NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 3/SOLID WASTE PROGRAM
ANNUAL POST-CLOSURE MONITORING & MAINTENANCE REPORT FOR LANDFILLS

This report form provides a standard format for owners of closed municipal solid waste landfills to report to the Department regarding post-closure monitoring and maintenance activities which have occurred during the past year. Use of this form will ensure that information needed by the operator and Department staff is readily available. Reporting of non-essential information is avoided. By completing and submitting this form on an annual basis, all reporting requirements connected with the closed landfill are satisfied and there is no need to submit any additional reports or paperwork. This form should be submitted once per year on a schedule which coincides with completion of the annual or fourth quarter groundwater monitoring event.

SECTION A - FACILITY DATA

1. REPORTING PERIOD (mm/dd/yy to mm/dd/yy): 01/01/17 - 12/31/17

2. OWNER OF LANDFILL: County of Dutchess

3. ADDRESS OF LANDFILL: Citation Rd/ Dutchess County Airport
Wappinger, NY 12590

4. LOCATION OF LANDFILL: County: Dutchess Municipality: Town of Wappinger

5. CONTACT PERSON: Name: Joseph Stankavage, P.E. Address: 626 Dutchess Tpk.
Phone: 845-486-2935 Poughkeepsie, NY 12603

6. SIZE OF LANDFILL (Acres): 6.8

7. PERIOD OF OPERATION (Yr to Yr): 1976 - 1977

8. DATE OF COMPLETION OF CLOSURE CONSTRUCTION (mm/yy): 11/10

9. TYPE OF LANDFILL CAP (check one): X Geomembrane ____ Clay ____ Composite
____ Other - Specify _____

10. LANDFILL GAS MANAGEMENT (Check all that apply): X Passive Venting ____ Flares
____ Gas Filter ____ Gas Collection ____ Power Generation ____Other- Specify _____

11. LEACHATE MANAGEMENT: Does the landfill have a leachate collection system ? __ Y X N

12. DATE OF CLOSURE CERTIFICATION (mm/dd/yy): 11/30/2011

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13. NAME OF CERTIFYING ENGINEER: Joseph Stankavage, P.E. DCDPW

14. GRANTED REGULATORY RELIEF VARIANCES (Check all that apply): ___Topsoil Layer ___Barrier Layer ___Barrier Protection Layer ____Gas Vent Layer I ___Gas Vent Layer II ___Post Closure Monitoring I ___Post Closure Monitoring II

15. DATE OF LAST MOWING OF VEGETATIVE COVER: November 2017

SECTION B - LANDFILL INSPECTION

1. DATE OF LAST INSPECTION (mm/dd/yy): 11/28/17

2. NAME(S) OF INSPECTOR(S): Joseph E. Stankavage, P.E. (DCDPW)

3. Was entire landfill surface and entire landfill perimeter inspected ? X Y __ N; If no, describe extent of inspection:

_____
_____

4. Was the entire landfill surface covered with suitable vegetation (e.g. shallow rooting) and free of soil erosion ? X Y ___ N; If no, identify problems identified and corrective actions taken or planned:

_____
_____
_____

5. Were active leachate discharges, iron-stained surface soils or other signs of leachate breakouts noted ?___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

_____
_____
_____

6. Were areas of surface water ponding observed on the landfill surface ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned: Separate from balefill leached "breakouts", DCDPW monitors an iron stained discharge along the banks of the Wappinger Creek that was remediated by closure construction. The magnitude of this discharge appears to be dissipating and often curtails during certain seasonal periods.

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7. Were odors detected on or in the vicinity of the landfill ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

8. Were vectors or evidence of vectors observed ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

9. Was damage to the landfill cover system, gas vents, monitoring wells, leachate collection system or other landfill components observed ? __ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

10. Were there signs of dumping, ruts caused by vehicle tires, camp fires, or other signs of unauthorized public access or encroachment ? ___ Y X N; If yes, describe the nature of the problem and corrective actions taken or planned:

Wheel ruts noted in first quarter inspection were a result of maintenance/mowing vehicles. Ruts were repaired later in the spring.

11. Were any other problems noted in addition to those identified in items 4 through 10, above ? X Y __ N; If yes, describe the nature of the problem and corrective actions taken or planned:

Woody vegetation growing at access road culvert pipe outlet was cut and removed.

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SECTION C - WATER QUALITY MONITORING

1. CURRENT WATER QUALITY MONITORING PROGRAM (Check One):

__X__ Quarterly Routine/Annual Baseline _____ Semi-Annual Baseline _____ Annual Baseline
_____ Other - Specify:_____

2. DATE OF MOST RECENT WATER QUALITY SAMPLING EVENT (mm/dd/yy): __11/28/17____

3. INDICATE EACH SAMPLING EVENT COMPLETED DURING PAST YEAR AND ATTACH THE *DATA SUMMARY SHEETS* FOR EACH SAMPLING EVENT:

__X__ 1st Quarter __X__ 2nd Quarter __X__ 3rd Quarter __X__ 4th Quarter

4. LIST AND DESCRIBE THE WATER QUALITY MONITORING POINTS INCLUDED IN THE PROGRAM BY COMPLETING THE TABLE BELOW:

ID Number	Description: Indicate whether the monitoring point is for groundwater or surface water, upgradient or downgradient, completed in overburden or bedrock, and, if part of a well couplet, shallow or deep
MW-2	Downgradient overburden groundwater
MW-3S	Downgradient overburden groundwater

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5. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable water quality standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

SEE BALEFILL SUMMARY TABLE

Sample Date	Sampling Point	Parameter	Units	Sample Result	Applicable Standard	Upgradient Results

6. Do results of the most recent water quality monitoring event indicate an improvement or a worsening in water quality when compared with those of previous water quality monitoring events ? ___ Y __X__ N; If yes, describe change, attach graphs or tables if appropriate.

This data represents the sixth year of quarterly post-closure monitoring. The attached data indicates some increases and some decreases in characteristic leachate parameters.

Balefill Summary Table						
Sampling Date	Sampling Point	Parameter	Units	Sample Result	Applicable Standard	Upgradient Results
3/30/2017	MW-2	Iron	mg/L	50.8	0.300	NA
3/30/2017	MW-2	Manganese	mg/L	15.7	0.300	NA
3/30/2017	MW-2	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA
3/30/2017	MW-3S	Iron	mg/L	74.2	0.300	NA
3/30/2017	MW-3S	Magnesium	mg/L	35.9	35.000	NA
3/30/2017	MW-3S	Manganese	mg/L	17	0.300	NA
3/30/2017	MW-3S	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA
6/27/2017	MW-2	Iron	mg/L	48.9	0.300	NA
6/27/2017	MW-2	Manganese	mg/L	15.7	0.300	NA
6/27/2017	MW-2	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA
6/27/2017	MW-2	1,1,2-Trichloroethane	ug/L	ND at <1	1.000	NA
6/27/2017	MW-2	1,2,3-Trichloropropane	ug/L	ND at <1	0.040	NA
6/27/2017	MW-2	1,2-Dibromo-3-chloropropane	ug/L	ND at <1	0.040	NA
6/27/2017	MW-2	cis-1,3-Dichloropropene	ug/L	ND at <1	0.400	NA
6/27/2017	MW-2	trans-1,3-Dichloropropene	ug/L	ND at <1	0.400	NA
6/27/2017	MW-2	Boron	mg/L	ND at <0.05	1.000	NA
6/27/2017	MW-2	Antimony	mg/L	ND at <0.06	0.005	NA
6/27/2017	MW-2	Cobalt	mg/L	ND at < 0.05	0.005	NA
6/27/2017	MW-2	Selenium	mg/L	ND at <0.01	0.010	NA
6/27/2017	MW-2	Ammonia (As N)	mg/L	0.64	2.000	NA
6/27/2017	MW-3S	Iron	mg/L	38.6	0.300	NA
6/27/2017	MW-3S	Magnesium	mg/L	56.3	35.000	NA
6/27/2017	MW-3S	Manganese	mg/L	3.92	0.300	NA
6/27/2017	MW-3S	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA
6/27/2017	MW-3S	1,1,2-Trichloroethane	ug/L	ND at <1	1.000	NA
6/27/2017	MW-3S	1,2,3-Trichloropropane	ug/L	ND at <1	0.040	NA
6/27/2017	MW-3S	1,2-Dibromo-3-chloropropane	ug/L	ND at <1	0.040	NA
6/27/2017	MW-3S	cis-1,3-Dichloropropene	ug/L	ND at <1	0.400	NA
6/27/2017	MW-3S	trans-1,3-Dichloropropene	ug/L	ND at <1	0.400	NA
6/27/2017	MW-3S	Boron	mg/L	0.177	1.000	NA
6/27/2017	MW-3S	Antimony	mg/L	ND at < .06	0.005	NA
6/27/2017	MW-3S	Cobalt	mg/L	ND at <0.05	0.005	NA
6/27/2017	MW-3S	Selenium	mg/L	ND at <0.01	0.010	NA
6/27/2017	MW-3S	Ammonia	mg/L	0.8	2.000	NA
8/31/2017	MW-2	Iron	mg/L	50.6	0.300	NA
8/31/2017	MW-2	Manganese	mg/L	14.7	0.300	NA
8/31/2017	MW-2	Total Recoverable Phenols	mg/L	0.0051	0.001	NA
8/31/2017	MW-3S	Iron	mg/L	37.9	0.300	NA
8/31/2017	MW-3S	Magnesium	mg/L	58	35.000	NA
8/31/2017	MW-3S	Manganese	mg/L	3.79	0.300	NA
8/31/2017	MW-3S	Total Recoverable Phenols	mg/L	0.0051	0.001	NA
11/28/2017	MW-2	Iron	mg/L	56.6	0.300	NA
11/28/2017	MW-2	Manganese	mg/L	ND at <0.01	0.300	NA
11/28/2017	MW-2	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA
11/28/2017	MW-3S	Iron	mg/L	78.1	0.300	NA
11/28/2017	MW-3S	Magnesium	mg/L	45.5	35.000	NA
11/28/2017	MW-3S	Manganese	mg/L	3.86	0.300	NA
11/28/2017	MW-3S	Total Recoverable Phenols	mg/L	ND at <0.005	0.001	NA

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SECTION D - IMPACTED OR POTENTIALLY IMPACTED RESIDENTIAL WATER SUPPLY WELLS

1. Are there residences served by private water supply wells located less than one mile from the landfill in the downgradient direction and not separated from the landfill by an intervening perennial stream or other groundwater discharge zone ? __Y _X_N;

If yes, provide the information requested in items 2 through 5, below.

2. Indicate the distance between the downgradient edge of the landfill and the nearest residential water supply well, in feet: _____

3. Have residential wells been sampled to determine whether there has been landfill-water quality impact ? ___Y ___N; If yes, provide the following information:

Date of most recent sampling event (mm/dd/yy): _____ Number of wells tested: _____

Samples collected by: _____ Was the County Health Department notified __Y __N

Parameters tested: _____

4. Using the following table, summarize each parameter detected during the reporting period, at a downgradient monitoring point, at a concentration exceeding the applicable drinking water standard. (Include parameters which are undetected, if detection limit exceeds the standard.)

Sample Date	Homeowner Name or Well ID	Parameter	Units	Sample Result	Applicable Standard

5. Explain cause of parameters exceeding standards, and if due to landfill-derived contamination, indicate what actions have been taken or are planned to mitigate water quality impact.

_____

_____

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SECTION E - GAS MONITORING

1. Is landfill gas monitoring carried out at the landfill ? _X_ Y __N; If yes, provide the following information:

Type of monitoring (Check all that are applicable):
___ Landfill perimeter survey using temporary boreholes
___ Landfill perimeter survey using permanent gas monitoring wells
_X_ Landfill gas vents within waste mass (as well as inspection for blockage)
___ Interior survey of on-site and nearby structures
_X_ Landfill final cover areas where stressed vegetation and/or fissures are evident
___ Continuous automatic monitoring devices installed in buildings
_X_ Other - Specify: _____

Frequency of Monitoring: X Quarterly __Semi-annual __Annual __Other- Specify_____

Date of Most Recent Monitoring Event (mm/dd.yy):__11/28/17___ (Attach data sheet and site plan showing sampling locations)

2. Have any explosive gas readings exceeding 25% of the lower explosive limit been detected during sampling events carried out during the past year ? __Y XN; If yes, indicate whether the readings indicate a potential threat to public safety, what actions have been taken or are planned to mitigate potential safety concerns or the rationale for why corrective action is not needed.

Odors commonly encountered at gas vents were generally not encountered during inspections. This condition was first noted during a 4th quarter 2012 inspection (12/05/2012) and, considering the waste mass age and MSW facility history, appears indicative of waste mass dessication and/or complete decomposition of organics as might be expected.

SECTION F - CERTIFICATION OF ACCURACY

I certify that the information provided in this form is accurate and complete, to the best of my knowledge. I understand, that knowingly providing false information, may be grounds for enforcement action.

Joseph E. Stankavage, P.E.	Assistant Civil Engineer II
Name	Title
Joseph E. Stankavage	12/28/2017
Signature	Date

Airport Balefill Landfill, Dutchess County, Well Location ID MW-1S																								
	Alkalinity		Ammonia		Arsenic		Chloride	COD		Hardness	Iron		Manganese		Phenols		TDS	Total VOCs						
SGVs:	*NS*		*2.000*		*0.010*		*250*	*NS*		*NS*	*0.300*		*0.300*		*0.001*		*500.00*	*0.005*						
Nov-05	765		0.270		0.004	u	69.2	18		597	**0.451**		**0.492**		0.050	u	**782.00**							
Feb-06	286		0.050	u			3.49	10	u	329	0.207		0.195		0.050	u	358.00							
May-06	111		0.220				0.6	10	u	57.5	0.073		0.005	u	0.050	u	143.00							
Mar-12	280		0.520				2.47	120		375	**1.680**		**0.303**		0.050	u	348.00							
Jun-12	370		0.080		**0.025**		2.85	160		718	0.010	u	**0.726**		0.050	u	418.00							
Oct-12	420		0.0675				2.69	730		1080	0.017		**0.385**		0.050	u	438.00							
Dec-12	530		0.084				2.6	430		880	0.020	u	**0.453**		0.050	u	451.00							
May-13																								
Jul-13	280		0.050	u			14.8	53		163	**53.300**		**12.000**		0.050	u	294.00							
Sep-13	320		0.050	u			2.64	16		356	**0.998**		**29.600**		**0.070**		464.00							
Dec-13	310		0.050	u	0.004	u	2.52	15		345	**0.347**		**0.384**		**0.080**		396.00							
NEW																								
Summary Statistics																								
Number	10	0	10	4	3	2	10	10	2	10	10	2	10	1	10	8	10	0	0					
10th Prcntl	263		0.05		0.00		2.28	10.00		152	0.02		0.18		0.05		278.90	#NUM!						
Median	315		0.07		0.00		2.67	35.50		366	0.28		0.42		0.05		407.00	#NUM!						
90th Prcntl	554		0.30		0.02		20.24	460.00		900	6.84		13.76		0.07		495.80	#NUM!						
Minimum	111		0.05		0.00		0.60	10.00		58	0.01		0.01		0.05		143.00	0.00						
Maximum	765		0.52		0.03		69.20	730.00		1080	53.30		29.60		0.08		782.00	0.00						
Mean	367		0.14		0.01		10.39	156.20		490	5.71		4.45		0.06		409.20	#DIV/0!						
Std Dev	177		0.15		0.01		21.04	239.82		322	16.73		9.56		0.01		161.70	#DIV/0!						
Mean + 3	897		1		0		73	876		1457	56		33		0		894	#DIV/0!						

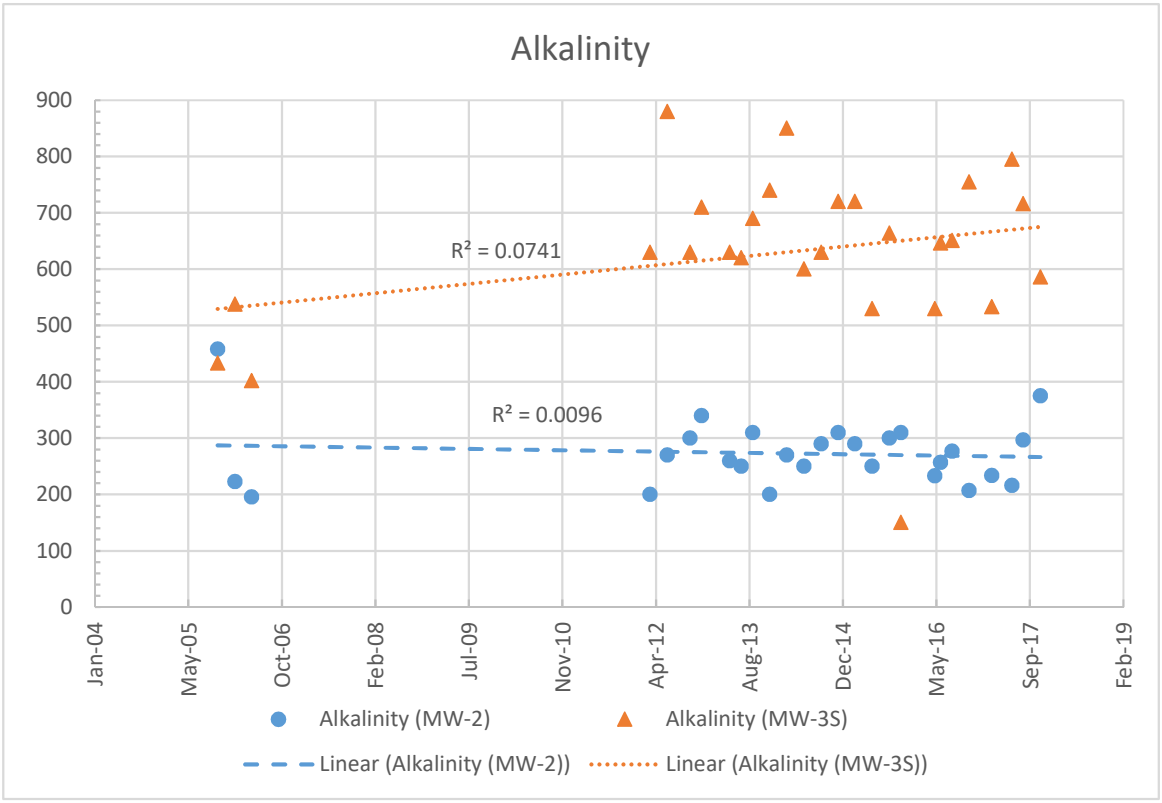
Notes: 1. All data expressed in mg/L. 2. Non-detects are shown as values corresponding to the lab reporting limit followed by the "u" data qualifier. 3. Values exceeding applicable groundwater quality standards (SGVs) are highlighted.

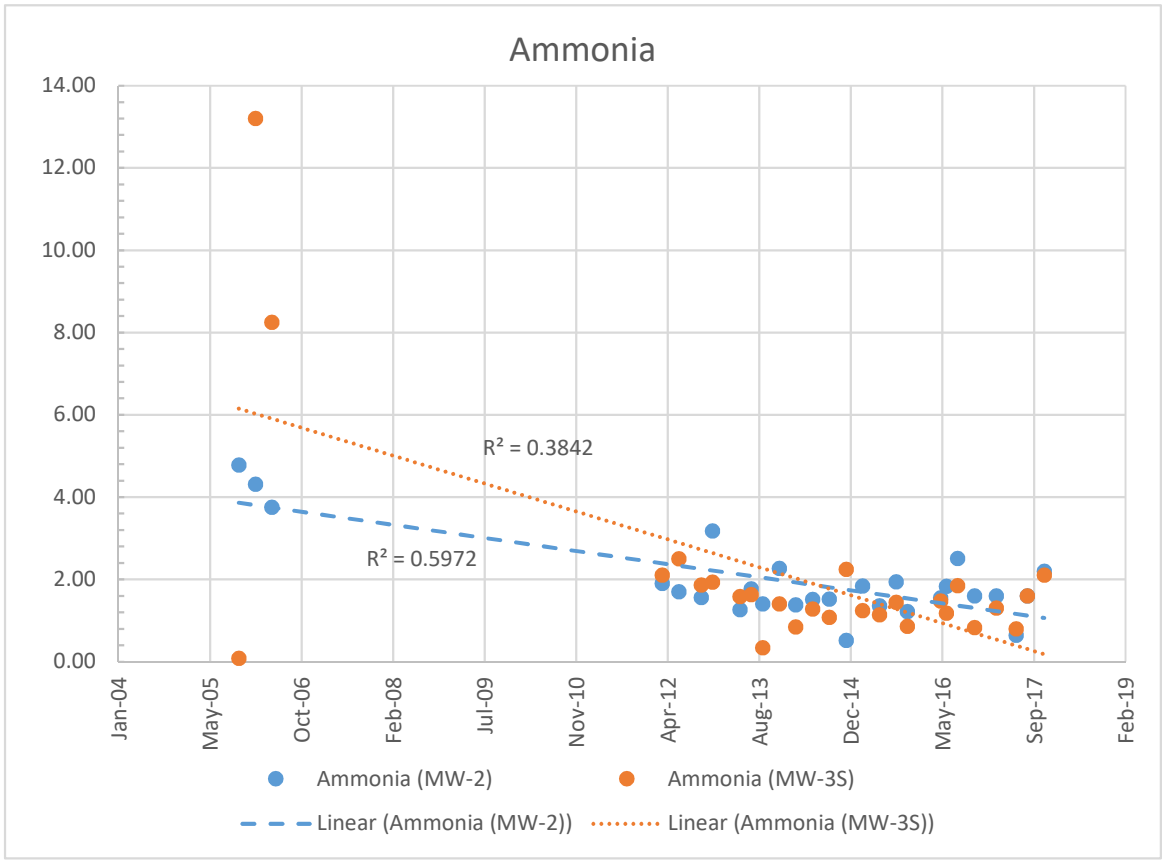
Airport Balefill Landfill, Dutchess County, Well Location ID MW-2																								
	Alkalinity (MW		Ammonia (MW		Arsenic (MW-		Chloride (M		COD (MW-2)		Hardness		Iron (MW-2)		Manganese (M		Phenols (MW		TDS (MW-		Total VOCs			
SGVs:	*NS*		*2.000*		*0.010*		*250*		*NS*		*NS*		*0.300*		*0.300*		*0.001*		*500.00*		*0.005*			
Nov-05	458		**4.780**		0.004	u	28.8		54.2		215		**15.300**		**12.300**		**0.190**		284.00					
Feb-06	223		**4.310**				13.8		20.6		164		**15.700**		**13.000**		0.050	u	228.00					
May-06	196		**3.750**				17.2		162		203		**21.600**		**13.400**		0.050	u	232.00					
Mar-12	200		1.900				10.8		50		170		**47.800**		**11.400**		0.050	u	237.00					
Jun-12	270		1.700		0.010	u	10.5		10	u	172		**47.100**		**12.900**		0.050	u	306.00					
Oct-12	300		1.560				2.39		20		286		**26.300**		**10.200**		0.050	u	379.00					
Dec-12	340		**3.180**				12.1		35		220		**65.400**		**15.500**		0.050	u	424.00					
May-13	260		1.260				10.7		46		153		**48.000**		**11.800**		0.050	u	369.00					
Jul-13	250		1.770				15.9		74		163		**53.100**		**12.000**		0.050	u	273.00					
Sep-13	310		1.400				15.1		58		173		54.400		**12.800**		**0.060**		365.00					
Dec-13	200		**2.270**		0.004	u	5.61		36		140		**49.700**		**11.000**		**0.060**		192.00					
Mar-14	270		1.380				17.8		14		149		**48.500**		**12.100**		0.050	u	255.00					
Jun-14	250		1.510				14.8		28		137		**45.900**		**9.720**		0.050	u	261.00					
Sep-14	290		1.520		0.004	u	20.2		27		161		**51.100**		**12.500**		0.050	u	342.00					
Dec-14	310		0.520				0.634		41		242		**15.200**		**5.230**		0.050	u	300.00					
Mar-15	290		1.840				21.7		47		167		**55.400**		**14.200**		0.050	u	344.00					
Jun-15	250		1.360		0.015	B	18.8		61		153		**49.500**		**13.300**		0.050	u	287.00					
Sep-15	300		1.940				25.2		63		169		**53.200**		**14.000**		0.050	u	342.00					
Nov-15	310		1.220				2.12		53		224		**47.700**		**10.500**		0.050	u	362.00					
May-16	233		1.550		0.010	c	2		10.1		170		**62.200**		**17.000**		**0.005**		282.00					
Jun-16	257		1.830				29.7		33.2		180		**58.600**		**16.200**		0.005	u	309.00					
Aug-16	277		**2.510**				24.3		25.4		204		**52.500**		**15.700**		**0.006**		258.00					
Nov-16	207		1.600				4.5		52.5		161		**28.600**		**8.030**		0.005	u	187.00					
Mar-17	234		1.600				26.7		48.4		162		**50.800**		**15.700**		0.005	u	283.00					
Jun-17	216		0.640		0.010		30.5		33.8		109		**48.900**		**15.700**		0.005	u	263.00					
Aug-17	297		1.600				31.9		35.9		169		**50.600**		**14.700**		**0.005**		294.00					
Nov-17	375		**2.200**				23.2		53.7		214		**56.600**		10.000	u	0.005	u	332.00					
NEW																								
Summary Statistics																								
Number	27	0	27	0	7	4	27		27	1	27		27	0	27	1	27	#	27		0	0		
10th Prcntl	204		1.24		0.004		2.28		17.60		145		19.24		9.89		0.01		230.40		#NUM!			
Median	270		1.60		0.010		15.90		41.00		169		49.50		12.80		0.05		287.00		#NUM!			
90th Prcntl	322		3.41		0.012		29.16		61.80		222		57.40		15.70		0.05		366.60		#NUM!			
Minimum	196		0.52		0.004		0.63		10.00		109		15.20		5.23		0.01		187.00		0.00			
Maximum	458		4.78		0.015		31.90		162.00		286		65.40		17.00		0.19		424.00		0.00			
Mean	273		1.95		0.008		16.18		44.18		179		45.17		12.63		0.043		295.93		#DIV/0!			
Std Dev	58		0.99		0.004		9.52		28.92		37		14.43		2.67		0.036		57.94		#DIV/0!			
Mean + 3	447		5		0		45		131		289		88		21		0		470		#DIV/0!			

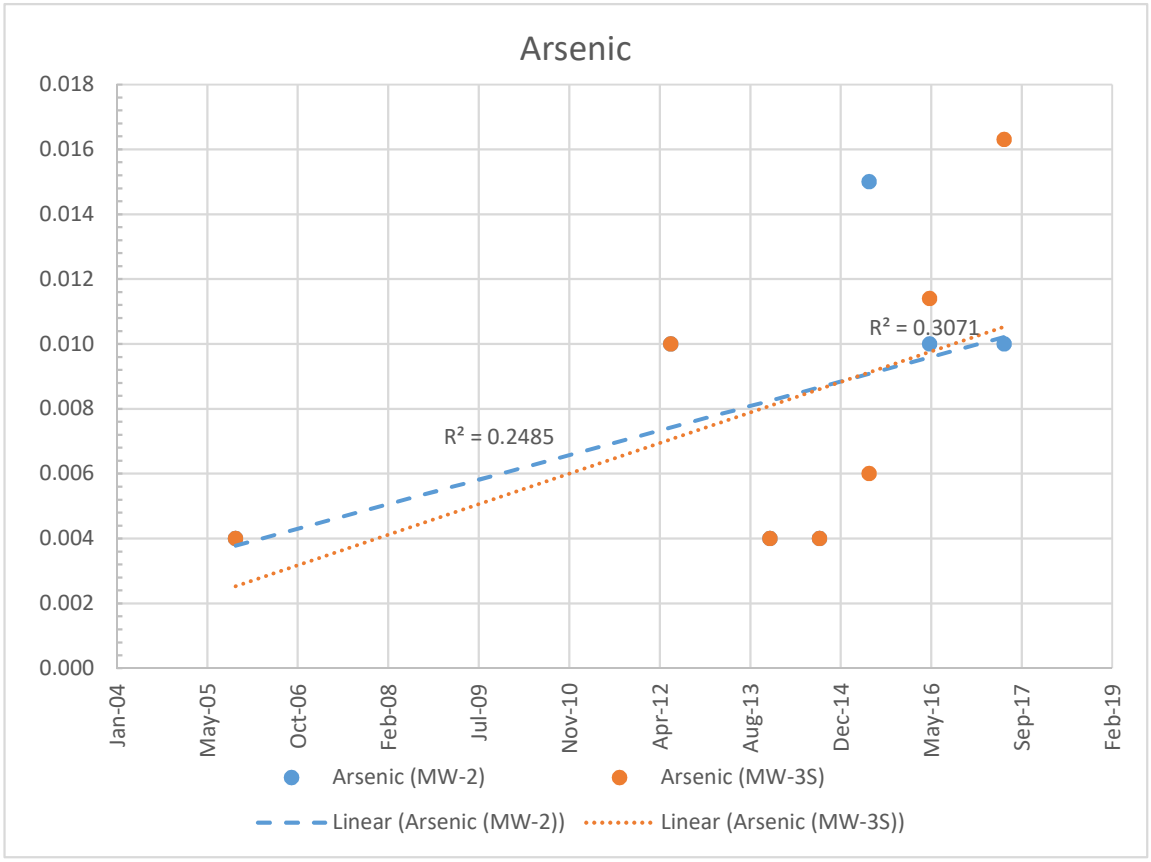
Notes: 1. All data expressed in mg/L. 2. Non-detects are shown as values corresponding to the lab reporting limit followed by the "u" data qualifier. 3. Values exceeding applicable groundwater quality standards (SGVs) are highlighted.

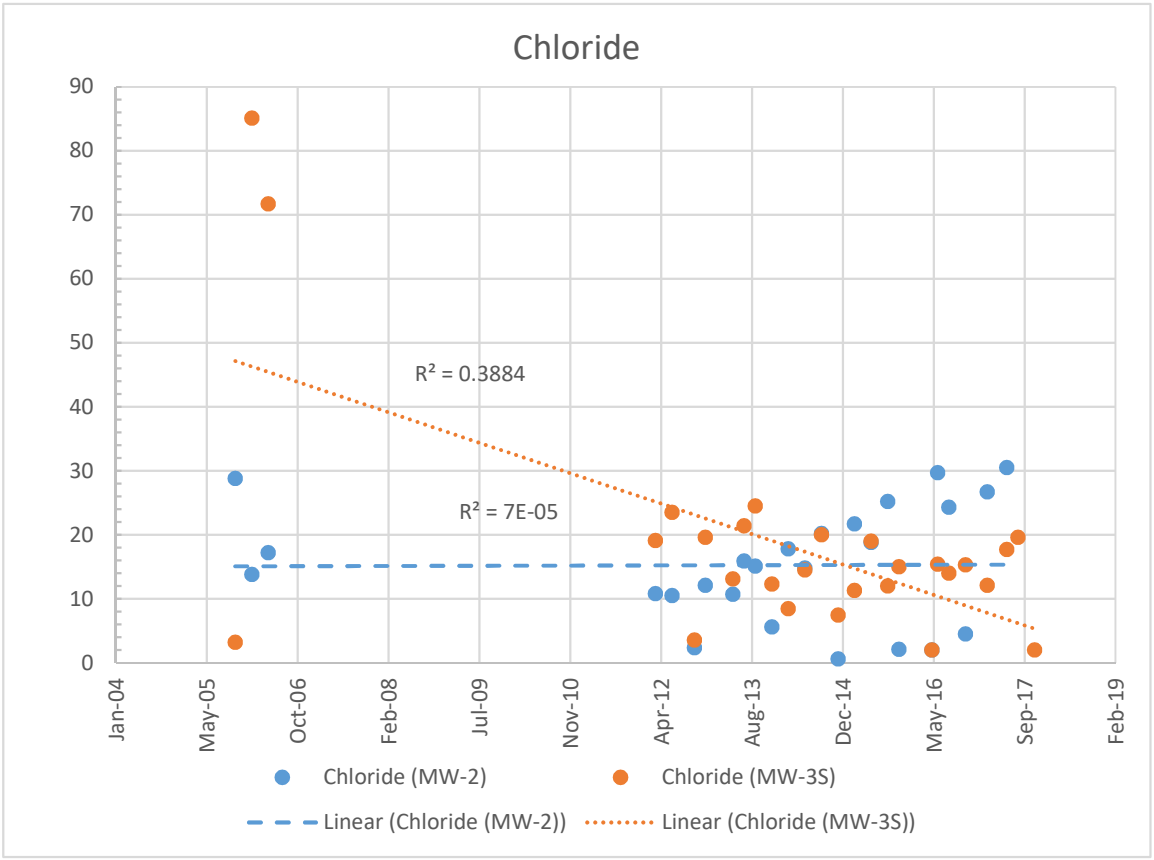
Airport Balefill Landfill, Dutchess County, Well Location ID MW-3S																									
	Alkalinity (MW		Ammonia (MW		Arsenic (MW-		Chloride (M		COD (MW-3S)		Hardness		Iron (MW-3S)		Manganese (M		Phenols (MW		TDS (MW-3		Total VOCs				
SGVs:	*NS*		*2.000*		*0.010*		*250*		*NS*		*NS*		*0.300*		*0.300*		*0.001*		*500.00*		*0.005*				
Nov-05	433		0.080		0.004	u	3.21		10	u	320		**0.448**		0.241		**0.050**	u	316.00						
Feb-06	538		**13.200**				85.1		36.1		597		0.227		**1.680**		0.050	u	**777.00**						
May-06	402		**8.250**				71.7		32.5		549		**0.365**		**1.570**		0.050	u	**684.00**						
Mar-12	630		**2.100**				19.1		91		692		**1.540**		**21.500**		0.050	u	**826.00**						
Jun-12	880		**2.500**		0.010	u	23.5		10	u	842		**2.480**		**17.600**		0.050	u	**948.00**						
Oct-12	630		1.860				3.56		30		636		**26.300**		**18.600**		0.050	u	**808.00**						
Dec-12	710		1.930				19.6		72		809		**29.000**		**19.200**		0.050	u	**1040.00**						
May-13	630		1.580				13.1		72		642		**51.800**		**23.000**		0.050	u	**776.00**						
Jul-13	620		1.630				21.4		86		668		**33.100**		**11.800**		0.050	u	**899.00**						
Sep-13	690		0.340				24.5		99		700		31.400		**54.400**		**0.060**		**940.00**						
Dec-13	740		1.400		0.004	u	12.3		55		670		**46.800**		**12.700**		**0.080**		**756.00**						
Mar-14	850		0.840				8.45		66		568		**126.000**		**28.600**		0.050	u	**695.00**						
Jun-14	600		1.280				14.5		28		650		**23.200**		**7.220**		0.050	u	**1420.00**						
Sep-14	630		1.080		0.004	u	20		38		631		**31.600**		**6.880**		0.050	u	**805.00**						
Dec-14	720		**2.240**				7.45		180		582		**86.600**		**15.300**		0.050	u	**730.00**						
Mar-15	720		1.240				11.3		66		489		**118.000**		**20.600**		0.050	u	**807.00**						
Jun-15	530		1.140		0.006	B	19		77		487		**86.100**		**13.800**		0.050	u	**723.00**						
Sep-15	664		1.440				12		50		574		**36.600**		**4.880**		0.050	u	**843.00**						
Nov-15	150		0.857				15		47		708		**24.100**		**4.610**		0.050	u	**823.00**						
May-16	530		1.470		0.011	c	2		22.9		540		**106.000**		**11.900**		**0.005**		**572.00**						
Jun-16	646		1.180				15.4		22.5		650		**34.500**		**4.170**		**0.009**		**618.00**						
Aug-16	651		1.850				14		33.8		568		**46.600**		**4.080**		**0.006**		**642.00**						
Nov-16	755		0.830				15.3		42.1		718		**16.800**		**3.590**		0.005	u	**712.00**						
Mar-17	533		1.300				12.1		62.9		520		**74.200**		**17.000**		0.005	u	**614.00**						
Jun-17	795		0.800		**0.016**		17.7		27.6		449		**38.600**		**3.920**		0.005	u	**697.00**						
Aug-17	716		1.600				19.6		35.9		644		**37.900**		**3.790**		**0.005**		**702.00**						
Nov-17	586		**2.100**				2		55.8		552		**78.100**		**3.860**		0.005	u	**650.00**						
NEW																									
Summary Statistics																									
Number	27	0	27	0	7	4	27		27	2	27		27	0	27	0	27	#	27		0	0			
10th Prcntl	491		0.82		0.004		3.42		22.74		488		1.10		2.83		0.01		616.40		#NUM!				
Median	630		1.44		0.006		15.00		47.00		631		34.50		11.80		0.05		756.00		#NUM!				
90th Prcntl	771		2.34		0.013		23.90		88.00		712		94.36		22.10		0.050		943.20		#NUM!				
Minimum	150		0.08		0.004		2.00		10.00		320		0.227		0.241		0.005		316.00		0.00				
Maximum	880		13.20		0.016		85.10		180.00		842		126.00		54.40		0.08		1420.00		0.00				
Mean	629		2.08		0.008		18.62		53.67		609		44.01		12.46		0.038		771.22		#DIV/0!				
Std Dev	147		2.64		0.005		18.44		34.86		109		36.04		11.47		0.022		190.33		#DIV/0!				
Mean + 3	1070		10		0		74		158		936		152		47		0		1342		#DIV/0!				

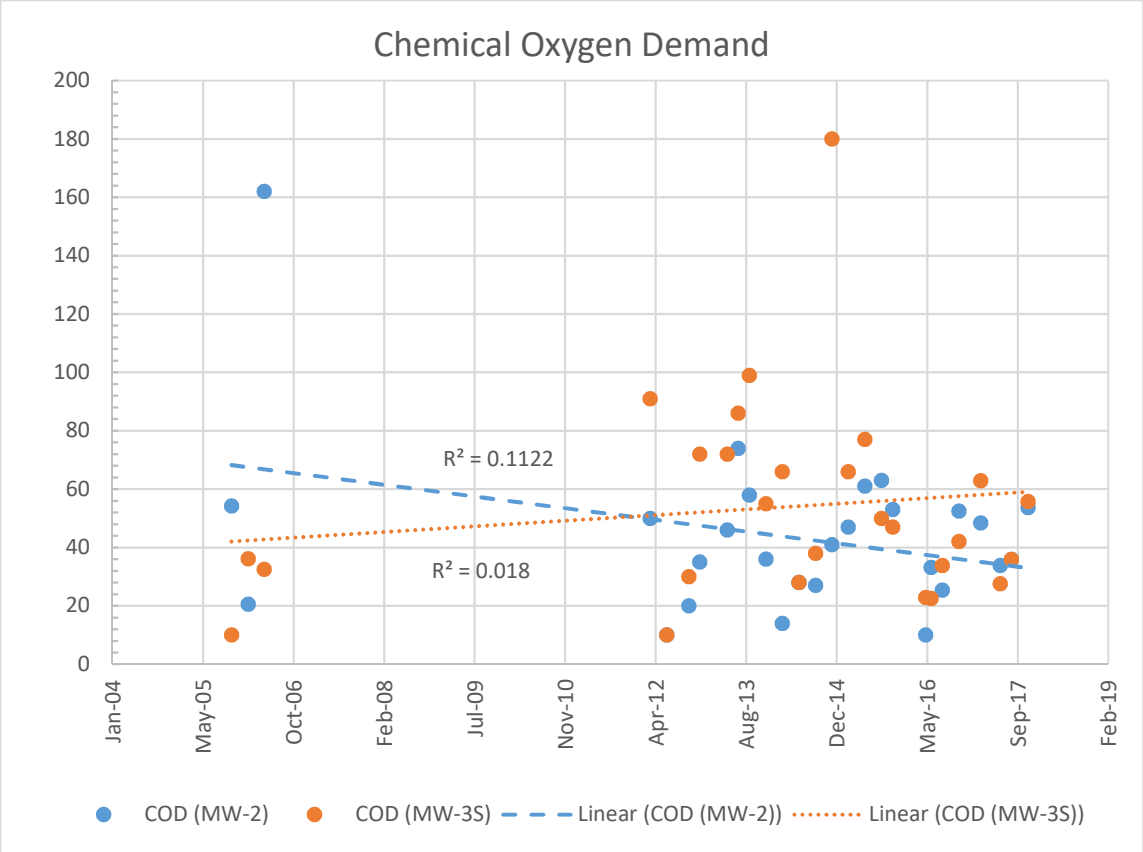
Notes: 1. All data expressed in mg/L. 2. Non-detects are shown as values corresponding to the lab reporting limit followed by the "u" data qualifier. 3. Values exceeding applicable groundwater quality standards (SGVs) are highlighted.

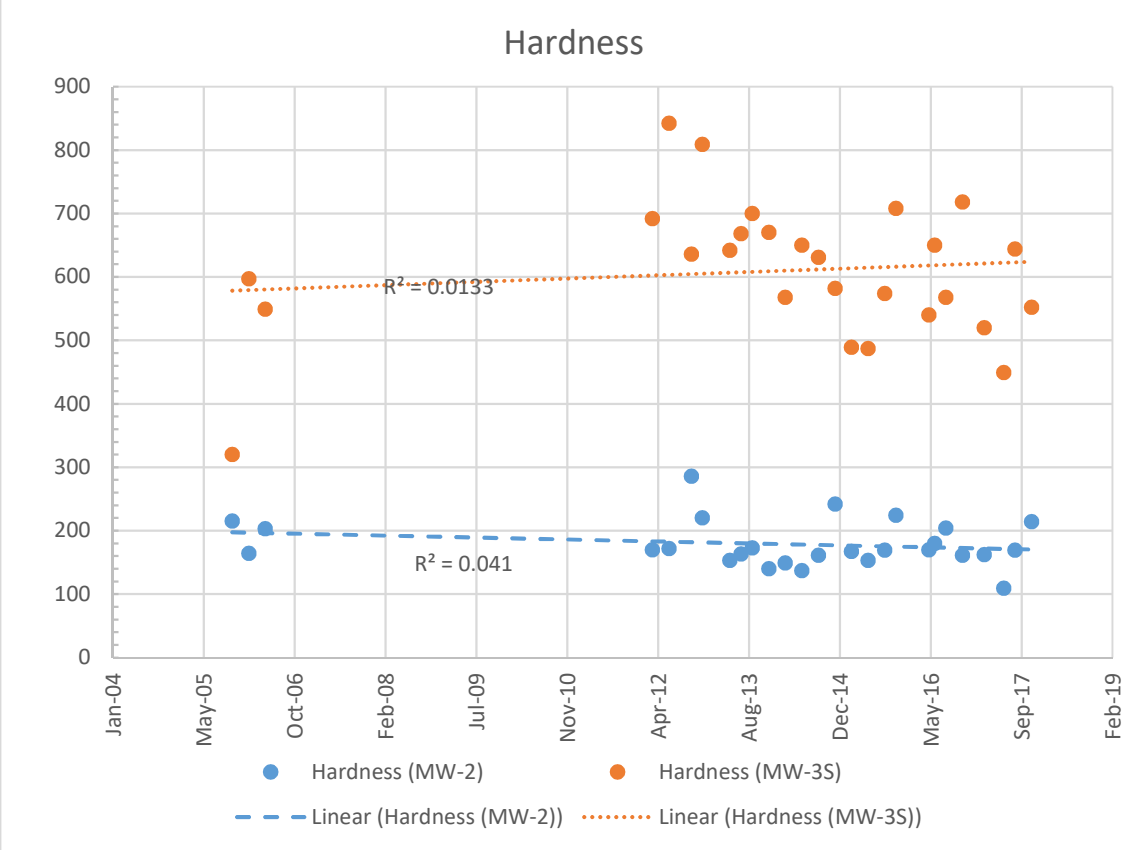

Alkalinity
900
800
700
600
500
400
300
200
100
0
R² = 0.0741
R² = 0.0096
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Alkalinity (MW-2)
Alkalinity (MW-3S)
Linear (Alkalinity (MW-2))
Linear (Alkalinity (MW-3S))

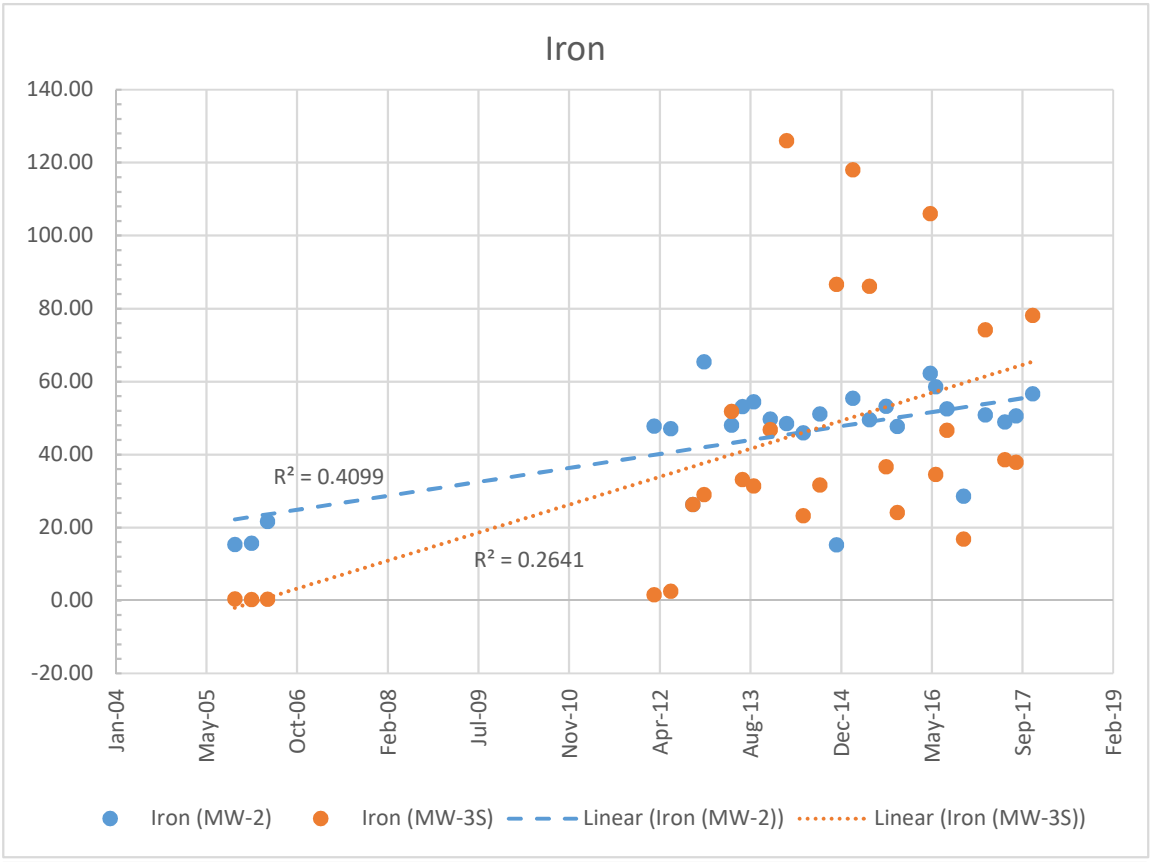

Ammonia
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
R² = 0.3842
R² = 0.5972
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Ammonia (MW-2)
Ammonia (MW-3S)
Linear (Ammonia (MW-2))
Linear (Ammonia (MW-3S))

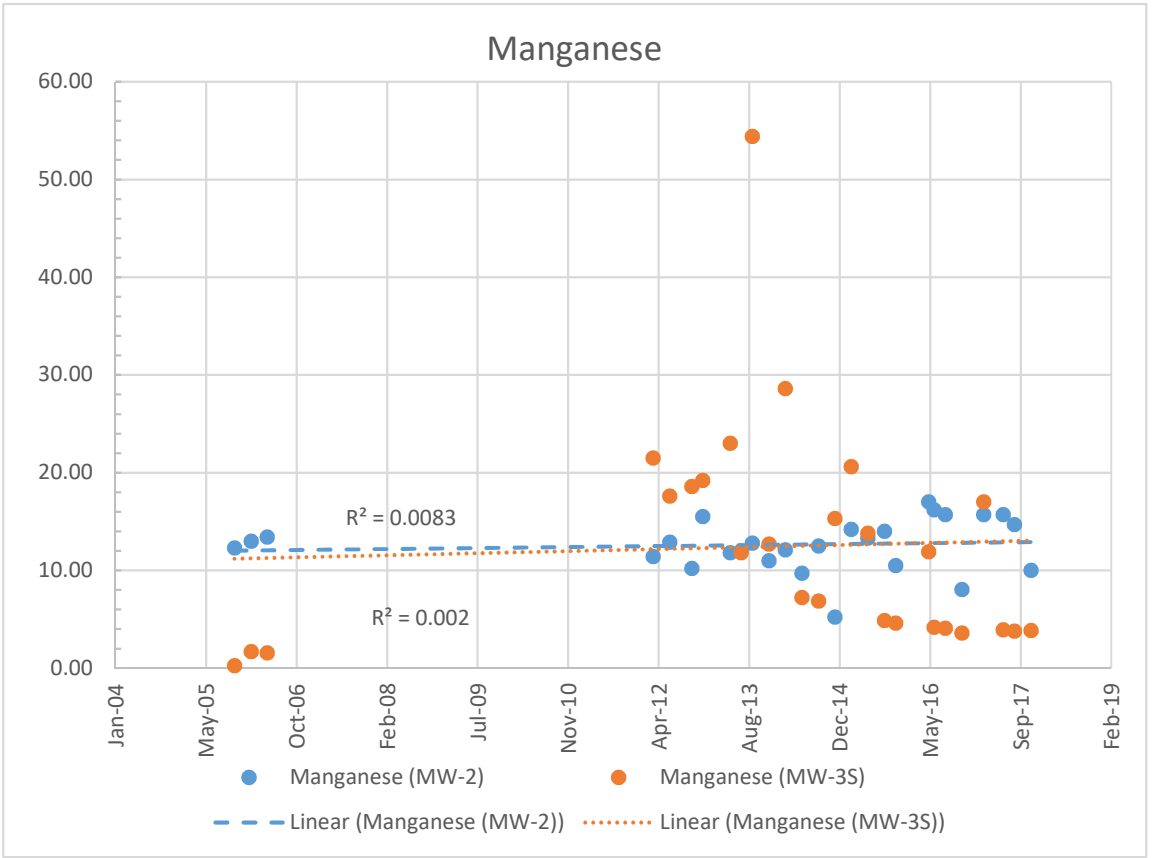

Arsenic
0.018
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
R² = 0.3071
R² = 0.2485
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Arsenic (MW-2)
Arsenic (MW-3S)
Linear (Arsenic (MW-2))
Linear (Arsenic (MW-3S))

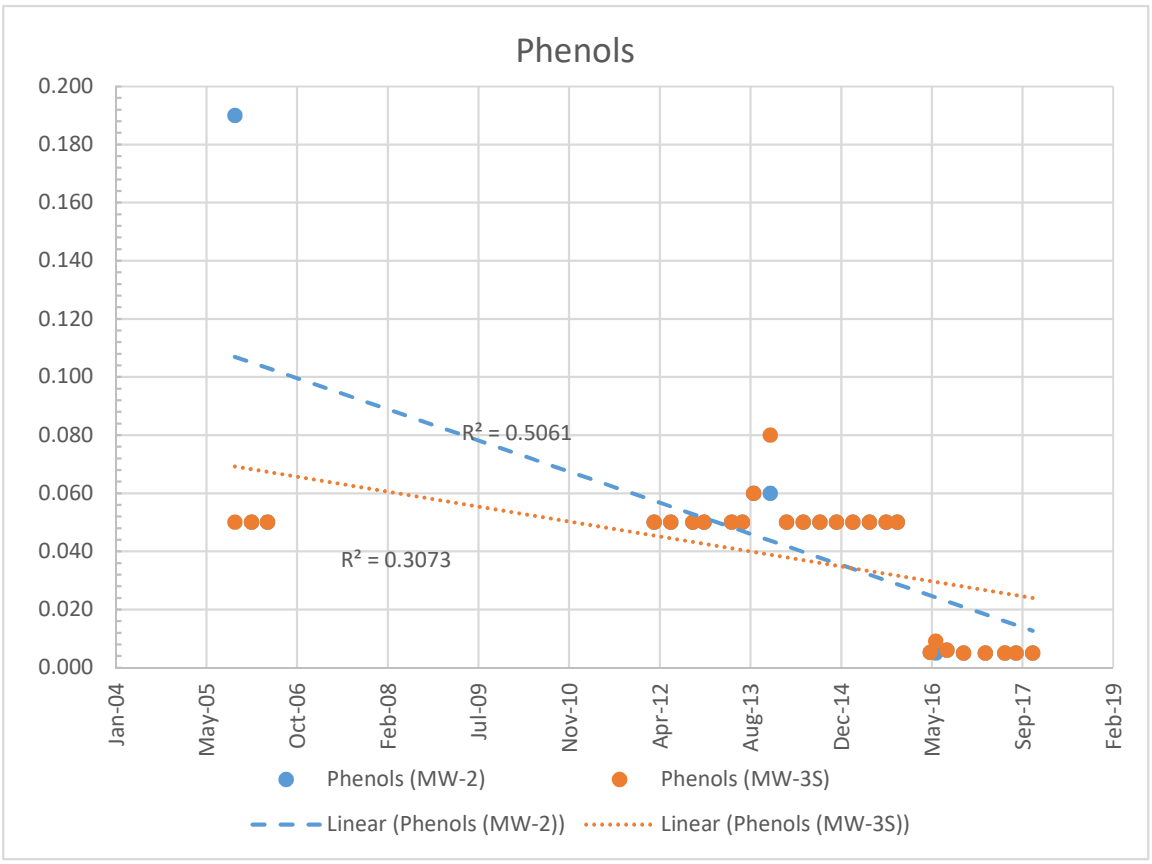

Chloride
90
80
70
60
50
40
30
20
10
0
R² = 0.3884
R² = 7E-05
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Chloride (MW-2)
Chloride (MW-3S)
Linear (Chloride (MW-2))
Linear (Chloride (MW-3S))

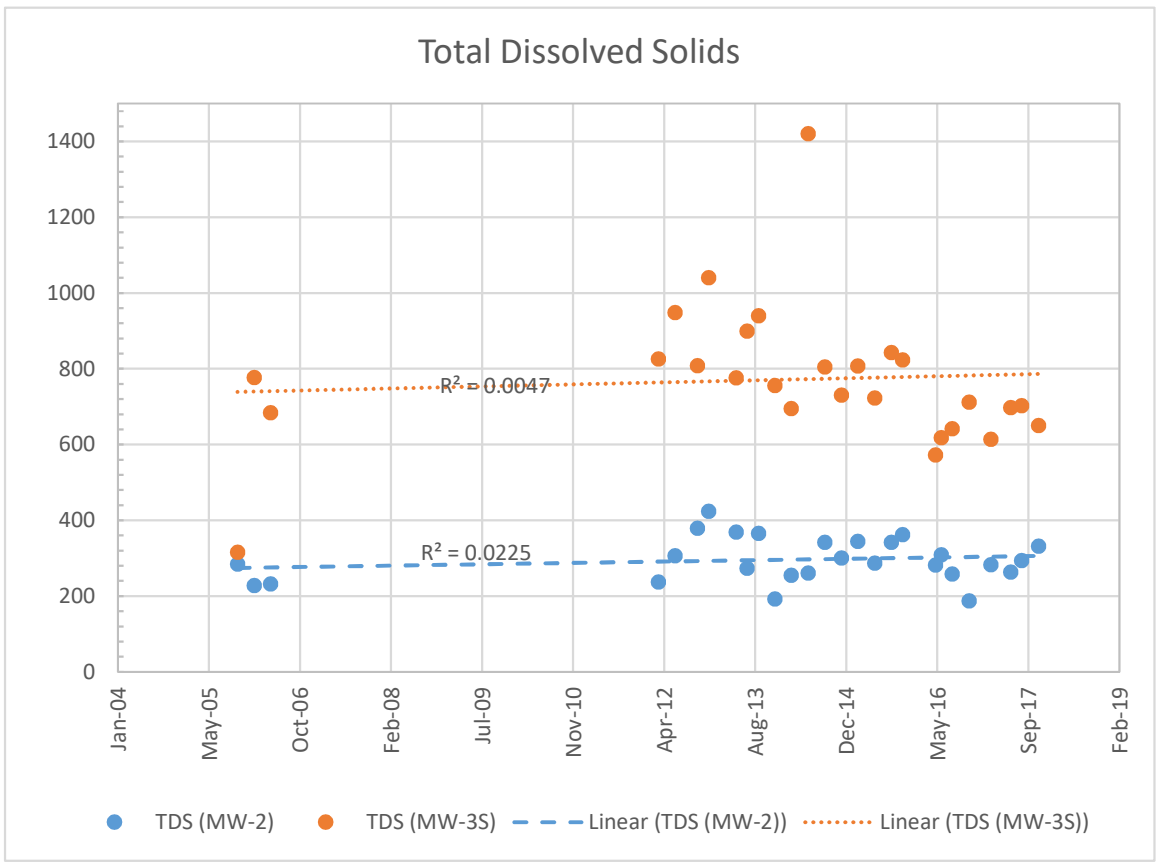

Chemical Oxygen Demand
200
180
160
140
120
100
80
60
40
20
0
R² = 0.1122
R² = 0.018
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
COD (MW-2)
COD (MW-3S)
Linear (COD (MW-2))
Linear (COD (MW-3S))

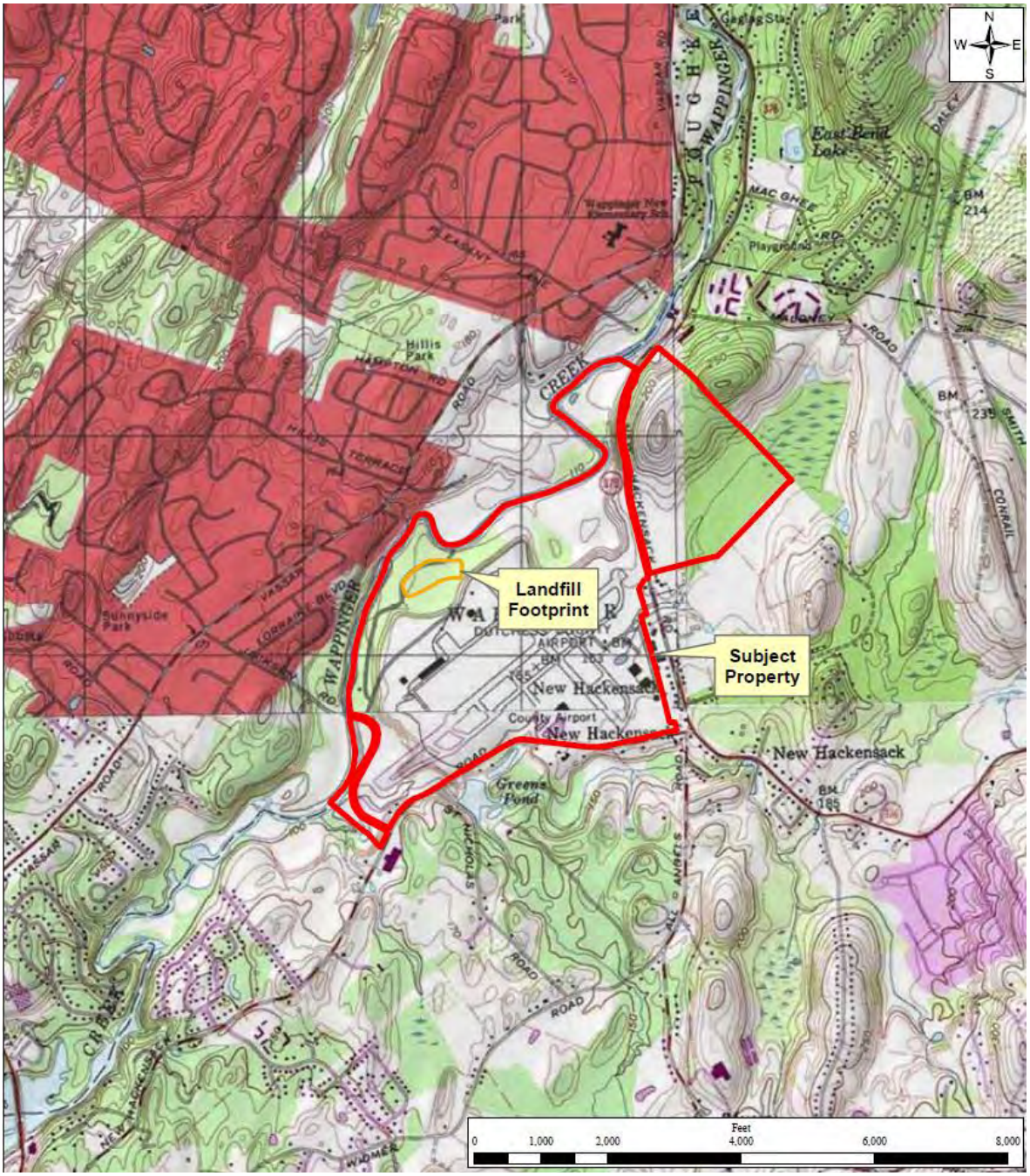

Hardness
900
800
700
600
500
400
300
200
100
0
R² = 0.0133
R² = 0.041
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Hardness (MW-2)
Hardness (MW-3S)
Linear (Hardness (MW-2))
Linear (Hardness (MW-3S))


Iron
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
-20.00
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
R² = 0.4099
R² = 0.2641
Iron (MW-2)
Iron (MW-3S)
Linear (Iron (MW-2))
Linear (Iron (MW-3S))


Manganese
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
R² = 0.0083
R² = 0.002
Manganese (MW-2)
Manganese (MW-3S)
Linear (Manganese (MW-2))
Linear (Manganese (MW-3S))

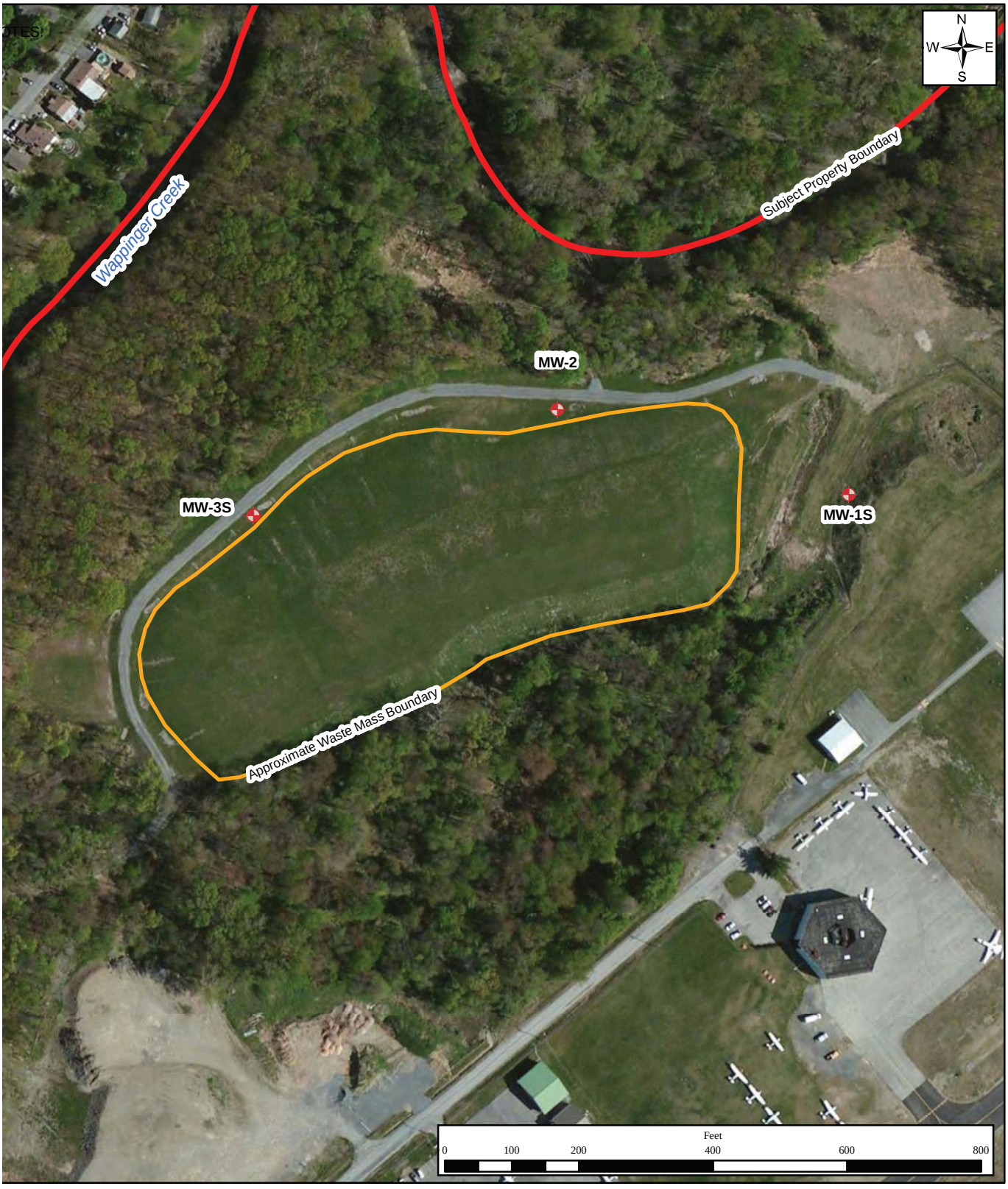

Phenols
0.200
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
R² = 0.5061
R² = 0.3073
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
Phenols (MW-2)
Phenols (MW-3S)
Linear (Phenols (MW-2))
Linear (Phenols (MW-3S))


Total Dissolved Solids
1400
1200
1000
800
600
400
200
0
R² = 0.0047
R² = 0.0225
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
Feb-19
TDS (MW-2)
TDS (MW-3S)
Linear (TDS (MW-2))
Linear (TDS (MW-3S))



Source: U.S.C.G. Topographic Map of Poughkeepsie 1995, Pleasant Valley 1957 (Photorevised 1981), Hopewell Junction1 1957 (Photorevised 1981) and Wappingers Falls, New York 1956 (Photorevised 1981)

Site Location Map Dutchess County Balefill Citation Drive Town of Wappingers Falls Dutchess County, New York	N	2017 Annual Post Closure Monitoring December 2017 Figure 1



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Monitoring Well Location Map

Dutchess County Balefill
Citation Drive
Town of Wappingers Falls
Dutchess County, New York

Legend:

monitoring well location

2017 Annual Post Closure Monitoring

December 2017

Figure 2

DUTCHESS COUNTY BALEFILL (Access off Citation Rd. at DC AIRPORT)
POST-CLOSURE MONITORING INSPECTION CHECKLIST

In addition to quarterly water quality sampling and laboratory analysis of the perimeter monitoring wells, a physical inspection of the closed Balefill facility shall be conducted quarterly. Use the following checklist to note field conditions of various elements as well as to describe corrective measures if applicable. Photographs of field conditions should be collected as a matter of record and to accompany this checklist. Photos to be inserted into folders for quarterly inspections.

Inspector's Name: J. STANKAVAGE
Date: 3/30/2017
Weather Conditions: (temp., wind, cloud cover) SUNNY, BREEZY, 45°F ±

Access roadway in good condition **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: _____

Drainage Systems are in good working order [*e.g. – drainage ditches drain freely, drainage pipes clear of debris and structurally sound.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: SOME PONDING IN DITCHES - LIKELY DUE TO RECENT RAIN AND SNOW MELT. DRAINAGE SYSTEMS ARE WORKING.

Landfill Cover System is in good condition [*e.g. – no cracks in the soil cover, no sloughing or differential settlement, no erosion, no large patches of dead vegetation, no woody vegetation becoming established on the mounded soil cover system and the grass surface has been routinely mowed.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy:
RECENT WEATHER HAS BEEN UNSEASONABLY COLD AND SNOWY. RECENT WARMING AND RAIN IN WEEK LEADING UP TO INSPECTION. ONE SMALL AREA OF EROSION THAT SHOULD BE PATCHED ON CREEK SIDE OF SLOPE. REPLACE TOPSOIL, THEN SEED & MULCH WHEN WEATHER PERMITS.

Vectors are not present [*e.g. –burrowing rodents or evidence of borrows on the landfill mound, rats, flies.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy:
_____
_____

Gas Vents show no physical damage and appear in working order [*e.g. – no structural damage to the plastic vent pipe. Vents may be passively discharging decomposition gases with a detectable smell near the vent.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy:
NO SMELLS DETECTED – PER HISTORIC REPORTS, THIS HAS BEEN THE CASE FOR 2+ YEARS.
_____

★ **Security** in good condition [*e.g. – evidence or trespass, vandalism, illegal dumping.*]
(YES: ✓ NO: __) If No, describe concerns and provide suggested remedy:
EVIDENCE OF VEHICLES DRIVING OVER LANDFILL - WHEEL TRACKS IN GRASS. UNCLEAR IF TRACKS ARE A RESULT OF MONITORING/MOWING/MAINTENANCE OR ILLEGAL TRESPASS.
Additionally the inspector shall inspect and **photograph a discolored (*orange-brown*) groundwater seep** along the Wappinger Creek from the same perspective position. (*marked on a tree with orange ribbon*)
REPLACED ORANGE RIBBON W/ NEW; TOOK PHOTOS OF SEEP; WATER FLOWING OUT OF BANK.
A contracted consultant shall collect and analyze water quality samples as well as prepare the water quality section of an annual report. County personnel shall add summarized results of quarterly field inspections and submit annual report to NYSDEC.

S:\vol2\SPECIAL PROJECTS\Balefill Post-Closure Monitoring\reports\Balefill Post-Closure Inspection Checklist.doc

★ NOTE: PER TELEPHONE CONVERSATION W/ JEFF DURAND AT AIRPORT, WHEEL TRACKS AND RUTS WERE A RESULT OF MAINTENANCE VEHICLES AND MOWING EQUIPMENT. VEGETATION LAST MOWED IN OCTOBER 2016. - JES

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

April 14, 2017

Robert Balkind
Dutchess County DPW
626 Dutchess Turnpike
Poughkeepsie, NY 12603

RE: Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Dear Robert Balkind:
Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Elizabeth Harrison

Elizabeth Harrison for
Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7014598001	**MW-2**	EPA 200.7	AKS	9	PACE-MV
		EPA 180.1	JNL	1	PACE-MV
		SM22 2320B	TR1	1	PACE-MV
		SM22 2540C	MEM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	SK1	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 420.1	STH	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		SM5310C-00	LEP	1	PASI-PA
7014598002	**MW-3S**	EPA 200.7	AKS	9	PACE-MV
		EPA 180.1	JNL	1	PACE-MV
		SM22 2320B	TR1	1	PACE-MV
		SM22 2540C	MEM1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	SK1	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 420.1	STH	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		SM5310C-00	LEP	1	PASI-PA

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 180.1**
Description: 180.1 Turbidity
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 180.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 19566

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7014598001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 92949)
  - Total Dissolved Solids

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

QC Batch: 19566

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 92948)
  - Total Dissolved Solids

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 410.4**
Description: 410.4 COD
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 20388

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7014934012

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 96356)
  - Chemical Oxygen Demand

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

QC Batch: 20397

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 96384)
  - Chemical Oxygen Demand

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 18913

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7014584001,7014611002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 90100)
  - Nitrite as N
- MS (Lab ID: 90102)
  - Nitrite as N

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

Additional Comments:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Method: **SM5310C-00**
Description: 5310C TOC
Client: Dutchess County DPW
Date: April 14, 2017

General Information:
2 samples were analyzed for SM5310C-00. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Sample: MW-2 **Lab ID: 7014598001** Collected: 03/30/17 10:40 Received: 03/31/17 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.92**	Std. Units		1		03/30/17 10:40		
Field Temperature	**9.9**	deg C		1		03/30/17 10:40		
Field Specific Conductance	**539.3**	umhos/cm		1		03/30/17 10:40		
Eh	**4**	mV		1		03/30/17 10:40		
Field Turbidity	**11.2**	NTU		1		03/30/17 10:40		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**<2.5**	ug/L	2.5	1	04/06/17 10:46	04/10/17 17:55	7440-43-9	
Calcium	**45700**	ug/L	1000	1	04/06/17 10:46	04/10/17 17:55	7440-70-2	
Iron	**50800**	ug/L	100	1	04/06/17 10:46	04/10/17 17:55	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	04/06/17 10:46	04/10/17 17:55	7439-92-1	
Magnesium	**11600**	ug/L	1000	1	04/06/17 10:46	04/10/17 17:55	7439-95-4	
Manganese	**15700**	ug/L	10.0	1	04/06/17 10:46	04/10/17 17:55	7439-96-5	
Potassium	**5440**	ug/L	5000	1	04/06/17 10:46	04/10/17 17:55	7440-09-7	
Sodium	**11700**	ug/L	5000	1	04/06/17 10:46	04/10/17 17:55	7440-23-5	
Total Hardness	**162000**	ug/L	4100	1	04/06/17 10:46	04/10/17 17:55		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**58.5**	NTU	5.0	5		04/01/17 04:57		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**234**	mg/L	1.0	1		04/10/17 10:59		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**283**	mg/L	10.0	1		04/06/17 20:42		D6,M1
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**48.4**	mg/L	10.0	1	04/13/17 11:01	04/13/17 13:35		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**145**	mg/L	40.0	20	03/31/17 13:53	04/05/17 10:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		04/12/17 16:49	24959-67-9	
Chloride	**26.7**	mg/L	2.0	1		04/12/17 16:49	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		04/12/17 16:49	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**1.6**	mg/L	0.10	1	04/11/17 07:13	04/11/17 13:18	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		04/04/17 08:43	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		03/31/17 21:46	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Sample: MW-2 **Lab ID: 7014598001** Collected: 03/30/17 10:40 Received: 03/31/17 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	04/12/17 12:00	04/12/17 16:33		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**1.6**	mg/L	0.10	1		04/07/17 12:59	7664-41-7	
5310C TOC	Analytical Method: SM5310C-00							
Total Organic Carbon	**1.1**	mg/L	1.0	1		04/08/17 07:06	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Sample: MW-3S **Lab ID: 7014598002** Collected: 03/30/17 11:45 Received: 03/31/17 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.62**	Std. Units		1		03/30/17 11:45		
Field Temperature	**9.7**	deg C		1		03/30/17 11:45		
Field Specific Conductance	**1124**	umhos/cm		1		03/30/17 11:45		
Eh	**-40**	mV		1		03/30/17 11:45		
Field Turbidity	**22.2**	NTU		1		03/30/17 11:45		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**2.9**	ug/L	2.5	1	04/06/17 10:46	04/10/17 18:00	7440-43-9	
Calcium	**149000**	ug/L	1000	1	04/06/17 10:46	04/10/17 18:00	7440-70-2	
Iron	**74200**	ug/L	100	1	04/06/17 10:46	04/10/17 18:00	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	04/06/17 10:46	04/10/17 18:00	7439-92-1	
Magnesium	**35900**	ug/L	1000	1	04/06/17 10:46	04/10/17 18:00	7439-95-4	
Manganese	**17000**	ug/L	10.0	1	04/06/17 10:46	04/10/17 18:00	7439-96-5	
Potassium	**10600**	ug/L	5000	1	04/06/17 10:46	04/10/17 18:00	7440-09-7	
Sodium	**9690**	ug/L	5000	1	04/06/17 10:46	04/10/17 18:00	7440-23-5	
Total Hardness	**520000**	ug/L	4100	1	04/06/17 10:46	04/10/17 18:00		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**4.4**	NTU	1.0	1		04/01/17 05:11		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**533**	mg/L	1.0	1		04/10/17 11:05		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**614**	mg/L	10.0	1		04/06/17 21:00		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**62.9**	mg/L	10.0	1	04/13/17 13:05	04/13/17 16:23		D6
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**6.7**	mg/L	2.0	1	03/31/17 13:56	04/05/17 10:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		04/12/17 17:03	24959-67-9	
Chloride	**12.1**	mg/L	2.0	1		04/12/17 17:03	16887-00-6	
Sulfate	**10.2**	mg/L	5.0	1		04/12/17 17:03	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**2.2**	mg/L	0.10	1	04/11/17 07:13	04/11/17 13:19	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		04/04/17 08:45	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		03/31/17 21:47	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Sample: MW-3S **Lab ID: 7014598002** Collected: 03/30/17 11:45 Received: 03/31/17 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	04/12/17 12:00	04/12/17 16:33		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**1.3**	mg/L	0.10	1		04/07/17 13:00	7664-41-7	
5310C TOC	Analytical Method: SM5310C-00							
Total Organic Carbon	**6.5**	mg/L	1.0	1		04/08/17 07:24	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19588 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 93034 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	ug/L	<2.5	2.5	04/10/17 16:33	
Calcium	ug/L	<1000	1000	04/10/17 16:33	
Iron	ug/L	<100	100	04/10/17 16:33	
Lead	ug/L	<5.0	5.0	04/10/17 16:33	
Magnesium	ug/L	<1000	1000	04/10/17 16:33	
Manganese	ug/L	<10.0	10.0	04/10/17 16:33	
Potassium	ug/L	<5000	5000	04/10/17 16:33	
Sodium	ug/L	<5000	5000	04/10/17 16:33	
Total Hardness	ug/L	<4100	4100	04/10/17 16:33	

LABORATORY CONTROL SAMPLE: 93035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	50	51.2	102	85-115	
Calcium	ug/L	25000	25000	100	85-115	
Iron	ug/L	2000	2040	102	85-115	
Lead	ug/L	500	511	102	85-115	
Magnesium	ug/L	25000	24500	98	85-115	
Manganese	ug/L	250	252	101	85-115	
Potassium	ug/L	50000	49200	98	85-115	
Sodium	ug/L	50000	49400	99	85-115	
Total Hardness	ug/L		163000			

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 18927 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 90140 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<1.0	1.0	04/01/17 04:55	

LABORATORY CONTROL SAMPLE: 90141

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	10	10.1	101	90-110	

SAMPLE DUPLICATE: 90142

Parameter	Units	7014555004 Result	Dup Result	RPD	Qualifiers
Turbidity	NTU	<1.0	<1.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19814 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 93924 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	04/10/17 09:09	

LABORATORY CONTROL SAMPLE: 93925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	26.9	108	80-120	

MATRIX SPIKE SAMPLE: 93927

Parameter	Units	7014768002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	24.6	50	74.8	100	75-125	

SAMPLE DUPLICATE: 93926

Parameter	Units	7014768002 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	24.6	24.4	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19566 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 92946 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	04/06/17 20:41	

LABORATORY CONTROL SAMPLE: 92947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	520	104	85-115	

MATRIX SPIKE SAMPLE: 92949

Parameter	Units	7014598001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	283	300	494	70	75-125	M1

SAMPLE DUPLICATE: 92948

Parameter	Units	7014598001 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	283	165	53	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 20388 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7014598001

METHOD BLANK: 96354 Matrix: Water
Associated Lab Samples: 7014598001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	04/13/17 13:26	

LABORATORY CONTROL SAMPLE: 96355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	517	103	90-110	

MATRIX SPIKE SAMPLE: 96356

Parameter	Units	7014934012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	793	2500	2990	88	90-110	M1

SAMPLE DUPLICATE: 96357

Parameter	Units	7014934012 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	793	856	8	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 20397
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 7014598002

METHOD BLANK: 96381 Matrix: Water
Associated Lab Samples: 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	04/13/17 16:22	

LABORATORY CONTROL SAMPLE: 96382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	525	105	90-110	

MATRIX SPIKE SAMPLE: 96383

Parameter	Units	7014598002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	62.9	1000	1090	102	90-110	

SAMPLE DUPLICATE: 96384

Parameter	Units	7014598002 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	62.9	77.5	21	D6

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 18848 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 89797 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	04/05/17 11:22	

LABORATORY CONTROL SAMPLE: 89798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	170	86	84.5-115.4	

SAMPLE DUPLICATE: 89799

Parameter	Units	7014566012 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	<2.0	<2.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 20125
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 95297 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	04/12/17 13:00	
Chloride	mg/L	<2.0	2.0	04/12/17 13:00	
Sulfate	mg/L	<5.0	5.0	04/12/17 13:00	

LABORATORY CONTROL SAMPLE: 95298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.1	107	90-110	
Chloride	mg/L	10	10.8	108	90-110	
Sulfate	mg/L	10	10.6	106	90-110	

MATRIX SPIKE SAMPLE: 95299

Parameter	Units	7015190009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<2.5	5	5.4	108	80-120	
Chloride	mg/L	739	500	1270	107	80-120	
Sulfate	mg/L	89.4	50	141	103	80-120	

SAMPLE DUPLICATE: 95300

Parameter	Units	7015190009 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<2.5	<2.5		
Chloride	mg/L	739	774	5	
Sulfate	mg/L	89.4	89.2	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19965 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 94512 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	04/11/17 12:55	

LABORATORY CONTROL SAMPLE: 94513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.1	102	90-110	

MATRIX SPIKE SAMPLE: 94514

Parameter	Units	7014934012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	27.0	4	32.8	146	90-110	M6

MATRIX SPIKE SAMPLE: 94516

Parameter	Units	7014588001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	6.9	4	11.0	102	90-110	

SAMPLE DUPLICATE: 94515

Parameter	Units	7014934012 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	27.0	29.1	8	

SAMPLE DUPLICATE: 94517

Parameter	Units	7014588001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	6.9	7.1	3	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 18913
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 90098 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	03/31/17 21:40	

LABORATORY CONTROL SAMPLE: 90099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.1	105	90-110	

MATRIX SPIKE SAMPLE: 90100

Parameter	Units	7014584001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	0.073	.5	0.63	112	90-110	M1

MATRIX SPIKE SAMPLE: 90102

Parameter	Units	7014611002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.56	111	90-110	M1

SAMPLE DUPLICATE: 90101

Parameter	Units	7014584001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	0.073	0.072	1	

SAMPLE DUPLICATE: 90103

Parameter	Units	7014611002 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19123 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 90965 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	04/04/17 08:34	

LABORATORY CONTROL SAMPLE: 90966

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 90967

Parameter	Units	30215067005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.58	.5	1.1	97	90-110	

SAMPLE DUPLICATE: 90968

Parameter	Units	30215067005 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.58	0.58	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 20241
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 95710 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	04/12/17 16:22	

LABORATORY CONTROL SAMPLE: 95711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	30	27.7	92	90-110	

MATRIX SPIKE SAMPLE: 95712

Parameter	Units	7014566012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	16.7	83	75-125	

MATRIX SPIKE SAMPLE: 95714

Parameter	Units	7015198005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	23.0	99	75-125	

SAMPLE DUPLICATE: 95713

Parameter	Units	7014566012 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

SAMPLE DUPLICATE: 95715

Parameter	Units	7015198005 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 19671 Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H Analysis Description: 4500 Ammonia
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 93221 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	04/07/17 12:50	

LABORATORY CONTROL SAMPLE: 93222

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.98	98	90-110	

MATRIX SPIKE SAMPLE: 92711

Parameter	Units	7014934012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	27.5	10	37.2	97	75-125	

SAMPLE DUPLICATE: 92712

Parameter	Units	7014934012 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	27.5	27.7	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

QC Batch: 254666 Analysis Method: SM5310C-00
QC Batch Method: SM5310C-00 Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 7014598001, 7014598002

METHOD BLANK: 1254052 Matrix: Water
Associated Lab Samples: 7014598001, 7014598002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	04/08/17 04:25	

LABORATORY CONTROL SAMPLE: 1254053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10	100	85-115	

MATRIX SPIKE SAMPLE: 1254054

Parameter	Units	7014500001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.6	10	22.0	94	85-115	

SAMPLE DUPLICATE: 1254055

Parameter	Units	7014558001 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	<1.0	<1.0		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

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.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

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

TNI - The NELAC Institute.

LABORATORIES

PACE-MV	Pace Analytical Services - Melville
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BALEFILL LANDFILL 03/31
Pace Project No.: 7014598

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7014598001	**MW-2**				
7014598002	**MW-3S**				
7014598001	**MW-2**	EPA 200.7	19588	EPA 200.7	19603
7014598002	**MW-3S**	EPA 200.7	19588	EPA 200.7	19603
7014598001	**MW-2**	EPA 180.1	18927		
7014598002	**MW-3S**	EPA 180.1	18927		
7014598001	**MW-2**	SM22 2320B	19814		
7014598002	**MW-3S**	SM22 2320B	19814		
7014598001	**MW-2**	SM22 2540C	19566		
7014598002	**MW-3S**	SM22 2540C	19566		
7014598001	**MW-2**	EPA 410.4	20388	EPA 410.4	20416
7014598002	**MW-3S**	EPA 410.4	20397	EPA 410.4	20426
7014598001	**MW-2**	SM22 5210B	18848	SM22 5210B	19429
7014598002	**MW-3S**	SM22 5210B	18848	SM22 5210B	19429
7014598001	**MW-2**	EPA 300.0	20125		
7014598002	**MW-3S**	EPA 300.0	20125		
7014598001	**MW-2**	EPA 351.2	19965	EPA 351.2	19978
7014598002	**MW-3S**	EPA 351.2	19965	EPA 351.2	19978
7014598001	**MW-2**	EPA 353.2	19123		
7014598002	**MW-3S**	EPA 353.2	19123		
7014598001	**MW-2**	EPA 353.2	18913		
7014598002	**MW-3S**	EPA 353.2	18913		
7014598001	**MW-2**	EPA 420.1	20241	EPA 420.1	20305
7014598002	**MW-3S**	EPA 420.1	20241	EPA 420.1	20305
7014598001	**MW-2**	SM22 4500 NH3 H	19671		
7014598002	**MW-3S**	SM22 4500 NH3 H	19671		
7014598001	**MW-2**	SM5310C-00	254666		
7014598002	**MW-3S**	SM5310C-00	254666		

Pace Analytical™
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CHAIN-OF-C TODY / Analytical Reques

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be co

WO#:7014598
7014598

Section A
Required Client Information:

Company:	Dutchess County
Address:	
Email To:	rbalkind@dutchessny.gov
Phone:	Fax:
Requested Due Date/TAT:	Standard

Section B
Required Project Information:

Report To:	Robert Balkind
Copy To:	
Purchase Order No.:	
Project Name:	Balefill Landfill
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER________

SITE LOCATION: GA / IL / N / MI / NC / OH / SC / WI / OTHER_____

Filtered (Y/N)

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	TKN, NH3, COD	TOC	TOTAL PHENOLS	ALKALINITY	NO3,TDS,SO4,CL,Bromide,BOD5	T-CD,CA,FE,PB,MG	T-MN,K,NA + CALC. HARDNESS	Field-pH,eh,Spec Cond,Turb,Temp	Residual Chlorine (Y/N)	Pace Project No. Lab I.D.
1	MW-2	GW	G			3/30/17	10^40		8	X	X	X						X	X	X	X	X	X	X	X		-001
2	MW-3S	GW	G			3/30/17	11^45		8	X	X	X						X	X	X	X	X	X	X	X		-002
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
NYS Part 360 1993 Routines	Matt PACE	3/30/17	1350	J. Butty (PACE)	3/30/17	13:50	0.8 (IR)	Y/N	Y/N	Y/N
	J. Butty (PACE)	3/30/17	16:00	VIA FED EX →				Y/N	Y/N	Y/N
				Mulsar	3/31/17	930	4.6	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Broker PACE

SIGNATURE of SAMPLER: Matt

DATE Signed (MM / DD / YY): 3/30/17

e-File(ALLQ020rev.4,29Mar06)22Jun2005

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-2**

PACE ID

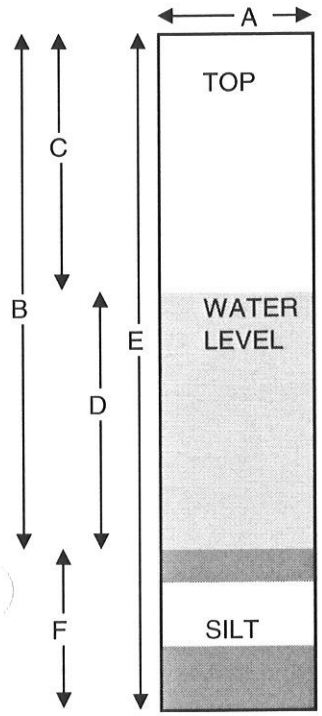
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	20.08	feet
C.	Depth to Water	6.58	feet
D.	Length of Water Column (calculated)	13.50	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	2.16	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	6.48	gallons
	Actual Volume Evacuated	6.50	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	3/30/17	3/30/17	
Time	9:55	10:40	
EH	-17	4	mV
Temperature	8.1	9.9	C
pH	7.14	6.92	SU
Specific Cond.	551.2	539.3	uS
Turbidity	10.4	11.2	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 6.58 feet

Recharge Depth to Water 6.6 feet

2nd water column height ____ %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 4C cloudy

Observations: sample clear sulfur odor

Sampler: Matt Broker

Signature: Matt

1

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-3S**

PACE ID

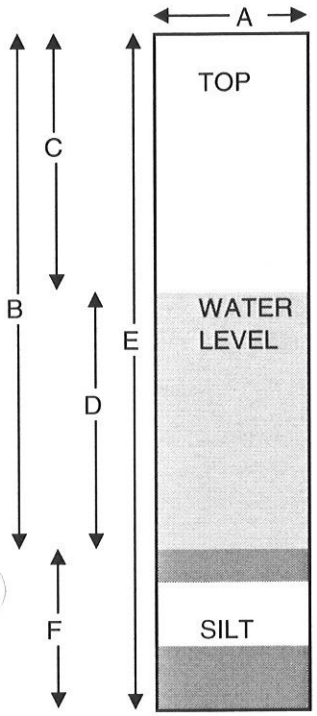
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	17.65	feet
C.	Depth to Water	6.45	feet
D.	Length of Water Column (calculated)	11.20	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.79	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.37	gallons
	Actual Volume Evacuated	5.50	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	3/30/17	3/30/17	
Time	10:57	11:45	
EH	-55	-40	mV
Temperature	10.2	9.7	C
pH	6.44	6.62	SU
Specific Cond.	1132	1124	uS
Turbidity	11.3	22.2	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	slightly cloudy	

% Recharge:

Initial Depth to Water 6.45 feet

Recharge Depth to Water 13.27 feet

2nd water column height ____ %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 4C cloudy

Observations: sample slightly cloudy with sulfur odor

Sampler: Matt Broker

Signature:

1

PACE ANALYICAL INC.
FIELD CALIBRATION SHEET

DATE: 3/30/17 **SITE:** Balefill Landfill
TECHNICIAN: Matt Broker **WEATHER:** 4C cloudy

INSTRUMENT:

PH	Myron Ultrameter II 6PFCe
CONDUCTIVITY	Myron Ultrameter II 6PFCe
TEMPERATURE	Myron Ultrameter II 6PFCe
DISSOLVED OXYGEN	Sper Scientific 850041
TURBIDITY	Hanna HI 98703

INSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph	4.00	4.01	4.00	946	
	7.00	7.27	7.00	945	
	10.00	10.11	10.00	947	
Conductivity	1413	1432	1413	948	
Turbidity	<0.10	0.11	0.1	949	
	15	15.3	15	950	
	100	103	100	951	
	750	742	750	952	

NOTES:

WO#:7014598

PM: JSA Due Date: 04/14/17
CLIENT: DCDPW

Sample Condition Upon Recei

Pace Analytical

Client Name: Dutchess County Project #:

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Optional: Proj. Due Date: Proj. Name:

Tracking #: 7145 4771 7701

Custody Seal on Cooler/Box Present: ☑ Yes ☐ no Seals intact: ☑ Yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used: TH077 TH078 Type of Ice: ☑ Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.6

Temp should be above freezing to 6°C

Date and Initials of person examining contents: MD 3/31/17

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix SL WT OIL		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	Initial when completed: / Lot # of added preservative:
Exceptions: VOA, micro, TOC, O&G		Date and Time preservative added:
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

DUTCHESS COUNTY BALEFILL (Access off Citation Rd. at DC AIRPORT)
POST-CLOSURE MONITORING INSPECTION CHECKLIST

In addition to quarterly water quality sampling and laboratory analysis of the perimeter monitoring wells, a physical inspection of the closed Balefill facility shall be conducted quarterly. Use the following checklist to note field conditions of various elements as well as to describe corrective measures if applicable. Photographs of field conditions should be collected as a matter of record and to accompany this checklist. Photos to be inserted into folders for quarterly inspections.

Inspector's Name: JOSEPH STANKAVAGE
Date: 6/27/17
Weather Conditions: (temp., wind, cloud cover) PARTLY SUNNY, 70°, LIGHT WIND TO NO WIND

Access roadway in good condition **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: _____

Drainage Systems are in good working order [*e.g. – drainage ditches drain freely, drainage pipes clear of debris and structurally sound.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: NOTE SMALL TREES/SHRUBS GROWING IN DRIVEWAY CULVERT OUTLET CHANNELS- CUT AND REMOVE BY MW-2 AND MW-3. (CUT SHRUB BY MW-3 WHILE ON SITE.)

Landfill Cover System is in good condition [*e.g. – no cracks in the soil cover, no sloughing or differential settlement, no erosion, no large patches of dead vegetation, no woody vegetation becoming established on the mounded soil cover system and the grass surface has been routinely mowed.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: VEGETATION NEEDS TO BE MOWED, CUT WEEDS AROUND VENTS. COVER SYSTEM APPEARS TO BE IN GOOD CONDITION.

Vectors are not present [*e.g. –burrowing rodents or evidence of borrows on the landfill mound, rats, flies.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy:

_____

_____

Gas Vents show no physical damage and appear in working order [*e.g. – no structural damage to the plastic vent pipe. Vents may be passively discharging decomposition gases with a detectable smell near the vent.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy: NO SMELL DETECTED – TYPICAL FOR MANY QUARTERS. SEE PRIOR REPORTS.

_____

Security in good condition [*e.g. – evidence or trespass, vandalism, illegal dumping.*] **(YES: ✓ NO: __)** If No, describe concerns and provide suggested remedy:

_____

Additionally the inspector shall inspect and **photograph a discolored (*orange-brown*) groundwater seep** along the Wappinger Creek from the same perspective position. (*marked on a tree with orange ribbon*)
SEEPAGE RUNNING OUT OF BANK. NO DISCOLORED WATER ENTERING CREEK. WATER SEEPING OUT OF BANK IN A COUPLE OF LOCATIONS BESIDES STAINED "SEEP" AREA.

A contracted consultant shall collect and analyze water quality samples as well as prepare the water quality section of an annual report. County personnel shall add summarized results of quarterly field inspections and submit annual report to NYSDEC.

GROUND SURFACE AT CREEK BANK GENERALLY WET AND VERY MUDDY.

WATER RUNNING CLEAR, BUT ORANGE "STAINING" REMAINS ON GROUND SURFACE.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 13, 2017

Robert Balkind
Dutchess County DPW
626 Dutchess Turnpike
Poughkeepsie, NY 12603

RE: Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Dear Robert Balkind:
Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Joe Stankavage, Dutchess County DPW

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7022725001	**MW-2**	EPA 200.7	AKS	25	PACE-MV
		EPA 245.1	JLN	1	PACE-MV
		EPA 8260C/5030C	GKB	50	PACE-MV
		EPA 180.1	DJS	1	PACE-MV
		SM22 2120B	DJS	2	PACE-MV
		SM22 2320B	TR1	1	PACE-MV
		SM22 2540C	STH	1	PACE-MV
		SM22 3500-Cr B	TR1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 420.1	STH	1	PACE-MV
		SM22 4500-CN-E	CPD	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9060A	LEP	5	PASI-PA
7022725002	**MW-3S**	EPA 200.7	AKS	25	PACE-MV
		EPA 245.1	JLN	1	PACE-MV
		EPA 8260C/5030C	GKB	50	PACE-MV
		EPA 180.1	DJS	1	PACE-MV
		SM22 2120B	DJS	2	PACE-MV
		SM22 2320B	TR1	1	PACE-MV
		SM22 2540C	STH	1	PACE-MV
		SM22 3500-Cr B	TR1	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 300.0	BNK	3	PACE-MV
		EPA 351.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 353.2	SDO	1	PACE-MV
		EPA 420.1	STH	1	PACE-MV
		SM22 4500-CN-E	CPD	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9060A	LEP	5	PASI-PA
7022725003	**TRIP BLANK**	EPA 8260C/5030C	GKB	50	PACE-MV

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 30245

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022988001,7022988006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 139960)
  - Silver
- MS (Lab ID: 139962)
  - Silver

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

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
3 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 30014

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- BLANK (Lab ID: 139052)
  - Tetrachloroethene
- LCS (Lab ID: 139053)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Iodomethane
  - Tetrachloroethene
  - Vinyl acetate
- MS (Lab ID: 139054)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Iodomethane
  - Tetrachloroethene
  - Vinyl acetate
- MSD (Lab ID: 139055)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Iodomethane
  - Tetrachloroethene
  - Vinyl acetate
- MW-2 (Lab ID: 7022725001)
  - Tetrachloroethene
- MW-3S (Lab ID: 7022725002)
  - Tetrachloroethene
- TRIP BLANK (Lab ID: 7022725003)
  - Tetrachloroethene

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Dutchess County DPW
Date: July 13, 2017

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 180.1**
Description: 180.1 Turbidity
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 180.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 2120B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

H1: Analysis conducted outside the EPA method holding time.
- MW-2 (Lab ID: 7022725001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 3500-Cr B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 29725

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022725001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 137586)
  - Chromium, Hexavalent

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

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 410.4**
Description: 410.4 COD
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

QC Batch: 29643

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022660001,7022663001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 137437)
  - Nitrite as N
- MS (Lab ID: 137439)
  - Nitrite as N

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

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 4500-CN-E**
Description: SM 4500 CNE Cyanide, Total
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with SM20/22 4500-CN-C with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 30685

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022754001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 142213)
  - Cyanide

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

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Method: **EPA 9060A**
Description: 9060A Total Organic Carbon
Client: Dutchess County DPW
Date: July 13, 2017

General Information:
2 samples were analyzed for EPA 9060A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

Additional Comments:

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

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-2 **Lab ID: 7022725001** Collected: 06/27/17 11:10 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.52**	Std. Units		1		06/27/17 11:10		
Field Temperature	**19.6**	deg C		1		06/27/17 11:10		
Field Specific Conductance	**475.1**	umhos/cm		1		06/27/17 11:10		
Eh	**-40**	mV		1		06/27/17 11:10		
Field Turbidity	**1.05**	NTU		1		06/27/17 11:10		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Aluminum	**<200**	ug/L	200	1	07/05/17 10:50	07/08/17 02:34	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	07/05/17 10:50	07/08/17 02:34	7440-36-0	
Arsenic	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7440-38-2	
Barium	**<200**	ug/L	200	1	07/05/17 10:50	07/08/17 02:34	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/05/17 10:50	07/08/17 02:34	7440-41-7	
Boron	**<50.0**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:34	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	07/05/17 10:50	07/08/17 02:34	7440-43-9	
Calcium	**43700**	ug/L	1000	1	07/05/17 10:50	07/08/17 02:34	7440-70-2	
Chromium	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:34	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	07/05/17 10:50	07/08/17 02:34	7440-50-8	
Hardness, Calcium	**109000**	ug/L	2500	1	07/05/17 10:50	07/08/17 02:34		
Iron	**48900**	ug/L	100	1	07/05/17 10:50	07/08/17 02:34	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	07/05/17 10:50	07/08/17 02:34	7439-92-1	
Magnesium	**11100**	ug/L	1000	1	07/05/17 10:50	07/08/17 02:34	7439-95-4	
Manganese	**15700**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	07/05/17 10:50	07/08/17 02:34	7440-02-0	
Potassium	**<5000**	ug/L	5000	1	07/05/17 10:50	07/08/17 02:34	7440-09-7	
Selenium	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7440-22-4	
Sodium	**<5000**	ug/L	5000	1	07/05/17 10:50	07/08/17 02:34	7440-23-5	
Thallium	**17.7**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:34	7440-28-0	
Total Hardness	**155000**	ug/L	4100	1	07/05/17 10:50	07/08/17 02:34		
Vanadium	**<50.0**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:34	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	07/05/17 10:50	07/08/17 02:34	7440-66-6	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	**<0.20**	ug/L	0.20	1	07/05/17 11:54	07/06/17 15:50	7439-97-6	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**21.6**	ug/L	5.0	1		07/03/17 13:06	67-64-1	
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/03/17 13:06	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/03/17 13:06	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-15-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-2 **Lab ID: 7022725001** Collected: 06/27/17 11:10 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/17 13:06	56-23-5	
Chlorobenzene	**1.2**	ug/L	1.0	1		07/03/17 13:06	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/03/17 13:06	67-66-3	
Chloromethane	**3.4**	ug/L	1.0	1		07/03/17 13:06	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/17 13:06	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/03/17 13:06	591-78-6	
Iodomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/03/17 13:06	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	127-18-4	CC
Toluene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:06	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:06	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/03/17 13:06	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/03/17 13:06	75-01-4	
Xylene (Total)	**<2.0**	ug/L	2.0	1		07/03/17 13:06	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	68-153	1		07/03/17 13:06	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		07/03/17 13:06	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		07/03/17 13:06	2037-26-5	
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**27.4**	NTU	1.0	1		06/29/17 06:51		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-2 **Lab ID: 7022725001** Collected: 06/27/17 11:10 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**40.0**	units	5.0	1		06/29/17 11:12		H1
pH	**7.0**	Std. Units	0.10	1		06/29/17 11:12		H1
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**216**	mg/L	1.0	1		07/07/17 10:32		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**263**	mg/L	10.0	1		07/03/17 16:50		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/28/17 09:59	18540-29-9	M1
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**33.8**	mg/L	10.0	1	07/10/17 10:50	07/10/17 13:23		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**5.2**	mg/L	4.0	2	06/29/17 10:39	07/04/17 08:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		07/12/17 19:34	24959-67-9	
Chloride	**30.5**	mg/L	2.0	1		07/12/17 19:34	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		07/12/17 19:34	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**1.4**	mg/L	0.10	1	07/11/17 06:58	07/11/17 14:02	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/29/17 09:26	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/28/17 23:34	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	07/05/17 12:00	07/05/17 15:39		
SM 4500 CNE Cyanide, Total	Analytical Method: SM22 4500-CN-E Preparation Method: SM20/22 4500-CN-C							
Cyanide	**<10.0**	ug/L	10.0	1	07/09/17 10:22	07/09/17 16:54	57-12-5	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**0.64**	mg/L	0.10	1		07/11/17 13:11	7664-41-7	
9060A Total Organic Carbon	Analytical Method: EPA 9060A							
Total Organic Carbon	**<10.0**	mg/L	10.0	10		07/07/17 18:31	7440-44-0	
Total Organic Carbon	**<10.0**	mg/L	10.0	10		07/07/17 18:31	7440-44-0	
Total Organic Carbon	**<10.0**	mg/L	10.0	10		07/07/17 18:31	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-2 **Lab ID: 7022725001** Collected: 06/27/17 11:10 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9060A Total Organic Carbon	Analytical Method: EPA 9060A							
Total Organic Carbon	**<10.0**	mg/L	10.0	10		07/07/17 18:31	7440-44-0	
Mean Total Organic Carbon	**<10.0**	mg/L	10.0	10		07/07/17 18:31	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-3S **Lab ID: 7022725002** Collected: 06/27/17 12:15 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.81**	Std. Units		1		06/27/17 12:15		
Field Temperature	**15.6**	deg C		1		06/27/17 12:15		
Field Specific Conductance	**1000**	umhos/cm		1		06/27/17 12:15		
Eh	**-86**	mV		1		06/27/17 12:15		
Field Turbidity	**4.05**	NTU		1		06/27/17 12:15		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Aluminum	**<200**	ug/L	200	1	07/05/17 10:50	07/08/17 02:39	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	07/05/17 10:50	07/08/17 02:39	7440-36-0	
Arsenic	**16.3**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7440-38-2	
Barium	**211**	ug/L	200	1	07/05/17 10:50	07/08/17 02:39	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/05/17 10:50	07/08/17 02:39	7440-41-7	
Boron	**177**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:39	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	07/05/17 10:50	07/08/17 02:39	7440-43-9	
Calcium	**180000**	ug/L	1000	1	07/05/17 10:50	07/08/17 02:39	7440-70-2	
Chromium	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:39	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	07/05/17 10:50	07/08/17 02:39	7440-50-8	
Hardness, Calcium	**449000**	ug/L	2500	1	07/05/17 10:50	07/08/17 02:39		
Iron	**38600**	ug/L	100	1	07/05/17 10:50	07/08/17 02:39	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	07/05/17 10:50	07/08/17 02:39	7439-92-1	
Magnesium	**56300**	ug/L	1000	1	07/05/17 10:50	07/08/17 02:39	7439-95-4	
Manganese	**3920**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7439-96-5	
Nickel	**<40.0**	ug/L	40.0	1	07/05/17 10:50	07/08/17 02:39	7440-02-0	
Potassium	**8630**	ug/L	5000	1	07/05/17 10:50	07/08/17 02:39	7440-09-7	
Selenium	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7440-22-4	
Sodium	**21500**	ug/L	5000	1	07/05/17 10:50	07/08/17 02:39	7440-23-5	
Thallium	**<10.0**	ug/L	10.0	1	07/05/17 10:50	07/08/17 02:39	7440-28-0	
Total Hardness	**681000**	ug/L	4100	1	07/05/17 10:50	07/08/17 02:39		
Vanadium	**<50.0**	ug/L	50.0	1	07/05/17 10:50	07/08/17 02:39	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	07/05/17 10:50	07/08/17 02:39	7440-66-6	
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	**<0.20**	ug/L	0.20	1	07/05/17 11:54	07/06/17 15:55	7439-97-6	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**6.6**	ug/L	5.0	1		07/03/17 13:24	67-64-1	
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/03/17 13:24	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/03/17 13:24	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-15-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-3S **Lab ID: 7022725002** Collected: 06/27/17 12:15 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/17 13:24	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/03/17 13:24	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/17 13:24	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/03/17 13:24	591-78-6	
Iodomethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/03/17 13:24	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	127-18-4	CC
Toluene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 13:24	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 13:24	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/03/17 13:24	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/03/17 13:24	75-01-4	
Xylene (Total)	**<2.0**	ug/L	2.0	1		07/03/17 13:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%.	68-153	1		07/03/17 13:24	17060-07-0	
4-Bromofluorobenzene (S)	92	%.	79-124	1		07/03/17 13:24	460-00-4	
Toluene-d8 (S)	92	%.	69-124	1		07/03/17 13:24	2037-26-5	
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**134**	NTU	5.0	5		06/29/17 06:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-3S **Lab ID: 7022725002** Collected: 06/27/17 12:15 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM22 2120B							
Apparent Color	**250**	units	25.0	5		06/29/17 11:14		
pH	**7.0**	Std. Units	0.10	5		06/29/17 11:14		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**795**	mg/L	1.0	1		07/07/17 10:38		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**697**	mg/L	10.0	1		07/03/17 16:51		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		06/28/17 10:06	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**27.6**	mg/L	10.0	1	07/10/17 10:50	07/10/17 13:24		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**<4.0**	mg/L	4.0	2	06/29/17 10:39	07/04/17 08:49		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		07/12/17 19:48	24959-67-9	
Chloride	**17.7**	mg/L	2.0	1		07/12/17 19:48	16887-00-6	
Sulfate	**31.8**	mg/L	5.0	1		07/12/17 19:48	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**1.5**	mg/L	0.10	1	07/11/17 06:58	07/11/17 14:03	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		06/29/17 09:28	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		06/28/17 23:42	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	07/05/17 12:00	07/05/17 15:40		
SM 4500 CNE Cyanide, Total	Analytical Method: SM22 4500-CN-E Preparation Method: SM20/22 4500-CN-C							
Cyanide	**<10.0**	ug/L	10.0	1	07/09/17 10:22	07/09/17 16:54	57-12-5	
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**0.80**	mg/L	0.10	1		07/11/17 13:12	7664-41-7	
9060A Total Organic Carbon	Analytical Method: EPA 9060A							
Total Organic Carbon	**6.4**	mg/L	1.0	1		07/07/17 19:04	7440-44-0	
Total Organic Carbon	**6.5**	mg/L	1.0	1		07/07/17 19:04	7440-44-0	
Total Organic Carbon	**6.1**	mg/L	1.0	1		07/07/17 19:04	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: MW-3S **Lab ID: 7022725002** Collected: 06/27/17 12:15 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9060A Total Organic Carbon	Analytical Method: EPA 9060A							
Total Organic Carbon	**6.0**	mg/L	1.0	1		07/07/17 19:04	7440-44-0	
Mean Total Organic Carbon	**6.3**	mg/L	1.0	1		07/07/17 19:04	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: TRIP BLANK **Lab ID: 7022725003** Collected: 06/27/17 00:00 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Acetone	**28.7**	ug/L	5.0	1		07/03/17 08:32	67-64-1	
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/03/17 08:32	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	74-83-9	
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/03/17 08:32	78-93-3	IL
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/03/17 08:32	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-00-3	
Chloroform	**<1.0**	ug/L	1.0	1		07/03/17 08:32	67-66-3	
Chloromethane	**4.4**	ug/L	1.0	1		07/03/17 08:32	74-87-3	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/03/17 08:32	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	110-57-6	
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-35-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/03/17 08:32	591-78-6	
Iodomethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	74-88-4	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/03/17 08:32	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	127-18-4	CC
Toluene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/03/17 08:32	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/03/17 08:32	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/03/17 08:32	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/03/17 08:32	75-01-4	
Xylene (Total)	**<2.0**	ug/L	2.0	1		07/03/17 08:32	1330-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Sample: TRIP BLANK **Lab ID: 7022725003** Collected: 06/27/17 00:00 Received: 06/28/17 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	68-153	1		07/03/17 08:32	17060-07-0	
4-Bromofluorobenzene (S)	91	%.	79-124	1		07/03/17 08:32	460-00-4	
Toluene-d8 (S)	93	%.	69-124	1		07/03/17 08:32	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
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(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30251 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 139988 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	07/06/17 15:38	

LABORATORY CONTROL SAMPLE: 139989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.87	87	85-115	

MATRIX SPIKE SAMPLE: 139990

Parameter	Units	7022725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	1.2	112	70-130	

SAMPLE DUPLICATE: 139991

Parameter	Units	7022725001 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30245
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 139957
Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	07/08/17 02:03	
Antimony	ug/L	<60.0	60.0	07/08/17 02:03	
Arsenic	ug/L	<10.0	10.0	07/08/17 02:03	
Barium	ug/L	<200	200	07/08/17 02:03	
Beryllium	ug/L	<5.0	5.0	07/08/17 02:03	
Boron	ug/L	<50.0	50.0	07/08/17 02:03	
Cadmium	ug/L	<2.5	2.5	07/08/17 02:03	
Calcium	ug/L	<1000	1000	07/08/17 02:03	
Chromium	ug/L	<10.0	10.0	07/08/17 02:03	
Cobalt	ug/L	<50.0	50.0	07/08/17 02:03	
Copper	ug/L	<25.0	25.0	07/08/17 02:03	
Hardness, Calcium	ug/L	<2500	2500	07/08/17 02:03	
Iron	ug/L	<100	100	07/08/17 02:03	
Lead	ug/L	<5.0	5.0	07/08/17 02:03	
Magnesium	ug/L	<1000	1000	07/08/17 02:03	
Manganese	ug/L	<10.0	10.0	07/08/17 02:03	
Nickel	ug/L	<40.0	40.0	07/08/17 02:03	
Potassium	ug/L	<5000	5000	07/08/17 02:03	
Selenium	ug/L	<10.0	10.0	07/08/17 02:03	
Silver	ug/L	<10.0	10.0	07/08/17 02:03	
Sodium	ug/L	<5000	5000	07/08/17 02:03	
Thallium	ug/L	<10.0	10.0	07/08/17 02:03	
Total Hardness	ug/L	<4100	4100	07/08/17 02:03	
Vanadium	ug/L	<50.0	50.0	07/08/17 02:03	
Zinc	ug/L	<20.0	20.0	07/08/17 02:03	

LABORATORY CONTROL SAMPLE: 139958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	4930	99	85-115	
Antimony	ug/L	750	742	99	85-115	
Arsenic	ug/L	500	509	102	85-115	
Barium	ug/L	500	510	102	85-115	
Beryllium	ug/L	50	52.0	104	85-115	
Boron	ug/L	2500	2500	100	85-115	
Cadmium	ug/L	50	51.4	103	85-115	
Calcium	ug/L	25000	25700	103	85-115	
Chromium	ug/L	250	244	98	85-115	
Cobalt	ug/L	500	513	103	85-115	
Copper	ug/L	250	258	103	85-115	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

LABORATORY CONTROL SAMPLE: 139958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hardness, Calcium	ug/L		64100			
Iron	ug/L	2000	2060	103	85-115	
Lead	ug/L	500	505	101	85-115	
Magnesium	ug/L	25000	25300	101	85-115	
Manganese	ug/L	250	254	102	85-115	
Nickel	ug/L	250	256	103	85-115	
Potassium	ug/L	50000	50200	100	85-115	
Selenium	ug/L	750	759	101	85-115	
Silver	ug/L	250	257	103	85-115	
Sodium	ug/L	50000	52200	104	85-115	
Thallium	ug/L	750	772	103	85-115	
Total Hardness	ug/L		168000			
Vanadium	ug/L	500	508	102	85-115	
Zinc	ug/L	1000	1030	103	85-115	

MATRIX SPIKE SAMPLE: 139960

Parameter	Units	7022988001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	801	5000	6010	104	70-130	
Antimony	ug/L	<60.0	750	735	98	70-130	
Arsenic	ug/L	<10.0	500	494	99	70-130	
Barium	ug/L	<200	500	537	98	70-130	
Beryllium	ug/L	<5.0	50	49.8	99	70-130	
Boron	ug/L	71.9	2500	2490	97	70-130	
Cadmium	ug/L	<2.5	50	49.5	99	70-130	
Calcium	ug/L	84700	25000	107000	89	70-130	
Chromium	ug/L	<10.0	250	245	97	70-130	
Cobalt	ug/L	<50.0	500	497	99	70-130	
Copper	ug/L	<25.0	250	253	100	70-130	
Hardness, Calcium	ug/L	212000		267000			
Iron	ug/L	1040	2000	3050	101	70-130	
Lead	ug/L	<5.0	500	493	98	70-130	
Magnesium	ug/L	9760	25000	34000	97	70-130	
Manganese	ug/L	294	250	538	97	70-130	
Nickel	ug/L	<40.0	250	251	99	70-130	
Potassium	ug/L	6880	50000	54600	95	70-130	
Selenium	ug/L	<10.0	750	744	99	70-130	
Silver	ug/L	<10.0	250	73.6	29	70-130	M1
Sodium	ug/L	51700	50000	100000	98	70-130	
Thallium	ug/L	<10.0	750	741	99	70-130	
Total Hardness	ug/L	252000		407000			
Vanadium	ug/L	<50.0	500	493	98	70-130	
Zinc	ug/L	<20.0	1000	1010	100	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

MATRIX SPIKE SAMPLE: 139962

Parameter	Units	7022988006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	1330	5000	6930	112	70-130	
Antimony	ug/L	<60.0	750	721	96	70-130	
Arsenic	ug/L	<10.0	500	488	98	70-130	
Barium	ug/L	<200	500	536	98	70-130	
Beryllium	ug/L	<5.0	50	49.6	99	70-130	
Boron	ug/L	68.4	2500	2470	96	70-130	
Cadmium	ug/L	<2.5	50	49.1	98	70-130	
Calcium	ug/L	71400	25000	94400	92	70-130	
Chromium	ug/L	<10.0	250	246	96	70-130	
Cobalt	ug/L	<50.0	500	492	98	70-130	
Copper	ug/L	<25.0	250	260	103	70-130	
Hardness, Calcium	ug/L	178000		236000			
Iron	ug/L	1680	2000	3930	113	70-130	
Lead	ug/L	35.4	500	492	91	70-130	
Magnesium	ug/L	11000	25000	35500	98	70-130	
Manganese	ug/L	42.6	250	287	98	70-130	
Nickel	ug/L	<40.0	250	251	98	70-130	
Potassium	ug/L	5770	50000	52000	93	70-130	
Selenium	ug/L	<10.0	750	717	96	70-130	
Silver	ug/L	<10.0	250	73.9	29	70-130	M1
Sodium	ug/L	47800	50000	96300	97	70-130	
Thallium	ug/L	<10.0	750	734	98	70-130	
Total Hardness	ug/L	224000		382000			
Vanadium	ug/L	<50.0	500	493	98	70-130	
Zinc	ug/L	<20.0	1000	1010	100	70-130	

SAMPLE DUPLICATE: 139959

Parameter	Units	7022988001 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	801	842	5	
Antimony	ug/L	<60.0	<60.0		
Arsenic	ug/L	<10.0	<10.0		
Barium	ug/L	<200	<200		
Beryllium	ug/L	<5.0	<5.0		
Boron	ug/L	71.9	72.8	1	
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	84700	86800	2	
Chromium	ug/L	<10.0	<10.0		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	<25.0	34.2		
Hardness, Calcium	ug/L	212000	217000	2	
Iron	ug/L	1040	1060	2	
Lead	ug/L	<5.0	6.4		
Magnesium	ug/L	9760	10000	3	
Manganese	ug/L	294	306	4	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

SAMPLE DUPLICATE: 139959

Parameter	Units	7022988001 Result	Dup Result	RPD	Qualifiers
Nickel	ug/L	<40.0	<40.0		
Potassium	ug/L	6880	6860	0	
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	51700	52800	2	
Thallium	ug/L	<10.0	<10.0		
Total Hardness	ug/L	252000	258000	2	
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	<20.0	<20.0		

SAMPLE DUPLICATE: 139961

Parameter	Units	7022988006 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	1330	1450	9	
Antimony	ug/L	<60.0	<60.0		
Arsenic	ug/L	<10.0	<10.0		
Barium	ug/L	<200	<200		
Beryllium	ug/L	<5.0	<5.0		
Boron	ug/L	68.4	71.0	4	
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	71400	71300	0	
Chromium	ug/L	<10.0	<10.0		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	<25.0	<25.0		
Hardness, Calcium	ug/L	178000	178000	0	
Iron	ug/L	1680	1840	9	
Lead	ug/L	35.4	<5.0		
Magnesium	ug/L	11000	11000	0	
Manganese	ug/L	42.6	44.1	3	
Nickel	ug/L	<40.0	<40.0		
Potassium	ug/L	5770	5800	1	
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	47800	47400	1	
Thallium	ug/L	<10.0	<10.0		
Total Hardness	ug/L	224000	223000	0	
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	<20.0	<20.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30014 Analysis Method: EPA 8260C/5030C
QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV
Associated Lab Samples: 7022725001, 7022725002, 7022725003

METHOD BLANK: 139052 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002, 7022725003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/03/17 06:26	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/03/17 06:26	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	07/03/17 06:26	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/03/17 06:26	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/03/17 06:26	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/03/17 06:26	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/03/17 06:26	
2-Butanone (MEK)	ug/L	<5.0	5.0	07/03/17 06:26	IL
2-Hexanone	ug/L	<5.0	5.0	07/03/17 06:26	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	07/03/17 06:26	
Acetone	ug/L	<5.0	5.0	07/03/17 06:26	
Acrylonitrile	ug/L	<1.0	1.0	07/03/17 06:26	
Benzene	ug/L	<1.0	1.0	07/03/17 06:26	
Bromochloromethane	ug/L	<1.0	1.0	07/03/17 06:26	
Bromodichloromethane	ug/L	<1.0	1.0	07/03/17 06:26	
Bromoform	ug/L	<1.0	1.0	07/03/17 06:26	
Bromomethane	ug/L	<1.0	1.0	07/03/17 06:26	
Carbon disulfide	ug/L	<1.0	1.0	07/03/17 06:26	
Carbon tetrachloride	ug/L	<1.0	1.0	07/03/17 06:26	
Chlorobenzene	ug/L	<1.0	1.0	07/03/17 06:26	
Chloroethane	ug/L	<1.0	1.0	07/03/17 06:26	
Chloroform	ug/L	<1.0	1.0	07/03/17 06:26	
Chloromethane	ug/L	<1.0	1.0	07/03/17 06:26	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/03/17 06:26	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	07/03/17 06:26	
Dibromochloromethane	ug/L	<1.0	1.0	07/03/17 06:26	
Dibromomethane	ug/L	<1.0	1.0	07/03/17 06:26	
Ethylbenzene	ug/L	<1.0	1.0	07/03/17 06:26	
Iodomethane	ug/L	<1.0	1.0	07/03/17 06:26	
Methylene Chloride	ug/L	<1.0	1.0	07/03/17 06:26	
Styrene	ug/L	<1.0	1.0	07/03/17 06:26	
Tetrachloroethene	ug/L	<1.0	1.0	07/03/17 06:26	CC
Toluene	ug/L	<1.0	1.0	07/03/17 06:26	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/03/17 06:26	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	07/03/17 06:26	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

METHOD BLANK: 139052 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002, 7022725003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	07/03/17 06:26	
Trichloroethene	ug/L	<1.0	1.0	07/03/17 06:26	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/03/17 06:26	
Vinyl acetate	ug/L	<1.0	1.0	07/03/17 06:26	
Vinyl chloride	ug/L	<1.0	1.0	07/03/17 06:26	
Xylene (Total)	ug/L	<2.0	2.0	07/03/17 06:26	
1,2-Dichloroethane-d4 (S)	%.	103	68-153	07/03/17 06:26	
4-Bromofluorobenzene (S)	%.	93	79-124	07/03/17 06:26	
Toluene-d8 (S)	%.	93	69-124	07/03/17 06:26	

LABORATORY CONTROL SAMPLE: 139053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.0	94	74-113	
1,1,1-Trichloroethane	ug/L	50	49.9	100	65-118	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	74-121	
1,1,2-Trichloroethane	ug/L	50	47.9	96	80-117	
1,1-Dichloroethane	ug/L	50	53.0	106	83-151	
1,1-Dichloroethene	ug/L	50	51.5	103	45-146	
1,2,3-Trichloropropane	ug/L	50	47.3	95	71-123	
1,2-Dibromo-3-chloropropane	ug/L	50	52.5	105	74-119	
1,2-Dibromoethane (EDB)	ug/L	50	49.0	98	83-115	
1,2-Dichlorobenzene	ug/L	50	44.9	90	74-113	
1,2-Dichloroethane	ug/L	50	54.6	109	74-129	
1,2-Dichloropropane	ug/L	50	49.5	99	75-117	
1,4-Dichlorobenzene	ug/L	50	43.0	86	71-113	
2-Butanone (MEK)	ug/L	50	57.0	114	44-162	CC,IL
2-Hexanone	ug/L	50	60.2	120	32-183	CC
4-Methyl-2-pentanone (MIBK)	ug/L	50	59.4	119	69-132	CC
Acetone	ug/L	50	46.2	92	23-188	
Acrylonitrile	ug/L	50	56.5	113	59-148	
Benzene	ug/L	50	48.1	96	73-119	
Bromochloromethane	ug/L	50	49.9	100	81-116	
Bromodichloromethane	ug/L	50	50.2	100	78-117	
Bromoform	ug/L	50	46.3	93	65-122	
Bromomethane	ug/L	50	51.7	103	52-147	
Carbon disulfide	ug/L	50	46.9	94	41-144	
Carbon tetrachloride	ug/L	50	52.2	104	59-120	
Chlorobenzene	ug/L	50	43.2	86	75-113	
Chloroethane	ug/L	50	47.1	94	49-151	
Chloroform	ug/L	50	50.3	101	72-122	
Chloromethane	ug/L	50	46.5	93	46-144	
cis-1,2-Dichloroethene	ug/L	50	47.3	95	72-121	
cis-1,3-Dichloropropene	ug/L	50	54.1	108	78-116	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

LABORATORY CONTROL SAMPLE: 139053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	47.9	96	70-120	
Dibromomethane	ug/L	50	47.4	95	75-125	
Ethylbenzene	ug/L	50	43.8	88	70-113	
Iodomethane	ug/L	50	61.7	123	61-144	CC
Methylene Chloride	ug/L	50	48.3	97	61-142	
Styrene	ug/L	50	45.9	92	72-118	
Tetrachloroethene	ug/L	50	36.9	74	60-128	CC
Toluene	ug/L	50	46.5	93	72-119	
trans-1,2-Dichloroethene	ug/L	50	48.8	98	56-142	
trans-1,3-Dichloropropene	ug/L	50	58.0	116	79-116	
trans-1,4-Dichloro-2-butene	ug/L	50	57.0	114	71-121	
Trichloroethene	ug/L	50	45.1	90	69-117	
Trichlorofluoromethane	ug/L	50	53.9	108	27-173	
Vinyl acetate	ug/L	50	64.0	128	20-158	CC
Vinyl chloride	ug/L	50	47.6	95	43-143	
Xylene (Total)	ug/L	150	137	91	71-109	
1,2-Dichloroethane-d4 (S)	%.			107	68-153	
4-Bromofluorobenzene (S)	%.			94	79-124	
Toluene-d8 (S)	%.			93	69-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 139054 139055

Parameter	Units	7022724001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	50	46.9	45.4	94	91	74-113	3	
1,1,1-Trichloroethane	ug/L	<1.0	50	50	53.5	52.6	107	105	65-118	2	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	48.6	47.4	97	95	74-121	3	
1,1,2-Trichloroethane	ug/L	<1.0	50	50	46.9	45.9	94	92	80-117	2	
1,1-Dichloroethane	ug/L	1.1	50	50	57.7	56.8	113	111	83-151	2	
1,1-Dichloroethene	ug/L	<1.0	50	50	55.3	55.0	111	110	45-146	1	
1,2,3-Trichloropropane	ug/L	<1.0	50	50	46.9	44.7	94	89	71-123	5	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	50	50	50.3	50.3	101	101	74-119	0	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	48.3	47.0	97	94	83-115	3	
1,2-Dichlorobenzene	ug/L	<1.0	50	50	45.9	45.1	92	90	74-113	2	
1,2-Dichloroethane	ug/L	<1.0	50	50	56.4	55.9	113	112	74-129	1	
1,2-Dichloropropane	ug/L	<1.0	50	50	50.5	50.7	101	101	75-117	0	
1,4-Dichlorobenzene	ug/L	<1.0	50	50	44.5	44.1	89	88	71-113	1	
2-Butanone (MEK)	ug/L	<5.0	50	50	55.4	54.4	111	109	44-162	2	CC,IL
2-Hexanone	ug/L	<5.0	50	50	58.3	56.0	117	112	32-183	4	CC
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	50	59.1	57.5	118	115	69-132	3	CC
Acetone	ug/L	<5.0	50	50	45.9	45.3	88	86	23-188	1	
Acrylonitrile	ug/L	<1.0	50	50	55.8	54.5	112	109	59-148	2	
Benzene	ug/L	<1.0	50	50	55.7	55.2	111	110	73-119	1	
Bromochloromethane	ug/L	<1.0	50	50	50.4	49.9	101	100	81-116	1	
Bromodichloromethane	ug/L	<1.0	50	50	50.6	50.3	101	101	78-117	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 139054 139055

Parameter	Units	7022724001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Bromoform	ug/L	<1.0	50	50	43.2	41.5	86	83	65-122	4	
Bromomethane	ug/L	<1.0	50	50	55.8	55.5	112	111	52-147	0	
Carbon disulfide	ug/L	<1.0	50	50	51.1	50.4	102	101	41-144	1	
Carbon tetrachloride	ug/L	<1.0	50	50	53.5	53.6	107	107	59-120	0	
Chlorobenzene	ug/L	<1.0	50	50	44.2	43.3	88	87	75-113	2	
Chloroethane	ug/L	<1.0	50	50	51.7	50.9	103	102	49-151	1	
Chloroform	ug/L	<1.0	50	50	53.0	52.2	106	104	72-122	2	
Chloromethane	ug/L	<1.0	50	50	51.9	51.0	104	102	46-144	2	
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	50.3	50.1	101	100	72-121	0	
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	53.4	53.4	107	107	78-116	0	
Dibromochloromethane	ug/L	<1.0	50	50	46.1	45.7	92	91	70-120	1	
Dibromomethane	ug/L	<1.0	50	50	47.6	47.2	95	94	75-125	1	
Ethylbenzene	ug/L	<1.0	50	50	45.7	44.7	91	89	70-113	2	
Iodomethane	ug/L	<1.0	50	50	65.5	65.8	131	132	61-144	0	CC
Methylene Chloride	ug/L	<1.0	50	50	49.3	48.7	99	97	61-142	1	
Styrene	ug/L	<1.0	50	50	46.3	45.5	93	91	72-118	2	
Tetrachloroethene	ug/L	<1.0	50	50	39.1	37.9	78	76	60-128	3	CC
Toluene	ug/L	<1.0	50	50	49.3	48.4	99	97	72-119	2	
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	51.8	51.8	104	104	56-142	0	
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	56.3	56.8	113	114	79-116	1	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	50	55.1	54.0	110	108	71-121	2	
Trichloroethene	ug/L	<1.0	50	50	47.7	48.2	95	96	69-117	1	
Trichlorofluoromethane	ug/L	<1.0	50	50	57.0	56.2	114	112	27-173	1	
Vinyl acetate	ug/L	<1.0	50	50	62.8	62.5	126	125	20-158	1	CC
Vinyl chloride	ug/L	<1.0	50	50	52.5	51.9	105	104	43-143	1	
Xylene (Total)	ug/L	<2.0	150	150	141	136	94	91	71-109	3	
1,2-Dichloroethane-d4 (S)	%.						109	110	68-153		
4-Bromofluorobenzene (S)	%.						92	92	79-124		
Toluene-d8 (S)	%.						92	91	69-124		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29660 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137480 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<1.0	1.0	06/29/17 06:50	

LABORATORY CONTROL SAMPLE: 137481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	10	9.9	99	90-110	

SAMPLE DUPLICATE: 137494

Parameter	Units	7022725001 Result	Dup Result	RPD	Qualifiers
Turbidity	NTU	27.4	27.3	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29719 Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B Analysis Description: 2120B Color
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137570 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	06/29/17 11:07	

LABORATORY CONTROL SAMPLE: 137571

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	40	40.0	100	90-110	

SAMPLE DUPLICATE: 137572

Parameter	Units	7022739001 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	<5.0	<5.0		
pH	Std. Units	7.0	7.0	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30434 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 140860 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	07/07/17 09:19	

LABORATORY CONTROL SAMPLE: 140861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	25.1	100	80-120	

MATRIX SPIKE SAMPLE: 140863

Parameter	Units	7022975001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	55.0	25	79.2	97	75-125	

SAMPLE DUPLICATE: 140862

Parameter	Units	7022975001 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	55.0	52.8	4	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30119 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 139353 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	07/03/17 16:49	

LABORATORY CONTROL SAMPLE: 139354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	472	94	85-115	

MATRIX SPIKE SAMPLE: 139356

Parameter	Units	7022660001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	70.0	300	340	90	75-125	

MATRIX SPIKE SAMPLE: 139358

Parameter	Units	7022762003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	372	300	681	103	75-125	

SAMPLE DUPLICATE: 139355

Parameter	Units	7022660001 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	70.0	58.0	19	

SAMPLE DUPLICATE: 139357

Parameter	Units	7022762003 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	372	356	4	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29725 Analysis Method: SM22 3500-Cr B
QC Batch Method: SM22 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137584 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	06/28/17 09:21	

LABORATORY CONTROL SAMPLE: 137585

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.2	0.22	111	85-115	

MATRIX SPIKE SAMPLE: 137586

Parameter	Units	7022725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	.2	<0.020	0	75-125	M1

SAMPLE DUPLICATE: 137587

Parameter	Units	7022725001 Result	Dup Result	RPD	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	<0.020		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30717 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 142275 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	07/10/17 13:20	

LABORATORY CONTROL SAMPLE: 142276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	496	99	90-110	

MATRIX SPIKE SAMPLE: 142277

Parameter	Units	7023260001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	56.7	1000	1000	95	90-110	

SAMPLE DUPLICATE: 142278

Parameter	Units	7023260001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	56.7	65.0	14	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29704 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137555 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	07/04/17 08:29	

LABORATORY CONTROL SAMPLE: 137556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	213	107	84.5-115.4	

SAMPLE DUPLICATE: 137557

Parameter	Units	7022741001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	60.4	49.8	19	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 31034 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 143664 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	07/12/17 16:52	
Chloride	mg/L	<2.0	2.0	07/12/17 16:52	
Sulfate	mg/L	<5.0	5.0	07/12/17 16:52	

LABORATORY CONTROL SAMPLE: 143665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.99	99	90-110	
Chloride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30855 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 143027 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	07/11/17 13:51	

LABORATORY CONTROL SAMPLE: 143028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.1	103	90-110	

MATRIX SPIKE SAMPLE: 143029

Parameter	Units	7022625001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	6.9	4	13.8	173	90-110	M6

MATRIX SPIKE SAMPLE: 143031

Parameter	Units	7022931002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.64	4	4.6	99	90-110	

SAMPLE DUPLICATE: 143030

Parameter	Units	7022625001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	6.9	6.0	14	

SAMPLE DUPLICATE: 143032

Parameter	Units	7022931002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.64	0.62	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29643 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137435 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	06/28/17 23:01	

LABORATORY CONTROL SAMPLE: 137436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.1	106	90-110	

MATRIX SPIKE SAMPLE: 137437

Parameter	Units	7022660001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.57	114	90-110	M1

MATRIX SPIKE SAMPLE: 137439

Parameter	Units	7022663001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.63	126	90-110	M1

SAMPLE DUPLICATE: 137438

Parameter	Units	7022660001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 137440

Parameter	Units	7022663001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 29669 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 137511 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	06/29/17 09:21	

LABORATORY CONTROL SAMPLE: 137512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	0.98	98	90-110	

MATRIX SPIKE SAMPLE: 137513

Parameter	Units	7022698001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	8.3	5	13.0	94	90-110	

SAMPLE DUPLICATE: 137514

Parameter	Units	7022698001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	8.3	8.3	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30215
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 139821
Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	07/05/17 15:15	

LABORATORY CONTROL SAMPLE: 139822

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	30	29.3	98	90-110	

MATRIX SPIKE SAMPLE: 139823

Parameter	Units	7022079003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	7.8	20	24.4	83	75-125	

MATRIX SPIKE SAMPLE: 139825

Parameter	Units	7022725002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	20.4	101	75-125	

SAMPLE DUPLICATE: 139824

Parameter	Units	7022079003 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	7.8	6.9	12	

SAMPLE DUPLICATE: 139826

Parameter	Units	7022725002 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30685 Analysis Method: SM22 4500-CN-E
QC Batch Method: SM20/22 4500-CN-C Analysis Description: 4500 CNE Cyanide, Total
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 142211 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	<10.0	10.0	07/09/17 16:47	

LABORATORY CONTROL SAMPLE: 142212

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	67.3	90	85-115	

MATRIX SPIKE SAMPLE: 142213

Parameter	Units	7022754001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	<0.010 mg/L	100	15.4	12	75-125	M1

SAMPLE DUPLICATE: 142214

Parameter	Units	7022754001 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	<0.010 mg/L	<10.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 30910 Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H Analysis Description: 4500 Ammonia
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 143098 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	07/11/17 12:56	

LABORATORY CONTROL SAMPLE: 143099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.95	95	90-110	

MATRIX SPIKE SAMPLE: 143100

Parameter	Units	7023308001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	1	1.0	100	75-125	

SAMPLE DUPLICATE: 143101

Parameter	Units	7023308001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	<0.10		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

QC Batch: 264340 Analysis Method: EPA 9060A
QC Batch Method: EPA 9060A Analysis Description: 9060A TOC
Associated Lab Samples: 7022725001, 7022725002

METHOD BLANK: 1301936 Matrix: Water
Associated Lab Samples: 7022725001, 7022725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	1.0	07/07/17 14:59	
Total Organic Carbon	mg/L	<1.0	1.0	07/07/17 14:59	
Total Organic Carbon	mg/L	<1.0	1.0	07/07/17 14:59	
Total Organic Carbon	mg/L	<1.0	1.0	07/07/17 14:59	
Total Organic Carbon	mg/L	<1.0	1.0	07/07/17 14:59	

LABORATORY CONTROL SAMPLE: 1301937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	10	10.4	104	85-115	
Total Organic Carbon	mg/L	10	10.4	104	85-115	
Total Organic Carbon	mg/L	10	10.4	104	85-115	
Total Organic Carbon	mg/L	10	10.4	104	85-115	
Total Organic Carbon	mg/L	10	10.4	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1301938 1301939

Parameter	Units	7022843003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mean Total Organic Carbon	mg/L	<10.0	100	100	106	107	100	100	85-115	0	
Total Organic Carbon	mg/L	<10.0	100	100	107	106	100	100	85-115	0	
Total Organic Carbon	mg/L	<10.0	100	100	106	107	99	100	85-115	1	
Total Organic Carbon	mg/L	<10.0	100	100	106	107	100	101	85-115	1	
Total Organic Carbon	mg/L	<10.0	100	100	107	106	100	100	85-115	0	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

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

TNI - The NELAC Institute.

LABORATORIES

PACE-MV	Pace Analytical Services - Melville
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

CC	The continuing calibration for this compound is outside of method control limits. The result is estimated.
H1	Analysis conducted outside the EPA method holding time.
IL	This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Balefill Landfill 6/28
Pace Project No.: 7022725

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7022725001	**MW-2**				
7022725002	**MW-3S**				
7022725001	**MW-2**	EPA 200.7	30245	EPA 200.7	30262
7022725002	**MW-3S**	EPA 200.7	30245	EPA 200.7	30262
7022725001	**MW-2**	EPA 245.1	30251	EPA 245.1	30268
7022725002	**MW-3S**	EPA 245.1	30251	EPA 245.1	30268
7022725001	**MW-2**	EPA 8260C/5030C	30014		
7022725002	**MW-3S**	EPA 8260C/5030C	30014		
7022725003	**TRIP BLANK**	EPA 8260C/5030C	30014		
7022725001	**MW-2**	EPA 180.1	29660		
7022725002	**MW-3S**	EPA 180.1	29660		
7022725001	**MW-2**	SM22 2120B	29719		
7022725002	**MW-3S**	SM22 2120B	29719		
7022725001	**MW-2**	SM22 2320B	30434		
7022725002	**MW-3S**	SM22 2320B	30434		
7022725001	**MW-2**	SM22 2540C	30119		
7022725002	**MW-3S**	SM22 2540C	30119		
7022725001	**MW-2**	SM22 3500-Cr B	29725		
7022725002	**MW-3S**	SM22 3500-Cr B	29725		
7022725001	**MW-2**	EPA 410.4	30717	EPA 410.4	30757
7022725002	**MW-3S**	EPA 410.4	30717	EPA 410.4	30757
7022725001	**MW-2**	SM22 5210B	29704	SM22 5210B	30548
7022725002	**MW-3S**	SM22 5210B	29704	SM22 5210B	30548
7022725001	**MW-2**	EPA 300.0	31034		
7022725002	**MW-3S**	EPA 300.0	31034		
7022725001	**MW-2**	EPA 351.2	30855	EPA 351.2	30894
7022725002	**MW-3S**	EPA 351.2	30855	EPA 351.2	30894
7022725001	**MW-2**	EPA 353.2	29669		
7022725002	**MW-3S**	EPA 353.2	29669		
7022725001	**MW-2**	EPA 353.2	29643		
7022725002	**MW-3S**	EPA 353.2	29643		
7022725001	**MW-2**	EPA 420.1	30215	EPA 420.1	30257
7022725002	**MW-3S**	EPA 420.1	30215	EPA 420.1	30257
7022725001	**MW-2**	SM20/22 4500-CN-C	30685	SM22 4500-CN-E	30690
7022725002	**MW-3S**	SM20/22 4500-CN-C	30685	SM22 4500-CN-E	30690
7022725001	**MW-2**	SM22 4500 NH3 H	30910		
7022725002	**MW-3S**	SM22 4500 NH3 H	30910		
7022725001	**MW-2**	EPA 9060A	264340		
7022725002	**MW-3S**	EPA 9060A	264340		

REPORT OF LABORATORY ANALYSIS

Pace Analytical™
www.pacelabs.com

New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Request D[ocument]

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be comple[ted]

WO#:7022725
7022725

Section A Required Client Information:		Section B Required Project Information:	Section C Invoice Information:
Company: Dutchess County		Report To:	Attention:
Address:		Copy To:	Company Name:
			Address:
Email To:		Purchase Order No.:	Pace Quote Reference:
Phone:	Fax:	Project Name: Balefill Landfill	Pace Project Manager: Susan Richter
Requested Due Date/TAT: Standard		Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER______

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER______

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other
1	MW-2	GW	G			06/27/17	11:10			X	X	X	X	X			
2	MW-3S	GW	G			06/27/17	12:15			X	X	X	X	X			
3	Trip Blank	WT	G			06/27/17	N/A		2				X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Requested Analysis — Filtered (Y/N)

ITEM #	TKN, NH3, COD	TOC	TOTAL PHENOLS	ALKALIINTY	NO3,BOD5,TDS,SO4,CL,	COLOR,BROMIDE,CR+6	AL,SB*,AS*,BA,BE,B,CD,CA,CR,CO,	CU,FE,PB*,MG,MN,HG,NI,K,SE*,AG,	NA,TL*V,ZN + CALC. HARDNESS	TOTAL CYANIDE	BASELINE 8260	DISSOLVED METALS	Field-ph,eh,Spec. Cond,Turb,Te[mp]	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	X	X	X	X	X	X	X	X	X	X	X		X		-001
2	X	X	X	X	X	X	X	X	X	X	X		X		-002
3											X				-003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
NYS Part 360 1993 Baselines ASP B	[signature] PACE	6/27/17	14:05	[signature] (PACE)	6/27/17	14:05	2.8 (IR)	Y/N	Y/N	Y/N
	[signature] (PACE)	6/27/17	16:00	VIA FEDEX →				Y/N	Y/N	Y/N
				[signature]	6/28/17	940	0.3	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Broker PACE

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 6/27/17

e-File(ALLQ020rev.4,29Mar06)22Jun2005

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-2**

PACE ID

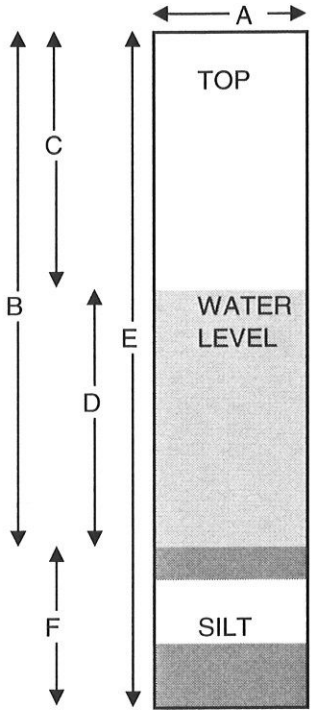
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	20.08	feet
C.	Depth to Water	8.30	feet
D.	Length of Water Column (calculated)	11.78	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.88	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.64	gallons
	Actual Volume Evacuated	6.00	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	6/27/17	6/27/17	
Time	10:35	11:10	
EH	-57	-40	mV
Temperature	16.7	19.6	C
pH	7.17	6.52	SU
Specific Cond.	463.3	475.1	uS
Turbidity	2.35	1.05	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 8.3 feet

Recharge Depth to Water 8.29 feet

2nd water column height %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 20C partly sunny

Observations: sample clear sulfur odor

Sampler: Matt Broker

Signature:

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PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-3S**

PACE ID

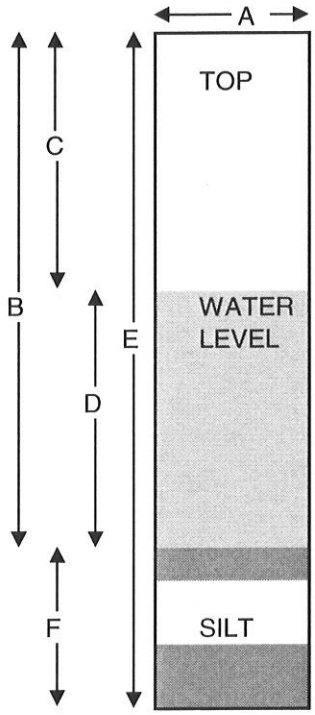
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	17.65	feet
C.	Depth to Water	6.75	feet
D.	Length of Water Column (calculated)	10.90	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.74	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.22	gallons
	Actual Volume Evacuated	5.50	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	6/27/17	6/27/17	
Time	11:24	12:15	
EH	-86	-86	mV
Temperature	18.1	15.6	C
pH	6.54	6.81	SU
Specific Cond.	1139	1000	uS
Turbidity	10.6	4.05	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 6.75 feet

Recharge Depth to Water 13.27 feet

2nd water column height ____ %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 22C partly sunny

Observations: sample clear with sulfur odor

Sampler: Matt Broker

Signature: Matt D

1

PACE ANALYICAL INC.

FIELD CALIBRATION SHEET

DATE: 6/27/17 **SITE:** Balefill Landfill

TECHNICIAN: Matt Broker **WEATHER:** 20C cloudy

INSTRUMENT:

PH	Myron Ultrameter II 6PFCe
CONDUCTIVITY	Myron Ultrameter II 6PFCe
TEMPERATURE	Myron Ultrameter II 6PFCe
DISSOLVED OXYGEN	Sper Scientific 850041
TURBIDITY	Hanna HI 98703

INSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph	4.00	4.10	4.00	746	
	7.00	7.14	7.00	745	
	10.00	10.11	10.00	747	
Conductivity	1413	1427	1413	748	
Turbidity	<0.10	0.13	0.1	749	
	15	15.4	15	750	
	100	97	100	751	
	750	754	750	752	

NOTES:

Sample Condition Upon Receipt

Pace Analytical™ Long Island Laboratory

Client Name: Dutchess County **Project** WO#: 7022725

PM: JSA Due Date: 07/13/17
CLIENT: DCDPW

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 7359 2388 3567

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No **Seals intact:** ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ Ziploc ☐ None ☐ Other **Type of Ice:** (Wet) Blue None

Thermometer Used: TH092 **Correction Factor:** 0.0 ☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 0.3 **Cooler Temperature Corrected (°C):** 0.3 **Date/Time 5035A kits placed in freezer** _____

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☒ N/A, water sample) **Date and Initials of person examining contents:** 6/28/17 JP

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑ Yes	☐ No		1.
Chain of Custody Filled Out:	☑ Yes	☐ No		2.
Chain of Custody Relinquished:	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☑ Yes	☐ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑ Yes	☐ No		8.
Correct Containers Used:	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact:	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑ Yes	☐ No		12.
-Includes date/time/ID/Analysis Matrix: SL (WT) OIL				
All containers needing preservation have been checked	☑ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC683124				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☑ Yes	☐ No	☐ N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Present:	☑ Yes	☐ No	☐ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

* PM (Project Manager) review is documented electronically in LIMS.

DUTCHESS COUNTY BALEFILL (Access off Citation Rd. at DC AIRPORT)
POST-CLOSURE MONITORING INSPECTION CHECKLIST

In addition to quarterly water quality sampling and laboratory analysis of the perimeter monitoring wells, a physical inspection of the closed Balefill facility shall be conducted quarterly. Use the following checklist to note field conditions of various elements as well as to describe corrective measures if applicable. Photographs of field conditions should be collected as a matter of record and to accompany this checklist. Photos to be inserted into folders for quarterly inspections.

Inspector's Name: JOSEPH STANKAVAGE
Date: 8/31/17
Weather Conditions: (temp., wind, cloud cover) SUNNY, 70°, LIGHT BREEZE

Access roadway in good condition **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy: _____

Drainage Systems are in good working order [*e.g. – drainage ditches drain freely, drainage pipes clear of debris and structurally sound.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy: EXCEPT - VEGETATION IN SOME OF THE DRAINAGE SWALES IS IN NEED OF CUTTING. WOODY VEGETATION IS BEGINNING TO GROW IN SOME SWALES. CUTTING IS REMEDY.

Landfill Cover System is in good condition [*e.g. – no cracks in the soil cover, no sloughing or differential settlement, no erosion, no large patches of dead vegetation, no woody vegetation becoming established on the mounded soil cover system and the grass surface has been routinely mowed.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:
EXCEPT, ONE SIDE OF LANDFILL DOES NOT APPEAR TO HAVE BEEN MOWED REGULARLY. NEED TO MOW TO ADDRESS ISSUE.

Vectors are not present [*e.g. –burrowing rodents or evidence of borrows on the landfill mound, rats, flies.*] **(YES:** ✓ **NO:** ~~✓~~**)** If No, describe concerns and provide suggested remedy:
_____
_____

Gas Vents show no physical damage and appear in working order [*e.g. – no structural damage to the plastic vent pipe. Vents may be passively discharging decomposition gases with a detectable smell near the vent.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:
NO SMELL DETECTED; TYPICAL OF MANY QUARTERS. SEE PREVIOUS REPORTS.
_____

Security in good condition [*e.g. – evidence or trespass, vandalism, illegal dumping.*]
(YES: ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:
_____

Additionally the inspector shall inspect and **photograph a discolored (*orange-brown*) groundwater seep** along the Wappinger Creek from the same perspective position. (*marked on a tree with orange ribbon*)
SEEP IS DRY. SOME ORANGE STAINING ON VEGETATION/GROUND IN AREA OF SEEP. NO WATER FLOWING.
A contracted consultant shall collect and analyze water quality samples as well as prepare the water quality section of an annual report. County personnel shall add summarized results of quarterly field inspections and submit annual report to NYSDEC.

S:\vol2\SPECIAL PROJECTS\Balefill Post-Closure Monitoring\reports\Balefill Post-Closure Inspection Checklist.doc

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

September 20, 2017

Joe Stankavage
Dutchess County DPW
626 Dutchess Turnpike
Poughkeepsie, NY 12603

RE: Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Dear Joe Stankavage:
Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 180.1**
Description: 180.1 Turbidity
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 180.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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Melville, NY 11747
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PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
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Melville, NY 11747
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PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 410.4**
Description: 410.4 COD
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Method: **SM22 5310B**
Description: 5310B TOC as NPOC
Client: Dutchess County DPW
Date: September 20, 2017

General Information:
2 samples were analyzed for SM22 5310B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Sample: MW-2 **Lab ID: 7028737001** Collected: 08/31/17 10:35 Received: 09/01/17 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.55**	Std. Units		1		08/31/17 10:35		
Field Temperature	**21.6**	deg C		1		08/31/17 10:35		
Field Specific Conductance	**555.5**	umhos/cm		1		08/31/17 10:35		
Eh	**-57**	mV		1		08/31/17 10:35		
Field Turbidity	**1.06**	NTU		1		08/31/17 10:35		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**<2.5**	ug/L	2.5	1	09/12/17 10:46	09/13/17 00:32	7440-43-9	
Calcium	**47200**	ug/L	1000	1	09/12/17 10:46	09/13/17 00:32	7440-70-2	
Iron	**50600**	ug/L	20.0	1	09/12/17 10:46	09/13/17 00:32	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	09/12/17 10:46	09/13/17 00:32	7439-92-1	
Magnesium	**12400**	ug/L	1000	1	09/12/17 10:46	09/13/17 00:32	7439-95-4	
Manganese	**14700**	ug/L	10.0	1	09/12/17 10:46	09/13/17 00:32	7439-96-5	
Potassium	**<5000**	ug/L	5000	1	09/12/17 10:46	09/13/17 00:32	7440-09-7	
Sodium	**9400**	ug/L	5000	1	09/12/17 10:46	09/13/17 00:32	7440-23-5	
Total Hardness	**169000**	ug/L	4100	1	09/12/17 10:46	09/13/17 00:32		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**120**	NTU	5.0	5		09/01/17 22:58		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**297**	mg/L	1.0	1		09/08/17 13:58		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**294**	mg/L	10.0	1		09/06/17 16:01		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**35.9**	mg/L	10.0	1	09/08/17 11:28	09/08/17 12:48		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**6.6**	mg/L	2.0	1	09/01/17 14:03	09/06/17 10:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		09/13/17 17:37	24959-67-9	
Chloride	**31.9**	mg/L	2.0	1		09/13/17 17:37	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		09/13/17 17:37	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**2.2**	mg/L	0.10	1	09/12/17 06:36	09/12/17 13:24	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		09/01/17 22:49	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		09/01/17 21:17	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Sample: MW-2 **Lab ID: 7028737001** Collected: 08/31/17 10:35 Received: 09/01/17 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**5.1**	ug/L	5.0	1	09/08/17 12:00	09/08/17 15:39		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**1.6**	mg/L	0.10	1		09/07/17 14:09	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B							
Total Organic Carbon	**2.6**	mg/L	1.0	1		09/06/17 17:44	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Sample: MW-3S **Lab ID: 7028737002** Collected: 08/31/17 11:30 Received: 09/01/17 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.87**	Std. Units		1		08/31/17 11:30		
Field Temperature	**22.6**	deg C		1		08/31/17 11:30		
Field Specific Conductance	**1231**	umhos/cm		1		08/31/17 11:30		
Eh	**-99**	mV		1		08/31/17 11:30		
Field Turbidity	**17**	NTU		1		08/31/17 11:30		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**<2.5**	ug/L	2.5	1	09/12/17 10:46	09/13/17 00:38	7440-43-9	
Calcium	**162000**	ug/L	1000	1	09/12/17 10:46	09/13/17 00:38	7440-70-2	
Iron	**37900**	ug/L	20.0	1	09/12/17 10:46	09/13/17 00:38	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	09/12/17 10:46	09/13/17 00:38	7439-92-1	
Magnesium	**58000**	ug/L	1000	1	09/12/17 10:46	09/13/17 00:38	7439-95-4	
Manganese	**3790**	ug/L	10.0	1	09/12/17 10:46	09/13/17 00:38	7439-96-5	
Potassium	**7240**	ug/L	5000	1	09/12/17 10:46	09/13/17 00:38	7440-09-7	
Sodium	**24500**	ug/L	5000	1	09/12/17 10:46	09/13/17 00:38	7440-23-5	
Total Hardness	**644000**	ug/L	4100	1	09/12/17 10:46	09/13/17 00:38		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**78.0**	NTU	5.0	5		09/01/17 22:58		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**716**	mg/L	1.0	1		09/08/17 14:03		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**702**	mg/L	10.0	1		09/06/17 16:02		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**35.9**	mg/L	10.0	1	09/08/17 11:28	09/08/17 12:48		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**7.2**	mg/L	2.0	1	09/01/17 14:03	09/06/17 10:09		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**0.51**	mg/L	0.50	1		09/13/17 18:05	24959-67-9	
Chloride	**19.6**	mg/L	2.0	1		09/13/17 18:05	16887-00-6	
Sulfate	**12.1**	mg/L	5.0	1		09/13/17 18:05	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**2.2**	mg/L	0.10	1	09/12/17 06:36	09/12/17 13:25	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		09/01/17 22:50	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		09/01/17 21:18	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Sample: MW-3S **Lab ID: 7028737002** Collected: 08/31/17 11:30 Received: 09/01/17 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**5.1**	ug/L	5.0	1	09/08/17 12:00	09/08/17 15:40		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**1.6**	mg/L	0.10	1		09/07/17 14:10	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B							
Total Organic Carbon	**6.6**	mg/L	1.0	1		09/06/17 17:56	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38724
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 179855
Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	ug/L	<2.5	2.5	09/12/17 23:57	
Calcium	ug/L	<1000	1000	09/12/17 23:57	
Iron	ug/L	<20.0	20.0	09/12/17 23:57	
Lead	ug/L	<5.0	5.0	09/12/17 23:57	
Magnesium	ug/L	<1000	1000	09/12/17 23:57	
Manganese	ug/L	<10.0	10.0	09/12/17 23:57	
Potassium	ug/L	<5000	5000	09/12/17 23:57	
Sodium	ug/L	<5000	5000	09/12/17 23:57	
Total Hardness	ug/L	<4100	4100	09/12/17 23:57	

LABORATORY CONTROL SAMPLE: 179856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	50	49.7	99	85-115	
Calcium	ug/L	25000	24200	97	85-115	
Iron	ug/L	2000	2020	101	85-115	
Lead	ug/L	500	531	106	85-115	
Magnesium	ug/L	25000	25000	100	85-115	
Manganese	ug/L	250	231	92	85-115	
Potassium	ug/L	50000	49600	99	85-115	
Sodium	ug/L	50000	46000	92	85-115	
Total Hardness	ug/L		163000			

MATRIX SPIKE SAMPLE: 179858

Parameter	Units	7028732001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	<2.5	50	48.9	98	70-130	
Calcium	ug/L	44500	25000	67400	92	70-130	
Iron	ug/L	1140	2000	3020	94	70-130	
Lead	ug/L	<5.0	500	527	105	70-130	
Magnesium	ug/L	8670	25000	33600	100	70-130	
Manganese	ug/L	205	250	425	88	70-130	
Potassium	ug/L	13700	50000	59200	91	70-130	
Sodium	ug/L	174000	50000	215000	82	70-130	
Total Hardness	ug/L	147000		307000			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

MATRIX SPIKE SAMPLE: 179860

Parameter	Units	7028732002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	<2.5	50	50.8	101	70-130	
Calcium	ug/L	37500	25000	63700	105	70-130	
Iron	ug/L	73.5	2000	2130	103	70-130	
Lead	ug/L	<5.0	500	533	107	70-130	
Magnesium	ug/L	7580	25000	33400	103	70-130	
Manganese	ug/L	31.4	250	273	97	70-130	
Potassium	ug/L	11900	50000	59700	96	70-130	
Sodium	ug/L	144000	50000	200000	112	70-130	
Total Hardness	ug/L	125000		297000			

SAMPLE DUPLICATE: 179857

Parameter	Units	7028732001 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	44500	42400	5	
Iron	ug/L	1140	1080	6	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	8670	8180	6	
Manganese	ug/L	205	192	6	
Potassium	ug/L	13700	12700	8	
Sodium	ug/L	174000	165000	5	
Total Hardness	ug/L	147000	139000	5	

SAMPLE DUPLICATE: 179859

Parameter	Units	7028732002 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	37500	38200	2	
Iron	ug/L	73.5	79.0	7	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	7580	7640	1	
Manganese	ug/L	31.4	33.6	7	
Potassium	ug/L	11900	12200	2	
Sodium	ug/L	144000	149000	3	
Total Hardness	ug/L	125000	127000	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 37739 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 175040 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<1.0	1.0	09/01/17 22:57	

LABORATORY CONTROL SAMPLE: 175041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	10	10.0	100	90-110	

SAMPLE DUPLICATE: 175042

Parameter	Units	7028768002 Result	Dup Result	RPD	Qualifiers
Turbidity	NTU	79.0	77.5	2	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38335 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 177922 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	09/08/17 11:37	

LABORATORY CONTROL SAMPLE: 177923

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	22.9	92	80-120	

MATRIX SPIKE SAMPLE: 177925

Parameter	Units	7028668001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40.8	50	90.4	99	75-125	

MATRIX SPIKE SAMPLE: 177927

Parameter	Units	7028670001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	44.2	50	94.2	100	75-125	

SAMPLE DUPLICATE: 177924

Parameter	Units	7028668001 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40.8	45.0	10	

SAMPLE DUPLICATE: 177926

Parameter	Units	7028670001 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	44.2	40.4	9	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38083 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 176653 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	09/06/17 15:54	

LABORATORY CONTROL SAMPLE: 176654

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	480	96	85-115	

MATRIX SPIKE SAMPLE: 176656

Parameter	Units	7028715001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	<10.0	300	303	101	75-125	

MATRIX SPIKE SAMPLE: 176658

Parameter	Units	7028851001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	72.0	300	369	99	75-125	

SAMPLE DUPLICATE: 176655

Parameter	Units	7028715001 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	<10.0	<10.0		

SAMPLE DUPLICATE: 176657

Parameter	Units	7028851001 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	72.0	79.0	9	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38347 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 177952 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	09/08/17 12:46	

LABORATORY CONTROL SAMPLE: 177953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	502	100	90-110	

MATRIX SPIKE SAMPLE: 177954

Parameter	Units	7028715008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	21.3	1000	1020	100	90-110	

SAMPLE DUPLICATE: 177955

Parameter	Units	7028715008 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	21.3	25.5	18	

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 37638 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 174525 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	09/06/17 08:54	

LABORATORY CONTROL SAMPLE: 174526

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	208	105	84.5-115.4	

SAMPLE DUPLICATE: 174527

Parameter	Units	7028668001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	<2.0	<2.0		

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38906 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 180775 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	09/13/17 17:10	
Chloride	mg/L	<2.0	2.0	09/13/17 17:10	
Sulfate	mg/L	<5.0	5.0	09/13/17 17:10	

LABORATORY CONTROL SAMPLE: 180776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.0	100	90-110	
Chloride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.0	100	90-110	

MATRIX SPIKE SAMPLE: 180777

Parameter	Units	7029323001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	0.93	93	80-120	
Chloride	mg/L	7.6	10	18.1	105	80-120	
Sulfate	mg/L	5.6	10	15.1	95	80-120	

SAMPLE DUPLICATE: 180778

Parameter	Units	7029323001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	<0.50		
Chloride	mg/L	7.6	7.6	0	
Sulfate	mg/L	5.6	5.6	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38636 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 179626 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	09/12/17 13:11	

LABORATORY CONTROL SAMPLE: 179627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.1	102	90-110	

MATRIX SPIKE SAMPLE: 179628

Parameter	Units	7028735001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	17.1	4	20.8	92	90-110	

MATRIX SPIKE SAMPLE: 179630

Parameter	Units	7028973002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.79	4	4.8	101	90-110	

SAMPLE DUPLICATE: 179629

Parameter	Units	7028735001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	17.1	16.9	1	

SAMPLE DUPLICATE: 179631

Parameter	Units	7028973002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.79	0.75	4	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 37727 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 174969 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	09/01/17 20:52	

LABORATORY CONTROL SAMPLE: 174970

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	1.0	103	90-110	

MATRIX SPIKE SAMPLE: 174971

Parameter	Units	7028733006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.52	104	90-110	

MATRIX SPIKE SAMPLE: 174973

Parameter	Units	7028733001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.50	100	90-110	

SAMPLE DUPLICATE: 174972

Parameter	Units	7028733006 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 174974

Parameter	Units	7028733001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 37736 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 175032 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	09/01/17 22:29	

LABORATORY CONTROL SAMPLE: 175033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	0.98	98	90-110	

MATRIX SPIKE SAMPLE: 175034

Parameter	Units	7028715007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	.5	0.48	95	90-110	

MATRIX SPIKE SAMPLE: 175036

Parameter	Units	7028715008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	.5	0.47	93	90-110	

SAMPLE DUPLICATE: 175035

Parameter	Units	7028715007 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 175037

Parameter	Units	7028715008 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38383 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 178048 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	09/08/17 15:26	

LABORATORY CONTROL SAMPLE: 178049

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	30	28.9	96	90-110	

MATRIX SPIKE SAMPLE: 178050

Parameter	Units	7029153007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	24.0	103	75-125	

MATRIX SPIKE SAMPLE: 178052

Parameter	Units	7028715008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	2.0J	20	21.3	96	75-125	

SAMPLE DUPLICATE: 178051

Parameter	Units	7029153007 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

SAMPLE DUPLICATE: 178053

Parameter	Units	7028715008 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	2.0J	<5.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38158
QC Batch Method: SM22 4500 NH3 H
Analysis Method: SM22 4500 NH3 H
Analysis Description: 4500 Ammonia
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 177099 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	09/07/17 13:44	

LABORATORY CONTROL SAMPLE: 177100

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.90	90	90-110	

MATRIX SPIKE SAMPLE: 177101

Parameter	Units	7028919001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	1	0.85	82	75-125	

SAMPLE DUPLICATE: 177102

Parameter	Units	7028919001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	<0.10		

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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

QC Batch: 38002 Analysis Method: SM22 5310B
QC Batch Method: SM22 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 7028737001, 7028737002

METHOD BLANK: 176312 Matrix: Water
Associated Lab Samples: 7028737001, 7028737002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	09/06/17 15:17	

LABORATORY CONTROL SAMPLE: 176313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.3	103	85-115	

MATRIX SPIKE SAMPLE: 176432

Parameter	Units	7028715001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	<1.0	10	10.4	103	75-125	

SAMPLE DUPLICATE: 176431

Parameter	Units	7028715001 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	<1.0	<1.0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BALEFILL LANDFILL
Pace Project No.: 7028737

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7028737001	**MW-2**				
7028737002	**MW-3S**				
7028737001	**MW-2**	EPA 200.7	38724	EPA 200.7	38730
7028737002	**MW-3S**	EPA 200.7	38724	EPA 200.7	38730
7028737001	**MW-2**	EPA 180.1	37739		
7028737002	**MW-3S**	EPA 180.1	37739		
7028737001	**MW-2**	SM22 2320B	38335		
7028737002	**MW-3S**	SM22 2320B	38335		
7028737001	**MW-2**	SM22 2540C	38083		
7028737002	**MW-3S**	SM22 2540C	38083		
7028737001	**MW-2**	EPA 410.4	38347	EPA 410.4	38399
7028737002	**MW-3S**	EPA 410.4	38347	EPA 410.4	38399
7028737001	**MW-2**	SM22 5210B	37638	SM22 5210B	38522
7028737002	**MW-3S**	SM22 5210B	37638	SM22 5210B	38522
7028737001	**MW-2**	EPA 300.0	38906		
7028737002	**MW-3S**	EPA 300.0	38906		
7028737001	**MW-2**	EPA 351.2	38636	EPA 351.2	38645
7028737002	**MW-3S**	EPA 351.2	38636	EPA 351.2	38645
7028737001	**MW-2**	EPA 353.2	37736		
7028737002	**MW-3S**	EPA 353.2	37736		
7028737001	**MW-2**	EPA 353.2	37727		
7028737002	**MW-3S**	EPA 353.2	37727		
7028737001	**MW-2**	EPA 420.1	38383	EPA 420.1	38412
7028737002	**MW-3S**	EPA 420.1	38383	EPA 420.1	38412
7028737001	**MW-2**	SM22 4500 NH3 H	38158		
7028737002	**MW-3S**	SM22 4500 NH3 H	38158		
7028737001	**MW-2**	SM22 5310B	38002		
7028737002	**MW-3S**	SM22 5310B	38002		

Pace Analytical™
www.pacelabs.com

New York Office
2190 Technology Dr.
Schenectady, NY 12308
(518) 346-4592

CHAIN-OF-CUSTODY / Analytical Req

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO#: 7028737

7028737

Page: 2

Section A — Required Client Information:		Section B — Required Project Information:		Section C — Invoice Information:
Company: Dutchess County		Report To: Robert Balkind		Attention:
Address:		Copy To:		Company Name:
				Address:
Email To: rbalkind@dutchessny.gov		Purchase Order No.:		Pace Quote Reference:
Phone:	Fax:	Project Name: Balefill Landfill		Pace Project Manager:
Requested Due Date/TAT: Standard		Project Number:		Pace Profile #:

REGULATORY AGENCY

- ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
- ☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION: ☐ GA ☐ IL ☐ N ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	TKN, NH3, COD	TOC	TOTAL PHENOLS	ALKALINITY	NO3,TDS,SO4,CL,Bromide,BOD5	T-CD,CA,FE,PB,MG	T-MN,K,NA + CALC. HARDNESS	Field-pH,Eh,Spec.Cond,Turb,Temp	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-2	GW	G			8/31/17	1035		8	X	X	X						X	X	X	X	X	X	X	X		001
2	MW-3S	GW	G			8/31/17	1130		8	X	X	X						X	X	X	X	X	X	X	X		002
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
NYS Part 360 1993 Routines	[illegible signature] PACE	8/31/17	1335	[illegible signature] (PACE)	8/31/17	13:35	11.2 (IR)	Y/N	Y/N	Y/N
	[illegible signature] (PACE)	8/31/17	16:00	VIA FedEx →				Y/N	Y/N	Y/N
	FedEx			[illegible signature]	9/1/17	10:30	1.4	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Broker PACE

SIGNATURE of SAMPLER: [illegible signature] DATE Signed (MM / DD / YY): 8/31/17

e-File(ALLQ020rev.4,29Mar06)22Jun2005

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-2**

PACE ID

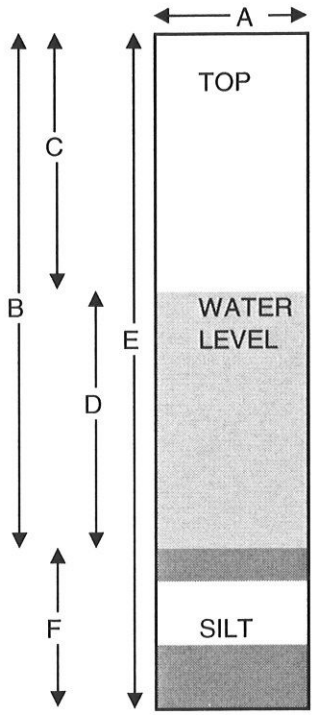
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	20.08	feet
C.	Depth to Water	8.44	feet
D.	Length of Water Column (calculated)	11.64	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.86	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.58	gallons
	Actual Volume Evacuated	6.00	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	8/31/17	8/31/17	
Time	9:58	10:35	
EH	-62	-57	mV
Temperature	16.8	21.6	C
pH	7.15	6.55	SU
Specific Cond.	559.9	555.5	uS
Turbidity	3.11	1.06	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 8.44 feet

Recharge Depth to Water 8.44 feet

2nd water column height %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 21C sunny

Observations: sample clear sulfur odor

Sampler: Matt Broker

Signature:

1

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

Project: **Balefill Landfill**

Well ID.: **MW-3S**

PACE ID

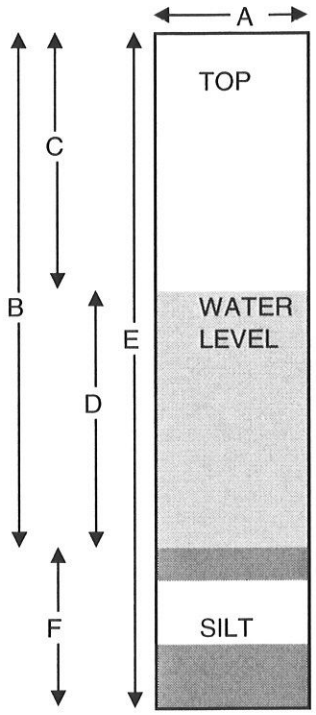
Condition of Well: Good

Locked: NO

Method of Evacuation: Peristaltic Pump

Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	17.65	feet
C.	Depth to Water	6.78	feet
D.	Length of Water Column (calculated)	10.87	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.74	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.22	gallons
	Actual Volume Evacuated	5.50	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	8/31/17	8/31/17	
Time	10:45	11:30	
EH	-81	-99	mV
Temperature	18.9	22.6	C
pH	6.61	6.87	SU
Specific Cond.	1163	1231	uS
Turbidity	35.9	17	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	cloudy	slightly cloudy	

% Recharge:

Initial Depth to Water 6.78 feet

Recharge Depth to Water 7.55 feet

2nd water column height / 1st water column height %

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 22C partly sunny

Observations: sample clear with sulfur odor

Sampler: Matt Broker

Signature:

1

PACE ANALYICAL INC.

FIELD CALIBRATION SHEET

DATE: 8/31/17 **SITE:** Balefill Landfill

TECHNICIAN: Matt Broker **WEATHER:** 21C sunny

INSTRUMENT:

PH	Myron Ultrameter II 6PFCe
CONDUCTIVITY	Myron Ultrameter II 6PFCe
TEMPERATURE	Myron Ultrameter II 6PFCe
DISSOLVED OXYGEN	Sper Scientific 850041
TURBIDITY	Hanna HI 98703

INSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph	4.00	4.06	4.00	951	
	7.00	7.20	7.00	950	
	10.00	10.14	10.00	952	
Conductivity	1413	1425	1413	953	
Turbidity	<0.10	0.11	0.1	954	
	15	15.1	15	955	
	100	95	100	956	
	750	747	750	957	

NOTES:

Pace Analytical
Long Island Laboratory

Sample Condition Upon Rec

WO#:7028737
PM: JSA Due Date: 09/18/17
CLIENT: DCDPW

Client Name: Dutchess County Proje

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 7359 2388 7996

Seals intact: Yes No

Custody Seal on Cooler/Box Present: Yes No

Packing Material: Bubble Wrap Bubble Bags Ziploc None Other

Type of Ice: Wet Blue None

Thermometer Used: TH092 Correction Factor: +0.1

Samples on ice, cooling process has begun

Cooler Temperature (°C): 1.4 Cooler Temperature Corrected (°C): 1.5

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (N/A, water sample)

Date and Initials of person examining contents: JK 9/1/17

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? YES NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	Yes	No		1.
Chain of Custody Filled Out:	Yes	No		2.
Chain of Custody Relinquished:	Yes	No		3.
Sampler Name & Signature on COC:	Yes	No	N/A	4.
Samples Arrived within Hold Time:	Yes	No		5.
Short Hold Time Analysis (<72hr):	Yes	No		6.
Rush Turn Around Time Requested:	Yes	No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	Yes	No		8.
Correct Containers Used:	Yes	No		9.
-Pace Containers Used:	Yes	No		
Containers Intact:	Yes	No		10.
Filtered volume received for Dissolved tests	Yes	No	N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL WT OIL	Yes	No		12.
All containers needing preservation have been checked. pH paper Lot # HC601354	Yes	No	N/A	13. HNO3 H2SO4 NaOH HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	Yes	No	N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	Yes	No	N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm):	Yes	No	N/A	15.
Trip Blank Present:	Yes	No	N/A	16.
Trip Blank Custody Seals Present	Yes	No	N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

DUTCHESS COUNTY BALEFILL (Access off Citation Rd. at DC AIRPORT)
POST-CLOSURE MONITORING INSPECTION CHECKLIST

In addition to quarterly water quality sampling and laboratory analysis of the perimeter monitoring wells, a physical inspection of the closed Balefill facility shall be conducted quarterly. Use the following checklist to note field conditions of various elements as well as to describe corrective measures if applicable. Photographs of field conditions should be collected as a matter of record and to accompany this checklist. Photos to be inserted into folders for quarterly inspections.

Inspector's Name: JOSEPH STANKAVAGE
Date: NOVEMBER 28, 2017
Weather Conditions: (temp., wind, cloud cover) SUNNY, 40°, NO WIND

Access roadway in good condition **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy: _____

Drainage Systems are in good working order [*e.g. – drainage ditches drain freely, drainage pipes clear of debris and structurally sound.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy: _____

_____

Landfill Cover System is in good condition [*e.g. – no cracks in the soil cover, no sloughing or differential settlement, no erosion, no large patches of dead vegetation, no woody vegetation becoming established on the mounded soil cover system and the grass surface has been routinely mowed.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:

_____

_____

Vectors are not present [*e.g. –burrowing rodents or evidence of borrows on the landfill mound, rats, flies.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:

_____

_____

Gas Vents show no physical damage and appear in working order [*e.g. – no structural damage to the plastic vent pipe. Vents may be passively discharging decomposition gases with a detectable smell near the vent.*] **(YES:** ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:
MILD, VERY FAINT ODOR (LIKE MILDEW) DETECTED AT THE 2 SOUTHERLY VENTS. NO ODOR DETECTED AT OTHER VENTS.

Security in good condition [*e.g. – evidence or trespass, vandalism, illegal dumping.*]
(YES: ✓ **NO:** ___**)** If No, describe concerns and provide suggested remedy:

_____

Additionally the inspector shall inspect and **photograph a discolored (*orange-brown*) groundwater seep** along the Wappinger Creek from the same perspective position. (*marked on a tree with orange ribbon*)
NO WATER FLOWING IN AREA OF SEEP. LEAVES HAVE COVERED GROUND - NO OBVIOUS STAINING OR DISCOLORATION.
A contracted consultant shall collect and analyze water quality samples as well as prepare the water quality section of an annual report. County personnel shall add summarized results of quarterly field inspections and submit annual report to NYSDEC.

S:\vol2\SPECIAL PROJECTS\Balefill Post-Closure Monitoring\reports\Balefill Post-Closure Inspection Checklist.doc

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

December 14, 2017

Joe Stankavage
Dutchess County DPW
626 Dutchess Turnpike
Poughkeepsie, NY 12603

RE: Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Dear Joe Stankavage:
Enclosed are the analytical results for sample(s) received by the laboratory on November 29, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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,

Jennifer Aracri
jennifer.aracri@pacelabs.com
(631)694-3040
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 48823

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7037234001,7037234002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 228400)
  - Calcium
  - Iron

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

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 180.1**
Description: 180.1 Turbidity
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 180.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for SM22 2320B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for SM22 2540C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 410.4**
Description: 410.4 COD
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 410.4 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 48547

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 225889)
  - Chemical Oxygen Demand

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for SM22 5210B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with SM22 5210B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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.

QC Batch: 48670

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7036830002,7036949002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 226628)
  - Nitrogen, Kjeldahl, Total
- MS (Lab ID: 226630)
  - Nitrogen, Kjeldahl, Total

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

Additional Comments:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for SM22 4500 NH3 H. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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:

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PROJECT NARRATIVE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Method: **SM22 5310B**
Description: 5310B TOC as NPOC
Client: Dutchess County DPW
Date: December 14, 2017

General Information:
2 samples were analyzed for SM22 5310B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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, where applicable, 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.

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Sample: MW-2 **Lab ID: 7036697001** Collected: 11/28/17 11:17 Received: 11/29/17 10:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.23**	Std. Units		1		11/28/17 11:17		
Field Temperature	**11.7**	deg C		1		11/28/17 11:17		
Field Specific Conductance	**636.7**	umhos/cm		1		11/28/17 11:17		
Eh	**-30**	mV		1		11/28/17 11:17		
Field Turbidity	**2.27**	NTU		1		11/28/17 11:17		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**2.9**	ug/L	2.5	1	12/07/17 09:01	12/07/17 21:27	7440-43-9	
Calcium	**61000**	ug/L	1000	1	12/07/17 09:01	12/07/17 21:27	7440-70-2	
Iron	**56600**	ug/L	20.0	1	12/07/17 09:01	12/07/17 21:27	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	12/07/17 09:01	12/07/17 21:27	7439-92-1	
Magnesium	**15100**	ug/L	1000	1	12/07/17 09:01	12/07/17 21:27	7439-95-4	
Manganese	**<10.0**	ug/L	10.0	1	12/07/17 09:01	12/07/17 21:27	7439-96-5	
Potassium	**<5000**	ug/L	5000	1	12/07/17 09:01	12/07/17 21:27	7440-09-7	
Sodium	**11100**	ug/L	5000	1	12/07/17 09:01	12/07/17 21:27	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B	**214000**	ug/L	4100	1	12/07/17 09:01	12/07/17 21:27		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**33.8**	NTU	10.0	10		11/29/17 12:10		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**375**	mg/L	1.0	1		12/08/17 10:45		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**332**	mg/L	10.0	1		12/01/17 14:24		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**53.7**	mg/L	10.0	1	12/05/17 12:11	12/05/17 15:09		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**7.0**	mg/L	4.0	2	11/29/17 13:58	12/04/17 11:53		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		12/05/17 07:52	24959-67-9	
Chloride	**23.2**	mg/L	2.0	1		12/05/17 07:52	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		12/05/17 07:52	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**2.6**	mg/L	0.10	1	12/06/17 06:11	12/06/17 12:42	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		11/29/17 20:16	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		11/29/17 18:33	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Sample: MW-2 **Lab ID: 7036697001** Collected: 11/28/17 11:17 Received: 11/29/17 10:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	12/07/17 12:00	12/07/17 16:00		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**2.2**	mg/L	0.10	1		12/01/17 14:20	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B							
Total Organic Carbon	**2.9**	mg/L	1.0	1		12/04/17 12:53	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Sample: MW-3S **Lab ID: 7036697002** Collected: 11/28/17 12:00 Received: 11/29/17 10:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.55**	Std. Units		1		11/28/17 12:00		
Field Temperature	**11.3**	deg C		1		11/28/17 12:00		
Field Specific Conductance	**1154**	umhos/cm		1		11/28/17 12:00		
Eh	**-65**	mV		1		11/28/17 12:00		
Field Turbidity	**5.76**	NTU		1		11/28/17 12:00		
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Cadmium	**4.3**	ug/L	2.5	1	12/07/17 09:01	12/07/17 21:32	7440-43-9	
Calcium	**146000**	ug/L	1000	1	12/07/17 09:01	12/07/17 21:32	7440-70-2	
Iron	**78100**	ug/L	20.0	1	12/07/17 09:01	12/07/17 21:32	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	12/07/17 09:01	12/07/17 21:32	7439-92-1	
Magnesium	**45500**	ug/L	1000	1	12/07/17 09:01	12/07/17 21:32	7439-95-4	
Manganese	**3860**	ug/L	10.0	1	12/07/17 09:01	12/07/17 21:32	7439-96-5	
Potassium	**9140**	ug/L	5000	1	12/07/17 09:01	12/07/17 21:32	7440-09-7	
Sodium	**16800**	ug/L	5000	1	12/07/17 09:01	12/07/17 21:32	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B	**552000**	ug/L	4100	1	12/07/17 09:01	12/07/17 21:32		
180.1 Turbidity	Analytical Method: EPA 180.1							
Turbidity	**120**	NTU	10.0	10		11/29/17 12:12		
2320B Alkalinity	Analytical Method: SM22 2320B							
Alkalinity, Total as CaCO3	**586**	mg/L	1.0	1		12/08/17 10:52		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C							
Total Dissolved Solids	**650**	mg/L	20.0	1		12/01/17 14:24		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4							
Chemical Oxygen Demand	**55.8**	mg/L	10.0	1	12/05/17 12:11	12/05/17 15:09		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B							
BOD, 5 day	**14.6**	mg/L	6.7	3.33	11/29/17 13:58	12/04/17 11:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Bromide	**<0.50**	mg/L	0.50	1		12/05/17 08:06	24959-67-9	
Chloride	**<2.0**	mg/L	2.0	1		12/05/17 08:06	16887-00-6	
Sulfate	**<5.0**	mg/L	5.0	1		12/05/17 08:06	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**3.1**	mg/L	0.10	1	12/06/17 06:11	12/06/17 12:43	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrate-Nitrite (as N)	**0.072**	mg/L	0.050	1		11/29/17 20:22	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2							
Nitrite as N	**<0.050**	mg/L	0.050	1		11/29/17 18:34	14797-65-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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(631)694-3040

ANALYTICAL RESULTS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Sample: MW-3S **Lab ID: 7036697002** Collected: 11/28/17 12:00 Received: 11/29/17 10:35 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	12/07/17 12:00	12/07/17 16:01		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H							
Nitrogen, Ammonia	**2.1**	mg/L	0.10	1		12/01/17 14:21	7664-41-7	
5310B TOC as NPOC	Analytical Method: SM22 5310B							
Total Organic Carbon	**5.9**	mg/L	1.0	1		12/04/17 13:04	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48823
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 227001
Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	ug/L	<2.5	2.5	12/07/17 21:16	
Calcium	ug/L	<1000	1000	12/07/17 21:16	
Iron	ug/L	<20.0	20.0	12/07/17 21:16	
Lead	ug/L	<5.0	5.0	12/07/17 21:16	
Magnesium	ug/L	<1000	1000	12/07/17 21:16	
Manganese	ug/L	<10.0	10.0	12/07/17 21:16	
Potassium	ug/L	<5000	5000	12/07/17 21:16	
Sodium	ug/L	<5000	5000	12/07/17 21:16	
Tot Hardness asCaCO3 (SM 2340B	ug/L	<4100	4100	12/07/17 21:16	

LABORATORY CONTROL SAMPLE: 227002

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	50	50.3	101	85-115	
Calcium	ug/L	25000	25300	101	85-115	
Iron	ug/L	2000	2070	104	85-115	
Lead	ug/L	500	506	101	85-115	
Magnesium	ug/L	25000	25000	100	85-115	
Manganese	ug/L	250	258	103	85-115	
Potassium	ug/L	50000	48600	97	85-115	
Sodium	ug/L	50000	50700	101	85-115	
Tot Hardness asCaCO3 (SM 2340B	ug/L		166000			

MATRIX SPIKE SAMPLE: 228400

Parameter	Units	7037234001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	4.3	50	49.0	89	70-130	
Calcium	ug/L	183000	25000	198000	61	70-130	M1
Iron	ug/L	45300	2000	45200	-6	70-130	M1
Lead	ug/L	<5.0	500	446	89	70-130	
Magnesium	ug/L	33500	25000	54500	84	70-130	
Manganese	ug/L	651	250	851	80	70-130	
Potassium	ug/L	26400	50000	68500	84	70-130	
Sodium	ug/L	181000	50000	218000	74	70-130	
Tot Hardness asCaCO3 (SM 2340B	ug/L	594000		719000			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

MATRIX SPIKE SAMPLE: 228402

Parameter	Units	7037234002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cadmium	ug/L	5.9	50	51.7	92	70-130	
Calcium	ug/L	122000	25000	140000	73	70-130	
Iron	ug/L	9120	2000	10800	82	70-130	
Lead	ug/L	<5.0	500	472	94	70-130	
Magnesium	ug/L	26700	25000	49400	91	70-130	
Manganese	ug/L	237	250	458	89	70-130	
Potassium	ug/L	20900	50000	66800	92	70-130	
Sodium	ug/L	104000	50000	146000	85	70-130	
Tot Hardness asCaCO3 (SM 2340B	ug/L	414000		553000			

SAMPLE DUPLICATE: 228399

Parameter	Units	7037234001 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	4.3	4.3	1	
Calcium	ug/L	183000	177000	3	
Iron	ug/L	45300	44000	3	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	33500	32500	3	
Manganese	ug/L	651	641	1	
Potassium	ug/L	26400	26100	1	
Sodium	ug/L	181000	175000	3	
Tot Hardness asCaCO3 (SM 2340B	ug/L	594000	575000	3	

SAMPLE DUPLICATE: 228401

Parameter	Units	7037234002 Result	Dup Result	RPD	Qualifiers
Cadmium	ug/L	5.9	5.7	3	
Calcium	ug/L	122000	119000	2	
Iron	ug/L	9120	8910	2	
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	26700	26200	2	
Manganese	ug/L	237	231	3	
Potassium	ug/L	20900	20800	0	
Sodium	ug/L	104000	102000	2	
Tot Hardness asCaCO3 (SM 2340B	ug/L	414000	404000	2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 47932 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 223278 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<1.0	1.0	11/29/17 09:54	

LABORATORY CONTROL SAMPLE: 223279

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	10	9.1	91	90-110	

SAMPLE DUPLICATE: 223280

Parameter	Units	7036608001 Result	Dup Result	RPD	Qualifiers
Turbidity	NTU	8.9	9.1	3	

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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 49067 Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 228349 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	12/08/17 10:01	

LABORATORY CONTROL SAMPLE: 228350

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	26.8	107	80-120	

MATRIX SPIKE SAMPLE: 228352

Parameter	Units	7037316001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40.1	25	61.3	85	75-125	

SAMPLE DUPLICATE: 228351

Parameter	Units	7037316001 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40.1	39.4	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48232 Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 224550 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	12/01/17 14:21	

LABORATORY CONTROL SAMPLE: 224551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	464	93	85-115	

MATRIX SPIKE SAMPLE: 224553

Parameter	Units	7036694002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	280	300	584	101	75-125	

SAMPLE DUPLICATE: 224552

Parameter	Units	7036694002 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	280	271	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48547 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 225886 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	12/05/17 15:07	

LABORATORY CONTROL SAMPLE: 225887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	525	105	90-110	

MATRIX SPIKE SAMPLE: 225888

Parameter	Units	7036983001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	43.1	1000	1030	99	90-110	

SAMPLE DUPLICATE: 225889

Parameter	Units	7036983001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	43.1	60.0	33	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48005 Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 223492 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	12/04/17 10:54	

LABORATORY CONTROL SAMPLE: 223493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	191	96	84.5-115.4	

SAMPLE DUPLICATE: 223494

Parameter	Units	7036708001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	185	184	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48371 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 225253 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	12/05/17 03:49	
Chloride	mg/L	<2.0	2.0	12/05/17 03:49	
Sulfate	mg/L	<5.0	5.0	12/05/17 03:49	

LABORATORY CONTROL SAMPLE: 225254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.0	101	90-110	
Chloride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE SAMPLE: 225255

Parameter	Units	7036868001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	1.0	103	80-120	
Chloride	mg/L	65.8	10	74.8	90	80-120	
Sulfate	mg/L	38.2	10	48.3	101	80-120	

MATRIX SPIKE SAMPLE: 225368

Parameter	Units	7036906001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	ND	1	0.84	83	80-120	
Chloride	mg/L	3.5	10	13.0	95	80-120	
Sulfate	mg/L	6.1	10	16.0	99	80-120	

SAMPLE DUPLICATE: 225256

Parameter	Units	7036868001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	<0.50		
Chloride	mg/L	65.8	65.0	1	
Sulfate	mg/L	38.2	37.8	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

SAMPLE DUPLICATE: 225369

Parameter	Units	7036906001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	ND	<0.50		
Chloride	mg/L	3.5	3.5	0	
Sulfate	mg/L	6.1	6.0	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48670 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 226626 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	12/06/17 12:27	

LABORATORY CONTROL SAMPLE: 226627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.2	105	90-110	

MATRIX SPIKE SAMPLE: 226628

Parameter	Units	7036830002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.5	4	5.0	88	90-110	M1

MATRIX SPIKE SAMPLE: 226630

Parameter	Units	7036949002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.7	4	1.1	-13	90-110	M1

SAMPLE DUPLICATE: 226629

Parameter	Units	7036830002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.5	1.5	2	

SAMPLE DUPLICATE: 226631

Parameter	Units	7036949002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.7	1.7	1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48040
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 223675 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	11/29/17 18:09	

LABORATORY CONTROL SAMPLE: 223676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	1	0.99	99	90-110	

MATRIX SPIKE SAMPLE: 223677

Parameter	Units	7036727001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.52	103	90-110	

MATRIX SPIKE SAMPLE: 223679

Parameter	Units	7036772001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	.5	0.52	104	90-110	

SAMPLE DUPLICATE: 223678

Parameter	Units	7036727001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 223680

Parameter	Units	7036772001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48048 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 223734 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	11/29/17 20:14	

LABORATORY CONTROL SAMPLE: 223735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.1	107	90-110	

MATRIX SPIKE SAMPLE: 223736

Parameter	Units	7036697001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	.5	0.50	96	90-110	

SAMPLE DUPLICATE: 223737

Parameter	Units	7036697001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48907
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 227625 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	12/07/17 15:43	

LABORATORY CONTROL SAMPLE: 227626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	30	30.2	101	90-110	

MATRIX SPIKE SAMPLE: 227627

Parameter	Units	7036608001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	21.7	94	75-125	

MATRIX SPIKE SAMPLE: 227629

Parameter	Units	7036939004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	20	21.7	99	75-125	

SAMPLE DUPLICATE: 227628

Parameter	Units	7036608001 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

SAMPLE DUPLICATE: 227630

Parameter	Units	7036939004 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48252 Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H Analysis Description: 4500 Ammonia
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 224601 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	12/01/17 14:07	

LABORATORY CONTROL SAMPLE: 224602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	104	90-110	

MATRIX SPIKE SAMPLE: 224603

Parameter	Units	7036608001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	1	1.0	100	75-125	

SAMPLE DUPLICATE: 224604

Parameter	Units	7036608001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	<0.10		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

QC Batch: 48285 Analysis Method: SM22 5310B
QC Batch Method: SM22 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 7036697001, 7036697002

METHOD BLANK: 224768 Matrix: Water
Associated Lab Samples: 7036697001, 7036697002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	12/04/17 11:33	

LABORATORY CONTROL SAMPLE: 224769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	9.4	94	85-115	

MATRIX SPIKE SAMPLE: 224797

Parameter	Units	7036804002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.3	10	11.1	98	75-125	

SAMPLE DUPLICATE: 224796

Parameter	Units	7036804002 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	1.3	1.2	6	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(631)694-3040

QUALIFIERS

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BALEFILL LANDFILL 11/28
Pace Project No.: 7036697

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7036697001	**MW-2**				
7036697002	**MW-3S**				
7036697001	**MW-2**	EPA 200.7	48823	EPA 200.7	48948
7036697002	**MW-3S**	EPA 200.7	48823	EPA 200.7	48948
7036697001	**MW-2**	EPA 180.1	47932		
7036697002	**MW-3S**	EPA 180.1	47932		
7036697001	**MW-2**	SM22 2320B	49067		
7036697002	**MW-3S**	SM22 2320B	49067		
7036697001	**MW-2**	SM22 2540C	48232		
7036697002	**MW-3S**	SM22 2540C	48232		
7036697001	**MW-2**	EPA 410.4	48547	EPA 410.4	48580
7036697002	**MW-3S**	EPA 410.4	48547	EPA 410.4	48580
7036697001	**MW-2**	SM22 5210B	48005	SM22 5210B	48553
7036697002	**MW-3S**	SM22 5210B	48005	SM22 5210B	48553
7036697001	**MW-2**	EPA 300.0	48371		
7036697002	**MW-3S**	EPA 300.0	48371		
7036697001	**MW-2**	EPA 351.2	48670	EPA 351.2	48692
7036697002	**MW-3S**	EPA 351.2	48670	EPA 351.2	48692
7036697001	**MW-2**	EPA 353.2	48048		
7036697002	**MW-3S**	EPA 353.2	48048		
7036697001	**MW-2**	EPA 353.2	48040		
7036697002	**MW-3S**	EPA 353.2	48040		
7036697001	**MW-2**	EPA 420.1	48907	EPA 420.1	48982
7036697002	**MW-3S**	EPA 420.1	48907	EPA 420.1	48982
7036697001	**MW-2**	SM22 4500 NH3 H	48252		
7036697002	**MW-3S**	SM22 4500 NH3 H	48252		
7036697001	**MW-2**	SM22 5310B	48285		
7036697002	**MW-3S**	SM22 5310B	48285		

WO#:7036697

7036697

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Required Client Information:	**Section B** **Required** Project Information:	**Section C** Invoice Information:
Company: Dutchess County	Report To: Robert Balkind	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To: rbalkind@dutchessny.gov	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: Balefill Landfill	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION: ☐ GA ☐ IL ☐ N ☐ MI ☐ NC ☐ OH ☐ SC ☐ WI ☐ OTHER____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Filtered (Y/N)

Requested Analysis: TKN, NH3, COD; TOC; TOTAL PHENOLS; ALKALINITY; NO3,TDS,SO4,Cl,Bromide,BOD5; T-Cl,CA,FE,MN,MG; T ALK,K,NA + CALC HARDNESS; Field pH, Spec Cond, Turb, Temp; Residual Chlorine (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	TKN, NH3, COD	TOC	TOTAL PHENOLS	ALKALINITY	NO3,TDS,SO4,Cl,Bromide,BOD5	T-Cl,CA,FE,MN,MG	T ALK,K,NA + CALC HARDNESS	Field pH, Spec Cond, Turb, Temp	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-2	GW	G			11/28/17	11:17		8	X	X	X						X	X	X	X	X	X	X	X		001
2	MW-3S	GW	G			11/28/17	12:00		8	X	X	X						X	X	X	X	X	X	X	X		002
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS

NYS Part 360 1993 Routines
2 Hrs Sampling
4 Hrs Travel
1 Peri. pump from PINE

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
[signature] PACE	11/28/17	14:05	J. Betty (PACE)	11/28/17	14:05	1.6 (IR)	Y/N	Y/N	Y/N
J. Betty (PACE)	11/28/17	16:00	VIA FEDEX → [signature]	11/29/17	10:35	0.5	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Broker PACE

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 11/28/17

e-File(ALLQ020rev.4,29Mar06)22Jun2005

Sample Condition Upon Receipt

Pace Analytical

WO#: 7036697
PM: JSA Due Date: 12/13/17
CLIENT: DCDPW

Client Name: Dutchess Proj

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 4099 9470 7353

Custody Seal on Cooler/Box Present: ☑ Yes ☐ No Seals intact: ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ Ziploc ☐ None ☐ Other Type of Ice: ☑ Wet ☐ Blue ☐ None

Thermometer Used: TH097 Correction Factor: +0.1 ☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 0.5 Cooler Temperature Corrected (°C): 0.5 Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample) Date and Initials of person examining contents: SB 11/29/17

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑ Yes	☐ No		1.
Chain of Custody Filled Out:	☑ Yes	☐ No		2.
Chain of Custody Relinquished:	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☑ Yes	☐ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑ Yes	☐ No		8.
Correct Containers Used:	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact:	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑ Yes	☐ No		12.
-Includes date/time/ID/Analysis Matrix SL WT OIL				
All containers needing preservation have been checked	☑ Yes	☐ No	☐ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot # HC601354				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☑ Yes	☐ No	☐ N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14. Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm):	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Present:	☐ Yes	☐ No	☑ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution: NO_3/NO_2 tests on bottle labels, but not included on COC. These tests were added since bottle labels indicated that these tests should be done. 11/29/17

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.01

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

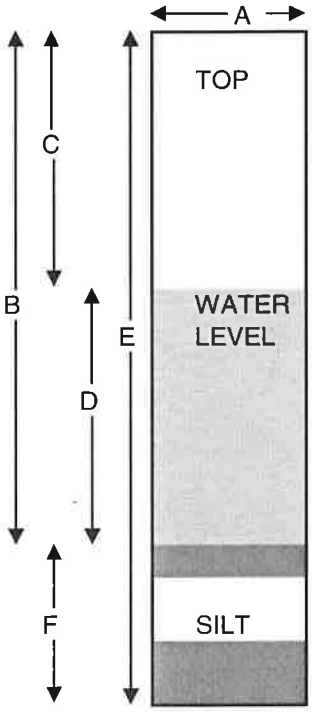
Project: **Balefill Landfill** PACE ID

Well ID.: **MW-3S**

Condition of Well: Good Locked: NO

Method of Evacuation: Peristaltic Pump Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	17.65	feet
C.	Depth to Water	7.38	feet
D.	Length of Water Column (calculated)	10.27	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.64	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	4.92	gallons
	Actual Volume Evacuated	5.00	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	11/28/17	11/28/17	
Time	11:25	12:00	
EH	-50	-65	mV
Temperature	12.1	11.3	C
pH	6.41	6.55	SU
Specific Cond.	1171	1154	uS
Turbidity	4.79	5.76	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 6.78 feet

Recharge Depth to Water 10.62 feet

2nd water column height %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 2C sunny

Observations: sample clear with sulfur odor

Sampler: Matt Broker

Signature:

1

PACE Analytical Services, Inc. Ground water Field Log

Client: **Dutchess County**

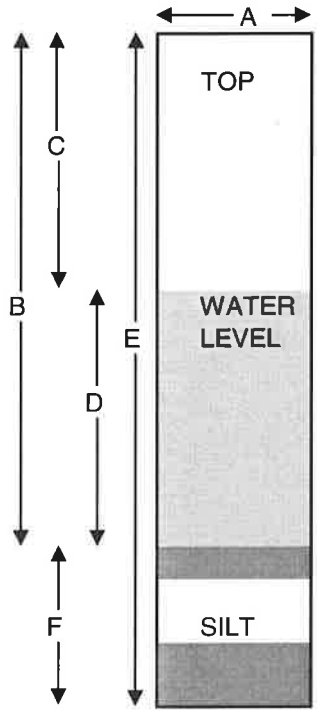
Project: **Balefill Landfill** PACE ID

Well ID.: **MW-2**

Condition of Well: Good Locked: NO

Method of Evacuation: Peristaltic Pump Lock ID:

Method of Sampling: Peristaltic Pump



A.	Diameter of Well	2.00	inches
B.	Well Depth Measured	20.08	feet
C.	Depth to Water	8.80	feet
D.	Length of Water Column (calculated)	11.28	feet
	Conversion Factor	0.16	------
	Well Volume (calculated)	1.80	gallons
	No. of Volumes to be Evacuated	3	------
	Total Volume to be Evacuated	5.40	gallons
	Actual Volume Evacuated	5.50	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling	
Date	11/28/17	11/28/17	
Time	10:42	11:17	
EH	-44	-30	mV
Temperature	9.7	11.7	C
pH	6.84	6.23	SU
Specific Cond.	645.9	636.7	uS
Turbidity	8.77	2.27	NTU
Dissolved Oxygen	N/A	N/A	
Appearance	clear	clear	

% Recharge:

Initial Depth to Water 8.8 feet

Recharge Depth to Water 8.85 feet

2nd water column height %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 2C sunny

Observations: sample clear sulfur odor

Sampler: Matt Broker

Signature:

1

PACE ANALYICAL INC.

FIELD CALIBRATION SHEET

DATE: 11/28/17 **SITE:** Balcfill Landfill

TECHNICIAN: Matt Broker **WEATHER:** 2C sunny

INSTRUMENT:

PH	Myron Ultrameter II 6PFCe
CONDUCTIVITY	Myron Ultrameter II 6PFCe
TEMPERATURE	Myron Ultrameter II 6PFCe
DISSOLVED OXYGEN	Sper Scientific 850041
TURBIDITY	Hanna HI 98703

INSTRUMENT ANALYTE	STANDARD	INTIAL READING	ADJUSTED READING	TIME	NOTES
Ph	4.00	4.10	4.00	1031	
	7.00	7.14	7.00	1030	
	10.00	10.11	10.00	1032	
Conductivity	1413	1432	1413	1033	
Turbidity	<0.10	0.12	0.1	1034	
	15	14.7	15	1035	
	100	105	100	1036	
	750	755	750	1037	

NOTES:

DUTCHESS COUNTY BALEFILL

CY 2017 Post-Closure Monitoring & Maintenance Report

Addendum A: Post-Closure Monitoring – Photo Log

NOTE: Post-Closure Monitoring & Maintenance for the above referenced facility includes visual observation of a "spring" along the bank of Wappinger Creek. As the waste mass desiccates after capping with an impervious cover system, the orange stained spring should "dry up" or orange staining should curtail. At quarterly inspections, the following photographs have been collected from the same two vantage points and are included as an addendum to the annual NYSDEC report prepared by the County of Dutchess.

<u>Photos #1 & #2</u> – Representative views of spring on bank of Wappinger Creek – March 2017

<u>Photo #3 & #4</u> – Representative views of spring on bank of Wappinger Creek – June 2017

<u>Photo #5 & #6</u> – Representative views of spring on bank of Wappinger Creek – August 2017

<u>Photo #7 & #8</u> – Representative views of spring on bank of Wappinger Creek – Nov. 2017