40705

FIELD INVESTIGATIONS OF UNCONTROLLED HAZARDOUS WASTE SITES

FIT PROJECT

TASK REPORT TO THE ENVIRONMENTAL PROTECTION AGENCY CONTRACT NO. 68-01-6056

SITE INSPECTION REPORT (3293)

BARBERS POINT SANITARY LANDFILL
BARBERS POINT NAVAL AIR STATION
OAHU, HAWAII

TDD No.: F-9-8203-2

EPA Report No. TSC 14-2(82)51

Submitted To: Robert Mandel

ecology and environment, inc.

International Specialists in the Environmental Sciences

63100

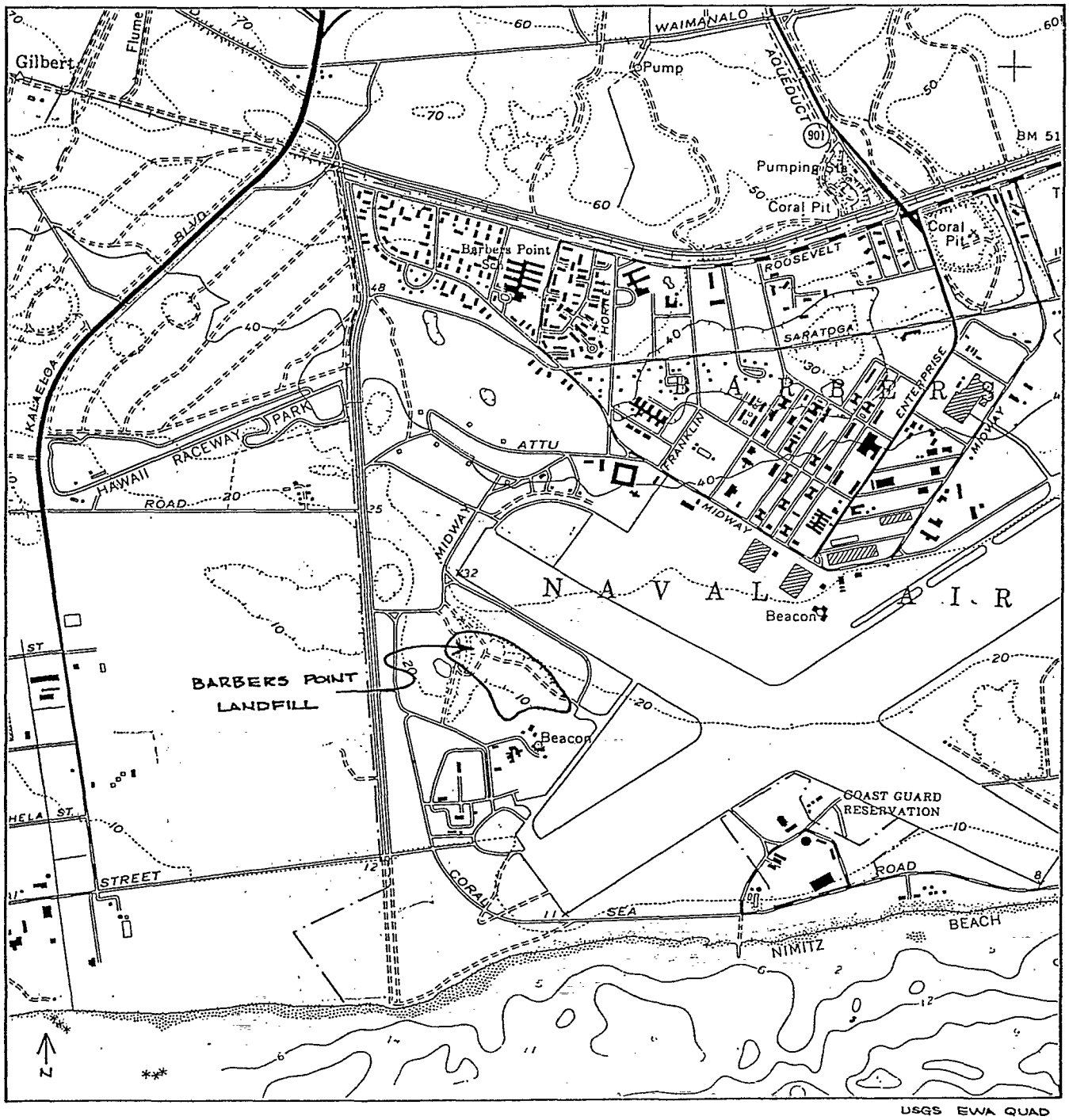
TABLE OF CONTENTS

		Page
1.0	SITE	1
2.0	DATE OF INSPECTION	1
3.0	PARTICIPANTS	1
3.1	Site Representatives	1
4.0	INTRODUCTION	1
5.0	PREVIOUS FIT ACTIVITY ON SITE	2
6.0	OPERATIONS	2
7.0	OBSERVATIONS	3
8.0	ENVIRONMENTAL CHARACTERISTICS	3
9.0	RECOMMENDATIONS AND CONCLUSIONS	7
10.0	APPENDICES	9

Photographic Documentation
CERCLA Notification
Blueprint of Landfill
Laboratory Analysis of Sewage Sludge and Sandblast Grit

FIGURES

1.0	Site Location Map	iii
2.0	Site Layout Map	iv
3.0	Typical Salt Wedge Phenomenon on Coastal Plain	6
4.0	Cross-Section - Volcanic Aquifer, Caprock Sediments	6



USGS EWA QUAD
1968

Figure 1

Barbers Point Landfill
Site Location

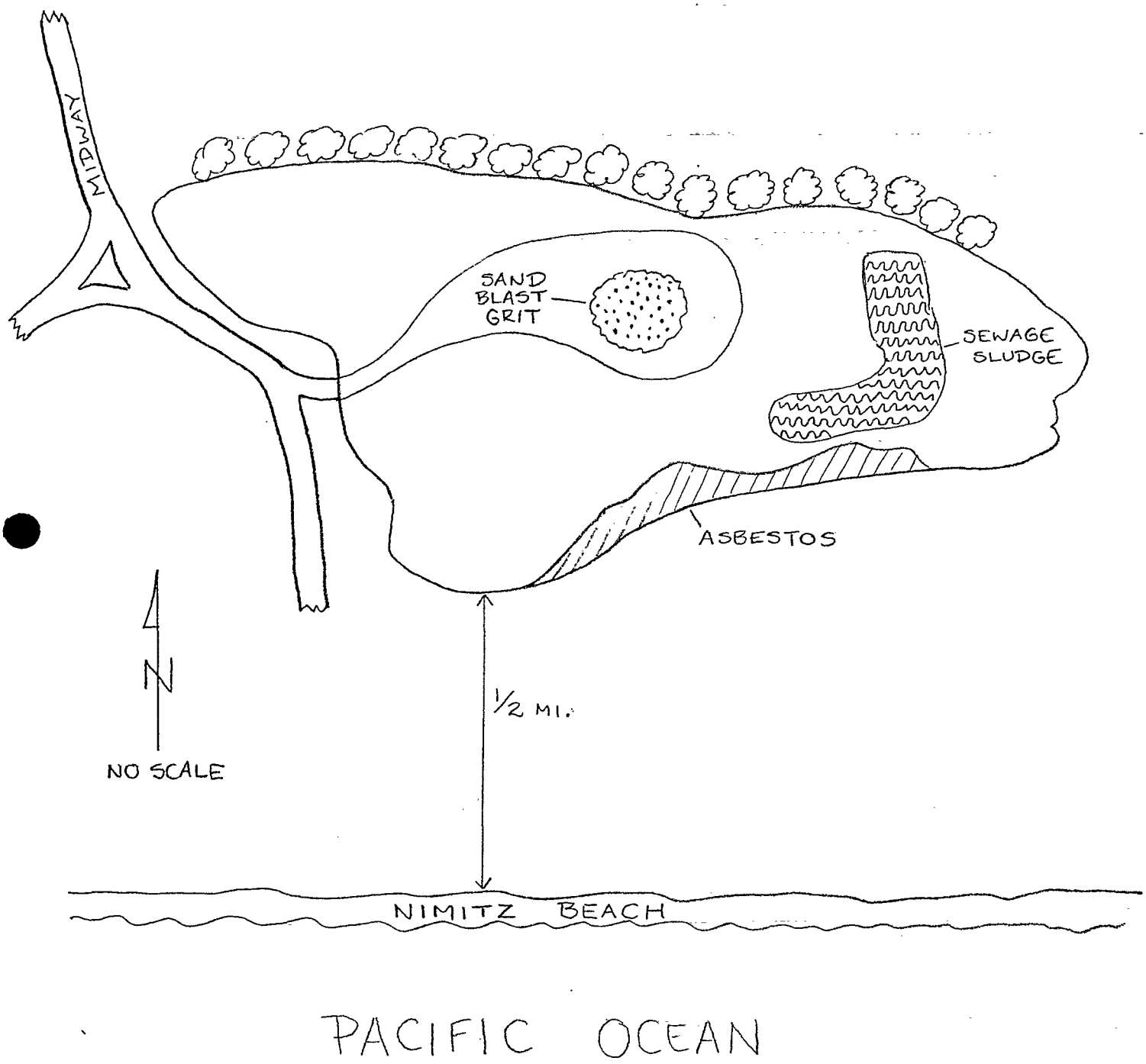


Figure 2

Barbers Point
Sanitary Landfill
Site Layout

SITE INSPECTION REPORT

BARBERS POINT SANITARY LANDFILL, BARBERS POINT NAVAL AIR STATION
Oahu, Hawaii

SECTION 1 - SITE

Barber's Point Sanitary Landfill
Barbers Point Naval Air Station
Barbers Point, Oahu, Hawaii

SECTION 2 - DATE

1 April 1982

SECTION 3 - PARTICIPANTS

John Moe, Ecology & Environment, Inc., Field Investigation Team
Dave Buecker, Ecology & Environment, Inc., Field Investigation Team
Chip Demarest, Environmental Protection Agency, Region IX
David Higa, Hawaii Department of Health

3.1 SITE REPRESENTATIVES

Ernie Capaldo, Engineering Branch, Pacific Division Naval Facility
Al Abe, Civil Engineer, Barbers Point NAS

SECTION 4 - INTRODUCTION

An inspection of the Barbers Point Sanitary Landfill was conducted by the Ecology & Environment, Inc. Field Investigation Team (FIT) at

the request of the Environmental Protection Agency (EPA), Region IX, Compliance and Response Branch and the Hawaii Department of Health. The purpose of the investigation was to attempt to gather information necessary to further define any potential public health or environmental problems associated with the site and to apply EPA's Hazard Ranking System.

SECTION 5 - PREVIOUS FIT ACTIVITY ON SITE

This site had not been inspected by the FIT prior to April 1, 1982. The Department of the Navy submitted a Hazardous Waste Site Notification for the landfill in accordance with CERCLA[1] on July 28, 1981 (see Appendix), prompting this site inspection.

SECTION 6 - OPERATIONS

The landfill was opened in 1944 to receive wastes from Barbers Point Naval Air Station and Iroquois Point Housing areas. The site was closed October 1, 1976.

No records of wastes types or amounts have been kept, nor was segregation of wastes practiced. All materials were trenched and covered. Although the landfill is closed to general use, some wastes are still being disposed of at the site:

- Sewage sludge (approximately 4,000 gallons per day) from the U.S. Navy Ft. Kamehameha Wastewater Treatment Plant.
- Bagged asbestos from various facility operations.
- Sand blast grit--possibly containing tributyl tin oxide paint waste.

---

[1]Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund)

SECTION 7 - OBSERVATIONS

- According to site representatives the sand blast grit has been analyzed and is considered non-hazardous. It is being used for cover material at the landfill. A large mound of the grit was sitting in the eastern (low) portion of the site. Laboratory analysis of this material is included in the Appendix.

- The asbestos is disposed of in a thin strip on the southern side of the site.

- No leachate collection system is in place.

- No standing water was observed on site, nor were any streams or springs found in the area. No offsite drainage channels were detected.

- A gunnite-lined storm drainage canal is located approximately a quarter of a mile west of the site.

- The Pacific Ocean (Nimitz Beach) is approximately half a mile to the south.

- A residential area is located approximately three quarters of a mile to the north of the site.

- No noticeable odors were detected on site.

SECTION 8 - ENVIRONMENTAL CHARACTERISTICS

CLIMATE

"Barbers Point is within the leeward coastal lowlands of Oahu. This area is characterized by abundant sunshine, persistent trade winds, equable temperatures, and moderate humidities.

The mean annual rainfall is less than 20 inches and the mean annual temperature is 73.5°F. Northeasterly trade winds predominate about 75 to 85 percent of the time and vary from 10 to 25 knots. Winds from the west and southwest occur about 5 percent of the time during the months of October and April. Occasional severe "Kona" or southerly winds occur on the average of three times a year. (USA-COE)".

Using the method of Takasaki (Summary Appraisal of the Nations Groundwater Resources - Hawaii, USGS, prof. paper 81-M, 1978), potential evapotranspiration is estimated between 60 and 80 in/yr. Thus precipitation represents a significant contaminant carrier fluid only during periods of intensive storms or during shorter periods when precipitation exceeds evaporation (or evapotranspiration).*

TOPOGRAPHY

The Barbers Point sites lie within the coastal plain which is typically quite flat with a slight grade toward the sea.

This part of the coastal plain contains large areas of coral rock outcroppings. The coral rock is very porous and permeable resulting in internal drainage. The numerous shallow depressions are typical of an irregular coral surface and micro-karst or solution-type topography.

SOILS

Coral outcrop makes up 80 to 90 percent of the area with the remaining soil consisting of friable red weathered coral that fills in cracks and depressions within the coral outcrops. Beach sand occupies the areas immediately adjacent to the shoreline.

As stated above, drainage is internal, and the soil and rock immediately under the sites are very permeable and allow for rapid percolation.

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*Source: "Environmental Characteristics - Campbell Industrial Park", Ecology and Environment, Inc., 1981

HYDROLOGY

The coastal plain in the area of the sites is underlain by approximately 800 feet of alluvial and marine sediments termed the "caprock". The term "caprock" refers to the overall low permeability nature of the sediments compared to the underlying basal aquifer. (Though the coral reefs are part of the caprock they are much more permeable than the underlying marinne and alluvial sediments.)

The basal aquifer serves as the island's main source of fresh water and is fed by recharge in the Wainae Range.

Deep groundwater movement beneath the sites is partly horizontal toward the sea and partly vertically upward. The head in the basal volcanic aquifer is higher than in the overlying sediments.

Shallow groundwater movement in the coral rock is likely horizontal toward the sea. The elevation of the groundwater table is about mean sea level and responds rapidly (2 or 3 hour lag time) to the tidal fluctuations. The groundwater is unsuitable for drinking because of mixing with ocean water. The quality of water decreases with depth because of the typical "salt wedge" developed along the coastlines. Figures 3 and 4 show schematics of the deep and shallow groundwater conditions.

CONCLUSIONS

Migration of contaminants away from the sites is likely horizontal, shallow and seaward. Migration vertically below the coral reefs is unlikely because of the low permeability of the "caprock" sediments and the higher heads with depth.

Further investigation of contaminant migration should focus on the shallow groundwater regime in the coral rock seaward of the sites. No estimate of rate of movement of contaminants can be made without accurate shallow water elevations and permeability data on the caprock. No

Figure 3

Typical Salt Wedge
Phenomenon
on Coastal Plain

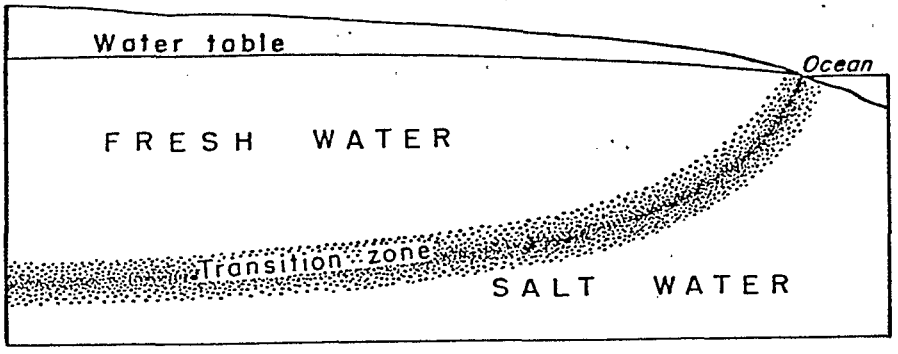
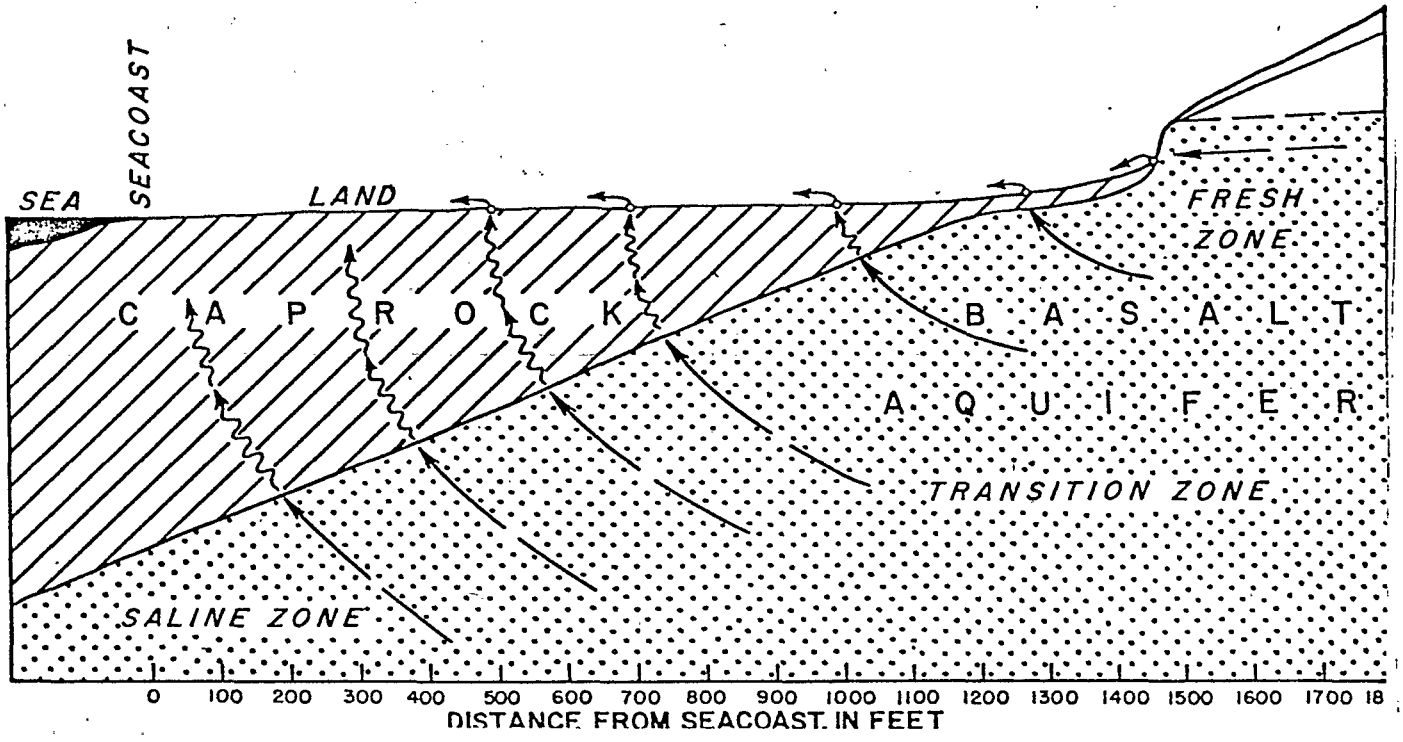


Figure 4

Cross-section Showing Relationship
Between Volcanic Aquifer and Upper
"Caprock" Sediments



Both from: "Groundwater Resources on Southern Oahu, Hawaii" USGS 1964

immediate threat to life or health is indicated because of the nonpotable quality of the groundwater. However, further invetigation should define all possible uses of groundwater in the area.

SECTION 9 - RECOMMENDATIONS AND CONCLUSIONS

Conclusions are limited due to the lack of information concerning waste types and amounts disposed of at this site.

Considering the environmental characteristics of the Barbers Point area, the landfill appears to pose little threat to potable water sources. Offsite migration of contaminants (if any) would likely be limited to shallow groundwater seaward of the site. Due to lack of nearby wells, obvious drainage pathways, discharges or springs, sampling of the shallow groundwater in the vicinity of the landfill was not possible at the time of the FIT inspection.

Although public access is limited at ths time, future use of the site as a recreation area may warrant more extensive investigation. Soil borings into the fill and monitoring wells into the shallow aquifer may be necessary at some future date, but do not appear to be justified at this time.

The sandblast grit disposed of at the site is not considered toxic when subjected to the EP Toxicity Test. Assuming that this test simulates conditions in a landfill, the material may not pose a hazard. Again, depending on the future use of this site, groundwater monitoring seaward of the site may be necessary.

The following is recommended:

- The Navy should attempt to gather additional information on waste types and amounts.

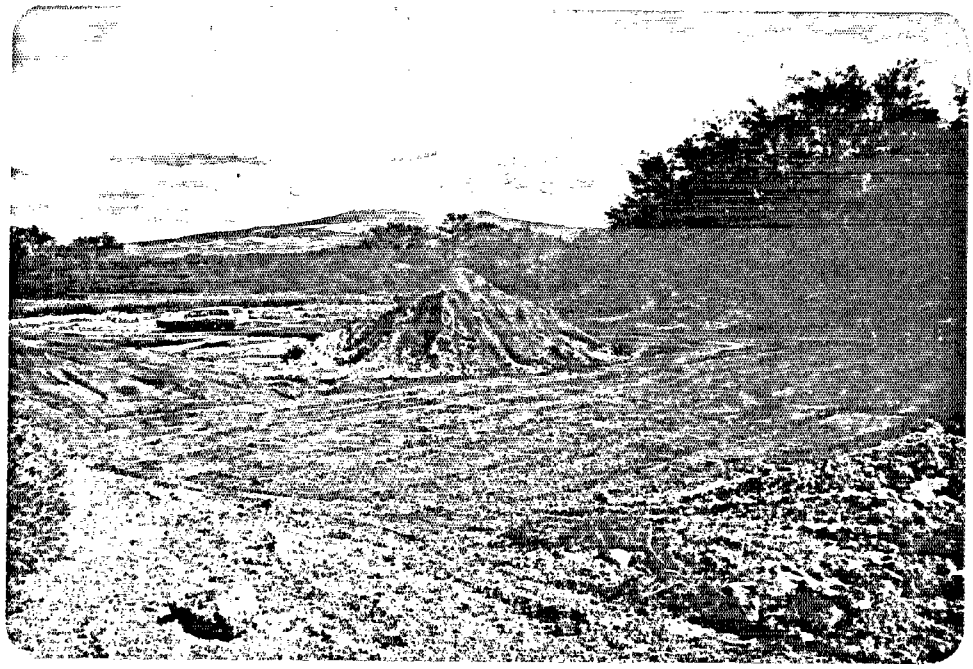
- The sandblast grit should also be analysed using acid digestion extraction to provide more information on its metals composition.

- Future FIT activity at this site does not appear necessary at this time, however it is recommended that EPA Region IX be apprised of any changes in land use planned for the site.

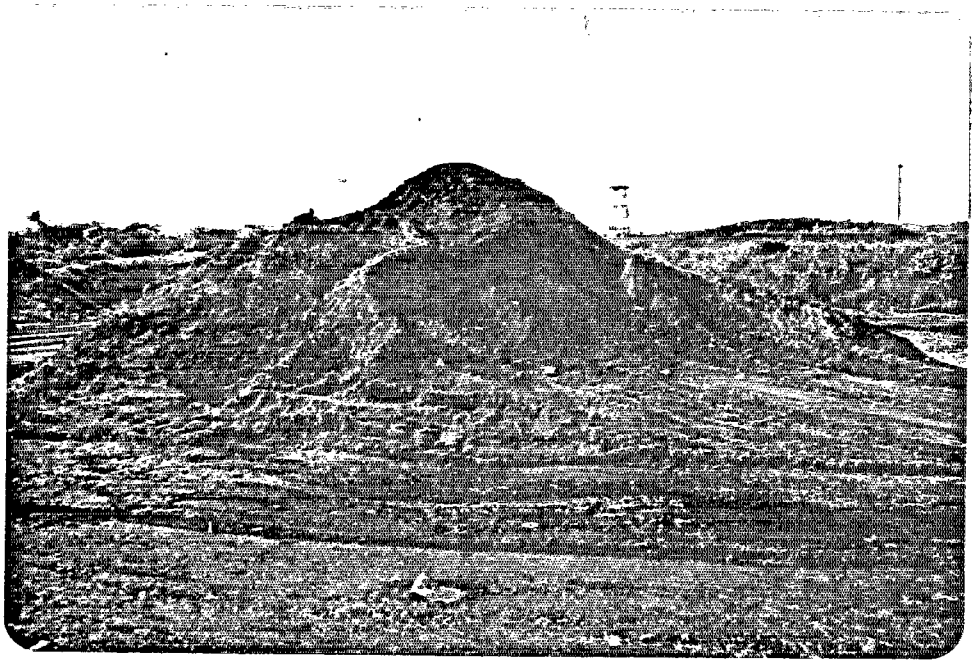
SECTION 10 - APPENDICES

PHOTOGRAPHIC DOCUMENTATION

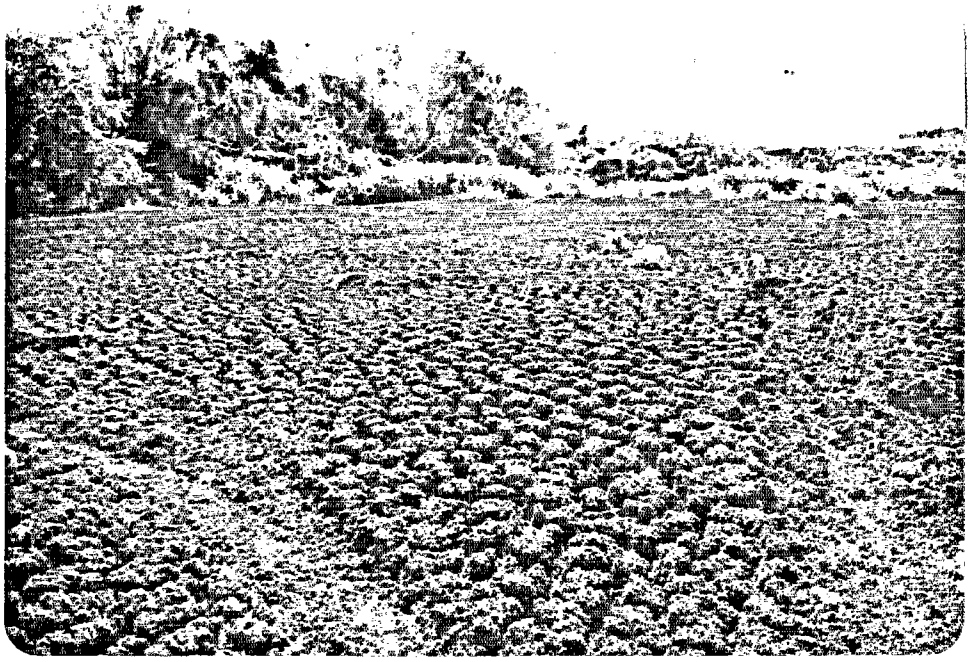
Photographer:	John Moe
Camera:	Canon AE-1 w 50 mm Canon lens
Film:	Kodacolor II ASA 100
Settings:	1/125 sec/auto



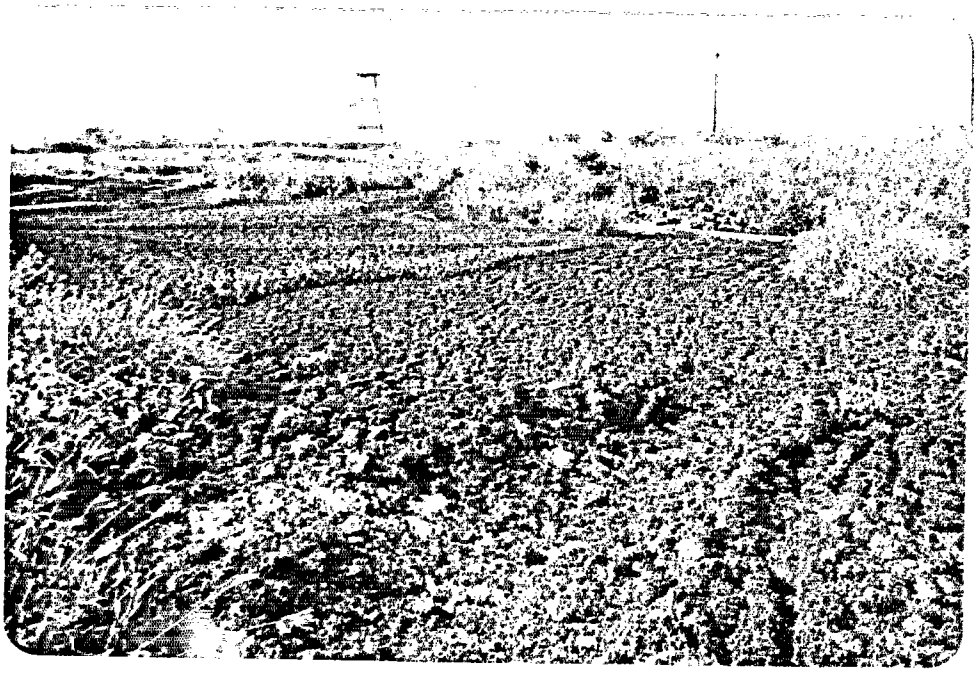
Photograph #1: Barbers Point LF
Mound of Sandblast Grit
--facing NW



Photograph #2: Barbers Point LF
Sandblast Grit
--facing E



Photograph #3: Barbers Point LF
Sewage Sludge
--facing E



Photograph #4: Barbers Point LF
Sewage Sludge
--facing S

DEPARTMENT OF THE NAVY
NAVY PUBLIC WORKS CENTER
PEARL HARBOR, HAWAII 96860

IN REPLY REFER TO:
101E:JI:hn

28 JUL 1981

Ms. Anne M. Gorsuch
Administrator
U.S. EPA Region 9
Sites Notification
San Francisco, CA 94105

Subj: Hazardous Waste Sites, Notification of

Dear Ms. Gorsuch:

On June 9, 1981 the subject notifications were submitted for three (3) sites operated by the Navy Public Works Center, Pearl Harbor in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510). A notification was not originally submitted for the Navy's Barbers Point Sanitary Landfill because it had an interim status permit under the Resource Conservation and Recovery Act (RCRA).

The interim status permit, however, only covers the present practice of asbestos disposal at this landfill. Because there is a possibility that hazardous wastes may have been disposed of in the past at Barbers Point, it is believed that submission of the attached notification for the Barbers Point Sanitary Landfill is appropriate.

Please contact the Environmental Branch at (808) 471-9877 should you have any questions on this matter.

Sincerely,

J. E. McNEILL
Captain, CEC, USN
Commanding Officer

Enclosure
(1) Notification for Barbers Point Sanitary Landfill

Copy to:
CO NAS BP
COMPACNAVFACENGCOM
OINC NEESA PORHUE
CNET, CODE N-10B4

EPA Notification of Hazardous Waste Site

United States
Environmental Protection
Agency
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

810728 HIS 000001033

I. Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name: Commanding Officer
Street: Navy Public Works Center
City: Pearl Harbor State: HI Zip Code: 96860

II. Site Location:

Enter the common name (if known) and actual location of the site.

HI 1170024326

Name of Site: Barbers Point Sanitary Landfill
Street: Barbers Point Naval Air Station
City: Barbers Point County: Honolulu State: HI Zip Code: 96862

III. Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): LLOYD, ROBERT, LT. CEC, USN, Planning Officer
Phone: (808) 471-0175

IV. Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1974 To (Year): 1976
1978 to ~~Present~~ 1981 (Asbestos Only)

V. Waste Type: Choose the option you prefer to complete

Option 1: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☐ Organics
2. ☐ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☐ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☒ Mixed Municipal Waste
10. ☒ Unknown
11. ☐ Other (Specify)

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☒ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☒ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☒ Unknown
18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

03 AUG 1981

6001

Form Approved
OMB No. 2000-0138

EPA Form 8900-1

.tion of Hazardous Waste Site · Side Two

.e Quantity:

ace an X in the appropriate boxes to ndicate the facility types found at the site.

In the "total facility waste amount" space ve the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☒ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) _____

Total Facility Waste Amount

cubic feet 12,500,000 cu ft

gallons

Total Facility Area

square feet

acres 18 A

Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☒ Suspected ☒ Likely ☐ None

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

See Attached Figure 7

1944 OPEN

1972 PNC CLOSED 2-3 YRS

Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

The Barbers Point Sanitary Landfill received wastes from Barbers Point Naval Air Station and Iroquois Point housing areas until October 1976 when it was closed. While it was open, a variety of materials was received, some of which may be considered hazardous at the present time. The site is located at the west end of the Barbers Point Naval Air Station. The closest housing is located to the north of the site, approximately 4000 feet away. There is a brackish water well about 1200 feet directly west of the landfill.

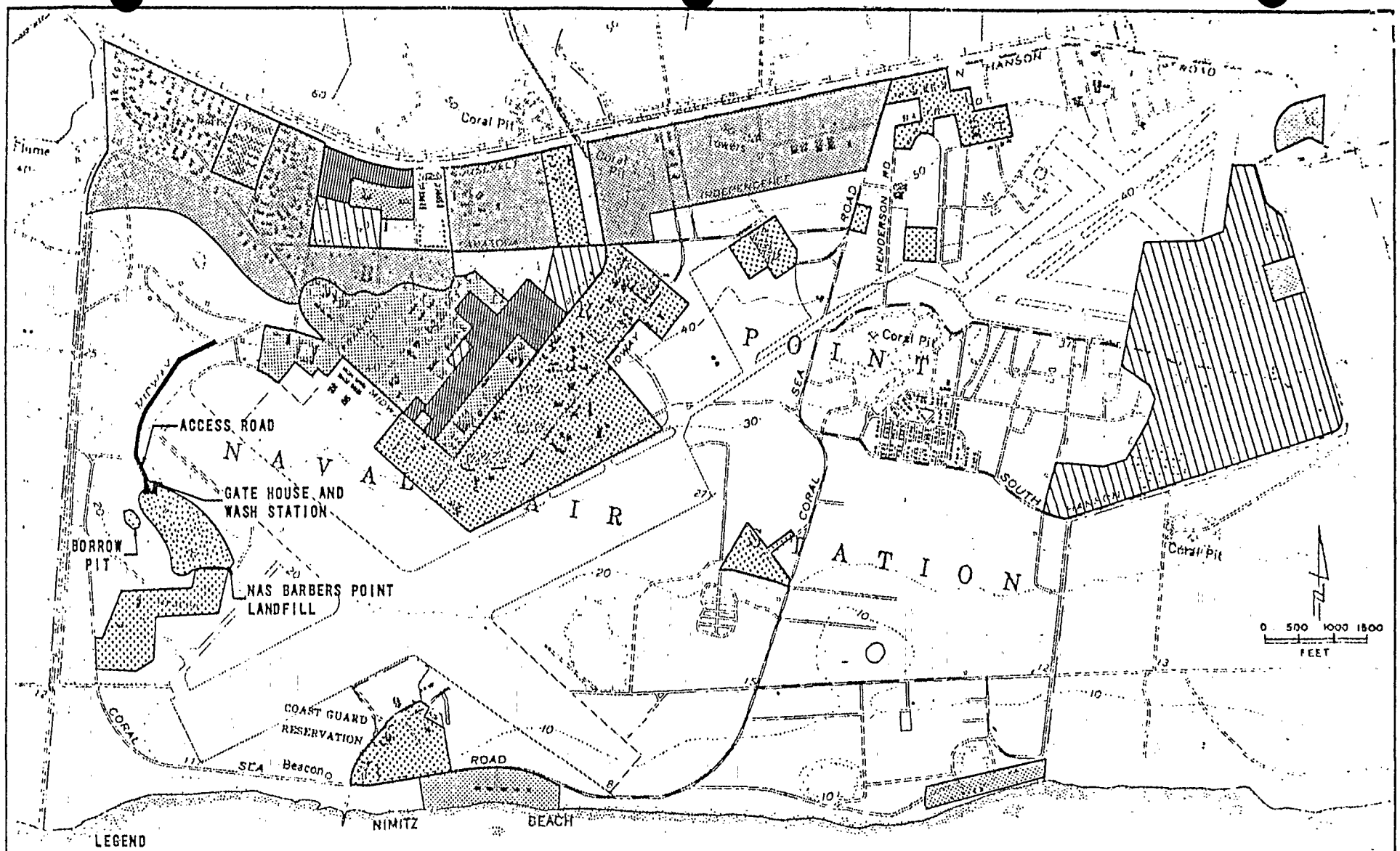
Daily operations at the landfill included the digging of a trench, filling it with waste material, and covering it with soil or crushed coral. All incoming wastes were placed in the trench being used at the time, with no special consideration or segregation given to specific wastes. Consequently, there are no records of the amounts of hazardous materials (if any) received or records of burial locations.

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify, check "Other".

Name J.E. McNEILL, CAPT. CEC, USN
Commanding Officer
Street Navy Public Works Center
City Pearl Harbor State HI Zip Code 96860
Signature J.E. McNeill Date 7/28/81

☒ Owner, Present
☐ Owner, Past
☐ Transporter
☐ Operator, Present
☐ Operator, Past
☐ Other



LEGEND

- FAMILY HOUSING AREA
- BARRACKS AREA
- COMMERCIAL AREA
- INDUSTRIAL AREA
- OUTDOOR RECREATIONAL AREA

EXISTING
NAS BARBERS POINT
LANDFILL SITE

DEPARTMENT OF THE NAVY
NAVY PUBLIC WORKS CENTER
PEARL HARBOR, HAWAII 96860

IN REPLY REFER TO:
1014:SK:hn

27 MAY 1982

Mr. John C. Moe, Jr.
Ecology and Environment Inc.
120 Howard St.
San Francisco, CA 94105

Subj: Laboratory Analysis of Sandblasting Grit and Sewage Sludge

Dear Mr. Moe:

During your recent visit of the Barbers Point Naval Air Station's Sanitary Landfill, you expressed interest in obtaining a copy of analytical results of laboratory testing of sandblasting grit and domestic sewage sludge that was being disposed of as cover material for the asbestos landfill.

Enclosed are copies of lab tests that were performed on the subject material before they were disposed of at the site. As noted, all results were below the EP Toxicity Test maximum concentration levels and were thus declared nonhazardous.

If you have any questions regarding this matter, please contact Mr. Stan Konno at (808) 471-9877.

Sincerely,

R. D. Lloyd
Planning Dept.

Encl (1) Laboratory Tests Results.

Copy to: PACNAVFACENGCOM Code 114

SAMPLE LOG SHEET
EP TOXICITY

SAMPLE NO. 1-29-EP32 TYPE SAMPLE Dried Sludge

SAMPLE STATION Barbers Point Golf Course DATE/TIME 7/16/81

SAMPLERS: M. Kaya, J. Ishikawa (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	0.10	3
	D005		BARIUM	100.0	1.0	1
	D006		CADMIUM	1.0	0.18	1
	D007		CHROMIUM	5.0	0.20	1
	D008		LEAD	5.0	0.10	1
	D009		MERCURY	0.2	0.0025	2
	D010		SELENIUM	1.0	0.10	3
	D011		SILVER	5.0	0.10	1
			MOISTURE		5.01%	
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

ENCLOSURE (1)

EP TOXICITY

SAMPLE NO. 0-28-EP-1 TYPE SAMPLE WWTP Sludge, Grab

SAMPLE STATION Ft. Kam WWTP DATE/TIME 7/7/80 0915 Hrs

SAMPLERS: (Signature) ANALYST: (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004	mg/l	ARSENIC	5.0	<0.01	3
	D005	"	BARIUM	100.0	1.6	1
	D006	"	CADMIUM	1.0	0.03	3
	D007	"	CHROMIUM	5.0	0.12	3
	D008	"	LEAD	5.0	0.11	3
	D009	"	MERCURY	0.2	<0.02	AAS Cold Vapor
	D010	"	SELENIUM	1.0	<0.01	3
	D011	"	SILVER	5.0	0.11	3
ORGANIC ANALYSIS	D012	mg/l	ENDRIN	0.02	<0.003	5
	D013	"	LINDANE	0.4	<0.001	5
	D014	"	METHOXYCHLOR	10.0	<0.03	5
	D015	"	TOXAPHENE	0.5	<0.25	5
	D016	"	2,4 - D	10.0	<0.01	5
	D017	"	SILVEX 2,4,5-TP	1.0	<0.008	5

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Reported By:

SAMPLE LOG SHEET
EP TOXICITY

Ref: (a) J.O. 115 5406 (M15009)

SAMPLE NO: 1-16-EP10 TYPE SAMPLE Blasting Grits

SAMPLE STATION Pearl Harbor Naval Shipyard Blasting Grits #1 DATE/TIME 17 Apr., 1981

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
NORGANIC ANALYSIS	D004		ARSENIC	5.0	0.01	3
	D005		BARIUM	100.0	0.10	1
	D006		CADMIUM	1.0	0.10	1
	D007		CHROMIUM	5.0	0.11	1
	D008		LEAD	5.0	1.0	1
	D009		MERCURY	0.2	0.004	2
	D010		SELENIUM	1.0	0.10	3
	D011		SILVER	5.0	0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02	ND	5
	D013		LINDANE	0.4	ND	5
	D014		METHOXYCHLOR	10.0	ND	5
	D015		TOXAPHENE	0.5	ND	5
	D016		2,4 - D	10.0	ND	5
	D017		SILVEX 2,4,5-TP	1.0	ND	5
	REMARKS:	ND= Not Detectable				

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 5406 (M15009)

SAMPLE NO: 1-16-EP11 TYPE SAMPLE Blasting Grits

SAMPLE STATION Pearl Harbor Naval Shipyard Blasting Grits #2 DATE/TIME 17 April 1981

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	0.01	3
	D005		BARIUM	100.0	0.10	1
	D006		CADMIUM	1.0	0.10	1
	D007		CHROMIUM	5.0	0.04	1
	D008		LEAD	5.0	0.4	1
	D009		MERCURY	0.2	0.004	2
	D010		SELENIUM	1.0	0.10	3
	D011		SILVER	5.0	0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02	ND	5
	D013		LINDANE	0.4	ND	5
	D014		METHOXYCHLOR	10.0	ND	5
	D015		TOXAPHENE	0.5	ND	5
	D016		2,4 - D	10.0	ND	5
	D017		SILVEX 2,4,5-TP	1.0	ND	5
	REMARKS:	ND= Not Detectable				

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 5406 (M15009)

SAMPLE NO: 1-18-EP12 TYPE SAMPLE Blasting Grits

SAMPLE STATION Pearl Harbor Naval Shipyard Blasting Grits #5 DATE/TIME 29 Apr. 1981 1230 H

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<0.10	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.10	1
	D008		LEAD	5.0	<0.10	1
	D009		MERCURY	0.2	<0.001	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02	ND	5
	D013		LINDANE	0.4	ND	5
	D014		METHOXYCHLOR	10.0	ND	5
	D015		TOXAPHENE	0.5	ND	5
	D016		2,4 - D	10.0	ND	5
	D017		SILVEX 2,4,5-TP	1.0	ND	5
	REMARKS:	ND = Not Detectable				

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Ref: (a) J.O. 115 5406 (M15009)

SAMPLE NO. 1-18-EP13 TYPE SAMPLE Blasting Grits

SAMPLE STATION Pearl Harbor Naval Shipyard Blasting Grits Fine DATE/TIME 29 Apr. 1981 1230 Hr

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<0.10	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.10	1
	D008		LEAD	5.0	<0.10	1
	D009		MERCURY	0.2	<0.001	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02	ND	5
	D013		LINDANE	0.4	ND	5
	D014		METHOXYCHLOR	10.0	ND	5
	D015		TOXAPHENE	0.5	ND	5
	D016		2,4 - D	10.0	ND	5
	D017		SILVEX 2,4,5-TP	1.0	ND	5
	REMARKS:	ND = Not Detectable				

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Ref: (a) J.O. 115 5405 (M15009)

SAMPLE NO: 1-18-EP14 TYPE SAMPLE Blasting Grits

SAMPLE STATION Pearl Harbor Naval Shipyard DATE/TIME 29 Apr 1981 1230 H
Blasting Grits Coarse

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<0.10	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.10	1
	D008		LEAD	5.0	0.20	1
	D009		MERCURY	0.2	<0.001	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02	ND	5
	D013		LINDANE	0.4	ND	5
	D014		METHOXYCHLOR	10.0	ND	5
	D015		TOXAPHENE	0.5	ND	5
	D016		2,4 - D	10.0	ND	5
	D017		SILVEX 2,4,5-TP	1.0	ND	5
	REMARKS:	ND = Not	Detectable			

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP36 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #18 DATE/TIME 9/1/81 0830

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.50	1
	D008		LEAD	5.0	0.40	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP37 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #36 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.63	1
	D008		LEAD	5.0	0.48	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP38 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum 74 DATE/TIME 9/1/81 - 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.42	1
	D008		LEAD	5.0	0.50	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) 115 7124

SAMPLE NO. 1-36-EP39 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #77 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.68	1
	D008		LEAD	5.0	0.45	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP40 TYPE SAMPLE

AMPLE STATION PINSY Blasting Grits Drum 78 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.30	1
	D008		LEAD	5.0	0.50	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP41 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #79 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: (Signature) ANALYST: (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.90	1
	D008		LEAD	5.0	3.5	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP42 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drum #2 DATE/TIME (/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.41	1
	D008		LEAD	5.0	0.30	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

Measured in milligrams per liter (mg/L) unless specified otherwise.

ALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP43 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drum #76 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	1.22	1
	D008		LEAD	5.0	1.7	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP44 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drum #90 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	0.40	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1-36-EP45 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #91 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.35	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP46 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #26 DATE/TIME 9/1/82 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.43	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP47 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #68 DATE/TIME 9/1/87 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.36	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP48 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drum #69 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	0.22	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP49 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drum #75 DATE/TIME 9/1/81 - 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	0.71	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP50 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #104 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	0.60	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1-36-EP51 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drum #177 DATE/TIME 9/1/81 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.01	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	0.70	1
	D009		MERCURY	0.2	<0.02	2
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	3
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) L.O. 115 7124

SAMPLE NO: 1-37 -EP52 TYPE SAMPLE

SAMPLE STATION PINSY Blasting Grits Drums #1, 12, 13 DATE/TIME 8 Sept. 1981 0900 Hrs

Composite of 3 drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP53 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drums #14, 15, 16 DATE/TIME 8 Sept. 1981 0900 Hrs
Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	0.16	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP54 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drums #17, 24, 31 DATE/TIME 3 Sept. 1981 0900 Hrs
Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatography

recycled paper

ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP55 TYPE SAMPLE

MPLE STATION PHNSY Blasting Grits Drums #32, 33, 34 DATE/TIME 8 Sept. 1981 0900 Hrs
Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 37 - EP56 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drums #35, 45, 46 Composite of 3 Drums DATE/TIME 8 Sept. 1981 0900 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP57 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drums #47, 49, 50 Composite of 3 Drums DATE/TIME 3 Sept. 1981, 0900 Hr

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

SAMPLE LOG SHEET
EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1-36-EP58 TYPE SAMPLE

PHNSY
SAMPLE STATION Blasting Grits, Drums #51, 52, 53 DATE/TIME 2 Sept. 1981 \ 0900 Hrs
Composite of 3 Drums

SAMPLERS: Glenn Miyazaki ANALYST: [illegible]
(Signature) (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 36 - EP59 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Drums 54,59, 60 Composite of 3 Drums DATE/TIME 3 Sept. 1981 \ 0900 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 36 - EP60 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits, Drums 65, 67, 71 DATE/TIME 2 Sept. 1981 0900 H

Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 36 - EP61 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Drums 81, 82, 83 Composite of 3 Drums DATE/TIME 3 Sept. 1981 0900 Hr

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 36 - EP62 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Drums 84, 85, 86 Composite of 3 Drums DATE/TIME 3 Sept. 1981 0900 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 36 - EP63 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Drums 87, 89, 93 Composite of 3 Drums DATE/TIME 2 Sept. 1981 0915 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 37 - EP64 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Drums 113, 128, 144 DATE/TIME 8 Sept. 1981 0815 Hrs

Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

SAMPLE LOG SHEET

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP65 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Drums 118, 133, 147 DATE/TIME 9 Sept. 1981 0830 Hrs

Composite of 3 Drums

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP66 TYPE SAMPLE

AMPLE STATION PHNSY Blasting Grits Drums 94, 96, 109 Composite of 3 Drums DATE/TIME 8/Sept. 1981

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

* Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

SAMPLE LOG SHEET

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 37 - EP67 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits, Composite of 5 Drums Drums 105, 106, 107, 108, 110 DATE/TIME 8 Sept. 1981 0815 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP68 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums 95, 97, 100, 101, 103 DATE/TIME 8 Sept. 1981 0815 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP69 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 111, 112, 114, 115, 116 DATE/TIME 8 Sept. 1981

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO: 1 - 36 - EP70 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums DATE/TIME 2 Sept. 1981 0900 Hrs
Drums 25, 44, 63, 66, 72

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Recycled paper

ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP71 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 23, 80, 85, 99, 117 DATE/TIME 8 Sept. 1981 0815 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. 1 - 37 - EP72 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 102, 146, 148, 149, 150 DATE/TIME 11 Sept. 1981 0815 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

ecology and environment

SAMPLE LOG SHEET
EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO 1 - 37 - EP73 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 113, 132, 134, 135, 139 DATE/TIME 9 Sept. 1981 0830 Hrs.

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO. L - 37 - EP74 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 119, 120, 122, 129, 130 DATE/TIME 9 Sept. 1981 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	AN M	HOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05		3
	D005		BARIUM	100.0	<3.0		1
	D006		CADMIUM	1.0	<0.10		1
	D007		CHROMIUM	5.0	<0.20		1
	D008		LEAD	5.0	<0.30		1
	D009		MERCURY	0.2	<0.02		4
	D010		SELENIUM	1.0	<0.01		3
	D011		SILVER	5.0	<0.10		1
ORGANIC ANALYSIS	D012		ENDRIN	0.02			
	D013		LINDANE	0.4			
	D014		METHOXYCHLOR	10.0			
	D015		TOXAPHENE	0.5			
	D016		2,4 - D	10.0			
	D017		SILVEX 2,4,5-TP	1.0			

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

Recycled paper
ecology and environment

EP TOXICITY

Ref: (a) J.O. 115 7124

SAMPLE NO 1 - 37 - EP75 TYPE SAMPLE

SAMPLE STATION PHNSY Blasting Grits Composite 5 Drums Drums 140, 141, 142, 143, 145 DATE/TIME 9 Sept. 1981 0830 Hrs

SAMPLERS: Glenn Miyazaki (Signature) ANALYST: [illegible] (Signature)

	EPA HAZARDOUS WASTE NUMBER	UNITS	ANALYSIS REQUESTED	MAXIMUM CONTAMINANT LIMITS*	LAB RESULTS	ANALYTICAL METHOD
INORGANIC ANALYSIS	D004		ARSENIC	5.0	<0.05	3
	D005		BARIUM	100.0	<3.0	1
	D006		CADMIUM	1.0	<0.10	1
	D007		CHROMIUM	5.0	<0.20	1
	D008		LEAD	5.0	<0.30	1
	D009		MERCURY	0.2	<0.02	4
	D010		SELENIUM	1.0	<0.01	3
	D011		SILVER	5.0	<0.10	1
ORGANIC ANALYSIS	D012		ENDRIN	0.02		
	D013		LINDANE	0.4		
	D014		METHOXYCHLOR	10.0		
	D015		TOXAPHENE	0.5		
	D016		2,4 - D	10.0		
	D017		SILVEX 2,4,5-TP	1.0		

*Measured in milligrams per liter (mg/L) unless specified otherwise.

ANALYTICAL METHODS

1. Atomic Absorption (AA)
2. Flameless AA
3. Flameless AA Graphite Furnace
4. Gaseous AA (Hydride)
5. Gas Chromatograph

recycled paper