# ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

## PHASE II INVESTIGATION

Old Amenia Landfill Site No. 314006
Town of Amenia Dutchess County, New York

**DATE:** April 1993

**Supporting Documentation**

Prepared for:

**New York State Department of Environmental Conservation**

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., *Director*

**By:**

**Lawler, Matusky & Skelly Engineers**

295868

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

**OLD AMENIA LANDFILL**
Town of Amenia, Dutchess County, New York
NYSDEC I.D. No. 314006

**Supporting Documentation**

Prepared for

DIVISION OF HAZARDOUS WASTE REMEDIATION
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, Commissioner

LMSE-93/0502&576/058

Prepared by

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

April 1993

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# PART I

# REFERENCE DOCUMENTATION

**REFERENCE 7**

22 Market St.
Poughkeepsie, NY 12601

ESTABLISHED 1852 BY JOEL BENTON

# RLEM VALLEY TIMES

the News of the Harlem Valley

Amenia, N.Y., Thursday, June 25, 1970 Price 15¢ Per Copy

# Amenia Town Board is Questioned On Outside Pumping at Land Fill Site

A question as to whether industrial waste is being dumped at the Amenia land fill site was brought up by William Bell at a regular meeting of the Amenia Town Board last Thursday night.

Supervisor Paul Thompson explained that Ben Surico has a six foot embankment around the area where he handles cutting oil because of possible fire danger. This cutting oil, picked up in plants in Connecticut and Massachusetts is stored at the land fill site only until Mr. Surico has a tanker load. It is then taken to New Jersey and resold. Mr. Surico it was stated also picks up empty drums for resale. "No oil or waste products are going into the land fill. In fact, the only oil used on that property is to keep the dust down. The sludge is taken to New Jersey, too."

Mr. Bell says he has heard that oil is floating in the stream going to Wassaic, and there also have been reports on an odor. "Is this what the town wants," Mr. Bell asked. "I objected to this as a board member. This is what I was afraid of. I consider this a noxious business."

Councilman Hugh O'Handley said he didn't know where the oil was coming from in the stream, but he didn't think it was coming from the Surico property.

Mrs. Bell said a complaint had already been made to the Dutchess County Board of Health. She also wanted to know where the oil is shipped to in New Jersey.

Mr. O'Handley said she could go down to the disposal area and see the shipping orders.

Mrs. Bell said this material could be dumped by Mr. Surico without anyone knowing about it.

A resident of Railroad Avenue appeared before the board and said she would like to know how it was possible for someone to move a trailer in on a small piece of property.

Mr. Thompson said he understood the Dutchess County Board of Health has to approve before such a site is approved by the planning board. It seems as though it conforms to all regulations, he commented.

Mr. Bell asked about zoning in the community, and if the town was being held up because of joint zoning with other towns.

Mr. Thompson said the last he had heard, the planning board was ready to schedule zoning for a public hearing.

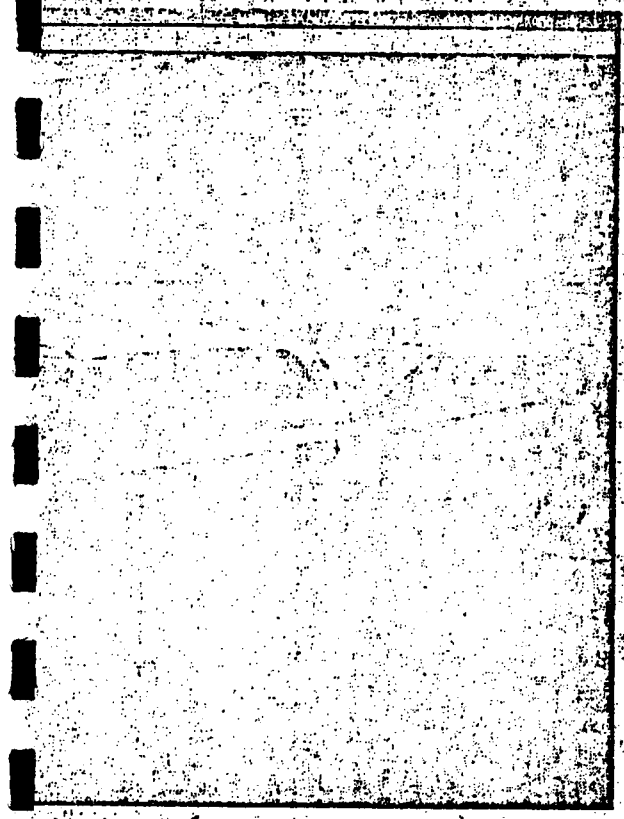
Councilman Harry Bly checked over the trailer ordinance, and said from his interpretation a prior approval must be obtained before the trailer is moved in. He said this matter should be turned over to the town attorney for a study for violations. "It's a sad state of affairs," he remarked, "when the town board can't enforce its own ordinances."

Following the comments of members of the public, the board went into regular session.

Mrs. Bessie Bida, Town Clerk, told the board that the voting machines have been checked by representatives of the company that makes them. The two in Amenia are 35 years old, and the two in Wassaic are in bad shape. Parts

(Continued on Page 6)

theme which has the decoration Edward Heacox, home of general Carl Schooley, were constructed obiles under the on Page 20)



l a car collided Monday at 10:25 a.m. on Route 22 near the car, Aldo Maestri, 46, Pine Plains, who suffered he chest; and two passengers in the car, Philip Wil- injury, and Daniel Williams, 10, Ancram, a possible the Millerton ambulance. The driver of the truck, lowing too closely. (Greg McEldowney photo)

## Harlem Valley Times Closed Friday, June 26

The office and print shop of The Harlem Valley Times will be closed Friday, June 26, all day, in order to give our employees a holiday.

**REFERENCE 8**

DUTCHESS COUNTY HEALTH DEPARTMENT

MEMORANDUM

TO: Dave Ruff and File

FROM: C.H.Wright

SUBJECT: Surico Land fill - T of Amenia

DATE: July 1, 1970

On June 19, 1970 I inspected the above caption site and found a very well run operation. An area was divided off for the purpose of storing of 50 five gallon drums of industrial waste. The area was slightly sloped toward the garbage land fill area. At the time of the visit there was about a forty foot wide area for trucks and cars to deposit rubbish - the face was about 12 feet dropping about six to eight feet in elevation. I personally like the barrier of gravel that screens the land fill from the road and acts as a fence to stop any of the blow material that is policed up at least weekly.

DC:ADM 7

**REFERENCE 9**

October 23, 1970

Mr. Salvatori Surico
Philmore Drive
Poughkeepsie, New York

Re: Surico Refuse Disposal Site
T. Amenia

Dear Mr. Surico:

During my inspection on October 22, 1970 of your refuse disposal site, I observed the spillage and accumulation of various chemicals (industrial wastes) upon the surface of the ground.

This condition constitutes a potential public health nuisance and hazard and must be rectified.

Extreme caution must be exercised by you to avoid any further spillage and accumulation of industrial liquid wastes upon the surface of the ground. You are required to take immediate action in disposing of that spillage in a satisfactory manner which will preclude any possible nuisance or hazard.

If this Department finds upon reinspection that the present situation continues to exist and not properly taken care of, then further action will be taken.

Very truly yours,
H. W. Scoralick, P.E.
Director of Environ. Sanitation

by:
David T. Ruff
Senior Sanitarian

hws/dtr/aed

cc: Mr. C. H. Wright

**REFERENCE 11**

47-14-11 (7/89)—10f

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# WRITTEN CONFIRMATION OF VERBAL COMMUNICATION

Project: AMENIA - Rte 22 SOUTH #314006

Date: 9/7/90 Time: P.M.

☒ Telephone ☐ Meeting

From: Mike KOMOROSKE - DEC

Location: N/A

To: JERRY WILCOX

Attendees: N/A

Telephone Number: (914) 373-8151

RECEIVED SEP 20 1990 NYS - DEC REGION 3-NEW PALTZ

I called Mr. Wilcox to coordinate site access. He is a employee of Mr. John Segalla who owns the southern portion of the referenced site (Amenia Sand & Gravel).

Golf course not on fill material. He doesn't is. Mr. Wilcox indicated to me that USEPA took samples at site in 1987. He never saw results. [NUS SI - 2/87]

He was familiar with history of site. At one time operated by some people from New Jersey (didn't get names). He said similar material that went into Sarney Site went into this site. He remembered following a truck up Rt. 22 one Sunday morning. A spray that had a solvent smell was hitting his windshield. The truck turned into this site. They had a pit in back that they would dispose of this material. Said it was common knowledge. He said that material probably is long gone, evaporated or disappeared. I said at some point I would like to discuss this information further.

Signature Mike Komoroske

CC: Region 3, NYSDOH, DCHD, file

Page 1 of 1

WHITE—Project File YELLOW—Date File PINK—Personal Record

**REFERENCE 12**

Ellis

Amenia dump

**New York State Department of Environmental Conservation**
Albany, N. Y. 12201

Henry L. Diamond
Commissioner

RECEPTOR EFFECTS OF AIR CONTAMINATION SOURCE

1. Your name William McEnroe village, town, city, county address Amenia New York

   telephone 373-8890

2. Number of persons residing or working on your premises 4

3. How many years have you resided or worked at above address? 28 yrs

4. Have you experienced discomfort to your health during the time you have been residing or working in this community? yes Now? yes

| Discomfort Symptoms | Yes (17 years) | No | Approximate Date First Experienced | Does the Condition Still Exist yes |
|---|---|---|---|---|
| a. eye irritation | ✓ | | april 1, 1971 | yes |
| b. sneezing | ✓ | | | yes |
| c. nose irritation | ✓ | | | yes |
| d. coughing | ✓ | | | yes |
| e. difficulty in breathing | | | | |
| f. nausea | | | | |
| g. wheezing | | | | |
| h. expectoration | | | | |
| i. blood-spitting | | | | |
| j. chest pain | | | | |
| k. others (describe) | | | | |

5. Have you experienced soiling, discoloration or other damage to your property in this community that you think might have come from something in the air? If yes, please indicate when you first experienced them. [redacted]

| Soiling or Property Damage | Yes | No | Approximate Date First Experienced | Does Condition Still Exist |
|---|---|---|---|---|
| a. dirty or discolored house paint | | | | |
| b. dust settling in house or on property | | | | |
| c. dirt on wash | | | | |
| d. dirt on food | | | | |
| e. others (describe) | Garbage on property | | | yes |

all blown from land fill which is not being covered as the law reads

AIR 131 (9-70)

(continue other side)

6. If you have answered yes to questions 4 and 5, what type of air contaminants do you believe are the cause?

a. dust _____ b. odorous gases odor smell of old oil as far + I can determine
c. smoke and soot Smoke c. others (describe) am no expert could not really confirm what is the content I do smell, but its hard to take.

Describe the dust, odorous gas, or smoke. _____

Some days worse than others

7. From where do you believe the contaminants are coming? Please list.

Town of Amenia land fill area leased by the Town

Operated By Ben Sauco

8. Do you believe any one of the listed air contaminant sources is responsible for a major sort of any contamination which exists in your community?

Yes ✓ as for the Community no, as for my own farm area yes No _____ If yes, which one(s)? I represent myself and not the Community, they have a town board to represent them.

9. If the State instituted legal action against the owners of these sources, would you be willing to give sworn testimony in person and to be cross-examined? Yes ✓ No _____

10. Do you have any other comments? Years ago it was a burning dump, today it is a land fill, But since Jan 1, 1971 there have been three burnings, the last one being April 15, 1971 and burned till the following morning.

11. Signature: William McEnroe

REC'D

APR 21 [illegible]

DUT. COUNTY
HEALTH DEPT.

**REFERENCE 13**

DUTCHESS COUNTY HEALTH DEPARTMENT

MEMORANDUM

TO: File

FROM: Ellis W. Adams - Asst. Project Director

SUBJECT: Surico Landfill - T. Amenia

DATE: April 27, 1971

Made an inspection on April 19, 1971, at 3:30 p.m. The following conditions were noted:

1. A few blown papers along Route 22.

2. The area has been greatly improved. The entire area is being covered with fill at present.

3. The industrial area is being done away with. Barrels are being removed.

sjd

HD ADM

**REFERENCE 14**

47-14-11 (7/89)—10f

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# WRITTEN CONFIRMATION OF VERBAL COMMUNICATION

Project: Amenia Rte 22 South Site Date: 9-06-90 Time: —

☒ Telephone 314006 ☐ Meeting

From: Mike Komoroske DEC Location: N/A

To: KARL SALITER Attendees: N/A

Telephone Number: (203) 364-5676

9/06/90 – WITH KARL SALITER

I called Mr. Salter to obtain permission to access his property. He owns the north end of the referenced site. He bought the property ~1981. He owns Sharon Oil (with his wife). He ~~[illegible]~~ constructed an above ground fuel storage tanks with berm and fence. During excavation, (~Oct, 1982) he dug through ~10' of garbage and moved alot of material around. Area bermed and diked (1-2 acres) on fill.

Engineer Richard Barger, P.E. Fishkill Wappingers Falls (914) 297-9435 or 5775

Survey + contour map done.

Mr. Salter indicated to me, without prompting, that he observed 3-4 drums at north end over the bank that were leaking. He was 97% sure it was fuel oil and there was a rusty old bulldozer nearby. He has a property map – will provide if necessary.

TAX MAP # 01-7066-00-8856300

Signature Michael Komoroske

cc: Region 3, NYSDOH, DCHD, file

Page 1 of 1

WHITE—Project File YELLOW—Date File PINK—Personal Record

**REFERENCE 15**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REFUSE DISPOSAL AREA INSPECTION REPORT

ME OF SITE Amenia LOCATION (T~~OWN~~) Amenia COUNTY Dutchess REGION NO. 3

ERATOR Town of Amenia ADDRESS _____ SITE NO. _____

NER _____ ADDRESS _____

(Explain Yes Answers On Reverse Side)

1. Burning At Time Of Inspection---------- ☐ Yes ☒ No
2. Evidence Of On-site Burning---------- ☒ Yes ☐ No
3. Dumping Into Water---------- ☐ Yes ☒ No
4. Leachate Observed At The Site---------- ☐ Yes ☒ No
5. Leaching Into A Water Course---------- ☐ Yes ☒ No
6. Refuse Not Confined To A Manageable Area---------- ☒ Yes ☐ No
7. Unsatisfactory Daily Soil Cover---------- ☒ Yes ☐ No
8. Refuse Protruding Through Completed Areas---------- ☒ Yes ☐ No
9. Improper Spreading And Compaction Of The Refuse---------- ☐ Yes ☒ No
10. Ponding Of Water, Cover Soil Cracking, Soil Erosion, Or Improper Slope On Completed Area---------- ☒ Yes ☐ No
11. Evidence Of Rodents And Insects---------- ☐ Yes ☒ No
12. Blowing Paper Problem---------- ☒ Yes ☐ No
13. Salvaging Of Refuse Creating A Nuisance---------- ☐ Yes ☒ No
14. Approach Road Impassable To Vehicular Traffic During Part Of The Year---------- ☐ Yes ☒ No

Control Of Site: Signs ☒ Fence And Gate ☒ Supervision ☒

Equipment At Site: Type Traxcavator Size 977

Type Of Refuse Disposed: All except scavenger

n Interviewed Dozer Operator Inspected By E. W. Adams
(Signature)

/17/72 Title Asst. Project Director

| QUESTION NO. | EXPLANATION OF YES ANSWERS |
|---|---|
| 2 | Fire yesterday at this site caused by dumping of chemicals by Sharon Hospital, |
| | causing spontaneous combustion. This may have been avoided if one man was |
| | employed to control dumping. No control can be exercised with the sole person |
| | operating equipment. |
| 6 | Much too large an area is being dumped upon -- |
| 7 | to have proper control - hence improper covering |
| 8 | with refuse protruding through previously operated slopes. |
| | |
| 12 | Blown paper and refuse strewn along access road, adjacent to gave area and along |
| | both sides of Rt. 22. |
| * | Site need control, needs stockpile of cover near operating site, needs another |
| | man to control site, needs to be closed 1 day mid-week so operation can catch |
| | up, on a regular basis. |

REFUSE SITE SKETCH

LOCATION SKETCH

Sup + TVB 8/1/73

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# REFUSE DISPOSAL AREA INSPECTION REPORT

| | | | | |
|---|---|---|---|---|
| ME OF SITE: Amenia | LOCATION (Town, Village, City): Amenia | COUNTY: Dutchess | 1 3 | REGION NO.: 3 |
| RATOR: Puff - Const. | ADDRESS: | | | SITE NO.: |
| WNER: | ADDRESS: | | | |

LAIN YES ANSWERS ON REVERSE SIDE

| | YES | NO |
|---|---|---|
| 1. Burning at Time of Inspection. | ☐ | ☒ |
| 2. Evidence of On-site Burning. | ☐ | ☒ |
| 3. Dumping into Water. | ☐ | ☒ |
| 4. Leachate Observed At The Site. | ☐ | ☒ |
| 5. Leaching into a Water Course. | ☐ | ☒ |
| 6. Refuse not Confined to a Manageable Area. | ☐ | ☒ |
| 7. Unsatisfactory Daily Soil Cover. | ☐ | ☒ |
| 8. Refuse Protruding through Completed Areas. | ☐ | ☒ |
| 9. Improper Spreading and Compaction of the Refuse. | ☐ | ☒ |
| 10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area. | ☐ | ☒ |
| 11. Evidence of Rodents and Insects. | ☐ | ☒ |
| 12. Blowing Paper Problem. | ☐ | ☒ |
| 13. Salvaging of Refuse Creating a Nuisance. | ☐ | ☒ |
| 14. Approach Road Impassable to Vehicular Traffic During part of the year. | ☐ | ☒ |

(They have a permit.)

NTROL OF SITE

☐ Signs ☒ Fence and Gate ☒ Supervision ☐ None

UIPMENT AT SITE

| | | |
|---|---|---|
| Type: Traxcavator | | |
| Size: 955 | | |

E OF REFUSE DISPOSED

☒ Residential ☒ Commercial ☒ Industrial ☒ Demolition ☒ Agricultural ☐ Scavenger

| | | | |
|---|---|---|---|
| SON INTERVIEWED: Mr. Puff | DATE Month 07 Day 30 Year 73 | TIME: 11 Am | |
| SPECTED BY (Signature): Eva Davis | TITLE: Waste Mgt Spec. | | |

1 (12/71)

Major problem here is refuse left at gate when site is closed

* Chemicals in barrells at rear of site - yet to be removed.

Supor T.B. 9/12/73

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# REFUSE DISPOSAL AREA INSPECTION REPORT

| NAME OF SITE | LOCATION (Town, Village, City) | COUNTY | | REGION NO. |
|---|---|---|---|---|
| Amenia | Amenia | Dutchess | 1 3 | 3 |
| OPERATOR: Olie Carpenter - Prof | ADDRESS: Const. | | | SITE NO. |
| OWNER: Curtiss - Wright | ADDRESS: Corp | | | |

EXPLAIN YES ANSWERS ON REVERSE SIDE

| | YES | NO |
|---|---|---|
| 1. Burning at Time of Inspection. With permit & ok | ☒ | ☐ |
| 2. Evidence of On-site Burning. (as above) | ☒ | ☒ |
| 3. Dumping into Water. | ☐ | ☒ |
| 4. Leachate Observed At The Site. | ☐ | ☒ |
| 5. Leaching into a Water Course. | ☐ | ☒ |
| 6. Refuse not Confined to a Manageable Area. | ☐ | ☒ |
| 7. Unsatisfactory Daily Soil Cover. | ☐ | ☒ |
| 8. Refuse Protruding through Completed Areas. | ☐ | ☒ |
| 9. Improper Spreading and Compaction of the Refuse. | ☐ | ☒ |
| 10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area. | ☐ | ☒ |
| 11. Evidence of Rodents and Insects. | ☐ | ☒ |
| 12. Blowing Paper Problem. | ☐ | ☒ |
| 13. Salvaging of Refuse Creating a Nuisance. | ☐ | ☒ |
| 14. Approach Road Impassable to Vehicular Traffic During part of the year. | ☐ | ☒ |

CONTROL OF SITE

☐ Signs ☒ Fence and Gate ☒ Supervision ☐ None

EQUIPMENT AT SITE

| Type | | |
|---|---|---|
| Dozer | | |
| Size | | |
| D8 | | |

TYPE OF REFUSE DISPOSED

☒ Residential ☒ Commercial ☒ Industrial ☒ Demolition ☒ Agricultural ☐ Scavenger

| PERSON INTERVIEWED | DATE Month | Day | Year | TIME |
|---|---|---|---|---|
| Olie Carpenter | 09 | 05 | 73 | 12 noon |

| INSPECTED BY (Signature) | TITLE |
|---|---|
| E. W. Adams | Waste Mgt. Spec. |

W-1 (12/71)

* Site needs proper signs at entrance as to hours & days open
* Garbage must be removed from gate area.
* Barrells of liquid adjacent to site, now responsibility of town - must be properly removed A.S.A.P.

Sup27.D.
10/12/73

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# REFUSE DISPOSAL AREA INSPECTION REPORT

| | | | | |
|---|---|---|---|---|
| ME OF SITE: Armenia | LOCATION (Town, Village, City): Armenia | COUNTY: Dutchess | 1 3 | REGION NO. 3 |
| ERATOR: Puff Construction | ADDRESS | | | SITE NO. |
| WNER | ADDRESS | | | |

PLAIN YES ANSWERS ON REVERSE SIDE

| | YES | NO |
|---|---|---|
| 1. Burning at Time of Inspection. | ☐ | ☒ |
| 2. Evidence of On-site Burning. | ☐ | ☒ |
| 3. Dumping into Water. | ☐ | ☒ |
| 4. Leachate Observed At The Site. | ☐ | ☒ |
| 5. Leaching into a Water Course. | ☐ | ☒ |
| 6. Refuse not Confined to a Manageable Area. | ☐ | ☒ |
| 7. Unsatisfactory Daily Soil Cover. | ☐ | ☒ |
| 8. Refuse Protruding through Completed Areas. | ☒ | ☐ |
| 9. Improper Spreading and Compaction of the Refuse. | ☐ | ☒ |
| 10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area. | ☐ | ☒ |
| 11. Evidence of Rodents and Insects. | ☐ | ☒ |
| 12. Blowing Paper Problem. | ☐ | ☒ |
| 13. Salvaging of Refuse Creating a Nuisance. | ☐ | ☒ |
| 14. Approach Road Impassable to Vehicular Traffic During part of the year. | ☐ | ☒ |

NTROL OF SITE

☐ Signs ☒ Fence and Gate ☐ Supervision ☐ None

UIPMENT AT SITE

Type: Dozer

Size: Large

PE OF REFUSE DISPOSED

☒ Residential ☒ Commercial ☒ Industrial ☒ Demolition ☒ Agricultural ☐ Scavenger

| RSON INTERVIEWED | DATE Month | Day | Year | TIME |
|---|---|---|---|---|
| None (area closed) | 10 | 02 | 73 | 11 AM |

| SPECTED BY (Signature) | TITLE |
|---|---|
| Eva Davis | Waste Mgt Spec |

-1 (12/71)

| QUESTION NO. | EXPLANATION OF YES ANSWERS |
| --- | --- |
| 8 | Refuse seems to be strewn + protruding thru on adjacent areas - might be caused by lack of sufficient cover + as refuse settles it protrudes. |
| * | a real problem at this site which compounds the difficulties at this site is the fact that there is no decent sign indicating hours - days of operation - Practically every time I am there, there is refuse inside or outside the gate. It must be very frustrating for the public to find a site with a sign "Closed Thursday" + be there on Tuesday + wonder why the gate is locked + then just drop their garbage. While I was inspecting at least 3 persons came there wondering why the site was closed. I am sure if I wasn't there the garbage would have been left at the gate. |

| REFUSE SITE SKETCH | LOCATION SKETCH |
| --- | --- |
| * Barrels of questionable waste must be removed. | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Approved T.B. 2/8/...

# REFUSE DISPOSAL AREA INSPECTION REPORT

| | | | | |
|---|---|---|---|---|
| ME OF SITE: Amenia | LOCATION (Town, Village, City): Amenia | COUNTY: Dutchess | 1 3 | REGION NO. 3 |
| RATOR: Puff Construction | ADDRESS | | | SITE NO. |
| NER: Curtis Wright | ADDRESS | | | |

LAIN YES ANSWERS ON REVERSE SIDE

| | YES | NO |
|---|---|---|
| 1. Burning at Time of Inspection. — See note — | ☒ | ☐ |
| 2. Evidence of On-site Burning. | ☐ | ☒ |
| 3. Dumping into Water. | ☐ | ☒ |
| 4. Leachate Observed At The Site. | ☐ | ☒ |
| 5. Leaching into a Water Course. | ☐ | ☒ |
| 6. Refuse not Confined to a Manageable Area. | ☐ | ☒ |
| 7. Unsatisfactory Daily Soil Cover. | ☒ | ☒ |
| 8. Refuse Protruding through Completed Areas. | ☐ | ☒ |
| 9. Improper Spreading and Compaction of the Refuse. | ☐ | ☒ |
| 10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area. | ☐ | ☒ |
| 11. Evidence of Rodents and Insects. | ☐ | ☒ |
| 12. Blowing Paper Problem. | ☐ | ☒ |
| 13. Salvaging of Refuse Creating a Nuisance. | ☐ | ☒ |
| 14. Approach Road Impassable to Vehicular Traffic During part of the year. | ☐ | ☒ |

NTROL OF SITE

☐ Signs ☒ Fence and Gate ☒ Supervision ☐ None

IPMENT AT SITE

| Type | | |
|---|---|---|
| Tractor | | |
| Size | | |
| Med. | | |

E OF REFUSE DISPOSED

☒ Residential ☒ Commercial ☒ Industrial ☒ Demolition ☒ Agricultural ☐ Scavenger

| SON INTERVIEWED | DATE (Month / Day / Year) | TIME |
|---|---|---|
| Mr Puff | 02 04 74 | 2:45 pm |

| PECTED BY (Signature) | TITLE |
|---|---|
| Ed Adams | Waste Mgt Spec |

1 (12/71)

| QUESTION NO. | EXPLANATION OF YES ANSWERS |
|---|---|
| 1 | 2 fires going against piles of cover material in an apparent attempt to keep cover material usable (mostly cardboard etc) |
| 7 | Some misc ~~sp~~ refuse piled here + there — ~~so~~ some near area of deposition such as cardboard + some other misc refuse — also a pile of trees + brush has furniture etc mixed in |
| * | At time of inspection — equipment is down — and in process of repair — |
| * | Still no signs as promised! |
| * | Barrels have all been removed (according to Mr Puff) |

| REFUSE SITE SKETCH | LOCATION SKETCH |
|---|---|
| | |

**REFERENCE 16**

# FINAL REPORT

# WATER RESOURCES STUDY FOR DUTCHESS COUNTY

for

Dutchess County Department of Planning

by

Robert G. Gerber
Consulting Civil Engineer and Geologist
Ash Point Road
South Harpswell, Maine 04079

June 1982

**REFERENCE 17**

STATE OF NEW YORK

DEPARTMENT OF CONSERVATION

WATER RESOURCES COMMISSION

# Ground-Water Resourses of Dutchess County, New York

By

E. T. SIMMONS, I. G. GROSSMAN, AND R. C. HEATH

Geologists, U. S. Geological Survey

*Prepared by the*

U. S. GEOLOGICAL SURVEY

in cooperation with the

NEW YORK WATER RESOURCES COMMISSION

BULLETIN GW-43

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# THE SOIL CHEMISTRY OF HAZARDOUS MATERIALS

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Hazardous Materials Control Research Institute
Silver Spring, Maryland

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# GEOPHYSICS SURVEY

# GEOPHYSICAL INVESTIGATION
# AMENIA LANDFILL,
# AMENIA, NEW YORK

INTEX

# GEOPHYSICAL INVESTIGATION
# AMENIA LANDFILL,
# AMENIA, NEW YORK

**Prepared for:**

**Lawler, Matusky & Skelly Engineers**

INTEX
EST 1973

INTERNATIONAL EXPLORATION
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**November, 1991**

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## INTRODUCTION AND PURPOSE

INTEX, Inc. was retained by Lawler, Matusky and Skelly Engineers (LMS) to conduct a geophysical survey at the inactive Amenia Landfill site located along Route 22, in Amenia, New York. The geophysical survey included magnetic field and electrical resistivity measurements. Field work was conducted on October 14-15, 22-25, and 28-30, 1991. The purpose of the survey was to investigate the subsurface for the presence of buried metal objects, delineate potential fill areas, and determine the subsurface structure. Site activities were directed by personnel from LMS Engineers. Field personnel were also accompanied by representatives of the property owner.

## SITE CONDITIONS

The site was divided into three areas, for convenience in collection of data. Area A, which is the largest area and encompassed most of the landfill area, consisted of primarily an open, grassy area where the landfill is located. The area is bounded on the east by Route 22, on the south by a topographic high (bedrock outcrops visible on the high), on the west by trees and wetland, and on the north by an above-ground concrete tank storage pad and wetlands.

This area also contained a concrete helipad surrounded by a gravel pad and lighting panels. Figure 1 shows features and data collection grid contained in Area A.

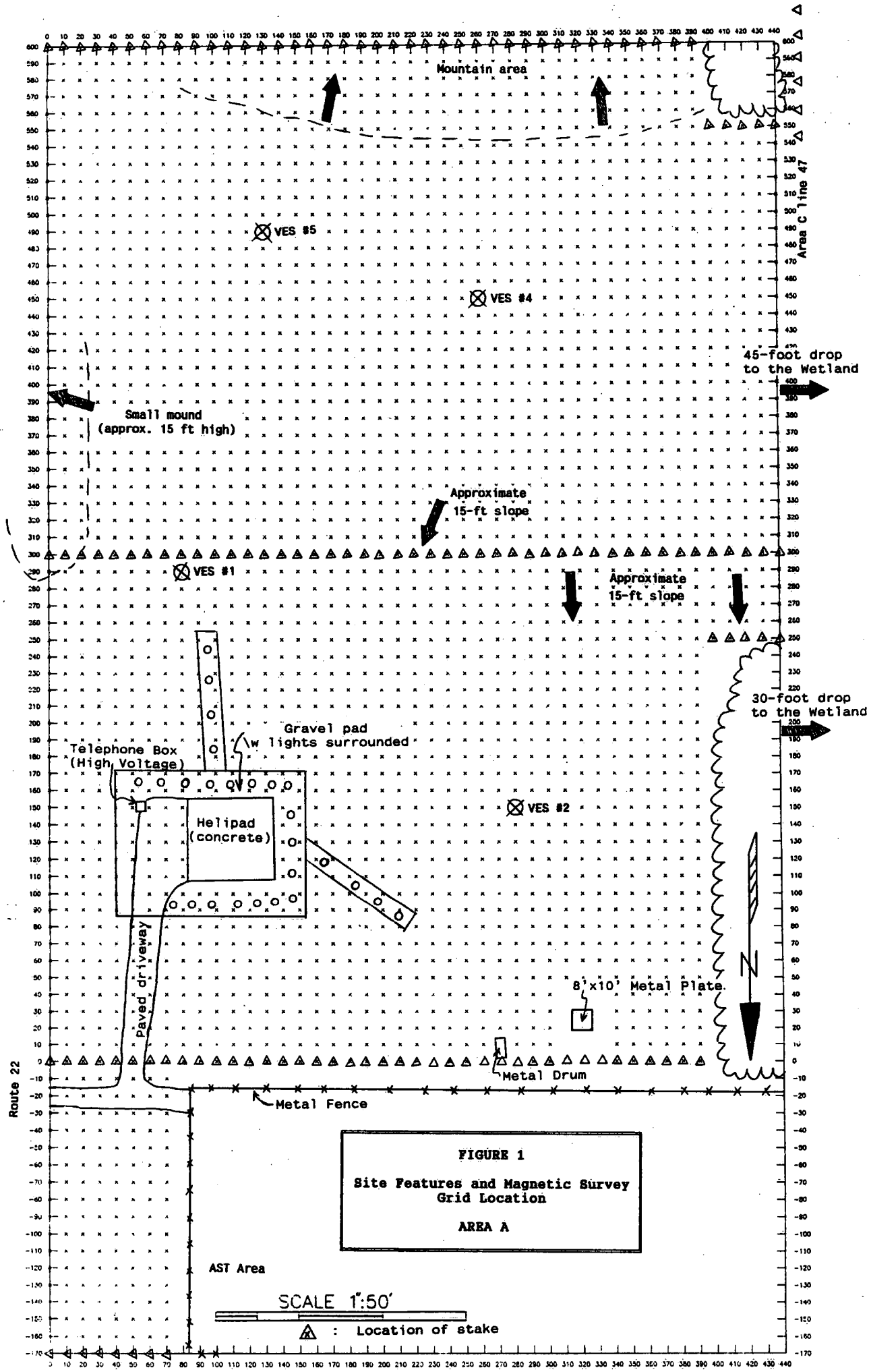


**FIGURE 1**

**Site Features and Magnetic Survey Grid Location**

**AREA A**

Area B extended south from the southwest corner of Area A. Data collection was carried out to the west of the topographic high mentioned previously, along a macadam road to a treeline. Figure 2 shows features and data collection locations in Area B.

Area C extended north from the northwest corner of Area A. Data collection in this area was limited to two lines of magnetic data, and one electrical resistivity profile. Figure 3 shows features and data collection locations in Area C.

## SURVEY PROCEDURE AND INSTRUMENTATION

### Magnetometer Survey

The magnetic survey was conducted using a grid pattern with a station spacing of 10 feet. The grid was established in the field by INTEX personnel.

Measurements were collected at each grid node which are identified as X-Y (south-west) coordinates in this report. The X-coordinate axis is incremented from east to west of the study area in units of feet, and the Y-coordinate axis is incremented from north to south. Figures 4 and 5 use this coordinate system, so that locations of features and anomalies can be referenced using a consistent nomenclature (ie, 100S, 250W).

### Magnetic Survey Instrumentation

The magnetometer used for the field survey, a proton precession

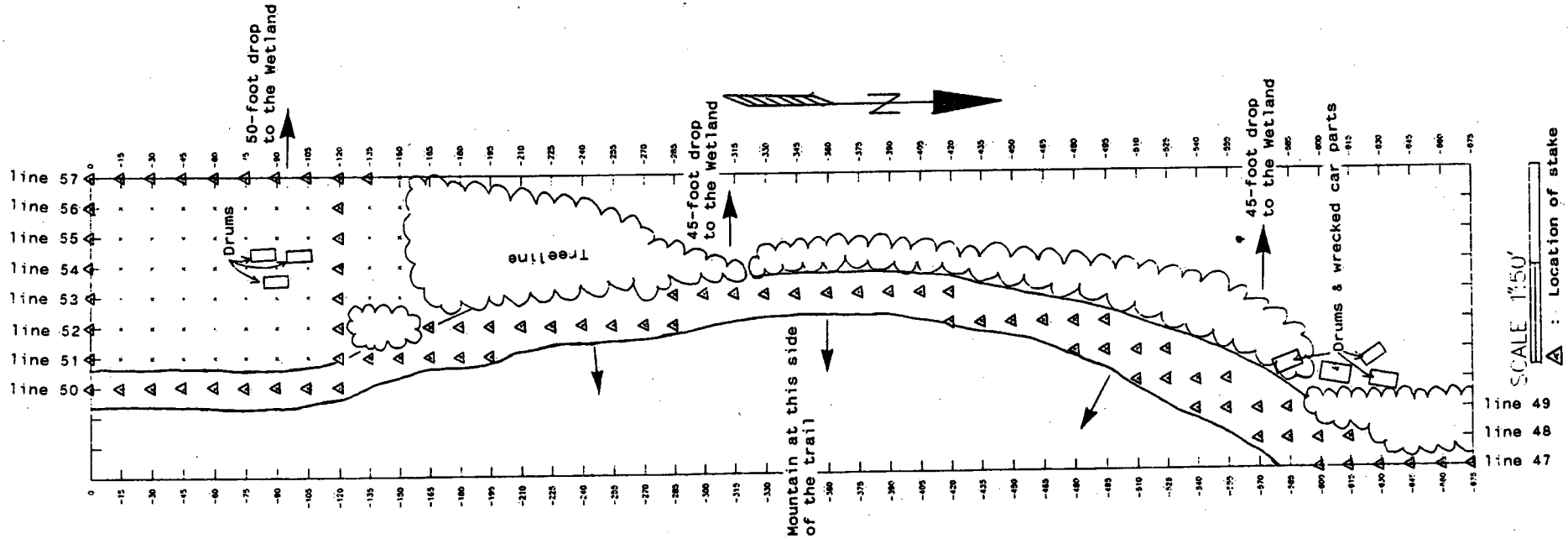


**FIGURE 2**

**Site Features and Grid Location**

**AREA B**

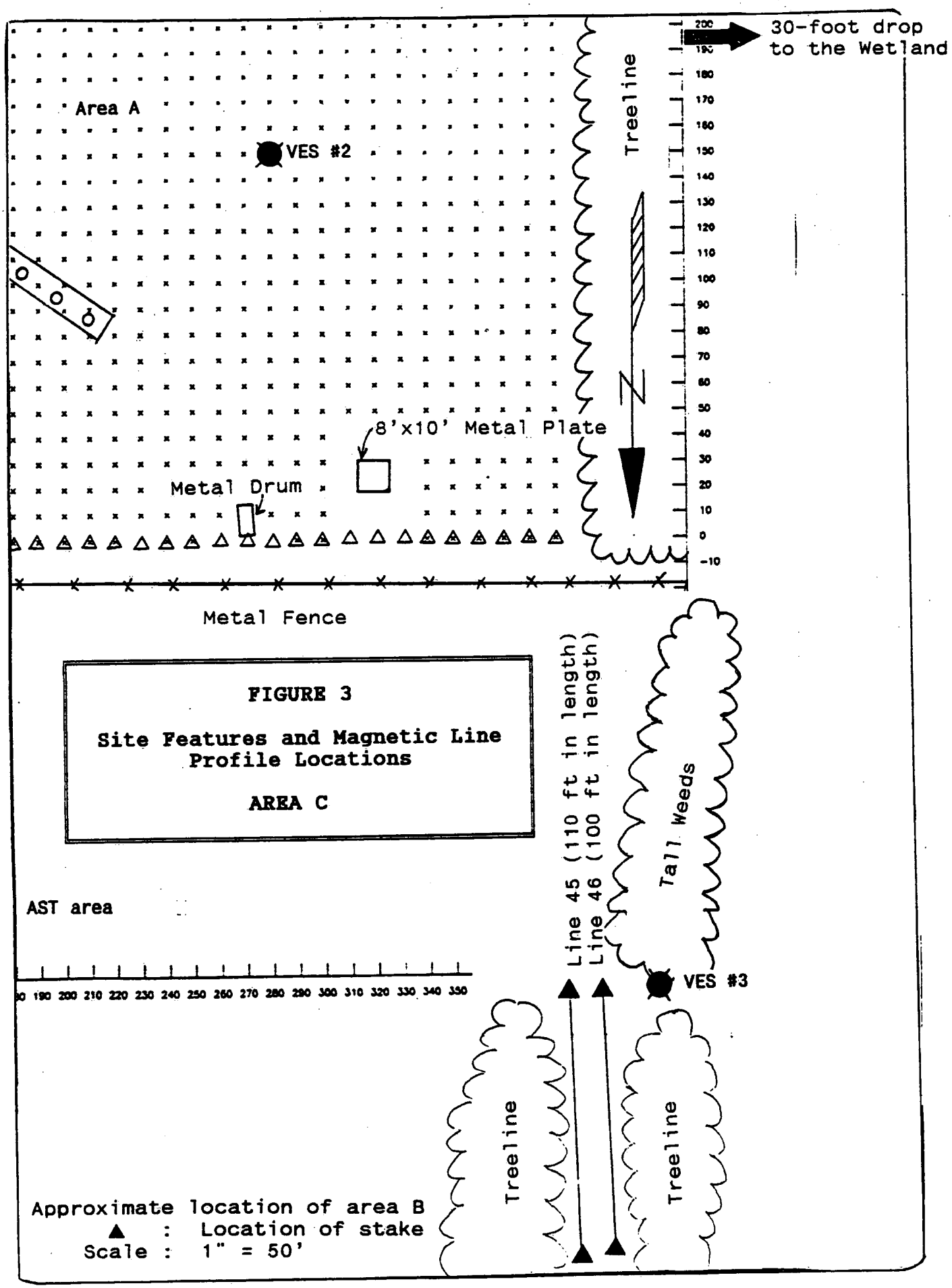


**FIGURE 3**

**Site Features and Magnetic Line Profile Locations**

**AREA C**

magnetometer, measures the earth's total geomagnetic field at a particular location. The total field consists of three components: the main field (which remains fixed over the period of time of a field investigation), the external field (which does not remain constant, but is accounted for by using a diurnal variation correction), and variations in the main field, which are attributable to anomalies near the surface.

The force created by a magnetic object is directly proportional to the mass of the magnetic material, and inversely proportional to its distance from the measurement point. Therefore, the main field (which is created by the huge mass of the earth's magnetic core) can be perturbed by a small magnetic mass located very close to the point at which the total field is being measured. Because the magnetometer is located so much closer to subsurface metal than it is to the earth's core, the perturbation in the total field created by an object such as a metal drum is detectable.

As a direct consequence of the relationship between force, mass and distance, the instrument cannot be said to have an effective depth of measurement, because it is unaffected by non-magnetic subsurface material. A magnetic material having sufficient mass can be detected at great depths; on the other hand, very small objects must be located very close to the surface in order to be detected.

The total magnetic field measurements were collected using an EG&G Geometrics Proton Precession Magnetometer, Model G-856, which measures in units of gammas and has an accuracy of ±1.0 gamma. Measurements were recorded and stored in the instrument memory and then transferred to a computer at the end of each survey day. Three repeat readings were taken at each station, to insure consistency of measurements.

The measurements are corrected for the diurnal variation using field intensity values collected periodically at a base station. Magnetic intensity is measured at the base station several times per day, and the changes in the base station readings represent the normal diurnal variation of the earth's field. Diurnal corrections are applied to all field measurements by interpolations made from the base station readings. The base station was established at a location where it was believed there would be little cultural interference, and no known metal was nearby. The readings at the base station were collected approximately every 2-3 hours.

**Electrical Resistivity Survey Instrumentation**

A R-40C Strata Scout resistivity meter was used to collect VES data. The instrument has a maximum depth of penetration of approximately 100 feet. This technique measures the apparent resistivity of subsurface material by introducing electrical current into the ground via two electrodes. The potential difference is measured between a second pair of electrodes. By

arrangement of the electrodes in particular spacing patterns, the resistivity of the material through which the current flowed can be determined.

The electrical resistivity profile data (VES) were collected in five locations. Four were located in Area A, and one was in Area C, as shown in Figures 1 and 3. The electrode setup employed a Schlumberger array configuration, with a constant 1-meter spacing between inner electrodes. Outer electrode spacing (AB/2) was sequentially increased from 2 meters to 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, and 32 meters. The apparent resistivity is measured in units of ohm-meters.

## RESULTS AND INTERPRETATION

All field data collected at the site are listed in Appendix 1.

### Magnetic Survey

Results of the magnetic survey in Areas A and B are shown in Figures 4 and 5, in the form of contour maps exhibiting the total magnetic field. Normally, the presence of magnetic anomalies is determined based on the presence of the magnetic high-low couples which trend in an approximately north-south direction; in the northern hemisphere, a buried metallic object is associated with a magnetic low located to the north of the buried object and a magnetic high located to the south. However, the north-south orientation of the high-low couple is dependent on the shape and orientation of the metallic object, with the result that the

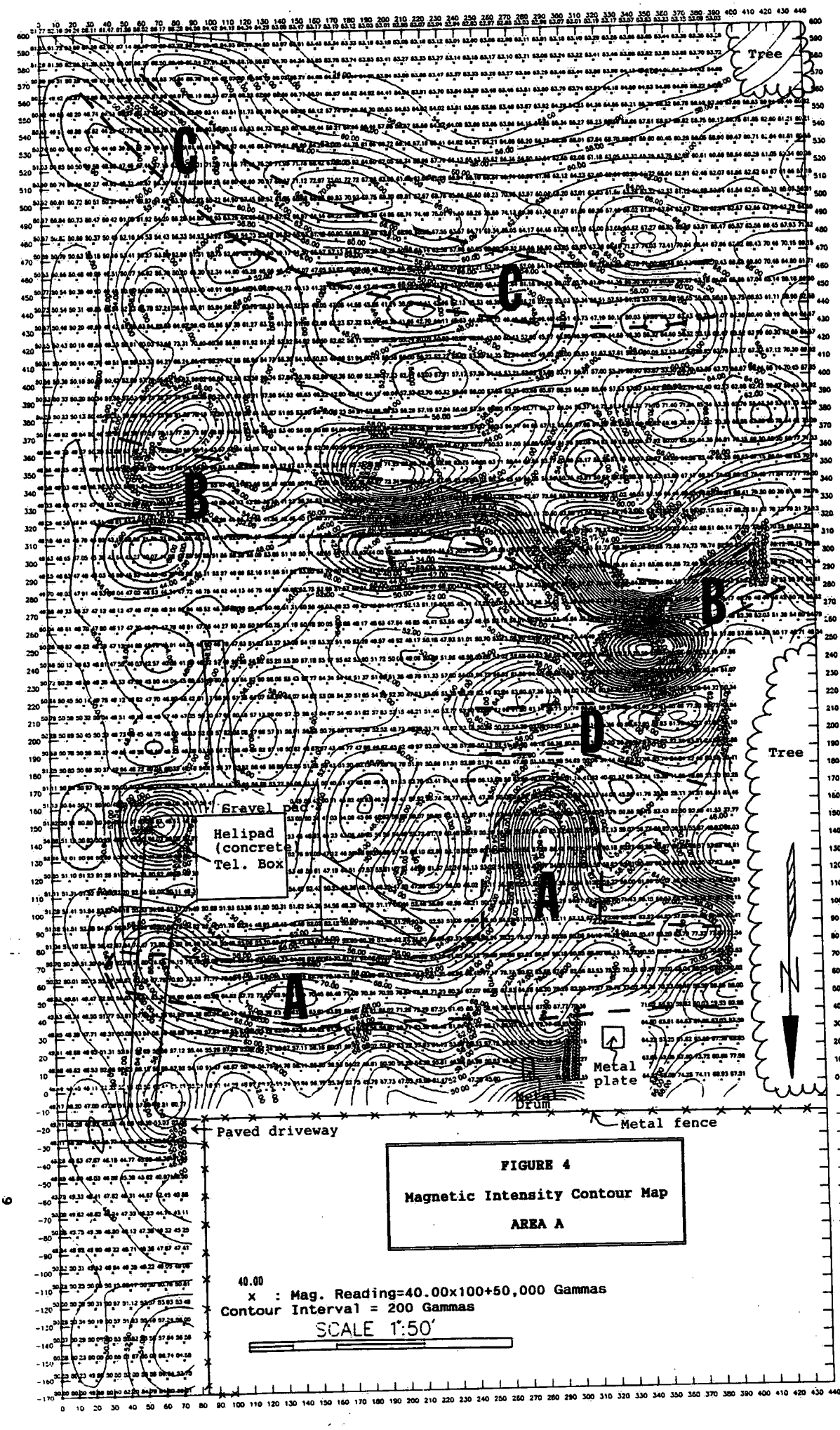


**FIGURE 4**

**Magnetic Intensity Contour Map**

**AREA A**

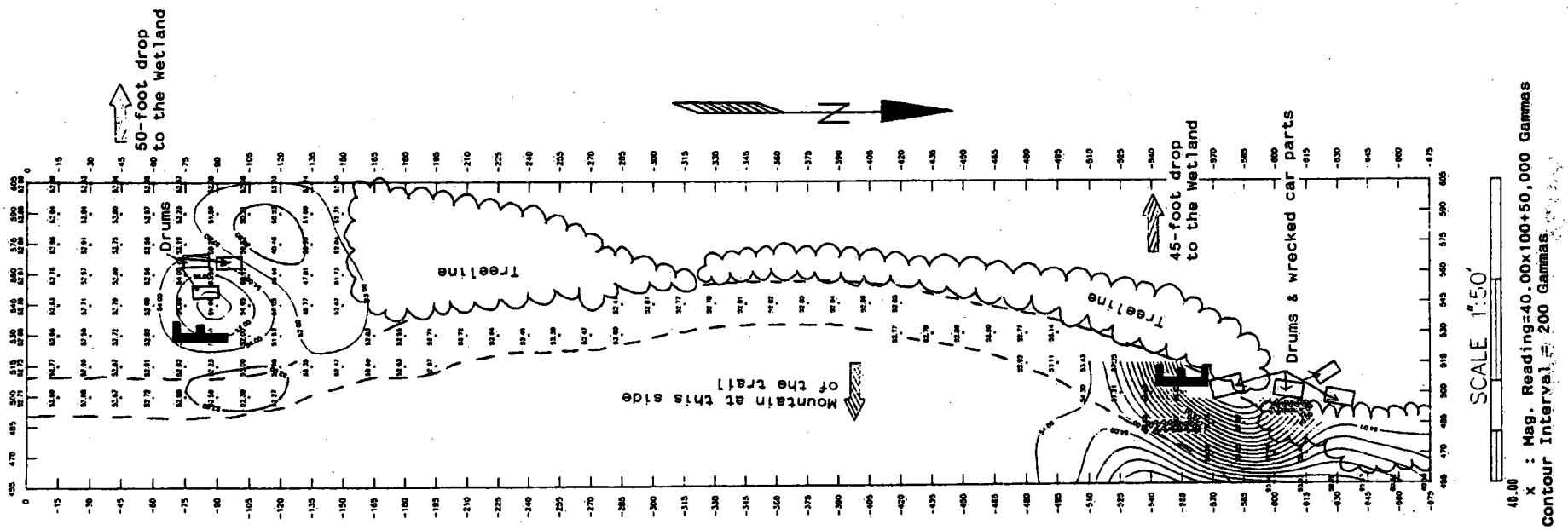


**FIGURE 5**

**Magnetic Intensity Contour Map**

**AREA B**

couples may not exhibit precise north-south trends. The magnetic material which creates the anomaly is usually located somewhere between the peaks of the high-low couple.

In an area containing fill, it is sometimes more difficult to discern distinct anomalies as defined above. If the fill material consists of an inhomogeneous mixture of various types of refuse materials, the anomalies created by one magnetic object may overlap, distort, or obliterate the anomaly created by a different magnetic object. The resultant contour map of magnetic field intensity will not necessarily show locations of individual magnetic objects, but may instead create complex patterns with no distinct high-low couples.

**Area A**

The contour map of Area A shown in Figure 4 exhibits this sort of complex pattern of magnetic contours. There are only two small sections of Area A which appear to exhibit stable magnetic characteristics. These sections are located in the extreme northeast corner, and also the south center of the area. The southern section of the survey area corresponds to a topographic high, which apparently corresponds to a bedrock outcrop. The stable magnetic readings are likely due to the presence of uniform subsurface material (ie, bedrock). Background magnetic field measurements in this section ranged between 53,000-55,000 gammas. In the northwest corner of the site (east of the above ground storage tank area), the background magnetic field

intensity is somewhat lower (48.000-50,000 gammas), but the stability of the intensity suggests that the fill does not extend to this point.

The remainder of Area A exhibits mostly broad, ill-defined anomalies, many of which have no particular north-south orientation. There are, however, several features apparent in the contour map which should be discussed. The first of these features (Anomaly A) is a nearly linear trend of magnetic highs extending east-west between the helipad and the above-ground storage tank concrete pad (lines 30-80S). There is no well-developed corresponding low to the north of this high trend, although this may be due to the presence of the concrete pad, which prevented collection of data in the area where the low may have existed. The fact that the magnetic high measurements extend across a 350-foot area in a nearly linear pattern suggests the possible presence of a trench, pipeline, or other large magnetic objects. It is not impossible that the high intensity readings may be related to rebar in the pad, or the metal fence around the pad, but the very high intensity of the anomaly makes this possibility very unlikely. It should be noted that there is an extension of the high trend oriented south from the primary east-west trend at approximately lines 280-290W.

The second noted feature (shown as Anomaly B in Figure 4) is another linear trend located near the center of Area A (between lines 270-340S) which is also oriented roughly east-west. This

feature has a well-developed set of magnetic intensity high-low couples across its length. Field personnel noted that the feature corresponded to a change in topography in the form of an abrupt 15-foot drop from south to north (Figure 1). The path of the feature roughly followed the edge of the slope change. It is not known what created the feature, although it seems likely that there is a concentration of magnetic material in this location.

The third feature (Anomaly C) is located farther south, and is somewhat similar in appearance to Anomaly B. It is another apparent narrow, elongate feature, which roughly parallels the bedrock outcrop on the south edge of the area. To the south of this feature, the magnetic intensity readings become more stable, and it is possible that this anomaly represents the edge of the landfill area. The presence of bedrock at the south edge of the area certainly limits the extent of fill. Although it is possible that this feature is related to the bedrock (ie, magnetic minerals in the rock), the reported bedrock is the Stockbridge Formation, which is described as calcitic and dolomitic marble. This type of rock is unlikely to contain significant quantities of magnetic minerals. The shape of the anomaly appears to parallel the natural topography, however, which suggests the possibility that the anomaly is due to a natural feature.

Anomaly D is a smaller anomalous area located on the west side of the landfill (lines 170-210S). This area also appears to be

somewhat elongate and narrow, although it is only about 150 feet long.

An area located in the southwest corner of the site, which was noted as an area of concern by NYSDEC personnel, did not exhibit a distinctive anomaly as compared to most of the rest of the area.

Specific anomalies created by individual magnetic objects are difficult to pinpoint in Area A, because individual magnetic high and low couples tend to be spread across wide areas, and are not necessarily well-defined. This type of pattern suggests a jumbled mass of objects and materials, containing varying amounts of metal. This pattern is in contrast to a uniform type of subsurface in which a discrete metal object is buried.

**Area B**

Area B exhibited two anomalies, both of which were associated with visible surface metallic objects (Figure 5). Anomaly E (north end of Area B) was a large anomaly associated with several drums and old automobile parts. Anomaly F (south end of Area B) was a much smaller anomaly created by three drums located on the ground surface. Other measurements in Area B were stable (approximately 52,000 gammas), suggesting no buried metal objects were present.

**Area C**

Because this area consisted of only two lines of data, it could not be contoured. Instead, a magnetic profile of each line was prepared, to investigate whether anomalous high or low readings were detected. The profiles, shown in Figures 6 and 7, indicate that although field intensity increased from south to north along both lines, no anomalous readings were obtained.

**Resistivity (VES) Survey**

The five soundings conducted in Areas A and C exhibited different subsurface conditions on the west side of the landfill compared to the east. Two soundings (VES 1 and VES 5) were completed on the east side of the landfill (Figure 1). In both locations, the resistivity values increased significantly at depths of about 15 feet. The resistivity at this depth in both soundings was indicative of crystalline bedrock (both were greater than 5,000 ohm-meters). The three soundings conducted on the west side of the landfill, however (Figures 1 and 3), exhibited decreased resistivity values with depth, and apparently never reached bedrock. Descriptions of the results of the individual soundings are given below, and details of the subsurface layers are shown in Table 1.

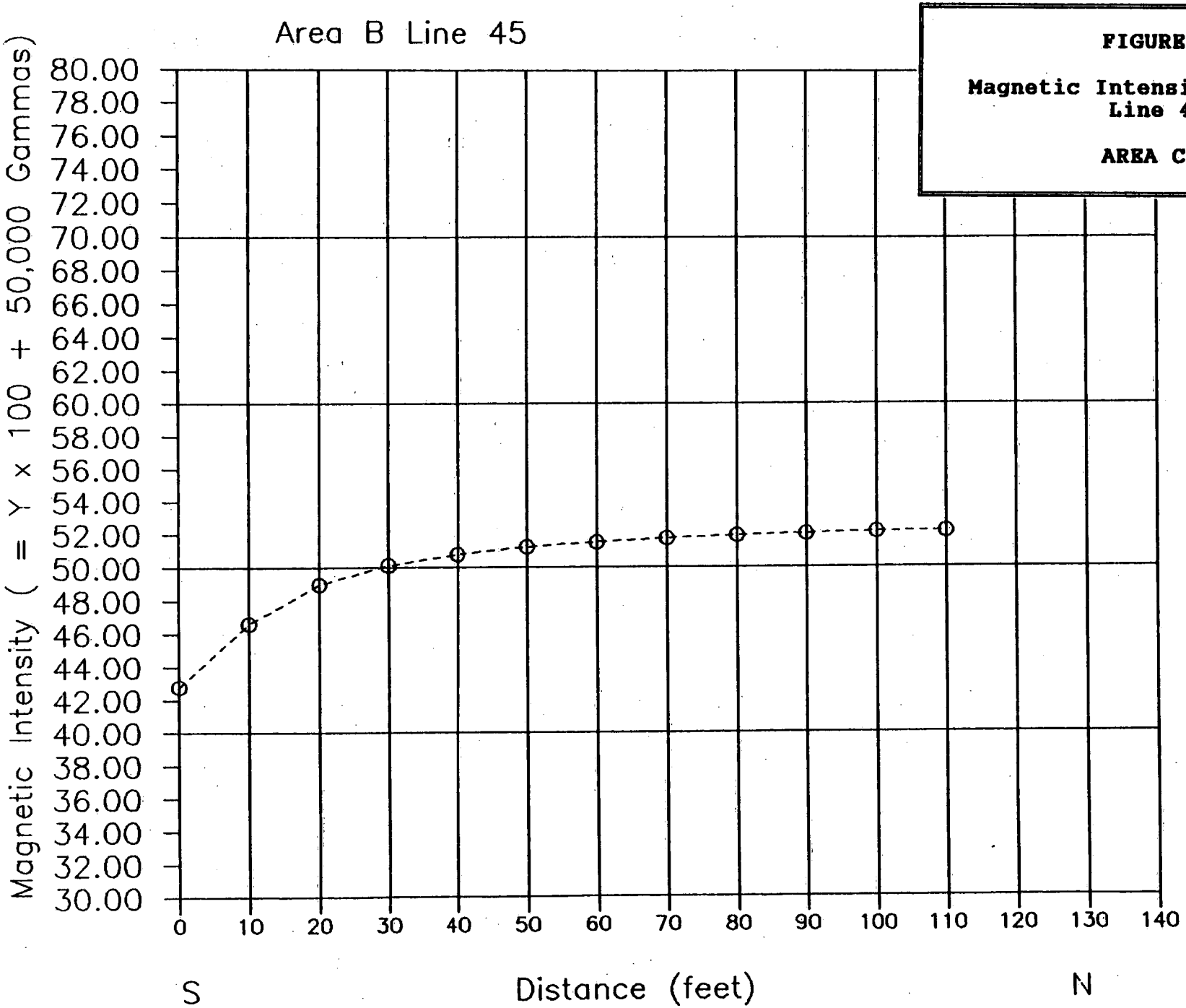


**FIGURE 6**

**Magnetic Intensity Profile, Line 45**

**AREA C**

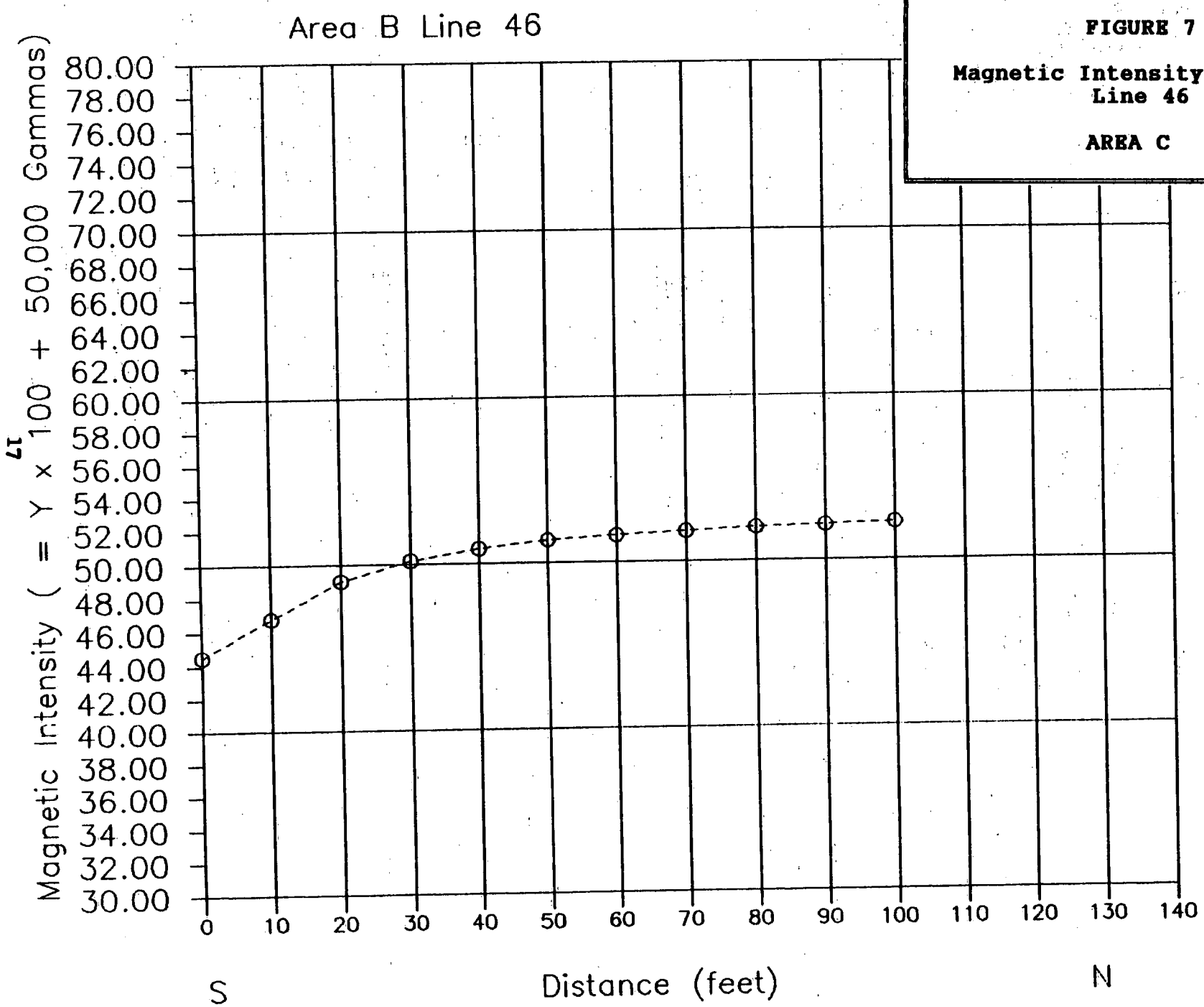


**FIGURE 7**

**Magnetic Intensity Profile, Line 46**

**AREA C**

TABLE 1
VES RESULTS

| VES # | Layer | Thickness (ft) | Apparent Resistivity (ohm-m) |
|---|---|---|---|
| 1 | 1 (surface) | 6.1 | 81.2 |
| | 2 | 8.7 | 22.7 |
| | 3 | - | $5.6 \times 10^3$ |
| 2 | 1 (surface) | 2.7 | 152 |
| | 2 | 22.8 | 18.4 |
| | 3 | - | 8.9 |
| 3 | 1 (surface) | 9.0 | 55.5 |
| | 2 | 11.3 | 48.7 |
| | 3 | - | 15.2 |
| 4 | 1 (surface) | 5.8 | 74.1 |
| | 2 | 38.0 | 17.8 |
| | 3 | - | 28.6 |
| 5 | 1 (surface) | 8.6 | 22.6 |
| | 2 | 4.4 | 7.5 |
| | 3 | - | $1.8 \times 10^5$ |

**VES 1**

This sounding was located south of the helipad, on the east side of the landfill. Modelling of the data suggested the presence of three layers; the two upper layers, with thicknesses of approximately 6.1 feet and 8.7 feet, both had apparent resistivity values of less than 100 ohm-m (81 and 23 ohm-m from the surface). The upper (surface) layer had a slightly higher resistivity than the intermediate layer. The deepest layer was present at a depth of about 15 feet, and had a resistivity value of 5,900 ohm-m, indicative of bedrock.

**VES 5**

VES #5 was located south of VES 1, but still on the east side of the landfill. The modelled curve resulted in three subsurface layers similar to VES 1. The surface layer had a higher apparent

resistivity value than the intermediate, and both values were low (22 and 7.5 ohm-m, respectively). The thickness of the surface layer was found to be about 8.6 feet, and the second layer was 4.4 feet. The deepest layer, present at a depth of 13 feet, exhibited a resistivity of 178,000 ohm-m, also typical for crystalline bedrock.

Based on the results of the above two curves, it appears that the fill material has a resistivity value of less than 100 ohm-m. This low value suggests that a high proportion of conductive material is present in the fill, and/or that the fill is well-compacted and saturated (landfill leachate may be highly conductive). It is not known whether one or both of the layers present above bedrock represent fill material, because other natural sediments likely to be present (unsaturated glacial till and clay) can have resistivity values in the range of 1-1,000 ohm-m.

**VES 2**

This sounding was located west of the helipad. It was modelled as a three-layer subsurface, having decreasing apparent resistivity with depth. The thickness of the surface layer was about 2.7 feet 152 ohm-m), and the intermediate layer was 23 feet thick (18 ohm-m). The resistivity of the deepest layer was 9 ohm-m.

**VES 4**

The subsurface layering in this sounding is similar to VES 2; the surface layer is 6 feet thick, and has the highest apparent resistivity (74 ohm-m). The intermediate layer is much thicker (38 feet) and has a resistivity of 18 ohm-m. The deepest layer has only a slightly higher resistivity, 29 ohm-m.

**VES 3**

This sounding is located in Area C, west of the above ground storage tank pad. This model also resulted in three layers, although the two shallow layers have very similar resistivity values (56 and 49 ohm-m), and may consist of the same material. The total thickness of these two layers is 20 feet. The deepest layer has an apparent resistivity of 15 ohm-m.

All layers in the above three soundings exhibited low resistivity values. Because of the possibly overlapping range of resistivity values of material types (both natural and fill) which could be present, it is difficult to determine the depth of fill in these locations. Clays normally have resistivity values ranging from 1-100 ohm-m, and based on the results of VES 1 and 5, the fill also has an apparent resistivity in that range. On the west side of the landfill, bedrock was never encountered, and as a result, it is more difficult to assess even the maximum possible fill thickness. It is possible that in both VES 2 and 4 locations, the bottom of the intermediate layer corresponds to the bottom of fill, but because of the likely presence of glacial sediments, it

is not possible to be certain. One possibility is that a sediment layer beneath the fill is saturated with low conductivity leachate, creating an even lower resistivity in the deepest layer. The decrease in the resistivities with depth may also be related to the depth of the water table, although this depth is not certain.

## CONCLUSIONS

Based on the magnetic intensity contour map, it seems likely that most of Area A consists of fill material containing significant quantities of magnetic material. The fill appears to extend to the concrete pad to the north; past the boundary of the pad, the magnetic measurements exhibit more stability, suggesting that the fill is not present beneath or adjacent to it. Toward the south, the fill area appears to extend at least to the 510S line. South of this line (approximately), the magnetic intensity readings become more stable.

Area A is dominated by several elongate anomalous areas, which appear to represent concentrations of magnetic material. Another area consisting of magnetic high readings is oriented east-west, between the helipad and the concrete pad. There are no corresponding magnetic lows detected north of this anomaly, but it is possible that the low intensity readings would have been measured in the concrete pad area. This anomaly may be due to the concrete pad and surrounding fence, although this possibility is considered unlikely.

The results of the magnetometer survey suggest that much of the fill area contains magnetic objects. The contour map shows large, broad anomalous high and low patterns, but with no particular north-south orientation of anomalies. This pattern suggests that there is overlap and interference between anomalies from numerous different individual magnetic objects, resulting in a complex pattern in which individual anomalies are difficult to distinguish.

The results of the resistivity survey indicate that bedrock is located closer to the surface on the west side of the landfill (VES 1 and 5) than on the west side. The fill material has an apparent resistivity of less than 100 ohm-m, similar to that of the natural sediments which may be present beneath the landfill. Therefore, although the depth of the fill can probably be assumed to extend to bedrock on the west side of the landfill, the actual depth cannot be estimated.

Particular areas of concern would be located in Area A, associated with magnetic anomalies A, B, and D as shown in Figure 4. Each of these anomalies appear to be narrow, elongate features, oriented approximately east-west. Two of these features extend across several hundred feet, and may represent trenches in which large concentrations of magnetic materials were placed.

# APPENDIX I

## FIELD DATA

1) Magnetic Intensity Data
2) Resistivity Data

# MAGNETIC INTENSITY DATA
# 2849 STATIONS

AREA A

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 54946.2 | 0 | 0 | 310 | 54919.3 |
| 0 | 0 | 10 | 54947.9 | 0 | 0 | 320 | 54925.2 |
| 0 | 0 | 20 | 54941.1 | 0 | 0 | 330 | 54932.6 |
| 0 | 0 | 30 | 54944.7 | 0 | 0 | 340 | 54957.7 |
| 0 | 0 | 40 | 54943.1 | 0 | 0 | 350 | 54985.6 |
| 0 | 0 | 50 | 54982.2 | 0 | 0 | 360 | 54999.4 |
| 0 | 0 | 60 | 55031.8 | 0 | 0 | 370 | 55014.1 |
| 0 | 0 | 70 | 55070.4 | 0 | 0 | 380 | 55028.3 |
| 0 | 0 | 80 | 55103.5 | 0 | 0 | 390 | 55052.6 |
| 0 | 0 | 90 | 55118.9 | 0 | 0 | 400 | 55056.1 |
| 0 | 0 | 100 | 55127.9 | 0 | 0 | 410 | 55060.9 |
| 0 | 0 | 110 | 55110.7 | 0 | 0 | 420 | 55065.0 |
| 0 | 0 | 120 | 55085.3 | 0 | 0 | 430 | 55067.2 |
| 0 | 0 | 130 | 55216.3 | 0 | 0 | 440 | 55073.3 |
| 0 | 0 | 140 | 55488.1 | 0 | 0 | 450 | 55077.0 |
| 0 | 0 | 150 | 55142.4 | 0 | 0 | 460 | 55083.0 |
| 0 | 0 | 160 | 55113.3 | 0 | 0 | 470 | 55088.5 |
| 0 | 0 | 170 | 55110.7 | 0 | 0 | 480 | 55096.5 |
| 0 | 0 | 180 | 55104.9 | 0 | 0 | 490 | 55096.6 |
| 0 | 0 | 190 | 55098.5 | 0 | 0 | 500 | 55092.1 |
| 0 | 0 | 200 | 55088.0 | 0 | 0 | 510 | 55089.7 |
| 0 | 0 | 210 | 55076.4 | 0 | 0 | 520 | 55103.0 |
| 0 | 0 | 220 | 55063.6 | 0 | 0 | 530 | 55074.1 |
| 0 | 0 | 230 | 55072.4 | 0 | 0 | 540 | 55044.3 |
| 0 | 0 | 240 | 55045.7 | 0 | 0 | 550 | 55041.6 |
| 0 | 0 | 250 | 55025.7 | 0 | 0 | 560 | 55028.6 |
| 0 | 0 | 260 | 55004.3 | 0 | 0 | 570 | 55068.7 |
| 0 | 0 | 270 | 54987.7 | 0 | 0 | 580 | 55126.4 |
| 0 | 0 | 280 | 54970.4 | 0 | 0 | 590 | 55157.0 |
| 0 | 0 | 290 | 54954.6 | 0 | 0 | 600 | 55176.9 |
| 0 | 0 | 300 | 54943.4 | 1 | 10 | 600 | 55215.8 |
| 1 | 10 | 300 | 54865.1 | 1 | 10 | 590 | 55172.3 |
| 1 | 10 | 290 | 54883.3 | 1 | 10 | 580 | 55154.7 |
| 1 | 10 | 280 | 54903.2 | 1 | 10 | 570 | 55030.6 |
| 1 | 10 | 270 | 54932.6 | 1 | 10 | 560 | 54941.5 |
| 1 | 10 | 260 | 54961.0 | 1 | 10 | 550 | 54952.9 |
| 1 | 10 | 250 | 54987.0 | 1 | 10 | 540 | 54991.2 |
| 1 | 10 | 240 | 55012.2 | 1 | 10 | 530 | 55039.6 |
| 1 | 10 | 230 | 55028.7 | 1 | 10 | 520 | 55084.7 |
| 1 | 10 | 220 | 55044.7 | 1 | 10 | 510 | 55074.0 |
| 1 | 10 | 210 | 55058.7 | 1 | 10 | 500 | 55080.6 |
| 1 | 10 | 200 | 55068.7 | 1 | 10 | 490 | 55083.5 |
| 1 | 10 | 190 | 55077.7 | 1 | 10 | 480 | 55082.1 |
| 1 | 10 | 180 | 55085.3 | 1 | 10 | 470 | 55079.2 |
| 1 | 10 | 170 | 55083.8 | 1 | 10 | 460 | 55065.7 |
| 1 | 10 | 160 | 55093.8 | 1 | 10 | 450 | 55054.1 |
| 1 | 10 | 150 | 55091.2 | 1 | 10 | 440 | 55054.2 |
| 1 | 10 | 140 | 55119.2 | 1 | 10 | 430 | 55046.2 |
| 1 | 10 | 130 | 55100.8 | 1 | 10 | 420 | 55043.1 |
| 1 | 10 | 120 | 55109.5 | 1 | 10 | 410 | 55040.2 |
| 1 | 10 | 110 | 55130.9 | 1 | 10 | 400 | 55035.6 |
| 1 | 10 | 100 | 55140.9 | 1 | 10 | 390 | 55033.3 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 1 | 10 | 90 | 55150.9 | 1 | 10 | 380 | 55023.1 |
| 1 | 10 | 80 | 55110.1 | 1 | 10 | 370 | 54991.6 |
| 1 | 10 | 70 | 55056.2 | 1 | 10 | 360 | 54977.5 |
| 1 | 10 | 60 | 55000.6 | 1 | 10 | 350 | 54964.7 |
| 1 | 10 | 50 | 54960.6 | 1 | 10 | 340 | 54903.0 |
| 1 | 10 | 40 | 54874.2 | 1 | 10 | 330 | 54864.6 |
| 1 | 10 | 30 | 54837.7 | 1 | 10 | 320 | 54854.5 |
| 1 | 10 | 20 | 54867.5 | 1 | 10 | 310 | 54841.8 |
| 1 | 10 | 10 | 54862.3 | 2 | 20 | 310 | 54676.4 |
| 1 | 10 | 0 | 54844.7 | 2 | 20 | 320 | 54683.6 |
| 2 | 20 | 0 | 54810.8 | 2 | 20 | 330 | 54751.9 |
| 2 | 20 | 10 | 54852.5 | 2 | 20 | 340 | 54848.3 |
| 2 | 20 | 20 | 54865.1 | 2 | 20 | 350 | 54922.0 |
| 2 | 20 | 30 | 54771.4 | 2 | 20 | 360 | 54967.2 |
| 2 | 20 | 40 | 54854.8 | 2 | 20 | 370 | 54993.9 |
| 2 | 20 | 50 | 54947.2 | 2 | 20 | 380 | 55013.4 |
| 2 | 20 | 60 | 55015.0 | 2 | 20 | 390 | 55019.5 |
| 2 | 20 | 70 | 55129.6 | 2 | 20 | 400 | 55016.3 |
| 2 | 20 | 80 | 55237.5 | 2 | 20 | 410 | 55014.0 |
| 2 | 20 | 90 | 55238.1 | 2 | 20 | 420 | 55015.9 |
| 2 | 20 | 100 | 55194.1 | 2 | 20 | 430 | 55019.8 |
| 2 | 20 | 110 | 55152.1 | 2 | 20 | 440 | 55030.8 |
| 2 | 20 | 120 | 55122.7 | 2 | 20 | 450 | 55038.9 |
| 2 | 20 | 130 | 55099.0 | 2 | 20 | 460 | 55048.2 |
| 2 | 20 | 140 | 55085.4 | 2 | 20 | 470 | 55063.2 |
| 2 | 20 | 150 | 55079.8 | 2 | 20 | 480 | 55068.7 |
| 2 | 20 | 160 | 55070.6 | 2 | 20 | 490 | 55073.3 |
| 2 | 20 | 170 | 55067.3 | 2 | 20 | 500 | 55072.4 |
| 2 | 20 | 180 | 55065.9 | 2 | 20 | 510 | 55065.5 |
| 2 | 20 | 190 | 55055.5 | 2 | 20 | 520 | 55049.6 |
| 2 | 20 | 200 | 55044.7 | 2 | 20 | 530 | 54979.6 |
| 2 | 20 | 210 | 55031.7 | 2 | 20 | 540 | 54887.7 |
| 2 | 20 | 220 | 55014.4 | 2 | 20 | 550 | 54820.4 |
| 2 | 20 | 230 | 54989.0 | 2 | 20 | 560 | 54887.1 |
| 2 | 20 | 240 | 54963.4 | 2 | 20 | 570 | 55025.6 |
| 2 | 20 | 250 | 54921.6 | 2 | 20 | 580 | 55254.5 |
| 2 | 20 | 260 | 54878.8 | 2 | 20 | 590 | 55356.2 |
| 2 | 20 | 270 | 54836.5 | 2 | 20 | 600 | 55424.4 |
| 2 | 20 | 280 | 54791.3 | 3 | 30 | 600 | 55811.2 |
| 2 | 20 | 290 | 54747.7 | 3 | 30 | 590 | 55725.7 |
| 2 | 20 | 300 | 54704.7 | 3 | 30 | 580 | 55139.0 |
| 3 | 30 | 300 | 54529.6 | 3 | 30 | 570 | 54948.0 |
| 3 | 30 | 290 | 54602.6 | 3 | 30 | 560 | 54788.3 |
| 3 | 30 | 280 | 54652.7 | 3 | 30 | 550 | 54673.8 |
| 3 | 30 | 270 | 54711.7 | 3 | 30 | 540 | 54552.1 |
| 3 | 30 | 260 | 54779.9 | 3 | 30 | 530 | 54724.7 |
| 3 | 30 | 250 | 54835.5 | 3 | 30 | 520 | 54958.0 |
| 3 | 30 | 240 | 54890.5 | 3 | 30 | 510 | 55026.9 |
| 3 | 30 | 230 | 54939.4 | 3 | 30 | 500 | 55051.2 |
| 3 | 30 | 220 | 54978.2 | 3 | 30 | 490 | 55046.6 |
| 3 | 30 | 210 | 55004.4 | 3 | 30 | 480 | 55036.5 |
| 3 | 30 | 200 | 55019.6 | 3 | 30 | 470 | 55015.4 |
| 3 | 30 | 190 | 55027.0 | 3 | 30 | 460 | 54999.3 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 3 | 30 | 180 | 55036.7 | 3 | 30 | 450 | 54989.9 |
| 3 | 30 | 170 | 55038.7 | 3 | 30 | 440 | 54985.2 |
| 3 | 30 | 160 | 55040.3 | 3 | 30 | 430 | 54969.2 |
| 3 | 30 | 150 | 55046.1 | 3 | 30 | 420 | 54965.9 |
| 3 | 30 | 140 | 55058.5 | 3 | 30 | 410 | 54979.0 |
| 3 | 30 | 130 | 55086.4 | 3 | 30 | 400 | 55009.2 |
| 3 | 30 | 120 | 55125.8 | 3 | 30 | 390 | 55033.7 |
| 3 | 30 | 110 | 55181.4 | 3 | 30 | 380 | 55044.6 |
| 3 | 30 | 100 | 55282.4 | 3 | 30 | 370 | 55045.6 |
| 3 | 30 | 90 | 55459.9 | 3 | 30 | 360 | 55028.5 |
| 3 | 30 | 80 | 55642.1 | 3 | 30 | 350 | 54967.6 |
| 3 | 30 | 70 | 55448.3 | 3 | 30 | 340 | 54876.4 |
| 3 | 30 | 60 | 55297.3 | 3 | 30 | 330 | 54748.3 |
| 3 | 30 | 50 | 55289.7 | 3 | 30 | 320 | 54550.8 |
| 3 | 30 | 40 | 55177.0 | 3 | 30 | 310 | 54480.3 |
| 3 | 30 | 30 | 54830.8 | 4 | 40 | 310 | 54315.9 |
| 3 | 30 | 20 | 55130.8 | 4 | 40 | 320 | 54681.2 |
| 3 | 30 | 10 | 55206.2 | 4 | 40 | 330 | 55360.3 |
| 3 | 30 | 0 | 55234.7 | 4 | 40 | 340 | 55252.9 |
| 4 | 40 | 0 | 55918.2 | 4 | 40 | 350 | 55440.6 |
| 4 | 40 | 10 | 55722.4 | 4 | 40 | 360 | 55388.0 |
| 4 | 40 | 20 | 55290.8 | 4 | 40 | 370 | 55291.7 |
| 4 | 40 | 30 | 55008.1 | 4 | 40 | 380 | 55231.2 |
| 4 | 40 | 40 | 55380.9 | 4 | 40 | 390 | 55157.9 |
| 4 | 40 | 50 | 55607.3 | 4 | 40 | 400 | 55041.7 |
| 4 | 40 | 60 | 55866.7 | 4 | 40 | 410 | 54951.2 |
| 4 | 40 | 70 | 56277.7 | 4 | 40 | 420 | 54934.8 |
| 4 | 40 | 80 | 56794.2 | 4 | 40 | 430 | 54941.9 |
| 4 | 40 | 90 | 55997.0 | 4 | 40 | 440 | 54954.0 |
| 4 | 40 | 100 | 55418.4 | 4 | 40 | 450 | 54945.2 |
| 4 | 40 | 110 | 55220.0 | 4 | 40 | 460 | 54950.7 |
| 4 | 40 | 120 | 55122.4 | 4 | 40 | 470 | 55016.4 |
| 4 | 40 | 130 | 55059.1 | 4 | 40 | 480 | 55044.6 |
| 4 | 40 | 140 | 54996.5 | 4 | 40 | 490 | 55042.3 |
| 4 | 40 | 150 | 54943.5 | 4 | 40 | 500 | 55030.8 |
| 4 | 40 | 160 | 54981.9 | 4 | 40 | 510 | 54991.6 |
| 4 | 40 | 170 | 55000.0 | 4 | 40 | 520 | 54867.5 |
| 4 | 40 | 180 | 54994.2 | 4 | 40 | 530 | 54448.1 |
| 4 | 40 | 190 | 54985.0 | 4 | 40 | 540 | 54428.5 |
| 4 | 40 | 200 | 54972.6 | 4 | 40 | 550 | 54911.2 |
| 4 | 40 | 210 | 54951.4 | 4 | 40 | 560 | 55070.0 |
| 4 | 40 | 220 | 54912.3 | 4 | 40 | 570 | 55155.5 |
| 4 | 40 | 230 | 54832.9 | 4 | 40 | 580 | 55374.8 |
| 4 | 40 | 240 | 54755.9 | 4 | 40 | 590 | 56297.3 |
| 4 | 40 | 250 | 54711.5 | 4 | 40 | 600 | 56146.9 |
| 4 | 40 | 260 | 54616.7 | 5 | 50 | 600 | 56158.3 |
| 4 | 40 | 270 | 54611.6 | 5 | 50 | 590 | 56714.4 |
| 4 | 40 | 280 | 54604.2 | 5 | 50 | 580 | 55999.8 |
| 4 | 40 | 290 | 54599.4 | 5 | 50 | 570 | 55444.5 |
| 4 | 40 | 300 | 54364.4 | 5 | 50 | 560 | 55565.0 |
| 5 | 50 | 300 | 54226.6 | 5 | 50 | 550 | 55536.6 |
| 5 | 50 | 290 | 54551.8 | 5 | 50 | 540 | 54771.5 |
| 5 | 50 | 280 | 54702.0 | 5 | 50 | 530 | 53988.4 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 5 | 50 | 270 | 54749.2 | 5 | 50 | 520 | 54745.3 |
| 5 | 50 | 260 | 54730.1 | 5 | 50 | 510 | 54932.1 |
| 5 | 50 | 250 | 54468.1 | 5 | 50 | 500 | 55011.4 |
| 5 | 50 | 240 | 54603.3 | 5 | 50 | 490 | 55105.1 |
| 5 | 50 | 230 | 54725.5 | 5 | 50 | 480 | 55216.1 |
| 5 | 50 | 220 | 54861.7 | 5 | 50 | 470 | 55340.6 |
| 5 | 50 | 210 | 54917.7 | 5 | 50 | 460 | 55077.3 |
| 5 | 50 | 200 | 54944.5 | 5 | 50 | 450 | 55091.0 |
| 5 | 50 | 190 | 54958.1 | 5 | 50 | 440 | 55222.6 |
| 5 | 50 | 180 | 54972.1 | 5 | 50 | 430 | 55188.1 |
| 5 | 50 | 170 | 55015.3 | 5 | 50 | 420 | 55090.7 |
| 5 | 50 | 160 | 55335.3 | 5 | 50 | 410 | 54999.2 |
| 5 | 50 | 150 | 54787.2 | 5 | 50 | 400 | 55288.7 |
| 5 | 50 | 140 | 54910.4 | 5 | 50 | 390 | 55752.3 |
| 5 | 50 | 130 | 55059.2 | 5 | 50 | 380 | 55968.8 |
| 5 | 50 | 120 | 55138.2 | 5 | 50 | 370 | 55955.9 |
| 5 | 50 | 110 | 55254.0 | 5 | 50 | 360 | 56346.1 |
| 5 | 50 | 100 | 55532.6 | 5 | 50 | 350 | 56557.6 |
| 5 | 50 | 90 | 56251.8 | 5 | 50 | 340 | 55960.7 |
| 5 | 50 | 80 | 57447.3 | 5 | 50 | 330 | 56006.1 |
| 5 | 50 | 70 | 57179.7 | 5 | 50 | 320 | 55296.8 |
| 5 | 50 | 60 | 56303.5 | 5 | 50 | 310 | 53806.1 |
| 5 | 50 | 50 | 55954.1 | 6 | 60 | 310 | 53170.6 |
| 5 | 50 | 40 | 55743.9 | 6 | 60 | 320 | 55258.5 |
| 5 | 50 | 30 | 55350.9 | 6 | 60 | 330 | 55873.8 |
| 5 | 50 | 20 | 55268.9 | 6 | 60 | 340 | 56425.1 |
| 5 | 50 | 10 | 55911.9 | 6 | 60 | 350 | 57105.8 |
| 5 | 50 | 0 | 56356.1 | 6 | 60 | 360 | 57228.6 |
| 6 | 60 | 0 | 56543.6 | 6 | 60 | 370 | 56723.6 |
| 6 | 60 | 10 | 55969.0 | 6 | 60 | 380 | 56947.0 |
| 6 | 60 | 20 | 55559.4 | 6 | 60 | 390 | 56873.5 |
| 6 | 60 | 30 | 55845.5 | 6 | 60 | 400 | 55770.4 |
| 6 | 60 | 40 | 58434.9 | 6 | 60 | 410 | 55332.7 |
| 6 | 60 | 50 | 56334.1 | 6 | 60 | 420 | 56003.3 |
| 6 | 60 | 60 | 56778.5 | 6 | 60 | 430 | 56364.0 |
| 6 | 60 | 70 | 57464.5 | 6 | 60 | 440 | 56178.3 |
| 6 | 60 | 80 | 57359.9 | 6 | 60 | 450 | 55608.8 |
| 6 | 60 | 90 | 56201.9 | 6 | 60 | 460 | 55661.7 |
| 6 | 60 | 100 | 55498.7 | 6 | 60 | 470 | 55827.2 |
| 6 | 60 | 110 | 55206.8 | 6 | 60 | 480 | 55453.3 |
| 6 | 60 | 120 | 55062.2 | 6 | 60 | 490 | 55192.0 |
| 6 | 60 | 130 | 54960.2 | 6 | 60 | 500 | 54986.5 |
| 6 | 60 | 140 | 54803.2 | 6 | 60 | 510 | 54957.2 |
| 6 | 60 | 150 | 58487.2 | 6 | 60 | 520 | 54740.8 |
| 6 | 60 | 160 | 55484.0 | 6 | 60 | 530 | 54139.3 |
| 6 | 60 | 170 | 54926.8 | 6 | 60 | 540 | 54969.4 |
| 6 | 60 | 180 | 54903.3 | 6 | 60 | 550 | 56037.3 |
| 6 | 60 | 190 | 54889.5 | 6 | 60 | 560 | 55808.6 |
| 6 | 60 | 200 | 54874.5 | 6 | 60 | 570 | 56050.3 |
| 6 | 60 | 210 | 54846.3 | 6 | 60 | 580 | 56679.1 |
| 6 | 60 | 220 | 54769.7 | 6 | 60 | 590 | 56616.6 |
| 6 | 60 | 230 | 54549.7 | 6 | 60 | 600 | 55851.9 |
| 6 | 60 | 240 | 54257.3 | 7 | 70 | 600 | 55617.0 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 6 | 60 | 250 | 54379.1 | 7 | 70 | 590 | 55980.3 |
| 6 | 60 | 260 | 54670.9 | 7 | 70 | 580 | 56850.2 |
| 6 | 60 | 270 | 54798.3 | 7 | 70 | 570 | 56653.3 |
| 6 | 60 | 280 | 54653.4 | 7 | 70 | 560 | 56194.8 |
| 6 | 60 | 290 | 54320.4 | 7 | 70 | 550 | 55919.4 |
| 6 | 60 | 300 | 54006.6 | 7 | 70 | 540 | 55369.5 |
| 7 | 70 | 300 | 54105.9 | 7 | 70 | 530 | 54986.1 |
| 7 | 70 | 290 | 54538.8 | 7 | 70 | 520 | 55714.6 |
| 7 | 70 | 280 | 54634.1 | 7 | 70 | 510 | 55630.3 |
| 7 | 70 | 270 | 54824.3 | 7 | 70 | 500 | 55168.4 |
| 7 | 70 | 260 | 54775.6 | 7 | 70 | 490 | 55420.4 |
| 7 | 70 | 250 | 54400.8 | 7 | 70 | 480 | 55443.4 |
| 7 | 70 | 240 | 54085.5 | 7 | 70 | 470 | 55381.5 |
| 7 | 70 | 230 | 54404.0 | 7 | 70 | 460 | 55576.2 |
| 7 | 70 | 220 | 54659.6 | 7 | 70 | 450 | 55626.9 |
| 7 | 70 | 210 | 54748.7 | 7 | 70 | 440 | 55723.9 |
| 7 | 70 | 200 | 54799.8 | 7 | 70 | 430 | 56955.8 |
| 7 | 70 | 190 | 54822.1 | 7 | 70 | 420 | 57365.7 |
| 7 | 70 | 180 | 54832.7 | 7 | 70 | 410 | 56420.6 |
| 7 | 70 | 170 | 54828.6 | 7 | 70 | 400 | 55581.3 |
| 7 | 70 | 160 | 54809.0 | 7 | 70 | 390 | 57236.9 |
| 7 | 70 | 150 | 54816.7 | 7 | 70 | 380 | 57889.8 |
| 7 | 70 | 140 | 54907.9 | 7 | 70 | 370 | 57513.1 |
| 7 | 70 | 130 | 54930.0 | 7 | 70 | 360 | 57279.8 |
| 7 | 70 | 120 | 54906.3 | 7 | 70 | 350 | 57012.9 |
| 7 | 70 | 110 | 55011.1 | 7 | 70 | 340 | 55719.2 |
| 7 | 70 | 100 | 55226.5 | 7 | 70 | 330 | 55021.1 |
| 7 | 70 | 90 | 55672.1 | 7 | 70 | 320 | 55084.2 |
| 7 | 70 | 80 | 56587.4 | 7 | 70 | 310 | 53364.0 |
| 7 | 70 | 70 | 57415.2 | 8 | 80 | 300 | 54683.9 |
| 7 | 70 | 60 | 57094.9 | 8 | 80 | 310 | 53990.2 |
| 7 | 70 | 50 | 56660.3 | 8 | 80 | 320 | 54224.5 |
| 7 | 70 | 40 | 56184.9 | 8 | 80 | 330 | 54223.6 |
| 7 | 70 | 30 | 55865.6 | 8 | 80 | 340 | 55125.6 |
| 7 | 70 | 20 | 55712.3 | 8 | 80 | 350 | 56803.8 |
| 7 | 70 | 10 | 55751.6 | 8 | 80 | 360 | 57095.6 |
| 7 | 70 | 0 | 56146.2 | 8 | 80 | 370 | 57735.7 |
| 8 | 80 | 0 | 55523.8 | 8 | 80 | 380 | 58136.0 |
| 8 | 80 | 10 | 55409.8 | 8 | 80 | 390 | 57194.3 |
| 8 | 80 | 20 | 55544.1 | 8 | 80 | 400 | 55657.0 |
| 8 | 80 | 30 | 55979.0 | 8 | 80 | 410 | 56624.2 |
| 8 | 80 | 40 | 56236.0 | 8 | 80 | 420 | 57331.1 |
| 8 | 80 | 50 | 56804.8 | 8 | 80 | 430 | 56467.3 |
| 8 | 80 | 60 | 57332.7 | 8 | 80 | 440 | 55604.0 |
| 8 | 80 | 70 | 57218.9 | 8 | 80 | 450 | 55602.7 |
| 8 | 80 | 80 | 56145.8 | 8 | 80 | 460 | 55019.5 |
| 8 | 80 | 90 | 55451.8 | 8 | 80 | 470 | 55289.0 |
| 8 | 80 | 100 | 55149.3 | 8 | 80 | 480 | 55633.3 |
| 8 | 80 | 110 | 54930.5 | 8 | 80 | 490 | 55527.9 |
| 8 | 80 | 120 | 54935.6 | 8 | 80 | 500 | 55317.4 |
| 8 | 80 | 130 | 55146.4 | 8 | 80 | 510 | 55992.0 |
| 8 | 80 | 140 | 55091.9 | 8 | 80 | 520 | 56350.9 |
| 8 | 80 | 150 | 54894.8 | 8 | 80 | 530 | 55805.4 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 8 | 80 | 160 | 54846.6 | 8 | 80 | 540 | 55904.8 |
| 8 | 80 | 170 | 54869.9 | 8 | 80 | 550 | 56139.9 |
| 8 | 80 | 180 | 54916.0 | 8 | 80 | 560 | 56600.6 |
| 8 | 80 | 190 | 54908.4 | 8 | 80 | 570 | 57064.4 |
| 8 | 80 | 200 | 54852.9 | 8 | 80 | 580 | 56539.9 |
| 8 | 80 | 210 | 54735.1 | 8 | 80 | 590 | 55772.4 |
| 8 | 80 | 220 | 54642.2 | 8 | 80 | 600 | 55524.8 |
| 8 | 80 | 230 | 54568.4 | 9 | 90 | 600 | 55456.2 |
| 8 | 80 | 240 | 54195.1 | 9 | 90 | 590 | 55636.2 |
| 8 | 80 | 250 | 54405.1 | 9 | 90 | 580 | 56054.1 |
| 8 | 80 | 260 | 54961.0 | 9 | 90 | 570 | 56875.8 |
| 8 | 80 | 270 | 55284.4 | 9 | 90 | 560 | 56519.3 |
| 8 | 80 | 280 | 54772.2 | 9 | 90 | 550 | 56289.4 |
| 8 | 80 | 290 | 54907.7 | 9 | 90 | 540 | 55985.8 |
| 8 | 80 | 300 | 54734.7 | 9 | 90 | 530 | 56139.5 |
| 9 | 90 | 300 | 55073.7 | 9 | 90 | 520 | 56830.8 |
| Note: Field base at line 9, 300' | | | | | | | |
| 9 | 90 | 290 | 55330.5 | 9 | 90 | 510 | 56588.7 |
| 9 | 90 | 280 | 54874.8 | 9 | 90 | 500 | 55293.3 |
| 9 | 90 | 270 | 54851.6 | 9 | 90 | 490 | 55449.6 |
| 9 | 90 | 260 | 54706.1 | 9 | 90 | 480 | 55492.9 |
| 9 | 90 | 250 | 54590.3 | 9 | 90 | 470 | 55150.5 |
| 9 | 90 | 240 | 54991.5 | 9 | 90 | 460 | 54529.8 |
| 9 | 90 | 230 | 55347.6 | 9 | 90 | 450 | 55340.0 |
| 9 | 90 | 220 | 55117.4 | 9 | 90 | 440 | 55581.0 |
| 9 | 90 | 210 | 55029.7 | 9 | 90 | 430 | 55945.2 |
| 9 | 90 | 200 | 55207.6 | 9 | 90 | 420 | 57040.4 |
| 9 | 90 | 190 | 55353.3 | 9 | 90 | 410 | 56642.3 |
| 9 | 90 | 180 | 55412.7 | 9 | 90 | 400 | 55981.8 |
| 9 | 90 | 170 | 55210.4 | 9 | 90 | 390 | 56845.3 |
| 9 | 90 | 160 | 55041.1 | 9 | 90 | 380 | 57818.8 |
| 9 | 90 | 100 | 55067.9 | 9 | 90 | 370 | 57268.8 |
| 9 | 90 | 90 | 55246.8 | 9 | 90 | 360 | 56613.5 |
| 9 | 90 | 80 | 55741.8 | 9 | 90 | 350 | 56688.0 |
| 9 | 90 | 70 | 56808.6 | 9 | 90 | 340 | 55060.7 |
| 9 | 90 | 60 | 57177.3 | 9 | 90 | 330 | 53791.6 |
| 9 | 90 | 50 | 56588.9 | 9 | 90 | 320 | 54168.6 |
| 9 | 90 | 40 | 56003.6 | 9 | 90 | 310 | 54504.1 |
| 9 | 90 | 30 | 55763.8 | 9 | 90 | 300 | 55105.4 |
| 9 | 90 | 20 | 55526.1 | 10 | 100 | 300 | 55183.3 |
| 9 | 90 | 10 | 55146.7 | 10 | 100 | 310 | 54864.2 |
| 9 | 90 | 0 | 54881.0 | 10 | 100 | 320 | 54289.1 |
| 10 | 100 | 0 | 54429.1 | 10 | 100 | 330 | 54095.5 |
| 10 | 100 | 10 | 54967.0 | 10 | 100 | 340 | 55546.8 |
| 10 | 100 | 20 | 55707.8 | 10 | 100 | 350 | 56683.1 |
| 10 | 100 | 30 | 55952.9 | 10 | 100 | 360 | 56397.3 |
| 10 | 100 | 40 | 56044.0 | 10 | 100 | 370 | 56882.2 |
| 10 | 100 | 50 | 56462.0 | 10 | 100 | 380 | 57320.1 |
| 10 | 100 | 60 | 57097.9 | 10 | 100 | 390 | 56522.3 |
| 10 | 100 | 70 | 56634.1 | 10 | 100 | 400 | 55986.0 |
| 10 | 100 | 80 | 55549.1 | 10 | 100 | 410 | 55824.3 |
| 10 | 100 | 90 | 55178.0 | 10 | 100 | 420 | 56058.9 |
| 10 | 100 | 100 | 55192.8 | 10 | 100 | 430 | 55596.0 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 10 | 100 | 160 | 55497.7 | 10 | 100 | 440 | 55584.3 |
| 10 | 100 | 170 | 55416.3 | 10 | 100 | 450 | 54990.9 |
| 10 | 100 | 180 | 55637.0 | 10 | 100 | 460 | 54234.4 |
| 10 | 100 | 190 | 55673.3 | 10 | 100 | 470 | 55273.4 |
| 10 | 100 | 200 | 55782.3 | 10 | 100 | 480 | 55391.9 |
| 10 | 100 | 210 | 55768.6 | 10 | 100 | 490 | 55292.6 |
| 10 | 100 | 220 | 55658.2 | 10 | 100 | 500 | 55572.2 |
| 10 | 100 | 230 | 56061.3 | 10 | 100 | 510 | 56924.7 |
| 10 | 100 | 240 | 55748.7 | 10 | 100 | 520 | 57137.6 |
| 10 | 100 | 250 | 54677.6 | 10 | 100 | 530 | 56156.1 |
| 10 | 100 | 260 | 54426.9 | 10 | 100 | 540 | 56089.6 |
| 10 | 100 | 270 | 54537.5 | 10 | 100 | 550 | 56341.4 |
| 10 | 100 | 280 | 54662.3 | 10 | 100 | 560 | 56854.1 |
| 10 | 100 | 290 | 55227.2 | 10 | 100 | 570 | 56495.2 |
| 10 | 100 | 300 | 55143.9 | 10 | 100 | 580 | 55791.2 |
| 11 | 110 | 300 | 55435.3 | 10 | 100 | 590 | 55539.7 |
| 11 | 110 | 290 | 54999.1 | 10 | 100 | 600 | 55442.4 |
| 11 | 110 | 280 | 54412.5 | 11 | 110 | 600 | 55419.1 |
| 11 | 110 | 270 | 54927.5 | 11 | 110 | 590 | 55493.4 |
| 11 | 110 | 260 | 55029.7 | 11 | 110 | 580 | 55670.2 |
| 11 | 110 | 250 | 54763.0 | 11 | 110 | 570 | 56206.7 |
| 11 | 110 | 240 | 55998.2 | 11 | 110 | 560 | 56749.6 |
| 11 | 110 | 230 | 56364.4 | 11 | 110 | 550 | 56350.5 |
| 11 | 110 | 220 | 56137.8 | 11 | 110 | 540 | 56015.1 |
| 11 | 110 | 210 | 56015.6 | 11 | 110 | 530 | 56296.9 |
| 11 | 110 | 200 | 55807.8 | 11 | 110 | 520 | 57465.0 |
| 11 | 110 | 190 | 55849.3 | 11 | 110 | 510 | 56879.7 |
| 11 | 110 | 180 | 55551.7 | 11 | 110 | 500 | 55489.7 |
| 11 | 110 | 170 | 55361.5 | 11 | 110 | 490 | 55325.0 |
| 11 | 110 | 160 | 55605.5 | 11 | 110 | 480 | 55395.5 |
| 11 | 110 | 100 | 55358.0 | 11 | 110 | 470 | 55248.1 |
| 11 | 110 | 90 | 55213.8 | 11 | 110 | 460 | 54459.6 |
| 11 | 110 | 80 | 55508.2 | 11 | 110 | 450 | 54883.9 |
| 11 | 110 | 70 | 56504.0 | 11 | 110 | 440 | 55960.0 |
| 11 | 110 | 60 | 57134.2 | 11 | 110 | 430 | 55737.6 |
| 11 | 110 | 50 | 56771.8 | 11 | 110 | 420 | 55587.5 |
| 11 | 110 | 40 | 56430.6 | 11 | 110 | 410 | 55757.8 |
| 11 | 110 | 30 | 56185.1 | 11 | 110 | 400 | 56258.4 |
| 11 | 110 | 20 | 55586.9 | 11 | 110 | 390 | 56163.1 |
| 11 | 110 | 10 | 55048.3 | 11 | 110 | 380 | 56708.8 |
| 11 | 110 | 0 | 54881.5 | 11 | 110 | 370 | 56658.5 |
| 12 | 120 | 0 | 55527.1 | 11 | 110 | 360 | 56283.9 |
| 12 | 120 | 10 | 55475.3 | 11 | 110 | 350 | 56559.2 |
| 12 | 120 | 20 | 55723.8 | 11 | 110 | 340 | 56021.3 |
| 12 | 120 | 30 | 56326.2 | 11 | 110 | 330 | 54642.5 |
| 12 | 120 | 40 | 56536.0 | 11 | 110 | 320 | 54463.4 |
| 12 | 120 | 50 | 57264.6 | 11 | 110 | 310 | 55207.0 |
| 12 | 120 | 60 | 57485.4 | 11 | 110 | 300 | 55519.1 |
| 12 | 120 | 70 | 56739.8 | 12 | 120 | 300 | 55602.2 |
| 12 | 120 | 80 | 55569.8 | 12 | 120 | 310 | 55186.5 |
| 12 | 120 | 90 | 54894.8 | 12 | 120 | 320 | 54225.6 |
| 12 | 120 | 100 | 55179.9 | 12 | 120 | 330 | 54331.8 |
| 12 | 120 | 160 | 55614.1 | 12 | 120 | 340 | 56366.1 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 12 | 120 | 170 | 55669.1 | 12 | 120 | 350 | 56220.0 |
| 12 | 120 | 180 | 55846.3 | 12 | 120 | 360 | 56204.6 |
| 12 | 120 | 190 | 56182.3 | 12 | 120 | 370 | 56366.3 |
| 12 | 120 | 200 | 55795.6 | 12 | 120 | 380 | 55943.8 |
| 12 | 120 | 210 | 55712.6 | 12 | 120 | 390 | 56020.7 |
| 12 | 120 | 220 | 56407.0 | 12 | 120 | 400 | 56259.4 |
| 12 | 120 | 230 | 56290.2 | 12 | 120 | 410 | 55594.3 |
| 12 | 120 | 240 | 55862.0 | 12 | 120 | 420 | 55191.9 |
| 12 | 120 | 250 | 55192.4 | 12 | 120 | 430 | 56126.8 |
| 12 | 120 | 260 | 55049.8 | 12 | 120 | 440 | 56074.7 |
| 12 | 120 | 270 | 54948.0 | 12 | 120 | 450 | 54674.2 |
| 12 | 120 | 280 | 54675.1 | 12 | 120 | 460 | 54528.4 |
| 12 | 120 | 290 | 55215.5 | 12 | 120 | 470 | 54877.7 |
| 12 | 120 | 300 | 55509.1 | 12 | 120 | 480 | 55423.2 |
| 13 | 130 | 300 | 55311.1 | 12 | 120 | 490 | 55466.2 |
| 13 | 130 | 290 | 55158.1 | 12 | 120 | 500 | 55745.1 |
| 13 | 130 | 280 | 54659.6 | 12 | 120 | 510 | 56959.6 |
| 13 | 130 | 270 | 55048.8 | 12 | 120 | 520 | 57414.2 |
| 13 | 130 | 260 | 55074.6 | 12 | 120 | 530 | 56446.1 |
| 13 | 130 | 250 | 55337.4 | 12 | 120 | 540 | 56182.6 |
| 13 | 130 | 240 | 55519.6 | 12 | 120 | 550 | 56173.0 |
| 13 | 130 | 230 | 55805.9 | 12 | 120 | 560 | 56622.9 |
| 13 | 130 | 220 | 55893.9 | 12 | 120 | 570 | 56018.4 |
| 13 | 130 | 210 | 55900.1 | 12 | 120 | 580 | 55617.7 |
| 13 | 130 | 200 | 55780.7 | 12 | 120 | 590 | 55490.0 |
| 13 | 130 | 190 | 55715.9 | 12 | 120 | 600 | 55434.0 |
| 13 | 130 | 180 | 55888.1 | 13 | 130 | 600 | 55429.4 |
| 13 | 130 | 170 | 55376.9 | 13 | 130 | 590 | 55479.7 |
| 13 | 130 | 160 | 55122.3 | 13 | 130 | 580 | 55581.8 |
| 13 | 130 | 100 | 55031.2 | 13 | 130 | 570 | 55813.7 |
| 13 | 130 | 90 | 54842.6 | 13 | 130 | 560 | 56259.1 |
| 13 | 130 | 80 | 55827.4 | 13 | 130 | 550 | 56576.2 |
| 13 | 130 | 70 | 56876.5 | 13 | 130 | 540 | 56472.7 |
| 13 | 130 | 60 | 57333.5 | 13 | 130 | 530 | 56684.4 |
| 13 | 130 | 50 | 56999.1 | 13 | 130 | 520 | 57526.4 |
| 13 | 130 | 40 | 56341.3 | 13 | 130 | 510 | 57097.1 |
| 13 | 130 | 30 | 56208.1 | 13 | 130 | 500 | 55996.6 |
| 13 | 130 | 20 | 55826.9 | 13 | 130 | 490 | 55656.9 |
| 13 | 130 | 10 | 55475.6 | 13 | 130 | 480 | 55387.9 |
| 13 | 130 | 0 | 55523.6 | 13 | 130 | 470 | 54940.4 |
| 14 | 140 | 0 | 55594.2 | 13 | 130 | 460 | 54508.3 |
| 14 | 140 | 10 | 55610.8 | 13 | 130 | 450 | 54408.9 |
| 14 | 140 | 20 | 55710.7 | 13 | 130 | 440 | 55882.9 |
| 14 | 140 | 30 | 55788.1 | 13 | 130 | 430 | 56370.7 |
| 14 | 140 | 40 | 56317.7 | 13 | 130 | 420 | 55151.6 |
| 14 | 140 | 50 | 56794.1 | 13 | 130 | 410 | 55472.6 |
| 14 | 140 | 60 | 56978.5 | 13 | 130 | 400 | 55934.3 |
| 14 | 140 | 70 | 56486.4 | 13 | 130 | 390 | 55756.2 |
| 14 | 140 | 80 | 55621.6 | 13 | 130 | 380 | 55386.6 |
| 14 | 140 | 90 | 54849.2 | 13 | 130 | 370 | 55691.7 |
| 14 | 140 | 100 | 55162.4 | 13 | 130 | 360 | 55762.6 |
| 14 | 140 | 110 | 55445.3 | 13 | 130 | 350 | 55884.0 |
| 14 | 140 | 120 | 55349.1 | 13 | 130 | 340 | 55848.5 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 14 | 140 | 130 | 55278.1 | 13 | 130 | 330 | 53809.8 |
| 14 | 140 | 140 | 55347.9 | 13 | 130 | 320 | 54196.3 |
| 14 | 140 | 150 | 55305.1 | 13 | 130 | 310 | 54937.8 |
| 14 | 140 | 160 | 55048.7 | 13 | 130 | 300 | 55386.2 |
| 14 | 140 | 170 | 55305.7 | 14 | 140 | 310 | 54635.4 |
| 14 | 140 | 180 | 55296.4 | 14 | 140 | 320 | 54244.5 |
| 14 | 140 | 190 | 55061.6 | 14 | 140 | 330 | 54122.6 |
| 14 | 140 | 200 | 55801.4 | 14 | 140 | 340 | 54868.2 |
| 14 | 140 | 210 | 55734.6 | 14 | 140 | 350 | 55766.5 |
| 14 | 140 | 220 | 55607.4 | 14 | 140 | 360 | 55444.4 |
| 14 | 140 | 230 | 55542.8 | 14 | 140 | 370 | 55340.1 |
| 14 | 140 | 240 | 55520.0 | 14 | 140 | 380 | 55194.8 |
| 14 | 140 | 250 | 55309.2 | 14 | 140 | 390 | 55452.1 |
| 14 | 140 | 260 | 55118.7 | 14 | 140 | 400 | 55783.6 |
| 14 | 140 | 270 | 55131.3 | 14 | 140 | 410 | 55530.2 |
| 14 | 140 | 280 | 54968.5 | 14 | 140 | 420 | 55251.5 |
| 14 | 140 | 290 | 55191.5 | 14 | 140 | 430 | 56102.4 |
| 14 | 140 | 300 | 55110.1 | 14 | 140 | 440 | 55640.1 |
| 15 | 150 | 300 | 55011.0 | 14 | 140 | 450 | 54172.5 |
| 15 | 150 | 290 | 55300.2 | 14 | 140 | 460 | 54541.6 |
| 15 | 150 | 280 | 55274.5 | 14 | 140 | 470 | 54916.6 |
| 15 | 150 | 270 | 55057.7 | 14 | 140 | 480 | 55482.6 |
| 15 | 150 | 260 | 55077.9 | 14 | 140 | 490 | 55771.7 |
| 15 | 150 | 250 | 55416.1 | 14 | 140 | 500 | 56185.4 |
| 15 | 150 | 240 | 55717.5 | 14 | 140 | 510 | 56826.7 |
| 15 | 150 | 230 | 55277.1 | 14 | 140 | 520 | 57198.2 |
| 15 | 150 | 220 | 55482.0 | 14 | 140 | 530 | 56790.9 |
| 15 | 150 | 210 | 55842.6 | 14 | 140 | 540 | 56293.4 |
| 15 | 150 | 200 | 55688.2 | 14 | 140 | 550 | 56103.9 |
| 15 | 150 | 190 | 54986.6 | 14 | 140 | 560 | 55866.2 |
| 15 | 150 | 180 | 55127.8 | 14 | 140 | 570 | 55601.9 |
| 15 | 150 | 170 | 55113.2 | 14 | 140 | 580 | 55470.2 |
| 15 | 150 | 160 | 55042.9 | 14 | 140 | 590 | 55397.3 |
| 15 | 150 | 150 | 55033.7 | 14 | 140 | 600 | 55354.6 |
| 15 | 150 | 140 | 54896.7 | 15 | 150 | 600 | 55346.9 |
| 15 | 150 | 130 | 55104.9 | 15 | 150 | 590 | 55381.0 |
| 15 | 150 | 120 | 55060.5 | 15 | 150 | 580 | 55433.9 |
| 15 | 150 | 110 | 55242.9 | 15 | 150 | 570 | 55520.8 |
| 15 | 150 | 100 | 55435.9 | 15 | 150 | 560 | 55671.3 |
| 15 | 150 | 90 | 55206.5 | 15 | 150 | 550 | 55866.0 |
| 15 | 150 | 80 | 55388.2 | 15 | 150 | 540 | 56042.1 |
| 15 | 150 | 70 | 56207.8 | 15 | 150 | 530 | 56590.4 |
| 15 | 150 | 60 | 56975.8 | 15 | 150 | 520 | 57175.5 |
| 15 | 150 | 50 | 57045.2 | 15 | 150 | 510 | 57111.8 |
| 15 | 150 | 40 | 56361.4 | 15 | 150 | 500 | 56548.1 |
| 15 | 150 | 30 | 55922.0 | 15 | 150 | 490 | 55996.7 |
| 15 | 150 | 20 | 55915.7 | 15 | 150 | 480 | 55862.6 |
| 15 | 150 | 10 | 55829.5 | 15 | 150 | 470 | 55119.8 |
| 15 | 150 | 0 | 55638.5 | 15 | 150 | 460 | 54506.5 |
| 16 | 160 | 0 | 55533.9 | 15 | 150 | 450 | 54013.3 |
| 16 | 160 | 10 | 55652.9 | 15 | 150 | 440 | 55234.6 |
| 16 | 160 | 20 | 56030.9 | 15 | 150 | 430 | 56117.9 |
| 16 | 160 | 30 | 56128.7 | 15 | 150 | 420 | 55482.0 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 16 | 160 | 40 | 56388.8 | 15 | 150 | 410 | 55410.1 |
| 16 | 160 | 50 | 56948.0 | 15 | 150 | 400 | 55578.2 |
| 16 | 160 | 60 | 57219.2 | 15 | 150 | 390 | 54993.1 |
| 16 | 160 | 70 | 56329.6 | 15 | 150 | 380 | 55320.4 |
| 16 | 160 | 80 | 55576.6 | 15 | 150 | 370 | 55608.1 |
| 16 | 160 | 90 | 55212.0 | 15 | 150 | 360 | 55628.4 |
| 16 | 160 | 100 | 55455.8 | 15 | 150 | 350 | 56373.5 |
| 16 | 160 | 110 | 55023.0 | 15 | 150 | 340 | 54079.1 |
| 16 | 160 | 120 | 54718.7 | 15 | 150 | 330 | 53834.0 |
| 16 | 160 | 130 | 54711.9 | 15 | 150 | 320 | 54010.7 |
| 16 | 160 | 140 | 54522.5 | 15 | 150 | 310 | 54543.2 |
| 16 | 160 | 150 | 54702.9 | 16 | 160 | 310 | 54530.2 |
| 16 | 160 | 160 | 55031.2 | 16 | 160 | 320 | 53536.7 |
| 16 | 160 | 170 | 55040.0 | 16 | 160 | 330 | 58361.7 |
| 16 | 160 | 180 | 55442.6 | 16 | 160 | 340 | 55106.0 |
| 16 | 160 | 190 | 54743.0 | 16 | 160 | 350 | 58053.5 |
| 16 | 160 | 200 | 55075.8 | 16 | 160 | 360 | 56238.8 |
| 16 | 160 | 210 | 55466.8 | 16 | 160 | 370 | 56099.4 |
| 16 | 160 | 220 | 55508.2 | 16 | 160 | 380 | 55669.5 |
| 16 | 160 | 230 | 55433.8 | 16 | 160 | 390 | 54621.9 |
| 16 | 160 | 240 | 55517.2 | 16 | 160 | 400 | 55285.6 |
| 16 | 160 | 250 | 55331.7 | 16 | 160 | 410 | 55053.4 |
| 16 | 160 | 260 | 55004.7 | 16 | 160 | 420 | 55860.1 |
| 16 | 160 | 270 | 54902.5 | 16 | 160 | 430 | 56267.6 |
| 16 | 160 | 280 | 55297.9 | 16 | 160 | 440 | 54804.6 |
| 16 | 160 | 290 | 55369.5 | 16 | 160 | 450 | 54124.5 |
| 16 | 160 | 300 | 54855.1 | 16 | 160 | 460 | 54704.5 |
| 17 | 170 | 300 | 54772.0 | 16 | 160 | 470 | 55556.8 |
| 17 | 170 | 290 | 55065.3 | 16 | 160 | 480 | 56141.6 |
| 17 | 170 | 280 | 55157.4 | 16 | 160 | 490 | 56414.1 |
| 17 | 170 | 270 | 54923.3 | 16 | 160 | 500 | 56826.3 |
| 17 | 170 | 260 | 54887.8 | 16 | 160 | 510 | 57297.0 |
| 17 | 170 | 250 | 55110.1 | 16 | 160 | 520 | 56842.0 |
| 17 | 170 | 240 | 55562.4 | 16 | 160 | 530 | 56426.1 |
| 17 | 170 | 230 | 55414.1 | 16 | 160 | 540 | 55943.6 |
| 17 | 170 | 220 | 55429.8 | 16 | 160 | 550 | 55812.4 |
| 17 | 170 | 210 | 55439.8 | 16 | 160 | 560 | 55601.1 |
| 17 | 170 | 200 | 55318.3 | 16 | 160 | 570 | 55465.9 |
| 17 | 170 | 190 | 54477.2 | 16 | 160 | 580 | 55385.0 |
| 17 | 170 | 180 | 55119.7 | 16 | 160 | 590 | 55342.9 |
| 17 | 170 | 170 | 55147.4 | 16 | 160 | 600 | 55317.0 |
| 17 | 170 | 160 | 54682.3 | 17 | 170 | 600 | 55309.5 |
| 17 | 170 | 150 | 54408.8 | 17 | 170 | 590 | 55334.1 |
| 17 | 170 | 140 | 54305.8 | 17 | 170 | 580 | 55374.8 |
| 17 | 170 | 130 | 54655.9 | 17 | 170 | 570 | 55452.8 |
| 17 | 170 | 120 | 54451.2 | 17 | 170 | 560 | 55587.1 |
| 17 | 170 | 110 | 54635.5 | 17 | 170 | 550 | 55774.3 |
| 17 | 170 | 100 | 54839.0 | 17 | 170 | 540 | 55920.8 |
| 17 | 170 | 90 | 55064.9 | 17 | 170 | 530 | 56202.5 |
| 17 | 170 | 80 | 55265.2 | 17 | 170 | 520 | 56780.1 |
| 17 | 170 | 70 | 56126.9 | 17 | 170 | 510 | 57300.8 |
| 17 | 170 | 60 | 57101.5 | 17 | 170 | 500 | 56982.8 |
| 17 | 170 | 50 | 57108.6 | 17 | 170 | 490 | 56422.2 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 19 | 190 | 130 | 55687.8 | 19 | 190 | 550 | 55630.2 |
| 19 | 190 | 120 | 55561.1 | 19 | 190 | 540 | 55843.5 |
| 19 | 190 | 110 | 54824.7 | 19 | 190 | 530 | 56194.5 |
| 19 | 190 | 100 | 55111.3 | 19 | 190 | 520 | 56450.2 |
| 19 | 190 | 90 | 55057.7 | 19 | 190 | 510 | 56781.8 |
| 19 | 190 | 80 | 55142.8 | 19 | 190 | 500 | 56975.1 |
| 19 | 190 | 70 | 56007.1 | 19 | 190 | 490 | 56537.5 |
| 19 | 190 | 60 | 56552.8 | 19 | 190 | 480 | 55966.4 |
| 19 | 190 | 50 | 57024.5 | 19 | 190 | 470 | 55627.8 |
| 19 | 190 | 40 | 56601.6 | 19 | 190 | 460 | 54645.8 |
| 19 | 190 | 30 | 55879.5 | 19 | 190 | 450 | 54742.1 |
| 19 | 190 | 20 | 55283.6 | 19 | 190 | 440 | 54525.7 |
| 19 | 190 | 10 | 55019.8 | 19 | 190 | 430 | 55364.0 |
| 19 | 190 | 0 | 54773.1 | 19 | 190 | 420 | 55588.6 |
| 20 | 200 | 0 | 54703.3 | 19 | 190 | 410 | 55013.9 |
| 20 | 200 | 10 | 55128.1 | 19 | 190 | 400 | 55238.9 |
| 20 | 200 | 20 | 55321.6 | 19 | 190 | 390 | 54411.0 |
| 20 | 200 | 30 | 55970.7 | 19 | 190 | 380 | 55299.0 |
| 20 | 200 | 40 | 57125.7 | 19 | 190 | 370 | 56210.3 |
| 20 | 200 | 50 | 57663.7 | 19 | 190 | 360 | 55799.5 |
| 20 | 200 | 60 | 56550.1 | 19 | 190 | 350 | 57858.4 |
| 20 | 200 | 70 | 55811.6 | 19 | 190 | 340 | 58386.6 |
| 20 | 200 | 80 | 55237.3 | 19 | 190 | 330 | 53937.0 |
| 20 | 200 | 90 | 55120.8 | 19 | 190 | 320 | 52331.9 |
| 20 | 200 | 100 | 55244.2 | 19 | 190 | 310 | 53550.6 |
| 20 | 200 | 110 | 54795.3 | 20 | 200 | 310 | 52767.1 |
| 20 | 200 | 120 | 54751.2 | 20 | 200 | 320 | 58596.0 |
| 20 | 200 | 130 | 55723.6 | 20 | 200 | 330 | 54783.5 |
| 20 | 200 | 140 | 55446.2 | 20 | 200 | 340 | 57234.2 |
| 20 | 200 | 150 | 55085.3 | 20 | 200 | 350 | 57125.1 |
| 20 | 200 | 160 | 54941.0 | 20 | 200 | 360 | 55472.8 |
| 20 | 200 | 170 | 55115.0 | 20 | 200 | 370 | 55755.1 |
| 20 | 200 | 180 | 55178.8 | 20 | 200 | 380 | 55632.7 |
| 20 | 200 | 190 | 54541.5 | 20 | 200 | 390 | 54903.6 |
| 20 | 200 | 200 | 54872.9 | 20 | 200 | 400 | 55732.8 |
| 20 | 200 | 210 | 55215.4 | 20 | 200 | 410 | 55836.3 |
| 20 | 200 | 220 | 55229.7 | 20 | 200 | 420 | 55638.3 |
| 20 | 200 | 230 | 55138.4 | 20 | 200 | 430 | 54630.1 |
| 20 | 200 | 240 | 54999.5 | 20 | 200 | 440 | 54123.8 |
| 20 | 200 | 250 | 54952.4 | 20 | 200 | 450 | 54636.1 |
| 20 | 200 | 260 | 54763.7 | 20 | 200 | 460 | 54994.1 |
| 20 | 200 | 270 | 55173.2 | 20 | 200 | 470 | 55926.2 |
| 20 | 200 | 280 | 55007.7 | 20 | 200 | 480 | 56560.8 |
| 20 | 200 | 290 | 54759.2 | 20 | 200 | 490 | 56494.7 |
| 20 | 200 | 300 | 54079.7 | 20 | 200 | 500 | 56839.4 |
| 21 | 210 | 300 | 53804.3 | 20 | 200 | 510 | 56355.0 |
| 21 | 210 | 290 | 54977.9 | 20 | 200 | 520 | 56204.7 |
| 21 | 210 | 280 | 55089.2 | 20 | 200 | 530 | 56071.6 |
| 21 | 210 | 270 | 55212.5 | 20 | 200 | 540 | 55765.0 |
| 21 | 210 | 260 | 54684.9 | 20 | 200 | 550 | 55553.3 |
| 21 | 210 | 250 | 54916.8 | 20 | 200 | 560 | 55441.2 |
| 21 | 210 | 240 | 54905.9 | 20 | 200 | 570 | 55383.8 |
| 21 | 210 | 230 | 54876.3 | 20 | 200 | 580 | 55340.8 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 17 | 170 | 40 | 56579.8 | 17 | 170 | 480 | 56090.4 |
| 17 | 170 | 30 | 56116.1 | 17 | 170 | 470 | 55713.1 |
| 17 | 170 | 20 | 55714.4 | 17 | 170 | 460 | 55387.1 |
| 17 | 170 | 10 | 55421.9 | 17 | 170 | 450 | 54574.8 |
| 17 | 170 | 0 | 55275.4 | 17 | 170 | 440 | 54708.0 |
| 18 | 180 | 0 | 54978.8 | 17 | 170 | 430 | 56222.9 |
| 18 | 180 | 10 | 54960.9 | 17 | 170 | 420 | 56281.5 |
| 18 | 180 | 20 | 55302.0 | 17 | 170 | 410 | 54997.6 |
| 18 | 180 | 30 | 55855.9 | 17 | 170 | 400 | 55036.4 |
| 18 | 180 | 40 | 56491.4 | 17 | 170 | 390 | 54280.1 |
| 18 | 180 | 50 | 57033.9 | 17 | 170 | 380 | 55623.2 |
| 18 | 180 | 60 | 56867.7 | 17 | 170 | 370 | 56404.0 |
| 18 | 180 | 70 | 56254.2 | 17 | 170 | 360 | 56056.1 |
| 18 | 180 | 80 | 55238.9 | 17 | 170 | 350 | 58395.4 |
| 18 | 180 | 90 | 55170.8 | 17 | 170 | 340 | 54893.6 |
| 18 | 180 | 100 | 54978.3 | 17 | 170 | 330 | 58528.1 |
| 18 | 180 | 110 | 54915.1 | 17 | 170 | 320 | 52994.8 |
| 18 | 180 | 120 | 54757.1 | 17 | 170 | 310 | 54391.9 |
| 18 | 180 | 130 | 54888.6 | 18 | 180 | 310 | 53881.4 |
| 18 | 180 | 140 | 54864.8 | 18 | 180 | 320 | 52625.9 |
| 18 | 180 | 150 | 54565.9 | 18 | 180 | 330 | 58509.3 |
| 18 | 180 | 160 | 54963.0 | 18 | 180 | 340 | 55616.2 |
| 18 | 180 | 170 | 54888.1 | 18 | 180 | 350 | 58532.1 |
| 18 | 180 | 180 | 55013.2 | 18 | 180 | 360 | 56098.1 |
| 18 | 180 | 190 | 54788.3 | 18 | 180 | 370 | 56460.8 |
| 18 | 180 | 200 | 54958.6 | 18 | 180 | 380 | 55481.4 |
| 18 | 180 | 210 | 55182.2 | 18 | 180 | 390 | 54260.5 |
| 18 | 180 | 220 | 55185.1 | 18 | 180 | 400 | 55049.1 |
| 18 | 180 | 230 | 55137.2 | 18 | 180 | 410 | 55193.6 |
| 18 | 180 | 240 | 55360.3 | 18 | 180 | 420 | 55610.8 |
| 18 | 180 | 250 | 55229.4 | 18 | 180 | 430 | 55732.1 |
| 18 | 180 | 260 | 54817.0 | 18 | 180 | 440 | 54458.1 |
| 18 | 180 | 270 | 54945.1 | 18 | 180 | 450 | 54747.8 |
| 18 | 180 | 280 | 54990.8 | 18 | 180 | 460 | 54977.8 |
| 18 | 180 | 290 | 55041.3 | 18 | 180 | 470 | 55487.3 |
| 18 | 180 | 300 | 54562.8 | 18 | 180 | 480 | 55885.9 |
| 19 | 190 | 300 | 54400.0 | 18 | 180 | 490 | 56508.0 |
| 19 | 190 | 290 | 54796.3 | 18 | 180 | 500 | 57091.9 |
| 19 | 190 | 280 | 54971.0 | 18 | 180 | 510 | 57272.1 |
| 19 | 190 | 270 | 54881.3 | 18 | 180 | 520 | 56592.2 |
| 19 | 190 | 260 | 54862.7 | 18 | 180 | 530 | 56175.2 |
| 19 | 190 | 250 | 54957.0 | 18 | 180 | 540 | 55902.7 |
| 19 | 190 | 240 | 55171.9 | 18 | 180 | 550 | 55735.5 |
| 19 | 190 | 230 | 55166.4 | 18 | 180 | 560 | 55562.2 |
| 19 | 190 | 220 | 55424.3 | 18 | 180 | 570 | 55444.1 |
| 19 | 190 | 210 | 55783.0 | 18 | 180 | 580 | 55373.5 |
| 19 | 190 | 200 | 55252.3 | 18 | 180 | 590 | 55333.0 |
| 19 | 190 | 190 | 54666.6 | 18 | 180 | 600 | 55311.8 |
| 19 | 190 | 180 | 54709.1 | 19 | 190 | 600 | 55302.9 |
| 19 | 190 | 170 | 54905.2 | 19 | 190 | 590 | 55319.4 |
| 19 | 190 | 160 | 54619.9 | 19 | 190 | 580 | 55352.8 |
| 19 | 190 | 150 | 54591.7 | 19 | 190 | 570 | 55405.1 |
| 19 | 190 | 140 | 55159.0 | 19 | 190 | 560 | 55491.5 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 21 | 210 | 220 | 54723.2 | 20 | 200 | 590 | 55315.7 |
| 21 | 210 | 210 | 54621.2 | 20 | 200 | 600 | 55301.2 |
| 21 | 210 | 200 | 54678.5 | 21 | 210 | 600 | 55295.3 |
| 21 | 210 | 190 | 54996.5 | 21 | 210 | 590 | 55305.0 |
| 21 | 210 | 180 | 55190.8 | 21 | 210 | 580 | 55326.6 |
| 21 | 210 | 170 | 55377.6 | 21 | 210 | 570 | 55358.1 |
| 21 | 210 | 160 | 55792.3 | 21 | 210 | 560 | 55404.1 |
| 21 | 210 | 150 | 55906.7 | 21 | 210 | 550 | 55493.0 |
| 21 | 210 | 140 | 55571.8 | 21 | 210 | 540 | 55656.7 |
| 21 | 210 | 130 | 56009.6 | 21 | 210 | 530 | 55915.9 |
| 21 | 210 | 120 | 54489.3 | 21 | 210 | 520 | 55934.4 |
| 21 | 210 | 110 | 54768.3 | 21 | 210 | 510 | 56169.0 |
| 21 | 210 | 100 | 55246.3 | 21 | 210 | 500 | 56951.1 |
| 21 | 210 | 90 | 55061.0 | 21 | 210 | 490 | 56874.4 |
| 21 | 210 | 80 | 55155.3 | 21 | 210 | 480 | 56600.0 |
| 21 | 210 | 70 | 55732.7 | 21 | 210 | 470 | 56054.7 |
| 21 | 210 | 60 | 56482.4 | 21 | 210 | 460 | 55047.9 |
| 21 | 210 | 50 | 57839.1 | 21 | 210 | 450 | 54574.6 |
| 21 | 210 | 40 | 57528.7 | 21 | 210 | 440 | 53861.2 |
| 21 | 210 | 30 | 56538.0 | 21 | 210 | 430 | 54165.7 |
| 21 | 210 | 20 | 55763.2 | 21 | 210 | 420 | 55324.1 |
| 21 | 210 | 10 | 55437.6 | 21 | 210 | 410 | 55800.2 |
| 21 | 210 | 0 | 54995.5 | 21 | 210 | 400 | 56240.9 |
| 22 | 220 | 0 | 55147.4 | 21 | 210 | 390 | 55732.9 |
| 22 | 220 | 10 | 55561.0 | 21 | 210 | 380 | 55628.8 |
| 22 | 220 | 20 | 56115.3 | 21 | 210 | 370 | 55728.8 |
| 22 | 220 | 30 | 56546.3 | 21 | 210 | 360 | 55305.3 |
| 22 | 220 | 40 | 56721.2 | 21 | 210 | 350 | 58259.8 |
| 22 | 220 | 50 | 57125.0 | 21 | 210 | 340 | 58483.0 |
| 22 | 220 | 60 | 56134.7 | 21 | 210 | 330 | 55957.4 |
| 22 | 220 | 70 | 55578.9 | 21 | 210 | 320 | 58461.6 |
| 22 | 220 | 80 | 54696.2 | 21 | 210 | 310 | 52098.5 |
| 22 | 220 | 90 | 55253.0 | 22 | 220 | 310 | 52594.2 |
| 22 | 220 | 100 | 55669.0 | 22 | 220 | 320 | 58539.3 |
| 22 | 220 | 110 | 55021.3 | 22 | 220 | 330 | 55022.9 |
| 22 | 220 | 120 | 56137.2 | 22 | 220 | 340 | 57626.3 |
| 22 | 220 | 130 | 56268.8 | 22 | 220 | 350 | 57047.9 |
| 22 | 220 | 140 | 55118.7 | 22 | 220 | 360 | 55285.2 |
| 22 | 220 | 150 | 55897.9 | 22 | 220 | 370 | 55685.8 |
| 22 | 220 | 160 | 55573.5 | 22 | 220 | 380 | 55719.3 |
| 22 | 220 | 170 | 55341.0 | 22 | 220 | 390 | 56269.7 |
| 22 | 220 | 180 | 55066.4 | 22 | 220 | 400 | 56302.6 |
| 22 | 220 | 190 | 55309.0 | 22 | 220 | 410 | 55621.7 |
| 22 | 220 | 200 | 55173.7 | 22 | 220 | 420 | 55008.9 |
| 22 | 220 | 210 | 55140.3 | 22 | 220 | 430 | 54269.8 |
| 22 | 220 | 220 | 55505.8 | 22 | 220 | 440 | 54111.0 |
| 22 | 220 | 230 | 55133.4 | 22 | 220 | 450 | 54699.1 |
| 22 | 220 | 240 | 55039.0 | 22 | 220 | 460 | 55047.7 |
| 22 | 220 | 250 | 55018.1 | 22 | 220 | 470 | 56113.6 |
| 22 | 220 | 260 | 54941.1 | 22 | 220 | 480 | 56854.6 |
| 22 | 220 | 270 | 55117.5 | 22 | 220 | 490 | 57447.9 |
| 22 | 220 | 280 | 55146.6 | 22 | 220 | 500 | 56756.6 |
| 22 | 220 | 290 | 54886.0 | 22 | 220 | 510 | 56155.4 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 22 | 220 | 300 | 53854.3 | 22 | 220 | 520 | 55895.7 |
| 23 | 230 | 300 | 53664.6 | 22 | 220 | 530 | 55718.3 |
| 23 | 230 | 290 | 54678.7 | 22 | 220 | 540 | 55557.6 |
| 23 | 230 | 280 | 54926.8 | 22 | 220 | 550 | 55451.8 |
| 23 | 230 | 270 | 55095.4 | 22 | 220 | 560 | 55391.1 |
| 23 | 230 | 260 | 55354.9 | 22 | 220 | 570 | 55358.3 |
| 23 | 230 | 250 | 54792.5 | 22 | 220 | 580 | 55333.4 |
| 23 | 230 | 240 | 55196.2 | 22 | 220 | 590 | 55316.4 |
| 23 | 230 | 230 | 55779.8 | 22 | 220 | 600 | 55306.5 |
| 23 | 230 | 220 | 55528.0 | 23 | 230 | 600 | 55304.2 |
| 23 | 230 | 210 | 55376.7 | 23 | 230 | 590 | 55312.1 |
| 23 | 230 | 200 | 54992.3 | 23 | 230 | 580 | 55326.9 |
| 23 | 230 | 190 | 54737.6 | 23 | 230 | 570 | 55347.4 |
| 23 | 230 | 180 | 55190.6 | 23 | 230 | 560 | 55370.4 |
| 23 | 230 | 170 | 55144.8 | 23 | 230 | 550 | 55402.1 |
| 23 | 230 | 160 | 55676.9 | 23 | 230 | 540 | 55456.9 |
| 23 | 230 | 150 | 54713.3 | 23 | 230 | 530 | 55540.6 |
| 23 | 230 | 140 | 56048.2 | 23 | 230 | 520 | 55778.5 |
| 23 | 230 | 130 | 55810.4 | 23 | 230 | 510 | 56128.7 |
| 23 | 230 | 120 | 55223.6 | 23 | 230 | 500 | 56876.4 |
| 23 | 230 | 110 | 55599.5 | 23 | 230 | 490 | 57501.3 |
| 23 | 230 | 100 | 54897.5 | 23 | 230 | 480 | 56754.7 |
| 23 | 230 | 90 | 55109.3 | 23 | 230 | 470 | 56258.4 |
| 23 | 230 | 80 | 55732.8 | 23 | 230 | 460 | 55079.6 |
| 23 | 230 | 70 | 56184.6 | 23 | 230 | 450 | 54362.4 |
| 23 | 230 | 60 | 56695.7 | 23 | 230 | 440 | 54296.3 |
| 23 | 230 | 50 | 56033.9 | 23 | 230 | 430 | 54411.3 |
| 23 | 230 | 40 | 56144.7 | 23 | 230 | 420 | 55001.6 |
| 23 | 230 | 30 | 56164.4 | 23 | 230 | 410 | 55272.0 |
| 23 | 230 | 20 | 55399.4 | 23 | 230 | 400 | 55790.5 |
| 23 | 230 | 10 | 54697.6 | 23 | 230 | 390 | 56031.5 |
| 24 | 240 | 0 | 54727.7 | 23 | 230 | 380 | 55793.8 |
| 24 | 240 | 10 | 55498.6 | 23 | 230 | 370 | 55689.4 |
| 24 | 240 | 20 | 55933.4 | 23 | 230 | 360 | 55262.3 |
| 24 | 240 | 30 | 56140.7 | 23 | 230 | 350 | 56598.6 |
| 24 | 240 | 40 | 56030.1 | 23 | 230 | 340 | 56765.4 |
| 24 | 240 | 50 | 56706.5 | 23 | 230 | 330 | 54319.3 |
| 24 | 240 | 60 | 56647.0 | 23 | 230 | 320 | 52821.6 |
| 24 | 240 | 70 | 56312.0 | 23 | 230 | 310 | 53231.1 |
| 24 | 240 | 80 | 55829.0 | 24 | 240 | 310 | 53155.8 |
| 24 | 240 | 90 | 54998.9 | 24 | 240 | 320 | 53916.8 |
| 24 | 240 | 100 | 54820.5 | 24 | 240 | 330 | 55544.8 |
| 24 | 240 | 110 | 54602.4 | 24 | 240 | 340 | 56592.4 |
| 24 | 240 | 120 | 55412.6 | 24 | 240 | 350 | 56374.6 |
| 24 | 240 | 130 | 55925.4 | 24 | 240 | 360 | 54764.5 |
| 24 | 240 | 140 | 55014.9 | 24 | 240 | 370 | 55838.9 |
| 24 | 240 | 150 | 55197.1 | 24 | 240 | 380 | 55805.9 |
| 24 | 240 | 160 | 54921.4 | 24 | 240 | 390 | 55859.1 |
| 24 | 240 | 170 | 55548.8 | 24 | 240 | 400 | 55716.5 |
| 24 | 240 | 180 | 55288.6 | 24 | 240 | 410 | 55361.5 |
| 24 | 240 | 190 | 55137.9 | 24 | 240 | 420 | 54869.1 |
| 24 | 240 | 200 | 55317.7 | 24 | 240 | 430 | 54563.3 |
| 24 | 240 | 210 | 56189.5 | 24 | 240 | 440 | 54712.9 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 24 | 240 | 220 | 56218.6 | 24 | 240 | 450 | 54299.8 |
| 24 | 240 | 230 | 55402.8 | 24 | 240 | 460 | 54594.0 |
| 24 | 240 | 240 | 54857.6 | 24 | 240 | 470 | 55797.8 |
| 24 | 240 | 250 | 55100.9 | 24 | 240 | 480 | 56356.8 |
| 24 | 240 | 260 | 54923.9 | 24 | 240 | 490 | 57139.8 |
| 24 | 240 | 270 | 54511.4 | 24 | 240 | 500 | 56598.2 |
| 24 | 240 | 280 | 54731.6 | 24 | 240 | 510 | 55893.9 |
| 24 | 240 | 290 | 54314.8 | 24 | 240 | 520 | 55612.5 |
| 24 | 240 | 300 | 53030.7 | 24 | 240 | 530 | 55461.7 |
| 25 | 250 | 300 | 52524.6 | 24 | 240 | 540 | 55408.1 |
| 25 | 250 | 290 | 53993.8 | 24 | 240 | 550 | 55381.3 |
| 25 | 250 | 280 | 54659.9 | 24 | 240 | 560 | 55353.5 |
| 25 | 250 | 270 | 54728.5 | 24 | 240 | 570 | 55337.2 |
| 25 | 250 | 260 | 54945.2 | 24 | 240 | 580 | 55314.0 |
| 25 | 250 | 250 | 55069.6 | 24 | 240 | 590 | 55301.4 |
| 25 | 250 | 240 | 55187.9 | 24 | 240 | 600 | 55294.2 |
| 25 | 250 | 230 | 55471.5 | 25 | 250 | 600 | 55282.6 |
| 25 | 250 | 220 | 56213.5 | 25 | 250 | 590 | 55290.0 |
| 25 | 250 | 210 | 56299.2 | 25 | 250 | 580 | 55314.7 |
| 25 | 250 | 200 | 55086.2 | 25 | 250 | 570 | 55332.5 |
| 25 | 250 | 190 | 55013.4 | 25 | 250 | 560 | 55338.5 |
| 25 | 250 | 180 | 55124.1 | 25 | 250 | 550 | 55365.1 |
| 25 | 250 | 170 | 55612.9 | 25 | 250 | 540 | 55365.5 |
| 25 | 250 | 160 | 54737.9 | 25 | 250 | 530 | 55420.5 |
| 25 | 250 | 150 | 55147.4 | 25 | 250 | 520 | 55543.2 |
| 25 | 250 | 140 | 55526.2 | 25 | 250 | 510 | 55818.6 |
| 25 | 250 | 130 | 56078.3 | 25 | 250 | 500 | 56560.4 |
| 25 | 250 | 120 | 55312.3 | 25 | 250 | 490 | 56826.4 |
| 25 | 250 | 110 | 54510.7 | 25 | 250 | 480 | 56470.6 |
| 25 | 250 | 100 | 55013.0 | 25 | 250 | 470 | 56005.0 |
| 25 | 250 | 90 | 55640.4 | 25 | 250 | 460 | 55121.1 |
| 25 | 250 | 80 | 56824.2 | 25 | 250 | 450 | 54795.1 |
| 25 | 250 | 70 | 57888.5 | 25 | 250 | 440 | 54832.7 |
| 25 | 250 | 60 | 57717.0 | 25 | 250 | 430 | 54479.9 |
| 25 | 250 | 50 | 56632.2 | 25 | 250 | 420 | 54602.5 |
| 25 | 250 | 40 | 55848.4 | 25 | 250 | 410 | 55332.7 |
| 25 | 250 | 30 | 55811.3 | 25 | 250 | 400 | 55735.7 |
| 25 | 250 | 20 | 55714.9 | 25 | 250 | 390 | 55799.9 |
| 25 | 250 | 10 | 55082.7 | 25 | 250 | 380 | 55763.6 |
| 25 | 250 | 0 | 54560.0 | 25 | 250 | 370 | 55776.8 |
| 26 | 260 | 10 | 54556.7 | 25 | 250 | 360 | 54906.6 |
| 26 | 260 | 20 | 55333.0 | 25 | 250 | 350 | 56488.0 |
| 26 | 260 | 30 | 55607.1 | 25 | 250 | 340 | 56501.6 |
| 26 | 260 | 40 | 55897.9 | 25 | 250 | 330 | 56072.6 |
| 26 | 260 | 50 | 56193.2 | 25 | 250 | 320 | 54464.8 |
| 26 | 260 | 60 | 57873.4 | 25 | 250 | 310 | 52751.3 |
| 26 | 260 | 70 | 59088.1 | 26 | 260 | 310 | 53112.0 |
| 26 | 260 | 80 | 57522.3 | 26 | 260 | 320 | 55757.0 |
| 26 | 260 | 90 | 55491.6 | 26 | 260 | 330 | 56336.2 |
| 26 | 260 | 100 | 54383.4 | 26 | 260 | 340 | 56533.6 |
| 26 | 260 | 110 | 53899.3 | 26 | 260 | 350 | 56311.0 |
| 26 | 260 | 120 | 55488.1 | 26 | 260 | 360 | 55052.6 |
| 26 | 260 | 130 | 56063.9 | 26 | 260 | 370 | 55942.5 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 26 | 260 | 140 | 55665.6 | 26 | 260 | 380 | 56079.5 |
| 26 | 260 | 150 | 55747.6 | 26 | 260 | 390 | 55785.5 |
| 26 | 260 | 160 | 55009.0 | 26 | 260 | 400 | 55414.5 |
| 26 | 260 | 170 | 54955.9 | 26 | 260 | 410 | 55135.1 |
| 26 | 260 | 180 | 54583.3 | 26 | 260 | 420 | 54579.9 |
| 26 | 260 | 190 | 55240.7 | 26 | 260 | 430 | 54611.7 |
| 26 | 260 | 200 | 55031.8 | 26 | 260 | 440 | 54639.4 |
| 26 | 260 | 210 | 56265.8 | 26 | 260 | 450 | 54811.8 |
| 26 | 260 | 220 | 56214.1 | 26 | 260 | 460 | 55270.4 |
| 26 | 260 | 230 | 55651.7 | 26 | 260 | 470 | 56299.0 |
| 26 | 260 | 240 | 55301.5 | 26 | 260 | 480 | 56934.2 |
| 26 | 260 | 250 | 55323.2 | 26 | 260 | 490 | 57557.6 |
| 26 | 260 | 260 | 55313.4 | 26 | 260 | 500 | 56922.9 |
| 26 | 260 | 270 | 55315.9 | 26 | 260 | 510 | 55933.9 |
| 26 | 260 | 280 | 54571.5 | 26 | 260 | 520 | 55552.1 |
| 26 | 260 | 290 | 53353.8 | 26 | 260 | 530 | 55420.9 |
| 26 | 260 | 300 | 52486.2 | 26 | 260 | 540 | 55365.1 |
| 27 | 270 | 300 | 51890.0 | 26 | 260 | 550 | 55354.9 |
| 27 | 270 | 290 | 53070.4 | 26 | 260 | 560 | 55346.4 |
| 27 | 270 | 280 | 54459.1 | 26 | 260 | 570 | 55324.6 |
| 27 | 270 | 270 | 55122.8 | 26 | 260 | 580 | 55317.0 |
| 27 | 270 | 260 | 55601.1 | 26 | 260 | 590 | 55305.2 |
| 27 | 270 | 250 | 55890.0 | 26 | 260 | 600 | 55297.2 |
| 27 | 270 | 240 | 55262.3 | 27 | 270 | 600 | 55286.3 |
| 27 | 270 | 230 | 56103.4 | 27 | 270 | 590 | 55297.6 |
| 27 | 270 | 220 | 56360.3 | 27 | 270 | 580 | 55310.2 |
| 27 | 270 | 210 | 56179.8 | 27 | 270 | 570 | 55326.8 |
| 27 | 270 | 200 | 55419.5 | 27 | 270 | 560 | 55344.6 |
| 27 | 270 | 190 | 54864.6 | 27 | 270 | 550 | 55348.3 |
| 27 | 270 | 180 | 54788.3 | 27 | 270 | 540 | 55387.9 |
| 27 | 270 | 170 | 54388.6 | 27 | 270 | 530 | 55467.9 |
| 27 | 270 | 160 | 55488.5 | 27 | 270 | 520 | 55636.3 |
| 27 | 270 | 150 | 56490.4 | 27 | 270 | 510 | 56074.1 |
| 27 | 270 | 140 | 55911.5 | 27 | 270 | 500 | 57098.1 |
| 27 | 270 | 130 | 55987.6 | 27 | 270 | 490 | 57412.6 |
| 27 | 270 | 120 | 55315.3 | 27 | 270 | 480 | 56605.4 |
| 27 | 270 | 110 | 58576.9 | 27 | 270 | 470 | 55931.8 |
| 27 | 270 | 100 | 54120.5 | 27 | 270 | 460 | 55426.6 |
| 27 | 270 | 90 | 56170.4 | 27 | 270 | 450 | 55163.6 |
| 27 | 270 | 80 | 57941.7 | 27 | 270 | 440 | 54592.4 |
| 27 | 270 | 70 | 59292.0 | 27 | 270 | 430 | 54948.9 |
| 27 | 270 | 60 | 58066.5 | 27 | 270 | 420 | 55023.1 |
| 27 | 270 | 50 | 56428.2 | 27 | 270 | 410 | 55294.1 |
| 27 | 270 | 40 | 56250.5 | 27 | 270 | 400 | 55320.9 |
| 27 | 270 | 30 | 56541.8 | 27 | 270 | 390 | 56234.8 |
| 27 | 270 | 20 | 56172.3 | 27 | 270 | 380 | 56100.2 |
| 28 | 280 | 10 | 55221.8 | 27 | 270 | 370 | 55916.8 |
| 28 | 280 | 20 | 57810.2 | 27 | 270 | 360 | 55100.4 |
| 28 | 280 | 30 | 57917.1 | 27 | 270 | 350 | 55843.6 |
| 28 | 280 | 40 | 56790.1 | 27 | 270 | 340 | 56544.9 |
| 28 | 280 | 50 | 56920.1 | 27 | 270 | 330 | 57043.3 |
| 28 | 280 | 60 | 58566.8 | 27 | 270 | 320 | 56094.3 |
| 28 | 280 | 70 | 58667.2 | 27 | 270 | 310 | 53677.7 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 28 | 280 | 80 | 57925.1 | 28 | 280 | 310 | 54762.0 |
| 28 | 280 | 90 | 56541.4 | 28 | 280 | 320 | 56314.4 |
| 28 | 280 | 100 | 53705.7 | 28 | 280 | 330 | 57287.2 |
| 28 | 280 | 110 | 58539.1 | 28 | 280 | 340 | 56104.8 |
| 28 | 280 | 120 | 58357.0 | 28 | 280 | 350 | 55452.8 |
| 28 | 280 | 130 | 58769.4 | 28 | 280 | 360 | 55888.3 |
| 28 | 280 | 140 | 58490.3 | 28 | 280 | 370 | 56463.3 |
| 28 | 280 | 150 | 57683.8 | 28 | 280 | 380 | 56270.7 |
| 28 | 280 | 160 | 55874.7 | 28 | 280 | 390 | 56568.3 |
| 28 | 280 | 170 | 54906.6 | 28 | 280 | 400 | 55291.7 |
| 28 | 280 | 180 | 55118.9 | 28 | 280 | 410 | 55343.3 |
| 28 | 280 | 190 | 54617.8 | 28 | 280 | 420 | 55292.8 |
| 28 | 280 | 200 | 55300.3 | 28 | 280 | 430 | 54939.6 |
| 28 | 280 | 210 | 56333.3 | 28 | 280 | 440 | 54625.6 |
| 28 | 280 | 220 | 56736.0 | 28 | 280 | 450 | 55116.2 |
| 28 | 280 | 230 | 56439.5 | 28 | 280 | 460 | 55206.0 |
| 28 | 280 | 240 | 55381.6 | 28 | 280 | 470 | 55550.4 |
| 28 | 280 | 250 | 55260.5 | 28 | 280 | 480 | 56417.0 |
| 28 | 280 | 260 | 55077.2 | 28 | 280 | 490 | 56938.7 |
| 28 | 280 | 270 | 53738.3 | 28 | 280 | 500 | 56396.7 |
| 28 | 280 | 280 | 53491.8 | 28 | 280 | 510 | 55897.5 |
| 28 | 280 | 290 | 52237.9 | 28 | 280 | 520 | 55679.9 |
| 28 | 280 | 300 | 58364.9 | 28 | 280 | 530 | 55519.9 |
| 29 | 290 | 300 | 58517.6 | 28 | 280 | 540 | 55414.6 |
| 29 | 290 | 290 | 52756.7 | 28 | 280 | 550 | 55367.2 |
| 29 | 290 | 280 | 53497.4 | 28 | 280 | 560 | 55350.6 |
| 29 | 290 | 270 | 53463.1 | 28 | 280 | 570 | 55335.8 |
| 29 | 290 | 260 | 54424.3 | 28 | 280 | 580 | 55320.8 |
| 29 | 290 | 250 | 55152.4 | 28 | 280 | 590 | 55311.4 |
| 29 | 290 | 240 | 55367.5 | 28 | 280 | 600 | 55303.1 |
| 29 | 290 | 230 | 56658.2 | 29 | 290 | 600 | 55295.9 |
| 29 | 290 | 220 | 56506.1 | 29 | 290 | 590 | 55301.3 |
| 29 | 290 | 210 | 55823.2 | 29 | 290 | 580 | 55308.1 |
| 29 | 290 | 200 | 55260.3 | 29 | 290 | 570 | 55328.5 |
| 29 | 290 | 190 | 55837.6 | 29 | 290 | 560 | 55350.4 |
| 29 | 290 | 180 | 55557.5 | 29 | 290 | 550 | 55382.0 |
| 29 | 290 | 170 | 54696.0 | 29 | 290 | 540 | 55464.6 |
| 29 | 290 | 160 | 56033.1 | 29 | 290 | 530 | 55674.6 |
| 29 | 290 | 150 | 58550.0 | 29 | 290 | 520 | 55954.2 |
| 29 | 290 | 140 | 58532.9 | 29 | 290 | 510 | 56197.8 |
| 29 | 290 | 130 | 58948.5 | 29 | 290 | 500 | 56008.9 |
| 29 | 290 | 120 | 55493.0 | 29 | 290 | 490 | 56139.7 |
| 29 | 290 | 110 | 58426.3 | 29 | 290 | 480 | 56444.9 |
| 29 | 290 | 100 | 54328.6 | 29 | 290 | 470 | 55879.5 |
| 29 | 290 | 90 | 56210.9 | 29 | 290 | 460 | 55416.1 |
| 29 | 290 | 80 | 58067.6 | 29 | 290 | 450 | 55428.1 |
| 29 | 290 | 70 | 59018.2 | 29 | 290 | 440 | 55127.6 |
| 29 | 290 | 60 | 58756.5 | 29 | 290 | 430 | 54946.2 |
| 29 | 290 | 50 | 57829.4 | 29 | 290 | 420 | 54597.0 |
| 29 | 290 | 40 | 56776.5 | 29 | 290 | 410 | 54963.0 |
| 29 | 290 | 30 | 56821.0 | 29 | 290 | 400 | 55389.4 |
| 29 | 290 | 20 | 55415.8 | 29 | 290 | 390 | 56567.2 |
| 29 | 290 | 10 | 53613.2 | 29 | 290 | 380 | 56227.1 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 29 | 290 | 0 | 52631.8 | 29 | 290 | 370 | 56711.7 |
| 30 | 300 | 0 | 53333.4 | 29 | 290 | 360 | 56047.9 |
| 30 | 300 | 10 | 53826.9 | 29 | 290 | 350 | 55377.1 |
| 30 | 300 | 20 | 54616.2 | 29 | 290 | 340 | 55659.1 |
| 30 | 300 | 30 | 56300.9 | 29 | 290 | 330 | 57268.3 |
| 30 | 300 | 40 | 57036.2 | 29 | 290 | 320 | 57059.6 |
| 30 | 300 | 50 | 58249.9 | 29 | 290 | 310 | 55229.4 |
| 30 | 300 | 60 | 58256.2 | 30 | 300 | 310 | 56143.4 |
| 30 | 300 | 70 | 59095.3 | 30 | 300 | 320 | 58357.7 |
| 30 | 300 | 80 | 58508.5 | 30 | 300 | 330 | 56659.1 |
| 30 | 300 | 90 | 56712.6 | 30 | 300 | 340 | 55075.3 |
| 30 | 300 | 100 | 55420.8 | 30 | 300 | 350 | 55349.1 |
| 30 | 300 | 110 | 53966.2 | 30 | 300 | 360 | 56195.6 |
| 30 | 300 | 120 | 55203.5 | 30 | 300 | 370 | 56595.2 |
| 30 | 300 | 130 | 57420.8 | 30 | 300 | 380 | 56404.4 |
| 30 | 300 | 140 | 58849.8 | 30 | 300 | 390 | 55824.8 |
| 30 | 300 | 150 | 58463.7 | 30 | 300 | 400 | 55370.8 |
| 30 | 300 | 160 | 55583.0 | 30 | 300 | 410 | 55200.4 |
| 30 | 300 | 170 | 55113.7 | 30 | 300 | 420 | 54497.9 |
| 30 | 300 | 180 | 55468.8 | 30 | 300 | 430 | 54540.7 |
| 30 | 300 | 190 | 56081.5 | 30 | 300 | 440 | 55502.5 |
| 30 | 300 | 200 | 55199.4 | 30 | 300 | 450 | 56001.9 |
| 30 | 300 | 210 | 55175.5 | 30 | 300 | 460 | 56013.3 |
| 30 | 300 | 220 | 56400.2 | 30 | 300 | 470 | 56304.9 |
| 30 | 300 | 230 | 56557.1 | 30 | 300 | 480 | 56737.7 |
| 30 | 300 | 240 | 55578.4 | 30 | 300 | 490 | 56107.2 |
| 30 | 300 | 250 | 56172.7 | 30 | 300 | 500 | 55920.4 |
| 30 | 300 | 260 | 54584.4 | 30 | 300 | 510 | 56212.2 |
| 30 | 300 | 270 | 53637.7 | 30 | 300 | 520 | 56264.6 |
| 30 | 300 | 280 | 53979.2 | 30 | 300 | 530 | 55838.6 |
| 30 | 300 | 290 | 54160.1 | 30 | 300 | 540 | 55533.9 |
| 30 | 300 | 300 | 54566.6 | 30 | 300 | 550 | 55427.7 |
| 31 | 310 | 300 | 56663.0 | 30 | 300 | 560 | 55378.9 |
| 31 | 310 | 290 | 56025.1 | 30 | 300 | 570 | 55346.1 |
| 31 | 310 | 280 | 55167.4 | 30 | 300 | 580 | 55323.6 |
| 31 | 310 | 270 | 54318.3 | 30 | 300 | 590 | 55315.0 |
| 31 | 310 | 260 | 53558.6 | 30 | 300 | 600 | 55307.2 |
| 31 | 310 | 250 | 54449.3 | 31 | 310 | 600 | 55301.2 |
| 31 | 310 | 240 | 55262.4 | 31 | 310 | 590 | 55309.9 |
| 31 | 310 | 230 | 56259.9 | 31 | 310 | 580 | 55322.0 |
| 31 | 310 | 220 | 55700.8 | 31 | 310 | 570 | 55344.0 |
| 31 | 310 | 210 | 55404.3 | 31 | 310 | 560 | 55374.4 |
| 31 | 310 | 200 | 55834.4 | 31 | 310 | 550 | 55422.6 |
| 31 | 310 | 190 | 56431.9 | 31 | 310 | 540 | 55526.6 |
| 31 | 310 | 180 | 55004.4 | 31 | 310 | 530 | 55801.0 |
| 31 | 310 | 170 | 54161.5 | 31 | 310 | 520 | 56207.5 |
| 31 | 310 | 160 | 54823.0 | 31 | 310 | 510 | 56422.9 |
| 31 | 310 | 150 | 55889.5 | 31 | 310 | 500 | 56301.1 |
| 31 | 310 | 140 | 56719.0 | 31 | 310 | 490 | 56189.3 |
| 31 | 310 | 130 | 56742.1 | 31 | 310 | 480 | 56718.3 |
| 31 | 310 | 120 | 55557.6 | 31 | 310 | 470 | 56294.9 |
| 31 | 310 | 110 | 55190.1 | 31 | 310 | 460 | 56250.1 |
| 31 | 310 | 100 | 55770.2 | 31 | 310 | 450 | 56377.6 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 31 | 310 | 90 | 56737.4 | 31 | 310 | 440 | 55534.2 |
| 31 | 310 | 80 | 58410.4 | 31 | 310 | 430 | 54572.6 |
| 31 | 310 | 70 | 58659.5 | 31 | 310 | 420 | 54697.8 |
| 31 | 310 | 60 | 58353.2 | 31 | 310 | 410 | 55593.2 |
| 31 | 310 | 50 | 57796.8 | 31 | 310 | 400 | 55641.0 |
| 32 | 320 | 50 | 57977.7 | 31 | 310 | 390 | 55468.9 |
| 32 | 320 | 60 | 57871.6 | 31 | 310 | 380 | 55536.7 |
| 32 | 320 | 70 | 58613.0 | 31 | 310 | 370 | 55767.7 |
| 32 | 320 | 80 | 57529.3 | 31 | 310 | 360 | 55505.5 |
| 32 | 320 | 90 | 57549.4 | 31 | 310 | 350 | 55516.9 |
| 32 | 320 | 100 | 56689.7 | 31 | 310 | 340 | 54590.9 |
| 32 | 320 | 110 | 55976.6 | 31 | 310 | 330 | 55540.7 |
| 32 | 320 | 120 | 55884.5 | 31 | 310 | 320 | 57104.8 |
| 32 | 320 | 130 | 56015.8 | 31 | 310 | 310 | 57159.6 |
| 32 | 320 | 140 | 55712.7 | 32 | 320 | 310 | 57626.8 |
| 32 | 320 | 150 | 54778.9 | 32 | 320 | 320 | 56523.0 |
| 32 | 320 | 160 | 54407.6 | 32 | 320 | 330 | 55383.4 |
| 32 | 320 | 170 | 54060.1 | 32 | 320 | 340 | 55064.1 |
| 32 | 320 | 180 | 53413.6 | 32 | 320 | 350 | 55636.1 |
| 32 | 320 | 190 | 56319.6 | 32 | 320 | 360 | 55493.3 |
| 32 | 320 | 200 | 56835.7 | 32 | 320 | 370 | 55722.9 |
| 32 | 320 | 210 | 55993.2 | 32 | 320 | 380 | 55475.1 |
| 32 | 320 | 220 | 56023.1 | 32 | 320 | 390 | 55565.9 |
| 32 | 320 | 230 | 56021.2 | 32 | 320 | 400 | 55699.7 |
| 32 | 320 | 240 | 54245.3 | 32 | 320 | 410 | 56187.1 |
| 32 | 320 | 250 | 52103.1 | 32 | 320 | 420 | 54890.2 |
| 32 | 320 | 260 | 58403.5 | 32 | 320 | 430 | 54719.2 |
| 32 | 320 | 270 | 54779.4 | 32 | 320 | 440 | 55651.0 |
| 32 | 320 | 280 | 57010.3 | 32 | 320 | 450 | 56164.2 |
| 32 | 320 | 290 | 57905.6 | 32 | 320 | 460 | 56027.2 |
| 32 | 320 | 300 | 58171.1 | 32 | 320 | 470 | 56338.4 |
| 33 | 330 | 300 | 58834.8 | 32 | 320 | 480 | 56300.2 |
| 33 | 330 | 290 | 58961.4 | 32 | 320 | 490 | 55925.9 |
| 33 | 330 | 280 | 58237.8 | 32 | 320 | 500 | 56282.7 |
| 33 | 330 | 270 | 55494.6 | 32 | 320 | 510 | 56240.3 |
| 33 | 330 | 260 | 58412.0 | 32 | 320 | 520 | 56117.9 |
| 33 | 330 | 250 | 58392.6 | 32 | 320 | 530 | 55783.7 |
| 33 | 330 | 240 | 52926.6 | 32 | 320 | 540 | 55522.7 |
| 33 | 330 | 230 | 55215.6 | 32 | 320 | 550 | 55435.9 |
| 33 | 330 | 220 | 56437.0 | 32 | 320 | 560 | 55390.8 |
| 33 | 330 | 210 | 56494.2 | 32 | 320 | 570 | 55357.8 |
| 33 | 330 | 200 | 56599.2 | 32 | 320 | 580 | 55341.0 |
| 33 | 330 | 190 | 55536.2 | 32 | 320 | 590 | 55328.6 |
| 33 | 330 | 180 | 53257.4 | 32 | 320 | 600 | 55318.6 |
| 33 | 330 | 170 | 53795.8 | 33 | 330 | 600 | 55316.7 |
| 33 | 330 | 160 | 54557.8 | 33 | 330 | 590 | 55325.1 |
| 33 | 330 | 150 | 55085.8 | 33 | 330 | 580 | 55346.3 |
| 33 | 330 | 140 | 55907.0 | 33 | 330 | 570 | 55398.3 |
| 33 | 330 | 130 | 56227.0 | 33 | 330 | 560 | 55417.8 |
| 33 | 330 | 120 | 56100.6 | 33 | 330 | 550 | 55455.2 |
| 33 | 330 | 110 | 55805.4 | 33 | 330 | 540 | 55564.4 |
| 33 | 330 | 100 | 57143.2 | 33 | 330 | 530 | 55870.0 |
| 33 | 330 | 90 | 58098.6 | 33 | 330 | 520 | 56304.5 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 33 | 330 | 80 | 56400.1 | 33 | 330 | 510 | 56263.5 |
| 33 | 330 | 70 | 57372.5 | 33 | 330 | 500 | 56169.3 |
| 33 | 330 | 60 | 57081.5 | 33 | 330 | 490 | 55740.3 |
| 33 | 330 | 50 | 57751.5 | 33 | 330 | 480 | 56365.9 |
| 34 | 340 | 0 | 56432.1 | 33 | 330 | 470 | 56617.9 |
| 34 | 340 | 10 | 56396.1 | 33 | 330 | 460 | 56508.3 |
| 34 | 340 | 20 | 56422.3 | 33 | 330 | 450 | 56135.5 |
| 34 | 340 | 30 | 56459.5 | 33 | 330 | 440 | 55755.1 |
| 34 | 340 | 40 | 57102.3 | 33 | 330 | 430 | 55011.1 |
| 34 | 340 | 50 | 57626.3 | 33 | 330 | 420 | 54467.5 |
| 34 | 340 | 60 | 56799.3 | 33 | 330 | 410 | 55760.6 |
| 34 | 340 | 70 | 56054.5 | 33 | 330 | 400 | 55526.0 |
| 34 | 340 | 80 | 55546.9 | 33 | 330 | 390 | 55752.8 |
| 34 | 340 | 90 | 58226.7 | 33 | 330 | 380 | 56133.6 |
| 34 | 340 | 100 | 56915.1 | 33 | 330 | 370 | 56576.2 |
| 34 | 340 | 110 | 55189.3 | 33 | 330 | 360 | 55615.6 |
| 34 | 340 | 120 | 56579.5 | 33 | 330 | 350 | 55718.8 |
| 34 | 340 | 130 | 56020.1 | 33 | 330 | 340 | 55866.4 |
| 34 | 340 | 140 | 55676.7 | 33 | 330 | 330 | 55101.5 |
| 34 | 340 | 150 | 55214.7 | 33 | 330 | 320 | 55974.1 |
| 34 | 340 | 160 | 54176.3 | 33 | 330 | 310 | 57985.5 |
| 34 | 340 | 170 | 52424.3 | 34 | 340 | 310 | 57790.0 |
| 34 | 340 | 180 | 52745.9 | 34 | 340 | 320 | 55341.6 |
| 34 | 340 | 190 | 54387.1 | 34 | 340 | 330 | 54833.3 |
| 34 | 340 | 200 | 56294.7 | 34 | 340 | 340 | 55875.5 |
| 34 | 340 | 210 | 56362.9 | 34 | 340 | 350 | 56006.6 |
| 34 | 340 | 220 | 55761.3 | 34 | 340 | 360 | 55809.1 |
| 34 | 340 | 230 | 52688.4 | 34 | 340 | 370 | 56789.9 |
| 34 | 340 | 240 | 52059.4 | 34 | 340 | 380 | 56631.3 |
| 34 | 340 | 250 | 51849.8 | 34 | 340 | 390 | 55787.2 |
| 34 | 340 | 260 | 58487.8 | 34 | 340 | 400 | 55659.9 |
| 34 | 340 | 270 | 58039.0 | 34 | 340 | 410 | 55651.4 |
| 34 | 340 | 280 | 58488.4 | 34 | 340 | 420 | 54830.3 |
| 34 | 340 | 290 | 58130.8 | 34 | 340 | 430 | 55003.4 |
| 34 | 340 | 300 | 58805.6 | 34 | 340 | 440 | 55415.2 |
| 35 | 350 | 300 | 58386.5 | 34 | 340 | 450 | 56534.6 |
| 35 | 350 | 290 | 58398.3 | 34 | 340 | 460 | 56978.4 |
| 35 | 350 | 280 | 58354.3 | 34 | 340 | 470 | 57127.1 |
| 35 | 350 | 270 | 58983.7 | 34 | 340 | 480 | 56562.3 |
| 35 | 350 | 260 | 53844.7 | 34 | 340 | 490 | 55901.9 |
| 35 | 350 | 250 | 52388.9 | 34 | 340 | 500 | 56325.6 |
| 35 | 350 | 240 | 52092.7 | 34 | 340 | 510 | 56595.8 |
| 35 | 350 | 230 | 58359.5 | 34 | 340 | 520 | 56331.7 |
| 35 | 350 | 220 | 54905.1 | 34 | 340 | 530 | 55881.4 |
| 35 | 350 | 210 | 57781.0 | 34 | 340 | 540 | 55666.1 |
| 35 | 350 | 200 | 58393.2 | 34 | 340 | 550 | 55520.6 |
| 35 | 350 | 190 | 53395.0 | 34 | 340 | 560 | 55449.7 |
| 35 | 350 | 180 | 58574.2 | 34 | 340 | 570 | 55412.7 |
| 35 | 350 | 170 | 51539.4 | 34 | 340 | 580 | 55386.3 |
| 35 | 350 | 160 | 53558.6 | 34 | 340 | 590 | 55368.4 |
| 35 | 350 | 150 | 55343.2 | 34 | 340 | 600 | 55357.1 |
| 35 | 350 | 140 | 55995.2 | 35 | 350 | 600 | 55353.2 |
| 35 | 350 | 130 | 56307.0 | 35 | 350 | 590 | 55364.7 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 35 | 350 | 120 | 56695.4 | 35 | 350 | 580 | 55382.2 |
| 35 | 350 | 110 | 55177.4 | 35 | 350 | 570 | 55416.8 |
| 35 | 350 | 100 | 56653.2 | 35 | 350 | 560 | 55482.6 |
| 35 | 350 | 90 | 56484.8 | 35 | 350 | 550 | 55576.3 |
| 35 | 350 | 80 | 58620.4 | 35 | 350 | 540 | 55751.0 |
| 35 | 350 | 70 | 58086.8 | 35 | 350 | 530 | 55960.2 |
| 35 | 350 | 60 | 57001.6 | 35 | 350 | 520 | 56528.7 |
| 35 | 350 | 50 | 57022.6 | 35 | 350 | 510 | 56672.3 |
| 35 | 350 | 40 | 56391.4 | 35 | 350 | 500 | 56332.0 |
| 35 | 350 | 30 | 56361.2 | 35 | 350 | 490 | 56166.7 |
| 35 | 350 | 20 | 55725.0 | 35 | 350 | 480 | 56726.9 |
| 35 | 350 | 10 | 56208.8 | 35 | 350 | 470 | 57403.4 |
| 35 | 350 | 0 | 56908.2 | 35 | 350 | 460 | 57180.1 |
| 36 | 360 | 0 | 57426.0 | 35 | 350 | 450 | 56078.9 |
| 36 | 360 | 10 | 56760.0 | 35 | 350 | 440 | 55348.7 |
| 36 | 360 | 20 | 56162.0 | 35 | 350 | 430 | 55389.1 |
| 36 | 360 | 30 | 56462.9 | 35 | 350 | 420 | 55632.4 |
| 36 | 360 | 40 | 55962.3 | 35 | 350 | 410 | 56008.7 |
| 36 | 360 | 50 | 55948.9 | 35 | 350 | 400 | 55586.6 |
| 36 | 360 | 60 | 56804.3 | 35 | 350 | 390 | 56101.6 |
| 36 | 360 | 70 | 57963.9 | 35 | 350 | 380 | 57169.9 |
| 36 | 360 | 80 | 55378.5 | 35 | 350 | 370 | 56981.5 |
| 36 | 360 | 90 | 55706.9 | 35 | 350 | 360 | 55791.7 |
| 36 | 360 | 100 | 55970.3 | 35 | 350 | 350 | 55826.9 |
| 36 | 360 | 110 | 54939.7 | 35 | 350 | 340 | 56062.7 |
| 36 | 360 | 120 | 56389.7 | 35 | 350 | 330 | 55709.9 |
| 36 | 360 | 130 | 56426.3 | 35 | 350 | 320 | 55346.9 |
| 36 | 360 | 140 | 55982.5 | 35 | 350 | 310 | 57153.5 |
| 36 | 360 | 150 | 55250.3 | 36 | 360 | 310 | 56586.7 |
| 36 | 360 | 160 | 52811.1 | 36 | 360 | 320 | 55977.4 |
| 36 | 360 | 170 | 51155.1 | 36 | 360 | 330 | 56444.3 |
| 36 | 360 | 180 | 58403.5 | 36 | 360 | 340 | 56379.8 |
| 36 | 360 | 190 | 52733.9 | 36 | 360 | 350 | 56408.5 |
| 36 | 360 | 200 | 56171.5 | 36 | 360 | 360 | 56007.4 |
| 36 | 360 | 210 | 58546.3 | 36 | 360 | 370 | 56949.0 |
| 36 | 360 | 220 | 58013.3 | 36 | 360 | 380 | 57140.0 |
| 36 | 360 | 230 | 58359.5 | 36 | 360 | 390 | 55882.9 |
| 36 | 360 | 240 | 52498.1 | 36 | 360 | 400 | 55329.6 |
| 36 | 360 | 250 | 53071.9 | 36 | 360 | 410 | 55712.1 |
| 36 | 360 | 260 | 54776.5 | 36 | 360 | 420 | 56460.4 |
| 36 | 360 | 270 | 57842.7 | 36 | 360 | 430 | 56826.9 |
| 36 | 360 | 280 | 58955.9 | 36 | 360 | 440 | 55864.6 |
| 36 | 360 | 290 | 58125.9 | 36 | 360 | 450 | 56065.9 |
| 36 | 360 | 300 | 57567.7 | 36 | 360 | 460 | 56847.6 |
| 37 | 370 | 300 | 57473.2 | 36 | 360 | 470 | 57340.5 |
| 37 | 370 | 290 | 57240.2 | 36 | 360 | 480 | 56864.6 |
| 37 | 370 | 280 | 57104.4 | 36 | 360 | 490 | 56384.3 |
| 37 | 370 | 270 | 56926.0 | 36 | 360 | 500 | 56233.4 |
| 37 | 370 | 260 | 55983.8 | 36 | 360 | 510 | 56503.5 |
| 37 | 370 | 250 | 54315.0 | 36 | 360 | 520 | 56375.2 |
| 37 | 370 | 240 | 54058.4 | 36 | 360 | 530 | 56045.2 |
| 37 | 370 | 230 | 54354.8 | 36 | 360 | 540 | 55896.5 |
| 37 | 370 | 220 | 57604.6 | 36 | 360 | 550 | 55631.5 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 39 | 390 | 300 | 58289.6 | 38 | 380 | 490 | 56245.8 |
| 39 | 390 | 290 | 57040.2 | 38 | 380 | 500 | 56097.9 |
| 39 | 390 | 280 | 55842.6 | 38 | 380 | 510 | 56248.3 |
| 39 | 390 | 270 | 55517.4 | 38 | 380 | 520 | 56061.3 |
| 39 | 390 | 260 | 55345.2 | 38 | 380 | 530 | 55904.9 |
| 39 | 390 | 250 | 55769.0 | 38 | 380 | 540 | 55974.8 |
| 39 | 390 | 240 | 55795.6 | 38 | 380 | 550 | 55698.1 |
| 39 | 390 | 230 | 55107.4 | 38 | 380 | 560 | 55521.8 |
| 39 | 390 | 220 | 55034.0 | 38 | 380 | 570 | 55441.5 |
| 39 | 390 | 210 | 54854.0 | 38 | 380 | 580 | 55370.2 |
| 39 | 390 | 200 | 54509.6 | 38 | 380 | 590 | 55335.3 |
| 39 | 390 | 190 | 52186.2 | 38 | 380 | 600 | 55309.4 |
| 39 | 390 | 180 | 52040.6 | 39 | 390 | 600 | 55303.1 |
| 39 | 390 | 170 | 52028.2 | 39 | 390 | 590 | 55325.9 |
| 39 | 390 | 160 | 58145.8 | 39 | 390 | 580 | 55372.2 |
| 39 | 390 | 150 | 53776.8 | 39 | 390 | 570 | 55487.7 |
| 39 | 390 | 140 | 54602.6 | 39 | 390 | 560 | 55487.6 |
| 39 | 390 | 130 | 54991.0 | 39 | 390 | 550 | 55718.1 |
| 39 | 390 | 120 | 54489.3 | 39 | 390 | 540 | 55917.0 |
| 39 | 390 | 110 | 55380.7 | 39 | 390 | 530 | 55890.1 |
| 39 | 390 | 100 | 53515.1 | 39 | 390 | 520 | 56068.2 |
| 39 | 390 | 90 | 56240.5 | 39 | 390 | 510 | 56206.8 |
| 39 | 390 | 80 | 57253.7 | 39 | 390 | 500 | 56094.3 |
| 39 | 390 | 70 | 56352.5 | 39 | 390 | 490 | 56294.3 |
| 39 | 390 | 60 | 54202.1 | 39 | 390 | 480 | 56547.0 |
| 39 | 390 | 50 | 55900.3 | 39 | 390 | 470 | 56795.5 |
| 39 | 390 | 40 | 56297.7 | 39 | 390 | 460 | 57042.6 |
| 39 | 390 | 30 | 55759.1 | 39 | 390 | 450 | 56405.5 |
| 39 | 390 | 20 | 56984.9 | 39 | 390 | 440 | 55818.4 |
| 39 | 390 | 10 | 57758.7 | 39 | 390 | 430 | 56106.5 |
| 39 | 390 | 0 | 56751.3 | 39 | 390 | 420 | 56246.8 |
| 0 | 0 | -10 | 54917.1 | 39 | 390 | 410 | 56379.1 |
| 0 | 0 | -20 | 54911.3 | 39 | 390 | 400 | 56372.6 |
| 0 | 0 | -30 | 54911.1 | 39 | 390 | 390 | 56272.7 |
| 0 | 0 | -40 | 54926.4 | 39 | 390 | 380 | 56336.2 |
| 0 | 0 | -50 | 54948.6 | 39 | 390 | 370 | 57029.9 |
| 0 | 0 | -60 | 54979.0 | 39 | 390 | 360 | 56681.0 |
| 0 | 0 | -70 | 55000.0 | 39 | 390 | 350 | 56526.3 |
| 0 | 0 | -80 | 55007.8 | 39 | 390 | 340 | 57468.4 |
| 0 | 0 | -90 | 54984.2 | 39 | 390 | 330 | 58981.4 |
| 0 | 0 | -100 | 55052.4 | 39 | 390 | 320 | 59246.7 |
| 0 | 0 | -110 | 55029.0 | 39 | 390 | 310 | 58613.8 |
| 0 | 0 | -120 | 55029.8 | 40 | 400 | 300 | 55788.3 |
| 0 | 0 | -130 | 55029.4 | 40 | 400 | 310 | 55236.4 |
| 0 | 0 | -140 | 55037.4 | 40 | 400 | 320 | 54679.3 |
| 0 | 0 | -150 | 55038.2 | 40 | 400 | 330 | 55393.4 |
| 0 | 0 | -160 | 55054.8 | 40 | 400 | 340 | 56758.2 |
| 0 | 0 | -170 | 55059.9 | 40 | 400 | 350 | 58241.7 |
| 1 | 10 | -170 | 55030.3 | 40 | 400 | 360 | 57705.2 |
| 1 | 10 | -160 | 55022.9 | 40 | 400 | 370 | 58921.8 |
| 1 | 10 | -150 | 55023.3 | 40 | 400 | 380 | 58641.3 |
| 1 | 10 | -140 | 55028.5 | 40 | 400 | 390 | 58012.2 |
| 1 | 10 | -130 | 55033.5 | 40 | 400 | 400 | 56961.9 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 37 | 370 | 210 | 57750.0 | 36 | 360 | 560 | 55485.8 |
| 37 | 370 | 200 | 54751.6 | 36 | 360 | 570 | 55408.5 |
| 37 | 370 | 190 | 52331.0 | 36 | 360 | 580 | 55366.2 |
| 37 | 370 | 180 | 52248.6 | 36 | 360 | 590 | 55344.3 |
| 37 | 370 | 170 | 51885.6 | 36 | 360 | 600 | 55323.2 |
| 37 | 370 | 160 | 52150.8 | 37 | 370 | 600 | 55314.6 |
| 37 | 370 | 150 | 55248.8 | 37 | 370 | 590 | 55338.9 |
| 37 | 370 | 140 | 55586.6 | 37 | 370 | 580 | 55368.8 |
| 37 | 370 | 130 | 55956.8 | 37 | 370 | 570 | 55423.7 |
| 37 | 370 | 120 | 55925.0 | 37 | 370 | 560 | 55498.0 |
| 37 | 370 | 110 | 54595.8 | 37 | 370 | 550 | 55678.3 |
| 37 | 370 | 100 | 54532.6 | 37 | 370 | 540 | 55981.8 |
| 37 | 370 | 90 | 56138.8 | 37 | 370 | 530 | 56026.1 |
| 37 | 370 | 80 | 57732.2 | 37 | 370 | 520 | 56210.8 |
| 37 | 370 | 70 | 57386.8 | 37 | 370 | 510 | 56291.3 |
| 37 | 370 | 60 | 56555.4 | 37 | 370 | 500 | 56111.8 |
| 37 | 370 | 50 | 55857.8 | 37 | 370 | 490 | 56267.3 |
| 37 | 370 | 40 | 56002.8 | 37 | 370 | 480 | 56556.6 |
| 37 | 370 | 30 | 56796.4 | 37 | 370 | 470 | 57084.3 |
| 37 | 370 | 20 | 56559.4 | 37 | 370 | 460 | 56551.6 |
| 37 | 370 | 10 | 57372.2 | 37 | 370 | 450 | 55967.4 |
| 37 | 370 | 0 | 57411.4 | 37 | 370 | 440 | 55865.3 |
| 38 | 380 | 0 | 56692.7 | 37 | 370 | 430 | 58343.0 |
| 38 | 380 | 10 | 58066.3 | 37 | 370 | 420 | 55431.8 |
| 38 | 380 | 20 | 56757.7 | 37 | 370 | 410 | 55767.4 |
| 38 | 380 | 30 | 56303.3 | 37 | 370 | 400 | 55870.0 |
| 38 | 380 | 40 | 55955.1 | 37 | 370 | 390 | 56215.9 |
| 38 | 380 | 50 | 55967.9 | 37 | 370 | 380 | 57183.6 |
| 38 | 380 | 60 | 55226.7 | 37 | 370 | 370 | 57095.5 |
| 38 | 380 | 70 | 57090.9 | 37 | 370 | 360 | 56582.0 |
| 38 | 380 | 80 | 57786.9 | 37 | 370 | 350 | 56435.5 |
| 38 | 380 | 90 | 58169.5 | 37 | 370 | 340 | 56717.0 |
| 38 | 380 | 100 | 58150.5 | 37 | 370 | 330 | 56884.7 |
| 38 | 380 | 110 | 54357.9 | 37 | 370 | 320 | 57462.1 |
| 38 | 380 | 120 | 53722.9 | 37 | 370 | 310 | 58061.6 |
| 38 | 380 | 130 | 55389.1 | 38 | 380 | 310 | 58850.6 |
| 38 | 380 | 140 | 54802.9 | 38 | 380 | 320 | 58711.6 |
| 38 | 380 | 150 | 54153.3 | 38 | 380 | 330 | 57987.1 |
| 38 | 380 | 160 | 58491.1 | 38 | 380 | 340 | 56924.2 |
| 38 | 380 | 170 | 52170.1 | 38 | 380 | 350 | 56346.2 |
| 38 | 380 | 180 | 58098.1 | 38 | 380 | 360 | 56437.9 |
| 38 | 380 | 190 | 52468.1 | 38 | 380 | 370 | 57202.1 |
| 38 | 380 | 200 | 54792.1 | 38 | 380 | 380 | 56553.7 |
| 38 | 380 | 210 | 55972.3 | 38 | 380 | 390 | 56240.2 |
| 38 | 380 | 220 | 55432.0 | 38 | 380 | 400 | 56238.7 |
| 38 | 380 | 230 | 55223.8 | 38 | 380 | 410 | 55994.7 |
| 38 | 380 | 240 | 55318.6 | 38 | 380 | 420 | 55312.8 |
| 38 | 380 | 250 | 55316.0 | 38 | 380 | 430 | 54675.9 |
| 38 | 380 | 260 | 55918.8 | 38 | 380 | 440 | 55585.5 |
| 38 | 380 | 270 | 56141.2 | 38 | 380 | 450 | 56318.4 |
| 38 | 380 | 280 | 56319.8 | 38 | 380 | 460 | 56856.7 |
| 38 | 380 | 290 | 56957.6 | 38 | 380 | 470 | 56844.4 |
| 38 | 380 | 300 | 57974.4 | 38 | 380 | 480 | 56351.1 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 1 | 10 | -120 | 55028.3 | 40 | 400 | 410 | 57215.4 |
| 1 | 10 | -110 | 55024.9 | 40 | 400 | 420 | 56688.3 |
| 1 | 10 | -100 | 55031.3 | 40 | 400 | 430 | 56275.6 |
| 1 | 10 | -90 | 54991.7 | 40 | 400 | 440 | 56268.1 |
| 1 | 10 | -80 | 54974.8 | 40 | 400 | 450 | 56886.7 |
| 1 | 10 | -70 | 54962.2 | 40 | 400 | 460 | 56776.5 |
| 1 | 10 | -60 | 54932.6 | 40 | 400 | 470 | 56552.2 |
| 1 | 10 | -50 | 54893.0 | 40 | 400 | 480 | 56457.5 |
| 1 | 10 | -40 | 54862.6 | 40 | 400 | 490 | 56575.4 |
| 1 | 10 | -30 | 54832.2 | 40 | 400 | 500 | 56585.9 |
| 1 | 10 | -20 | 54826.0 | 40 | 400 | 510 | 56988.2 |
| 1 | 10 | -10 | 54820.4 | 40 | 400 | 520 | 56792.3 |
| 2 | 20 | -10 | 54700.2 | 40 | 400 | 530 | 56557.0 |
| 2 | 20 | -20 | 54683.2 | 40 | 400 | 540 | 56266.9 |
| 2 | 20 | -30 | 54727.4 | 40 | 400 | 550 | 56153.5 |
| 2 | 20 | -40 | 54766.9 | 40 | 400 | 560 | 56165.8 |
| 2 | 20 | -50 | 54802.9 | 40 | 400 | 570 | 55964.1 |
| 2 | 20 | -60 | 54840.9 | 40 | 400 | 580 | 55947.0 |
| 2 | 20 | -70 | 54881.9 | 40 | 400 | 590 | 56074.5 |
| 2 | 20 | -80 | 54939.3 | 40 | 400 | 600 | 55798.2 |
| 2 | 20 | -90 | 54959.9 | 41 | 410 | 600 | 55982.8 |
| 2 | 20 | -100 | 54991.9 | 41 | 410 | 590 | 56165.4 |
| 2 | 20 | -110 | 55009.1 | 41 | 410 | 580 | 56071.1 |
| 2 | 20 | -120 | 55030.9 | 41 | 410 | 570 | 56028.2 |
| 2 | 20 | -130 | 55015.9 | 41 | 410 | 560 | 56261.5 |
| 2 | 20 | -140 | 55007.9 | 41 | 410 | 550 | 56265.1 |
| 2 | 20 | -150 | 55007.6 | 41 | 410 | 540 | 56266.4 |
| 2 | 20 | -160 | 54998.0 | 41 | 410 | 530 | 56555.9 |
| 2 | 20 | -170 | 54986.0 | 41 | 410 | 520 | 56943.4 |
| 3 | 30 | -170 | 55039.8 | 41 | 410 | 510 | 56959.6 |
| 3 | 30 | -160 | 55054.6 | 41 | 410 | 500 | 56704.1 |
| 3 | 30 | -150 | 55055.0 | 41 | 410 | 490 | 56682.6 |
| 3 | 30 | -140 | 55052.8 | 41 | 410 | 480 | 56040.1 |
| 3 | 30 | -130 | 55057.2 | 41 | 410 | 470 | 56299.0 |
| 3 | 30 | -120 | 55096.9 | 41 | 410 | 460 | 56737.0 |
| 3 | 30 | -110 | 55015.3 | 41 | 410 | 450 | 56494.5 |
| 3 | 30 | -100 | 54963.9 | 41 | 410 | 440 | 56241.6 |
| 3 | 30 | -90 | 54921.5 | 41 | 410 | 430 | 55543.3 |
| 3 | 30 | -80 | 54880.1 | 41 | 410 | 420 | 56332.6 |
| 3 | 30 | -70 | 54823.7 | 41 | 410 | 410 | 56929.7 |
| 3 | 30 | -60 | 54761.5 | 41 | 410 | 400 | 56715.3 |
| 3 | 30 | -50 | 54687.7 | 41 | 410 | 390 | 57644.8 |
| 3 | 30 | -40 | 54618.9 | 41 | 410 | 380 | 57919.9 |
| 3 | 30 | -30 | 54576.9 | 41 | 410 | 370 | 58163.4 |
| 3 | 30 | -20 | 54508.9 | 41 | 410 | 360 | 57383.4 |
| 3 | 30 | -10 | 54735.9 | 41 | 410 | 350 | 57796.7 |
| 4 | 40 | -10 | 55132.8 | 41 | 410 | 340 | 56649.0 |
| 4 | 40 | -20 | 54487.6 | 41 | 410 | 330 | 55269.9 |
| 4 | 40 | -30 | 54430.8 | 41 | 410 | 320 | 54844.2 |
| 4 | 40 | -40 | 54477.2 | 41 | 410 | 310 | 55203.1 |
| 4 | 40 | -50 | 54538.0 | 41 | 410 | 300 | 55459.0 |
| 4 | 40 | -60 | 54630.8 | 42 | 420 | 300 | 55016.9 |
| 4 | 40 | -70 | 54733.0 | 42 | 420 | 310 | 55139.2 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 4 | 40 | -80 | 54812.2 | 42 | 420 | 320 | 54841.9 |
| 4 | 40 | -90 | 54870.8 | 42 | 420 | 330 | 55622.6 |
| 4 | 40 | -100 | 54939.1 | 42 | 420 | 340 | 56875.9 |
| 4 | 40 | -110 | 55016.5 | 42 | 420 | 350 | 57611.8 |
| 4 | 40 | -120 | 55111.9 | 42 | 420 | 360 | 57025.1 |
| 4 | 40 | -130 | 55183.3 | 42 | 420 | 370 | 57971.7 |
| 4 | 40 | -140 | 55182.3 | 42 | 420 | 380 | 58029.8 |
| 4 | 40 | -150 | 55186.7 | 42 | 420 | 390 | 57183.7 |
| 4 | 40 | -160 | 55204.9 | 42 | 420 | 400 | 56600.8 |
| 4 | 40 | -170 | 55220.3 | 42 | 420 | 410 | 56829.7 |
| 5 | 50 | -170 | 55475.9 | 42 | 420 | 420 | 56078.2 |
| 5 | 50 | -160 | 55557.7 | 42 | 420 | 430 | 55653.3 |
| 5 | 50 | -150 | 55505.1 | 42 | 420 | 440 | 55986.7 |
| 5 | 50 | -140 | 55557.8 | 42 | 420 | 450 | 56514.4 |
| 5 | 50 | -130 | 55515.8 | 42 | 420 | 460 | 56712.4 |
| 5 | 50 | -120 | 55256.6 | 42 | 420 | 470 | 56029.9 |
| 5 | 50 | -110 | 55050.2 | 42 | 420 | 480 | 55819.0 |
| 5 | 50 | -100 | 54922.0 | 42 | 420 | 490 | 56111.1 |
| 5 | 50 | -90 | 54836.2 | 42 | 420 | 500 | 56513.6 |
| 5 | 50 | -80 | 54735.8 | 42 | 420 | 510 | 57047.7 |
| 5 | 50 | -70 | 54623.0 | 42 | 420 | 520 | 57046.3 |
| 5 | 50 | -60 | 54467.2 | 42 | 420 | 530 | 56644.8 |
| 5 | 50 | -50 | 54361.6 | 42 | 420 | 540 | 56294.9 |
| 5 | 50 | -40 | 54585.4 | 42 | 420 | 550 | 56530.8 |
| 5 | 50 | -30 | 54637.3 | 42 | 420 | 560 | 56187.2 |
| 5 | 50 | -20 | 54938.1 | 42 | 420 | 570 | 56104.9 |
| 5 | 50 | -10 | 55795.9 | 42 | 420 | 580 | 56284.2 |
| 6 | 60 | -10 | 56220.7 | 42 | 420 | 590 | 56260.3 |
| 6 | 60 | -20 | 55303.3 | 42 | 420 | 600 | 55994.0 |
| 6 | 60 | -30 | 55056.3 | 43 | 430 | 600 | 55948.8 |
| 6 | 60 | -40 | 54876.1 | 43 | 430 | 590 | 56121.1 |
| 6 | 60 | -50 | 54096.5 | 43 | 430 | 580 | 56161.4 |
| 6 | 60 | -60 | 54244.7 | 43 | 430 | 570 | 56233.9 |
| 6 | 60 | -70 | 54474.3 | 43 | 430 | 560 | 56165.9 |
| 6 | 60 | -80 | 54631.8 | 43 | 430 | 550 | 56506.9 |
| 6 | 60 | -90 | 54766.8 | 43 | 430 | 540 | 56278.5 |
| 6 | 60 | -100 | 54905.2 | 43 | 430 | 530 | 56792.9 |
| 6 | 60 | -110 | 55078.2 | 43 | 430 | 520 | 57015.1 |
| 6 | 60 | -120 | 55363.0 | 43 | 430 | 510 | 56479.7 |
| 6 | 60 | -130 | 55723.8 | 43 | 430 | 500 | 55918.3 |
| 6 | 60 | -140 | 55784.4 | 43 | 430 | 490 | 55898.1 |
| 6 | 60 | -150 | 55673.8 | 43 | 430 | 480 | 56093.5 |
| 6 | 60 | -160 | 55664.2 | 43 | 430 | 470 | 56285.6 |
| 6 | 60 | -170 | 55460.0 | 43 | 430 | 460 | 57030.2 |
| 7 | 70 | -170 | 55030.9 | 43 | 430 | 450 | 57045.3 |
| 7 | 70 | -160 | 55275.3 | 43 | 430 | 440 | 55943.0 |
| 7 | 70 | -150 | 55454.9 | 43 | 430 | 430 | 56175.2 |
| 7 | 70 | -140 | 55656.3 | 43 | 430 | 420 | 56441.9 |
| 7 | 70 | -130 | 55599.7 | 43 | 430 | 410 | 56876.6 |
| 7 | 70 | -120 | 55347.7 | 43 | 430 | 400 | 56862.9 |
| 7 | 70 | -110 | 55080.5 | 43 | 430 | 390 | 57377.2 |
| 7 | 70 | -100 | 54907.7 | 43 | 430 | 380 | 58168.2 |
| 7 | 70 | -90 | 54741.3 | 43 | 430 | 370 | 57621.2 |

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 7 | 70 | -80 | 54525.3 | 43 | 430 | 360 | 56907.3 |
| 7 | 70 | -70 | 54310.5 | 43 | 430 | 350 | 57514.9 |
| 7 | 70 | -60 | 54087.8 | 43 | 430 | 340 | 57240.1 |
| 7 | 70 | -50 | 54050.0 | 43 | 430 | 330 | 55926.9 |
| 7 | 70 | -40 | 54193.2 | 43 | 430 | 320 | 55079.1 |
| 7 | 70 | -30 | 54493.6 | 43 | 430 | 310 | 55459.7 |
| 7 | 70 | -20 | 55202.0 | 43 | 430 | 300 | 54671.0 |
| 7 | 70 | -10 | 56076.8 | 44 | 440 | 300 | 54933.9 |
| | | | | 44 | 440 | 310 | 55478.6 |
| | | | | 44 | 440 | 320 | 55582.3 |
| | | | | 44 | 440 | 330 | 56241.4 |
| | | | | 44 | 440 | 340 | 57193.5 |
| | | | | 44 | 440 | 350 | 57587.5 |
| | | | | 44 | 440 | 360 | 57186.4 |
| | | | | 44 | 440 | 370 | 57412.5 |
| | | | | 44 | 440 | 380 | 57976.2 |
| | | | | 44 | 440 | 390 | 57580.2 |
| | | | | 44 | 440 | 400 | 57074.0 |
| | | | | 44 | 440 | 410 | 57133.3 |
| | | | | 44 | 440 | 420 | 57008.6 |
| | | | | 44 | 440 | 430 | 56405.7 |
| | | | | 44 | 440 | 440 | 56191.6 |
| | | | | 44 | 440 | 450 | 56784.5 |
| | | | | 44 | 440 | 460 | 56962.1 |
| | | | | 44 | 440 | 470 | 56457.2 |
| | | | | 44 | 440 | 480 | 56446.5 |
| | | | | 44 | 440 | 490 | 56268.4 |
| | | | | 44 | 440 | 500 | 56090.3 |
| | | | | 44 | 440 | 510 | 56170.6 |
| | | | | 44 | 440 | 520 | 56914.5 |
| | | | | 44 | 440 | 530 | 57181.6 |
| | | | | 44 | 440 | 540 | 56459.7 |
| | | | | 44 | 440 | 550 | 55881.4 |
| | | | | 44 | 440 | 560 | 55715.7 |
| | | | | 44 | 440 | 570 | 56036.1 |
| | | | | 44 | 440 | 580 | 56055.4 |
| | | | | 44 | 440 | 590 | 56020.7 |
| | | | | 44 | 440 | 600 | 56082.4 |

## Area B

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 45 | 45 | 0 | 54278.2 | 46 | 46 | 100 | 55226.9 |
| 45 | 45 | 10 | 54661.8 | 46 | 46 | 90 | 55213.6 |
| 45 | 45 | 20 | 54898.0 | 46 | 46 | 80 | 55202.2 |
| 45 | 45 | 30 | 55013.0 | 46 | 46 | 70 | 55182.8 |
| 45 | 45 | 40 | 55078.4 | 46 | 46 | 60 | 55162.6 |
| 45 | 45 | 50 | 55122.7 | 46 | 46 | 50 | 55136.0 |
| 45 | 45 | 60 | 55151.9 | 46 | 46 | 40 | 55088.8 |
| 45 | 45 | 70 | 55174.5 | 46 | 46 | 30 | 55021.0 |
| 45 | 45 | 80 | 55191.9 | 46 | 46 | 20 | 54903.0 |
| 45 | 45 | 90 | 55203.7 | 46 | 46 | 10 | 54680.2 |
| 45 | 45 | 100 | 55216.5 | 46 | 46 | 0 | 54453.7 |
| 45 | 45 | 110 | 55220.3 | | | | |

## Area C

| Line No. | X-ft | Y-ft | Mag.-Gammas | Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|---|---|---|---|
| 50 | 500 | -120 | 55227.2 | 56 | 590 | -150 | 55231.2 |
| 50 | 500 | -105 | 55239.3 | 56 | 590 | -135 | 55108.8 |
| 50 | 500 | -90 | 55249.8 | 56 | 590 | -120 | 55023.3 |
| 50 | 500 | -75 | 55267.8 | 56 | 590 | -105 | 55021.2 |
| 50 | 500 | -60 | 55271.5 | 56 | 590 | -90 | 55149.7 |
| 50 | 500 | -45 | 55267.0 | 56 | 590 | -75 | 55223.4 |
| 50 | 500 | -30 | 55267.6 | 56 | 590 | -60 | 55256.5 |
| 50 | 500 | -15 | 55268.9 | 56 | 590 | -45 | 55280.2 |
| 50 | 500 | 0 | 55271.0 | 56 | 590 | -30 | 55284.3 |
| 51 | 515 | 0 | 55272.7 | 56 | 590 | -15 | 55284.2 |
| 51 | 515 | -15 | 55277.2 | 56 | 590 | 0 | 55287.9 |
| 51 | 515 | -30 | 55265.6 | 57 | 605 | 0 | 55288.8 |
| 51 | 515 | -45 | 55267.3 | 57 | 605 | -15 | 55288.5 |
| 51 | 515 | -60 | 55260.9 | 57 | 605 | -30 | 55283.0 |
| 51 | 515 | -75 | 55261.5 | 57 | 605 | -45 | 55283.9 |
| 51 | 515 | -90 | 55223.3 | 57 | 605 | -60 | 55284.8 |
| 51 | 515 | -105 | 55199.6 | 57 | 605 | -75 | 55267.3 |
| 51 | 515 | -120 | 55197.5 | 57 | 605 | -90 | 55237.9 |
| 52 | 530 | -120 | 55152.9 | 57 | 605 | -105 | 55208.2 |
| 52 | 530 | -105 | 55199.6 | 57 | 605 | -120 | 55203.1 |
| 52 | 530 | -90 | 55260.2 | 57 | 605 | -135 | 55223.8 |
| 52 | 530 | -75 | 55310.2 | 57 | 605 | -150 | 55249.9 |
| 52 | 530 | -60 | 55282.1 | 51 | 515 | -135 | 55234.9 |
| 52 | 530 | -45 | 55271.9 | 51 | 515 | -150 | 55246.8 |
| 52 | 530 | -30 | 55257.6 | 51 | 515 | -165 | 55259.6 |
| 52 | 530 | -15 | 55256.3 | 51 | 515 | -180 | 55262.5 |
| 52 | 530 | 0 | 55268.4 | 51 | 515 | -195 | 55267.2 |
| 53 | 545 | 0 | 55278.1 | 52 | 530 | -165 | 55283.0 |
| 53 | 545 | -15 | 55263.2 | 52 | 530 | -180 | 55255.2 |
| 53 | 545 | -30 | 55271.3 | 52 | 530 | -195 | 55270.8 |
| 53 | 545 | -45 | 55278.6 | 52 | 530 | -210 | 55272.3 |
| 53 | 545 | -60 | 55288.1 | 52 | 530 | -225 | 55264.1 |
| 53 | 545 | -75 | 55468.0 | 52 | 530 | -240 | 55240.6 |
| 53 | 545 | -90 | 55905.5 | 52 | 530 | -255 | 55235.7 |
| 53 | 545 | -105 | 55465.2 | 52 | 530 | -270 | 55247.1 |
| 53 | 545 | -120 | 55504.8 | 52 | 530 | -285 | 55259.6 |
| 53 | 545 | -135 | 54976.7 | 53 | 545 | -285 | 55240.9 |
| 53 | 545 | -150 | 55207.4 | 53 | 545 | -300 | 55266.8 |

| Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|
| 54 | 560 | -150 | 55173.2 |
| 54 | 560 | -135 | 54781.2 |
| 54 | 560 | -120 | 54569.1 |
| 54 | 560 | -105 | 56854.7 |
| 54 | 560 | -90 | 58349.9 |
| 54 | 560 | -75 | 55400.4 |
| 54 | 560 | -60 | 55255.5 |
| 54 | 560 | -45 | 55259.7 |
| 54 | 560 | -30 | 55257.3 |
| 54 | 560 | -15 | 55275.6 |
| 54 | 560 | 0 | 55286.9 |
| 55 | 575 | 0 | 55288.6 |
| 55 | 575 | -15 | 55296.3 |
| 55 | 575 | -30 | 55291.0 |
| 55 | 575 | -45 | 55275.3 |
| 55 | 575 | -60 | 55258.4 |
| 55 | 575 | -75 | 55218.9 |
| 55 | 575 | -90 | 55020.1 |
| 55 | 575 | -105 | 55632.4 |
| 55 | 575 | -120 | 54045.7 |
| 55 | 575 | -135 | 55035.1 |
| 55 | 575 | -150 | 55204.4 |

| Line No. | X-ft | Y-ft | Mag.-Gammas |
|---|---|---|---|
| 53 | 545 | -315 | 55276.9 |
| 53 | 545 | -330 | 55278.4 |
| 53 | 545 | -345 | 55281.4 |
| 53 | 545 | -360 | 55282.4 |
| 53 | 545 | -375 | 55284.7 |
| 53 | 545 | -390 | 55284.3 |
| 53 | 545 | -405 | 55286.2 |
| 53 | 545 | -420 | 55285.1 |
| 52 | 530 | -420 | 55277.3 |
| 52 | 530 | -435 | 55279.1 |
| 52 | 530 | -450 | 55285.9 |
| 52 | 530 | -465 | 55290.2 |
| 52 | 530 | -480 | 55276.9 |
| 52 | 530 | -495 | 55314.3 |
| 51 | 515 | -480 | 55292.4 |
| 51 | 515 | -495 | 55310.7 |
| 51 | 515 | -510 | 55342.5 |
| 51 | 515 | -525 | 55735.2 |
| 50 | 500 | -510 | 55429.7 |
| 50 | 500 | -525 | 55721.1 |
| 50 | 500 | -540 | 56866.0 |
| 50 | 500 | -555 | 59891.5 |
| 49 | 485 | -540 | 55868.8 |
| 49 | 485 | -555 | 56397.0 |
| 49 | 485 | -570 | 57810.0 |
| 49 | 485 | -585 | 58791.5 |
| 48 | 470 | -570 | 55837.5 |
| 48 | 470 | -585 | 55898.0 |
| 48 | 470 | -600 | 55786.3 |
| 48 | 470 | -615 | 55845.4 |
| 47 | 455 | -600 | 55358.3 |
| 47 | 455 | -615 | 55393.0 |
| 47 | 455 | -630 | 55677.6 |
| 47 | 455 | -645 | 55542.7 |
| 47 | 455 | -660 | 56062.0 |
| 47 | 455 | -675 | 56016.0 |

LOCATION: VES #2 (line28, 150')

INTERNATIONAL EXPLORATION, INC.
577 SACKETTSFORD ROAD
WARMINSTER, PA 18974-1398
(215) 598-7137

DATE: 10/29/91

WEATHER: Sunny

| AB/2 Spacing MN = 1 (eters) | (feet) | Multi-plier | Receiver (Milli-volts) ΔV | Trans. Current I (Milliamps) | Resistivity $R = \frac{\Delta V}{I}$ | $K = \pi \left(\frac{AB}{2}\right)^2 - \left(\frac{MN}{2}\right)^2 / MN$ | Apparent Resistivity $\rho a = K \times R$ | Remarks |
|---|---|---|---|---|---|---|---|---|
| 2 | 6'7" | 0.1 | | | 53.45 | 11.75 | 62.8 | |
| 3 | 9'10" | 0.1 | | | 12.7 | 27.50 | 34.93 | |
| 4 | 13'1" | 0.1 | | | 5.05 | 49.50 | 25.0 | |
| 5 | 16'5" | 0.1 | | | 2.45 | 77.70 | 19.04 | |
| 6 | 19'8" | 0.1 | | | 1.55 | 112.00 | 17.36 | |
| 8 | 26'3" | 0.1 | | | 0.9 | 200.00 | 18.0 | |
| 10 | 32'10" | 0.1 | | | 0.75 | 313.00 | 23.5 | |
| 13 | 42'8" | 0.1 | | | 0.2 | 530.00 | 10.6 | |
| 16 | 52'6" | 0.1 | | | 0.19 | 803.00 | 15.3 | |
| 20 | 65'7" | | | | | 1256.00 | | |
| 25 | 82' | No current was obtained after 25 m due to the hard ground surface. | | | | 1962.00 | | |
| 32 | 105' | | | | | 3215.00 | | |
| MN = 5 | | | | | | | | |
| 20 | 65'7" | | | | | 248.00 | | |
| 25 | 82' | | | | | 389.00 | | |
| 32 | 105' | | | | | 641.00 | | |
| 40 | 131'7" | | | | | 1000.00 | | |
| 50 | 164'6" | | | | | 1567.00 | | |
| 65 | 214' | | | | | 2650.00 | | |
| 80 | 263' | | | | | 4015.00 | | |

RESISTIVITY DATA

LOCATION: VES #1 (line8, 290')

INTERNATIONAL EXPLORATION, INC.
377 SACKETTSFORD ROAD
WARMINSTER, PA 18974-1398
(215) 598-7137

DATE: 10/29/91

WEATHER: Sunny

| AB/2 Spacing | | Multi-plier | Receiver (Milli-volts) ΔV | Trans. Current I (Milliamps) | Resistivity $R = \frac{\Delta V}{I}$ | $K = \frac{\pi \left(\frac{AB}{2}\right)^2 - \left(\frac{MN}{2}\right)^2}{MN}$ | Apparent Resistivity $\rho a = K \times R$ | Remarks |
|---|---|---|---|---|---|---|---|---|
| MN = 1 | | | | | | | | |
| eters | feet | | | | | | | |
| 2 | 6'7" | 0.1 | | | 62.2 | 11.75 | 73.1 | |
| 3 | 9'10" | 0.1 | | | 23.0 | 27.50 | 63.25 | |
| 4 | 13'1" | 0.1 | | | 12.25 | 49.50 | 60.64 | |
| 5 | 16'5" | 0.1 | | | 6.85 | 77.70 | 53.22 | |
| 6 | 19'8" | 0.1 | | | 4.55 | 112.00 | 50.96 | |
| 8 | 26'3" | 0.1 | | | 2.9 | 200.00 | 58.0 | |
| 10 | 32'10" | 0.1 | | | 2.38 | 313.00 | 74.49 | |
| 13 | 42'8" | 0.1 | | | 1.8 | 530.00 | 95.4 | |
| 16 | 52'6" | 0.1 | | | 1.35 | 803.00 | 108.4 | |
| 20 | 65'7" | 0.1 | | | 1.2 | 1256.00 | 150.72 | |
| 25 | 82' | 0.1 | | | 0.77 | 1962.00 | 151.1 | |
| 32 | 105' | 0.1 | | | 0.7 | 3215.00 | 225.1 | |
| MN = 5 | | | | | | | | |
| 20 | 65'7" | | | | | 248.00 | | |
| 25 | 82' | | | | | 389.00 | | |
| 32 | 105' | | | | | 641.00 | | |
| 40 | 131'7" | | | | | 1000.00 | | |
| 50 | 164'6" | | | | | 1567.00 | | |
| 65 | 214' | | | | | 2650.00 | | |
| 80 | 263' | | | | | 4015.00 | | |

LOCATION: VES #3 (Near line 46)

INTERNATIONAL EXPLORATION, INC.
577 SACKETTSFORD ROAD
WARMINSTER, PA 18974-1398
(215) 598-7137

DATE: 10/29/91

WEATHER: Sunny

| AB/2 Spacing MN = 1 | | Multi-plier | Receiver (Milli-volts) ΔV | Trans. Current I (Milliamps) | Resistivity $R = \frac{\Delta V}{I}$ | $K = \pi \frac{(\frac{AB}{2})^2 - (\frac{MN}{2})^2}{MN}$ | Apparent Resistivity $\rho a = K \times R$ | Remarks |
|---|---|---|---|---|---|---|---|---|
| eters | feet | | | | | | | |
| 2 | 6'7" | 0.1 | | | 48.7 | 11.75 | 57.2 | |
| 3 | 9'10" | 0.1 | | | 20.8 | 27.50 | 57.2 | |
| 4 | 13'1" | 0.1 | | | 9.9 | 49.50 | 49.0 | |
| 5 | 16'5" | 0.1 | | | 6.4 | 77.70 | 49.7 | |
| 6 | 19'8" | 0.1 | | | 4.1 | 112.00 | 45.9 | |
| 8 | 26'3" | 0.1 | | | 2.2 | 200.00 | 44.0 | |
| 10 | 32'10" | 0.1 | | | 1.3 | 313.00 | 40.6 | |
| 13 | 42'8" | 0.1 | | | 0.6 | 530.00 | 31.8 | |
| 16 | 52'6" | 0.1 | | | 0.35 | 803.00 | 28.1 | |
| 20 | 65'7" | 0.1 | | | 0.17 | 1256.00 | 21.3 | |
| 25 | 82' | 0.01 | | | 0.95 | 1962.00 | 18.6 | |
| 32 | 105' | 0.01 | | | 0.55 | 3215.00 | 17.7 | |
| MN = 5 | | | | | | | | |
| 20 | 65'7" | | | | | 248.00 | | |
| 25 | 82' | | | | | 389.00 | | |
| 32 | 105' | | | | | 641.00 | | |
| 40 | 131'7" | | | | | 1000.00 | | |
| 50 | 164'6" | | | | | 1567.00 | | |
| 65 | 214' | | | | | 2650.00 | | |
| 80 | 263' | | | | | 4015.00 | | |

LOCATION: VES #4 (line 26, 450')

INTERNATIONAL EXPLORATION, INC.
577 SACKETTSFORD ROAD
WARMINSTER, PA 18974-1398
(215) 598-7137

DATE: 10/29/91

WEATHER: Sunny

| AB/2 Spacing MN = 1 | | Multi-plier | Receiver (Milli-volts) ΔV | Trans. Current I (Milliamps) | Resistivity $R = \frac{\Delta V}{I}$ | $K = \pi \left(\frac{AB}{2}\right)^2 - \left(\frac{MN}{2}\right)^2 / MN$ | Apparent Resistivity ρa = K x R | Remarks |
|---|---|---|---|---|---|---|---|---|
| eters | feet | | | | | | | |
| 2 | 6'7" | 0.1 | | | 52.9 | 11.75 | 62.2 | |
| 3 | 9'10" | 0.1 | | | 21.1 | 27.50 | 58.03 | |
| 4 | 13'1" | 0.1 | | | 7.85 | 49.50 | 38.86 | |
| 5 | 16'5" | 0.1 | | | 4.2 | 77.70 | 32.63 | |
| 6 | 19'8" | 0.1 | | | 2.5 | 112.00 | 28.0 | |
| 8 | 26'3" | 0.1 | | | 1.15 | 200.00 | 23.0 | |
| 10 | 32'10" | 0.1 | | | 0.7 | 313.00 | 21.91 | |
| 13 | 42'8" | 0.1 | | | 0.4 | 530.00 | 21.2 | |
| 16 | 52'6" | 0.1 | | | 0.22 | 803.00 | 17.67 | |
| 20 | 65'7" | 0.1 | | | 0.15 | 1256.00 | 18.84 | |
| 25 | 82' | 0.01 | | | 1.2 | 1962.00 | 23.54 | |
| 32 | 105' | 0.01 | | | 0.7 | 3215.00 | 22.51 | |
| MN = 5 | | | | | | | | |
| 20 | 65'7" | | | | | 248.00 | | |
| 25 | 82' | | | | | 389.00 | | |
| 32 | 105' | | | | | 641.00 | | |
| 40 | 131'7" | | | | | 1000.00 | | |
| 50 | 164'6" | | | | | 1567.00 | | |
| 65 | 214' | | | | | 2650.00 | | |
| 80 | 263' | | | | | 4015.00 | | |

LOCATION: VES #5 (line 13, 490')

INTERNATIONAL EXPLORATION, INC.
577 SACKETTSFORD ROAD
WARMINSTER, PA 18974-1398
(215) 598-7137

DATE: 10/30/91

WEATHER: Sunny

| AB/2 Spacing MN = 1 (meters) | (feet) | Multiplier | Receiver (Millivolts) ΔV | Trans. Current I (Milliamps) | Resistivity $R = \frac{\Delta V}{I}$ | $K = \frac{\pi\left(\frac{AB}{2}\right)^2 - \left(\frac{MN}{2}\right)^2 / MN}{K}$ | Apparent Resistivity $\rho a = K \times R$ | Remarks |
|---|---|---|---|---|---|---|---|---|
| 2 | 6'7" | 0.1 | | | 18.25 | 11.75 | 21.44 | |
| 3 | 9'10" | 0.1 | | | 8.2 | 27.50 | 22.55 | |
| 4 | 13'1" | 0.1 | | | 4.5 | 49.50 | 22.28 | |
| 5 | 16'5" | 0.1 | | | 3.1 | 77.70 | 24.09 | |
| 6 | 19'8" | 0.1 | | | 2.0 | 112.00 | 22.4 | |
| 8 | 26'3" | 0.1 | | | 1.4 | 200.00 | 28.0 | |
| 10 | 32'10" | 0.1 | | | 1.0 | 313.00 | 31.3 | |
| 13 | 42'8" | 0.01 | | | 7.0 | 530.00 | 37.1 | |
| 16 | 52'6" | 0.01 | | | 6.3 | 803.00 | 50.6 | |
| 20 | 65'7" | 0.01 | | | 5.45 | 1256.00 | 68.4 | |
| 25 | 82' | 0.01 | | | 5.0 | 1962.00 | 98.1 | |
| 32 | 105' | 0.01 | | | 4.35 | 3215.00 | 139.85 | |
| MN = 5 | | | | | | | | |
| 20 | 65'7" | | | | | 248.00 | | |
| 25 | 82' | | | | | 389.00 | | |
| 32 | 105' | | | | | 641.00 | | |
| 40 | 131'7" | | | | | 1000.00 | | |
| 50 | 164'6" | | | | | 1567.00 | | |
| 65 | 214' | | | | | 2650.00 | | |
| 80 | 263' | | | | | 4015.00 | | |

# PART II.ii

# SOIL GAS SURVEY

# TETRA · K TESTING

Mr. Kevin McCarty
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
Pearl River, New York 10965

December 16, 1991
A-460

**RE: NYSDEC Amenia, NY Dump Site**
**Field Analytical Results**

Dear Mr. McCarty,

Please find enclosed an original and two copies of the data report for the field analysis conducted at the above referenced site.

If you have any questions regarding these results, please do no hesitate to call.

Sincerely,

Stephen Knollmeyer
Mobile Laboratory Supervisor

SLK/mac
Encl.

WESTFIELD EXECUTIVE PARK
53 SOUTHAMPTON ROAD
WESTFIELD, MA 01085
TEL. 413-562-9193
FAX. 413-562-5317

*TETRA · K TESTING*

*A DIVISION OF TIGHE & BOND, INC.*

**NYSDEC AMENIA DUMP SITE**
**AMENIA, NEW YORK**
**SAMPLE SUMMARY**

| SAMPLE ID | SAMPLE DATE | SAMPLE ANALYSIS | COMMENTS |
|---|---|---|---|
| SG-1 | 11/5/91 | soil gas VOCs | |
| SG-2 | 11/5/91 | soil gas VOCs | |
| SG-3 | 11/5/91 | soil gas VOCs | |
| SG-4 | 11/5/91 | soil gas VOCs | |
| SG-5 | 11/5/91 | soil gas VOCs | |
| SG-6 | 11/5/91 | soil gas VOCs | |
| SG-7 | 11/6/91 | water VOCs | |
| SG-8 | 11/6/91 | soil gas VOCs | |
| SG-9 | 11/6/91 | soil gas VOCs | |
| SG-10 | 11/5/91 | soil gas VOCs | |
| SG-11 | 11/6/91 | soil gas VOCs | |
| SG-12 | 11/6/91 | soil gas VOCs | |
| SG-13 | 11/6/91 | soil gas VOCs | |
| SG-14 | 11/5/91 | soil gas VOCs | |
| SG-15 | 11/6/91 | soil gas VOCs | |
| SG-16 | 11/6/91 | soil gas VOCs | |
| SG-17 | 11/6/91 | soil gas VOCs | |
| SG-18 | 11/6/91 | soil gas VOCs | |
| SG-19 | 11/6/91 | soil gas VOCs | |
| SG-20 | 11/7/91 | soil gas VOCs | |
| SG-21 | 11/7/91 | soil gas VOCs | |
| SG-22 | 11/7/91 | soil gas VOCs | |
| SG-23 | 11/7/91 | soil gas VOCs | |
| SG-24 | 11/7/91 | soil gas VOCs | |
| SS-1A | 11/7/91 | soil PCBs, VOCs | |
| SS-1B | 11/7/91 | soil PCBs | |
| SS-2A | 11/7/91 | soil PCBs, VOCs | |
| SS-2B | 11/7/91 | soil PCBs, VOCs | |
| SS-3 | 11/7/91 | soil PCBs | |
| SS-4 | 11/7/91 | soil PCBs, VOCs | |
| SS-5 | 11/7/91 | soil PCBs, VOCs | |
| SS-6 | 11/7/91 | soil PCBs, VOCs | |
| SS-7 | 11/7/91 | soil PCBs | |
| SS-8 | 11/7/91 | soil PCBs | |
| SS-9A | 11/7/91 | soil PCBs, VOCs | |
| SS-9B | 11/7/91 | soil PCBs | |
| SS-10 | 11/7/91 | soil PCBs, VOCs | |
| SS-11A | 11/7/91 | soil PCBs | |
| SS-11B | 11/7/91 | soil PCBs | |
| SS-12 | 11/7/91 | soil PCBs | |
| SS-13 | 11/7/91 | soil PCBs | |
| SS-14 | 11/7/91 | soil PCBs | |
| SS-15 | 11/8/91 | soil PCBs, VOCs | |
| SS-16 | 11/8/91 | soil PCBs, VOCs | |

VOCs=Volatile Organic Compounds PCBs=Polychlorinated Biphenyls

# TETRA · K TESTING

*A DIVISION OF TIGHE & BOND, INC.*

## POLYCHLORINATED BIPHENYL (PCB) REPORT

**CLIENT:**
LMS Engineers
One Blue Hill Plaza
Pearl River, NY 10965

**PROJECT:**
NYSDEC/Amenia Dump Site
Amenia, NY

Sample Matrix: SOIL

**RESULTS**

| SAMPLE ID | COLLECTION DATE | ANALYSIS DATE | PCB CONC. mg/kg* | AROCLOR |
|---|---|---|---|---|
| SS-1A | 11/7/91 | 11/7/91 | 25 | 1248 |
| SS-1B | 11/7/91 | 11/7/91 | ND | |
| SS-2A | 11/7/91 | 11/7/91 | 12 | 1248 |
| SS-2B | 11/7/91 | 11/7/91 | 250 | 1248 |
| SS-3 | 11/7/91 | 11/7/91 | ND | |
| SS-4 | 11/7/91 | 11/7/91 | 15 | 1248 |
| SS-5 | 11/7/91 | 11/7/91 | 38 | 1248 |
| SS-6 | 11/7/91 | 11/7/91 | 42 | 1248 |
| SS-7 | 11/7/91 | 11/7/91 | 8.0 | 1248 |
| SS-8 | 11/7/91 | 11/7/91 | 5.0 | 1248 |
| SS-9A | 11/7/91 | 11/7/91 | 35 | 1248 |
| SS-9B | 11/7/91 | 11/7/91 | 6.0 | 1248 |
| SS-9B | 11/7/91 | 11/7/91 | 4.2 | 1254 |
| SS-10 | 11/7/91 | 11/7/91 | 10 | 1248 |
| SS-11A | 11/7/91 | 11/7/91 | 4.5 | |
| SS-11B | 11/7/91 | 11/8/91 | 2.3 | 1254 |
| SS-12 | 11/7/91 | 11/8/91 | ND | |
| SS-13 | 11/7/91 | 11/8/91 | ND | |
| SS-14 | 11/7/91 | 11/8/91 | ND | |
| SS-15 | 11/8/91 | 11/8/91 | 8.2 | 1248 |
| SS-16 | 11/8/91 | 11/8/91 | 46 | 1248 |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit

**METHOD:**

Field analysis was conducted in a mobile laboratory using an HNU Systems Model 301 Gas Chromatograph with an electron capture detector (ECD). Sample extraction and analysis procedures followed "Field Measurent of PCB's in Soil and Sediment using a Portable Gas Chromatograph" Thomas M. Spittler, Ph. D., U. S. EPA Region I Laboratory, Lexington, MA. 1983.

**COMMENTS:**

***All sample results reported in mg/kg on a wet weight basis.**
**DETECTION LIMIT=1 mg/kg.**

Signed _____ Reviewed by: _____

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-1A |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Knollmyer Reviewed by: [signature] 12/16

**TETRA · K TESTING**
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# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-2A |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Kadlay Reviewed by: [signature] 12/16

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# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-2B |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: [signature] Reviewed by: [signature] 12/16

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# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-4 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Kwolley Reviewed by: 12/16

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# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-5 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | **Ethylbenzene** | **100** | **220** |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Knolling Reviewed by: [signature] 12/16

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## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-6 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia, Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Knollmyer Reviewed by: 12/14

**TETRA · K TESTING**
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# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-9A |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Knollinger Reviewed by: R 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-10 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Knolling Reviewed by: [signature] 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-15 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Stephen Kelly Reviewed by: R 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SS-16 |
| Pearl River, NY 10965 | Matrix: | SOIL |
| | Dilution Factor: | 20 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/7/91 |
| Project Number: A-460 | Reciept Date: | 11/7/91 |
| | Analysis Date: | 11/8/91 |

RESULTS:

| COMPOUND | Detection Limit ug/kg | Result ug/kg | COMPOUND | Detection Limit ug/kg | Result ug/kg |
|---|---|---|---|---|---|
| Methylene Chloride | 100 | ND | 1,1,2,2-Tetrachloroethane | 100 | ND |
| Vinyl chloride | 100 | ND | Tetrachloroethene | 100 | ND |
| 1,1-Dichloroethene | 100 | ND | Toluene | 100 | ND |
| 1,1-Dichloroethane | 100 | ND | Chlorobenzene | 100 | ND |
| c/t-1,2-Dichloroethene | 100 | ND | Ethylbenzene | 100 | ND |
| Chloroform | 100 | ND | m-xylene | 200 | ND |
| 1,2-Dichloroethane | 200 | ND | o&p-xylene | 200 | ND |
| 1,1,1-Trichloroethane | 100 | ND | Acetone | 2000 | ND |
| Carbon Tetrachloride | 100 | ND | 2-Butanone | 1000 | ND |
| Trichloroethene | 100 | ND | 4-methyl 2-pentanone | 1000 | ND |
| Benzene | 100 | ND | 2-hexanone | 1000 | ND |
| 1,1,2,-Trichloroethane | 100 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: Reviewed by: R 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

# VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| CLIENT: | Date: | 12/5/91 |
| LMS Engineers | | |
| One Blue Hill Plaza | Sample ID: | SG-7 |
| Pearl River, NY 10965 | Matrix: | Water |
| | Dilution Factor: | 1 |
| Project: NYSDEC/Amenia Dump Site, Amenia, NY | Collection Date: | 11/6/91 |
| Project Number: A-460 | Reciept Date: | 11/6/91 |
| | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | Detection Limit ug/L | Result ug/L | COMPOUND | Detection Limit ug/L | Result ug/L |
|---|---|---|---|---|---|
| Methylene Chloride | 5 | ND | 1,1,2,2-Tetrachloroethane | 5 | ND |
| Vinyl chloride | 5 | ND | Tetrachloroethene | 5 | ND |
| 1,1-Dichloroethene | 5 | ND | **Toluene** | **5** | **5.9** |
| 1,1-Dichloroethane | 5 | ND | Chlorobenzene | 5 | ND |
| c/t-1,2-Dichloroethene | 5 | ND | **Ethylbenzene** | **5** | **57** |
| Chloroform | 5 | ND | **m-xylene** | **10** | **27** |
| 1,2-Dichloroethane | 10 | ND | **o&p-xylene** | **10** | **23** |
| 1,1,1-Trichloroethane | 5 | ND | Acetone | 100 | ND |
| Carbon Tetrachloride | 5 | ND | 2-Butanone | 50 | ND |
| Trichloroethene | 5 | ND | 4-methyl 2-pentanone | 50 | ND |
| **Benzene** | **5** | **72** | 2-hexanone | 50 | ND |
| 1,1,2,-Trichloroethane | 5 | ND | | | |

ND = Not Detected NA=Not Analyzed BDL=Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph equipped with PID, FID and ECD detectors. The sample preparation method was EPA Method 3810; headspace screening method. The results were calculated using the internal standard method.

COMMENTS:

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-1** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/5/91 |
| Project Number: A-460 | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **8400** | **3000** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| **cis/trans-1,2-Dichloroethene** | **50** | **10** | **1000** | **280** |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **1500** | **430** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| **Tetrachloroethene** | **10** | **2** | **27000** | **3600** |
| **Toluene** | **400** | **100** | **BDL** | **BDL** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **20000** | **4200** |
| **m-xylene** | **700** | **150** | **71000** | **15000** |
| **o &p-xylene** | **700** | **150** | **41000** | **8700** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Stephen Kynally Reviewed by: 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-2** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 2 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/5/91 |
| Project Number: A-460 | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 100 | 30 | ND | ND |
| Vinyl Chloride | 100 | 50 | ND | ND |
| 1,1-Dichloroethene | 100 | 30 | ND | ND |
| 1,1-Dichloroethane | 100 | 30 | ND | ND |
| cis/trans-1,2-Dichloroethene | 100 | 30 | ND | ND |
| Chloroform | 30 | 5 | ND | ND |
| 1,2-Dichloroethane | 100 | 30 | ND | ND |
| 1,1,1-Trichloroethane | 30 | 5 | ND | ND |
| Carbon Tetrachloride | 30 | 5 | ND | ND |
| Trichloroethene | 30 | 5 | ND | ND |
| **Benzene** | **800** | **300** | **4800** | **1400** |
| 1,1,2,-Trichloroethane | 30 | 5 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 30 | 5 | ND | ND |
| **Tetrachloroethene** | **30** | **5** | **1300** | **180** |
| **Toluene** | **1000** | **300** | **33000** | **8100** |
| Chlorobenzene | 1000 | 300 | ND | ND |
| **Ethylbenzene** | **1000** | **300** | **12000** | **2600** |
| **m-xylene** | **2000** | **400** | **18000** | **3800** |
| **o &p-xylene** | **2000** | **400** | **15000** | **3100** |
| Acetone | 800 | 300 | ND | ND |
| 2-butanone | 800 | 300 | ND | ND |
| 4-Methyl 2-pentanone | 1000 | 300 | ND | ND |
| 2-Hexanone | 1000 | 300 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Reviewed by: 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-3 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/5/91 |
| Project Number: A-460 | | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| Toluene | 400 | 100 | ND | ND |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane detected.**

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**
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## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-4 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/5/91 |
| Project Number: A-460 | | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| Toluene | 400 | 100 | ND | ND |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane detected.**

Signed: Stephen Kadlec Reviewed by: R 12/16

**TETRA · K TESTING**
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## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-5 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/5/91 |
| Project Number: A-460 | | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| Toluene | 400 | 100 | ND | ND |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane detected.**

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**

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## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-6** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/5/91 |
| Project Number: A-460 | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **300** | **100** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **1400** | **330** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **6700** | **1400** |
| **m-xylene** | **700** | **150** | **11000** | **240** |
| **o &p-xylene** | **700** | **150** | **7600** | **1600** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Reviewed by: 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-8 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **3100** | **1100** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **4900** | **1400** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **3300** | **810** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **7900** | **1700** |
| **m-xylene** | **700** | **150** | **15000** | **3100** |
| **o &p-xylene** | **700** | **150** | **19000** | **4000** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/14

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | SG-9 |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/6/91 |
| Project Number: A-460 | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **5400** | **1300** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane detected.**

Signed: Stephen Kelley Reviewed by: R 12/11

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | **SG-10** |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/5/91 |
| Project Number: A-460 | | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **5600** | **1600** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **15000** | **3600** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **7600** | **1600** |
| **m-xylene** | **700** | **150** | **7600** | **1600** |
| **o &p-xylene** | **700** | **150** | **6200** | **1300** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/14

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-11 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **2200** | **630** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **3700** | **910** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **27000** | **5700** |
| **m-xylene** | **700** | **150** | **19000** | **4100** |
| **o &p-xylene** | **700** | **150** | **23000** | **4900** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-12** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/6/91 |
| Project Number: A-460 | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **2000** | **480** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Kindley Reviewed by: TR 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | **SG-13** |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **1300** | **330** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Knolling Reviewed by: CR 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | SG-14 |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/5/91 |
| Project Number: A-460 | Analysis Date: | 11/5/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| **Methylene Chloride** | **50** | **10** | **6300** | **1700** |
| **Vinyl Chloride** | **50** | **20** | **340000** | **120000** |
| **1,1-Dichloroethene** | **50** | **10** | **3400** | **790** |
| **1,1-Dichloroethane** | **50** | **10** | **5700** | **1300** |
| **cis/trans-1,2-Dichloroethene** | **50** | **10** | **440000** | **100000** |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| **1,1,1-Trichloroethane** | **10** | **2** | **14000** | **2400** |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| **Trichloroethene** | **10** | **2** | **170000** | **30000** |
| **Benzene** | **300** | **100** | **38000** | **11000** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| **Tetrachloroethene** | **10** | **2** | **79000** | **11000** |
| **Toluene** | **400** | **100** | **1700000** | **420000** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **560000** | **120000** |
| **m-xylene** | **700** | **150** | **1100000** | **230000** |
| **o &p-xylene** | **700** | **150** | **730000** | **150000** |
| Acetone | 300 | 100 | ND | ND |
| **2-butanone** | **300** | **100** | **1100** | **350** |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Stephen Kroll Reviewed by: PR 12/14

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-15** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/6/91 |
| Project Number: A-460 | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **6000** | **2200** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **9700** | **2800** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **8800** | **2100** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **11000** | **2300** |
| **m-xylene** | **700** | **150** | **16000** | **3500** |
| **o &p-xylene** | **700** | **150** | **17000** | **3700** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Stephen Kindley Reviewed by: R 12/16

**TETRA · K TESTING**

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## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | **SG-16** |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **1600** | **380** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Knolly Reviewed by: R 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | SG-17 |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **1000** | **240** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Kroll Reviewed by: 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-18** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/6/91 |
| Project Number: A-460 | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **1700** | **610** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **8900** | **2600** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **5300** | **1300** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **46000** | **9700** |
| **m-xylene** | **700** | **150** | **72000** | **15000** |
| **o &p-xylene** | **700** | **150** | **55000** | **12000** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/17

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | **SG-19** |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/6/91 |
| Project Number: A-460 | | Analysis Date: | 11/6/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **17000** | **6200** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| **cis/trans-1,2-Dichloroethene** | **50** | **10** | **67000** | **15000** |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **33000** | **9600** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **26000** | **6300** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **21000** | **4400** |
| **m-xylene** | **700** | **150** | **36000** | **7700** |
| **o &p-xylene** | **700** | **150** | **42000** | **8900** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Stephen Kindley Reviewed by: R 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-20** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/7/91 |
| Project Number: A-460 | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| Vinyl Chloride | 50 | 20 | ND | ND |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| Benzene | 300 | 100 | ND | ND |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **400** | **100** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

Signed: Stephen Kelly Reviewed by: R 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-21** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/7/91 |
| Project Number: A-460 | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **6600** | **2400** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **700** | **210** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **1200** | **290** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **2600** | **550** |
| **m-xylene** | **700** | **150** | **6100** | **1300** |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: Stephen Knolling Reviewed by: PR 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-22** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/7/91 |
| Project Number: A-460 | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **12000** | **4400** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| **cis/trans-1,2-Dichloroethene** | **50** | **10** | **8500** | **2000** |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **4200** | **1200** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| **Tetrachloroethene** | **10** | **2** | **13000** | **1700** |
| **Toluene** | **400** | **100** | **3500** | **850** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **16000** | **3300** |
| **m-xylene** | **700** | **150** | **12000** | **2500** |
| **o &p-xylene** | **700** | **150** | **20000** | **4300** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**

*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | |
|---|---|---|
| Client: | Date: | 12/5/91 |
| LMS Engineers | Sample ID: | **SG-23** |
| One Blue Hill Plaza | Matrix: | soil gas |
| Pearl River, New York 10965 | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | Collection Date: | 11/7/91 |
| Project Number: A-460 | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **28000** | **10000** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| cis/trans-1,2-Dichloroethene | 50 | 10 | ND | ND |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **30000** | **8600** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **25000** | **6100** |
| Chlorobenzene | 500 | 100 | ND | ND |
| **Ethylbenzene** | **500** | **100** | **35000** | **7300** |
| **m-xylene** | **700** | **150** | **68000** | **14000** |
| **o &p-xylene** | **700** | **150** | **46000** | **9800** |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/16

**TETRA · K TESTING**
*A DIVISION OF TIGHE & BOND, INC.*

## VOLATILE ORGANICS REPORT

| | | | |
|---|---|---|---|
| Client: | | Date: | 12/5/91 |
| LMS Engineers | | Sample ID: | **SG-24** |
| One Blue Hill Plaza | | Matrix: | soil gas |
| Pearl River, New York 10965 | | Injection volume (ml): | 5 |
| Project: NYSDEC Amenia, NY Dump Site | | Collection Date: | 11/7/91 |
| Project Number: A-460 | | Analysis Date: | 11/7/91 |

RESULTS:

| COMPOUND | DETECTION LIMIT µg/cu. m. | DETECTION LIMIT ppb v/v | RESULT µg/cu. m. | RESULT ppb v/v |
|---|---|---|---|---|
| Methylene Chloride | 50 | 10 | ND | ND |
| **Vinyl Chloride** | **50** | **20** | **21000** | **7600** |
| 1,1-Dichloroethene | 50 | 10 | ND | ND |
| 1,1-Dichloroethane | 50 | 10 | ND | ND |
| **cis/trans-1,2-Dichloroethene** | **50** | **10** | **2500** | **580** |
| Chloroform | 10 | 2 | ND | ND |
| 1,2-Dichloroethane | 50 | 10 | ND | ND |
| 1,1,1-Trichloroethane | 10 | 2 | ND | ND |
| Carbon Tetrachloride | 10 | 2 | ND | ND |
| Trichloroethene | 10 | 2 | ND | ND |
| **Benzene** | **300** | **100** | **2300** | **670** |
| 1,1,2,-Trichloroethane | 10 | 2 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 10 | 2 | ND | ND |
| Tetrachloroethene | 10 | 2 | ND | ND |
| **Toluene** | **400** | **100** | **2100** | **510** |
| Chlorobenzene | 500 | 100 | ND | ND |
| Ethylbenzene | 500 | 100 | ND | ND |
| m-xylene | 700 | 150 | ND | ND |
| o &p-xylene | 700 | 150 | ND | ND |
| Acetone | 300 | 100 | ND | ND |
| 2-butanone | 300 | 100 | ND | ND |
| 4-Methyl 2-pentanone | 400 | 100 | ND | ND |
| 2-Hexanone | 400 | 100 | ND | ND |

ND = Not detected NA = Not Analyzed BDL = Below Detection Limit PR = Present but not calibrated for

METHOD:

Analyses were conducted in a mobile laboratory using an HNU Model 421 Gas Chromatograph with FID, PID and ELCD detectors. Soil gas samples collected in the field were injected into the GC using a gas-tight syringe. The results were calculated using the external standard method.

COMMENTS:

**Methane and other hydrocarbons were detected.**

Signed: [signature] Reviewed by: [signature] 12/14

11/5/91 — AMELIA, NY - SOIL GAS

0900 ARRIVE ON SITE
SET-UP MOBILE LAB, CALIBRATE INSTRUMENTS

1047 SG-1 PURGING 1700 mL/min
OVA = >1000 ppm w/FILTER >1000 PPM
1053 COLLECT 2 5.0 mL SYRINGES SOIL GAS

11:41 SG-2 PURGING 2000 mL/min
OVA > 1000 ppm w/ Filter >1000 PPM
11:44 COLLECT 2 ~~5.0~~ 2.0 mL Syringes SOIL GAS

12:22 SG-6 PURGING 2100 mL/min
OVA >1000 PPM w/ Filter >1000
12:24 Collect 2 5.0 mL Syringes SOIL GAS

12:56 SG-3 PURGING 2100 mL/min
OVA >1000 PPM w/ Filter >1000
12:59 Collect 2 5.0 mL Syringes SOIL GAS

13:41 SG-4 PURGING @ 2100 mL/min
OVA > 1000 PPM w/FILTER >1000 PPM
1343 COLLECT 2 5.0 mL SYRINGES SOIL GAS

11/5/91



# AMENIA NY SOIL GAS

14:20 SG-5 Purging 2100 mL/min
OVA 700 ppm Flame out w/ Filter 640 ppm flame out
14:26 Collect 2 5.0 mL Syringes Soil Gas

1502 SG-10 Purging @ 1800 mL/min
OVA >1000 ppm w/ Filter >1000 ppm
1504 Collect 2 5.0 mL Syringes Soil Gas

1542 SG-14 Purging @ 1800 mL/min
OVA > 1000 ppm
1544 Collect 2 5.0 mL Samples Soil Gas

1626 Run Syringe Blank

1700 Run Cal. Std.

1745 Leave Site

SLK : TJS

11/6/91 AMENIA, NY - SOIL GAS

0700 ARRIVE ON SITE - SET-UP MOBILE LAB ; INSTRUMENTS

0842 SG-14 Purging 1900 ml/min [RESAMPLE]
OVA >1000 PPM w/ Filter >1000 PPM
HNU 10 PPM erratic

08:47 1 mL syringe ELCD 0.5 mL PID/FID SOIL GAS

09:26 SG-15 PURGING @ 1900 mL/MIN
OVA > 1000 PPM w/ FILTER > 1000 PPM
HNU = 0.0 PPM
$O_2$ = 16.3 LEL OVER

09:29 2 2.0 mL syringes SOIL GAS

1019 SG-8 PURGING @ 1900 mL/MIN
OVA = >1000 PPM w/FILTER >1000 PPM
~~1021~~ HNU = NEG. DEFL.

1021 COLLECT 2 5.0 mL SYRINGES SOIL GAS

1056 SG-18 PURGING 1900 mL/min
OVA >1000 PPM w/ Filter >1000 PPM

1058 COLLECT 2 5.0 mL SYRINGES SOIL GAS

GLK

# AMENIA NY SOIL GAS

11:39 SG-19 PURGING 1900 mL/min
OVA >1000 ppm w/ Filter >1000 ppm
11:41 Collect 2 5.0 mL syringes SOIL GAS

1220 RUN BLANK
1322 SG-9 Purging 2000 mL/min
~~OVA~~ HNU 24 ppm
1324 Collect 2 5.0 mL syringes SOIL GAS

1321 SG-7 PULLING $H_2O$ INTO TUBE
WILL ATTEMPT TO COLLECT $H_2O$ SAMPLE
IN VOC VIALS

1406 SG-11 PURGING @ 940 mL/min
OVA > 1000 ppm w/ FILTER >1000 ppm HNU ~ 5 ppm
1410 COLLECT 2 5.0 mL SYRINGES SOIL GAS

1440 SG-12 PURGING 1200 mL/min
OVA 14 ppm w/ Filter 0 ppm
HNU ~~26-50~~ 10-15 ppm
1445 Collect 2 5.0 mL syringes SOIL GAS

1520 SG-13 PURGING 2600 mL/min
OVA 7 ppm w/ Filter 0 ppm
1522 Collect 2 5.0 mL SYRINGES SOIL GAS

SLK

11/6

# AMENIA NY SOIL GAS

1557 SG-16 PURGING 2700 mL/min
OVA 7.2 ppm w/ Filter 1.4 ppm
HNU 3.0 ppm

1601 Collect 2 5.0 mL syringes SOIL GAS

16:41 SG-17 PURGING 2700 mL/min
OVA 3.0 ppm w/ Filter
HNU 5 ppm

16:43 Collect 2 5.0mL syringes SOIL GAS

1722 RUN CAL. STD.

1800 LEAVE SITE

SLK ; TJS

| 11-7-91 | AMENIA SOIL GAS / SOIL ANALYSIS |
|---|---|
| 0700 | ARRIVE ON-SITE - SET-UP MOBILE LAB, CALIBRAT INSTRUMENTS |
| 0848 | SG-20 PURGING @ 2300 mL/min<br>OVA = 6.6 PPM w/ FILTER = NEG. DEFL.<br>HNU = 4.0 ppm |
| 0851 | COLLECT 2 5.0mL SYRINGES SOIL GAS |
| 0930 | SG-22 PURGING @ 2600 mL/min<br>HNU = NEG. DEFL.<br>OVA = >1000 PPM w/ FILTER >1000 PPM |
| 0932 | COLLECT 2 5.0mL SYRINGES SOIL GAS |
| 10:09 | SG-23 Purging 2600 mL/min<br>OVA >1000 ppm w/ Filter >1000 ppm<br>HNU - Neg. Deflection<br>Collect 2 5.0 mL syringes SOIL GAS |
| 10:50 | SG-21 Purging 2600 mL/min<br>OVA > 1000 w & w/out FILTER<br>HNU - NEG DEFLECTION |
| 10:52 | Collect 2 5.0mL syringes Soil GAS |

SLK

11-7-91 AMENIA SOIL GAS

1205 SG-24 PURGING @ 2600 mL/min
OVA >1000 ppm w/ FILTER >1000ppm
HNU: NEG DEFL.

1207 COLLECT 2 5.0mL SYRINGES SOIL GAS

1240 SG-19DUP PURGING @ 2600 mL/min
OVA = >1000 ppm w/ FILTER >1000 ppm

1244 COLLECT 2 5.0mL SYRINGES SOIL GAS

1326 SG-1 (DUP) PURGING @ 2400 mL/min
OVA = >1000 ppm w/ FILTER >1000 ppm

1328 COLLECT 2 5.0mL SYRINGES SOIL GAS

1408 RUN $H_2O$/SOIL CAL. STD. ON GC

1454 RUN SG-7 ($H_2O$) and SOILS IN MOBILE LAB

1708 RUN FINAL CAL. STD.

1800 LEAVE SITE

SLK

# PART II.iii

# DATA VALIDATION REPORT

Part II.ii

## DATA VALIDATION REPORTS

The following data validation report details the analyses conducted on samples collected from the Old Amenia Landfill site (NYSDEC I.D. No. 314006). It also contains the case narratives submitted with the data packages prepared by Aquatec Inc. for low-level PCB analyses and from Nytest Environmental, Inc., for full target compound list (TCL) analyses. The case narratives discuss sample handling, analytical problems encountered, and corrective actions taken.

Data Validation Services determined that the low-level PCB analyses conducted by Aquatec were in compliance with 1989 NYSDEC Analytical Services Protocol (ASP). Upon review of the data package submitted by Aquatec and the data validator's report, LMS concludes that the results of low-level PCB analyses performed on samples from the Old Amenia site are usable without qualification.

The data validator's review of the Nytest data revealed that a majority of the volatile organic compound (VOC), all of the base neutral/acid extractable (BNA), and a few of the pesticide/PCB analyses did not comply with NYSDEC's 1989 ASP for reasons detailed in the report that follows.

LMS concluded that the BNA data for AMSS-19 are unusable because of poor surrogate recovery for the original analyses and because the reextraction was performed 18 days outside the required extraction holding time; the EP toxicity herbicide results for sample AMSS-19 are unusable because of a surrogate recovery of 0%, indicating possible inability to recover target compounds. The remaining data are usable with the appropriate (if any) qualifications discussed in the Data Usability Summary (Appendix A).

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**



RECEIVED
APR 03 1992
LMS ENGINEERS


TO: Lawler, Matusky & Skelly, Engineers

FROM: Judy Harry, Data Validation Services J Harry

DATE: 3-26-92 Revised 4-1-92

RE: Validation of Amenia Site Data Packages
NEI Login Nos. 10378, 10498, 10519

Review has been completed for data packages generated by Nytest Environmental, Inc. (NEI) pertaining to samples collected at the Amenia Site. Five surface waters, five sediments, and four surface soils were processed for TCL organics/TAL metals by 1989 NYSDEC ASP CLP. In addition, the sediments were analysed for eptox metals, pesticides, and herbicides. Conventional and hazardous waste characteristic analyses were also performed. Matrix spikes were performed for water, soil, and sediment CLP and conventional parameters and for eptox metals and organics in the surface soils. Field and trip blanks were also processed.

This report initially outlines data concerns affecting sample reported results, with additional concerns discussed in the subsequent sections. Attached are a compliancy chart, communications and telephone logs regarding requests for package resubmissions, laboratory case narratives, and laboratory preparation/analysis summary forms.

The following qualification of sample results should be considered:

1. All 2-butanone reported results and detection limits should be considered estimated due to poor and/or inconsistent recovery in the initial and continuing calibration standards.

2. Sample AMSW03 should reflect a value for methylene chloride of "2J ug/L". This was reviewed by the lab accordingly, but not transcribed to the report form.

3. The BNA analysis of sample AMSS19 produced low surrogate recovery (9% for 2,4,6-tribromophenol) and poor internal standard recoveries. Sample reextraction occured 23 days from VTSR, beyond the allowable 5 days from VTSR. Matrix spikes were performed for this sample, with acceptable results. Consequently, results for the non-spike parameters for AMSS19 should be derived from the matrix spike analyses. Results for the spike parameters are unuseable for this sample.

4. BNA standards processed on 12/17/91 and 12/18/91 on instrument A produced poor response in the latter part of the chromatographic sequence, thus requiring manual manipulation of late eluting parameters with resultant poor spectral correlation. The poor response is evident by inspection of the chromatograms, and spectra from samples analysed under those conditions. The response is typical of a system requiring maintenance, as verified by the fact that on 12/13/91, instrument A showed response (total ion area) of the sixth internal standard to be about 50% of that of

the first internal standard, and on 12/18, the relative response was reduced to only about 4%. This should have been observed as condition requiring corrective action, as the integrity of the sample reported results/detection limits is not assured.

Consequently, samples processed on 12/17 and 12/18:

AMSW04, AMSW05, AMSD01, AMSD02, AMSD03, AMSD04, AMSD05, and Field Blank

should have reported detection limits for the following compounds considered estimated (degree of variance may be up to tenfold):

benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene

In addition, loss of sensitivity also affects detection and identification of late-eluting TICs for these samples.

5. Eptox herbicide results for AMSS19 are inconclusive due to a 0% surrogate recovery. Injection response looks normal, but no surrogate was present, indicating possible inability to recover target compounds. Eptox pesticide analysis for this sample was acceptable.

6. Cyanide reported results in the surface soils may be falsely elevated, as indicated by a matrix spike recovery of 218%.

7. Cyanide reported results and reported detection limits in the sediments may be falsely low, as indicated by a 12% matrix spike recovery.

8. The reported results for silver in the eptox analyses should be flagged as "N" to reflect a 56% matrix spike recovery. The spike recovery also indicates a potential low bias to the reported results.

9. COD results for AMSW01, AMSW04, and AMSW05, which are reported as 17 ppm, should be considered estimated, possibly biased high, because the actual absorbances for these samples are equal to that of the 10 ppm standard.

10. The TDS value for AMSW03 should be 235, not 245 mg/L as reported.

GENERAL

Internal chain of custody documentation in the data packages from NEI is not compliant with protocol requirements, in that it does not provide direct traceability of samples through the laboratory:

a. No date of origin is indicated on the internal custodies
b. It is not noted specifically which samples are being transferred at any given instance.
c. Instances are present of undocumented transfers.
d. Incomplete, inaccurate, and illegible transfer notations are present.
e. Instances of nonsequential date entries are present.

Samples AMSS17 and AMSS18 were determined to contain Aroclor mixtures. The samples were initially analysed at 1:5 and 1:1 dilutions factors, respectively. The samples were diluted and reanalysed to produce more accurate quantitation. Form 1D's were reported for both dilutions for each sample, with Aroclor values reported for the dilution analyses. The report forms for the initial analyses reported all target compounds as undetected, although presence of PCBs was indicated. The Form 1D's for the initial analyses for these two samples should be omitted from the data package in order to avoid possible misinterpretation of the data.

Data package case narratives are not complete in discussion of QC criteria outliers. Omissions include holding time exceedences, matrix spike blank outlying recoveries, calibration standard outlying percent differences and relative standard deviations, and problems encountered in sample processing. There is no discussion at all regarding inorganic analyses, including accuracy and precision results for the metals determinations.

NYSDEC Sample Preparation and Analysis Summary Forms should state actual dilutions required for organic analyses, rather than the phrase "as required".

Matrix spike Form 1's should state actual detected results for spike compounds.

VOLATILE ANALYSIS

Holding times were met for the volatile analyses. Surrogate recoveries and instrumental tunes met required criteria.

The surface soil matrix spikes produced only one recovery outlier, benzene at 60% (below 66% limit). Precision outliers were toluene and chlorobenzene, both at 26% RPD (above the 21% limit). The associated matrix spike blank produced acceptable recoveries. The sediment matrix spikes produced recoveries and precision values within recommended limits. The associated matrix spike blank produced two recoveries just below the allowable limit of 75% (1,1-dichloroethene and benzene at 72 and 74%, respectively). The aqueous matrix spikes were not precise. The matrix spike produced acceptable recoveries, but the matrix spike duplicate produced 4 of the 5 compounds with elevated recovery, ranging from 131 to 143%. Consequently, all five %RPD values (ranging from 33 to 39%) were above the recommended limits. Surrogate recoveries correlated well between these aqueous matrix spikes, indicating possible matrix spike compound spiking error. The associated matrix spike blank produced all recoveries within the allowable range.

The volatile method blank associated with sample AMSW04 contained a TIC, which was reported as eluting at 17.2'. The TIC actually eluted at 8.6'. All other method blanks met criteria.

The volatile initial calibration standards for this project produced elevated %RSD for acetone on one instrument and 2-butanone on the other (71 and 70%, respectively). As noted in item #1 above, 2-butanone results should be considered estimated due to low response in lower concentration standards. Continuing calibration standards for this project contained components (in addition to ketones) with elevated percent differences. These compounds include benzene (36%D), bromoform (39%D), trans-1,3-dichloropropene (39%D), and surrogate standard d4-dichloroethane (46 and 50%D).

The initial calibration standards processed 9/12/91 on instrument E were not processed sequentially, as required by protocol. Instrument logs do not distinguish between the soil and water standards, both of which were run to produce the respective five point curve data. Combinations of multiple concentrations were processed, and the final determination of standards for each curve show that soil and water standards were intermixed in the analysis sequence. Resultant curve data and response factors do not show significant differences in recovery of the soil (heated) and water (ambient) components. Samples processed under these initial calibrations are the sediments, and the field and trip blanks.

BNA ANALYSIS

With the exception of the abovementioned reextraction of AMSS19, all holding times were met for sample processing. Method blank and instrumental tune values met protocol requirements.

In addition to the failure of surrogate tribromophenol in AMSS19, d5-nitrobenzene also recovered below the recommended limit (15%; less than 23%). Aqueous sample AMSW04 had two acid surrogates with elevated recoveries, which is not permitted by protocol. However, the recoveries (d5-phenol and 2-fluorophenol at 101 and 107%; limits of 94 and

100%), are typical of the continuous extractor methodology, and do not affect sample reported results. The field blank produced 4 surrogate outliers, two each acid and base/neutral, with recoveries up to 124%. The observed low (although within limits) internal standard area recoveries for the field blank may be responsible for elevated surrogate recoveries. The field blank should have been reanalysed.

The surface soil matrix spikes produced acceptable recoveries, but showed three elevated %RPD values (1,4-dichlorobenzene at 39%, > 27% limit; 1,2,4-trichlorobenzene at 32%, > 23% limit; acenaphthene at 27%, > 19% limit). The associated matrix spike blank (MSB) produced 8 of the 11 recoveries below the allowable limit of 75%, ranging between 55 and 82%. The sediment matrix spike recoveries and precision values were all within recommended limits. The associated MSB produced only one outlying value, pyrene at 130%. The aqueous matrix spikes produced elevated recoveries for 12 of the 22 compounds, but all were less than 121%, and in line with the methodology. The aqueous MSB produced only one value above 125% recovery, that being pyrene at 130%.

Please see the discussion in item #4 above.

All semivolatile continuing calibration standards for this project contained components with %Ds above 25%. This noncompliancy does not affect sample reported results.

Internal standard recoveries for sample AMSD05 and its matrix spikes produced elevated recoveries for d12-chrysene. This is most likely instrument related, as many samples, including a method blank, processed the same day also showed the same outlier. The internal standard recovery failure in sample AMSS19 (see item #3) should have prompted a reanalysis of the sample, whereupon improved surrogate recoveries may have been observed. The fact that the failures were not present in the corresponding matrix spikes should have further emphasized the necessity to reanalyse, rather than negate it, as was indicated in the laboratory case narrative. This corrective action may have produced acceptable data for the sample.

PESTICIDE/PCB ANALYSIS

Holding times were met for sample processing. All surrogate recoveries were within recommended range, falling between 77 and 148%. Method blank, system breakdown and linearity, and calibration standard criteria were met.

Matrix spikes recoveries for all matrices were within recommended ranges. Precision values were acceptable, with the exception of gamma-BHC in the surface waters, with a %RPD of 20%, above the recommended limit of 15%. The soil and sediment MSBs produced compliant recoveries. The aqueous MSB produced elevated recoveries, at 315 to 380%. The surrogate recovery for the MSB was acceptable, implying a spiking error for the matrix spike compounds. No quantitation was performed for the Aroclor 1248 in the matrix spikes of AMSS19. Matrix spike Form 1's should reflect actual detected results for spike compounds.

Reported results for the samples were substantiated by the raw data.

EPTOX PESTICIDES/HERBICIDES

Please see item #5 above regarding herbicide surrogate recovery for sample AMSS19. Other herbicide surrogate recoveries were within recommended limits, ranging from 22 to 38%. The eptox pesticide surrogate recoveries were generally good for the samples, ranging from 89 to 135%, with the exception of AMSS19 at 382%. The method blank pesticide surrogate recovery was 935%. These samples were processed on packed column, thereby increasing the probability of coeluting compound contribution to surrogate recovery.

Standard linearity was not good for the eptox organics, but system sensitivity and surrogate recovery was sufficient to substantiate reported results for the samples (exception: AMSS19, as discussed).

METALS/CN/EPTOX METALS

Holding times were met for sample processing. All required QC evaluations were reviewed and determined to be acceptable and compliant unless discussed below, or in the numbered items above.

See items 6 through 8 above.

The surface soil matrix spike produced outlying recoveries for selenium (58%), silver (72%), thallium (157%), and cyanide (218%). Duplicate outliers, above the recommended limit of 20%D, for the soils were arsenic (50% D) and manganese (30%D). The lack of precision in the arsenic data may be due to the fact that the sample result was derived from an MSA analysis, and the duplicate was not.

The eptox analysis of the surface soils produced one outlying matrix spike recovery, silver at 56%. Duplicate precision was good.

The sediment matrix spike recoveries showed three outliers, arsenic at 73% (sample results by MSA, spike results not), mercury at 138%, and cyanide at 12% (previously discussed). Manganese was the sole precision outlier at 30%D.

The aqueous matrix spike analysis produced all acceptable values for recovery. Precision was also within recommended limits for all elements.

Serial dilution of the surface soil sample produced an elevated %D for copper of 23%, but the sample value was just above the limit of 50 times the IDL. Zinc correlation on serial dilution of soils was poor, with a %D of 108%.

The Form 8 should have denoted two arsenic MSA determinations for sample AMSD02. The correlation coefficient of the first was 0.993.

CONVENTIONALS

Wet chemistry determinations were reviewed for method compliance, matrix spike recovery and precision correlation, and transcription. Unless noted in the items above, all reported values are substantiated by the raw data.

COMPLIANCY SUMMARY

Project: Amenia Site

SDG Nos: NEI Login Nos. 10378, 10498, and 10519

Protocol: 1989 NYSDEC ASP CLP

| Rec Date | Log/SDG | Spl ID | Matrix | VOA | BNA | PCB/Pest | LLPCB | Met | CN | EPMet | EPOrg | Noncompl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-22-91 | 10498 | AMSW01 | Aqueous | NO | NO | NO | NR | OK | OK | NR | NR | 1,6,7 |
| 11-22-91 | 10498 | AMSW02 | Aqueous | NO | NO | NO | NR | OK | OK | NR | NR | 1,6,7 |
| 11-22-91 | 10498 | AMSW03 | Aqueous | NO | NO | NO | NR | OK | OK | NR | NR | 1,6,7 |
| 11-22-91 | 10498 | AMSW04 | Aqueous | NO | NO | NO | NR | OK | OK | NR | NR | 1,3,5, 6,8 |
| 11-22-91 | 10498 | AMSW05 | Aqueous | OK | NO | NO | NR | OK | OK | NR | NR | 1,6,8 |
| 11-12-91 | 10378 | AMSS17 | Soil | NO | NO | OK | NR | OK | OK | OK | OK | 1,7 |
| 11-12-91 | 10378 | AMSS18 | Soil | NO | NO | OK | NR | OK | OK | OK | OK | 1,7 |
| 11-12-91 | 10378 | AMSS19 | Soil | NO | NO | OK | NR | OK | OK | OK | OK | 1,4,7 |
| 11-12-91 | 10378 | AMSS20 | Soil | NO | NO | OK | NR | OK | OK | OK | OK | 1,7 |
| 11-22-91 | 10498 | AMSD01 | Soil | NO | NO | OK | NR | OK | OK | NR | NR | 1,2,7,8 |
| 11-22-91 | 10498 | AMSD02 | Soil | NO | NO | OK | NR | OK | OK | NR | NR | 1,2,7,8 |
| 11-22-91 | 10498 | AMSD03 | Soil | NO | NO | OK | NR | OK | OK | NR | NR | 1,2,7,8 |
| 11-22-91 | 10498 | AMSD04 | Soil | NO | NO | OK | NR | OK | OK | NR | NR | 1,2,7 8,9 |
| 11-22-91 | 10498 | AMSD05 | Soil | NO | NO | OK | NR | OK | OK | NR | NR | 1,2,7 8,9 |
| 11-22-91 | 10498 | FldBlk | Aqueous | NO | NO | NO | NR | OK | OK | NR | NR | 1,5,6,8 |
| 11-22-91 | 10498 | TrpBlk | Aqueous | NO | NR | NR | NR | NR | NR | NR | NR | 1 |

1. Volatile continuing calibration standards (CCS) contain components with percent differences (%D) exceeding 35% (1989 NYSDEC ASP pg. E-25).
   BNA matrix spike blank produces percent recoveries outside the allowable 75 to 125% range (pg. E-59).

2. Volatile soil matrix spike blank produces percent recoveries outside the allowable 75 to 125% range (pg. E-34).
   Volatile initial calibration standards not processed in consecutive order (pg. E-17).

3. Volatile method blank contains Tentatively Identified Compound at a level exceeding 10% of nearest Int.Std. (pg. E-27).

4. BNA initial analysis produced non-matrix related surrogate failure. Reextraction occured 23 days from VTSR (beyond allowable 5 days) (pg D-III-5).

5. BNA analysis produced multiple surrogate recoveries (noncompliant) above the allowable limits. Reextraction was not performed (pg. E-55).

6. Pesticide/PCB aqueous matrix spike blank produces percent recoveries outside the allowable 75 to 125% range (pg. E-72).

7. BNA continuing calibration standards (CCS) contain components with percent differences (%D) exceeding 25% (1989 NYSDEC ASP pg. E-50).

8. BNA instrument performance indicates inability to detect some components at required CRQL (pg. D-III-3).

9. Sample processed for pesticide/PCB at a 1:5 dilution, without evidence of matrix or target compound chromatographic contribution (pg. D-IV-3).

nytest environmental inc.

## Case Narrative

Log In No.: 10378

### General Comments

A letter had to be appended to the case number on all forms due to software limitations.

### VOLATILE FRACTION

**Surrogates**
All recoveries were within QC limits.

**Matrix Spike/Matrix Spike Duplicate**
Sample AMSS19 was used for the MS & MSD. Two RPD's and one recovery was outside the advisory limits.

**Method Blanks**
Methylene Chloride was found in the blank at a concentration within QC limits. No other compounds were found in this blank.

**Calibrations**
All CCC and SPCC compounds passed QC criteria in the initial and continuing calibrations.

**Internal Standards**
All retention times and responses were within QC limits.

**Samples**
All samples were analyzed as per required protocols. No analytical problems were encountered.

## SEMIVOLATILE FRACTION

**Surrogates**
In sample AMSS19, the recovery of 2,4,6-Tribromophenol was below 10 %. When this sample was re-extracted, all recoveries were within QC limits. The two sets of data are being submitted since the re-extraction was performed outside the sample holding time. All recoveries were within limits in all the other samples.

**MS/MSD**
Sample AMSS19 was used for the MS & MSD series. All recoveries were within QC limits. The RPD's of three (3) compounds were above the advisory limits.

**Method Blanks**
No compounds were found in SBLKF29. Di-n-butylphthalate and bis(2-Ethylhexyl)phthalate were found in SBLKF36 at concentrations below the Contract Required Detection Limit (CRDL). No other compounds were found in this blank.

**Calibrations**
All CCC and SPCC compounds passed QC criteria in the initial and continuing calibrations.

**Internal Standards**
All retention times were within QC limits. In sample AMSS19, the responses of three (3) internal standards were below the QC limits. No further action was required since all responses were within limits in the MS and MSD of this sample. All responses were within limits in all the other samples.

**Samples**
All samples were analyzed as per required protocols.

## PESTICIDE FRACTION

**Surrogates**
All soil Pesticide surrogate recoveries were within QC limits.

**MS/MSD & MSB**
All MS/MSD and MSB spiking recoveries were within QC limits. All MS/MSD RPD's were within QC limits.

**Method Blanks**
No target compounds were found.

**Samples**
Colored extracts were diluted. Samples with high level PCB's were diluted further and were marked with the suffix "DL". Aroclors were found in sample AMSS17DL, AMSS18DL, AMSS19 and AMSS20. Endosulfan Sulfate was found in sample AMSS20. Sample AMSS17 and AMSS18 were quantitated from the more diluted extracts (marked with the suffix DL in sample ID).

**EPTOX Data**

**Surrogates**
DBC spiking recoveries are non-compliant in the method blank and sample SS-19 (1037804). 2,4,5-T spiking recovery was non-recoverable in sample SS-19. Please note, surrogate recovery limits are advisory only. All other spiking recoveries fall within QC limits.

**Method Blanks**
No compounds were found.

**Samples**
Samples were analyzed as per required protocols, no problems were encountered.

nytest environmental inc

## CASE NARRATIVE

Login No.: 10498,
10519

### VOLATILE FRACTION

**Surrogates:**

All surrogate recovery values meet QC requirements.

**Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank:**

Sample SD05 was utilized for low soil MS/MSD analysis. All spiking recoveries and RPD fall within allowable ranges. For the MSB, 1,1,-Dichloroethene and Benzene recovery values fell just below 75%

Sample AMSW05 was utilized for the water MS/MSD analyses. Four (4) spiking recoveries fell outside QC limits and all RPD fell outside range.

**Method Blanks:**

Methylene Chloride and Acetone were detected in VBLKK3 and VBLKK4 within concentration limits. No compounds were detected in VBLKE37. Methylene Chloride was detected in VBLKE43 at a concentration less than the Contract Required Detection Limit (CRDL).

**Calibrations:**

All CCC and SPCC compounds meet calibration requirements.

**Internal Standards:**

All area responses and retention times meet QC requirements.

**Samples:**

Samples were analyzed as per 1989 NYSDEC ASP, no analytical problems were encountered.

Case Narrative - cont'd.
Login No. : 10498, 10519

## SEMIVOLATILE FRACTION

### Surrogates:

In Sample AMSW04, the recoveries of two acidic surrogates were above the QC limits. In Sample Field BLK, the recoveries of two acidic and two BN surrogates were above the QC limits. In all the other samples, surrogate recoveries passed QC criteria.

### MS/MSD:

Sample AMSW05 was used for the water MS and MSD. All RPDs were within limits. The recoveries of six (6) compounds were above the advisory QC limits in the MS and MSD. Sample SD05 was used for the Soil MS and MSD. All RPDs and recoveries were within QC limits.

### Method Blanks:

N-Nitrosodiphenylamine was found in SBLKA75 and SBLKA76 at concentrations below the CRDL. Bis (2-Ethylhexyl)Phthalate was found in SBLKA75 at a concentration below the CRDL. One TIC was found in SBLKA76.

### Calibrations:

All CCC and SPCC compounds passed QC criteria in the initial and continuing calibrations.

### Internal Standards:

All retention times were within QC limits. In sample SD05, the response of Chrysene-d12 was above the QC limit. In the MS and MSD of this sample, similar results were obtained. All responses were within limits in all the other samples.

### Samples:

All samples were analyzed as per required protocols. All soil extracts were diluted 1:4 before analysis due to the nature of the extracts.

Case Narrative - cont'd.
Login No.: 10498, 10519

PESTICIDE FRACTION

Surrogates:

All samples pass surrogate QC requirements.

MS/MSD:

Lindane %RPD was above QC limits on Sample AMSW05 (water). No action required.

Blanks:

Both blanks pass all QC requirements.

Calibrations:

All QC requirements are met for Pesticide Evaluation Std., retention time shift and Pesticide Standard Summary. DB1701 is used as Primary and DB608 is used as confirmation run.

Samples:

No target compound found in water samples. PCB was found in the following samples: SD01, (1049809), SD02 (1049810), and SD03 (1049811). These samples were diluted 2, 5 and 5 times respectively. Samples SD04 (1049812) and SD05 (1049813) were also diluted 5 times.

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 | *BNA GC | *PEST PCB | *METALS | *OTHER |
| AMSS17 | 1037801 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSS18 | 1037802 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSS19 | 1037804 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSS20 | 1037803 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
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* Check Appropiate boxes

* CLP, Non-CLP
* HSL, Prority Pollutant

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSS17 | Soil | 11-11-91 | 11-12-91 | 11-14-91 | 11-27-91 |
| AMSS18 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSS19 | ↓ | ↓ | ↓ | ~~11-14-91~~ 12-05-91 | ~~11-27-91~~ 12-09-91 |
| AMSS20 | ↓ | ↓ | ↓ | 11-14-91 | 11-27-91 |

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANICS ANALYSES

| Sample ID | MATRIX | ANALYTICAL PROTOCOL | EXTRACTION METHOD | AUXILARY CLEANUP | DIL/CONC FACTOR |
|---|---|---|---|---|---|
| AMSS17 | Soil | NYS-ASP | SONC | As req'd. | As req'd. |
| AMSS18 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSS19 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSS20 | ↓ | ↓ | ↓ | ↓ | ↓ |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSS17 | Soil | 11-11-91 | 11-12-91 | NA | 11-16-91 |
| AMSS18 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSS19 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSS20 | ↓ | ↓ | ↓ | ↓ | ↓ |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSS17 | Soil | 11-11-91 | 11-12-91 | 11-14-91 | 11-26-91 |
| AMSS18 | ↓ | ↓ | ↓ | ↓ | 11-26-91 / 11-27-91 |
| AMSS19 | ↓ | ↓ | ↓ | ↓ | 11-26-91 |
| AMSS20 | ↓ | ↓ | ↓ | ↓ | ↓ |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

| SAMPLE ID | MATRIX | METALS REQUESTED | DATE RECEIVED | DATE DIGESTED | DATE ANALYZED |
|---|---|---|---|---|---|
| SS-17 | SOIL | TCL / TCLP | 11/12/91 | 11/20/91 | 11-23 TO |
| SS-18 | | | | | 12-7-91 |
| SS-20 | | | | | |
| SS-19 | | | | | |
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

| LABORATORY SAMPLE CODE | MATRIX | ANALYTICAL PROTOCOL | DIGESTION PROCEDURE | MATRIX MODIFIER | OIL/CONC FACTOR |
|---|---|---|---|---|---|
| 103781 | SOIL | ASP 89 | ASP 89 | — | — |
| 103782 | | | | — | — |
| 103783 | | | | — | — |
| 103784 | | | | — | — |
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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 | *BNA GC | *PEST PCB | *METALS | *OTHER |
| AMSW01 | 1049801 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSW02 | 1049802 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSW03 | 1049803 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| AMSW05 | 1049804 | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| FIELD BLK | 1049807 | ✓ | ✓ | | | ✓ | ✓ | |
| AMSW04 | 1049808 | | ✓ | | | ✓ | ✓ | ✓ |
| SD 01 | 1049809 | ✓ | ✓ | | | ✓ | ✓ | |
| SD 02 | 1049810 | ✓ | ✓ | | | ✓ | ✓ | |
| SD 03 | 1049811 | ✓ | ✓ | | | ✓ | ✓ | |
| SD 04 | 1049812 | ✓ | ✓ | | | ✓ | ✓ | |
| SD 05 | 1049813 | ✓ | ✓ | | | ✓ | ✓ | |
| TRIP BLK | 1049816 | ✓ | | | | | | |
| AMSW04 | 1051901 | ✓ | | | | | | |
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* Check Appropiate boxes

* CLP, Non-CLP
* HSL, Prority Pollutant

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSW01 | Water | 11-20-91 | 11-22-91 | 11-27-91 | 12-13-91 |
| AMSW02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW03 | ↓ | ↓ | ↓ | ↓ | 12-17-91 |
| AMSW05 | ↓ | ↓ | ↓ | ↓ | ↓ |
| FIELD BLK | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD01 | Sediment | ↓ | ↓ | 11-26-91 | 12-18-91 |
| SD02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD05 | ↓ | ↓ | ↓ | ↓ | ↓ |

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANICS ANALYSES

| Sample ID | MATRIX | ANALYTICAL PROTOCOL | EXTRACTION METHOD | AUXILARY CLEANUP | DIL/CONC FACTOR |
|---|---|---|---|---|---|
| AMSW01 | Water | NYS-ASP | CONT | As req'd | As req'd |
| AMSW02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW05 | ↓ | ↓ | ↓ | ↓ | ↓ |
| FIELD BLK | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD01 | Sediment | ↓ | SONC | ↓ | ↓ |
| SD02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD05 | ↓ | ↓ | ↓ | ↓ | ↓ |
| TRIP BLK | Water | ↓ | NA | NA | ↓ |
| AMSW04 | ↓ | ↓ | ↓ | ↓ | ↓ |
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSW01 | Water | 11-20-91 | 11-22-91 | NA | 11-29-91 |
| AMSW02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW05 | ↓ | ↓ | ↓ | ↓ | 11-26-91 |
| FIELDBLK | ↓ | ↓ | ↓ | ↓ | 11-29-91 |
| SD01 | Sediment | ↓ | ↓ | ↓ | ↓ |
| SD02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD05 | ↓ | ↓ | ↓ | ↓ | 11-26-91 |
| TRIPBLK | Water | ↓ | ↓ | ↓ | 12-02-91 |
| AMSW04 | ↓ | 11-23-91 | 11-25-91 | ↓ | |
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

| Sample ID | MATRIX | DATE COLLECTED | DATE REC'D AT LAB | DATE EXTRACTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSW01 | Water | 11-20-91 | 11-22-91 | 11-26-91 | 12-14-91 |
| AMSW02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW05 | ↓ | ↓ | ↓ | ↓ | ↓ |
| FIELD BLK | ↓ | ↓ | ↓ | ↓ | ↓ |
| AMSW04 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD01 | Sediment | ↓ | ↓ | ↓ | ↓ |
| SD02 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD03 | ↓ | ↓ | ↓ | ↓ | ↓ |
| SD04 | ↓ | ↓ | ↓ | ↓ | 12-15-91 |
| SD05 | ↓ | ↓ | ↓ | ↓ | ↓ |
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00030

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

| SAMPLE ID | MATRIX | METALS REQUESTED | DATE RECEIVED | DATE DIGESTED | DATE ANALYZED |
|---|---|---|---|---|---|
| AMSW01 | Water | TCL Metals | 11/22/91 | 12/05/91 | 12/26/91 |
| AMSW02 | | | | | |
| AMSW03 | | | | | |
| AMSW05 | | | | | |
| AMSW05MS | | | | | |
| AMSW05MSD | | | | | |
| FIELD BLK | | | | | |
| AMSW04 | | | | | |
| SD-001 | MISC. | | | | |
| SD-002 | | | | | |
| SD-003 | | | | | |
| SD-004 | | | | | |
| SD-005 | | | | | |
| SD-005MS | | | | | |
| SD-005MSD | | | | | |
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

| LABORATORY SAMPLE CODE | MATRIX | ANALYTICAL PROTOCOL | DIGESTION PROCEDURE | MATRIX MODIFIER | OIL/CONC FACTOR |
|---|---|---|---|---|---|
| 049801 | Water | NYS ASP | NYS ASP | | |
| 049802 | | | | | |
| 049803 | | | | | |
| 049808 | | | | | |
| 049804 | | | | | |
| 049804D | | | | | |
| 049804S | | | | | |
| 049807 | | | | | |
| 049809 | MISC. | | | | |
| 049810 | | | | | |
| 049811 | | | | | |
| 049812 | | | | | |
| 049813 | | | | | |
| 049813D | | | | | |
| 049813S | | | | | |
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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 |
| SW-1 | 149629 | | | | ✓ † | | |
| SW-2 | 149630 | | | | ✓ † | | |
| SW-3 | 149631 | | | | ✓ † | | |
| SW-4 | 149632 | | | | ✓ † | | |
| SW-5 | 149633 | | | | ✓ † | | |
| SW-5 | 149633MS | | | | ✓ † | | |
| SW-5 | 149633MD | | | | ✓ † | | |

*Check Appropriate Boxes

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

† PCB's @ 0.065 ug/L

000003

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

B/N-A ORGANIC ANALYSES

| Sample ID | Matrix | Analytical Protocol | Extraction Method | Auxilary Clean Up | Dil/Conc Factor |
|---|---|---|---|---|---|
| 149629 | Aqueous | PCB's | SEPF | No | 1.0 |
| 149630 | Aqueous | PCB's | SEPF | No | 1.0 |
| 149631 | " | " | " | " | " |
| 149632 | " | " | " | " | " |
| 149633 | " | " | " | " | " |
| 149633MS | " | " | " | " | 5.0 |
| 149633MSD | " | " | " | " | 5.0 |

000004

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

| Laboratory Sample ID | Matrix | Date Collected | Date Rec'd At Lab | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|
| 149629 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149630 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149631 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149632 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149633 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149633MS | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149633MD | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |

000005

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**


February 26, 1992

John Gaspari
Nytest Environmental
P. O. Box 1518
Port Washington, NY 11050

Dear Mr. Gaspari:

Review is in progress on the data packages generated by NEI for LMS Engineers regarding the Armenia and Old Halfmoon Sites. The Login Numbers for the Armemia Site are 10378, 10498, and 10519. Those for the Old Halfmoon Site are 10388, 10407, 10424, 10609, 10659, 10660, 10661. The following resubmissions for these data packages are requested from the laboratory:

1. Instrument Detection Limits for the organic analyses were omitted from the data packages (1989 NYSDEC ASP requirements pages E-38, E-64, E-99, B-49, B-55, and B-61). Please submit the appropriate forms for all organic instrumentation utilized in all Login groups for both projects.

2. EPTox herbicide and pesticide analyses were performed on soil samples in Login 10378, 10388, and 10407. Please submit documentation pertaining to sample prep and analysis:
   a. Sample preparation date and volumes
   b. Surrogate spike concentrations, and an example of recovery calculation
   c. Concentration of "daily calibration standard" and correlation to initial curve (%D)
   d. A chromatogram of toxaphene on the analytical system used for pesticide analysis

3. EPTox metals analysis was performed on soil samples in Login 10378, and a matrix spike and duplicate was performed on sample ESS019. Please submit QC Summary Forms 5 and 6 to summarize the resultant spike recovery and precision.

Thank you for your attention to this matter. Please respond within 10 days to the above address, with copies of all communications to Dr. William Ahlert at LMS. If clarification of these requests is desired, please do not hestitate to call me at (518) 251-4429.

Very truly yours,

Judy Harry

Judy Harry

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**


March 2, 1992

John Gaspari
Nytest Environmental
P. O. Box 1518
Port Washington, NY 11050

Dear Mr. Gaspari:

Additional resubmissions, pertaining to data packages from the Old Halfmoon Site, generated by NEI for LMS Engineers, are required:

1. Login 10609 - Volatile data - page 300, a chromatogram of method blank VBLKE50, is missing from the data package.

2. The Eptox preparation logs for samples in Login 10407 and 10424 are not present in any of the data packages.

3. The volatile analysis for sample OHL-3 in Login 10609 indicates the presence of an unknown (Tentatively Identified Compound) at scan 1220. This component was rejected for characterization as being less than 10% of the nearest internal standard area. However, the nearest internal standard total area is elevated about 42% by the coelution of target compound chlorobenzene, and the contribution thereof should have been taken into consideration in the decision. Please submit a tentative identification and quantification of this unknown.

Thank you for your attention to this matter. Please respond as soon as possible with these resubmissions to the above address, with copies of all communications and resubmissions to Dr. William Ahlert at LMS. If clarification of these requests is desired, please do not hestitate to call me at (518) 251-4429.

Very truly yours,

Judy Harry

Judy Harry

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**

TELEPHONE LOG

Date: 3-4-92

Person Contacted: Call received from Doug Sheeley Nytest

PHONE No.: N/A

Project Client: LMS

Project Reference: Amenia + Halfmoon

Discussion:

Doug asked whether there would be additional requests for the projects. I told him I had faxed a request to J. Gaspari on 3-2-92, and that review was virtually complete for both projects. He said he'd get the requested info together. I told he was welcome to send/fax the info as he compiled it.

Additional Comments:

Signed: Judy Hay Date: 3-4-92

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**

TELEPHONE LOG

Date: 3-6-92

Person Contacted: J. Gasparic not avail; I then asked for Doug Sheeley. Barbara said Mike Brennan was handling resubmission requests. I spoke to

Phone No.: (516) 625 5500 Nytest

Project Client: LMS

Project Reference: Amenia + Halfmoon

Discussion: I told Mike that 10 days would be over tomorrow, and asked him to check on the status of the 2/26 resubmissi
He said he'd check and call me back.

Additional Comments:

3/10 Mike Never called back
gh

Signed: Judy Harry Date: 3-6-92

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**

TELEPHONE LOG

Date: 3-10-92

Person Contacted: John Gaspari / Nytest

Phone No.: (516) 625 5500

Project Client: LMS

Project Reference: Amenia + Halfmoon

Discussion: cl told him I was calling to check on status of 2/26 request. He said he would check on status + call me back.

Additional Comments: Maryann called today + said they would put responses into overnight delivery today.

Signed: ~~3-10-92~~ 91 Judy Harry Date: ~~[illegible]~~ 3-10-92

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**

TELEPHONE LOG

Date: 3-11-92

Person Contacted: Barbara (receptionist)/Nytest

Phone No.: (516) 625 5800

Project Client: LMS

Project Reference: Amenia & Halfmoon

Discussion: I asked Barbara to verify whether shipment had been made yesterday, and asked which courier was used. She said she'd check & call me back.

She called back & said shipment was not made; Info would be faxed to me today.

Additional Comments:

No info was faxed or further contact made today.

Signed: Judy Harry Date: 3-11-92

3/18 → Data was sent out from Nytest 3/13
Delivered to DVS on 3/16. Covered both requests.
(2/26 + 3/2 letters).
JH

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

HALF MOON
576-067

March 12, 1992

RECEIVED
MAR 17 1992
LMS ENGINEERS

Data Validation Services
Cobble Creek Rd.
P.O Box 208
North Creek, NY 12853

Attention: Judy Harry

Dear Ms. Harry,

In response to your recent faxes, we are providing the following:

1. IDL's for the instruments used. Since the IDL files for instrument E for the fourth quarter of '91 have become corrupt, the IDL's for this instrument from the third quarter of '91 and the first quarter of '92 are being provided.

2. Extraction logs showing sample preparation date and volumes for EPTOX Herbicide and Pesticide analyses.

3. Table showing surrogate spike concentrations for EPTOX and a example of recovery calculation.

4. Daily calibration data for EPTOX.

5. Toxaphene chromatogram.

6. FORMS 5 and 6 for EPTOX metals.

7. VOA blank VBLKE50's chromatogram (page 300 of login 10609).

8. Pages 00087 (revised), 00097A and 00100 (revised) from login 10609 showing the inclusion of a TIC at scan 1220.

Should you have any questions, please fell free to contact us.

Very truly yours,

Nytest Environmental, Inc.

Douglas Sheeley
Laboratory Director

DS:mar
Encs.
cc: LMS
1 Blue Hill Plaza
Pearl River, NY 10965
Attn: Dr. William Ahlert

box 1518 □ 60 seaview blvd., port washington, ny 11050 □ (516) 625-5500

METHOD 624 DETECTION LIMIT STUDY

STUDY DATE: 12/91 QUARTER: 4

INSTRUMENT ID: C

| VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (C6122) | FILE3 (C6123) | FILE5 (C6124) | TOTAL OBS. | MEAN | STD DEV | DET LIMIT |
|---|---|---|---|---|---|---|---|---|
| Chloromethane | 10 | 7.619 | 6.812 | 6.464 | 3 | 6.97 | 0.593 | 1.78 |
| Bromomethane | 10 | 11.347 | 11.027 | 13.266 | 3 | 11.88 | 1.211 | 3.63 |
| Vinyl Chloride | 10 | 9.68 | 8.107 | 8.42 | 3 | 8.74 | 0.833 | 2.5 |
| Chloroethane | 10 | 9.27 | 8.11 | 8.337 | 3 | 8.57 | 0.615 | 1.85 |
| Methylene Chloride | 5 | 11.68 | 10.133 | 10.304 | 3 | 10.71 | 0.848 | 2.54 |
| Acetone | 10 | 42.112 | 38.036 | 37.56 | 3 | 39.24 | 2.502 | 7.51 |
| Carbon Disulfide | 5 | 9.931 | 8.204 | 8.551 | 3 | 8.9 | 0.914 | 2.74 |
| 1,1-Dichloroethene | 5 | 9.177 | 7.507 | 7.917 | 3 | 8.2 | 0.87 | 2.61 |
| 1,1-Dichloroethane | 5 | 10.575 | 8.706 | 8.864 | 3 | 9.38 | 1.036 | 3.11 |
| 1,2-Dichloroethene (total) | 5 | 20.194 | 16.713 | 17.23 | 3 | 18.05 | 1.878 | 5.63 |
| Chloroform | 5 | 10.956 | 8.654 | 9.222 | 3 | 9.61 | 1.199 | 3.6 |
| 1,2-Dichloroethane | 5 | 15.698 | 13.333 | 14.112 | 3 | 14.38 | 1.205 | 3.62 |
| 2-Butanone | 10 | 33.256 | 44.976 | 51.993 | 3 | 43.41 | 9.466 | 28.4 |
| 1,1,1-Trichloroethane | 5 | 11.59 | 8.398 | 8.532 | 3 | 9.51 | 1.805 | 5.42 |
| Carbon Tetrachloride | 5 | 9.726 | 7.993 | 8.271 | 3 | 8.66 | 0.931 | 2.79 |
| Vinyl Acetate | 10 | 9.535 | 3.902 | 3.474 | 3 | 5.64 | 3.383 | 10.15 |
| Bromodichloromethane | 5 | 9.957 | 8.446 | 8.72 | 3 | 9.04 | 0.805 | 2.42 |
| 1,2-Dichloropropane | 5 | 10.84 | 8.963 | 9.196 | 3 | 9.67 | 1.023 | 3.07 |
| cis-1,3-Dichloropropene | 5 | 9.175 | 7.891 | 8.061 | 3 | 8.38 | 0.697 | 2.09 |
| Trichloroethene | 5 | 9.725 | 8.176 | 9.2 | 3 | 9.03 | 0.788 | 2.36 |
| Benzene | 5 | 10.451 | 8.658 | 8.77 | 3 | 9.29 | 1.004 | 3.01 |
| Dibromochloromethane | 5 | 8.584 | 7.416 | 7.911 | 3 | 7.97 | 0.586 | 1.76 |
| 1,1,2-Trichloroethane | 5 | 12.877 | 9.14 | 9.801 | 3 | 10.61 | 1.994 | 5.98 |
| Trans-1,3-Dichloropropene | 5 | 9.282 | 8.084 | 8.22 | 3 | 8.53 | 0.656 | 1.97 |
| Bromoform | 5 | 8.794 | 7.831 | 8.823 | 3 | 8.48 | 0.565 | 1.7 |
| 4-Methyl-2-Pentanone | 10 | 12.81 | 14.911 | 17.549 | 3 | 15.09 | 2.375 | 7.13 |
| 2-Hexanone | 10 | 20.061 | 19.409 | 19.56 | 3 | 19.68 | 0.341 | 1.02 |
| Toluene | 5 | 11.919 | 9.757 | 10.132 | 3 | 10.6 | 1.155 | 3.47 |
| 1,1,2,2,-Tetrachloroethane | 5 | 11.59 | 13.366 | 13.763 | 3 | 12.91 | 1.157 | 3.47 |
| Tetrachloroethane | 5 | 9.556 | 7.956 | 8.855 | 3 | 8.79 | 0.802 | 2.41 |
| Chlorobenzene | 5 | 11.389 | 9.174 | 9.61 | 3 | 10.06 | 1.173 | 3.52 |
| Ethylbenzene | 5 | 11.664 | 9.327 | 9.871 | 3 | 10.29 | 1.223 | 3.67 |
| Styrene | 5 | 12.659 | 10.089 | 11.265 | 3 | 11.34 | 1.287 | 3.86 |
| Xylene (total) | 5 | 12.498 | 10.92 | 10.948 | 3 | 11.46 | 0.903 | 2.71 |

METHOD 624 DETECTION LIMIT STUDY

STUDY DATE: 11/91 QUATER: 4

INSTRUMENT ID: D

| VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (D7452) | FILE2 (D7454) | FILE3 (D7458) | TOTAL OBS. | MEAN | STD DEV | DET LIMIT |
|---|---|---|---|---|---|---|---|---|
| Chloromethane | 10 | 7.493 | 7.327 | 5.764 | 3 | 6.86 | 0.954 | 2.86 |
| Bromomethane | 10 | 10.891 | 13.449 | 12.645 | 3 | 12.33 | 1.308 | 3.92 |
| Vinyl Chloride | 10 | 7.6 | 8.706 | 6.832 | 3 | 7.71 | 0.942 | 2.83 |
| Chloroethane | 10 | 9.061 | 9.794 | 7.904 | 3 | 8.92 | 0.953 | 2.86 |
| Methylene Chloride | 5 | 33.175 | 16.057 | 26.705 | 3 | 25.31 | 8.644 | 25.93 |
| Acetone | 10 | 6.398 | 8.622 | 13.953 | 3 | 9.66 | 3.883 | 11.65 |
| Carbon Disulfide | 5 | 14.472 | 14.018 | 12.119 | 3 | 13.54 | 1.248 | 3.74 |
| 1,1-Dichloroethene | 5 | 13.866 | 14.819 | 12.529 | 3 | 13.74 | 1.15 | 3.45 |
| 1,1-Dichloroethane | 5 | 10.011 | 10.38 | 8.172 | 3 | 9.52 | 1.183 | 3.55 |
| 1,2-Dichloroethene (total) | 5 | 28.432 | 31.409 | 26.037 | 3 | 28.63 | 2.691 | 8.07 |
| Chloroform | 5 | 13.068 | 14.597 | 11.428 | 3 | 13.03 | 1.585 | 4.76 |
| 1,2-Dichloroethane | 5 | 10.162 | 10.785 | 8.321 | 3 | 9.76 | 1.281 | 3.84 |
| 2-Butanone | 10 | 4.435 | 8.138 | 10.455 | 3 | 7.68 | 3.036 | 9.11 |
| 1,1,1-Trichloroethane | 5 | 16.071 | 18.524 | 14.342 | 3 | 16.31 | 2.101 | 6.3 |
| Carbon Tetrachloride | 5 | 17.55 | 20.96 | 16.302 | 3 | 18.27 | 2.411 | 7.23 |
| Vinyl Acetate | 10 | 3.631 | 4.851 | 1.859 | 3 | 3.45 | 1.504 | 4.51 |
| Bromodichloromethane | 5 | 11.965 | 14.233 | 11.678 | 3 | 12.63 | 1.4 | 4.2 |
| 1,2-Dichloropropane | 5 | 8.919 | 10.032 | 8.016 | 3 | 8.99 | 1.01 | 3.03 |
| cis-1,3-Dichloropropene | 5 | 10.409 | 11.686 | 9.316 | 3 | 10.47 | 1.186 | 3.56 |
| Trichloroethene | 5 | 18.675 | 22.999 | 20.891 | 3 | 20.86 | 2.162 | 6.49 |
| Benzene | 5 | 11.655 | 13.215 | 11.044 | 3 | 11.97 | 1.12 | 3.36 |
| Dibromochloromethane | 5 | 16.105 | 19.928 | 17.364 | 3 | 17.8 | 1.948 | 5.84 |
| 1,1,2-Trichloroethane | 5 | 13.256 | 15.654 | 14.9 | 3 | 14.6 | 1.226 | 3.68 |
| Trans-1,3-Dichloropropene | 5 | 9.261 | 10.264 | 8.246 | 3 | 9.26 | 1.009 | 3.03 |
| Bromoform | 5 | 16.442 | 21.418 | 23.122 | 3 | 20.33 | 3.471 | 10.41 |
| 4-Methyl-2-Pentanone | 10 | 6.142 | 6.603 | 7.81 | 3 | 6.85 | 0.861 | 2.58 |
| 2-Hexanone | 10 | 5.851 | 5.603 | 9.366 | 3 | 6.94 | 2.105 | 6.32 |
| Toluene | 5 | 13.398 | 15.546 | 13.644 | 3 | 14.2 | 1.176 | 3.53 |
| 1,1,2,2,-Tetrachloroethane | 5 | 9.613 | 10.971 | 14.637 | 3 | 11.74 | 2.599 | 7.8 |
| Tetrachloroethane | 5 | 20.839 | 24.456 | 20.94 | 3 | 22.08 | 2.06 | 6.18 |
| Chlorobenzene | 5 | 15.683 | 18.35 | 16.511 | 3 | 16.85 | 1.365 | 4.1 |
| Ethylbenzene | 5 | 14.983 | 17.397 | 16.166 | 3 | 16.18 | 1.207 | 3.62 |
| Styrene | 5 | 15.567 | 18.21 | 17.053 | 3 | 16.94 | 1.325 | 3.98 |
| Xylene (total) | 5 | 17.224 | 20.095 | 16.174 | 3 | 17.83 | 2.03 | 6.09 |

METHOD 624 DETECTION LIMIT STUDY

STUDY DATE: 9/91 QUARTER: 3

INSTRUMENT ID: E

| VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (E2498) | FILE2 (E2500) | FILE3 (E2501) | FILE4 (E2585) | FILE5 (E2586) | FILE6 (E2587) | FILE7 (2588) | TOTAL OBS. | MEAN | STD DEV | DET LIMIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 10 | 10.03 | 9.985 | 10.467 | 9.105 | 11.146 | 10.779 | 10.005 | 7 | 10.21671 | 0.659755 | 1.979267 |
| Bromomethane | 10 | 9.941 | 10.132 | 9.731 | 9.76 | 12.134 | 12.802 | 10.669 | 7 | 10.73842 | 1.237379 | 3.712138 |
| Vinyl Chloride | 10 | 8.332 | 8.661 | 9.03 | 8.723 | 10.796 | 11.341 | 9.658 | 7 | 9.505857 | 1.153718 | 3.461154 |
| Chloroethane | 10 | 8.66 | 9.193 | 9.744 | 9.321 | 11.196 | 11.358 | 10.212 | 7 | 9.954857 | 1.022960 | 3.068880 |
| Methylene Chloride | 5 | 9.787 | 10.869 | 10.732 | 11.882 | 13.969 | 17.231 | 14.425 | 7 | 12.69928 | 2.629835 | 7.889507 |
| Acetone | 10 | 7.264 | 16.36 | 18.214 | 9.06 | 15.312 | 13.84 | 9.342 | 7 | 12.77028 | 4.202444 | 12.60733 |
| Carbon Disulfide | 5 | 7.778 | 8.396 | 7.554 | 9.286 | 11.079 | 11.595 | 10.336 | 7 | 9.432 | 1.610673 | 4.832019 |
| 1,1-Dichloroethene | 5 | 8.106 | 8.647 | 8.344 | 9.294 | 9.84 | 10.694 | 9.392 | 7 | 9.188142 | 0.905697 | 2.717093 |
| 1,1-Dichloroethane | 5 | 8.862 | 9.472 | 9.172 | 8.796 | 10.385 | 10.532 | 9.108 | 7 | 9.475285 | 0.708127 | 2.124381 |
| 1,2-Dichloroethene (total) | 5 | 8.907 | 9.819 | 9.575 | 19.46 | 22.638 | 24.076 | 20.278 | 7 | 16.39328 | 6.686691 | 20.06007 |
| Chloroform | 5 | 8.927 | 9.896 | 9.634 | 9.288 | 10.939 | 11.356 | 9.871 | 7 | 9.987285 | 0.869771 | 2.609313 |
| 1,2-Dichloroethane | 5 | 8.978 | 10.292 | 9.449 | 8.478 | 9.691 | 10.367 | 9.082 | 7 | 9.476714 | 0.695932 | 2.087797 |
| 2-Butanone | 10 | 2.891 | 4.974 | 7.734 | 20.709 | 20.817 | 20.857 | 28.945 | 7 | 15.27528 | 9.954986 | 29.86495 |
| 1,1,1-Trichloroethane | 5 | 8.409 | 9.166 | 8.759 | 7.356 | 8.032 | 8.283 | 8.018 | 7 | 8.289 | 0.579431 | 1.738293 |
| Carbon Tetrachloride | 5 | 7.254 | 8.437 | 8.157 | 7.156 | 8.01 | 8.963 | 8.368 | 7 | 8.049285 | 0.649404 | 1.948214 |
| Vinyl Acetate | 10 | 6.91 | 8.514 | 9.079 | 7.206 | 7.583 | 8.223 | 7.685 | 7 | 7.885714 | 0.761400 | 2.284202 |
| Bromodichloromethane | 5 | 6.755 | 8.252 | 8.162 | 7.409 | 8.087 | 9.581 | 8.505 | 7 | 8.107285 | 0.882292 | 2.646876 |
| 1,2-Dichloropropane | 5 | 7.07 | 9.117 | 9.147 | 8.277 | 9.214 | 10.068 | 8.885 | 7 | 8.825428 | 0.937127 | 2.811381 |
| cis-1,3-Dichloropropene | 5 | 6.913 | 8.397 | 7.838 | 6.827 | 7.693 | 8.663 | 7.646 | 7 | 7.711 | 0.685059 | 2.055178 |
| Trichloroethene | 5 | 8.381 | 9.244 | 9.287 | 7.927 | 8.783 | 10.284 | 8.997 | 7 | 8.986142 | 0.749533 | 2.248601 |
| Benzene | 5 | 8.662 | 9.263 | 9.569 | 8.426 | 9.541 | 11.018 | 9.621 | 7 | 9.442857 | 0.838096 | 2.514290 |
| Dibromochloromethane | 5 | 6.58 | 7.968 | 8.054 | 7.024 | 7.775 | 8.714 | 8.218 | 7 | 7.761857 | 0.728454 | 2.185363 |
| 1,1,2-Trichloroethane | 5 | 9.36 | 11.181 | 10.971 | 8.609 | 9.713 | 10.419 | 10.084 | 7 | 10.04814 | 0.906535 | 2.719607 |
| Trans-1,3-Dichloropropene | 5 | 6.95 | 9.005 | 8.373 | 6.851 | 7.584 | 8.621 | 7.718 | 7 | 7.871714 | 0.826123 | 2.478369 |
| Bromoform | 5 | 6.18 | 8.176 | 8.244 | 7.074 | 7.376 | 8.639 | 8.445 | 7 | 7.733428 | 0.890569 | 2.671709 |
| 4-Methyl-2-Pentanone | 10 | 8.746 | 11.721 | 10.844 | 8.062 | 9.158 | 9.965 | 9.783 | 7 | 9.754142 | 1.247443 | 3.742331 |
| 2-Hexanone | 10 | 8.46 | 11.164 | 10.126 | 7.594 | 8.769 | 9.688 | 9.808 | 7 | 9.372714 | 1.185071 | 3.555214 |
| Toluene | 5 | 8.381 | 8.766 | 9.05 | 8.153 | 9.108 | 10.511 | 9.893 | 7 | 9.123142 | 0.831054 | 2.493163 |
| 1,1,2,2,-Tetrachloroethane | 5 | 7.974 | 10.544 | 10.401 | 10.331 | 8.871 | 10.203 | 9.929 | 7 | 9.750428 | 0.962277 | 2.886831 |
| Tetrachloroethane | 5 | 8.398 | 8.999 | 8.957 | 7.955 | 9.44 | 10.584 | 9.634 | 7 | 9.138142 | 0.859002 | 2.577006 |
| Chlorobenzene | 5 | 7.746 | 9.108 | 9.425 | 8.41 | 9.767 | 11.226 | 10.018 | 7 | 9.385714 | 1.129244 | 3.387734 |
| Ethylbenzene | 5 | 8.599 | 9.351 | 9.637 | 7.928 | 9.984 | 10.814 | 9.701 | 7 | 9.430571 | 0.939101 | 2.817303 |
| Styrene | 5 | 8.497 | 9.256 | 8.924 | 8.235 | 9.885 | 11.162 | 10.297 | 7 | 9.465142 | 1.043609 | 3.130827 |
| Xylene (total) | 5 | 9.246 | 9.859 | 9.931 | 9.305 | 10.56 | 11.033 | 11.009 | 7 | 10.13471 | 0.746984 | 2.240954 |

METHOD 624 DETECTION LIMIT STUDY

STUDY DATE: 2/92 QUARTER: 1

INSTRUMENT ID: E

| VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (E4755) | FILE2 (E4756) | FILE3 (E4757) | TOTAL OBS. | MEAN | STD DEV | DET LIMIT |
|---|---|---|---|---|---|---|---|---|
| Chloromethane | 10 | 7.692 | 7.522 | 7.321 | 3 | 7.51 | 0.186 | 0.56 |
| Bromomethane | 10 | 8.71 | 8.388 | 8.877 | 3 | 8.66 | 0.249 | 0.75 |
| Vinyl Chloride | 10 | 8.387 | 8.194 | 8.316 | 3 | 8.3 | 0.098 | 0.29 |
| Chloroethane | 10 | 8.2 | 8.153 | 8.365 | 3 | 8.24 | 0.111 | 0.33 |
| Methylene Chloride | 5 | 8.692 | 8.375 | 8.406 | 3 | 8.49 | 0.175 | 0.53 |
| Acetone | 10 | 11.381 | 10.958 | 10.209 | 3 | 10.85 | 0.594 | 1.78 |
| Carbon Disulfide | 5 | 8.942 | 8.302 | 8.826 | 3 | 8.69 | 0.341 | 1.02 |
| 1,1-Dichloroethene | 5 | 8.551 | 7.894 | 8.431 | 3 | 8.29 | 0.35 | 1.05 |
| 1,1-Dichloroethane | 5 | 8.094 | 7.898 | 7.984 | 3 | 7.99 | 0.098 | 0.29 |
| 1,2-Dichloroethene (total) | 5 | 16.809 | 16.224 | 16.753 | 3 | 16.6 | 0.323 | 0.97 |
| Chloroform | 5 | 8.697 | 8.101 | 8.354 | 3 | 8.38 | 0.299 | 0.9 |
| 1,2-Dichloroethane | 5 | 8.449 | 8.469 | 8.646 | 3 | 8.52 | 0.108 | 0.32 |
| 2-Butanone | 10 | 3.849 | 4.981 | 5.297 | 3 | 4.71 | 0.761 | 2.28 |
| 1,1,1-Trichloroethane | 5 | 7.563 | 7.434 | 7.794 | 3 | 7.6 | 0.182 | 0.55 |
| Carbon Tetrachloride | 5 | 7.847 | 7.861 | 7.939 | 3 | 7.88 | 0.05 | 0.15 |
| Vinyl Acetate | 10 | 6.899 | 6.979 | 6.735 | 3 | 6.87 | 0.124 | 0.37 |
| Bromodichloromethane | 5 | 7.567 | 7.328 | 7.663 | 3 | 7.52 | 0.173 | 0.52 |
| 1,2-Dichloropropane | 5 | 7.682 | 7.521 | 7.637 | 3 | 7.61 | 0.083 | 0.25 |
| cis-1,3-Dichloropropene | 5 | 6.521 | 6.661 | 6.417 | 3 | 6.53 | 0.122 | 0.37 |
| Trichloroethene | 5 | 8.425 | 8.281 | 8.56 | 3 | 8.42 | 0.14 | 0.42 |
| Benzene | 5 | 8.17 | 7.986 | 7.931 | 3 | 8.03 | 0.125 | 0.38 |
| Dibromochloromethane | 5 | 7.617 | 7.274 | 7.433 | 3 | 7.44 | 0.172 | 0.52 |
| 1,1,2-Trichloroethane | 5 | 8.455 | 8.502 | 8.142 | 3 | 8.37 | 0.196 | 0.59 |
| Trans-1,3-Dichloropropene | 5 | 5.699 | 6.169 | 6.277 | 3 | 6.05 | 0.307 | 0.92 |
| Bromoform | 5 | 7.553 | 7.342 | 7.794 | 3 | 7.56 | 0.226 | 0.68 |
| 4-Methyl-2-Pentanone | 10 | 6.655 | 7.062 | 6.78 | 3 | 6.83 | 0.208 | 0.62 |
| 2-Hexanone | 10 | 6.675 | 6.979 | 6.552 | 3 | 6.74 | 0.22 | 0.66 |
| Toluene | 5 | 7.891 | 7.894 | 8.231 | 3 | 8.01 | 0.195 | 0.59 |
| 1,1,2,2,-Tetrachloroethane | 5 | 7.824 | 7.78 | 7.894 | 3 | 7.83 | 0.057 | 0.17 |
| Tetrachloroethane | 5 | 8.224 | 8.33 | 9.108 | 3 | 8.55 | 0.483 | 1.45 |
| Chlorobenzene | 5 | 8.499 | 8.444 | 9.126 | 3 | 8.69 | 0.379 | 1.14 |
| Ethylbenzene | 5 | 7.583 | 7.833 | 8.574 | 3 | 8 | 0.515 | 1.55 |
| Styrene | 5 | 7.56 | 7.47 | 8.16 | 3 | 7.73 | 0.375 | 1.13 |
| Xylene (total) | 5 | 8.493 | 8.43 | 9.234 | 3 | 8.72 | 0.447 | 1.34 |

METHOD 624 DETECTION LIMIT STUDY

STUDY DATE: 12/91 QUARTER: 4

INSTRUMENT ID: K

| VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (K1456) | FILE3 (K1457) | FILE5 (K1459) | FILE5 (K1460) | TOTAL OBS. | MEAN | STD DEV | DET LIMIT |
|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 10 | 12.361 | 11.531 | 8.095 | 8.856 | 4 | 10.21 | 2.056 | 6.17 |
| Bromomethane | 10 | 6.149 | 6.174 | 9.082 | 8.923 | 4 | 7.58 | 1.642 | 4.93 |
| Vinyl Chloride | 10 | 11.845 | 11.095 | 8.072 | 8.029 | 4 | 9.76 | 1.998 | 5.99 |
| Chloroethane | 10 | 9.677 | 10.377 | 6.491 | 9.525 | 4 | 9.02 | 1.725 | 5.18 |
| Methylene Chloride | 5 | 12.644 | 12.462 | 9.007 | 9.134 | 4 | 10.81 | 2.013 | 6.04 |
| Acetone | 10 | 72.856 | 47.195 | 25.782 | 23.942 | 4 | 42.44 | 22.858 | 68.57 |
| Carbon Disulfide | 5 | 13.666 | 13.884 | 11.161 | 10.572 | 4 | 12.32 | 1.699 | 5.1 |
| 1,1-Dichloroethene | 5 | 11.331 | 11.265 | 8.149 | 7.907 | 4 | 9.66 | 1.891 | 5.67 |
| 1,1-Dichloroethane | 5 | 11.835 | 11.112 | 8.366 | 8.179 | 4 | 9.87 | 1.873 | 5.62 |
| 1,2-Dichloroethene (total) | 5 | 11.527 | 11.28 | 8.378 | 8.417 | 4 | 9.9 | 1.739 | 5.22 |
| Chloroform | 5 | 11.782 | 11.099 | 9.559 | 7.897 | 4 | 10.08 | 1.729 | 5.19 |
| 1,2-Dichloroethane | 5 | 13.17 | 10.756 | 7.853 | 7.846 | 4 | 9.91 | 2.571 | 7.71 |
| 2-Butanone | 10 | 50.912 | 12.791 | 9.59 | 9.724 | 4 | 20.75 | 20.159 | 60.48 |
| 1,1,1-Trichloroethane | 5 | 10.521 | 9.75 | 8.225 | 8.458 | 4 | 9.24 | 1.087 | 3.26 |
| Carbon Tetrachloride | 5 | 10.458 | 10.058 | 8.997 | 9.205 | 4 | 9.68 | 0.693 | 2.08 |
| Vinyl Acetate | 10 | 16.159 | 10.889 | 8.724 | 10.099 | 4 | 11.47 | 3.253 | 9.76 |
| Bromodichloromethane | 5 | 11.539 | 10.39 | 8.633 | 9.299 | 4 | 9.97 | 1.275 | 3.83 |
| 1,2-Dichloropropene | 5 | 11.286 | 10.293 | 8.375 | 9.004 | 4 | 9.74 | 1.304 | 3.91 |
| cis-1,3-Dichloropropene | 5 | 11.972 | 9.17 | 6.935 | 7.827 | 4 | 8.98 | 2.198 | 6.59 |
| Trichloroethene | 5 | 10.513 | 10.107 | 8.923 | 9.25 | 4 | 9.7 | 0.738 | 2.21 |
| Benzene | 5 | 14.383 | 13.57 | 11.871 | 12.424 | 4 | 13.06 | 1.13 | 3.39 |
| Dibromochloromethane | 5 | 13.723 | 10.3 | 8.227 | 9.147 | 4 | 10.35 | 2.404 | 7.21 |
| 1,1,2-Trichloroethane | 5 | 16.857 | 11.216 | 8.812 | 10.063 | 4 | 11.74 | 3.552 | 10.66 |
| Trans-1,3-Dichloropropene | 5 | 10.941 | 9.726 | 7.745 | 8.253 | 4 | 9.17 | 1.451 | 4.35 |
| Bromoform | 5 | 21.303 | 9.902 | 8.458 | 9.601 | 4 | 12.32 | 6.024 | 18.07 |
| 4-Methyl-2-Pentanone | 10 | 55.103 | 12.97 | 9.965 | 10.893 | 4 | 22.23 | 21.949 | 65.85 |
| 2-Hexanone | 10 | 62.526 | 13.301 | 9.616 | 10.436 | 4 | 23.97 | 25.753 | 77.26 |
| Toluene | 5 | 11.239 | 10.782 | 9.798 | 10.265 | 4 | 10.52 | 0.625 | 1.88 |
| 1,1,2,2,-Tetrachloroethane | 5 | 30.149 | 11.901 | 10.956 | 11.627 | 4 | 16.16 | 9.336 | 28.01 |
| Tetrachloroethane | 5 | 10.143 | 10.386 | 9.137 | 9.529 | 4 | 9.8 | 0.57 | 1.71 |
| Chlorobenzene | 5 | 11.782 | 11.402 | 10.472 | 11.034 | 4 | 11.17 | 0.558 | 1.67 |
| Ethylbenzene | 5 | 10.469 | 10.146 | 9.413 | 9.859 | 4 | 9.97 | 0.448 | 1.34 |
| Styrene | 5 | 11.641 | 11.184 | 10.396 | 11.061 | 4 | 11.07 | 0.514 | 1.54 |
| Xylene (total) | 5 | 11.635 | 11.308 | 10 | 11.176 | 4 | 11.03 | 0.713 | 2.14 |

METHOD 625 DETECTION LIMIT STUDY



STUDY DATE: 11/91 QUARTER: 4

INSTRUMENT ID: A

| SEMI-VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (A5239) | FILE2 (A5240) | FILE3 (A5241) | FILE4 (A5242) | FILE5 (A5243) | FILE6 (A5244) | FILE7 (A5245) | TOTAL OBS. | MEAN | STANDARD DEVIATION | DETECTION LIMIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 10 | 22.22 | 22.13 | 21.76 | 21.31 | 21.96 | 22.35 | 21.08 | 7 | 21.83 | 0.477353 | 1.432061 |
| bis(2-Chloroethyl)Ether | 10 | 20.52 | 20.04 | 19.7 | 19.73 | 20.79 | 20.32 | 19.59 | 7 | 20.09857 | 0.458527 | 1.375582 |
| 2-Chlorophenol | 10 | 21.59 | 21.17 | 20.88 | 18.81 | 21.06 | 21.55 | 19.75 | 7 | 20.68714 | 1.030448 | 3.091345 |
| 1,3-Dichlorobenzene | 10 | 20.96 | 20.87 | 20.49 | 20.13 | 20.65 | 20.94 | 20.16 | 7 | 20.6 | 0.352892 | 1.058678 |
| 1,4-Dichlorobenzene | 10 | 21.67 | 20.71 | 20.39 | 20.53 | 20.55 | 21.1 | 19.96 | 7 | 20.70142 | 0.547126 | 1.641380 |
| Benzyl Alcohol | 10 | 20.84 | 20.06 | 18.61 | 18.36 | 19.11 | 19.81 | 17.83 | 7 | 19.23142 | 1.059330 | 3.177991 |
| 1,2-Dichlorobenzene | 10 | 20.92 | 21.85 | 21.05 | 20.87 | 21.5 | 21.94 | 20.85 | 7 | 21.28285 | 0.473346 | 1.420040 |
| 2-Methylphenol | 10 | 22.95 | 22.36 | 22.8 | 22.87 | 22.24 | 22.95 | 22.32 | 7 | 22.64142 | 0.319240 | 0.957720 |
| bis(2-Chloroisopropyl)Ether | 10 | 22.16 | 21.67 | 20.98 | 20.06 | 21.41 | 21.7 | 20.96 | 7 | 21.27714 | 0.683196 | 2.049588 |
| 4-Methylphenol | 10 | 45.46 | 45.85 | 45.57 | 44.58 | 45.15 | 44.89 | 45.11 | 7 | 45.23 | 0.430464 | 1.291394 |
| N-Nitroso-Di-n-Propylamine | 10 | 23.63 | 23.56 | 23.04 | 22.23 | 23.33 | 23.2 | 22.32 | 7 | 23.04428 | 0.563112 | 1.689336 |
| Hexachloroethane | 10 | 21.61 | 21.76 | 21.49 | 21.89 | 21.4 | 22.01 | 20.91 | 7 | 21.58142 | 0.365988 | 1.097965 |
| Nitrobenzene | 10 | 20.93 | 20.53 | 19.22 | 21.03 | 20.76 | 20.84 | 20.34 | 7 | 20.52142 | 0.620575 | 1.861727 |
| Isophorone | 10 | 24.34 | 25.2 | 23.86 | 25.09 | 24.17 | 24.8 | 23.93 | 7 | 24.48428 | 0.547017 | 1.641053 |
| 2-Nitrophenol | 10 | 19.2 | 21.14 | 19.32 | 20.77 | 20.2 | 20.42 | 19.58 | 7 | 20.09 | 0.745095 | 2.235285 |
| 2,4-Dimethylphenol | 10 | 20.75 | 20.5 | 20.14 | 21.21 | 20.51 | 21.2 | 20.41 | 7 | 20.67428 | 0.404510 | 1.213530 |
| Benzoic Acid | 50 | 2.44 | 4.57 | 3.7 | 4.01 | 5.08 | 5.72 | 6.63 | 7 | 4.592857 | 1.380213 | 4.140641 |
| bis(2-Chloroethoxy)Methane | 10 | 22.18 | 19.96 | 21 | 22.21 | 21.28 | 21.87 | 21.46 | 7 | 21.42285 | 0.788811 | 2.366434 |
| 2,4-Dichlorophenol | 10 | 20.68 | 21.39 | 20.8 | 20.63 | 20.7 | 20.44 | 20.79 | 7 | 20.77571 | 0.296358 | 0.889076 |
| 1,2,4-Trichlorobenzene | 10 | 21.57 | 20.72 | 20.69 | 21.98 | 21.13 | 21.34 | 21.38 | 7 | 21.25857 | 0.459834 | 1.379503 |
| Naphthalene | 10 | 22.49 | 22.38 | 22.23 | 22.56 | 22.29 | 22.35 | 21.78 | 7 | 22.29714 | 0.254277 | 0.762833 |
| 4-Chloroaniline | 10 | 26.53 | 27.55 | 26.23 | 27.58 | 26.78 | 26.21 | 26.3 | 7 | 26.74 | 0.597494 | 1.792484 |
| Hexachlorobutadiene | 10 | 21.29 | 20.32 | 20.16 | 20.6 | 20.68 | 20.29 | 19.73 | 7 | 20.43857 | 0.487354 | 1.462063 |
| 4-Chloro-3-Methylphenol | 10 | 23.1 | 23.55 | 22.99 | 23.39 | 23.03 | 23.26 | 22.51 | 7 | 23.11857 | 0.335381 | 1.006145 |
| 2-Methylnaphthalene | 10 | 22.83 | 23.38 | 21.76 | 22.64 | 22.97 | 22.24 | 22.32 | 7 | 22.59142 | 0.534304 | 1.602912 |
| Hexachlorocyclopentadiene | 10 | 21.61 | 21.1 | 21.6 | 22.56 | 23.77 | 23.14 | 21.75 | 7 | 22.21857 | 0.965771 | 2.897314 |
| 2,4,6-Trichlorophenol | 10 | 18.7 | 19.51 | 19.28 | 19.82 | 18.84 | 19.8 | 18.59 | 7 | 19.22 | 0.515719 | 1.547158 |
| 2,4,5-Trichlorophenol | 50 | 18.16 | 18.87 | 17.87 | 18.43 | 18.36 | 18 | 17.63 | 7 | 18.18857 | 0.408633 | 1.225899 |
| 2-Chloronaphthalene | 10 | 19.95 | 20.92 | 19.82 | 20.44 | 19.65 | 20.35 | 19.82 | 7 | 20.13571 | 0.451547 | 1.354642 |
| 2-Nitroaniline | 10 | 21.04 | 21.68 | 21.73 | 20.87 | 20.72 | 21.82 | 19.36 | 7 | 21.03142 | 0.860938 | 2.582814 |
| Dimethyl Phthalate | 10 | 22.74 | 23.36 | 22.8 | 22.2 | 22.6 | 22.64 | 21.39 | 7 | 22.53285 | 0.609828 | 1.829484 |
| Acenaphthylene | 10 | 21.21 | 21.76 | 21.09 | 21.11 | 20.8 | 20.72 | 20.83 | 7 | 21.07428 | 0.353688 | 1.061064 |
| 2,6-Dinitrotoluene | 10 | 21.4 | 21.51 | 21.89 | 21.25 | 20.92 | 21.71 | 20.82 | 7 | 21.35714 | 0.392586 | 1.177758 |
| 3-Nitroaniline | 50 | 22.22 | 21.98 | 22.7 | 21.43 | 22.01 | 21.4 | 21.32 | 7 | 21.86571 | 0.509897 | 1.529691 |
| Acenaphthene | 10 | 21.8 | 21.74 | 21.44 | 21.41 | 21.68 | 21.17 | 21.18 | 7 | 21.48857 | 0.258871 | 0.776613 |

(1) Cannot be separated from Diphenylamine

METHOD 625 DETECTION LIMIT STUDY

STUDY DATE: 11/91



INSTRUMENT ID: A

| SEMI-VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (A5239) | FILE2 (A5240) | FILE3 (A5241) | FILE4 (A5242) | FILE5 (A5243) | FILE6 (A5244) | FILE7 (A5245) | TOTAL OBS. | MEAN | STANDARD DEVIATION | DETECTION LIMIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrophenol | 50 | | 2.4 | 0.995 | 0.906 | 1.44 | 2.35 | 2.75 | 6 | 1.806833 | 0.792663 | 2.377991 |
| 4-Nitrophenol | 50 | 12.34 | 14.98 | 14.2 | 13.85 | 15.13 | 14.96 | 14.15 | 7 | 14.23 | 0.968607 | 2.905821 |
| Dibenzofuran | 10 | 21.84 | 22 | 21.77 | 22.2 | 21.07 | 21.93 | 20.87 | 7 | 21.66857 | 0.499380 | 1.498141 |
| 2,4-Dinitrotoluene | 10 | 22.84 | 22.79 | 22.48 | 22.05 | 22.33 | 22.89 | 22.52 | 7 | 22.55714 | 0.305816 | 0.917449 |
| Diethylphthalate | 10 | 23.76 | 23.24 | 23.91 | 23.06 | 22.84 | 23.22 | 22.37 | 7 | 23.2 | 0.525642 | 1.576927 |
| 4-Chlorophenyl-phenylether | 10 | 22.01 | 22.2 | 22.22 | 21.58 | 21.1 | 21.56 | 20.97 | 7 | 21.66285 | 0.505592 | 1.516777 |
| Fluorene | 10 | 21.96 | 23.48 | 23.21 | 22.52 | 22.47 | 22.93 | 22.24 | 7 | 22.68714 | 0.542331 | 1.626995 |
| 4-Nitroaniline | 50 | 21.17 | 20.1 | 22.05 | 20.24 | 20.66 | 21.04 | 20.12 | 7 | 20.76857 | 0.711299 | 2.133899 |
| 4,6-Dinitro-2-Methylphenol | 50 | 6.16 | 7.97 | 6.88 | 7.19 | 8.71 | 8.79 | 8.94 | 7 | 7.805714 | 1.083556 | 3.250670 |
| N-Nitrosodiphenylamine (1) | 10 | 21.64 | 21.89 | 21.49 | 20.99 | 21.98 | 21.92 | 22.37 | 7 | 21.75428 | 0.436457 | 1.309372 |
| 4-Bromophenyl-phenylether | 10 | 20.46 | 20.98 | 21.09 | 20.45 | 21.49 | 21.72 | 20.92 | 7 | 21.01571 | 0.477104 | 1.431313 |
| Hexachlorobenzene | 10 | 21.02 | 20.96 | 20.93 | 20.35 | 22.24 | 21.14 | 21.35 | 7 | 21.14142 | 0.572870 | 1.718612 |
| Pentachlorophenol | 50 | 9.74 | 11.27 | 10.44 | 10.36 | 11.8 | 11.82 | 11.13 | 7 | 10.93714 | 0.783724 | 2.351172 |
| Phenanthrene | 10 | 20.3 | 20.07 | 21.21 | 19.04 | 21.36 | 21.02 | 20.8 | 7 | 20.54285 | 0.811145 | 2.433436 |
| Anthracene | 10 | 20.13 | 20.64 | 20.95 | 20.22 | 21.32 | 20.92 | 20.45 | 7 | 20.66142 | 0.429396 | 1.288188 |
| Di-n-Butylphthalate | 10 | 18.74 | 18.45 | 18.63 | 16.6 | 19.26 | 18.78 | 18 | 7 | 18.35142 | 0.860085 | 2.580257 |
| Fluoranthene | 10 | 17.5 | 17.84 | 17.4 | 17.07 | 18.3 | 18.16 | 17.06 | 7 | 17.61857 | 0.496871 | 1.490613 |
| Pyrene | 10 | 18.8 | 17.32 | 17.62 | 18.59 | 18.93 | 19.39 | 17.21 | 7 | 18.26571 | 0.868117 | 2.604353 * |
| Butylbenzylphthalate | 10 | 25.44 | 23.09 | 24.31 | 24.17 | 24.43 | 24.83 | 23.67 | 7 | 24.27714 | 0.760673 | 2.282019 |
| 3,3'-Dichlorobenzidine | 20 | 25.64 | 24.34 | 24.03 | 24.98 | 23.68 | 23.5 | 24.58 | 7 | 24.39285 | 0.749993 | 2.249980 |
| Benzo(a)Anthracene | 10 | 23.53 | 21.85 | 22.16 | 22.93 | 22.62 | 22.77 | 21.27 | 7 | 22.44714 | 0.748837 | 2.246511 |
| Chrysene | 10 | 20.7 | 20.2 | 20.63 | 20.55 | 21.03 | 20.69 | 19.32 | 7 | 20.44571 | 0.553499 | 1.660499 |
| bis(2-Ethylhexyl)Phthalate | 10 | 13.25 | 12.64 | 13.17 | 12.87 | 12.44 | 13.09 | 12.37 | 7 | 12.83285 | 0.356123 | 1.068369 |
| Di-n-Octyl Phthalate | 10 | 21.81 | 23.98 | 22.17 | 21.01 | 22.41 | 20.51 | 22.85 | 7 | 22.10571 | 1.154554 | 3.463662 |
| Benzo(b)Fluoranthene | 10 | 20.45 | 22.84 | 20.27 | 20.12 | 21.12 | 19.53 | 21.33 | 7 | 20.80857 | 1.081903 | 3.245709 |
| Benzo(k)Fluoranthene | 10 | 19.33 | 18.46 | 18.33 | 19.01 | 18.31 | 18.31 | 17.99 | 7 | 18.53428 | 0.466113 | 1.398340 |
| Benzo(a)Pyrene | 10 | 18.73 | 18.66 | 18.03 | 18.46 | 18.03 | 17.5 | 17.83 | 7 | 18.17714 | 0.454815 | 1.364446 |
| Indeno(1,2,3-cd)Pyrene | 10 | 18.34 | 18.34 | 17.34 | 18.34 | 18.72 | 18.23 | 17.24 | 7 | 18.07857 | 0.560964 | 1.682892 |
| Dibenz(a,h)Anthracene | 10 | 19.13 | 17.88 | 17.53 | 17.59 | 18.55 | 17.97 | 17.13 | 7 | 17.96857 | 0.674992 | 2.024976 |
| Benzo(g,h,i,)Perylene | 10 | 18.89 | 18.53 | 17.19 | 17.97 | 17.99 | 18.08 | 17.12 | 7 | 17.96714 | 0.645928 | 1.937785 |

(1) Cannot be separated from Diphenylamine

* Value based on six determinants.

METHOD 625 DETECTION LIMIT STUDY



STUDY DATE: 10/91 QUARTER: 4

INSTRUMENT ID: F

| SEMI-VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (F8610) | FILE2 (F8611) | FILE3 (F8613) | FILE4 (F8614) | FILE5 (F8615) | TOTAL OBS. | MEAN | STANDARD DEVIATION | DETECTION LIMIT |
|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 10 | 22.55 | 22.1 | 22.44 | 22.44 | 22.77 | 5 | 22.46 | 0.242177 | 0.726532 |
| bis(2-Chloroethyl)Ether | 10 | 20.59 | 19.71 | 20.07 | 20.1 | 20.08 | 5 | 21.285 | 1.266396 | 3.799190 |
| 2-Chlorophenol | 10 | 21.32 | 21.27 | 20.17 | 21.53 | 22.52 | 5 | 20.736 | 0.888946 | 2.666840 |
| 1,3-Dichlorobenzene | 10 | 21.09 | 21.53 | 20.95 | 21.35 | 22.2 | 5 | 21.393 | 0.646787 | 1.940363 |
| 1,4-Dichlorobenzene | 10 | 20.85 | 20.5 | 21.75 | 21.91 | 22.42 | 5 | 21.455 | 0.620326 | 1.860980 |
| Benyl Alcohol | 10 | 10.97 | 11.5 | 12.84 | 11.53 | 10.67 | 5 | 16.494 | 5.317324 | 15.95197 |
| 1,2-Dichlorobenzene | 10 | 21.13 | 21.26 | 21.52 | 21.03 | 21.62 | 5 | 21.312 | 0.251733 | 0.755201 |
| 2-Methylphenol | 10 | 23.35 | 21.4 | 23.27 | 19.75 | 22.79 | 5 | 22.112 | 1.534542 | 4.603626 |
| bis(2-Chloroisopropyl)Ether | 10 | 20.3 | 19.4 | 19.55 | 18.45 | 19.5 | 5 | 19.44 | 0.658976 | 1.976929 |
| 4-Methylphenol | 10 | 21.59 | 20.88 | 22.86 | 22.29 | 22.54 | 5 | 22.032 | 0.795719 | 2.387159 |
| N-Nitroso-Di-n-Propylamine | 10 | 21.54 | 19.05 | 21.73 | 20.16 | 20.01 | 5 | 20.498 | 1.123908 | 3.371725 |
| Hexachloroethane | 10 | 20.74 | 20.72 | 20.14 | 20.74 | 21.73 | 5 | 20.814 | 0.572957 | 1.718871 |
| Nitrobenzene | 10 | 20.64 | 21.32 | 19.57 | 20.2 | 20.21 | 5 | 20.388 | 0.645809 | 1.937428 |
| Isophorone | 10 | 21.74 | 21.88 | 21.52 | 21.45 | 21.13 | 5 | 21.544 | 0.288149 | 0.864447 |
| 2-Nitrophenol | 10 | 20.84 | 22.07 | 21.39 | 21.64 | 21.96 | 5 | 21.58 | 0.492899 | 1.478698 |
| 2,4-Dimethylphenol | 10 | 19.8 | 21.17 | 20.03 | 20.9 | 20.19 | 5 | 20.418 | 0.587852 | 1.763556 |
| Benzoic Acid | 50 | 19 | 18.46 | 19.18 | 18.78 | 18.57 | 5 | 18.798 | 0.297186 | 0.891560 |
| bis(2-Chloroethoxy)Methane | 10 | 21.85 | 22.5 | 21.37 | 21.09 | 21.03 | 5 | 21.568 | 0.613449 | 1.840347 |
| 2,4-Dichlorophenol | 10 | 21.15 | 22.19 | 20.72 | 21.93 | 21.45 | 5 | 21.488 | 0.590271 | 1.770813 |
| 1,2,4-Trichlorobenzene | 10 | 21.28 | 22.87 | 21.34 | 21.79 | 21.12 | 5 | 21.68 | 0.710176 | 2.130528 |
| Naphthalene | 10 | 22.21 | 23.1 | 21.31 | 22.27 | 21.9 | 5 | 22.158 | 0.649669 | 1.949007 |
| 4-Chloroaniline | 10 | 22.48 | 22.66 | 21.69 | 22.27 | 22.16 | 5 | 22.252 | 0.368469 | 1.105409 |
| Hexachlorobutadiene | 10 | 20.43 | 21.87 | 20.2 | 21.28 | 20.75 | 5 | 20.906 | 0.674262 | 2.022787 |
| 4-Chloro-3-Methylphenol | 10 | 22.45 | 22 | 22.07 | 21.42 | 21.96 | 5 | 21.98 | 0.368578 | 1.105735 |
| 2-Methylnaphthalene | 10 | 22.24 | 23.3 | 22.57 | 22.26 | 22.29 | 5 | 22.532 | 0.449744 | 1.349233 |
| Hexachlorocyclopentadiene | 10 | 12.29 | 12.68 | 12.82 | 14.28 | 14.37 | 5 | 13.288 | 0.966886 | 2.900660 |
| 2,4,6-Trichlorophenol | 10 | 20.83 | 20.86 | 20.89 | 21.51 | 20.98 | 5 | 21.014 | 0.282895 | 0.848687 |
| 2,4,5-Trichlorophenol | 50 | 20.59 | 20.24 | 20.28 | 21.21 | 20.42 | 5 | 20.548 | 0.394677 | 1.184031 |
| 2-Chloronaphthalene | 10 | 21.12 | 21.36 | 21.25 | 22.48 | 22.21 | 5 | 21.684 | 0.616790 | 1.850370 |
| 2-Nitroaniline | 10 | 19.85 | 18.62 | 19.31 | 19.69 | 19.24 | 5 | 19.342 | 0.477462 | 1.432386 |
| Dimethyl Phthalate | 10 | 21.81 | 21.25 | 22.07 | 22.01 | 22.46 | 5 | 21.92 | 0.442492 | 1.327478 |
| Acenaphthylene | 10 | 22.8 | 21.99 | 21.93 | 22.79 | 21.14 | 5 | 22.13 | 0.693577 | 2.080733 |
| 2,6-Dinitrotoluene | 10 | 21.72 | 20.88 | 21.47 | 22.15 | 22.03 | 5 | 21.65 | 0.506112 | 1.518337 |
| 3-Nitroaniline | 50 | 20.63 | 19.22 | 19.78 | 20.19 | 20.88 | 5 | 20.14 | 0.664492 | 1.993476 |
| Acenaphthene | 10 | 22.42 | 21.26 | 21.76 | 21.82 | 22.2 | 5 | 21.892 | 0.446004 | 1.338013 |

(1) Cannot be separated from Diphenylamine

METHOD 625 DETECTION LIMIT STUDY



STUDY DATE: 10/91 QUARTER: 4

INSTRUMENT ID: F

| SEMI-VOLATILE COMPOUNDS | METHOD DETECTION LIMIT | FILE1 (F8610) | FILE2 (F8611) | FILE3 (F8613) | FILE4 (F8614) | FILE5 (F8615) | TOTAL OBS. | MEAN | STANDARD DEVIATION | DETECTION LIMIT |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrophenol | 50 | 15.63 | 12.76 | 15.09 | 15.21 | 15.06 | 5 | 14.75 | 1.135539 | 3.406618 |
| 4-Nitrophenol | 50 | 18.77 | 16.22 | 17.73 | 17.2 | 17.98 | 5 | 17.58 | 0.947707 | 2.843123 |
| Dibenzofuran | 10 | 21.96 | 21.21 | 20.93 | 21.33 | 21.44 | 5 | 21.374 | 0.378721 | 1.136164 |
| 2,4-Dinitrotoluene | 10 | 20.53 | 18.63 | 20.67 | 20.4 | 21.33 | 5 | 20.312 | 1.006091 | 3.018274 |
| Diethylphthalate | 10 | 22.89 | 20.72 | 22.49 | 23.01 | 23.45 | 5 | 22.512 | 1.058593 | 3.175780 |
| 4-Chlorophenyl-phenylether | 10 | 23.24 | 22.28 | 23.13 | 23.13 | 23.28 | 5 | 23.012 | 0.414572 | 1.243716 |
| Fluorene | 10 | 23.8 | 22.54 | 23.48 | 23.38 | 23.43 | 5 | 23.326 | 0.469020 | 1.407060 |
| 4-Nitroaniline | 50 | 19.67 | 16.52 | 18.65 | 18.63 | 19.59 | 5 | 18.612 | 1.270244 | 3.810732 |
| 4,6-Dinitro-2-Methylphenol | 50 | 16.83 | 16.45 | 16.28 | 18.45 | 18.07 | 5 | 17.216 | 0.982842 | 2.948528 |
| N-Nitrosodiphenylamine (1) | 10 | 19.97 | 21.47 | 20.55 | 20.45 | 20.64 | 5 | 20.616 | 0.542936 | 1.628809 |
| 4-Bromophenyl-phenylether | 10 | 19.92 | 21.11 | 21.43 | 22.03 | 20.44 | 5 | 20.986 | 0.827181 | 2.481545 |
| Hexachlorobenzene | 10 | 20.7 | 21.84 | 21.14 | 21.72 | 21.98 | 5 | 21.476 | 0.538776 | 1.616329 |
| Pentachlorophenol | 50 | 17.81 | 18.25 | 18.19 | 18.79 | 19.35 | 5 | 18.478 | 0.599766 | 1.799299 |
| Phenanthrene | 10 | 21.31 | 22.49 | 21.54 | 22.03 | 22.03 | 5 | 21.88 | 0.463033 | 1.389100 |
| Anthracene | 10 | 21.15 | 20.63 | 21.26 | 21.35 | 21.1 | 5 | 21.098 | 0.279051 | 0.837155 |
| Di-n-Butylphthalate | 10 | 20.12 | 20.28 | 20.01 | 20.74 | 20.39 | 5 | 20.308 | 0.282081 | 0.846244 |
| Fluoranthene | 10 | 19.91 | 19.94 | 19.44 | 21.4 | 20.22 | 5 | 20.182 | 0.736220 | 2.208660 |
| Pyrene | 10 | 19.31 | 18.17 | 18.37 | 18.07 | 18.77 | 5 | 18.538 | 0.508055 | 1.524165 |
| Butylbenzylphthalate | 10 | 17.18 | 6.33 | 17.14 | 16.14 | 17.69 | 5 | 14.896 | 4.821372 | 14.46411 |
| 3,3'-Dichlorobenzidine | 20 | 21.38 | 22.98 | 21.85 | 22.15 | 21.75 | 5 | 22.022 | 0.602054 | 1.806164 |
| Benzo(a)Anthracene | 10 | 18.64 | 19.14 | 18.59 | 18.42 | 18.06 | 5 | 18.57 | 0.391407 | 1.174223 |
| Chrysene | 10 | 19.81 | 19.66 | 19.38 | 19.09 | 19.44 | 5 | 19.476 | 0.276097 | 0.828293 |
| bis(2-Ethylhexyl)Phthalate | 10 | 18.87 | 19.54 | 17.84 | 18.23 | 17.25 | 5 | 18.346 | 0.890353 | 2.671061 |
| Di-n-Octyl Phthalate | 10 | 23.79 | 22.66 | 24.63 | 23.41 | 23.27 | 5 | 23.552 | 0.726993 | 2.180981 |
| Benzo(b)Fluoranthene | 10 | 22.37 | 20.81 | 22.47 | 21.86 | 21.69 | 5 | 21.84 | 0.663626 | 1.990879 |
| Benzo(k)Fluoranthene | 10 | 22.49 | 21.98 | 22.78 | 21.52 | 20.59 | 5 | 21.872 | 0.863927 | 2.591781 |
| Benzo(a)Pyrene | 10 | 20.64 | 20.24 | 20.85 | 20.01 | 20.06 | 5 | 20.36 | 0.369256 | 1.107768 |
| Indeno(1,2,3-cd)Pyrene | 10 | 18.5 | 19.47 | 18.07 | 17.73 | 17.42 | 5 | 18.238 | 0.797163 | 2.391491 |
| Dibenz(a,h)Anthracene | 10 | 18.43 | 19.23 | 17.34 | 17.86 | 17.42 | 5 | 18.056 | 0.786403 | 2.359209 |
| Benzo(g,h,i,)Perylene | 10 | 17.77 | 19.78 | 17.97 | 18.18 | 17.2 | 5 | 18.18 | 0.965996 | 2.897990 |

(1) Cannot be separated from Diphenylamine

METHOD DETECTION LIMIT STUDY

RESULTS IN UG/L:

DATE OF ANALYSES: 10/02/91
QUARTER: 4

| PESTICIDE/PCB COMPOUNDS | TRUE VALUE | 1 | 2 | 3 | TOTAL OBS. | MEAN | STD DEV | DEL LIMIT | EPA METHOD DETECTION LIMIT |
|---|---|---|---|---|---|---|---|---|---|
| alpha-BHC | 0.250 | 0.249 | 0.248 | 0.249 | 3 | 0.249 | 0.001 | 0.002 | 0.003 |
| beta-BHC | 0.250 | 0.249 | 0.250 | 0.250 | 3 | 0.250 | 0.001 | 0.002 | 0.00 |
| delta-BHC | 0.250 | 0.250 | 0.250 | 0.249 | 3 | 0.250 | 0.001 | 0.002 | 0.00 |
| gamma-BHC (Lindane) | 0.250 | 0.256 | 0.256 | 0.256 | 3 | 0.256 | 0.000 | 0.000 | 0.009 |
| Heptachlor | 0.250 | 0.254 | 0.256 | 0.254 | 3 | 0.255 | 0.001 | 0.003 | 0.003 |
| Aldrin | 0.250 | 0.255 | 0.256 | 0.256 | 3 | 0.256 | 0.001 | 0.002 | 0.004 |
| Heptachlor epoxide | 0.250 | 0.255 | 0.256 | 0.256 | 3 | 0.256 | 0.001 | 0.002 | 0.083 |
| Endosulfan I | 0.400 | 0.406 | 0.408 | 0.408 | 3 | 0.407 | 0.001 | 0.003 | 0.014 |
| Dieldrin | 0.400 | 0.407 | 0.410 | 0.409 | 3 | 0.409 | 0.002 | 0.005 | 0.002 |
| 4,4'-DDE | 0.400 | 0.399 | 0.398 | 0.398 | 3 | 0.398 | 0.001 | 0.002 | 0.004 |
| Endrin | 0.400 | 0.398 | 0.398 | 0.399 | 3 | 0.398 | 0.001 | 0.002 | 0.006 |
| Endosulfan II | 0.500 | 0.509 | 0.512 | 0.509 | 3 | 0.510 | 0.002 | 0.005 | 0.004 |
| 4,4'-DDD | 0.500 | 0.498 | 0.497 | 0.497 | 3 | 0.497 | 0.001 | 0.002 | 0.011 |
| Endosulfan Sulfate | 0.500 | 0.500 | 0.494 | 0.503 | 3 | 0.499 | 0.005 | 0.014 | 0.066 |
| 4,4'-DDT | 0.500 | 0.512 | 0.514 | 0.512 | 3 | 0.513 | 0.001 | 0.003 | 0.012 |
| Endrin Ketone | 0.500 | 0.498 | 0.498 | 0.500 | 3 | 0.499 | 0.001 | 0.003 | ND |
| Methoxychlor | 2.00 | 2.043 | 2.060 | 2.062 | 3 | 2.055 | 0.010 | 0.031 | ND |
| alpha-Chlordane | 0.250 | 0.250 | 0.249 | 0.250 | 3 | 0.250 | 0.000 | 0.001 | 0.014 |
| gamma-Chlordane | 0.250 | 0.249 | 0.249 | 0.250 | 3 | 0.249 | 0.000 | 0.001 | 0.014 |
| Toxaphene | 4.00 | 4.231 | 4.445 | 4.786 | 3 | 4.487 | 0.280 | 0.840 | 0.24 |
| Aroclor-1016 | 2.00 | 2.317 | 2.327 | 2.321 | 3 | 2.322 | 0.005 | 0.015 | ND |
| Aroclor-1221 | 2.00 | 2.300 | 2.287 | 2.300 | 3 | 2.296 | 0.008 | 0.023 | ND |
| Aroclor-1232 | 2.00 | 2.172 | 2.195 | 2.218 | 3 | 2.195 | 0.023 | 0.069 | ND |
| Aroclor-1242 | 2.00 | 2.400 | 2.350 | 2.334 | 3 | 2.361 | 0.034 | 0.103 | ND |
| Aroclor-1248 | 2.00 | 2.504 | 2.529 | 2.516 | 3 | 2.516 | 0.013 | 0.038 | ND |
| Aroclor-1254 | 4.00 | 4.186 | 4.148 | 4.218 | 3 | 4.184 | 0.035 | 0.105 | ND |
| Aroclor-1260 | 4.00 | 5.092 | 5.107 | 5.082 | 3 | 5.094 | 0.013 | 0.038 | ND |
| Chlordane | NA | | | | 3 | 0.000 | 0.000 | 0.000 | NA |

METHOD DETECTION LIMIT STUDY

INSTRUMENT ID: PE4

DATE OF ANALYSES: 12/91
QUARTER: 4

RESULTS IN UG/L:

| PESTICIDE/PCB COMPOUNDS | TRUE VALUE | 1 | 2 | 3 | TOTAL OBS. | MEAN | STD DEV | DEL LIMIT |
|---|---|---|---|---|---|---|---|---|
| alpha-BHC | 0.250 | 0.239 | 0.255 | 0.245 | 3 | 0.250 | 0.007 | 0.021 |
| beta-BHC | 0.250 | 0.237 | 0.256 | 0.246 | 3 | 0.251 | 0.007 | 0.021 |
| delta-BHC | 0.250 | 0.241 | 0.258 | 0.245 | 3 | 0.252 | 0.009 | 0.028 |
| gamma-BHC (Lindane) | 0.250 | 0.259 | 0.245 | 0.256 | 3 | 0.251 | 0.008 | 0.023 |
| Heptachlor | 0.250 | 0.258 | 0.246 | 0.254 | 3 | 0.250 | 0.006 | 0.017 |
| Aldrin | 0.250 | 0.264 | 0.247 | 0.26 | 3 | 0.254 | 0.009 | 0.028 |
| Heptachlor epoxide | 0.250 | 0.267 | 0.251 | 0.265 | 3 | 0.258 | 0.010 | 0.030 |
| Endosulfan I | 0.400 | 0.428 | 0.407 | 0.425 | 3 | 0.416 | 0.013 | 0.038 |
| Dieldrin | 0.400 | 0.424 | 0.399 | 0.424 | 3 | 0.412 | 0.018 | 0.053 |
| 4,4'-DDE | 0.400 | 0.381 | 0.409 | 0.391 | 3 | 0.400 | 0.013 | 0.038 |
| Endrin | 0.400 | 0.375 | 0.393 | 0.373 | 3 | 0.383 | 0.014 | 0.042 |
| Endosulfan II | 0.500 | 0.521 | 0.522 | 0.557 | 3 | 0.540 | 0.025 | 0.074 |
| 4,4'-DDD | 0.500 | 0.477 | 0.509 | 0.485 | 3 | 0.497 | 0.017 | 0.051 |
| Endosulfan Sulfate | 0.500 | 0.468 | 0.504 | 0.477 | 3 | 0.491 | 0.019 | 0.057 |
| 4,4'-DDT | 0.500 | 0.526 | 0.516 | 0.55 | 3 | 0.533 | 0.024 | 0.072 |
| Endrin Ketone | 0.500 | 2.039 | 2.000 | 2.165 | 3 | 2.083 | 0.117 | 0.350 |
| Methoxychlor | 2.00 | 0.47 | 0.507 | 0.485 | 3 | 0.496 | 0.016 | 0.047 |
| alpha-Chlordane | 0.250 | 0.241 | 0.256 | 0.246 | 3 | 0.251 | 0.007 | 0.021 |
| gamma-Chlordane | 0.250 | 0.24 | 0.255 | 0.244 | 3 | 0.250 | 0.008 | 0.023 |
| Toxaphene | 4.00 | 4.12 | 3.810 | 4.04 | 3 | 3.925 | 0.163 | 0.488 |
| Aroclor-1016 | 2.00 | 2.47 | 2.340 | 2.42 | 3 | 2.380 | 0.057 | 0.170 |
| Aroclor-1221 | 2.00 | 2.33 | 2.300 | 2.31 | 3 | 2.305 | 0.007 | 0.021 |
| Aroclor-1232 | 2.00 | 2.12 | 2.120 | 2.25 | 3 | 2.185 | 0.092 | 0.276 |
| Aroclor-1242 | 2.00 | 2.59 | 2.640 | 2.54 | 3 | 2.590 | 0.071 | 0.212 |
| Aroclor-1248 | 2.00 | 2.57 | 2.430 | 2.58 | 3 | 2.505 | 0.106 | 0.318 |
| Aroclor-1254 | 4.00 | 3.99 | 3.600 | 3.94 | 3 | 3.770 | 0.240 | 0.721 |
| Aroclor-1260 | 4.00 | 5.77 | 5.430 | 5.59 | 3 | 5.510 | 0.113 | 0.339 |

11/23/91

20 Columns Right

| | Date Rec'd | Client Name | Client ID# | Nytest ID# | Matrix | Initial Value | Final Value | pH | % M | Analysis Requested | total [ ] Succ | total [ ] MS/MSD | Lot # of hexane | Lot # of Spike | Comments | Ext. tech | Witness pH/Succ | Con |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/21/91 | D+B | USSSS15 | 10482-06 | Soil | 30g | 1ml | 5 | | TCL PE/PCB | 200µl | | | | Sulfur clean up done | | | |
| 2 | 11/21/91 | D+B | USSSS17 | 10482-07 | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | | | | | | | |
| 3 | 11/21/91 | D+B | USSSS45 | 10482-08 | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | | | | | | | |
| 4 | 11/21/91 | D+B | USSSS47 | 10482-09 | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | | | | | | | |
| 5 | 11/21/91 | D+B | USSSS48 | 10482-10 | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | | | | | | | |
| 6 | 11/21/91 | D+B | USSSS50 | 10482-11 | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | 400µl | | | | | | |
| 7 | 11/21/91 | D+B | US5 MS | 10482-12MS | Soil | 30g | " | 5 | | TCL PE/PCB | 200µl | 400µl | | | | | | |
| 8 | 11/21/91 | D+B | US5 MSD | 10482-1MS | Soil | 30g | " | | | TCL PE/PCB | 200µl | 400µl | | | | | | |
| 9 | 11/21/91 | D+B | MSB | MSB | Soil | 30g | " | | | TCL PE/PCB | 200µl | | | | | | | |
| 10 | 11/21/91 | D+B | Blank | Blank | Soil | 30g | " | | | TCL PE/PCB | 200µl | | | | | | | |
| 11 | 11/21/91 | D+B | Blank | Blank | Soil | 30g | " | | | EPTOX PE | 30µl | | | | | | | |
| 12 | 11/12/91 | NYSDEC | SS17 | 10379-01 | water | 36g/ml | | | | | " | | | | | | | |
| 13 | " | " | " 18 | " 02 | " | " | | | | | " | | | | | | | |
| 14 | " | " | " 20 | " -03 | " | " | | | | | " | | | | | | | |
| 15 | " | " | " 19 | " -04 | " | " | | | | | " | | | | | | | |
| 16 | 11/13/91 | " | 011T-01A | 10388-01 | " | " | | | | | " | | | | | | | |
| 17 | " | " | " 02A | " 02 | " | " | | | | TCL P/PE | " | | | | | | | |
| 18 | 11/13/91 | NYC TRANS. | D/S | 10392-01 | " | " | | | | EPTOX PE | " | | | | | | | |
| 19 | 11/14/91 | NYSDEC | 011T-04A | 10407-01 | " | " | | | | TCL P/PE | " | | | | | | | |
| 20 | 11/14/91 | NJDEPE | MW11-092 | 10410-01 | " | " | | | | " | " | | | | | | | |
| 21 | " | " | " -091 | " -02 | " | " | | | | " | " | | | | | | | |
| 22 | 11/14/91 | McLAREN | WC-1 | 10416-07 | " | " | | | | " | " | | | | | | | |
| 23 | " | NYC | COMPOC 2 | 10423-0 | " | " | | | | " | " | | | | | | | |
| 24 | " | B " | COMPOC 4 | " -02 | " | " | | | | " | " | | | | | | | |
| 25 | " | " | COMPOC 6 | " -03 | " | " | | | | " | " | | | | | | | |
| 26 | " | " | COMPOC 8 | " -04 | " | " | | | | " | " | | | | | | | |
| 27 | 11/15/91 | BROOKHAVEN | Z9110120 | 10431-01 | " | " | | | | " | " | | | | | | | |
| 28 | " | " | Z9111009 | -02 | " | " | | | | " | " | 40µl | | | MS | | | |
| 29 | 11/14/91 | NYSDEC | BLANK | BLANK | " | " | | | | " | " | " | | | MSD | | | |
| 30 | " | " | BLANK | BLANK | " | " | | | | " | " | | | | | | | |
| 31 | 11/14/91 | NJDEPE | MW11-091 | 10410-02 | " | " | | | | " | " | | | | | | | |
| 32 | " | " | " | " | " | " | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | | |

11/25/91

20 Columns Right

| | 1 Date Rec'd | 2 Client Name | 3 Client ID# | 4 Nytest ID# | 5 Matrix | 6 Initial Vol | 7 Final Vol. | 8 % M | 9 Analysis Requested | 10 total [ ] Surr. | 11 total [ ] MS/MSD | 12 Lot # of hexane | 13 Lot # of silica | 14 Comments | 15 | 16 Ext. tech | 17 Witness pH/Surr | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/21/91 | ABB | 204002X | 10481-07 | Soil | 30g | 1ml | 5 | PCB/PCB | 200µl | | | | Surrogate dilution of dual [illegible] due to [illegible] of sample it was equipped [illegible] in these steps | | | | Homogenous |
| 2 | " 21/91 | ABB | 204004X | 10481-07 | Soil | 15g | " | 5 | PCB/PCB | 200µl | 400µl | | | | | | | |
| 3 | " 21/91 | ABB | 204004MS | 10481-08MS | Soil | 15g | " | 5 | PCB/PCB | 200µl | 400µl | | | There is a discoloration on the MS/MSD sample due to heterogeneity of sample | | | | |
| 4 | " 21/91 | ABB | 204004MSD | 10481-09MSD | Soil | 15g | " | 5 | PCB/PCB | 200µl | | | | | | | | |
| 5 | " 21/91 | ABB | 204000X | 10481-10 | Soil | 30g | " | 5 | PCB/PCB | 200µl | 400µl | | | | | | | |
| 6 | " 21/91 | ABB | 204000MS | 10481-11MS | Soil | 30g | " | 5 | PCB/PCB | 200µl | 400µl | | | | | m. Koop | | |
| 7 | " 21/91 | ABB | 204000MSD | 10481-12MSD | Soil | 30g | " | 5 | PCB/PCB | 200µl | | | | | | | | |
| 8 | " 21/91 | ABB | 207000D | 10481-13 | Soil | 30g | " | | PCB/PCB | 200µl | 400µl | | | | | | | |
| 9 | " 21/91 | ABB | MSB | MSB | Soil | 30g | " | | PCB/PCB | 200µl | | | | | | | | |
| 10 | " 21/91 | ABB Blank | Blank | Blank | Soil | 30g | " | | PCB/PCB | 200µl | | | | | | | | |
| 11 | " 21/91 | ABB Blank | Blank | Blank | Soil | 30g | " | | PCB/PCB | 200µl | 400µl | | | | | | | |
| 12 | " 21/91 | ABB | MSB | MSB | Soil | 30g | " | | PCB/PCB | 200µl | | | | | | | | |
| 13 | 11/22/91 | NYSDEC | SS-17 | 10378-01 | water | 30ml | 3ml | | Epi Chlor | 50µl | | | | | | | | |
| 14 | " | " | " -18 | " -02 | " | " | " | | " | " | | | | | | | | |
| 15 | " | " | " -20 | " -03 | " | " | " | | " | " | | | | | | AKup | | |
| 16 | " | " | " -19 | " -04 | " | " | " | | " | " | | | | | | | J. Samuel | |
| 17 | " | " | OHT-01A | 10388-01 | " | " | " | | " | " | | | | | | | | |
| 18 | 11/23/91 | " | OHT-02A | " -02 | " | " | " | | " | " | | | | | | | | |
| 19 | 11/24/91 | " | OHT-04A | 10407-01 | " | " | " | | " | " | | | | | | | | |
| 20 | " | " | BLANK | BLANK | " | " | " | | " | " | | | | | | | | |
| 21 | " | " | BLANK | BLANK | " | " | " | | " | " | | | | | | | | |
| 22 | 11/20/91 | Nytest | EFF NOD | 10465-01 | Water | 1000ml | 10ml | 3 | PCB/PCB | 100ml | | | | pH is lower 3 | | | | |
| 23 | 11/21/91 | ABB Env. | 002000X | 10481-08 | " | " | " | 4 | " | " | | | | | | | | |
| 24 | " | " | Blank | Blank | " | " | " | | " | " | | | | | | K. Dare | | |
| 25 | " | " | Blank | Blank | " | " | " | | " | " | | | | | | | | |
| 26 | " | N.Y.C. TR. | 4 | 10494-01 | Misc. | 1g | 50ml | | PCB | 500ml | | | | | | | | |
| 27 | " | " | 5 | 10494-02 | " | " | " | | " | " | | | | | | | | |
| 28 | " | " | 6 | 10494-03 | " | " | " | | " | " | | | | | | | | |
| 29 | " | " | Blank | Blank | " | " | " | | " | " | | | | | | | | |
| 30 | " | " | Blank | Blank | " | " | " | | " | " | | | | | | | | |

11/26/91 1 of 2

20 Columns Right

| | Date Rec'd | Client Name | Client ID # | Nytest ID # | Matrix | Initial Vol. | Final Vol. | pH | %M | Analysis Requested | Total # of Sizes | | Total # of MS/MSD | Lot # of Ivrame | Lot # of spike | Comments | Field Info | Witness pH/Sus. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/22/91 | NYSDEC | AMSW01 | 10498-01 | Water | 1000ml | 10 | 5 | | TCL RE/PCB | 1 | | | | | | | |
| 2 | 11/22/91 | NYSDEC | AMSW02 | 10498-02 | Water | 1000ml | " | 5 | | TCL RE/PCB | 1 | | | | | | | |
| 3 | 11/22/91 | NYSDEC | AMSW03 | 10498-03 | Water | 1000ml | " | 5 | | TCL RE/PCB | 1 | | | | | | | |
| 4 | 11/22/91 | NYSDEC | AMSW05 | 10498-04 | Water | 1000ml | " | 6 | | TCL RE/PCB | 1 | | | | | | | |
| 5 | 11/22/91 | NYSDEC | AMSW05MS | 10498-05 | Water | 1000ml | " | 5 | | TCL RE/PCB | 1 | | | | | | | |
| 6 | 11/22/91 | NYSDEC | SW05MSD | 10498-06 | Water | 1000ml | " | 5 | | TCL RE/PCB | 1 | | | | | | | |
| 7 | 11/22/91 | NYSDEC | FIELD BLK | 10498-07 | Water | 1000ml | " | 4 | | TCL RE/PCB | 1 | | | | | | | |
| 8 | 11/22/91 | NYSDEC | AMSW04 | 10498-08 | Water | 1000ml | " | 6 | | TCL RE/PCB | 1 | | | | | | | |
| 9 | 11/22/91 | NYSDEC | MSB | MSB | Water | 1000ml | " | Neg | | TCL RE/PCB | 1 | | | | | | | |
| 10 | 11/21/91 | Hallowell Lake | 1330-3 | 10475-01 | Water | 1000ml | " | 6 | | TCL PCB | 1 | | | | | | | |
| 11 | 11/22/91 | NYSDEC | Blank | Blank | Water | 1000ml | " | — | | TCL RE/PCB | 1 | | | | | | | |
| 12 | 11/22/91 | NYSDEC | Blank | Blank | Water | 1000ml | " | — | | TCL RE/PCB | 1 | | | | | | | |
| 13 | 11/22/91 | NYC DEES Lab | OWLS | 10506-01 | Misc | ~~mg 1000ml~~ | 10ml | | | Herb | 2.5ml | | | | | | | |
| 14 | 11/21/91 | NYC DEES Lab | Blank | Blank | Misc | ~~mg 1000ml~~ | 10ml | | | Herb | 2.5ml | | | | | | | |
| 15 | 11/22/91 | NYSDEC | SD01 | 10498-09 | Misc. | 30g | 1ml | | | PE/PCB | 200ml | | | | | NYSDEC Samples Sent for Screening Water clean up done | | |
| 16 | " | " | SD02 | 10498-10 | " | " | " | | | " | " | | | | | | | |
| 17 | " | " | SD03 | 10498-11 | " | " | " | | | " | " | | | | | | | |
| 18 | " | " | SD04 | 10498-12 | " | " | " | | | " | " | | | | | | | |
| 19 | " | " | SD05 | 10498-13 | " | " | " | | | " | " | | | | | | K. Bove | |
| 20 | " | " | SD05MS | 10498-14 | " | " | " | | | " | " | | | | | | | |
| 21 | " | " | SD03MSD | 10498-15 | " | " | " | | | " | " | | | | | | | |
| 22 | " | " | MSB | MSB | " | " | " | | | " | " | | | | | | | |
| 23 | " | " | BLANK | BLANK | " | " | " | | | " | " | | | | | | | |
| 24 | " | " | BLANK | BLANK | " | " | " | | | " | " | | | | | | | |
| 25 | 11/21/91 | Prof. Eng | WC-1 | 10499-01 | Soil | " | " | | | PCB | " | | | | | | | |
| 26 | 11/22/91 | NYS Parks | OWLS | 10506-01 | Misc. | " | " | | | PEST | " | | | | | | | |
| 27 | " | Joint M. | 11/19 | 10512-01 | Misc. | " | " | | | PE/PCB | " | | | | | | | |
| 28 | " | " | BLANK | BLANK | " | " | " | | | " | " | | | | | | | |
| 29 | 11/14/91 | NYSDEC | OWS-08-A | 10424-01 | water | 35ml | 2ml | | | EP TOX/PCB | 2ml | | | | | | | |
| 30 | 11/12/91 | Tal Bill | A1112 | 10325-01 | water | 35ml | 2ml | | | EP TOX/PCB | 2ml | | | | | | | |
| 31 | 11/14/91 | NYSDEC | A630-05 | 10403-05 | water | 35ml | " | | | PCB/PEST | 2ml | | | | | | | |
| 32 | 11/14/91 | NYSDEC | A630-06 | 10403-06 | " | " | " | | | " | 2ml | | | | | | | |
| 33 | " | " | A630-07 | 10403-07 | " | " | " | | | " | " | | | | | | | |
| 34 | 11/14/91 | " | A630-07 | 10403-08 | " | " | " | | | " | " | | | | | | | |
| 35 | 11/14/91 | Ford Conv | CSP-1 | 10443-11 | " | " | " | | | " | " | | | | | | | |
| 36 | 11/20/91 | Jacobs | UCO-7 | 10469-09 | " | " | " | | | " | " | | | | | | | |
| 37 | " | " | LO-5 | 10469-06 | " | " | " | | | " | " | | | | | | | |
| 38 | 11/12/91 | D.R.J.A.S | WOOH-5 | 10431-01 | " | " | " | | | " | " | | | | | | | |
| 39 | 11/12/91 | D.R.J.A.S | IRONH-5 | 10431-02 | " | " | " | | | " | " | | | | | | | |
| 40 | 11/14/91 | NYDEC | Blank | Blank | " | " | " | | | " | " | | | | | | | |
| 41 | 11/20/91 | Jacobs | Blank | Blank | " | " | " | | | " | " | | | | | | | |
| 42 | 11/25/91 | Scientific | SLAG | 10521-1 | Misc. | 30g | 1ml | | | PCB | 2ml | | | | | | | |

20 Columns Right

11/27/91

| | Date Rec'd | Client Name | Client ID# | Project ID# | Matrix | Initial Vol. | Final Vol. | (1) | % M | Analysis Requested | Total # of Sizes | | Total # of MS/MSD | Lot # of Increase | Lot # of Spike | Comments | Ext. lab | Witness all Size | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/12/91 | BROOKHAVEN | A 1117 | 10885-01 | Water | 3g | 3ml | | | EPA 8/H | 5 | — | | | | | | | |
| 2 | 11/14/91 | N.Y.S.DEC | A 30-05 | 10403-05 | " | " | " | | | TCLP 1H | " | — | | | | double spike | | | |
| 3 | " | " | A 30-06 | 10403-06 | " | " | " | | | " | " | — | | | | | | | |
| 4 | " | " | A 30-07 | 10403-07 | " | " | " | | | " | " | — | | | | | | | |
| 5 | " | " | A 30-08 | 10403-08 | " | " | " | | | " | " | — | | | | | | | |
| 6 | 11/16/91 | FORD | CSPC-1 | 10403-11 | " | " | " | | | " | " | — | | | | | PKP | J. Samuel | |
| 7 | 11/20/91 | D&R | WEST-5 | 10471-01 | " | " | " | | | " | " | — | | | | | | | |
| 8 | " | " | IRON-5 | 10471-02 | " | " | " | | | " | " | — | | | | | | | |
| 9 | " | ALCOBS | U.LG-7 | 10469-05 | " | " | " | | | " | " | — | | | | | | | |
| 10 | " | " | LG-5 | 10469-06 | " | " | " | | | " | " | — | | | | | | | |
| 11 | 11/15/91 | NYSDEC | OHT-05A | 10424-01 | " | " | " | | | EPA 8/H | " | — | | | | | | | |
| 12 | " | " | BLANK | BLANK | " | " | " | | | " | " | — | | | | | | | |
| 13 | " | " | BLANK | BLANK | " | " | " | | | " | " | — | | | | | | | |
| 14 | 11/23/91 | WCC | 001 | 10518-01 | Water | 1000ml | 10ml | 5 | | PE/PCB | 100µl | — | | | | | | Wooddriver/Wright | |
| 15 | 11/23/91 | WCC | 002 | 10518-02 | Water | 1000ml | " | 5 | | PE/PCB | 100µl | — | | | | | | | |
| 16 | 11/23/91 | WCC | RINSE 003 | 10518-03 | Water | 1000ml | " | 5 | | PE/PCB | 100µl | — | | | | | | | |
| 17 | 11/23/91 | WCC | Blank | Blank | Water | 1000ml | " | | | PE/PCB | 100µl | — | | | | | | | |
| 18 | 11/23/91 | WCC | Blank | Blank | Water | 1000ml | " | | | PE/PCB | 100µl | — | | | | | Blank | | |
| 19 | 11/25/91 | Town of Islip | 11-C | 10527-01 | Miscel | 30g | 1ml | | | PEST | 200µl | — | | | | Sulfur clean up done | | | |
| 20 | 11/25/91 | SFMG Corp | S-3 | 10527-15 | Soil | 30g | | | | PE/PCB | 200µl | — | | | | GPC clean up | | | |
| 21 | 11/25/91 | " | Blank | Blank | Soil | 30g | | | | PE/PCB | 200µl | — | | | | " | | | |
| 22 | 11/25/91 | ~~[illegible]~~ | Blank | Blank | Soil | 30g | 1ml | | | PE/PCB | 200µl | — | | | | | | | |
| 23 | 11/23/91 | WWC | CONE | 10544-06 | Soil | 15 | 10ml | | | PCB | | — | | | | | K. Dove | | |
| 24 | " | " | BLANK | Blank | " | " | " | | | " | | — | | | | | | | |
| 25 | 11/26/91 | ENGINEERING COMPLIANCE | SB-62-A | 10592-01 | Soil | 30g | 1ml | | | TCL PE/PCB | 200µl | — | | | | Sulfur clean up done | | | |
| 26 | " | " | SB-62-B | 10592-02 | Soil | 30g | " | | | " | " | — | | | | | | | |
| 27 | " | " | SB-63-A | 10592-03 | Soil | 30g | " | | | " | " | — | | | | | | | |
| 28 | " | " | SB-63-B | 10592-04 | " | " | " | | | " | " | — | | | | | | | |
| 29 | " | " | SB-80-A | 10592-05 | " | " | " | | | " | " | — | | | | | | | |
| 30 | " | " | — | 10592-B23 | " | " | " | | | " | " | — | | | | | | P.O.D | |
| 31 | " | " | — | 10592-B42 | " | " | " | | | " | " | — | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | |

## EPTOX Surrogate Spikes

| Compound | Concentration | Amount Spiked |
|---|---|---|
| DBC | 10 ng/uL | 50 uL |
| 2,4,5-T | 10 ng/uL | 50 uL |

$$\text{2,4,5-T Recovery} = \frac{\text{Final Concentration in ppb}}{8.333} \times 100\%$$

$$\text{DBC Recovery} = \frac{\text{Sample DBC area}}{\text{RF}} \times \frac{1}{\text{uL inj'd}} \times \frac{1}{\text{amt. spiked}} \times 100\%$$

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## Daily Calibration Standards

INDA
INDB
HERB [3]

### Compounds of Interest (EPTOX)

| | |
|---|---|
| Lindane | 0.025 ng/uL |
| Endrin | 0.050 ng/uL |
| Methoxychlor | 0.200 ng/uL |
| 2,4-D | 0.125 ng/uL |
| Silvex(2,4,5-TP | 0.0625 ng/uL |

**Login 10378:**

(INDA) B12A020 (C) vs. B11H003 (I)

Lindane: 31309 (RF) vs. 48480 [%D=35]

(INDB)

Endrin: 21290 vs. 47010 [%D=55]

(HERB)

2,4-D Standard used was #3 from 5 pt. cal.
Silvex Standard used was #3 from 5 pt. cal.

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**Login 10388:**

(INDA) B12C038 (C) vs. B11H003 (I)

Lindane: 43320 vs. 48480 [%D=11]

Methoxychlor: 19888 vs. 21744 [%D=8.5]

(INDB)

Endrin: 34670 vs. (B11H009) 47010 [%D=26]

(HERB)

Standard used was #3 from ICAL

**Login 10407:**

(INDA) B12C038 (C) vs. B11H003 (I)

Lindane: 33600 vs. 48480 [%D=31]

Methoxychlor: 10134 vs. 21744 [%D=53]

(INDB)

Endrin: 22825 vs. (B11H009) 47010 [%D=51]

(HERB)

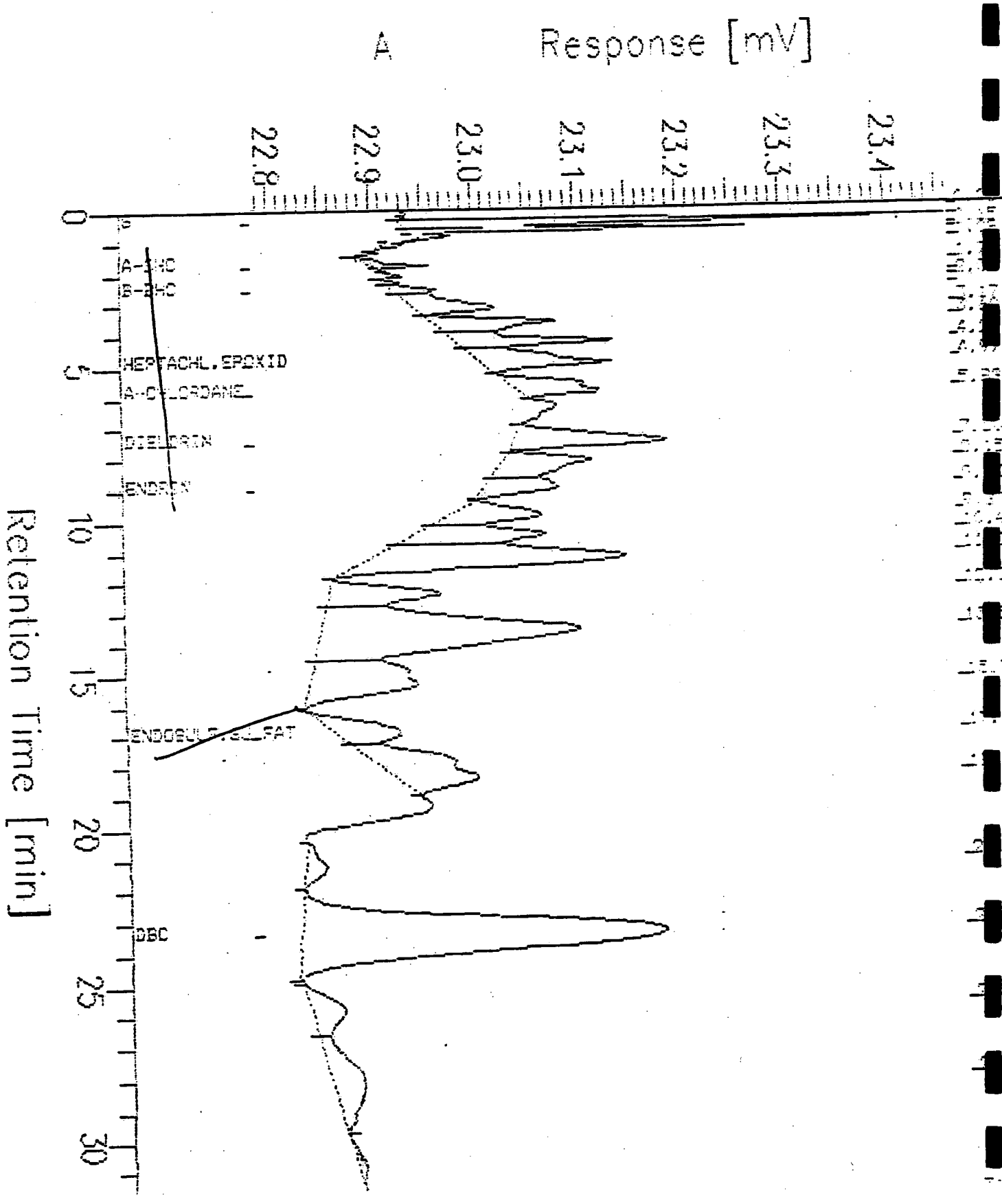
Standard used was #3 from ICAL

Chromatogram TOXAPHENE 1.2ng/ul

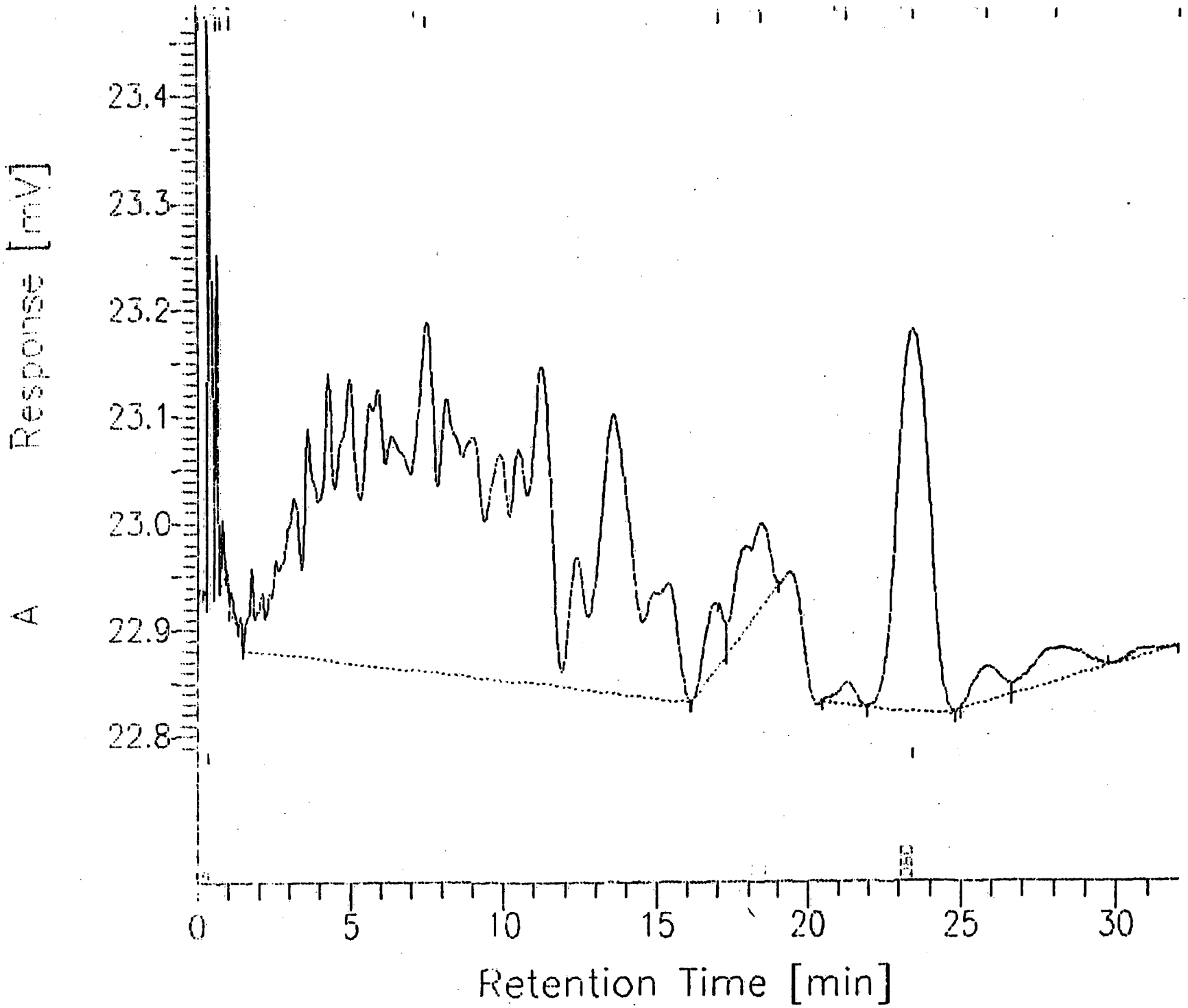


FileName : D:\2700\DATA1\B125014.raw
Start Time : 0.00 min End Time : 32.00 min
Scale Factor: 1 Plot Offset: 23 mV

Date : 12/11/91 01:21 PM
Low Point : 22.79 mV High Point : 23.46 mV
Plot Scale: 1 mV



Toxaphene 1.2ng/µl



Sample Name : TOXAPHENE
Sample Number: TOXAPHENE
Operator : LL

Time : 03/11/92 09:39
Study : TOXAPHENE

Interface # : 1 Channel : A A/D mV Range : 1000
AutoSampler : None attached
Rack/Vial : 0/0

Data Acquisition Time: 12/11/91 02:11
Delay Time : 0.00 min.
End Time : 32.00 min.
Sampling Rate : 1.0000 pts/sec

Raw Data File : b12e014.raw
Result File : D:\TEMP\~ers0B22.rst
Instrument File: C:\2700\DATA\B1.ins
Process File : C:\2700\DATA\B1.prc
Sample File : C:\2700\DATA\B1.smp
Sequence File : C:\2700\DATA\default.seq

Inj. Volume : 2 ul Area Reject : 900.00
Sample Amount : 1.0000

GC-ECD REPORT PEST/PCB/HERB

550B CHANNEL 1 (or chan. A): 1.5%SP2250 / 1.95%SP2401 ISO 205^C.

| Peak # | Ret Time [min] | Area [uV-sec] | Height [uV] | BL | AREA/XS RF (STD.) | NO. INJECT (SAMPLE) | Amount PPB (SAMPLE) | Component Name | COMMENTS NC / CON / <DL |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.37 | 4482 | 534 | BV | --------- | 0.0000 | 0.000 | s | |
| 3 | 0.65 | 1528 | 330 | VB | 100000.0 | 0.0079 | 0.008 | | |
| 6 | 7.50 | 140942 | 327 | BB | 100000.0 | 0.7047 | 0.705 | Toxaphene | |
| 7 | 17.03 | 2600 | 59 | BV | 100000.0 | 0.0130 | 0.013 | | |
| 8 | 18.42 | 5917 | 80 | VB | 100000.0 | 0.0296 | 0.030 | | |
| 10 | 23.43 | 25383 | 356 | BB | 83913.8 | 0.1512 | 0.151 | DBC | |
| 11 | 25.82 | 2073 | 34 | BV | 100000.0 | 0.0104 | 0.010 | | |
| 12 | 28.05 | 3707 | 33 | VV | 100000.0 | 0.0185 | 0.019 | | |
| | | 186692 | 1754 | | | 0.9354 | 0.935 | | |

NC=NOT CONFIRMED; CON=CONFIRMED; PREPARED BY..... REVIEWED BY...

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

ESS019D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

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

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

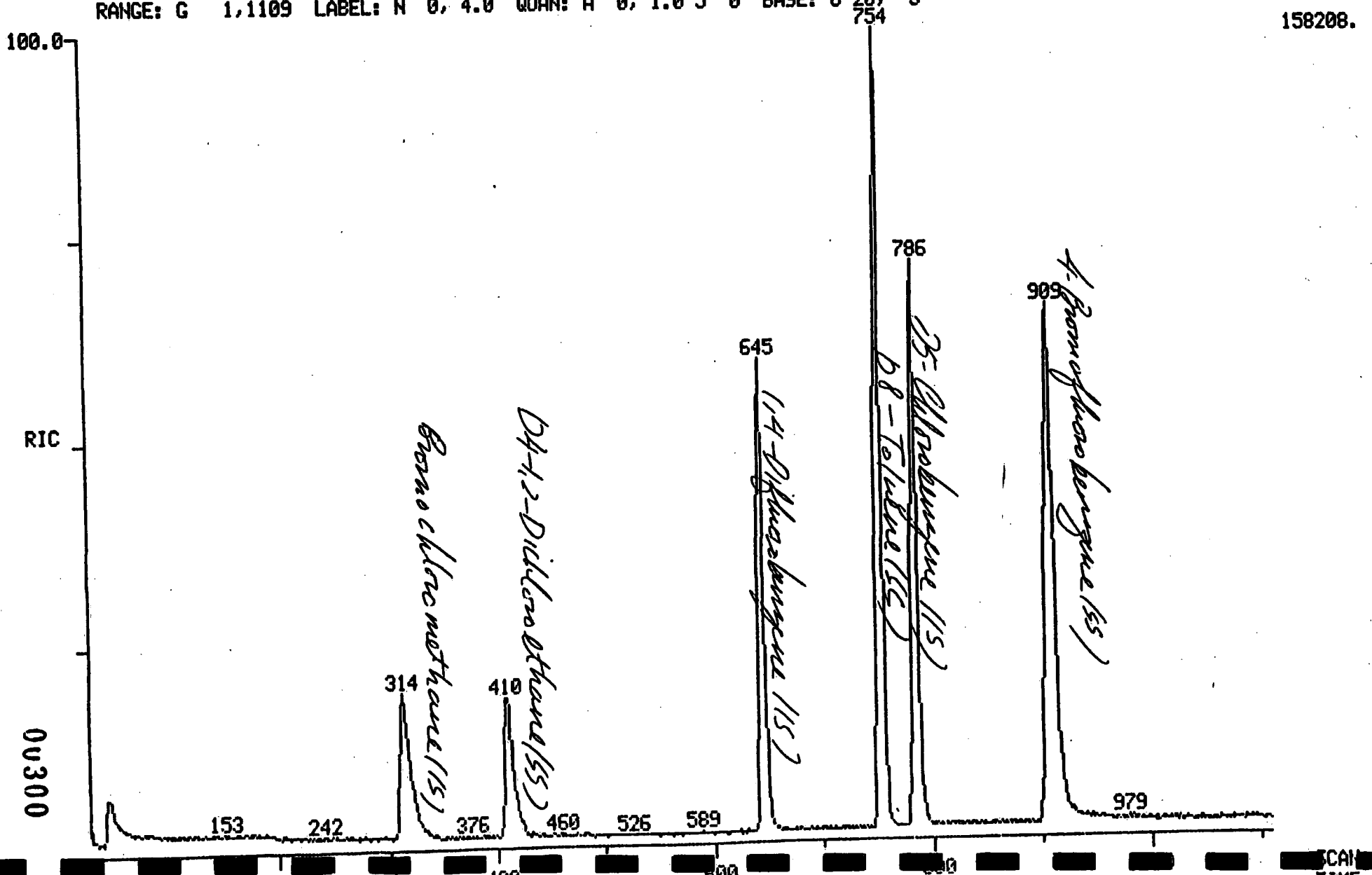
Concentration Units (ug/L or mg/kg dry weight): UG/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | 70.3000 | U | 70.3000 | U | | | P |
| Barium | | 66.3600 | B | 66.3600 | B | 0.0 | | P |
| Beryllium | | | | | | | | |
| Cadmium | | 3.5000 | U | 3.5000 | U | | | P |
| Calcium | | | | | | | | |
| Chromium | | 5.1000 | U | 5.1000 | U | | | P |
| Cobalt | | | | | | | | |
| Copper | | | | | | | | |
| Iron | | | | | | | | |
| Lead | | 17.7000 | U | 17.7000 | U | | | P |
| Magnesium | | | | | | | | |
| Manganese | | | | | | | | |
| Mercury | | 0.2000 | U | 0.2000 | U | | | AS |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium | | 56.9000 | U | 56.9000 | U | | | P |
| Silver | | 4.6000 | U | 4.6000 | U | | | P |
| Sodium | | | | | | | | |
| Thallium | | | | | | | | |
| Vanadium | | | | | | | | |
| Zinc | | | | | | | | |
| Cyanide | | | | | | | | |

RIC
12/09/91 10:47:00
SAMPLE: VBLK E50
CONDS.: 5G/5MLS, INST.E
RANGE: G 1,1109 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: E3876 #1
CALI: E3876 #2

SCANS 30 TO 1109



1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

OHL-3

Lab Name: NYTEST ENV INC Contract: _____

Lab Code: NYTEST Case No.: 6905 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 1060907

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1278

Level: (low/med) LOW Date Received: 12/05/91

% Moisture: not dec. ____ Date Analyzed: 12/10/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

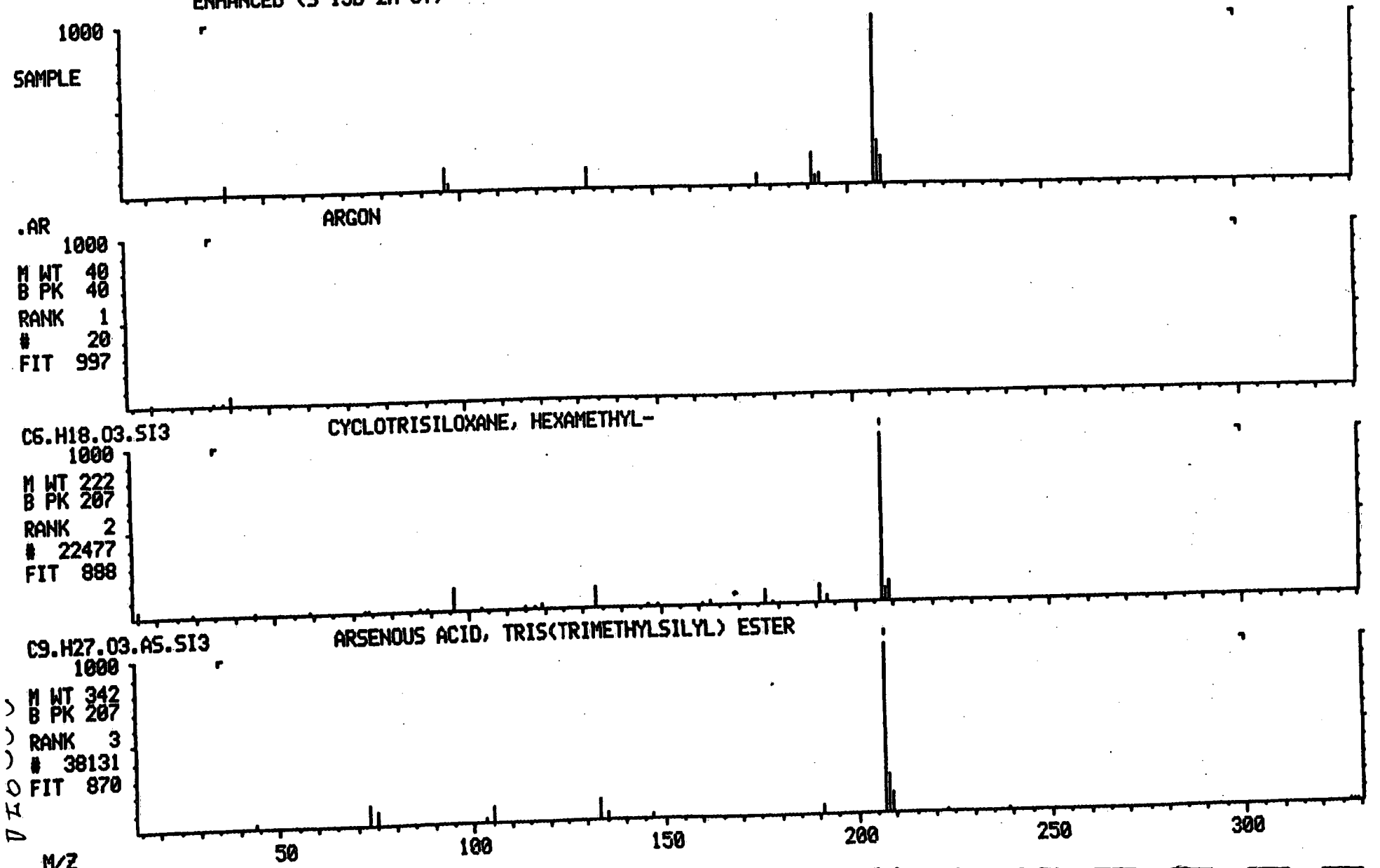
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN SILOXANE | 20.33 | 9.0 | J |
| 2. | TRIMETHYL BENZENE ISOMER | 29.34 | 33 | J |

LIBRARY SEARCH (LIBRARYNB)
12/10/91 12:29:00 + 20:20
SAMPLE: NYSDEC,OHL-3/1060907,REC'D 12/5/91
CONDS.: 5MLS,INST.K
ENHANCED (S 15B 2N 0T)

DATA: K1278 #1220
CALI: K1278 # 2

BASE M/Z: 207
RIC: 8720.



CONTRACTOR: NYTEST ENVIRONMENTAL INC. FORM IC FRACTION: VOA WATER/OIL/MISC SAMPLE ID: OHL-3 LAB ID: 16669-07

| | CAS NUMBER | TIC COMPOUND NAME | TIC RT MIN | AREA TIC | AREA IS | CONC. IS | RAW CONC CLP ONLY | DFT. DIL | 100/ 100-1H | FINAL CONC PPB | FLAG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Trimethyl Benzene IS | 29:19 | 319035 | 483247 | 50 | 33.0 | 1 | | 33 | |
| 2 | | Unk. Siloxane | 20:20 | 89514 | " | 50 | 9.3 | | | 9 | |
| 3 | | | | | | 50 | | | | | |
| 4 | | | | | | 50 | | | | | |
| 5 | | | | | | 50 | | | | | |
| 6 | | | | | | 50 | | | | | |
| 7 | | | | | | 50 | | | | | |
| 8 | | | | | | 50 | | | | | |
| 9 | | | | | | 50 | | | | | |
| 10 | | | | | | 50 | | | | | |
| 11 | | | | | | 50 | | | | | |
| 12 | | | | | | 50 | | | | | |
| 13 | | | | | | 50 | | | | | |
| 14 | | | | | | 50 | | | | | |
| 15 | | | | | | | | | | | |

# Data Validation Services

Cobble Creek Road P. O. Box 208
North Creek, N. Y. 12853
Phone 518-251-4429

TELEPHONE LOG

Date: 3-19-92

Person Contacted: John Gaspari / Nytest

PHONE No.: (516) 625 5500

Project Client: LMS

Project Reference: America v Hoffman

Discussion: I told John that Form 5 from item #6 had been omitted from resubmission packet. He said he'd have it taken care of. I told him that LMS had same omission in their copy and to please copy to them as well.

Additional Comments: Forms 5 + 6 were faxed today.

Signed: Judy Harry

Date: 3-19-92

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

NEI nytest environmental inc.

# FAX COVER SHEET

RECEIVED
MAR 19 1992
LMS ENGINEERS

**TO:** BILL AHLERT

**FAX NO:** 914-735-7477

**DATE:** 3/19/92

**NO. OF PAGES** 3
**(Including cover page)**

**FROM:** DOUGLAS SHEELEY

**MESSAGE:**

Attached, please find two forms, that were omitted from our package dated March 12, 1992. Sorry for any inconvenience we might have caused you. If you require any further information, do not hesitate to call me.

cc: to Judy Harry, Data Validation Service

**NOTE: IF YOU DO NOT RECEIVE THE ENTIRE TRANSMISSION, OR NEED PAGES TO BE RESENT DUE TO ILLEGIBILITY, PLEASE CALL US BACK IMMEDIATELY.**

box 1518 □ 60 seaview blvd., port washington, ny 11050 □ (516) 625-5500
fax (516) 625-1274

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

# nytest environmental inc.

## FAX COVER SHEET

TO: Judy Harry

FAX NO:

DATE: 3/19/92

NO. OF PAGES (Including cover page): 3

FROM: Douglas Shelley

MESSAGE: these are the forms you need any questions call me.

**NOTE: IF YOU DO NOT RECEIVE THE ENTIRE TRANSMISSION, OR NEED PAGES TO BE RESENT DUE TO ILLEGIBILITY, PLEASE CALL US BACK IMMEDIATELY.**

box 1518 □ 60 seaview blvd., port washington, ny 11050 □ (516) 625-5500
fax (516) 625-1274

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ESS019S

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

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 | | | | | | | | | NR |
| Antimony | | | | | | | | | NR |
| Arsenic | | | | | | | | | NR |
| Barium | 75-125 | 1970.0000 | | 66.3600 | B | 2000.00 | 95.2 | | P |
| Beryllium | | | | | | | | | NR |
| Cadmium | 75-125 | 43.6000 | | 3.5000 | U | 50.00 | 87.2 | | P |
| Calcium | | | | | | | | | NR |
| Chromium | 75-125 | 188.5000 | | 5.1000 | U | 200.00 | 94.2 | | P |
| Cobalt | | | | | | | | | NR |
| Copper | | | | | | | | | NR |
| Iron | | | | | | | | | NR |
| Lead | 75-125 | 433.9000 | | 17.7000 | U | 500.00 | 86.8 | | P |
| Magnesium | | | | | | | | | NR |
| Manganese | | | | | | | | | NR |
| Mercury | | | | | | | | | NR |
| Nickel | | | | | | | | | NR |
| Potassium | | | | | | | | | NR |
| Selenium | 75-125 | 510.6000 | | 56.9000 | U | 500.00 | 102.1 | | P |
| Silver | 75-125 | 28.2000 | | 4.6000 | U | 50.00 | 56.4 | N | P |
| Sodium | | | | | | | | | NR |
| Thallium | | | | | | | | | NR |
| Vanadium | | | | | | | | | NR |
| Zinc | | | | | | | | | NR |
| Cyanide | | | | | | | | | NR |
| | | | | | | | | | |

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

ESS019D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

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 | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | 70.3000 | U | 70.3000 | U | | | P |
| Barium | | 66.3600 | B | 66.3600 | B | 0.0 | | P |
| Beryllium | | | | | | | | |
| Cadmium | | 3.5000 | U | 3.5000 | U | | | P |
| Calcium | | | | | | | | |
| Chromium | | 5.1000 | U | 5.1000 | U | | | P |
| Cobalt | | | | | | | | |
| Copper | | | | | | | | |
| Iron | | | | | | | | |
| Lead | | 17.7000 | U | 17.7000 | U | | | P |
| Magnesium | | | | | | | | |
| Manganese | | | | | | | | |
| Mercury | | 0.2000 | U | 0.2000 | U | | | AS |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium | | 56.9000 | U | 56.9000 | U | | | P |
| Silver | | 4.6000 | U | 4.6000 | U | | | P |
| Sodium | | | | | | | | |
| Thallium | | | | | | | | |
| Vanadium | | | | | | | | |
| Zinc | | | | | | | | |
| Cyanide | | | | | | | | |

# Data Validation Services

**Cobble Creek Road P. O. Box 208**
**North Creek, N. Y. 12853**
**Phone 518-251-4429**



RECEIVED
APR 03 1992
LMS ENGINEERS


TO: Lawler, Matusky & Skelly, Engineers

FROM: Judy Harry, Data Validation Services J Harry

DATE: 3-26-92 Revised 4-1-92

RE: Validation of Amenia Site Data Packages
Aquatec SDG 1120, ETR 29358

Review has been completed for data packages generated by Aquatec, Inc. (Aquatec) pertaining to samples collected at the Amenia Site. Five surface waters were analysed for low level PCBs (detection limits of 0.05 ug/L). Attached to this report are a compliancy chart, laboratory case narrative, and laboratory preparation/analysis summary forms.

In summary, the data package was complete as submitted, and all sample reported results are substantiated by the raw data.

LOW LEVEL PCB ANALYSIS

Holding times, method blank, and standard criteria were met for the low level PCB analyses of the surface waters. Methodology involved analysis of five point calibration standards for each Aroclor mixture on a dual capillary column system.

All surrogate recoveries (two surrogates standards were spiked for each sample) were within recommended ranges for the samples and blank, with results falling between 79 and 115%. The surrogate DEC recoveries of the matrix spikes were slightly elevated at 122 and 124%.

Matrix spikes were performed by a spike of Aroclor 1242 for sample SW05. Recoveries were 83 and 104%, with a RPD of 22%.

Initial standard calibrations and calibration check samples produced compliant results.

COMPLIANCY SUMMARY

Project: Amenia Site

SDG Nos: Aquatec SDG 1120; ETR 29358

Protocol: 1989 NYSDEC ASP CLP

| Rec Date | Log/SDG | Spl ID | Matrix | VOA | BNA | PCB/Pest | LLPCB | Met | CN | EPMet | EPOrg | Noncompl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-22-91 | 1120 | SW01 | Aqueous | NR | NR | NR | OK | NR | NR | NR | NR | |
| 11-22-91 | 1120 | SW02 | Aqueous | NR | NR | NR | OK | NR | NR | NR | NR | |
| 11-22-91 | 1120 | SW03 | Aqueous | NR | NR | NR | OK | NR | NR | NR | NR | |
| 11-22-91 | 1120 | SW04 | Aqueous | NR | NR | NR | OK | NR | NR | NR | NR | |
| 11-22-91 | 1120 | SW05 | Aqueous | NR | NR | NR | OK | NR | NR | NR | NR | |

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

February 11, 1992

Dr. William Ahlert
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, New York 10965

Re: Analytical Results
Aquatec Project No. 90145
Case No. SH091; SDG No. 1120; ETR No. 29358

Dear Dr. Ahlert:

Enclosed are the results of low level PCB analyses performed on water samples received from LMS Engineers.

The samples were received intact on November 22, 1991. Laboratory numbers were assigned to the samples and were designated as follows:

| LMS Sample I.D. | Aquatec Lab No. | Sample Matrix |
|---|---|---|
| SW-1 | 149629 | Aqueous |
| SW-2 | 149630 | Aqueous |
| SW-3 | 149631 | Aqueous |
| SW-4 | 149632 | Aqueous |
| SW-5 | 149633 | Aqueous |
| SW-5MS | 149633MS | Aqueous |
| SW-5MSD | 149633MD | Aqueous |

Quality control samples (analyses) were logged into the laboratory for the purpose of internal sample tracking.

Sincerely,

Joseph Comeau

Joseph K. Comeau
Vice President of Chemistry

JKC/aks
Enclosures

91006B11FEB92

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 |
| SW-1 | 149629 | | | | ✓ † | | |
| SW-2 | 149630 | | | | ✓ † | | |
| SW-3 | 149631 | | | | ✓ † | | |
| SW-4 | 149632 | | | | ✓ † | | |
| SW-5 | 149633 | | | | ✓ † | | |
| SW-5 | 149633MS | | | | ✓ † | | |
| SW-5 | 149633MD | | | | ✓ † | | |

*Check Appropriate Boxes

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

† PCB's @ 0.065 ug/L

000003

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

B/N-A ORGANIC ANALYSES

| Sample ID | Matrix | Analytical Protocol | Extraction Method | Auxilary Clean Up | Dil/Conc Factor |
|---|---|---|---|---|---|
| 149629 | Aqueous | PCB's | SEPF | No | 1.0 |
| 149630 | Aqueous | PCB's | SEPF | No | 1.0 |
| 149631 | " | " | " | " | " |
| 149632 | " | " | " | " | " |
| 149633 | " | " | " | " | " |
| 149633MS | " | " | " | " | 5.0 |
| 149633MSD | " | " | " | " | 5.0 |

000004

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

| Laboratory Sample ID | Matrix | Date Collected | Date Rec'd At Lab | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|
| 149629 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149630 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149631 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149632 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149633 | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/9 |
| 149633MS | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |
| 149633MD | Aqueous | 11/20/91 | 11/22/91 | 11/26/91 | 12/22/ |

000005

# PART II.iv

# ANALYTICAL DATA PACKAGE

RECEIVED
FEB 12 1992
LMS ENGINEERS

Sample Data Summary Package

Lab Code: AQUAI

Case #: 29358

SDG #: 1120

Contract #: 90145; LMS (NYS) 91-93

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

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

February 11, 1992

Dr. William Ahlert
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P.O. Box 1509
Pearl River, New York 10965

Re: Analytical Results
Aquatec Project No. 90145
Case No. SH091; SDG No. 1120; ETR No. 29358

Dear Dr. Ahlert:

Enclosed are the results of low level PCB analyses performed on water samples received from LMS Engineers.

The samples were received intact on November 22, 1991. Laboratory numbers were assigned to the samples and were designated as follows:

| LMS Sample I.D. | Aquatec Lab No. | Sample Matrix |
|---|---|---|
| SW-1 | 149629 | Aqueous |
| SW-2 | 149630 | Aqueous |
| SW-3 | 149631 | Aqueous |
| SW-4 | 149632 | Aqueous |
| SW-5 | 149633 | Aqueous |
| SW-5MS | 149633MS | Aqueous |
| SW-5MSD | 149633MD | Aqueous |

Quality control samples (analyses) were logged into the laboratory for the purpose of internal sample tracking.

Sincerely,

Joseph Comeau

Joseph K. Comeau
Vice President of Chemistry

JKC/aks
Enclosures

91006B11FEB92

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149629

Phase Volume: 1002 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.050 | U |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

FORM I HCA

Rev. 9/88

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-2

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149630

Phase Volume: 1003 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.050 | U |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-3

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149631

Phase Volume: 1000 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.060 | |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-4

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149632

Phase Volume: 1004 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.050 | U |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

FORM I HCA

Rev. 9/88

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-5

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149633

Phase Volume: 1004 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.050 | U |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

FORM I HCA

Rev. 9/88

2HC
AROCLOR SURROGATE RECOVERY

Lab Name: AQUATEC, INC. Contract: C002685

Lab Code: AQUAI Case No.: SHC91 SAS No.: _____ SDG No.: 1120

GC Column ID (1): RTX-5 GC Column ID (2): RTX-35

| | EPA SAMPLE NO. | COL.1 S1 (TMX) # | COL. 2 S1 (TMX) # | COL.1 S2 (DEC) # | COL. 2 S2 (DEC) # |
|---|---|---|---|---|---|
| 01 | PBLKW1 | 93 | 94 | 97 | 98 |
| 02 | SW-1 | 81 | 79 | 101 | 98 |
| 03 | SW-2 | 97 | 96 | 115 | 112 |
| 04 | SW-3 | 82 | 79 | 101 | 99 |
| 05 | SW-4 | 86 | 82 | 106 | 102 |
| 06 | SW-5 | 89 | 89 | 103 | 100 |
| 07 | SW-5MS | 82 | 81 | 104 | 103 |
| 08 | SW-5MSD | 106 | 100 | 124 | 122 |
| 09 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
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| 29 | | | | | |
| 30 | | | | | |

| | QC LIMITS |
|---|---|
| S1 (TMX) = Tetrachloro-meta-Xylene | (40-120) |
| S2 (DEC) = Decachlorobiphenyl | (40-120) |

# Column to be used to flag recovery values

D Surrogates diluted out



FORM II HCA

Rev. 9/88

# AROCLOR MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No.: SHC91 SDG No.: 1120

Client Sample No.: SW-5

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % RECOVERY |
|---|---|---|---|---|
| AROCLOR 1242 | 1.98 | 0.00 | 1.65 | 83% |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % RECOVERY | % RPD |
|---|---|---|---|---|
| AROCLOR 1242 | 1.98 | 2.06 | 104% | 22% |

4HC
# AROCLOR METHOD BLANK SUMMARY

Lab Name: AQUATEC, INC. Contract: C002685

Lab Code: AQUAI Case No.: SH091 SAS No.: _____ SDG No.: 1120

Lab Sample ID: PBLK44 Date Extracted: 11/26/91

Date Analyzed (1): 12/22/91 Date Analyzed (2): 12/22/91

Time Analyzed (1): 0539 Time Analyzed (2): 0539

Instrument ID (1): HP2087 Instrument ID (2): HP2087

GC Column ID (1): RTX-5 GC Column ID (2): RTX-35

Sulfur Clean-up: N (Y/N)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND CMS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED 1 | TIME ANALYZED 1 | DATE ANALYZED 2 | TIME ANALYZED 2 |
|---|---|---|---|---|---|---|
| 01 | SW-1 | 149629 | 12/22/91 | 1234 | 12/22/91 | 1234 |
| 02 | SW-2 | 149630 | 12/22/91 | 1309 | 12/22/91 | 1309 |
| 03 | SW-3 | 149631 | 12/22/91 | 1343 | 12/22/91 | 1343 |
| 04 | SW-4 | 149632 | 12/22/91 | 1418 | 12/22/91 | 1418 |
| 05 | SW-5 | 149633 | 12/22/91 | 1452 | 12/22/91 | 1452 |
| 06 | SW-5MS | 149633MS | 12/22/91 | 1527 | 12/22/91 | 1527 |
| 07 | SW-5MSD | 149633MD | 12/22/91 | 1601 | 12/22/91 | 1601 |
| 08 | | | | | | |
| 09 | | | | | | |
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COMMENTS:



FORM IV HCA-1 Rev. 9/88

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKY4

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: PBLKY4

Phase Volume: 1000 (mL) Date Received: _____

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 1.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.050 | U |
| 11104-28-2 | Aroclor-1221 | 0.050 | U |
| 11141-16-5 | Aroclor-1232 | 0.050 | U |
| 53469-21-9 | Aroclor-1242 | 0.050 | U |
| 12672-29-6 | Aroclor-1248 | 0.050 | U |
| 11097-69-1 | Aroclor-1254 | 0.050 | U |
| 11096-82-5 | Aroclor-1260 | 0.050 | U |

FORM I HCA

Rev. 9/88

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-5MS

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149633MS

Phase Volume: 506 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 5.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.49 | U |
| 11104-28-2 | Aroclor-1221 | 0.49 | U |
| 11141-16-5 | Aroclor-1232 | 0.49 | U |
| 53469-21-9 | Aroclor-1242 | | |
| 12672-29-6 | Aroclor-1248 | 0.49 | U |
| 11097-69-1 | Aroclor-1254 | 0.49 | U |
| 11096-82-5 | Aroclor-1260 | 0.49 | U |

FORM I HCA

Rev. 9/88

1HG
AROCLOR ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-5MSD

Lab Name: Aquatec, Inc. Contract: C002685

Lab Code: AQUAI Case No. SH091 SAS No. _____ SDG No. 1120

Phase Type: Water Lab Sample ID: 149633MD

Phase Volume: 505 (mL) Date Received: 11/22/91

Injection Volume: 3.0 (uL) Date Extracted: 11/26/91

Dilution Factor: 5.0 Date Analyzed: 12/22/91

Sulfur Clean-up: N (Y/N)

| CAS NO. | COMPOUND | CONCENTRATION (ug/L) | Q |
|---|---|---|---|
| 12574-11-2 | Aroclor-1016 | 0.50 | U |
| 11104-28-2 | Aroclor-1221 | 0.50 | U |
| 11141-16-5 | Aroclor-1232 | 0.50 | U |
| 53469-21-9 | Aroclor-1242 | | |
| 12672-29-6 | Aroclor-1248 | 0.50 | U |
| 11097-69-1 | Aroclor-1254 | 0.50 | U |
| 11096-82-5 | Aroclor-1260 | 0.50 | U |

FORM I HCA

Rev. 9/88

U.S. EPA - CLP

# COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

SOW No.: 7/88

| EPA Sample No. | Lab Sample ID. |
|---|---|
| AMSW01 | 049801 |
| AMSW02 | 049802 |
| AMSW03 | 049803 |
| AMSW04 | 049808 |
| AMSW05 | 049804 |
| AMSW05D | 049804D |
| AMSW05S | 049804S |
| FBLANK | 049807 |
| SD-001 | 049809 |
| SD-002 | 049810 |
| SD-003 | 049811 |
| SD-004 | 049812 |
| SD-005 | 049813 |
| SD-005D | 049813D |
| SD-005S | 049813S |

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: Remo Gigante Name: Remo Gigante

Date: 12/30/91 Title: Executive VP

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW01

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): WATER Lab Sample ID: 049801

Level (low/med): LOW Date Received: 11/22/91

% 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 | 78.2 | B | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | W | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 54100 | | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.0 | U | | P |
| 7439-89-6 | Iron | 776 | | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 20100 | | | P |
| 7439-96-5 | Manganese | 134 | | | P |
| 7439-97-6 | Mercury | 0.26 | | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 3180 | B | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 5780 | | | P |
| 7440-28-0 | Thallium | 5.0 | U | W | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 4.5 | B | | P |
| | Cyanide | 10.0 | U | | AS |
| | | | | | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW02

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): WATER Lab Sample ID: 049802

Level (low/med): LOW Date Received: 11/22/91

% 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 | 86.2 | B | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 53400 | | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.0 | U | | P |
| 7439-89-6 | Iron | 503 | | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 19900 | | | P |
| 7439-96-5 | Manganese | 86.7 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 3140 | B | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 5250 | | | P |
| 7440-28-0 | Thallium | 5.0 | U | W | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 8.4 | B | | P |
| | Cyanide | 10.0 | U | | AS |
| | | | | | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): WATER Lab Sample ID: 049803

Level (low/med): LOW Date Received: 11/22/91

% 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 | 57.4 | B | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 53000 | | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.8 | B | | P |
| 7439-89-6 | Iron | 363 | | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 19800 | | | P |
| 7439-96-5 | Manganese | 101 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 3290 | B | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 5190 | | | P |
| 7440-28-0 | Thallium | 5.0 | U | W | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 3.8 | U | | P |
| | Cyanide | 10.0 | U | | AS |
| | | | | | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW04

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 09/ SAS No.: SDG No.: SDG1120

Matrix (soil/water): WATER Lab Sample ID: 049808

Level (low/med): LOW Date Received: 11/22/91

% 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 | 41.8 | U | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 52800 | | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.0 | U | | P |
| 7439-89-6 | Iron | 290 | | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 19700 | | | P |
| 7439-96-5 | Manganese | 62.7 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 2650 | B | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 4910 | B | | P |
| 7440-28-0 | Thallium | 5.0 | U | W | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 3.8 | U | | P |
| | Cyanide | 10.0 | U | | AS |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 09/ SAS No.: SDG No.: SDG1120

Matrix (soil/water): WATER Lab Sample ID: 049804

Level (low/med): LOW Date Received: 11/22/91

% 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 | 41.8 | U | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 53200 | | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.8 | B | | P |
| 7439-89-6 | Iron | 400 | | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 19700 | | | P |
| 7439-96-5 | Manganese | 81.2 | | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 2570 | B | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 5060 | | | P |
| 7440-28-0 | Thallium | 5.0 | U | W | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 3.8 | U | | P |
| | Cyanide | 10.0 | U | | AS |
| | | | | | |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG112D

Matrix (soil/water): WATER Lab Sample ID: 049807

Level (low/med): LOW Date Received: 11/22/91

% 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 | 41.8 | U | | P |
| 7440-36-0 | Antimony | 22.0 | U | | P |
| 7440-38-2 | Arsenic | 5.0 | U | | F |
| 7440-39-3 | Barium | 19.0 | U | | P |
| 7440-41-7 | Beryllium | 1.7 | U | | P |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | 933 | U | | P |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | 8.4 | U | | P |
| 7440-50-8 | Copper | 2.0 | U | | P |
| 7439-89-6 | Iron | 23.0 | U | | P |
| 7439-92-1 | Lead | 3.0 | U | | F |
| 7439-95-4 | Magnesium | 702 | U | | P |
| 7439-96-5 | Manganese | 1.6 | U | | P |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | 21.9 | U | | P |
| 7440-09-7 | Potassium | 965 | U | | P |
| 7782-49-2 | Selenium | 5.0 | U | | F |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | 1400 | U | | P |
| 7440-28-0 | Thallium | 5.0 | U | | F |
| 7440-62-2 | Vanadium | 6.6 | U | | P |
| 7440-66-6 | Zinc | 3.8 | U | | P |
| | Cyanide | 10.0 | U | | AS |

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
FIELD BLK 11/20/91

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-001

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): SOIL Lab Sample ID: 049809

Level (low/med): LOW Date Received: 11/22/91

% Solids: 46.2

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 10800 | | | P |
| 7440-36-0 | Antimony | 48.4 | | | P |
| 7440-38-2 | Arsenic | 8.4 | | NS | F |
| 7440-39-3 | Barium | 74.8 | B | | P |
| 7440-41-7 | Beryllium | 3.6 | | | P |
| 7440-43-9 | Cadmium | 1.5 | U | | P |
| 7440-70-2 | Calcium | 5410 | | | P |
| 7440-47-3 | Chromium | 9.7 | | | P |
| 7440-48-4 | Cobalt | 64.3 | | | P |
| 7440-50-8 | Copper | 0.87 | U | | P |
| 7439-89-6 | Iron | 128000 | | | P |
| 7439-92-1 | Lead | 23.4 | | S | F |
| 7439-95-4 | Magnesium | 6610 | | | P |
| 7439-96-5 | Manganese | 2890 | | * | P |
| 7439-97-6 | Mercury | 0.21 | U | N | CV |
| 7440-02-0 | Nickel | 144 | | | P |
| 7440-09-7 | Potassium | 1640 | B | | P |
| 7782-49-2 | Selenium | 2.2 | U | | F |
| 7440-22-4 | Silver | 2.0 | U | | P |
| 7440-23-5 | Sodium | 606 | U | | P |
| 7440-28-0 | Thallium | 2.2 | U | W | F |
| 7440-62-2 | Vanadium | 17.3 | B | | P |
| 7440-66-6 | Zinc | 347 | | | P |
| | Cyanide | 1.3 | U | N | AS |
| | | | | | |

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SD01
LEAD - 1:2 DILUTION

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-002

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): SOIL Lab Sample ID: 049810

Level (low/med): LOW Date Received: 11/22/91

% Solids: 27.4

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 22600 | | | P |
| 7440-36-0 | Antimony | 24.5 | B | | P |
| 7440-38-2 | Arsenic | 8.2 | | NS | F |
| 7440-39-3 | Barium | 118 | B | | P |
| 7440-41-7 | Beryllium | 2.2 | B | | P |
| 7440-43-9 | Cadmium | 2.6 | U | | P |
| 7440-70-2 | Calcium | 20100 | | | P |
| 7440-47-3 | Chromium | 25.6 | | | P |
| 7440-48-4 | Cobalt | 38.5 | | | P |
| 7440-50-8 | Copper | 28.5 | | | P |
| 7439-89-6 | Iron | 79500 | | | P |
| 7439-92-1 | Lead | 49.6 | | S | F |
| 7439-95-4 | Magnesium | 9930 | | | P |
| 7439-96-5 | Manganese | 1170 | | * | P |
| 7439-97-6 | Mercury | 0.35 | U | N | CV |
| 7440-02-0 | Nickel | 88.5 | | | P |
| 7440-09-7 | Potassium | 2280 | B | | P |
| 7782-49-2 | Selenium | 3.6 | U | | F |
| 7440-22-4 | Silver | 3.4 | U | | P |
| 7440-23-5 | Sodium | 1020 | U | | P |
| 7440-28-0 | Thallium | 3.6 | U | W | F |
| 7440-62-2 | Vanadium | 38.4 | | | P |
| 7440-66-6 | Zinc | 284 | | | P |
| | Cyanide | 1.8 | U | N | AS |
| | | | | | |

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SD02
LEAD - 1:2 DILUTION

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-003

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): SOIL Lab Sample ID: 049811

Level (low/med): LOW Date Received: 11/22/91

% Solids: 66.7

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 10900 | | | P |
| 7440-36-0 | Antimony | 22.3 | | | P |
| 7440-38-2 | Arsenic | 5.3 | | N | F |
| 7440-39-3 | Barium | 44.3 | B | | P |
| 7440-41-7 | Beryllium | 0.60 | B | | P |
| 7440-43-9 | Cadmium | 3.8 | | | P |
| 7440-70-2 | Calcium | 37200 | | | P |
| 7440-47-3 | Chromium | 15.7 | | | P |
| 7440-48-4 | Cobalt | 17.7 | | | P |
| 7440-50-8 | Copper | 40.2 | | | P |
| 7439-89-6 | Iron | 37800 | | | P |
| 7439-92-1 | Lead | 71.4 | | | F |
| 7439-95-4 | Magnesium | 21000 | | | P |
| 7439-96-5 | Manganese | 692 | | * | P |
| 7439-97-6 | Mercury | 0.14 | U | N | CV |
| 7440-02-0 | Nickel | 43.8 | | | P |
| 7440-09-7 | Potassium | 1180 | B | | P |
| 7782-49-2 | Selenium | 1.5 | U | W | F |
| 7440-22-4 | Silver | 1.4 | U | | P |
| 7440-23-5 | Sodium | 419 | U | | P |
| 7440-28-0 | Thallium | 1.5 | U | W | F |
| 7440-62-2 | Vanadium | 17.8 | | | P |
| 7440-66-6 | Zinc | 253 | | | P |
| | Cyanide | 0.82 | U | N | AS |
| | | | | | |

Color Before: BLACK Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SD03
LEAD - 1:4 DILUTION

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-004

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): SOIL Lab Sample ID: 049812

Level (low/med): LOW Date Received: 11/22/91

% Solids: 14.2

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 17600 | | | P |
| 7440-36-0 | Antimony | 60.3 | B | | P |
| 7440-38-2 | Arsenic | 16.7 | | NS | F |
| 7440-39-3 | Barium | 105 | B | | P |
| 7440-41-7 | Beryllium | 2.4 | U | | P |
| 7440-43-9 | Cadmium | 4.9 | U | | P |
| 7440-70-2 | Calcium | 25800 | | | P |
| 7440-47-3 | Chromium | 25.9 | | | P |
| 7440-48-4 | Cobalt | 43.4 | B | | P |
| 7440-50-8 | Copper | 32.8 | B | | P |
| 7439-89-6 | Iron | 60600 | | | P |
| 7439-92-1 | Lead | 70.8 | | S | F |
| 7439-95-4 | Magnesium | 8900 | | | P |
| 7439-96-5 | Manganese | 969 | | * | P |
| 7439-97-6 | Mercury | 5.4 | | N | CV |
| 7440-02-0 | Nickel | 81.8 | | | P |
| 7440-09-7 | Potassium | 2890 | B | | P |
| 7782-49-2 | Selenium | 7.0 | U | W | F |
| 7440-22-4 | Silver | 6.5 | U | | P |
| 7440-23-5 | Sodium | 1970 | U | | P |
| 7440-28-0 | Thallium | 7.0 | U | | F |
| 7440-62-2 | Vanadium | 32.0 | B | | P |
| 7440-66-6 | Zinc | 245 | | | P |
| | Cyanide | 4.3 | U | N | AS |

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SD04
LEAD - 1:2 DILUTION

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD-005

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

Matrix (soil/water): SOIL Lab Sample ID: 049813

Level (low/med): LOW Date Received: 11/22/91

% Solids: 43.8

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 9810 | | | P |
| 7440-36-0 | Antimony | 25.7 | B | | P |
| 7440-38-2 | Arsenic | 4.7 | | NS | F |
| 7440-39-3 | Barium | 51.3 | B | | P |
| 7440-41-7 | Beryllium | 0.91 | B | | P |
| 7440-43-9 | Cadmium | 1.6 | U | | P |
| 7440-70-2 | Calcium | 6660 | | | P |
| 7440-47-3 | Chromium | 13.4 | | | P |
| 7440-48-4 | Cobalt | 26.9 | | | P |
| 7440-50-8 | Copper | 9.8 | B | | P |
| 7439-89-6 | Iron | 51400 | | | P |
| 7439-92-1 | Lead | 19.1 | | S | F |
| 7439-95-4 | Magnesium | 5280 | | | P |
| 7439-96-5 | Manganese | 1320 | | * | P |
| 7439-97-6 | Mercury | 1.3 | | N | CV |
| 7440-02-0 | Nickel | 53.5 | | | P |
| 7440-09-7 | Potassium | 1260 | B | | P |
| 7782-49-2 | Selenium | 2.3 | U | W | F |
| 7440-22-4 | Silver | 2.1 | U | | P |
| 7440-23-5 | Sodium | 639 | U | | P |
| 7440-28-0 | Thallium | 2.3 | U | W | F |
| 7440-62-2 | Vanadium | 15.8 | B | | P |
| 7440-66-6 | Zinc | 142 | | | P |
| | Cyanide | 1.2 | U | N | AS |

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
SD05
LEAD - 1:2 DILUTION

00944

nytest environmental inc

## REPORT OF ANALYSIS

Log In No.: 10498

We find as follows:

| Parameter(s) | Sample Identification | | | |
|---|---|---|---|---|
| | AMSW01 (1049801) | AMSW02 (1049802) | AMSW03 (1049803) | AMSW05 (1049804) |
| pH | 7.62 | 7.71 | 7.67 | 7.71 |
| Specific Conductance, umhos/cm | 420 | 403 | 391 | 396 |
| Results im mg/l: | | | | |
| Chemical Oxygen Demand | 17 | 73 | <3 | 17 |
| Total Dissolved Solids | 243 | 255 | 245 | 250 |
| Total Suspended Solids | 5 | 9 | 17 | 4 |

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## REPORT OF ANALYSIS

Log In No.: 10498

We find as follows:

| Parameter(s) | Sample Identification | |
|---|---|---|
| | AMSW04 (1049808) | Method Blank |
| pH | 7.78 | NA |
| Specific Conductance, umhos/cm | 377 | NA |
| Results im mg/l: | | |
| Chemical Oxygen Demand | 17 | <3 |
| Total Dissolved Solids | 271 | <10 |
| Total Suspended Solids | 5 | <1 |

NA = Not Applicable

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6
DUPLICATES

EPA SAMPLE NO.

AMSW05D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

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 | | 41.8000 | U | 45.6000 | B | 200.0 | | P |
| Antimony | | 22.0000 | U | 22.0000 | U | | | P |
| Arsenic | | 5.0000 | U | 5.0000 | U | | | F |
| Barium | | 19.0000 | U | 19.0000 | U | | | P |
| Beryllium | | 1.7000 | U | 1.7000 | U | | | P |
| Cadmium | | 3.5000 | U | 3.5000 | U | | | P |
| Calcium | | 53190.0000 | | 53780.0000 | | 1.1 | | P |
| Chromium | | 5.1000 | U | 5.1000 | U | | | P |
| Cobalt | | 8.4000 | U | 8.4000 | U | | | P |
| Copper | | 2.8000 | B | 2.0000 | U | 200.0 | | P |
| Iron | 100.0 | 400.4000 | | 408.6000 | | 2.0 | | P |
| Lead | | 3.0000 | U | 3.0000 | U | | | F |
| Magnesium | 5000.0 | 19700.0000 | | 19930.0000 | | 1.2 | | P |
| Manganese | | 81.2000 | | 81.6000 | | 0.5 | | P |
| Mercury | | 0.2000 | U | 0.2000 | U | | | CV |
| Nickel | | 21.9000 | U | 21.9000 | U | | | P |
| Potassium | | 2569.0000 | B | 2531.0000 | B | 1.5 | | P |
| Selenium | | 5.0000 | U | 5.0000 | U | | | F |
| Silver | | 4.6000 | U | 4.6000 | U | | | P |
| Sodium | 5000.0 | 5058.0000 | | 5028.0000 | | 0.6 | | P |
| Thallium | | 5.0000 | U | 5.0000 | U | | | F |
| Vanadium | | 6.6000 | U | 6.6000 | U | | | P |
| Zinc | | 3.8000 | U | 3.8000 | U | | | P |
| Cyanide | | 10.0000 | U | 10.0000 | U | | | AS |

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

SD-005D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118473

Lab Code: 10195 Case No.: 091 SAS No.: SDG No.: SDG1120

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

% Solids for Sample: 43.8 % Solids for Duplicate: 22.7

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

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 9808.2192 | | 9050.2283 | | 8.0 | | P |
| Antimony | | 25.6621 | B | 21.1416 | B | 19.3 | | P |
| Arsenic | 4.6 | 4.7032 | | 6.3927 | | 30.5 | | F |
| Barium | | 51.2785 | B | 47.4886 | B | 7.7 | | P |
| Beryllium | | 0.9132 | B | 0.9132 | B | 0.0 | | P |
| Cadmium | | 1.5982 | U | 1.5982 | U | | | P |
| Calcium | 2283.1 | 6657.5342 | | 6470.3196 | | 2.9 | | P |
| Chromium | 4.6 | 13.4247 | | 11.0502 | | 19.4 | | P |
| Cobalt | 22.8 | 26.8950 | | 27.4886 | | 2.2 | | P |
| Copper | | 9.7717 | B | 6.3927 | B | 41.8 | | P |
| Iron | | 51369.8630 | | 55114.1550 | | 7.0 | | P |
| Lead | | 19.1486 | | 22.8311 | | 17.5 | | F |
| Magnesium | 2283.1 | 5283.1050 | | 4803.6530 | | 9.5 | | P |
| Manganese | | 1315.9817 | | 973.0594 | | 30.0 | * | P |
| Mercury | | 1.3046 | | 1.4242 | | 8.8 | | CV |
| Nickel | 18.3 | 53.5160 | | 62.5114 | | 15.5 | | P |
| Potassium | | 1260.2740 | B | 1121.0046 | B | 11.7 | | P |
| Selenium | | 2.2831 | U | 2.2831 | U | | | F |
| Silver | | 2.1005 | U | 2.1005 | U | | | P |
| Sodium | | 638.8128 | U | 638.8128 | U | | | P |
| Thallium | | 2.2831 | U | 2.2831 | U | | | F |
| Vanadium | | 15.7534 | B | 13.8356 | B | 13.0 | | P |
| Zinc | | 141.5525 | | 144.7489 | | 2.2 | | P |
| Cyanide | 1.2 | 1.2054 | U | 1.2042 | U | | | AS |

TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9118473
Log in No. : 10498, 10519
P.O. No. : Pending
Date : Dec. 27, 1991

RECEIVED DEC 31 1991 LMS ENGINEERS

SUMMARY DATA REPORT PACKAGE

FOR

NYSDEC

Bureau of Technical Services Research

50 Wolf Rd., Rm 301

Albany, NY 12233-3502

RECEIVED DEC 31 1991 LMS ENGINEERS

ATTN: Analytical Services Section
REF: Amenia Case#SH91, SDG#1120

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | TYPE OF SAMPLE |
|---|---|---|

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A TRUE REPORT OF RESULTS OBTAINED FROM OUR TESTS OF THIS MATERIAL.

PARAG K. SHAH, Ph. D.
ORGANIC LAB. MANAGER
cc: LMS
1 Blue Hill Plaza
Pearl River, NY
Attn: Bill Ahlert

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

for DOUGLAS SHEELEY
LABORATORY DIRECTOR
gd

Report on sample(s) furnished by client applies to sample(s). Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

box 1518 □ 60 seaview blvd., port washington, ny 11050 □ (516) 625-5500

NYTEST ENVIRONMENTAL Inc.

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | TYPE OF SAMPLE |
|---|---|---|
| 1049801 | AMSW01 | Water |
| 1049802 | AMSW02 | Water |
| 1049803 | AMSW03 | Water |
| 1049804 | AMSW05 | Water |
| 1049805 | AMSW05MS | Water |
| 1049806 | SW05MSD | Water |
| 1049807 | FIELD BLK | Water |
| 1049808 | AMSW04 | Water |
| 1049809 | SD01 | Miscell. |
| 1049810 | SD02 | Miscell. |
| 1049811 | SD03 | Miscell. |
| 1049812 | SD04 | Miscell. |
| 1049813 | SD05 | Miscell. |
| 1049814 | SD05MS | Miscell. |
| 1049815 | SD05MSD | Miscell. |
| 1049816 | TRIP BLK | Water |

NYTEST ENVIRONMENTAL Inc.

| LABORATORY NUMBER | SAMPLE IDENTIFICATION | TYPE OF SAMPLE |
|---|---|---|
| 1051901 | AMSW-04 | Water |

Form I

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049801

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1218

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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 | 5 | U |
| 67-64-1 | Acetone | 13 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049801

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1218

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column (pack/cap) CAP Dilution Factor: 1.0

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.

AMSW02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049802

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1219

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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 | 3 | BJ |
| 67-64-1 | Acetone | 11 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049802

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1219

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column (pack/cap) CAP Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049803

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1220

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| 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 | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049803

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1220

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. Date Analyzed: 11/29/91

Column (pack/cap) CAP Dilution Factor: 1.0

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.

AMSW04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1051901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1240

Level: (low/med) LOW Date Received: 11/25/91

% Moisture: not dec. ____ Date Analyzed: 12/02/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| 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 | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

00058

1E

EPA SAMPLE NO.

AMSW04

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1051901

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1240

Level: (low/med) LOW Date Received: 11/25/91

% Moisture: not dec. ____ Date Analyzed: 12/02/91

Column (pack/cap) CAP Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049804

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1221

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column: (pack/cap) CAP Dilution Factor: 1.0

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 | 10 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049804

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K1221

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/29/91

Column (pack/cap) CAP Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049807

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E3717

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/26/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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 | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9112473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049807

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E3717

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/26/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049809

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3773

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 54 Date Analyzed: 11/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 22 | U |
| 74-83-9 | Bromomethane | 22 | U |
| 75-01-4 | Vinyl Chloride | 22 | U |
| 75-00-3 | Chloroethane | 22 | U |
| 75-09-2 | Methylene Chloride | 29 | B |
| 67-64-1 | Acetone | 22 | U |
| 75-15-0 | Carbon Disulfide | 11 | U |
| 75-35-4 | 1,1-Dichloroethene | 11 | U |
| 75-34-3 | 1,1-Dichloroethane | 11 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 11 | U |
| 67-66-3 | Chloroform | 11 | U |
| 107-06-2 | 1,2-Dichloroethane | 11 | U |
| 78-93-3 | 2-Butanone | 22 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 11 | U |
| 56-23-5 | Carbon Tetrachloride | 11 | U |
| 108-05-4 | Vinyl Acetate | 22 | U |
| 75-27-4 | Bromodichloromethane | 11 | U |
| 78-87-5 | 1,2-Dichloropropane | 11 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 11 | U |
| 79-01-6 | Trichloroethene | 11 | U |
| 124-48-1 | Dibromochloromethane | 11 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 11 | U |
| 71-43-2 | Benzene | 11 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 11 | U |
| 75-25-2 | Bromoform | 11 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 22 | U |
| 591-78-6 | 2-Hexanone | 22 | U |
| 127-18-4 | Tetrachloroethene | 11 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 11 | U |
| 108-88-3 | Toluene | 11 | U |
| 108-90-7 | Chlorobenzene | 11 | U |
| 100-41-4 | Ethylbenzene | 11 | U |
| 100-42-5 | Styrene | 11 | U |
| 1330-20-7 | Xylenes (total) | 11 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049809

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3773

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 54 Date Analyzed: 11/29/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD02

Lab Name: NYTEST ENV INC  Contract: 9118473

Lab Code: NYTEST  Case No.: 091  SAS No.: _____  SDG No.: 1120

Matrix: (soil/water) SOIL  Lab Sample ID: 1049810

Sample wt/vol: 5.0 (g/mL) G  Lab File ID: E3774

Level: (low/med) LOW  Date Received: 11/22/91

% Moisture: not dec. 73  Date Analyzed: 11/29/91

Column: (pack/cap) PACK  Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 37 | U |
| 74-83-9 | Bromomethane | 37 | U |
| 75-01-4 | Vinyl Chloride | 37 | U |
| 75-00-3 | Chloroethane | 37 | U |
| 75-09-2 | Methylene Chloride | 51 | B |
| 67-64-1 | Acetone | 37 | U |
| 75-15-0 | Carbon Disulfide | 19 | U |
| 75-35-4 | 1,1-Dichloroethene | 19 | U |
| 75-34-3 | 1,1-Dichloroethane | 19 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 19 | U |
| 67-66-3 | Chloroform | 19 | U |
| 107-06-2 | 1,2-Dichloroethane | 19 | U |
| 78-93-3 | 2-Butanone | 37 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 19 | U |
| 56-23-5 | Carbon Tetrachloride | 19 | U |
| 108-05-4 | Vinyl Acetate | 37 | U |
| 75-27-4 | Bromodichloromethane | 19 | U |
| 78-87-5 | 1,2-Dichloropropane | 19 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 19 | U |
| 79-01-6 | Trichloroethene | 19 | U |
| 124-48-1 | Dibromochloromethane | 19 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 19 | U |
| 71-43-2 | Benzene | 19 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 19 | U |
| 75-25-2 | Bromoform | 19 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 37 | U |
| 591-78-6 | 2-Hexanone | 37 | U |
| 127-18-4 | Tetrachloroethene | 19 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 19 | U |
| 108-88-3 | Toluene | 19 | U |
| 108-90-7 | Chlorobenzene | 19 | U |
| 100-41-4 | Ethylbenzene | 19 | U |
| 100-42-5 | Styrene | 19 | U |
| 1330-20-7 | Xylenes (total) | 19 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049810

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3774

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 73 Date Analyzed: 11/29/91

Column (pack/cap) PACK Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD03

Lab Name: NYTEST ENV INC  Contract: 9118473

Lab Code: NYTEST  Case No.: 091  SAS No.: _____  SDG No.: 1120

Matrix: (soil/water) SOIL  Lab Sample ID: 1049811

Sample wt/vol: 5.0 (g/mL) G  Lab File ID: E3775

Level: (low/med) LOW  Date Received: 11/22/91

% Moisture: not dec. 33  Date Analyzed: 11/29/91

Column: (pack/cap) PACK  Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 15 | U |
| 74-83-9 | Bromomethane | 15 | U |
| 75-01-4 | Vinyl Chloride | 15 | U |
| 75-00-3 | Chloroethane | 15 | U |
| 75-09-2 | Methylene Chloride | 22 | B |
| 67-64-1 | Acetone | 15 | U |
| 75-15-0 | Carbon Disulfide | 7 | U |
| 75-35-4 | 1,1-Dichloroethene | 7 | U |
| 75-34-3 | 1,1-Dichloroethane | 7 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 7 | U |
| 67-66-3 | Chloroform | 7 | U |
| 107-06-2 | 1,2-Dichloroethane | 7 | U |
| 78-93-3 | 2-Butanone | 15 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 7 | U |
| 56-23-5 | Carbon Tetrachloride | 7 | U |
| 108-05-4 | Vinyl Acetate | 15 | U |
| 75-27-4 | Bromodichloromethane | 7 | U |
| 78-87-5 | 1,2-Dichloropropane | 7 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 7 | U |
| 79-01-6 | Trichloroethene | 7 | U |
| 124-48-1 | Dibromochloromethane | 7 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 7 | U |
| 71-43-2 | Benzene | 7 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 7 | U |
| 75-25-2 | Bromoform | 7 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 15 | U |
| 591-78-6 | 2-Hexanone | 15 | U |
| 127-18-4 | Tetrachloroethene | 7 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 7 | U |
| 108-88-3 | Toluene | 7 | U |
| 108-90-7 | Chlorobenzene | 7 | U |
| 100-41-4 | Ethylbenzene | 7 | U |
| 100-42-5 | Styrene | 7 | U |
| 1330-20-7 | Xylenes (total) | 7 | U |

00068

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

SD03

Lab Name: NYTEST ENV INC  Contract: 9118473

Lab Code: NYTEST  Case No.: 091  SAS No.: _____  SDG No.: 1120

Matrix: (soil/water) SOIL  Lab Sample ID: 1049811

Sample wt/vol: 5.0 (g/mL) G  Lab File ID: E3775

Level: (low/med) LOW  Date Received: 11/22/91

% Moisture: not dec. 33  Date Analyzed: 11/29/91

Column (pack/cap) PACK  Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049812

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3776

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 86 Date Analyzed: 11/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 71 | U |
| 74-83-9 | Bromomethane | 71 | U |
| 75-01-4 | Vinyl Chloride | 71 | U |
| 75-00-3 | Chloroethane | 71 | U |
| 75-09-2 | Methylene Chloride | 89 | B |
| 67-64-1 | Acetone | 71 | U |
| 75-15-0 | Carbon Disulfide | 36 | U |
| 75-35-4 | 1,1-Dichloroethene | 36 | U |
| 75-34-3 | 1,1-Dichloroethane | 36 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 36 | U |
| 67-66-3 | Chloroform | 36 | U |
| 107-06-2 | 1,2-Dichloroethane | 36 | U |
| 78-93-3 | 2-Butanone | 71 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 36 | U |
| 56-23-5 | Carbon Tetrachloride | 36 | U |
| 108-05-4 | Vinyl Acetate | 71 | U |
| 75-27-4 | Bromodichloromethane | 36 | U |
| 78-87-5 | 1,2-Dichloropropane | 36 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 36 | U |
| 79-01-6 | Trichloroethene | 36 | U |
| 124-48-1 | Dibromochloromethane | 36 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 36 | U |
| 71-43-2 | Benzene | 36 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 36 | U |
| 75-25-2 | Bromoform | 36 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 71 | U |
| 591-78-6 | 2-Hexanone | 71 | U |
| 127-18-4 | Tetrachloroethene | 36 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 36 | U |
| 108-88-3 | Toluene | 36 | U |
| 108-90-7 | Chlorobenzene | 36 | U |
| 100-41-4 | Ethylbenzene | 36 | U |
| 100-42-5 | Styrene | 36 | U |
| 1330-20-7 | Xylenes (total) | 36 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049812

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3776

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 86 Date Analyzed: 11/29/91

Column (pack/cap) PACK Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049813

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3777

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 56 Date Analyzed: 11/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 23 | U |
| 74-83-9 | Bromomethane | 23 | U |
| 75-01-4 | Vinyl Chloride | 23 | U |
| 75-00-3 | Chloroethane | 23 | U |
| 75-09-2 | Methylene Chloride | 26 | B |
| 67-64-1 | Acetone | 150 | |
| 75-15-0 | Carbon Disulfide | 11 | U |
| 75-35-4 | 1,1-Dichloroethene | 11 | U |
| 75-34-3 | 1,1-Dichloroethane | 11 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 11 | U |
| 67-66-3 | Chloroform | 11 | U |
| 107-06-2 | 1,2-Dichloroethane | 11 | U |
| 78-93-3 | 2-Butanone | 23 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 11 | U |
| 56-23-5 | Carbon Tetrachloride | 11 | U |
| 108-05-4 | Vinyl Acetate | 23 | U |
| 75-27-4 | Bromodichloromethane | 11 | U |
| 78-87-5 | 1,2-Dichloropropane | 11 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 11 | U |
| 79-01-6 | Trichloroethene | 11 | U |
| 124-48-1 | Dibromochloromethane | 11 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 11 | U |
| 71-43-2 | Benzene | 11 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 11 | U |
| 75-25-2 | Bromoform | 11 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 23 | U |
| 591-78-6 | 2-Hexanone | 23 | U |
| 127-18-4 | Tetrachloroethene | 11 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 11 | U |
| 108-88-3 | Toluene | 1 | J |
| 108-90-7 | Chlorobenzene | 11 | U |
| 100-41-4 | Ethylbenzene | 11 | U |
| 100-42-5 | Styrene | 11 | U |
| 1330-20-7 | Xylenes (total) | 11 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 001 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049813

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E3777

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 56 Date Analyzed: 11/29/91

Column (pack/cap) PACK Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049816

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E3716

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/26/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | J |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049816

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E3716

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ Date Analyzed: 11/26/91

Column (pack/cap) PACK Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5788

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5788

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 2 | BJ |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

AMSW01

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049801

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5788

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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

Number TICs found: 2

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 5.28 | 45 | J |
| 2. | UNKNOWN | 5.45 | 8.5 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5789

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5789

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. dec. Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 2 | BJ |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

AMSW02

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049802

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5789

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENV INC  Contract: 9118473

Lab Code: NYTEST  Case No.: 091  SAS No.: ____  SDG No.: 1120

Matrix: (soil/water) WATER  Lab Sample ID: 1049803

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: A5790

Level: (low/med) LOW  Date Received: 11/22/91

% Moisture: not dec. ____  dec. ____  Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT  Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N  pH: 7.0  Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5790

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 2 | BJ |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW03

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5790

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/13/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 2

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 4.93 | 13 | J |
| 2. | UNKNOWN | 5.45 | 16 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049808

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5867

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 661 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049808

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5867

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW04

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049803

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5867

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. dec. Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENV INC Contract: 2118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1179

Matrix: (soil/water) WATER Lab Sample ID: 1049804

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5863

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049804

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5863

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSW05

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049804

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5863

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 9.44 | 8.5 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049807

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5866

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 331 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049807

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5866

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. dec. Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELDBLK

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) WATER Lab Sample ID: 1049807

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A5866

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/27/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 12/17/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 2

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 9.42 | 13 | J |
| 2. | UNKNOWN | 10.02 | 9.1 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049809

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5876

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 54 dec. ____ Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2900 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 2900 | U |
| 95-57-8 | 2-Chlorophenol | 2900 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2900 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2900 | U |
| 100-51-6 | Benzyl Alcohol | 2900 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2900 | U |
| 95-48-7 | 2-Methylphenol | 2900 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 2900 | U |
| 106-44-5 | 4-Methylphenol | 2900 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 2900 | U |
| 67-72-1 | Hexachloroethane | 2900 | U |
| 98-95-3 | Nitrobenzene | 2900 | U |
| 78-59-1 | Isophorone | 2900 | U |
| 88-75-5 | 2-Nitrophenol | 2900 | U |
| 105-67-9 | 2,4-Dimethylphenol | 2900 | U |
| 65-85-0 | Benzoic Acid | 14000 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 2900 | U |
| 120-83-2 | 2,4-Dichlorophenol | 2900 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2900 | U |
| 91-20-3 | Naphthalene | 2900 | U |
| 106-47-8 | 4-Chloroaniline | 2900 | U |
| 87-68-3 | Hexachlorobutadiene | 2900 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 2900 | U |
| 91-57-6 | 2-Methylnaphthalene | 2900 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 2900 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 2900 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 14000 | U |
| 91-58-7 | 2-Chloronaphthalene | 2900 | U |
| 88-74-4 | 2-Nitroaniline | 14000 | U |
| 131-11-3 | Dimethyl Phthalate | 2900 | U |
| 208-96-8 | Acenaphthylene | 2900 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 2900 | U |

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD01

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049809

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5876

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 54 dec. ____ Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

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

Number TICs found: 2

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 7.70 | 54000 | JA |
| 2. | UNKNOWN | 30.49 | 9400 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049810

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5877

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 73 dec. Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 4900 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 4900 | U |
| 95-57-8 | 2-Chlorophenol | 4900 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 4900 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 4900 | U |
| 100-51-6 | Benzyl Alcohol | 4900 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 4900 | U |
| 95-48-7 | 2-Methylphenol | 4900 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 4900 | U |
| 106-44-5 | 4-Methylphenol | 4900 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 4900 | U |
| 67-72-1 | Hexachloroethane | 4900 | U |
| 98-95-3 | Nitrobenzene | 4900 | U |
| 78-59-1 | Isophorone | 4900 | U |
| 88-75-5 | 2-Nitrophenol | 4900 | U |
| 105-67-9 | 2,4-Dimethylphenol | 4900 | U |
| 65-85-0 | Benzoic Acid | 24000 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 4900 | U |
| 120-83-2 | 2,4-Dichlorophenol | 4900 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 4900 | U |
| 91-20-3 | Naphthalene | 4900 | U |
| 106-47-8 | 4-Chloroaniline | 4900 | U |
| 87-68-3 | Hexachlorobutadiene | 4900 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 4900 | U |
| 91-57-6 | 2-Methylnaphthalene | 4900 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 4900 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 4900 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 24000 | U |
| 91-58-7 | 2-Chloronaphthalene | 4900 | U |
| 88-74-4 | 2-Nitroaniline | 24000 | U |
| 131-11-3 | Dimethyl Phthalate | 4900 | U |
| 208-96-8 | Acenaphthylene | 4900 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 4900 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049810

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5877

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 73 dec. ____ Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 24000 | U |
| 83-32-9 | Acenaphthene | 4900 | U |
| 51-28-5 | 2,4-Dinitrophenol | 24000 | U |
| 100-02-7 | 4-Nitrophenol | 24000 | U |
| 132-64-9 | Dibenzofuran | 4900 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 4900 | U |
| 84-66-2 | Diethylphthalate | 4900 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 4900 | U |
| 86-73-7 | Fluorene | 4900 | U |
| 100-01-6 | 4-Nitroaniline | 24000 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 24000 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 4900 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 4900 | U |
| 118-74-1 | Hexachlorobenzene | 4900 | U |
| 87-86-5 | Pentachlorophenol | 24000 | U |
| 85-01-8 | Phenanthrene | 4900 | U |
| 120-12-7 | Anthracene | 4900 | U |
| 84-74-2 | Di-n-Butylphthalate | 4900 | U |
| 206-44-0 | Fluoranthene | 4900 | U |
| 129-00-0 | Pyrene | 4900 | U |
| 85-68-7 | Butylbenzylphthalate | 4900 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 9800 | U |
| 56-55-3 | Benzo(a)Anthracene | 4900 | U |
| 218-01-9 | Chrysene | 4900 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 4900 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 4900 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 4900 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 4900 | U |
| 50-32-8 | Benzo(a)Pyrene | 4900 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 4900 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 4900 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 4900 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SD02

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049810

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5877

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 73 dec. Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

Number TICs found: 3

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 7.70 | 92000 | JA |
| 2. | UNKNOWN | 21.62 | 3100 | J |
| 3. | UNKNOWN | 22.82 | 2300 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD03

Lab Name: NYTEST ENV INC Contract: 3118473

Lab Code: NYTEST Case No.: 091 SAS No.: _____ SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049811

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5878

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 33 dec. ____ Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2000 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 2000 | U |
| 95-57-8 | 2-Chlorophenol | 2000 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 2000 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 2000 | U |
| 100-51-6 | Benzyl Alcohol | 2000 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 2000 | U |
| 95-48-7 | 2-Methylphenol | 2000 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 2000 | U |
| 106-44-5 | 4-Methylphenol | 2000 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 2000 | U |
| 67-72-1 | Hexachloroethane | 2000 | U |
| 98-95-3 | Nitrobenzene | 4500 | |
| 78-59-1 | Isophorone | 2000 | U |
| 88-75-5 | 2-Nitrophenol | 2000 | U |
| 105-67-9 | 2,4-Dimethylphenol | 2000 | U |
| 65-85-0 | Benzoic Acid | 9600 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 2000 | U |
| 120-83-2 | 2,4-Dichlorophenol | 2000 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2000 | U |
| 91-20-3 | Naphthalene | 2000 | U |
| 106-47-8 | 4-Chloroaniline | 2000 | U |
| 87-68-3 | Hexachlorobutadiene | 2000 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 2000 | U |
| 91-57-6 | 2-Methylnaphthalene | 2000 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 2000 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 2000 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 9600 | U |
| 91-58-7 | 2-Chloronaphthalene | 2000 | U |
| 88-74-4 | 2-Nitroaniline | 9600 | U |
| 131-11-3 | Dimethyl Phthalate | 2000 | U |
| 208-96-8 | Acenaphthylene | 2000 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 2000 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SD03

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: 091 SAS No.: SDG No.: 1120

Matrix: (soil/water) SOIL Lab Sample ID: 1049811

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A5878

Level: (low/med) LOW Date Received: 11/22/91

% Moisture: not dec. 33 dec. Date Extracted: 11/26/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/18/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 4.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 9600 | U |
| 83-32-9 | Acenaphthene | 2000 | U |
| 51-28-5 | 2,4-Dinitrophenol | 9600 | U |
| 100-02-7 | 4-Nitrophenol | 9600 | U |
| 132-64-9 | Dibenzofuran | 2000 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 2000 | U |
| 84-66-2 | Diethylphthalate | 2000 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2000 | U |
| 86-73-7 | Fluorene | 2000 | U |
| 100-01-6 | 4-Nitroaniline | 9600 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 9600 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 2000 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 2000 | U |
| 118-74-1 | Hexachlorobenzene | 2000 | U |
| 87-86-5 | Pentachlorophenol | 9600 | U |
| 85-01-8 | Phenanthrene | 2000 | U |
| 120-12-7 | Anthracene | 2000 | U |
| 84-74-2 | Di-n-Butylphthalate | 2000 | U |
| 206-44-0 | Fluoranthene | 2000 | U |
| 129-00-0 | Pyrene | 2000 | U |
| 85-68-7 | Butylbenzylphthalate | 2000 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 3900 | U |
| 56-55-3 | Benzo(a)Anthracene | 2000 | U |
| 218-01-9 | Chrysene | 2000 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2000 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 2000 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 2000 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 2000 | U |
| 50-32-8 | Benzo(a)Pyrene | 2000 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 2000 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 2000 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 2000 | U |

(1) - Cannot be separated from Diphenylamine

Form I

HMPLE NO.

# VOLATILE ORGANICS ANALYSIS DATA SHEET

AMSS-17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7620

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 Date Analyzed: 11/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 11 | U |
| 74-83-9 | Bromomethane | 11 | U |
| 75-01-4 | Vinyl Chloride | 11 | U |
| 75-00-3 | Chloroethane | 11 | U |
| 75-09-2 | Methylene Chloride | 11 | B |
| 67-64-1 | Acetone | 11 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 11 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 11 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 | U |
| 591-78-6 | 2-Hexanone | 11 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7620

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 Date Analyzed: 11/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7621

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 Date Analyzed: 11/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 11 | U |
| 74-83-9 | Bromomethane | 11 | U |
| 75-01-4 | Vinyl Chloride | 11 | U |
| 75-00-3 | Chloroethane | 11 | U |
| 75-09-2 | Methylene Chloride | 15 | B |
| 67-64-1 | Acetone | 11 | U |
| 75-15-0 | Carbon Disulfide | 6 | U |
| 75-35-4 | 1,1-Dichloroethene | 6 | U |
| 75-34-3 | 1,1-Dichloroethane | 6 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 6 | U |
| 67-66-3 | Chloroform | 6 | U |
| 107-06-2 | 1,2-Dichloroethane | 6 | U |
| 78-93-3 | 2-Butanone | 11 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 6 | U |
| 56-23-5 | Carbon Tetrachloride | 6 | U |
| 108-05-4 | Vinyl Acetate | 11 | U |
| 75-27-4 | Bromodichloromethane | 6 | U |
| 78-87-5 | 1,2-Dichloropropane | 6 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 | U |
| 79-01-6 | Trichloroethene | 6 | U |
| 124-48-1 | Dibromochloromethane | 6 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 6 | U |
| 71-43-2 | Benzene | 6 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 6 | U |
| 75-25-2 | Bromoform | 6 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 | U |
| 591-78-6 | 2-Hexanone | 11 | U |
| 127-18-4 | Tetrachloroethene | 6 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 | U |
| 108-88-3 | Toluene | 6 | U |
| 108-90-7 | Chlorobenzene | 6 | U |
| 100-41-4 | Ethylbenzene | 6 | U |
| 100-42-5 | Styrene | 6 | U |
| 1330-20-7 | Xylenes (total) | 6 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7621

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 Date Analyzed: 11/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

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

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7623

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 Date Analyzed: 11/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 11 | U |
| 74-83-9 | Bromomethane | 11 | U |
| 75-01-4 | Vinyl Chloride | 11 | U |
| 75-00-3 | Chloroethane | 11 | U |
| 75-09-2 | Methylene Chloride | 16 | B |
| 67-64-1 | Acetone | 11 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 11 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 11 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 | U |
| 591-78-6 | 2-Hexanone | 11 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylenes (total) | 5 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7623

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 Date Analyzed: 11/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7622

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 Date Analyzed: 11/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 13 | U |
| 74-83-9 | Bromomethane | 13 | U |
| 75-01-4 | Vinyl Chloride | 13 | U |
| 75-00-3 | Chloroethane | 13 | U |
| 75-09-2 | Methylene Chloride | 19 | B |
| 67-64-1 | Acetone | 13 | U |
| 75-15-0 | Carbon Disulfide | 6 | U |
| 75-35-4 | 1,1-Dichloroethene | 6 | U |
| 75-34-3 | 1,1-Dichloroethane | 6 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 6 | U |
| 67-66-3 | Chloroform | 6 | U |
| 107-06-2 | 1,2-Dichloroethane | 6 | U |
| 78-93-3 | 2-Butanone | 13 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 6 | J |
| 56-23-5 | Carbon Tetrachloride | 6 | U |
| 108-05-4 | Vinyl Acetate | 13 | U |
| 75-27-4 | Bromodichloromethane | 6 | U |
| 78-87-5 | 1,2-Dichloropropane | 6 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 6 | U |
| 79-01-6 | Trichloroethene | 6 | U |
| 124-48-1 | Dibromochloromethane | 6 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 6 | U |
| 71-43-2 | Benzene | 6 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 6 | U |
| 75-25-2 | Bromoform | 6 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 13 | U |
| 591-78-6 | 2-Hexanone | 13 | U |
| 127-18-4 | Tetrachloroethene | 6 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6 | U |
| 108-88-3 | Toluene | 6 | U |
| 108-90-7 | Chlorobenzene | 6 | U |
| 100-41-4 | Ethylbenzene | 6 | U |
| 100-42-5 | Styrene | 6 | U |
| 1330-20-7 | Xylenes (total) | 6 | U |

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091F SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 5.0 (g/mL) G Lab File ID: D7622

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 Date Analyzed: 11/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F8998

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 360 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 360 | U |
| 95-57-8 | 2-Chlorophenol | 360 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 360 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 360 | U |
| 100-51-6 | Benzyl Alcohol | 360 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 360 | U |
| 95-48-7 | 2-Methylphenol | 360 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 360 | U |
| 106-44-5 | 4-Methylphenol | 360 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 360 | U |
| 67-72-1 | Hexachloroethane | 360 | U |
| 98-95-3 | Nitrobenzene | 360 | U |
| 78-59-1 | Isophorone | 360 | U |
| 88-75-5 | 2-Nitrophenol | 360 | U |
| 105-67-9 | 2,4-Dimethylphenol | 360 | U |
| 65-85-0 | Benzoic Acid | 27 | J |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 360 | U |
| 120-83-2 | 2,4-Dichlorophenol | 360 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 360 | U |
| 91-20-3 | Naphthalene | 360 | U |
| 106-47-8 | 4-Chloroaniline | 360 | U |
| 87-68-3 | Hexachlorobutadiene | 360 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 360 | U |
| 91-57-6 | 2-Methylnaphthalene | 360 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 360 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 360 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1800 | U |
| 91-58-7 | 2-Chloronaphthalene | 360 | U |
| 88-74-4 | 2-Nitroaniline | 1800 | U |
| 131-11-3 | Dimethyl Phthalate | 360 | U |
| 208-96-8 | Acenaphthylene | 360 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 360 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F8998

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 1800 | U |
| 83-32-9 | Acenaphthene | 360 | U |
| 51-28-5 | 2,4-Dinitrophenol | 1800 | U |
| 100-02-7 | 4-Nitrophenol | 1800 | U |
| 132-64-9 | Dibenzofuran | 360 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 360 | U |
| 84-66-2 | Diethylphthalate | 360 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 360 | U |
| 86-73-7 | Fluorene | 360 | U |
| 100-01-6 | 4-Nitroaniline | 1800 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1800 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 360 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 360 | U |
| 118-74-1 | Hexachlorobenzene | 360 | U |
| 87-86-5 | Pentachlorophenol | 1800 | U |
| 85-01-8 | Phenanthrene | 360 | U |
| 120-12-7 | Anthracene | 360 | U |
| 84-74-2 | Di-n-Butylphthalate | 370 | |
| 206-44-0 | Fluoranthene | 360 | U |
| 129-00-0 | Pyrene | 360 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 730 | U |
| 56-55-3 | Benzo(a)Anthracene | 360 | U |
| 218-01-9 | Chrysene | 360 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 100 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 360 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 360 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 360 | U |
| 50-32-8 | Benzo(a)Pyrene | 360 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 360 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 360 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 360 | U |

(1) - Cannot be separated from Diphenylamine

00050

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F8998

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | TRICHLORO BIPHENYL ISOMER | 20.02 | 820 | J |
| 2. | TRICHLORO BIPHENYL ISOMER | 20.62 | 2000 | J |
| 3. | TRICHLORO BIPHENYL ISOMER | 21.00 | 920 | J |
| 4. | TETRACHLORO BIPHENYL ISOMER | 21.12 | 430 | J |
| 5. | TETRACHLORO BIPHENYL ISOMER | 21.44 | 1400 | J |
| 6. | TETRACHLORO BIPHENYL ISOMER | 21.52 | 790 | J |
| 7. | TETRACHLORO BIPHENYL ISOMER | 21.79 | 1600 | J |
| 8. | TETRACHLORO BIPHENYL ISOMER | 21.87 | 850 | J |
| 9. | TETRACHLORO BIPHENYL ISOMER | 22.05 | 1900 | J |
| 10. | TETRACHLORO BIPHENYL ISOMER | 22.52 | 1000 | J |
| 11. | TETRACHLORO BIPHENYL ISOMER | 22.59 | 770 | J |
| 12. | TETRACHLORO BIPHENYL ISOMER | 22.67 | 2500 | J |
| 13. | TETRACHLORO BIPHENYL ISOMER | 23.02 | 2200 | J |
| 14. | PENTACHLORO BIPHENYL ISOMER | 23.14 | 1700 | J |
| 15. | PENTACHLORO BIPHENYL ISOMER | 23.24 | 590 | J |
| 16. | PENTACHLORO BIPHENYL ISOMER | 23.67 | 810 | J |
| 17. | PENTACHLORO BIPHENYL ISOMER | 23.87 | 1300 | J |
| 18. | PENTACHLORO BIPHENYL ISOMER | 24.37 | 1600 | J |
| 19. | PENTACHLORO BIPHENYL ISOMER | 24.92 | 910 | J |
| 20. | HEXACHLORO BIPHENYL ISOMER | 25.36 | 750 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 30.0 (g/mL) G , Lab File ID: F8999

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 380 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 380 | U |
| 95-57-8 | 2-Chlorophenol | 380 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 380 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 380 | U |
| 100-51-6 | Benzyl Alcohol | 380 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 380 | U |
| 95-48-7 | 2-Methylphenol | 380 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 380 | U |
| 106-44-5 | 4-Methylphenol | 380 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 380 | U |
| 67-72-1 | Hexachloroethane | 380 | U |
| 98-95-3 | Nitrobenzene | 380 | U |
| 78-59-1 | Isophorone | 380 | U |
| 88-75-5 | 2-Nitrophenol | 380 | U |
| 105-67-9 | 2,4-Dimethylphenol | 380 | U |
| 65-85-0 | Benzoic Acid | 1800 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 380 | U |
| 120-83-2 | 2,4-Dichlorophenol | 380 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 380 | U |
| 91-20-3 | Naphthalene | 380 | U |
| 106-47-8 | 4-Chloroaniline | 380 | U |
| 87-68-3 | Hexachlorobutadiene | 380 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 380 | U |
| 91-57-6 | 2-Methylnaphthalene | 380 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 380 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 380 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1800 | U |
| 91-58-7 | 2-Chloronaphthalene | 380 | U |
| 88-74-4 | 2-Nitroaniline | 1800 | U |
| 131-11-3 | Dimethyl Phthalate | 380 | U |
| 208-96-8 | Acenaphthylene | 380 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 380 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F8999

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 1800 | U |
| 83-32-9 | Acenaphthene | 380 | U |
| 51-28-5 | 2,4-Dinitrophenol | 1800 | U |
| 100-02-7 | 4-Nitrophenol | 1800 | U |
| 132-64-9 | Dibenzofuran | 380 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 380 | U |
| 84-66-2 | Diethylphthalate | 380 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 380 | U |
| 86-73-7 | Fluorene | 380 | U |
| 100-01-6 | 4-Nitroaniline | 1800 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1800 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 380 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 380 | U |
| 118-74-1 | Hexachlorobenzene | 380 | U |
| 87-86-5 | Pentachlorophenol | 1800 | U |
| 85-01-8 | Phenanthrene | 380 | U |
| 120-12-7 | Anthracene | 380 | U |
| 84-74-2 | Di-n-Butylphthalate | 140 | J |
| 206-44-0 | Fluoranthene | 380 | U |
| 129-00-0 | Pyrene | 380 | U |
| 85-68-7 | Butylbenzylphthalate | 380 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 760 | U |
| 56-55-3 | Benzo(a)Anthracene | 380 | U |
| 218-01-9 | Chrysene | 380 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 260 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 380 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 380 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 380 | U |
| 50-32-8 | Benzo(a)Pyrene | 380 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 380 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 380 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 380 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F8999

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 8

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | TRICHLORO BIPHENYL ISOMER | 20.62 | 260 | J |
| 2. | UNKNOWN | 21.49 | 210 | J |
| 3. | TETRACHLORO BIPHENYL ISOMER | 22.67 | 200 | J |
| 4. | PENTACHLORO BIPHENYL ISOMER | 23.14 | 180 | J |
| 5. | PENTACHLORO BIPHENYL ISOMER | 24.39 | 170 | J |
| 6. | UNKNOWN + HEXACHLORO BIPHENY | 25.37 | 180 | J |
| 7. | UNKNOWN | 25.52 | 710 | J |
| 8. | UNKNOWN | 27.51 | 250 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9001

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 380 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 380 | U |
| 95-57-8 | 2-Chlorophenol | 380 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 380 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 380 | U |
| 100-51-6 | Benzyl Alcohol | 380 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 380 | U |
| 95-48-7 | 2-Methylphenol | 380 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 380 | U |
| 106-44-5 | 4-Methylphenol | 380 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 380 | U |
| 67-72-1 | Hexachloroethane | 380 | U |
| 98-95-3 | Nitrobenzene | 380 | U |
| 78-59-1 | Isophorone | 380 | U |
| 88-75-5 | 2-Nitrophenol | 380 | U |
| 105-67-9 | 2,4-Dimethylphenol | 380 | U |
| 65-85-0 | Benzoic Acid | 1800 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 380 | U |
| 120-83-2 | 2,4-Dichlorophenol | 380 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 380 | U |
| 91-20-3 | Naphthalene | 380 | U |
| 106-47-8 | 4-Chloroaniline | 380 | U |
| 87-68-3 | Hexachlorobutadiene | 380 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 380 | U |
| 91-57-6 | 2-Methylnaphthalene | 380 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 380 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 380 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1800 | U |
| 91-58-7 | 2-Chloronaphthalene | 380 | U |
| 88-74-4 | 2-Nitroaniline | 1800 | U |
| 131-11-3 | Dimethyl Phthalate | 380 | U |
| 208-96-8 | Acenaphthylene | 380 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 380 | U |

00055

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G , Lab File ID: F9001

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 1800 | U |
| 83-32-9 | Acenaphthene | 380 | U |
| 51-28-5 | 2,4-Dinitrophenol | 1800 | U |
| 100-02-7 | 4-Nitrophenol | 1800 | U |
| 132-64-9 | Dibenzofuran | 380 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 380 | U |
| 84-66-2 | Diethylphthalate | 380 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 380 | U |
| 86-73-7 | Fluorene | 380 | U |
| 100-01-6 | 4-Nitroaniline | 1800 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1800 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 380 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 380 | U |
| 118-74-1 | Hexachlorobenzene | 380 | U |
| 87-86-5 | Pentachlorophenol | 1800 | U |
| 85-01-8 | Phenanthrene | 380 | U |
| 120-12-7 | Anthracene | 380 | U |
| 84-74-2 | Di-n-Butylphthalate | 130 | J |
| 206-44-0 | Fluoranthene | 380 | U |
| 129-00-0 | Pyrene | 380 | U |
| 85-68-7 | Butylbenzylphthalate | 380 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 760 | U |
| 56-55-3 | Benzo(a)Anthracene | 380 | U |
| 218-01-9 | Chrysene | 380 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 68 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 380 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 380 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 380 | U |
| 50-32-8 | Benzo(a)Pyrene | 380 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 380 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 380 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 380 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9001

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

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

Number TICs found: 4

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN AROMATIC | 10.60 | 300 | J |
| 2. | UNKNOWN | 17.22 | 220 | J |
| 3. 57103 | HEXADECANOIC ACID | 21.17 | 180 | J |
| 4. | UNKNOWN | 30.12 | 160 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-19RE

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9112

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 12/05/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 380 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 380 | U |
| 95-57-8 | 2-Chlorophenol | 380 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 380 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 380 | U |
| 100-51-6 | Benzyl Alcohol | 380 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 380 | U |
| 95-48-7 | 2-Methylphenol | 380 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 380 | U |
| 106-44-5 | 4-Methylphenol | 380 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 380 | U |
| 67-72-1 | Hexachloroethane | 380 | U |
| 98-95-3 | Nitrobenzene | 380 | U |
| 78-59-1 | Isophorone | 380 | U |
| 88-75-5 | 2-Nitrophenol | 380 | U |
| 105-67-9 | 2,4-Dimethylphenol | 380 | U |
| 65-85-0 | Benzoic Acid | 44 | J |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 380 | U |
| 120-83-2 | 2,4-Dichlorophenol | 380 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 380 | U |
| 91-20-3 | Naphthalene | 380 | U |
| 106-47-8 | 4-Chloroaniline | 380 | U |
| 87-68-3 | Hexachlorobutadiene | 380 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 380 | U |
| 91-57-6 | 2-Methylnaphthalene | 380 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 380 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 380 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1800 | U |
| 91-58-7 | 2-Chloronaphthalene | 380 | U |
| 88-74-4 | 2-Nitroaniline | 1800 | U |
| 131-11-3 | Dimethyl Phthalate | 380 | U |
| 208-96-8 | Acenaphthylene | 380 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 380 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-19RE

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9112

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 12/05/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 1800 | U |
| 83-32-9 | Acenaphthene | 380 | U |
| 51-28-5 | 2,4-Dinitrophenol | 1800 | U |
| 100-02-7 | 4-Nitrophenol | 1800 | U |
| 132-64-9 | Dibenzofuran | 380 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 380 | U |
| 84-66-2 | Diethylphthalate | 380 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 380 | U |
| 86-73-7 | Fluorene | 380 | U |
| 100-01-6 | 4-Nitroaniline | 1800 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 1800 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 380 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 380 | U |
| 118-74-1 | Hexachlorobenzene | 380 | U |
| 87-86-5 | Pentachlorophenol | 1800 | U |
| 85-01-8 | Phenanthrene | 380 | U |
| 120-12-7 | Anthracene | 380 | U |
| 84-74-2 | Di-n-Butylphthalate | 380 | U |
| 206-44-0 | Fluoranthene | 380 | U |
| 129-00-0 | Pyrene | 380 | U |
| 85-68-7 | Butylbenzylphthalate | 380 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 760 | U |
| 56-55-3 | Benzo(a)Anthracene | 380 | U |
| 218-01-9 | Chrysene | 380 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 66 | BJ |
| 117-84-0 | Di-n-Octyl Phthalate | 380 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 380 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 380 | U |
| 50-32-8 | Benzo(a)Pyrene | 380 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 380 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 380 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 380 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-19RE

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9112

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 12/05/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 12/09/91

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

Number TICs found: 2

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 24.95 | 13000 | J |
| 2. | UNKNOWN | 29.32 | 200 | J |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9000

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 430 | U |
| 111-44-4 | bis(2-chloroethyl)Ether | 430 | U |
| 95-57-8 | 2-Chlorophenol | 430 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 430 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 430 | U |
| 100-51-6 | Benzyl Alcohol | 430 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 430 | U |
| 95-48-7 | 2-Methylphenol | 430 | U |
| 108-60-1 | bis(2-Chloroisopropyl)Ether | 430 | U |
| 106-44-5 | 4-Methylphenol | 430 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 430 | U |
| 67-72-1 | Hexachloroethane | 430 | U |
| 98-95-3 | Nitrobenzene | 430 | U |
| 78-59-1 | Isophorone | 430 | U |
| 88-75-5 | 2-Nitrophenol | 430 | U |
| 105-67-9 | 2,4-Dimethylphenol | 430 | U |
| 65-85-0 | Benzoic Acid | 54 | J |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 430 | U |
| 120-83-2 | 2,4-Dichlorophenol | 430 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 430 | U |
| 91-20-3 | Naphthalene | 430 | U |
| 106-47-8 | 4-Chloroaniline | 430 | U |
| 87-68-3 | Hexachlorobutadiene | 430 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 430 | U |
| 91-57-6 | 2-Methylnaphthalene | 430 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 430 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 430 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 2100 | U |
| 91-58-7 | 2-Chloronaphthalene | 430 | U |
| 88-74-4 | 2-Nitroaniline | 2100 | U |
| 131-11-3 | Dimethyl Phthalate | 430 | U |
| 208-96-8 | Acenaphthylene | 430 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 430 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS-20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9000

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 2100 | U |
| 83-32-9 | Acenaphthene | 430 | U |
| 51-28-5 | 2,4-Dinitrophenol | 2100 | U |
| 100-02-7 | 4-Nitrophenol | 2100 | U |
| 132-64-9 | Dibenzofuran | 430 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 430 | U |
| 84-66-2 | Diethylphthalate | 430 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 430 | U |
| 86-73-7 | Fluorene | 430 | U |
| 100-01-6 | 4-Nitroaniline | 2100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 2100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 430 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 430 | U |
| 118-74-1 | Hexachlorobenzene | 430 | U |
| 87-86-5 | Pentachlorophenol | 2100 | U |
| 85-01-8 | Phenanthrene | 430 | U |
| 120-12-7 | Anthracene | 430 | U |
| 84-74-2 | Di-n-Butylphthalate | 160 | J |
| 206-44-0 | Fluoranthene | 430 | U |
| 129-00-0 | Pyrene | 430 | U |
| 85-68-7 | Butylbenzylphthalate | 430 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 860 | U |
| 56-55-3 | Benzo(a)Anthracene | 430 | U |
| 218-01-9 | Chrysene | 430 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 4100 | |
| 117-84-0 | Di-n-Octyl Phthalate | 430 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 430 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 430 | U |
| 50-32-8 | Benzo(a)Pyrene | 430 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 430 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 430 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 430 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AMSS-20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091E SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F9000

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 15

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

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN | 13.52 | 300 | J |
| 2. | UNKNOWN AROMATIC | 17.65 | 210 | J |
| 3. | UNKNOWN AROMATIC | 18.12 | 510 | J |
| 4. | UNKNOWN | 19.27 | 330 | J |
| 5. | UNKNOWN AROMATIC | 20.89 | 320 | J |
| 6. | UNKNOWN ACID | 21.19 | 450 | J |
| 7. | UNKNOWN | 22.99 | 290 | J |
| 8. | UNKNOWN | 25.39 | 620 | J |
| 9. | UNKNOWN | 25.64 | 190 | J |
| 10. | UNKNOWN | 26.27 | 180 | J |
| 11. | UNKNOWN ALKANE | 28.22 | 190 | J |
| 12. | UNKNOWN | 30.19 | 470 | J |
| 13. | UNKNOWN ALKANE | 31.17 | 1100 | J |
| 14. | UNKNOWN ALKANE | 35.59 | 1400 | J |
| 15. | UNKNOWN ALKANE | 42.49 | 360 | J |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS17

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091 SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037801

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 44 | U |
| 319-85-7 | beta-BHC | 44 | U |
| 319-86-8 | delta-BHC | 44 | U |
| 58-89-9 | gamma-BHC (Lindane) | 44 | U |
| 76-44-8 | Heptachlor | 44 | U |
| 309-00-2 | Aldrin | 44 | U |
| 1024-57-3 | Heptachlor epoxide | 44 | U |
| 959-98-8 | Endosulfan I | 44 | U |
| 60-57-1 | Dieldrin | 88 | U |
| 72-55-9 | 4,4'-DDE | 88 | U |
| 72-20-8 | Endrin | 88 | U |
| 33213-65-9 | Endosulfan II | 88 | U |
| 72-54-8 | 4,4'-DDD | 88 | U |
| 1031-07-8 | Endosulfan sulfate | 88 | U |
| 50-29-3 | 4,4'-DDT | 88 | U |
| 72-43-5 | Methoxychlor | 440 | U |
| 53494-70-5 | Endrin ketone | 88 | U |
| 5103-71-9 | alpha-Chlordane | 440 | U |
| 5103-74-2 | gamma-Chlordane | 440 | U |
| 8001-35-2 | Toxaphene | 880 | U |
| 12674-11-2 | Aroclor-1016 | 440 | U |
| 11104-28-2 | Aroclor-1221 | 440 | U |
| 11141-16-5 | Aroclor-1232 | 440 | U |
| 53469-21-9 | Aroclor-1242 | 440 | U |
| 12672-29-6 | Aroclor-1248 | 440 | U |
| 11097-69-1 | Aroclor-1254 | 880 | U |
| 11096-82-5 | Aroclor-1260 | 880 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS17DL

Lab Name: NYTEST ENV INC  Contract: 9118473

Lab Code: NYTEST  Case No.: SH091  SAS No.: _____  SDG No.: 1111

Matrix: (soil/water) SOIL  Lab Sample ID: 1037801

Sample wt/vol: 30 (g/mL) G  Lab File ID: _____

Level: (low/med) LOW  Date Received: 11/12/91

% Moisture: not dec. 9  dec. ____  Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC  Date Analyzed: 11/26/91

GPC Cleanup: (Y/N) N  pH: 7.0  Dilution Factor: 50

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 440 | U |
| 319-85-7 | beta-BHC | 440 | U |
| 319-86-8 | delta-BHC | 440 | U |
| 58-89-9 | gamma-BHC (Lindane) | 440 | U |
| 76-44-8 | Heptachlor | 440 | U |
| 309-00-2 | Aldrin | 440 | U |
| 1024-57-3 | Heptachlor epoxide | 440 | U |
| 959-98-8 | Endosulfan I | 440 | U |
| 60-57-1 | Dieldrin | 880 | U |
| 72-55-9 | 4,4'-DDE | 880 | U |
| 72-20-8 | Endrin | 880 | U |
| 33213-65-9 | Endosulfan II | 880 | U |
| 72-54-8 | 4,4'-DDD | 880 | U |
| 1031-07-8 | Endosulfan sulfate | 880 | U |
| 50-29-3 | 4,4'-DDT | 880 | U |
| 72-43-5 | Methoxychlor | 4400 | U |
| 53494-70-5 | Endrin ketone | 880 | U |
| 5103-71-9 | alpha-Chlordane | 4400 | U |
| 5103-74-2 | gamma-Chlordane | 4400 | U |
| 8001-35-2 | Toxaphene | 8800 | U |
| 12674-11-2 | Aroclor-1016 | 4400 | U |
| 11104-28-2 | Aroclor-1221 | 4400 | U |
| 11141-16-5 | Aroclor-1232 | 4400 | U |
| 53469-21-9 | Aroclor-1242 | 4400 | U |
| 12672-29-6 | Aroclor-1248 | 48000 | D |
| 11097-69-1 | Aroclor-1254 | 8800 | U |
| 11096-82-5 | Aroclor-1260 | 8800 | U |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS18

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091 SAS No.: _____ SOG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.2 | U |
| 319-85-7 | beta-BHC | 9.2 | U |
| 319-86-8 | delta-BHC | 9.2 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.2 | U |
| 76-44-8 | Heptachlor | 9.2 | U |
| 309-00-2 | Aldrin | 9.2 | U |
| 1024-57-3 | Heptachlor epoxide | 9.2 | U |
| 959-98-8 | Endosulfan I | 9.2 | U |
| 60-57-1 | Dieldrin | 18 | U |
| 72-55-9 | 4,4'-DDE | 18 | U |
| 72-20-8 | Endrin | 18 | U |
| 33213-65-9 | Endosulfan II | 18 | U |
| 72-54-8 | 4,4'-DDD | 18 | U |
| 1031-07-8 | Endosulfan sulfate | 18 | U |
| 50-29-3 | 4,4'-DDT | 18 | U |
| 72-43-5 | Methoxychlor | 92 | U |
| 53494-70-5 | Endrin ketone | 18 | U |
| 5103-71-9 | alpha-Chlordane | 92 | U |
| 5103-74-2 | gamma-Chlordane | 92 | U |
| 8001-35-2 | Toxaphene | 180 | U |
| 12674-11-2 | Aroclor-1016 | 92 | U |
| 11104-28-2 | Aroclor-1221 | 92 | U |
| 11141-16-5 | Aroclor-1232 | 92 | U |
| 53469-21-9 | Aroclor-1242 | 92 | U |
| 12672-29-6 | Aroclor-1248 | 92 | U |
| 11097-69-1 | Aroclor-1254 | 180 | U |
| 11096-82-5 | Aroclor-1260 | 180 | U |

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS18DL

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091 SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037802

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 92 | U |
| 319-85-7 | beta-BHC | 92 | U |
| 319-86-8 | delta-BHC | 92 | U |
| 58-89-9 | gamma-BHC (Lindane) | 92 | U |
| 76-44-8 | Heptachlor | 92 | U |
| 309-00-2 | Aldrin | 92 | U |
| 1024-57-3 | Heptachlor epoxide | 92 | U |
| 959-98-8 | Endosulfan I | 92 | U |
| 60-57-1 | Dieldrin | 180 | U |
| 72-55-9 | 4,4'-DDE | 180 | U |
| 72-20-8 | Endrin | 180 | U |
| 33213-65-9 | Endosulfan II | 180 | U |
| 72-54-8 | 4,4'-DDD | 180 | U |
| 1031-07-8 | Endosulfan sulfate | 180 | U |
| 50-29-3 | 4,4'-DDT | 180 | U |
| 72-43-5 | Methoxychlor | 920 | U |
| 53494-70-5 | Endrin ketone | 180 | U |
| 5103-71-9 | alpha-Chlordane | 920 | U |
| 5103-74-2 | gamma-Chlordane | 920 | U |
| 8001-35-2 | Toxaphene | 1800 | U |
| 12674-11-2 | Aroclor-1016 | 920 | U |
| 11104-28-2 | Aroclor-1221 | 920 | U |
| 11141-16-5 | Aroclor-1232 | 920 | U |
| 53469-21-9 | Aroclor-1242 | 920 | U |
| 12672-29-6 | Aroclor-1248 | 4600 | D |
| 11097-69-1 | Aroclor-1254 | 1800 | U |
| 11096-82-5 | Aroclor-1260 | 1800 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS19

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091 SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037804

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 13 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 9.2 | U |
| 319-85-7 | beta-BHC | 9.2 | U |
| 319-86-8 | delta-BHC | 9.2 | U |
| 58-89-9 | gamma-BHC (Lindane) | 9.2 | U |
| 76-44-8 | Heptachlor | 9.2 | U |
| 309-00-2 | Aldrin | 9.2 | U |
| 1024-57-3 | Heptachlor epoxide | 9.2 | U |
| 959-98-8 | Endosulfan I | 9.2 | U |
| 60-57-1 | Dieldrin | 18 | U |
| 72-55-9 | 4,4'-DDE | 18 | U |
| 72-20-8 | Endrin | 18 | U |
| 33213-65-9 | Endosulfan II | 18 | U |
| 72-54-8 | 4,4'-DDD | 18 | U |
| 1031-07-8 | Endosulfan sulfate | 18 | U |
| 50-29-3 | 4,4'-DDT | 18 | U |
| 72-43-5 | Methoxychlor | 92 | U |
| 53494-70-5 | Endrin ketone | 18 | U |
| 5103-71-9 | alpha-Chlordane | 92 | U |
| 5103-74-2 | gamma-Chlordane | 92 | U |
| 8001-35-2 | Toxaphene | 180 | U |
| 12674-11-2 | Aroclor-1016 | 92 | U |
| 11104-28-2 | Aroclor-1221 | 92 | U |
| 11141-16-5 | Aroclor-1232 | 92 | U |
| 53469-21-9 | Aroclor-1242 | 92 | U |
| 12672-29-6 | Aroclor-1248 | 140 | |
| 11097-69-1 | Aroclor-1254 | 180 | U |
| 11096-82-5 | Aroclor-1260 | 180 | U |

1D

# PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AMSS20

Lab Name: NYTEST ENV INC Contract: 9118473

Lab Code: NYTEST Case No.: SH091 SAS No.: _____ SDG No.: 1111

Matrix: (soil/water) SOIL Lab Sample ID: 1037803

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 11/12/91

% Moisture: not dec. 23 dec. ____ Date Extracted: 11/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 319-84-6 | alpha-BHC | 10 | U |
| 319-85-7 | beta-BHC | 10 | U |
| 319-86-8 | delta-BHC | 10 | U |
| 58-89-9 | gamma-BHC (Lindane) | 10 | U |
| 76-44-8 | Heptachlor | 10 | U |
| 309-00-2 | Aldrin | 10 | U |
| 1024-57-3 | Heptachlor epoxide | 10 | U |
| 959-98-8 | Endosulfan I | 10 | U |
| 60-57-1 | Dieldrin | 21 | U |
| 72-55-9 | 4,4'-DDE | 21 | U |
| 72-20-8 | Endrin | 21 | U |
| 33213-65-9 | Endosulfan II | 21 | U |
| 72-54-8 | 4,4'-DDD | 21 | U |
| 1031-07-8 | Endosulfan sulfate | 170 | |
| 50-29-3 | 4,4'-DDT | 21 | U |
| 72-43-5 | Methoxychlor | 100 | U |
| 53494-70-5 | Endrin ketone | 21 | U |
| 5103-71-9 | alpha-Chlordane | 100 | U |
| 5103-74-2 | gamma-Chlordane | 100 | U |
| 8001-35-2 | Toxaphene | 210 | U |
| 12674-11-2 | Aroclor-1016 | 100 | U |
| 11104-28-2 | Aroclor-1221 | 100 | U |
| 11141-16-5 | Aroclor-1232 | 100 | U |
| 53469-21-9 | Aroclor-1242 | 100 | U |
| 12672-29-6 | Aroclor-1248 | 120 | |
| 11097-69-1 | Aroclor-1254 | 210 | U |
| 11096-82-5 | Aroclor-1260 | 210 | U |

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nytest environmental inc.

Inorganic Data

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# COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

SOW No.: 7/88

| EPA Sample No. | Lab Sample ID. |
|---|---|
| ESS017 | E03781 |
| ESS018 | E03782 |
| ESS019 | E03784 |
| ESS019D | E03784D |
| ESS019S | E03784S |
| ESS020 | E03783 |
| SS0017 | 103781 |
| SS0018 | 103782 |
| SS0019 | 103784 |
| SS0019D | 103784D |
| SS0019S | 103784S |
| SS0020 | 103783 |

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:

BOTH TOTAL METALS AND EPTOX METALS ARE CONTAINED IN THIS REPORT.
THE PREFIX 'E', DESIGNATES EPTOX METALS.

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: Remo Gigante Name: Remo Gigante

Date: 12/18/91 Title: Executive VP

Case Narrative

Lab Name: NYTEST ENVIRONMENTAL INC.

Client Name: NYSDEC SDG No.: SDG0617

Case No.: 10378 Contract No.: 9118251

Date Received: 11/12/91

Sample ID: As follows

| Laboratory Number | Sample Identification |
|---|---|
| 103781 | SS0017 |
| 103782 | SS0018 |
| 103783 | SS0020 |
| 103784 | SS0019 |
| 103781 EPTOX | ESS017 |
| 103782 EPTOX | ESS018 |
| 103783 EPTOX | ESS020 |
| 103784 EPTOX | ESS019 |

NON-CONFORMANCE SUMMARY

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"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 his designee, as verified by the following signature."

Signature : Name : Remo Gigante

Executive VP

Date : 12/10/92 Title :
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

nytest environmental inc.

## REPORT OF ANALYSIS

Log In No.: 10378

We find as follows:

| Parameter(s) | Sample Identification | | | |
|---|---|---|---|---|
| | SS0017 (103781) | SS0018 (103782) | SS0019 (103784) | SS0020 (103783) |
| Corrosivity, inches/year | <0.01 | <0.01 | <0.01 | <0.01 |
| Ignitability, F PM | >212 | >212 | >212 | >212 |
| Reactivity to Cyanide, ppm | <1 | <1 | <1 | <1 |
| Reactivity to Sulfide, ppm | <1 | <1 | <1 | <1 |

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ESS017

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): Lab Sample ID: E03781

Level (low/med): LOW Date Received: 11/12/91

% Solids:

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | | | | NR |
| 7440-36-0 | Antimony | | | | NR |
| 7440-38-2 | Arsenic | 70.3 | U | | P |
| 7440-39-3 | Barium | 176 | B | | P |
| 7440-41-7 | Beryllium | | | | NR |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | | | | NR |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | | | | NR |
| 7440-50-8 | Copper | | | | NR |
| 7439-89-6 | Iron | | | | NR |
| 7439-92-1 | Lead | 22.0 | B | | P |
| 7439-95-4 | Magnesium | | | | NR |
| 7439-96-5 | Manganese | | | | NR |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | | | | NR |
| 7440-09-7 | Potassium | | | | NR |
| 7782-49-2 | Selenium | 56.9 | U | | P |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | | | | NR |
| 7440-28-0 | Thallium | | | | NR |
| 7440-62-2 | Vanadium | | | | NR |
| 7440-66-6 | Zinc | | | | NR |
| | Cyanide | | | | NR |
| | | | | | |

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
EPTOX SAMPLE SS-17

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ESS018

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): Lab Sample ID: E03782

Level (low/med): LOW Date Received: 11/12/91

% Solids:

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | | | | NR |
| 7440-36-0 | Antimony | | | | NR |
| 7440-38-2 | Arsenic | 70.3 | U | | P |
| 7440-39-3 | Barium | 218 | B | | P |
| 7440-41-7 | Beryllium | | | | NR |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | | | | NR |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | | | | NR |
| 7440-50-8 | Copper | | | | NR |
| 7439-89-6 | Iron | | | | NR |
| 7439-92-1 | Lead | 17.7 | U | | P |
| 7439-95-4 | Magnesium | | | | NR |
| 7439-96-5 | Manganese | | | | NR |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | | | | NR |
| 7440-09-7 | Potassium | | | | NR |
| 7782-49-2 | Selenium | 56.9 | U | | P |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | | | | NR |
| 7440-28-0 | Thallium | | | | NR |
| 7440-62-2 | Vanadium | | | | NR |
| 7440-66-6 | Zinc | | | | NR |
| | Cyanide | | | | NR |
| | | | | | |

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
EPTOX SAMPLE SS-18

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ESS019

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): Lab Sample ID: E03784

Level (low/med): LOW Date Received: 11/12/91

% Solids:

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | | | | NR |
| 7440-36-0 | Antimony | | | | NR |
| 7440-38-2 | Arsenic | 70.3 | U | | NR |
| 7440-39-3 | Barium | 66.4 | B | | P |
| 7440-41-7 | Beryllium | | | | NR |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | | | | NR |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | | | | NR |
| 7440-50-8 | Copper | | | | NR |
| 7439-89-6 | Iron | | | | NR |
| 7439-92-1 | Lead | 17.7 | U | | P |
| 7439-95-4 | Magnesium | | | | NR |
| 7439-96-5 | Manganese | | | | NR |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | | | | NR |
| 7440-09-7 | Potassium | | | | NR |
| 7782-49-2 | Selenium | 56.9 | U | | P |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | | | | NR |
| 7440-28-0 | Thallium | | | | NR |
| 7440-62-2 | Vanadium | | | | NR |
| 7440-66-6 | Zinc | | | | NR |
| | Cyanide | | | | NR |
| | | | | | |

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
EPTOX SAMPLE SS-19

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ESS020

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): Lab Sample ID: E03783

Level (low/med): LOW Date Received: 11/12/91

% Solids:

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | | | | NR |
| 7440-36-0 | Antimony | | | | NR |
| 7440-38-2 | Arsenic | 70.3 | U | | P |
| 7440-39-3 | Barium | 401 | B | | P |
| 7440-41-7 | Beryllium | | | | NR |
| 7440-43-9 | Cadmium | 3.5 | U | | P |
| 7440-70-2 | Calcium | | | | NR |
| 7440-47-3 | Chromium | 5.1 | U | | P |
| 7440-48-4 | Cobalt | | | | NR |
| 7440-50-8 | Copper | | | | NR |
| 7439-89-6 | Iron | | | | NR |
| 7439-92-1 | Lead | 17.7 | U | | P |
| 7439-95-4 | Magnesium | | | | NR |
| 7439-96-5 | Manganese | | | | NR |
| 7439-97-6 | Mercury | 0.20 | U | | CV |
| 7440-02-0 | Nickel | | | | NR |
| 7440-09-7 | Potassium | | | | NR |
| 7782-49-2 | Selenium | 56.9 | U | | P |
| 7440-22-4 | Silver | 4.6 | U | | P |
| 7440-23-5 | Sodium | | | | NR |
| 7440-28-0 | Thallium | | | | NR |
| 7440-62-2 | Vanadium | | | | NR |
| 7440-66-6 | Zinc | | | | NR |
| | Cyanide | | | | NR |
| | | | | | |

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
EPTOX SAMPLE SS-20

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS0017

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): SOIL Lab Sample ID: 103781

Level (low/med): LOW Date Received: 11/12/91

% Solids: 91.1

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 11200 | | | P |
| 7440-36-0 | Antimony | 9.1 | B | | P |
| 7440-38-2 | Arsenic | 6.7 | | S* | F |
| 7440-39-3 | Barium | 39.4 | B | | P |
| 7440-41-7 | Beryllium | 0.56 | B | | P |
| 7440-43-9 | Cadmium | 0.77 | U | | P |
| 7440-70-2 | Calcium | 32500 | | | P |
| 7440-47-3 | Chromium | 13.2 | | | P |
| 7440-48-4 | Cobalt | 16.5 | | | P |
| 7440-50-8 | Copper | 35.7 | | E | P |
| 7439-89-6 | Iron | 34800 | | | P |
| 7439-92-1 | Lead | 60.6 | | | P |
| 7439-95-4 | Magnesium | 18700 | | | P |
| 7439-96-5 | Manganese | 971 | | * | P |
| 7439-97-6 | Mercury | 0.22 | U | | CV |
| 7440-02-0 | Nickel | 41.6 | | | P |
| 7440-09-7 | Potassium | 1360 | | | P |
| 7782-49-2 | Selenium | 1.1 | U | NW | F |
| 7440-22-4 | Silver | 1.0 | U | N | P |
| 7440-23-5 | Sodium | 307 | U | | P |
| 7440-28-0 | Thallium | 1.1 | U | NW | F |
| 7440-62-2 | Vanadium | 17.0 | | | P |
| 7440-66-6 | Zinc | 137 | | E | P |
| | Cyanide | 90.0 | | N | AS |
| | | | | | |

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SS-17
CN AT A 10x DILUTION.
E : INDICATES HIGH PERCENT DIFFERENCE ON SERIAL DILUTION.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS0018

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): SOIL Lab Sample ID: 103782

Level (low/med): LOW Date Received: 11/12/91

% Solids: 87.1

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 13400 | | | P |
| 7440-36-0 | Antimony | 11.8 | B | | P |
| 7440-38-2 | Arsenic | 5.8 | | S* | F |
| 7440-39-3 | Barium | 54.6 | | | P |
| 7440-41-7 | Beryllium | 0.45 | B | | P |
| 7440-43-9 | Cadmium | 0.80 | U | | P |
| 7440-70-2 | Calcium | 25400 | | | P |
| 7440-47-3 | Chromium | 16.1 | | | P |
| 7440-48-4 | Cobalt | 19.2 | | | P |
| 7440-50-8 | Copper | 35.3 | | E | P |
| 7439-89-6 | Iron | 40300 | | | P |
| 7439-92-1 | Lead | 91.1 | | | P |
| 7439-95-4 | Magnesium | 20400 | | | P |
| 7439-96-5 | Manganese | 1210 | | * | P |
| 7439-97-6 | Mercury | 0.23 | U | | CV |
| 7440-02-0 | Nickel | 33.9 | | | P |
| 7440-09-7 | Potassium | 1250 | | | P |
| 7782-49-2 | Selenium | 1.1 | U | NW | F |
| 7440-22-4 | Silver | 1.1 | U | N | P |
| 7440-23-5 | Sodium | 321 | U | | P |
| 7440-28-0 | Thallium | 1.1 | U | NW | F |
| 7440-62-2 | Vanadium | 18.2 | | | P |
| 7440-66-6 | Zinc | 204 | | E | P |
| | Cyanide | 123.1 | | N | AS |

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SS-18
CN AT A 10x DILUTION.
E : INDICATES HIGH PERCENT DIFFERENCE ON SERIAL DILUTION.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS0019

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): SOIL Lab Sample ID: 103784

Level (low/med): LOW Date Received: 11/12/91

% Solids: 87.4

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 17900 | | | P |
| 7440-36-0 | Antimony | 15.5 | | | P |
| 7440-38-2 | Arsenic | 8.3 | | S* | F |
| 7440-39-3 | Barium | 45.8 | | | P |
| 7440-41-7 | Beryllium | 0.45 | B | | P |
| 7440-43-9 | Cadmium | 0.80 | U | | P |
| 7440-70-2 | Calcium | 5250 | | | P |
| 7440-47-3 | Chromium | 19.6 | | | P |
| 7440-48-4 | Cobalt | 23.4 | | | P |
| 7440-50-8 | Copper | 32.8 | | E | P |
| 7439-89-6 | Iron | 38500 | | | P |
| 7439-92-1 | Lead | 38.6 | | | P |
| 7439-95-4 | Magnesium | 12700 | | | P |
| 7439-96-5 | Manganese | 1300 | | * | P |
| 7439-97-6 | Mercury | 0.21 | U | | CV |
| 7440-02-0 | Nickel | 39.3 | | | P |
| 7440-09-7 | Potassium | 2070 | | | P |
| 7782-49-2 | Selenium | 1.1 | U | NW | F |
| 7440-22-4 | Silver | 1.1 | U | N | P |
| 7440-23-5 | Sodium | 320 | U | | P |
| 7440-28-0 | Thallium | 1.1 | U | NW | F |
| 7440-62-2 | Vanadium | 27.5 | | | P |
| 7440-66-6 | Zinc | 93.7 | | E | P |
| | Cyanide | 2.8 | | N | AS |
| | | | | | |

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SS-19

E : INDICATES HIGH PERCENT DIFFERENCE ON SERIAL DILUTION.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS0020

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

Matrix (soil/water): SOIL Lab Sample ID: 103783

Level (low/med): LOW Date Received: 11/12/91

% Solids: 77.0

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

| CAS No. | Analyte | Concentration | C | Q | M |
|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 23100 | | | P |
| 7440-36-0 | Antimony | 19.1 | | | P |
| 7440-38-2 | Arsenic | 8.2 | | S* | F |
| 7440-39-3 | Barium | 68.7 | | | P |
| 7440-41-7 | Beryllium | 1.0 | B | | P |
| 7440-43-9 | Cadmium | 0.91 | U | | P |
| 7440-70-2 | Calcium | 715 | B | | P |
| 7440-47-3 | Chromium | 59.6 | | | P |
| 7440-48-4 | Cobalt | 18.9 | | | P |
| 7440-50-8 | Copper | 62.2 | | E | P |
| 7439-89-6 | Iron | 41700 | | | P |
| 7439-92-1 | Lead | 164 | | | P |
| 7439-95-4 | Magnesium | 8400 | | | P |
| 7439-96-5 | Manganese | 950 | | * | P |
| 7439-97-6 | Mercury | 0.26 | U | | CV |
| 7440-02-0 | Nickel | 41.6 | | | P |
| 7440-09-7 | Potassium | 1270 | B | | P |
| 7782-49-2 | Selenium | 1.3 | U | N | F |
| 7440-22-4 | Silver | 1.2 | U | N | P |
| 7440-23-5 | Sodium | 363 | U | | P |
| 7440-28-0 | Thallium | 1.3 | U | NW | F |
| 7440-62-2 | Vanadium | 33.5 | | | P |
| 7440-66-6 | Zinc | 119 | | E | P |
| | Cyanide | 1.5 | | N | AS |
| | | | | | |

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
SS-20
AS AT A 2x DILUTION.
E : INDICATES HIGH PERCENT DIFFERENCE ON SERIAL DILUTION.

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

SS0019D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

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

% Solids for Sample: 87.4 % Solids for Duplicate: 86.0

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

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | | 17920.4050 | | 17051.0250 | | 5.0 | | P |
| Antimony | 13.7 | 15.5103 | | 13.2677 | B | 15.6 | | P |
| Arsenic | 2.3 | 8.3295 | | 5.0114 | | 49.7 | * | F |
| Barium | 45.8 | 45.7895 | | 43.4531 | B | 5.2 | | P |
| Beryllium | | 0.4485 | B | 0.5629 | B | 22.6 | | P |
| Cadmium | | 0.8009 | U | 0.8009 | U | | | P |
| Calcium | 1144.2 | 5252.4943 | | 5329.6018 | | 1.5 | | P |
| Chromium | | 19.5767 | | 17.8741 | | 9.1 | | P |
| Cobalt | 11.4 | 23.3707 | | 20.5721 | | 12.7 | | P |
| Copper | | 32.7689 | | 30.1281 | | 8.4 | | P |
| Iron | | 38461.5190 | | 39045.8740 | | 1.5 | | P |
| Lead | | 38.6201 | | 37.6339 | | 2.6 | | P |
| Magnesium | | 12697.5190 | | 11355.7660 | | 11.2 | | P |
| Manganese | | 1301.0275 | | 956.2632 | | 30.5 | * | P |
| Mercury | | 0.2080 | U | 0.2080 | U | | | CV |
| Nickel | 9.2 | 39.3318 | | 40.3021 | | 2.4 | | P |
| Potassium | 1144.2 | 2069.1670 | | 2005.0778 | | 3.1 | | P |
| Selenium | 1.1 | 1.1442 | U | 1.1442 | U | | | F |
| Silver | | 1.0526 | U | 1.0526 | U | | | P |
| Sodium | | 320.1373 | U | 320.1373 | U | | | P |
| Thallium | | 1.1442 | U | 1.1442 | U | | | F |
| Vanadium | 11.4 | 27.5240 | | 25.5309 | | 7.5 | | P |
| Zinc | | 93.6819 | | 86.6865 | | 7.8 | | P |
| Cyanide | 0.6 | 2.8295 | | 2.7918 | | 1.3 | | AS |

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

ESS019D

Lab Name: NYTEST ENVIRONMENTAL INC. Contract: 9118251

Lab Code: 10195 Case No.: 10207 SAS No.: SDG No.: SDG453

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 | | | | | | | | |
| Antimony | | | | | | | | |
| Arsenic | | 70.3000 | U | 70.3000 | U | | | P |
| Barium | | 66.3600 | B | 66.3600 | B | 0.0 | | P |
| Beryllium | | | | | | | | |
| Cadmium | | 3.5000 | U | 3.5000 | U | | | P |
| Calcium | | | | | | | | |
| Chromium | | 5.1000 | U | 5.1000 | U | | | P |
| Cobalt | | | | | | | | |
| Copper | | | | | | | | |
| Iron | | | | | | | | |
| Lead | | 17.7000 | U | 17.7000 | U | | | P |
| Magnesium | | | | | | | | |
| Manganese | | | | | | | | |
| Mercury | | 0.2000 | U | 0.2000 | U | | | AS |
| Nickel | | | | | | | | |
| Potassium | | | | | | | | |
| Selenium | | 56.9000 | U | 56.9000 | U | | | P |
| Silver | | 4.6000 | U | 4.6000 | U | | | P |
| Sodium | | | | | | | | |
| Thallium | | | | | | | | |
| Vanadium | | | | | | | | |
| Zinc | | | | | | | | |
| Cyanide | | | | | | | | |
| | | | | | | | | |

# PART III

# HEALTH AND SAFETY PLAN

**LAWLER, MATUSKY & SKELLY ENGINEERS**

**SITE-SPECIFIC**

**HEALTH AND SAFETY PLAN FORM**

Site Name: Old Amenia Dump Site HASP Preparer: Sara Handy

Address: Route 22 City/State: Amenia, Dutchess County, NY

Job No.: 576-045

APPROVALS:

Project Manager: Ed Maikish E. Maikish

Safety Officer: Karen Wright 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: October 31, 1991

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

Known: Landfilled municipal wastes
Suspected: Buried drums containing industrial wastes, PCBs, possibly liquid solvents.

HAZARD ASSESSMENT (toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):

PCB contamination was detected in one soil sample collected from the site on the western edge of the landfill, approximately six feet from the end of the fence surrounding the fuel oil storage area. The hazards of concern to workers at this site include contact with the PCB-contaminated soils or contact with any other contaminants that may be present in the soil, surface water, or sediments during conduct of the sampling. Physical hazards present at the site include partially covered waste materials such as rusting 55-gal metal drums extending above or

present immediately beneath the ground surface which could cause puncture wounds or lacerations.

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

See Figure 1.

SITE ACCESS: (describe procedures to control site access)

Access to site is unrestricted, with the exception of the Sharon Oil storage area, which is fenced. The fenced area is not included in the site investigation area and will not need to be entered.

MONITORING PROCEDURES (If required by the Safety Officer)

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

Monitoring with an HNu photoionization detector with the 10.2 eV probe at a span setting of 9.8 and with a combustible gas meter (with oxygen detector) will be conducted continuously. Personal protective equipment will be upgraded to Level C if airborne hazards are present in the breathing zone, i.e., gross indications above background for a period of 1 minute are detected on the air monitoring equipment. In addition, if the HNu reading exceeds 50 ppm or if the reading on the CGI exceeds 20% 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 soil gas survey, surface water, sediment and leachate sampling, and soil borings to be conducted.

Personnel monitoring procedures:

None required for the soil gas survey, surface water, sediment and leachate sampling, and soil borings 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 drum. The drum will be sealed at the conclusion of the work.

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 that comes into direct contact with potentially contaminated soil, surface water, or groundwater shall be decontaminated before being taken offsite. Equipment decontamination procedures will consist of the following:

1. Physically remove packed dirt, grit, mud, and debris with a wire or stiff bristle brush.

2. Scrub all potentially contaminated surface areas with a water/industrial soap solution.

3. Rinse off scrub solution.

4. Allow to drip and air dry onsite.

5. Scan equipment with PID (HNu) to assure absence of contamination prior to removal from site. If any levels above background are detected, repeat the cleaning procedure.

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

If HNu 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 HNu readings exceed 5 ppm, all work derived wastes will be drummed and properly disposed of. Disposable tyveks and other wastes also will be drummed for appropriate disposal.

## EMERGENCY PROCEDURES

In event of personnel exposure (skin contact, inhalation, ingestion, specific procedures for specific chemicals):

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 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 by trained emergency medical technicians only. 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 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 fire is out of control:

- Evacuate site
- On-site Health & Safety Officer shall verify that all team members are present
- Notify the Fire Department
- Contact the Safety Officer and Project Manager

In event of potential or actual ionizing radiation exposure:

Not applicable

In event of environmental accident (spread of contamination outside sites):

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 (complete here or have separate list available on-site)

| | Telephone |
|---|---|
| **Emergency Medical Facility** (include map or written description of route to hospital): | |
| Sharon Hospital<br>50 Hospital Rd., Sharon, CT | (203) 364-4141 |
| See Figure 2 for directions to hospital. | |
| **Ambulance Service:** | |
| Wassaic Rescue Unit<br>Wassaic, NY | (914) 868-2213 |
| **Fire Department:** | |
| Amenia Fire Dept.<br>2.5 mi S of Amenia on Rt. 22, near golf course | (914) 471-1427 |
| **Police Department:** | |
| Amenia Substation<br>1 to 2 mi N of site on Rt. 22 | (914) 373-8200 |
| **Poison Control Center:** | |
| New York: | (914) 353-1000 |
| Connecticut: | 1-800-343-2722 |

## ALTERNATIVE WORK PRACTICES

(Describe alternative work practices or instruments not specified in this form. Indicate work practices specified in the chapter for which proposed alternative work practices will serve as substitute).

The On-Site Health and Safety Officer will keep a log book to record health and safety information and to document subcontractor personnel working onsite and 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 onsite
- 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

## TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS

(attach table including specific description of protective gear and action levels to upgrade or downgrade LOP)

Level D personnel protection equipment is adequate for the degree of hazard present at this site and the work to be performed. Level D for this operation will consist of:

- Disposable tyvek coveralls over work clothes
- Disposable PVC booties over safety boots with steel toe and shank
- Protective gloves

PPE upgrading contingency to Level C: Full-face, air purifying respirator (NIOSH approved) with organic vapor cartridges, tyvek coveralls with hood taped to respirator, and gloves and boots taped to coveralls.

## SITE MAP

(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 1.

## TRAINING

(Provide description of minimum training, reference OSHA Sections).

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

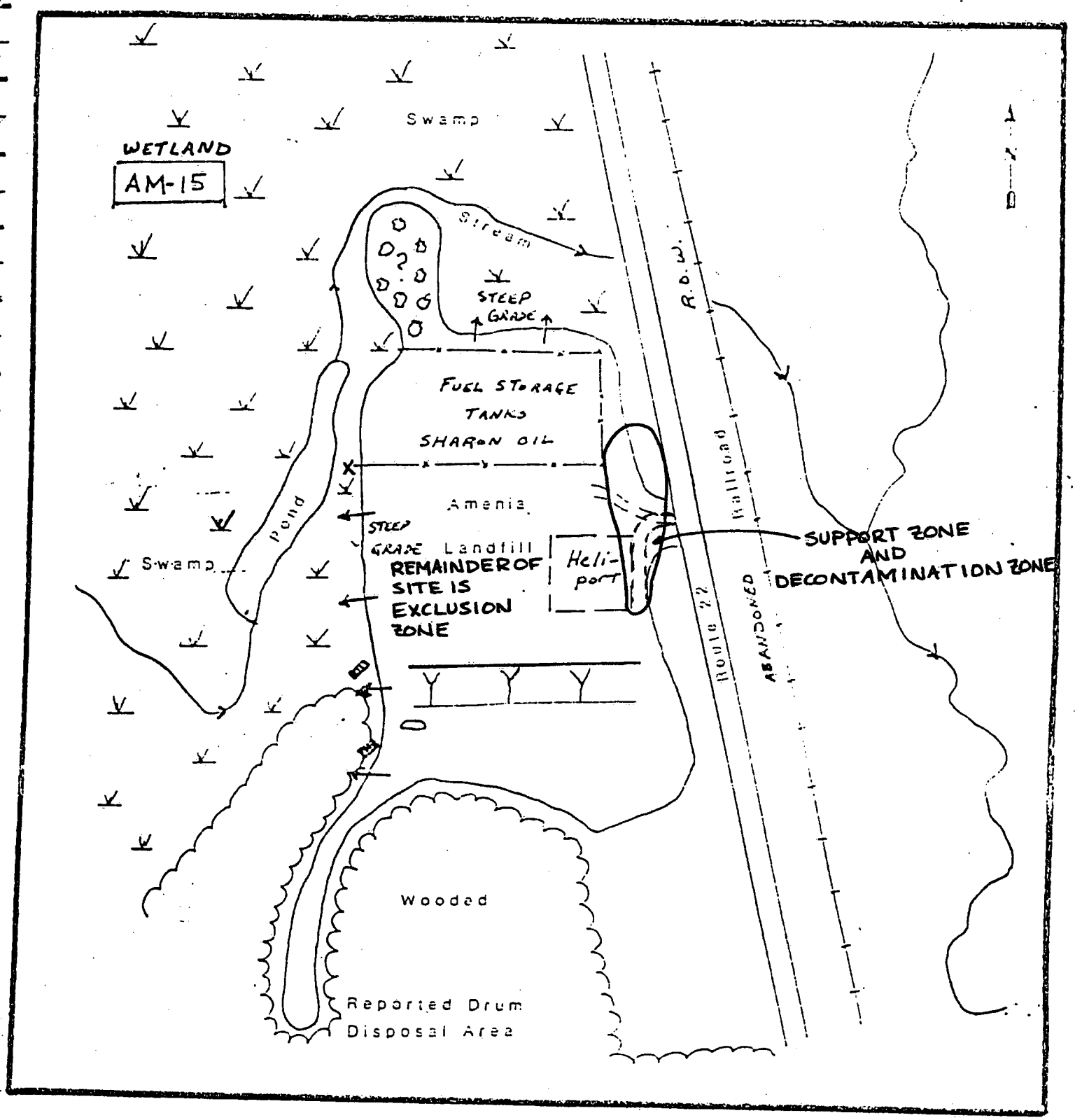
All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

## AFFIDAVIT

I, _____ , (name) of _____ (company name) have read the Health and Safety Plan (HASP) for the _____(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 _____




OLD AMENIA (T) LANDFILL # 314006

Figure 1. Site sketch.
(Not to scale)

X - Site of collection of soil sample with PCB contamination.

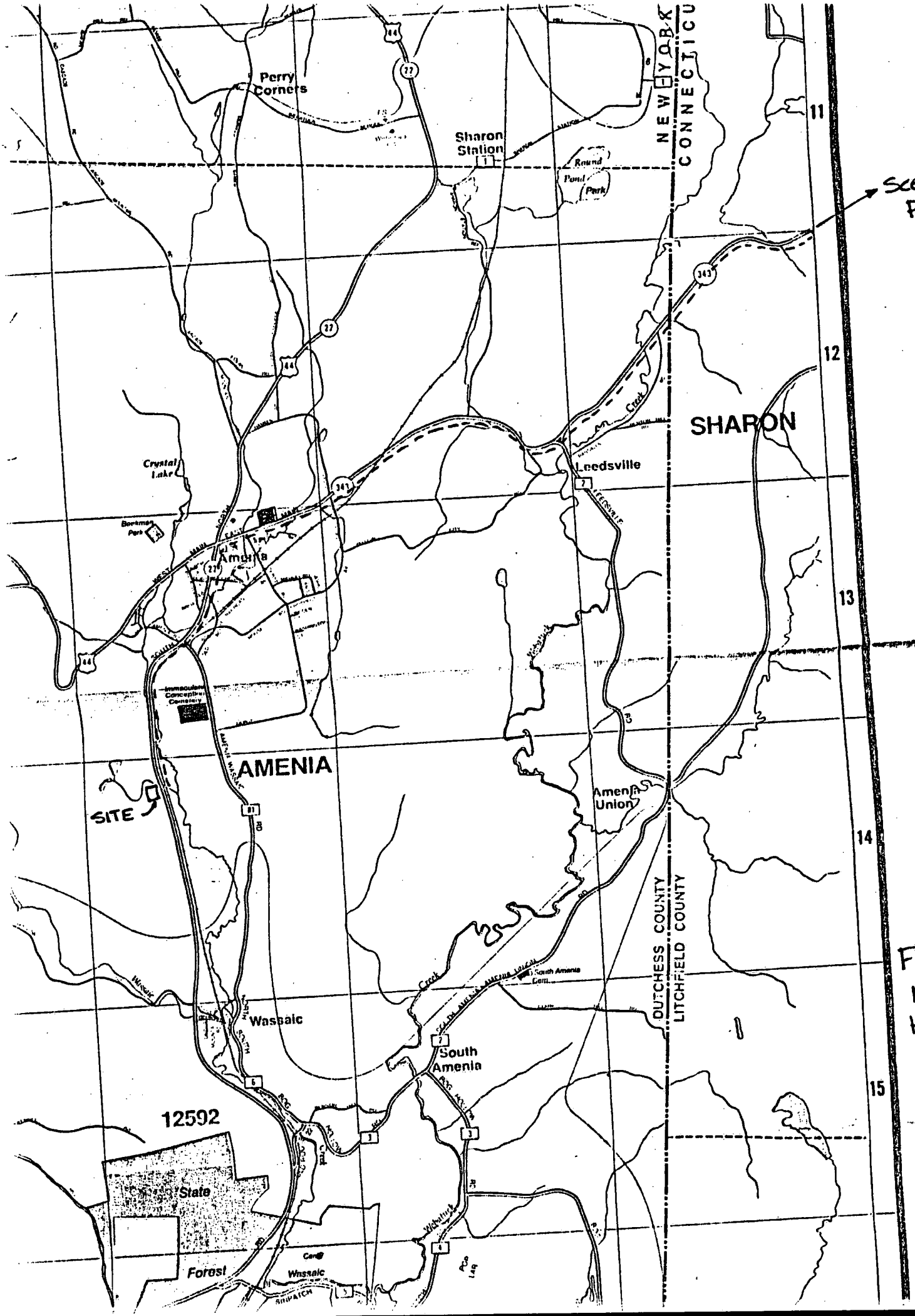



Figure 2
Map to
Hospita

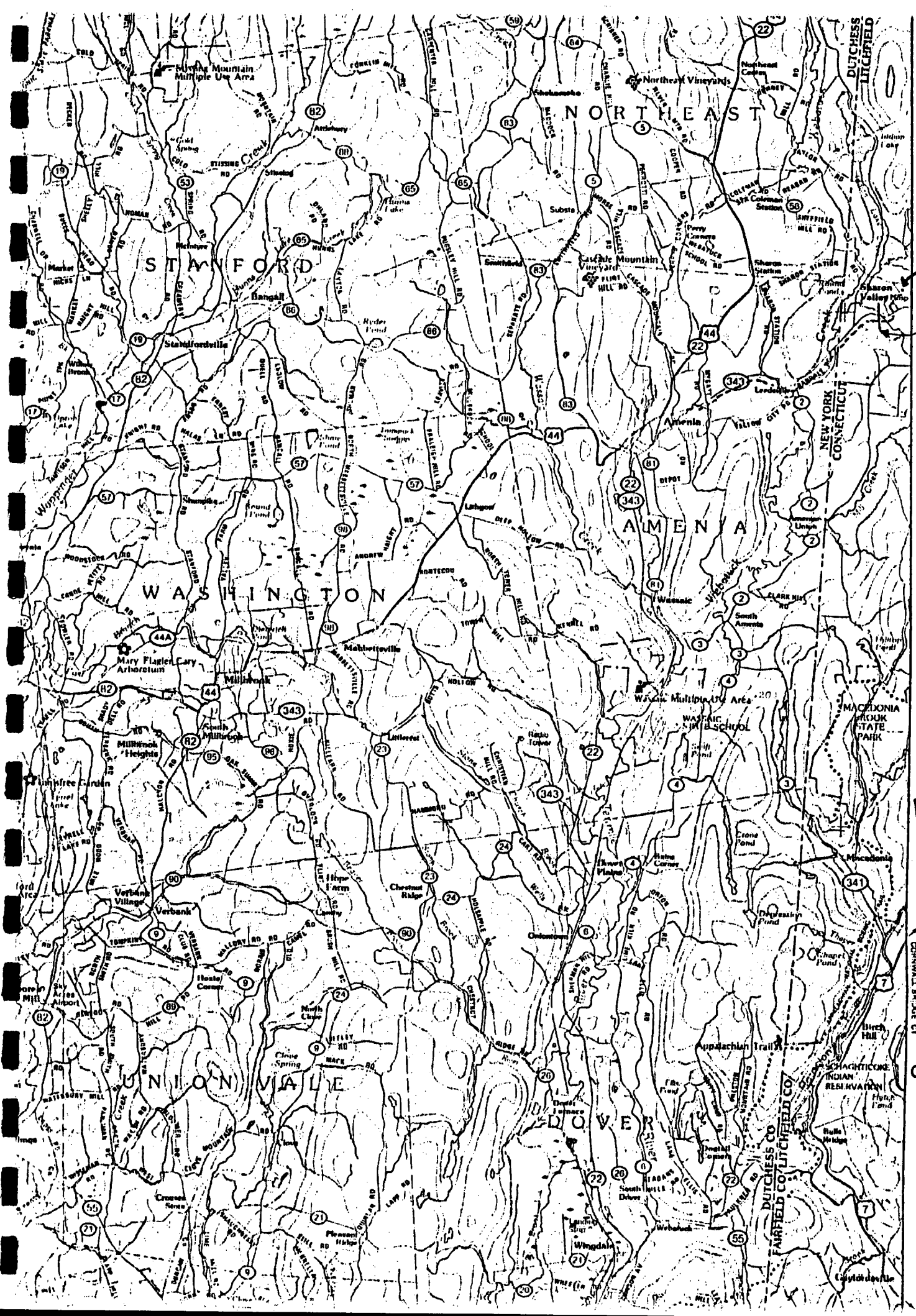



Figure 2 continued Map to Hospital

**LAWLER, MATUSKY & SKELLY ENGINEERS**

**SITE-SPECIFIC**

**HEALTH AND SAFETY PLAN FORM**

Site Name: Old Amenia Dump Site

HASP Preparer: Sara Handy

Address: Route 22

City/State: Amenia, Dutchess County, NY

Job No.: 576-045

APPROVALS:

Project Manager: Ed Maikish

Safety Officer: Karen Wright

PROJECT PERSONNEL:

On-Site Coordinator: Sara Handy
On-Site Health and Safety Officer: Kevin McCarty

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: October 8, 1991

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

Suspected: Landfilled municipal wastes, buried drums containing industrial wastes, PCBs, possibly liquid solvents.

HAZARD ASSESSMENT (toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):

PCB contamination was detected in one soil sample collected from the site on the western edge of the landfill, approximately six feet from the end of the fence surrounding the fuel oil storage area. The only hazard of concern to workers at this site is contact with the PCB-contaminated soil in this area. There are no other anticipated hazards to workers during conduct of the magnetometry survey since no intrusive procedures will be conducted during this task.

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

Not applicable for this task.

SITE ACCESS: (describe procedures to control site access)

Access to site is unrestricted, with the exception of the Sharon Oil storage area, which is fenced. The fenced area is not included in this site and will not need to be entered.

MONITORING PROCEDURES (If required by the Safety Officer)

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

None required for magnetometry survey.

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

None required for magnetometry survey.

Personnel monitoring procedures:

None required for magnetometry survey.

DECONTAMINATION AND DISPOSAL

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

None required for magnetometry survey.

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

None required for magnetometry survey.

## EMERGENCY PROCEDURES

In event of personnel exposure (skin contact, inhalation, ingestion, specific procedures for specific chemicals):

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 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 by trained emergency medical technicians only. 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 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 fire is out of control:

- Evacuate site
- On-site Health & Safety Officer shall verify that all team members are present
- Notify the Fire Department
- Contact the Safety Officer and Project Manager

In event of potential or actual ionizing radiation exposure:

Not applicable

In event of environmental accident (spread of contamination outside sites):

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 (complete here or have separate list available on-site)

Telephone

**Emergency Medical Facility** (include map or written description of route to hospital):

Sharon Hospital (203) 364-4141
50 Hospital Rd., Sharon, CT

See Figure 1 for directions to hospital.

**Ambulance Service:**

Wassaic Rescue Unit (914) 868-2213
Wassaic, NY

**Fire Department:**

Amenia Fire Dept. (914) 471-1427
2.5 mi S of Amenia on Rt. 22, near golf course

**Police Department:**

Amenia Substation (914) 373-8200
1 to 2 mi N of site on Rt. 22

**Poison Control Center:**

New York: (914) 353-1000
Connecticut: 1-800-343-2722

## ALTERNATIVE WORK PRACTICES

(Describe alternative work practices or instruments not specified in this form. Indicate work practices specified in the chapter for which proposed alternative work practices will serve as substitute).

Not applicable.

## TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS

(attach table including specific description of protective gear and action levels to upgrade or downgrade LOP)

During geophysical survey, personnel should avoid area on western side of site near end of Sharon Oil fenced enclosure where PCB contamination has been identified, if possible. Personnel shall wear boots and clean boots after use if traffic in this area is required. Since no intrusive work is to be conducted during the geophysical survey and air monitoring conducted at the site indicates that workers will not be exposed to hazardous contaminants, no other protective gear is required.

## SITE MAP

(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 2.

## TRAINING

(Provide description of minimum training, reference OSHA Sections).

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

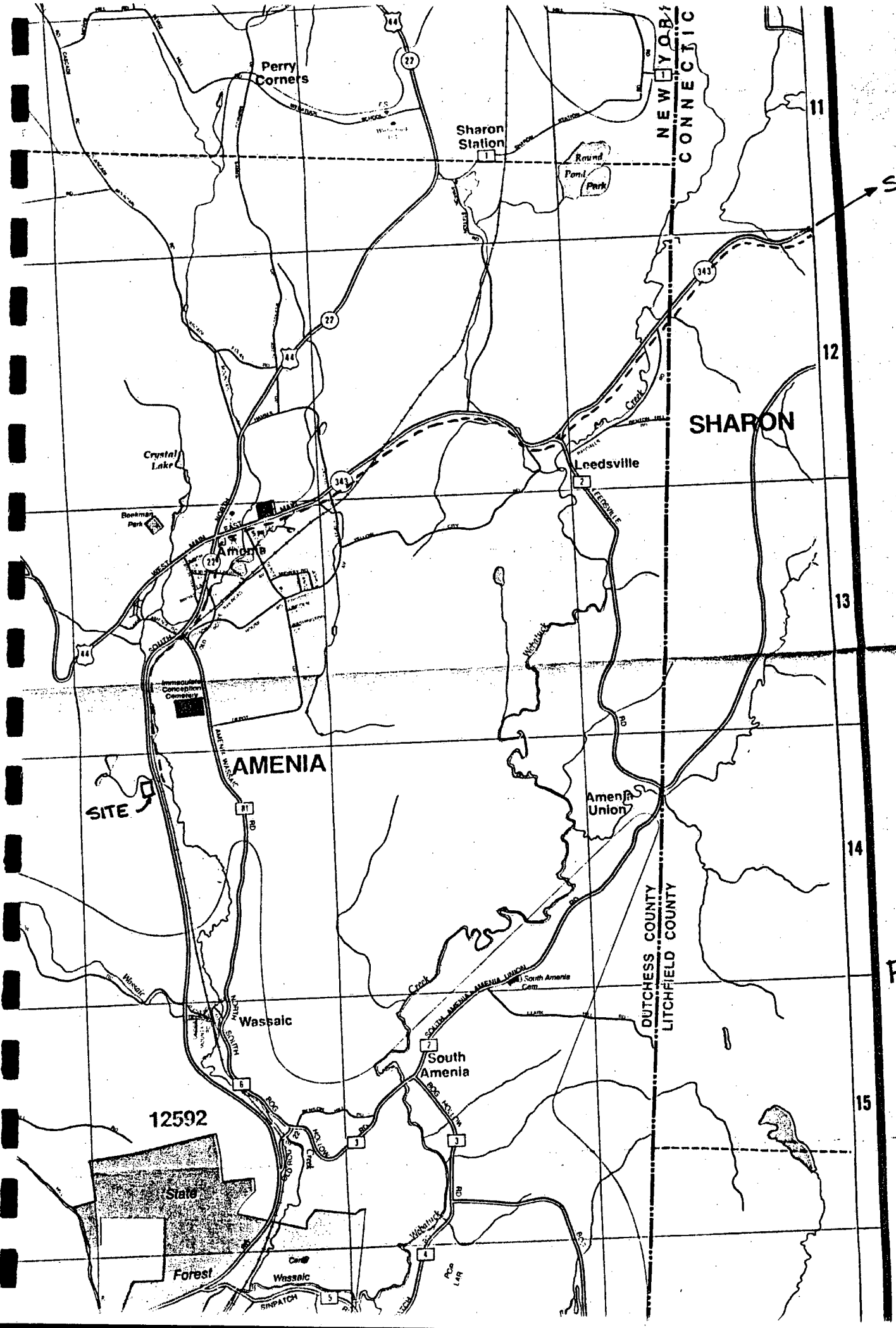
All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

## AFFIDAVIT

I, _____ , (name) of _____ (company name) have read the Health and Safety Plan (HASP) for the _____(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.

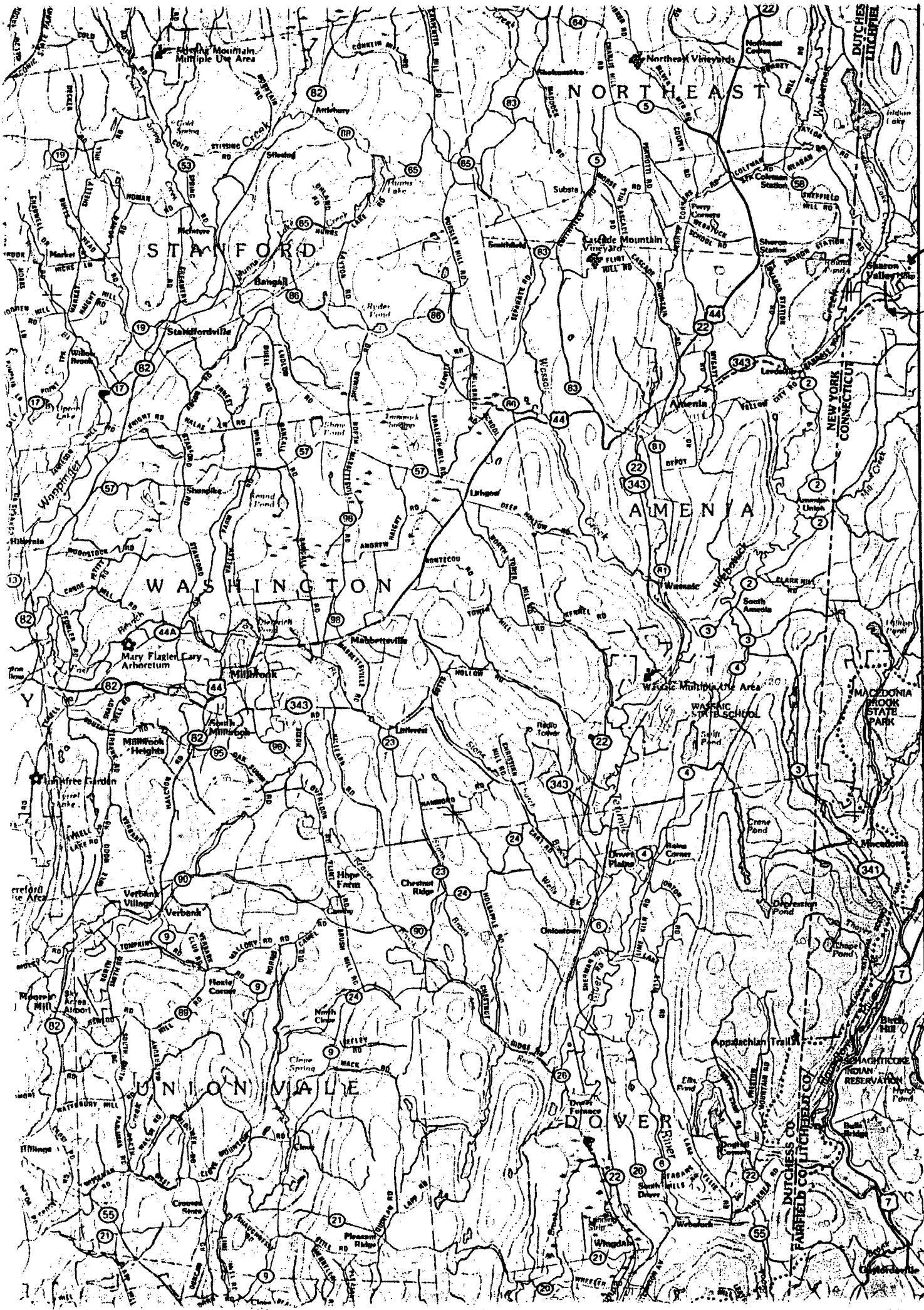
Signed _____

Date _____




See next page

Figure 1
Map to Hospital


NORTHEAST
STANFORD
AMENIA
WASHINGTON
UNION VALE
DOVER
Northeast Vineyards
Cascade Mountain Vineyard
Sharon Valley
Millbrook
Millbrook Heights
Mabbettsville
Mary Flagler Cary Arboretum
Wassaic
Wassaic Multiple Use Area
WASSAIC STATE SCHOOL
MACEDONIA BROOK STATE PARK
Macedonia
Appalachian Trail
MAHICANTICOOK INDIAN RESERVATION
Verbank
Verbank Village
Hopewell Farm
Chestnut Ridge
Onleytown
Dover Plains
Wingdale
Pleasant Ridge
Stanfordville
Staatsburg
Hibernia
Lithgow
Amenia
South Amenia
Sharon Station
Perry Corners
Coleman Station
Substa
Smithfield
Baingall
Millerton
Hopewell Junction
Sky Acres Airport
Birch Hill
Crane Pond
Depression Pond
Hunter Pond
Elbe Pond
Dutchess Co.
Fairfield Co.
Litchfield Co.
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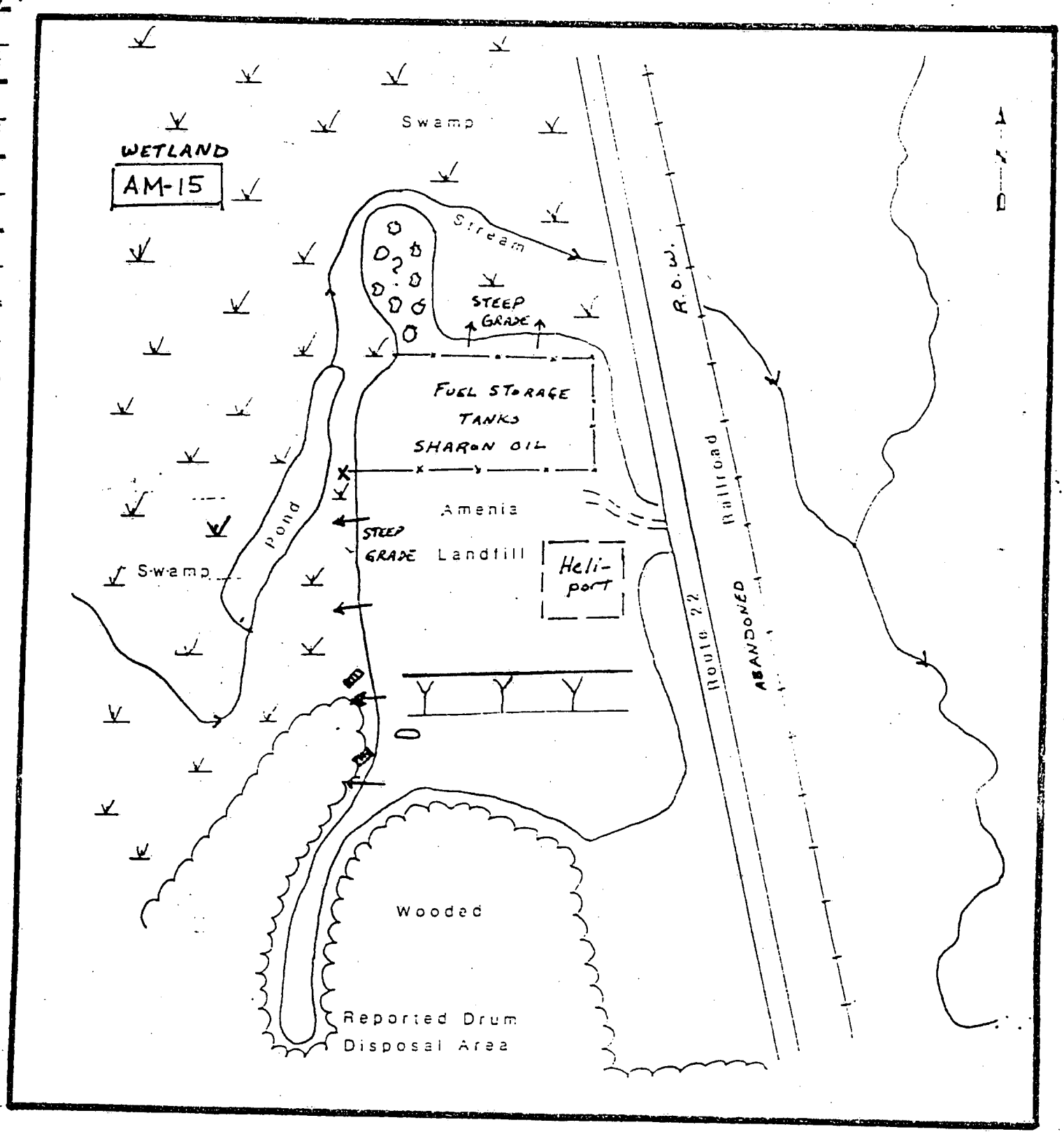



OLD AMENIA (T) LANDFILL # 314006

Figure 2. Site sketch.
(Not to scale)

X - Site of collection of soil sample with PCB contamination.

# PART IV

# SITE INSPECTION REPORT

**DATE:** 9 October 1991 **FILE No. 576-045**

**TO:** File

**FROM:** Sara Handy

**SUBJECT:** Site Visit Log, Old Amenia Landfill Site

10:15 am: Arrived at site. LMS personnel present: Kevin McCarty and Sara Handy. No one else present at site. Site access was unrestricted.

10:30 am: Began calibration of air monitoring equipment. Weather conditions: sunny, slight breeze from the south-southeast. Temperature in the 60s.

Calibrated OVA, HNu, and CGI. Didn't have calibration gas for OVA at site. The OVA will be calibrated at lab later. Set OVA background at 1 ppm.

10:45 am: Completed air monitoring equipment calibration. Began air monitoring survey by taking upgradient readings (readings taken south of the site at X - see Figure B-1). Noted smell of smoke in air during collection of background readings.

Background readings:

| | |
|---|---|
| CGI: | 5% LEL |
| | 20% $O_2$ |
| HNu: | 1.0 - 1.9 ppm, fluctuating |
| Dosimeter: | 0.01 - 0.05 mrad/hr |
| OVA: | Had trouble keeping OVA lighted, set background at 5 ppm. |

10:50 am: Began air monitoring survey of site. Traversed site as shown on Figure B-1, noting any areas where readings exceeded background levels. These are identified by number and listed below.

1 HNu laid on ground in clear, grassy area, with no sign of spills or odors. HNu reading: 1.5-4.5 ppm. Air in breathing zone (i.e., 4 to 6 ft above grade) was at background levels, elevated readings obtained only at ground level. OVA reading at background levels (11.0 ppm). Dosimeter and CGI readings at background.

2 OVA reading obtained next to ground at partially bare spot: 95 ppm of methane. Dosimeter and CGI readings at background.

3 HNu laid on ground on bare spot with lichen and small bits of glass. HNu reading: 6 ppm max, 1.5-2 ppm steady reading. OVA reading

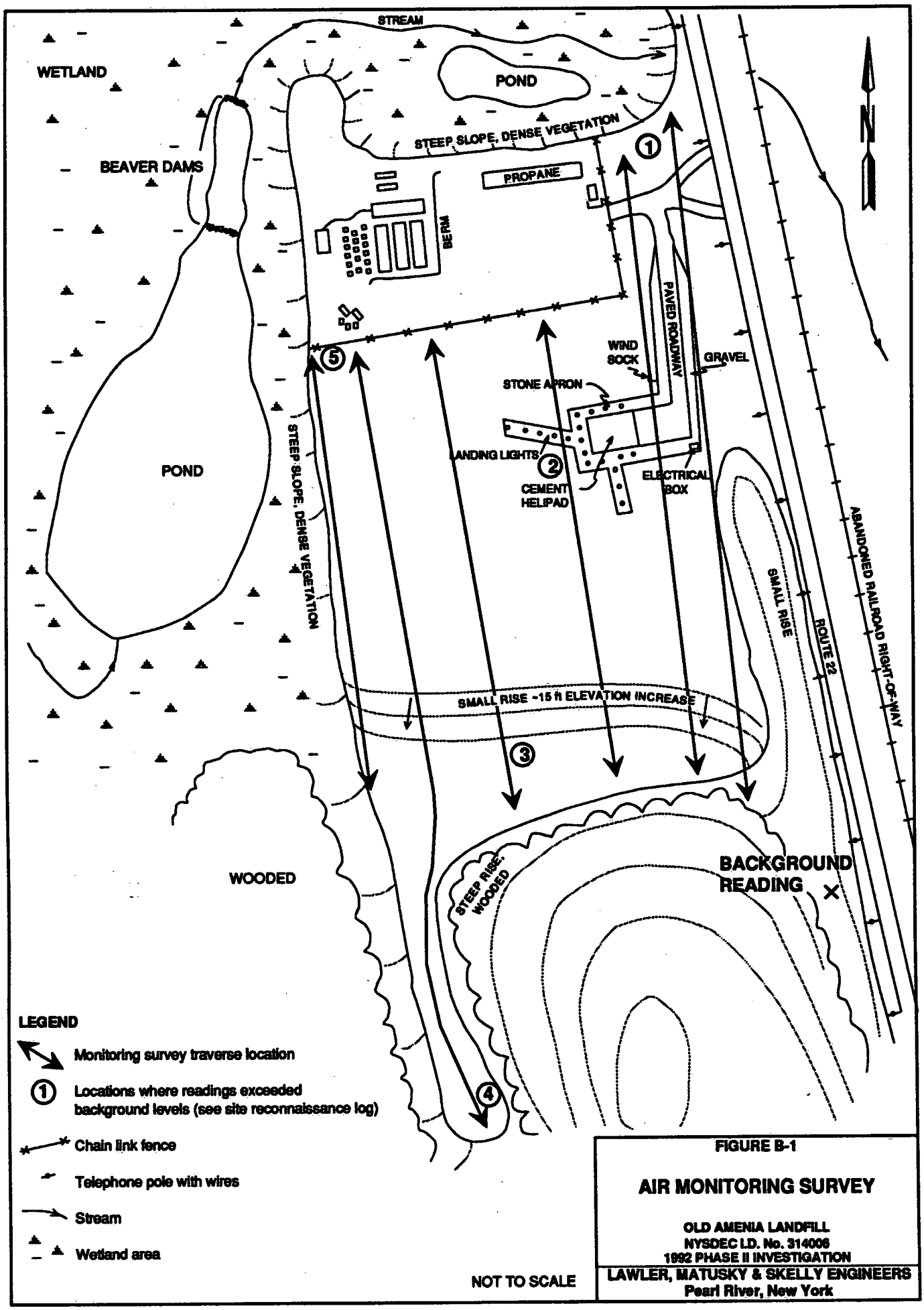



FIGURE B-1

AIR MONITORING SURVEY

OLD AMENIA LANDFILL
NYSDEC I.D. No. 314006
1992 PHASE II INVESTIGATION

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

at ground surface: 50 ppm. Dosimeter and CGI readings at background.

4 HNu readings in area at end of access road to suspected drum disposal area were above background, but variable. All other readings were at background levels.

5 HNu reading at ground surface: 2.0-2.8 ppm. Reading in breathing zone was at background level, as were all other monitor readings.

During conduct of the air monitoring survey, no odors were detected, and no obviously stained soils were encountered.

11:10 am: Completed air monitoring survey. Mild wind continued from the south-southeast.

11:15 am: Began site inspection, including photography of site (see attached photographs). Ground cover of relatively flat portion of landfill in very good condition. Tire tracks indicated that grass had been mown. Occasional small bare patches were present at the locations indicated on Figure B-2. No indication of stained soils or odors at any of the bare patches encountered except in one location. Some fill material was visible (i.e., shoe, bits of glass) in a few spots.

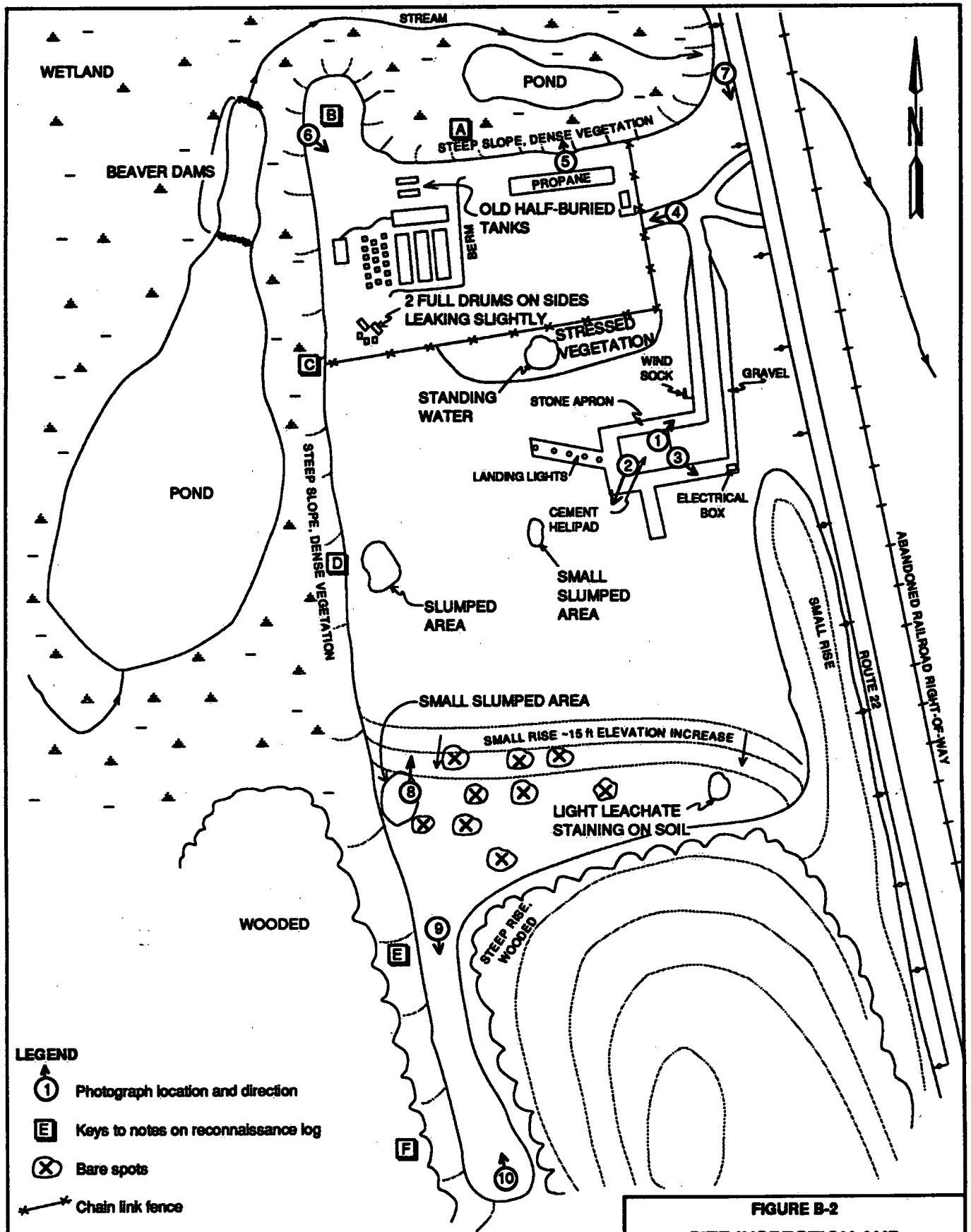
As the ground slopes up to the wooded area on the south, the ground cover changes to wild, dried grasses, some small shrubs, and trees. Southern sloped area not mown.

The following specific areas were noted during the site reconnaissance, as indicated on Figure B-2.

A Steeply graded, wooded area to north of site: small amount of leachate with an oily sheen was noted at bottom of slope. May want to sample the leachate on a later site visit. No fill material was evident. Swampy area was dry/wet, could be walked on relatively easily.

B Peninsula area: No fill material evident, no bare spots or odors noted. Unable to determine whether this area was included in landfill. Trees on edge of area appeared to be dying.

C On western slope of landfill at the end of the Sharon Oil enclosure fence: small ditch was noted with fill material exposed, several rusted drums, tire, bucket, and several brown bottles. Tires visible in water in swamp. Along bank to area D, more rusted metal was noted.




**LEGEND**

- ① Photograph location and direction
- E Keys to notes on reconnaissance log
- ⊗ Bare spots
- Chain link fence
- Telephone pole with wires
- Stream
- Wetland area

NOT TO SCALE

**FIGURE B-2**

**SITE INSPECTION AND PHOTOGRAPHIC LOG**

**OLD AMENIA LANDFILL**
**NYSDEC I.D. No. 314006**
**1992 PHASE II INVESTIGATION**

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**Pearl River, New York**

PHOTO IV-1. Site access road, taken from center of helipad looking northeast.

PHOTO IV-2. Southwestern portion of central site area, taken from center of helipad.

PHOTO IV-3. Small ridge between southern portion of central site area and Route 22, taken from center of helipad looking southeast.

PHOTO IV-4. Sharon Oil fuel storage enclosure, taken from site access road looking west.

PHOTO IV-5. Steep slope and swamp, taken from top of bank at northern end of site facing north.

PHOTO IV-6. Peninsula area at northwestern end of site, taken from western edge looking southeast.

PHOTO IV-7. Access road, helipad, and central site area, taken from northeastern corner of site next to Route 22 looking southwest.

PHOTO IV-8. Sharon Oil enclosure and western half of central site area, taken from top of ridge in southwestern portion of site looking north.

PHOTO IV-9. Access road leading to drum disposal area, taken at northern end of road looking south.

PHOTO IV-10. Southern end of access road near drum disposal area, taken looking north.

D Another small ditch was identified with rusted metal, glass, wood, tires, etc. visible.

E Apparent scrap metal disposal area identified in wooded bank area to the west of the access road, near beginning of road. Several rusted cars, household appliances, etc were present. One empty drum with no top present completely above ground. Several other drums were noted protruding from the ground. Fairly large amount of metal visible.

F Apparent drum disposal area in wooded area to the west of the access road, near the southern end of the road. Ground surface was hummocky, 10-12 drums protruding from the ground were visible. Drums were not crushed. Plastic liner was noted sticking out of the ground, part of rusted drum filled with hardened ash or other material was sitting on ground surface.

2:00 pm: Completed site reconnaissance and photography. Packed up equipment and left.

# PART V

# SAMPLING REPORT

Over = >1000

# LAWLER, MATUSKY & SKELLY ENGINEERS
## DAILY HEALTH & SAFETY REPORT
## DATA SHEET

| | |
|---|---|
| JOB NO.: 576-045 | H.NU METER: NYSDEC HNU PR 101 |
| SITE: Amenia | OVM METER: |
| OPERATOR: Joe G. | OVA METER: NYSDEC OVA 128 |
| CREW: JG, JC, KM | CGI METER: NYSDEC MSA 361 |
| | DATE: 11.5.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 9:00 am | SG1 | — | — | over | over | — | BG | — | Sand ground 5' |
| 10:05 | SG2 | - | | over | over | over | — | .82 | Easier Driving Point 5' |
| 10:31 | SG3 | - | | over | over >1000 | BG.GG 11 | - | 17.8% | 5' 5' |
| 10:52 | SG4 | | | over | over | over | — | 11.9 | 5' 5' |
| 11:32 | SG5 | | | 700 ppm | 640 ppm | 44 | | 11.6 | 5' (+-) |
| 11:25 | SG6 | — | — | over | over | OVER | — | 9 | 5' (+-) |
| 12:30 | SG7 | (Sampled 11/6/91) | | | | BG | — | 2.6 | |
| 12:45 | SG8 | (Sampled 11/6/91) | | | | over | — | 7.1 | 5' (+-) |
| 1334 | SG9 | | | | | BG | - | 7.4 | 5' (+) |
| 13:37 | SG10 | | | over | over | over | — | 12.2 | 5' (+) |
| 1355 | SG11 | (Sampled 11/6/91) | | over | over | OVER | — | 7.4 | 5' (+) |
| 1505 | SG12 | (Sampled 11/6/91) | | | | 008 | — | 20.5 | 5' |
| 1500 | SG13 | (Sampled 11/6/91) | | | | 009 | - | 20.7 | 5' (+-) |
| 1543 | SG14 | (ReSampled 11/6/91) | | over | over | over | — | Battery Died | 5' (+-) |

Arrived on Site 7am w/ Kevin McCarty, Joe Condella
Left Site @ 1645, Joe Giannelli
Sunny 40° Tetra-K-Testing

On-Site Health & Safety Officer and/or Crew Chief

SIGNATURE: [signature]

DATE: 11.5.91

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**DAILY HEALTH & SAFETY REPORT**
**DATA SHEET**

| | |
|---|---|
| JOB NO.: 576045 | H.NU METER: NYSDEC HNU #101 |
| SITE: AMENIA | OVM METER: |
| OPERATOR: Joe G. | OVA METER: NYSDEC OVA 128 |
| CREW: JG. JC | CGI METER: NYSDEC MSA361 |
| | DATE: 11.6.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 0930 | SG15 | BG | | over | over | over | BG | 12.8% | 4' |
| 1047 | SG18 | | | over | over | over | BG | 3.9% | 5' |
| 1019 | SG8 | Neg Defl. | | over | over | | | | |
| 1139 | SG19 | — | | over | over | over | — | 4.0% | 5' |
| 1321 | SG7 | collected 4/40ml Bottles of $H_2O$ to Sample | | | | | | | 5' |
| 1406 | SG11 | 5ppm | — | over | over | — | — | — | 5' |
| 1440 | SG12 | 10.15 | | 14ppm | BG | | | | 5' |
| 1520 | SG13 | 5ppm | | 7 | BG | | | | 5' |
| 1557 | SG16 | 3ppm | | 7.2 | BG | Batteries Died | | | 5' |
| 1641 | SG17 | 5ppm | | 3ppm | BG | Batteries Died | | | 5' |
| 1535 | SG20 | Installed @ 5' | | Will Sample Tomorrow | | | | | 11/7/91 |

Partly Cloudy 40°

Steve Knol

Joe Giannelli, Joe Concetta, Tetra-K

Arrived Onsite @ 7am and set up, Calibrated Meters

Installed SG15 @ 07:45, Resampled SG14,

On-Site Health & Safety Officer and/or Crew Chief

SIGNATURE: [signature]

DATE: 11.6.91

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**DAILY HEALTH & SAFETY REPORT**
**DATA SHEET**

Sunny 40°

| | |
|---|---|
| JOB NO.: | 576045 |
| SITE: | AMENIA |
| OPERATOR: | J.G, J.C |
| CREW: | J.G. J.C |
| H.NU METER: | NYSDEC HNU |
| OVM METER: | PI 101 |
| OVA METER: | NYSDEC OVA 128 |
| CGI METER: | NYS DEC MSA 361 |
| DATE: | 11.7.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| Arrived on Site @ 7am, Joe Grannelli, Joe Condello, Tetra-K- | | | | | | | | | |
| Calibrated All Meters, (See Calibration Sheet) | | | | | | | | | |
| | | | | | | | | | |
| 0730 | Preped to get First Soil Sample | | | | | | | | |
| 0746 | SS1B | 6" soil Sample for PCB, VOC Analysis Taken, No visual staining or odor | | | | | | | |
| 0753 | SS1A | 6" deep Soil Sample for PCB, VOC Analysis Taken, No staining or odor | | | | | | | |
| | SS1A & SS1B | light to dark brown sandy, silt, some cobbles & roots | | | | | | | |
| 0810 | SS2A | 6" soil Sample for PCB, & VOC Analysis taken, Dark brown Top Soil | | | | | | | |
| | w/ cobbles & gravel, no visual staining or Odor, Same for SS2B (5ft away), some glass mixed in | | | | | | | | |
| 0815 | SS2B | 6" soil Sample taken for PCB, VOC Analysis taken - Same Soil as SS2A | | | | | | | |
| 0845 | SG21 | ~~[illegible]~~ | | ~~[illegible]~~ | ~~[illegible]~~ | over | B.G. | 13.5% | 5' soil gas |
| 0914 | SG22 | Neg Dig | | over | over | over | BG | 13.8% | 5' soil gas |
| 0927 | SG23 | | | | | over | BG | 10.8% | 5' soil gas |
| 1015 | SS3 | 6" soil Sample for PCB, VOC Analysis taken, Top soil, no visual stain or odor, Rock | | | | | | | small gravel |
| 1025 | SS4 | 6" Soil Sample, Analysis for PCB, VOC, Top Soil, garbage present, large gravel | | | | | | | no odd no stain |
| 1033 | SS5 | 6" Soil Sample, Analysed for PCB, VOC Topsoil mixed w/ glass & gravel, Roots | | | | | | | Paint & Rubber present |
| 1040 | SS6 | 6" Soil Sample, Analysis for PCB, VOC Topsoil, Root, small gravel, some glass | | | | | | | |
| 1045 | SS7 | 6" Soil Sample, | | | | Same as above | | | |
| 1052 | SS8 | 6" Soil Sample | | | | Same | glass broken | | glass mixed in |
| 1106 | SS9A | 6" Soil Sample | | | | Same | | | For all |
| 1106 | SS9B | 6" Soil Sample | | | | Same | | | |
| | | | | | | | | | |
| 1139 | SG24 | | | | | over | BG | 4.3% | Soil gas 3½' |
| | | | | | | | | | |
| | | | | | | | | | |

**On-Site Health & Safety Officer and/or Crew Chief**

SIGNATURE: [signature]

DATE: 11.7.91

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**DAILY HEALTH & SAFETY REPORT**
**DATA SHEET**

Soil Samples Taken

| | |
|---|---|
| JOB NO.: 576045 | H.NU METER: / OVM METER: |
| SITE: Amenia | OVA METER: |
| OPERATOR: | CGI METER: |
| CREW: JG, JC | DATE: 11.7.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 1325 | SS10 | 6" Soil Sample, for PCB's VOC | | | Same Soil @ Rest, Visual glass Fragments in | | | | |
| 1330 | SS11A | 6" Soil Sample - | | | | | | | |
| 1335 | SS11B | 6" Soil Sample - | | | | | | | |
| 1345 | SS12 | 6" Soil Sample - | | | | | | | |
| 1352 | SS13 | 6" Soil Sample - | | | | | | | lots of glass fragments |
| 1356 | SS14 | 6" Soil Sample | | | | | | | |
| | | | | | | | | | |
| | Ran Samples Remainder of Day | | | | | | | | |
| | | | | left site @ 6pm | | | | | |
| | | | | | | | | | |
| Run Times for VOCs, Soil Samples - | | | | | | | | | |
| 1606 | SS1A | Ran VOCs, Soil Samples | | | | | | | |
| 1636 | SS2B | | ↓ | | | | | | |

On-Site Health & Safety Officer and/or Crew Chief

SIGNATURE: John Mendes

DATE: 11.7.91

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**DAILY HEALTH & SAFETY REPORT**
**DATA SHEET**

Partly Sunny 40°

| | |
|---|---|
| JOB NO.: 576 045 | H.NU METER: / OVM METER: |
| SITE: Amenia Landfill | OVA METER: |
| OPERATOR: | CGI METER: |
| CREW: JG, JL | DATE: 11.8.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| Arrived on Site 7AM, Joe Giannilli, Joe Cardelli, Tetra-K, & Ray Bulcanck Ass. | | | | | | | | | |
| 0830 | SS15 | 50' South of SS2B, 6" Soil Sample collected for PCB's | | | | | | | |
| | Soil, Dark Brown, Top Soil, gravel, with Broken glass | | | | | | | | |
| | | | | | | | | | |
| 0838 | SS6, Run for VOC analysis — | | | | | | | | |
| | | | | | | | | | |
| 0905 | SS16 8" Soil Collected for PCB Analysis, midway Between | | | | | | | | |
| | SS6, and SS2B, halfway Down Slope. | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 0906 | SS5 Analysis for VOCs — | | | | | | | | |
| 0948 | SC07 Resample, $H_2O$, 4/40ml Vials for Store to bring | | | | | | | | |
| | back as Confirmation Sample, bring back to lab - | | | | | | | | |
| | | | | | | | | | |
| 0945 | SS9A, Run for VOC. | | | | | | | | |
| 2100 | Went to town to make photocopies of Data | | | | | | | | |
| | | | | | | | | | |
| SS15 | | | 1405T, left Site, Drove Home | | | | | | |
| SS16 | | | | | | | | | |
| SS10 | | | | | | | | | |
| SS9A | Soil Samples | | | | | | | | |
| SS4 | All Run for VOCs, | | | | | | | | |
| SS5 | All N/D. | | | | | | | | |
| SS6 | | | | | | | | | |
| SS2A | | | | | | | | | |
| SS2B | | | | | | | | | |
| SS1A | | | | | | | | | |

On-Site Health & Safety Officer and/or Crew Chief

SIGNATURE: [signature]

DATE: 11.6.91

**LAWLER, MATUSKY & SKELLY ENGINEERS**
**DAILY HEALTH & SAFETY REPORT**
**DATA SHEET**

| | |
|---|---|
| JOB NO.: 576-045 | H.NU METER: / OVM METER: |
| SITE: America Land Fill | OVA METER: |
| OPERATOR: | CGI METER: |
| CREW: JG, CO | DATE: 11.11.91 |

| TIME | SAMPLE LOCATION | H.NU READING | O.V.M. READING | O.V.A. READING w/o FILTER | O.V.A. READING w/ FILTER | C.G.I. READING LEL | C.G.I. READING $H_2S$ | C.G.I. READING $O_2$ | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| Arrived onsite @ 10:45am - Joe Giannelli, Chris O'Gorman and met Roy Budnick - Cloudy 34° and Raining slightly - Preped to collect Soil Samples | | | | | | | | | |
| 1115 | SS17 | , Surface Soil 3/250mL Bottles for Metals/CN, BNA/PCB/Pest, Eptox/Corrosivity/Ignitability/Reac | | | | | | | |
| 1115 | SS17 | Surface Soil, 2/125mL Bottles collected for - VOA | | | | | | | |
| 1130 | SS18 | Surface Soil Collect as above | | | | | | | |
| 1145 | SS19 | Surface Soil, Collected as above | | | | | | | |
| 1147 | SS19MS | As above | | | | | | | |
| 1150 | SS19MSD | As above | | | | | | | |
| ~~SS20~~ | ~~[illegible]~~ | | | | | | | | |
| 1200 | SS20 | As Above | | | | | | | |
| 1400 | - Shipped cooler of Samples from Fed-X to lab (Nytest) | | | | | | | | |

On-Site Health & Safety Officer and/or Crew Chief

SIGNATURE: [signature]

DATE: 11.11.91

Date: 11/20/91
Crew: JAC, SP
Site: Old America Road MI

LAWLER, MATUSKY & SKELLY ENGINEERS
FIELD DATA SHEET FOR SOIL/SEDIMENT SAMPLES
Job No: 576-045

Oper: Sediment Collection
Thermometer No:

| STA. NO. | TIME | SMPL DPTH | METHOD | TEXT. | CLR. | ODOR | SAMPLE PARAMETERS | BOT. Nos. | SAMPLE PARAMETERS | BOT. Nos. | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | SAMPLE BOTTLES | | | | |
| AM SD-1 | 0920 | 2' | 30" Core Grab | Smooth clay + silt | Grey Brown | None | VOA +10 | 2 | | | |
| | | | | | | | BNA, metals, CN, Pest/PCB | 1 | | | |
| AM SD-2 | 1040 | 2' | ↓ | Smooth silt, small pebbles | Brown | ↓ | VOA +10 | 2 | | | |
| | | | | | | | BNA, Metals, CN, Pest/PCB | 1 | | | |
| AM SD-3 | 1140 | 2' | ↓ | Smooth silt, clay sm. Pebbles | Brown Black | ↓ | VOA +10 | 2 | | | |
| | | | | | | | BNA, Metals, CN, Pest/PCB | 1 | | | |
| AM-D-4 | 1256 | 2' | Petite Ponar | Very Smooth light silt | Black | ↓ | VOA +10 | 2 | | | |
| | | | | | | | BNA, Metals, CN, Pest/PCB | 1 | | | |
| AM-D-5 | 1415 | 2' | ↓ | Smooth silt | Black | ↓ | VOA +10 | 2 | | | Also collected MS + MSD samples. |
| | | | | | | | BNA, Metals, CN, Pest/PCB | 1 | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

DATE : 11/20/91
CREW : JAC, SP
JOB No.: 576-045

pH No.: C? 138
Thermometer No.: 134
SCT No. : DEC 560

LAWLER, MATUSKY & SKELLY ENGINEERS

FIELD DATA SHEET FOR SURFACE WATER AND LEACHATE

| STATION NUMBER | SAMPLE DEPTH (ft/in) | TIME (HHMM) | TEMPERATURE (°C) | pH | SPECIFIC CONDUCTANCE (μmhos/cm) Uncorrected/Corrected | FLOW MEASUREMENT (rev/min) | CREEK DEPTH @ 5 ft INTERVALS (RIGHT TO LEFT) (ft/in) | CREEK WIDTH, (ft) | SAMPLE BOTTLE Nos. VOAS | ACID | B/N | P/P | METALS | CN | pH | OTHERS | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM SW-1 | 0-8" | 0807-0914 | 8.1 | 7.8 | 311/459 | | | | +10 TCL 2vials | +20 TCL 1 2L iter Bottle | | 1- 2L Amber Bottle | 1- 1L Amber Bottle | 1- 500 ml Bottle | TSS TDS Spcond 1- 500 ml | COD 1- 250 ml Bottle | Low Level PCB's 1- 2L | |
| AM SW-2 | 0-8" | 1022-1050 | 8.1 | 8.0 | 276/408 | | | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | |
| AM SW-3 | 0-8" | 1124-1131 | 8.3 | 8.0 | 278/408 | | | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | |
| AM SW-4 | 0-8" | 1232-1240 | 8.4 | 7.9 | 290/425 | | | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ⊛ Field Blank done with lab supplied water prior to sampling |
| AM SW-5 | 0-8" | 1340-1405 | 8.4 | 7.9 | 303/444 | | | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ⊛ Also collected MS + MSD samples |
| | | | | | | | | | | | | | | | | | | |