6324 Fairview Road
Charlotte, NC 28210
Tel. (704) 362-6630
Fax (704) 362-6636

DuPont Corporate Remediation Group

June 1, 2016

RECEIVED
JUN 3 2016
SOLID WASTE SECTION

Mr. Ethan Brown
NCDEQ
Compliance Hydrogeologist
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: 2016 Annual Groundwater Monitoring Report
DuPont Industrial Landfills, NC Solid Waste Landfill Permit No. 10-06
Cape Fear Plant, Leland, NC

Dear Mr. Brown,

As required in Landfill Permit No.10-06, attached please find the results of the annual groundwater monitoring program completed at the DuPont Cape Fear Site in February 2016. This annual report was prepared in accordance with NCDEQ guidelines for environmental monitoring at solid waste sites. A completed Environmental Monitoring Reporting Form has been included with this report.

Please feel free to contact me at 704-362-6626 if you have any questions concerning this annual groundwater monitoring report.

Sincerely,

Jamie Vanbuskirk
Project Director
DuPont Corporate Remediation Group

cc: Mr. Ervin Lane, NCDEQ, SWS
File

DENR USE ONLY ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

DuPont (Facility Owner)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Marc Harder Phone: 704-558-4199

E-mail: marc.harder@parsons.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
DuPont Cape Fear Site	3500 Daniels Road NE Leland, NC 28451	10-06	.0500	February 23-26, 2016

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Marc W. Harder — Facility Representative Name (Print)

Geologist — Title

704-558-4199 — (Area Code) Telephone Number

Marc W. Harder — Signature

6/1/2016 — Date

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1763 GEOLOGIST MARC W. HARDER

Parsons, 4701 Hedgemore Drive, Charlotte, NC 28209

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

2016 Annual Landfill Groundwater Sampling Report
DuPont Cape Fear Site
Leland, North Carolina

As required in Landfill Permit No. 10-06, attached please find the results of the annual groundwater monitoring program completed at the DuPont Cape Fear Site in February 2016. This annual report was prepared in accordance with the North Carolina Department of Environmental Quality (NCDEQ) guidelines for environmental monitoring at solid waste sites. A completed Environmental Monitoring Reporting Form has been included with this report.

Eleven monitoring wells were sampled as required by the permit. Monitoring wells MW-1, MW-2, MW-3, and MW–9 are associated with the TPA Landfill (SWMU 53), MW-4, MW-5, MW-6, and MW–7 are associated with the Ash Landfill (SWMU 54), and MW-22, MW-23, and MW–24 are associated with the Demolition Landfill (SWMU 59). Attached to this letter report are the following figures and tables:

Figure 1: Potentiometric Surface Map: Shows the locations of the monitoring wells associated with the landfill monitoring program along with groundwater elevations at each well (measured in February 2016). Groundwater elevation contours showing groundwater flow direction are also included on this map. Groundwater flow direction is to the northeast toward the Cape Fear River.

Figure 2: Exceedance Map: Shows the constituents that exceeded North Carolina 2L (NC 2L) drinking water standards along with their corresponding locations and concentrations.

Figure 3: Historical Concentrations of 1,4-Dioxane in Groundwater at MW-2 and MW-9: Shows the concentrations of 1,4-dioxane in groundwater at monitoring wells MW-2 and MW-9 over the past ten years (2006-2016). These two wells are located downgradient of the TPA Landfill.

Table 1: Summary of Groundwater Analytical Results: Lists the constituents that were detected in groundwater from the landfill monitoring wells and their corresponding concentrations. Concentrations of constituents that exceeded NC2L standards are highlighted on this table.

Table 2: Target Analyte List: Lists the parameters that were analyzed in the laboratory along with corresponding CAS Numbers and Solid Waste Section (SWS) ID Numbers.

Table 3: Groundwater Field Parameters: Lists the water quality parameters (temperature, specific conductivity, pH, dissolved oxygen, reduction-oxidation potential, and turbidity) collected in the field during this sampling event.

Table 4: Groundwater Elevation Data: Lists the depth to groundwater in each monitoring well along with the top of casing elevation and groundwater elevation.

Appendix A: Laboratory Analytical Report (2016)

QUALITY ASSURANCE/QUALITY CONTROL

As part of an in-house quality assurance/quality control (QA/QC) process, the laboratory analytical data were reviewed and, in some cases, qualified by placing a "J" flag next to the resulting concentration (see Table 1). A "J" flag means that the analyte is present but the reported value may not be accurate or precise. The glycol results from all monitoring wells were rejected and considered unusable due to one or more surrogates with relative percent recovery (RPR) values less than the data rejection limit. The rest of the analytical data presented in this letter report is acceptable and considered usable. Laboratory reporting limits were raised for all volatile organic compounds at MW-23 and MW-24 due to sample foaming. The narrative of the laboratory analytical report contains a more detailed explanation of the results from the data review process (Appendix A).

LANDFILL ANALYTICAL RESULTS

TPA Landfill

At the TPA Landfill, 1,4-dioxane was detected in groundwater from downgradient monitoring well MW-9 at a concentration of 0.044 milligrams per liter (mg/L). This concentration is above the NC 2L standard of 0.003 mg/L for 1,4-dioxane (Table 1). Unlike previous sampling events, 1,4-dioxane was not detected in groundwater at downgradient monitoring well MW-2 (Figure 3). The concentration of arsenic in groundwater at MW-9 was slightly above the NC 2L standard. However, the arsenic concentration is estimated ("J" flagged) because the value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL). As shown on Figure 3, the concentration of 1,4-dioxane in groundwater at MW-9 has decreased considerably over the past four years (from 0.119 mg/L in 2012 to 0.044 mg/L in 2016). The concentration of 1,4-dioxane in groundwater at MW-2 has also decreased over the past four years (from 0.014 mg/L in 2012 to non-detect in 2016). Concentrations of the remaining constituents detected in groundwater at the TPA landfill are below NC 2L standards.

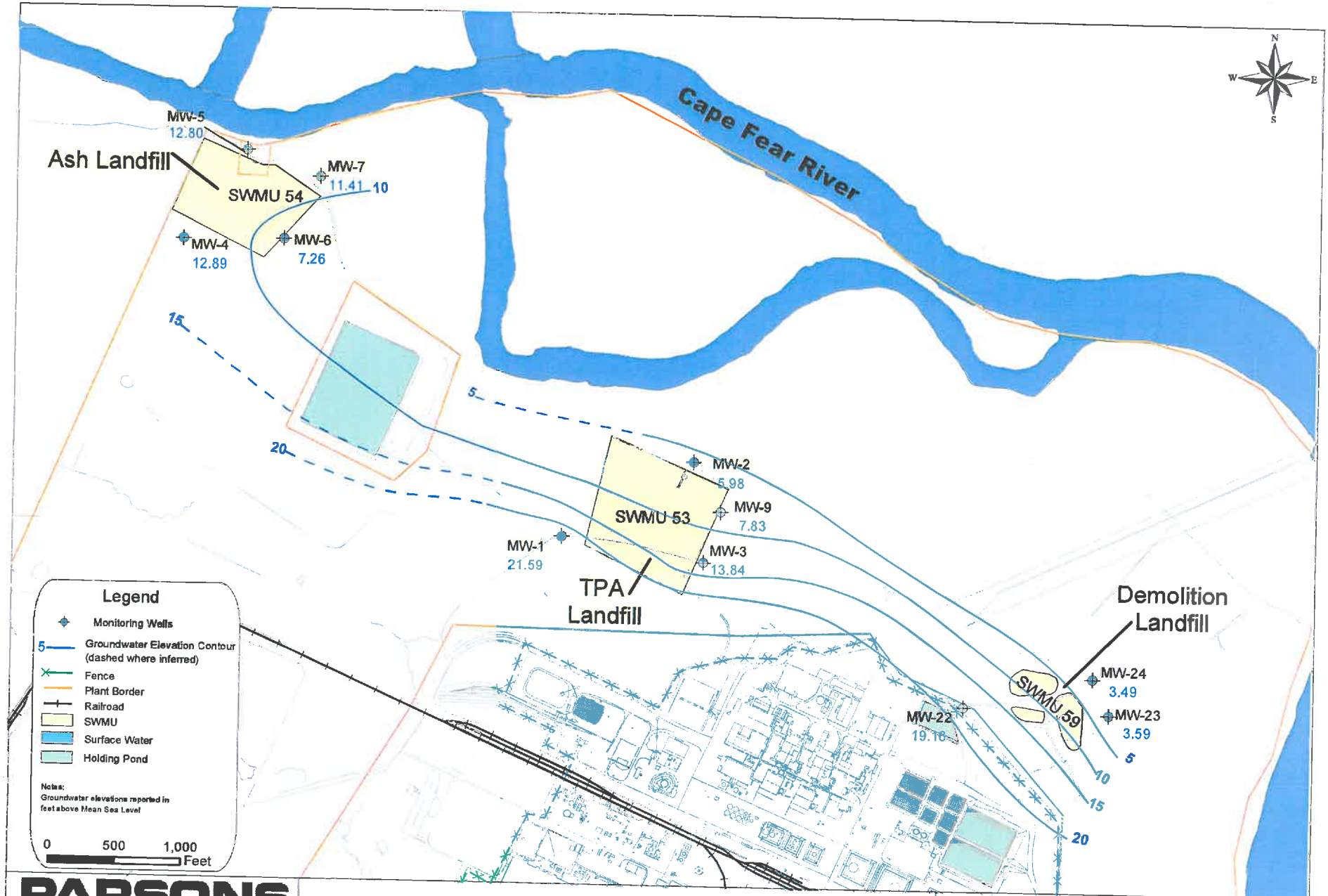
Ash Landfill

At the Ash Landfill, the concentration of selenium in groundwater at MW-5 is slightly above the NC 2L standard (Table 1). However, the selenium concentration is estimated ("J" flagged) because the value is between the MDL and PQL. Concentrations of the remaining constituents detected in groundwater at the Ash landfill are below NC 2L standards.

Demolition Landfill

At the Demolition Landfill, the concentration of total dissolved solids in groundwater is slightly above the NC2L standard at MW-23 (Table 1). This is consistent with previous sampling events. 1,4-dioxane was detected in groundwater at MW-23 at a concentration equal to the NC 2L standard of 0.003 mg/L. Concentrations of the remaining constituents detected in groundwater at the Demolition Landfill are below NC2L standards. Several polycyclic aromatic hydrocarbons (PAHs) were detected in groundwater at MW-24 but the concentrations are well below their corresponding NC 2L standards. Furthermore, all the PAH concentrations are estimated ("J" flagged) because the values are between the MDL and PQL.

FIGURES

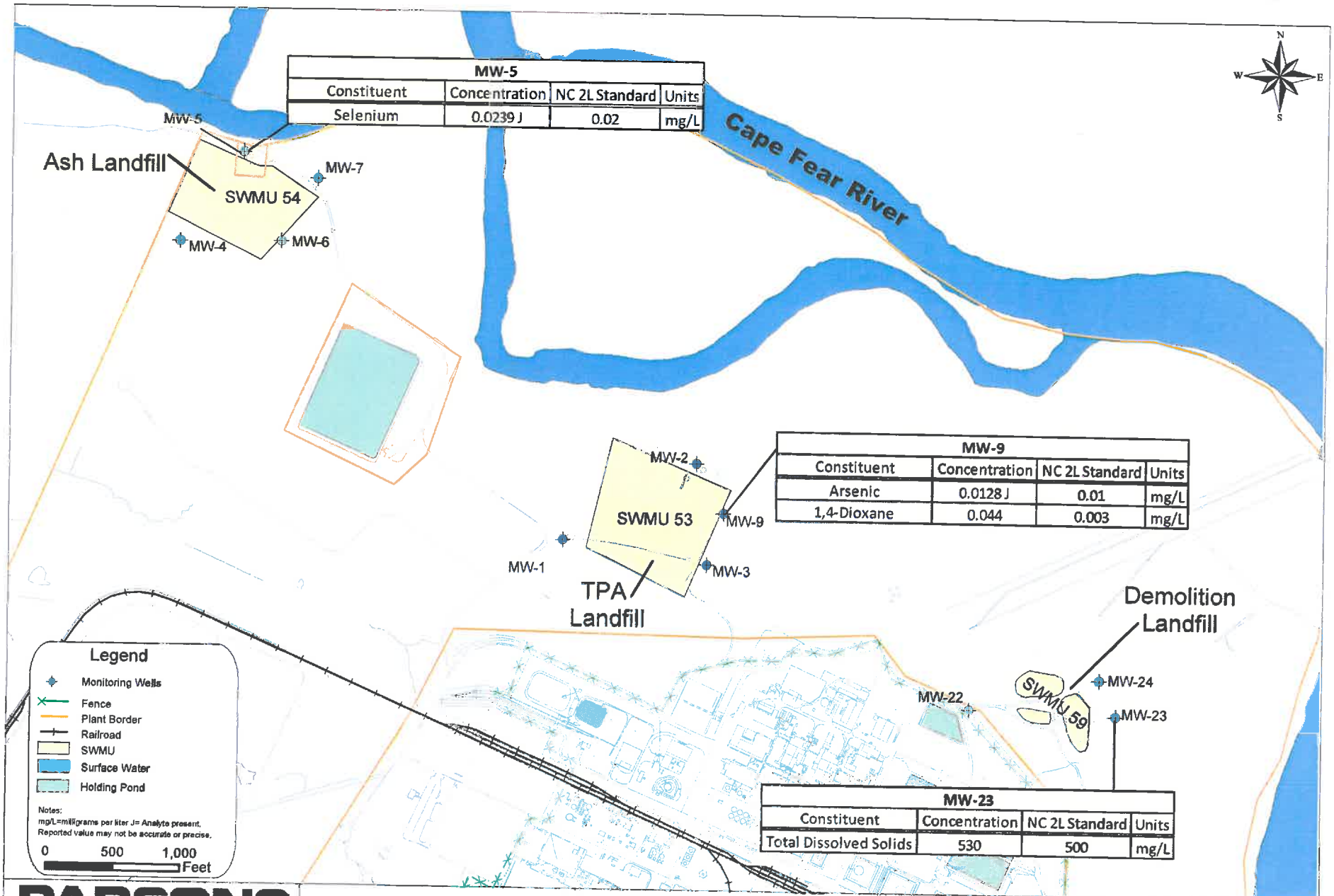


PARSONS

4701 Hedgemore Dr.
Charlotte, NC 28209

Potentiometric Surface Map (February 2016)
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site – Leland, NC

DRAWN: C. Oneal	DATE: 4/26/2016	DuPont Project #: 504182
REVISION:	FIGURE NO.: 1	Parsons Project #: 449718.05050
FILE NAME: E:\GIS\CapeFear\Gis\Project_figures\2016\CF_GW_2_2016.mxd		



MW-5			
Constituent	Concentration	NC 2L Standard	Units
Selenium	0.0239 J	0.02	mg/L

MW-9			
Constituent	Concentration	NC 2L Standard	Units
Arsenic	0.0128 J	0.01	mg/L
1,4-Dioxane	0.044	0.003	mg/L

MW-23			
Constituent	Concentration	NC 2L Standard	Units
Total Dissolved Solids	530	500	mg/L

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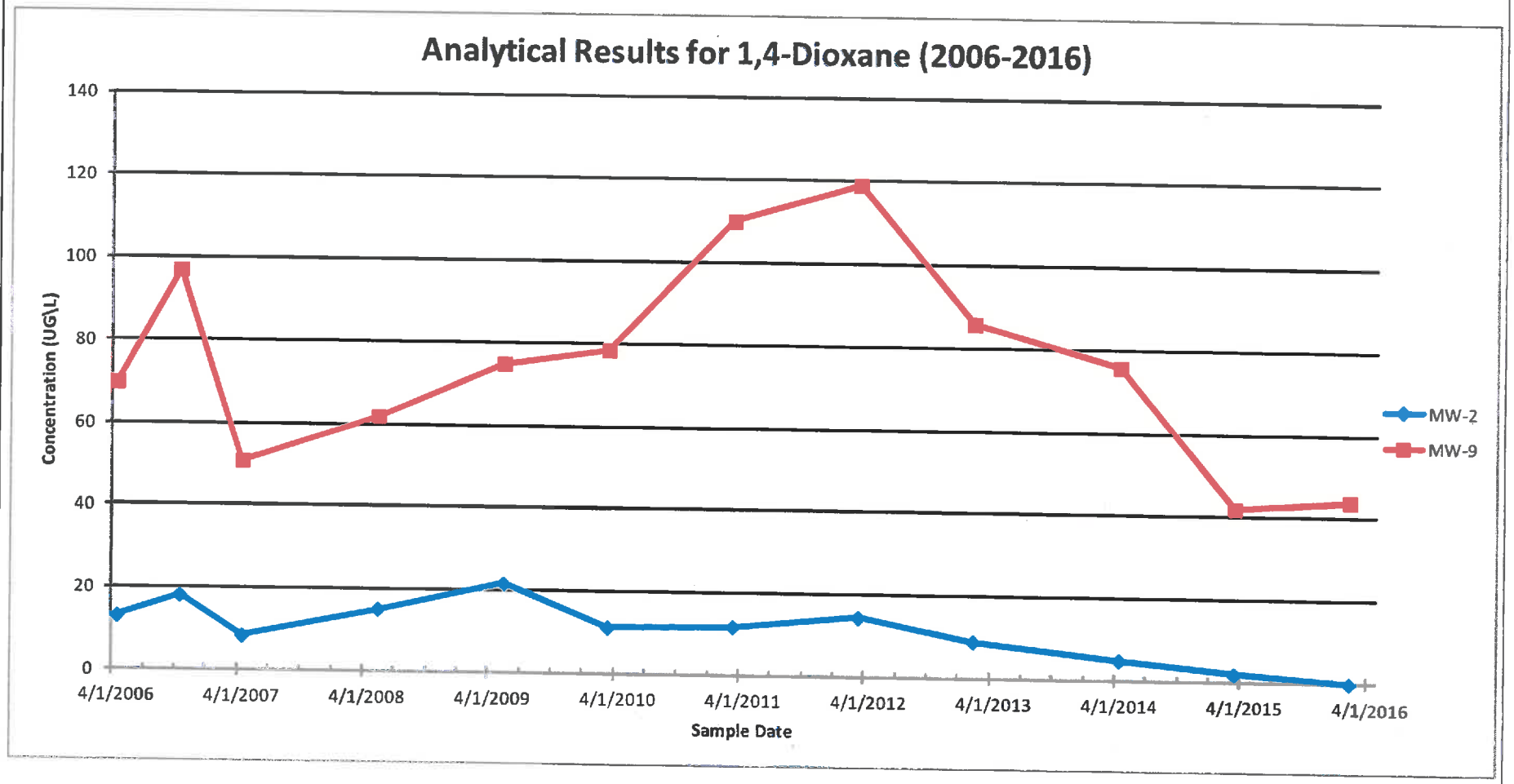
4701 Hedgemore Dr.
Charlotte, NC 28209

Exceedance Map
February 2016 Sampling Event
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site – Leland, NC

DRAWN: C. Onesi	DATE: 4/28/2016	DuPont Project #: 504182
REVISION:	FIGURE NO.: 2	Parsons Project #: 449718.05050
FILE NAME: E:\GIS\CapeFear\Gis\Project_figures\2016\CF_exceedance_2_2016.mxd		



UG/L = micrograms per liter

E:\GIS\CapeFear\Gis\Project_figures\2016\Fig2_14dioxanev2.mxd

PARSONS

PE&I

4701 Hedgemore Dr.
Charlotte, NC 28209

Historical Concentrations of 1,4-Dioxane in Groundwater at MW-2 and MW-9 (2006-2016).
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site – Leland, NC

Drawn:	DuPont Project No.:
Date: 4/28/2016	Parsons Project No. 449350.05050
Revision:	Figure No.: 3
File Name: Fig2_14dioxanev2	

TABLES

Table 1. Summary of Groundwater Analytical Results (February 2016)
Cape Fear Landfill Annual Monitoring Report
DuPont Cape Fear Site - Leland, NC

	TPA LANDFILL					
Analyte	**1006-MW-1**	**1006-MW-2**	**1006-MW-3**	**1006-MW-9**	**NC 2L**	**UNITS**
ARSENIC	ND	ND	ND	0.0128 J	0.01	MG/L
1,4-DIOXANE	ND	ND	ND	0.044	0.003	MG/L
BARIUM	0.0035 J	0.0082 J	0.0112	0.0235	0.7	MG/L
CHLORIDE	4.7	20.1	6.2	13	250	MG/L
SULFATE	3.2 J	24.3	2.8 J	ND	250	MG/L
TOTAL DISSOLVED SOLIDS	119	206	336	434	500	MG/L

	ASH LANDFILL					
Analyte	**1006-MW-4**	**1006-MW-5**	**1006-MW-6**	**1006-MW-7**	**NC 2L**	**UNITS**
BARIUM	0.0175	0.0185	0.0245	0.0173	0.7	MG/L
CHLORIDE	6.3	5.5	4.3	27.5	250	MG/L
SELENIUM	ND	0.0239 J	ND	ND	0.02	MG/L
SULFATE	68.2	17	10	9.6	250	MG/L
TOTAL DISSOLVED SOLIDS	156	213	470	28 J	500	MG/L

	DEMOLITION LANDFILL				
Analyte	**1006-MW-22**	**1006-MW-23**	**1006-MW-24**	**NC 2L**	**UNITS**
ACENAPHTHENE	ND	ND	0.0002 J	0.08	MG/L
1,4-DIOXANE	ND	0.003 J	ND	0.003	MG/L
PHENANTHRENE	ND	ND	0.0002 J	0.2	MG/L
BARIUM	0.005 J	0.197	0.217	0.7	MG/L
CHLORIDE	5.7	110	53.1	250	MG/L
CHROMIUM	ND	ND	0.0031 J	0.01	MG/L
FLUORANTHENE	ND	ND	0.0002 J	0.3	MG/L
FLUORENE	ND	ND	0.0001 J	0.3	MG/L
LEAD	ND	ND	0.0058 J	0.015	MG/L
NAPHTHALENE	ND	ND	0.0002 J	0.006	MG/L
PYRENE	ND	ND	0.0001 J	0.2	MG/L
SULFATE	8.3	ND	ND	250	MG/L
TOTAL DISSOLVED SOLIDS	149	530	374	500	MG/L

NOTES:
Blue shaded values are above NC 2L drinking water standards.
J = Analyte present. Reported value may not be accurate or precise.
MG/L= Milligrams per Liter
ND = Not Detected
NC 2L = NC Administrative Code 15A NCAC 2L.0200 - North Carolina Groundwater Classifications and Standards

Table 2: Target Analyte List - February 2016
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site - Leland, NC

TYPE	CASNO	ANALYTE	SWS ID #
VOC	630206	1,1,1,2-TETRACHLOROETHANE	190
VOC	71556	1,1,1-TRICHLOROETHANE	200
VOC	79345	1,1,2,2-TETRACHLOROETHANE	191
VOC	79005	1,1,2-TRICHLOROETHANE	202
VOC	75343	1,1-DICHLOROETHANE	75
VOC	75354	1,1-DICHLOROETHENE	77
VOC	96184	1,2,3-TRICHLOROPROPANE	206
VOC	96128	1,2-DIBROMO-3-CHLOROPROPANE	67
VOC	106934	1,2-DIBROMOETHANE	68
VOC	107062	1,2-DICHLOROETHANE	76
VOC	78875	1,2-DICHLOROPROPANE	82
VOC	123911	1,4-DIOXANE	422
VOC	591786	2-HEXANONE	124
VOC	67641	ACETONE	3
VOC	107131	ACRYLONITRILE	8
VOC	71432	BENZENE	16
VOC	74975	BROMOCHLOROMETHANE	28
VOC	75274	BROMODICHLOROMETHANE	29
VOC	75252	BROMOFORM	30
VOC	75150	CARBON DISULFIDE	35
VOC	56235	CARBON TETRACHLORIDE	36
VOC	108907	CHLOROBENZENE	39
VOC	75003	CHLOROETHANE	41
VOC	67663	CHLOROFORM	44
VOC	156592	CIS-1,2-DICHLOROETHENE	78
VOC	10061015	CIS-1,3-DICHLOROPROPENE	86
VOC	124481	DIBROMOCHLOROMETHANE	66
VOC	74953	DIBROMOMETHANE	139
VOC	100414	ETHYLBENZENE	110
VOC	107211	ETHYLENE GLYCOL	424
VOC	74884	IODOMETHANE	142
VOC	67561	METHANOL	NE
VOC	74839	METHYL BROMIDE	136
VOC	74873	METHYL CHLORIDE	140
VOC	78933	METHYL ETHYL KETONE	141
VOC	75092	METHYLENE CHLORIDE	137
VOC	108101	METHYL-ISO-BUTYL KETONE	147
VOC	100425	STYRENE	186
VOC	127184	TETRACHLOROETHENE	192
VOC	108883	TOLUENE	196
VOC	156605	TRANS-1,2-DICHLOROETHENE	79
VOC	10061026	TRANS-1,3-DICHLOROPROPENE	87
VOC	110576	TRANS-1,4-DICHLORO-2-BUTENE	73
VOC	79016	TRICHLOROETHENE	201
VOC	75694	TRICHLOROFLUOROMETHANE	203
VOC	108054	VINYL ACETATE	210
VOC	75014	VINYL CHLORIDE	211
VOC	1330207	XYLENES (TOTAL)	346
SVOC	120821	1,2,4-TRICHLOROBENZENE	199
SVOC	95501	1,2-DICHLOROBENZENE	69
SVOC	541731	1,3-DICHLOROBENZENE	70
SVOC	106467	1,4-DICHLOROBENZENE	71
SVOC	95954	2,4,5-TRICHLOROPHENOL	204
SVOC	88062	2,4,6-TRICHLOROPHENOL	205
SVOC	120832	2,4-DICHLOROPHENOL	80
SVOC	105679	2,4-DIMETHYLPHENOL	95
SVOC	51285	2,4-DINITROPHENOL	99
SVOC	121142	2,4-DINITROTOLUENE	100
SVOC	606202	2,6-DINITROTOLUENE	101
SVOC	91587	2-CHLORONAPHTHALENE	47
SVOC	95578	2-CHLOROPHENOL	48
SVOC	91576	2-METHYLNAPHTHALENE	145
SVOC	88755	2-NITROPHENOL	154
SVOC	EVS-0197	3 OR 4-METHYLPHENOL	344
SVOC	91941	3,3'-DICHLOROBENZIDINE	72
SVOC	534521	4,6-DINITRO-2-METHYLPHENOL	98

TYPE	CASNO	ANALYTE	SWS ID #
SVOC	101553	4-BROMOPHENYL PHENYL ETHER	31
SVOC	59507	4-CHLORO-3-METHYLPHENOL	45
SVOC	106478	4-CHLOROANILINE	38
SVOC	7005723	4-CHLOROPHENYL PHENYL ETHER	49
SVOC	100027	4-NITROPHENOL	159
SVOC	83329	ACENAPHTHENE	1
SVOC	208968	ACENAPHTHYLENE	2
SVOC	120127	ANTHRACENE	12
SVOC	56553	BENZO(A)ANTHRACENE	17
SVOC	50328	BENZO(A)PYRENE	21
SVOC	205992	BENZO(B)FLUORANTHENE	18
SVOC	191242	BENZO(G,H,I)PERYLENE	20
SVOC	207089	BENZO(K)FLUORANTHENE	19
SVOC	111911	BIS(2-CHLOROETHOXY)METHANE	42
SVOC	111444	BIS(2-CHLOROETHYL) ETHER	43
SVOC	108601	BIS(2-CHLOROISOPROPYL)ETHER	NE
SVOC	117817	BIS(2-ETHYLHEXYL)PHTHALATE	111
SVOC	85687	BUTYL BENZYL PHTHALATE	32
SVOC	86748	CARBAZOLE	NE
SVOC	218019	CHRYSENE	52
SVOC	53703	DIBENZO(A,H)ANTHRACENE	64
SVOC	132649	DIBENZOFURAN	65
SVOC	84662	DIETHYL PHTHALATE	90
SVOC	131113	DIMETHYL PHTHALATE	96
SVOC	84742	DI-N-BUTYL PHTHALATE	33
SVOC	117840	DI-N-OCTYL PHTHALATE	168
SVOC	101848	DIPHENYL ETHER	423
SVOC	206440	FLUORANTHENE	115
SVOC	86737	FLUORENE	116
SVOC	118741	HEXACHLOROBENZENE	119
SVOC	87683	HEXACHLOROBUTADIENE	120
SVOC	77474	HEXACHLOROCYCLOPENTADIENE	121
SVOC	67721	HEXACHLOROETHANE	122
SVOC	193395	INDENO(1,2,3-CD)PYRENE	125
SVOC	78591	ISOPHORONE	128
SVOC	99092	M-NITROANILINE	153
SVOC	91203	NAPHTHALENE	148
SVOC	98953	NITROBENZENE	156
SVOC	621647	N-NITROSODI-N-PROPYLAMINE	164
SVOC	86306	N-NITROSODIPHENYLAMINE	163
SVOC	95487	O-CRESOL	56
SVOC	88744	O-NITROANILINE	154
SVOC	87865	PENTACHLOROPHENOL	173
SVOC	85018	PHENANTHRENE	175
SVOC	108952	PHENOL	177
SVOC	100016	P-NITROANILINE	155
SVOC	129000	PYRENE	181
METALS	7440360	ANTIMONY	13
METALS	7440382	ARSENIC	14
METALS	7440393	BARIUM	15
METALS	7440439	CADMIUM	34
METALS	7440473	CHROMIUM	51
METALS	7439921	LEAD	131
METALS	7439976	MERCURY	132
METALS	7782492	SELENIUM	183
METALS	7440224	SILVER	184
MISC	16887006	CHLORIDE	455
MISC	16984488	FLUORIDE	312
MISC	14808798	SULFATE	315
MISC	C-010	TOTAL DISSOLVED SOLIDS	311
MISC	92524	1,1 -BIPHENYL	421
MISC	111466	DIETHYLENE GLYCOL	NE
MISC	120616	DIMETHYLTEREPHTHALATE	NE
MISC	100210	TEREPHTHALIC ACID	NE
MISC	112276	TRIETHYLENE GLYCOL	NE

SWS ID# = Solid Waste Section ID Number
CASNO = Chemical Abstract Service Number

NE=Not Established
VOC = Volatile Organic Compound
SVOC = Semi-Volatile Organic Compound

Table 3: Water Quality Parameters
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site - Leland, NC

SAMPLE (WELL ID)	DATE SAMPLED	TIME SAMPLED	WATER LEVEL (ft)	pH	TEMP (C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	REDOX (mv)	TURBIDITY (ntu)	COLOR	ODOR
MW-1	2/23/2016	1230	4.10	6.75	12.34	0.138	0.45	-104.1	1.54	Clear	None
MW-2	2/23/2016	1630	6.97	6.83	15.40	0.253	2.08	43.7	1.53	Clear	None
MW-3	2/24/2016	1200	2.41	7.02	16.38	0.460	0.33	-57.7	2.44	Clear	None
MW-4	2/25/2016	1030	4.63	5.87	12.88	0.189	1.94	180.5	7.90	Clear	None
MW-5	2/24/2016	1540	10.72	6.49	17.44	0.305	4.5	116.1	1.54	Clear	None
MW-6	2/25/2016	1230	1.49	6.39	15.61	0.585	0.42	-72.5	9.49	Clear	Sulfur
MW-7	2/24/2016	1730	8.81	4.93	17.29	0.044	0.95	135.8	0.97	Clear	None
MW-9	2/24/2016	1030	4.78	6.44	15.94	0.634	0.46	-38.5	6.39	Clear	None
MW-22	2/25/2016	1600	4.98	7.16	15.20	0.204	1.06	50.0	0.79	Clear	None
MW-23	2/26/2016	1300	3.06	5.88	15.50	0.572	0.41	41.0	14.00	Clear	None
MW-24	2/26/2016	1120	3.96	5.44	15.40	0.252	0.25	83.0	10.10	Clear	Sulfur

ft=feet; C=degrees celsius; mS/cm=milliSiemens per centimeter; mg/l=milligrams per liter; mv=millivolts; ntu=national turbidity unit.

Table 4: Groundwater Elevation Data
Cape Fear Landfill Annual Groundwater Monitoring Report
DuPont Cape Fear Site - Leland, NC

Well ID	TOC Elevation	Depth to Water (February 2016)	Groundwater Elevation
MW-1	25.69	4.10	21.59
MW-2	12.95	6.97	5.98
MW-3	16.25	2.41	13.84
MW-4	17.52	4.63	12.89
MW-5	23.52	10.72	12.80
MW-6	8.75	1.49	7.26
MW-7	20.22	8.81	11.41
MW-9	12.61	4.78	7.83
MW-22	24.14	4.98	19.16
MW-23	6.65	3.06	3.59
MW-24	7.45	3.96	3.49

APPENDIX A: LABORATORY ANALYTICAL REPORT (2016)

ADQM DATA REVIEW
NARRATIVE

Site CAP: CAPE FEAR

Project LANDFILL ANNUAL 16

Project Reviewer Wanda M. Davis

Sampling Date February 23-26, 2016

Analytical Protocol

Laboratory	Analytical Method	Parameter(s)
Eurofins Lancaster Laboratories	SW846 8260B	Volatiles
Eurofins Lancaster Laboratories	SW846 6010C/7470A	Metals
Test America Laboratories-Savannah	SW846 8270D	Dimethyl Terephthalate
Test America Laboratories-Canton	NC-GC-036	Terephthalic Acid
Eurofins Lancaster Laboratories	EPA 300.0	Chloride/Fluoride/Sulfate
Eurofins Lancaster Laboratories	SW846 8270D	Semivolatiles
Eurofins Lancaster Laboratories	SM 2540 C-1997	Total Dissolved Solids
Eurofins Lancaster Laboratories	SW846 8015C	Glycols/Methanol

Sample Receipt

The following items are noted for this data set:

- Eleven groundwater samples, one matrix spike, one matrix spike duplicate, one duplicate groundwater sample, and one equipment blank, presented in this report, were received at Test America Canton Laboratory at a temperature 2.1°C and 3.1°C on February 26, 2016 and February 27, 2016 respectively.
- Test America Denver subcontracted the Terephthalic Acid analyses to Test America North Canton.
- Eleven groundwater samples, one matrix spike, one matrix spike duplicate, one duplicate groundwater sample, and one equipment blank, presented in this report, were received at the Test America Savannah Laboratory. One cooler was received on February 26, 2016 at a temperature of 3.6°C. Several samples that were listed on the chain of custody that was received on February 26, 2016 were received on February 29, 2016. The temperature of the two coolers, that were received February 29, 2016, was 6.6°C, and 7.5°C.
- Test America Denver subcontracted the Dimethyl Terephthalate analyses to Test America Savannah.
- Eleven groundwater samples, one matrix spike, one matrix spike duplicate, one duplicate groundwater sample, one trip blank and one equipment blank, presented in this report, were received at the Eurofins Lancaster Laboratory at temperatures of 0.4°C, and 1.7°C on February 27, 2016 and February 29, 2016 respectively.
- All samples were received in satisfactory condition. The samples received at the Eurofins Lancaster Laboratory were outside of the acceptable temperature range of 4 ±2°C; however,

the ADQM chemist doesn't believe the data to be impacted since the samples were cold but not frozen upon receipt. Some of the samples that were received at Test America Savannah were outside of the acceptable temperature range of 4 ±2°C; however, the ADQM chemist doesn't believe the data to be impacted due to the stability and chemical properties of semivolatile compounds at a temperature ≤ 10.

Data Review

Aromatic Acids

Samples ANLF16-MW-1 (240-61502-1), ANLF16-MW-2 (240-61502-2), ANLF16-MW-2-D (240-61502-3), ANLF16-MW-3 (240-61502-4), ANLF16-MW-9 (240-61502-5), ANLF16-MW-4 (240-61502-6), ANLF16-MW-5 (240-61502-7), ANLF16-MW-6 (240-61502-8), ANLF16-MW-7 (240-61502-9) and ANLF16-MW-22 (240-61502-10) were analyzed for Aromatic Acids in accordance with Aromatic Acids. The samples were analyzed on 03/09/2016 and 03/10/2016. Please note the 1.11 dilution factor listed for each sample is a part of the method; therefore, reporting limits and method detection limits were not affected. Terephthalic acid failed the recovery criteria high for LCS 240-220870/3. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary. The MS/MSD associated with analytical batch 240-220870 was performed on sample ANLF16-MW-2 (240-61502-2). The MS/MSD exhibited RPD data outside the control limits for Terephthalic acid. The acceptable LCS analysis data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary. The continuing calibration verification (CCV) associated with analytical batch 240-220870 recovered above the upper control limit for Terephthalic acid. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.
Samples ANLF16-MW-23 (240-61503-1), ANLF16-MW-24 (240-61503-2) and EB-022616 (240-61503-3) were analyzed for Aromatic Acids in accordance with Aromatic Acids. The samples were analyzed on 03/10/2016 and 03/15/2016. Please note the 1.11 dilution factor listed for each sample is a part of the method; therefore, reporting limits and method detection limits were not affected. Terephthalic acid failed the recovery criteria high for LCS 240-221672/5. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary. The continuing calibration verification (CCV) associated with analytical batch 240-220870 recovered above the upper control limit for Terephthalic acid. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

Dimethyl Terephthalate

Samples ANLF16-MW-2 (680-122351-1), ANLF16-MW-2-D (680-122351-2), ANLF16-MW-1 (680-122351-3), ANLF16-MW-3 (680-122351-4), ANLF16-MW-9 (680-122351-5), ANLF16-MW-4 (680-122351-6), ANLF16-MW-5 (680-122351-7), ANLF16-MW-6 (680-122351-8), ANLF16-MW-7 (680-122351-9) and ANLF16-MW-22 (680-122351-10) were analyzed for Dimethyl Terephthalate (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 02/29/2016 and 03/02/2016 and analyzed on 03/04/2016, 03/05/2016 and 03/10/2016. A reduced aliquot size was used for the preparation of samples ANLF16-MW-2 (680-122351-1) and ANLF16-MW-3 (680-122351-4), due to limited volume received at the laboratory. Reporting limits and method detection limits have been elevated accordingly. The MS/MSD associated with prep batch 680-423268 was performed on sample ANLF16-MW-2 (680-122351-1). The MS/MSD exhibited surrogate recoveries outside the control limits for 2,4,6-Tribromophenol (Surrogate) and 2-Fluorobiphenyl. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Samples ANLF16-MW23 (680-122362-1), ANLF16-MW24 (680-122362-2) and EB-022616 (680-122362-3) were analyzed for Dimethyl Terephthalate (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 03/02/2016 and analyzed on 03/10/2016 and 03/12/2016. A reduced aliquot size was used for the preparation of sample ANLF16-MW23 (680-122362-1), due to limited sample volume received at the laboratory. Reporting limits and method detection limits have been elevated.

Glycols

The recovery for Triethylene glycol in the MS and/or MSD was outside the acceptance window. The recovery for one or more surrogates were outside of the QC window for sample(s) ANLF16-MW-22 (8262822), ANLF16-MW-24 (8262823), EB-022616 (8262824), MS, MSD, ANLF16-MW-1 (8263264), ANLF16-MW-2 (8263265), ANLF16-MW-2 (MS) (8263266), ANLF16-MW-2(MSD) 8263267, ANLF16-MW-2 (8263269), ANLF16-MW-3 (8263270), ANLF16-MW-9 (8263271), ANLF16-MW-4 (8263272), ANLF16-MW-5 (8263273), ANLF16-MW-6 (8263274), ANLF16-MW-7 (8263275), ANLF16-MW-22(8263276).

Methanol

The response for methanol in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data was reported.

Semivolatiles

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.
Bis(2-chloroisopropyl) ether and 2,2'-Oxybis(1-chloropropane) cannot be separated chromatographically. The reported result represents the combined total of both compounds.

Volatiles

Reporting limits were raised for all of the 8260B, volatile compounds in sample(s) ANLF16-MW-23(8262822) and ANLF16-MW-24(8262823) due to sample foaming.

Summary

One hundred percent of the electronic data submitted for this project was reviewed via the automated DuPont Data Review (DDR) process. Overall the data is acceptable for use without qualification as reported by Test America North Canton, Test America Savannah and Eurofins Lancaster Laboratories, with the exception of the 8015C, Glycol, results flagged "R" due to low surrogate recovery, the 8270D, 4-Nitrophenol result flagged "R" and the 8015C, Glycol, result flagged "R" due to low recovery in the MS/MSD. Results detected between the method detection limit (MDL) and practical quantitation limit (PQL) were qualified "J", estimated. The DuPont Data Review (DDR) Narrative Report, which follows this cover letter, lists the samples that were qualified, the specific reasons for qualification, and potential bias in reported results.

DuPont Data Review (DDR)

The DDR is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Validation Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike(MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample(LCS)/control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference / percent difference between total and dissolved sample pairs.

The DDR applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

Please refer to the laboratory report for a description of the lab qualifiers.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-122362-1
Client Project/Site: CAP-LANDFILL Annual 16

For:
E.I. du Pont de Nemours and Company ADQM
ADQM Services - c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Ms. Wanda M Davis

Authorized for release by:
3/25/2016 10:36:36 AM

Michelle Johnston, Project Manager II
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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-122362-1	ANLF16-MW23	Water	02/26/16 13:00	02/27/16 09:56
680-122362-2	ANLF16-MW24	Water	02/26/16 11:20	02/27/16 09:56
680-122362-3	EB-022616	Water	02/26/16 14:00	02/27/16 09:56

Job ID: 680-122362-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: E.I. du Pont de Nemours and Company
Project: CAP-LANDFILL Annual 16
Report Number: 680-122362-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Arrival and Receipt
The samples were received on 2/27/2016 9:56 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5°C. No anomalies were observed during sample receipt.

Semivolatile Organic Compounds - Method 8270D
Samples ANLF16-MW23 (680-122362-1), ANLF16-MW24 (680-122362-2) and EB-022616 (680-122362-3) were analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 03/02/2016 and analyzed on 03/10/2016 and 03/12/2016.

A reduced aliquot size was used for the preparation of sample ANLF16-MW23 (680-122362-1), due to limited sample volume received at the laboratory. Reporting limits and method detection limits have been elevated accordingly.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Client Sample ID: ANLF16-MW23

Date Collected: 02/26/16 13:00
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	5.0	U	9.9	5.0	ug/L		03/02/16 16:01	03/12/16 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*39 - 124*	*03/02/16 16:01*	*03/12/16 15:26*	*1*
2-Fluorobiphenyl	*63*		*32 - 113*	*03/02/16 16:01*	*03/12/16 15:26*	*1*
2-Fluorophenol (Surr)	*51*		*26 - 109*	*03/02/16 16:01*	*03/12/16 15:26*	*1*
Nitrobenzene-d5 (Surr)	*65*		*32 - 118*	*03/02/16 16:01*	*03/12/16 15:26*	*1*
Phenol-d5 (Surr)	*52*		*27 - 110*	*03/02/16 16:01*	*03/12/16 15:26*	*1*
Terphenyl-d14 (Surr)	*51*		*10 - 126*	*03/02/16 16:01*	*03/12/16 15:26*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Client Sample ID: ANLF16-MW24

Date Collected: 02/26/16 11:20
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-2

Matrix: Water

5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.9	U	9.8	4.9	ug/L		03/02/16 16:01	03/10/16 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*75*		*39 - 124*	*03/02/16 16:01*	*03/10/16 22:53*	*1*
2-Fluorobiphenyl	*68*		*32 - 113*	*03/02/16 16:01*	*03/10/16 22:53*	*1*
2-Fluorophenol (Surr)	*50*		*26 - 109*	*03/02/16 16:01*	*03/10/16 22:53*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 118*	*03/02/16 16:01*	*03/10/16 22:53*	*1*
Phenol-d5 (Surr)	*56*		*27 - 110*	*03/02/16 16:01*	*03/10/16 22:53*	*1*
Terphenyl-d14 (Surr)	*32*		*10 - 126*	*03/02/16 16:01*	*03/10/16 22:53*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Client Sample ID: EB-022616

Date Collected: 02/26/16 14:00
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.6	4.8	ug/L		03/02/16 16:01	03/10/16 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	71		39 - 124	03/02/16 16:01	03/10/16 23:17	1
2-Fluorobiphenyl	71		32 - 113	03/02/16 16:01	03/10/16 23:17	1
2-Fluorophenol (Surr)	57		26 - 109	03/02/16 16:01	03/10/16 23:17	1
Nitrobenzene-d5 (Surr)	75		32 - 118	03/02/16 16:01	03/10/16 23:17	1
Phenol-d5 (Surr)	64		27 - 110	03/02/16 16:01	03/10/16 23:17	1
Terphenyl-d14 (Surr)	92		10 - 126	03/02/16 16:01	03/10/16 23:17	1

QC Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-423539/18-A
Matrix: Water
Analysis Batch: 424633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423539

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	5.0	U	10	5.0	ug/L		03/02/16 16:01	03/10/16 19:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		39 - 124	03/02/16 16:01	03/10/16 19:16	1
2-Fluorobiphenyl	72		32 - 113	03/02/16 16:01	03/10/16 19:16	1
2-Fluorophenol (Surr)	60		26 - 109	03/02/16 16:01	03/10/16 19:16	1
Nitrobenzene-d5 (Surr)	77		32 - 118	03/02/16 16:01	03/10/16 19:16	1
Phenol-d5 (Surr)	70		27 - 110	03/02/16 16:01	03/10/16 19:16	1
Terphenyl-d14 (Surr)	89		10 - 126	03/02/16 16:01	03/10/16 19:16	1

Lab Sample ID: LCS 680-423539/25-A
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl terephthalate	100	76.5		ug/L		77	34 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	54		39 - 124
2-Fluorobiphenyl	59		32 - 113
2-Fluorophenol (Surr)	63		26 - 109
Nitrobenzene-d5 (Surr)	79		32 - 118
Phenol-d5 (Surr)	70		27 - 110
Terphenyl-d14 (Surr)	92		10 - 126

Lab Sample ID: LCSD 680-423539/26-A
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	100	74.7		ug/L		75	34 - 130	NaN	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	55		39 - 124
2-Fluorobiphenyl	61		32 - 113
2-Fluorophenol (Surr)	60		26 - 109
Nitrobenzene-d5 (Surr)	77		32 - 118
Phenol-d5 (Surr)	64		27 - 110
Terphenyl-d14 (Surr)	90		10 - 126

Lab Sample ID: 680-122362-1 MSD
Matrix: Water
Analysis Batch: 424038

Client Sample ID: ANLF16-MW23
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	5.0	U	97.1	66.6		ug/L		69	34 - 130	1	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-122362-1 MSD
Matrix: Water
Analysis Batch: 424038

Client Sample ID: ANLF16-MW23
Prep Type: Total/NA
Prep Batch: 423539

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	51		39 - 124
2-Fluorobiphenyl	52		32 - 113
2-Fluorophenol (Surr)	51		26 - 109
Nitrobenzene-d5 (Surr)	67		32 - 118
Phenol-d5 (Surr)	56		27 - 110
Terphenyl-d14 (Surr)	50		10 - 126

QC Association Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

GC/MS Semi VOA

Prep Batch: 423539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122362-1	ANLF16-MW23	Total/NA	Water	3520C	
680-122362-1 MSD	ANLF16-MW23	Total/NA	Water	3520C	
680-122362-2	ANLF16-MW24	Total/NA	Water	3520C	
680-122362-3	EB-022616	Total/NA	Water	3520C	
LCS 680-423539/25-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-423539/26-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-423539/18-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 424038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122362-1 MSD	ANLF16-MW23	Total/NA	Water	8270D	423539
LCS 680-423539/25-A	Lab Control Sample	Total/NA	Water	8270D	423539
LCSD 680-423539/26-A	Lab Control Sample Dup	Total/NA	Water	8270D	423539

Analysis Batch: 424633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122362-2	ANLF16-MW24	Total/NA	Water	8270D	423539
680-122362-3	EB-022616	Total/NA	Water	8270D	423539
MB 680-423539/18-A	Method Blank	Total/NA	Water	8270D	423539

Analysis Batch: 424820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122362-1	ANLF16-MW23	Total/NA	Water	8270D	423539

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Client Sample ID: ANLF16-MW23

Date Collected: 02/26/16 13:00
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			502.7 mL	0.5 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	502.7 mL	0.5 mL	424820	03/12/16 15:26	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW24

Date Collected: 02/26/16 11:20
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1025.6 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1025.6 mL	1.0 mL	424633	03/10/16 22:53	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: EB-022616

Date Collected: 02/26/16 14:00
Date Received: 02/27/16 09:56

Lab Sample ID: 680-122362-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1042 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1042 mL	1.0 mL	424633	03/10/16 23:17	JEM	TAL SAV
	Instrument ID: CMSE									

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	269	12-31-16

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	358	12-31-16

9

Method Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122362-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: M. Harper	Lab PM: Johnston, Michelle A (TA Denver)	Carrier Tracking No(s):	COC No: 280-40610-16055.2
Client Contact: Ms. Wanda Davis	Phone	E-Mail: michelle.johnston@testamericainc.com		Page:
Company: E.I. du Pont de Nemours and Company				Job #:
Address: 4417 Lancaster Pike Barley Mill Plaza Building 27	Due Date Requested:			
City: Wilmington	TAT Requested (days): 15 Business Days			
State, Zip: DE, 19805				
Phone: 302-992-2568(Tel) 302-892-1533(Fax)	PO #: LBIO-67048/9267-7720100C-WH06504182			
Email: wanda.davis@urs.com	WO #:			
Project Name: CAP-LANDFILL Annual 16	Project #: 28011586			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - Dimethylphthalate (ship to TA Savannah)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						SHIP DIRECT TO TA SAVANNAH
~~ANLF16-MW-22~~ MH 2/26/16				~~Water~~			~~X~~		
ANLF16-MW-23	2/26/16	1300	G	Water			X		
ANLF16-MW-24	2/26/16	1120	G	Water			X		
EB-022616	2/26/16	1400	G	Water			X		

680-122362 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Special Instructions/QC Requirements: 680-122362

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment		
Relinquished by	Date/Time	Company	Received by:	Date/Time: 2/22/16 1400	Company: PARSONS	
Relinquished by:	Date/Time: 2/26/16 1600	Company: PARSONS	Received by:	Date/Time: 2/27/16 09:56	Company: TA	
Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.1 / 1.5

Login Sample Receipt Checklist

Client: E.I. du Pont de Nemours and Company ADQM

Job Number: 680-122362-1

Login Number: 122362
List Number: 1
Creator: Kicklighter, Marilyn D

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-122351-1
Client Project/Site: CAP-LANDFILL Annual 16

For:
E.I. du Pont de Nemours and Company ADQM
ADQM Services - c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Ms. Wanda M Davis

Authorized for release by:
3/25/2016 10:20:01 AM

Michelle Johnston, Project Manager II
(303)736-0110
michelle.johnston@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-122351-1	ANLF16-MW-2	Water	02/23/16 16:30	02/26/16 09:25
680-122351-2	ANLF16-MW-2-D	Water	02/23/16 16:30	02/26/16 09:25
680-122351-3	ANLF16-MW-1	Water	02/23/16 12:30	02/29/16 09:43
680-122351-4	ANLF16-MW-3	Water	02/24/16 12:00	02/29/16 09:43
680-122351-5	ANLF16-MW-9	Water	02/24/16 10:30	02/29/16 09:43
680-122351-6	ANLF16-MW-4	Water	02/24/16 10:30	02/29/16 09:43
680-122351-7	ANLF16-MW-5	Water	02/24/16 15:40	02/29/16 09:43
680-122351-8	ANLF16-MW-6	Water	02/25/16 12:30	02/29/16 09:43
680-122351-9	ANLF16-MW-7	Water	02/24/16 17:30	02/29/16 09:43
680-122351-10	ANLF16-MW-22	Water	02/25/16 16:00	02/29/16 09:43

Job ID: 680-122351-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: E.I. du Pont de Nemours and Company
Project: CAP-LANDFILL Annual 16
Report Number: 680-122351-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Arrival and Receipt

The samples were received on 2/26/2016 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8°C, 6.6°C and 7.5°C.

Several samples arrived on 2/29/16 that were listed on the chain of custody but not received with the coolers that arrived to TestAmerica Savannah on 2/26/16.

The following samples were listed on the Chain of Custody (COC); however, no sample volume was received: ANLF16-MW-1, ANLF16-MW-3, ANLF16-MW-9, ANLF16-MW-4, ANLF16-MW-5, ANLF16-MW-6, ANLF16-MW-7, ANLF16-MW-22. The sample IDs were not logged for any analyses. The client was notified on 2/29/2016.

Two coolers were received at TestAmerica Savannah on 2/29/2016 at 09:43 outside the required temperature criteria at 6.6°C and 7.5°C. It can be noted the ice was melted in the cooler. Sample volume for samples ANLF16-MW-1, ANLF16-MW-3, ANLF16-MW-9, ANLF16-MW-4, ANLF16-MW-5, ANLF16-MW-6, ANLF16-MW-7, ANLF16-MW-22 was received and logged per the chain of custody. The client was contacted on 2/29/2016 about the temperature discrepancy and instructed the laboratory to proceed with the requested analyses.

No other anomalies were observed during sample receipt.

Semivolatile Organic Compounds - Method 8270D

Samples ANLF16-MW-2 (680-122351-1), ANLF16-MW-2-D (680-122351-2), ANLF16-MW-1 (680-122351-3), ANLF16-MW-3 (680-122351-4), ANLF16-MW-9 (680-122351-5), ANLF16-MW-4 (680-122351-6), ANLF16-MW-5 (680-122351-7), ANLF16-MW-6 (680-122351-8), ANLF16-MW-7 (680-122351-9) and ANLF16-MW-22 (680-122351-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 02/29/2016 and 03/02/2016 and analyzed on 03/04/2016, 03/05/2016 and 03/10/2016.

A reduced aliquot size was used for the preparation of samples ANLF16-MW-2 (680-122351-1) and ANLF16-MW-3 (680-122351-4), due to limited volume received at the laboratory. Reporting limits and method detection limits have been elevated accordingly.

The MS/MSD associated with prep batch 680-423268 was performed on sample ANLF16-MW-2 (680-122351-1). The MS/MSD exhibited surrogate recoveries outside the control limits for 2,4,6-Tribromophenol (Surr) and 2-Fluorobiphenyl. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-2

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:25

Lab Sample ID: 680-122351-1
Matrix: Water

5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.9	U	9.9	4.9	ug/L		02/29/16 14:44	03/04/16 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	64		39 - 124	02/29/16 14:44	03/04/16 23:12	1
2-Fluorobiphenyl	56		32 - 113	02/29/16 14:44	03/04/16 23:12	1
2-Fluorophenol (Surr)	52		26 - 109	02/29/16 14:44	03/04/16 23:12	1
Nitrobenzene-d5 (Surr)	62		32 - 118	02/29/16 14:44	03/04/16 23:12	1
Phenol-d5 (Surr)	60		27 - 110	02/29/16 14:44	03/04/16 23:12	1
Terphenyl-d14 (Surr)	83		10 - 126	02/29/16 14:44	03/04/16 23:12	1

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-2-D

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:25

Lab Sample ID: 680-122351-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.6	4.8	ug/L		02/29/16 14:44	03/04/16 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*62*		*39 - 124*	*02/29/16 14:44*	*03/04/16 23:37*	*1*
2-Fluorobiphenyl	*61*		*32 - 113*	*02/29/16 14:44*	*03/04/16 23:37*	*1*
2-Fluorophenol (Surr)	*47*		*26 - 109*	*02/29/16 14:44*	*03/04/16 23:37*	*1*
Nitrobenzene-d5 (Surr)	*61*		*32 - 118*	*02/29/16 14:44*	*03/04/16 23:37*	*1*
Phenol-d5 (Surr)	*53*		*27 - 110*	*02/29/16 14:44*	*03/04/16 23:37*	*1*
Terphenyl-d14 (Surr)	*66*		*10 - 126*	*02/29/16 14:44*	*03/04/16 23:37*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-1

Date Collected: 02/23/16 12:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-3

Matrix: Water

5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.5	4.8	ug/L		02/29/16 14:44	03/05/16 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*63*		*39 - 124*	*02/29/16 14:44*	*03/05/16 00:00*	*1*
2-Fluorobiphenyl	*74*		*32 - 113*	*02/29/16 14:44*	*03/05/16 00:00*	*1*
2-Fluorophenol (Surr)	*58*		*26 - 109*	*02/29/16 14:44*	*03/05/16 00:00*	*1*
Nitrobenzene-d5 (Surr)	*77*		*32 - 118*	*02/29/16 14:44*	*03/05/16 00:00*	*1*
Phenol-d5 (Surr)	*65*		*27 - 110*	*02/29/16 14:44*	*03/05/16 00:00*	*1*
Terphenyl-d14 (Surr)	*53*		*10 - 126*	*02/29/16 14:44*	*03/05/16 00:00*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-3

Date Collected: 02/24/16 12:00
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	5.0	U	10	5.0	ug/L		03/02/16 16:01	03/10/16 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	54		39 - 124	03/02/16 16:01	03/10/16 19:40	1
2-Fluorobiphenyl	45		32 - 113	03/02/16 16:01	03/10/16 19:40	1
2-Fluorophenol (Surr)	44		26 - 109	03/02/16 16:01	03/10/16 19:40	1
Nitrobenzene-d5 (Surr)	52		32 - 118	03/02/16 16:01	03/10/16 19:40	1
Phenol-d5 (Surr)	51		27 - 110	03/02/16 16:01	03/10/16 19:40	1
Terphenyl-d14 (Surr)	63		10 - 126	03/02/16 16:01	03/10/16 19:40	1

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-9

Date Collected: 02/24/16 10:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-5

Matrix: Water

5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.6	4.8	ug/L		03/02/16 16:01	03/10/16 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*71*		*39 - 124*	*03/02/16 16:01*	*03/10/16 20:04*	*1*
2-Fluorobiphenyl	*77*		*32 - 113*	*03/02/16 16:01*	*03/10/16 20:04*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*03/02/16 16:01*	*03/10/16 20:04*	*1*
Nitrobenzene-d5 (Surr)	*73*		*32 - 118*	*03/02/16 16:01*	*03/10/16 20:04*	*1*
Phenol-d5 (Surr)	*60*		*27 - 110*	*03/02/16 16:01*	*03/10/16 20:04*	*1*
Terphenyl-d14 (Surr)	*39*		*10 - 126*	*03/02/16 16:01*	*03/10/16 20:04*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-4

Date Collected: 02/24/16 10:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.7	4.8	ug/L		03/02/16 16:01	03/10/16 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	64		39 - 124	03/02/16 16:01	03/10/16 20:28	1
2-Fluorobiphenyl	74		32 - 113	03/02/16 16:01	03/10/16 20:28	1
2-Fluorophenol (Surr)	59		26 - 109	03/02/16 16:01	03/10/16 20:28	1
Nitrobenzene-d5 (Surr)	74		32 - 118	03/02/16 16:01	03/10/16 20:28	1
Phenol-d5 (Surr)	62		27 - 110	03/02/16 16:01	03/10/16 20:28	1
Terphenyl-d14 (Surr)	51		10 - 126	03/02/16 16:01	03/10/16 20:28	1

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-5

Date Collected: 02/24/16 15:40
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-7

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.8	U	9.6	4.8	ug/L		03/02/16 16:01	03/10/16 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*63*		*39 - 124*	*03/02/16 16:01*	*03/10/16 20:52*	*1*
2-Fluorobiphenyl	*62*		*32 - 113*	*03/02/16 16:01*	*03/10/16 20:52*	*1*
2-Fluorophenol (Surr)	*50*		*26 - 109*	*03/02/16 16:01*	*03/10/16 20:52*	*1*
Nitrobenzene-d5 (Surr)	*65*		*32 - 118*	*03/02/16 16:01*	*03/10/16 20:52*	*1*
Phenol-d5 (Surr)	*55*		*27 - 110*	*03/02/16 16:01*	*03/10/16 20:52*	*1*
Terphenyl-d14 (Surr)	*69*		*10 - 126*	*03/02/16 16:01*	*03/10/16 20:52*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-6

Date Collected: 02/25/16 12:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.9	U	9.8	4.9	ug/L		03/02/16 16:01	03/10/16 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*60*		*39 - 124*	*03/02/16 16:01*	*03/10/16 21:17*	*1*
2-Fluorobiphenyl	*70*		*32 - 113*	*03/02/16 16:01*	*03/10/16 21:17*	*1*
2-Fluorophenol (Surr)	*59*		*26 - 109*	*03/02/16 16:01*	*03/10/16 21:17*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 118*	*03/02/16 16:01*	*03/10/16 21:17*	*1*
Phenol-d5 (Surr)	*62*		*27 - 110*	*03/02/16 16:01*	*03/10/16 21:17*	*1*
Terphenyl-d14 (Surr)	*34*		*10 - 126*	*03/02/16 16:01*	*03/10/16 21:17*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-7

Date Collected: 02/24/16 17:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-9

Matrix: Water

5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.9	U	9.7	4.9	ug/L		03/02/16 16:01	03/10/16 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*66*		*39 - 124*	*03/02/16 16:01*	*03/10/16 21:40*	*1*
2-Fluorobiphenyl	*69*		*32 - 113*	*03/02/16 16:01*	*03/10/16 21:40*	*1*
2-Fluorophenol (Surr)	*52*		*26 - 109*	*03/02/16 16:01*	*03/10/16 21:40*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 118*	*03/02/16 16:01*	*03/10/16 21:40*	*1*
Phenol-d5 (Surr)	*57*		*27 - 110*	*03/02/16 16:01*	*03/10/16 21:40*	*1*
Terphenyl-d14 (Surr)	*58*		*10 - 126*	*03/02/16 16:01*	*03/10/16 21:40*	*1*

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-22

Date Collected: 02/25/16 16:00
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-10

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	4.9	U	9.9	4.9	ug/L		03/02/16 16:01	03/10/16 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*60*		*39 - 124*	*03/02/16 16:01*	*03/10/16 22:05*	*1*
2-Fluorobiphenyl	*68*		*32 - 113*	*03/02/16 16:01*	*03/10/16 22:05*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*03/02/16 16:01*	*03/10/16 22:05*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 118*	*03/02/16 16:01*	*03/10/16 22:05*	*1*
Phenol-d5 (Surr)	*61*		*27 - 110*	*03/02/16 16:01*	*03/10/16 22:05*	*1*
Terphenyl-d14 (Surr)	*67*		*10 - 126*	*03/02/16 16:01*	*03/10/16 22:05*	*1*

QC Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-423268/15-A
Matrix: Water
Analysis Batch: 423974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	5.0	U	10	5.0	ug/L		02/29/16 14:44	03/04/16 21:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	63		39 - 124	02/29/16 14:44	03/04/16 21:12	1
2-Fluorobiphenyl	74		32 - 113	02/29/16 14:44	03/04/16 21:12	1
2-Fluorophenol (Surr)	62		26 - 109	02/29/16 14:44	03/04/16 21:12	1
Nitrobenzene-d5 (Surr)	79		32 - 118	02/29/16 14:44	03/04/16 21:12	1
Phenol-d5 (Surr)	71		27 - 110	02/29/16 14:44	03/04/16 21:12	1
Terphenyl-d14 (Surr)	87		10 - 126	02/29/16 14:44	03/04/16 21:12	1

Lab Sample ID: LCS 680-423268/22-A
Matrix: Water
Analysis Batch: 423974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl terephthalate	100	75.7		ug/L		76	34 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	57		39 - 124
2-Fluorobiphenyl	60		32 - 113
2-Fluorophenol (Surr)	62		26 - 109
Nitrobenzene-d5 (Surr)	76		32 - 118
Phenol-d5 (Surr)	74		27 - 110
Terphenyl-d14 (Surr)	98		10 - 126

Lab Sample ID: LCSD 680-423268/23-A
Matrix: Water
Analysis Batch: 423974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423268

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	100	68.1		ug/L		68	34 - 130	11	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	54		39 - 124
2-Fluorobiphenyl	55		32 - 113
2-Fluorophenol (Surr)	54		26 - 109
Nitrobenzene-d5 (Surr)	69		32 - 118
Phenol-d5 (Surr)	64		27 - 110
Terphenyl-d14 (Surr)	88		10 - 126

Lab Sample ID: 680-122351-1 MS
Matrix: Water
Analysis Batch: 423974

Client Sample ID: ANLF16-MW-2
Prep Type: Total/NA
Prep Batch: 423268

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl terephthalate	4.9	U	99.4	37.6		ug/L		38	34 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-122351-1 MS
Matrix: Water
Analysis Batch: 423974

Client Sample ID: ANLF16-MW-2
Prep Type: Total/NA
Prep Batch: 423268

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	37	X	39 - 124
2-Fluorobiphenyl	30	X	32 - 113
2-Fluorophenol (Surr)	34		26 - 109
Nitrobenzene-d5 (Surr)	40		32 - 118
Phenol-d5 (Surr)	38		27 - 110
Terphenyl-d14 (Surr)	49		10 - 126

Lab Sample ID: 680-122351-1 MSD
Matrix: Water
Analysis Batch: 423974

Client Sample ID: ANLF16-MW-2
Prep Type: Total/NA
Prep Batch: 423268

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	4.9	U	92.1	46.1		ug/L		50	34 - 130	20	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	42		39 - 124
2-Fluorobiphenyl	42		32 - 113
2-Fluorophenol (Surr)	42		26 - 109
Nitrobenzene-d5 (Surr)	56		32 - 118
Phenol-d5 (Surr)	48		27 - 110
Terphenyl-d14 (Surr)	66		10 - 126

Lab Sample ID: MB 680-423539/18-A
Matrix: Water
Analysis Batch: 424633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423539

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl terephthalate	5.0	U	10	5.0	ug/L		03/02/16 16:01	03/10/16 19:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		39 - 124	03/02/16 16:01	03/10/16 19:16	1
2-Fluorobiphenyl	72		32 - 113	03/02/16 16:01	03/10/16 19:16	1
2-Fluorophenol (Surr)	60		26 - 109	03/02/16 16:01	03/10/16 19:16	1
Nitrobenzene-d5 (Surr)	77		32 - 118	03/02/16 16:01	03/10/16 19:16	1
Phenol-d5 (Surr)	70		27 - 110	03/02/16 16:01	03/10/16 19:16	1
Terphenyl-d14 (Surr)	89		10 - 126	03/02/16 16:01	03/10/16 19:16	1

Lab Sample ID: LCS 680-423539/25-A
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl terephthalate	100	76.5		ug/L		77	34 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	54		39 - 124
2-Fluorobiphenyl	59		32 - 113

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-423539/25-A
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423539

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	63		26 - 109
Nitrobenzene-d5 (Surr)	79		32 - 118
Phenol-d5 (Surr)	70		27 - 110
Terphenyl-d14 (Surr)	92		10 - 126

Lab Sample ID: LCSD 680-423539/26-A
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	100	74.7		ug/L		75	34 - 130	NaN	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	55		39 - 124
2-Fluorobiphenyl	61		32 - 113
2-Fluorophenol (Surr)	60		26 - 109
Nitrobenzene-d5 (Surr)	77		32 - 118
Phenol-d5 (Surr)	64		27 - 110
Terphenyl-d14 (Surr)	90		10 - 126

Lab Sample ID: 680-122362-B-1-A MS
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl terephthalate	5.0	U	99.6	67.3		ug/L		68	34 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	55		39 - 124
2-Fluorobiphenyl	54		32 - 113
2-Fluorophenol (Surr)	50		26 - 109
Nitrobenzene-d5 (Surr)	70		32 - 118
Phenol-d5 (Surr)	58		27 - 110
Terphenyl-d14 (Surr)	49		10 - 126

Lab Sample ID: 680-122362-B-1-B MSD
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 423539

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl terephthalate	5.0	U	97.1	66.6		ug/L		69	34 - 130	1	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	51		39 - 124
2-Fluorobiphenyl	52		32 - 113
2-Fluorophenol (Surr)	51		26 - 109
Nitrobenzene-d5 (Surr)	67		32 - 118

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-122362-B-1-B MSD
Matrix: Water
Analysis Batch: 424038

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 423539

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d5 (Surr)	56		27 - 110
Terphenyl-d14 (Surr)	50		10 - 126

QC Association Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

GC/MS Semi VOA

Prep Batch: 423268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122351-1	ANLF16-MW-2	Total/NA	Water	3520C	
680-122351-1 MS	ANLF16-MW-2	Total/NA	Water	3520C	
680-122351-1 MSD	ANLF16-MW-2	Total/NA	Water	3520C	
680-122351-2	ANLF16-MW-2-D	Total/NA	Water	3520C	
680-122351-3	ANLF16-MW-1	Total/NA	Water	3520C	
LCS 680-423268/22-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-423268/23-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-423268/15-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 423539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122351-4	ANLF16-MW-3	Total/NA	Water	3520C	
680-122351-5	ANLF16-MW-9	Total/NA	Water	3520C	
680-122351-6	ANLF16-MW-4	Total/NA	Water	3520C	
680-122351-7	ANLF16-MW-5	Total/NA	Water	3520C	
680-122351-8	ANLF16-MW-6	Total/NA	Water	3520C	
680-122351-9	ANLF16-MW-7	Total/NA	Water	3520C	
680-122351-10	ANLF16-MW-22	Total/NA	Water	3520C	
680-122362-B-1-A MS	Matrix Spike	Total/NA	Water	3520C	
680-122362-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	
LCS 680-423539/25-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-423539/26-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-423539/18-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 423974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122351-1	ANLF16-MW-2	Total/NA	Water	8270D	423268
680-122351-1 MS	ANLF16-MW-2	Total/NA	Water	8270D	423268
680-122351-1 MSD	ANLF16-MW-2	Total/NA	Water	8270D	423268
680-122351-2	ANLF16-MW-2-D	Total/NA	Water	8270D	423268
680-122351-3	ANLF16-MW-1	Total/NA	Water	8270D	423268
LCS 680-423268/22-A	Lab Control Sample	Total/NA	Water	8270D	423268
LCSD 680-423268/23-A	Lab Control Sample Dup	Total/NA	Water	8270D	423268
MB 680-423268/15-A	Method Blank	Total/NA	Water	8270D	423268

Analysis Batch: 424038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122362-B-1-A MS	Matrix Spike	Total/NA	Water	8270D	423539
680-122362-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270D	423539
LCS 680-423539/25-A	Lab Control Sample	Total/NA	Water	8270D	423539
LCSD 680-423539/26-A	Lab Control Sample Dup	Total/NA	Water	8270D	423539

Analysis Batch: 424633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-122351-4	ANLF16-MW-3	Total/NA	Water	8270D	423539
680-122351-5	ANLF16-MW-9	Total/NA	Water	8270D	423539
680-122351-6	ANLF16-MW-4	Total/NA	Water	8270D	423539
680-122351-7	ANLF16-MW-5	Total/NA	Water	8270D	423539
680-122351-8	ANLF16-MW-6	Total/NA	Water	8270D	423539
680-122351-9	ANLF16-MW-7	Total/NA	Water	8270D	423539
680-122351-10	ANLF16-MW-22	Total/NA	Water	8270D	423539

GC/MS Semi VOA (Continued)

Analysis Batch: 424633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-423539/18-A	Method Blank	Total/NA	Water	8270D	423539

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-2

Lab Sample ID: 680-122351-1
Matrix: Water

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			507.0 mL	0.5 mL	423268	02/29/16 14:44	RBS	TAL SAV
Total/NA	Analysis	8270D		1	507.0 mL	0.5 mL	423974	03/04/16 23:12	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-2-D

Lab Sample ID: 680-122351-2
Matrix: Water

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1043 mL	1.0 mL	423268	02/29/16 14:44	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1043 mL	1.0 mL	423974	03/04/16 23:37	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-1

Lab Sample ID: 680-122351-3
Matrix: Water

Date Collected: 02/23/16 12:30
Date Received: 02/29/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1047.3 mL	1.0 mL	423268	02/29/16 14:44	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1047.3 mL	1.0 mL	423974	03/05/16 00:00	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-3

Lab Sample ID: 680-122351-4
Matrix: Water

Date Collected: 02/24/16 12:00
Date Received: 02/29/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			501.0 mL	0.5 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	501.0 mL	0.5 mL	424633	03/10/16 19:40	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-9

Lab Sample ID: 680-122351-5
Matrix: Water

Date Collected: 02/24/16 10:30
Date Received: 02/29/16 09:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1045.8 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1045.8 mL	1.0 mL	424633	03/10/16 20:04	JEM	TAL SAV
	Instrument ID: CMSE									

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Client Sample ID: ANLF16-MW-4

Date Collected: 02/24/16 10:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1031.6 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1031.6 mL	1.0 mL	424633	03/10/16 20:28	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-5

Date Collected: 02/24/16 15:40
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1041.9 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1041.9 mL	1.0 mL	424633	03/10/16 20:52	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-6

Date Collected: 02/25/16 12:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1024.2 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1024.2 mL	1.0 mL	424633	03/10/16 21:17	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-7

Date Collected: 02/24/16 17:30
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1030.2 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1030.2 mL	1.0 mL	424633	03/10/16 21:40	JEM	TAL SAV
	Instrument ID: CMSE									

Client Sample ID: ANLF16-MW-22

Date Collected: 02/25/16 16:00
Date Received: 02/29/16 09:43

Lab Sample ID: 680-122351-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1011.5 mL	1.0 mL	423539	03/02/16 16:01	RBS	TAL SAV
Total/NA	Analysis	8270D		1	1011.5 mL	1.0 mL	424633	03/10/16 22:05	JEM	TAL SAV
	Instrument ID: CMSE									

Laboratory References:
TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Certification Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Laboratory: TestAmerica Savannah

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	269	12-31-16

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	358	12-31-16

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Method Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 680-122351-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: M. Harper	Lab PM: Johnston, Michelle A (TA Denver)	Carrier Tracking No(s):	COC No. 280-40610-16055.1
Client Contact: Ms. Wanda Davis	Phone: 704-858-4116	E-Mail: michelle.johnston@testamericainc.com		Page:
Company: E.I. du Pont de Nemours and Company				Job #:
Address: 4417 Lancaster Pike Barley Mill Plaza Building 27	Due Date Requested:			
City: Wilmington	TAT Requested (days): 15 Business Days			
State, Zip: DE, 19805				
Phone: 302-992-2568(Tel) 302-892-1533(Fax)	PO #: LBIO-67048/9267-7720100C-WI106504182			
Email: wanda.davis@urs.com	WO #:			
Project Name: CAP-LANDFILL Annual 16	Project #: 28011586			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/Waste, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - Dimethylphthalate (ship to TA Savannah)	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
ANLF16-MW-1	2/23/16	1230	G	Water			X		SHIP DIRECT TO TA SAVANNAH
ANLF16-MW-2	2/23/16	1630		Water		X	X		
ANLF16-MW-2-MS				Water			X		
ANLF16-MW-2-MSD				Water			X		
ANLF16-MW-2-D				Water			X		
ANLF16-MW-3	2/24/16	1200		Water			X		
ANLF16-MW-9	2/24/16	1030		Water			X		
ANLF16-MW-4	2/25/16	1030		Water			X		
ANLF16-MW-5	2/24/16	1540		Water			X		
ANLF16-MW-6	2/25/16	1230		Water			X		
ANLF16-MW-7	2/24/16	1730		Water			X		
ANLF16-MW-22	2/24/16	1600	V	Water			X		

680-122351 Chain of Custody

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: 680-122351

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				2/22/16	TA
	2/25/16 1900	TA		2/26/16 0925	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4/3.8

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information
Client Contact: Ms. Wanda Davis
Company: E.I. du Pont de Nemours and Company
Address: 4417 Lancaster Pike Barley Mill Plaza Building 27
City: Wilmington
State, Zip: DE, 19805
Phone: 302-992-2568(Tel) 302-892-1533(Fax)
Email: wanda.davis@urs.com
Project Name: CAP-LANDFILL Annual 16
Site:

Sampler: M. HANDEL
Phone: 704-858-4116
Due Date Requested:
TAT Requested (days): 15 Business Days
PO #: LBJO-67048/9267-7720100C-WH06504182
WO #:
Project #: 28011586
SSOW#:

Lab PM: Johnston, Michelle A (TA Denver)
E-Mail: michelle.johnston@testamericainc.com
Carrier Tracking No(s):
COC No.: 280-40610-16055.1
Page:
Job #:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, s=solid, o=waste/oil, BT=Tissue, A=Air)	8270D - Dimethylphthalate (ship to TA Savannah)
ANLF16-MW-1	2/23/16	1230	G	Water	X
ANLF16-MW-2	2/23/16	1630		Water	X
ANLF16-MW-2-MS	↓	↓		Water	X
ANLF16-MW-2-MSD				Water	X
ANLF16-MW-2-D				Water	X
ANLF16-MW-3	2/24/16	1200		Water	X
ANLF16-MW-9	2/24/16	1030		Water	X
ANLF16-MW-4	2/25/16	1030		Water	X
ANLF16-MW-5	2/24/16	1540		Water	X
ANLF16-MW-6	2/25/16	1230		Water	X
ANLF16-MW-7	2/24/16	1730		Water	X
ANLF16-MW-22	2/24/16	1600	V	Water	

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Anchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Special Instructions/Note:
SHIP DIRECT TO TA SAVANNAH

680-122351 Chain of Custody

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify)
Special Instructions/QC Requirements: 680-122351

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 2/22/16 Company: 1900
Relinquished by:	Date/Time: 2/25/16 1900	Company: 1900	Received by: Date/Time: 2/26/16 0925 Company: TA
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 02-29-16 0943 Company: SAV

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 3.4 / 3.8

7.1 / 6.2
CF
7.5 / 6.0°C

Login Sample Receipt Checklist

Client: E.I. du Pont de Nemours and Company ADQM

Job Number: 680-122351-1

Login Number: 122351
List Number: 1
Creator: Kicklighter, Marilyn D

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: E.I. du Pont de Nemours and Company ADQM

Job Number: 680-122351-1

Login Number: 122351
List Number: 2
Creator: Banda, Christy S

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present -3 through -10
Cooler Temperature is acceptable.	False	Temp out of range
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-61503-1
Client Project/Site: CAP-LANDFILL Annual 16

For:
E.I. du Pont de Nemours and Company ADQM
ADQM Services - c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Ms. Wanda M Davis

Authorized for release by:
3/20/2016 4:32:06 PM

Michelle Johnston, Project Manager II
(303)736-0110
michelle.johnston@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-61503-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE
Client: E.I. du Pont de Nemours and Company
Project: CAP-LANDFILL Annual 16
Report Number: 240-61503-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Arrival and Receipt
The samples were received on 2/27/2016 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1°C. No anomalies were observed during sample receipt.

Aromatic Acids
Samples ANLF16-MW-23 (240-61503-1), ANLF16-MW-24 (240-61503-2) and EB-022616 (240-61503-3) were analyzed for Aromatic Acids in accordance with Aromatic Acids. The samples were analyzed on 03/10/2016 and 03/15/2016.

Please note the 1.11 dilution factor listed for each sample is a part of the method; therefore, reporting limits and method detection limits were not affected.

Terephthalic acid failed the recovery criteria high for LCS 240-221672/5. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

The continuing calibration verification (CCV) associated with analytical batch 240-220870 recovered above the upper control limit for Terephthalic acid. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Method	Method Description	Protocol	Laboratory
Aromatic Acids	Aromatic Acids (HPLC)	TAL-NC	TAL CAN

Protocol References:

TAL-NC = TestAmerica Laboratories, North Canton, Facility Standard Operating Procedure.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-61503-1	ANLF16-MW-23	Water	02/26/16 13:00	02/27/16 09:35
240-61503-2	ANLF16-MW-24	Water	02/26/16 11:20	02/27/16 09:35
240-61503-3	EB-022616	Water	02/26/16 14:00	02/27/16 09:35

Detection Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Client Sample ID: ANLF16-MW-23 — Lab Sample ID: 240-61503-1

No Detections.

Client Sample ID: ANLF16-MW-24 — Lab Sample ID: 240-61503-2

No Detections.

Client Sample ID: EB-022616 — Lab Sample ID: 240-61503-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Client Sample ID: ANLF16-MW-23

Date Collected: 02/26/16 13:00
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-1
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/15/16 15:46	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Client Sample ID: ANLF16-MW-24

Date Collected: 02/26/16 11:20
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-2

Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/15/16 16:48	1.11

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TestAmerica Canton

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Client Sample ID: EB-022616

Date Collected: 02/26/16 14:00
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-3
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U	100	110	ug/L			03/10/16 02:11	1.11

QC Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Method: Aromatic Acids - Aromatic Acids (HPLC)

Lab Sample ID: MB 240-220870/17
Matrix: Water
Analysis Batch: 220870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	100	U	90	100	ug/L			03/10/16 00:27	1

Lab Sample ID: LCS 240-220870/18
Matrix: Water
Analysis Batch: 220870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	1000	1160		ug/L		116	80 - 120

Lab Sample ID: 240-61503-3 MS
Matrix: Water
Analysis Batch: 220870

Client Sample ID: EB-022616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	110	U	1180	1160		ug/L		99	80 - 120

Lab Sample ID: 240-61503-3 MSD
Matrix: Water
Analysis Batch: 220870

Client Sample ID: EB-022616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Terephthalic acid	110	U	1180	1310		ug/L		112	80 - 120	12	20

Lab Sample ID: MB 240-221672/4
Matrix: Water
Analysis Batch: 221672

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	100	U	90	100	ug/L			03/15/16 15:04	1

Lab Sample ID: LCS 240-221672/5
Matrix: Water
Analysis Batch: 221672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	1000	1300	*	ug/L		130	80 - 120

Lab Sample ID: 240-61503-1 MS
Matrix: Water
Analysis Batch: 221672

Client Sample ID: ANLF16-MW-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	110	U *	1180	1150		ug/L		98	80 - 120

Lab Sample ID: 240-61503-1 MSD
Matrix: Water
Analysis Batch: 221672

Client Sample ID: ANLF16-MW-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Terephthalic acid	110	U *	1180	1350		ug/L		115	80 - 120	16	20

QC Association Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

HPLC/IC

Analysis Batch: 220870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61503-3	EB-022616	Total/NA	Water	Aromatic Acids	
240-61503-3 MS	EB-022616	Total/NA	Water	Aromatic Acids	
240-61503-3 MSD	EB-022616	Total/NA	Water	Aromatic Acids	
LCS 240-220870/18	Lab Control Sample	Total/NA	Water	Aromatic Acids	
MB 240-220870/17	Method Blank	Total/NA	Water	Aromatic Acids	

Analysis Batch: 221672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61503-1	ANLF16-MW-23	Total/NA	Water	Aromatic Acids	
240-61503-1 MS	ANLF16-MW-23	Total/NA	Water	Aromatic Acids	
240-61503-1 MSD	ANLF16-MW-23	Total/NA	Water	Aromatic Acids	
240-61503-2	ANLF16-MW-24	Total/NA	Water	Aromatic Acids	
LCS 240-221672/5	Lab Control Sample	Total/NA	Water	Aromatic Acids	
MB 240-221672/4	Method Blank	Total/NA	Water	Aromatic Acids	

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Client Sample ID: ANLF16-MW-23

Date Collected: 02/26/16 13:00
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	221672	03/15/16 15:46	KMG	TAL CAN

Client Sample ID: ANLF16-MW-24

Date Collected: 02/26/16 11:20
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	221672	03/15/16 16:48	KMG	TAL CAN

Client Sample ID: EB-022616

Date Collected: 02/26/16 14:00
Date Received: 02/27/16 09:35

Lab Sample ID: 240-61503-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/10/16 02:11	KMG	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61503-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	358	12-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-61503 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

3.6 | C3.1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Johnston, Michelle A (TA Denver)	Carrier Tracking No(s):	COC No: 280-40609-16054.2
Client Contact: Ms. Wanda Davis	Phone:	E-Mail: michelle.johnston@testamericainc.com		Page:
Company: E.I. du Pont de Nemours and Company				Job #:
Address: 4417 Lancaster Pike Barley Mill Plaza Building 27	Due Date Requested:			
City: Wilmington	TAT Requested (days):			
State, Zip: DE, 19805				
Phone: 302-992-2568(Tel) 302-892-1533(Fax)	PO #: LBIO-67048/9267-7720100C-WH06504182			
Email: wanda.davis@urs.com	WO #:			
Project Name: CAP-LANDFILL Annual 16	Project #: 28011586			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-6, Z - other (specify)
Other:

Sample Identification - MH 2/26/16	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Aromatic_Acids - Terephthalic acid (ship to TA Canton)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
~~ANLF16-MW-22~~				~~Water~~			~~X~~		
ANLF16-MW-23	2/26/16	1300	G	Water			X		
ANLF16-MW-24	2/26/16	1120	G	Water			X		
EB-022616	2/26/16	1400	G	Water			X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Dispose By Lab ☐ Archive For ___ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: MH

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				~~2/26/16~~ 2/22/16	1400
Relinquished by:	Date/Time: 2/26/16 1600	Company Parsons	Received by:	Date/Time: 2/27/16 0935	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 61502
Canton Facility

Client Dupont Site Name _____ Cooler unpacked by:

Cooler Received on 2-27-16 Opened on 2-29-16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.1 °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-61502-1
Client Project/Site: CAP-LANDFILL Annual 16

For:
E.I. du Pont de Nemours and Company ADQM
ADQM Services - c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Ms. Wanda M Davis

Authorized for release by:
3/20/2016 4:31:42 PM

Michelle Johnston, Project Manager II
(303)736-0110
michelle.johnston@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-61502-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE
Client: E.I. du Pont de Nemours and Company
Project: CAP-LANDFILL Annual 16
Report Number: 240-61502-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Arrival and Receipt
The samples were received on 2/26/2016 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1°C. No anomalies were observed during sample receipt.

Aromatic Acids
Samples ANLF16-MW-1 (240-61502-1), ANLF16-MW-2 (240-61502-2), ANLF16-MW-2-D (240-61502-3), ANLF16-MW-3 (240-61502-4), ANLF16-MW-9 (240-61502-5), ANLF16-MW-4 (240-61502-6), ANLF16-MW-5 (240-61502-7), ANLF16-MW-6 (240-61502-8), ANLF16-MW-7 (240-61502-9) and ANLF16-MW-22 (240-61502-10) were analyzed for Aromatic Acids in accordance with Aromatic Acids. The samples were analyzed on 03/09/2016 and 03/10/2016.

Please note the 1.11 dilution factor listed for each sample is a part of the method; therefore, reporting limits and method detection limits were not affected.

Terephthalic acid failed the recovery criteria high for LCS 240-220870/3. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

The MS/MSD associated with analytical batch 240-220870 was performed on sample ANLF16-MW-2 (240-61502-2). The MS/MSD exhibited RPD data outside the control limits for Terephthalic acid. The acceptable LCS analysis data indicated the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The continuing calibration verification (CCV) associated with analytical batch 240-220870 recovered above the upper control limit for Terephthalic acid. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Method	Method Description	Protocol	Laboratory
Aromatic Acids	Aromatic Acids (HPLC)	TAL-NC	TAL CAN

Protocol References:

TAL-NC = TestAmerica Laboratories, North Canton, Facility Standard Operating Procedure.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-61502-1	ANLF16-MW-1	Water	02/23/16 12:30	02/26/16 09:20
240-61502-2	ANLF16-MW-2	Water	02/23/16 16:30	02/26/16 09:20
240-61502-3	ANLF16-MW-2-D	Water	02/23/16 16:30	02/26/16 09:20
240-61502-4	ANLF16-MW-3	Water	02/24/16 12:00	02/26/16 09:20
240-61502-5	ANLF16-MW-9	Water	02/24/16 10:30	02/26/16 09:20
240-61502-6	ANLF16-MW-4	Water	02/25/16 10:30	02/26/16 09:20
240-61502-7	ANLF16-MW-5	Water	02/24/16 15:40	02/26/16 09:20
240-61502-8	ANLF16-MW-6	Water	02/25/16 12:30	02/26/16 09:20
240-61502-9	ANLF16-MW-7	Water	02/24/16 17:30	02/26/16 09:20
240-61502-10	ANLF16-MW-22	Water	02/25/16 16:00	02/26/16 09:20

Detection Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-1 — Lab Sample ID: 240-61502-1

No Detections.

Client Sample ID: ANLF16-MW-2 — Lab Sample ID: 240-61502-2

No Detections.

Client Sample ID: ANLF16-MW-2-D — Lab Sample ID: 240-61502-3

No Detections.

Client Sample ID: ANLF16-MW-3 — Lab Sample ID: 240-61502-4

No Detections.

Client Sample ID: ANLF16-MW-9 — Lab Sample ID: 240-61502-5

No Detections.

Client Sample ID: ANLF16-MW-4 — Lab Sample ID: 240-61502-6

No Detections.

Client Sample ID: ANLF16-MW-5 — Lab Sample ID: 240-61502-7

No Detections.

Client Sample ID: ANLF16-MW-6 — Lab Sample ID: 240-61502-8

No Detections.

Client Sample ID: ANLF16-MW-7 — Lab Sample ID: 240-61502-9

No Detections.

Client Sample ID: ANLF16-MW-22 — Lab Sample ID: 240-61502-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-1

Date Collected: 02/23/16 12:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-1

Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 19:56	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-2

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-2

Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U * F2	100	110	ug/L			03/09/16 20:17	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-2-D

Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-3
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 21:20	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-3

Date Collected: 02/24/16 12:00
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-4
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 21:41	1.11

8

TestAmerica Canton

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-9

Date Collected: 02/24/16 10:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-5
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 22:01	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-4

Date Collected: 02/25/16 10:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-6
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 22:22	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-5

Date Collected: 02/24/16 15:40
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-7
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 23:04	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-6

Date Collected: 02/25/16 12:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-8

Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 23:25	1.11

8

TestAmerica Canton

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-7

Date Collected: 02/24/16 17:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-9
Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/09/16 23:45	1.11

Client Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-22

Date Collected: 02/25/16 16:00
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-10

Matrix: Water

Method: Aromatic Acids - Aromatic Acids (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	110	U *	100	110	ug/L			03/10/16 00:06	1.11

8

TestAmerica Canton

QC Sample Results

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Method: Aromatic Acids - Aromatic Acids (HPLC)

Lab Sample ID: MB 240-220870/2
Matrix: Water
Analysis Batch: 220870

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Terephthalic acid	100	U	90	100	ug/L			03/09/16 19:15	1

Lab Sample ID: LCS 240-220870/3
Matrix: Water
Analysis Batch: 220870

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	1000	1240	*	ug/L		124	80 - 120

Lab Sample ID: 240-61502-2 MS
Matrix: Water
Analysis Batch: 220870

Client Sample ID: ANLF16-MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Terephthalic acid	110	U * F2	1180	1120		ug/L		96	80 - 120

Lab Sample ID: 240-61502-2 MSD
Matrix: Water
Analysis Batch: 220870

Client Sample ID: ANLF16-MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Terephthalic acid	110	U * F2	1180	1400	F2	ug/L		119	80 - 120	22	20

QC Association Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

HPLC/IC

Analysis Batch: 220870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61502-1	ANLF16-MW-1	Total/NA	Water	Aromatic Acids	
240-61502-2	ANLF16-MW-2	Total/NA	Water	Aromatic Acids	
240-61502-2 MS	ANLF16-MW-2	Total/NA	Water	Aromatic Acids	
240-61502-2 MSD	ANLF16-MW-2	Total/NA	Water	Aromatic Acids	
240-61502-3	ANLF16-MW-2-D	Total/NA	Water	Aromatic Acids	
240-61502-4	ANLF16-MW-3	Total/NA	Water	Aromatic Acids	
240-61502-5	ANLF16-MW-9	Total/NA	Water	Aromatic Acids	
240-61502-6	ANLF16-MW-4	Total/NA	Water	Aromatic Acids	
240-61502-7	ANLF16-MW-5	Total/NA	Water	Aromatic Acids	
240-61502-8	ANLF16-MW-6	Total/NA	Water	Aromatic Acids	
240-61502-9	ANLF16-MW-7	Total/NA	Water	Aromatic Acids	
240-61502-10	ANLF16-MW-22	Total/NA	Water	Aromatic Acids	
LCS 240-220870/3	Lab Control Sample	Total/NA	Water	Aromatic Acids	
MB 240-220870/2	Method Blank	Total/NA	Water	Aromatic Acids	

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-1
Date Collected: 02/23/16 12:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 19:56	KMG	TAL CAN

Client Sample ID: ANLF16-MW-2
Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 20:17	KMG	TAL CAN

Client Sample ID: ANLF16-MW-2-D
Date Collected: 02/23/16 16:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 21:20	KMG	TAL CAN

Client Sample ID: ANLF16-MW-3
Date Collected: 02/24/16 12:00
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 21:41	KMG	TAL CAN

Client Sample ID: ANLF16-MW-9
Date Collected: 02/24/16 10:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 22:01	KMG	TAL CAN

Client Sample ID: ANLF16-MW-4
Date Collected: 02/25/16 10:30
Date Received: 02/26/16 09:20

Lab Sample ID: 240-61502-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 22:22	KMG	TAL CAN

Lab Chronicle

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Client Sample ID: ANLF16-MW-5

Lab Sample ID: 240-61502-7
Matrix: Water

Date Collected: 02/24/16 15:40
Date Received: 02/26/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 23:04	KMG	TAL CAN

Client Sample ID: ANLF16-MW-6

Lab Sample ID: 240-61502-8
Matrix: Water

Date Collected: 02/25/16 12:30
Date Received: 02/26/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 23:25	KMG	TAL CAN

Client Sample ID: ANLF16-MW-7

Lab Sample ID: 240-61502-9
Matrix: Water

Date Collected: 02/24/16 17:30
Date Received: 02/26/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/09/16 23:45	KMG	TAL CAN

Client Sample ID: ANLF16-MW-22

Lab Sample ID: 240-61502-10
Matrix: Water

Date Collected: 02/25/16 16:00
Date Received: 02/26/16 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Aromatic Acids		1.11	220870	03/10/16 00:06	KMG	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: E.I. du Pont de Nemours and Company ADQM
Project/Site: CAP-LANDFILL Annual 16

TestAmerica Job ID: 240-61502-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (WW/SW)	State Program	4	358	12-31-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-61502 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

2.6/C2.1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information

Client Contact: Ms. Wanda Davis
Company: E.I. du Pont de Nemours and Company
Address: 4417 Lancaster Pike Barley Mill Plaza Building 27
City: Wilmington
State, Zip: DE, 19805
Phone: 302-992-2568(Tel) 302-892-1533(Fax)
Email: wanda.davis@urs.com
Project Name: CAP-LANDFILL Annual 16
Site:

Sampler: M. Hanosh
Phone: 704-858-4116
Due Date Requested:
TAT Requested (days):
PO #: LBIO-67048/9267-7720100C-WH06504182
WO #:
Project #: 28011586
SSOW#:

Lab PM: Johnston, Michelle A (TA Denver)
E-Mail: michelle.johnston@testamericainc.com
Carrier Tracking No(s):
COC No: 280-40609-16054.1
Page:
Job #:

Analysis Requested: Aromatic_Acids - Terephthalic acid (ship to TA Canton)

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Aromatic_Acids - Terephthalic acid (ship to TA Canton)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
ANLF16-MW-1	2/23/16	1220	G	Water			X		Ship samples directly to TA CANTON
ANLF16-MW-2	2/23/16	1630		Water		X	X		
ANLF16-MW-2-MS				Water			X		
ANLF16-MW-2-MSD				Water			X		
ANLF16-MW-2-D				Water			X		
ANLF16-MW-3	2/24/16	1200		Water			X		
ANLF16-MW-9	2/24/16	1030		Water			X		
ANLF16-MW-4	2/25/16	1030		Water			X		
ANLF16-MW-5	2/24/16	1540		Water			X		
ANLF16-MW-6	2/25/16	1230		Water			X		
ANLF16-MW-7	2/24/16	1730		Water			X		
~~ANLF16-MW-22~~	2/25/16	1600		(water)			X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				2/22/16 1400	PMSONS
	2/25/16 1900	PMSONS		2/26/16 920	TA

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 101507**
Canton Facility

Client Dupont Site Name _____ Cooler unpacked by:

Cooler Received on 2-26-16 Opened on 2-26-16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Coolers Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   - IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   - IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   - IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.1 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   - -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   - -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

Report Date: March 17, 2016

Project: CAP - LANDFILL ANNUAL

Submittal Date: 02/26/2016
Group Number: 1635683
PO Number: LBIO-67047
State of Sample Origin: NC

Client Sample Description	Lancaster Labs (LL) #
ANLF16-MW-1 Groundwater	8263264
ANLF16-MW-2 Groundwater	8263265
ANLF16-MW-2 MS Groundwater	8263266
ANLF16-MW-2 MSD Groundwater	8263267
ANLF16-MW-2 Dupl Groundwater	8263268
ANLF16-MW-2-D Groundwater	8263269
ANLF16-MW-3 Groundwater	8263270
ANLF16-MW-9 Groundwater	8263271
ANLF16-MW-4 Groundwater	8263272
ANLF16-MW-5 Groundwater	8263273
ANLF16-MW-6 Groundwater	8263274
ANLF16-MW-7 Groundwater	8263275
ANLF16-MW-22 Groundwater	8263276
TB-022516 Blank Water	8263277

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

Electronic Copy To Parsons Attn: Marc Harder

Respectfully Submitted,

Nancy Jean Bornholm

Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

Project Name: CAP - LANDFILL ANNUAL
LL Group #: 1635683

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8270D, GC/MS Semivolatiles

Batch #: 16061WAA026 (Sample number(s): 8263264-8263267, 8263269-8263276 UNSPK: 8263265)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: 2,4-Dinitrophenol, 4-Nitrophenol

SW-846 8015C Feb 2007 Rev 3, GC Miscellaneous

Sample #s: 8263264, 8263265, 8263266, 8263267, 8263269, 8263270, 8263271, 8263272, 8263273, 8263274, 8263275, 8263276

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Batch #: 160680026A (Sample number(s): 8263264-8263267, 8263269-8263276 UNSPK: 8263265)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Triethylene glycol

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 8263264, 8263265, 8263266, 8263267, 8263269, 8263270, 8263271, 8263272, 8263273, 8263274, 8263275, 8263276, MS, MSD

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Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: ANLF16-MW-1 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263264
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW1

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-1 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263264
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW1

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-1 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263264
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW1

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0035	J	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-1 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263264
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	4.7	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	3.2 J	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	119	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 02:29	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 02:29	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 12:17	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/08/2016 22:47	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 23:07	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-1 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263264
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:29	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:40	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - 05	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 13:50	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 13:50	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 13:50	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263265
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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LAMW2

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
C/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263265
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	16	1
13624	2,4-Dinitrophenol	51-28-5	11	U	11	32	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	16	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263265
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	11	U	11	32	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0082	J	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263265
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	20.1	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	24.3	1.5	5.0	5
		SM 2540 C-1997	mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	206	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/02/2016 23:54	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/02/2016 23:54	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 09:17	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/08/2016 23:05	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 23:24	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-2 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263265
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:10	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:17	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 14:03	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 14:03	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 14:03	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-2 MS Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263266
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	110	6	20	1
10335	Acrylonitrile	107-13-1	110	4	20	1
10335	Benzene	71-43-2	21	0.5	1	1
10335	Bromochloromethane	74-97-5	22	1	5	1
10335	Bromodichloromethane	75-27-4	22	0.5	1	1
10335	Bromoform	75-25-2	18	0.5	4	1
10335	Bromomethane	74-83-9	18	0.5	1	1
10335	2-Butanone	78-93-3	180	3	10	1
10335	Carbon Disulfide	75-15-0	19	1	5	1
10335	Carbon Tetrachloride	56-23-5	22	0.5	1	1
10335	Chlorobenzene	108-90-7	19	0.5	1	1
10335	Chloroethane	75-00-3	20	0.5	1	1
10335	Chloroform	67-66-3	21	0.5	1	1
10335	Chloromethane	74-87-3	18	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	15	2	5	1
10335	Dibromochloromethane	124-48-1	19	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	19	0.5	1	1
10335	Dibromomethane	74-95-3	21	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	58	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	17	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	18	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	18	1	5	1
10335	1,1-Dichloroethane	75-34-3	20	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	22	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	20	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	21	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	21	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	21	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	21	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	19	0.5	1	1
10335	Ethylbenzene	100-41-4	19	0.5	1	1
10335	2-Hexanone	591-78-6	100	3	10	1
10335	Methyl Iodide	74-88-4	20	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	110	3	10	1
10335	Methylene Chloride	75-09-2	20	2	4	1
10335	Styrene	100-42-5	19	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	18	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	17	0.5	1	1
10335	Tetrachloroethene	127-18-4	19	0.5	1	1
10335	Toluene	108-88-3	19	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	20	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	18	0.5	1	1
10335	Trichloroethene	79-01-6	21	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	21	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	18	1	5	1
10335	Vinyl Acetate	108-05-4	130	2	10	1
10335	Vinyl Chloride	75-01-4	19	0.5	1	1
10335	Xylene (Total)	1330-20-7	56	0.5	1	1
GC/MS Semivolatiles	SW-846 8270D		ug/l	ug/l	ug/l	
13624	Acenaphthene	83-32-9	26	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MS Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263266
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l	ug/l	ug/l	
13624	Acenaphthylene	208-96-8	26	0.1	0.5	1
13624	Anthracene	120-12-7	26	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	26	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	27	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	28	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	31	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	27	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	26	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	27	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	23	2	5	1
13624	Di-n-butylphthalate	84-74-2	25	2	5	1
13624	Carbazole	86-74-8	26	0.5	1	1
3624	4-Chloro-3-methylphenol	59-50-7	27	0.5	1	1
13624	4-Chloroaniline	106-47-8	26	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	27	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	26	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	25	0.4	1	1
13624	2-Chlorophenol	95-57-8	24	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	28	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	31	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
13624	Chrysene	218-01-9	26	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	31	0.1	0.5	1
13624	Dibenzofuran	132-64-9	26	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	23	2	5	1
13624	2,4-Dichlorophenol	120-83-2	27	0.5	1	1
13624	Diethylphthalate	84-66-2	23	2	5	1
13624	2,4-Dimethylphenol	105-67-9	24	0.5	1	1
13624	Dimethylphthalate	131-11-3	18	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	22	5	16	1
13624	2,4-Dinitrophenol	51-28-5	33	11	32	1
13624	2,4-Dinitrotoluene	121-14-2	26	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	30	0.5	1	1
13624	1,4-Dioxane	123-91-1	19	1	5	1
13624	Diphenyl ether	101-84-8	27	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	25	2	5	1
13624	Fluoranthene	206-44-0	28	0.1	0.5	1
13624	Fluorene	86-73-7	28	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	27	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	24	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	21	5	16	1
13624	Hexachloroethane	67-72-1	22	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	29	0.1	0.5	1
13624	Isophorone	78-59-1	29	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	24	0.1	0.5	1
13624	2-Methylphenol	95-48-7	24	0.5	1	1
13624	4-Methylphenol	106-44-5	21	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-2 MS Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263266
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	26		0.1	0.5	1
13624	2-Nitroaniline	88-74-4	26		0.5	1	1
13624	3-Nitroaniline	99-09-2	27		0.5	1	1
13624	4-Nitroaniline	100-01-6	25		0.5	1	1
13624	Nitrobenzene	98-95-3	29		0.5	1	1
13624	2-Nitrophenol	88-75-5	27		0.5	1	1
13624	4-Nitrophenol	100-02-7	11	U	11	32	1
13624	N-Nitroso-di-n-propylamine	621-64-7	27		0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	26		0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	27		2	5	1
13624	Pentachlorophenol	87-86-5	19		1	5	1
13624	Phenanthrene	85-01-8	27		0.1	0.5	1
13624	Phenol	108-95-2	12		0.5	1	1
13624	Pyrene	129-00-0	26		0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	26		0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	26		0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	28		0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	75		26	52	1
12926	Ethylene glycol	107-21-1	100		5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	2,800		200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.480		0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.160		0.0078	0.0400	1
07046	Barium	7440-39-3	1.99		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.0495		0.00064	0.0100	1
07051	Chromium	7440-47-3	0.198		0.0020	0.0300	1
07055	Lead	7439-92-1	0.146		0.0051	0.0300	1
07036	Selenium	7782-49-2	0.138		0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MS Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263266
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0474	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.00094	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	40.6	2.0	4.0	10
01504	Fluoride	16984-48-8	5.1	0.50	1.0	10
00228	Sulfate	14808-79-8	74.2	3.0	10.0	10
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	403	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016	00:16	Graham A Goulding	1
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016	01:00	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016	00:16	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	L160622AA	03/03/2016	01:00	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016	09:47	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016	16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/08/2016	23:41	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016	23:41	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1
7055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:19	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MS Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263266
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:19	Katlin N Cataldi	1
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:19	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:21	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 14:30	Drew M Gerhart	10
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 14:30	Drew M Gerhart	10
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 14:30	Drew M Gerhart	10
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MSD Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263267
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	120	6	20	1
10335	Acrylonitrile	107-13-1	110	4	20	1
10335	Benzene	71-43-2	22	0.5	1	1
10335	Bromochloromethane	74-97-5	22	1	5	1
10335	Bromodichloromethane	75-27-4	21	0.5	1	1
10335	Bromoform	75-25-2	19	0.5	4	1
10335	Bromomethane	74-83-9	19	0.5	1	1
10335	2-Butanone	78-93-3	180	3	10	1
10335	Carbon Disulfide	75-15-0	20	1	5	1
10335	Carbon Tetrachloride	56-23-5	23	0.5	1	1
10335	Chlorobenzene	108-90-7	20	0.5	1	1
'0335	Chloroethane	75-00-3	20	0.5	1	1
0335	Chloroform	67-66-3	22	0.5	1	1
10335	Chloromethane	74-87-3	19	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	16	2	5	1
10335	Dibromochloromethane	124-48-1	20	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	20	0.5	1	1
10335	Dibromomethane	74-95-3	22	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	54	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	19	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	19	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	19	1	5	1
10335	1,1-Dichloroethane	75-34-3	20	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	22	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	20	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	21	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	21	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	23	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	22	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	20	0.5	1	1
10335	Ethylbenzene	100-41-4	19	0.5	1	1
10335	2-Hexanone	591-78-6	110	3	10	1
10335	Methyl Iodide	74-88-4	21	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	120	3	10	1
10335	Methylene Chloride	75-09-2	21	2	4	1
10335	Styrene	100-42-5	20	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	19	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	18	0.5	1	1
10335	Tetrachloroethene	127-18-4	20	0.5	1	1
10335	Toluene	108-88-3	19	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	21	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	19	0.5	1	1
10335	Trichloroethene	79-01-6	22	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	22	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	19	1	5	1
10335	Vinyl Acetate	108-05-4	130	2	10	1
10335	Vinyl Chloride	75-01-4	19	0.5	1	1
10335	Xylene (Total)	1330-20-7	59	0.5	1	1
C/MS Semivolatiles	SW-846 8270D		ug/l	ug/l	ug/l	
13624	Acenaphthene	83-32-9	26	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MSD Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263267
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/l	ug/l	ug/l	
13624	Acenaphthylene	208-96-8	25	0.1	0.5	1
13624	Anthracene	120-12-7	25	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	24	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	25	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	26	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	29	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	26	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	24	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	27	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	23	2	5	1
13624	Di-n-butylphthalate	84-74-2	25	2	5	1
13624	Carbazole	86-74-8	25	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	25	0.5	1	1
13624	4-Chloroaniline	106-47-8	25	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	25	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	24	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	24	0.4	1	1
13624	2-Chlorophenol	95-57-8	22	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	28	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	28	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
13624	Chrysene	218-01-9	25	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	29	0.1	0.5	1
13624	Dibenzofuran	132-64-9	25	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	21	2	5	1
13624	2,4-Dichlorophenol	120-83-2	26	0.5	1	1
13624	Diethylphthalate	84-66-2	22	2	5	1
13624	2,4-Dimethylphenol	105-67-9	21	0.5	1	1
13624	Dimethylphthalate	131-11-3	18	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	25	5	16	1
13624	2,4-Dinitrophenol	51-28-5	39	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	25	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	27	0.5	1	1
13624	1,4-Dioxane	123-91-1	16	1	5	1
13624	Diphenyl ether	101-84-8	26	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	24	2	5	1
13624	Fluoranthene	206-44-0	27	0.1	0.5	1
13624	Fluorene	86-73-7	26	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	26	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	23	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	19	5	16	1
13624	Hexachloroethane	67-72-1	20	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	28	0.1	0.5	1
13624	Isophorone	78-59-1	28	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	23	0.1	0.5	1
13624	2-Methylphenol	95-48-7	21	0.5	1	1
13624	4-Methylphenol	106-44-5	18	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MSD Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263267
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	26		0.1	0.5	1
13624	2-Nitroaniline	88-74-4	25		0.5	1	1
13624	3-Nitroaniline	99-09-2	25		0.5	1	1
13624	4-Nitroaniline	100-01-6	24		0.5	1	1
13624	Nitrobenzene	98-95-3	27		0.5	1	1
13624	2-Nitrophenol	88-75-5	26		0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	24		0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	26		0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	26		2	5	1
13624	Pentachlorophenol	87-86-5	23		1	5	1
13624	Phenanthrene	85-01-8	25		0.1	0.5	1
13624	Phenol	108-95-2	11		0.5	1	1
13624	Pyrene	129-00-0	25		0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	25		0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	26		0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	26		0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	74		26	52	1
12926	Ethylene glycol	107-21-1	94		5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	2,900		200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.485		0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.152		0.0078	0.0400	1
07046	Barium	7440-39-3	2.00		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.0494		0.00064	0.0100	1
07051	Chromium	7440-47-3	0.198		0.0020	0.0300	1
07055	Lead	7439-92-1	0.148		0.0051	0.0300	1
07036	Selenium	7782-49-2	0.136		0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2 MSD Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263267
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		SW-846 6010D Rev.4, July 2014	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0478	0.0018	0.0100	1
Metals		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00098	0.000050	0.00020	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 00:38	Graham A Goulding	1
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 01:22	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 00:38	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	L160622AA	03/03/2016 01:22	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 10:17	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 00:00	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 23:58	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:22	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:24	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-2 Dupl Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263268
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062 U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078 U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0087 J	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064 U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020 U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051 U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082 U	0.0082	0.0400	1
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
		SW-846 7470A	**mg/l**	**mg/l**	**mg/l**	
0259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	20.5	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	24.2	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	200	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1
7066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:16	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: ANLF16-MW-2 Dupl Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263268
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:19	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 14:17	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 14:17	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 14:17	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2-D Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263269
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAM2-

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
C/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2-D Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263269
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	30	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2-D Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263269
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	30	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0083	J	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-2-D Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263269
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	SW-846 6010D Rev.4, July 2014		mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry	EPA 300.0		mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	20.1	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	24.8	1.5	5.0	5
	SM 2540 C-1997		mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	193	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 02:51	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 02:51	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 12:47	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/08/2016 23:23	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 00:32	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1
07086	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:32	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-2-D Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263269
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/23/2016 16:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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4051 Ogletown Road, Suite 300
Newark DE 19713

LAM2-

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:32	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016	13:42	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016	09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016	11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016	14:43	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016	14:43	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016	14:43	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016	05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-3 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263270
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 12:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW3

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-3 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263270
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 12:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW3

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-3 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263270
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 12:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.2	J	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0112		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-3 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263270
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 12:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	6.2	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	2.8 J	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	336	19.4	60.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 03:13	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 03:13	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 13:16	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 00:54	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 00:48	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-3 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263270
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 12:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:41	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:44	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - US	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 15:23	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 15:23	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 15:23	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-9 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263271
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW9

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
'0335	Chloroethane	75-00-3	0.5	U	0.5	1	1
0335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
C/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-9 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263271
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW9

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	44		1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-9 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263271
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW9

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0128	J	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0235		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-9 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263271
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 10:30 by MH

Submitted: 02/26/2016 09:30
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4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		SW-846 6010D Rev.4, July 2014	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	13.0	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	1.5 U	1.5	5.0	5
		SM 2540 C-1997	mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	434	19.4	60.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 03:35	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 03:35	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 13:45	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Glycol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 01:13	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 01:06	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:44	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-9 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 10:30 by MH

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LL Sample # WW 8263271
LL Group # 1635683
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Newark DE 19713

LAMW9

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:44	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016	13:46	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016	09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016	11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016	15:37	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016	15:37	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016	15:37	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016	05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-4 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263272
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW4

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-4 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263272
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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AECOM
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4051 Ogletown Road, Suite 300
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LAMW4

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
'3624	Carbazole	86-74-8	0.5	U	0.5	1	1
3624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-4 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263272
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW4

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0175		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-4 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263272
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		SW-846 6010D Rev.4, July 2014	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	6.3	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	68.2	1.5	5.0	5
		SM 2540 C-1997	mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	156	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 03:57	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 03:57	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 14:14	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 01:31	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 01:22	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-4 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263272
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:47	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:48	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131B	03/01/2016 20:19	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131B	03/01/2016 20:19	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131B	03/01/2016 20:19	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-5 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263273
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 15:40 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-5 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263273
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 15:40 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW5

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	30	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-5 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263273
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 15:40 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW5

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	30	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0185		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0239	J	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-5 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263273
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 15:40 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	5.5	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	17.0	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	213	19.4	60.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 04:20	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 04:20	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 14:43	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Glycol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 01:49	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 01:39	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:51	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-5 Groundwater
LANDFILL ANNUAL 16

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 15:40 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

LL Sample # WW 8263273
LL Group # 1635683
Account # 06643

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW5

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:51	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016	13:50	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016	09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016	11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131B	03/01/2016	20:59	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131B	03/01/2016	20:59	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131B	03/01/2016	20:59	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016	05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-6 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263274
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW6

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-6 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263274
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	16	1
13624	2,4-Dinitrophenol	51-28-5	11	U	11	32	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	16	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-6 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263274
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	11	U	11	32	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0245		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-6 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263274
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	4.3	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	10	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	470	19.4	60.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 04:42	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 04:42	Graham A Goulding	1
13624	10/92 SOW SV List +add 1 cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 15:12	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 02:07	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 01:56	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-6 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263274
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 12:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LAMW6

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:54	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 13:52	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131B	03/01/2016 21:12	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131B	03/01/2016 21:12	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131B	03/01/2016 21:12	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-7 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263275
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 17:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
0335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
C/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-7 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263275
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 17:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	16	1
13624	2,4-Dinitrophenol	51-28-5	11	U	11	32	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	16	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-7 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263275
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 17:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	11	U	11	32	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0173		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-7 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263275
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 17:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

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Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	27.5	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	9.6	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	28.0 J	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 05:04	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 05:04	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 15:42	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 02:25	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 02:13	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 12:57	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-7 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263275
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/24/2016 17:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016	12:57	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016	13:54	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016	09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016	11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131B	03/01/2016	21:25	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131B	03/01/2016	21:25	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131B	03/01/2016	21:25	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016	05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-22 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263276
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 16:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-22 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263276
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 16:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	16	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	16	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-22 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263276
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 16:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0050	J	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-22 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263276
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 16:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		SW-846 6010D Rev.4, July 2014	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	5.7	1.0	2.0	5
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	8.3	1.5	5.0	5
		SM 2540 C-1997	mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	149	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 05:26	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 05:26	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 16:11	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 02:44	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/08/2016 02:30	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-22 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8263276
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 16:00 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:00	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 14:00	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - US	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131B	03/01/2016 21:39	Drew M Gerhart	5
01504	Fluoride	EPA 300.0	1	16061667131B	03/01/2016 21:39	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131B	03/01/2016 21:39	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: TB-022516 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8263277
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LATB-

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: TB-022516 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8263277
LL Group # 1635683
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/25/2016 10:30 by MH

Submitted: 02/26/2016 09:30
Reported: 03/17/2016 15:03

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

LATB-

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 05:48	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 05:48	Graham A Goulding	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l		MDL** ug/l	LOQ ug/l
Batch number: L160622AA	Sample number(s): 8263264-8263267,8263269-8263277			
Acetone	6	U	6	20
Acrylonitrile	4	U	4	20
Benzene	0.5	U	0.5	1
Bromochloromethane	1	U	1	5
Bromodichloromethane	0.5	U	0.5	1
Bromoform	0.5	U	0.5	4
Bromomethane	0.5	U	0.5	1
2-Butanone	3	U	3	10
Carbon Disulfide	1	U	1	5
Carbon Tetrachloride	0.5	U	0.5	1
Chlorobenzene	0.5	U	0.5	1
Chloroethane	0.5	U	0.5	1
Chloroform	0.5	U	0.5	1
Chloromethane	0.5	U	0.5	1
1,2-Dibromo-3-chloropropane	2	U	2	5
Dibromochloromethane	0.5	U	0.5	1
1,2-Dibromoethane	0.5	U	0.5	1
Dibromomethane	0.5	U	0.5	1
trans-1,4-Dichloro-2-butene	15	U	15	50
1,2-Dichlorobenzene	1	U	1	5
1,3-Dichlorobenzene	1	U	1	5
1,4-Dichlorobenzene	1	U	1	5
1,1-Dichloroethane	0.5	U	0.5	1
1,2-Dichloroethane	0.5	U	0.5	1
1,1-Dichloroethene	0.5	U	0.5	1
cis-1,2-Dichloroethene	0.5	U	0.5	1
trans-1,2-Dichloroethene	0.5	U	0.5	1
1,2-Dichloropropane	0.5	U	0.5	1
cis-1,3-Dichloropropene	0.5	U	0.5	1
trans-1,3-Dichloropropene	0.5	U	0.5	1
Ethylbenzene	0.5	U	0.5	1
2-Hexanone	3	U	3	10
Methyl Iodide	0.5	U	0.5	1
4-Methyl-2-pentanone	3	U	3	10
Methylene Chloride	2	U	2	4
Styrene	1	U	1	5
1,1,1,2-Tetrachloroethane	0.5	U	0.5	1
1,1,2,2-Tetrachloroethane	0.5	U	0.5	1
Tetrachloroethene	0.5	U	0.5	1
Toluene	0.5	U	0.5	1
1,1,1-Trichloroethane	0.5	U	0.5	1
1,1,2-Trichloroethane	0.5	U	0.5	1
Trichloroethene	0.5	U	0.5	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co Group Number: 1635683
Reported: 03/17/2016 15:03

Analysis Name	Result ug/l		MDL** ug/l	LOQ ug/l
Trichlorofluoromethane	0.5	U	0.5	1
1,2,3-Trichloropropane	1	U	1	5
Vinyl Acetate	2	U	2	10
Vinyl Chloride	0.5	U	0.5	1
Xylene (Total)	0.5	U	0.5	1
Batch number: 16061WAA026	Sample number(s): 8263264-8263267,8263269-8263276			
Acenaphthene	0.1	U	0.1	0.5
Acenaphthylene	0.1	U	0.1	0.5
Anthracene	0.1	U	0.1	0.5
Benzo(a)anthracene	0.1	U	0.1	0.5
Benzo(a)pyrene	0.1	U	0.1	0.5
Benzo(b)fluoranthene	0.1	U	0.1	0.5
Benzo(g,h,i)perylene	0.1	U	0.1	0.5
Benzo(k)fluoranthene	0.1	U	0.1	0.5
1,1'-Biphenyl	0.5	U	0.5	1
4-Bromophenyl-phenylether	0.5	U	0.5	1
Butylbenzylphthalate	2	U	2	5
Di-n-butylphthalate	2	U	2	5
Carbazole	0.5	U	0.5	1
4-Chloro-3-methylphenol	0.5	U	0.5	1
4-Chloroaniline	2	U	2	4
bis(2-Chloroethoxy)methane	0.5	U	0.5	1
bis(2-Chloroethyl)ether	0.5	U	0.5	1
2-Chloronaphthalene	0.4	U	0.4	1
2-Chlorophenol	0.5	U	0.5	1
4-Chlorophenyl-phenylether	0.5	U	0.5	1
2,2'-oxybis(1-Chloropropane)	0.5	U	0.5	1
Chrysene	0.1	U	0.1	0.5
Dibenz(a,h)anthracene	0.1	U	0.1	0.5
Dibenzofuran	0.5	U	0.5	1
3,3'-Dichlorobenzidine	2	U	2	5
2,4-Dichlorophenol	0.5	U	0.5	1
Diethylphthalate	2	U	2	5
2,4-Dimethylphenol	0.5	U	0.5	1
Dimethylphthalate	2	U	2	5
4,6-Dinitro-2-methylphenol	5	U	5	15
2,4-Dinitrophenol	10	U	10	30
2,4-Dinitrotoluene	1	U	1	5
2,6-Dinitrotoluene	0.5	U	0.5	1
1,4-Dioxane	1	U	1	5
Diphenyl ether	0.5	U	0.5	1
bis(2-Ethylhexyl)phthalate	2	U	2	5
Fluoranthene	0.1	U	0.1	0.5
Fluorene	0.1	U	0.1	0.5
Hexachlorobenzene	0.1	U	0.1	0.5
Hexachlorobutadiene	0.5	U	0.5	1
Hexachlorocyclopentadiene	5	U	5	15
Hexachloroethane	1	U	1	5
Indeno(1,2,3-cd)pyrene	0.1	U	0.1	0.5
Isophorone	0.5	U	0.5	1
2-Methylnaphthalene	0.1	U	0.1	0.5
2-Methylphenol	0.5	U	0.5	1
4-Methylphenol	0.5	U	0.5	1
Naphthalene	0.1	U	0.1	0.5

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

Analysis Name	Result		MDL**	LOQ
	ug/l		ug/l	ug/l
2-Nitroaniline	0.5	U	0.5	1
3-Nitroaniline	0.5	U	0.5	1
4-Nitroaniline	0.5	U	0.5	1
Nitrobenzene	0.5	U	0.5	1
2-Nitrophenol	0.5	U	0.5	1
4-Nitrophenol	10	U	10	30
N-Nitroso-di-n-propylamine	0.5	U	0.5	1
N-Nitrosodiphenylamine	0.5	U	0.5	1
Di-n-octylphthalate	2	U	2	5
Pentachlorophenol	1	U	1	5
Phenanthrene	0.1	U	0.1	0.5
Phenol	0.5	U	0.5	1
Pyrene	0.1	U	0.1	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5	1
2,4,5-Trichlorophenol	0.5	U	0.5	1
2,4,6-Trichlorophenol	0.5	U	0.5	1
	mg/l		mg/l	mg/l
Batch number: 160680026A	Sample number(s): 8263264-8263267,8263269-8263276			
Diethylene glycol	26	U	26	52
Ethylene glycol	5.0	U	5.0	10
Triethylene glycol	27	U	27	56
	ug/l		ug/l	ug/l
Batch number: 160670007A	Sample number(s): 8263264-8263267,8263269-8263276			
Methanol	200	U	200	1,000
	mg/l		mg/l	mg/l
Batch number: 160624045001	Sample number(s): 8263264-8263276			
Antimony	0.0062	U	0.0062	0.0400
Arsenic	0.0078	U	0.0078	0.0400
Barium	0.0012	U	0.0012	0.0100
Cadmium	0.00064	U	0.00064	0.0100
Chromium	0.0020	U	0.0020	0.0300
Lead	0.0051	U	0.0051	0.0300
Selenium	0.0082	U	0.0082	0.0400
Silver	0.0018	U	0.0018	0.0100
Batch number: 160625713003	Sample number(s): 8263264-8263276			
Mercury	0.000050	U	0.000050	0.00020
Batch number: 16061667131A	Sample number(s): 8263264-8263266,8263268-8263271			
Chloride	0.20	U	0.20	0.40
Fluoride	0.050	U	0.050	0.10
Sulfate	0.30	U	0.30	1.0
Batch number: 16061667131B	Sample number(s): 8263272-8263276			
Chloride	0.20	U	0.20	0.40
Fluoride	0.050	U	0.050	0.10
Sulfate	0.30	U	0.30	1.0
Batch number: 16061021201A	Sample number(s): 8263264-8263266,8263268-8263276			
Total Dissolved Solids	9.7	U	9.7	30.0

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P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: L160622AA	Sample number(s): 8263264-8263267,8263269-8263277								
Acetone	150	112.69			75		58-138		
Acrylonitrile	100	111.28			111		62-121		
Benzene	20	19.41			97		78-120		
Bromochloromethane	20	20.58			103		80-125		
Bromodichloromethane	20	20.39			102		80-120		
Bromoform	20	18.47			92		67-120		
Bromomethane	20	16.71			84		53-130		
2-Butanone	150	179.45			120		62-131		
Carbon Disulfide	20	17.03			85		58-120		
Carbon Tetrachloride	20	18.84			94		74-130		
Chlorobenzene	20	17.95			90		80-120		
Chloroethane	20	17.47			87		56-120		
Chloroform	20	19.67			98		80-120		
Chloromethane	20	16.59			83		65-129		
1,2-Dibromo-3-chloropropane	20	15.71			79		59-120		
Dibromochloromethane	20	18.45			92		78-120		
1,2-Dibromoethane	20	19			95		80-120		
Dibromomethane	20	20.91			105		80-120		
trans-1,4-Dichloro-2-butene	100	55.16			55		30-157		
1,2-Dichlorobenzene	20	17.17			86		80-120		
1,3-Dichlorobenzene	20	17.04			85		80-120		
1,4-Dichlorobenzene	20	17.25			86		80-120		
1,1-Dichloroethane	20	18.53			93		80-120		
1,2-Dichloroethane	20	20.79			104		72-127		
1,1-Dichloroethene	20	17.06			85		76-124		
cis-1,2-Dichloroethene	20	19.24			96		80-120		
trans-1,2-Dichloroethene	20	18.68			93		80-120		
1,2-Dichloropropane	20	20.77			104		80-120		
cis-1,3-Dichloropropene	20	20.76			104		80-120		
trans-1,3-Dichloropropene	20	18.69			93		76-120		
Ethylbenzene	20	17.36			87		78-120		
2-Hexanone	100	104.62			105		35-138		
Methyl Iodide	20	18.59			93		75-128		
4-Methyl-2-pentanone	100	116.53			117		47-133		
Methylene Chloride	20	19.09			95		77-121		
Styrene	20	18.04			90		80-120		
1,1,1,2-Tetrachloroethane	20	17.42			87		80-120		
1,1,2,2-Tetrachloroethane	20	16.9			84		73-120		
Tetrachloroethene	20	17.47			87		80-129		
Toluene	20	17.49			87		80-120		
1,1,1-Trichloroethane	20	17.95			90		66-126		
1,1,2-Trichloroethane	20	18.3			91		80-120		
Trichloroethene	20	19.05			95		80-120		
Trichlorofluoromethane	20	17.71			89		67-129		
1,2,3-Trichloropropane	20	17.89			89		76-120		
Vinyl Acetate	100	137			137		36-200		
Vinyl Chloride	20	16.41			82		69-120		
Xylene (Total)	60	52.55			88		80-120		

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 16061WAA026	Sample number(s): 8263264-8263267,8263269-8263276								
Acenaphthene	25	22.73			91		69-123		
Acenaphthylene	25	22.26			89		67-125		
Anthracene	25	22.14			89		68-126		
Benzo(a)anthracene	25	21.4			86		69-133		
Benzo(a)pyrene	25	20.99			84		68-126		
Benzo(b)fluoranthene	25	21.96			88		71-131		
Benzo(g,h,i)perylene	25	24.69			99		62-132		
Benzo(k)fluoranthene	25	22.02			88		72-128		
1,1'-Biphenyl	25	21.3			85		59-124		
4-Bromophenyl-phenylether	25	22.1			88		64-129		
Butylbenzylphthalate	25	20.22			81		68-119		
Di-n-butylphthalate	25	21.06			84		61-125		
Carbazole	25	22.27			89		64-126		
4-Chloro-3-methylphenol	25	23.34			93		65-125		
4-Chloroaniline	25	21.75			87		45-115		
bis(2-Chloroethoxy)methane	25	23.04			92		67-124		
bis(2-Chloroethyl)ether	25	20.7			83		65-120		
2-Chloronaphthalene	25	21.3			85		57-126		
2-Chlorophenol	25	19.01			76		59-120		
4-Chlorophenyl-phenylether	25	24.23			97		67-125		
2,2'-oxybis(1-Chloropropane)	25	24.03			96		56-128		
Chrysene	25	22.14			89		71-136		
Dibenz(a,h)anthracene	25	23.89			96		64-133		
Dibenzofuran	25	22.21			89		67-120		
3,3'-Dichlorobenzidine	25	18.97			76		39-111		
2,4-Dichlorophenol	25	23.38			94		66-126		
Diethylphthalate	25	20.07			80		55-124		
2,4-Dimethylphenol	25	23.5			94		63-117		
Dimethylphthalate	25	16.15			65		26-133		
4,6-Dinitro-2-methylphenol	25	20.57			82		64-124		
2,4-Dinitrophenol	25	29.1			116		42-129		
2,4-Dinitrotoluene	25	22.64			91		71-131		
2,6-Dinitrotoluene	25	24.78			99		71-133		
1,4-Dioxane	25	12.88			52		33-87		
Diphenyl ether	25	22.69			91		78-107		
bis(2-Ethylhexyl)phthalate	25	21.73			87		66-130		
Fluoranthene	25	23.52			94		68-129		
Fluorene	25	23.47			94		71-127		
Hexachlorobenzene	25	23.12			92		64-128		
Hexachlorobutadiene	25	20.25			81		23-129		
Hexachlorocyclopentadiene	50	13.21			26		10-101		
Hexachloroethane	25	17.62			70		23-121		
Indeno(1,2,3-cd)pyrene	25	23.54			94		62-128		
Isophorone	25	24.81			99		68-125		
2-Methylnaphthalene	25	20.55			82		61-117		
2-Methylphenol	25	18.35			73		54-122		
4-Methylphenol	25	16.94			68		56-109		
Naphthalene	25	21.99			88		62-121		
2-Nitroaniline	25	21.83			87		68-130		
3-Nitroaniline	25	22.48			90		58-122		
4-Nitroaniline	25	20.56			82		61-111		
Nitrobenzene	25	24.85			99		77-119		

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co Group Number: 1635683
Reported: 03/17/2016 15:03

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
2-Nitrophenol	25	22.77			91		67-131		
4-Nitrophenol	25	8.82			35		20-89		
N-Nitroso-di-n-propylamine	25	21.13			85		63-121		
N-Nitrosodiphenylamine	25	22.91			92		80-115		
Di-n-octylphthalate	25	21.83			87		73-131		
Pentachlorophenol	25	19.6			78		53-133		
Phenanthrene	25	22.59			90		65-120		
Phenol	25	8.99			36		19-82		
Pyrene	25	21.83			87		68-118		
1,2,4-Trichlorobenzene	25	21.57			86		59-117		
2,4,5-Trichlorophenol	25	23.41			94		68-126		
2,4,6-Trichlorophenol	25	24.66			99		71-130		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 160680026A	Sample number(s): 8263264-8263267,8263269-8263276								
Diethylene glycol	114	119.97			105		55-122		
Ethylene glycol	104	111.94			108		54-129		
Triethylene glycol	106	79.54			75		46-118		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 160670007A	Sample number(s): 8263264-8263267,8263269-8263276								
Methanol	2510	2951.82			118		79-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 160624045001	Sample number(s): 8263264-8263276								
Antimony	0.500	0.478			96		80-120		
Arsenic	0.150	0.145			96		80-120		
Barium	2.00	1.97			99		80-120		
Cadmium	0.0500	0.0497			99		80-120		
Chromium	0.200	0.200			100		80-120		
Lead	0.150	0.150			100		80-120		
Selenium	0.150	0.138			92		80-120		
Silver	0.0500	0.0469			94		80-120		
Batch number: 160625713003	Sample number(s): 8263264-8263276								
Mercury	0.00100	0.000958			96		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061667131A	Sample number(s): 8263264-8263266,8263268-8263271								
Chloride	3.00	3.03			101		90-110		
Fluoride	0.750	0.740			99		90-110		
Sulfate	7.50	7.36			98		90-110		
Batch number: 16061667131B	Sample number(s): 8263272-8263276								
Chloride	3.00	3.03			101		90-110		
Fluoride	0.750	0.740			99		90-110		
Sulfate	7.50	7.36			98		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061021201A	Sample number(s): 8263264-8263266,8263268-8263276								
Total Dissolved Solids	200	194			97		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: L160622AA	Sample number(s): 8263264-8263267,8263269-8263277 UNSPK: 8263265										
Acetone	6	U	150	110.96	150	119.14	74	79	58-138	7	30
Acrylonitrile	4	U	100	109.99	100	114.62	110	115	62-121	4	30
Benzene	0.5	U	20	20.74	20	21.52	104	108	78-120	4	30
Bromochloromethane	1	U	20	21.77	20	21.51	109	108	80-125	1	30
Bromodichloromethane	0.5	U	20	21.54	20	21.43	108	107	80-120	1	30
Bromoform	0.5	U	20	18.42	20	19.11	92	96	67-120	4	30
Bromomethane	0.5	U	20	18.37	20	19	92	95	53-130	3	30
2-Butanone	3	U	150	176.53	150	182.68	118	122	62-131	3	30
Carbon Disulfide	1	U	20	19.34	20	20.02	97	100	58-120	3	30
Carbon Tetrachloride	0.5	U	20	21.96	20	22.51	110	113	74-130	2	30
Chlorobenzene	0.5	U	20	18.83	20	19.53	94	98	80-120	4	30
Chloroethane	0.5	U	20	19.94	20	20	100	100	56-120	0	30
Chloroform	0.5	U	20	21.23	20	21.99	106	110	80-120	3	30
Chloromethane	0.5	U	20	17.99	20	18.54	90	93	65-129	3	30
1,2-Dibromo-3-chloropropane	2	U	20	15.23	20	16.24	76	81	59-120	6	30
Dibromochloromethane	0.5	U	20	18.52	20	19.72	93	99	78-120	6	30
1,2-Dibromoethane	0.5	U	20	19.13	20	19.84	96	99	80-120	4	30
Dibromomethane	0.5	U	20	21.18	20	21.9	106	109	80-120	3	30
trans-1,4-Dichloro-2-butene	15	U	100	57.7	100	54.2	58	54	30-157	6	30
1,2-Dichlorobenzene	1	U	20	17.45	20	18.57	87	93	80-120	6	30
1,3-Dichlorobenzene	1	U	20	17.89	20	18.79	89	94	80-120	5	30
1,4-Dichlorobenzene	1	U	20	17.76	20	18.74	89	94	80-120	5	30
1,1-Dichloroethane	0.5	U	20	19.77	20	20	99	100	80-120	1	30
1,2-Dichloroethane	0.5	U	20	22.01	20	22.3	110	111	72-127	1	30
1,1-Dichloroethene	0.5	U	20	19.92	20	20.49	100	102	76-124	3	30
cis-1,2-Dichloroethene	0.5	U	20	20.67	20	21.06	103	105	80-120	2	30
trans-1,2-Dichloroethene	0.5	U	20	20.6	20	21.31	103	107	80-120	3	30
1,2-Dichloropropane	0.5	U	20	21.4	20	22.53	107	113	80-120	5	30
cis-1,3-Dichloropropene	0.5	U	20	21	20	22	105	110	80-120	5	30
trans-1,3-Dichloropropene	0.5	U	20	18.95	20	20.17	95	101	76-120	6	30
Ethylbenzene	0.5	U	20	18.51	20	19.45	93	97	78-120	5	30
2-Hexanone	3	U	100	102.62	100	107.23	103	107	35-138	4	30
Methyl Iodide	0.5	U	20	20.06	20	20.7	100	104	75-128	3	30
4-Methyl-2-pentanone	3	U	100	114.63	100	117.78	115	118	47-133	3	30
Methylene Chloride	2	U	20	20.26	20	20.82	101	104	77-121	3	30
Styrene	1	U	20	18.93	20	19.75	95	99	80-120	4	30
1,1,1,2-Tetrachloroethane	0.5	U	20	18.44	20	19.28	92	96	80-120	4	30
1,1,2,2-Tetrachloroethane	0.5	U	20	16.5	20	17.59	83	88	72-120	6	30
Tetrachloroethene	0.5	U	20	19.1	20	19.9	96	100	80-129	4	30
Toluene	0.5	U	20	18.58	20	19.39	93	97	80-120	4	30
1,1,1-Trichloroethane	0.5	U	20	20.32	20	20.84	102	104	66-126	2	30
1,1,2-Trichloroethane	0.5	U	20	18.39	20	19.1	92	96	80-120	4	30
Trichloroethene	0.5	U	20	21.1	20	21.8	105	109	80-120	3	30
Trichlorofluoromethane	0.5	U	20	21.24	20	22.01	106	110	67-129	4	30
1,2,3-Trichloropropane	1	U	20	17.77	20	18.52	89	93	76-120	4	30
Vinyl Acetate	2	U	100	132.05	100	126.74	132	127	36-200	4	30

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co Group Number: 1635683
Reported: 03/17/2016 15:03

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Vinyl Chloride	0.5 U	20	18.97	20	19.35	95	97	69-120	2	30
Xylene (Total)	0.5 U	60	56.03	60	58.65	93	98	80-120	5	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 16061WAA026	Sample number(s): 8263264-8263267,8263269-8263276 UNSPK: 8263265									
Acenaphthene	0.1 U	26.94	26.13	25.93	25.57	97	99	69-123	2	30
Acenaphthylene	0.1 U	26.94	26.31	25.93	24.83	98	96	67-125	6	30
Anthracene	0.1 U	26.94	26.43	25.93	25.35	98	98	68-126	4	30
Benzo(a)anthracene	0.1 U	26.94	25.59	25.93	24.22	95	93	69-133	5	30
Benzo(a)pyrene	0.134	26.94	26.75	25.93	25.22	99	97	68-126	6	30
Benzo(b)fluoranthene	0.1 U	26.94	28.19	25.93	26.17	105	101	71-131	7	30
Benzo(g,h,i)perylene	0.1 U	26.94	30.51	25.93	28.7	113	111	62-132	6	30
Benzo(k)fluoranthene	0.1 U	26.94	27.07	25.93	25.57	100	99	72-128	6	30
1,1'-Biphenyl	0.5 U	26.94	25.52	25.93	23.72	95	91	59-124	7	30
4-Bromophenyl-phenylether	0.5 U	26.94	27.33	25.93	27.22	101	105	64-129	0	30
Butylbenzylphthalate	2 U	26.94	23.23	25.93	22.68	86	87	68-119	2	30
Di-n-butylphthalate	2 U	26.94	24.65	25.93	24.58	92	95	61-125	0	30
Carbazole	0.5 U	26.94	26.31	25.93	25.38	98	98	64-126	4	30
4-Chloro-3-methylphenol	0.5 U	26.94	27.02	25.93	24.67	100	95	65-125	9	30
4-Chloroaniline	2 U	26.94	25.98	25.93	24.73	96	95	45-115	5	30
bis(2-Chloroethoxy)methane	0.5 U	26.94	26.58	25.93	25.15	99	97	67-124	6	30
bis(2-Chloroethyl)ether	0.5 U	26.94	26.08	25.93	24.44	97	94	65-120	6	30
2-Chloronaphthalene	0.4 U	26.94	25.21	25.93	24.37	94	94	57-126	3	30
2-Chlorophenol	0.5 U	26.94	24.23	25.93	21.51	90	83	59-120	12	30
4-Chlorophenyl-phenylether	0.5 U	26.94	27.72	25.93	27.57	103	106	67-125	1	30
2,2'-oxybis(1-Chloropropane)	0.5 U	26.94	30.84	25.93	28.22	114	109	56-128	9	30
Chrysene	0.1 U	26.94	26.27	25.93	24.76	98	95	71-136	6	30
Dibenz(a,h)anthracene	0.1 U	26.94	30.65	25.93	28.71	114	111	64-133	7	30
Dibenzofuran	0.5 U	26.94	26.13	25.93	25.12	97	97	67-120	4	30
3,3'-Dichlorobenzidine	2 U	26.94	22.92	25.93	21.1	85	81	39-111	8	30
2,4-Dichlorophenol	0.5 U	26.94	27.42	25.93	25.65	102	99	66-126	7	30
Diethylphthalate	2 U	26.94	22.66	25.93	22.06	84	85	55-124	3	30
2,4-Dimethylphenol	0.5 U	26.94	23.76	25.93	20.75	88	80	63-117	13	30
Dimethylphthalate	2 U	26.94	17.93	25.93	18.11	67	70	26-133	1	30
4,6-Dinitro-2-methylphenol	5 U	26.94	22.44	25.93	24.64	83	95	64-124	9	30
2,4-Dinitrophenol	11 U	26.94	32.68	25.93	39.22	121	151*	42-129	18	30
2,4-Dinitrotoluene	1 U	26.94	26.16	25.93	25.2	97	97	71-131	4	30
2,6-Dinitrotoluene	0.5 U	26.94	30.16	25.93	27.36	112	106	71-133	10	30
1,4-Dioxane	1 U	26.94	18.86	25.93	15.74	70	61	33-87	18	30
Diphenyl ether	0.5 U	26.94	26.77	25.93	25.57	99	99	78-107	5	30
bis(2-Ethylhexyl)phthalate	2 U	26.94	25.01	25.93	24.03	93	93	66-130	4	30
Fluoranthene	0.1 U	26.94	27.68	25.93	26.68	103	103	68-129	4	30
Fluorene	0.1 U	26.94	27.52	25.93	26.38	102	102	71-127	4	30
Hexachlorobenzene	0.1 U	26.94	26.64	25.93	25.89	99	100	64-128	3	30
Hexachlorobutadiene	0.5 U	26.94	24.01	25.93	22.54	89	87	23-129	6	30
Hexachlorocyclopentadiene	5 U	53.88	20.98	51.87	19.5	39	38	10-101	7	30
Hexachloroethane	1 U	26.94	21.66	25.93	20.06	80	77	23-121	8	30
Indeno(1,2,3-cd)pyrene	0.1 U	26.94	29.31	25.93	27.55	109	106	62-128	6	30
Isophorone	0.5 U	26.94	29.3	25.93	27.66	109	107	68-125	6	30
2-Methylnaphthalene	0.1 U	26.94	24.07	25.93	23.5	89	91	61-117	2	30
2-Methylphenol	0.5 U	26.94	23.64	25.93	20.66	88	80	54-122	13	30
4-Methylphenol	0.5 U	26.94	20.82	25.93	18.35	77	71	56-109	13	30
Naphthalene	0.119	26.94	26.46	25.93	25.5	98	98	62-121	4	30

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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
2-Nitroaniline	0.5 U	26.94	26.12	25.93	25.21	97	97	68-130	4	30
3-Nitroaniline	0.5 U	26.94	26.53	25.93	24.91	98	96	58-122	6	30
4-Nitroaniline	0.5 U	26.94	25.19	25.93	23.98	94	92	61-111	5	30
Nitrobenzene	0.708	26.94	29.16	25.93	27.37	106	103	77-119	6	30
2-Nitrophenol	0.5 U	26.94	26.87	25.93	26.13	100	101	67-131	3	30
4-Nitrophenol	11 U	26.94	N.D.	25.93	N.D.	0*	0*	20-89	0	30
N-Nitroso-di-n-propylamine	0.5 U	26.94	26.63	25.93	24.24	99	93	63-121	9	30
N-Nitrosodiphenylamine	0.5 U	26.94	26.37	25.93	25.96	98	100	80-115	2	30
Di-n-octylphthalate	2 U	26.94	27.29	25.93	25.81	101	100	73-131	6	30
Pentachlorophenol	1 U	26.94	18.67	25.93	22.53	69	87	53-133	19	30
Phenanthrene	0.1 U	26.94	26.62	25.93	25.31	99	98	65-120	5	30
Phenol	0.5 U	26.94	11.79	25.93	10.58	44	41	19-82	11	30
Pyrene	0.1 U	26.94	26.4	25.93	24.56	98	95	68-118	7	30
1,2,4-Trichlorobenzene	0.5 U	26.94	25.7	25.93	25.01	95	96	59-117	3	30
2,4,5-Trichlorophenol	0.5 U	26.94	26.35	25.93	26.46	98	102	68-126	0	30
2,4,6-Trichlorophenol	0.5 U	26.94	27.78	25.93	25.97	103	100	71-130	7	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 160680026A	Sample number(s): 8263264-8263267,8263269-8263276 UNSPK: 8263265									
Diethylene glycol	26 U	114	74.93	114	73.79	66	65	55-122	2	20
Ethylene glycol	5.0 U	104	100.47	104	93.54	97	90	54-129	7	20
Triethylene glycol	27 U	106	N.D	106	N.D.	0*	0*	46-118	0	20
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 160670007A	Sample number(s): 8263264-8263267,8263269-8263276 UNSPK: 8263265									
Methanol	200 U	2510	2816.69	2510	2884.11	112	115	79-120	2	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 160624045001	Sample number(s): 8263264-8263276 UNSPK: 8263265									
Antimony	0.0062 U	0.500	0.480	0.500	0.485	96	97	75-125	1	20
Arsenic	0.0078 U	0.150	0.160	0.150	0.152	107	101	75-125	5	20
Barium	0.00818	2.00	1.99	2.00	2.00	99	100	75-125	0	20
Cadmium	0.00064 U	0.0500	0.0495	0.0500	0.0494	99	99	75-125	0	20
Chromium	0.0020 U	0.200	0.198	0.200	0.198	99	99	75-125	0	20
Lead	0.0051 U	0.150	0.146	0.150	0.148	97	99	75-125	2	20
Selenium	0.0082 U	0.150	0.138	0.150	0.136	92	91	75-125	1	20
Silver	0.0018 U	0.0500	0.0474	0.0500	0.0478	95	96	75-125	1	20
Batch number: 160625713003	Sample number(s): 8263264-8263276 UNSPK: 8263265									
Mercury	0.000050 U	0.00100	0.000944	0.00100	0.000980	94	98	80-120	4	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061667131A	Sample number(s): 8263264-8263266,8263268-8263271 UNSPK: 8263265									
Chloride	20.06	20	40.6			103		90-110		
Fluoride	0.25 U	5.00	5.13			103		90-110		
Sulfate	24.28	50	74.19			100		90-110		
Batch number: 16061667131B	Sample number(s): 8263272-8263276 UNSPK: 8263272									
Chloride	6.26	20	25.81			98		90-110		
Fluoride	0.25 U	5.00	4.95			99		90-110		
Sulfate	68.17	50	117.31			98		90-110		

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P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16061021201A	Sample number(s): 8263264-8263266,8263268-8263276 UNSPK: 8263265									
Total Dissolved Solids	205.5	200	403			99		80-120		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 160624045001	Sample number(s): 8263264-8263276 BKG: 8263265			
Antimony	0.0062 U	0.0062 U	0 (1)	20
Arsenic	0.0078 U	0.0078 U	0 (1)	20
Barium	0.00818	0.00870	6 (1)	20
Cadmium	0.00064 U	0.00064 U	0 (1)	20
Chromium	0.0020 U	0.0020 U	0 (1)	20
Lead	0.0051 U	0.0051 U	0 (1)	20
Selenium	0.0082 U	0.0082 U	0 (1)	20
Silver	0.0018 U	0.0018 U	0 (1)	20
Batch number: 160625713003	Sample number(s): 8263264-8263276 BKG: 8263265			
Mercury	0.000050 U	0.000050 U	0 (1)	20
	mg/l	mg/l		
Batch number: 16061667131A	Sample number(s): 8263264-8263266,8263268-8263271 BKG: 8263265			
Chloride	20.06	20.54	2	15
Fluoride	0.25 U	0.25 U	0 (1)	15
Sulfate	24.28	24.15	1 (1)	15
Batch number: 16061667131B	Sample number(s): 8263272-8263276 BKG: 8263272			
Chloride	6.26	6.27	0 (1)	15
Fluoride	0.25 U	0.25 U	0 (1)	15
Sulfate	68.17	68	0	15
	mg/l	mg/l		
Batch number: 16061021201A	Sample number(s): 8263264-8263266,8263268-8263276 BKG: 8263265			
Total Dissolved Solids	205.5	200	3	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: CAP Landfill Volatiles
Batch number: L160622AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8263264	107	105	92	99
8263265	108	105	92	99
8263266	104	106	94	103
8263267	104	103	95	103

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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co Group Number: 1635683
Reported: 03/17/2016 15:03

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8263269	107	106	92	98
8263270	108	106	92	99
8263271	107	107	92	98
8263272	107	105	92	97
8263273	109	107	91	98
8263274	110	108	92	100
8263275	108	108	91	98
8263276	109	108	91	98
8263277	107	107	92	99
Blank	105	103	93	99
LCS	104	104	94	102
MS	104	106	94	103
MSD	104	103	95	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 10/92 SOW SV List +add'l cmpds
Batch number: 16061WAA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8263264	33	49	86	93	87	87
8263265	30	47	85	94	88	84
8263266	38	57	91	102	95	86
8263267	34	52	92	102	93	85
8263269	31	47	86	93	82	82
8263270	35	48	83	88	77	81
8263271	40	52	92	94	88	79
8263272	32	48	78	95	88	79
8263273	36	54	89	99	92	89
8263274	37	53	91	98	93	83
8263275	32	51	91	99	94	83
8263276	31	48	86	93	87	78
Blank	40	59	94	103	93	92
LCS	34	52	96	104	96	88
MS	38	57	91	102	95	86
MSD	34	52	92	102	93	85
Limits:	10-85	10-103	22-150	46-128	61-112	41-125

Analysis Name: Methanol
Batch number: 160670007A

	Acetone
8263264	93
8263265	91
8263266	89
8263267	92
8263269	94
8263270	92
8263271	93
8263272	93
8263273	93
8263274	92
8263275	93
8263276	91
Blank	93

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:03

Group Number: 1635683

	Acetone
LCS	93
MS	89
MSD	92
Limits:	58-149

Analysis Name: 3 Cylcol Compounds
Batch number: 160680026A

	Tetramethylene glycol
8263264	4*
8263265	3*
8263266	51*
8263267	41*
8263269	2*
8263270	0*
8263271	1*
8263272	0*
8263273	0*
8263274	0*
8263275	0*
8263276	0*
Blank	55
LCS	120
MS	51*
MSD	41*
Limits:	54-136

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Analysis Request / Environmental Services Chain of Custody

1

For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 184196 Cooler No.: C22168 34019
Cooler Temperature upon receipt: 1.2 °C Container No.: 1

Facility Name: DAK Americas	Project Manager: Marc Harder
Facility Contact: Marc Harder	Facility Contact Phone No.: 704-858-4116
Facility Address: DAK Americas, LLC	Job No.: 9267-7720100C-WH06504182
3500 Daniels Road NE	Release No.:
Leland NC 28451	PO Number: LBIO-67047
Sampler(s):	
Project Name: LANDFILL ANNUAL 16	

Analyses Required: GC/MS VOAs (8260B)

Comments:

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	GC/MS VOAs (8260B)	Condition upon receipt: intact
ANLF16-MW-1	2/23/16	1230	WW	40	HCl	3	X	
ANLF16-MW-2	2/23/16	1630	WW	40	HCl	3	X	MS
ANLF16-MW-2	↓	↓	WW	40	HCl	3	X	MSD
ANLF16-MW-2			WW	40	HCl	3	X	
ANLF16-MW-2-D			WW	40	HCl	3	X	
ANLF16-MW-3	2/24/16	1200	WW	40	HCl	3	X	
ANLF16-MW-9	2/24/16	1030	WW	40	HCl	3	X	
EB-			WW	40	HCl	3	X	
TB-			WW	40	HCl	2	X	

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by: [signature]	2-18-16	0935	Bottles Received by: [signature]	2/18/16	1400
Bottles Relinquished by: [signature]	2/25/16	1900	Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by: [signature]	2/26/16	930

Analysis Request / Environmental Services Chain of Custody

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For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C27085 34022
Cooler Temperature upon receipt: 1.7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. HARDER
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)	Condition upon receipt:
ANLF16-MW-1	2/23/16 ~~2/25/16~~	1230	WW	500	None	1			X	X			X	X	
ANLF16-MW-1	2/23/16	1230	WW	250	HNO3	1						X			
ANLF16-MW-1			WW	250	None	2		X							
ANLF16-MW-1			WW	40	HCl	2	X								
ANLF16-MW-1			WW	40	None	2					X				

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions: 2/22/16, MH

	Date	Time
Bottles Relinquished by:	2-18-16	0910
Bottles Relinquished by:	2/25/16	1900
Bottles Relinquished by:		
Bottles Relinquished by:		

	Date	Time
Bottles Received by:	~~2/18/16~~	1400
Bottles Received by:		
Bottles Received by:		
Bottles Received by:	2-29-16	905

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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C270855 34023
Cooler Temperature upon receipt: 1.7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s):
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)						Condition upon receipt: Intact
ANLF16-MW-2	2/23/16	1630	WW	500	None	1			X	X			X	X						
ANLF16-MW-2			WW	250	HNO3	1						X								
ANLF16-MW-2			WW	250	None	2		X												
ANLF16-MW-2			WW	40	HCl	2	X													
ANLF16-MW-2			WW	40	None	2					X									
ANLF16-MW-2			WW	500	None	1			X	X			X	X						MS
ANLF16-MW-2			WW	250	HNO3	1						X								MS
ANLF16-MW-2			WW	250	None	2		X												MS
ANLF16-MW-2			WW	40	HCl	2	X													MS
ANLF16-MW-2			WW	40	None	2					X									MS

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by:	Date 2-18-16	Time 0910	Bottles Received by:	Date: 2/22/16	Time: (400)
Bottles Relinquished by:	Date 2/25/16	Time 1900	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 2-29-16	Time: 905

Analysis Request / Environmental Services Chain of Custody

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For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: 27999 34024
Cooler Temperature upon receipt: 1-7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. Harder
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)	Condition upon receipt: Intact
ANLF16-MW-2	2/23/16	1630	WW	500	None	1			X	X			X	X	MSD
ANLF16-MW-2			WW	500	HNO3	1						X			MSD
ANLF16-MW-2			WW	250	None	2		X							MSD
ANLF16-MW-2			WW	40	HCl	2	X								MSD
ANLF16-MW-2			WW	40	None	2					X				MSD
ANLF16-MW-2-D			WW	500	None	1			X	X			X	X	
ANLF16-MW-2-D			WW	250	HNO3	1						X			
ANLF16-MW-2-D			WW	250	None	2		X							
ANLF16-MW-2-D			WW	40	HCl	2	X								
ANLF16-MW-2-D			WW	40	None	2					X				

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by:	2-18-16	0900	Bottles Received by:	2/22/16	1900
Bottles Relinquished by:	2/25/16	1900	Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:	2.29.16	905

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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only 8263264-77

Group No.: 1635683 Sample Nos.: ~~8262226~~ 2/24/16

Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C27999 34025

Cooler Temperature upon receipt: 1-7 °C Container No.: 2

Facility Name: DAK Americas	Project Manager: Marc Harder
Facility Contact: Marc Harder	Facility Contact Phone No.: 704-858-4116
Facility Address: DAK Americas, LLC	Job No.: 9267-7720100C-WH06504182
3500 Daniels Road NE	Release No.:
Leland NC 28451	PO Number: LBIO-67047
Sampler(s):	
Project Name: LANDFILL ANNUAL 16	

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Analyses Required

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)	Condition upon receipt:
ANLF16-MW-3	2/24/16	1200	WW	500	None	1			X	X			X	X	Intact
ANLF16-MW-3			WW	250	HNO3	1						X			
ANLF16-MW-3			WW	250	None	2		X							
ANLF16-MW-3			WW	40	HCl	2	X								
ANLF16-MW-3			WW	40	None	2					X				
ANLF16-MW-9	2/24/16	1030	WW	500	None	1			X	X			X	X	
ANLF16-MW-9			WW	250	HNO3	1						X			
ANLF16-MW-9			WW	250	None	2		X							
ANLF16-MW-9			WW	40	HCl	2	X								
ANLF16-MW-9			WW	40	None	2					X				

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by:	2-18-16	0900	Bottles Received by:	2/22/16	1900
Bottles Relinquished by:	2/25/16	1900	Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:	2-29-16	905

Analysis Request / Environmental Services Chain of Custody

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For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 184196 Cooler No.: C22148 34020
Cooler Temperature upon receipt: 1.2 °C Container No.: 1

Facility Name: DAK Americas	Project Manager: Marc Harder
Facility Contact: Marc Harder	Facility Contact Phone No.: 704-858-4116
Facility Address: DAK Americas, LLC	Job No.: 9267-7720100C-WH06504182
3500 Daniels Road NE	Release No.:
Leland NC 28451	PO Number: LBIO-67047
Sampler(s):	
Project Name: LANDFILL ANNUAL 16	

Analyses Required: GC/MS VOAs (8260B)

Comments:

Condition upon receipt: intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	GC/MS VOAs (8260B)
ANLF16-MW-4	2/25/16	1030	WW	40	HCl	3	X
ANLF16-MW-5	2/24/16	1540	WW	40	HCl	3	X
ANLF16-MW-6	2/25/16	1230	WW	40	HCl	3	X
ANLF16-MW-7	2/24/16	1730	WW	40	HCl	3	X
ANLF16-MW-22	2/25/16	1600	WW	40	HCl	3	X
TB-022516			WW	40	HCl	2	X

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by: [signature]	2-18-16	0935	Bottles Received by: [signature]	2/18/16	1400
Bottles Relinquished by: [signature]	2/25/16	1900	Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by: [signature]	2/26/16	930

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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C31069 **34026**
Cooler Temperature upon receipt: 1-7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. Harder
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)
ANLF16-MW-4	2/25/16	1030	WW	500	None	1			X	X			X	X
ANLF16-MW-4			WW	250	HNO3	1						X		
ANLF16-MW-4			WW	250	None	2		X						
ANLF16-MW-4			WW	40	HCl	2	X							
ANLF16-MW-4			WW	40	None	2					X			
ANLF16-MW-5	2/24/16	1540	WW	500	None	1			X	X			X	X
ANLF16-MW-5			WW	250	HNO3	1						X		
ANLF16-MW-5			WW	250	None	2		X						
ANLF16-MW-5			WW	40	HCl	2	X							
ANLF16-MW-5			WW	40	None	2					X			

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by:	Date 2/18/16	Time 0900	Bottles Received by:	Date 2/22/16	Time 1400
Bottles Relinquished by:	Date 2/25/16	Time 1900	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 2-24-16	Time: 905

Analysis Request / Environmental Services Chain of Custody

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For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C25667 34027
Cooler Temperature upon receipt: 1.7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. HARDER
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)
ANLF16-MW-6	2/25/16	1230	WW	500	None	1			X	X			X	X
ANLF16-MW-6			WW	250	HNO3	1						X		
ANLF16-MW-6			WW	250	None	2		X						
ANLF16-MW-6			WW	40	HCl	2	X							
ANLF16-MW-6			WW	40	None	2					X			
ANLF16-MW-7	2/24/16	1730	WW	500	None	1			X	X			X	X
ANLF16-MW-7			WW	250	HNO3	1						X		
ANLF16-MW-7			WW	250	None	2		X						
ANLF16-MW-7			WW	40	HCl	2	X							
ANLF16-MW-7			WW	40	None	2					X			

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

	Date	Time
Bottles Relinquished by:	2/18/16	0900
Bottles Relinquished by:	2/25/16	1900
Bottles Relinquished by:		
Bottles Relinquished by:		

	Date	Time
Bottles Received by:	2/22/16 MH	1400
Bottles Received by:		
Bottles Received by:		
Bottles Received by:	2-26-16 2-27-16	905

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Analysis Request / Environmental Services Chain of Custody

1

For Lancaster Laboratories Use Only
Group No.: 1635683 Sample Nos.: 8263264-77
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C25667 34028
Cooler Temperature upon receipt: 1.7 °C Container No.: 2

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. HARDER
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)
ANLF16-MW-22	2/25/16	1600	WW	500	None	1			X	X			X	X
ANLF16-MW-22			WW	250	HNO3	1						X		
ANLF16-MW-22			WW	250	None	2		X						
ANLF16-MW-22			WW	40	HCl	2	X							
ANLF16-MW-22			WW	40	None	2					X			

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by:	Date 2/18/16	Time 0900	Bottles Received by:	Date: 2/22/16	Time: 1400
Bottles Relinquished by:	Date 2/25/16	Time 1900	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 2.29.16	Time: 905

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Sample Administration Receipt Documentation Log

Doc Log ID: 137594

Group Number(s): 1635683

Client: Dupont

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	02/26/2016 9:30
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	No	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Joseph Huber (7831) at 12:26 on 02/26/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	1.2	IR	Wet	Y	Loose	N
2	32170023	0.2	IR	Wet	Y	Loose	N

Samples Not Intact Details

Sample ID on Label	Bottle Code	Bottle Quantity	Container Salvageable?	Comments
ANLF16 - MW - 3	40 ml glass vial (GC/MS) - HCl	1	N	

General Comments: Missing paperwork for cooler #2 - see attached paperwork for total # of containers received for each ID
Possible missing cooler. Does not appear to have short hold analyses.

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.cor

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Sample Administration Receipt Documentation Log

Doc Log ID: 137737

Group Number(s): 1635683

Client: DuPont

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	02/29/2016 9:05
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Timothy Cubberley (6520) at 09:27 on 02/29/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.7	DT	Wet	N	Loose	N

General Comments: Rec'd missing cooler with all missing samples.

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

Report Date: March 17, 2016

Project: CAP - LANDFILL ANNUAL

Submittal Date: 02/27/2016
Group Number: 1635575
PO Number: LBIO-67047
State of Sample Origin: NC

Client Sample Description	Lancaster Labs (LL) #
ANLF16-MW-23 Groundwater	8262822
ANLF16-MW-24 Groundwater	8262823
EB-022616 Blank Water	8262824
TB-022616 Blank Water	8262825

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

Electronic Copy To Parsons Attn: Marc Harder

Respectfully Submitted,

Nancy Jean Bornholm

Nancy Jean Bornholm
Principal Specialist

(717) 556-7250

Project Name: CAP - LANDFILL ANNUAL
LL Group #: 1635575

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260B, GC/MS Volatiles

Sample #s: 8262822, 8262823
Reporting limits were raised due to sample foaming.

SW-846 8270D, GC/MS Semivolatiles

Batch #: 16061WAA026 (Sample number(s): 8262822-8262824 UNSPK: P263265)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: 2,4-Dinitrophenol, 4-Nitrophenol

SW-846 8015C Feb 2007 Rev 3, GC Miscellaneous

Sample #s: 8262822, 8262823, 8262824
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

Batch #: 160680026A (Sample number(s): 8262822-8262824 UNSPK: P263265)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Triethylene glycol

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 8262822, 8262823, 8262824, MS, MSD

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Analysis Report

Sample Description: ANLF16-MW-23 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262822
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 13:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DR23

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	30	U	30	100	5
10335	Acrylonitrile	107-13-1	20	U	20	100	5
10335	Benzene	71-43-2	3	U	3	5	5
10335	Bromochloromethane	74-97-5	5	U	5	25	5
10335	Bromodichloromethane	75-27-4	3	U	3	5	5
10335	Bromoform	75-25-2	3	U	3	20	5
10335	Bromomethane	74-83-9	3	U	3	5	5
10335	2-Butanone	78-93-3	15	U	15	50	5
10335	Carbon Disulfide	75-15-0	5	U	5	25	5
10335	Carbon Tetrachloride	56-23-5	3	U	3	5	5
10335	Chlorobenzene	108-90-7	3	U	3	5	5
`0335	Chloroethane	75-00-3	3	U	3	5	5
0335	Chloroform	67-66-3	3	U	3	5	5
10335	Chloromethane	74-87-3	3	U	3	5	5
10335	1,2-Dibromo-3-chloropropane	96-12-8	10	U	10	25	5
10335	Dibromochloromethane	124-48-1	3	U	3	5	5
10335	1,2-Dibromoethane	106-93-4	3	U	3	5	5
10335	Dibromomethane	74-95-3	3	U	3	5	5
10335	trans-1,4-Dichloro-2-butene	110-57-6	75	U	75	250	5
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	25	5
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	25	5
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	25	5
10335	1,1-Dichloroethane	75-34-3	3	U	3	5	5
10335	1,2-Dichloroethane	107-06-2	3	U	3	5	5
10335	1,1-Dichloroethene	75-35-4	3	U	3	5	5
10335	cis-1,2-Dichloroethene	156-59-2	3	U	3	5	5
10335	trans-1,2-Dichloroethene	156-60-5	3	U	3	5	5
10335	1,2-Dichloropropane	78-87-5	3	U	3	5	5
10335	cis-1,3-Dichloropropene	10061-01-5	3	U	3	5	5
10335	trans-1,3-Dichloropropene	10061-02-6	3	U	3	5	5
10335	Ethylbenzene	100-41-4	3	U	3	5	5
10335	2-Hexanone	591-78-6	15	U	15	50	5
10335	Methyl Iodide	74-88-4	3	U	3	5	5
10335	4-Methyl-2-pentanone	108-10-1	15	U	15	50	5
10335	Methylene Chloride	75-09-2	10	U	10	20	5
10335	Styrene	100-42-5	5	U	5	25	5
10335	1,1,1,2-Tetrachloroethane	630-20-6	3	U	3	5	5
10335	1,1,2,2-Tetrachloroethane	79-34-5	3	U	3	5	5
10335	Tetrachloroethene	127-18-4	3	U	3	5	5
10335	Toluene	108-88-3	3	U	3	5	5
10335	1,1,1-Trichloroethane	71-55-6	3	U	3	5	5
10335	1,1,2-Trichloroethane	79-00-5	3	U	3	5	5
10335	Trichloroethene	79-01-6	3	U	3	5	5
10335	Trichlorofluoromethane	75-69-4	3	U	3	5	5
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	25	5
10335	Vinyl Acetate	108-05-4	10	U	10	50	5
10335	Vinyl Chloride	75-01-4	3	U	3	5	5
10335	Xylene (Total)	1330-20-7	3	U	3	5	5
Reporting limits were raised due to sample foaming.							
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-23 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262822
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 13:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DR23

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	16	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	3	J	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	16	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-23 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262822
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 13:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DR23

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.197		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-23 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262822
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 13:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		SW-846 6010D Rev.4, July 2014	mg/l	mg/l	mg/l	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	
00224	Chloride	16887-00-6	110	10.0	20.0	50
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	1.5 U	1.5	5.0	5
		SM 2540 C-1997	mg/l	mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	530	19.4	60.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 01:44	Graham A Goulding	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 01:44	Graham A Goulding	5
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 10:47	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 04:15	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 22:17	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-23 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262822
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 13:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DR23

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:03	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 14:02	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 12:56	Drew M Gerhart	50
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 12:43	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 12:43	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-24 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262823
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

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4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	30	U	30	100	5
10335	Acrylonitrile	107-13-1	20	U	20	100	5
10335	Benzene	71-43-2	3	U	3	5	5
10335	Bromochloromethane	74-97-5	5	U	5	25	5
10335	Bromodichloromethane	75-27-4	3	U	3	5	5
10335	Bromoform	75-25-2	3	U	3	20	5
10335	Bromomethane	74-83-9	3	U	3	5	5
10335	2-Butanone	78-93-3	15	U	15	50	5
10335	Carbon Disulfide	75-15-0	5	U	5	25	5
10335	Carbon Tetrachloride	56-23-5	3	U	3	5	5
10335	Chlorobenzene	108-90-7	3	U	3	5	5
10335	Chloroethane	75-00-3	3	U	3	5	5
10335	Chloroform	67-66-3	3	U	3	5	5
10335	Chloromethane	74-87-3	3	U	3	5	5
10335	1,2-Dibromo-3-chloropropane	96-12-8	10	U	10	25	5
10335	Dibromochloromethane	124-48-1	3	U	3	5	5
10335	1,2-Dibromoethane	106-93-4	3	U	3	5	5
10335	Dibromomethane	74-95-3	3	U	3	5	5
10335	trans-1,4-Dichloro-2-butene	110-57-6	75	U	75	250	5
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	25	5
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	25	5
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	25	5
10335	1,1-Dichloroethane	75-34-3	3	U	3	5	5
10335	1,2-Dichloroethane	107-06-2	3	U	3	5	5
10335	1,1-Dichloroethene	75-35-4	3	U	3	5	5
10335	cis-1,2-Dichloroethene	156-59-2	3	U	3	5	5
10335	trans-1,2-Dichloroethene	156-60-5	3	U	3	5	5
10335	1,2-Dichloropropane	78-87-5	3	U	3	5	5
10335	cis-1,3-Dichloropropene	10061-01-5	3	U	3	5	5
10335	trans-1,3-Dichloropropene	10061-02-6	3	U	3	5	5
10335	Ethylbenzene	100-41-4	3	U	3	5	5
10335	2-Hexanone	591-78-6	15	U	15	50	5
10335	Methyl Iodide	74-88-4	3	U	3	5	5
10335	4-Methyl-2-pentanone	108-10-1	15	U	15	50	5
10335	Methylene Chloride	75-09-2	10	U	10	20	5
10335	Styrene	100-42-5	5	U	5	25	5
10335	1,1,1,2-Tetrachloroethane	630-20-6	3	U	3	5	5
10335	1,1,2,2-Tetrachloroethane	79-34-5	3	U	3	5	5
10335	Tetrachloroethene	127-18-4	3	U	3	5	5
10335	Toluene	108-88-3	3	U	3	5	5
10335	1,1,1-Trichloroethane	71-55-6	3	U	3	5	5
10335	1,1,2-Trichloroethane	79-00-5	3	U	3	5	5
10335	Trichloroethene	79-01-6	3	U	3	5	5
10335	Trichlorofluoromethane	75-69-4	3	U	3	5	5
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	25	5
10335	Vinyl Acetate	108-05-4	10	U	10	50	5
10335	Vinyl Chloride	75-01-4	3	U	3	5	5
10335	Xylene (Total)	1330-20-7	3	U	3	5	5

Reporting limits were raised due to sample foaming.

GC/MS Semivolatiles	**SW-846 8270D**	ug/l	ug/l	ug/l

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-24 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262823
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

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Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.2	J	0.1	0.5	1
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	30	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.2	J	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	J	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-24 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262823
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles		**SW-846 8270D**	**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	30	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.2	J	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	J	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous		**SW-846 8015C Feb 2007 Rev 3**	**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.217		0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0031	J	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0058	J	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: ANLF16-MW-24 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262823
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

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Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	**mg/l**	**mg/l**	**mg/l**	
07066	Silver	7440-22-4	0.0018 U	0.0018	0.0100	1
Metals		**SW-846 7470A**	**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.000050 U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	**mg/l**	**mg/l**	**mg/l**	
00224	Chloride	16887-00-6	53.1	4.0	8.0	20
01504	Fluoride	16984-48-8	0.25 U	0.25	0.50	5
00228	Sulfate	14808-79-8	1.5 U	1.5	5.0	5
		SM 2540 C-1997	**mg/l**	**mg/l**	**mg/l**	
00212	Total Dissolved Solids	n.a.	374	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/03/2016 02:06	Graham A Goulding	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/03/2016 02:06	Graham A Goulding	5
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 11:17	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 04:33	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 22:34	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
7036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: ANLF16-MW-24 Groundwater
LANDFILL ANNUAL 16

LL Sample # WW 8262823
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DR24

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:06	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 14:04	Damary Valentin	1
14045	ICP-WW/TL, 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 13:23	Drew M Gerhart	20
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 13:10	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 13:10	Drew M Gerhart	5
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262824
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 14:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DREB

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
0335	Chloroethane	75-00-3	0.5	U	0.5	1	1
.0335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1
C/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthene	83-32-9	0.1	U	0.1	0.5	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262824
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 14:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DREB

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	SW-846 8270D		ug/l		ug/l	ug/l	
13624	Acenaphthylene	208-96-8	0.1	U	0.1	0.5	1
13624	Anthracene	120-12-7	0.1	U	0.1	0.5	1
13624	Benzo(a)anthracene	56-55-3	0.1	U	0.1	0.5	1
13624	Benzo(a)pyrene	50-32-8	0.1	U	0.1	0.5	1
13624	Benzo(b)fluoranthene	205-99-2	0.1	U	0.1	0.5	1
13624	Benzo(g,h,i)perylene	191-24-2	0.1	U	0.1	0.5	1
13624	Benzo(k)fluoranthene	207-08-9	0.1	U	0.1	0.5	1
13624	1,1'-Biphenyl	92-52-4	0.5	U	0.5	1	1
13624	4-Bromophenyl-phenylether	101-55-3	0.5	U	0.5	1	1
13624	Butylbenzylphthalate	85-68-7	2	U	2	5	1
13624	Di-n-butylphthalate	84-74-2	2	U	2	5	1
13624	Carbazole	86-74-8	0.5	U	0.5	1	1
13624	4-Chloro-3-methylphenol	59-50-7	0.5	U	0.5	1	1
13624	4-Chloroaniline	106-47-8	2	U	2	4	1
13624	bis(2-Chloroethoxy)methane	111-91-1	0.5	U	0.5	1	1
13624	bis(2-Chloroethyl)ether	111-44-4	0.5	U	0.5	1	1
13624	2-Chloronaphthalene	91-58-7	0.4	U	0.4	1	1
13624	2-Chlorophenol	95-57-8	0.5	U	0.5	1	1
13624	4-Chlorophenyl-phenylether	7005-72-3	0.5	U	0.5	1	1
13624	2,2'-oxybis(1-Chloropropane)	108-60-1	0.5	U	0.5	1	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
13624	Chrysene	218-01-9	0.1	U	0.1	0.5	1
13624	Dibenz(a,h)anthracene	53-70-3	0.1	U	0.1	0.5	1
13624	Dibenzofuran	132-64-9	0.5	U	0.5	1	1
13624	3,3'-Dichlorobenzidine	91-94-1	2	U	2	5	1
13624	2,4-Dichlorophenol	120-83-2	0.5	U	0.5	1	1
13624	Diethylphthalate	84-66-2	2	U	2	5	1
13624	2,4-Dimethylphenol	105-67-9	0.5	U	0.5	1	1
13624	Dimethylphthalate	131-11-3	2	U	2	5	1
13624	4,6-Dinitro-2-methylphenol	534-52-1	5	U	5	15	1
13624	2,4-Dinitrophenol	51-28-5	10	U	10	31	1
13624	2,4-Dinitrotoluene	121-14-2	1	U	1	5	1
13624	2,6-Dinitrotoluene	606-20-2	0.5	U	0.5	1	1
13624	1,4-Dioxane	123-91-1	1	U	1	5	1
13624	Diphenyl ether	101-84-8	0.5	U	0.5	1	1
13624	bis(2-Ethylhexyl)phthalate	117-81-7	2	U	2	5	1
13624	Fluoranthene	206-44-0	0.1	U	0.1	0.5	1
13624	Fluorene	86-73-7	0.1	U	0.1	0.5	1
13624	Hexachlorobenzene	118-74-1	0.1	U	0.1	0.5	1
13624	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1	1
13624	Hexachlorocyclopentadiene	77-47-4	5	U	5	15	1
13624	Hexachloroethane	67-72-1	1	U	1	5	1
13624	Indeno(1,2,3-cd)pyrene	193-39-5	0.1	U	0.1	0.5	1
13624	Isophorone	78-59-1	0.5	U	0.5	1	1
13624	2-Methylnaphthalene	91-57-6	0.1	U	0.1	0.5	1
13624	2-Methylphenol	95-48-7	0.5	U	0.5	1	1
13624	4-Methylphenol	106-44-5	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262824
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 14:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DREB

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
13624	Naphthalene	91-20-3	0.1	U	0.1	0.5	1
13624	2-Nitroaniline	88-74-4	0.5	U	0.5	1	1
13624	3-Nitroaniline	99-09-2	0.5	U	0.5	1	1
13624	4-Nitroaniline	100-01-6	0.5	U	0.5	1	1
13624	Nitrobenzene	98-95-3	0.5	U	0.5	1	1
13624	2-Nitrophenol	88-75-5	0.5	U	0.5	1	1
13624	4-Nitrophenol	100-02-7	10	U	10	31	1
13624	N-Nitroso-di-n-propylamine	621-64-7	0.5	U	0.5	1	1
13624	N-Nitrosodiphenylamine	86-30-6	0.5	U	0.5	1	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
13624	Di-n-octylphthalate	117-84-0	2	U	2	5	1
13624	Pentachlorophenol	87-86-5	1	U	1	5	1
13624	Phenanthrene	85-01-8	0.1	U	0.1	0.5	1
13624	Phenol	108-95-2	0.5	U	0.5	1	1
13624	Pyrene	129-00-0	0.1	U	0.1	0.5	1
13624	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1	1
13624	2,4,5-Trichlorophenol	95-95-4	0.5	U	0.5	1	1
13624	2,4,6-Trichlorophenol	88-06-2	0.5	U	0.5	1	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	26	U	26	52	1
12926	Ethylene glycol	107-21-1	5.0	U	5.0	10	1
12926	Triethylene glycol	112-27-6	27	U	27	56	1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**ug/l**		**ug/l**	**ug/l**	
10603	Methanol	67-56-1	200	U	200	1,000	1
	The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals	**SW-846 6010D Rev.4, July 2014**		**mg/l**		**mg/l**	**mg/l**	
07044	Antimony	7440-36-0	0.0062	U	0.0062	0.0400	1
07035	Arsenic	7440-38-2	0.0078	U	0.0078	0.0400	1
07046	Barium	7440-39-3	0.0012	U	0.0012	0.0100	1
07049	Cadmium	7440-43-9	0.00064	U	0.00064	0.0100	1
07051	Chromium	7440-47-3	0.0020	U	0.0020	0.0300	1
07055	Lead	7439-92-1	0.0051	U	0.0051	0.0300	1
07036	Selenium	7782-49-2	0.0082	U	0.0082	0.0400	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262824
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 14:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

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CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals		**SW-846 6010D Rev.4, July 2014**	mg/l		mg/l	mg/l	
07066	Silver	7440-22-4	0.0018	U	0.0018	0.0100	1
Metals		**SW-846 7470A**	mg/l		mg/l	mg/l	
00259	Mercury	7439-97-6	0.000050	U	0.000050	0.00020	1
Wet Chemistry		**EPA 300.0**	mg/l		mg/l	mg/l	
00224	Chloride	16887-00-6	0.20	U	0.20	0.40	1
01504	Fluoride	16984-48-8	0.050	U	0.050	0.10	1
00228	Sulfate	14808-79-8	0.30	U	0.30	1.0	1
		SM 2540 C-1997	mg/l		mg/l	mg/l	
00212	Total Dissolved Solids	n.a.	9.7	U	9.7	30.0	1

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/02/2016 23:09	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/02/2016 23:09	Graham A Goulding	1
13624	10/92 SOW SV List +add'l cmpds	SW-846 8270D	1	16061WAA026	03/02/2016 11:47	Joseph M Gambler	1
00813	BNA Water Extraction	SW-846 3510C	1	16061WAA026	03/01/2016 16:00	Ryan A Schafran	1
12926	3 Gylcol Compounds	SW-846 8015C Feb 2007 Rev 3	1	160680026A	03/09/2016 04:51	Tyler O Griffin	1
10603	Methanol	SW-846 8015C Feb 2007 Rev 3	1	160670007A	03/07/2016 22:50	Tyler O Griffin	1
07044	Antimony	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07046	Barium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07051	Chromium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07055	Lead	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
07036	Selenium	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: EB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262824
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 14:00 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DREB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07066	Silver	SW-846 6010D Rev.4, July 2014	1	160624045001	03/07/2016 13:09	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	160625713003	03/04/2016 14:06	Damary Valentin	1
14045	ICP-WW/TL. 3010A (tot) - U5	SW-846 3010A	1	160624045001	03/03/2016 09:08	Christopher M Klumpp	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	160625713003	03/03/2016 11:15	Christopher M Klumpp	1
00224	Chloride	EPA 300.0	1	16061667131A	03/01/2016 13:37	Drew M Gerhart	1
01504	Fluoride	EPA 300.0	1	16061667131A	03/01/2016 13:37	Drew M Gerhart	1
00228	Sulfate	EPA 300.0	1	16061667131A	03/01/2016 13:37	Drew M Gerhart	1
00212	Total Dissolved Solids	SM 2540 C-1997	1	16061021201A	03/01/2016 05:32	Alyssa N Pearl	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: TB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262825
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DRTB

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	SW-846 8260B		ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	6	U	6	20	1
10335	Acrylonitrile	107-13-1	4	U	4	20	1
10335	Benzene	71-43-2	0.5	U	0.5	1	1
10335	Bromochloromethane	74-97-5	1	U	1	5	1
10335	Bromodichloromethane	75-27-4	0.5	U	0.5	1	1
10335	Bromoform	75-25-2	0.5	U	0.5	4	1
10335	Bromomethane	74-83-9	0.5	U	0.5	1	1
10335	2-Butanone	78-93-3	3	U	3	10	1
10335	Carbon Disulfide	75-15-0	1	U	1	5	1
10335	Carbon Tetrachloride	56-23-5	0.5	U	0.5	1	1
10335	Chlorobenzene	108-90-7	0.5	U	0.5	1	1
10335	Chloroethane	75-00-3	0.5	U	0.5	1	1
10335	Chloroform	67-66-3	0.5	U	0.5	1	1
10335	Chloromethane	74-87-3	0.5	U	0.5	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	2	U	2	5	1
10335	Dibromochloromethane	124-48-1	0.5	U	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	0.5	U	0.5	1	1
10335	Dibromomethane	74-95-3	0.5	U	0.5	1	1
10335	trans-1,4-Dichloro-2-butene	110-57-6	15	U	15	50	1
10335	1,2-Dichlorobenzene	95-50-1	1	U	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	1	U	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	1	U	1	5	1
10335	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	0.5	U	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	0.5	U	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	0.5	U	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	0.5	U	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	0.5	U	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	0.5	U	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5	U	0.5	1	1
10335	2-Hexanone	591-78-6	3	U	3	10	1
10335	Methyl Iodide	74-88-4	0.5	U	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	3	U	3	10	1
10335	Methylene Chloride	75-09-2	2	U	2	4	1
10335	Styrene	100-42-5	1	U	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	0.5	U	0.5	1	1
10335	Tetrachloroethene	127-18-4	0.5	U	0.5	1	1
10335	Toluene	108-88-3	0.5	U	0.5	1	1
10335	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	0.5	U	0.5	1	1
10335	Trichloroethene	79-01-6	0.5	U	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	1	U	1	5	1
10335	Vinyl Acetate	108-05-4	2	U	2	10	1
10335	Vinyl Chloride	75-01-4	0.5	U	0.5	1	1
10335	Xylene (Total)	1330-20-7	0.5	U	0.5	1	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: TB-022616 Blank Water
LANDFILL ANNUAL 16

LL Sample # WW 8262825
LL Group # 1635575
Account # 06643

Project Name: CAP - LANDFILL ANNUAL

Collected: 02/26/2016 11:20 by MH

Submitted: 02/27/2016 09:50
Reported: 03/17/2016 15:04

CRG-E.I.DuPont de Nemours & Co
AECOM
Sabre Building
4051 Ogletown Road, Suite 300
Newark DE 19713

3DRTB

General Sample Comments

State of North Carolina Lab Certification No. 521

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	CAP Landfill Volatiles	SW-846 8260B	1	L160622AA	03/02/2016 23:31	Graham A Goulding	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L160622AA	03/02/2016 23:31	Graham A Goulding	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l		MDL** ug/l	LOQ ug/l
Batch number: L160622AA	Sample number(s): 8262822-8262825			
Acetone	6	U	6	20
Acrylonitrile	4	U	4	20
Benzene	0.5	U	0.5	1
Bromochloromethane	1	U	1	5
Bromodichloromethane	0.5	U	0.5	1
Bromoform	0.5	U	0.5	4
Bromomethane	0.5	U	0.5	1
2-Butanone	3	U	3	10
Carbon Disulfide	1	U	1	5
Carbon Tetrachloride	0.5	U	0.5	1
Chlorobenzene	0.5	U	0.5	1
Chloroethane	0.5	U	0.5	1
Chloroform	0.5	U	0.5	1
Chloromethane	0.5	U	0.5	1
1,2-Dibromo-3-chloropropane	2	U	2	5
Dibromochloromethane	0.5	U	0.5	1
1,2-Dibromoethane	0.5	U	0.5	1
Dibromomethane	0.5	U	0.5	1
trans-1,4-Dichloro-2-butene	15	U	15	50
1,2-Dichlorobenzene	1	U	1	5
1,3-Dichlorobenzene	1	U	1	5
1,4-Dichlorobenzene	1	U	1	5
1,1-Dichloroethane	0.5	U	0.5	1
1,2-Dichloroethane	0.5	U	0.5	1
1,1-Dichloroethene	0.5	U	0.5	1
cis-1,2-Dichloroethene	0.5	U	0.5	1
trans-1,2-Dichloroethene	0.5	U	0.5	1
1,2-Dichloropropane	0.5	U	0.5	1
cis-1,3-Dichloropropene	0.5	U	0.5	1
trans-1,3-Dichloropropene	0.5	U	0.5	1
Ethylbenzene	0.5	U	0.5	1
2-Hexanone	3	U	3	10
Methyl Iodide	0.5	U	0.5	1
4-Methyl-2-pentanone	3	U	3	10
Methylene Chloride	2	U	2	4
Styrene	1	U	1	5
1,1,1,2-Tetrachloroethane	0.5	U	0.5	1
1,1,2,2-Tetrachloroethane	0.5	U	0.5	1
Tetrachloroethene	0.5	U	0.5	1
Toluene	0.5	U	0.5	1
1,1,1-Trichloroethane	0.5	U	0.5	1
1,1,2-Trichloroethane	0.5	U	0.5	1
Trichloroethene	0.5	U	0.5	1

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	Result ug/l		MDL** ug/l	LOQ ug/l
Trichlorofluoromethane	0.5	U	0.5	1
1,2,3-Trichloropropane	1	U	1	5
Vinyl Acetate	2	U	2	10
Vinyl Chloride	0.5	U	0.5	1
Xylene (Total)	0.5	U	0.5	1
Batch number: 16061WAA026	Sample number(s): 8262822-8262824			
Acenaphthene	0.1	U	0.1	0.5
Acenaphthylene	0.1	U	0.1	0.5
Anthracene	0.1	U	0.1	0.5
Benzo(a)anthracene	0.1	U	0.1	0.5
Benzo(a)pyrene	0.1	U	0.1	0.5
Benzo(b)fluoranthene	0.1	U	0.1	0.5
Benzo(g,h,i)perylene	0.1	U	0.1	0.5
Benzo(k)fluoranthene	0.1	U	0.1	0.5
1,1'-Biphenyl	0.5	U	0.5	1
4-Bromophenyl-phenylether	0.5	U	0.5	1
Butylbenzylphthalate	2	U	2	5
Di-n-butylphthalate	2	U	2	5
Carbazole	0.5	U	0.5	1
4-Chloro-3-methylphenol	0.5	U	0.5	1
4-Chloroaniline	2	U	2	4
bis(2-Chloroethoxy)methane	0.5	U	0.5	1
bis(2-Chloroethyl)ether	0.5	U	0.5	1
2-Chloronaphthalene	0.4	U	0.4	1
2-Chlorophenol	0.5	U	0.5	1
4-Chlorophenyl-phenylether	0.5	U	0.5	1
2,2'-oxybis(1-Chloropropane)	0.5	U	0.5	1
Chrysene	0.1	U	0.1	0.5
Dibenz(a,h)anthracene	0.1	U	0.1	0.5
Dibenzofuran	0.5	U	0.5	1
3,3'-Dichlorobenzidine	2	U	2	5
2,4-Dichlorophenol	0.5	U	0.5	1
Diethylphthalate	2	U	2	5
2,4-Dimethylphenol	0.5	U	0.5	1
Dimethylphthalate	2	U	2	5
4,6-Dinitro-2-methylphenol	5	U	5	15
2,4-Dinitrophenol	10	U	10	30
2,4-Dinitrotoluene	1	U	1	5
2,6-Dinitrotoluene	0.5	U	0.5	1
1,4-Dioxane	1	U	1	5
Diphenyl ether	0.5	U	0.5	1
bis(2-Ethylhexyl)phthalate	2	U	2	5
Fluoranthene	0.1	U	0.1	0.5
Fluorene	0.1	U	0.1	0.5
Hexachlorobenzene	0.1	U	0.1	0.5
Hexachlorobutadiene	0.5	U	0.5	1
Hexachlorocyclopentadiene	5	U	5	15
Hexachloroethane	1	U	1	5
Indeno(1,2,3-cd)pyrene	0.1	U	0.1	0.5
Isophorone	0.5	U	0.5	1
2-Methylnaphthalene	0.1	U	0.1	0.5
2-Methylphenol	0.5	U	0.5	1
4-Methylphenol	0.5	U	0.5	1
Naphthalene	0.1	U	0.1	0.5

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	Result		MDL**	LOQ
	ug/l		ug/l	ug/l
2-Nitroaniline	0.5	U	0.5	1
3-Nitroaniline	0.5	U	0.5	1
4-Nitroaniline	0.5	U	0.5	1
Nitrobenzene	0.5	U	0.5	1
2-Nitrophenol	0.5	U	0.5	1
4-Nitrophenol	10	U	10	30
N-Nitroso-di-n-propylamine	0.5	U	0.5	1
N-Nitrosodiphenylamine	0.5	U	0.5	1
Di-n-octylphthalate	2	U	2	5
Pentachlorophenol	1	U	1	5
Phenanthrene	0.1	U	0.1	0.5
Phenol	0.5	U	0.5	1
Pyrene	0.1	U	0.1	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5	1
2,4,5-Trichlorophenol	0.5	U	0.5	1
2,4,6-Trichlorophenol	0.5	U	0.5	1
	mg/l		mg/l	mg/l
Batch number: 160680026A	Sample number(s): 8262822-8262824			
Diethylene glycol	26	U	26	52
Ethylene glycol	5.0	U	5.0	10
Triethylene glycol	27	U	27	56
	ug/l		ug/l	ug/l
Batch number: 160670007A	Sample number(s): 8262822-8262824			
Methanol	200	U	200	1,000
	mg/l		mg/l	mg/l
Batch number: 160624045001	Sample number(s): 8262822-8262824			
Antimony	0.0062	U	0.0062	0.0400
Arsenic	0.0078	U	0.0078	0.0400
Barium	0.0012	U	0.0012	0.0100
Cadmium	0.00064	U	0.00064	0.0100
Chromium	0.0020	U	0.0020	0.0300
Lead	0.0051	U	0.0051	0.0300
Selenium	0.0082	U	0.0082	0.0400
Silver	0.0018	U	0.0018	0.0100
Batch number: 160625713003	Sample number(s): 8262822-8262824			
Mercury	0.000050	U	0.000050	0.00020
Batch number: 16061667131A	Sample number(s): 8262822-8262824			
Chloride	0.20	U	0.20	0.40
Fluoride	0.050	U	0.050	0.10
Sulfate	0.30	U	0.30	1.0
Batch number: 16061021201A	Sample number(s): 8262822-8262824			
Total Dissolved Solids	9.7	U	9.7	30.0

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max

*- Outside of specification
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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: L160622AA	Sample number(s): 8262822-8262825								
Acetone	150	112.69			75		58-138		
Acrylonitrile	100	111.28			111		62-121		
Benzene	20	19.41			97		78-120		
Bromochloromethane	20	20.58			103		80-125		
Bromodichloromethane	20	20.39			102		80-120		
Bromoform	20	18.47			92		67-120		
Bromomethane	20	16.71			84		53-130		
2-Butanone	150	179.45			120		62-131		
Carbon Disulfide	20	17.03			85		58-120		
Carbon Tetrachloride	20	18.84			94		74-130		
Chlorobenzene	20	17.95			90		80-120		
Chloroethane	20	17.47			87		56-120		
Chloroform	20	19.67			98		80-120		
Chloromethane	20	16.59			83		65-129		
1,2-Dibromo-3-chloropropane	20	15.71			79		59-120		
Dibromochloromethane	20	18.45			92		78-120		
1,2-Dibromoethane	20	19			95		80-120		
Dibromomethane	20	20.91			105		80-120		
trans-1,4-Dichloro-2-butene	100	55.16			55		30-157		
1,2-Dichlorobenzene	20	17.17			86		80-120		
1,3-Dichlorobenzene	20	17.04			85		80-120		
1,4-Dichlorobenzene	20	17.25			86		80-120		
1,1-Dichloroethane	20	18.53			93		80-120		
1,2-Dichloroethane	20	20.79			104		72-127		
1,1-Dichloroethene	20	17.06			85		76-124		
cis-1,2-Dichloroethene	20	19.24			96		80-120		
trans-1,2-Dichloroethene	20	18.68			93		80-120		
1,2-Dichloropropane	20	20.77			104		80-120		
cis-1,3-Dichloropropene	20	20.76			104		80-120		
trans-1,3-Dichloropropene	20	18.69			93		76-120		
Ethylbenzene	20	17.36			87		78-120		
2-Hexanone	100	104.62			105		35-138		
Methyl Iodide	20	18.59			93		75-128		
4-Methyl-2-pentanone	100	116.53			117		47-133		
Methylene Chloride	20	19.09			95		77-121		
Styrene	20	18.04			90		80-120		
1,1,1,2-Tetrachloroethane	20	17.42			87		80-120		
1,1,2,2-Tetrachloroethane	20	16.9			84		72-120		
Tetrachloroethene	20	17.47			87		80-129		
Toluene	20	17.49			87		80-120		
1,1,1-Trichloroethane	20	17.95			90		66-126		
1,1,2-Trichloroethane	20	18.3			91		80-120		
Trichloroethene	20	19.05			95		80-120		
Trichlorofluoromethane	20	17.71			89		67-129		
1,2,3-Trichloropropane	20	17.89			89		76-120		
Vinyl Acetate	100	137			137		36-200		
Vinyl Chloride	20	16.41			82		69-120		
Xylene (Total)	60	52.55			88		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16061WAA026	Sample number(s): 8262822-8262824								
Acenaphthene	25	22.73			91		69-123		

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthylene	25	22.26			89		67-125		
Anthracene	25	22.14			89		68-126		
Benzo(a)anthracene	25	21.4			86		69-133		
Benzo(a)pyrene	25	20.99			84		68-126		
Benzo(b)fluoranthene	25	21.96			88		71-131		
Benzo(g,h,i)perylene	25	24.69			99		62-132		
Benzo(k)fluoranthene	25	22.02			88		72-128		
1,1'-Biphenyl	25	21.3			85		59-124		
4-Bromophenyl-phenylether	25	22.1			88		64-129		
Butylbenzylphthalate	25	20.22			81		68-119		
Di-n-butylphthalate	25	21.06			84		61-125		
Carbazole	25	22.27			89		64-126		
4-Chloro-3-methylphenol	25	23.34			93		65-125		
4-Chloroaniline	25	21.75			87		45-115		
bis(2-Chloroethoxy)methane	25	23.04			92		67-124		
bis(2-Chloroethyl)ether	25	20.7			83		65-120		
2-Chloronaphthalene	25	21.3			85		57-126		
2-Chlorophenol	25	19.01			76		59-120		
4-Chlorophenyl-phenylether	25	24.23			97		67-125		
2,2'-oxybis(1-Chloropropane)	25	24.03			96		56-128		
Chrysene	25	22.14			89		71-136		
Dibenz(a,h)anthracene	25	23.89			96		64-133		
Dibenzofuran	25	22.21			89		67-120		
3,3'-Dichlorobenzidine	25	18.97			76		39-111		
2,4-Dichlorophenol	25	23.38			94		66-126		
Diethylphthalate	25	20.07			80		55-124		
2,4-Dimethylphenol	25	23.5			94		63-117		
Dimethylphthalate	25	16.15			65		26-133		
4,6-Dinitro-2-methylphenol	25	20.57			82		64-124		
2,4-Dinitrophenol	25	29.1			116		42-129		
2,4-Dinitrotoluene	25	22.64			91		71-131		
2,6-Dinitrotoluene	25	24.78			99		71-133		
1,4-Dioxane	25	12.88			52		33-87		
Diphenyl ether	25	22.69			91		78-107		
bis(2-Ethylhexyl)phthalate	25	21.73			87		66-130		
Fluoranthene	25	23.52			94		68-129		
Fluorene	25	23.47			94		71-127		
Hexachlorobenzene	25	23.12			92		64-128		
Hexachlorobutadiene	25	20.25			81		23-129		
Hexachlorocyclopentadiene	50	13.21			26		10-101		
Hexachloroethane	25	17.62			70		23-121		
Indeno(1,2,3-cd)pyrene	25	23.54			94		62-128		
Isophorone	25	24.81			99		68-125		
2-Methylnaphthalene	25	20.55			82		61-117		
2-Methylphenol	25	18.35			73		54-122		
4-Methylphenol	25	16.94			68		56-109		
Naphthalene	25	21.99			88		62-121		
2-Nitroaniline	25	21.83			87		68-130		
3-Nitroaniline	25	22.48			90		58-122		
4-Nitroaniline	25	20.56			82		61-111		
Nitrobenzene	25	24.85			99		77-119		
2-Nitrophenol	25	22.77			91		67-131		
4-Nitrophenol	25	8.82			35		20-89		

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Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
N-Nitroso-di-n-propylamine	25	21.13			85		63-121		
N-Nitrosodiphenylamine	25	22.91			92		80-115		
Di-n-octylphthalate	25	21.83			87		73-131		
Pentachlorophenol	25	19.6			78		53-133		
Phenanthrene	25	22.59			90		65-120		
Phenol	25	8.99			36		19-82		
Pyrene	25	21.83			87		68-118		
1,2,4-Trichlorobenzene	25	21.57			86		59-117		
2,4,5-Trichlorophenol	25	23.41			94		68-126		
2,4,6-Trichlorophenol	25	24.66			99		71-130		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 160680026A	Sample number(s): 8262822-8262824								
Diethylene glycol	114	119.97			105		55-122		
Ethylene glycol	104	111.94			108		54-129		
Triethylene glycol	106	79.54			75		46-118		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 160670007A	Sample number(s): 8262822-8262824								
Methanol	2510	2951.82			118		79-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 160624045001	Sample number(s): 8262822-8262824								
Antimony	0.500	0.478			96		80-120		
Arsenic	0.150	0.145			96		80-120		
Barium	2.00	1.97			99		80-120		
Cadmium	0.0500	0.0497			99		80-120		
Chromium	0.200	0.200			100		80-120		
Lead	0.150	0.150			100		80-120		
Selenium	0.150	0.138			92		80-120		
Silver	0.0500	0.0469			94		80-120		
Batch number: 160625713003	Sample number(s): 8262822-8262824								
Mercury	0.00100	0.000958			96		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061667131A	Sample number(s): 8262822-8262824								
Chloride	3.00	3.03			101		90-110		
Fluoride	0.750	0.740			99		90-110		
Sulfate	7.50	7.36			98		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061021201A	Sample number(s): 8262822-8262824								
Total Dissolved Solids	200	194			97		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: L160622AA	Sample number(s): 8262822-8262825 UNSPK: P263265										
Acetone	6	U	150	110.96	150	119.14	74	79	58-138	7	30
Acrylonitrile	4	U	100	109.99	100	114.62	110	115	62-121	4	30
Benzene	0.5	U	20	20.74	20	21.52	104	108	78-120	4	30
Bromochloromethane	1	U	20	21.77	20	21.51	109	108	80-125	1	30
Bromodichloromethane	0.5	U	20	21.54	20	21.43	108	107	80-120	1	30
Bromoform	0.5	U	20	18.42	20	19.11	92	96	67-120	4	30
Bromomethane	0.5	U	20	18.37	20	19	92	95	53-130	3	30
2-Butanone	3	U	150	176.53	150	182.68	118	122	62-131	3	30
Carbon Disulfide	1	U	20	19.34	20	20.02	97	100	58-120	3	30
Carbon Tetrachloride	0.5	U	20	21.96	20	22.51	110	113	74-130	2	30
Chlorobenzene	0.5	U	20	18.83	20	19.53	94	98	80-120	4	30
Chloroethane	0.5	U	20	19.94	20	20	100	100	56-120	0	30
Chloroform	0.5	U	20	21.23	20	21.99	106	110	80-120	3	30
Chloromethane	0.5	U	20	17.99	20	18.54	90	93	65-129	3	30
1,2-Dibromo-3-chloropropane	2	U	20	15.23	20	16.24	76	81	59-120	6	30
Dibromochloromethane	0.5	U	20	18.52	20	19.72	93	99	78-120	6	30
1,2-Dibromoethane	0.5	U	20	19.13	20	19.84	96	99	80-120	4	30
Dibromomethane	0.5	U	20	21.18	20	21.9	106	109	80-120	3	30
trans-1,4-Dichloro-2-butene	15	U	100	57.7	100	54.2	58	54	30-157	6	30
1,2-Dichlorobenzene	1	U	20	17.45	20	18.57	87	93	80-120	6	30
1,3-Dichlorobenzene	1	U	20	17.89	20	18.79	89	94	80-120	5	30
1,4-Dichlorobenzene	1	U	20	17.76	20	18.74	89	94	80-120	5	30
1,1-Dichloroethane	0.5	U	20	19.77	20	20	99	100	80-120	1	30
1,2-Dichloroethane	0.5	U	20	22.01	20	22.3	110	111	72-127	1	30
1,1-Dichloroethene	0.5	U	20	19.92	20	20.49	100	102	76-124	3	30
cis-1,2-Dichloroethene	0.5	U	20	20.67	20	21.06	103	105	80-120	2	30
trans-1,2-Dichloroethene	0.5	U	20	20.6	20	21.31	103	107	80-120	3	30
1,2-Dichloropropane	0.5	U	20	21.4	20	22.53	107	113	80-120	5	30
cis-1,3-Dichloropropene	0.5	U	20	21	20	22	105	110	80-120	5	30
trans-1,3-Dichloropropene	0.5	U	20	18.95	20	20.17	95	101	76-120	6	30
Ethylbenzene	0.5	U	20	18.51	20	19.45	93	97	78-120	5	30
2-Hexanone	3	U	100	102.62	100	107.23	103	107	35-138	4	30
Methyl Iodide	0.5	U	20	20.06	20	20.7	100	104	75-128	3	30
4-Methyl-2-pentanone	3	U	100	114.63	100	117.78	115	118	47-133	3	30
Methylene Chloride	2	U	20	20.26	20	20.82	101	104	77-121	3	30
Styrene	1	U	20	18.93	20	19.75	95	99	80-120	4	30
1,1,1,2-Tetrachloroethane	0.5	U	20	18.44	20	19.28	92	96	80-120	4	30
1,1,2,2-Tetrachloroethane	0.5	U	20	16.5	20	17.59	83	88	72-120	6	30
Tetrachloroethene	0.5	U	20	19.1	20	19.9	96	100	80-129	4	30
Toluene	0.5	U	20	18.58	20	19.39	93	97	80-120	4	30
1,1,1-Trichloroethane	0.5	U	20	20.32	20	20.84	102	104	66-126	2	30
1,1,2-Trichloroethane	0.5	U	20	18.39	20	19.1	92	96	80-120	4	30
Trichloroethene	0.5	U	20	21.1	20	21.8	105	109	80-120	3	30
Trichlorofluoromethane	0.5	U	20	21.24	20	22.01	106	110	67-129	4	30
1,2,3-Trichloropropane	1	U	20	17.77	20	18.52	89	93	76-120	4	30
Vinyl Acetate	2	U	100	132.05	100	126.74	132	127	36-200	4	30
Vinyl Chloride	0.5	U	20	18.97	20	19.35	95	97	69-120	2	30
Xylene (Total)	0.5	U	60	56.03	60	58.65	93	98	80-120	5	30
	ug/l		ug/l	ug/l	ug/l	ug/l					
Batch number: 16061WAA026	Sample number(s): 8262822-8262824 UNSPK: P263265										
Acenaphthene	0.1	U	26.94	26.13	25.93	25.57	97	99	69-123	2	30

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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Acenaphthylene	0.1 U	26.94	26.31	25.93	24.83	98	96	67-125	6	30
Anthracene	0.1 U	26.94	26.43	25.93	25.35	98	98	68-126	4	30
Benzo(a)anthracene	0.1 U	26.94	25.59	25.93	24.22	95	93	69-133	5	30
Benzo(a)pyrene	0.134	26.94	26.75	25.93	25.22	99	97	68-126	6	30
Benzo(b)fluoranthene	0.1 U	26.94	28.19	25.93	26.17	105	101	71-131	7	30
Benzo(g,h,i)perylene	0.1 U	26.94	30.51	25.93	28.7	113	111	62-132	6	30
Benzo(k)fluoranthene	0.1 U	26.94	27.07	25.93	25.57	100	99	72-128	6	30
1,1'-Biphenyl	0.5 U	26.94	25.52	25.93	23.72	95	91	59-124	7	30
4-Bromophenyl-phenylether	0.5 U	26.94	27.33	25.93	27.22	101	105	64-129	0	30
Butylbenzylphthalate	2 U	26.94	23.23	25.93	22.68	86	87	68-119	2	30
Di-n-butylphthalate	2 U	26.94	24.65	25.93	24.58	92	95	61-125	0	30
Carbazole	0.5 U	26.94	26.31	25.93	25.36	98	98	64-126	4	30
4-Chloro-3-methylphenol	0.5 U	26.94	27.02	25.93	24.67	100	95	65-125	9	30
4-Chloroaniline	2 U	26.94	25.98	25.93	24.73	96	95	45-115	5	30
bis(2-Chloroethoxy)methane	0.5 U	26.94	26.58	25.93	25.15	99	97	67-124	6	30
bis(2-Chloroethyl)ether	0.5 U	26.94	26.08	25.93	24.44	97	94	65-120	6	30
2-Chloronaphthalene	0.4 U	26.94	25.21	25.93	24.37	94	94	57-126	3	30
2-Chlorophenol	0.5 U	26.94	24.23	25.93	21.51	90	83	59-120	12	30
4-Chlorophenyl-phenylether	0.5 U	26.94	27.72	25.93	27.57	103	106	67-125	1	30
2,2'-oxybis(1-Chloropropane)	0.5 U	26.94	30.84	25.93	28.22	114	109	56-128	9	30
Chrysene	0.1 U	26.94	26.27	25.93	24.76	98	95	71-136	6	30
Dibenz(a,h)anthracene	0.1 U	26.94	30.65	25.93	28.71	114	111	64-133	7	30
Dibenzofuran	0.5 U	26.94	26.13	25.93	25.12	97	97	67-120	4	30
3,3'-Dichlorobenzidine	2 U	26.94	22.92	25.93	21.1	85	81	39-111	8	30
2,4-Dichlorophenol	0.5 U	26.94	27.42	25.93	25.65	102	99	66-126	7	30
Diethylphthalate	2 U	26.94	22.66	25.93	22.06	84	85	55-124	3	30
2,4-Dimethylphenol	0.5 U	26.94	23.76	25.93	20.75	88	80	63-117	13	30
Dimethylphthalate	2 U	26.94	17.93	25.93	18.11	67	70	26-133	1	30
4,6-Dinitro-2-methylphenol	5 U	26.94	22.44	25.93	24.64	83	95	64-124	9	30
2,4-Dinitrophenol	11 U	26.94	32.68	25.93	39.22	121	151*	42-129	18	30
2,4-Dinitrotoluene	1 U	26.94	26.16	25.93	25.2	97	97	71-131	4	30
2,6-Dinitrotoluene	0.5 U	26.94	30.16	25.93	27.36	112	106	71-133	10	30
1,4-Dioxane	1 U	26.94	18.86	25.93	15.74	70	61	33-87	18	30
Diphenyl ether	0.5 U	26.94	26.77	25.93	25.57	99	99	78-107	5	30
bis(2-Ethylhexyl)phthalate	2 U	26.94	25.01	25.93	24.03	93	93	66-130	4	30
Fluoranthene	0.1 U	26.94	27.68	25.93	26.68	103	103	68-129	4	30
Fluorene	0.1 U	26.94	27.52	25.93	26.38	102	102	71-127	4	30
Hexachlorobenzene	0.1 U	26.94	26.64	25.93	25.89	99	100	64-128	3	30
Hexachlorobutadiene	0.5 U	26.94	24.01	25.93	22.54	89	87	23-129	6	30
Hexachlorocyclopentadiene	5 U	53.88	20.98	51.87	19.5	39	38	10-101	7	30
Hexachloroethane	1 U	26.94	21.66	25.93	20.06	80	77	23-121	8	30
Indeno(1,2,3-cd)pyrene	0.1 U	26.94	29.31	25.93	27.55	109	106	62-128	6	30
Isophorone	0.5 U	26.94	29.3	25.93	27.66	109	107	68-125	6	30
2-Methylnaphthalene	0.1 U	26.94	24.07	25.93	23.5	89	91	61-117	2	30
2-Methylphenol	0.5 U	26.94	23.64	25.93	20.66	88	80	54-122	13	30
4-Methylphenol	0.5 U	26.94	20.82	25.93	18.35	77	71	56-109	13	30
Naphthalene	0.119	26.94	26.46	25.93	25.5	98	98	62-121	4	30
2-Nitroaniline	0.5 U	26.94	26.12	25.93	25.21	97	97	68-130	4	30
3-Nitroaniline	0.5 U	26.94	26.53	25.93	24.91	98	96	58-122	6	30
4-Nitroaniline	0.5 U	26.94	25.19	25.93	23.98	94	92	61-111	5	30
Nitrobenzene	0.708	26.94	29.16	25.93	27.37	106	103	77-119	6	30
2-Nitrophenol	0.5 U	26.94	26.87	25.93	26.13	100	101	67-131	3	30
4-Nitrophenol	11 U	26.94	N.D.	25.93	N.D.	0*	0*	20-89	0	30

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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co Group Number: 1635575
Reported: 03/17/2016 15:04

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
N-Nitroso-di-n-propylamine	0.5 U	26.94	25.63	25.93	24.24	99	93	63-121	9	30
N-Nitrosodiphenylamine	0.5 U	26.94	26.37	25.93	25.96	98	100	80-115	2	30
Di-n-octylphthalate	2 U	26.94	27.29	25.93	25.81	101	100	73-131	6	30
Pentachlorophenol	1 U	26.94	18.67	25.93	22.53	69	87	53-133	19	30
Phenanthrene	0.1 U	26.94	26.62	25.93	25.31	99	98	65-120	5	30
Phenol	0.5 U	26.94	11.79	25.93	10.58	44	41	19-82	11	30
Pyrene	0.1 U	26.94	26.4	25.93	24.56	98	95	68-118	7	30
1,2,4-Trichlorobenzene	0.5 U	26.94	25.7	25.93	25.01	95	96	59-117	3	30
2,4,5-Trichlorophenol	0.5 U	26.94	26.35	25.93	26.46	98	102	68-126	0	30
2,4,6-Trichlorophenol	0.5 U	26.94	27.78	25.93	25.97	103	100	71-130	7	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 160680026A	Sample number(s): 8262822-8262824 UNSPK: P263265									
Diethylene glycol	26 U	114	74.93	114	73.79	66	65	55-122	2	20
Ethylene glycol	5.0 U	104	100.47	104	93.54	97	90	54-129	7	20
Triethylene glycol	27 U	106	N.D.	106	N.D.	0*	0*	46-118	0	20
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 160670007A	Sample number(s): 8262822-8262824 UNSPK: P263265									
Methanol	200 U	2510	2816.69	2510	2884.11	112	115	79-120	2	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 160624045001	Sample number(s): 8262822-8262824 UNSPK: P263265									
Antimony	0.0062 U	0.500	0.480	0.500	0.485	96	97	75-125	1	20
Arsenic	0.0078 U	0.150	0.160	0.150	0.152	107	101	75-125	5	20
Barium	0.00818	2.00	1.99	2.00	2.00	99	100	75-125	0	20
Cadmium	0.00064 U	0.0500	0.0495	0.0500	0.0494	99	99	75-125	0	20
Chromium	0.0020 U	0.200	0.198	0.200	0.198	99	99	75-125	0	20
Lead	0.0051 U	0.150	0.146	0.150	0.148	97	99	75-125	2	20
Selenium	0.0082 U	0.150	0.138	0.150	0.136	92	91	75-125	1	20
Silver	0.0018 U	0.0500	0.0474	0.0500	0.0478	95	96	75-125	1	20
Batch number: 160625713003	Sample number(s): 8262822-8262824 UNSPK: P263265									
Mercury	0.000050 U	0.00100	0.000944	0.00100	0.000980	94	98	80-120	4	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16061667131A	Sample number(s): 8262822-8262824 UNSPK: P263265									
Chloride	20.06	20	40.6			103		90-110		
Fluoride	0.25 U	5.00	5.13			103		90-110		
Sulfate	24.28	50	74.19			100		90-110		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 160610212014	Sample number(s): 8262822-8262824 UNSPK: P263265									
Total Dissolved Solids	205.5	200	403			99		80-120		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Batch number: 160624045001	Sample number(s):	8262822-8262824 BKG:	P263265	
Antimony	0.0062 U	0.0062 U	0 (1)	20
Arsenic	0.0078 U	0.0078 U	0 (1)	20
Barium	0.00818	0.00870	6 (1)	20
Cadmium	0.00064 U	0.00064 U	0 (1)	20
Chromium	0.0020 U	0.0020 U	0 (1)	20
Lead	0.0051 U	0.0051 U	0 (1)	20
Selenium	0.0082 U	0.0082 U	0 (1)	20
Silver	0.0018 U	0.0018 U	0 (1)	20
Batch number: 160625713003	Sample number(s):	8262822-8262824 BKG:	P263265	
Mercury	0.000050 U	0.000050 U	0 (1)	20
	mg/l	mg/l		
Batch number: 16061667131A	Sample number(s):	8262822-8262824 BKG:	P263265	
Chloride	20.06	20.54	2	15
Fluoride	0.25 U	0.25 U	0 (1)	15
Sulfate	24.28	24.15	1 (1)	15
	mg/l	mg/l		
Batch number: 16061021201A	Sample number(s):	8262822-8262824 BKG:	P263265	
Total Dissolved Solids	205.5	200	3	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: CAP Landfill Volatiles
Batch number: L160622AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8262822	106	108	92	98
8262823	107	105	93	100
8262824	107	107	95	97
8262825	106	107	92	99
Blank	105	103	93	99
LCS	104	104	94	102
MS	104	106	94	103
MSD	104	103	95	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 10/92 SOW SV List +add'l cmpds
Batch number: 16061WAA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8262822	31	48	84	95	91	72
8262823	34	52	90	96	90	81
8262824	33	50	77	96	88	86
Blank	40	59	94	103	93	92
LCS	34	52	96	104	96	88
MS	38	57	91	102	95	86

*- Outside of specification
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P####### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: CRG-E.I.DuPont de Nemours & Co
Reported: 03/17/2016 15:04

Group Number: 1635575

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
MSD	34	52	92	102	93	85
Limits:	10-85	10-103	22-150	46-128	61-112	41-125

Analysis Name: Methanol
Batch number: 160670007A

	Acetone
8262822	94
8262823	93
8262824	93
Blank	93
LCS	93
MS	89
MSD	92
Limits:	58-149

Analysis Name: 3 Gylcol Compounds
Batch number: 160680026A

	Tetramethylene glycol
8262822	0*
8262823	0*
8262824	0*
Blank	55
LCS	120
MS	51*
MSD	41*
Limits:	54-136

*- Outside of specification
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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only
Group No.: 1635575 Sample Nos.: 8262822-5
Acc't: 06643 SF: 204063 SCR No.: 184196 Cooler No.: C22168 34021
Cooler Temperature upon receipt: 0.4 °C Container No.: 1

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s): M. HARDER
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required: GC/MS VOAs (8260B)

Comments:

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	GC/MS VOAs (8260B)
ANLF16-MW-23	2/26/16	1300	WW	40	HCl	3	X
ANLF16-MW-24	2/26/16	1120	WW	40	HCl	3	X
TB-022616			WW	40	HCl	2	X
EB-02262016	2/26/16	1400	WW	40	HCl	3	X

Turnaround Time Requested (please circle): Standard RUSH Number of days: 8

Special Instructions:

	Date	Time		Date	Time
Bottles Relinquished by:	2-18-16	0935	Bottles Received by:	2/22/16	1400
Bottles Relinquished by:	2/26/16	1600	Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:		
Bottles Relinquished by:			Bottles Received by:	2/27/16	950

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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only
Group No.: 1635575 Sample Nos.: 8262822-5
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C29189 **34029**
Cooler Temperature upon receipt: 0.4 °C Container No.: 1

Facility Name: DAK Americas	Project Manager: Marc Harder
Facility Contact: Marc Harder	Facility Contact Phone No.: 704-858-4116
Facility Address: DAK Americas, LLC	Job No.: 9267-7720100C-WH06504182
3500 Daniels Road NE	Release No.:
Leland NC 28451	PO Number: LBIO-67047
Sampler(s): M. Harder	
Project Name: LANDFILL ANNUAL 16	

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Preserv	No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)
ANLF16-MW-23	2/26/16	1300	WW	500	None	1			X	X			X	X
ANLF16-MW-23	↓	↓	WW	250	HNO3	1						X		
ANLF16-MW-23			WW	250	None	2		X						
ANLF16-MW-23			WW	40	HCl	2	X							
ANLF16-MW-23	↓	↓	WW	40	None	2					X			
ANLF16-MW-24	2/26/16	1120	WW	500	None	1			X	X			X	X
ANLF16-MW-24	↓	↓	WW	250	HNO3	1						X		
ANLF16-MW-24			WW	250	None	2		X						
ANLF16-MW-24			WW	40	HCl	2	X							
ANLF16-MW-24	↓	↓	WW	40	None	2					X			

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions:

Bottles Relinquished by: Angela L. Montgomery	Date 2/18/2016	Time 0935	Bottles Received by:	Date: 2/22/16	Time: 1400
Bottles Relinquished by:	Date 2/26/16	Time 1600	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date:	Time:
Bottles Relinquished by:	Date	Time	Bottles Received by:	Date: 2/27/16	Time: 450

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Analysis Request / Environmental Services Chain of Custody

For Lancaster Laboratories Use Only
Group No.: 1635575 Sample Nos.: 82602822-5
Acc't: 06643 SF: 204063 SCR No.: 183739 Cooler No.: C29189 **34030**
Cooler Temperature upon receipt: 0.4 °C Container No.: 1

Facility Name: DAK Americas
Facility Contact: Marc Harder
Facility Address: DAK Americas, LLC
3500 Daniels Road NE
Leland NC 28451
Sampler(s):
Project Name: LANDFILL ANNUAL 16

Project Manager: Marc Harder
Facility Contact Phone No.: 704-858-4116
Job No.: 9267-7720100C-WH06504182
Release No.:
PO Number: LBIO-67047

Analyses Required

Comments: Metals = Sb, As, Ba, Cd, Cr, Pb, Se, Ag (6010D); Hg (7470A)

Condition upon receipt: Intact

Sample Identification	Date Collected	Time Collected	Matrix	Containers Volume (ml)	Containers Preserv	Containers No.	MeOH (8015C)	GC/MS Semivolatiles (8270D)	Cl- (300.0)	F- (300.0)	Glycols (8015C)	Metals	SO4 (300.0)	TDS (2540 C)
EB-022616	2/26/16	1400	WW	500	None	1			X	X			X	X
EB-022616	↓	↓	WW	250	HNO3	1						X		
EB-022616	↓	↓	WW	250	None	2		X						
EB-022616	↓	↓	WW	40	HCl	2	X							
EB-022616	↓	↓	WW	40	None	2					X			

Turnaround Time Requested (please circle): (Standard) RUSH Number of days: 8

Special Instructions: MH 2/22/16

Bottles Relinquished by:	Date	Time	Bottles Received by:	Date	Time
Angela S. Montgomery	2/18/2014	0935	[signature]	2/26/16	1400
[signature]	2/26/16	1600			
				2/27/16	9:50

Eurofins Lancaster Laboratories Environmental • 2425 New Holland Pike, Lancaster, PA 17601 • (717) 656-2300
Copies: White copy should accompany samples to Lancaster Laboratories. The pink copy should be retained by the samplers.

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Sample Administration Receipt Documentation Log

Doc Log ID: 137689

Group Number(s): 1635575

Client: DAK Americas, LLC

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	02/27/2016 9:50
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NE		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Jordan Woods (6698) at 10:30 on 02/27/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.4	DT	Wet	Y	Loose	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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DuPont Data Review (DDR)

The DDR is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software (Locus EIM™ database Data Validation Module (DVM)) and manual reviewer evaluations. The data is evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike(MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample(LCS)/control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference / percent difference between total and dissolved sample pairs.

The DDR applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

Please refer to the laboratory report for a description of the lab qualifiers.

DVM Narrative Report

Site: Cape Fear **Sampling Program:** LANDFILL Annual 16 **Validation Options:** LABSTATS

Validation Reason Code: One or more surrogates had relative percent recovery (RPR) values less than the data rejection level. The detection limit is unusable.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
ANLF16-MW-1	02/23/2016	8263264	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-1	02/23/2016	8263264	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-1	02/23/2016	8263264	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-2	02/23/2016	8263265	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-2	02/23/2016	8263265	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-2-D	02/23/2016	8263269	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-2-D	02/23/2016	8263269	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-2-D	02/23/2016	8263269	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-22	02/25/2016	8263276	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-22	02/25/2016	8263276	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-22	02/25/2016	8263276	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-24	02/26/2016	8262823	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-24	02/26/2016	8262823	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-24	02/26/2016	8262823	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-23	02/26/2016	8262822	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-23	02/26/2016	8262822	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-23	02/26/2016	8262822	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-3	02/24/2016	8263270	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-3	02/24/2016	8263270	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-3	02/24/2016	8263270	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-4	02/25/2016	8263272	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-4	02/25/2016	8263272	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		

Site: Cape Fear **Sampling Program:** LANDFILL Annual 16 **Validation Options:** LABSTATS

Validation Reason Code: One or more surrogates had relative percent recovery (RPR) values less than the data rejection level. The detection limit is unusable.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
ANLF16-MW-4	02/25/2016	8263272	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-5	02/24/2016	8263273	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-5	02/24/2016	8263273	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-5	02/24/2016	8263273	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-6	02/25/2016	8263274	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-6	02/25/2016	8263274	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-6	02/25/2016	8263274	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-7	02/24/2016	8263275	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-7	02/24/2016	8263275	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-7	02/24/2016	8263275	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
ANLF16-MW-9	02/24/2016	8263271	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
ANLF16-MW-9	02/24/2016	8263271	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
ANLF16-MW-9	02/24/2016	8263271	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		
EB-022616	02/26/2016	8262824	Ethylene Glycol	5000	UG/L	MDL	5000	10000	R	8015C		
EB-022616	02/26/2016	8262824	Diethylene Glycol	26000	UG/L	MDL	26000	52000	R	8015C		
EB-022616	02/26/2016	8262824	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		

Site: Cape Fear **Sampling Program:** LANDFILL Annual 16 **Validation Options:** LABSTATS

Validation Reason Code: Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the data rejection level. The reported non-detect result i unusable.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
ANLF16-MW-2	02/23/2016	8263265	4-Nitrophenol	11	UG/L	MDL	11	32	R	8270D		3510C
ANLF16-MW-2	02/23/2016	8263265	Triethylene Glycol	27000	UG/L	MDL	27000	56000	R	8015C		

Site: Cape Fear **Sampling Program:** LANDFILL Annual 16 **Validation Options:** LABSTATS

Validation Reason Code: The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
ANLF16-MW-9	02/24/2016	8263271	Arsenic	0.0128	MG/L	MDL	0.0078	0.0400	J	6010D		3010A
ANLF16-MW-7	02/24/2016	8263275	Total Dissolved Solids	28.0	MG/L	MDL	9.7	30.0	J	2540 C-1997		
ANLF16-MW-5	02/24/2016	8263273	Selenium	0.0239	MG/L	MDL	0.0082	0.0400	J	6010D		3010A
ANLF16-MW-3	02/24/2016	8263270	Sulfate	2.8	MG/L	MDL	1.5	5.0	J	300.0		
ANLF16-MW-3	02/24/2016	8263270	Naphthalene	0.2	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-23	02/26/2016	8262822	1,4-Dioxane	3	UG/L	MDL	1	5	J	8270D		3510C
ANLF16-MW-24	02/26/2016	8262823	Pyrene	0.1	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-24	02/26/2016	8262823	Fluoranthene	0.2	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-24	02/26/2016	8262823	Lead	0.0058	MG/L	MDL	0.0051	0.0300	J	6010D		3010A
ANLF16-MW-24	02/26/2016	8262823	Chromium	0.0031	MG/L	MDL	0.0020	0.0300	J	6010D		3010A
ANLF16-MW-24	02/26/2016	8262823	Acenaphthene	0.2	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-24	02/26/2016	8262823	Phenanthrene	0.2	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-24	02/26/2016	8262823	Fluorene	0.1	UG/L	MDL	0.1	0.5	J	8270D		3510C
ANLF16-MW-22	02/25/2016	8263276	Barium	0.0050	MG/L	MDL	0.0012	0.0100	J	6010D		3010A
ANLF16-MW-2-D	02/23/2016	8263269	Barium	0.0083	MG/L	MDL	0.0012	0.0100	J	6010D		3010A
ANLF16-MW-2	02/23/2016	8263265	Barium	0.0082	MG/L	MDL	0.0012	0.0100	J	6010D		3010A
ANLF16-MW-1	02/23/2016	8263264	Sulfate	3.2	MG/L	MDL	1.5	5.0	J	300.0		
ANLF16-MW-1	02/23/2016	8263264	Barium	0.0035	MG/L	MDL	0.0012	0.0100	J	6010D		3010A