

Celebrating over 50 years of service

October 2, 2012

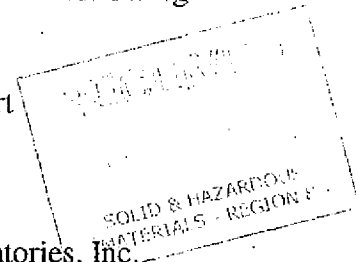
Mrs. Carla M. Jordan
Casella Waste Services of Ontario, LLC
Ontario County Landfill
1879 State Routes 5 & 20
Stanley, New York 14561

Re: Chemung County Landfill January 2012 Radionuclide Monitoring Event
File: 574.129.001

Dear Mrs. Jordan:

This letter report summarizes our January 2012 Radionuclide Monitoring event, which was conducted in accordance with the Site EMP Appendix F – Additional Considerations for Radionuclide Sampling. This event is the initial monitoring event to be completed under this new monitoring requirement. Barton & Loguidice, P.C. (B&L) conducted the sampling on January 31, 2012. Samples of both filtered and non-filtered media were collected from three (3) locations, including two primary leachate collection systems identified as Cells I/II/III, Cell IV, as well as the Leachate Lagoon. Included as attachments to this letter are the following supporting documents:

- Attachment A – TestAmerica Laboratories, Inc. Analytical Report
- Attachment B – Pace Analytical Services, Inc. Analytical Report
- Table 1 – Chemung County Landfill Radionuclide Data Results



The samples were initially submitted for analysis to TestAmerica Laboratories, Inc. (TestAmerica) located in St. Louis for the following analysis in accordance with the EMP:

- Radium-226 per EPA 903.1
- Radium-228 per EPA 904.0
- Total Uranium per EPA 908.0
- Gamma Spectrum per EPA 901.1

Included in Attachment A is the TestAmerica analytical report. TestAmerica utilized a different analytical method for Total Uranium than B&L requested on the chain of custody document. TestAmerica utilized method 200.8, which was a deviation from the required EPA method 908.0. B&L discussed this deviation from the EMP with DEC to determine if it was acceptable. The Department did not approve the use of Method 200.8 and required analysis via EPA Method 908.0. TestAmerica did not have the appropriate certification and was unable to complete EPA Method 908.0.





Mrs. Carla M. Jordan
Casella Waste Services of Ontario, LLC
October 2, 2012
Page 2

B&L determined that Pace Analytical Services, Inc. (Pace) was certified for and could successfully complete each method as identified in the EMP. B&L had the remaining sample media sent from TestAmerica to Pace for EPA method 908.0 analysis. The samples were received by Pace on May 23, 2012. The Pace analytical report is included as Attachment B of this letter summary report.

Included in the attached Table 1 are the results for each monitoring location compared to relevant Nuclear Regulatory Commission (NRC) and DEC standards. Also included in Table 1 for both the Cell I/II/III and Cell IV locations are historical data from the May 2010 sampling event. Although some of the methods utilized in the May 2010 event do not directly compare with the current requirement set forth by the EMP, this data is included as a historical reference for comparison purposes.

The results indicate that radionuclide concentrations remain generally consistent with the results of samples collected in May 2010. The reported result for Radium-228 during this event (1.76 ± 0.99), however, was substantially less than reported for the May 2010 event (12.3 ± 7.2). More importantly, the results remain far below applicable effluent and sewer discharge criteria established by the federal Nuclear Regulatory Commission (NRC) and/or NYSDEC. Duplicate analyses for Cesium-137 in the Cells I, II, and III sample and Radium-226 and Radium-228 in the Leachate Lagoon sample were also completed and indicated acceptable reproducibility. As we conduct further radionuclide monitoring and gain more analytical data from the required monitoring network, we will be better able to assess the data for potential changes/trends over time.

Please contact me if you have any questions regarding this letter summary report.

Very truly yours,

BARTON & LOGUIDICE, P.C.

Michael R. Brother
Senior Managing Hydrogeologist

MRB/akg

Attachments

cc: Mark Domagala, NYSDEC

Attachment A

TestAmerica Laboratories, Inc. Analytical Report

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT


Radiological Analysis

Lot #: F2B030485

Darik Jordan

Barton & Loguidice, PC
290 Elwood Davis Road
PO Box 3107
Syracuse, NY 13220

TESTAMERICA LABORATORIES, INC.


Lynn Fussner
Project Manager

March 2, 2012

F2B030485

1 of 30

Case Narrative
LOT NUMBER: F2B030485

This report contains the analytical results for the six samples received under chain of custody by TestAmerica St. Louis on February 3, 2012. These samples are associated with your Radiological Analysis project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-Mass Spectrometry (MCAWW 200.8)

The samples were analyzed at a dilution due to the presence of matrix interferences. The samples were high in salts. The reporting limit has been adjusted for the dilution.

Affected Samples:

F2B030485 (1): CELLS I/II/III
F2B030485 (2): CELLS I/II/III DISSOLVED
F2B030485 (3): CELLS IV
F2B030485 (4): CELLS IV DISSOLVED
F2B030485 (5): LEACHATE LAGOON
F2B030485 (6): LEACHATE LAGOON DISSOLVED

Radium-226 by GFPC (EPA 903.0 MOD)

The samples were run at reduced aliquot due to color and odor noted by the analyst.

Affected Samples:

F2B030485 (1): CELLS I/II/III
F2B030485 (2): CELLS I/II/III DISSOLVED
F2B030485 (3): CELLS IV
F2B030485 (4): CELLS IV DISSOLVED

Radium-228 by GFPC (EPA 904 MOD)

The samples were run at reduced aliquot due to color and odor noted by the analyst. The reporting limit was not met due to a reduction of sample size which can be attributed to possible matrix interference noted by the analyst during the initial preparation. The analytical results are reported.

Affected Samples:

F2B030485 (1): CELLS I/II/III
F2B030485 (2): CELLS I/II/III DISSOLVED
F2B030485 (3): CELLS IV
F2B030485 (4): CELLS IV DISSOLVED

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F2B030485

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
ICP-Mass Spectrometry ICP-Mass Spectrometry	MCAWW 200.8	
Radium-226 by GFPC	EPA 903.0 MOD	EPA 903.0
Radium-228 by GFPC	EPA 904 MOD	EPA 904

References:

- EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

F2B030485

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
MQLTN	001	CELLS I/II/III	01/31/12	12:45
MQLTQ	002	CELLS I/II/III DISSOLVED	01/31/12	12:49
MQLTR	003	CELLS IV	01/31/12	12:06
MQLTT	004	CELLS IV DISSOLVED	01/31/12	12:13
MQLTV	005	LEACHATE LAGOON	01/31/12	13:13
MQLTW	006	LEACHATE LAGOON DISSOLVED	01/31/12	12:20

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Barton & Loguidice, PC

Client Sample ID: CELLS I/II/III

TOTAL Metals

Lot-Sample #...: F2B030485-001

Matrix.....: WATER

Date Sampled...: 01/31/12 12:45 Date Received...: 02/03/12

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
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Prep Batch #...: 2051103

Uranium	0.56 B	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQLTN1AA
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Dilution Factor: 2

Analysis Time...: 17:54

NOTE(S):

B Estimated result, Result is less than RL.

Barton & Loguidice, PC

Client Sample ID: CELLS I/II/III DISSOLVED

TOTAL Metals

Lot-Sample #...: F2B030485-002

Matrix.....: WATER

Date Sampled...: 01/31/12 12:49 Date Received...: 02/03/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	2051103					
Uranium	0.88 B	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQLTQ1AA
		Dilution Factor: 2		Analysis Time...: 18:06		

NOTE(S):

B Estimated result. Result is less than RL.

Barton & Loguidice, PC

Client Sample ID: CELLS IV

TOTAL Metals

Lot-Sample #....: F2B030485-003

Matrix.....: WATER

Date Sampled....: 01/31/12 12:06 Date Received...: 02/03/12

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #....: 2051103						
Uranium	ND	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQLTR1AA
		Dilution Factor: 2		Analysis Time...: 18:09		

Barton & Loguidice, PC

Client Sample ID: CELLS IV DISSOLVED

TOTAL Metals

Lot-Sample #...: F2B030485-004

Matrix.....: WATER

Date Sampled...: 01/31/12 12:13 Date Received...: 02/03/12

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 2051103						
Uranium	ND	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQLTT1AA
		Dilution Factor: 2		Analysis Time...: 18:12		

Barton & Loguidice, PC

Client Sample ID: LEACHATE LAGOON

TOTAL Metals

Lot-Sample #...: F2B030485-005

Matrix.....: WATER

Date Sampled...: 01/31/12 13:13 Date Received...: 02/03/12

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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Prep Batch #...: 2051103

Uranium	0.84 B	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MLTIVIAA
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Dilution Factor: 2

Analysis Time..: 18:15

NOTE(S) :

B Estimated result. Result is less than RL.

Barton & Loguidice, PC

Client Sample ID: LEACHATE LAGOON DISSOLVED

TOTAL Metals

Lot-Sample #...: F2B030485-006

Matrix.....: WATER

Date Sampled...: 01/31/12 12:20 Date Received...: 02/03/12

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Prep Batch #...	2051103					
Uranium	0.79 B	2.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQLTW1AA
		Dilution Factor: 2		Analysis Time...: 18:18		

NOTE(S):

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F2B030485.

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: F2B200000-103 Prep Batch #...: 2051103						
Uranium	ND	1.0	ug/L	MCAWW 200.8	02/20-02/22/12	MQ0DTLAA
		Dilution Factor: 1				
		Analysis Time...: 17:14				

NOTE(S) :

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F2B030485

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#:	F2B200000-103	Prep Batch #...	2051103		
Uranium	105	(85 - 115)	MCAWW 200.8	02/20-02/22/12	MQODT1AC
		Dilution Factor: 1		Analysis Time...	17:17

NOTE(S) :

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F2B030485

Matrix.....: WATER

Date Sampled...: 01/31/12 12:45 Date Received...: 02/03/12

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: F2B030485-001 Prep Batch #...: 2051103

Uranium	94	(70 - 130)			MCAWW 200.8	02/20-02/22/12	MQLTN1AG
	94	(70 - 130)	0.32	(0-20)	MCAWW 200.8	02/20-02/22/12	MQLTN1AH

Dilution Factor: 2

Analysis Time...: 18:00

NOTE(S) :

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

Barton & Loguidice, PC

Client Sample ID: CELLS I/II/III

Radiochemistry

Lab Sample ID: F2B030485-001
 Work Order: MQLTN
 Matrix: WATER

Date Collected: 01/31/12 1245
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	0.0	U	4.9	20.0	16	02/22/12	02/22/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 58
Radium (226)	1.72		0.55	1.00	0.44	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 51
Radium 228	1.4	U	1.3	1.0	2.0	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

F2B030485

U Result is less than the sample detection limit.

Barton & Loguidice, PC

Client Sample ID: CELLS I/II/III DUP

Radiochemistry

Lab Sample ID: F2B030485-001X
 Work Order: MQLTN
 Matrix: WATER

Date Collected: 01/31/12 1245
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	0.07	U	7.9	20.0	15	02/22/12	02/23/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U **F2B030485** Result is less than the sample detection limit.

Barton & Loguidice, PC

Client Sample ID: CELLS I/II/III DISSOLVED

Radiochemistry

Lab Sample ID: F2B030485-002
 Work Order: MOLTO
 Matrix: WATER

Date Collected: 01/31/12 1249
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	0.0	U	2.4	20.0	16	02/22/12	02/23/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 90
Radium (226)	1.59		0.46	1.00	0.39	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 77
Radium 228	1.76		0.99	1.00	1.4	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U **F2B030485** Result is less than the sample detection limit.

Barton & Loguidice, PC
Client Sample ID: CELLS IV
Radiochemistry

Lab Sample ID: F2B030485-003
 Work Order: MQLTR
 Matrix: WATER

Date Collected: 01/31/12 1206
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD							
Cesium 137	1.1	U	7.2	20.0	13	02/22/12	02/23/12
Radium 226 by EPA 903.0 MOD							
Radium (226)	2.43		0.68	1.00	0.58	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD							
Radium 228	1.8	U	1.5	1.0	2.3	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U **F2B030485** Result is less than the sample detection limit.

Barton & Loguidice, PC

Client Sample ID: CELLS IV DISSOLVED

Radiochemistry

Lab Sample ID: F2B030485-004
 Work Order: MQLTT
 Matrix: WATER

Date Collected: 01/31/12 1213
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	2.8	U	8.0	20.0	14	02/22/12	02/23/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 102
Radium (226)	1.80		0.48	1.00	0.39	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 90
Radium 228	1.91		0.94	1.00	1.3	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U **F2B030485**
 Result is less than the sample detection limit.

Barton & Loguidice, PC

Client Sample ID: LEACHATE LAGOON

Radiochemistry

Lab Sample ID: F2B030485-005
 Work Order: MQLTV
 Matrix: WATER

Date Collected: 01/31/12 1313
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	1	U	6.0	20.0	11	02/22/12	02/23/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 101
Radium (226)	0.74		0.21	1.00	0.17	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 84
Radium 228	0.39	U	0.46	1.00	0.75	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Barton & Loguidice, PC

Client Sample ID: LEACHATE LAGOON DUP

Radiochemistry

Lab Sample ID: F2B030485-005X
 Work Order: MQLTV
 Matrix: WATER

Date Collected: 01/31/12 1313
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 72
Radium 228	0.73	U	0.57	1.00	0.88	02/04/12	02/29/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 82
Radium (226)	0.59		0.20	1.00	0.19	02/03/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC.
 U Result is less than the sample detection limit.

F2B030485

Barton & Loguidice, PC

Client Sample ID: LEACHATE LAGOON DISSOLVED

Radiochemistry

Lab Sample ID: F2B030485-006
 Work Order: MQLTW
 Matrix: WATER

Date Collected: 01/31/12 1220
 Date Received: 02/03/12 0920

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2053116	Yld %
Cesium 137	-1.6	U	7.0	20.0	13	02/22/12	02/23/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2034146	Yld % 94
Radium (226)	0.39		0.16	1.00	0.17	02/03/12	02/29/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2034145	Yld % 81
Radium 228	0.77		0.50	1.00	0.76	02/04/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

F2B030485

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F2B030485
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	2053116	Yld %	F2B220000-116B
Cesium 137	1.2	U	7.8	20.0	15	02/22/12	02/23/12
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	2034145	Yld %	90 F2B030000-145B
Radium 228	0.27	U	0.35	1.00	0.57	02/04/12	02/29/12
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	2034146	Yld %	106 F2B030000-146B
Radium (226)	0.05	U	0.12	1.00	0.21	02/03/12	02/29/12

NOTE(S)

Data are incomplete without the case narrative.
 MDC is determined using instrument performance only
 Bold results are greater than the MDC.
 U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F2B030485
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Radium 228 by GFPC EPA 904 MOD							
Radium 228	5.04	3.71	0.74	0.65	82	74	F2B030000-145C (63 - 130)
	Batch #:	2034145		Analysis Date:	02/29/12		
Radium 226 by EPA 903.0 MOD							
Radium (226)	11.3	10.8	1.2	0.2	94	96	F2B030000-146C (59 - 128)
	Batch #:	2034146		Analysis Date:	02/29/12		
Gamma Cs-137 & Hits by EPA 901.1 MOD							
Americium 241	141000	138000	16000	400		98	F2B220000-116C (90 - 111)
Cesium 137	53100	52900	5300	100		99	(90 - 111)
Cobalt 60	87900	85200	8400	200		97	(89 - 110)
	Batch #:	2053116		Analysis Date:	02/23/12		

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F2B030485
 Matrix: WATER

Date Sampled: 01/31/12
 Date Received: 02/03/12

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	
							Precision	
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD		F2B030485-001		
Cesium 137	0.0 U	4.9		0.07 U	7.9		200	%RPD
	Batch #:	2053116 (Sample)		2053116 (Duplicate)				
Radium 228 by GFPC EPA 904 MOD			pCi/L	904 MOD		F2B030485-005		
Radium 228	0.39 U	0.46	84	0.73 U	0.57	72	62	%RPD
	Batch #:	2034145 (Sample)		2034145 (Duplicate)				
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD		F2B030485-005		
Radium (226)	0.74	0.21	101	0.59	0.20	82	23	%RPD
	Batch #:	2034146 (Sample)		2034146 (Duplicate)				

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

F2B030485

U Result is less than the sample detection limit.

F2B030485

CLIENT ANALYSIS SUMMARY

Storage Loc: **METS,R31/32**
 Date Received: 2012-02-03
 Analytical Due Date: 2012-03-01
 Report Due Date: 2012-03-02
 Report Type: B Standard Report
 EDD Code: 00

Project Manager: LMF Quote #: 90085 SDG:
 Project: Radiological Analysis
 PO#: Report to: Darik Jordan
 Client: 108020 Barton & Loguidice, PC

#SMPS In LOT: 6

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CELLS I/II/III			2012-01-31 / 1245	MLTQ	WATER
<u>SAMPLE COMMENTS:</u>						
UX QV	MCAW 200.8 W		WATER, 200.8 Total Uranium	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZV	RAD SCREEN		WATER, RAD SCREEN, RAD SCREEN, Special L	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z4	EPA 904 MOD		WATER, 904 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z7	EPA 901.1 MOD		WATER, 901.1 MOD, Gamma Cs-137 & Hits by	G7 Direct Addition of Sample to Geometry	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZY	EPA 903.0 MOD		WATER, 903.0 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	CELLS I/II/III DISSOLVED			2012-01-31 / 1249	MLTQ	WATER
<u>SAMPLE COMMENTS:</u>						
UX QV	MCAW 200.8 W		WATER, 200.8 Total Uranium	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZV	RAD SCREEN		WATER, RAD SCREEN, RAD SCREEN, Special L	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z4	EPA 904 MOD		WATER, 904 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z7	EPA 901.1 MOD		WATER, 901.1 MOD, Gamma Cs-137 & Hits by	G7 Direct Addition of Sample to Geometry	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZY	EPA 903.0 MOD		WATER, 903.0 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
3	CELLS IV			2012-01-31 / 1206	MLTR	WATER
<u>SAMPLE COMMENTS:</u>						
UX QV	MCAW 200.8 W		WATER, 200.8 Total Uranium	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZV	RAD SCREEN		WATER, RAD SCREEN, RAD SCREEN, Special L	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z4	EPA 904 MOD		WATER, 904 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z7	EPA 901.1 MOD		WATER, 901.1 MOD, Gamma Cs-137 & Hits by	G7 Direct Addition of Sample to Geometry	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZY	EPA 903.0 MOD		WATER, 903.0 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
4	CELLS IV DISSOLVED			2012-01-31 / 1213	MLTT	WATER
<u>SAMPLE COMMENTS:</u>						
UX QV	MCAW 200.8 W		WATER, 200.8 Total Uranium	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZV	RAD SCREEN		WATER, RAD SCREEN, RAD SCREEN, Special L	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z4	EPA 904 MOD		WATER, 904 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX Z7	EPA 901.1 MOD		WATER, 901.1 MOD, Gamma Cs-137 & Hits by	G7 Direct Addition of Sample to Geometry	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZY	EPA 903.0 MOD		WATER, 903.0 MOD, Radium 228	G2 Precipitate, Separation - 21 day Ingrowth	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
5	LEACHATE LAGOON			2012-01-31 / 1313	MLTV	WATER
<u>SAMPLE COMMENTS:</u>						
UX QV	MCAW 200.8 W F2B030485		WATER, 200.8 Total Uranium	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06 26.6130

F2B030485

CLIENT ANALYSIS SUMMARY

Project Manager: LMF
 Project:
 PO#:
 Client: 108020 Barton & Loguidice, PC

Quote #: 90085 SDG:
 Radlological Analysis
 Report to: Darik Jordan

Storage Loc: **METS,R31/32**
 Date Received: 2012-02-03
 Analytical Due Date: 2012-03-01
 Report Due Date: 2012-03-02
 Report Type: B Standard Report
 EDD Code: 00

#SMPS In LOT: 6

XX ZV	RAD SCREEN	WATER, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX Z4	EPA 904 MOD	WATER, 904 MOD, Radium 228	G2	Precipitate, Separation - 21 day Ingrowth	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX Z7	EPA 901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 & Hls by	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX ZY	EPA 903.0 MOD	WATER, 903.0 MOD, Radium 226	G2	Precipitate, Separation - 21 day Ingrowth	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
6	LEACHATE LAGOON DISSOLVE			2012-01-31 / 1220	MQLTW	WATER

SAMPLE COMMENTS:

UX QV	MCAW 200.8 W	WATER, 200.8 Total Uranium	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX ZV	RAD SCREEN	WATER, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX Z4	EPA 904 MOD	WATER, 904 MOD, Radium 228	G2	Precipitate, Separation - 21 day Ingrowth	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX Z7	EPA 901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 & Hls by	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX ZY	EPA 903.0 MOD	WATER, 903.0 MOD, Radium 226	G2	Precipitate, Separation - 21 day Ingrowth	01	STANDARD TEST SET	PROT: A	WRK LOC	06

Chain of Custody Record

CUR
258

Temperature on Receipt _____

Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

124 (1007) F-2000-0485

Client Name: Water Liquidize, P.C. Project Manager: Darrik Jordan Date: 2/1/12 Chain of Custody Number: _____

Address: 1 Centre Park Suite 203 Telephone Number (Area Code)/Fax Number: (585) 325-7190 (585) 325-4856 Lab Number: _____

City: Locke State: NY Zip Code: 14609 Site Contact: Darrik Jordan Lab Contact: Michael Franks Page 1 of 2

Project Name and Location (State): Chemung Landfill County Landfill Carrier/Waybill Number: _____

Analysis (Attach list if more space is needed):

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Special Instructions/ Conditions of Receipt			
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2/NaOH				
cells I/II/III	1/31/12	12:45	X					X					X	X	X	3xAP1X200 Field Filtered
cells I/II/III Dissolved	1/31/12	12:49	X					X					X	X	X	
cell IV	1/31/12	12:06	X					X					X	X	X	

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

QC Requirements (Specify): _____

Relinquished By: <u>[Signature]</u>	Date: <u>2/1/12</u>	Time: <u>09:16</u>	1. Received By: <u>[Signature]</u>	Date: <u>2/3/12</u>	Time: <u>0920</u>
Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

rain of
Study Record

CUR 258

Temperature on Receipt _____

Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

1124 (1007)
F28030485

Client: Barton & Logsdon, P.C.
Address: Centex Park, Suite 203
City: Rochester, State: NY, Zip Code: 14604

Project Manager: Darrik Jordan
Telephone Number (Area Code)/Fax Number: (585) 325-7190 / (585)-4856

Date: 2/1/12
Chain of Custody Number: _____

Lab Number: _____
Page 2 of 2

Site Contact: Darrik Jordan
Lab Contact: Michael Franks

Analysis (Attach list if more space is needed)

Special Instructions/Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis	Special Instructions/Conditions of Receipt				
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	H2O2	ZnCl2			None			
Cell IV Dissolved	1/31/12	12:13		X										X	X	X	X	3-4L 1N250P Field Filtered
eachute Lagoon	1/31/12	13:13		X										X	X	X	X	Field Filtered
eachute Lagoon Dissolved	1/31/12	12:20		X										X	X	X	X	Field Filtered

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

QC Requirements (Specify): _____

Relinquished By: J. M. [Signature] Date: 2/1/12 Time: 09:23

Received By: [Signature] Date: 2/3/12 Time: 09:20

TestAmerica St. Louis

Lot #(s):

F2B030485

TestAmerica St. Louis

CONDITION UPON RECEIPT FORM

Client: BARTON & LOGUIDICE



Quote No: 90085

COC/RFA No: 191678 / 191679

Initiated By: NVO

Date: 2/3/12

Time: 0920

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____

Multiple Packages: Y N

Shipping # (s):*

Sample Temperature (s):**

1. 8693 4944 2115

6. _____

1. AMBIENT

6. _____

2. 8693 4944 2104

7. _____

2. AMBIENT

7. _____

3. _____

8. _____

3. _____

8. _____

4. _____

9. _____

4. _____

9. _____

5. _____

10. _____

5. _____

10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was sample received with proper pH? (if not, make note below)
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
6.	<input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Was Internal COC/Workshare received?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

ALL SAMPLE REC'D WITH NEUTRAL PH AND D INTERPRETS ^{NVO} 2/3/12
NITRIC LOT K026024 ALL SAMPLES REMAINED NEUTRAL EXCEPT
SAMPLE T.D'S LEACHATE LAGOON & LEACHATE LAGOON DISSOLVED
OK'D BY LYNN F.

Total Uranium method is 200.8. Requested is 908.0 OK per LF to 2/6/12

Corrective Action:

- Client Contact Name: _____
- Sample(s) processed "as is"
- Sample(s) on hold until: _____

Informed by: _____

Project Management Review:

AKW

If released, notify:

Date: 2/7/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

Attachment B

Pace Analytical Services, Inc. Analytical Report

June 06, 2012

Mr. Darik Jordan
Barton & Loguidice
11 Centre Park, Suite 203
Rochester, NY 14614


RE: Project: Chemeny County Landfill
Pace Project No.: 3070245

Dear Mr. Jordan:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Chemeny County Landfill
Pace Project No.: 3070245

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH 0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia VELAP (Cert # 460198)
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 8

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SAMPLE SUMMARY

Project: Chemeny County Landfill
Pace Project No.: 3070245

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3070245001	Cells VIII/III	Water	01/31/12 12:45	05/23/12 09:15
3070245002	Cells VIII/III Dissolved	Water	01/31/12 12:49	05/23/12 09:15
3070245003	Cell IV	Water	01/31/12 12:06	05/23/12 09:15
3070245004	Cell IV Dissolved	Water	01/31/12 12:13	05/23/12 09:15
3070245005	Leachate Lagoon	Water	01/31/12 13:13	05/23/12 09:15
3070245006	Leachate Lagoon Dissolved	Water	01/31/12 12:20	05/23/12 09:15

REPORT OF LABORATORY ANALYSIS

SAMPLE ANALYTE COUNT

Project: Chemeny County Landfill
Pace Project No.: 3070245

Lab ID	Sample ID	Method	Analysts	Analytes Reported
3070245001	Cells I/II/III	EPA 908.0	AMK	1
3070245002	Cells I/II/III Dissolved	EPA 908.0	AMK	1
3070245003	Cell IV	EPA 908.0	AMK	1
3070245004	Cell IV Dissolved	EPA 908.0	AMK	1
3070245005	Leachate Lagoon	EPA 908.0	AMK	1
3070245006	Leachate Lagoon Dissolved	EPA 908.0	AMK	1

REPORT OF LABORATORY ANALYSIS

PROJECT NARRATIVE

Project: Chemeny County Landfill
Pace Project No.: 3070245

Method: EPA 908.0
Description: 908.0 Total Uranium
Client: Barton & Loguidice
Date: June 06, 2012

General Information:

6 samples were analyzed for EPA 908.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

ANALYTICAL RESULTS

Project: Chemeny County Landfill
Pace Project No.: 3070245

Sample: Cells I/II/III		Lab ID: 3070245001	Collected: 01/31/12 12:45	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	-1.34 ± 3.73 (9.37)	pCi/L	06/05/12 07:31	7440-61-1	

Sample: Cells I/II/III Dissolved		Lab ID: 3070245002	Collected: 01/31/12 12:49	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	3.65 ± 3.52 (6.62)	pCi/L	06/05/12 07:31	7440-61-1	

Sample: Cell IV		Lab ID: 3070245003	Collected: 01/31/12 12:06	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	1.65 ± 3.03 (6.54)	pCi/L	06/05/12 07:31	7440-61-1	

Sample: Cell IV Dissolved		Lab ID: 3070245004	Collected: 01/31/12 12:13	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	-1.44 ± 3.43 (8.84)	pCi/L	06/05/12 07:31	7440-61-1	

Sample: Leachate Lagoon		Lab ID: 3070245005	Collected: 01/31/12 13:13	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	1.34 ± 3.08 (6.82)	pCi/L	06/05/12 07:31	7440-61-1	

Sample: Leachate Lagoon Dissolved		Lab ID: 3070245006	Collected: 01/31/12 12:20	Received: 05/23/12 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Total Uranium	EPA 908.0	2.75 ± 3.47 (7.01)	pCi/L	06/05/12 07:31	7440-61-1	

QUALIFIERS

Project: Chemeny County Landfill
Pace Project No.: 3070245

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Table 1

Chemung County Landfill Radionuclide Data Results

Table 1 - Chemung County Landfill Radionuclide Data Results

NRC/DEC	effluent limit sewer limit	Cesium		Radium		Radium		Uranium		Uranium		Uranium		Total Uranium		Thorium		Thorium		Thorium								
		137 (pCi/L)	Total Qual. uncert.	226 (pCi/L)	Total Qual. uncert.	228 (pCi/L)	Total Qual. uncert.	234 (pCi/L)	Total Qual. uncert.	235/236 (pCi/L)	Total Qual. uncert.	238 (pCi/L)	Total Qual. uncert.	Uranium pCi/L	Total Qual. uncert.	228 (pCi/L)	Total Qual. uncert.	230 (pCi/L)	Total Qual. uncert.	232 (pCi/L)	Total Qual. uncert.							
		1000		60		60		300		300		300	-		200		100		30		300							
	RL	20.0		1.00		1.0		1.00		1.00		-		1.00		1.00		1.00		1.00								
Leachate Monitoring Location																												
Cell III/IV																												
	Total	-	-	3.3	1.8	12.3	7.2	1.6	U	1.3	-0.22	U	0.22	0.33	U	0.67	-	0.18	U	0.41	0.68	U	0.7	0.0	U	0.12		
31-Jan-12	Total	<20	U	4.9	1.72	0.65	1.4	1.3	-	-	-	-	-	-	-	-	-1.34	3.73	-	-	-	-	-	-	-	-		
31-Jan-12	Total - Dupo	0.07	U	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
31-Jan-12	Filtered	<20	U	2.4	1.59	0.46	1.76	0.99	-	-	-	-	-	-	-	-	3.65	3.52	-	-	-	-	-	-	-	-		
Cell IV																												
13-May-10	Total	-	-	0.7	J	0.22	0.74	J	0.42	0.73	J	0.28	0.042	U	0.09	0.46	J	0.22	-	-0.008	U	0.07	0.081	J	0.09	0.0	U	0.02
31-Jan-12	Total	1.1	U	7.2	2.43	0.69	1.8	U	1.5	-	-	-	-	-	-	-	1.65	3.03	-	-	-	-	-	-	-	-		
31-Jan-12	Filtered	2.8	U	6.0	1.80	0.48	1.91	0.94	-	-	-	-	-	-	-	-	-1.44	3.43	-	-	-	-	-	-	-	-		
Leachate Lagoon																												
31-Jan-12	Total	1	U	6.0	0.74	0.21	0.39	U	0.46	-	-	-	-	-	-	-	1.34	3.08	-	-	-	-	-	-	-	-		
31-Jan-12	Total - Dupo	-	-	0.59	0.2	0.73	U	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
31-Jan-12	Filtered	-1.6	U	7.0	0.39	0.76	0.77	0.5	-	-	-	-	-	-	-	-	2.75	3.47	-	-	-	-	-	-	-	-		
Notes:		Qual. = Qualifier U = Result is less than detection limit J = Lab estimated result B = Lab estimated result; result is less than reporting limit Total Uncert. = Total uncertainty (2 σ +/-)																										