APPENDIX 10 – POST CLOSURE CARE PLAN

EXHIBIT 13 – ENVIRONMENTAL MONITORING PLAN

The Environmental Monitoring Plan for the Pigeon Point Landfill consists of the following parts:

Attachment 1 - Leachate, Groundwater, and Surface Water Monitoring Plan

Attachment 2 - Landfill Gas Monitoring Plan

Attachment 3 - Geotechnical Monitoring Plan

Attachment 4 - New Castle County Department of Public Works Permit No. WPD-060 (Rev.4)

EXHIBIT 13

Attachment 1

Leachate, Groundwater, and Surface Water
Monitoring Plan

Pigeon Point Landfill
2006 Monitoring Program for Groundwaters, Surfacewaters, and Leachates

The following document summarizes the Delaware Solid Waste Authority's (DSWA) basic environmental monitoring program for the Pigeon Point landfill. In-depth SOPs for the environmental monitoring program are maintained as part of contractual agreements between DSWA and contracted environmental monitoring companies and are available for review at DSWA's Administration Office located at 1128 S. Bradford St., Dover, DE 19903.

SUMMARY

The Delaware Solid Waste Authority (DSWA) has had an ongoing environmental monitoring program at the City of Wilmington's landfill at Pigeon Point (PP) since before it's closure in 1985. Currently, DSWA has one active permit (Permit No. WPD-060 Rev 4), issued by the New Castle County (NCC) Department of Public Works. WPD 85-060 Rev 4 only requires monitoring of one (1) leachate discharge point at the site. Additional monitoring of 29 groundwater, leachate and surface water locations at PP is done by DSWA on a voluntary basis.

DSWA retains private consultants for routine sampling and analysis of groundwater, leachate, and surfacewater samples collected from the site. These consultants are also used for geotechnical and hydrologic investigations whenever necessary. The following summarizes the minimum annual monitoring done by DSWA contractors at PP:

- Quarterly monitoring of twenty-one (21) groundwater wells in 4 water-bearing zones below the site and two (2) leachate observation wells (1,163 measurements and analytes annually);
- Quarterly monitoring of three (3) surface water management basins (324 measurements and analytes annually);
- Monthly and semi-annual monitoring of three (3) leachate pump stations (1,347 analytes annually)
- Monthly inspections of the perimeter of the landfill for seeps and erosion

Field and equipment blanks routinely add an additional 1,100 or more measurements and analysis on an annual basis.

Data generated from all sampling events are entered into electronic databases and evaluated for anomalies and trends on a monthly basis by a independent contractor and DSWA. Reports on monitoring and analysis of groundwaters, leachates, surfacewaters and inspections are generated by an independent contractor on a monthly, quarterly and annual basis. These reports are retained at PPL by DSWA for a period of three (3) years, and at DSWA's Dover office for a minimum of thirty years.

Semi-annually, DSWA provides NCC with a self-monitoring report summarizing leachate quality and flow data collected during the previous six months. Additionally, DSWA voluntarily provides the Delaware Department of Natural Resources and Environmental Control (DNREC) with copies of all groundwater reports and the PPL electronic database on a quarterly basis.

GENERAL PROVISIONS:

DSWA requires the following of contractors when collecting or analyzing samples for DSWA:

1. All contractors shall follow OSHA and DSWA safety protocols when working at DSWA facilities.

2. All samples shall be collected and processed under the direct supervision of personnel having a minimum of three (3) years of experience in the collection of groundwater, soil, wastewater, and air samples. "Direct Supervision" means that the qualified individual is present at the sampling point, at the time of sample collection. All field collection sheets and Chain of Custody (COCs) forms must be verified as to their contents and validity, and signed by this individual.

3. All samples shall be collected and analyzed by an independent laboratory using the following methods:

First:	USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods (Latest Edition)
Second:	USEPA 40 CFR-136: Guidelines Establishing Test Procedures for Analysis of Pollutants (Latest Edition)
Third:	Standard Methods for the Examination of Water and Wastewater (Latest Edition)
Fourth:	Methods mutually approved by DSWA and Agency Issuing Permit

4. All subsurface exploration and investigations shall be supervised by, and all conclusions, drawings, and documents resulting from sampling or other subsurface investigations shall be prepared by, attested to, and certified by a Registered Professional Geologist qualified to practice Geology under **Chapter 36, Title 24, Delaware Code**, or a person authorized under **Chapter 28, Title 24, Delaware Code** to practice Engineering in Delaware.

5. No individual or party shall enter a confined space under any circumstance without certified training, proper entry permits, and without authorization by DSWA.

GROUNDWATER MONITORING

Background

There are twenty-one (21) active groundwater water monitoring wells penetrating four (4) water bearing zones below Pigeon Point. These well have been classified into four groups based upon the screened intervals of the wells, and named for the "aquifer" or water bearing zone the well is believed to monitor. These four groups are designated as: the Upper Recent Deposits/Dredge Spoils; Lower Recent Deposits/Dredge Spoils (Basal Zone); Columbia Formation (Pleistocene Sands); and Potomac Formation groups

(upper/lower Potomac). The following table presents the monitoring wells and the water bearing zones that each well monitors.

Water Bearing Zone	Monitoring Wells
Potomac Formation	26R, 28, 29, 31, 41A, and 45
Lower/Recent Deposits & Dredge Spoils	32, 42A, and 52A
Columbia Formation	1R, 25R, and 27R
Upper/Recent Deposits & Dredge Spoils	1A, 28A, 29A, 31A, 32A, 39, 41, 42, and 52

Attachment 1, Figure 2 shows the locations of the groundwater monitoring locations at Pigeon Point. Attachment 1, Figure 5 presents a fence diagram of the substrata below PP. Attachment 3 presents a by-month schedule of analysis required by DSWA.

Groundwater Sampling Protocols

The following generally describes the protocols for sampling the groundwater monitoring wells at Pigeon Point:

- Prior to the initiation of well purging activities, the depth to water is measured well using an electronic water-level indicator probe from a surveyed point located on the rim of the well casing. Three (3) measurements (to 1/100 of a foot) are recorded at each well. The average of these readings is used for final interpretation of the groundwater elevation at the groundwater monitoring location.

- Purging is conducted at less than 1 liter per minute using a peristaltic pump equipped with Teflon™ tubing, which extends into the screened interval of each well. In cases where the depth to water is too great for a peristaltic-pump, a variable-speed 2-inch submersible pump constructed of stainless steel and Teflon™ is used

- Purging takes place until groundwater indicator parameters (pH, Temperature, dissolved Oxygen, Specific conductance, and Oxidation/reduction potential) stabilized. Adequate purging of a well before sampling assists in obtaining a groundwater sample that is representative of aquifer conditions.

- After indicator field parameters stabilized, sample containers are filled directly from the pump discharge tubing. The sample containers, which are supplied by the laboratory contain the appropriate preservatives for the required analyses, and are pre-labeled with the client's name, the sampling location, and the requested analytes. Once the samples are collected, the date, time and sampler's initials were added to the labels. The containers were then placed into a cooler where they were chilled to, and maintained at, approximately 4° Celsius for transport to the laboratory.

- As part of the sample collection documentation, the sampling team records the pH, Temperature, dissolved Oxygen, Specific conductance, Oxidation/reduction

potential, and Turbidity of each sample as obtained by field methods. The groundwater samples are then submitted to the laboratory for analysis of pH and Specific conductance.

- The pump and tubing are decontaminated between sampling locations to prevent cross-contamination of the samples.

- Upon receipt, the independent laboratory logs in the samples, checks to make sure that preserved bottles are within specified preservation limits, add any preservative necessary, and then place the samples into certified refrigerators maintained at 4° Celsius until it is time for analysis.

- Trip and equipment blank samples are also collected as part of standard Quality Assurance/Quality Control (QA/QC) procedures. Also as part of the project QA/QC, environmental contractor performs duplicate analyses and spike recovery procedures on the samples.

LEACHATE MONITORING

Background

All leachate collection lines below the 120-acre landfill discharge to four (4) perimeter pump stations that convey leachate through force-mains to the DRP Pump Station (DRP-PS) located adjacent to the DRC Administration Building. Additionally, wastewater generated at the Delaware Recycling Center (DRC) is also conveyed to the DRP-PS through the site's sewer system. The DRP-PS pumps the leachate/wastewater mixture into the NCC sewer system, which discharges to the City of Wilmington's wastewater treatment plant north of Cherry Island. Currently, samples are being collected from the following pump stations for monthly leachate/wastewater quality monitoring:

- DRP Pump Station (DRP-PS)
- Northwest Lift Station (NWLS)
- Western Leachate Collection Manhole (WLCMH)

Attachment 1, Figure 3 shows the locations of the leachate monitoring locations at Pigeon Point. Attachment 3 presents a by-month schedule of analysis required by DSWA and the New Castle County Department of Works Permit No. WPD-060 (Rev. 4).

Leachate Sampling Protocols

The following generally describes the protocols used for sampling leachate at Pigeon Point:

- Samples from the DRP-PS are 24-hour composite samples collected using an ISCO™ auto-sampler equipped with a glass collection vessel. Samples from the NWLS and WLCMH are collected by way of a peristaltic pump and Teflon™ tubing or a disposable Teflon™ bailer equipped with a check valve. When analysis of Volatile Organic Compounds (VOCs) are required, four (4) grab

samples are collected over an 8-hour period and composited at the independent laboratory prior to analysis.

- Upon retrieval by the sampling company, the composite leachate sample is decanted from the collection vessel into the appropriate pre-labeled sample bottles. Samples from the NWLS and WLCMH are transferred directly from the sampling equipment to the appropriate pre-labeled sample bottles at the time of collection. The sample containers that are supplied by the laboratory, contain the appropriate preservatives for the required analyses, and are pre-labeled with the client's name, the sampling location, and the requested analytes. Once the samples are collected, the date, time and sampler's initials were added to the labels. The containers were then placed into a cooler where they were chilled to, and maintained at, approximately 4° Celsius for transport to the laboratory.

- Prior to shipping the samples to the laboratory, the sampling team uses the remaining sample from each location to measure the field pH, Specific conductance, Oxidation/reduction potential, and Temperature. The results of each measurement are recorded in a field logbook as part of the sample collection documentation. After sampling and field analysis were completed, the field team returns leftover leachate to each sampling point for disposal.

- Upon receipt, the independent laboratory logs in the samples, checks to make sure that preserved bottles are within specified preservation limits, add any preservative necessary, and then place the samples into certified refrigerators maintained at 4° Celsius until it is time for analysis.

- Trip and equipment blank samples are also collected as part of standard Quality Assurance/Quality Control (QA/QC) procedures. Also as part of the project QA/QC, environmental contractor performs duplicate analyses and spike recovery procedures on the samples.

SURFACEWATER MONITORING

Background

Three surfacewater locations are monitored at PPL on a quarterly basis:

- DRC Fire Pond
- Southwestern Stormwater Basin
- Southeastern Stormwater Basin

The DRC Fire Pond was constructed as part of the fire suppression system for the old Delaware Reclamation Plant. To insure enough water would be available to supply the system, the DRC Fire Pond is connected through a series of channels and pipes to the Delaware River. The water quality may vary significantly at this location depending on whether the pond has been filled through tidal action or by runoff from precipitation. The remaining stormwater management basins receive runoff from the southwestern southern, and eastern sides of the landfill. Attachment1, Figure 4 shows the locations of currently monitored surfacewater locations at PP.

Surfacewater Sampling Protocols

The following outlines the sampling methodology utilized to collect surfacewaters at PP. (This methodology is consistent with the guidelines of DNREC.)

- The surface water location is inspected to identify the flowing discharge point.

- A Nalgene sample container is rinsed with water from the surface water sampling location and then is used to collect a grab sample.

- The appropriate glassware and containers are filled using water collected in the Nalgene container. Samples are placed in containers with preservatives appropriate for the scheduled analyses. Identification labels are immediately affixed to the sample containers. The containers are then placed in coolers and chilled to, and maintained at, approximately 4° Celsius for transport to the laboratory.

- As part of the sample collection documentation, the sampling team records the pH, Temperature, dissolved Oxygen, Specific conductance, Oxidation/reduction potential, and Turbidity of each sample as obtained by field methods.

- Upon receipt, the independent laboratory logs in the samples, checks to make sure that preserved bottles are within specified preservation limits, add any preservative necessary, and then place the samples into certified refrigerators maintained at 4° Celsius until it is time for analysis.

- Trip and equipment blank samples are also collected as part of standard Quality Assurance/Quality Control (QA/QC) procedures. Also as part of the project QA/QC, environmental contractor performs duplicate analyses and spike recovery procedures on the samples.

Attachment 1:

Figure 1: General Location Map for the Pigeon Point Landfill
Figure 2: Locations of Groundwater Monitoring Points
Figure 3: Locations of Leachate Monitoring Points
Figure 4: Locations of Surfacewater Monitoring Points
Figure 5: Fence Diagram of PPL by Duffield
Misc. Figure: Overlay of CIL and PPL Waterlines on 1927 Photo

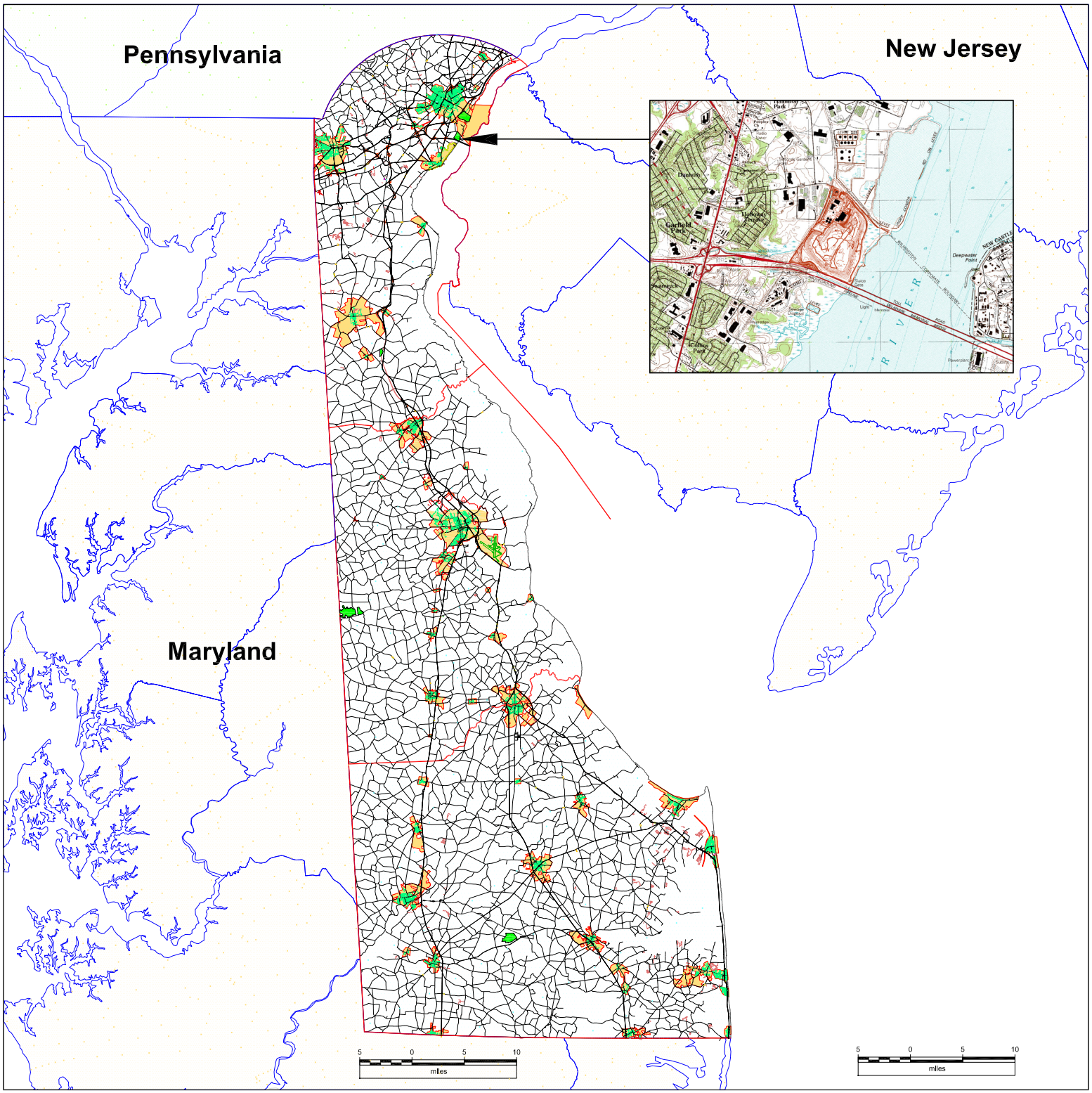

Figure 1: General Location Map for the Pigeon Point Landfill

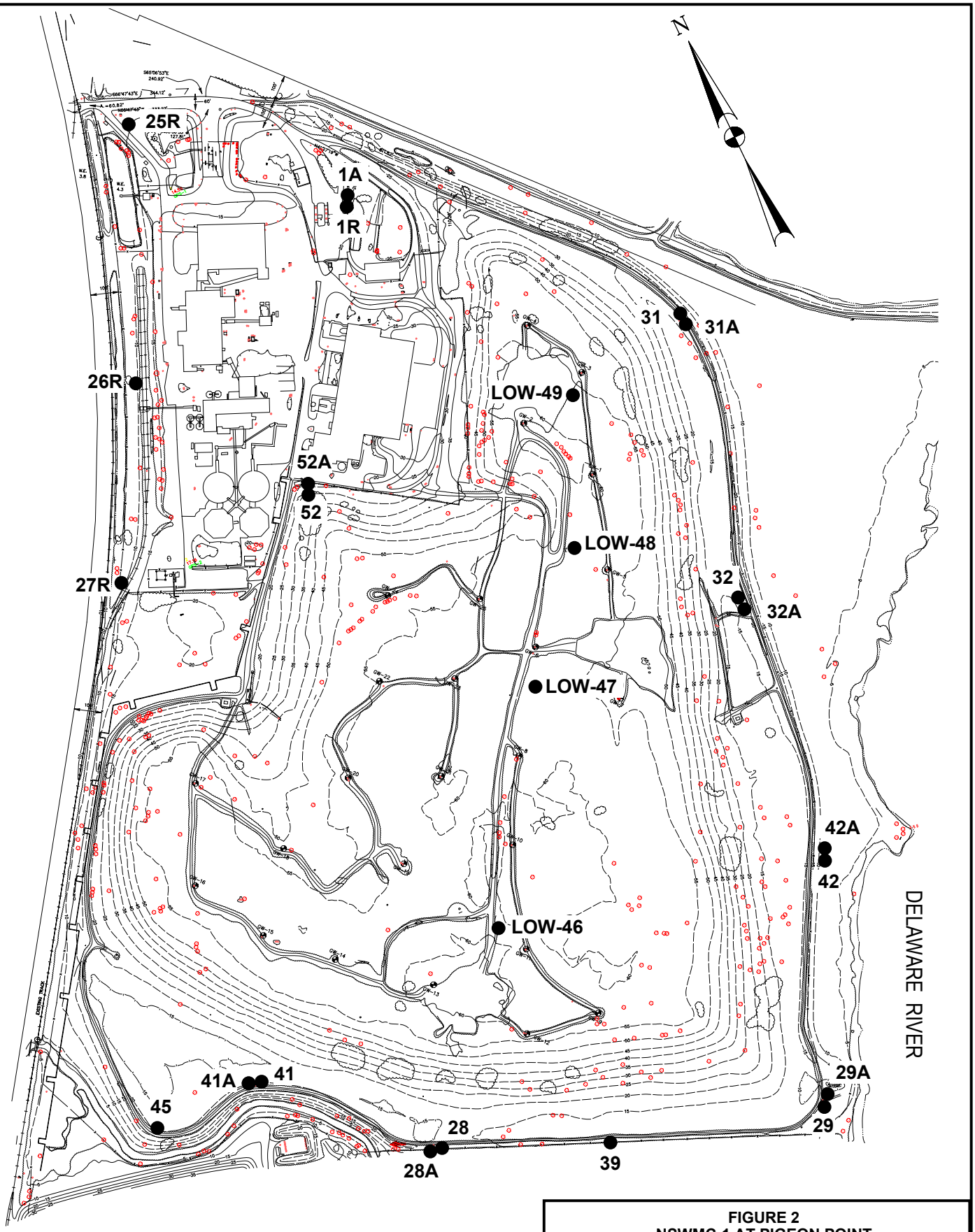

FIGURE 2
NSWMC-1 AT PIGEON POINT
LOCATIONS OF GROUNDWATER
MONITORING POINTS
(No Scale)

drawn	date	drawing no.
DAF	9/1/04	C:\DSWA-S04530NPNC\PPLF-Groundwaters.PRZ

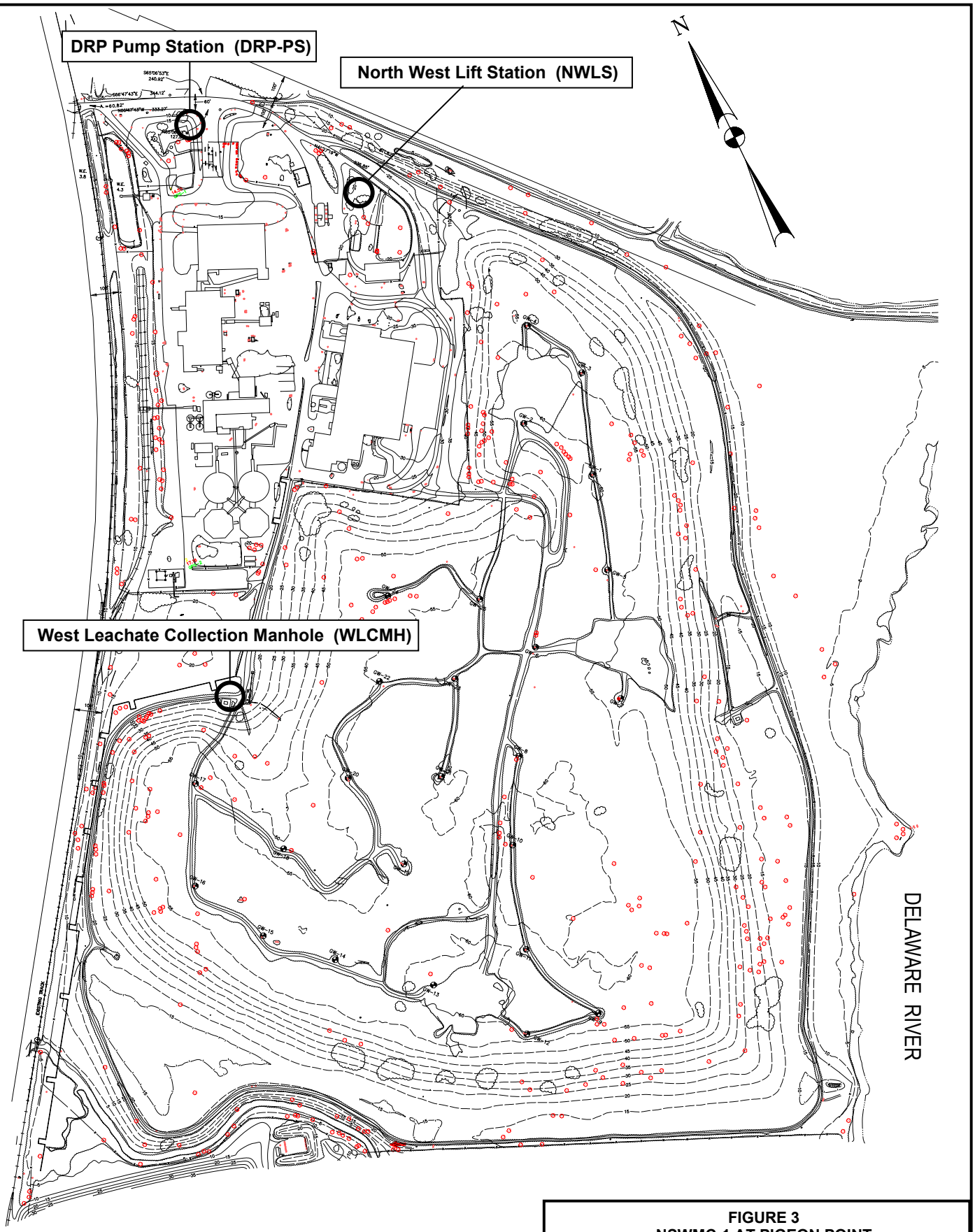

FIGURE 3
NSWMC-1 AT PIGEON POINT
LOCATIONS OF LEACHATE
MONITORING POINTS
(No Scale)

drawn	date	drawing no.
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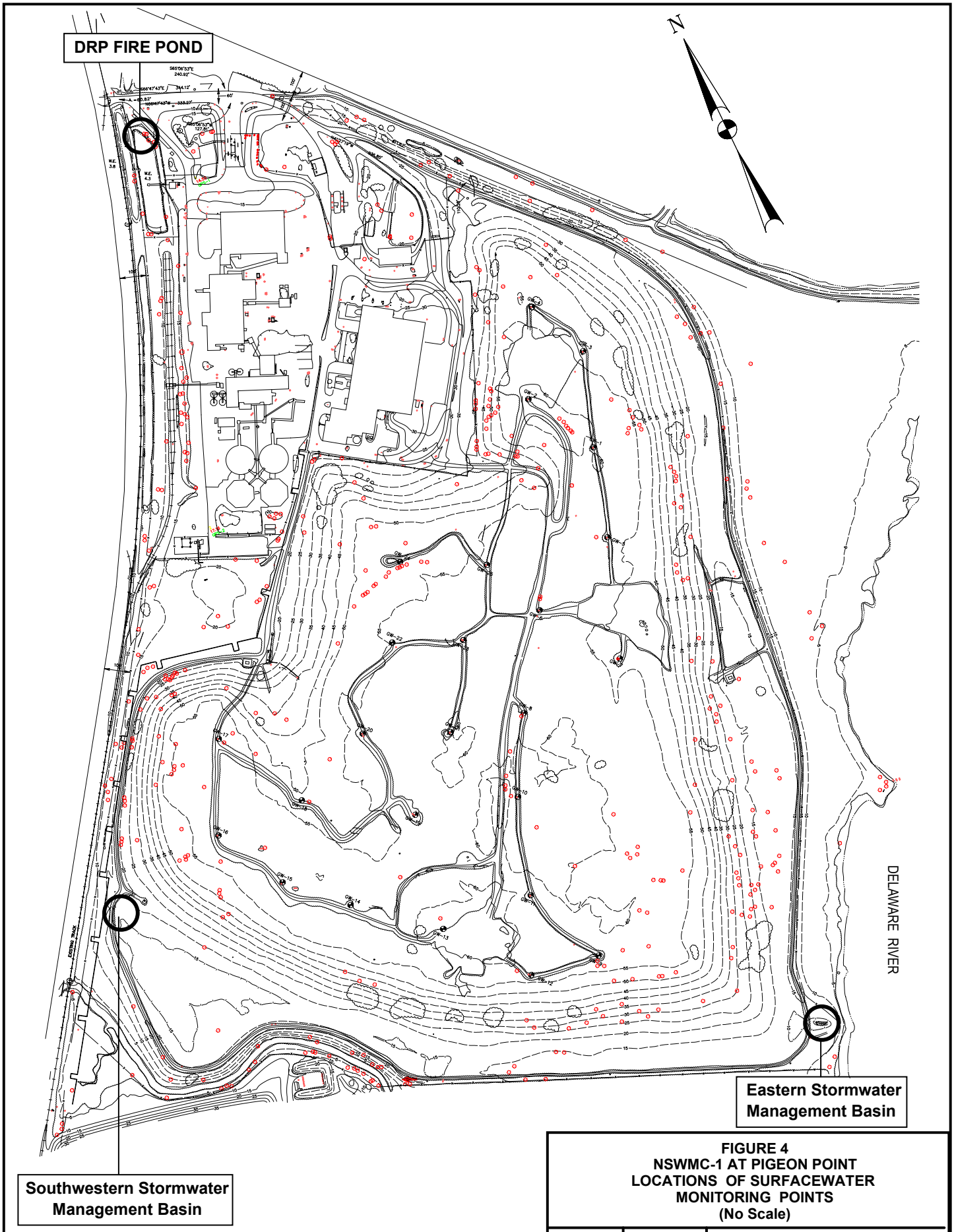

FIGURE 4
NSWMC-1 AT PIGEON POINT
LOCATIONS OF SURFACEWATER MONITORING POINTS
(No Scale)

drawn	date	drawing no.
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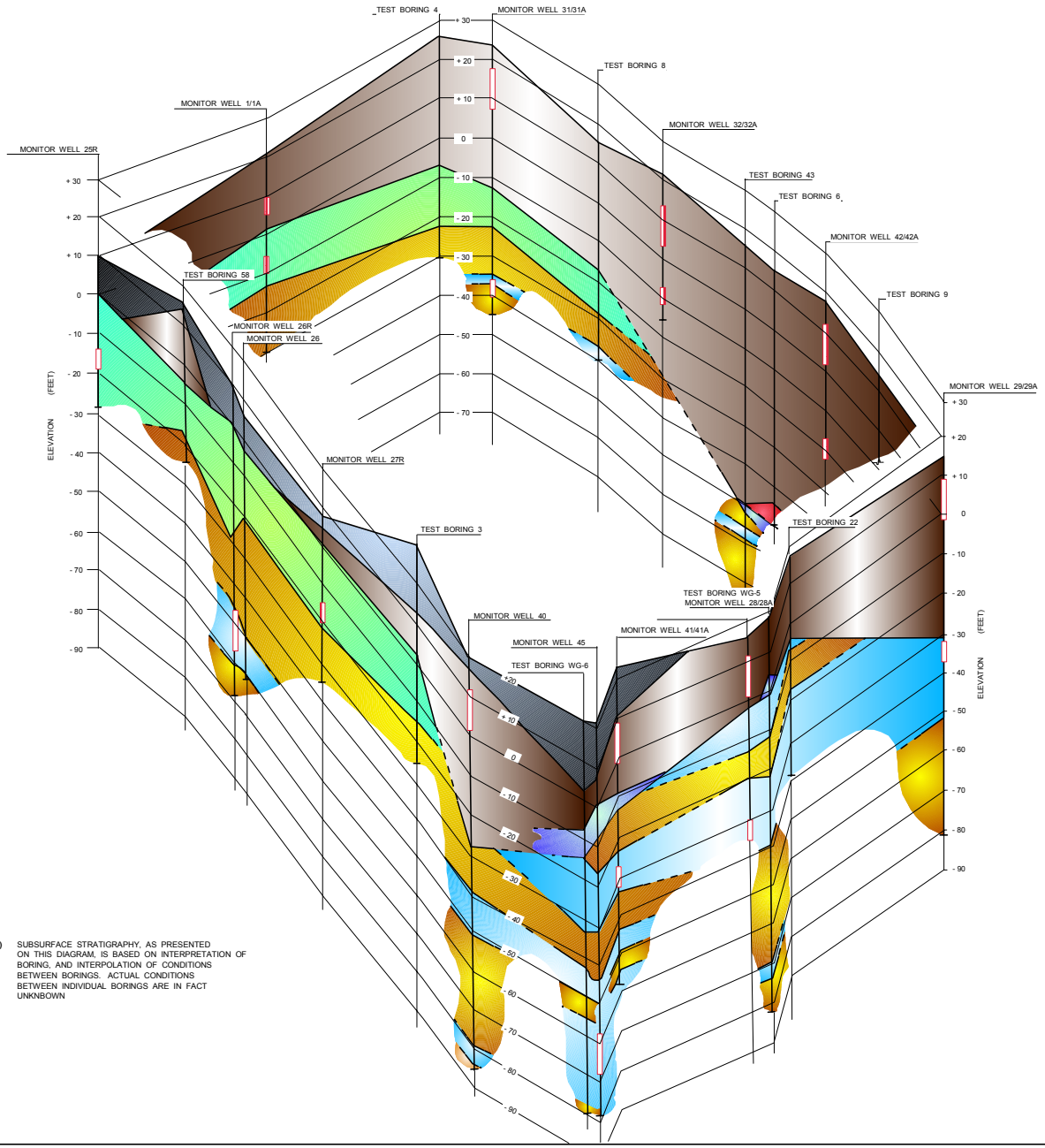
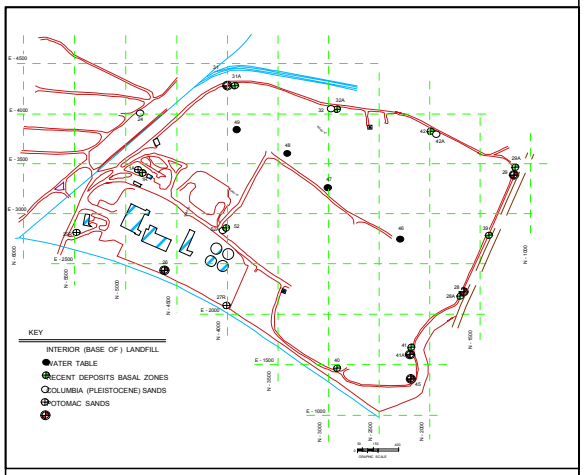


NOTES:

1) SUBSURFACE STRATIGRAPHY, AS PRESENTED ON THIS DIAGRAM, IS BASED ON INTERPRETATION OF BORING, AND INTERPOLATION OF CONDITIONS BETWEEN BORINGS. ACTUAL CONDITIONS BETWEEN INDIVIDUAL BORINGS ARE IN FACT UNKNBOWN



INDEX SKETCH

LEGEND AND STRATUM KEY

HORIZONTAL 0 100 200 400 600 800 GRAPHIC SCALE

STRATUM	KEY	TYPICAL DESCRIPTION
RECENT DEPOSITS		MISCELLANEOUS FILL (SAND, SILT, & CLAY; MAY CONTAIN REFUSE IN UPPER ZONE)
		"FINE GRAINED" SEDIMENTS (HYDRAULIC DREDGE SPOIL, MARSH & RIVER BOTTOM SEDIMENTS) WITH IRREGULAR "CHANEL" SAND & GRAVEL DEPOSITS AT BASE.
COLUMBIA (PLEISTOCENE) FORMATION		GRAVELLY, FINE TO MEDIUM SANDS WITH SOME INTERBEDDED SILTS AND CLAYS
POTOMAC FORMATION		VARIEGATED, FREQUENTLY LIGNITIC, SILTS & CLAYS WITH IRREGULARLY INTERBEDDED SANDS AND SOME GRAVEL

STRATIGRAPHIC TEST BORING

OBSERVATION WELL BORING (WITH WELL SCREEN INTERVAL)

Figure 5

STRATOGRAPHIC FENCE DIAGRAM

NSWMC-1 at Pigeon Point

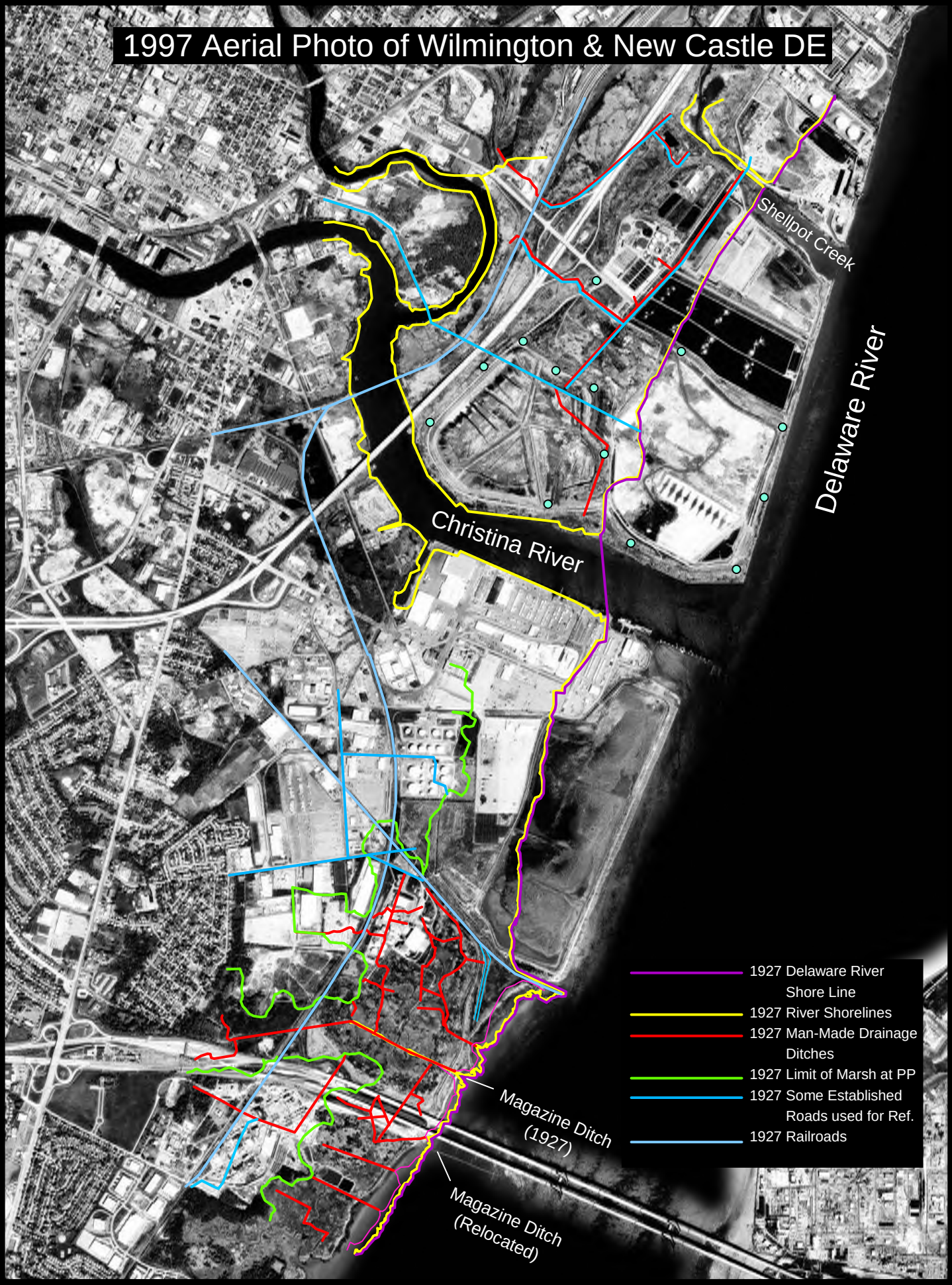
DELAWARE SOLID WASTE AUTHORITY

No.	REVISION	CHK'D BY DATE
1	Colorized by DAF of DSWA - 5/99	

DUFFIELD ASSOCIATES, INC.
CONSULTING GEOTECHNICAL ENGINEERS
WILMINGTON, DELAWARE

APPROVED BY

DESIGNED BY		DATE	02 APRIL 1987
DRAWN BY	DHP	SCALE	HORIZONTAL 1" = 200' VERTICAL 1" = 10'
CHECKED BY	GKE	W.O. NO.	260HU
DRAWING NO:	D-260HU-1	SHEET NO.	1 of 1


1997 Aerial Photo of Wilmington & New Castle DE
Shellpot Creek
Delaware River
Christina River
Magazine Ditch (1927)
Magazine Ditch (Relocated)
1927 Delaware River Shore Line
1927 River Shorelines
1927 Man-Made Drainage Ditches
1927 Limit of Marsh at PP
1927 Some Established Roads used for Ref.
1927 Railroads

Attachment 2:

DNREC Table 1 Analytes: Semi-Annual Expanded Analysis Listing for Leachates

DNREC TABLE 1 ANALYTES: Semi-Annual Expanded Analysis Listing for Leachate: Modified January 2002

1) Antimony	58) Methylene bromide (Dibromomethane)	115) 2-Methylnaphthalene
2) Arsenic	59) Methyl chloride (Chloromethane)	116) 2-Methylphenol (o-Cresol)
3) Barium	60) Methylene chloride (Dichloromethane)	117) 3/4 Methylphenol (m/p-Cresol)
4) Beryllium	61) Methyl Iodide (Iodomethane)	118) 4-Chloro-3-methylphenol
5) Cadmium	62) 4-methyl-2-pentanone	119) 2-Naphthylamine
6) Chromium (Total)	63) Styrene	120) N-Nitrosodi-n-propylamine
7) Cobalt	64) 1,1,2,2-Tetrachloroethane	121) N-Nitrosodimethylamine
8) Copper	65) 1,1,1,2-Tetrachloroethane	122) N-Nitrosodiphenylamine
9) Lead, Total	66) Tetrachloroethene	123) Naphthalene
10) Magnesium	67) Tetrahydrofuran	124) Nitrobenzene
11) Mercury	68) Toluene	125) Benzo (b) fluoranthene
12) Molybdenum	69) 1,1,1-Trichloroethane	126) 2-Nitrophenol
13) Nickel	70) 1,1,2-Trichloroethane	127) 4-Nitrophenol
14) Silver	71) Trichloroethene	128) Pentachlorophenol
15) Selenium	72) Trichlorofluoromethane	129) Phenanthrene
16) Thallium	73) 1,2,3-Trichloropropane	130) Phenol
17) Tin	74) Vinyl Acetate	131) Pyrene
18) Vanadium	75) Vinyl chloride	132) Pyridine
19) Zinc	76) Tot. Xylenes	133) 1,2,4-Trichlorobenzene
20) Cyanide (Total)	77) 3,3'-Dichlorobenzidene	134) 2,4,6-Trichlorophenol (2,4,6 T)
21) Sulfides	78) 1,2-Diphenylhydrazine	135) Acrolein
22) Phenols (Total)	79) Acenaphthene	136) o,p'-DDD
23) Acetone	80) Anthracene	137) p,p'-DDD
24) Acetophenone	81) Benzidine	138) 4,4'-DDE
25) Acrylonitrile	82) Benzo (a) anthracene	139) 4,4'-DDT
26) Benzene	83) Benzo (a) pyrene	140) 2,4,5-T
27) Benzyl Alcohol	84) Benzo (g,h,i) perylene	141) 2,4,5-TP (Silvex)
28) Bromochloromethane	85) Benzo (k) fluoranthene	142) 2,4-D
29) Bromoform	86) 4-Bromophenyl phenyl ether	143) Aldrin
30) Bromomethane	87) Butylbenzyl Phthalate	144) alpha-BHC
31) Dibromochloromethane	88) Ideno (1,2,3-cd) pyrene	145) delta BHC
32) Dichlorobromomethane	89) Bis (2-chloroethoxy) methane	146) beta-BHC
33) 2-Butanone	90) Bis (2-chloroethyl) ether	147) gamma BHC (Lindane)
34) Carbon disulfide	91) Bis (2-chloroisopropyl) ether	148) alpha Endosulfan
35) Carbon tetrachloride	92) 2-Chloronaphthalene	149) beta Endosulfan
36) Chlorobenzene	93) 2-Chlorophenol	150) Endosulfan Sulfate
37) Chloroethane	94) 4-Chlorophenyl Phenyl Ether	151) 2,4,5 Trichlorophenol
38) Chloroform	95) Chrysene	152) Chlordane
39) 1,2-Dibromo-3-chloropropane	96) Di-n-Butylphthalate	153) Dieldrin
40) 1,2-Dibromoethane	97) Di-n-octyl Phthalate	154) Dimethoate
41) 1,2-Dichlorobenzene (ortho)	98) Dibenz (a,h) anthracene	155) Heptachlor
42) 1,3-Dichlorobenzene (meta)	99) 2,4-Dichlorophenol	156) Heptachlor epoxide
43) 1,4-Dichlorobenzene (para)	100) Diethylphthalate	157) Endrin
44) trans-1,4-Dichloro-2-butene	101) 2,4-Dimethylphenol	158) Endrin Aldehyde
45) 1,1-Dichloroethane	102) Dimethylphthalate	159) Methoxychlor
46) 1,2-Dichloroethane	103) 2-Methyl-4,6-Dinitrophenol	160) PCB-1016
47) 1,1-Dichloroethene	104) 2,4-Dinitrophenol	161) PCB-1221
48) 1,2-Dichloroethene	105) 2,4-Dinitrotoluene	162) PCB-1232
49) cis-1,2-Dichloroethene	106) 2,6-Dinitrotoluene	163) PCB-1242
50) trans-1,2-Dichloroethene	107) Bis(2-ethylhexyl)phthalate	164) PCB-1248
51) 1,2-Dichloropropane	108) Fluoranthene	165) PCB-1254
52) 1,3-Dichloropropane	109) Fluorene	166) PCB-1260
53) cis-1,3-Dichloropropene	110) Hexachlorobenzene	167) Toxaphene
54) trans-1,3-Dichloropropene	111) Hexachlorobutadiene	168) 2-Chloroethyl vinyl ether
55) Diethyl Ether	112) Hexachlorocyclopentadiene	169) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
56) Ethylbenzene	113) Hexachloroethane	
57) 2-Hexanone (Methyl butyl ketone)	114) Isophorone	

Attachment 3:

PPL Monitoring Schedules for Groundwaters, Leachates and Surfacewaters

Pigeon Point Landfill Minimum Monitoring Requirements: GROUNDWATERS **MARCH**

Analyte	Well I.D. / Formation	1A C	1R URD	25R C	26R P	27R C	28 P	28A URD	29 P	29A URD	31 P	31A URD	32 LRD	32A URD	39 URD	41 URD	41A P	42 LRD	42A URD	45 P	46 LF	47 LF	48 LF	49 LF	52 URD	52A LRD
DTW/Elevation	(0.01 Ft NGVD)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Temperature (Field)	(Centigrade)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Field)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
REDOX (Field)	(mV)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Turbidity	(NTU's)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Lab)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Alkalinity (Total)	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Alkalinity (Phenolphth.)	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Ammonia-N	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Bicarbonate	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Carbonate	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
C.O.D.	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Chlorides	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Nitrate-N	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Dissolved Silica	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Sulfate	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
T.D.S.	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
T.O.C.	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Calcium	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Iron	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Magnesium	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Manganese	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Potassium	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Sodium	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A
Zinc	(mg/L)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					A	A

NOTE: Formations C = Columbia, P = Potomac, URD = Upper Recent Deposits, LRD = Lower Recent Deposits, LF = Landfill Interior

M = Monthly
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Note: Tables do not reflect trip and equipment blank analysis

Pigeon Point Landfill Minimum Monitoring Requirements: GROUNDWATERS **JUNE**

Analyte	Well I.D. / Formation	1A C	1R URD	25R C	26R P	27R C	28 P	28A URD	29 P	29A URD	31 P	31A URD	32 LRD	32A URD	39 URD	41 URD	41A P	42 LRD	42A URD	45 P	46 LF	47 LF	48 LF	49 LF	52 URD	52A LRD
DTW/Elevation	(0.01 Ft NGVD)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Temperature (Field)	(Centigrade)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Field)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
REDOX (Field)	(mV)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Turbidity	(NTU's)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Lab)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Alkalinity (Total)	(mg/L)																									
Alkalinity (Phenolphth.)	(mg/L)																									
Ammonia-N	(mg/L)																									
Bicarbonate	(mg/L)																									
Carbonate	(mg/L)																									
C.O.D.	(mg/L)																									
Chlorides	(mg/L)																									
Nitrate-N	(mg/L)																									
Dissolved Silica	(mg/L)																									
Sulfate	(mg/L)																									
T.D.S.	(mg/L)																									
T.O.C.	(mg/L)																									
Calcium	(mg/L)																									
Iron	(mg/L)																									
Magnesium	(mg/L)																									
Manganese	(mg/L)																									
Potassium	(mg/L)																									
Sodium	(mg/L)																									
Zinc	(mg/L)																									

NOTE: Formations C = Columbia, P = Potomac, URD = Upper Recent Deposits, LRD = Lower Recent Deposits, LF = Landfill Interior

M = Monthly
Q = Quarterly in March, June, September & December

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Note: Tables do not reflect trip and equipment blank analysis

Pigeon Point Landfill Minimum Monitoring Requirements: GROUNDWATERS **SEPTEMBER**

Analyte	Well I.D.	1A	1R	25R	26R	27R	28	28A	29	29A	31	31A	32	32A	39	41	41A	42	42A	45	46	47	48	49	52	52A
	Formation	C	URD	C	P	C	P	URD	P	URD	P	URD	LRD	URD	URD	URD	P	LRD	URD	P	LF	LF	LF	LF	URD	LRD
DTW/Elevation	(0.01 Ft NGVD)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Temperature (Field)	(Centigrade)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Field)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
REDOX (Field)	(mV)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Turbidity	(NTU's)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Lab)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Alkalinity (Total)	(mg/L)																									
Alkalinity (Phenolphth.)	(mg/L)																									
Ammonia-N	(mg/L)																									
Bicarbonate	(mg/L)																									
Carbonate	(mg/L)																									
C.O.D.	(mg/L)																									
Chlorides	(mg/L)																									
Nitrate-N	(mg/L)																									
Dissolved Silica	(mg/L)																									
Sulfate	(mg/L)																									
T.D.S.	(mg/L)																									
T.O.C.	(mg/L)																									
Calcium	(mg/L)																									
Iron	(mg/L)																									
Magnesium	(mg/L)																									
Manganese	(mg/L)																									
Potassium	(mg/L)																									
Sodium	(mg/L)																									
Zinc	(mg/L)																									

NOTE: Formations C = Columbia, P = Potomac, URD = Upper Recent Deposits, LRD = Lower Recent Deposits, LF = Landfill Interior

M = Monthly
Q = Quarterly in March, June, September & December

SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: GROUNDWATERS **DECEMBER**

Analyte	Well I.D.	1A	1R	25R	26R	27R	28	28A	29	29A	31	31A	32	32A	39	41	41A	42	42A	45	46	47	48	49	52	52A
	Formation	C	URD	C	P	C	P	URD	P	URD	P	URD	LRD	URD	URD	URD	P	LRD	URD	P	LF	LF	LF	LF	URD	LRD
DTW/Elevation	(0.01 Ft NGVD)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Temperature (Field)	(Centigrade)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Field)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
REDOX (Field)	(mV)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Turbidity	(NTU's)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
pH (Lab)	(Scale)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					Q	Q
Alkalinity (Total)	(mg/L)																									
Alkalinity (Phenolphth.)	(mg/L)																									
Ammonia-N	(mg/L)																									
Bicarbonate	(mg/L)																									
Carbonate	(mg/L)																									
C.O.D.	(mg/L)																									
Chlorides	(mg/L)																									
Nitrate-N	(mg/L)																									
Dissolved Silica	(mg/L)																									
Sulfate	(mg/L)																									
T.D.S.	(mg/L)																									
T.O.C.	(mg/L)																									
Calcium	(mg/L)																									
Iron	(mg/L)																									
Magnesium	(mg/L)																									
Manganese	(mg/L)																									
Potassium	(mg/L)																									
Sodium	(mg/L)																									
Zinc	(mg/L)																									

NOTE: Formations C = Columbia, P = Potomac, URD = Upper Recent Deposits, LRD = Lower Recent Deposits, LF = Landfill Interior

M = Monthly
Q = Quarterly in March, June, September & December

SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: GROUNDWATERS

SUMMARY OF ANALYSIS

Analyte	Tests/Year
DTW/Elevation	100
Temperature (Field)	84
pH (Field)	84
Specific Cond. (Field)	84
REDOX (Field)	84
D. O. (Field)	84
Turbidity	84
pH (Lab)	84
Specific Cond. (Lab)	84
Alkalinity (Total)	21
Alkalinity (Phenolphth.)	21
Ammonia-N	21
Bicarbonate	21
Carbonate	21
C.O.D.	21
Chlorides	21
Nitrate-N	21
Dissolved Silica	21
Sulfate	21
T.D.S.	21
T.O.C.	21
Calcium	21
Iron	21
Magnesium	21
Manganese	21
Potassium	21
Sodium	21
Zinc	21

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **JANUARY**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **FEBRUARY**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATE **MARCH**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
Alkalinity (Total)	(mg/L)	A	A	A	
Alkalinity (Phenolphth.)	(mg/L)	A	A	A	
Ammonia-N	(mg/L)	M	M	M	
Bicarbonate	(mg/L)	A	A	A	
Carbonate	(mg/L)	A	A	A	
C.O.D.	(mg/L)	A	A	A	
BOD-5	(mg/L)	M	M	M	
Chlorides	(mg/L)	A	A	A	
Nitrate-N	(mg/L)	A	A	A	
Dissolved Silica	(mg/L)	A	A	A	
Sulfate	(mg/L)	A	A	A	
T.D.S.	(mg/L)	A	A	A	
T.S.S.	(mg/L)	M	M	M	
T.O.C.	(mg/L)	A	A	A	
Calcium	(mg/L)	A	A	A	
Iron	(mg/L)	A	A	A	
Magnesium	(mg/L)	A	A	A	
Manganese	(mg/L)	A	A	A	
Potassium	(mg/L)	A	A	A	
Sodium	(mg/L)	A	A	A	
DNREC Table 1 Analytes/TTO Listing located in Appendix B	Parameter Dependent	SA	SA	SA	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & Decembe
SA = Semi-Annually in March & Septembe
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysi

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **APRIL**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **MAY**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **JUNE**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **JULY**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **AUGUST**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **SEPTEMBER**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
DNREC Table 1 Analytes/TTO Listing located in Appendix B	Parameter Dependent	SA	SA	SA	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **OCTOBER**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **NOVEMBER**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES **DECEMBER**

Analyte	Location I.D. Units	DRP Pump Station (24 Hr. Comp.)	NWLS (Grab)	WLCMH (Grab)	Perimeter Landfill Cell Seep Inspection
Temperature (Field)	(Centigrade)	M	M	M	
pH (Field)	(Scale)	M	M	M	
Specific Cond. (Field)	(umhos/cm)	M	M	M	
REDOX (Field)	(mV)	M	M	M	
pH (Lab)	(SU)	M	M	M	
Specific Cond. (Lab)	(umhos/cm)	M	M	M	
BOD-5	(mg/L)	M	M	M	
Nitrogen (Ammonia)	(mg/L)	M	M	M	
Total Suspended Solids	(mg/L)	M	M	M	
Perimeter Landfill Cell Seep Inspection					M

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill Minimum Monitoring Requirements: LEACHATES

SUMMARY OF ANALYSIS

Analyte	Tests/Year
Temperature (Field)	36
pH (Field)	36
Specific Cond. (Field)	36
REDOX (Field)	36
pH (Lab)	36
Specific Cond. (Lab)	36
Alkalinity (Total)	3
Alkalinity (Phenolphth.)	3
Ammonia-N	36
Bicarbonate	3
Carbonate	3
C.O.D.	3
BOD-5	36
Chlorides	3
Nitrate-N	3
Dissolved Silica	3
Sulfate	3
T.D.S.	3
T.S.S	36
T.O.C.	3
Calcium	3
Iron	3
Magnesium	3
Manganese	3
Potassium	3
Sodium	3
DNREC Table 1 Analytes/TTO Listing located in Appendix B	6
Perimeter Landfill Cell Seep Inspection	12

Note: Tables do not reflect trip and equipment blank analysis.

Pigeon Point Landfill: Minimum Monitoring Requirements for Surface Wate **MARCH**

Analyte	Well I.D.	DRP Fire Pond	SW Stromwater Basin	Eastern Stromwater Basir
Temperature (Field)	(Centigrade)	Q	Q	Q
pH (Field)	(Scale)	Q	Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q
REDOX (Field)	(mV)	Q	Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q
Turbidity	(NTU's)	Q	Q	Q
pH (Lab)	(Scale)	Q	Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q
Alkalinity (Total)	(mg/L)	Q	Q	Q
Alkalinity (Phenolphth.)	(mg/L)	Q	Q	Q
Ammonia-N	(mg/L)	Q	Q	Q
Bicarbonate	(mg/L)	Q	Q	Q
Carbonate	(mg/L)	Q	Q	Q
C.O.D.	(mg/L)	Q	Q	Q
Chlorides	(mg/L)	Q	Q	Q
Nitrate-N	(mg/L)	Q	Q	Q
Dissolved Silica	(mg/L)	Q	Q	Q
Sulfate	(mg/L)	Q	Q	Q
T.D.S.	(mg/L)	Q	Q	Q
T.O.C.	(mg/L)	Q	Q	Q
Calcium	(mg/L)	Q	Q	Q
Iron	(mg/L)	Q	Q	Q
Magnesium	(mg/L)	Q	Q	Q
Manganese	(mg/L)	Q	Q	Q
Potassium	(mg/L)	Q	Q	Q
Sodium	(mg/L)	Q	Q	Q
Zinc	(mg/L)	Q	Q	Q

M = Monthly
Q = Quarterly in March, June, September & Decembe
SA = Semi-Annually in March & Septembe
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysi

Pigeon Point Landfill: Minimum Monitoring Requirements for Surface Wate **JUNE**

Analyte	Well I.D.	DRP Fire Pond	SW Stromwater Basin	Eastern Stromwater Basir
Temperature (Field)	(Centigrade)	Q	Q	Q
pH (Field)	(Scale)	Q	Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q
REDOX (Field)	(mV)	Q	Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q
Turbidity	(NTU's)	Q	Q	Q
pH (Lab)	(Scale)	Q	Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q
Alkalinity (Total)	(mg/L)	Q	Q	Q
Alkalinity (Phenolphth.)	(mg/L)	Q	Q	Q
Ammonia-N	(mg/L)	Q	Q	Q
Bicarbonate	(mg/L)	Q	Q	Q
Carbonate	(mg/L)	Q	Q	Q
C.O.D.	(mg/L)	Q	Q	Q
Chlorides	(mg/L)	Q	Q	Q
Nitrate-N	(mg/L)	Q	Q	Q
Dissolved Silica	(mg/L)	Q	Q	Q
Sulfate	(mg/L)	Q	Q	Q
T.D.S.	(mg/L)	Q	Q	Q
T.O.C.	(mg/L)	Q	Q	Q
Calcium	(mg/L)	Q	Q	Q
Iron	(mg/L)	Q	Q	Q
Magnesium	(mg/L)	Q	Q	Q
Manganese	(mg/L)	Q	Q	Q
Potassium	(mg/L)	Q	Q	Q
Sodium	(mg/L)	Q	Q	Q
Zinc	(mg/L)	Q	Q	Q

M = Monthly
Q = Quarterly in March, June, September & Decembe
SA = Semi-Annually in March & Septembe
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysi

Pigeon Point Landfill: Minimum Monitoring Requirements for Surface Wate **SEPTEMBER**

Analyte	Well I.D.	DRP Fire Pond	SW Stromwater Basin	Eastern Stromwater Basir
Temperature (Field)	(Centigrade)	Q	Q	Q
pH (Field)	(Scale)	Q	Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q
REDOX (Field)	(mV)	Q	Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q
Turbidity	(NTU's)	Q	Q	Q
pH (Lab)	(Scale)	Q	Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q
Alkalinity (Total)	(mg/L)	Q	Q	Q
Alkalinity (Phenolphth.)	(mg/L)	Q	Q	Q
Ammonia-N	(mg/L)	Q	Q	Q
Bicarbonate	(mg/L)	Q	Q	Q
Carbonate	(mg/L)	Q	Q	Q
C.O.D.	(mg/L)	Q	Q	Q
Chlorides	(mg/L)	Q	Q	Q
Nitrate-N	(mg/L)	Q	Q	Q
Dissolved Silica	(mg/L)	Q	Q	Q
Sulfate	(mg/L)	Q	Q	Q
T.D.S.	(mg/L)	Q	Q	Q
T.O.C.	(mg/L)	Q	Q	Q
Calcium	(mg/L)	Q	Q	Q
Iron	(mg/L)	Q	Q	Q
Magnesium	(mg/L)	Q	Q	Q
Manganese	(mg/L)	Q	Q	Q
Potassium	(mg/L)	Q	Q	Q
Sodium	(mg/L)	Q	Q	Q
Zinc	(mg/L)	Q	Q	Q

M = Monthly
Q = Quarterly in March, June, September & Decembe
SA = Semi-Annually in March & Septembe
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysi

Pigeon Point Landfill: Minimum Monitoring Requirements for Surface Wate **DECEMBER**

Analyte	Well I.D.	DRP Fire Pond	SW Stromwater Basin	Eastern Stromwater Basir
Temperature (Field)	(Centigrade)	Q	Q	Q
pH (Field)	(Scale)	Q	Q	Q
Specific Cond. (Field)	(umhos/cm)	Q	Q	Q
REDOX (Field)	(mV)	Q	Q	Q
D. O. (Field)	(mg/L)	Q	Q	Q
Turbidity	(NTU's)	Q	Q	Q
pH (Lab)	(Scale)	Q	Q	Q
Specific Cond. (Lab)	(umhos/cm)	Q	Q	Q
Alkalinity (Total)	(mg/L)	Q	Q	Q
Alkalinity (Phenolphth.)	(mg/L)	Q	Q	Q
Ammonia-N	(mg/L)	Q	Q	Q
Bicarbonate	(mg/L)	Q	Q	Q
Carbonate	(mg/L)	Q	Q	Q
C.O.D.	(mg/L)	Q	Q	Q
Chlorides	(mg/L)	Q	Q	Q
Nitrate-N	(mg/L)	Q	Q	Q
Dissolved Silica	(mg/L)	Q	Q	Q
Sulfate	(mg/L)	Q	Q	Q
T.D.S.	(mg/L)	Q	Q	Q
T.O.C.	(mg/L)	Q	Q	Q
Calcium	(mg/L)	Q	Q	Q
Iron	(mg/L)	Q	Q	Q
Magnesium	(mg/L)	Q	Q	Q
Manganese	(mg/L)	Q	Q	Q
Potassium	(mg/L)	Q	Q	Q
Sodium	(mg/L)	Q	Q	Q
Zinc	(mg/L)	Q	Q	Q

M = Monthly
Q = Quarterly in March, June, September & Decembe
SA = Semi-Annually in March & Septembe
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysi

Pigeon Point Landfill: Minimum Monitoring Requirements for Surface Waters

SUMMARY OF ANALYSIS

Analyte	Tests/Year
Temperature (Field)	12
pH (Field)	12
Specific Cond. (Field)	12
REDOX (Field)	12
D. O. (Field)	12
Turbidity	12
pH (Lab)	12
Specific Cond. (Lab)	12
Alkalinity (Total)	12
Alkalinity (Phenolphth.)	12
Ammonia-N	12
Bicarbonate	12
Carbonate	12
C.O.D.	12
Chlorides	12
Nitrate-N	12
Dissolved Silica	12
Sulfate	12
T.D.S.	12
T.O.C.	12
Calcium	12
Iron	12
Magnesium	12
Manganese	12
Potassium	12
Sodium	12
Zinc	12

M = Monthly
Q = Quarterly in March, June, September & December
SA = Semi-Annually in March & September
A = Annually in March

Note: Tables do not reflect trip and equipment blank analysis.

APPENDIX 10 – POST CLOSURE CARE PLAN

EXHIBIT 13 – ENVIRONMENTAL MONITORING PLAN

Attachment 1 – Leachate, Groundwater, and Surface Water Monitoring Plan

BACKGROUND

The Delaware Solid Waste Authority (DSWA) operated Pigeon Point Landfill from January 1, 1981until its closure in October of 1985. During the period of time when DSWA operated the landfill and for over twenty (20) years since its closure, leachate, groundwater, and surface water has been monitored.

Included in this **Attachment 1** of **Appendix 10** is the Pigeon Point Landfill 2006 Monitoring Program for Groundwaters, Surface Waters, and Leachates. It is recommended that this existing program be continued during the remaining ten (10) years of Post Closure Care.

The current leachate monitoring program was developed to comply with the New Castle County Department of Public Works Permit No. WPD-060 (Rev.4) (see **Attachment 4**) and to monitor similar indicator parameters used for groundwater monitoring.

The current groundwater monitoring program was developed starting from the original Closure Plan (see **Appendix 3**) and has been modified over time to reflect additions and deletions of monitoring wells and additions and deletions to parameters, based upon a review of the data and the presence or absence of specific parameters.

The current surface water monitoring plan was developed starting from the need to monitor the DRC Fire Pond and the two stormwater basins on the perimeter of the Pigeon Point Landfill. Since there is no specific permit with specific requirements of what parameters and frequency to sample for, DSWA developed the sampling and analysis program outlined in this **Attachment 1** to monitor for a broad field of indicator parameters that are also monitored in the leachate and groundwater programs.

EXHIBIT 13

Attachment 2

Gas Monitoring Plan

APPENDIX 10 – POST CLOSURE CARE PLAN

EXHIBIT 13 – ENVIRONMENTAL MONITORING PLAN

Attachment 2 – Gas Monitoring Plan

BACKGROUND

The Delaware Solid Waste Authority (DSWA) operated Pigeon Point Landfill from January 1, 1981until its closure in October of 1985. In the time since 1985 the amount of landfill gas (LFG) produced has decreased substantially. A candlestick flare was used to control the LFG from 1987 until 2005, when LFG flow was not enough to sustain the flame. The candlestick flare was operated under permit APC 88/0005-OPERATION. In January 2006, the DSWA installed five (5) active/passive flares to control the landfill gas. This is in compliance with APC-2005/0033-CONSTRUCTION. Subsequently, on February 14, 2006, DNREC issued Permit APC-2005/0033-OPERATION (see **Appendix 10 – EXHIBIT 10 – Attachment 1**) which set forth the conditions for operation of these five (5) flares. The Title V permit for Pigeon Point (AQM-001/00086) expired on August 31, 2002. A renewal application was deemed not required, and therefore, has not been submitted.

MONITORING

The DSWA will follow the monitoring, maintenance, record keeping, and other requirements for the Pigeon Point Landfill Gas System as described in Permit APC-2005/0033-OPERATION and any other applicable permit or regulatory requirement.

EXHIBIT 13

Attachment 3

Geotechnical Instrument Monitoring Plan

APPENDIX 10 – POST CLOSURE CARE PLAN

EXHIBIT 13 – ENVIRONMENTAL MONITORING PLAN

Attachment 3 – Geotechnical Instrument Monitoring Plan

BACKGROUND

The Delaware Solid Waste Authority (DSWA) operated Pigeon Point Landfill from January 1, 1981until its closure in October of 1985. Since closing the landfill in 1985, the landfill has undergone considerable settlement. What was once a landfill graded at 2% decreased to a point where it was flat and began to hold water. DSWA filled in low points at the top of the landfill utilizing flash from the Delmarva Power Plant. This was done to prevent infiltrations of rain into the landfill that could create additional leachate generation, seeps, and leachate breakouts.

In 1999, DSWA hired Schnabel Engineers and Associates to conduct a stability analysis to determine the potential to place sufficient material to ensure positive drainage off the top of the landfill. The stability analysis included a grading plan to achieve the goals.

A follow-up analysis to the original stability analysis was conducted in January and March 2005 by GeoSyntec Consultants. This revised analysis demonstrated that the landfill was stable to the final build-out grades of the grading plans. The analysis was not time-dependent and did not impose any restrictions on the loading rate.

As part of the analysis completed in March 2005, DSWA installed four instruments – two leachate observation wells, and two inclinometers. GeoSyntec recommended monitoring the inclinometers quarterly for the first year and, if there are no significant movements, semi-annually thereafter.

MONITORING

The DSWA plans to monitor the inclinometers quarterly through April 2006. Subsequent to April 2006, the instruments will be monitored semi-annually. Letter reports will be generated as a result of the monitoring.

EXHIBIT 13

Attachment 4

New Castle County Department of Public Works
Permit No. WPD-060 (Rev.4)

RPW

CHRISTOPHER A. COONS
COUNTY EXECUTIVE

RICHARD T. PRZYWARA
GENERAL MANAGER

DEPARTMENT OF SPECIAL SERVICES

March 1, 2006

RECEIVED
MAR 0 9 2006
CHERRY ISLAND LANDFILL

SCANNED

RECEIVED
MAR 1 4 2006
DSWA

Robin S. Roddy P.E.
1128 S. Bradford Street
P.O. Box 455,
Dover, DE 19903-0455

RE: Wastewater Discharge Permit WDP 85-060, Revision 4
Delaware Solid Waste Authority

Dear Ms. Roddy:

In accordance with the recently modified provisions of the New Castle County Code, Division 38.02.700, entitled "Regulation of Non-domestic Wastewater Discharges into the Public Sewer System", the attached amended permit is hereby issued to Delaware Solid Waste Authority, Dover, Delaware.

The permit is effective the date of this letter and supersedes all previous permits issued to this facility. Pursuant to Division 38.02.700 of the New Castle County Code, the permit may be revised as limitations or requirements are modified or changed. Monitoring reports shall be submitted by July 31 and January 31 for the previous six-month period.

Should you have any questions or require further information on the above, please contact David Bowie 395-5728.

Sincerely,

Michael D. Harris

Michael D. Harris
Environmental Compliance Manager

Encl.
cc: T. Surles/J. Husband, NCC
Matt Miller, City of Wilmington, Encl.
David Bowie, NCC, File

file:c:\permit#\85-060\permltr 06.doc

187-A OLD CHURCHMANS ROAD, NEW CASTLE, DE 19720 PHONE: 302-395-5700 FAX: 302-395-5802

Permit Number: 85-060
Revision Number: 4

NEW CASTLE COUNTY
DEPARTMENT OF SPECIAL SERVICES
187-A Old Churchman's Road
New Castle, Delaware 19720

WASTEWATER DISCHARGE PERMIT

In accordance with the provisions of the General Pretreatment Regulations at 40 CFR Part 403, and pursuant to New Castle County Code, Division 38.02.700 entitled "Regulation of Non-domestic Wastewater Discharges into the Public Sewer System," as amended December 21, 2004 and any applicable Federal or State law or regulation:

Delaware Solid Waste Authority
1128 S. Bradford St., P. O. Box 455
Dover, Delaware 19903-0455

is authorized to discharge wastewater to the New Castle County Sewer System from the facility located at:

Northern Solid Waste Facility-1
1101 Lambson Lane
New Castle, Delaware 19720

subject to the permit conditions established herein.

Effective Date: As amended March 1, 2006

Expiration Date: September 6, 2009

Date: 3/1/06

Signed: Michael D. Harris
Environmental Compliance Manager

PERMIT CONDITIONS

A. General.

1. The named permit holder shall be expressly subject to all provisions of New Castle County Code, Division 38.02.700 and all other regulations, user charges, and fees established by the County.

2. This Wastewater Discharge Permit is issued in the name of the permit holder and shall not be reassigned, transferred or sold to a new owner, new user, different premises, or a new or changed operation.

3. The permit holder shall report to New Castle County any changes (permanent or temporary) to the premises or operations that significantly change the quality or quantity of the wastewater discharge described in the Wastewater Discharge Permit Application submitted by the permit holder, or deviate from the terms or conditions under which this permit is granted.

4. The permit holder may be held liable for any actual damages and/or extraordinary expenses incurred by the Publicly Owned Treatment Works (POTW) caused in full or in part by the permit holder as determined from the investigation and findings of the Department of Special Services. The Department may seek to recover reasonable attorney's fees, court costs, monitoring costs, and other expenses associated with cost recovery and other enforcement activities.

5. This permit is subject to revision to reflect any changes to the County code or any applicable categorical standards as and when they are promulgated by the USEPA.

6. The permit holder is subject to all enforcement actions, to include penalties established in New Castle County Code, Division 38.02.700, for violating permit conditions.

7. All reports and correspondence shall be submitted to the following address:

Environmental Compliance Manager
Department of Special Services
Engineering & Environmental Services Division
187 –A Old Churchman's Road
New Castle, Delaware 19720

B. Effluent Limitations.

1. Permissible Concentrations. The discharge from the designated location shall be limited to the effluent quality limitations as defined in New Castle County Code, Division 38.02.700 except for the following:

Effluent Constituent	Maximum Permissible Loading (lbs/day) 30 Day Average	Maximum Daily
As	0.3002	0.4504
Cd	0.0100	0.0150
Cr	0.1700	0.2500
Cu	0.2000	0.3052
Cn	N/A	1.6350
Pb	0.1600	0.2450
Hg	0.0190	0.0285
Mo	N/A	N/A
Ni	3.34	5.004
Se	2.17	3.25
Zn	0.58	0.878
TSS	1668	2510
BOD5	1668	2510
Ammonia**	600	900

Effluent Constituent	Maximum Permissible Concentration (mg/l) 30 Day Average	Maximum Daily
Total Toxic Organics (TTO*)	--	10.0 mg/L

*TTO - Total Toxic Organics as defined at 40 CFR 433. 11 (e)
**Ammonia loading is granted through a permit variance

2 Categorical Limitations. Discharge is subject to the categorical pretreatment standards for N/A as established under 40 CFR Chapter I, Subpart N. These standards shall be in addition to the general prohibitions of the New Castle County Code, Division 38.02.700, and in cases where the same constituent is addressed, the more stringent limitation will apply.

3. Rate of Discharge.

a. The daily average discharge shall mean the total discharge in gallons during a six month monitoring period divided by the number of days in the period in which production was occurring or the commercial facility was operating. The daily average discharge permitted at the facility shall not exceed:

400,000 GPD

b. The maximum instantaneous discharged flow rate shall not exceed:

N/A

c. A meter to measure the wastewater discharge shall be installed at the following location:

A Flow Meter is in place and in use at the facility effluent pump station

Metering devices pertinent to the discharge(s) shall be maintained in good working order and calibrated at least annually.

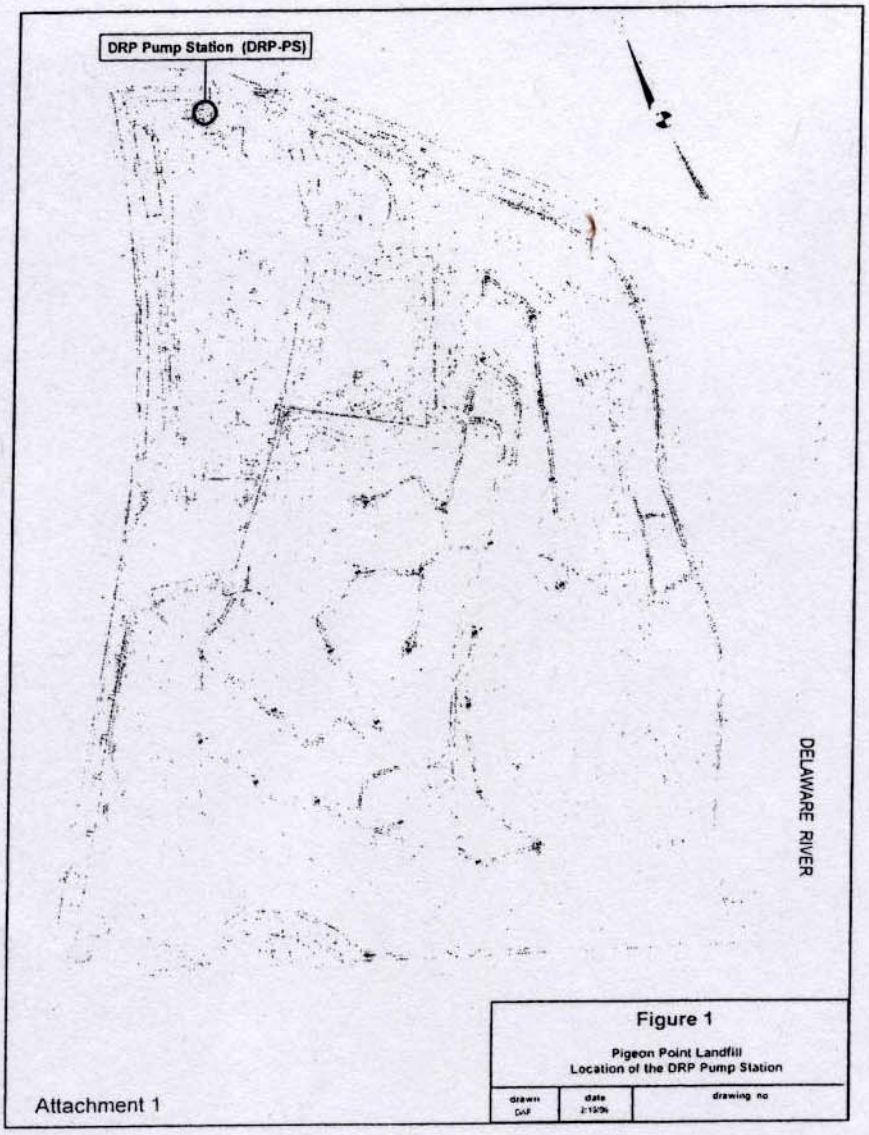
C. Monitoring, Sampling, Inspections, Reporting, and Records Retention.

1. Monitoring. The permitted discharge shall be monitored by the permit holder in compliance with the following schedule:

Effluent Constituent	Frequency	Sample Type
pH	1/ Month	Grab
BOD5	1/ Month	24-hr Composite
TSS	1/ Month	24-hr Composite
NH3-N	1/ Month	24-hr Composite
As, Cd, CN, Cr, Cu, Hg	1/ 6 Months	24 -hr Composite
Pb, Mo, Ni, Se, Zn,	1/ 6 Months	24- hr Composite
TTO (Non Purgeables)	1/6 Months	24-hr Composite
TTO (Purgeables)	1/6 Months	Composite of 4 grabs

2. Sampling.

a. Samples taken in compliance with the monitoring requirements specified above shall be collected at the following location
N S W F-1 Pumping Station.



b. In accordance with New Castle County Code, Division 38.02.700, the permit holder is required to install a sampling and inspection manhole at the following location:

N S W A -1 Pumping Station wet well shall be used

3. Inspections. Duly authorized employees of New Castle County, bearing proper credentials and identification, shall be permitted to enter all premises in compliance with New Castle County Code, Division 38.02.700, for the purpose of inspection of processes, records, and the like.

4. Periodic Discharge Reports and Progress Reports on Compliance Schedule. A report containing the results of the monitoring program and progress reports on compliance (if any) shall be filed with the New Castle County Department of Special Services by January 31 and July 31 of each year for the previous six-month period. The results of all self-monitoring, including the results of monitoring done more frequently than required, shall be submitted. Reports shall be submitted in the attached format (Attachments 1 of 3, 2of 3 and 3 of 3 of this permit).

The report shall include at a minimum the following:

Nature and concentration of regulated pollutants, average and maximum daily flow rates, methods of sampling and analysis, sample site, date of sample and flow rate at time of sampling, certification of meter calibration, and a certification that the methods used conform to those approved by the U.S. E.P.A. Reports shall be signed in compliance with the signatory requirements in 40 CFR 122.22 (l). If analysis results indicate a particular pollutant is not detected, the detection limit shall be reported.

5. Records Retention. All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, including sample time, sampler name, date of sample analysis, analysts name calibration and maintenance of instrumentation, and continuous monitoring charts shall be retained for three (3) years. This period shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or control standards applicable to the permittee, or as requested by the Department.

D. Notice Requirements.

1. Noncompliance Notification. If the permitted discharge does not comply with any effluent limitations specified in this permit or in the New Castle County Code, the permittee shall inform the Department via telephone at 395-5728 or the County Dispatcher at 395-5700 within 24 hours of becoming aware of the occurrence, and follow up with written notification within 5 days detailing the cause of the occurrence, the steps taken to correct the occurrence and prevent future events. The permittee shall also repeat sampling and analysis and submit the results within 30 days of becoming aware of the violation.

2. RCRA Notification. The permitted facility may be subject to hazardous waste requirements under the Resource Conservation and Recovery Act, Subtitles C & D. The State of Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, 89 Kings Highway, PO Box 1401, Dover Delaware 19903 regulates hazardous waste in the state and must be contacted to determine your obligations, if any, under this Act. The permitted facility shall also notify the County and DNREC in the event of discharge of hazardous waste to the sewer system and the POTW, in accordance with 40 CFR 403.12 (p) (1).

3. Notice of Slug Loading. In accordance with 40 CFR Part 403, Section 403.12(f), the discharger shall immediately notify the Department of any slug loading of any pollutant (including oxygen demanding pollutants) released to the treatment system at a flow rate or concentration likely to cause operational problems to the sewer system and at the POTW. (Call 395-5728 during office hours, 395-5700 at other times)

E. Special Conditions.

1. This Wastewater Discharge Permit supersedes any other approval and/or permit for wastewater discharge issued previous to the effective date of this permit.

2. All analyses conducted in accordance with Section C.1. of this permit shall conform to 40 CFR 136 analytical methods.

3. All sampling specified in section C.1. of this permit shall be performed during hours which production is occurring or the commercial facility is operating.

eriodic Self-Monitoring Report

Permit Number:85-060
Permit Revision Number: 4
Attachment 1 of 3

eporting Period:

ustry: Delaware Solid Waste Authority Sample Location:

art I - Analysis Results

Parameter		Total Arsenic	Total Cadmium	Total Chromium	Total Copper	Cyanide	Total Lead	Total Mercury	Total Molybdenum	Total Nickel	Total Selenium	Total Zinc
Frequency		1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months	1/6 Months
Limits	Max	0.4504	0.0150	0.25	0.305	1.635	0.245	0.0285	N/A	5.004	3.25	0.878
	30 Day Avg.	0.3002	0.0100	0.17	0.20	N/A	0.16	0.019	N/A	3.34	2.17	0.58
Units		lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Sample Date	Flow	Analysis Results										
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Periodic Self-Monitoring Report

Reporting Period: January - June / July - December

Permit Number: WDP-85-060

Permit Revision Number: 4

Industry: Delaware Solid Waste Authority

Attachment 2 of 3

Part I - Analysis Results

Parameter		pH	BOD	TSS	NH3	TTO
Frequency		1/Month	1/Month	1/Month	1/Month	1/6 Months
Limits	Max	(6-9)	2510	2510	900	10.0
	30 Day Avg.	N/A	1668	1668	600	N/A
Units		SU	Lbs/Day	Lbs/day	Lbs/Day	mg/l
Sample Date	Flow					
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Periodic Self-Monitoring Report

Permit Number: WDP-85-060
Permit Revision Number: 4
Attachment 3 of 3

Reporting Period: January - June / July - December

Industry: Delaware Solid Waste Authority

Part II - Flow Rates

	Max	Avg		Max (GPD)	Avg (GPD)
Permitted Flow (GPD)	N/A	400,000	Reported Flow		

Part III - Methods

A. Sampling Method:

All Samples are flow / time (circle one) proportioned composites except for purgeable parameters which are laboratory composites of four (4) grab samples, collected over the period of the discharge. Variances from the method are as below (Indicate sample date, parameter, and reason).

B. Methods of Analysis:

All analytical methods conform to those approved by the U.S. EPA except:

Part IV- Certification

A. Results indicate that the wastewater discharge standards are being met on a consistent basis: ____Yes ____No
If 'No', explain on a separate sheet what steps are being taken to achieve consistent compliance.

B. The discharge flow meter has been calibrated within the past year: _____ Yes _____ No

Date of last calibration: _____

C. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____
Authorized Representative

_____ _____
Name