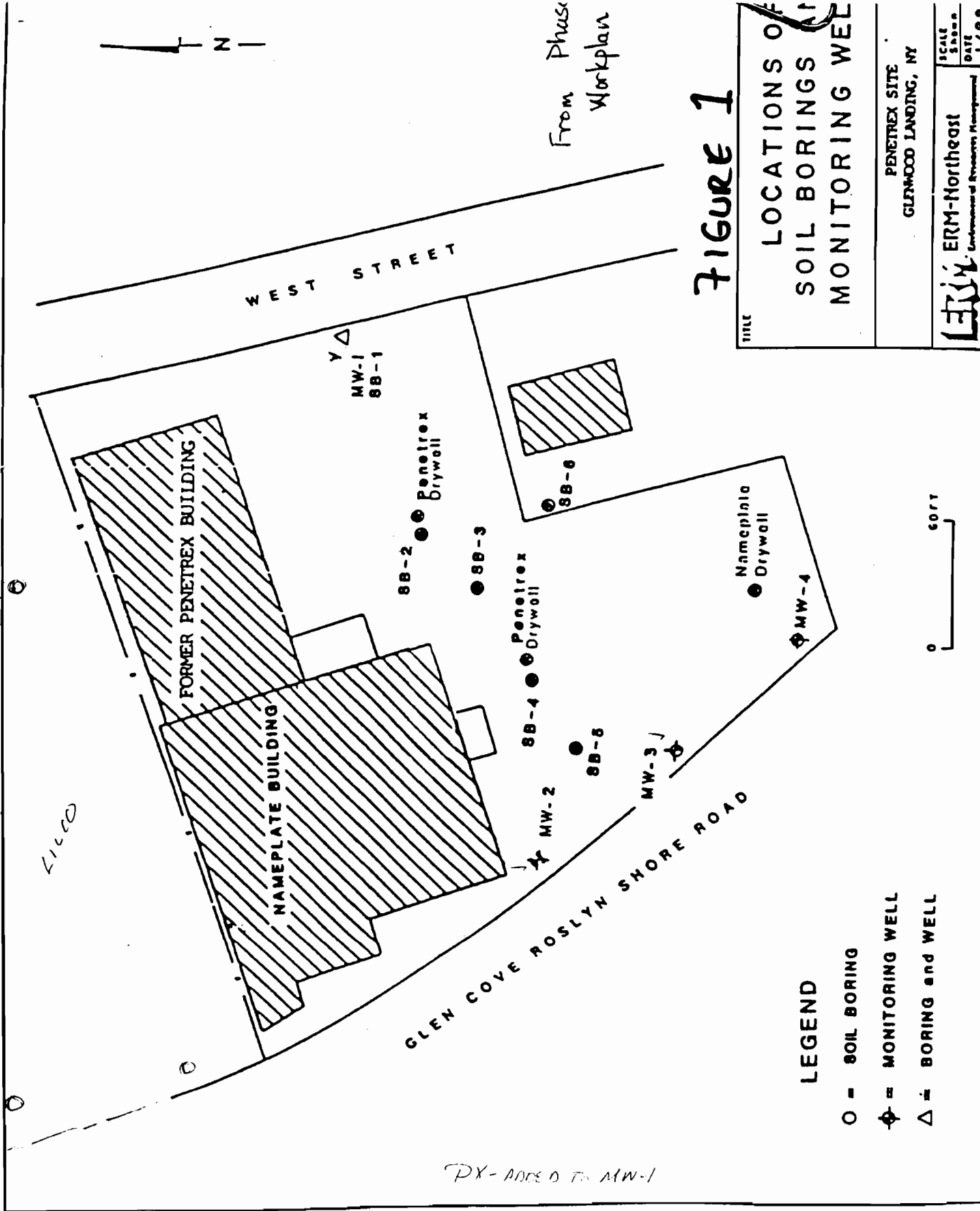


FIGURE 1

PX-ADDED TO MW-1

LILCO - LCMW-1-3

WELLIES / BOUND DWP / ALS / MSD / FIELD



PART IV
SAMPLING REPORT



WELL SAMPLING LOG

METERS USED

Date: 6.10.92
 Crew: J.R., K.M.
 Job No: 576-046
 Project: PEWETREX NYSDEC
 Project Site: NASSAU CO
UPGRADED

Temp: TLC #8
 pH: 4776 NYSDEC
 Cond: TLC #8
 Turb: 19834

Well ID No: LCGW-12 *Also called to GW-12*
 Well Condition: Good Corb Box unsecured
 Well Depth/Diameter: 76.91 / 4"
 Well Casing Type:
 Screened Interval: UNKNOWN LILCO, LOTS NOT PROVIDED
 Casing Ht/Lock No:
 Reference Pt: TOP PVC
 Depth to Water (DTW): 58.03
 Water Column; Ht/Vol: 19.20 1.66PF
 Purge Est: 29 GAL. X 34.3 = 27
 Purge Date/Time(s): 6/10/92
 Purge Method: PVC BAKER
 Depth(s): TOP → FOLLOW WATER DOWN AS IT IS BAIRED
 Rates (gpm): .25-.5 GPM
 Purged Volume:
 DTW After Purging: 58.31

DTW Before Sampling: 58.31
 Sample Date/Time(s): 1401 6/10/92
 Sampling Method: TEFLON BAKER
 Sampling Depth(s): TOP WATER COLUMN
 DTW After Sampling: 58.30
 Sampling Observations: SIMILAR TO PURGING
 Chain-of-Custody No(s):
 Analytical Lab(s): AQUATEC

SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	14.6	6.28	145	>200
End	13.8	6.11	159	>200

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
------------	-------------	----------------	----------------

Yield Rate: LMDH
 Purge Observations:

*BROWN SILTY WATER FIRST + BAIRED
 L. BROWN / CLOUDY ± .5 GAL*

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
1	12.5	7.5	145	>200
5	12.5	7.38	144	>200
10	12.5	6.45	146	>200
15	12.5	6.25	147	>200
20	12.6	6.25	149	>200
25	12.5	6.18	152	>200
27	12.5	6.17	155	>200

Comments:

*BAIRED WELL BY HAND - SILTY AT FIRST
 THAN CLOUDY*

*TAL METALS 17452 1-l plastic
 unfiltered preserved ~~was~~ nos
 FILTERED*

Air Temp:
 Weather Conditions:

Crew Chief Signature: _____ Date: _____

WELL SAMPLING LOG

METERS USED

Date: 6/10/92
 Crew: J.R. KM
 Job No: 376-046
 Project: Penetrex
 Project Site: M/S Dr

Temp: _____
 pH: _____
 Cond: _____
 Turb: _____

Well ID No: PX MW-3
 Well Condition: GOOD SEAL OK
 Well Depth/Diameter: 4" 20.40'
 Well Casing Type: 3 PVC CURB BOX
 Screened Interval:
 Casing Hi/Lock No: GRADE - CURB BOX
 Reference Pt: Top of PVC
 Depth to Water (DTW): 9.22 1618 9.27
 Water Column; Hi/Vol: 10.2 11.2
 Purge Est: 30 GAL.

DTW Before Sampling: 11.00
 Sample Date/Time(s): 6/10/92
 Sampling Method: TEFLON BALLER
 Sampling Depth(s): TOP WATER
 DTW After Sampling: ~~11.00~~ 10.74
 Sampling Observations: CLEAR SLIGHT ORANGE DISCOLORATION
 Chain-of-Custody No(s):
 Analytical Lab(s):

Purge Date/Time(s):
 Purge Method: CENTRIFUGAL PUMP
 Depth(s): BOTTOM - Drawdown was rapid
 Rates (gpm): .5 - 2 gpm
 Purged Volume: 13
 DTW After Purging: 19.37

SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	<u>17.8</u>	<u>6.13</u>	<u>1966</u>	<u>156</u>
End				

Yield Rate: L-M-H
 Purge Observations: purged to dryness after another 5 gals. at 2 gpm

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Flit. (Y/N)

SAMPLE FILTERED FOR METALS

PURGE CHEMISTRIES

VOL	TEMP. (°C)	pH	SP. COND.	TURB.
<u>5</u>	<u>16.5</u>	<u>6.28</u>	<u>562</u>	<u>>200</u>
<u>10</u>	<u>14</u>	<u>6.25</u>	<u>1960</u>	<u>101</u>
<u>TO DRYNESS AT 13.5 GAL. NTU 120 RECOVERED TO 12 STARTED 16.41</u>				
<u>19</u>	<u>16.9</u>	<u>6.55</u>	<u>1656</u>	<u>>200 50+GED</u>
<u>25</u>	<u>17.5</u>	<u>6.08</u>	<u>1750</u>	<u>123</u>
<u>30</u>	<u>14.1</u>	<u>6.73</u>	<u>1735</u>	<u>82</u>

Comments: RUSTY / MUD COLORED WATER, AFTER 5 GALS BLACK SUSPENDED MATERIAL WAS IN THE WATER

Air Temp:
 Weather Conditions:

STOPPED PURGING - SAMPLED PX MW-2 FINISHED @ 1100

Crew Chief Signature: _____ Date: _____

WELL SAMPLING LOG

METERS USED

Date: 6.10.92

Temp: _____

Crew: J. P. EDMAN, K. MCC

pH: 4.76 NYSDEC

Job No: 576-046

Cond: _____

Project: PENETREX NYSDEC

Turb: 19384 NYSDEC

Project Site: PENETREX

LILCO MW- ON ADJACENT PROPERTY

Well ID No: LCGW-11 ^{ALSO CALLED} LN-11

DTW Before Sampling: 10.68

Well Condition: GOOD FLUSH ABOUT 4" PVC

Sample Date/Time(s): 1020 6/11/92

Well Depth/Diameter: 4" PVC 15.39 FROM PVC

Sampling Method: TEFLON BAILER

Well Casing Type: _____

Sampling Depth(s): TOP-M.I.D

Screened Interval: UNKNOWN LILCO TO SUPPLY

DTW After Sampling: 11.25

Casing H/Lock No: _____

Sampling Observations: SLIGHTLY CLOUDY

Reference Pt: PVC JUST BELOW CANNOT

Chain-of-Custody No(s): _____

Depth to Water (DTW): 9.65 ±

Analytical Lab(s): _____

Water Column; Hl/Vol: 8.74 5.2 gal in casing

14 GAL - CORE-HOLE

Purge Est: _____

SAMPLE CHEMISTRIES

Purge Date/Time(s): 6/10/92 1059

Temp. (°C)	pH	Sp. Cond.	Turb.
Start	_____	_____	_____
End	_____	_____	_____

Purge Method: HAND PUMPED WITH 2000 CC W/2150 GAL TFE

Depth(s): _____

Rates (gpm): _____

Purged Volume: 4.5 GAL TO DRYNESS 1130-1159

SAMPLE ANALYSES

DTW After Purging: _____

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)

Yield Rate: DM-II

Purge Observations:

ENTR SAND IN BOTTOM OF WELL
DUMPED TO DRYNESS
SLIGHT PETROLEUM ODOOR - SLITY BROWN WATER

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
<u>4.5 GAL.</u>	<u>16.7</u>	<u>5.9</u>	<u>589</u>	<u>>200</u>
<u>VERY SLOW RECOVERY WITH HAND BAIL</u>				
<u>5 GAL SLITY WATER TO DRYNESS 1645</u>				
<u>1525 PURGED AGAIN 6 GALLONS</u>				
<u>CASLY SLITY WATER</u>				
<u>0657 PURGED 8 GALS. STATIC 11.44</u>				

SAMPLED FOR TAL METALS

SLIGHTLY TURBID
COLLECTED 1 L PLASTIC
pH ADJUST FOR TAL METALS
1 L PLASTIC UNFILTERED
UN pH ADJUSTED

2 40 mL

Comments:

Air Temp: _____

1320 WELL RECOVERED TO 11.5'

Weather Conditions: _____

6/11 BEGAN BAILING - WATER WAS CLEAR SLIGHT SAUN

SAMPLED WELL INCREASED SCREEN
1016 SWL 10.68

Crew Chief Signature: _____

Date: _____

WELL SAMPLING LOG

METERS USED _____

Date: _____
Crew: _____
Job No: _____
Project: _____
Project Site: _____

Temp: _____
pH: _____
Cond: _____
Turb: _____

Well ID No: *PX MW-4*
Well Condition:
Well Depth/Diameter: *19.25*
Well Casing Type:
Screened Interval:
Casing Ht/Lock No:
Reference Pt: *Lowest Point on PVC*
Depth to Water (DTW): *9.58*
Water Column; Ht/Vol:
Purge Est:

DTW Before Sampling:
Sample Date/Time(s):
Sampling Method:
Sampling Depth(s):
DTW After Sampling:
Sampling Observations:
Chain-of-Custody No(s):
Analytical Lab(s):

Purge Date/Time(s):
Purge Method:
Depth(s):
Rates (gpm):
Purged Volume:
DTW After Purging.
Yield Rate: L-M-H
Purge Observations:

SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	_____	_____	_____	_____
End	_____	_____	_____	_____

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Flit. (Y/N)

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.

Comments:

Air Temp:
Weather Conditions:

Crew Chief Signature: _____ Date: _____

WELL SAMPLING LOG

METERS USED

Date: 6.10.92
 Crew: J.R., KM
 Job No: PEWOTREK
 Project: NYSDEC 576-046
 Project Site: NASSAU CO.

Temp: TLC #8
 pH: DEC 4776
 Cond: TLC #8
 Turb: DEC 19934

Well ID No: PXMW-2
 Well Condition: GOOD SEAL OK
 Well Depth/Diameter: 1802 / 4"
 Well Casing Type: PVC FLUSH MOUNT
 Screened Interval: BOTTOM 10'
 Casing Ht/Lock No: GRADE PVC BELOW GRADE
 Reference Pt: PVC
 Depth to Water (DTW): 11.85
 Water Column; Ht/Vol: 6.17
 Purge Est: 9 gal (1 vol.) x 3 = 27
 Purge Date/Time(s): 6/10/92 1502
 Purge Method: CENTRIFUGAL PUMP
 Depth(s):
 Rates (gpm): 59 gpm
 Purged Volume: 35 gal.
 DTW After Purging:

DTW Before Sampling:
 Sample Date/Time(s): 1602 6/10/92
 Sampling Method: TEFLON BAKER
 Sampling Depth(s): TOP - MID
 DTW After Sampling:
 Sampling Observations:
 Chain-of-Custody No(s):
 Analytical Lab(s):

SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start		6.16	420	BEGAN 25
End			> 200	

Yield Rate: L-M-H 1 LPM
 Purge Observations:
water cleared up after 20 gals
finished purge 1625

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
10	14.9	6.02	376	> 200
15	14.1	5.91	403	> 200
20	15.7	5.79	417	199 - > 200
25	15.9	5.89	420	52 @ 2029.
30	16.1	5.95	399	15
35	15.1	6.22	418	> 200
Comments:				69.7

water was very orange turbid
iron sheen on surface
pumped silicon pump w/comped hose
20 gpm well water level dropping
very slow

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Fit. (Y/N)
<u>CLOUDED UP AFTER</u>		<u>VCC SAMPLES</u>	
<u>WILL FILTER METALS</u>			
<u>RAN OUT OF LMS</u>		<u>SAMPLE BOTTLES</u>	
<u>SAMPLED</u>			
<u>SAMPLED MS/MSD, FIELD BLANK</u>			
<u>(BLIND DUP. - PXMW-5)</u>			

Air Temp:
 Weather Conditions:

Crew Chief Signature: _____

Date: _____

WELL SAMPLING LOG

METERS USED

Date: 6/11/92
 Crew: JR KM
 Job No: 576-046
 Project: PINETREY
 Project Site: NASSAU

Temp: _____
 pH: CP-5
 Cond: _____
 Turb: _____

Well ID No: PX MIN-1 up ground
 Well Condition: GOOD (COB BOX SEALED)
 Well Depth/Diameter: 27.00 4"
 Well Casing Type: 4" PVC SCHED 40
 Screened Interval: BOTTOM 10"
 Casing Hi/Lock No: FLUSH MOUNT
 Reference Pt: PVC ±.5 below grade
 Depth to Water (DTW): 18.63

DTW Before Sampling: 18.75
 Sample Date/Time(s): 6-11-92 949
 Sampling Method: TEFLON BALLER
 Sampling Depth(s): TOP WATER
 DTW After Sampling: 18.68
 Sampling Observations:
 Chain-of-Custody No(s):
 Analytical Lab(s):

Water Column; Hi/Vol: 8.37 x 1.6 = 13.5 gal
100%

Purge Est: 40 gal 3 vols.

Purge Date/Time(s): 6/11/92

Purge Method: CENTRIFUGAL PUMP

Depth(s): TOP - BOTTOM
POLY TUBING

Rates (gpm):

Purged Volume:

DTW After Purging: 18.75

Yield Rate: L-M @ 59 gpm

0.57 Purge Observations:
HAND SUPPLIED FIRST 1 GALS.
± 29 gpm

PURGE CHEMISTRIES

VOL.	TEMP. (°C)	pH	SP. COND.	TURB.
4	13.3	7.1	403	>200
10	12.3	7.1	324	>200
15	12.1	7.1	289	>200
20	12.1	7.1	288	>200
25	12.1	7.1	286	>200
30	12.1	7.1	286	>200
35	12.1	7.2	284	86.5
	17.1	7.2	287	58.1

Comments: HAND SUPPLIED EXHAUSTIVE TURBID WATER FOR FIRST 7 GALS THEN PUMPED @ 59 gpm.
2" DRAIN DOWN - PUMPED 49 gpm @ 20 gallons

OVA 30-80 from purge water PUMPED FOR 40 MINS

Crew Chief Signature: _____

SAMPLE CHEMISTRIES

	Temp. (°C)	pH	Sp. Cond.	Turb.
Start	14	7.1	879	15
End				48.

SAMPLE ANALYSES

Parameters	Inv. No.	Pres. Meth.	Filt. (Y/N)
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SAMPLED TAC METALS
TCU VOLATILES
NO FILTERING NEEDED

40 SURGED WATER FOR 10 GALS AND 40 MIN @ 49 gpm
 12.1 7.1 288 33.
 200 12.4 7.1 710 2.6

Air Temp:
 Weather Conditions:

Date: _____