1444

FIELD INVESTIGATIONS OF **UNCONTROLLED HAZARDOUS WASTE SITES**

FIT PROJECT

RECEIVED MAY 0 5 1983

TE OF DELAWARE

MANAGER'S OFFICE

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

MAY 🕹 1983

RECEIVED

WATER SUPPLY

Well Drilling at

Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17

Revision Date: October 8, 1982

Presented to: Linda Y. Boornazian, Acting DPO EPA Region III

Prepared by: ecology onment, inc. env anr

International Specialists in the Environmental Sciences

363100

Well Drilling

at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17

TABLE OF CONTENTS

Section 1

Summation and Findings

1.1 Summation 1.2 Findings

·· - -- İ

Section 2

Field Trip Report

2.1 Introduction Figure 1 - Site Map of Delaware Sand and Gravel Landfill

- 2.2 Contacts
- 2.3 Pertinent Comments

2.4 Magnetometer Survey
2.5 Drilling Performance

Figure 2 - Magnetometer Readings on the Drum-Pit Area (Observed on July 2, 1982) Figure 3 - Magnetometer Readings on the Landfill Area (Observed on July 7, 1982)

Table 1 - Well Installation Summary

Figure 4 - Subsurface Exploration of Monitoring Well B-1

Figure 5 - Subsurface Exploration of Borehole B-2

Figure 6 - Subsurface Exploration of Borehole B-3

Figure 7 - Subsurface Exploration of Monitoring Well **E-4**

Figure 8 - Subsurface Exploration of Monitoring Well

B-5 Figure 9 - Hydrogeologic Section A-A'

Figure 10- Groundwater Elevation Contour Map Observed on July 14, 1982

Table 2 - Sample Log

2.6 Soil and Water Sampling

Section 3

Site Inspection Report Form

.

•

TABLE OF CONTENTS

Section 4

Analytical Data Summaries

Table 3 - Groundwater Organic Analyses Table 4 - Soil Cuttings Organic Analyses Table 5 - Groundwater Inorganic Analyses Table 6 - Soil Cuttings Inorganic Analyses

Section 5

Toxicological Assessment

Section 6

Attachments

- 1. Sample Paperwork (Air bills, Chain of Custody, and
- Traffic Reports)
- 2. Photographic Log
- 3. Pertinent Correspondence

·

าาราชาราชาราชาติเราหลังสมัญญาก เพราสมัยว่า ค่ามีสมมาเชียงการเหลี่มีการค่างสู่เป็นที่การสำนักที่ได้ได้เราได้ได้ . .

.

SECTION 1

• • • • • • • • •

÷

Well Drilling

at Delsware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17

SUMMATION AND FINDINGS

1.1 SUMMATION

The Delaware Sand and Gravel Landfill is located approximately two miles southwest of the City of New Castle, Delaware and immediately east of the Army Creek Landfill (DE-01). But both landfills are interconnected hydrogeologically, only divided topographically by the Army Creek.

The Delaware Sand and Gravel Landfill was alleged to contain drums of industrial chemical liquid waste. The purpose of this effort was to evaluate the contamination contribution of the Delaware Sand and Gravel site. Accordingly, three monitoring wells and two boreholes were developed during the period of June 28 to July 14, 1982. Groundwater sampling program was performed on July 14, 1982. The subsequent analytical results indicated the following:

o The groundwater flow direction in the study area is generally from the northwest to the southeast. This is the same pattern observed in November 1981.

o The groundwater elevation measured approximately 14 feet below mean sea level (MSL) in the drum-pit area.

o Groundwater sample (B-1), near the drum-pit area showed contamination as follows:

Lead (120 ppb) 1,2 Dichloroethane (1,500 ppb) Trichloroethylene (27 ppb) Benzene (180 ppb) Phenol (360 ppb) Methylene Chloride (4,000 ppb) Toluene (1,200 ppb) Ethylbenzene (16 ppb)

AR100071

1-1

o Groundwater sample (B-4), near the refuse area, downgradient of the drum-pit area showed contamination as follows:

Benzene (57 ppb) Toluene (880 ppb) Ethylbenzene (18 ppb)

o The groundwater sample of Well #39, near the recovery well #13 did not contain significant levels of priority pollutants, except lead (320 ppb), arsenic (120 ppb) and nickel (60 ppb).

o Groundwater and cutting samples of B-5 did contain a small amount of pollutants that were similar to the pollutants of the drum-pit area. This could be due to groundwater fluctuation in this area.

o A soil cutting sample from B-2, located in the drum-pit area, showed a concentration of 262 ug/g (ppm) of PCB-1248.

o Trace amounts of ethylene and toluene were found in the stained soil near the entrance of the landfill.

1.2 FINDINGS

The observations cited above indicate that the groundwater and soil have been contaminated by the drum-pit area.

1-2

. ..

• •

- .

.

-

- .

SECTION 2

-

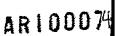
FIELD TRIP REPORT

2.1 INTRODUCTION

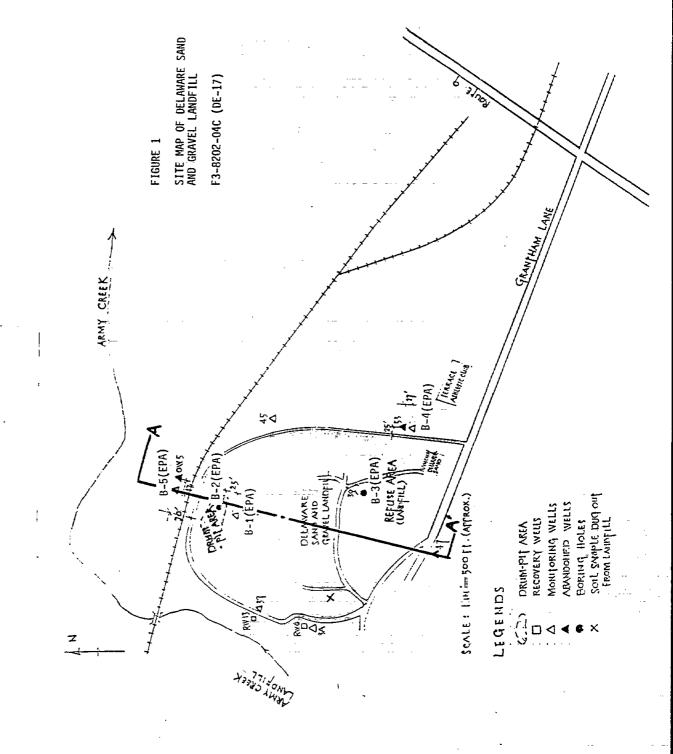
The Field Investigation Team, Region III (FIT III) developed a subcontract to drill three monitoring wells and two boreholes (See Figure 1), to better assess the constituents of contamination from Delaware Sand and Gravel Landfill Site, based upon recommendations of a previous hydrogeologic study (TDD No. F3-8108-11B).

On June 28 through July 14, 1982, the subcontractor, A. C. Shultes and Sons, Inc., a licensed driller in Delaware, drilled five holes under the supervision of FIT III. After drilling was completed, FIT III conducted sampling of the groundwater and the drilling cuttings and forwarded the samples to the labs for analyses. The FIT III members included Frank Quirus, Loren Lasky, Doug Taylor, Bill Wentworth, David Nickerson, Jim Vogel, Terrence Shannon and C. K. Lee.

The weather conditions for the operation period were sunny, hot and humid with occasional thunderstorms. The air temperature ranged 85° to 95° F.



2-1



2.2 CONTACTS

Christine Hladchuk EPA Region III 6th and Walnut Streets Philadelphia, PA 19106 (215) 597-2193

Lisa A. Hamilton Department of Natural Resources and Environmental Control Edward Tatnall Building Dover, DE 19901 (302) 736-5739

Dave Clark New Castle County Engineer Public Building 11th and King Streets Wilmington, DE 19801 (302) 366-7800

Charles Hurd Amoco Chemical Corporation P.O. Box 312 New Castle, DE 19720 (302) 322-1878 Timothy Rafferty, Lawyer Custom House Plaza, Suite 514 Wilmington, DE 19801 (302) 656-8295 Changed 302 - 239 - 2305

Vincent DellAversano, Owner Delaware Sand and Gravel Company 229 Granthem Lane New Castle, DE 19720 (302) 328-3491

Charlie Kramer (Drillers) Dale Godsil Jim Schultes Ted Budzynski A.C. Schultes and Sons, Inc. 664 South Evergreen Avenue Woodbury, NJ 08096 (609) 845-3656

2.3 PERTINENT COMMENTS

Robert J. Touhey, DNERC Manager -

o In a letter of June 22, 1982 to Walter Lee, Chief of EPA III, Mr. Tohew approved the plan for the drilling work to monitor the Delaware Sand and Gravel site.

2-2

~ .

Emil Onuschak, Chairman, Delaware State Board of Registration of Geologists -

o In his letter of June 8, 1982 to Christine Hladchuk, EPA Region III, Project Officer, it stated that independent geologists with whom a federal agency contracts to do geological work in Delaware must be under the supervision of a geologist who is an employee of the federal government.

o EPA Region III appointed Stephen Platt as a Federal Geologist to supervise the drilling work at the Delaware Sand and Gravel site.

Dave Clark, New Castle County Engineer -

o In a telephone conversation of July 6, 1982, he gave verbal permission for drilling Well B-4 which is adjacent to the abandoned Well #53.

o Mr. Clark also mentioned that Well B-4 is on property that now belongs to Vincent DellAversano.

Timothy Rafferty, Lawyer for Delaware Sand and Gravel Company -

o In a telephone conversation of March 29, 1982, he stated that Delaware Sand and Gravel Company had granted permission to enter its property for the drilling work.

o In a telephone conversation of July 14, 1982, he said that the owner, Vincent DellAversano did not want split samples.

2-3

o A sample receipt was sent to Timothy Rafferty on July 21, 1982 for Mr. DellAversano's signature (See Document #11). But it had not yet been returned when this report was prepared.

Vincent DellAversano, Owner of Delaware Sand and Gravel Company -

o Mr. DellAversano was on site the morning of July 6, 1982. He was paid by Schultes for installing an access path to the B-4 site.

Charles Hurd, Amoco Chemicals -

o Amoco Chemicals Corporation granted permission to access and drill Well B-5 on its property (See Document #10),

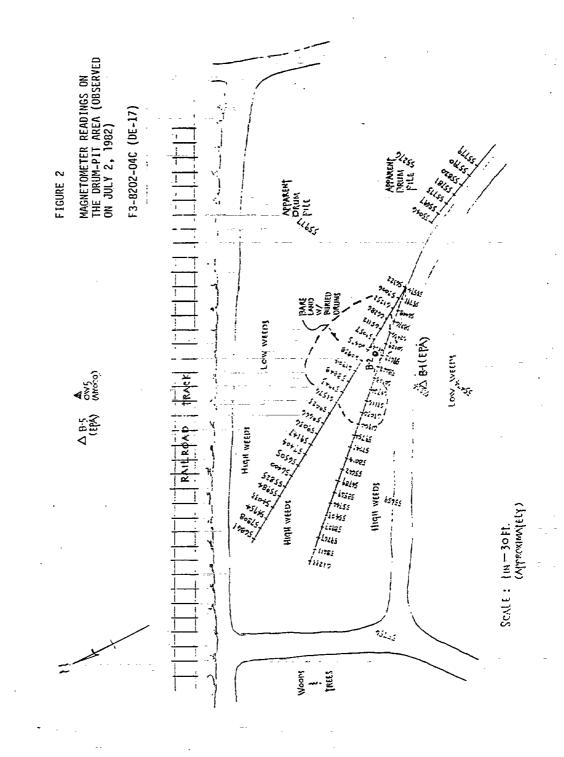
o A sample receipt was supplied to Amoco (See Document #12).

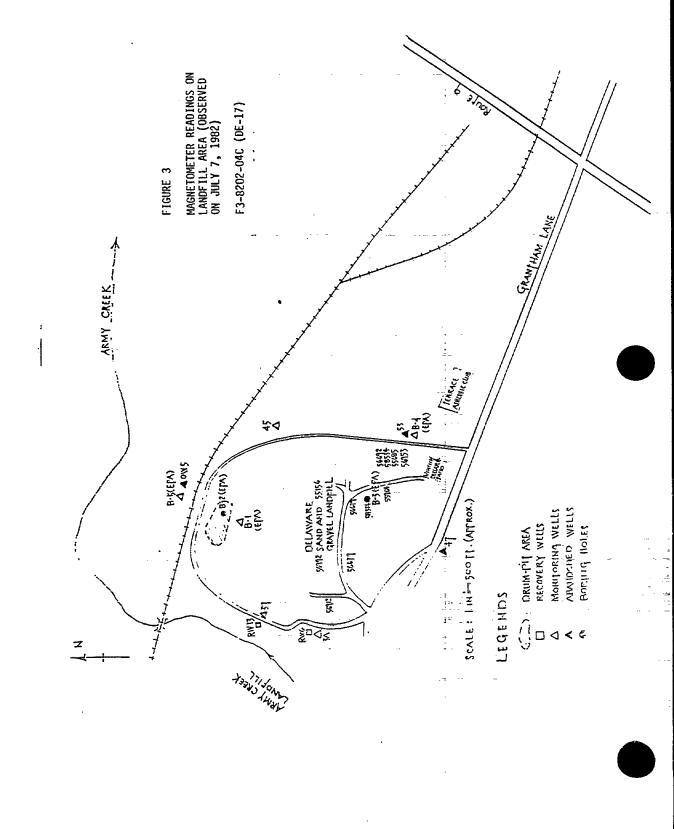
2.4 MAGNETOMETER SURVEY

A "Unimag II" magnetometer was used to search for concentrations of buried magnetic (ferrous metal) objects in the drum-pit area, as well as in the refuse (landfill) area. These magnetometer surveys of selected locations were performed on July 2 and July 7, 1982.

The drum-pit area was a dumpsite for disposing industrial waste. A scan of the area with the HNU was conducted prior to the magnetometer survey on July 2, 1982. No readings above background level were detected on the surface of the site. Magnetic intensity measurements from the instrument's digital readout, in gamma, were recorded every 5 ft. along lines delineated in Figure 2. The general

2-4





*

reading in the drum-pit area was about 56,000 gamma. Areas with readings of greater than 60,000 gamma were arbitrarily considered as indicative of high metal concentration. The drum burial area is within the defined limits on Figure 2.

Scattered readings on the refuse (landfill) area are presented in Figure 3. A general background level in this area is also approximately 56,000 gamma. Few high readings above 58,000 gamma were recorded on the southeastern part of the landfill, but no correlating evidence was found to determine an exact location of buried drum concentrations.

2.5 DRILLING PERFORMANCE

The firm of A. C. Schultes and Sons, Inc., Woodbury, NJ was selected as the subcontractor on this project. Schultes operated a rotary drilling rig and an auger rig for boring the holes. The total drilling cost was \$16,104.

Five holes were drilled during the period from June 28 to July 14, 1982. These were the following (See Figure 1 and Well Logs Figure 4 through 8).

o Well B-1 was installed on the southern side of the boundary path, outside of the drum-pit area. The drilled depth of this hole is 55 feet. This borehole is cased with a 4-inch steel pipe with a 10 ft. screen installed between 30 and 40 feet below grade.

o Borehole B-2 is located approximately in the center of the drum-pit area, about 25 ft. from Well B-1. B-2 was drilled 20 feet through the waste pit, and then filled with bentonite and cement after completion of the drilling.

2-5

o Borehole B-3 is located in the center of the refuse or landfill area. The borehole was drilled to a 33-foot depth and filled with bentonite and cement after completing the hole.

o Well B-4 is located about 27 ft. from abandoned Well #53, on the southwestern part of the owner's property. The well was drilled to 102 feet and cased with 4" steel pipe, and screened between 85 and 95 feet below the ground surface.

o Well B-5 was installed about 17 ft. from *a*bandoned well #0W5, on the northwestern side of the drum-pit area. The well is 150 feet deep and cased with a 4-inch steel pipe, screened between 110 to 120 feet below the ground surface.

1.2.1

Ecology and Environment, Inc. conducted a training session in the use of respiratory protective equipment and decontamination procedures at the Region III office on June 22, 1982. The drillers did wear personal protective clothing and respiratory protective equipment while drilling at the B-1, B-2 and B-3 sites.

Ecology and Environment, Inc. monitored ambient air with HNU continuously during drilling operations. No readings above background were detected in the ambient air. Some positive readings above the split spoon sampler and at the head of holes B-1 and B-2 were noted. Strong chemical odors were noted during drilling on the drum-pit area.

The drilling equipment was cleaned and rinsed with high pressure hot water prior to drilling the first hole, between subsequent holes and after completing the last hole.

2-6

ţ

The drilling spoils, cuttings and the water generated in connection with the drilling work were dispersed on the ground. This process was discussed and agreed to by EPA Region III and the landowners (See Document #6).

The boreholes B-2 and B-3 were backfilled with bentonite and cement after completion (See Figures 5 and 6). The annular space for each newly installed well was sealed with bentonite and cement from 2 feet above the top of the screen to the ground level (See Figures 4, 7 and 8). Each well had 4-inch diameter stainless steel casing and screen, plus a protective steel outer casing at the surface with a locking cap. Detailed information on the drilling work, and observed groundwater elevations are listed in Table 1. A contour map of the observed groundwater elevations is shown in Figure 10 which indicates that the groundwater flow direction is south-easterly, with an approximate hydraulic gradient 0.02 ft. per ft. at the drum-pit area.

2-8

*Ground surface elvoyations are estimated from the record of nearby wells.

	_	_							
		Remarkes	strong smell	strong smell		smell			
CHONDWATER LEVEL OBSERVED ON JULY 4, 1982		Ft., MSL	-14.2	ţ	ŧ	-23.5]4.3	-21.5	-20.5
GROUNDAR OBSERVED ON			29.7	1	I	51.0	29.8	29.9	45.7
	Top of Casing Flavier	(ft.,HSL)	+15.5	I	ſ	+27.5	+15.5	+8.4	+25.2
	Height Above Ground	(ft.)	1.5	ł	ł	2.7	2.2	2.0	1.1
CASING	Screen	((tr.)	30-40 (Lol unb i a Format ion)	j	j	85-95 (Potomac Formation)	110-120 (Potomac Formation)	78-118 (Potomac Formation)	100–115 135–145 (Potomac Format ion)
		Material	Steel	I	i	Steel	Steel	PVC	DVC
	I nside Di anoter	(ins.)	4	1	t	4	4	4	4
	Depth of) ((tt.)	55	30	£	102.5	150	132	156
	Ground * Surface Elevation	(ft., MSL)	аргох. +14.0	approx. +14.0	0	+24.8	+13.3	+6.4	+24.1
	Date of	Drilling	07/09/82 - 07/14/82	07/12/82	- 28/£1/0	07/06/82 - 07/09/82	06/28/82 - 07/01/82	Existing	Existing
		Furtion	Monitoring Well	Boring Hole	Boring Hole	Monitoring, Well	Monitoring Well	Monitaring Well	Monitoring Well
		Location	B-1 (EPA)	B-2 (EPA)	B-3 (EPA)	B-4 (EPA)	B-5 (EPA)	83	#45

۰.

ANNANS NOLLYTIVISNI TIEM - 1 HIVL

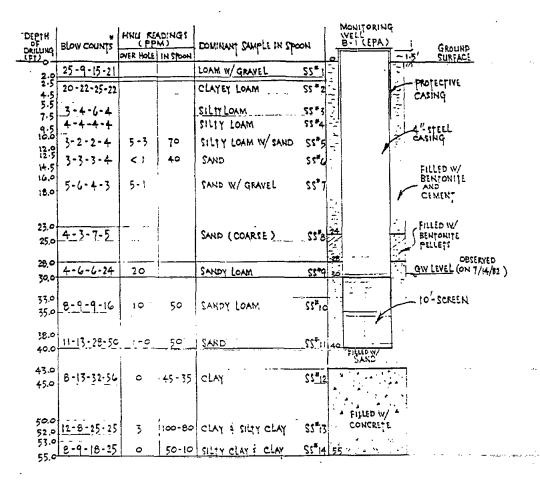
.

ł

Delaware Sand and Gravel Landfill TDD No. F3-8202-04C, EPA No. DE-17

1747-19-14

1



DRILLER : A C. SCHULTES & SONS, INC. DATE GTARLED : JULY 9, 1982 _____COMPLETED : JULY 14, 1982 METHOD OF ADVANCING BORING : AUGER DEPTH OF WELL : 40 FLE: DEPTH OF GROUNDIVALER BELOW TOP OF CASING : 29-6 FT.

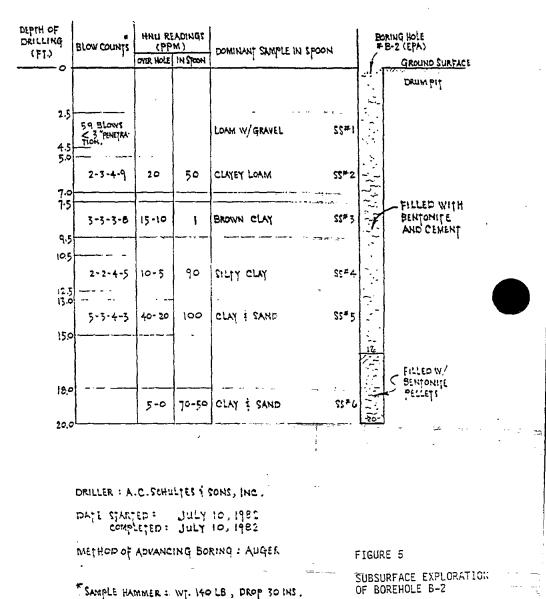
* SAMPLE HAMMER'S WT. 140 LB., DROP 30 INS .

FIGURE 4

SUBSURFACE EXPLORATION OF MONITORING WELL B-1

AR100085

F3-8202-04C (DE-17)



SAMPLE HAMMER : WJ. 140 LB , DROP 30 INS .

AR100086

F3-8202-04C (DE-17)

DEPTH OF	SPLIT	Spoon	- BLOW COUNTS	HNU RIADINGT OVER HOLE	DOMINANT SAMPLE	N SPOON	BORING	
DRILLING		DEPTH	······································	(PPM)			B-3(EP/	
	4						<i></i>	LANDFILL
-	- \$5#1	3'-5'	1-3-14-8	0	LOAM & REFUSE	- `‹		
5	-) \$\$*2	5'-7'	14-15-8-44	0	SILTY CLAY			
	- \$\$#3	7'-9'	7-11-74FOR3	0	SLupge			
10	<u>s;*4</u>		1-4-8-10	۰.	SLUDGE W/ WHITE	POWDER	~~	
	-] 55#5	11-13'	4-19-2-3	0	SLUDGE		1	FILLED W/
15	-) 55*6	13'-15'	3-1-5-8	0	WET SLUDGE W/SM	eLL		BENTONITE AND CEMENT
.,	-) \$\$*7 -/	15'-17'	5-6-15-18	٥	MIXTURES		» ¹ (₁)	(
20	- 							
25	- - 22*8 -'	25'-27'	3-5-7-5	٥	SLUDGE W/ SMELL			
30	-		•			ļ		Tuirpiul
	-! 55#9	31'-33'	7-9-15-32	•	BLACK SLUDGE	·····		FILLED W/ BENJON: TE PELLETS
55		••• • 5778				1) i
	DRILLEI	R: A.0	L.SCHULTES	SON	INC.			
7	DATE ST	ARTED	: JULY 13, ED : JULY	1982		FIGURE	6	
-			ICING BORING				FACE E	XPLORATION B-3
	* SAMPI	E HAMM	ER : 147. 140	LBS, D	ROP 30 INS ,	F3-820	2-040	(DE-17)

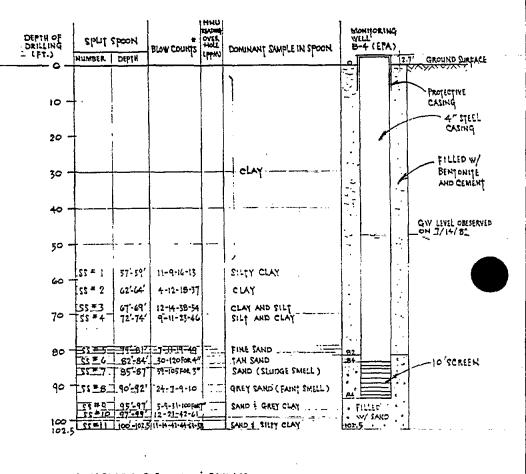
i

|.

AR100087

.

¢.



DRILLER : A.C. SCHULTES : SONS INC. DATED STATTED : JULY 6, 1982 COMPLETED : JULY 9, 1982 METHOD OF ADVANCING BORING : AUGER DEPTH OF WELL : 94 Ft. DEPTH OF GW BELOW TOP OF CASING : 51 FT.

* SAMPLE HAMMER : IVT 140 LBS, DROP 30 THS.

FIGURE 7

SUBSURFACE EXPLORATION OF MONITORING WELL B-4

F3-8202-04C (DE-17)

AR100089

F3-8202-04C (DE-17)

DRILLER : A.C. SCHULTES : SONGING. DATED STARTED : JUNE 28. 1982 COMPLETED : JULY 1, 1982 METHOD OF ADVANCING BORING : ROTARY BY DEPTH OF WELL : 120 Ft. DEPTH OF GROUNDWATER BELOW TOP OF CASING : 29.8 FT.

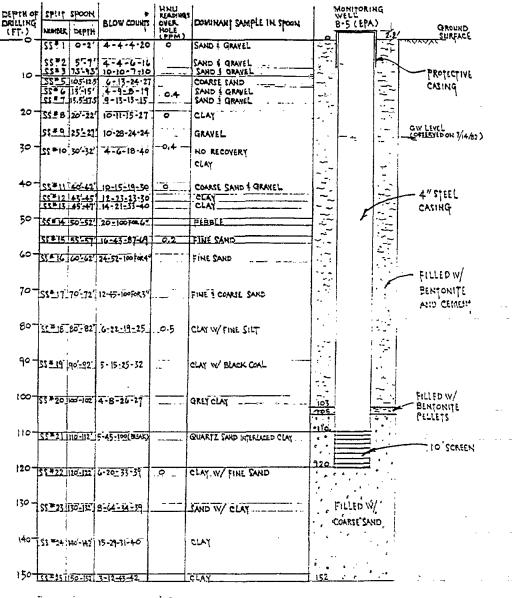
* SAMPLE HAMMER : WT 140 LBS, DROP 30 INS.

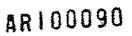
÷.

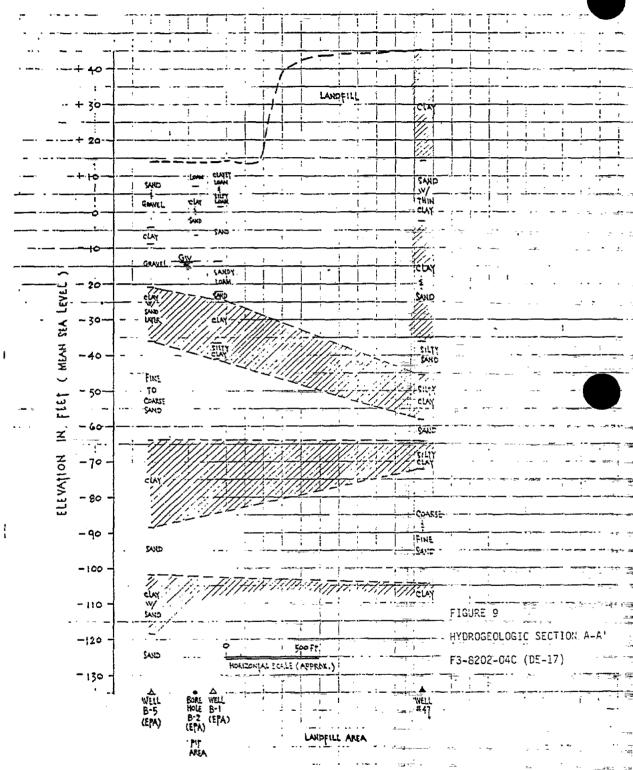
3

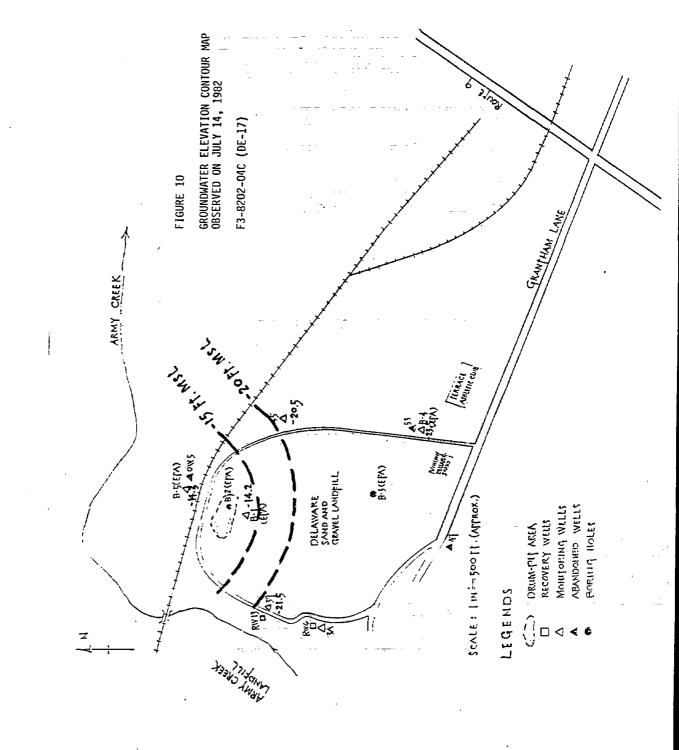
FIGURE 8

SUBSURFACE EXPLORATION OF MONITORING WELL B-5









AR100091

2.6 SOIL AND WATER SAMPLING

The sample locations are designated on Figure 1.

The soil (cutting) sampling from the split spoon sampler was performed by Ecology and Environment, Inc. field personnel. The procedure for decontaminating samplers consisted of: 1) brushing the sampler in water after emptying the cuttings, 2) cleaning the sampler with drinking quality water, 3) rinsing the sampler with acetone, and 4) jetting distilled water for final rinse.

A total of tweleve soil drilling (See Table 2) samples were submitted to labs for analysis.

Drilling Hole	No. of Split Spoon	Depth Below Ground (ft.)
B-1	SS #5 SS #11	10 - 12.5 38 - 40
B-2	SS \$2 SS \$4 SS \$5 SS \$6	5 - 7 $10.5 - 12.5$ $13 - 15$ $18 - 20$
B-3	SS #6 SS #8	13 - 15 25 - 27
B-4	SS #3 SS #6 and #7	67 - 69 82 - 87
B-5	SS #12	43 - 45
Stained Soil Area Near Entrance to Landfill		0.5

2-9

-1

i

Five groundwater samples were obtained on July 14, 1982. A "fast turn-around" time of 14 days was arranged for analyses of:

Inorganic Pollutants At:

Versar, Inc. 6621 Electronic Drive Springfield, VA 22151

Organic Pollutants At:

Mead Technology 5 Triangle Drive Research Triangle Park North Carolina 27709

2-10

TABLE 2 - SAMPLE LOG Page 1 of 3

!

Well Drilling at Delaware Sand and Gravel Landfill Thn No. 23-2002-04/5 504 No. 52-25

			TDD No. F3-8202-04C, EPA No. DE-17	A No. DE-17				
		Traffic		SAMPLED		ITEMS	ITEMS FOR ANALYSIS	S
Location	Location of Sampling	Report No.	Sample Description	Date	Time	Organics	Inorganic	Cyanide
	B-1, SS #5	C-1525				×		
	(10-12.5 ft. below ground)		Drilling and cutting	07/09/82	1255	 		• • × •
Monitoring Well #B-1	B-1.					- ×		
	(38-40 ft.)	МС-9089	Urilling and cutting	07/12/82	0920		×	
		<u> </u>				*		
	B-1, GW	MC-9114	Water	07/14/82	1000	 		
	B-2. SS #2	<u> </u>				x		1
	(5-7 ft.)	MC-9090	Boring and cutting	07/12/82	1330			
	B-2.5		•			X	i L	
#B-2	ft.)	NC-9091	Boring and cutting	07/12/82	1345		×	. ×
	8-2, 55 #5	- c-1614 -	-	-		×		
	(13-15 ft.)	MC-9092	boring and cutting	07/12/82	1350		ĸ	
	B-2, SS #6					×		
	(18-20 ft.)	MC-9093	poring and cuting	07/12/82	14 00			×

SAMPLE LOG	2 of 3
TABLE 2 -	Page

i

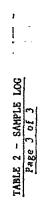
i

Well Drilling at Delaware Sand and Gravel Landfill TDD No. F3-8202-045, EFA No. DE-17 ·

	_		_	÷	÷.			•			_					:	
	S	Cyanide				 ≯ 	<			 × 	ł					× 	- X -
	ITEMS FOR ANALYSIS	Inorganic		X			1	1						X		×	X
	ITEMS	Organice	x		×		X		x		×		×		×		<u>x</u>
	LED	Time		1600		1655		1030		1520		1030		1030		1715	0950
-	SAMPLED	Date		07/13/82		07/13/82		07/14/82		07/06/82		07/07/82		07/14/82		06/29/82	07/14/82
	• •	Sample Description		boring and cutting		Boring and cutting		pitos		Drilling and cutting		Drilling and cutting	-	warer	-	DFILLING and cutting	Water
	Traffic	Report No.	C-1617	MC-9094	c-1616	MC-9095	C-1620	MC-9112	<u> </u>	MC-9086	- 0-1524	HC-9087	<u> </u>	MC-9118	C-202-C-2	MC-202-C-1	C-1618 MC-9111
		Location of Sampling	B-3, SS #6	(13-15 ft.)	B-3, SS #8	(25-27 ft.)	Stained area near entrance	below ground	B-4, SS #3	(67-69 ft.)	Well #B-4 and #7	(82-87 ft.)	B-4 GW	-	1-5. 5S #12	(43-45 ft.)	B-5 GW
		Location (Borehole	6 - 1 8		11,350.1				Well #B-4		- ·		Monitoring	Well #B-5	•

• •

ہ ب



•

ł

i

``

Ł

Well Drilling at Delaware Saud and Gravel Landfill TDD No. F3-8202-04C, EPA No. DE~17

	Traffic		SAMPLED		ITEHS	ITEHS FOR ANALYSIS	
Location of Sampling	Report No.	Report No. Sample Description	Date	Time	Organics	Time Organics Inorganic Cyanide	Cyanide
Well #39	C-1621	Vat ev	na/11/10	001 E	<u>X</u>		
			70/17/10			Y	X
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				X		
Ctu Tiam	MC-9117	Water	07/14/82	0930			 ×
	C-202-C-3				X		
Blanks	MC-202-C-4	Water	07/01/82	1			 × ×
	C-1625				×		
	_ HC-9191	Water	07/14/82	F			
							•

* ± *

. ---

·___)

AR100097

SECTION 3

16 .# Ļ) •---

- ;-1 - 17

SEPA	POTÈNTIAL HAZARDOUS SITE INSPECTION R			REGION III	SITE HUMBER (In he estified at the set of th
tion on this form to develop a "ile. He sure to include all a	Complete Sections I and III throug Testative Disposition (Section II) propriate Supplemental Reports i System; Hazerdous Weste Enforc	. File this fo is the file. Su	rm in its entirety in built a copy of the i	the region forms to: 1	al Hazardous Waste Log J.S. Environmental Pro-
	1. SITE IDE	NTIFICATIO			
Delaware Sand and G	ravel Landfill		antham Lane		
		D. STATE	IE. ZIP CODE	TF. 20081	TY NAME
New Castle		DE	19720	Nev	v Castle
G. SITE OPERATOR INFORMATI 3. NAME	DN			1 2. TELE	PHONE NUMBER
Vincent_DellAversan	٥			302	2-328-3491
3. STREET	4. CITY	· · · · · · · · · · · · · · · · · · ·		8. STAT	E C. ZIF CODE
229 Grantham Lane	New Ca	stle	- 	DE	19720
1. NAME				1. TELE	PHONE NUMBER
3. elity				4. 37 4 1	E . ZIP CODE
SITE DESCRIPTION				I	<u>, </u>
TYPE OF OWNERSHIP					
1. FEDERAL	STATE 3. COUNTY	A. MUNICIPA	L 🕅 B. PRIVA	TE	
	I. TENTATIVE DISPOSITI				
LESTIMATE DATE OF TENTA DISPOSITION (mai, day, à yr.)	TIVE B. APPARENT SERIOUSNE	SS OF PROBLE I I MEDIUM		–	NONE
August 25, 1982		A			
T. PREPARER INFORMATION		1 3. TELEPH	ONE NUMBER	1 3. BATE	(sto., day, \$ 7%)
C. K. Lee		609-66			t 18, 1982
	III. INSPECTIO	N INFORMAT	ION		
L PRINCIPAL INSPECTOR INFO	RMATION	1 2. TITLE			
C. K. Lee		Hydrol	ogist		
S. OREANIZATION					PHONE NO. (THE LOOS & NO.
LCO 1099 AND ENVIRON	ment, Inc., FIT Region	111		009-0	65-1515
I. NAME	2. 046	ANIZATION		3.	TELEPHONE NO.
Frank Quirus, Loren Doug Taylor, Bill	Lasky				
Wentworth, David Nickerson, Jim Vogel	. Ecology and Envi	ronment		600-6	65-1515
		connenc, i		1 002-0	00-1010
and Terrence Shannor	1			1	
and Terrence Shannor		kers, ree(dente)			
and Terrence Shannor	I ERVIEWED (corporate officiale, work 2. TITLE & TELEPHONE N		3.	ADDRESS	
and Terrence Shannor	ERVIEWED (composaie officiale, wor 2. TITLE & TELEPHONE N	o,	20 (upatha-	ADDRESS	
and Terrence Shannor 	CERVIEWED (corporate officiate, wor 2. TITLE & TELEPHONE N O Owner of Delaware	o,	a 29 Grantham	ADDRESS	ew_Castle
and Terrence Shannor 	Derviewed (corporate officiate, wor 2. TITLE & TELEPHONE N Owner of Delaware Sand and Grave)	o	229 Grantham DE 19720	Lane. N	ew_Castle
And Terrence Shannor 	Derviewed (corporate officiate, wor 2. TITLE & TELEPHONE N Owner of Delaware Sand and Grave)	o		ADDRESS	ew_Castle
and Terrence Shannor 	Derviewed (corporate officiate, wor 2. TITLE & TELEPHONE N Owner of Delaware Sand and Grave)	o		ADDRESS	ew_Castle
And Terrence Shannor 	Derviewed (corporate officiate, wor 2. TITLE & TELEPHONE N Owner of Delaware Sand and Grave)	o		ADDRESS Lane. N	ew_Castle
And Terrence Shannor 	Derviewed (corporate officiate, wor 2. TITLE & TELEPHONE N Owner of Delaware Sand and Grave)	o		Lane. N	ew_Castle

i

EPA No. DE-17 TDD No. F3-8202-01 **Continued From Front** III. INSPECTION INFORMATION (continued) D. GENERATOR INFORMATION (source of weeld) I. NAME 1. TELEPHONE NO. 3. ADDRESS 4. WASTE TYPE BENERATED no record E. TRANSPORTER/HAULER INFORMATION 1. NAME 1. TELEPHONE NO. ADDRESS 4.WASTE TYPE TRANSPORTED no record F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL 1. NAME 1. TELEPHONE NO. S. ADDRESS not applicable G. DATE OF INSPECTION H. TIME OF INSPECTION I. ACCESS GAINED BY: (credentials must be shown in all example (mon day, & yn) lune 28-luly 13 days 📑 1. PERMISSION 2. WARRANT 14 182 MEATHER (Marine) Surry, hot, humid and occasionally thunderstorms. Air temperature ranged from 85° to 95°. IV. SAMPLING INFORMATION . Mark 'I' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available. Z. SAMPLE 4. DATE 1. SAMPLE TYPE TAKEN (merk'X') 3. SAMPLE SENT TO: HESULTS turn around A. GROUNDWATER Versar, Inc. and Mead Technology time 14 X days 1. SURFACE WATER C. WASTE 4. Att -5 #PILL E. 201L A. VEGETATION L. OTHER (PHEI/1 drilling and cutting Versar, Inc. and Mead Technology X E. FIELD MEASUREMENTS TAKEN (... Indianciivity, explanivity, PH, att.) 1. LOCATION OF MEASUREMENTS 3. RESULTS 1. TYPE Monitored when started No readings. Explosimeter drilling. Monitored continuously No readings above background were detected in ambient air. Higher readings on some parts during drilling operations. NU Drum-pit area and of the drum-pit area. . refuse area. Unimag II Magnetometer Continue On Page 3 EPA Ferm T2070-3 (10-79) PAGE 2 OF 10

C PROTOCI I. YTE OF PROTOCI I. YTE OF PROTOCI I. YTE OF PROTOCI CD. SERVICE AND DE SA RENAL ECOLOGY AND ERVICOTOMENT, Inc. S. STREATED I. LATIVE (REPAIR SERVICE) I. SOUCH SERVICE) I. LATIVE SERVICE) I. LATIVE SERVICE) I. LATIVE SERV	Continued From Page 2		IV. SAM	PLING INFOR	MATIO	N (continued)		
CD: as anound D: A REMARK Ecology and Environment, Inc. D: HTE MAPPED: ISOS Quadrangle E: CONDUMTES I. LONGTUDE (degramment), Inc. 1. LONGTUDE (degramment), Inc. 330° 33' 11" 3. STE STATUS I. LONGTUDE (degramment), Inc. 1. LONGTUDE (degramment), Inc. Ste Status A. STE STATUS I. LONGTUDE (degramment), Inc. I. LONGTUDE (degramment), Inc. Ste Status, Inc. A. STE STATUS I. LONGTUDE (degramment), Inc. I. LONGTUDE (degramment), Inc. I. LONGTUDE (degramment), Inc. A. STE STATUS I. LONGTUDE (degramment), Inc. I. LONGTUDE (degramment), Inc. I. LONGTUDE (degramment), Inc. I. LONGTUD (degramment), Inc. I. LONGTUD (degrammen								
D: STE SAPPEEN D: STE SAPPEENT STE SAPPEENT Sappeent SAPPEENT D: STE SAPPENT				-				
VEL SPECIFY LOCATION OF MAPS: USCS QUBDY 2020 Soft of the second of the secon		ERIAL	•	ECOTORA	and	Environment, Inc	•	
1. LANTYUDE (deg_=minu-sec.) 75° 36' 05" W 39° 39' 11" N 75° 36' 05" W A. SITE STATUS V. SITE IMPORMATION A. SITE STATUS II. ACTIVE (These indecrial or manual status and characterial or safet diagonal status and characterial or manual status and characterial or safet diagonal status and characterial or safet diagonano diagonano diagonano diagonal status and characterial or safet		H OF 1	MAPS: USGS	Quadrang	le			
39 ⁰ 39 ¹ 11 ⁿ N 75 ⁰ 36 ¹ 05 ⁿ W A. SITE STATUS	E. COORDINATES							
A. STE STATUS V. SITE INFORMATION I. ACTIVE (These inducting errors which are finder in a find					2. LO			
A SITE STATUS I. A STUE (These indecripted error being used if a status if a sta	390 391 11"	N				75 ⁰ 36' 05" 1	1	
□. LATIVE (These induction of examples of induction of the service of service of the service of service of service of service of service of service induction of the service of				V. SITE INFO	RMAT	ION		
IN0 I YES(specify generator's foundation Size Code): C. AREA OF SITE (in serve) D. ARE THERE BUILDINGS ON THE SITE: shout 10 acres I. NO I Y YES(specify): Owner's garage VI. CHARACTERIZATION OF SITE ACTIVITY Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes. X A. TRANSPORTER B. STORER Y. C. TREATER D. DISPOSER I. AND I. PILE I. PILTATION I. LANDFILL I. ATAU I. PILE I. PILTATION I. LANDFILL I. ATAUC I. PILE I. PILTATION I. LANDFILL I. ATAU I. PILE I. PILTATION I. LANDFILL I. ATAU I. PILE I. PILTATION I. LANDFILL I. ATAUE I. PILE I. CANDFALMENTER COMMENT I. INGUNERTOUCHT I. ATAUE I. PILE I. CANDFALMENTER COMMENT I. INGUNERTOUCHT I. ATAUE I. PILE I. CAN	1. ACTIVE (These inductria municipal aires which are being for waste treatment, storage, or on a continuing basis, even if in	used disposi	eites which no		(The whee	ee eitee that include such in a no regular or continuing us	cide • of	nte like "miržiški damping" the aize far weste disposal
about 10 acres I. MO II 2 vestappedigy: Owner's garage Inducate the Bajor site activity/(set) and details relating to each activity by marking 'X' in the appropriate boxes. A. TRANSPORTER X A. TRANSPORTER X B. STORER X C. TREATER D. DISPOSER 1. RAIL 1. FILE I. FULTRATION XI. LANDFILL 2. SUPFACE INFOUNDMENT 2. Income and the appropriate boxes. 2. BANK 1. SUPFACE INFOUNDMENT 2. Income attached information XI. LANDFILL 2. BANK 1. FILE 1. FILTRATION XI. LANDFILL 2. BANK 2. DATAME 2. INCOME REDUCTION 2. INCOMEANTION 3. BARGE 3. DATAME, BELOW BROWND 4. RECYCLING/RECOVERY 4. SUPFACE INFOUNDMENT 3. RARGE 3. DATAME, BELOW BROWND 4. SUPFACE INFOUNDMENT 4. SUPFACE INFOUNDMENT 3. RARGE 3. DATAME, BELOW BROWND 1. SUPFACE INFOUNDMENT 4. SUPFACE INFOUNDMENT 5. OF MERICIPS 4. TRAK, BELOW BROWND 5. OF MERICIPS 5. OF MERICIPS 1. OF MERICIPS 1. SUPFACE INFOUNDMENT 5. OF MERICIPS 5. OTHER(specify): 4. SUPFACE 1. OCROSING IND INJEC TION 1. OCROSING IND INJEC TION 1. SUPERICIPS 1. OCROSIN	E. IS GENERATOR ON SITET	'epecil;	y generator's lours	figit SIC Code):_		· · · · · · · · · · · · · · · · · · ·		-
about 10 acres I. MO II 2 vestappedigy: Owner's garage Inducate the Bajor site activity/(set) and details relating to each activity by marking 'X' in the appropriate boxes. A. TRANSPORTER X A. TRANSPORTER X B. STORER X C. TREATER D. DISPOSER 1. RAIL 1. FILE I. FULTRATION XI. LANDFILL 2. SUPFACE INFOUNDMENT 2. Income and the appropriate boxes. 2. BANK 1. SUPFACE INFOUNDMENT 2. Income attached information XI. LANDFILL 2. BANK 1. FILE 1. FILTRATION XI. LANDFILL 2. BANK 2. DATAME 2. INCOME REDUCTION 2. INCOMEANTION 3. BARGE 3. DATAME, BELOW BROWND 4. RECYCLING/RECOVERY 4. SUPFACE INFOUNDMENT 3. RARGE 3. DATAME, BELOW BROWND 4. SUPFACE INFOUNDMENT 4. SUPFACE INFOUNDMENT 3. RARGE 3. DATAME, BELOW BROWND 1. SUPFACE INFOUNDMENT 4. SUPFACE INFOUNDMENT 5. OF MERICIPS 4. TRAK, BELOW BROWND 5. OF MERICIPS 5. OF MERICIPS 1. OF MERICIPS 1. SUPFACE INFOUNDMENT 5. OF MERICIPS 5. OTHER(specify): 4. SUPFACE 1. OCROSING IND INJEC TION 1. OCROSING IND INJEC TION 1. SUPERICIPS 1. OCROSIN					,			
Indicate the major site activity(ier) and details relating to each activity by marking 'X' in the appropriate boxes. A. TRANSPORTER X' B. STORER X' C. TREATER X' D. DISPOSER 1.7.A.1. 1. PILE 1. FLETRATION X' D. DISPOSER 1.7.B.1. 1. SUBFACE IMPOUNDMENT 1. INCINERATION X' D. DISPOSER 1.7.B.1. 1. SUBFACE IMPOUNDMENT 1. INCINERATION X' D. DISPOSER 1.7.B.2. 1.7.B.2. 1. FLETRATION X' D. DISPOSER 1.7.B.2. 1. SUBFACE IMPOUNDMENT 1. INCINERATION X' D. DISPOSER 1.7.B.2. 1.7.B.2. 1.7.C.TRATION X' D. DISPOSER 1.7.B.2. 1.7.B.2. 1.0000000 1.000000000 1.0000000000 1.0000000000 1.8.B.2. 1.7.A.4. 1.7.A.4. 1.000000000 1.000000000000000000000000000000000000	about 10 acres						•	
X A. TRANSPORTER X B. STORER X C. TREATER X D. DISPOSER 1.RAIL 1.PILE 1.FLTRATION X L.LANDFILL 2.SHIF 2.SUFFACE IMPOUNDMENT 2.INCINERATION X L.LANDFILL 3.BARGE 3.DRUMS 3.VOLUME REDUCTION 12.LANDFALL 3.BARGE 3.DRUMS 3.VOLUME REDUCTION 12.LANDFALL 4.TRUCK 4.TANK, BELOW GROUND 1.REFORTER MPOUNDMENT 1.INCINERATION 3.PIPELINE 3.TANK, BELOW GROUND 1.REMOVE CHENARCOVERY 1.MORIGHT DUMFINC 4.TRUCK 4.TANK, BELOW GROUND 1.CHEM/PHYS/TREATMENT 1.HOUNGREATION 5.OTHER(GREEINE) 5.OTHER(GREEINE) 1.MORGENATION 1.HOUNGREATION 5.OTHER(GREEINE) 5.OTHER(GREEINE) 1.MORGENATION 1.SOLUENT RECOVERY 3.OTHER(GREEINE) 6.SUPPLEMENTAL REPORTS: The suis falls within any of the cargemen listed below, Supplemental Reports must be completed. Indicate what Supplemental Reports must be completed. Indicate w			VI. CHARA	CTERIZATION	NOF			
A. TRANSPORTER B. STORER C. TREATER D. DISPOSER 1.RAL 1.PILE FILTRATION X.LADDFLL 2.SAUP 2.SUPPACE IMPOUNDMENT 2.INCINERATION Z.LANDFALM 3.BARGE 3.DAUNS 3.VOLUME REDUCTION 3.DAPAN DUMPING 4.TANCK 4.TANK.ABOVE GROUND 4.RECYCLING/RECOVERY 3.DAPAN DUMPING 4.TANCK 4.TANK.ABOVE GROUND 3.CHEM./MESTATION 3.DAPAN DUMPING 5.DTHER(specify) 5.CHEM./FILTS/TREATMENT 5.INDIGHT DUMPING 6.OTHER(specify) 5.CHEM./FILTS/TREATMENT 5.INDIGHT DUMPING 8.OTHER(specify) 5.CHEM./FILTS/TREATMENT 5.INDIGHT DUMPING 8.OTHER(specify) 5.OTHER(specify) 5.OTHER(specify) 9.OTHER(specify) 5.OTHER(specify) 8.OTHER(specify) 9.OTHER(specify) 8.OTHER(specify) Waste pit 1.STORAG 2.INCINERATION 3.LANDFILL 4.INFOLMANT 1.STORAG 2.INCINERATION 3.LANDFILL 4.INFOLMANT 5.DEEP WELL 5.OFEN DUMP 5.TRANSPORTER 10. RECYCLOR/RECLAIMEN 6.CHEM/SHOY 7.LANDFAM 5.OFEN DUMP 5.TRANSPORTER 10. RECYCLOR/REC	Indicate the major site activity						opri	ate boxes.
2. SHIP 2. SURFACE IMPOUNDMENT 2. INCINERATION 2. LANDFARM 3. BARGE 3. DRUMS 3. VOLUME REDUCTION 3. DREM DUNDMENT 4. TRUCK 4. TANK, ABOVE GROUND 4. RECYCLING/RECOVERY 4. SURFACE IMPOUNDMENT 5. FIFELINE 5. TANK, BELOW GROUND 4. RECYCLING/RECATERY 5. MORIGHT DUMPING 4. OTHER(specify): 5. DICHER(POSISING 5. NICINERATION 5. NICINERATION 4. OTHER(specify): 5. DICHER(specify): 5. DICHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 6. SUPFLEMENTAL REPORTS: If the site falls within any of the cwargerise listed below, Supplemental Reports must be completed. Indicate whab Supplemental Reports you have filled out and strached to this for. 9. OTHER(specify): Waste pit 1. STDRAG. 2. INCINERATION 3. LANDFILL 4. SURFACE 10. RECYCLOR/RECLAIMER VI. WASTE RELATED INFORMATION 3. SLUDGE 4. GAS 8. OTHER(specify): 2. SOLID 3. SLUDGE 4. HIGHLY VOLATILE 1. LIQUID 2. SOLID 3. SLUDGE 4. HIGHLY VOLATILE 3. OTHER(specify): 5. REACTIVE 7. INERT <t< td=""><td>A. TRANSPORTER</td><td>ו</td><td>B. STOP</td><td>RER</td><td><u>× ·</u></td><td>C. TREATER</td><td>X</td><td></td></t<>	A. TRANSPORTER	ו	B. STOP	RER	<u>× ·</u>	C. TREATER	X	
3. BARGE 3. DRUMS 3. VOLUME REDUCTION 3. DPEN DUMP 4. TAUCK 4. TANK. ABOVE GROUND 4. RECVENTING ALL COVERY 4. SURFACE IMPOUNDMENT 5. PIPELINE 5. TANK, BELOW GROUND 5. CHEM/PMUS/TREATMENT 5. MIDNIGHT DUMPING 5. OTHER(specify): 4. OTHER(specify): 5. IOLOGICAL TREATMENT 5. MIDNIGHT DUMPING 5. OTHER(specify): 4. OTHER(specify): 5. IOLOGICAL TREATMENT 5. INDREATION 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 6. SUPPLEMENTAL REPORTS: IT the site fails within any of the completed listed below, Supplemental Reports much be completed. Indicate what Septement Reports you have filled out and attached to this for. 1. STDRAG. 2. INCINERATION 3. LANDFILL 4. SURFACE 6. PHYS TREATMENT 7. LANDFARM 3. OPEN DUMP 3. TRANSPORTER 10. RECYCLOR/RECLAIMER VII. WASTE RELATED INFORMATION 3. SLUDGE 4. GAS 4. GAS 4. CAS 8. ATT RECOVERT 2. SOLID 3. SLUDGE 4. HIGHLY VOLATILE 9. OTHER(specify): 3. SLUDGE 4. HIGHLY VOLATILE 1. LIQUID 2. SOLID 3. SLUDGE 4. HIGHLY VOLATILE 3. OTHER(specify):	1.RAIL		a second and a second		1.5	ILTRATION	X	
4. TRUCK 4. TANK. A SOVE GROUND 4. RECYCLING/RECOVERY 4. SURFACE IMPOUNDMENT 5. PIFELINE 5. TANK. BELOW GROUND 5. CHEM/PHYS./TREATMENT 5. NIDNIGHT DUMPING 6. GTHER(specify): 6. GTHER(specify): 5. OTHER/FROCESSING 5. NIDNIGHT DUMPING 6. GTHER(specify): 6. GTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 6. GTHER(specify): 6. GTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 5. OTHER(specify): 6. SUPPLEMENTAL REPORTS: 17 the site (alls within any of the caregories listed below, Supplemental Reports must be completed. Indicate what Supplemental Reports yea have filled out and attached to this for. 5. OTHER(specify): Waste pit 1. STORAG. 2. INCINERATION X. LANDFILL 4. SUPFACE 5. DEEP WELL 6. CHEM/BIO/ 7. LANDFARM 5. OPEN DUMP 5. TRANSPORTER 10. RECYCLOR/RECLAIMEP VII. WASTE RELATED INFORMATION X. WASTE CHARACTERNISTICS 1. CORROSIVE 2. IGNITABLE 3. RADIOACTIVE 4. HIGHLY VOLATILE 1. LIQUID X. SOLID X. SLUDGE 4. AGAS 4. SASTE CHARACTERISTICS 1. LORNOSIVE 2. IGNITABLE 3. RADIOACTIVE 4. HIGHLY VOLATILE 5. OTHER(specify):		- [-]	2. SURFACE IMPO	UNDMENT				<u> </u>
							4_	
							+-	
7. WASTE DIL REPROCESSING 7. UNDERGROUND INJECTION 8. SOLVENT RECOVERY 8. OTHER(specify): 9. OTHER(specify): waste pit 1. STORAG. 2. INCINERATION X. WASTE TYPE 10. RECYCLOR/RECLAIMER VII. WASTE RELATED INFORMATION 3. SLUDGE 4. GAS 4. SUBFACE 1. CORROSIVE 2. IGNITABLE 3. RADIOACTIVE 4. HIGHLY VOLATILE 3. RADIOACTIVE 4. HIGHLY VOLATILE 3. TOXIC 6. REACTIVE 3. ANDIOACTIVE 4. HIGHLY VOLATILE 3. OTHER(specify): 3. RADIOACTIVE 4. MASTE CHARACTERISTICS 3. RADIOACTIVE 3. OTHER(specify): 4. HIGHLY VOLATILE 3. OTHER(specify): 4. REACTIVE 4. MASTE CARE							+-	
		H		" t		territory and the second se	+	
C. SUPPLEMENTAL REPORTS: If the site fails within any of the cases price listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports must be completed. Indicate C. SUPPLEMENTAL REPORTS: If the site fails within any of the cases price listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this for. I. STORAG. 2. INCINERATION [] 3. LANDFILL 4. SURFACE 5. DEEP WELL 6. CHEM/SIO/ 7. LANDFARM B. OPEN DUMP 9. TRANSPORTER ID. RECYCLOR/RECLAIMER VII. WASTE RELATED INFORMATION A. WASTE TYPE I. Liquid I. LIQUID I. CORROSIVE 2. IGNITABLE J. CORROSIVE 2. IGNITABLE J. CORROSIVE 2. IGNITABLE J. ADDOACTIVE 4. HIGHLY VOLATILE S. TOXIC 6. REACTIVE J. ADDOACTIVE 4. HIGHLY VOLATILE S. TOXIC 6. REACTIVE J. MASTE CATEGOALISS 1. NERT J. APPRICARE available? Specify items such as maniferent, INVERIOR es, etc. bulow. ** WASTE CATEGOALISS 1. APPRICATES are moniferent available				F	18.8	OLVENT RECOVERY	+-	E.OTHER(apecily)
				Γ	9.0	THER(epecity):		•
which Supplemental Reports you have filled out and attached to this for. 1. STORAG. 2. INCINERATION S. DEEP WELL C. CHEM/BIO/ PHYS TREATMENT 7. LANDFARM S. OPEN DUMP 9. TRANSPORTER ID. RECYCLOR/RECLAIMER VII. WASTE RELATED INFORMATION WASTE TYPE I. LIQUID I. CORROSIVE I. ARACTERISTICS I. ARACTERISTICS </td <td></td> <td></td> <td></td> <td>ſ</td> <td></td> <td></td> <td>1</td> <td>waste pit</td>				ſ			1	waste pit
which Supplemental Reports you have filled out and attached to this for. 1. STORAG. 2. INCINERATION S. DEEP WELL C. CHEM/BIO/ PHYS TREATMENT 7. LANDFARM S. OPEN DUMP 9. TRANSPORTER ID. RECYCLOR/RECLAIMER VII. WASTE RELATED INFORMATION WASTE TYPE I. LIQUID I. CORROSIVE I. ARACTERISTICS I. ARACTERISTICS </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
						ies velow, supplemental Kepi		mmer da chubierege turnezié
VI. WASTE RELATED INFORMATION WASTE TYPE Liquid 2. solid Liquid 2. solid WASTE CHARACTERISTICS CORROSIVE 2. IGNITABLE CORROSIVE 2. IGNITABLE S. TOXIC REACTIVE WASTE CATEGONIES WASTE CATEGONIES WASTE CATEGONIES And months of wastes are not available	1. STORAG_] 2. IN	CINERATION	🚺 3. LANDFILI	L [4. IMPOUNDMENT] S.	DEEP WELL
A WASTE TYPE 1. LIQUID 2. SOLID X ASTE CHARACTERISTICS 1. CORROSIVE 2. IGNITABLE 3. RADIOACTIVE 4. HIGHLY VOLATILE S. TOXIC 6. REACTIVE J. OTHER(spacify): X. WASTE CATEGONIES I. ANY moved of wares available? Specify items such as manifests, invenionies, etc. below. "ecords of wastes are not available	CHEM/BIO/] 7. L.] 10	. RECYCLOR/RECLAIMER
A WASTE CHARACTERISTICS	L WASTE TYPE		VH. W/	GIE RELATE				
		Ø 2. SC	טושנ	🗍 3. SLUDGE	[4. GAS		
S. TOXIC S. REACTIVE 7. INERT S. FLAMMABLE 9. OTHER(specify): WASTE CATEGORIES 1. Are moving of wantes available? Specify items such as manifests, inventories, etc. below. records of wastes are not available	. WASTE CHARACTERISTICS							······································
. WASTE CATEGORIES 1. Are months of wants available? Specify items such as manifests, inventories, etc. below. records of wastes are not available	S. TOXIC	_						
ecords of wastes are not available	. WASTE CATEGORIES							
PA Ferm T2978-3 (18-79) PAGE 3 OF 10 Continue On Reverse	1. Are records of wastes svallabl				enton e i			
	ecords or wastes are							

Ţ

l

Continued From From	t)2 4C		EPA	No. DE-
2. Estimate the amou	at (enecily							RMATI						
A. SLUDGE		OIL	1		LVEN		- COL	4. CH			e. SOLIDE		· · · · ·	THER
AMOUNT	AMOUNT		1.	OUNT			-	OUNT			AMOUNT		ANOUNT	
•								bout	375	000				
UNIT OF MEASURE	UNIT OF N	EASURE	100	NIT OF	MEAS	URE		195	ALASU		UNIT OF MEAS	UH 6	UNIT OF	ARURA
			1				18	allo	15 0] [mia	111	uid			
X PAINT.	ו ,, 01LY	,	• × ·				Px.						· × 1	
PIGMENTS	WAS1	res		1 30	LVENT	rs i uu		(1) ACI	01		117 FLYASH			GRATORY, RMACEUT,
E SLUDEES	12/07H	ER(apocily):	·	(2) NO		.06NTD	·	(2) PICI	LING		-		(2) MQ3	PITAL
III POTW		•		13/07	HER(#	pecity):		13) CAU			ISI MILLING	MINE	(3) R.A.D	
								AI PES	TICIDE	t 3	IAI ING WAST	SMELT-	(41 MUN	ICIFAL
(1) O THER (epocity):								(B) DY 2	5/1NK	•	ISI NON-FER	ROUS	(3) 074	ER (specify):
									-		IN OTHER	·		
							x	(7) PH	NOLS					
							X		OGEN	•				
							x	(8) PC 8						
							\square	(101 ME	TALS					
			ĺ				\mathbf{X}	(1) 67	HER(#	ecty).				
			<u> </u>					aroma						
2. LIST SUBSTANCES C	IF UREASE	31 40462		FORM		_		ICITY		cenem <u>e</u>	OFGET DI ALZAND)	1		
				ark 'X			(mark					1		
I. SUESTA	NGE		10	5. L 10.	C.VA		ь. М£5	E.	d. NONE	L'	LS NUMBER	3. ^	MOUNT	S. UNIT
			-											
1 2 dichloroot	h 2 0 0			x	1		x	1		10	7-06-02	1,5	500	ug/1
1,2-dichloroet	nane .			<u> </u>			<u>^</u>		ļ		1-00-02			
trichloroethy]	~~~			x	1		x	1		7	9-01-6		27	ug/l
LT ICHTOFUELINI	ene			<u> </u>		++	<u>^</u>	+			5-01-0	·	<u> </u>	1 44/ 1
РСВ				x	Ì		х			1109	9769-1		262	uq/a
PUB	·			<u> </u>		+	<u> </u>	+				<u> </u>	.02	
benzene				x		X				7	1-43-2	1	80	l
			-	<u>^</u>	<u> </u>				· · · · ·		1-40-2		00	
toluene				x			x	1		10	8-88-3	1,2	200	1/pu
<u></u>					İ	++		1						
lead		1	Y I			<u> </u>		1		743	39-92-1	1	20	ug/l
phenol			X							10	8-95-2	3	860	ug/1
					1			1						
·····				VI	П. НА	ZARD	DES	CRIPT	ION	_				. –
FIELD EVALUATION	HAZARD	DESCRIPT								te that	the listed haz	erd exist	ts. Descri	be the
nazard in the space pr														
Y A. HUMAN HEALT	H HAZARD	5						,						<u>-</u> -
											Methylene		-	Butyl-
		1,2 Dict	lor	roeth	me	Irichl	oro	ethyle	ne <u>B</u>	enzen	e Chloride	Pheno	phth	alate
													•	
TSCA Cancer			X				X			X				
Experienced Care	inogen										x	Х		
Experienced Muta		•	X											
Experienced Tera			X											x
PA Ferm 72070-3 (10-7	7)	_				AGE 4	OF	10				Conti	nue On Pa	#* 5

?

Continued From Page 4		EPA No. DE-1
VIII.	HAZARD DESCRIPTION (continued)	
not reported		
C. WORKER INJURY/EXPOSURE	······	
not known		
D. CONTAMINATION OF WATER SUPPLY		
Amoco wells shut down in 1975, du	ue to contamination.	
	•	
E. CONTAMINATION OF FOOD CHAIN		
		:
not reported		
F. CONTAMINATION OF GROUND WATER		
1,2 Dichloroethane, trichloroethy Table 3) were found in ground wa	ylene, benzene and other priority poll ater sampling on July 14, 1982.	utants (see
Amoco wells shut down due to cont	tamination.	
G. CONTAMINATION OF SURFACE WATER		
none observed		l
		1

	TOD No. F3-8202-0**	EPA No.
Continued From Front	· ·	··········
H. DAMAGE TO FLORA/PAUNA	VIII. HAZARD DESCRIPTION (continued)	
 Parts of the drum-pit area	a and the landfill area are without vegetat	ive cover.
1. FISH KILL		
none reported		
none observed but strong c	hemical odors were detected during drilling	g at the
drum-pit area.		
X. HOTICEABLE ODORS		
n		
but no readings above back	ed during drilling phase of B-1, B-2, B-3 a ground detected by HNU.	ina 8-4
L. CONTAMINATION OF SOIL		
DCP shows? suggestion and	other priority pollutants were found in th	e soil
samples of drilling at the	other priority pollutants were found in th drum-pit area.	
N. PROPERTY DAMAGE		
none observed		
1016 00561 YEU		
1		
EPA Form T2070-3 (10-79)	PAGE & CF 10	Continue On Page 7
•		

÷

- .

Continued From Page 6	VIII, HAZARD DESCRIPTION (continu	820 <u>2-</u> **	EFA NO
N. FIRE DE EXPLOSION		<u></u>	
~			
Fires occurred in 1969.			
Fires occurred in 1969.			
D. SPILLS/LEAKING CONTAINERS/F	RUNOFF/STANDING LIQUID		
not observed			
P. SEWER, STORM DRAIN PROBLEMS	<u></u>		·
		· ·	
not observed			
•			
Q. EROSION PROBLEMS			<u></u>
		1	
not observed			
T R. INADEQUATE SECURITY			
No converting france and the			
No security fence and sit	e is easily accessed.	:	
S. INCOMPATIBLE WASTES			
unknown			
PA Fem T2070-3 (10-79)	PAGE 7 OF 10		Continue On Revers
• •			

AR100104 -

TDD No. F3-8202- 1C

EPA No. DE-17

		VIII HATARD DEL	CRIPTION (continued)			
T. MONIGHT DUMPING		TH. ARLAND DES	CRIPTION (Continues)			
not known						
U. DTHER (specily):				-	· ·	
not applicable						
not appricable						
					,	
	•					
_						
-						
	IX. I	POPULATION DIREC	TLY AFFECTED BY S	ITE		
	_	APPROX. NO.	C. APPROX. NO. OF PE	OPLE	D. APPROX. NO. OF BUILDINGS	E. DISTANCE TO SITE
ALLOCATION OF POPULATION	OFFE	OPLE AFFECTED	AFFECTED WITHIN UNIT AREA		AFFECTED	(specity units)
LIN RESIDENTIAL AREAS		+ 100 000	To sound by Au		an Hatau Cara	
		11 100,000 peop	le served by Ar	tes	an water Lompa	ny
IN COMMERCIAL GR INDUSTRIAL AREAS	abou	it 100,000 péop	le served by Ar	test	an Water Compa	ny
IN PUBLICLY		Grantham Lane		<u> </u>		
3- TRAVELLED AREAS	Rout	P 9 & R. R. tri	<u>ćk varies</u>		<u> </u>	50-1,000 ft
4. PUBLIC USE AREAS (parks, echesie, stc.)	no					
		X. WATER AND	HYDROLOGICAL DA	TA		1
A. DEPTH TO GROUNDWATER(pro- varies 25-50 ft.	ity unit]	southeaste	-	1	OUNDWATER USE IN	
D. POTENTIAL YIELD OF AQUIFER	t	E. DISTANCE TO DRU	NKING WATER SUPPLY	Arte	<u>esian Water Co</u> Rection to DRINKIN	MDANV
-		about 4,000 f	eure)	1	theasterly	
G. TYPE OF DRINKING WATER SUP						
1. NON-COMMUNITY	2. COMMU > 15 CC	NITY (specity saws): SNNECTIONS	New Castle			
	4. WELL					
PA Ferm 72070-3 (10-79)		PAGE	8 OF 10		Contin	e On Page 9

TDD No. F3-8202 4C

Ε

		X. WATER AND HYDROLOGICAL DATA (continued)	
1. WELL	2. DEPTH (apecily unit)	(prezimity to population/buildings)	NOH-COM- MUNITY (MARK 'X')
Amoco_well	about 150 ft.	Route 9 - it shut down due to contamination	X
Gonzon	145 ft.	Grantham Lane	x
V. DellAve	sano 135 ft	Grantham Lane	<u> </u>
MECEIVING WA I. NAME Delaware Ri Army_Creek	ver and	2. SEWERS	
		River is classified as interstate stream zone 5.	
		XI. SOIL AND VEGITATION DATA	
	ATED FLOODWAY		
A. GVERBUR	1'X1	B. BEDROCK (specity below) C. G THER (spec	
1. SAND LOAM 2. CLAY	· X So	lid rock below Potomac Formation.	
3. GRAVEL		•	
		XIII. SOIL PERMEABILITY	
A. UNKNOWN	E (10 to .1 cm/sec.) EA	B. VERY HIGH (100,000 to 1000 cm/sec.) []] G. HIGH (1000 to 10 cm/sec.) D. Z. LOW (.1 to .002 cm/sec.) [] F. VERY LOW (.001 to .001 to .0	•
TI 1. YES		DUMENTS by infiltration to recharge groundwater	
I. YES	🛛 2. НО 3. С	DMMENTS: groundwater	
. ESTIMATE & D	SLOPE 2. 3	PECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.	
lace than 9	CAL DATA	erally to south, but the ground surface was change and landfi	
OTHER GEOLO			-
hickness.		by the Columbia Formation, ranging from 30 to 60 f ying Potomac Formation consits of stream-deposited ilt.	

. .

EFA Form T2070-3 (10-74)

PAGE S OF 10

A.R 100106

TDD No. F3-8202- C

EPA NO. DE-17

			. OATE	E. EXFIRATION		(Mark 'X')				
Continued From From XIV. PERMIT INFORMATION List all applicable permits held by the sits and provide the related information. A. PERMIT TYPE (eduRETALState.AFDEL.etc.) B. ISSUING C. PERMIT DATE (eduRETALState.AFDEL.etc.) P. INCOMPL (eduRETALState.AFDEL.etc.) State Permit DN REC - 1969 1976 - State Permit DN REC - 1969 1976 - XV. PAST REGULATORY OR ENFORCEMENT ACTIONS XV. PAST REGULATORY OR ENFORCEMENT ACTIONS - - NONE XY FES (summerize to this spece) Closed by State Court action in December 1979. - -										
State Permit	DN REC	-	1969	1976						
			-{			<u> </u>	+			
losed by State Cou	rt action in	December 197								
losed by State Cou	rt action in	December 1979	ð.							
Closed by State Cou	rt action in	December 1979).							
Closed by State Cou	rt action in	December 1979								
Closed by State Cou	rt action in	December 1979								
Closed by State Cou	rt action in	December 1979).							

PAGE 10 OF 10

EPA Ferm 72070-3 (10-79)

TDD No. F3-8202-04C

EPA No. DE-17

		INSTRUCTION
	LANDFILLS SITE INSPECTION REPORT (Supplemental Report)	Answer and Explain as hiressay.
I. EVIDENCE OF SITE	INSTABILITY (Ermann, Setting, Sink Hales, orc)	
× ··· □ ···	Sink holes were observed in nit-drum area	
	OPER DISPOSAL OF BULK LIQUIDS, SEMI-SOLIDS AND SLUDGES INTO THE L.	ANDFILL
X * E >		
· · · · · ·	F CELL LOCATION AND CONTENTS AND BENCHMARK	
D YES X NO	•	
WASTES SURROUND	D BY SORBENT MATERIAL	
1 YE# X NO		
DIVERSION STRUCT	IRES ARE EFFECTIVELY CONSTRUCTED AND PROPERLY MAINTAINED	
LIVES XNO	,	
	ING OF WATER ON SITE	
□ *Es X *0		
EVIDENCE OF IMPA	DER/INADEQUATE DRAINING	
X YES DNO-		
	TE COLLECTION SYSTEM (11 "Yes", specily Type)	
LI YER XNO	No leachate collection system.	
SURFACE LEACHAT	E SPRING	
RECORDS OF LEACH	ATÉ ANALYSIS	
TYES STHO		
CAS MONITORING	<u>, , , , , , , , , , , , , , , , , , , </u>	
X TES CINO		
GHOUNDWATER HO	ITORING WELLS	
	ANE LINER INSTALLED	
DYES NO NO	· · · · · · · · · · · · · · · · · · ·	
	IENT MEASURES (Clay Baltom, Sides,als)	
TYES DENO		
FIXATION (Stabilizat	ON OF WASTE	
<u> </u>	E OF INACTIVE PORTION OF FACILITY	
TYES DONO		
COVER(Type)		1
layey loam.		
ILA. THICKNESS		
	•	
aries and unkr	own.	
	· · · · · · · · · · · · · · · · · · ·	
	ability 50-75 ft./day of fine to coarse sand in Col	umbia Formation.
·····		
SE. DAILY APPLICA	10N	
TYES NO NO		
7 \		
Ŧ `		
	•	
τ X		:
		······
Form: T2070-3E (10-79		1

4

1

AR100108

:

SECTION 4

a family some read

		- <u>INSLE 3</u>			nmard		OKGANIC	- ANNE	1202	1	-tik	mpund	TER SW	UPLES	(\underline{r})	cour.	μu
		FRIORITY FOLLUTAITS	AMADIA	VALUES FOR	PLOTECTIAL)	e			NO DUL	JULY	14	, 1982					
	ł	EDIUADIO	M. DLE	WOLER SUP			B-1						1	T	1		71 -
	_		NOT NO	Dak Jakics			PAWEL	EXWE	I B-2	4~~	- 3]	10000 45	<u> </u>				
	1	BEANDOR MONTENE	_						1		1	1		!			1
	72	(SHAD TO EST CARE STORE STORE			11,01	•			1			1		1			
	[]	BEDDOMETHANE		-	11,00	6			1	1				1			i
	14	CATE SAN TETRACHHRUDE	0.40	s	35,20	00			1	1							1
	Alteritation	CHISNEFONIA	0.19		21,90	0	•		1	1				1			1
	19	D. EKOISTHIO: INETHANE			h 11,00	_			1	1				1			<u> </u>
	Ē	DICH SOM FLUSTICANE *			11,00				1	† – –	; 			- †∙-			· † - ·
	15	NETTYL CHICKIDE (<u> </u>	11.02				† T	-	<u> </u>						1
		NETHYLLIS CHURDER		+	111, 241		4,000			<u>†</u> ·	+ -						
	3	TISHEROFLUGACUUTIAN		+	11,000				· · · · ·								
	E						<10		·	·	┝┈╌┤						
	-	CHEADETHENE		<u> </u>						 	 			;			<u> </u>
		LI-DICHLANETHAVE		÷. <u> </u>	-4						<u>∤</u>						• - •
		1.2-DICHLEOETHERE	0.94-	,	20,00	_	1,500				├ ──;						
		ויי-שתהופביוארדיד	0.633		11,60	0			<u>.</u>								
	3	1.2-זאיש-אישיניפעריביארבי	<u> </u>	<u> </u>	11,60	<u>•</u>		·····	;								
	-	HEXASTICITETHANE	1.9	1 -	544	0			;								
	Ē	1.1.2.2-TORACILLADOHANE	6.17	1 -	2,400	>			1		ļ		•				-
	CILINANNED	TERASHURLETHYLENE	0.8	·	240				· · · ·		· .						
	Ĩ	I.I.I- REPUTE MARE	1	1841.5	L 18,000	2					,				1-		
	ະ	LI.2-TUNESEWALE	0.6	-	9,400	T											
		TEICHLEEDWLERE	2.7	·	45,000		27		· · ·		•						ő
		VIIIYL CHISRIDE	1 _		47				······································						·	-	
15	5]			1	5,700	_										_	
		1.2-DISCHARTINE	-	1 87	244									••••			
		HELLCHEPPEUTADIENE	1.45		9.3	1-											
		HEXAGE IN CONCLIGNTINEDE		206	5.2	+					,						
		PI(2- GOARTHOXY) NET AN	:/	1 8.08													•
	1	IENC-GARLINGT JAST -NE	1	; 1	<u> </u>	+											·
	÷	B: (2-CHIPOENYL)ETHER	4.03	·	1						<u> </u>			-			
	Ż.	Bis 12-CHURDISSTROMY DEMER		: 24.7	1928.000	2		•			!						
	¥.	2-CHLOREHYLVENYL ENER *	10,0121 /6/1	· · · · · · · · · · · · · · · · · · ·	<u> i</u>					}							
					<u> </u>	<u> </u>				4					<u> </u>	. .	
124		ב-פייואלא אראינוער באונר		1		ļ											
3		A- Chroning MERIENNE THE	<u> </u>		1	<u> </u>										-	
1.	-	EIS (2-E-TLHENL) PHIMLATE	<u> </u>		1							13					
		BUTYL BELEYL PHTHALAE								•							
	ا س	DIETHYL MITHALATE	—	1350 115/	- 1												
	51	DINER IN MITHALATE	- 1	1313 NE/L	-					í					_		
		1-12-BUTL MITHLATE	· · · · · · · · · · · · · · · · · · ·	1 24 NGL	-	1	1	14	18	,		i			1		
	<u>ح</u>	DI-N-OCTYL PHTHALATE						1		1						······	
i		PENZINNE	0.12.74/2		2,500			i		i		i	······		1		
		3.3-DICHARDEONZIDINE	6.0103							1				-	-i-		
	a 415	1.2-DIMENYLHYDRAZINE	42,94/1		076			:		1				· · ·			
		וארוידבוסוניביוזיב אאומב	1.494/1					1			;				-1-		
						·		<u> </u>		+		<u> </u>	1				
Γ		N-NAT: 12004HENYL ANINE	4.9													<u></u>	
<u></u>	-	WHATTERD WARRYL ANINE						·		\rightarrow							
1	1×1	ACRATEIN		330	ચા							······					
	2	ACRYLINITRILE	0.058		022,ר	_											
1.		SOPHERENE		5.2vel	117,000]			<u> </u>	
		PHUSIAS BITHENTL (TCES)	1.17970/	-	0.114			1									

. TABLE 3 (THE 1/2) SULLIMARY OF ORBAUXC ANALYSES OF GRUNDU WIFE CALL HAL

F3-8202-E

	1		LU-ASSCIEM.	2112292920	e for the sea is	OF ORGANN	SAMPLIN	IL CHO PC	14 14	1982
		PREASURY POLLOWITS	TRACLE	TASK 2XL	1					
<u> </u>	-	·····	SUPERU R	at Term	Y LIFE	EN WEL	IEA WEL	EAUGEL	A837-3	weitte
	12	ELIZEVE	6.66		5,30	a (80	57	<u> </u>		
	L'UNICH	ENHYLLEDIZOJE	1	114 14	12 22 00	0 16	18			
	ž	Toluene		14.3 44	111,50	· (200	880			
. ·	1	ACENAPHTHENE		_	1.70		[
		ACEVAPHTHYLEIDE	<u> </u>			· ·				
į		ANTHRACEIDE			_		1			
	5	PUIZO(2)415" PACENE	- leves-	1		_	1			
	50	POTA (1) FUNKATHONE	13.176/	1	<u> </u>					
	ž.	EDITE())FILWATHOUE EDITE(V)FUNRUTHENE EDITE(U)FFINLENE EDITE(U)PYFENL CHAYSENE	11	1					2	
1	N.	20121 (Uhi) FEILYLEISE	11		1				ý.	1
	5	20120(4) PYPEIX	}		1					
	ة ا	Charlene]]	1.	1			1		
1		DIEL: 20 (a. A) 41 MIRACELLE	P		1		I			
T		FLYMANTHOR		42	3,980		1	1	11	1
.]		FLUOPEILE	hours	1	1	1			-11	
7	t	INTELOCIAL-CALPTRENE	Dian	T	1					
		NAPHTHALEISE	1 -	T =	620	1	†	†		
7	t	PHEIMATHRENE	17 Barth	1	1	1				
	~	PYFENE	J. Parts	1	1	1	i		6	
T	1	CHILLEREDZENE	1	488	250	101	1			<u> </u>
	-7 tr	C-DOULCHOED ZENS	5	1	1	1	1		- <u>;</u> {	
ł		6- JIAITIKTERIJSEIK	11 -	1	1	1	i-			
		m-Deficienticue	11	400	1 713	1		{-	1 1	
	ŝŀ	HEVACHLINCHELIZEI)E	1.72 721	-	250	† †	<u>i</u>	~	1 1	
		, S. A-TRICHLER, SET DZENE			250	††			++	
		4-DINITTUDLUENE	0.11		1 230	1	<u>†</u> -	<u> </u> .	+ +	
1	ξĥ	J.C-DINATE SLIFISE	}			1	†-		++	
		UTTEDEENZENE		19.3 Ne/L	1000	1 - i	<u></u>		1 1	
		L-CHURENAMITHALENE			1,640	<u>├</u>	†-		1 1	
ŢŻ	T	45034	, ;	1.5NH		360 1		- i -	+	
Internal C	t.	4-DIMETHYLAHENCL			2,120	1			/ /	
T		-ekuro-m-cresol	(13.4 1		1	j	<u> </u>	2-1-	
1-		- CHLOROPHENOL	- ;		4,380	1	<u>i</u>		7	
12	15	A-DICHLOROPHENOL	1:	3.cquell	315	1	i		1:	<u>-</u>
	- 1	CALIFICATION		1.01 NE/L	3.2	1			† †	<u> </u>
CilloCottle Links	t	T.S-ERATHACHERD NOUN			3.00	;				
15		4.6 - TRICKLORAPHENOL	1.2		971				┼╍╍┼╌	
1-	1 .	.E-DINETRO-O-CRESCL		13.41	330		<u>i</u>	<u> </u>	+	
1		d humanhlettel	†	70 1	230				+	
╡┋	5	- NTROFHENDL		<u> </u>		<10	<u>-</u>	;	 	
ļ	4	- NTOPHENOL	·		230		<u>}</u>		+	- · ·
1=	1	1		<u>\</u>		······		!	· · · ·	
1	-							<u> </u>		1
+	1	ALL UNITS ARE IN MA	/1 (not	\ Ever	- 1)	<u>-</u>		·		<u> </u>
	·	UAX. VALUES FOR PROTECTION	TF TLLD	C Carlos	I NUCLE	1. Empredi	DPO I	11241 W	9 100+	
+		R EPA HAS DELETED ON	N ME A	UNACIE	1 +KOM	TUCKL	VEGITIE!	<u>r, Nav.ed</u> i	0,1460	i cirr Wa
1	F	LIA TRO DELETED O	J NOVCALE	تحصر بالا	÷-+					
	1									í

1

. ¹

ħ

ŧ.

., 5



	1	PRICEITY (OLLISTAILTE	110.00	17.) Yz	1. m. L.1	3. T	€ ôF				ЧIJХ	4 ON J		TING (5	
	1	OREANICS				r P P P P P	UAN:		8-1	1	Ē	3-3,		R-3	18-6	18-1	- LAUDER	r	í.	
	-		15.00	11 1-1	דמיאבך ו	Y MU		22*1	1221	22	157	155 5 1	546	2.17	1 52*3 ;53	ក្រនា	2 133 1412	ί	\bot	
	F	BENDOKHI MONETHANE	1_+	- 1		411.0	00				}			I			1	1		
	15	(Standarth) Proceeding			1	111.0	4.4				1				1 .		,	T	T	_
	₹Ē.	250MONETHANE	T			Un,	440		;		Ţ	TI			1	Τ	1	1	1	
	1 ÿ	CA" SOLV TETRACHIMRIDE CHLAROFORIA DARADUCHLOFORETHANE	6.	0		35/2	200		γ. —		T	1 1							1	
	ĮŽ	CHLEROFORIA	0.1			28,9	00		1.]	0.01	Π.	٦			7-	1		1	~
	巨	SALEDUCHLOF PALTHANE	<u> </u>	-11		h14.0	80	T			1	1			1		1		1	
	1	DEPENDIFLER INETHINE *	1 -	.11		111.0		Т	,	1	1	1 :			1	1-	1	· · · · ·	1	
	13	WEHYL CHLEUDE (GANNE)	1 -	-11		1/1.0	RS	Th	```	<u> </u>	1	1			1		1		1	
	ž	N'ETHYLEN'S CHILDRIDE	5 -	- 11	-	111,1	10	÷	14.16	5.3	10	2.72			1.04 0.0	210.019	0.017		1	
	Ī	TRICHLEROFLUCKEHOMANE	- 1	. 11	~	11,0		1			;	1			1	1-1	1	,,,	1-	
		CHURDETHENE			-	1 -	- 1	,	1		·		1		1	-1	1		1	
	•	UI-DICHLONDETHAVE	- 1			- 1	- 1					1	-		1	1	. 1			
		1,2-DICHLENDERHALL	0.4			20,0	~		10.016		20	ملثدة	-1	-	1	IL.AP			1	
		1.1-DICHLETCETTYLENE	0.63		-	hus		1				1	1		, T	1-		ويتنا ويستني يتنبع		
	2	1.2-TRUX-DIOUSRADITYLENSE	_	-	-	11.6	_	T	i T				-†		· · ·	1-	;		<u> </u>	
7		HEXACHILINSETHANE	1.9	1	1-1	- 	40	1		1	1	1	\uparrow	`~		+	1			
		1.1.2.4-TETRACILLADEHANE	0.1		1=1	1 2.40	_	÷					1			+	;			
-1	- 21 -	TERACHLERLETHYLENE	0.2		1=1	1 84					T		+			1-			<u> </u>	
		1.1.1-TU: "U: 1.5 THAILE		'n	24++++			·,			<u></u>	·	4			1				
7	5	(,1.1-TUCHURSETHARE	8.6	- i	14	9,40	_	2			0012		1			+				
1		TEIGHERTEHATERE	2.7	-+-	- <u>1</u>	45,00		÷			026		-†			1			7	
÷	+	VINYL CHLERIDE				4					<u>}</u>		+			1			~	
p		ביאזמאזנאנייניועביעביעביעביעביעביעביעביעביעביעביעביעביע		- <u>-</u>		5.70					-i		+	i	** .*	†				_
		1'3 - Dignate bobartare			-11-	244	_	÷					+			<u> </u>	1			
ľ		HERALH'LIO PECTADIENE	c.45	-1-	1	9.3		÷	-+		-1		+	<u> </u>		1	,			-
		HERA HALING TO LEAD TANE INE		1	206	5.2	-	-		:	1		╈	i		1.				
t		PS(2-DELKOETHERY) NET ANE		- <u>i</u> -	11	h	-		-+		1		7-		,	 				
Ť.	₹ T	BI (2-CHLMOENTYL) ETHER	6.03	11		h	+				Ť		+	1			1			
	2±	TE 12 - CHURDISOPROMUSE		Τİ	24.7	1228,00	0	; •	-1		Ť		\top	!						
1		ביב (כאיבישאובייץ באובר ד ו	-0421 ne			1			-+		1		+	i						
		- CHILPACE HYLVINYL EHER			ii	;	╈		-+		Ť		+	——;						
Ē	_	- ביווו עיישאל שייבאל באושט		Ť	<u> </u>		+						+							
		- CHURCHEST MENTLETHEN		+			1-	- <u>-</u> ,	-		Ť		1	•						
Ĩ	10	TALANT HEYEL VONTHALATE		T			1-		-+-	1	38	Ū	\top	0.30						
	2 10	UTYL BEUTYL MITHULATE		<u>11</u>		1	+-				1	<u> </u>						†		
1	- 10	HETHYL PHTHALATE	/	120	1 USA	1-	1	: .			+		1	:			•			
1	* *	INCTHYL MITHALATE			S NO/	1-	+	<u>. </u>			┉┼╸		+	·						
1	<u> </u>	I-N-BUYL MITHULATE	<u> </u>			+	+-			T é	3.10	1.9	+-	i-						
1		A-N-OCITL PHTHALATE		<u></u>			+		-+-	<u> </u>	T	<u> </u>	1-	. ;						-
h			12.74/1			2,500	17				+		1-							
			1.0103				1	_	-+-		+		+							
	<u>er</u>		294/-		- 1	2:10	+						┢╴	<u>_</u>						-
Ŀ	킔	- SIMA THE UNDER (.+/14/1					_	+		\uparrow		+	<u>_</u>						_
a U	計	-NALEDONNENT ANINE	4.9	1			+	<u>.</u>	-{-	<u> </u>	┿		╆╌							<u> </u>
Ş			4.4	┿╍╸				$\dot{\uparrow}$			+-	<u>_i</u>	╂	┉┿	-7		÷,	- التف حف	<u> </u>	ا ت: ا
2		NTTO 2001- WARDAL AMINE	<u> </u>	+		<u> </u>	+		+-		+		–	<u> </u>			<u> </u>			÷
2	날 ^	crolenn	<u> </u>	Ļ	330	<u>al</u>	┨;	- <u>ļ</u>					<u> </u>							
-	≈	CRYLINHRILE (1.058	<u> </u> :		1,557							L				1			•

-

F=-224-44 (0=-17,

		further hottonils	4	WAYI!	<u>'''''</u>	العليم وكرو ا	10 10 10 10 10 10 10 10 10 10 10 10 10 1		÷	A. 1	SAN	<u>thrin</u>	<u>xr</u> !	<u>16 (K</u>	UNE	<u>28</u> 7	<u>utter</u>	<u> 1017</u>	<u>[</u>]4	, 192	<u>12</u>	(114/2	1)		
I		CIGNENO	F	<u></u>	240	אויעט אווע אייניד דיימא	귀추	12.4		<u>A~1</u>	-			<u></u>		╧	-3	╧┼╤┲╹	8-4- 3 19 41	18.2	100	٩ ۲	,	1	1
•			<u>+</u> *	_		THOMY		1		5133					122-6	et 22. P	• <u>127</u> •	$\frac{1}{12}$	1 15 6:1	1.		-		 	<u> </u>
17	ş	EINZENE	4	0.16	_			304	-	4			1.3		<u> </u>	1	<u> </u>		<u> </u>	14	-	<u> </u>	!	<u> </u>	Ļ
19	5	ENTYLETIZEDYE	4	<u>+</u>		14 10/1			_	ιų.		0,077			1		<u> </u>	1	<u> </u>	_	0,6			<u> </u>	
1:	Ŷ		4	<u>_</u>	<u>4</u> _'	H4,3 W0/L			\square	10.	01310	1.51	6	Ц	<u> </u>		0.01	4_	4.463	\$ 0,044	40.04	4	<u> </u>	Ē	
1	٦)	ACENAPHTHENE	<u> </u> .	'	Ľ		117	760		Ĩ.	<u>آ</u>	<u> </u>	Ē	Ē		L	<u> </u>		<u> </u>	Ĺ	Ī.,	L		Ĺ	1
1	ł	ACEINPHTHYLEISE	Ð	<u> </u>	T	<u> </u>	\bot	<u> </u>	\square	Ľ.	4		\Box	\Box	<u> </u>		Ĺ	L	<u> </u>						
٦		AIJTHRACEIJE	Ц.		ľ	<u> </u>	T4	'	Ľ	Ĵ.	_				\Box'	Γ_		n	\Box		Γ	T_			
1.	v) +	EDIZO(L)AITHRACENE	Ţ	PANS	۲.		T1	'	Ľ	l	Ţ		\Box	\Box	\Box'				<u> </u>		1	T	\Box	\square	T
٦٢	21	BODDell)FLMADHEUR		3.296		<u> </u>	<u>TI-</u>	'	4		1		Ē		\Box'				<u>.</u> '		-	L		(Ţ
OLYARDAIATI	ź]	的たの(K)FLのたい用い生	\mathbb{D}		Ľ		Π	'	14	1	Ţ		\square	\Box			[\Box		ſ	T
72	ź)	EUZI(Uhi) FERYLEIJE	IJ	1	\Box		17	_'	\Box	T]				\square				!	\Box		T		,	Τ
17	ī]	27-26 C) PYPEIX	Ţ		Ţ	1	1_	-	C	T	1		\supset	-					-	<u>[</u>]		1		······	- †
12	-19	CHARTENE	Ţ		\Box	1	<u></u>	\Box		T	T				1		;					Ì_			
1		DIELITO (Q. A.) AITHRACENE	Þ		Ţ		Λ <u></u>	$\overline{}$	\Box	t	Τ	-			\Box		1			\square		<u>† </u>			\top
Ť		FLW AJTHOL	t	-	J	42/	3,9	180_	Π	T	T		T	i	\Box		\Box			<u> </u>		<u>i _</u>			1
l			5		\neg	it T	1 ····	<u> </u>	H	+	+				\square	<u> </u>	[i	÷		<u> </u>	1			Ť
1	- +	INSTELLE	ŧ۴	[}#1	+	A-1-	1		(†	+-	+	+	+	1	; ;	<u> </u>	i i	t	11	\rightarrow	,	<u> </u>	<u> </u>		+
1		HAPHTHALEISE	f		+	-++	$\frac{1}{6}$	30	1	+-	+	÷	+	\rightarrow	\rightarrow	$\overline{}$, _ ,	 	+	~ †	<u> </u>	+	-+	<u> </u>	
ł	- -		5		+			-+	1	+	+	;	+		\rightarrow	<u> </u>	;+	1,	$\frac{1}{1}$			+	\rightarrow		
		PYPEDE	₽₽	PAH2-	+	. <u> </u>	1	\rightarrow	1	+	+-		-+		+	~~~~		4	\rightarrow		i	 	+		
 			f		+	488	1 -35	$ \rightarrow $	\uparrow	+	+	LT iog		,			;	$\overline{+}$	-+		<u>ن</u> ـــــ	<u>/</u>	<u> </u>	<u> </u>	+
22	4.	CHINESEENZENE	t		+	740	1-2-	+	\leftarrow	┿	╇	1	- <u>1000</u>	<u>i</u>	-+	, ,	, ;		-+-		ئــــــ	(-}
Ì₹	- T-	C-DOPLORDEDIZEDE	仠		+	<u></u>	<u>i</u> 1	\rightarrow	$\dot{\leftarrow}$	+	+		-+		+			; <u> </u>	<u> </u>		<u> </u>	:	<u> </u>	<u> </u>	
ےد ا		P-DIONERLEDIZENE	₽		+	+-++	 		4	+	+-	<u>;</u>	+		-+	. <u> </u>	$-\frac{1}{4}$		-+		,	1	-+		
1 de la		m-Defisitenzene	÷		+	1001	1 76		<u>_</u> +	+	+-	;	-+	 +	-+			<u> </u>	-+			<u></u>	÷		
ت ا	. FF	HEYACHLARABELIZENJE	<u>+</u> '	.72.70/1	-	<u>/=</u> ₩	1 25		-+'	_	+-	<u></u>	+	<u> </u>	+		<u> </u>	(+	<u> </u>		<u></u>	_+		<u> i </u>
		1,4,4-TRICHLEFIELDIZENE	(`	<u> </u>	-#	$l - l_i$	25		<u></u> '	–	+	<u> </u>	+		-+	+		·				<u> </u>			<u> </u>
		3.4-DINITIUTUDLUENE	 "	0.11	-+	<u> </u>	<u>9</u>	<u>_</u>	+'	_	+-	<u> </u>	+	<u> </u>	-+	<u> </u>		·	-+		;	÷	+		<u>+</u>
11	10	S. E-DHALLSTOLDENE	<u>+</u>		4	<u> </u>	÷	\rightarrow	<u> </u>	1	+	+	+	1	-+		 +		\rightarrow	<u> </u>	;		<u> </u>		<u> </u>
ٚڮؚٞٵ	1	NITOSENZENE	<u> </u>		<u> </u>	19.3 Ne/L			Ļ		\bot	!	-+-	·	-+		<u> </u>		-+		•	<u> </u>			:
₹Ś	13	2-CHURBNAPHTHALENE	Ĺ	Ē	Ľ				1	Ĺ	1	1	4		<u> </u>		<u> </u>		1	·			1		
	_	145031	Ē	=	وت_	3.5 NHL			<u> </u>	11.0	10.94	٩V	16 m	_	14				4				_		1
	- <u>†</u>	LK-DINETTYLAHENOL	Ē	\exists	<u> </u>	- }		ie	'	Ē	Ţ		10	627	<u> </u>	_			<u> </u>						1
		4-dillio-m-CREIDL	Ê.	Ŧ	<u> </u>	13.4 1	· • • • • • •	4		Ē	Γ	<u> </u>	Ţ		1		<u> </u>		\square	_			<u> </u>		-
ا <u>ج</u> ا	2	2- CHISTOPHENOL	<u> </u>	Ŧ	-	- 1	438	60	1		Ĺ	:	l		T	·····		_							T
	2	A-DICHLIRCPHENOL	Ē	7_		3.Mue/L	\$65				Ť_	_	Ţ	1	T				\neg						Ī_
Ę	F	TEACHLEROPHEND'_	<u> </u>	+		.olne/	1.1		É	\square	T		Ť	i	T			1	T	<u> </u>					Γ
1	22	1.7.8-TETRACHESCOREBUD -P. MOKIN	<u>,</u>	1_	1		T		5	\square	T	1	T		T		\Box'	ý	L		1				i
21		1,4,6-TRICHLOREPHENOL		1.2	ł	- 1	976		<u> </u>	1	\vdash	Ť	T	I	T		T	5			T		1		+
_		C, L-DINTRO-O-CRESOL	1		Ť_	12.41			÷t		1	<u>.</u>	+-	i_	T		1	- <u>(</u>					<u> </u>		i
		2,4- DIUTROTHENOL	$^{+}$		+	70	230			(\vdash	T	Ť	1	+	<u> </u>		<u> </u>						•	1
5	2	2- NATROPHENDL	+-		<u> </u>	_ <u></u>		$\uparrow \uparrow$	± 1	1	†	$\frac{1}{1}$	$\frac{1}{1}$	1			1								1
Į į	4	t-NTROPHENOL	<u>, </u>	·	+		230	ᠠ		(<u> </u>	í	+	1	+	1	T	t					_	_		1
	:					I					;	<u></u>	<u></u>		<u> </u>				;		<u></u>	<u> </u>	1		<u></u>
t	ſ					<u></u>		<u> </u>		;	1		<u> </u>			d older som 1		<u> </u>				<u> </u>	1		
- ;	í	ALL UNITS ARE IN MER	4	(p	<u></u>	V EVOEP	- 1.187				1			<u></u>	<u> </u>					<u> </u>					
	$\frac{1}{2}$	NAX. VALUES FOR ITSIECTION	4	<u>بالحد</u> موم	<u>-9-</u> ^1	JENLA .	· Nu	<u>- 40</u> 	- 12		<u>i</u>				· white	- 9	137	N F	-DA II	1	• . @		- OFT	The D	
<u> </u>	<u>, </u>	MAX. VALUES HOLD INICOLA	<u>AJ</u> 	Anc	<u>. †</u>	ATTAL PL	<u>) +n-</u>	<u>/k</u>	F	<u> </u>	<u>ه مل</u> د ا	10.	<u>ندا الد</u>	<u> </u>	19640	<u>NU 1</u>	174	حبه	<u>.in</u> i	<u>)-:-,</u>	<u></u>	. د معاملان	<u>i taxa</u> 1	<u>. ر دنځ</u>	100.
ł	Ĵ	* EPA HAS DELETED ON	<u> </u>	JOUCA	WE:	ER 172	4	<u></u>							+-		·						+-		
	—	<u></u>								<u> </u>		·	<u> </u>		_		· •••••••			—	—				<u> </u>
	4										<u></u>				÷		<u> </u>		<u>-</u> <u></u> - <u></u>		<u> </u>				<u> </u>

TASE 4 (PASE 4/2) SUMMARY OF ORGANIC : ANALYSES OF WITH (SOIL) SAMPLES (I)

F3-8202-04C (DE-17)

	PERMISSIBLE	WAX VALUES FAR /			y the c		μα/L)
NORGANICS	WATTLES .	WORLAWARL LIFE	8-1 (BV)	B-4(EX)	B-5(EPA)	WELL#39	WELL#45
ANTIMONY	(46*)	1,600	<20	<20	< 21	<20	i <ນ
ARSENIC	58 (8,5842)**		10	<10	<10	1 120	<10 :
BERYLIUM	(0,0137)**	5.3	<u> <a< u=""></a<></u>	<2	<u><2</u>	52	<u> < २ '</u>
CADMIUM	10	0,012	<5	<5	(0	10	<5
CHROLUUM	50	0.49	30	<10	10	90	<u> </u>
COPPER	1,000	5.6	40	<81	<20	60	<20
LEAD	50	0.75	120	<40	80	320	<40
NERCURY	$2(6.144^{*})$ (13.4*)	12000.0		<1	<1		<1
NICKEL		<u> </u>	20	- 20	<10	60	<20
SELENIUM	10	35	<10	<20	<20	<20	<10
SILVER	(13*)		< <u>80</u> <10	<20	<10	<2+ <10	<20
MULLIUM		4.0		120			<10
ZINC	5,000	47	<u>210</u>		130	076	60
CYANNE	(30,000 FIED/ 14		N 10	<.10	< 10	< 10	<u>< 10 i</u>
ASPESTO TOTAL MIEUSIS	(30000 HIERAY)	·					·
		(LIONAROUI) 400,1	15,000	450	1,050 1	123,000	510
BARIUM	1,000	1,000(100341000)	15,000	570	60	310 1	70
BORDN	1,000	TTO (REALING)	20	10	< 10	< 100	10 :
CALEUM		150 (0000)	37,600	14.050	10,200	15,500 1	10,600
BALT_	l	200(1002404)	<10	10 1	<10	20 ;	<10 1
IRON	300	1,000	55,000	45,700	41,600	191,000 1	1,560
MASINELIUM			5,200	5,000 1	2,301	4 200	3,600 1
ALANSANESE	. 50	(uensettal) 000 5	450	3,720	480	2,440	14-0
SODIUM			7300	11.900	10,000	11,200	6.600
TIN			<10	<20	< 20	20	<20
NAPEDINA		(0.000 (IKENSATI = 4))	30	<10	<10	170 i	<10
ALKALINITY		1				· · ·	
ANIMONIA		20	1	1		1	i
CHLORIDE	250,000	3		-		1	}
NITRATE	43N 10,000			1			
ettosettosus				<u> </u>		1	
SULFATE	250,000		}				}
DIZZOLYO CXIOCN	≥ 3,000		İ				
TURAL DESKINED SALLINS	500,000			i			i
BOD ·				l	·		· · · ·
COD			1		<u>·</u>		
700			t				<u>_</u>
PH	6.0-8.5	5_9					
אדועהבנאניים			·····			••	· • •
							· - ·
	<u></u>		<u> </u>		i	<u> </u>	
		··					
						<u> </u>	<u> </u>
						ł-	
STEN : UNALLU	NITS IN JLA/L,E	KOFFT LYOTED (1	URF. FORM	LREWSTER . N	W. 41, 1919	<u> </u>	

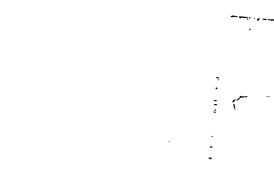
Ċ

······	ABLE 6 S	UMMARY OF 1 TY CRITERIA		1 course of and		arring C	- Store H	·•
· •			+	SAMPLING (S& JUNE 28	THRU LU	12 14, 1982	(H#\K#)
	PERMISSIBLE	NAX . VALUES AN	B-(B-1				3 8-4 8-4	-TR-F-LAT
VORGANICS	WATT WAT LES	WATCH AWARL LIFE	53#5 534	1 52* 2 52*4	5145 155*6	23#6 22*	8 55* 3 55"6	7 55 "LU TAT
KIOMITCHA	(46*)	1.600 /	<2 <2		<2 <2	1<2 4		
ARSEINC	50 (0)0002)**		<1 . <1	121 41	121 21	121 21		
BERYLLUM	(0.4+37)**	5.3/	<12 0.4					1<02, <0
CADINICAD	10	0.012	<1.5 <1.5	the second second second second second second second second second second second second second second second s	the second second second second second second second second second second second second second second second s	the second second second second second second second second second second second second second second second s		<1.5 <0.
CHROLIUN	50	0.24	<1 <1	<1 <1	1<11<2	<1 <		<1.<
CCTYER	1.000	5.6	<2 <2		<1 <2 <2			
LEAD	50	0.75	<4 <4		<	<4 4		
	2(0.144 7)	120000	<0.1 <0.1		<	<0.1 <0.		<0.1 : <0
UEF.OURY			Q2 4	1212		····		
NICKEL	(13.4*)	56	**************************************			the second second second second second second second second second second second second second second second s		
SELENICH	10	3/5	<u><1 <1</u>	<1 <1	<u> <1 :<1</u>	1<1 <1	<u> < '< </u>	<u> < <</u>
SILVER	1	/0.12	<2_<2	all a survey of a second second second second second second second second second second second second second se	<u>· <2 · <2</u>	< <u> <</u> < 2		14
THALLIUM	(13*)]	40	<1 <1	<u> </u>	1<1 1<1	1<1<		1<1 <1
_Z100	5,000		< 11	2 2	<u>a</u>	<u>4 i </u>]	<13	<u> < 4</u>
CYANIDE	FREECH (200*)	/3.5	1 <1	<1 <1	1<1 <1	1<11	1<11<1	1<1.<1
ASSESTO	(30,000 FIZ+2/L)**	N/		1		<u> </u>		J
CLCU2H9_ATUT		$\left \right\rangle /$				T T	1	
ALUMINERA	1	((UCHTECHI) 000 (1	90 : 304	90 1 120	80 / 110	100 1 221	01 25 30	1 20 1 100
BAFICH	1,004	V	10 56	33 42	221: 33	33 34	- <1 <1	<1 1
EGELON	1,000	1750 (12:00-10)	<1 1	<111	< 3	8 2	1 2	151. 3
CALLIUM			90 1,000	27 : 320	260 300	200 46		150 20
CLEALT		(acio (1134-34)	<1 12	······································	3:2	1<1 2		1<1 <
RON	300	1,000	20 70	\$6 800	114 94	276 1.49	· · · · · · · · · · · · · · · · · · ·	130 45
MOLISCHERIN		1,000	50 50	(20 : 160	140 190	141 181		150 3
JE SULE COALS		8.000 (1000000)		<1 244	224 247	90 35		18 11
·····	30 /			1		and the second se		
SODIUM	<u>├────</u> <i>∱</i>	·	<10 90	370 470	330 390 <2 <2	260_ (60		<10 30
אוד	//		<u><à <à</u>	<u> <2 <2</u>				1
VANADIUM	/	10,000 (1200-010-0)	<1 2	21	12	<u> </u>	21	<u> < </u>
ALKALINTY	/		<u>.</u>	1			<u></u>	
ANNONIA		20					<u> </u>	
CHLORUBE	0,20,080	3		<u> </u>				
NUTRATE	43N 10 008			<u></u>	;		;	
011901102019				<u>. </u>	·			;
SULFATE	250,000			:			<u></u>	<u>.</u>
NAGUNO CRIGEN	>/3,000			1			·	
נמוווי בעימיע ידר	500,000			······				
BOD				i			·	•
COD		1						• ••• • • • • • •
Tec 1				1			•	<u>. </u>
PH	6.0-8.5	5-9:						
עדוווהיינייסט						, -,		tone ma
1								
				· · · · · ·			e a anna	
 	1	i		:	:	<u> </u>	······································	
				í	j		بني بد محمد من الم ا	n na sur ann a su
·				1 1			· · · · · · · · · · · · · · · · · · ·	·
	(4 = 10 HA/A						<u> </u>	r I
NOTES : (1) ALLO	NITS IN UE/I F	KOLFT NOTED	URF. REC	ALREAUSTER,	NOV. 21. 1965		. <u>. </u>	·
IN THE PLUS NEW Y		ս հասելու հայտարարություններին էր		OWNIN CALLER	· · · · · · · · · · · · · · · · · · ·			

TABLE 6 SUMMARY OF INOR PANIC ANALYSES -OF UTTING (SOIL) SAMPLES

. .

1.2.1



Ĩ

H.a. I. Ξ

2 <u>2</u>1 - -

SECTION 5

-<u>--</u>

ARIODII6

ECOLOGY AND ENVIRONMENT, INC. TOXICOLOGICAL ASSESSMENT SITE: DELAWARE SAND AND GRAVEL TDD NO.: F3-8202-04C EPA NO.: DE-17 DATE: AUGUST 23, 1982

)

Based on review of Background Information, Site Observations and Laboratory Analytical Data, the following conclusions are indicated:

There is no indication of an imminent or severe adverse toxicological impact to public health or the environment.

There are possible indication(s) of potential adverse toxicological and/ or environmental impact. A more comprehensive Site Investigation and Sampling Program is recommended.

A review of the information presented herein is sufficient to indicate a potential adverse impact on human health and/or the enivironment. A Toxicological Impact Assessment is included, as follows:

Analyses of on-site monitoring well and split-spoon cutting samples indicates substantial contamination of the underlying groundwater and soil (see Sample Data Summary). The known carcinogenic compound benzene (up to 180 ug/1), and the suspect carcinogens trichloroethylene (up to 27 ug/1), and dichloroethylene (up to 1,500 ug/1) were detected in the monitoring well samples. In addition to other compounds of toxicological concern, lead (up to 320 ug/1), mercury (up to 1 ug/1), and the potentially carcinogenic metals cadmium (up to 10 ug/1) and arsenic (up to 120 ug/1) were identified in the aqueous samples taken from monitoring wells. The affected Columbia and Upper Potomac Formations are the major source aquifers for potable supply. Presently, no wells near the site are used as drinking water sources. For details of groundwater condition refer to the text and hydrogeological reports F3-8108-11B and F3-8108-16B. Consumption of the contaminated groundwater represents a significant risk to human health.

med Kenneth G. Symmer, Ph.D., Toxicologist

Kenneth G. Symme, Fridi, Ioxicologist

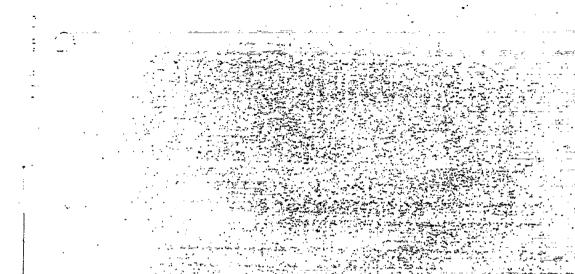
2 4

SECTION 6

1

)



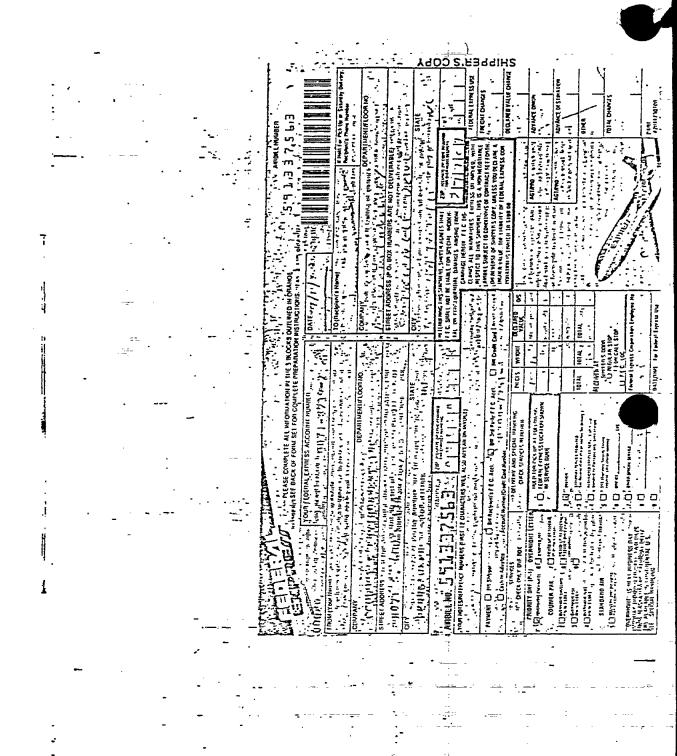


ATTACHMENT 1



.

, .



SHIPPER'S COPY	
	[]]
	1014 DIANCIA 1014
	프로 위 옷이 들려는
	F
	The state of the second
	10 miles
сонти не на или за пака сонти не нацили за пака за торити не на пака и по пака пака пака пака пака пака пака пака	A fight of the first of the second se
The second set of the second second set of the second second set of the second set of the second set of the second set of the second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second set of the second second second second second set of the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
MARE CONTELE ALL IN TABLE CONTELE ALL IN THE BACK OF HOW AFT IN ALL	
Minist Council Billing Enroy (1) Minist	
	[月十]] 引
	The second
	MISS ON THE STATE
	L 1
	Mart - 11 11 11 11 11 11 11 11 11 11 11 11 1

SHIPP 83 ļş IST ST MUT THE IST NO. H Intel For For Up to Scinital Deliver Performing Runner Martin Contraction Nicl' Well Port 4 7 3) .--ADVANCE DE STMI I'M ICHT CHANCE N CLAND VALVE ADVACT GYCP THENTROOM NO. 1111111 : 5 Pari And N.M.OFF ***** U (/////...(ss von en el ang a Am l'arress con-ANE NOT DELIVERABLEN This Of Manual 3 with a state of the the same 1 4 1 2 4 4 1 4 1 4 1 4 UNLESS FOIL からつい VCIA ACTING STIMAL where a surface of the day STREET ADDRESS (P.O. INDX. INUMBERS N IN ו וייועעייי ম ন 1 (i \ 2) (**A**) June 18.19.19 an e a lata Ì 10 54.45 CALLS NOT r, 1 11.1 5 15 0000 and the second second second second second second second second second second second second second second secon and and the provided marked and the second structure of the state of the second structure of the state of the second structure of t MICHI TOLA in the NESS YOUN FELL RAL LAPHESS ACCOUNT MUMBER ... IN AP المانية المراجعة من المراجعة المراجعة المراجعة (1944). المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة ا . DEPARTANTINE NUCLOONING 1111111111 **JIA** 1 יר אמווות אי אי או וונואאי. רב היו אווות אי אי וונואאיי. ייין אי גואארן נעאל נעאר 21.102 PLANK PAG F.J. CIRCLE STORED & DELEVOID Mark I have and and strong lings and south a transmission (C), t INTER A MARKEN AND VIEW IN 1 Jd _mine 1, " Approach Crading Card Human 10 · 2 ANITALA N MINA Ģ والأراد والمراجعة والمراجعة THE REPORT OF A DAY AND AND A DAY VERNING LEVEN 5 A RULL NO. LEI L'EN COUNTY PAR IN USUAL CONTRACT wind a required in Plan 1.1 Tank'n M the A stable 11 1 1 1 I'VE THE THE PARTY **UNITAL AND** 1.0 Civita ļ in the second second THE HOLE SAGE (IN WOL TIANGANG AIR ST. HILLWINGAN 00 B U'· YUANUT

· · · · · ·		
	$\frac{1}{100} (110) $	

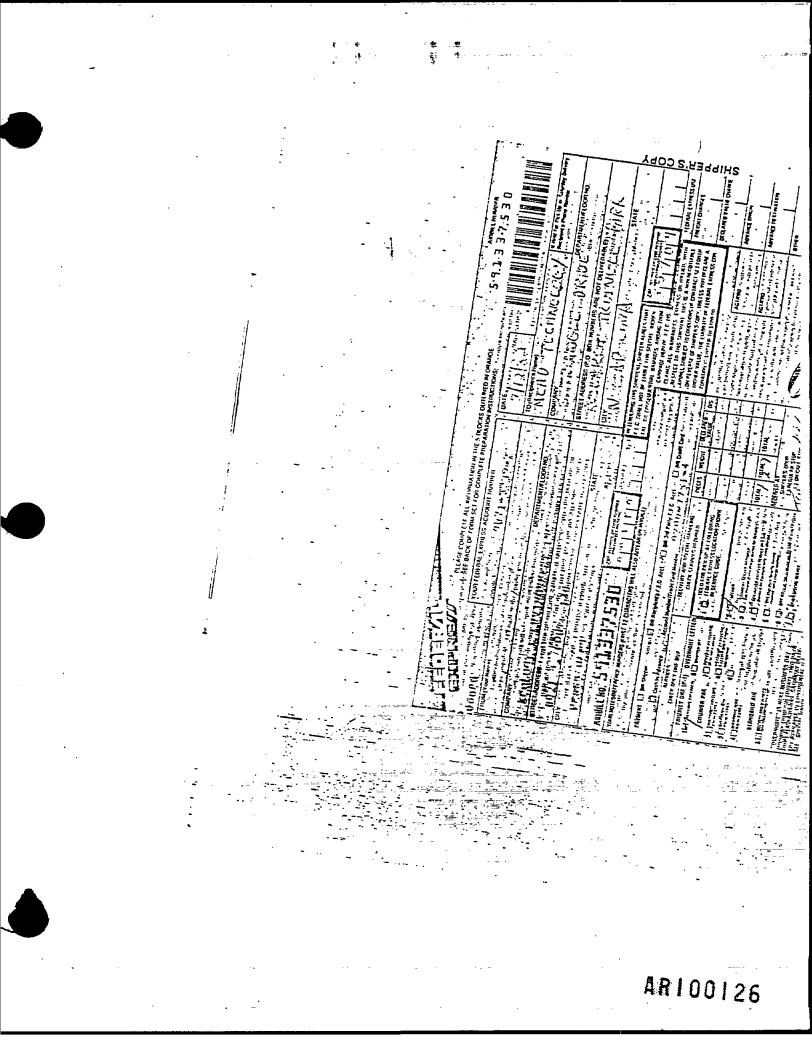
by	COP	
	《"是是是一种是有的是,你们还没有这个人们是不可以是不是不是一种,我们是没有了?"	-
1.1.1.		
	A Link of Link	
COMPLETE ALL PROPUNATION MINI UK RESOLUTE MERCINALIZATION MINI UK RESOLUTE MERCINALIZATION MINI ALL ALL ALL ALL ALL ALL ALL ALL ALL ALL		
L'AN		•

•		
		UNA COMPANY OF COMPANY
		Faill Za Eff
	Let up for the second state of the second stat	
	а станата с станата с станата с станата с с станата с с станата с с станата с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с станата с с с с с с с с с с с с с с с с с с	
	which is not we have a second of the second secon	
	7. J. V. J. V. V. V. V. V. V. V. V. V. V. V. V. V.	
1013		
Int 24 - 14 - 14	Ammillion/All/, 4 (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	I Lavardan and a standard a stand

: (

AR100125

÷



The second state of the se	$ \begin{bmatrix} 1 \\ 1 \end{bmatrix}_{i=1}^{i-1} = 1 \\ 1 \end{bmatrix} \begin{bmatrix}$	Active Section 1 and 1 a	

•

.

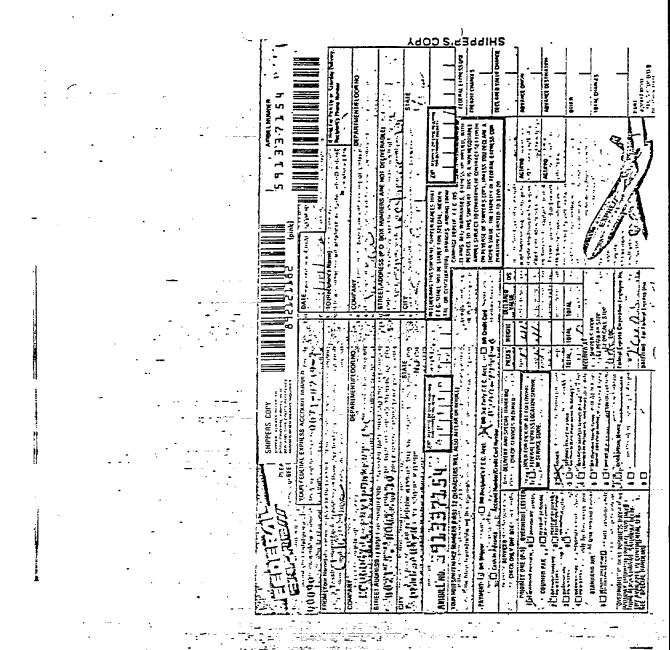
•

)

- -

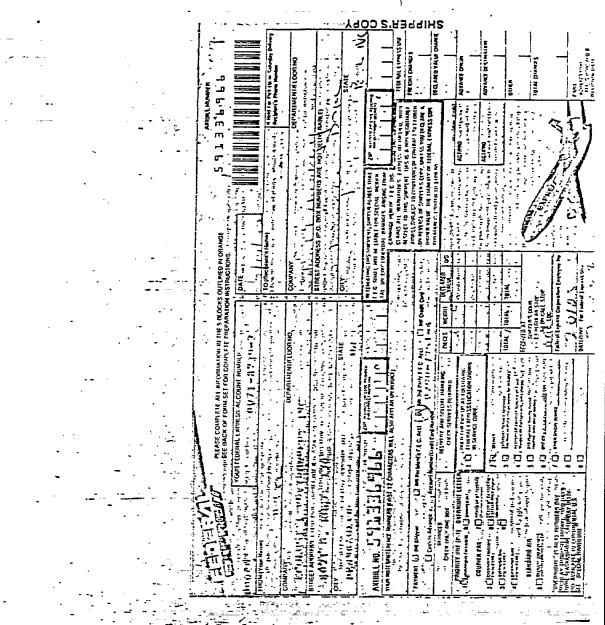
AR100127

t



F <u>1900</u> Ş qqihz FURIAL LITTE 53 WEG Precision (Decardor) A MARINE AN UP & SUPER NYN DIVN COLUMN CALLAND OLY COMMUNICOM DICLAND YA -÷ David Herei SIAIE 5,9 1,7 E'E I P.2. APPRLMULT ULV M MOD STANDA I WANTER AND A PLICE ADMESS P.O. BOUMMARS AN AND DELIVERANES 1.2 -To find which have been as which as the second state of the second KIM ACLIPTE 1.00 14.000 (11.00 (11.00)) my in the work in any S 101.44 11-2-11-11-L'S 2 al min. المدد من المرابع IN THE REPORT OF MUCH 12174 the number of the second second second second second second second second second second second second second s INTR. 1914 •• TOMES CIENTER TO THE STANDARD SINTE STATE MCC5 m m ----22 in the second 11140 ł עטרע ננחו שיו רצנערני אירואאו אוזאאע -1 1111 . and the self straight states a second straight of al -1 --- at a HANGE ME t t t t t t t t in the second by the state of the state of the state of the second Volumers for a dill' line is and i de 2 Ld " there was a set of the ARTICLE CELEMENTS The second second second second second second second second second second second second second second second se The state of the s , C , mun Amend no. 5 91 3 3 7 0 6 2 10 CTERS WUL ā <u>_</u> <u>II</u> Li CI. 14 [L] Cana li Alvere II. Action Inc. TEET ALMANA ANA ANA MANA MANAANA . . William West Washington . FRIDALY DIE (P-1) . D'ERMUNIT LETI 1.14 ····· the second standard and the second and the second s CULLA BULY BAS Not BIRGHAMD AND 12 Percent COMMENTAR (1017) . PAVIENT [] IN DVAM 11222212 2016 1 i i france 0.0411 ~ 1221 ż

l



-ddih2 i. MASS HUY (WH) () REPH CHANGES NTARMON 2 5 9 1. 3 3 7 0 5 1 ī ENTRES CON ne lested of the 7 The second A the state of the bet from 1 ATANKA PIETA ANY TA and the second second second IN XOB O'J) Photo 1 4 1 4 1 4 WED IN ORANGE Den un los STILLET AD COMPANY Contraction of INCIS WEICHE MAG M () ş --And the second state of th . 111 : ink. E S to the second se The second second YOUNTEDERAL EXTRESS ACCOMMENDATING 1841G Ť Ę, 1.0 1.1 Lablearthin DEPAIRINEMENTICOON) [J] Retherburks F.E.G. Arch. - right but 3-4 Party E.F.G. Arc 31VE 0.01.01.7 14 į CIAL RAWN MAD C AT LOLE INVER-I LEN RATION FOR LANDER HAND OF CAN PART 1.1.41 CHECK STIMS 111111-05 AUNCIERS WILL ALS 1.[], jimm 1 🖸 'm thirt AND THE THE THE MANNER a na tangan na tangan na tanggalan na ; (instruction) in Course 114.0 21.41 × 10.45 When in writh 1 ÷ A TUNER AND 1.1.1.1 PARES IN FER 11011 In received a N DEAMORPHENT AND 19 TH Ł I'JI 3HU A [] const COUNTR FAN Tribus .

111 111 PAVACHT-[]] AN RH VOAS300M Lethou 000 G I ĥ

5

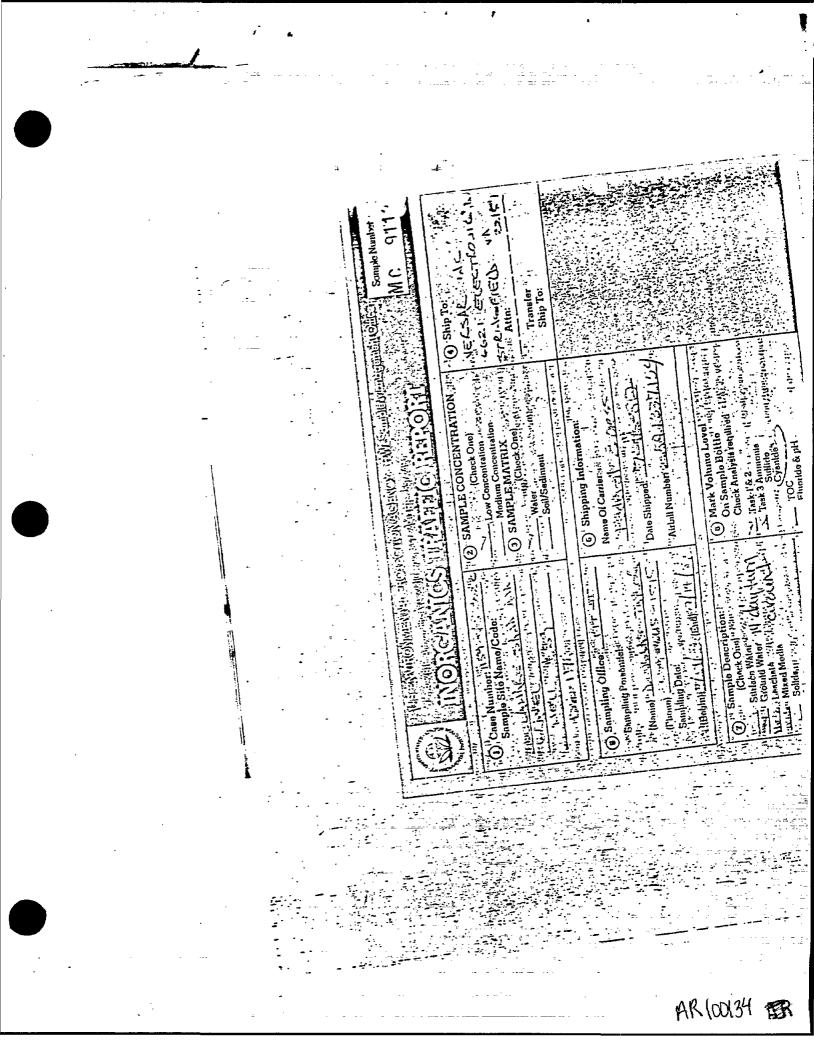
PROJ. NO. PHOJECT NAME Det 17 DELANJAN.			E021 Rt. 130
ERSI ISTEMUNI	CIANN		Penusankin, NJ 08110
ERSI (Signature)	when when when we		
			PEMARKS I
STALNO. DATE TIME COMP.	STATION LOCATION	2	A minimum of the second s
Merul 7/14 14.54 14. 14	14646 4 6-5-		
meni3 7/14 9.15 × W	WELL 4. 44		
me guid ://if N: ap	LUCIL 4 5.		
11 30 28:5 11/6 LILDOW	=		16.23 15 010.05
75 21:01 VI/L	-2		
12 X - 1/14 - X - 1/14	Sharre Erlyn		
9	14. 		
	1		
	1		
Relinquished by: (Sightwine)	Data / Time Noceived by: (Signature)	Relinquished by: (Signature)	Date / Time Received by: /Symeture/
1:15.	Date / Tuno necived by: Signatura	Relincushed by: (Signature)	Date / Time Received by: (Signature)
Relinquished by: /s.	Jate / Time Received for Laboratory by:	y by: Date /Time Remarks	the product of the second second second second second second second second second second second second second s

7

AR100132

) A DESCRIPTION OF THE PARTY OF T 1 | [, S my & Number Ŵ Attn: j ... 1ú-?⊨9 Transler Ship To: Ship To: Contraint for the second second second second second second second second second second second second second se SAMPLE CONCENTRATION OS TUNNY CHARO Auhult Number: 111-221. Andlium Concentration
 Andlium Concentration
 SAMPLE MATRIX E. S. M. Section Date Shipped: 119 (1. . (Check One) (Check One) G Shipping Information: Check Analysis required () Mark Volumn Lovel --- Soil/Sediment **On Sample Bottlu** — Task 1 & 2 — Task 3 Ammenta — Task 3 Ammenta Phone & pill Nauno Of Carrier: -C VACILIAN Cyanule Water University and a strain and a strain and a strain and a strain a s APPE AND A ۰. () Care Numbor: 112 1, 214 2.00 1 Ē Bampling Office: V.r. ... Press, Pr (Phone) (· · · · · · · · · MAN ANNA TUMPIN ANNA MAN : NALTHARD STANDARD STANDARD STANDARD e'(Berlin) . Sample Sile Name/Code: է։ Շարվաց Թուշնացի Հետել Կ Simber Caten 1.1.1. net of the off send : [Ajuarda] Sample Description: - ---: <u></u> [Cline) Orial Mixed Meelin (Nhm ----Samplug Date: age date. Statuta 1 ⊕ 1

AR100133

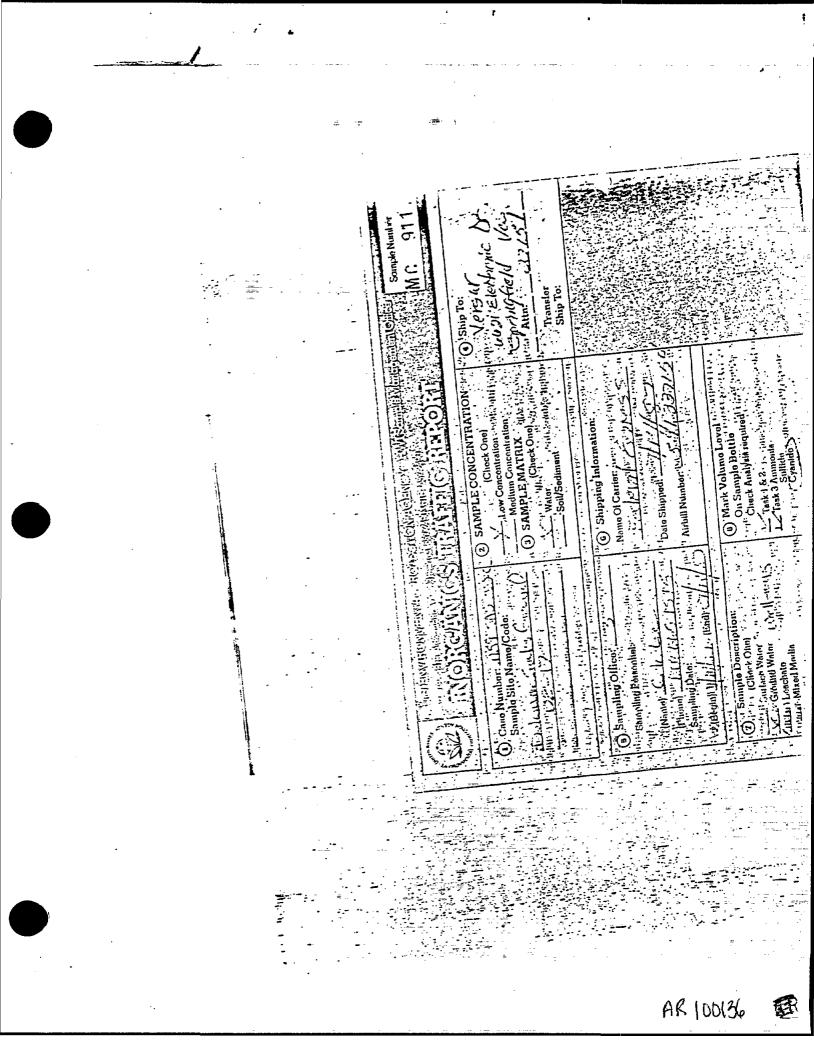


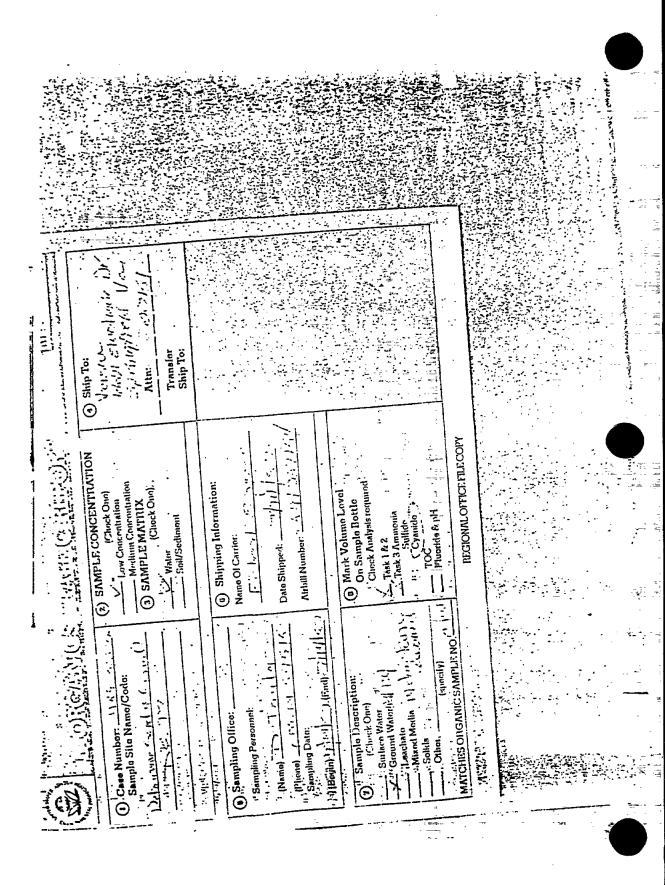
.

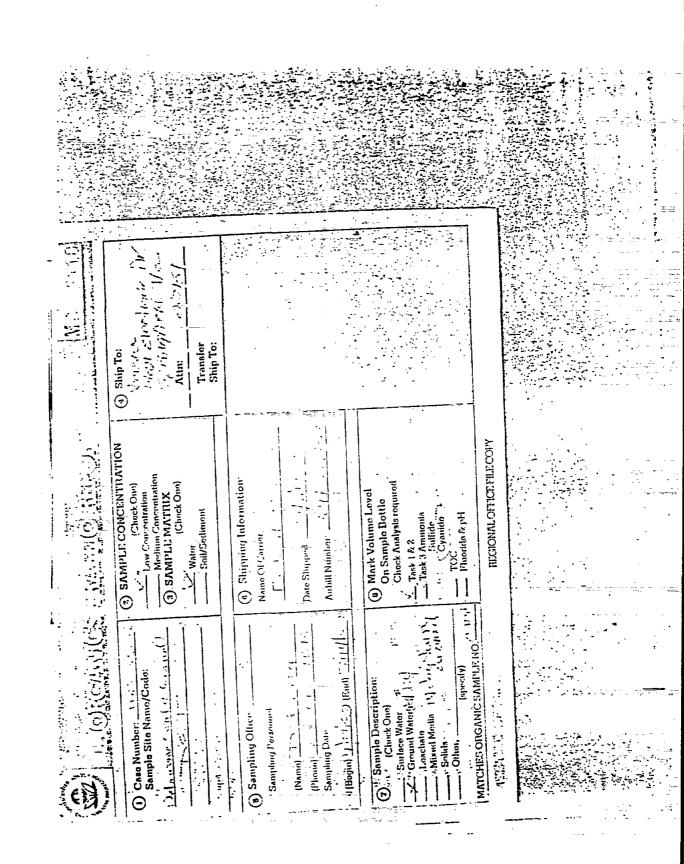
•\$

1

AR100135







t

ary is used of the second	Ship To: Vry Dar Vry			
MAN (S. 1974, VIII) (S. 1984, C. 1984) (S. 1984)	0: (.) SAMPLE CONCENTRATION 0: (Chinck Outo) 0: Low Concentration 1: (.) 3: SAMPLE MATRIX 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 1: (.) 2: Water 5: Solt/Sediment	(a) Shipping Information: Namo OI Carrier: Namo OI Carrier:	(a) Mark Volumo Lovel (1) On Sample Bottlo Check Analysis uquired Task 1 & 2 Sufficion Sufficion (1) Fluorido & pt 1	
MUS)ICON	Carto Number LIT	(1) Sampling Offices: Sampling Perionnel: (Nauro) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		

4

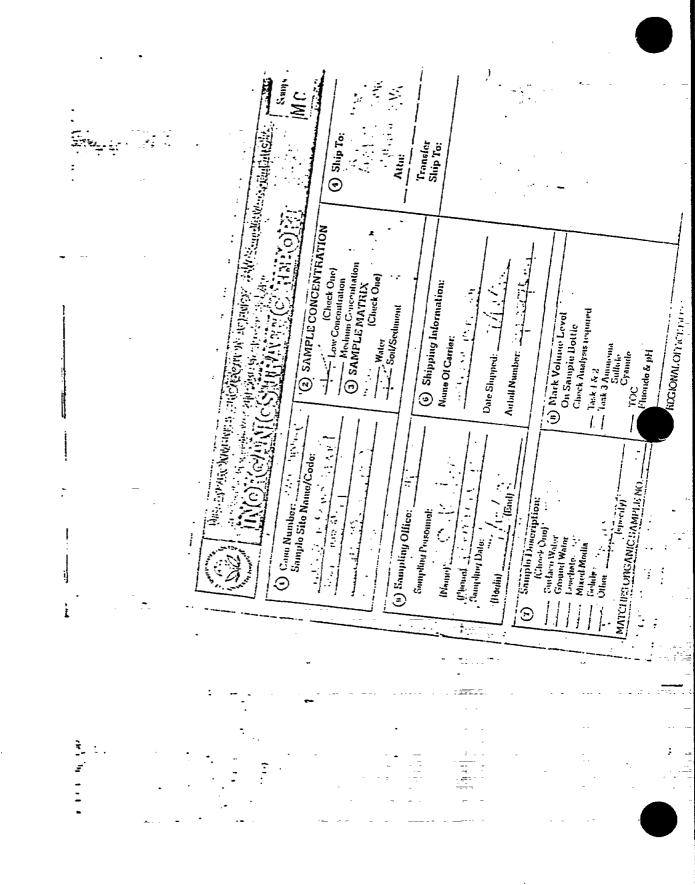
.

AR100139

4

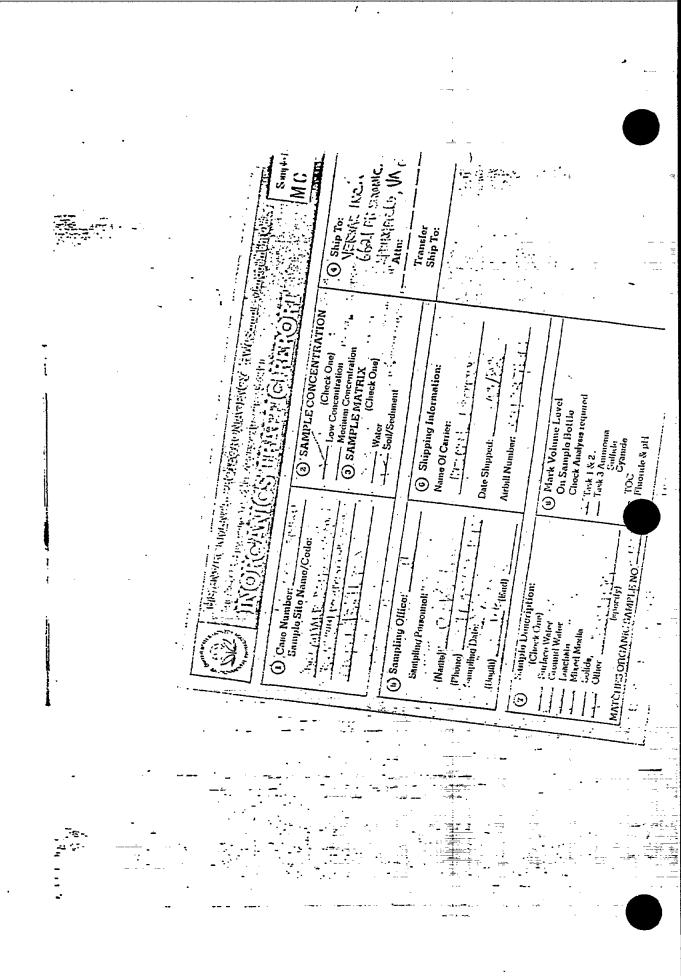
	nuar of Entargement	neunen			CHAII	CHAIN OF CU	JDY RECORD		80 Banne	8021 Rt. 130
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2 1			[.·		<u></u>		$\left \right\rangle$		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	MPLERS: (Signature)		20			5		\geq		PEMAR PEMAR
$ \left[\left[\left[\left[\left[\left[\left[\left[\left[\left[\left[\left[\left[$	DATE	 	8485	STATIC	JN LOCATION	TAINERS				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	- / /				W-3, [[1117], 11], 11	- 1			-	AMER W. Collected al
The interval of the interval		·		= = - ; - ;			-	· ·	•]	11 . 1 C 1612
1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $(f = V_{1})$ 1 If $(f = V_{1})$ $($		1 4	$\overline{\mathbf{x}}$	=	1111111111111			. -	1	1 - 1913 - 1
Image: state of the state o					C1102-01-03			<u> </u>		
Image: state of the state o	•								1	
Image: Constraint of the second se				-				<u> </u>		
Image: Constraint of the second se								 .	2	
Image: Signature of the second sec								<u>.</u> 	• •	
Date / Time Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Date / Time Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Date / Time Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Date / Time Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Date / Time Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Date / Fune Breeverd by: <i>Eignature1</i> Breinquished by: <i>Eignature1</i> Date / Time Inate / Fune Breeverd for Laboratory by: Date / Tume Bate / Tume	· 		_					 .	•	
Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Received by: (Signature) Date / Time 1(1) / 2(1) Received by: (Signature) Date / Time Date / Time Received by: (Signature) Date / Time 1(1) / 2(1) Received by: (Signature) Date / Time 1(1) / 2(1) Received by: (Signature) Date / Time 1(1) / 2(1) Received by: (Signature) Date / Time 1(1) / 2(1) Received by: (Signature) Relinquished by: (Signature) 1(1) / 2(1) Received by: (Signature) Relinquished by: (Signature)										
Date / Time Received by: <i>Signature1</i> Refinituation by: <i>Signature1</i> Date / Time Date / Time Received by: <i>Signature1</i> Refinquished by: <i>(Signature1</i> Date / Time Date / Date / Date / Time Received by: <i>(Signature1</i> Date / Time Date / Date / Date / Date / Time Date / Time			_							
Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Date / Time Received by: (Signature) Relinquished by: (Signature) Date / Time Date / Date / Date / Date / Date / Time Relinquished by: (Signature) Date / Time Date / D	•									
Date / Time Received by: (Signature) Redunquished by: (Signature) Date / Time 1/1 / 2:1 Necrived by: (Signature) Relinquished by: (Signature) Date / Time 0ale / Date / Date / Date / Time Received by: (Signature) Date / Time 1/1 / 2:1 Necrived by: (Signature) Relinquished by: (Signature) Date / Time 1/1 / 2:1 Necrived by: (Signature) Relinquished by: (Signature) Date / Time 1 / 1 / 2:1 Necrived by: (Signature) Relinquished by: (Signature) Date / Time									•	
Date / Time Biccieved by: <i>Signature1</i> Biclinquisted by: <i>(Signature1</i> Date / Time [1] [1] [2] Date / Time Date / Time Date / Time Received by: <i>(Signature1</i>) Bate / Time Date / Time [1] [2] [3] Date / Time Date / Time [1] [4] [4] [4] Date / Time [1] [4] [4] [4] [4] [1] [4] [4] [4] [1] [4] [4] [4]]	'							•
ured Date / Turne Received by: <i>Esquature</i>) Relinquished by: <i>Esquature</i> / Date / Time	nerges) : Yn bannun	ы С		ate / Time	Received By: Kignatur	10	Relinquistied by: (Sig	inture]	Date / Time	Received by: (Signature)
1101 Inte / fune / fune / fune / fune / fune / fune		[2]	õ		Received Ivy: (Signature	[.	Relinquished by: 18ig	iature)	Date / Time	Received by: /signature/
		1.			Received for Laborate	Jry by:	Date /Time	Remar	ks	

t



No. Contraction hUo Sough Number LAUTOSPANAC TIM WEIT AN EDU ļ N. ULTON THE Transler Ship To: AN' N ANESCURATE ACTIVE AND AND (i) Ship To: 1 Atta: . 2 ·(2) SAMPLE CONCENTRATION (C) 111111 (C) 1111 (C) 1 - Medium Concentration --- Low Concentration ÷ (6) Shipping Information: The second second second second second second second second second second second second second second second s (Check One) **D SAMPLE MATRIX** Chrick Analysis roquired Aubil Number: (h) Niak Voluma Lovel On Sample Bottle Soil/Sediment — Таск 1 & 2 — Таск 3 Линичта Name OI Camer: Fluondo & pH Cyanide Sullab Date Shipped: 🗕 A the damage with the state of DO!. . Cana Number: And A Street "TIN TITLE (month) MATCHERORGARIE SIMPLE NO Sample Site Name/Code: J (Efid) (A)Dudal · Is White for the or and the state of the Ξ Sample Douription _ ÷ (b) Sampling Office: Elentring Dates 3 . ¹ Somplifig Paisonnel: (Clurk Oua) (Rugin) infacto Waton Girennel Water fidigned Meeting Solider, . . anges Villan, and . (Nature) 1 . · hush- \mathfrak{S}

H



Scalate No. Scalaterico, Inde Staterico Va. 294. 000 նշուց եր Number U W Trancler Ship To: Ship To: • Attn: 2 (2) SAMPLE CONCENTRATION -Aubill Number: Still Strict Live W.C.S. P.C.M. (C. 144.C.) mental resources tract that 1.0% Concontration 1 [Check Ouo] (6) Shipping Information: . . . (Check One) Check Analysis required (b) Mark Volume Level And the state of t **On Sample Dottle** Soil/Sediment Name Of Carrier: 1 Task 3 Ammonia . Cyanidu Fluorich & pH 1 Suthate 1V.s.1 Dute Shipped: __ - Waler <u>. . .</u> Task 1 & 2 201. ;; ;; MATCHISTORANICSAMPLENO With Month With the T. 10 11 1. ן ביר: ין 1 h W - 1 and the second Sample Site Name/Code: Sampling Presentals 145, 247 (0) (Fincily) • 11, 11, (Lind) Citika Numbor: 111 Sample Dunciption: (b) Sampliny Office: 3 Samplung Date: (Juws Ono) • ···· (Rewin) undar'n Water meand Water **Խնչում Media** . ulul m (Phone) ___ (Nauto) will willing in the for _ S

AR100144

-5

		they with the second se	Ship To: Ship To: Ship To: Ship To: Ath: Ship To:		· · -	
		MERPER TROPE TO VERENTRON AND SEMISTIC MERINAL AND SEMISTIC AND AND AND AND AND AND AND AND AND AND	Y Y Y Y Y. Y. SAMPLE CONCENTRATION Colos: Y Clurck One) Concentration Clurck One) Medium Concentration Medium Concentration Mater Mater Mater Soil/Sodiment	III. (6) Shipping Information: Name Of Carrier: Name Of Carrier: I.L. 1 Name Of Carrier: I.L. 1 Date Shipped: I.L. 1 Date Shipped: I.A. Aubill Number:	I (a) Mark Volume Lovol On Samplo Bottio Check Analysis required Tark 1 & 2 Tisk 3 Annuma 1	Difference and the second
- -	- - -	MALERAN (C) (U) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C		(b) Sampling Paraonnel: Sampling Paraonnel: (Numo) (Numo) (Numo) (Numo) (Numo) (Numo)	(v) Jamplu Denertiption: (v) Jamplu Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption: (c)how Denertiption:	
	·					

•

t

AR100145

-

PROJ. NO. PLICHER NAME P. S. 2012-04-15 [1,111-11-01, 1,14,1 SAMPLERS: ISIGnatural SAMPLERS: ISIGnatural C. K., L. C.C. STALNO. DATE TIME B		CHAIN OF CUST Y RECORD	Print and a subset of the total of the subset of the subse
TIME			
DATE TIME		0F	REMARKS
_	NCITION LOCATION	TAINERS	
CIERA 1/14/12 12 a. X 10	1. 1. 1. In many cash - Hull		<u> بالتاريخية المتاريخية المتاريخية التاريخية التاريخية التاريخية التاريخية التاريخية التاريخية التاريخية التاريخ</u>
	all and a sumplify for the second second second second second second second second second second second second s		
<u> </u> ;i 0	"Inter contraction of the second second		
<u>×</u> – ni-ir			
-	,		
			· · · · · · · · · · · · · · · · · · ·
Relinquished by! (Sign	Date / Thua . : / \.] , 1 ' \. (1)	Relativityted by: (Signature)	Date / Time Received by: (Sumanic)
	Date / Thue Received by! (Signature)	Relimiturhed by: / Sumawel	Date / Time Received by: (Seputational
Relinquished by: 1519	Data / Time Twenved for Laboratory by: [Swandura]	yy: Dati /Time Remarks	

r

È,

AR100146

·. •

C less Number:	كالمعر ومدنية وتعدن وسرا	CONCENTRATI	ON (3 Shi	p To:		
Sample Site Name/Code:		Concentration um Concentrati	on :	با کتاب ایت و ک			• . •
	3 SAMPLE N (Check (One)		Attn: ni ri Transl			н. д
	Water Soil/S	Sediment	<u> </u>	Ship 1			
(5) Regional Office:	6 For each sam of containers on cach bottle	used and mark v	ecity num clume lev	iber el			
Same)		Number of Containers	Approxia Total Vc!	naie ume		• •	
(Phone) Sampling Date:	Water (Extractable)				• <u>-</u>	•	
	Water (VOA)	·		;	÷		
() Shipping Information	Soil/Sediment		8-0.7				
F. (1) F. (1) F. (1) F. (2) F.	Water (Ent/VOA)						
	Other		-		-		
Date Shipped:					÷		
				.	, , 3-, cam	_	
Sample Description		- 7 - 2	© Sampl	e Lota 1 D	tion		•
Ground Water	Solids				*		
	_ Other specify.			<u>v 13</u>	<u>د ۲۵٪</u>	1	•
Seciel Handling Instruct	tions: ousmature)	بالمحمد المحمد 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	- 	-1159			

r

AR100147

'.

(f. lene Mumber:		CONCENTRATI	ON	() Sh	ip To:	<u> </u>
		Check One)			5 - T2 2 - 1 - 1 - 1 - 1 - 7 - 7	
Sample Site Name/Code:	Low	Concentration	- - n -		्रस्टाह इन्हे. दूबन् पुर्द्धन्द हो	• •
			*	Attn:	String String 1	
	3 SAMPLEI	VATRIX	•			
	Check	೦ಗಾಕಿ?		Trens		
	Water Scil/S	r Sediment		Ship	To:	
C Regional Office:	• For each sam	ple collected sp	ecify nu	mber		
Sampling Personnel:	of contair.ers	used and mark v e.	volume le	evel		
		•			••	
;: tane)		Number of Containers	Approx Total V	imațe olume		
(Phone) Sirr pling Data:	Water (Extractable)					-
	Water	, ,				
End)	(7CA)	 			•••	
⑦ IP If ping Information	Spil/Sediment		<u> </u>	-		
	Water (Ext/VCA)					
Nume of Carrier	Ciher	•				- .
<u> </u>		<u> </u>	· · · ·			
Dere Shipped:	• •				• • • • •	
- :		· · ·	,			
		1.			•	-
① Strate Description	· · · · · · · · · · · · · · · · · · ·		3 Sam;	le Losi	ະວັວກ	
Endace Water	_ l'ized l'iedia	al <u>al estados do ser esta</u> Al <u>estados do ser esta</u>				-
_ Ground Water	_ Solids		•••			
Leschate	(画人を作用する。	_
	_ ((11.5 25 25)_				,	
🕘 - pastal Mandling Instruc	tions: ··	<u>1</u>	·		······	
ie.g., stieny precautions, hazard	ousnature) S 🗉		چين و <u>ين</u> او	- 5	7	

;

r

AR100148

쪽

Sengle Viewber -C <u>1513</u> 1(45) 443 4:45 4 ⓒ 귀귀부분이 남태 ase Number El Solo -(2) SAL-PLE CONCENTRATION 🕣 Ship To: (Check One) Low Concentration _ Medium Concentration Sumple Site Name/Code: 2 6.6 6 6 2 Attn: 3 SÄMPLE MATRIX ברב הבכים ביורים (Check One) Transfer _, Water _ Scil/Sediment Ship To: . . . A (Fogienal Office: ____ (5) For each sample collected specify number of containers used and mark volume level Sampling Personnal: on each bottle.--1.000 ()(I.T.B) Number of Appendicture Containers Total Volume Containers (Phone) Water Sample y Date; (Extractable) Wzter (End) $(\nabla C A)$ Er .al 17...1. - Vigning Information . ÷ Soil/Seilment Water 77 (Ext, VOA) Name of Carrier Cther . Date Shipped: i dell'attan 1 / 274 - 1 / 274 E . Anno 62 🗓 Sampla Description 🕃 Sample Location 는 한 *63¹¹42* _ Surface Water Mixed Metia Solids . Ground Water and in the . . 1 Other (sparify). 2 Laachaie . . • parial Handling Instructions: **₩1157** 5 e 2 Special (interstations bazerdous nature) _ 525-..... iy Tin Grend م کی در ایک س 4. مى مەرىپىرى ئىرىمىدىن مەرىمىمى مەرىمى REGIONAL OFFICE FILE COPY

1

(0);(e1:1/1(दे भारतः भारति हि सिमर छ सि	<u>C 1615</u>
1 Isse Number:	SAMPLE CONCENTRATION (Check One)	() Ship To:
Sample Site Name/Code:	Low Concentration Medium Concentration	1997年4月1日日 1月1日日日
		- Attn:
······································	SAMPLE MATRIX (Chec) One). Water.	dium mine a createraterater a Transfer
······	Water. Scil/Sectiment	Ship To:
E Regional Office:	For each sample collected specify nu of containers used and mark volume la	mber svel
	on cach bottle.	-
::::::::::::::::::::::::::::::::::::::	Number of Approx Containers Total Ve	timate olume
(Phone) ¹ S <u>umpling</u> Date:	Water (Extractable)	
	Water (VOA)	
C 2 in france in the second	Sou/Sediment	
	Water . (Ezi/VCA)	
Carrier	Other	
Date Shipped:		
		i
3) Surpha Description		ple Location
Surface Water Ground Water	_ Mixed Media _ Solids	
Leachate	Other (specify)	575
Cal Handling Instructions, name		=== (157
	REGIONAL OFFICE FILE COPY	

,

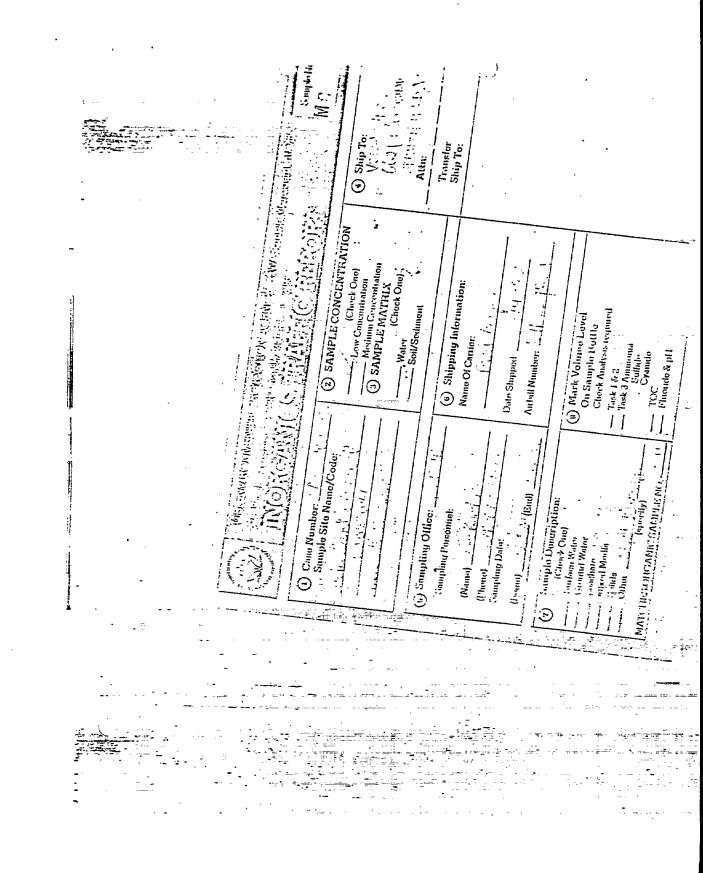
ar articular Master Source Name	Ship Toi N. Y. A.I. N. M.I. Altin Transfer Ship To:	
The rest of restances with the second sum included of the second se	 (a) SAMIPLE CONCENTINATION (b) SAMIPLE CONCENTINATION (c) SAMPLE MATHAN (c) SAMPLE MATHAN (c) SAMPLE MATHAN (Check Oue) (Check Oue) (c) Sample Concentiation (c) Sample Bottle 	
Control of the second s	() (Lago Number / Lago Samo/Codo: () (Lago Number / Lago Samo/Codo: () (Lago Vumber / Lago Samo/Vumber / Lago Samo/Codo: () (Lago Vumber / Lago Samo/Vumber / Lago Samo/Vumber / Lago Samo/Vumber / Lago Samo/Vumber / Codo: () (Class Codo Samo/Vumber / Lago Samo/Vumbe	

•

.

AR100153

5 P(11) دی<u>ر ار</u> Somple Number :/ C M M Vinser An • 2. . مسلالاته ا . 0.4 , which which is the state of the tent of the state δ_{0} and δ_{1} . A state is the state of the state β_{1} Transfer Ship To: (1) Ship To: Attai 1 (2) SAMPLE CONCENTRATION Aubili Number: 1112 (Chrck One) (Check Ona) (6) Shupping Information; SAMPLE MATRIX Check Analysis tequined (2 + 1)(1) Mark Volume Level On Sample Bottle and a survey and — 'task 1 & 2 — Task 3 Ammeria - 10C Cyanule Name Of Carners Data Chipped: Sullida ÷); ; ; MATCH IF A CAR MART TADA A NO. (End) Cous Number Sample Sample Site Name/Code: 1.1.1.1 . . Sampling Powermorh (hpredia) 1 (6) Sampling Offices: 1 : (1) Hample Description (S) [muC) A mult of Surface Water Sources Walny (Name) . Miried Murley O'lengt, included Gamphun Dalo. zue hubri Manuta -· · (Ump);) 三人 . . 1 ;



.... 1. Reprined by: (Second • RECOVED by: Becoment . ز : EPA Benjam 211,4 - 6411 BUZI RI, 120 21,12 2473 Promanker, Marth (154 ; REMARKS | Myap the under the Date / Time Date / Time -Stration of the عتنديلالك Liv Viil Remarks Relinquished by: (Signature) Reinquished by: (Signature) Date /Time CHAIN OF CU: JOY RECORD ÷.<u>-</u> TAINERS ÚC) ý X Ուզեսիգինու։ Օւնթատ Accumunum Տեկոստոլ, Բորբ այս այներությանները։ Բայց է ō Burrent for Laboratory by: . Received hy: (Signature) REPLACED 177. (Someture) REALINAL DCATION and the state of t (September) : Date / Linu Date / Ling Date / Time . شر ; .../J/k/ "ENVIROMMENTAL PROTICTION AGENCY I'V, IMMANI YI Y 1 1 - -: PROJ. NOL 1 PHOJECT NAME 845D Ollice of Enlorennest ÷ 1 . COM5 1 . C. K. W TIME SAMPLERS: (Sommune) -Relinquished by: (Sig. C K SF Relinquished by: /Sig-Button with by: (Sig DATE -. 78 , -المشتعيدية STA. NO. 1 ., . • •

1 <u>an</u>ř TENN Sound & Number ited Euclidean S W S VELATION INC a subscription and on the property of the second states of the second second second second second second second Translor (a) Ship To: Ship To: Attn: : (2) SAMPLE CONCENTRATION - Low Concentration ... (J) SAMPLE MATRIX Aubul Numbors 1.11 [Check One] (Clack One), (i) Shipping Information: Cinck Analysis required Dato Shipped: ____/ / (f) Phink Volume Lovel ------ Water . Soil/Sediment **Ou Sample Bottle** — Task I & 2 — Task 3 Ammun — Task 3 Ammun իկայցեր & pH Name Of Carrier: Cyanulo 201. ÷ it [par him and the second second Č, the first and a first WALL CAMPACT THE Cano Numberi V N N.
 Somple Eite Name/Code: [[1,1], [],1,1] [],1] [],1 MATCHISTOR ALCOLAND COMPLEXION <u>1 1 1 1 2</u> بالالفان المليان مرواوين فريار ----- Other ---- (specify) (i) fampling Olfico: 1"-> Sample Downlightion Samping Possonof (0947) 2200(7)) Furlary Wated equer Water Muxuel Mucha (1^{thom)} (mod¹1) (Name) _____ **Completed Dates** .) sachata Singletin | || || E 3

AR100157

ŧ

ï ł . ş The way of the second 1 -1 1 1 1 ÷ ------: i Received hy: (Suprature) Received by: (Symmeric) EPA Regen 3 FIT 1624 Pennantan, NJ 040 10 J (1 REMARKS (Land the Chine of the • • ` -. • . Date / Time Date / Time ł 7 Remarks ||Relinquished by: (Signature) Relinquished by: (Signature) ٦. . CHAIN OF CUERCE A RECORD Date /Time ł Distribution, Driginal Accompanies Stepanous Copy to Crowdiantor Field Files CCIN-TAINERS ÖŽ å • • Received for Laboratory by: Received by: (Signature) Heceived by: Ksignaturel With we will the STATION LUCATION ----- finner feithine Married Streems and Ŧ -Date / Time Date / Tune Date / finn C. TOD-OF LI LAUNT A D 14/82 ENVIRONMENTAL FROTECTION AGENCY 6523 PROJ. NO. - PROJ. NAME Official Entiment 1 COVER 2 . DATE TIME -Relinquished by: (signator Relinquished by .. (Signatur Relinquished by: /Signan/ SAMPLERS: (Signeture) ¥ 0 . . . ÷ ХV • STA, NO. . 2 --**-**• A state

C 259 Number.		CONCENTRATI Check One)	ON (③ Ship To いたい 、 、 、 、 、 、 、 、 、 、 、 、 、 、 、、、、、、、、	o: 	-
Sample Site Name/Code:	Low Mədi	Concentration um Concentration	on	Attn:		
	3 SANPLE I (Check (ಾಕ್			17772 E. 1.13 K	: 72 81.71
	Water Sou/S	Sediment	1	Ship To:		
© Regional Office: Sampling Personnel:	For each sam of containers on each bottle	used and mark v			· ·	, ,
Name)	Cui Bauri Aurice	Number of	Approxim	nate -		-
(Phone) Sampling Date:	Weier (Entractable)	Containers	Total Ven	ume		•
کی ہے۔ بی ایک کی کہ کو ایک کی کی کی کی کی کی کی کی کی کی کی کر کی کہ کی کہ کی کہ کی کی کی کی کی کی کی کی کی کی کی کی ک پر کی کی کہ کی کہ کی کی کی کی کی کی کی کی کی کی کی کی کی	Water (VOA)					-
ြှင်းမှင့်း ဦးနှင့်သားခံရေ	Scii/Sodimant					•
Natile of Castier	Water (Ext/VCA)				•	•
	Ciner		:			
Télé Shipyadi			··`		· ,	·
And I have a			· ·	i · . i	<i>.</i> .	
) Semple Description			© Sample		n .	<u>.</u>
Surface Water Gacuad Water	Mined Media Şohids				<u>j</u> = <u>5</u>	· · · : •
	Cther (specify)_					-
		الم المالية الم		159 -		· · · · ·

ş

ķ

AR100159

4

EPA Region 3 FIT ** 14			11/1/2 - 61110- E 1110 - 1110 - W	1111	(118 3= 9(1) 2 0.01	1 1			Date / Time Received by: (Signature)	Date / Time Received by: (Signature)	the dist in the start of
CHAIN OF CL JDY RECORD	0.0 00 00 00 00 00 00 00 00 00 00 00 00	TAINERS						ature/ Itelintruispert hvv fc		initial : You barrend	dumlor Fledt Files
N AGENCY									Relinquished b nel Data Anne Received by: Required	Refinetion interview for Laboratory by	underhoutener Ocigenal Arsteinster Shepenerit, Stephends for Coordinator Field Fries

			u uzh 🖡 et 👘 Alfr
	2 SAMPLE CONCENTRATIO		
	(Check One)		
Sample Site Name/Code:	Low Concentration Medium Concentration	on	
1 1: 1= 1: 0: 2:0:1	3 SAMPLE MATRIX	Attn	
	(Check One)	Trans	er -
	Soil/Sediment	- Ship 7	Го:
Eregional Office:	6 For each sample collected sp of containers used and mark v	ecify number	
Sampling Personnel:	on each bottle.		an an an an an an an an an an an an an a
(Name)	Number of Containers	Approximate Total Volume	
(Phone)	Water (Extractable)		
Sampling Date;	Water		د و مع می در می شود می و می میشد. او می در میشود و میشود
(End)	(VOA)		•••••••••••••••••••••••••••••••••••••••
	Soil/Sediment	<u> </u>	
Name of Carrier	(Ext/VOA)		
	Other		· · · · · · · · · · · · · · · · · · ·
Date Shipped: -			
Aubil Number			u da en en en en en en en en en en en en en
E St. gla Description		SENT: 1 Local	
Surface Water	· · · · · · · · · · · · · · · · · · ·	1011111100 1011111100	
Ground Water	Solids		
Leachate	Other (specify)		
Special Handling Instructions, szerad	tions: pus acture)		
	REGONAL OFFICE FILE COPY		

.

AR100161

T T

¥ ∉

C TRANSPORT	irita anstant aller			Sample Namber
	ck3 4 1 7 1 4			C 1618
I Carrier Conserver	<u></u>	17.11. A		
C isse Number: HS7-		ONCENTRATI	ON _ G Sh	ip To:
		heck One)		
		Concentration		scingle Dr.
. Sample Site Name/Code:	Medin	un Concentratio		area Triaky k In-
1 reliance adapt frage	3 SAMPLEM		Attn	NC 9774
- CHEL ARTL	Check C			
2-5 · · · · ·	Water		Trans	
DE-17 10	Soil/S	ediment	Ship'	10:
3 Regional Office:	5 For each sam	nle collected sp	ecify number	
Sampling Personnel:	of containers u	sed and mark v		
171-15	on each bottle.			
(Nette)		Number	Approximate	
		Containers	Total Volume	
(Phone)	Water water		1/2 GAL	
Sampling Date:	(Extractable)			
(End)	Water (VOA)	2	50-2	
han <u>a san an ing s</u>				
C Shipping Information	Soil/Sediment			
FOR FULL EXPOSES	Water			
Name of Carrier	(Ext/VOA)			
	Other			
Data Shipped:				
	1			
Sample Description			🕑 Sample Loc	ation
Surface Water	Juized Media		NET.	3-5
Ground Water.	Solia			
				1- 1- 2
	_ Ciher (specify)			
namial Linnelling Tart				
Decial Handling Instruct Control of the second s	ousnature)	daystar	n arzu	nd
		<u> </u>		
The insufficient			e Caralyz	5 70 - 20 - Y
Prices in the second	CCEC 2	1-2-5-0	- Cigania	CERTERIA
1 / 24/ 7 The the Partic For Decker 2014	Company			

	Mar montantester Wilson and Provide States of a Sample Number
A LEFTER ALLEAST	CSHRITE GARAPORT
() Case Number	(Check One)
Sample Site Name/Code:	X Low Concentration 5 True Port NC
Levale Shake An	-Attn
	(3) SAMPLE MATRIX (Check One) Transfer
DE-17	Water Soil/Sediment Ship To:
(5) Regional Office:	6 For each sample collected specify number of containers used and mark volume level
Sounds Hyele	on each bottle.
(Name)	Number of Approximate Containers Total Volume
Sampling Date:	(Extractable)
(E-gin) (End)	(VOA) Z ZC Q
() Lupping Information	Soil/Sediment Vater
Name of Carrier	(Ext/VOA)
÷114 /52	Other
Dile Shipped:	
Aibill Number	
(E) Sample Description	(9) Sample Location
Surface Water	
	Other (specify)
Decial Handling Instruc	tions: 14 day from around
	tions: 14 day from around ous risture) nature: Analyzein the following a clev
	Acid Organics
Restante	2 Cr REGIONAL OFFICE FLE COPY

Sample Site Name/Code:	 SAMPLE C SAMPLE C Medi SAMPLE N Check C Water Soil/S 	ONCENTRATI Concentration um Concentration (ATRIX Cone) Concentration	on	Transfe Ship T	and Runna Run a Runna fu nul Pl
© Regional Office: <u>5</u> Sampling Personnel: <u>Sampling Personnel:</u> (Phone) Sampling Date:	on each bottle Water (Extractable) Water	used and mark v	olume lav	mate	
The strong and the st	(VOA) Scil/Sediment Water (Ext/VOA) Other				
(3) Surgie Description			E Samp)e 1.0-2	tion
Ground Water	e ordyze	day fur		*s 4	Ť.

.

-

AR100164

•

	C 1623
Sample Site Name/Code:	 SAMPLE CONCENTRATION (Check One) Low Concentration Medium Concentration SAMPLE MATRIX (Check One) SAMPLE MATRIX Check One) Water. Soil/Sediment Ship To:
(Designal Office:	 (6) For each sample collected specify number of containers used and mark volume level on each bottle. Number of Approximate Containers Total Volume Water (Extractable) Water (VOA) Soil/Sediment Water (Ext/VOA) Other
Sample Description Surface Water Ground Water Leachate pecial Handling Instruct leg, safety preceptions, hazado	ous nature)
I To insuit, Ook 1. Base Naitid	une please analyze in this order 3 Acid HEGKINAL OFFICE THE COPY

•

B

	GS 11:1:13	ACTURE	<u>); </u>	C 1624
Sample Site Name/Code:	(Low Medi 3 SAMPLE I (Check) Water	One) -	on Attn	
E Regional Office: Sampling Personnel:	6 For each sam of containers on each bottle	used and mark v		
(F).cne) S my Yry Date:	Water (Extractable) Water (VOA) Soil/Sediment		Tome -	
National Carrier	Water (Ext/VOA) Other			
Date Shipped:				
 Sumple Description Surface Water Ground Water Leachate 			() Sample Los	Ey/
Depotal Handling Instruct le g. salety precessions, hazard The Basel New	tions: ousnature)	coytenn Ecse an	alyze in	his crier
2. Pesticile				

E Tase Number:	3 SAMPLE CONCENTRATION 3 Ship To:
	(Check One) instit Terrer
	Low Concentration 5 In Ongle Tours
Sample Site Name/Code:	Medium Concentration Research Survey
<u> </u>	Attn:
	3 SAMPLE MATRIX (Check One),
	Water
	Soil/Sediment Ship To:
© Regional Office: <u>S</u>	(For each sample collected specify number
Sampling Personnel:	of containers used and mark volume level on each bottle.
(Marrie) - 1-5-1-51-5	Number of Approximate Containers Total Volume
(Phone)	Water
Sampling Date: 1 /	(Extractable)
<u> </u>	Water
Earin) (End)	(VOA) <u>Ernel</u>
Shipping Information	Soil/Sadiment
	Water
Name of Carrier	(E×t/VCA)
	Other .
Date Shipped:	
The second second second second second second second second second second second second second second second se	
4. bril Number:	
المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعن (ع) المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى المعنى الم	() Sample Location
Surface Water	_ Mixed Media
Ground Water	Solids
Leachale	
pecial Handling Instructions, hereits	tions: 14 class - con and

: ... ·

٠

.

,

AR100167

•

NOT NO 1 UNIT	-			CHAIN OF CUS 10Y RECORD	B021 Rt. 130 323 49
	Wey, www.idenous	AME	And the angle		
SAMPLERS: (Segnature)		New		0+	BEWARKS
51A. NO. DATE 11	COMP.	543D	STATION LOCATION		
11 1/11/1 19191-	W.Ni	3	1.5 W X		111 111 2-114 1 1101 - 11 1 101 -
<u>ון באל ויווי</u>	11/100	<u> </u>			1
11-11-14/14/14	1030	7	LAWREL AND CONTRACT		
			•		
	<u> -</u>			-	
		1	•		
•	 		-		
	- -	-+	•		
		-+			
	_	[f		•
Relinquished hy: <i>(Sognature)</i>), ()		Date (Time Received by: /signature/ 7//r1/22 1.30	Helinquided by: (Signatura)	Date / Time Received by: (Signature)
Relumprished In	ture)	1	Date /	Relinquished by: /Signature/	Date / Time Received by: (Signature)
References in the second second second second second second second second second second second second second se	lure)	<u> </u>	Date / Time Received for Laboratory by	y ty: Date / Time Rumarks	
	Distribution		Durchermen. Ordenst Accompanies Stapment, Unity to Coordinator Fredit Friet	ur Frenh Fries	_
-					

.

`

.

.

AR100168

· --

	SAMPLEC	Theck One)	ON	() Sh	p To:
Sample Site Name/Code:	Low (Medi	Concentration um Concentration	on	:	анананан солонун тараалан Солонун солонун br>Солонун солонун
	③ SAMPLE N (Check C — Water Soil/S	Dr.e)#		Attn: rr Trans Ship	fer
C Regional Office:	© For each sam of containers on each bottle	used and mark v	ecify nun olume lev	dier el	· .
(:::Eme)		Number of Containers	Approxiu Total Vol	nate une	
(Phone) Sampling Date:	Water (Extractable)				
2n)	Waler (VOA)				
C. Shipping information	Spil/Sediment				
Name of Carrier	Water (ESH, VOA)				• ** • • • • • • • •
	Oiler		<u>.</u>		
Dite Sipped:		.	• 		
A Sama's Pas-dation	- 		<u> </u>		
	Mixed Media		يو. <u>يون کې</u> <u>۲۰۶</u>		
Ground Water Loschete	_ Solids Other (specify) _		·	: : :	Y 16 775 -

(The Number:		CONCENTRATI Check One)		hip To: / - 2 > 1	
Simple Site Name/Code:	Med	Concentration	on		
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	③ SAMPLEI (Check Wate)	One) <u>,</u>	r 1174 . Tran	n). S. (S. S. S. S. S. S. S. S. S. S. S. S. S. S	* 1= 1.241;:-
		Sediment		• To:	5
5 Regional Office: <u>11</u> Relig Personnel:	For each sam of containers on each bottle	used and mark a	ecify number colume level		• •
Name)		Number of Containers	Approximate Total Volume		
(Phone) So <u>mpting</u> Date:	Water (Estraciable)				
Enzi) (Enzi) Enzi (Contra Enzian	(70A) Soil/Sediment				
	Water (Ext, VOA)	· · · · · ·			
Dan 2 of Carrier	Ciher				• .
Due Shipped:					
		· · · · · · · · · · · · · · · · · · ·			
Sample Description			() Sample Loc	an an an an an an an an an an an an an a	<u></u>
Surface Water	- Mixed Media Solids				se.
Lescheie	_ Other (specify) _	-275			12
pecial Handling Instruct	tions:			- <u>-</u>	

, 1

AR100170

.

Notice from Remarks Server Rise No	why,''''	Office of Enforcement	Office al Enforcement	CHAIN	CHAIN OF CUST	' RECORD		B. Prant	Promyork In 1240
STATUM LOCATION OF TONERS REMARKS STATUM LOCATION TONERS TONERS SATUM LOCATION TONERS TONERS MLL T T T MLL ML T T ML ML T T ML				· . -	CIN			///	
THIRE $\frac{2}{6}$ $\frac{2}{6}$ $\frac{1}{6}$	IS! (Signatura)		00		05				BFMARKS
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$, , ,	IN LOCATION					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	12 15:20	1	Munk	The second second				ia. # 2000	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			- diplicit.	10					
International internationaly international international international internationa	-11:01		N N					>	
i Date Date Date Time Received by: Segmenter i Date Time Received by: Segmenter Date Date Segmenter i Date Time Received by: Segmenter Date Date Segmenter i Date Time Received by: Segmenter Date Date Segmenter		4					Ī		
Image: state of the state o		 .	1		•				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 0 1		<u> </u>							
returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature) returned Date / Tune Received by: (Synature)								2	
Market Line Market und by: <i>Cionaturel</i> Methodaturel Methodaturel Market Line Market und by: <i>Cionaturel</i> Methodaturel Methodaturel Market Line Market und by: <i>Cionaturel</i> Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Market by: <i>Cionaturel</i> Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Methodaturel Market Line Methodaturel Methodaturel Market by: <i>Cionaturel</i> Market Line Methodaturel Methodaturel Market by: <i>Cionaturel</i>									
Image: Second second	-	<u> </u>						. •	
Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State Image: Second State				and the second second second second second second second second second second second second second second second					
Note Nate Time Received by: <i>(Signature)</i> Note 1/1/1 1/1/1 Date Time Note 1/1/1 1/1/1 Date Date		 : 		-	<u> </u>				
Image: Second second			-						
Note Time Received by: <i>Esgmeture</i> 1/1/1 1/1/1 1/1/1 0 0 1 0				and the second se					-
Performent Date Time Received by: <i>(Signature)</i> 1 1 1 1 1 1 0ate 1 0ate 1						 			
H Date / Time Received by: <i>Gignature1</i> Relincturshed by: <i>Gignature1</i> Date / Time Received by: <i>Gignature1</i> e1 Date / Time Received by: <i>Gignature1</i> Date / Time Received by: <i>Gignature1</i>	by! ******		Date /	Received by . Kiensture	Ref	: Aq paqsnbur	Signature)	Date / Time	Roceived by: Bignaturel
el Date/Tigner Recever? (in Laboratory try: Date/Time Remarks	12		Date /Thur		Ref.	A paysinbu	Signature)	Date / Time	Received by: /Signaturel
C Uated Light Electrivet for Laboratory by: Date / Time Remarks	•								
		•	Uate	Received of Laboralory (Signature)	' tıy:	Dalu / Time	Remarks		

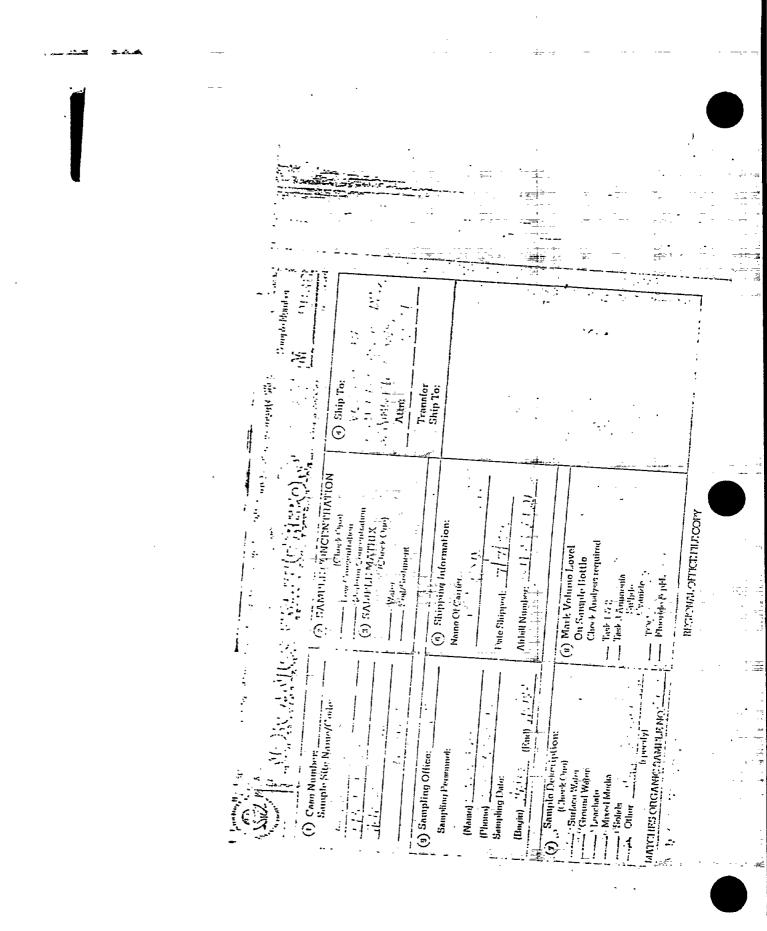
.

÷.

•

AR100171

.



S-murde Mundler		
M. Superson M. S.		
 A. M. C. M. M. C. M. M. C. M. M. C. M. M. C. M. M. C. M. M. C. M. M. C. M. M. C. M. M. M. C. M. M. M. C. M. M. M. C. M. M. M. C. M. M. M. C. M. M. M. M. M. M. M. M. M. M. M. M. M.	(g) Shipping hilogranation: Name Of Ganiev Date Shipped: <u></u>	
O Caro Number Sample Site Name/Code: 1. 11. 14. 12. 13. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14		

•

AR100173

1

- -

÷

٠ <u>)</u> ÷ ï ł 193 W. Parts - Balla Mary-Received by: Bioninier | Received by: (Signature) ł REMARKS The State indide _ 1- all 1 Charles ŗ, Lint My Liques •7 Date / Time 2 Date / Tune . • .-. • 2 Hemarks - -Belanquished by: (Signature) Relevenshed by: ISognature Dutle / Time Y ALCORD _ 1. 1 CHAIN OF CURP metrar Compared Acrimitioner Shipmont; (2422-16 Groutinatur Freid File) COM. ł ЧО. È ų Date / Lane - Received for Laboratory by: Date / Hum Received hys (Bynature) Date / Time Received by: / Stimuture/ كىتىسەر ئىكى ، ، ئىل سارىلىيا مىكى ئىكى ئىكى بايلىلى 1 in - IL la - depution - a - 10 - 11 Chataly to be Well in month No. of Concession, Name STATION LOCATION 1 • -----· ·!..] CS/1.1/. 1 -PITOJ. NO. 4.11 ... O.II.GT NAME -----ENVPROMMERTS of Enforcement -.-Children 11 1/42 10.00- 10 ----1 ! ೯೯೪೦ 1 İ 1 : 61522 Weber 1914 1 1 Relinquished by: /Signature/ Ĩ STA, NO. | DATE | TIME SAMPLERS: (Signature) _بز ت 1-12. LANIN Relinquished ly: 4 ÷

AR100174

_

	. / .				1. ASSI	STANCE ID	NO.	2. LOG NUMBER	7
	U.S. ENVIRONMENTA	ROTE	CTION AGENCY			03299-01		Three-V-	4
	F EPA ASSISTANCE AG						_	4. MAILING DAT	e
	PART I - ASSISTANCE NO	TIFICAT	ION INFORMAT	ION	-30	N°27	984		5
	AGREEMENT TYPE		6. PAYMENT M	ETHOD	J			1	
	Cooperative Agreement	XX	Advance	Beimburseme			Cradia	68-13-0314	
, ' -	Grant Agreement		Send Payment F		ini,	7. TYPE O			
	Assistance Amendment		4			New	• • • •		
F	8. RECIPIENT		<u>1</u>	9. PAYEE					
ł	Delaware Department of N	atural	. Resources		Depart	tment of	'Natu	ral Resource	25
Iz				and Envir					-
Ĭ	P. O. Box 1401, 89 Kings	Highw	ay	P. O. Box				zhway	
12	Dover, Delaware 19903	-	-	Dover, De					
Į						• -			
ORGANIZATION	EIN NO.	RESSION/	L'DISTRICT	- 10. RECIPIENT	TYPE				
		tewide		State	-				
RECIPIENT	11. PROJECT MANAGER AND TELEPHO	NE NO.		12. CONSULTAN	T IWWT	Construction	Grants	() mly)	
Ĩ						00.01/00.020		0	
	Robert J. Touhey								
5	302/736-4764			n/a					
F	13. ISSUING OFFICE (City/State)		<u></u>	14. EPA PROJEC	T/STATE	OFFICER	AND TE	LEPHONE NO.	
I.									
EPA CONTACT	Philadelphia, PA			Dominic D		lo			
Ē				215/597-2	193				
10				-					
Ā									
Ē	I 13. EFA CONGRESSIONAL EIAISON &		1		17. FIEL			PROJECT STEP (WV	VT CG
	Patricia Gaskins 202/38	2-5184	SAI 84-02	2-24-02		n/a		Only) n/a	
Γ	9. STATUTORY AUTHORITY		20. REGULATO	RY AUTHORITY	21. STEP	2 + 3 & STE	EP 3 (WY	VT Construction Oni	y)
I	P.L. 96-510		41 CFR P	amt 30	a. Treatm	nent Level		n/	a
٩	г.ш. уо - јто	l	UPR P		b. Project	: Туре		n/	
1					c. Treatm	ent Process		n/	· · ·
									<u>a</u>
L					d. Sludge	Design		n/	
	2. PROJECT TITLE AND DESCRIPTION		<u>_</u>	······				n/	
	Implementation of the re	medial	investiga	tion and feasi	bility	study	for t	n/ he	
	Implementation of the re Delaware Sand and Gravel	hazar	dous waste	site under th	bility e Comp	study	for t ve En	n/ he	
2	Implementation of the re	hazar	dous waste	site under th	bility e Comp	study	for t ve En	n/ he	
	Implementation of the re Delaware Sand and Gravel	hazar nd Lia	dous waste bility Act	site under th of 1980 (CERC	bility e Comp LA)	study prehensi	for t ve En	n/ he	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a	hazar nd Lia	dous waste bility Act 23. PROJECT LO	site under th	bility e Comp LA) ed by Pro	study prehensi	ve En	he vironmental	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a	hazar nd Lia	dous waste bility Act 3. PROJECT LO	site under th of 1980 (CERC CATION (Areas Impact	bility e Comp LA) red by Pro	feet)	ve En	he vironmental	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a	hazar nd Lia 2	dous waste bility Act B. PROJECT LO County New Cas	site under th of 1980 (CERC CATION (Areas Impact stle	bility e Comp LA) ed by Pro Su I	/ect)	ve En ongressio tatew	he vironmental	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piece New Castle 4. ASSISTANCE PROGRAM(CFDA Program	hazar nd Lia 2	dous waste bility Act County New Cas (42) 25. PROJECT	site under th of 1980 (CERC CATION (Areas Impact stle FPERIOD	bility e Comp LA) red by Pro Su LA 26	feet)	ongression tatew ERIOD	he vironmental onel District ide	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piace New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802	hazar nd Lia 2 No. & Th	dous waste bility Act 23. PROJECT LO County New Ca: 14. 25. PROJECT 6/15/8	site under th of 1980 (CERC CATION (Areas Impact stle FPERIOD 4 - 6/14/85	bility e Comp LA) ed by Pro I I 26 6	study prehensi (ect) DE C S SUDGET P 5/15/84	ve En ongressio tatew ERIOD - 6/1	he vironmental onei District ide 4/85	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piace New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 17. COMMUNITY POPULATION (WWT CG	hazar nd Lia 2 No. & Th	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8 DTAL BUDGET P	site under th of 1980 (CERC CATION (Areas Impact stle PERIOD 4 - 6/14/85 ERIOD COST	bility e Comp LA) ed by Pro I I 26 6 29	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressio tatew ERIOD - 6/1 OJECTI	he vironmental onel District ide	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piece New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 27. COMMUNITY POPULATION (WWT CG Only) n/a	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4	bility e Comp LA) ed by Pro Su I 26 6 29 \$	study prehensi (ect) DE C S SUDGET P 5/15/84	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piece New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 27. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8 DTAL BUDGET P	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	he vironmental onei District ide 4/85	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piece New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 27. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a Sity/Piece New Castle A. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 C. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 31. EPA In-Kind Amount	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Place New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 7. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 11. EPA In-Kind Amount 12. Unexpended Prior Year Balance	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piace New Castle ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 COMMUNITY POPULATION (WWT CG Only) n/a FUNDS COMMUNITY POPULATION (WWT CG Only) n/a FUNDS COMMUNITY POPULATION (WWT CG Only) n/a FUNDS COMMUNITY POPULATION (WWT CG Only) n/a FUNDS COMMUNITY POPULATION (WWT CG Only) n/a Store France Selence COMMUNITY POPULATION (COMMUNICATION (COMMUNITY POPULATION (COMMUNITY CG Only) n/a Store France Selence Selence COMMUNITY POPULATION (COMMUNICATION (COMMUNITY POPULATION (COMMUNITY CG Only) n/a Store Selence Sele	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piace New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 57. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 11. EPA In-Kind Amount 12. Unexpended Prior Year Balance 13. Other Federal Funds 14. Recipient Contribution	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piace New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 7. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 11. EPA In-Kind Amount 12. Unexpended Prior Year Balance 13. Other Federal Funds 14. Recipient Contribution 15. State Contribution	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Piece New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 27. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 21. EPA In-Kind Amount 22. Unexpended Prior Year Selence 33. Other Federal Funds 34. Recipient Contribution 35. State Contribution	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle PPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A	bility e Comp LA) ed by Pro Su I 25 6 29 \$ CTION	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a City/Place New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 47. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 40. EPA Amount This Action 41. EPA In-Kind Amount 42. Unexpended Prior Year Salance 43. Other Federal Funds 44. Recipient Contribution 45. State Contribution 45. Local Contribution 47. Other Contribution	hazar nd Lia 2 No. & Tit 28. TO	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle TPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A \$373,	bility e Comp LA) red by Pro Su I 29 \$ CTION 514	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En ongressic tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the re Delaware Sand and Gravel Response, Compensation a Superfund constraint Superfund constrai	hazar nd Lia 2 No. & Tu 28. TO FORMER	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8J DTAL BUDGET P \$373,51 AWARD	site under th of 1980 (CERC CATION (Areas Impact stle rperiod 4 - 6/14/85 ERIOD COST 4 THIS A \$373, \$373,	bility e Comp LA) ed by Pro Su I 26 6 29 \$ 29 \$ 29 514	study prehensit (ect) DE S BUDGET P 5/15/84 TOTAL PR 373,514	ve En tatew ERIOD - 6/1 OJECTI	n/ he vironmental onel District ide 4/85 PERIOD COST	
	Implementation of the repelaware Sand and Gravel Response, Compensation a City/Place New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 7. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 11. EPA In-Kind Amount 12. Unexpended Prior Year Balance 13. Other Federal Funds 14. Recipient Contribution 15. State Contribution 16. Local Contribution 17. Other Contribution 18. Allowable Project Cost Program Element F-Y	hazar nd Lia 2 No. & Tu 28. TO FORMER	dous waste bility Act 23. PROJECT LO County New Cas 6/15/8 0TAL BUDGET P \$373,51	site under th of 1980 (CERC CATION (Areas Impact stle TPERIOD 4 - 6/14/85 ERIOD COST 4 THIS A \$373,	bility e Comp LA) ed by Pro Su I 26 6 29 \$ 29 \$ 29 514	study prehensi (ect) E S S S S S S S S S S S S S S S S S S	ve En tatew ERIOD - 6/1 OJECTI	he vironmental onel District ide 4/85 PERIOD COST AMENDED TOTAL	
	Implementation of the repelaware Sand and Gravel Response, Compensation a City/Place New Castle 4. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 7. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 10. EPA Amount This Action 11. EPA In-Kind Amount 12. Unexpended Prior Year Balance 13. Other Federal Funds 14. Recipient Contribution 15. State Contribution 16. Local Contribution 17. Other Contribution 18. Allowable Project Cost Program Element F-Y	hazar nd Lia 2 No. & Tit 28. TO FORMER	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8 DTAL BUDGET P \$373,51 AWARD	site under th of 1980 (CERC CATION (Areas Impact stle rperiod 4 - 6/14/85 ERIOD COST 4 THIS A \$373, \$373, Account Number	bility e Comp LA) ed by Pro Su I 26 6 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$	study prehensit (ect) DE S BUDGET P 5/15/84 TOTAL PR 373,514	ve En tatew ERIOD - 6/1 OJECTI	he vironmental onel District ide 4/85 PERIOD COST AMENDED TOTAL	
	Implementation of the repelaware Sand and Gravel Response, Compensation a City/Piace New Castle 44. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 57. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 50. EPA Amount This Action 51. EPA In-Kind Amount 52. Unexpended Prior Year Balance 53. Other Federal Funds 54. Recipient Contribution 55. State Contribution 56. Local Contribution 57. Other Contribution 58. Allowable Project Cost Program Element FY Appropriat TFAY9A 84	hazar nd Lia 2 No. & Tit 28. TO FORMER	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8J DTAL BUDGET P \$373,51 AWARD	site under th of 1980 (CERC CATION (Areas Impact stle rperiod 4 - 6/14/85 ERIOD COST 4 THIS A \$373, \$373,	bility e Comp LA) ed by Pro Su I 26 6 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$	orehensit	ve En tatew ERIOD - 6/1 OJECTI	he vironmental onal District ide 4/85 PERIOD COST AMENDED TOTAL	
	Implementation of the repelaware Sand and Gravel Response, Compensation a City/Piace New Castle 44. ASSISTANCE PROGRAM(CFDA Program Superfund 66.802 57. COMMUNITY POPULATION (WWT CG Only) n/a FUNDS 50. EPA Amount This Action 51. EPA In-Kind Amount 52. Unexpended Prior Year Balance 53. Other Federal Funds 54. Recipient Contribution 55. State Contribution 56. Local Contribution 57. Other Contribution 58. Allowable Project Cost Program Element FY Appropriat TFAY9A 84	hazar nd Lia 2 No. & Tit 28. TO FORMER	dous waste bility Act 23. PROJECT LO County New Ca: 25. PROJECT 6/15/8 DTAL BUDGET P \$373,51 AWARD	site under th of 1980 (CERC CATION (Areas Impact stle rperiod 4 - 6/14/85 ERIOD COST 4 THIS A \$373, \$373, Account Number	bility e Comp LA) ed by Pro Su I 26 6 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$ 29 \$	orehensit	ve En tatew ERIOD - 6/1 OJECTI	he vironmental onel District ide 4/85 PERIOD COST AMENDED TOTAL	

EPA Form 5700-20A (Rev. 5-82) Replaces previous editions and EPA Forms 5700-1A, B, C, and D, all of which are obsolete.

(-construction) A. PERSONNEL 2. FRINGE BENEFITS 3. TRAVEL 4. EQUIPMENT 5. SUPPLIES 6. CONTRACTUAL (DETSONAL SETVICES) 7. CONSTRUCTION 8. OTHER 9. TOTAL DIRECT CHARGES	0 1,000 6,550 3,500
2. FRINGE BENEFITS 3. TRAVEL 4. EQUIPMENT 5. SUPPLIES 6. CONTRACTUAL (DETSONAL SERVICES) 7. CONSTRUCTION 6. OTHER	0 1.000 6.550 3.500
3. TRAVEL 4. EQUIPMENT 5. SUPPLIES 6. CONTRACTUAL (DETSONAL SERVICES) 7. CONSTRUCTION 6. OTHER	1.000 6.550 3.500
4. EQUIPMENT 5. SUPPLIES 6. CONTRACTUAL (DEFSONAL SERVICES) 7. CONSTRUCTION 6. OTHER	6,550
S. SUPPLIES 6. CONTRACTUAL (DETSONAL SERVICES) 7. CONSTRUCTION 6. OTHER	3,500
6. CONTRACTUAL (PERSONAL SERVICES) 7. CONSTRUCTION 6. OTHER	
7. CONSTRUCTION 6. OTHER	
8. OTHER	362,464
	0
S. TOTAL DIRECT CHARGES	0
	373,514
10. INDIRECT COSTS: RATE "BASE	
	\$373,514
11_TOTAL (Shere: Recipient. 0 7. Federal 100 7.)	
12. TOTAL APPROVED ASSISTANCE AMOUNT	s 373,514
TABLE 3 - PROGRAM ELEMENT CLASSIFICATION (Non-construction)	n/a
1,	
2.	
3.	
4.	
š .	
£.	
7.	
1.	······································
\$.	
19.	
14. 11.	
13. TOTAL APPROVED ASSISTANCE AMOUNT	s
TABLE C - PROGRAM ELEMENT CLASSIFICATION (Construction)	n/a
1. ADMINISTRATION EXPENSE	
2. PRELIMINARY EXPENSE	
3. LAND STRUCTURES, RIGHT-OF-WAY	
4. ARCHITECTURAL ENGINEERING BASIC FEES	
S. OTHER ARCHITECTURAL ENGINEERING FEES	
6. PROJECT INSPECTION FEES	
7. LAND DEVELOPMENT	
. RELOCATION EXPENSES	
9. RELOCATION PAYMENTS TO INDIVIDUALS AND BUSINESSES	
10. DEMOLITION AND REMOVAL	
11. CONSTRUCTION AND PROJECT IMPROVEMENT	
12. EQUIPMENT	
ta. MISCELLANEOUS	
14. TOTAL (Lines 1 theu 13)	
15. ESTIMATED INCOME (If applicable)	······································
	· · · · · · · · · · · · · · · · · · ·
IS. NET PROJECT AMOUNT (Line 14 minus 15)	
17 LESS: INELIGIBLE EXCLUSIONS	
18. ADD: CONTINGENCIES	
13 TOTAL (Share: Recipient)7. Federal7.)	
	AR300176

ń

Í

i

PART III-AWARD CONDITIONS

GENERAL CONDITIONS

The recipient covenants and agrees that it will expeditiously initiate and timely complete the project work for which assistance has been awarded under this agreement, in accordance with all applicable provisions of 40 CFR Chapter I, Subpart B. Therecipient warrants, represents, and agrees that it, and its contractors, subcontractors, employees and representatives, will comply with: (1) all applicable provisions of 40 CFR Chapter I, Subchapter B, INCLUDING BUT NOT LIMITED TO the provisions of Appendix A to 40 CFP Part 30, and (2) any special conditions set forth in this assistance agreement or any assistance amendment pursuant to 40 CFR 30,425.

b. SPECIAL CONDITIONS:

(For cooperative agreements include identification or summarization of EPA responsibilities that reflect or contribute to substantial involvement.)

- 1. EPA awards this cooperative agreement in accordance with the Federal Grant and Cooperative Agreement Act of 1977. This agreement is subject to all applicable EPA assistance regulations.
- 2. The recipient agrees to submit quarterly progress reports to the EPA Project Officer. These reports shall cover expenditures to date and expenditures since the previous report, estimates of work completed (as a percentage of the total work to be done on that activity) with a description of the basis for the estimates, estimated variance (cost and time) expected at project completion based on current project status, as well as an itemization of expenditures by cost category.
- 3. The recipient agrees to submit to Mr. Francis R. Snock, Chief, Grants Management Section, a completed EPA Form 6005-1 within 15 days after the end of each Federal fiscal quarter during which the recipient or its contractors award any subagreements to minority or women's businesses.
- 4. The recipient agrees to the following conditions in accepting this cooperative agreement for the letter of credit method of financing:
 - a. Cash drawdowns will occur only when needed for disbursements.
 - b. Timely reporting of cash disbursements and balances will be provided as required by the EPA Letter of Credit Users Manual.
 - c. The same standards of timing and reporting will be imposed on secondary recipients, if any.
 - d. When a drawdown under the letter of credit occurs, the recipient will show on the back of the voucher (Form TFS-5401) the Cooperative Agreement number, the appropriate EPA account number, and the drawdown amount applicable to each activity account (see attached "Instructions for Using the Superfund Account Number Under Cooperative Agreements"). The eighth digit of the account number (see item 39, page 1 of the Cooperative Agreement) is the code to the appropriate activity assignment:

L - Remedial Planning, consisting of the following subactivities:

- Remedial Investigation/Feasibility Study

- Remedial Design
- R Remedial Implementation, consisting of the following subactivities:

- Remedial Action

Carling and States of Particles

- Operation and Maintenance
- Initial Remedial Measure



EPA Form 5700-20A (Rev. 8-79)

PAGE 3 OF 4

- 4. (continued)
 - e. When funds for a specific activity have been exhausted but the work under the activity has not been completed, the recipient may not drawdown from another activity or site account without written permission from the EPA Project Officer and Award Official.
 - f. Funds remaining in an account after completion of an activity may either be returned to the EPA or adjusted to another activity or site at EPA's discretion.
 - g. When a subactivity is completed, the recipient will submit a Financial Status Report (Standard Form 269) within 90 days to Mr. Francis R. Snock, Chief, Grants Management Section.

Failure on the part of the recipient to comply with the above conditions may cause the <u>unobligated</u> portions of the letter of credit to be revoked and the financing method changed to a reimbursable basis.

Federal funds will be released to the recipient utilizing the letter of credit payment method. The entire amount awarded will be released upon receipt by EPA of the signed Assistance Agreement.

- 5. The recipient agrees to submit a detailed estimate of personnel costs to EPA prior to the commencement of site activities.
- 6. The recipient agrees to submit a site-specific Quality Assurance Plan for EPA approval prior to commencement of any field activities such as sampling and well drilling. The recipient, with EPA's assistance, will incorporate EPA's current Quality Assurance Requirements in the plan.

Division for Headquarters awards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement.		ASSISTANCE IDENTIFICATION NO.
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters awards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any versions of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement.		}
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters awards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/attention for the Delaware Department of Netural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withfrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENF to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. 'Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENET to the Delaware Department of Natural Resources and Environmental Control Adversarial approved costs incurred up to and not exceeding \$ <u>373,314</u> (astrance Amount for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE (Grants Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Marter Street Soft Medica By THE U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is duly authorized to act on behalf of the recipient agrees (of that the award is subject to be applicable U.S. Environmental Protection Agency (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees of this agreement (Pars I that UV), and (b) that acceptance of		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENET to the Delaware Department of Natural Resources and Environmental Control Adversarial approved costs incurred up to and not exceeding \$ <u>373,314</u> (astrance Amount for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE (Grants Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Marter Street Soft Medica By THE U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is duly authorized to act on behalf of the recipient agrees (of that the award is subject to be applicable U.S. Environmental Protection Agency (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees of this agreement (Pars I that UV), and (b) that acceptance of		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENET to the Delaware Department of Natural Resources and Environmental Control Adversarial approved costs incurred up to and not exceeding \$ <u>373,314</u> (astrance Amount for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE (Grants Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Marter Street Soft Medica By THE U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is duly authorized to act on behalf of the recipient agrees (of that the award is subject to be applicable U.S. Environmental Protection Agency (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees of this agreement (Pars I that UV), and (b) that acceptance of)A - I -
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENET to the Delaware Department of Natural Resources and Environmental Control Adversarial approved costs incurred up to and not exceeding \$ <u>373,314</u> (astrance Amount for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE (Grants Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Marter Street Soft Medica By THE U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is duly authorized to act on behalf of the recipient agrees (of that the award is subject to be applicable U.S. Environmental Protection Agency (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees of this agreement (Pars I that UV), and (b) that acceptance of		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. 'Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		•
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENET to the Delaware Department of Natural Resources and Environmental Control Adversarial approved costs incurred up to and not exceeding \$ <u>373,314</u> (astrance Amount for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE (Grants Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Marter Street Soft Medica By THE U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable U.S. Environmental Protection Agency The Agreement is duly authorized to act on behalf of the recipient agrees (of that the award is subject to be applicable U.S. Environmental Protection Agency (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees of this agreement (Pars I that UV), and (b) that acceptance of		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENERF to the Delaware Department of Netural Resources and Environmental Control assistance/AMENDENERF to the Delaware Department of Netural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$_373;514 for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNNO OFFICE Greats Administration Office) GREANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. Environmental Protection Agency TweeD wave and Subject to applicable U.S. Environmental Protection Agency TweeD wave and State to the applicable U.S. Environmental Protection Agency This Agreement is subject to applicable U.S. Environmental Protection Agency The award is subject to be applicable OC FF Chapter I, Subchapter B and of the provisions of this agreement (Parts I that UV), and (b) that acceptance of any payments made pursuant thereto, (1) the undersigned represents that he is duly s		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration Office (Source America administration Office) (or the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNA OFFICE (Grant Administration Office) ORGANIZATIONACODESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The Angreement is subject to applicable U.S. Environmental Protection Agency The Agreement is subject to applicable With acceptance of any payments made pursuant thereto, (1) the undersigned represents that he is duly		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration of Natural Resources and Environmental Control Material Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grant Administration Office) ORGANIZATIONADDRESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TweeD wave is subject to applicable U.S. Environmental Protection Agency TweeD wave is subject to applicable U.S. Environmental Protection Agency This Agreement is subject to be applicable Works and Office (9) that the award is subject to be applicable Works and Office (9) that the award is subject to be applicable V.S. Environmental Protection Agency forming		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration of Natural Resources and Environmental Control Material Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grant Administration Office) ORGANIZATIONADDRESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TweeD wave is subject to applicable U.S. Environmental Protection Agency TweeD wave is subject to applicable U.S. Environmental Protection Agency This Agreement is subject to be applicable Works and Office (9) that the award is subject to be applicable Works and Office (9) that the award is subject to be applicable V.S. Environmental Protection Agency forming		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration of Natural Resources and Environmental Control Material Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grant Administration Office) ORGANIZATIONADDRESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TweeD wave is subject to applicable U.S. Environmental Protection Agency TweeD wave is subject to applicable U.S. Environmental Protection Agency This Agreement is subject to be applicable Works and Office (9) that the award is subject to be applicable Works and Office (9) that the award is subject to be applicable V.S. Environmental Protection Agency forming		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. 'Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control assistance/AMENENENE to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters awards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMMENTERF to the Delaware Department of Natural Resources and Environmental Control Mor_100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemssion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withfrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMENDENF to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration of Natural Resources and Environmental Control Material Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grant Administration Office) ORGANIZATIONADDRESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TweeD wave is subject to applicable U.S. Environmental Protection Agency TweeD wave is subject to applicable U.S. Environmental Protection Agency This Agreement is subject to be applicable Works and Office (9) that the award is subject to be applicable Works and Office (9) that the award is subject to be applicable V.S. Environmental Protection Agency forming		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/America administration of Natural Resources and Environmental Control Material Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grant Administration Office) ORGANIZATIONADDRESS Grants Management Section (3FM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TweeD wave is subject to applicable U.S. Environmental Protection Agency TweeD wave is subject to applicable U.S. Environmental Protection Agency This Agreement is subject to be applicable Works and Office (9) that the award is subject to be applicable Works and Office (9) that the award is subject to be applicable V.S. Environmental Protection Agency forming		
NOTE: The Agreement must be completed in duplicate and the Original returned to the Grants Administration Division for Headquarters wards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any stemsion of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/AMEMENENE to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$		
Division for Headquarters awards and to the appropriate Grants Administrations Office for State and local awards within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement.		
awards within 3 calendar weeks after receipt of within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the writhdrawal of the offer by the Agerement, which where the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/ABMENENERF to the Delaware Department of Natural Resources and Environmental Control Record a grant of all approved costs incurred up to and not exceeding \$ <u>373.914</u> for 100_% of all approved todget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterace. SUMING OFFICE (Grant Administration Office) ORGANIZATION/ADDRESS Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 Thomas P. Eichler, Regional Administrator Thomas P. Eichler, Regional Administrator Thomas P. Eichler, Region All, PROTECTION AGENCY Thomas P. Eichler, Region All, the revisions and assistance regulations. In accepting this award to amendment and any payments made pursuant thereto. (1) the undersigned represents that he is duly authorized to at on behalf of the recipient Agreement by the payse that the amounts, if any found by EPA to have been overaid will be refunded or credited in full to EPA. SYANDOW BEHALF OF THE DESIGNATED RECIPIENT OFFICE MORE. (1) the undersigned represents that he is duly authorized to at philable to F. He DESIGNATED RECIPIENT OFFICE (1) the provisions SYANDOW BEHALF OF THE DESIGNATED RECIPIENT OFFICE MILL SYANDOW BEHALF OF THE DESIGNATED RECIPIENT OFFICE MILL SYANDOW BEHALF OF THE DESIGNATED R	NOTE: The Agreement must be complete	ted in duplicate and the Original returned to the Grants Administration
Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/additionation of Natural Resources and Environmental Control	Uivision for Headquarters awards and awards within 3 calendar weeks after	to the appropriate Grants Administrations Office for State and local
result in the withdrawal of the offer by the Agency. Any change to the Agreement by the recipient subsequent to the document being signed by the EPA Award Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/advancement by the recipient of Natural Resources and Environmental Control Result of Advancement and the U.S. Environmental Protection Agency (EPA), hereby offers assistance/advancement by the recipient of Natural Resources and Environmental Control Result of Advancement and the U.S. Environmental Protection (Including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISSUING OFFICE Grants Administration Office) ORGANIZATION/ADDRESS Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Fhiladelphia, Pennsylvania 19106 The UNITE STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY Material or provisions and assistance regulations. In accepting this award or amendment al Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OFFICIE in 112 Dohn E. Willson, III PAGE 400 PAGE 400		
to the document being signed by the EPA Awad Official which the Award Official determines to materially alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/#MAGNERAK to the Delaware Department of Natural Resources and Environmental Control for 100_% of all approved costs incurred up to and not exceeding \$ 313,514 for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISUNG OFFICE (Grants Administration Office) OFGANIEATION/ADDRESS Grants Management Section (3PM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITEDSTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY Thomas P. Eichler, Regional Administrator (a) that the avaid is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned regresents that the is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 0 CFR Chapter I, Subchapter B and (2) the recipient agrees (b) that the award is authorized to act on behalf of the recipient organization, and (2, the recipient agrees (c) that the award is subject to the applicable provisions of 0 CFR Chapter I, Subchapter B and (2) the payee that the award is authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is authorized to act on behalf of the recipient organization, and (2, the recipient agrees (b) that the award is authorized to act on behalf of the recipient organization, and (2, the recipient agrees (c) that the award is authorized to	Receipt of a written refusal or failure	e to return the properly executed document within the prescribed time, may
alter the Agreement shall void the Agreement. OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/dddddafafficer belaware Department of Natural Resources and Environmental Control Activity of all approved costs incurred up to and not exceeding \$ 373.512 for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISSUING OFFICE (Grants Administration Office) ORGANIZATION/ACORES Grants Management Section (3FM32) U. S. EFA, Regional III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITESTATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refined or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OR ANISATION 10 AFT JOHN E. WILSON, III 16 July 8	result in the withdrawal of the offer b	by the Agency. Any change to the Agreement by the recipient subsequent
OFFER AND ACCEPTANCE The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/#MARKENENE to the Delaware Department of Natural Resources and Environmental Control Assistance/#MARKENENE to the Delaware Department of Natural Resources and Environmental Control Assistance/#MARKENENENENENENENENENENENENENENENENENENEN		
The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/####################################	alter the Agreement Sham for the the	
The United States of America, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers assistance/#MERENE to the Delaware Department of Natural Resources and Environmental Control Mor_LOO_% of all approved costs incurred up to and not exceeding \$ 373.514 ASSIVANCE AMOUNT for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISSUING OFFICE (Grants Administration Office) GRANIZATION/ADORES Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TILE Thomas P. Eichler, Regional Administrator (3) U. S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amedment and any payments made pursuant thereto. (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement is fund (N), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OREANIZATION (AGENCY SIGNATURE EPP, Ferm \$700-204 (Rev. §-79) PAGE 4 00 PAGE		
assistance/####################################		
fbr 100 % of all approved costs incurred up to and not exceeding § 37.514 ASSISTANCE AMOUNT ASSISTANCE AMOUNT for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. SUING OFFICE (Grants Administration Office) ORGANIZATION/ADDRESS Grants Management Section (3PM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 ONGANIZATION/ADDRESS ORGANIZATION/ADDRESS ORGANIZATION/ADDRESS Philadelphia, Pennsylvania 19106 ONGANIZATION/ADDRESS ONGANIZATION/ADDRESS ORGANIZATION/ADDRESS Philadelphia, Pennsylvania 19106 ONTE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONTE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONTE TYPED NAME AND TITLE ONTE TYPED NAME AND TITLE ONTE TYPED NAME AND TITLE ONTE TYP		
fbr 100 % of all approved costs incurred up to and not exceeding § 37.514 ASSISTANCE AMOUNT ASSISTANCE AMOUNT for the support of approved budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. SUING OFFICE (Grants Administration Office) ORGANIZATION/ADDRESS Grants Management Section (3PM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 ONGANIZATION/ADDRESS ORGANIZATION/ADDRESS ORGANIZATION/ADDRESS Philadelphia, Pennsylvania 19106 ONGANIZATION/ADDRESS ONGANIZATION/ADDRESS ORGANIZATION/ADDRESS Philadelphia, Pennsylvania 19106 ONTE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONTE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONTE TYPED NAME AND TITLE ONTE TYPED NAME AND TITLE ONTE TYPED NAME AND TITLE ONTE TYP	The United States of America, acting by	and through the U.S. Environmental Protection Agency (EPA), hereby offers
ANSTANCE ANOUNT Insummed budget period effort described in application (including all application modifications) Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. INSUME OFFICE (Grants Administration Office) ORGANIZATION/ADDRESS Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY ONE AMERICA BY THE U.S. ENVIRONMENTAL PROTECTI	The United States of America, acting by assistance/anoninent to theDelawa	v and through the U.S. Environmental Protection Agency (EPA), hereby offers re Department of Natural Resources and Environmental Contr
Remedial Investigation & Feasibility Study/Delaware Sand & Gravel included herein by reterence. ISSUING OFFICE (Grants Administration Office) AWARD APPROVAL OFFICE ORGANIZATION/AODRESS Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY INTREMET For Formagior Forma ORGANIZATION/AODRESS Philadelphia, Pennsylvania 19106 U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY INTREMET STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY INTREMET States of america By THE U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) th	assistance/anonent to the	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr
INTERMENTING ISSUING OFFICE (Grants Administration Office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS Grants Management Section (3PM32) U. S. EFA, Region III Curtis Building, 6th and Walnut Streets Fhiladelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZATION COLSPAN The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZATION COLSPAN The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZATION COLSPAN ThE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZATION COLSPAN The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZATION OF PARAGERIZATION OF PARAGERIZATION SCHART OF PARAGERIZA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY SCHART OF PARAGERIZA BY THE U.S. ENVIRONMENTAL PROTEC	assistance/attention to the	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr Recupited ORGANIZATION ared up to and not exceeding \$ 373,514
EATE AND YTLE ISSUING OFFICE (Grants Administration Office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS Grants Management Section (3PM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Fhiladelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY STATE AGE OF TAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 2 30 133 Colspan= 200 CIENCTON AGENCY STATE STATES OF	assistance/anonantent to the for% of all approved costs incur	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr Recupite Contraction and up to and not exceeding \$ 373,514
ORGANIZATION/ADDRESS Grants Management Section (3PM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 U. THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY VENAME or MANDOF Condition TYPED NAME AND TITLE This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. SIGNATURE TYPED NAME AND TITLE SIGNATURE TYPED NAME AND TITLE SIGNATURE TYPED NAME AND TITLE PAGE 4 OF PAGE 4 OF	assistance/accounter to the Delawa: for 100 % of all approved costs incur for the support of approved budget period	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications)
Grants Management Section (3FM32) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TILE Thomas P. Eichler, Regional Administrator TYPED NAME AND TILE This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of AD CFR Chapter I, Subchapter B and of the provisions of this agree ment (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OF ANIGATION / 9 SIGNATUME EPA Ferm STOD-20A (Rev. 8-79) PAGE 4 00	assistance/difficient to the for 100% of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas	wand through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$_373,514 assistance amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence and yrights
U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 U. S. EPA, Region III Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY The UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE (a) that the award is subject to the applicable provisions of 40 CFR Chapter I. Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OR STATES (16 July 84 EPA Parm 5700-204 (Rev. 8-79) PAGE 4 00	assistance/discontinent to the for% of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas SATE ISSUING OFFICE (Grants Admini	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding $\frac{S_{3/3}}{3/3}$, 514 assistance amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence and the second secon
Curtis Building, 6th and Walnut Streets Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TOPES AND ON SEMALF OF THE DESIGNATED RECIPIENT OFFICE B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OFFICE AND AND THE SIGNATURE DOWN LOW LOOP THE DAME AND TITLE TYPED NAME AND TITLE TYPED	assistance/different to the for 100% of all approved costs incur for the support of approved budget period Remedial Investigation & Feas ISSUING OFFICE (Grants Admini- ORGANIZATION/ADDRESS	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr Recupite Station (Station Station
Philadelphia, Pennsylvania 19106 Philadelphia, Pennsylvania 19106 Philadelphia, Pennsylvania 19106 Philadelphia, Pennsylvania 19106 THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY Standard of the united states of AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY Standard of the united states of AMERICA BY THE U.S. Environmental Protection Agency statutory provisions and assistance This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OF ANISATION / Q SIGNATURE TYPED NAME AND TITLE John E. Wilson, III 16 July 84 EPA Ferm \$700-20A (Rev. 8-79) PAGE 4 OF	assistance/discontinent to the <u>Delawa</u> for <u>100</u> % of all approved costs incur for the support of approved budget perior <u>Remedial Investigation & Feas</u> ISSUING OFFICE (Grants Admini ORGANIZATION/ACORESS Grants Management Section (1)	v and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr need up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS Regional Administrator (3RA00)
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator DUN 28 133 This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OF ANISATION / 9 SIGNATURE SIGNATURE SIGNATURE DOWN 28 193 PAGE 4 OF PAGE 4 OF	assistance/discontinent to the <u>Delawa</u> for <u>100</u> % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas ISSUING OFFICE (Grants Admini ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr RECIPIENT ORGANIZATION and up to and not exceeding \$ 373,514 assistance amount od effort described in application (including all application modifications) hiblity Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS Regional Administrator (3RA00) U. S. EPA, Region III
TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator JUN 28 133 This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OREAN(3ATION) / 9 SIGNATURE JOHN E. WILSON, III EPA Ferm 5700-20A (Rev. 8-79) PAGE 4 OF	assistance/discrete to the Delawa: for 100 % of all approved costs incus for the support of approved budget perior Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Walk	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr Recupiting Decanization and up to and not exceeding \$ 373,514 assistance amount od effort described in application (including all application modifications) bibility Study/Delaware Sand & Gravel included herein by reterence assistance and office) AWARD APPROVAL OFFICE ORGANIZATION/ACORESS Regional Administrator (3RA00) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets
Thomas P. Eichler, Regional Administrator JUN 28 193 This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORE INICATION / 9 SIGNATURE TYPED NAME AND TITLE JOHN E. WILSON, III 16 July 84 EPA Ferm 5700-204 (Rev. 8-79)	assistance/anticometry to the Delawar for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas ISSUING OFFICE (Grants Admini ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Walk Philadelphia, Pennsylvania	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr ared up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS BYB32) .nut Streets 19106
This Agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OR ANIZATION / Q SIGNATURE JOHN E. WILSON, III DATE 16 July 84 EPA Ferm 5700-20A (Rev. 8-79) PAGE 4 OF	assistance/different to the Delawa: for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr are up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS BYB32) Int Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY
regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OREANIZATION / 9 SIGNATURE JOHN E. WILSON, III DATE 16 July 84 EPA Ferm 5700-20A (Rev. 8-79)	assistance/####################################	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr are up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS BYB32) Int Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY
regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORE ANIZATION / Q SIGNATURE JOHN E. WILSON, III EPA Ferm 5700-204 (Rev. 8-79) PAGE 4 OF	assistance/####################################	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr are up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS BYB32) Int Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY
represents that he is duly authorized to act on behalf of the recipient organization, and (2, the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter I, Subchapter B and of the provisions of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORE ANIZATION / Q SIGNATURE TYPED NAME AND TITLE JOHN E. WILSON, III 16 July 84 EPA Ferm 5700-20A (Rev. 8-79)	assistance/ARAMANENE to the Delawar for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES SHOWATHE OF AWARD OF ICIAL	y and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr ared up to and not exceeding \$ 373,514 assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and through the U.S. Environmental Contr assistance Amount od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and through the U.S. Environmental Contr assistance Amount of effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence and through the U.S. EPA, Region III curtis Building, 6th and Walnut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OATE N 2 3 1
of this agreement (Parts I thru IV), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OREANIZATION / 9 SIGNATURE JOHN E. WILSON, III EPA Form 5700-20A (Rev. 8-79) PAGE 4 OF	assistance/ARAMENENE to the Delawa: for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES Stanator for Award Official This Agreement is subject to applicable regulations. In accepting this award or	A and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr RECUPIENT DRGANIZATION assistance amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence and the streets application Office) AWARD APPROVAL OFFICE ORGANIZATION/ADDRESS Regional Administrator (3RA00) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator U.S. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto. (1) the undersigned
that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA. BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OR ANIZATION / 9 SIGNATURE TYPED NAME AND TITLE JOHN E. Wilson, III DATE 16 July 84 PAGE 4 OF	assistance/attention to the Delawar for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES SHONATURE OF ANAROOFICIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to	v and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr need up to and not exceeding \$ _373,514 assistance Amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence and office) AWARD APPROVAL OFFICE 3PM32) nut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator U.S. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees
BY AND ON BEHALF OF THE DESIGNATED RECIPIENT OF ANISATION 79 SIGNATURE JULY JOHN E. WILSON, III 16 JULY 84 EPA Form 5700-204 (Rev. 8-79) PAGE 4 OF	assistance/attention to the Delawar for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES Signature of Amagoofficial This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli	v and through the U.S. Environmental Protection Agency (EPA), hereby offers re Department of Natural Resources and Environmental Contr red up to and not exceeding \$ _373,514 od effort described in application (including all application modifications) vibility Study/Delaware Sand & Gravel included herein by reterence axeration Office) Award Approval OFFICE OPGANIZATION/ACORESS Regional Administrator (3RA00) U. S. EPA, Region III Curtis Building, 6th and Walnut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator U.S. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I. Subchapter B and of the provisions
SIGNATURE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE LE JOATE	assistance/####################################	v and through the U.S. Environmental Protection Agency (EPA), hereby offers re Department of Natural Resources and Environmental Contr red up to and not exceeding \$ _373,514 od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence axeration Office) AWARD APPROVAL OFFICE 3PM32) Inut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 23 1 SUS. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I, Subchapter B and of the provisions (b) that acceptance of any payments constitutes an agreement by the payee
SIGNATURE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE JOATE BAR Form 5700-20A (Rev. 8-79) PAGE 4 OF	assistance/assistence/to the for% of all approved costs incur for the support of approved budget period Remedial Investigation & Feas: ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (1 U. S. EPA, Region III Curtis Building, 6th and Walk Philadelphia, Pennsylvania THE UNITED STATES Signature or Example (CIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (v and through the U.S. Environmental Protection Agency (EPA), hereby offers re Department of Natural Resources and Environmental Contr red up to and not exceeding \$ _373,514 od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence axeration Office) AWARD APPROVAL OFFICE 3PM32) Inut Streets 19106 OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 23 1 SUS. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I, Subchapter B and of the provisions (b) that acceptance of any payments constitutes an agreement by the payee
EPA Ferm 5700-20A (Rev. 8-79) PAGE 4 OF	assistance/additional to the Delawar for 100_% of all approved costs incur for the support of approved budget perior <u>Remedial Investigation & Feas</u> : <u>SATE</u> <u>ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS</u> Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall: Philadelphia, Pennsylvania <u>THE UNITED STATES</u> <u>SIGNATION OF MARAOFTICIAL</u> This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to	v and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr Refire Market Strand Stran
	assistance/addition to the Delawa: for 100_% of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: SAVE ISSUING OFFICE (Grants Admini- ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES Signature of Admark of Clark This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to BY AND ON	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ _373,514 assistance Amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence assistance Amount assistance Amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence assistance Amount aston behalf of the recipient organization, and (2, the recipient ag
ARIO0179	assistance/diversitients to the Delawa: for 100_% of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: SAVE ISSUING OFFICE (Grants Admini- ORGANIZATION/ACORESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES Signature of AMARO OFFICIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to BY AND ON	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ _373.514 assistance Amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence assistance Amount assistance Amount od effort described in application (including all application modifications) hibility Study/Delaware Sand & Gravel included herein by reterence assistance Amount aston behalf of the recipient organization, and (2, the recipient ag
AR100179	assistance/discrete to the Delawa: for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISUING OFFICE (Grants Admini- ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES SCINATURE OF AWARDOF ICIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to BY AND ON SIGNATURE	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ _313,514 od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence istration Office) AWARD APPROVAL OFFICE ORGANIZATION/ACORESS BPM32) Intu Streets Igits Igits OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 250 1 BUS. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I, Subchapter B and of the provisions (b) that acceptance of any payments constitutes an agreement by the payee (b) that acceptance of any payments constitutes an agreement by the payee (c) have been overpaid will be refunded or credited in full to EPA. ISEHALF OF THE DESIGNATED RECIPIENT OF ANISATION / 20 IYPED NAME AND TITLE JOhn E. Wilson, III
	assistance/different to the Delawa: for 100 % of all approved costs incur for the support of approved budget perior <u>Remedial Investigation & Feas</u> : <u>EAVE</u> <u>ISSUING OFFICE (Grants Adminit</u>) ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES MATTINE OF AWARDOF ICIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to BY AND ON SIGNATURE	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ _313,514 od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence istration Office) AWARD APPROVAL OFFICE ORGANIZATION/ACORESS BPM32) Intu Streets Igits Igits OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 250 1 BUS. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I, Subchapter B and of the provisions (b) that acceptance of any payments constitutes an agreement by the payee (b) that acceptance of any payments constitutes an agreement by the payee (c) have been overpaid will be refunded or credited in full to EPA. ISEHALF OF THE DESIGNATED RECIPIENT OF ANISATION / 20 IYPED NAME AND TITLE JOhn E. Wilson, III
	assistance/discrete to the Delawa: for 100 % of all approved costs incur for the support of approved budget perior Remedial Investigation & Feas: ISUING OFFICE (Grants Admini- ORGANIZATION/ADDRESS Grants Management Section (U. S. EPA, Region III Curtis Building, 6th and Wall Philadelphia, Pennsylvania THE UNITED STATES SCINATURE OF AWARDOF ICIAL This Agreement is subject to applicable regulations. In accepting this award or represents that he is duly authorized to (a) that the award is subject to the appli of this agreement (Parts I thru IV), and (that the amounts, if any found by EPA to BY AND ON SIGNATURE	and through the U.S. Environmental Protection Agency (EPA), hereby offers are Department of Natural Resources and Environmental Contr med up to and not exceeding \$ _313,514 od effort described in application (including all application modifications) ibility Study/Delaware Sand & Gravel included herein by reterence istration Office) AWARD APPROVAL OFFICE ORGANIZATION/ACORESS BPM32) Intu Streets Igits Igits OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY TYPED NAME AND TITLE Thomas P. Eichler, Regional Administrator OJUN 250 1 BUS. Environmental Protection Agency statutory provisions and assistance amendment and any payments made pursuant thereto, (1) the undersigned act on behalf of the recipient organization, and (2, the recipient agrees icable provisions of 40 CFR Chapter I, Subchapter B and of the provisions (b) that acceptance of any payments constitutes an agreement by the payee (b) that acceptance of any payments constitutes an agreement by the payee (c) have been overpaid will be refunded or credited in full to EPA. ISEHALF OF THE DESIGNATED RECIPIENT OF ANISATION / 20 IYPED NAME AND TITLE JOhn E. Wilson, III



pr Hoily 716187 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY **REGION III** 6TH AND WALNUT STREETS C PHILADELPHIA, PENNSYLVANIA 19 5 1984 JUL 3 DNREC SECRETA **VRY'S OFFICE** CERTIFIED MAIL Re: V-003299-01 9 1934 Delaware Department of Natural Resources and Environmental Control Honorable John E. Wilson, III, Secretary Department of Natural Resources and Environmental Control

89 Kings Highway P.O. Box 1401 Dover, Delaware 19901

Dear Mr. Wilson

I am pleased to inform you that I have approved your application and an award of \$373,514 under the Comprehensive Environmental Response, Compensation and Liability Act of 1980. This award is for the implementation of the remedial investigation and feasibility study for the Delaware Sand and Gravel hazardous waste site.

This award is made subject to the terms and conditions of the enclosed Assistance Agreement. The original copy of the agreement should be signed and returned to Mr. Frank Snock, Chief, Grants Management Section, within twenty-one days of your receipt. The copy should also be signed and retained for your files.

If any additional assistance is required, please contact your EPA Program Manager, Mr. Dominic DiGiulio, at 215/597-2193.

Sincerely,

RECEIVED

JUL 10 1984

WATER SUPPLY BRAN

homas P. Kichler Regional Administrator

Enclosure

40 ⁻¹	- 215 	<u>.</u>
4	i) il Istanti	¢,
<u>M</u>	E	

SECRETARY'S OFFICE

STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL BY KINGS HIGHWAY

P. O. BOX 1401 DOVER, DELAWARE 19901

TELEPHONE: (302) 736 - 4403

OFFICE OF THE SECRETARY

July 16, 1984

Mr. Frank Snock Chief, Grants Management Section U.S. Environmental Protection Agency Region III 6th & Walnut Streets Philadelphia, Pennsylvania 19106

Dear Mr. Snock:

Enclosed you will find the signed Assistance Agreement for the remedial investigation and feasibility study for the Delaware Sand and Gravel hazardous waste site.

We are looking forward to the opportunity to participate in the C.E.R.C.L.A. program as a state lead management action. Thank you for the attention you've given this matter.

Should you require any further assistance, please contact Ms. Marilyn Plitnik of our Water Supply Branch at (302) 736-5739.

Sincerely,

John E. Wilson, III

Secretary

JEW/MAP/ks

Enclosure

cc: Marilyn A. Plitnik Thomas P. Eichler

			Γ Λ	ent # 1
			Award	Document
	E AMENDMENT			ASSISTANCE 1.D. NO. V-003299-01
(Opt Please read instr	tional) ructions on revers	(e)		AMENDMENT NO.
NOTE: The original Amendment with one copy mus			Administration	P
assistance awards and to the Grants Administration or within any extension of time as may be granted the Amendment may be incurred prior to the execution Receipt of a written refusal, or failure to receive mination of consideration of the Assistance Amend	n Branches for St in writing by EPA ion of the Assista ve the properly es	tate and local, assistance. A. Except as may be off since Amendment by the p	e awards within erwise provide arties thereto.	3 weeks after receipt d, no costs as a result of
	GENERAL INF	FORMATION		
	and the second second second second second second second second second second second second second second second	ACCOUNTING DATA		
(0.00m01) #	UNT NUMBER		OBJECT CLASS	
DESCRIPTION OF AMENDMENT. PURSUANT TO EPA A	03RL45	LATION 40 CER 30.900 "	41,85	DCN: V85014
 A. The EPA Award amount is hereby increased by \$385,527, from \$373,514 to \$759,041, utilizing FY-85 funds. This amendment is for the remedial investigation and feasibility study at Delaware Sand and Gravel hazardous waste site. B. The approved allowable budget categories are as follows: Personnel Piringe Benefits Travel Equipment South and the second and the se				
		r		
AWARD APPROVAL OFFICE		ORGANIZATION	ISSUING OFFIC	
Regional Administrator (3RAOO)		Grants Manageme	ent Section	(3PM32)
ADDRESS		ADDRESS	on TTT	
U. S. EPA, Region III 841 Chestnut Building		U. S. EPA, Region III 841 Chestnut Building		
Philadelphia, Pennsylvania 19107		Philadelphia, 1		a 19107
RECIPIENT ORGANIZATION				
NAME		ADDRESS		
Delaware Department of Natural Res	ources	P. O. Box 1401		
and Environmental Control		89 Kings Highwa	•	
		Dover, Delaward		
Except as provided herein all terms and conditions and in full force and effect and subject to all appli	icable provisions	of 40 CFR Chapter 1, S	ubpart B.	
SIGNATURE OF AWARD OFFICIAL	TYPED NAME			DATE
	OF THE DESIGN	ATED RECIPIENT ORC	ANIZATION	
SIGNATURE DEMUL		vilson HH 13 Bern	B ^{azy}	October 15, 1985
EPA Form \$700-208 (Rev. 11-79)	1004982	DITION IS OBSOLETE.		Page 1 of 2

η,

- C. The approved allowable budget period cost of \$759,041 includes:
 - 1. Non-Federal funds of \$-0-
 - 2. Federal FY-84 funds of \$373,514 previously awarded
 - 3. Federal FY-85 funds of \$385,527 being awarded by this amendment.

标

- D. The Assistance Agreement is hereby amended by adding the following special condition:
 - 8. A provisional indirect cost rate of 19.54% has been budgeted in this Assistance Agreement, but is subject to a renegotiated rate by the cognizant Federal agency or at final audit.

All other terms and conditions remain unchanged.

× .

AMENDMENT NUMBER 1 TO CONTRACT FOR PERSONAL SERVICES CONTRACT NUMBER CERCLA 85-1 DATED OCTOBER 25, 1984

The above referenced contract between the Delaware Department of Natural Resources and Environmental Control and Dunn Geoscience Inc. is amended as follows:

By deleting Paragraph 6, Effective Date and Time of Performance, thereof in its entirety and insert in lieu thereof the following:

6. Effective Date and Time of Performance.

The services of the CONTRACTOR are to commence as soon as practicable after the execution of this Contract and shall be undertaken and completed in such sequence as to assure their expeditious completion in the light of the purposes of this Contract, but in any event all of the services required hereunder shall be completed no later than August 30, 1985, unless extended by Formal Amendment to this Contract. Final reports shall be delivered on the completion date specified above. The Contractor agrees to pay the Department liquadated damages in the amount of fifty dollars for each day the final report is late, which amount may be withheld by the Department from any final payment.

IN WITNESS WHEREOF, the Department and the Contractor have executed this Amenda to be effective as of the 8th day of November 1984.

> DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

BY:

DUNN GEOSCIENCE INC

AMENDMENT NUMBER 2 TO CONTRACT FOR PERSONAL SERVICES CONTRACT NUMBER CERCLA 85-1 DATED OCTOBER 25, 1984

The above referenced contract between the Department of Natural Resources and Environmental Control and Dunn Geoscience, Inc. is hereby amended as follows:

- A. By amending paragraph 7a. by deleting the amount "Two Hundred Eighty-seven Thousand Seven Hundred Twenty-six Dollars (\$287,726)" and inserting in lieu thereof the amount of "Two Hundred Ninety-two Thousand One Hundred Sixty-one Dollars (\$292,161)".
- B. By amending paragraph 8a. by deleting the amount "\$258,953" and inserting in lieu thereof the amount of "\$262,945".
- C. By amending paragraph 8b. by deleting the amount "\$28,773" and inserting in lieu thereof the amount of "\$29,216".
- D. By amending Task 8 of Attachment A, Scope of Services, by adding the following to the end thereof: "A location map shall be prepared which encompasses both the Delaware Sand and Gravel and Army Creek landfills. Major roads, railways, streams, and landmarks shall be shown on the location map. Monitoring wells and public and industrial water supply wells shall also be shown on the location map. The location map shall be prepared by tracing an enlargement of an existing map or aerial photograph".
- E. By deleting Task 8 of Attachment B in its entirety and substituting in lieu thereof the following:

Task 8 Prepare Topographic and Location Maps

A topographic map and a location map shall be prepared for the Delaware Sand and Gravel remedial investigation and feasibility study. The topographic map shall be site specific, encompassing the site and a small area immediately surrounding the site. The location map shall encompass both the Delaware Sand and Gravel and the Army Creek landfills. Major roads, railways, streams, and landmarks shall be plotted on the location map. Monitoring wells and public and industrial water supply wells shall also be plotted on the location map.

The topographic map shall be prepared in accordance with Attachment A of this contract. The location map shall be prepared by tracing an enlargement of an existing map or aerial photo. A reproducible mylar copy of both of these maps shall be delivered to the Department upon task completion.

Contract No. CERCLA 85-1, Amendment 2

IN WITNESS WHEREOF, The Department and the Contractor have executed this Amendment to be effective as of the 15th day of January 1985.

> DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

By: Attest

DUNN GEOSCIENCE, INC.

By: Attest:

AMENDMENT NUMBER 3 TO CONTRACT FOR PERSONNEL SERVICES CONTRACT NUMBER CERCLA 85-1 DATED OCTOBER 25, 1984

The above referenced contract between the Delaware Department of Natural Resources and Environmental Control and Dunn Geoscience, Inc. is amended as follows:

By amending paragraph 6 thereof by deleting the date "August 30, 1985" and inserting in lieu thereof the date "October 30, 1985". All other provisions of paragraph 6 shall remain in force and are not affected by this amendment.

IN WITNESS WHEREOF, the CONTRACTEE and the CONTRACTOR have executed this amendment to be effective as of the 30th day of August, 1985.

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

BY:

DUNN GEOSCIENCE, INC.

nes ATTEST:

AMENDMENT NUMBER 4 TO CONTRACT FOR PERSONAL SERVICES CONTRACT NUMBER CERCLA 85-1 DATED OCTOBER 25, 1984

WHEREAS, the remedial investigation undertaken by the contractor pursuant to this contract has revealed the need to collect much more information than originally anticipated in order to characterize the nature and extent of contamination of the Delaware Sand and Gravel landfill and assess the possible effects on human health and the environment.

WHEREAS, another amendment to the original contract was necessary to incorporate the extensive additional work required.

WHEREAS, Attachments A and B to this amendment have been amended to reflect new and additional work not covered by Attachments A and B to the original contract.

Now therefore by mutual assent of the parties, the above referenced contract as previously amended is further amended as follows:

By adding to line 2, page 1, after the words "Dunn Geoscience Corporation" the following: ", a New York corporation licensed to do business in Delaware".

By adding the following to the end of paragraph 1, <u>Employment of Contractor</u>: "and grant number V-003299-01-2.".

By deleting the following words from paragraph 3, <u>Scope of Services</u> "Attachments A and B" and inserting in lieu thereof: "Amended Attachments A and B".

By amending paragraph 6, Effective Date and Time of Performance: to change the completion date from "October 30, 1985" to "November 30, 1986".

By deleting from paragraph 7, <u>Total Cost and Compensation</u>, the following: "Two Hundred Ninety-two Thousand One Hundred Sixty-one Dollars (\$292,161)" and inserting in lieu thereof "Five Hundred Forty-two Thousand One Hundred and Five Dollars (\$542,105).

By amending paragraph 8 a. by deleting the amount "\$262,945" and inserting in lieu thereof the amount of "\$487,895" and by adding the word "Amended" before Attachments A and B.

By amending paragraph 8 b. by deleting the amount "\$29,216" and inserting in lieu thereof "\$54,210".

By adding a new paragraph as follows:

"23. <u>Prohibition of Contingent Fees.</u> The CONTRACTOR swears it has not employed or retained any company or person, other than a bona fide employee working primarily for the CONTRACTOR, to solicit or secure this agreement, and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working primarily for the CONTRACTOR, any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this agreement. For breach or violation of this section, the DEPARTMENT

shall have the right to terminate the contract without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration."

By adding a new paragraph as follows:

"24. Notwithstanding other terms and conditions of this contract, it is understood and agreed that the total cost and compensation hereunder shall not exceed the funds made available to the State of Delaware by U. S. Environmental Protection Agency for this project."

By deleting "Attachment A" and "Attachment B" in their entirety and substituting in lieu thereof "Amended Attachment A" and "Amended Attachment B" in their entirety.

All terms and conditions of Contract Number CERCLA 85-1 not heretofore or hereby amended shall remain in full force and effect.

IN WITNESS WHEREOF, the Department of Natural Resources and Environmental Control and the Contractor have executed this Amendment to be effective as of the 1st day of January 1986, provided that a valid executed purchase order has been approved by the Secretary of Finance.

AND ENVIRONMENTAL CONTROL BY:

DEPARTMENT OF NATURAL RESOURCES

ATTEST:

AR300189

DUNN GEOSCIENCE INC.

BY:_____

ATTEST:

Technical Progress Report

Delaware Sand and Gravel Landfill

RI/FS

November 1984

During the month of November, 1984, work has been performed on 10 of the tasks defined in the Department scope of work in contract No. CERCLA 85-1. Initial actions have been taken to schedule work activities, collect literature, define the Health and Safety and Quality Assurance protocols, set up the forms for reporting to the State, and to set up data files on computers. The specific tasks addressed during November include tasks 2, 3, 4, 5, 8, 9, 11, 15, 17 and 24. Details describing the work performed per task are provided below:

Task 2 - Health and Safety Plan

The State of Delaware Health and Safety Plan for RCRA remedial actions was reviewed. The State plan, with minor additions, was considered adequate by Dunn Geoscience. The additions to the State plan were detailed in an addendum which was delivered to the Department on Monday, November 19, 1984. The Department and EPA Region 3 reviewed the plan during the week of November 19th. Verbal approval of the Delaware Sand and Gravel Health and Safety Plan for the Dunn Geoscience RI/FS activities was provided by Steve Young on Monday, November 26, 1984. Written notification of the approval has not been received as of November 30, 1984.

Sixty-nine percent (69%) of this task has been completed as of November 30, 1984. Review of the safety plan by Dunn personnel and written approval from the State are anticipated. This task will be completed in December.

Task 3 - Quality Assurance Plan

The State of Delaware Quality Assurance (QA) Plan was reviewed during the week of November 19, 1984. The State QA Plan, with some changes, was deemed adequate by Dunn Geoscience. The changes to the State plan were detailed in an addendum prepared by Dunn Geoscience. This addendum was Federal Expressed to Steve Young on Monday, November 26, 1984. This modified plan is being reviewed by the Department and EPA Region 3.' Comments on the modified QA plan are anticipated before Tuesday, December 11, 1984.

Eighty-five percent of this task has been completed as of November 30, 1984. This QA plan must be reviewed by the State Laboratory personnel and any Department modifications must be incorporated. This task should be completed in December.

Task 4 - Collect and Evaluate Existing Data

This task was begun the week after the contract between the Department and Dunn was signed (November 12 - 16). All in-house information was collected and reviewed. Appointments were scheduled to review Department files and Delaware Geological Survey (DGS) files during the week of November 19 through 21 (Thanksgiving week). W.J.' Miller and P.W. Hare reviewed the Department files on November 19 and 21 and DGS files on November 21. Much information was collected. All the literature and data collected are being compiled (during the week of November 26 - 30, and ongoing). An appointment was scheduled with Dom DeGuiglio, EPA Region 3, to peruse EPA files on Tuesday, December 4, 1984.

A reference list of all reports and key memos and letters has been and will continue to be prepared by Dunn Geoscience. This reference list is attached for Department and EPA review. It is anticipated that any key references missing from the Dunn Geoscience reference list will be identified by the Department or EPA.

In the compilation of existing data, it was apparent that water level and pumpage data are readily available for the years prior to 1980. The most recent water level and pumpage data are not readily available in the reports and files Dunn Geoscience personnel (Miller and Hare) reviewed. Water-quality data prior to 1980 is available on a scattered basis. Summaries and continuous-time plots (1973 to present) of water quality are not available in the reports and files Dunn Geoscience personnel reviewed. Much, if not all, of this information was collected specifically for the Army Creek Landfill studies. These data are necessary to completely evaluate the Delaware Sand and Gravel Landfill. Much of the data Dunn Geoscience requires should be readily available from New Castle County (NCC) or Roy F. Weston. Since the data are probably on computer files, it would be preferable to obtain a magnetic tape of all the Army Creek water levels, pumpages, and water quality. In a verbal conversation with Steve Young, W.J. Miller requested the Department obtain the Army Creek data from NCC or Weston, or to allow Dunn personnel to contact the County directly. As of November 30, 1984, Dunn has not obtained Army Creek data from the NCC or Weston, nor has permission been granted to directly contact NCC.

Data concerning 1980 to present pumpages, water levels, and water quality for Artesian and Amoco wells should be available from the Department. However, this information was not in the Department's Army Creek or Delaware Sand and Gravel Superfund files.

It is anticipated that more data will be collected. All data will be summarized and plotted (either contour plots or x-y plots). Trends concerning water quality and water levels will be evaluated statistically. Thirty-seven percent (37%) of this task has been completed as of November 30, 1984.

This task is running behind the CPM scheduled data of completion. It should be completed in December. The delay in this task delays Task 15, the model. Information is required from New Castle County. Permission for Dunn to contact the County directly is being considered by the Department.

Task 5 - Site Survey and Surface Geophysics

The preliminary site survey was scheduled for Monday, December 3, 1984. The Dunn Geoscience personnel available to attend the meeting are:

William E. Cutcliffe, CPG	Project Director
William J.'Miller III	RI Project Manager
Paul W. Hare	On-Site Geologist
James P. Behan, P.E.	FS Project Manager
Sander I. Bonvell	Project Chemist
William J. Hall	Engineering Geologist

It is anticipated that Department and EPA Region personnel will be present at the site survey. The site will be inspected and potential monitoring sites selected.

The surface geophysics has been scheduled for the week of December 17, 1984.

Two percent (2%) of this task has been completed as of November 30, 1984.

This task was scheduled earlier than as described on the Project CPM chart. This speed-up in the schedule is to avoid performing geophysics during Christmas week. Task 5 should be completed one week ahead of the CPM scheduled date of completion.

Task 8 - Topographic Mapping

Data Reduction Services has been contacted and a flight for aerial photographs has been scheduled for sometime in December (weather dependent). Ground controls will be established prior to the flight by Richardson personnel.

Less than one percent (1%) of this task has been completed as of November 30, 1984. This task is on schedule and should be completed in January.

Task 9 - Mobilize Field Equipment

Arrangements were made to have a construction/office trailer delivered to the site on Wednesday, December 5, 1984. The trailer is being leased from Hale Trailer and Truck Equipment of Marlton. New Jersey.

-4-

Disposable safety equipment was obtained for the site visit and for subsequent work at the site. This equipment includes disposable coveralls, gloves, paper towels, and boots. This equipment will be billed on a usage basis.

Nine percent (9%) of this task has been completed as of November 30, 1984.

This task is being performed in accordance with the CPM schedule.

Task 11 - Ground Survey

The ground survey of the grid and baseline has been scheduled for the week of December 10, 1984. The grid pattern, intended for easy identification of soil sampling and other monitoring locations, will also be used during the surface geophysics. Richardson personnel will set up the grid and baseline.

Less than one percent (1%) of this task has been completed as of November 30, 1984.

The grid and baseline survey has been moved up in the project schedule to accomodate the geophysical survey. The grid and baseline should be completed during the week of December 17th. The elevations and location surveys for monitoring points will be performed after Task 10.

Task 15 - Model Preparation

The USGS report describing the Martin Quasi-3D model has been reviewed. The input data for the Miller 2D flow model has been put on the Dunn Geoscience computer and is currently being modified. Data from 1978 to the present must be made available to Dunn before the Miller model can be completely updated.

Anticipated actions include updating the Miller flow model to match present data and using input data from the updated Miller 2D flow model in the development of the transport model.

This task is slightly behind schedule because of the lack of readily available pumpages, water levels, and water-quality data from 1978 to the present. This information should be available from the County or Weston.

AR300193

1 2 4 4

Task 17 - Progress Reports and Meetings

This document is the first progress report for contract No. CERCLA 85-1. This report details work and expenditures for the month of November, 1984.

Less than one percent (1%) of this task has been completed as of November 30, 1984.

This task is on schedule.

Task 24 - Final Report

Map preparation was started for use during the project. The maps that will be prepared will be used in the final report to highlight special features and sampling points.

Two percent (2%) of this task has been completed as of November 30, 1984.

This task is ahead of schedule. Maps and figures for early reporting are being prepared.

DUNN GEOSCIENCE CORPORATION

100194

-5-

REFERENCES

Adams, J.K., and Boggess, D.H., 1964, Water-Table, Surface-Drainage, and Engineering Soils Map of the Wilmington Area, Delaware: U.S. Geological Survey, Hydrologic Investigations Atlas HA-79.

Anonymous, ? , Evaluation of Ground Water Availability and Pumping Capacity, Llangollen Area: 4 pages.

Apgar, M.A., 1975, We Can't Afford to Let This Happen Again: Delaware Conservationist, Vol. 19, No. 2, pp. 19-21.

Apgar, M.A., and Satterthwait, W.B., 1972, Preliminary Investigation of Ground Water Contamination Associated with the Llangollen Landfill, New Castle County, Delaware: Roy F. Weston, Inc., 33 pages.

Avisun Corporation, ?, Report of Ground Water Investigation, Avisun Plant, New Castle, Delaware.

Back, W., 1966, Hydrochemical Facies and Ground-Water Flow Patterns in Northern Part of Atlantic Coastal Plain: U.S.G.S. Prof. Paper 498-A, 42 p.

Back, W., and Cherry, J.A., 1976, Chemical Aspects of Present and Future Hydrogeologic Problems: Adv. in Groundwater Hydrology, p. 153-172.

Baedecker, M.J., and Apgar, M.A., 1982, Hydrogeochemical Studies at a Landfill in Delaware: Dept. of Natural Resources and Environmental Control, Water Resources Section.

Baedecker, M.J., and Back, W., 1979, Hydrogeological Process and Chemical Reactions at a Landfill: Ground Water, Vol. 17, No. 5, p. 429-437.

Boggess, D.H.; and Coskery, O.J.; 1955, Water Levels and Artesian Pressures in Delaware, 1953: Delaware Geological Survey, Water-Level Report No. 2, 10 p.

Clark, D., 1979, Analysis of Army Creek Landfill Contamination Problem, Newark, Delaware: M.S. Civil Eng. Thesis, Univ. of Delaware, 120 p.

Coskery, O.J., 1961, Water Levels in Delaware, 1958: Delaware Geological Survey, Water-Level Report No. 7, 17 p.

Coskery, O.J., 1961, Water Levels in Delaware, 1957: Delaware Geological Survey Water-Level Report No. 6, 22 p.

Coskery, O.J., 1960, Ground Water Levels in the United States, 1956-57: U.S.G.S. Water Supply Paper 1537, p. 9-15.

Coskery, O.J.; and Boggess, D.H.; 1956, Water Levels and Artesian Pressures in Observation Wells in the United States: U.S.G.S. Water Supply Paper 1321, p. 13-22.

.

Coskery, O.J.; and Boggess, D.H., 1956, Water Levels and Artesian Pressures in Delaware, 1959: Delaware Geological Survey, Water-Level Report No. 3, 10 p.

Coskery, O.J., 1956, Water Levels and Artesian Pressures in Delaware, 1955: Delaware Geological Survey Water-Level Report No. 4, 9 p.

Coskery, O.J., and Rasmussen, W.C., 1958, Water Levels in Delaware, 1956: Delaware Geological Survey, Water-Level Report No. 5, 21 p.

Delaware River Basin Commission, 1982, Special Ground Water Study, Basinwide Report and Executive Summary.

Delaware Interstate Highway Division, 1962, Proposed Second Structure for the Delaware Memorial Bridge, Report on Engineering Studies and Cost Estimates: Howard, Needles, Temmen & Bergendoff, Consulting Engineers, 96 p.

Dept. of Natural Resources and Environmental Control, 1975, Water Resources Framework: 56 p.

Dept. of Natural Resources and Environmental Control, Water Supply Branch, 1978, Public Water Systems in Delaware: 89 p.

DeWalle, F.B., and Chian, E.S.K., 1981, Detection of Trace Organics in Well Water Near a Solid Waste Landfill: J.' of the Amer. Water Works Assoc., p. 206-211.

Ecology and Environment, Inc., 1982, Hydrologic Survey of Army Creek Landfill and Delaware Sand and Gravel Landfill: USEPA Contract No. 68-01-6056.

Ecology and Environment, Inc., 1982, Well Drilling at Delaware Sand and Gravel Landfill, New Castle, Delaware: USEPA Contract No. 68-01-6056.

Geraghty & Miller, Inc., 1982, Evaluation of the Recovery-Well System for the Llangollen Landfill, New Castle County, Delaware, a Report to the Artesian Water Company: Geraghty & Miller, Inc., Ground-Water Consultants, 28 p.

Geraghty & Miller, Inc., 1973, Evaluation of the Ground-Water Conditions in the Llangollen Well Field Artesian Water Company, Newport, Delaware: Geraghty & Miller, Inc., Consulting Ground-Water Geologists, 21 p.

Geraghty & Miller, Inc., 1973, Occurrence of Chlorides in the Shallow Artesian Aquifer, Avisun Corporation, New Castle, Delaware: Geraghty & Miller, Inc., 18 p.

Johnson, R.H., 1973, Hydrology of the Columbia (Pleistocene) Deposits of Delaware: An Appraisal of a Regional Water-Table Aquifer: Delaware Geological Survey Bull. 14, 78 p.

Jordan, R.R., and Talley, J.H., 1976, Columbia Deposits of Delaware: Delaware Geological Survey, Open File Report No. 8, 49 p.

Jordan, R.R., 1968, Observations on the Distributions of Sands within the Potomac Formation of Northern Delaware: Southeastern Geology, Vol. 9, No. 2.

Jordan, R.R., 1964, Columbia (Pleistocene) Sediments of Delaware: Delaware Geological Survey, Bull. No. 12, 69 p.

Jordan, R.R., 1963, Configuration of the Cretaceous - Tertiary Boundary in the Delmarva Peninsula and Vicinity: Southeastern Geology, Vol. 4, No. 4, p. 187-198.

Jordan, R.R., 1962, Planktonic Foraminifera and the Cretaceous Tertiary Boundary in Central Delaware: Delaware Geological Survey Report of Investigations No. 5, 13 p.

Lakshman, B.T., 1981, Is it Feasible to Clean the Aquifer Once it is Contaminated by Landfill Leachate?: Quality of Groundwater, Proceedings of an International Symposium, The Netherlands, Studies in Environmental Science, Vol. 17.

Legette, R.M., 1961, Groundwater Conditions in the Vicinity of the Avisun Plant Near New Castle, Delaware: Leggette, Brashears & Graham, Consulting Ground-water Geologists.

Liu, A.A., and Stoufer, R., 1976, Report on Statistical Analysis of Groundwater Quality Data From the Vicinity of Llangollen Landfill: DNREC Interoffice Memorandum, March 10, 1976.

Marine, I.W., 1955, Water Levels and Artesian Pressures in Observation Wells in the United States, 1952: U.S.G.S. Water Supply Paper 1221, p. 11-18.

Marine, I.W., and Rasmussen, W.C., 1954, Water Levels and Artesian Pressures in Observation Wells in the United States, 1951: U.S.G.S. Water Supply Paper 1191, p. 11-16.

Marine, I.W., 1954, Water Levels and Artesian Pressures in Delaware, 1952: Delaware Geological Survey, Water-Level Report No. 1, 11 p.

Martin, M.M., 1984, Simulated Ground-Water Flow in the Potomac Aquifer, New Castle County, Delaware: U.S.G.S. Water-Resources Investigations Report 84-4007, 85 p.

Martin, M.M., and Denver, J.M. 1982, Hydrologic Data for the Potomac Formation in New Castle County, Delaware: U.S.G.S. Water-Resources Investigations Open-File Report 81-916, 148 p.

Miller, W.J., 1982, An Analysis and Computer Simulation of the Ground Water Flow in the Vicinity of Army Creek, New Castle County, Delaware: M.S. Civil Eng. Thesis, Univ. of Delaware, 228 p.

Miller, W.J., and Silka, L.R., 1981, Application of Computer Modeling for the Investigation of Ground-Water Contamination: Proceedings of the Fourth Annual Madison Conference of Applied Research and Practice on Municipal and Industrial Waste, Madison, Wisconsin, p. 361-382.

Miller, J.C., 1971, Ground-Water Geology of the Delaware Atlantic Seashore: Delaware Geologic Survey, Report of Investigations No. 17, 33 p.

NUS Corporation, 1983, Remedial Action Master Plan - Delaware Sand and Gravel Landfill, New Castle County, Delaware: NUS Project No. 0701.05, USEPA Work Assignment No. 01-3V34.0, Contract No. 68-01-6699.

NUS Corporation, 1983, Work Plan - Initial Remedial Measures and Remedial Investigation/Feasibility Study, Delaware Sand and Gravel Landfill Site, New Castle County, Delaware: NUS Project No. 0701.05, USEPA Work Assignment No. 01-3V34.0, Contract No. 68-01-6699.

Parker, G.G., Hely, A.G., Keighton, W.S., Olmsted, F.H., and others, 1964, Water Resources of the Delaware River Basin: U.S.G.S. Professional Paper 381.

Rima, D.R., Coskery, O.J., and Angerson, P.W., 1964, Ground-Water Resources of Southern New Castle County, Delaware: U.S.G.S. Water-Supply Paper 1756, 52 p.

Spoljaric, N., 1983, Delaware Geological Survey Atlas: Delaware Geological Survey.

Spoljaric, N., and Crawford, W.A., 1979, Removal of Metals From Laboratory Solutions and Landfill Leachate by Greensand Filters: Delaware Geological Survey, Report of Investigations No. 32, 30 p.

Spoljaric, N., and Woodruff, K.D., 1970, Geology, Hydrology, and Geophysics of Columbia Sediments in the Middletown-Odessa Area, Delaware: Delaware Geological Survey Bull. 13, 156 p.

Spoljaric, N., 1967, Pleistocene Channels of New Castle County, Delaware: Delaware Geological Survey, Report of Investigations No. 10, 15 p.

Spoljaric, N., 1967, Quantitative Lithofacies Analysis of Potomac Formation, Delaware: Delaware Geological Survey, Report of Investigations No. 12, 26 p.

Sundstrom, R.W., 1974, Water Resources in the Vicinity of a Solid Waste Landfill in the Midvale-Llangollen Estates Area, New Castle County, Delaware: Univ. of Delaware, Water Resources Center, 92 p.

Sundstrom, R.W., and Pickett, T.E., 1971, The Availability of Ground Water in New Castle County, Delaware: Univ. of Delaware, Water Resources Center 156 P.

ÅR100198

Sundstrom, R.W., and others, 1967, The Availability of Ground Water From the Potomac Formation in the Chesapeake and Delaware Canal Area, Delaware; Univ. of Delaware, Water Resources Center, 95 p.

Talley, J.H., 1978, Ground-Water Levels in Delaware, July, 1966 - December, 1977: Delaware Geological Survey, Report of Investigations No. 30, 50 p.

Thomas, A., Leis, W.M., and Clark, D., 1978, Physical and Chemical Rehabilitation of Contaminent Recovery Wells Army Creek Landfill, New Castle County, Delaware: Roy F. Weston, Inc., 10 p.

Upson, J.E., 1966, Relationships of Fresh and Salty Ground Water in the Northern Atlantic Coastal Plain of the United States: U.S.G.S. Professional Paper 550-C, p. C-235 - C-243.

Roy F. Weston, Inc. 1983, New Castle County, Army Creek Landfill, New Recovery Wells Pump Test: Roy F. Weston, Inc., West Chester, Pennsylvania, 19 p.

Roy F. Weston, Inc., ?, Relocation of Leachate Recovery Wells, Army Creek Landfill, New Castle County, Delaware: Roy F. Weston, Inc., 25 p.

Roy F. Weston, Inc., ? , Interim Report, Llangollen Landfill Treatment Alternatives: Roy F. Weston, Inc., 15 p.

Roy F. Weston, Inc., 1976, Control Program for Leachate Affecting a Multiple Aquifer System Army Creek Landfill, New Castle County, Delaware: Roy F. Weston, Inc., 18 p.

Roy F. Weston, Inc., 1974, Preliminary Feasibility Study, Leachate Control Strategies for Llangollen Landfill, New Castle County, Delaware: Roy F. Weston, Inc., 59 p.

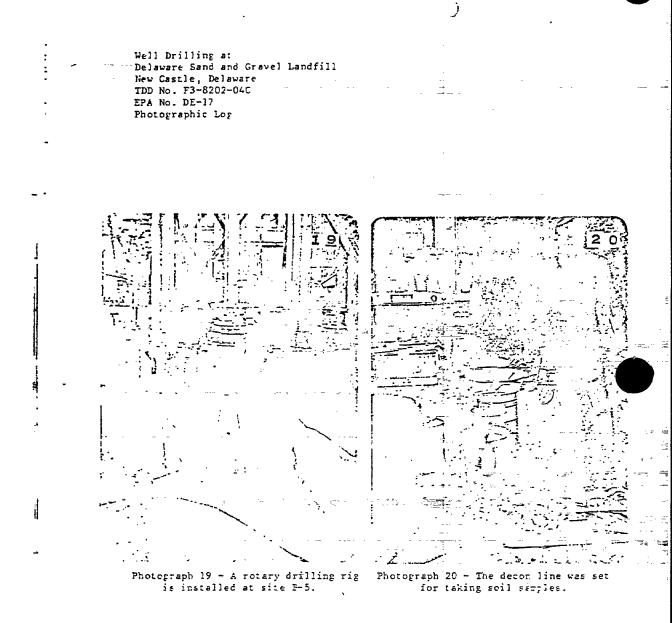
Roy F. Weston, Inc., 1973, Ground Water Contamination Associated With the Llangollen Landfill, New Castle County, Delaware, Extent of Contamination and Proposed Corrective Procedures: Roy F. Weston, Inc., 12 p.

Williams, P.M., 1978, Geohydrology of the Upper Potomac in Northeastern New Castle County, DNREC Interoffice Memorandum, July 19, 1978.

Woodruff, K.D., 1984, Geohydrology of the Wilmington Area: Delaware Geological Survey, Hydrologic Map Series, No. 3, 3 Sheets.

Woodruff, K.D., 1984, Geohydrology of the Newark Area: Delaware Geological Survey, Hydrologic Map Series, No. 2, 3 Sheets.

) Well Drilling at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17 Photographic Log Pitore #17 PHUTE # 12 DELACIARE 3430 2 GRAVEL_ F3-8202-04-C DELAWARE SAULE -2-8262-04.C JE-17 アヨー 7/9/82/0045 7/14/32/1030 BCK 1= ツのスール こうかい とうやうろう うち まの אושבט שהא למטונות נטעות שאוד באביער באיונים דיי צודב C.K. Bic C.K. 6-2-18 AR100200



6-2-19

6-

Well Drilling at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17 Photographic Log

Ţ

; 2570 = 20 JELAWHE MALL 3 GRAVELL F3-8222-040 Ptore # (" JELANE SAULS GRAUEL . F3-8202-04-C DE-17 DE-17 6/23/22/1000 6/28/52/1000 BYCK LES STOK LEE

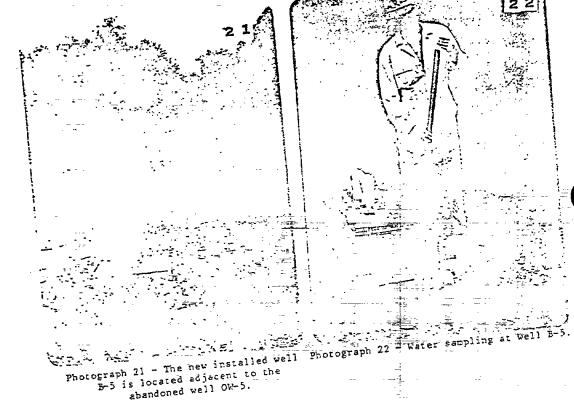
Ĵ.....

A RETAIN RIG 18 INSTALLED THE DER THUNGE SOIL EANIPLES AT SITE 35 C.K. LEE

6-2-20

Well Drilling at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17 Photographic Log

Ł



6-2-21

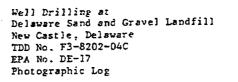
)



Well Drilling at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C -EPA No. DE-17 Photographic Log

المرتبة في JELAOUARE SAND 2 GRAVEL PH3TO = 32 DELENTE SAIDS BANKEL F3-5262-04C シミーロ F3-5202-040 7/1/52/1000 DE-17. J. G. K. IEE 7/14/82/09/52 BY C.K. LEE 北部行之间的 יש בונשהם המירשאדות שנים ABADRED WELLOW-5 . しいっていいたいですていき C.K. Ste 8-5 ΣV



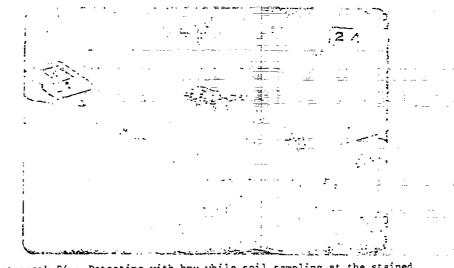


ار بفتة من لت ζ, (near E-3 site) General view of the refuse (laupfill) area

23

Photograph 23

1



÷4

Photograph 24 - Detecting with hnu while soil sampling at the stained are near landfill entrance.

6-2-23

AR100205-

Well Drilling a: Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-8202-04C EPA No. DE-17 Photographic Log

17HOTO # 23

DELAWARE SAUD & ORAVEL F3-8203-04C DE-17 7/7/83/1300 BY LOREN LASKY

)

日本日本(1222)中京市にに(しいつ)

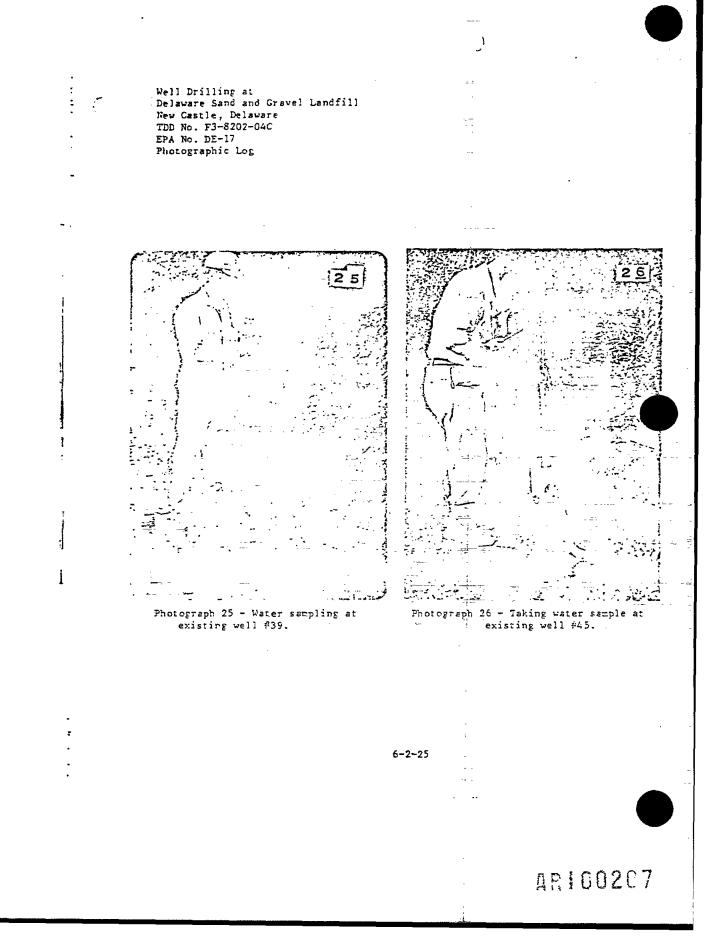
PH = 24 1月10日間 いちょうないに F3-8202-04C

JE-17 14.1.3 RC.K.LE

び町のうとゆ さま まこの ちまって いった いったいちょうでの

C.K. Eq

6-2-24



Well Drilling at Delaware Sand and Gravel Landfill New Castle, Delaware TDD No. F3-B202-04C EPA No. DE-17 Photographic Log

is # mit PHUTO EST DELAWARE SAND JELALIARE SALID + GRAVEL F3-5203-04C 1-2-2252-04-2 DE-17 DE-17 花菇的店 「行行にいる ヨレインに RI LEEL LEELY UTP Staplant AT הר נוגר ווייבר אביוור ב גר 一日、日本の一川山上 .

5 .

: : .

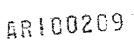
Ţ

- • •

6-2-26

.

.



ATTACHMENT 3

DOCUMENT !! UNITED STATES ENVIRONMENTAL PROTEC RECEIVED REGION III . - -67H AND WALNUT STREETS BRILADELPHIA PENSYLVENA STATE JUN2 4 1982 ecology and environment, inc. Philadelphia (L1 JUN 1 6 1892 Chris Hadel Mr. Bob Touhey, Manager

Water Resources Division Dept. of Natural Resources & Environmental Control Dover, Delaware 19901

Dear Bob:

Attached are copies of the coorespondence between EPA and the Delaware State Board of Registration of Geologists. The letter of June 8 con-firms the procedures that EPA will formally institute regarding the preparation or reports which contain hydrogeological evaluations of sites in Delaware.

As you know, Ecology and Environment has subcontracted A.C. Schultes, to drill additional monitoring wells at the Delaware Sand & Gravel Landfill, New Castle County. This work is tentatively scheduled to commence on June 23, 1982; however, before this work can begin, the E & E office requested a similar letter of confirmation from the DNREC.

This letter should be addressed to Walter Lee, and include the following items:

- a) agreement with the general EPA review process over contractor geologists
- specific agreement regarding the location points for the monitoring wells at the Delaware Sand & Gravel Landfill.

On Abril 12, 1982 a meeting was held in Dover, among Lisa Hamilton, Mike Appar, C.K. Lee (E&E), and myself, in order to discuss the hydro-geological study at the Army Creek/Delaware Sand & Gravel Landfills, and specified drilling locations. Initially, Mike requested that six pairs of wells be drilled as opposed to the suggested 5 wells. It was then explained that money for the drilling was limited, and that this task may be followed-up with additional drilling if deemed necessary. At the tonclusion of the meeting it was agreed that this proposal would suffice as an initial step. as an initial step.

5 107

Nr. Bob Touhey Page 2

Please discuss this matter with your staff and forward the necessary letter, as soon as possible to avoid any further delays for the drilling.

· - ·

<u>.</u>

æ.,

•

· · · · · · ·

Į.

Thank you,

= <u>-</u>

. <u>:</u> ·

Chrid Hadduck

Christine Hladchuk Project Officer Superfund/RCRA Compliance Section

204 5

AR100211

÷

DOCUMENT #2

Mr. Emil Gnuschak, Chairman State Board of Registration of Geologist Delaware State Office Building 820 French Street, 3rd Level Wilmington, DE 19801

Dear Mr. Onuschak:

Thank you for the time and effort you expended in order to clarify my questions on the registration of geologists in Delaware.

From our previous phone conversations, I understand that this state requirement does not extend to federally employed geologist. Also the geologists under contract to the federal goverment need not register in Delaware, if their work is reviewed and concurred upon by a federal geologist.

UNITED STATES ENVIRONMENTAL PROTECTION AGENOM REGION IN 6-4 AND WALNUT STREETS PHILADELPHIA, PENNSYLVAWA 19:06

Please be assured that at all times EPA will contract only licensed drillers, and a state geologist will be involved to review any reports and work scopes prior to the issuance of all necessary permits, or the release of the information.

In order to document our conversations would you please respond in writing to clarify these agreements. Again, I thank you for all your consideration and efforts.

Sincerely, Chris Ella

Christine Hladchük, Project Officer Superfund/RCRA Compliance Section

cc: <u>T. Voltagg</u>io R. Blanco R. Touhey, DNREC J. McGovern, Ecology & Environment

3055

&R100212

5002-04A DRUKLEIT # EPA # . De 17

June 8, 1982

STATE OF DELAWARE DEPARTMENT OF ADMINISTRATIVE SERVICES DIVISION OF BUSINESS AND OCCUPATIONAL REGULATION STATE BOARD OF REGISTRATION OF GEOLOGISTS DELAWARE STATE OFFICE BUILDING B20 FRENCH STREET - 3RD LEVEL WILMINGTON, DELAWARE 19801

PHONE: (302) 571 - 3286

Ms. Christine Hladchuk Project Officer Superfund/RCRA Compliance Section U. S. Environmental Protection Agency

Dear Ms. Hladchuk:

6th and Walnut Streets Philadelphia, PA 19106

The Delaware State Board of Registration of Geologists received your letter of May 7th, 1982 and considered it at the Board's May 27th meeting.

As was discussed with you by telephone, and with the advice of its counsel, the Delaware State Board of Registration of Geologists states as its policy that:

(1) Any geologist who is an employee of the Federal government may practice geology in pursuance of his employment in Delaware without registering with this Board.

(2) Independent geologists with whom a Federal agency contracts to do geological work in Delaware either have to be registered in the State, or work under the supervision of a geologist who is so registered or who is an employee of the Federal government pursuing his employment.

(3) In all cases, the name of the geologist who is to be considered responsible for the geologic contents of all written reports, permit applications, etc. must be clearly stated.

In regard to your letter of May 7th, be advised that the Delaware Geologists Registration Act does not apply to well drillers (24 Del. C. 3601).

In the same letter, you use the phrase "... a State Geologist will be involved to review any reports or work scopes prior to the issuance of all

AR100213

Ms. Christine Hladchuk

June 8, 1982

necessary permits, or the release of the information." The Board is unclear as to the meaning of this phrase and requests clarification in this regard.

-2-

.

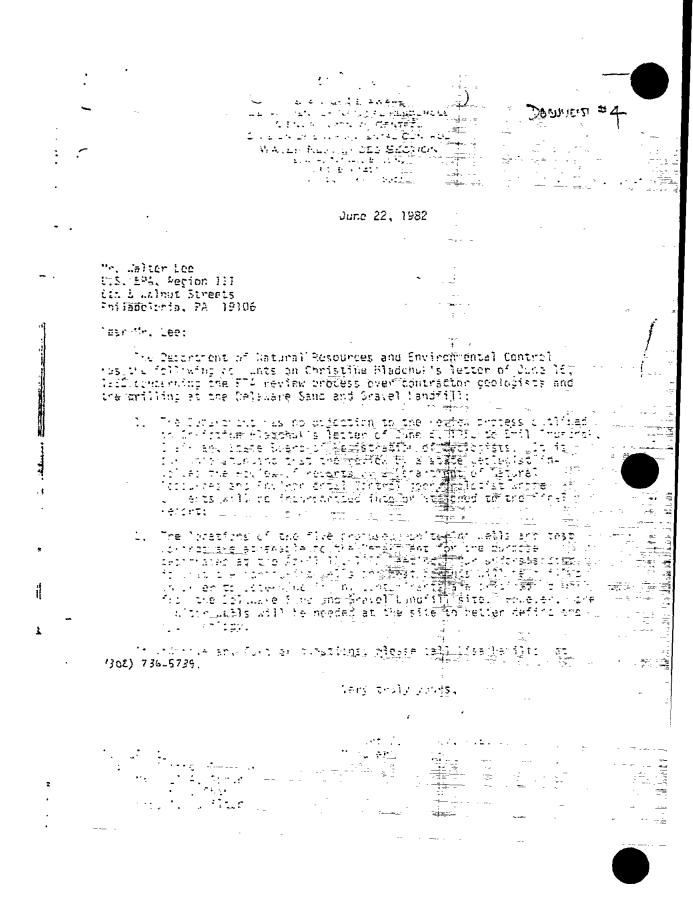
Very truly yours,

DELAWARE STATE BOARD OF REGISTRATION OF GEOLOGISTS

Emil Onuschak, Jr. Chairman

.

E0Jr/vfm



DOLUMENT # 5

ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

June 23, 1982

Ms. Lisa Hamilton Department of Natural Resources and Environmental Control P. O. Box 1401 Edward Tatnall Building Dover, DE 19901

Re: TDD No. F3-8202-04 Dear Liss:

This is to confirm our phone conversation on June 22, 1982 about the well drilling for Delaware Send and Gravel. Providing you get the information you need from the driller, A. C. Schultes δ Sons, Inc., by Friday, June 25, and that it satisfies the permit requirements, a phone call from Schultes to obtain the permit numbers will allow mobilization on Monday, June 28. The E δ E site representative will be Loren Lasky.

If there are any questions concerning this matter, please contact Loren.

Sincerely yours,

A. H. GILM MED)

Beth Gross

mjo

CC: Linda Young Boornazian, Acting DPO EPA 111

recycled paper

DOWNELT # (



ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

March 31, 1982

Mr. Timothy Rafferty, Esq. Custom House Plaza Suite 514 Wilmington, Delaware 19801

Subject: Drilling, Sampling and Installation of Monitoring Wells at Delaware Sand and Gravel Landfill, New Castle County, Delaware

Dear Mr. Rafferty:

Ecology and Environment, Inc. (E&E), a New York Corporation with Headquarters at 195 Sugg Road, Buffalo, NY 14225, and with a business office at 8021 Route 130, Pennsauken, NJ 08110, has entered into a contract (Contract #68-01-6056) with the United States Environmental Protection Agency (EPA), dated March 20, 1980, to furnish technical, engineering and managerial services in support of the EPA Field Investigation of Potentially Hazardous Waste Sites.

As discussed with you during our telephone conversations of March 17, 24, 25 and 29, the U. S. EPA Region III has requested that we perform a groundwater monitoring and subsurface geologic study at your client's site, Delaware Sand and Gravel, located in New Castle County, Delaware. I have enclosed a copy of a sketch showing the approximate locations of the proposed drilling (identified as Figure 2). The proposed drilling activities at the site will be of a varied nature and will include the following: B-l) 50 +/- foot deep, 4-inch diameter monitoring well just outside the waste disposal pit, B-2) 20 +/- foot deep test boring adjacent to B-l but within the waste disposal pit area, B-3) 50 +/- foot deep, to deep, 4-inch diameter monitoring well adjacent to existing well #53, and B-5) 150 +/- foot deep, 4-inch diameter to existing well #0W-5. The final depths and locations will be adjusted in the field by E&E personnel. The wells will be permanent installations to monitor groundwater and the test borings will sample subsurface soils. The latter will be backfilled at completion as specified by E&E.

In order that the bidders will be able to estimate the cost to mobilize and demobilize their equipment, it is essential that they be able to make an on-site reconnaissance of the proposed drilling locations. Your client has agreed to permit the bidders access to the site as long as he is informed of their visit ahead of time. The bidders have been directed, therefore, within the drilling specifications to schedule this on-site reconnaissance through you, as agreed.

recycled paper

AR1002:7

Delaware Sand and Gravel Page 2

Furthermore, your client has granted E&E and its drilling subcontractors permission to 1) come on site to do the above mentioned drilling work, and 2) disperse all the drilling spoils/cuttings, water, and other materials generated in connection with the above mentioned work on the ground.

We are now progressing on the basis of understanding of the above discussions. Should there be any corrections, please contact me at my office.

Very Truly yours,

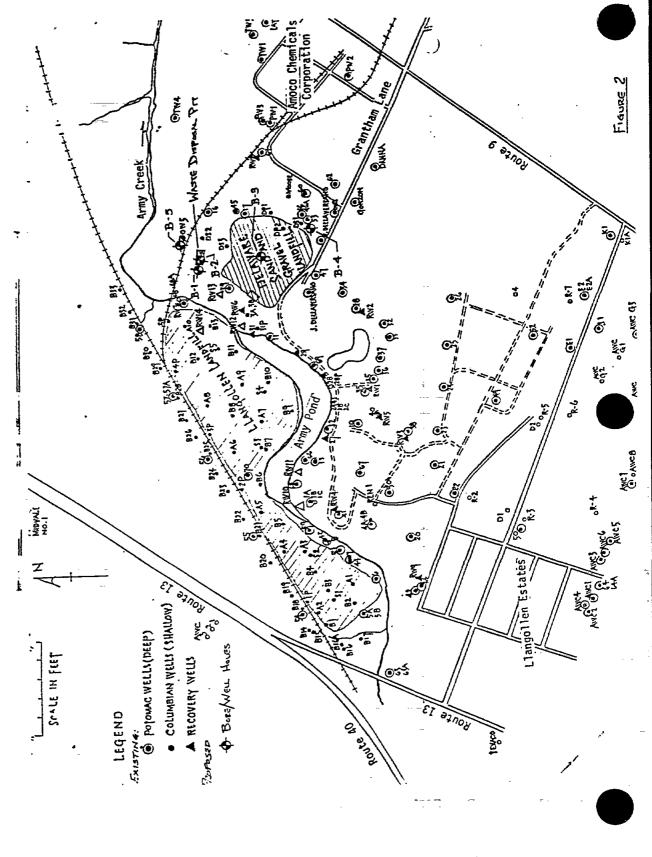
1 Quiso Frank J. Quirus, AFITL III

Enclosure

CC: Linda Young Boornazian, DPO, EPA III Lisa Seglin, EPA III Chris Hladchuck, EPA III

recycled paper

ecology and environment, inc.



DACUMEIST

. 4.

ER100220

1.2

ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

June 25, 1982

Mr. Timothy Rafferty, Esq. Custom House Plaza Svite 514 Wilmington, DE 19801

Subject: Commencement of Drilling for the Installation Of Monitoring Wells at Delaware Sand and Gravel Landfill, New Castle County, DE TDD No. F3-8202-04B EPA No. DE-17

Dear Mr. Rafferty:

This letter will confirm our phone conversation today concerning our intention to start work at your client's site, Delaware Sand and Gravel Landfill, on Monday, June 28. Four members of Ecology and Environment's technical staff, plus two drillers, are scheduled to be working on site. As agreed, you will notify the site owner, Mr. Vincent Dellaversano, to expect us.

Work will commence at hole number B-4, described and identified on the map in our letter of March 31, 1982. We will gain access for this particular area via Amoco's property, by prior arrangement with Mr. Charles Hurd at the Amoco Chemical Truck Terminal. All the other holes will be accessed directly through the Delaware Sand and Gravel Landfill's property.

We anticipate that the drilling and sampling will take between 10-15 work days, and we will notify you when the project is completed. In the meantime, please contact Mr. Frank Quirus of our office if you have any questions or comments concerning the above work.

Very truly yours, Loren R. Lasky

Geologist, FIT III

mjo

CC: Linda Young Boornazian, Acting DPO, Region III Lisa Seglin, EPA III Chris Hladchuk, EPA III

Downerst # 8

ER100221

_)

4:

ecology and environment, inc. B021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

July 21, 1982

Mr. Timothy Rafferty, Esq. Custom House Plaza Suite 514 Wilmington, DE 19801

Subject: Termination of Well Drilling Work Delaware Sand and Gravel Landfill New Castle County, Delaware TDD No. F3

Dear Mr. Rafferty:

As we discussed in our phone conversations of 14 July and 21 July, Ecology and Environment, Inc. has completed the scheduled well drilling work at the Delaware Sand and Gravel Landfill.

In accordance with EPA procedures, I am enclosing a sample receipt listing the number of samples we collected on Delaware Sand and Gravel Landfill property. Kindly have Mr. DellAversano sign it and then return it to our office.

As per your instructions, your client, Mr. DellAversano, did not want to have a set of split samples. However, we did leave a representative set of soil samples at the DellAversano household on 14 July, as per your request.

Again, please accept our thanks for your assistance and cooperation during this work.

Sincerely,

Loren R. Lasky Geologist/FIT III

mjo

Enclosure

DOCUMEIST

ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

June 24, 1982

Mr. Charles Hurd Amoco Chemicals Truck Terminal Route 9 and River Road New Castle, DE 19720

Re: Access to Amoco's Property for the Drilling of a Groundwater Monitoring Well, Adjacent to Amoco Chemical's Well #OW-5 TDD No. F3-8202-04P. TDD No. F3-8202-04P.

Dear Mr. Hurd:

This letter will confirm our phone conversation today concerning access to Amoco's property for the purpose of drilling a monitoring well.

As agreed, both Ecology and Environment personnel and the drilling crew will check in with you at the Amoco Chemical Truck Terminal on the first day of work. We will sign Amoco release forms and you will unlock the gate allowing us to cross onto Amoco's property.

We anticipate starting work on Monday, June 28, or some time during that week, depending on when the driller receives the required permits.

Attached, please find a copy of an earlier correspondence with Mr. Ray Watrous - of Amoco (now retired) for your information.

Please contact me if you have any questions or comments concerning the above project.

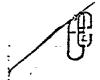
Very truly yours,

Loren R. Lask

Geologist, FIT III

mjo Attachment

CC: Linda Young Boornazian, Acting DPO, EPA III Lisa Seglin, EPA III Chris Hladchuk, EPA III



ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

April 28, 1982

Anioco Chemicals Corporation P. D. Box 312 New Castle, DE 19720

Attention: Mr. Ray Watrous

Subject: Drilling, Sampling and Installation Monitoring Well Adjacent to Amoco Chemicals' Well #OW-5

DOCUMENT #10

AR100223

Dear Mr. Watrous:

As discussed with you over the telephone on March 31, 1982, Ecology and Environment, Inc. (E&E) under a contract (Contract #68-01-6056) with the U.S. EPA is soliciting bids installing monitoring wells on and adjacent to Delaware Sand and Gravel in New Castle County. In addition to wells of the property of Delaware Sand and Gravel, it is proposed to install one well adjacent to #0W-5. Per our discussion, this well is on the Amoco Chemicals Corporation property.

This letter will confirm that Amoco Chemicals Corporation has granted E&E permission to access this well location and drill the proposed monitoring well. Furthermore, excess drilling spoils and water that cannot be discharged back into the well may be dispersed in an orderly manner in the area of the well.

It is our understanding that Amoco Chemicals 13 presently demolishing their plant. As such, coordination of E&E's access to Amoco's property should be arranged via telephone with Mr. Charles Hurd @ (302) 322-1878.

we are progressing on the basis of understanding of the above discussion. Should there be any corrections, please contact me at my office.

Very truly yours Frank J. Quirus, AFITL III

៣រូំ០

CC: Linda Young Boornazian, EPA III Lisa Seglin, EPA III Chris Hladchuck, EPA III

DOCUMENT # 11

_)

ecology and environment, inc.

8021 ROUTE 130, PENNSAUKEN, NEW JERSEY 08110, TEL. 609-665-1515

International Specialists in the Environmental Sciences

— July 21, 1982

Mr. Charles Hurd Amoco Chemicals Truck Terminal Route 9 and River Road New Castle, DE 19720

Dear Mr. Hurd:

I am writing to advise you that Ecology and Environment, Inc. has completed our scheduled well drilling work at the Delaware Sand and Gravel Landfill and on Amoco's property adjacent to the landfill.

In accordance with EPA procedures, I am enclosing a sample receipt which lists the number and type of samples we collected while working on Amoco's property. Would you kindly sign the receipt and return it to our office.

Please accept my thanks for your cooperation and assistance during this work.

Sincerely,

സ Loren Lasky

Geologist/FIT III

mjo

ì

Enclosure

SAMPLE RECEIPT

On <u>June 30</u>, 1982, Ecology and Environment, Inc., representative <u>Loren R. Lasky</u> received permission from <u>C. Hurd</u> to remove material from Amoco property, contained in <u>1</u> 1/2 gallon glass organic sample bottle(s), <u>2</u> 40 ml glass volatile organic sample bottle(s), <u>2</u> 8 oz. glass soil sample jar(s) and <u>2</u> inorganic l quart polyethylene sample bottle(s).

Property Owner, Signature and Date

DOWNENT

7/21/52

Ecology and Environment, Inc. Representative Signature and Date

