TOBSWMF's Leachate Monitoring Program July 2022

Town of Babylon Department of Environmental Control

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Laboratory data and summary report from July 2022 sampling for Babylon's Leachate Monitoring Program.

TOBSWMF's Leachate Monitoring Program

July 2022

As part of its solid waste infrastructure the Town of Babylon maintains four ashfills, the Southern Ashfill (SA), the Old Northern U Ashfill (ONU), the New Northern U Ashfill (NNU) and the lateral expansion of the Southern Ashfill, also known as Cell 7 (NYSDEC Permit No. 1-4720-00778/00014). These ash facilities are located on the northern and southern face of the former Babylon Landfill located on Gleam Street in West Babylon, NY.

Babylon's leachate monitoring program (LMP) samples leachate from each of Babylon's ash facilities pursuant to the requirements of 6NYCRR part 363 (formerly part 360) and/or special condition attached to their NYSDEC solid waste management operating permits. Sampling procedures are described in detail within the 2018 Update Site Analytical Plan for the Town of Babylon Solid Waste Management Facilities (SAP) (TOBDEC, 2018).

Historically for the TOBSWMF's LMP, sampling at the SA, ONU and NNU ash facilities was limited to baseline parameters. In 2018 the NYSDEC required Babylon also sample for 1,4 dioxane and PFOA/PFAS when sampling these facilities for the LMP. July 2022 sampling for the Southern Ashfill (SA), Old Northern U (ONU) and New Northern U (NNU) was scheduled to include these emerging contaminants but was missed due to a sampling error. Emerging contaminants at these facilities will be sampled in September 2022 when the sampling team returns to sample groundwater for the Cell 7 facility. Leachate at Cell 7 continues to be sampled for expanded parameters (the expanded parameters list was modified as part of the updated NYSDEC Solid Waste Management Facility regulations (appendix 2)). Sampling of the SA, ONU, NNU and Cell 7 were performed on July 13, 2022. The sampling protocol for the LMP is detailed in the Updated SAP for the Town of Babylon Solid Waste Management Facilities (TOBDEC, 2018). Sampling at the SA and ONU is limited to the Secondary Leachate Collection and Recovery System (SLCRS). Sampling at the NNU is performed for both the Primary Leachate Collection and Recovery System (PLCRS) and SLCRS. Sampling at Cell 7 was for the PLCRS. The complete laboratory report, case narrative and QA/QC package from Pace Analytical Services Inc has been attached as an appendix to this report. Included within the Pace Labs report for Cell 7 is analysis for PFAS/PFOA's performed by Eurofins Environmental Testing America. In addition to internal laboratory QA/QC, a trip blank for VOC's was obtained as part of the operational QA/QC requirements. The trip blank included a trace of acetone observed below its reporting limit. The method blank provided as part of the PFAS/PFOA's analysis for Cell 7 was clean. The result of the field duplicate (GM-27I) and equipment blank were not notable.

Project narratives prepared by the laboratory for each category were reviewed. Each data package was certified by the laboratory as being in compliance with the laboratory quality assurance manual both technically and for completeness.

This section of the LMP report provides a brief summary of the July 2022 leachate sampling at the TOBSWMF's. The sections that follow provide discussion of the results from each ash facility.

The following are notable observations from the July 2022 LMP sampling results:

- Manganese (6.9 mg/l) did not exceed its MCL at the ONU. Manganese exceeded its MCL at the ONU in 22 of the past 38 sampling events over the life of the facility and just 2 of the previous 13 sampling events at the ONU facility since June 2016.
- pH of leachate at the ONU was 8.62, 8.26 at the SA, 7.58 at the NNU PLCRS, 7.5 at the NNU SLCRS and 7.18 at Cell 7. All continue to be observed within an acceptable range.
- Baseline organics observed at each facility for the July 2022 LMP:
    - No baseline organics were observed above their RL at the SA facility.
    - No baseline organics were observed above their RL at the ONU.
    - Total baseline organics observed above their RL at the NNU facility; ND at the NNU P and 0.444 mg/l at the NNU S.
    - No individual organic compound from the baseline parameters list (SA, ONU and NNU), or summation of those compounds (TTO)[1] were observed at or above their MCL or TTO limits at any of these Babylon ash facilities during the July 2022 LMP.
- Total organics from the expanded parameters list (above RL) observed at the Cell 7 facility was .86 mg/l. Total Toxic Organics (TTO) (>.01 mg/l) at the Cell 7 facility was .0.15 mg/l. This is below the overall TTO limit (10 mg/l) and 1.5 mg/l limit for base neutral extractable organic compounds within the Town of Babylon Discharge Certificate issued by SCDPW.
- Sulfide exceeded its MCL of 12 mg/l at the NNUS (101 mg/l).
- Barium did not exceed its MCL at the ONU, SA or NNU for July 2022. Barium observed at the Cell 7 facility for July 2022 (9.9 mg/l) exceeded its MCL of 8 mg/l.
- Mercury was detected above its RL at the NNU PLCRS (.00029 mg/l) for July 2022.
- Chloride at the Cell 7 for June 2021 was reported at .36 mg/l. This was approximately 4-5 orders of magnitude below its historical range at this facility. Chloride was observed at 63,200 mg/l at Cell 7 for December 2021 and 89,700 mg/l for July 2022 (in line with historical data).

[1] Suffolk County Department of Public Works Total Toxic Organics (TTO) limited to: VOC's 2.5 mg/l, Base Neutral Extractable Compounds 1.5 mg/l, Acid Extractable Compounds 1.5 mg/l and Pesticides and PCB's 1 mg/l.

- For July 2022 sodium was reported below its RL at the NNUP and Cell 7.
- For July 2022 BOD returned to its normal range (below its MCL) after exceeding its MCL (300 mg/l) at the NNUP, NNUS and Cell 7 in December 2021.
- Piper diagrams for the SA, ONU, NNU and Cell 7 were updated with leachate data from the July 2022 LMP. The Piper diagrams for the SA, ONU, NNUP, NNUS and Cell 7 conform to historical data.
- Project narratives were prepared by Pace Analytical Services Inc. for the July 2022 LMP laboratory results. Any issues, deficiencies or flagging of results were summarized in these narratives, and can be found in the appendix of this report. Each data package was certified by the laboratory as being in compliance with its contract for Babylon's LMP both technically and for completeness.

TOBSWMF's Leachate Monitoring Program

Old Northern U

July 2022

Pursuant to NYSDEC 6NYCRR Part 363 requirements for the operation of the Town of Babylon's Old Northern U (ONU) Ashfill, leachate from that facility's secondary leachate collection and recovery system (SLCRS) was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The ONU SLCRS is sampled semi-annually for baseline parameters. Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Due to a sampling error PFAS was not sampled in July. A sample for PFAS will be obtained from the ONU with the GMP monitoring scheduled for September 2022.

Ash has not been deposited in the ONU since it was capped in 2002 when the New Northern U (NNU) was constructed atop the facility. Leachate continues to be generated at the ONU despite the facility being capped and numerous attempts to locate the source. The LMP will continue at the ONU until there is a cessation of leachate generation. Included in this report is the July 2022 laboratory report from Pace Analytical Services, a spreadsheet summarizing parameters of concern dating back to 1995, a Piper diagram and a discussion of the laboratory results.

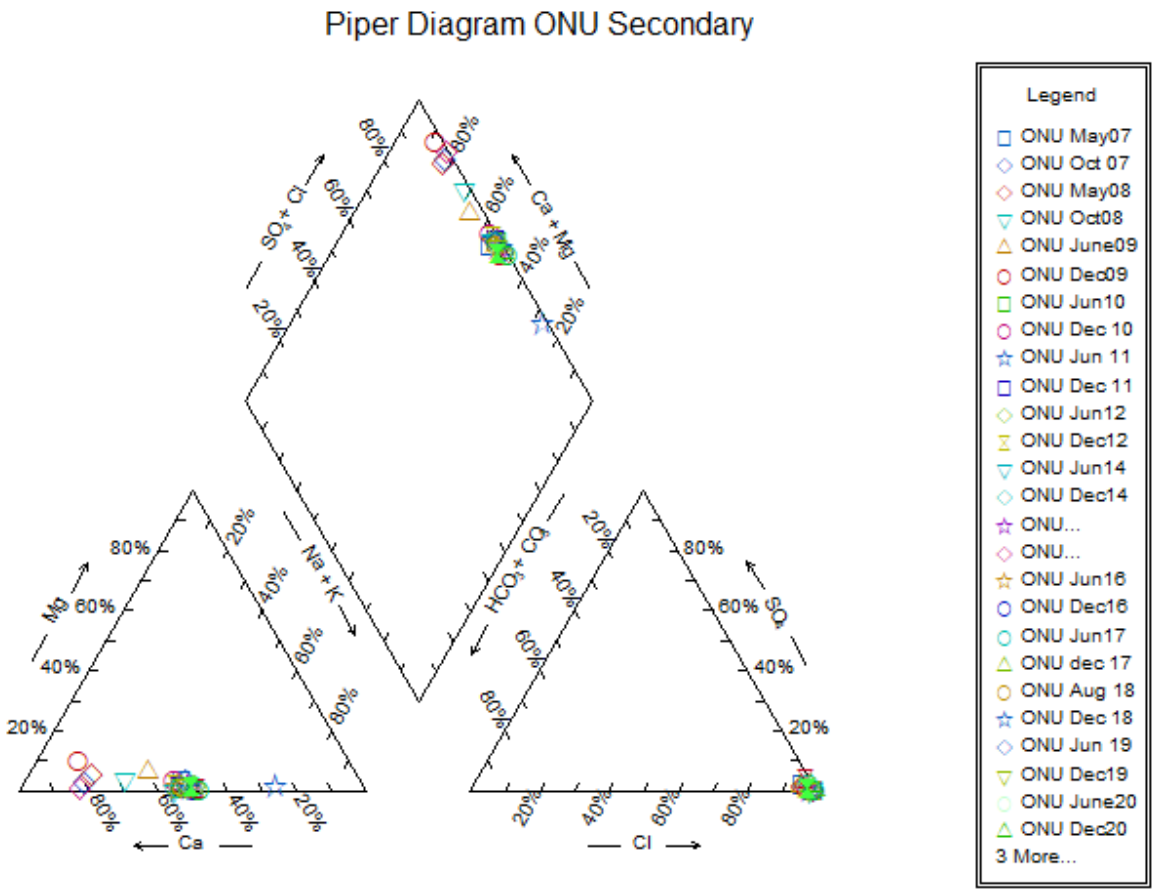
The attached spreadsheet provides a historical overview of leachate composition and any exceedance of MCL's at the ONU. The bullets below highlight notable observations from this round of sampling at the ONU and/or provide follow-up discussion/analysis of previous reports when appropriate.

- The chemical composition of leachate from the ONU for July 2022 generally conforms to historical data from the facility.
- pH measured in the field at the ONU SLCRS for July 2022 was 8.62.
- Manganese (6.9 mg/l) was observed below its MCL for July 2022. Manganese had exceeded its MCL at the ONU in 22 of the past 38 sampling events over the life of the facility but just 2 of the previous 13 sampling events at the ONU facility since June 2016.
- Barium (.927 mg/l) was not observed above its MCL at the ONU for July 2022.
- Arsenic and lead were not detected above their mdl at the ONU for July 2022. Low values of arsenic and lead have been intermittently observed at this facility.
- Other metals observed at the ONU at values above their reporting limit and below their MCL (where one has been established) for July 2022 include boron (.797 mg/l), calcium

(4340 mg/l), iron (5.99 mg/l), magnesium (67.9 mg/l), potassium (1660 mg/l), and sodium (3970 mg/l).

- 1,4 dioxane was observed at 8.4 ug/l for July 2022 at the ONU.
- Other organic compounds from the baseline list observed at the ONU for July 2022 was limited to acetone (.0024 mg/l).
- Sulfide (8.0 mg/l) was detected above its mdl and below its MCL at the ONU facility for July 2022.
- The Piper diagram from the ONU facility was updated with July 2022 data. The geochemical fingerprint for this facility remains unchanged.
- PFAS/PFOA's will be sampled at this facility in September 2022.

The next round of sampling at the ONU is scheduled for December 2022.



Note: Solid hourglass = data point for July 2022.

PARAMETERS	03 MCL	Oct_08	June_09	Dec_09	June_10	Dec_10	Jun_11	Dec_11	12-Jun	DEC_12	Jun_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15
CHLORIDE	na	10300	7450	11700	19000	16000	18000	29000	24000	32200	9610 D	39500 D	13600	32800 D	11400 D	54100
SULFATE	na	152	90.3	139	<	29	16	7	7	<250	**5130**	5.41	9.64	207 D	106 D	82
Alkalinity		250	402	400	210	310	380	260	250	319	339 D	136 D	330	148 D	183 D	186
Na	ppm	869	660	37.6	4100	3600	4200	4500	6000	6110	3170	7990	3930	6780 D	3120	566
K	ppm	878	684	352	2000	1500	**20000**	2100	3200	2480	1150	3790	1030 E	3060 D	1240	4470
Ca	ppm	2850	1580	1350	5200	4800	4800	5700	6600	7920	3760	9640	4810	7920 D	3550	12800
Mg	ppm	95.4	90.8	101	23	160	95	86	82	130	209	0.481 B	0.244	37.3	35.2	11.9
pH	5 - 12.5	8.02	7.55	7.78	6.5	6.24	7	6.7	6.2	6.25		Temp	3.96	6.43	6.97	5.72
TDS	na	25100	14200	19300	34000	25000	37000	38000	45000	49400	39800 D	80900 D	36400	64500	38500	122
PHENOL	1.5 mg/l															
PHENOLS		0.0137	0.0397	<.01	0.011	<	0.005	0.008	0.057	<.05	<.005	0.0488 D	<.005	<.005	<.005 U	<.005
IRON	na	9.75	21.7	34.2	33	74	60	86	46	83.6	62.9	0.416	63.3	13.6	17.9	11.6
MANGANESE	8 mg/l	16.9	15.5	21	5.5	36	20	21	18	34.5	41.2	0.0259	63.2	7.97	6.39	11.9
TKN	na	19.4	18.3	26.7	35	30	34	93	50	51.1	36.4 D	73.5 D	23.6	47.5 D	15.9 D	73.1
ALUMINUM	na	0.0146	0.245	0.038	<	0.37	0.45	<	0.79	0.0461 B	<.95	0.884	<	U	0.0329 B	<
ACETONE	50 mg/l				0.024	<	<	<	<	0.0049	0.005	0.036 Z	<	U	0.005	0.002
3+4 methylphenol								<	<	<						<
Methyl Ethyl Ketone	na						<	<	<	<	<	0.003 J	<	U	U	<
Arsenic	.400 mg/l				0.078	<	<	<	<	0.0049 B	<.28	0.0093 B	0.0124	U	U	<
Lead	.4 mg/l		0.0073 J	.00932J	<	<	<	<	<	0.0112	<.1	0.0135	0.0164	U	U	0.0031
Barium	8 mg/l	2	1.72	2.28	5.7	5	4.5	5.2	5.4	7.35	2.44 B	5.38	2.7	3.24	1.31	4.93
Xylene	ppb				<	<	<	<	<	<	<	<	<	U	U	<
Zinc	5 mg/l	0.0377	0.0608	0.102	<	0.17	0.14	0.22	<	0.0267	<.03	0.0096	<	0.207	0.017 B	0.0254
Beryllium					<	<	<	<	<	<.005	<.01	<	<	U	U	<
Nickel	8 mg/l	0.0119	0.0413	.0133J	<	<	<	<	<	<.04	0.03 B	0.002 B	<	U	0.002 B	<
Selenium	.4mg/l			.0171J	<	<	<	<	<	0.0171	<.23	<	<	U	U	<
Thallium		0.0249			<	<	<	<	<	<.01	<.19	<	0.123	U	U	0.0635
Silver	.4mg/l	0.0053			<	<	<	<	<	0.0039 B	0.0388 B	<	<	U	U	0.0029
Toluene					<	<	<	<	<	<	<	<	<	U	U	<
Carbon Disulfide					<	<	<	<	<	<	<	<	<	U	U	<
methylene chloride	2.5 mg/l	11 B	6.6 B		<	<	<	<	<	<	<	<	<	U	U	<
chromium										0.0071 B	0.09 B	<	0.0235	U	0.0027 B	<
Antimony										0.0055 B	<.12	0.0062 B	<	U	0.0028 B	<
4-Methyl-2-pentanone																0.003
Sulfide																
1,4 dioxane	ug/l															

PARAMETERS	03 MCL	Oct_08	June_09	Dec_09	June_10	Dec_10	Jun_11	Dec_11	12-Jun	DEC_12	Jun_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15
perfluorobutanoic acid (PFBA)																
perfluoropentanoic acid (PFPeA)																
perfluorohexanoic acid(PFHxA)																
perfluoroheptanoic acid																
perfluorooctanoic acid(PFOA)																
perfluorononanoic acid(PFNA)																
perfluorodecanoic acid (PFDA)																
perfluoroundecanoic acid(PFUnA)																
perfluorododecanoic acid(PFDoA)																
perfluorotridecanoic acid(PFTriA)																
perfluorotetradecanoic acid(PFTeA)																
perfluorobutanesulfonic acid(PFBS)																
perfluorohexanesulfonic acid(PFHxS)																
perfluoroheptanesulfonic acid(PFHpS)																
perfluorooctanesulfonic acid(PFOS)																
perfluorodecanesulfonic acid(PFDS)																
perfluorooctanesulfonamide(FOSA)																
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																
6:2FTS																
8:2FTS																
total PFAS																

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19	Jun_20	Dec_20	Jun_21	Dec_21
CHLORIDE	D 9630	D 44600	9970	348000	16400	19600	20400 D	14600	11600	12300	8970	40700
SULFATE	D 165	D 58	282	93.8	264	257	D 197 D	141	191	208	464	22.8 J
Alkalinity	D 271	182	143	148	293	139	245	302	196	137	157	155
Na	2390	8460	2500	6760	3720	3760 D	4560 D	3140	2230	3160	2670	9620
K	945	3870	1030	3310	1320	1570 D	1560 D	1140	937	1360	1170	3740
Ca	2960	9220	3100	8040	4290	4220	5140 D	3550	2390	3360	2770	9540
Mg	38.5	<10	19.4	0.293	19.2	11	192	71	12	7.27	8.1	0.706 J
pH	5.74	9.59/7	6.49	9.8	7.49	7.52	7.22	7.59	7.15	8.02	8.57	8.88
TDS	23900	52800	25200	69200	28600	24000	29900	19500	13700	20900	12300	23100
PHENOL												
PHENOLS	<.005	0.297	0.0264	0.0587	0.134	0.0059	<.00001	0.0158	<.005	0.0054	<.005	0.0563
IRON	4.79	<5	4.32	<.4	2.21	1.44	31.8	13.3	6.16	1.55	3.79	<1
MANGANESE	5.07	<.5	1.63	<.01	1.23	0.62	41.8	14.5	1.3	0.556	0.26	<.1
TKN	13.7	64.3	12.6	52.2	37.3	13.3	27.1	29.1	11.2	14	10.4	90.6
ALUMINUM	0.0704 J	<10	<.0134	1.13	<10	<.2	<.2	<.2	<.2	<.2	<.2	<2
ACETONE	J < 0.0804	<.001	0.0514	0.0024 J	0.0029	<.005	<.005	<.005	<.005	<.005	<.005	0.0341
3+4 methylphenol												
Methyl Ethyl Ketone	< <.005	<.0005	.0025 J	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	0.0021 J
Arsenic	< <.5	<.0068	<.01	<.5	<.01	<.2 D	<.01	<.01	<.01	<.01	<.01	<.1
Lead	0.0051	<.25	<.0013	<.4	<.25	0.0085	0.031	<.005	<.005	<.005	<.005	<.05
Barium	0.829	<10	1.32	4.9	1.34 J	1.13	2.77	2.07	0.619	1.11	0.566	5.54
Xylene	< <.005	<.0005	<.002	<.003	<.003	<.003	<.003	<.003	<.003	<.003	<.003	<.003
Zinc	0.0358	<1	<.0012	<.02	<1	<.02	<.02	<.02	<.02	<.02	<.02	<.2
Beryllium	0.0022 J	<.25	<.00057	.0036 J	<.25	<.005	<.005	0.00034 J	0.00013	0.00017 J	<.005	<.05
Nickel	< <2	<.00088	<.04	<2	<.04	<.04	<.04	0.0478	0.0193 J	0.0229 J	<.4	
Selenium	< <.5	<.0062	<.01	<.5	<.01	<.2 D	0.0135	<.01	<.01	<.01	<.1	
Thallium	< <.5	<.0036	<.01	<.5	0.0085 J	0.0798	<.01	<.01	<.01	<.01	<.1	
Silver	B < <.5	<.0036	<.01	<.5	<.01	0.0048 J	0.0035 J	0.0047	<.01	<.01	0.015 J	
Toluene	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Carbon Disulfide	< <.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001	0.0033	<.001	<.001
methylene chloride	< <.005	<.0005	<.001	<.001	<.01	<.001	<.001	<.001	<.001	<.001	<.001	<.001
chromium	< <.5	<.0016	<.01	<.5	<.01	0.0071 J	0.0074 J	0.0489	0.0077 J	0.0031 J	<.1	
Antimony	< <3	<.003	<.06	<3	<.06	0.06	<.06	<.06	<.06	<.06	<.6	
4-Methyl-2-pentanone	J < <.005	<.0005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
Sulfide	<20	<2	<.61	9.6	<2	<.002	8	<2	1.6	<2	<2	3.2
1,4 dioxane					0.21 JH	0.66	21	18.6	0.38	0.57	0.57	2

PARAMETERS	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	Jun_19	Dec_19		Jun_20		Dec_20	Jun_21		Dec_21	
perfluorobutanoic acid (PFBA)								180	B	73		76	200		270	
perfluoropentanoic acid (PFPeA)								120		43		67	59		120	
perfluorohexanoic acid(PFHxA)								160		60		82	72		170	
perfluoroheptanoic acid								53		25		29	28		36	
perfluorooctanoic acid(PFOA)								150		44		48	49		51	
perfluorononanoic acid(PFNA)								17		7.3		8.1	8.3		2.6	
perfluorodecanoic acid (PFDA)								5.4	J	2.1		1.8	J 2.3		0.66	J
perfluoroundecanoic acid(PFUnA)								ND		ND		nd	ND		ND	
perfluorododecanoic acid(PFDoA)								ND		ND		nd	ND		ND	
perfluorotridecanoic acid(PFTriA)								ND		ND		nd	ND		ND	
perfluorotetradecanoic acid(PFTeA)								ND		ND		nd	ND		ND	
perfluorobutanesulfonic acid(PFBS)								76		51		82	56		150	
perfluorohexanesulfonic acid(PFHxS)								69	B	13	B	17	14		34	
perfluoroheptanesulfonic acid(PFHpS)								2.8	J	0.42	J	0.47	J 0.84	J	0.31	J
perfluorooctanesulfonic acid(PFOS)								98		32		29	28		9	
perfluorodecanesulfonic acid(PFDS)								ND		ND		nd	ND		ND	
perfluorooctanesulfonamide(FOSA)								ND		0.76	JE	nd	ND		1.3	J
N-methylperfluorooctanesulfonamidoaceti								ND		ND		nd	ND		ND	
N-ethylperfluorooctanesulfonamidoacetic								ND		ND		nd	ND		ND	
6:2FTS								ND		ND		nd	ND		5	
8:2FTS								ND		ND		nd	ND		0.63	J
total PFAS								931.2		351.58		440.37	517.44		850.5	

PARAMETERS	Jul_22
CHLORIDE	10000
SULFATE	97.9
Alkalinity	305
Na	3970
K	1660
Ca	4340
Mg	67.9
pH	8.62
TDS	19300
PHENOL	
PHENOLS	<.005
IRON	5.99
MANGANESE	6.9
TKN	15.5
ALUMINUM	<.2
ACETONE	0.0024 J
3+4 methylphenol	
Methyl Ethyl Ketone	<.005
Arsenic	<.01
Lead	<.005
Barium	0.927
Xylene	<.003
Zinc	<.02
Beryllium	<.005
Nickel	0.0216 J
Selenium	<.01
Thallium	<.01
Silver	0.0024 J
Toluene	<.001
Carbon Disulfide	<.001
methylene chloride	<.001
chromium	0.002 J
Antimony	<.06
4-Methyl-2-pentanone	<.005
Sulfide	8
1,4 dioxane	8.4

PARAMETERS	Jul_22
perfluorobutanoic acid (PFBA)	
perfluoropentanoic acid (PFPeA)	
perfluorohexanoic acid(PFHxA)	
perfluoroheptanoic acid	
perfluorooctanoic acid(PFOA)	
perfluorononanoic acid(PFNA)	
perfluorodecanoic acid (PFDA)	
perfluoroundecanoic acid(PFUnA)	
perfluorododecanoic acid(PFDoA)	
perfluorotridecanoic acid(PFTriA)	
perfluorotetradecanoic acid(PFTeA)	
perfluorobutanesulfonic acid(PFBS)	
perfluorohexanesulfonic acid(PFHxS)	
perfluoroheptanesulfonic acid(PFHpS)	
perfluorooctanesulfonic acid(PFOS)	
perfluorodecanesulfonic acid(PFDS)	
perfluorooctanesulfonamide(FOSA)	
N-methylperfluorooctanesulfonamidoaceti	
N-ethylperfluorooctanesulfonamidoacetic	
6:2FTS	
8:2FTS	
total PFAS	

TOBSWMF's Leachate Monitoring Program

Southern Ashfill

July 2022

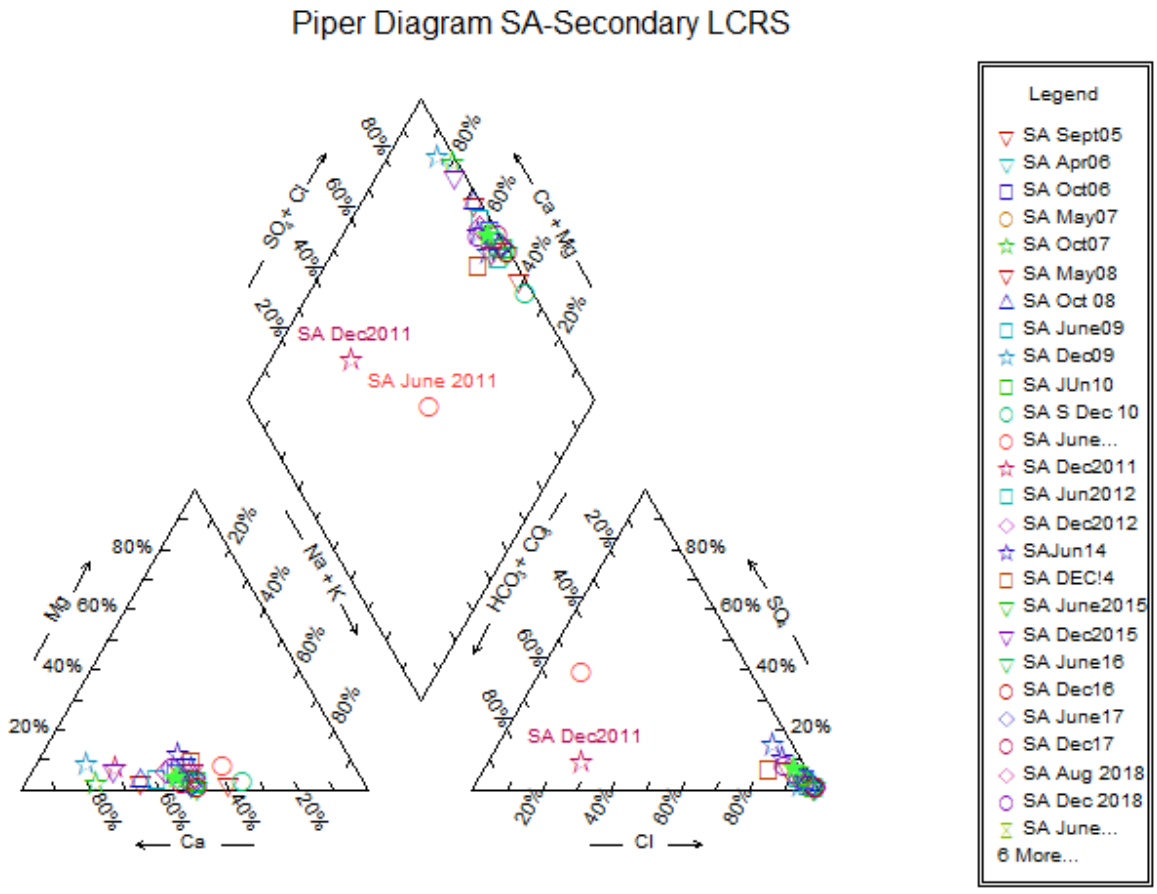
Pursuant to NYSDEC 6NYCRR Part 363 (formerly part 360) requirements for the operation of the Town of Babylon's Southern Ashfill (SA), leachate from that facility's Secondary Leachate Collection and Recovery System (SLCRS) was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The SA facility requires semiannual sampling of leachate for baseline parameters from the facility's SLCRS. Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Due to sampling error PFAS was not sampled in July. A sample for PFAS will be obtained from the SA with the GMP monitoring scheduled for September 2022. This report includes the laboratory report from Pace Analytical Services, a Piper diagram, a spreadsheet summarizing parameters of concern dating back to 1994, and a discussion of the results.

The attached spreadsheet provides a historical overview of leachate composition at the SA and any exceedance of the MCL's. The following bullets summarize any findings from this round of sampling at the SA and provide follow-up analysis or discussion when recommended from previous reports.

- Leachate indicators at the SA have been observed to be variable. Data from the July 2022 LMP at the SA fall within the range of historical data.
- A Piper diagram that includes SA data from July 2022 conforms to its established pattern.
- Lead and arsenic were reported below their mdl's for July 2022. Low values of lead and arsenic have been observed intermittently at the SA.
- Manganese was observed below its MCL at 7.58 mg/l for July 2022. Manganese had exceeded its MCL (8 mg/l) in June 2019. The only other sampling event where manganese exceeded its MCL at the SA facility was December 2013.
- Barium was observed at 1.02 mg/l at the SA for July 2022.
- Other metals observed at the SA at values above their reporting limit and below their MCL (where one has been established) for July 2022 include boron (.729 mg/l), calcium (1540 mg/l), iron (6.57 mg/l), magnesium (65.3 mg/l), potassium (396 mg/l) and sodium (1190 mg/l).
- 1,4 dioxane was detected at 1.1 ug/l at the SA for July 2022.

- No organics from the baseline parameters list were detected above their RL at the SA facility for July 2022.
- Mercury was not detected (<.0002 mg/l) at the SA for July 2022.
- pH measured in the field was 8.26 at the SA facility.
- Sulfide (<2 mg/l) was not detected at the SA facility for July 2022.
- PFAS/PFOA's is scheduled to be sampled in September 2022.

The next round of sampling is scheduled for December 2022.



Note: Solid star indicates July 2022 data.

SA PARAMETERS	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	Apr'06	Oct '06	May'07	Oct'07	May_08	Oct_08	June_09
TKN	na	16.9000		21.1000	30.2000	22.3000	22.9000	19.8000	13.3000	14.2000	15.5000	20.0000	15.0000
TDS	na	18800.0000	9000.0000	21000.0000	16000.0000		7000.0000	19700.0000	15700.0000	23700.0000	17000.0000	21700.0000	14200.0000
Phenols	na	0.0170			0.0061				0.1170			0.0148	0.0103
Chloride	na	7000.0000	4750.0000	11200.0000	9250.0000	13500.0000	14700.0000	15400.0000	8400.0000	14000.0000	9500.0000	11000.0000	7500.0000
Sulfide	12												
Iron	na	5.8900	0.0448	9.4100	7.9100	5.0600	11.6000	227.0000	6.0500	2.4700	2.3000	2.2300	9.7300
Manganese	8 mg/l	5.6300	3.0900	4.6000	3.7400	4.3400	2.9100	6.7100	4.3700	2.4200	2.8600		2.37
Phenol	1.5 mg/l												
Xylene	2.5 mg/l *	1.5000											
1,2,4 Trimethylbenzene	na												
SULFATE	na	291.0000				56.0000	80.5000	51.3000	359.0000	314.0000	204.0000	126.0000	87.6000
Arsenic	.4 mg/l	0.0034						0.2630					
Acetone	na ppm	49.5000											
pH	5 - 12.5		4.0000	6.0200		5.9800	6.0900	6.3200	6.7000	6.1500	5.8900	5.7600	6.1800
Aluminum	na	0.0130	0.0415	0.0170 J	0.0475	0.0998	0.0647	6.1200	0.0620	0.0729	0.0293	0.0341	0.0962
Barium	8 mg/l	0.9800	0.6440	1.9500	1.9400	4.5100	1.6400	2.5100	1.1500	1.4500	1.1400	1.2100	1.5700
Lead		0.0017	0.0075			0.0180		0.2510	0.0040				
Zinc		0.0190		0.0140	0.0053 J		0.0136	0.8450		0.0225	0.0242	0.0368	0.0424
Toluene	2.5 mg/l *												
Cadmium	.8 mg/l	0.0003											
Vanadium		0.0005						0.0596					
Tin													
Antimony		0.0210											
Copper	1.6 mg/l	0.0029						0.1140			0.00515 J	0.0101	
Selenium	.4 mg/l	0.0270		0.0475									
Silver	.4 mg/l	0.0010								0.0252			
Berylium		0.0012											
Chromium	8 mg/l	0.0027			0.0084 J	0.0111 J		0.0426					
Nickel	8 mg/l	0.0035						0.2470					
Thallium		0.0850						0.0343				0.0202	
Carbon disulfide								0.004					
Methylene Chloride	2.5 mg/l							0.0180 B	0.0047 B		0.0058 B		0.0058
Alkalinity		320.0000			299	208	210	172.0000	284	193	259	230	290
Ammonia		10.7000	4.65	18.5	23.2	16.4	16.3	10.4000	9.75	24.8	0	14.9	13.2
Hardness		5710.0000	2340	7290	6190	9790	9570	6180.0000	5740	8110	595	5810	4450
1,4 dioxane	ug/l												

SA PARAMETERS	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	Apr'06	Oct '06	May'07	Oct'07	May_08	Oct_08	June_09
		Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09
Chloride		7000.0000	4750.0000	11200.0000	9250.0000	13500.0000	14700.0000	15400.0000	8400.0000	14000.0000	9500.0000	11000.0000	7500.0000
Sulfate		291.0000	388	120	99.2	56.0000	80.5000	51.3000	359.0000	314.0000	204.0000	126.0000	87.6000
Alkalinity		320			299	208	210	172	284	193	259	230	290
Na		2090.0000	284	1340	1390	5360	3170	2050	1920.0000	40.1000	878.0000	831.0000	739.0000
K		699	462	1300	1240	2070	1770	1260	836.0000	1590.0000	1430.0000	896.0000	828.0000
Ca		2090.0000	788	2770	2340	3760	3750	2400	2170.0000	3180.0000	2870.0000	2250.0000	1690.0000
Mg		119	91.3	86.5	85.1	97.3	49	45.9	76.3000	39.8000	57.3000	48.3000	53.2000
pH			4	6.0200		5.9800	6.0900	6.3200	6.7000	6.1500	5.8900	5.7600	6.1800
perfluorobutanoic acid (PFBA)													
perfluoropentanoic acid (PFPeA)													
perfluorohexanoic acid(PFHxA)													
perfluoroheptanoic acid													
perfluorooctanoic acid(PFOA)													
perfluorononanoic acid(PFNA)													
perfluorodecanoic acid (PFDA)													
perfluoroundecanoic acid(PFUnA)													
perfluorododecanoic acid(PFDoA)													
perfluorotridecanoic acid(PFTriA)													
perfluorotetradecanoic acid(PFTeA)													
perfluorobutanesulfonic acid(PFBS)													
perfluorohexanesulfonic acid(PFHxS)													
perfluoroheptanesulfonic acid(PFHpS)													
perfluorooctanesulfonic acid(PFOS)													
perfluorodecanesulfonic acid(PFDS)													
perfluorooctanesulfonamide(FOSA)													
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)													
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)													
6:2FTS													
8:2FTS													
total PFAS													

SA PARAMETERS	03 MCL	Dec_09	10-Jun	DEC_10	June_11	11-Dec	12-Jun	DEC_12	June_13	Dec_13	14-Jun	14-Dec	June_15
TKN	na	16	8.6000	2.8000	1.4000	1.8000	39.0000	2.4600	3.3600 D	58.0000 D	1.9000 D	2.0000	54.9000
TDS	na	9560	13000.0000	9600.0000	1500.0000	320.0000	9100.0000	13800.0000	19500.0000 D	9000.0000 D	9230.0000	4520.0000	91100.0000
Phenols	na	<.01	<.01	0.003	<.001	<	<	<.05	<.005	0.0212	<.005	<.005	0.008
Chloride	na	4900	21000.0000	6300.0000	110.0000	55.0000	6200.0000	34300.0000	3780.0000 D	44700.0000 D	3140.0000 D	1840.0000 D	33600.0000
Sulfide	12											<2	<2
Iron	na	3.12	0.6700	1.8000	1.0000	26.0000	20.0000	3.4900	8.0100 B	21.2000	2.5900	1.9300	1.1500
Manganese	8 mg/l	1.61	2.6	2.7	0.33	2.2	5.7	2.73	2.72	**12.8**	5.5	2.49	0.45
Phenol	1.5 mg/l												
Xylene	2.5 mg/l *					<		<	<	<	<	U	<
1,2,4 Trimethylbenzene	na					<		<		XXXXXX			
SULFATE	na	77.7	130.0000	240.0000	450.0000	25.0000	320.0000	151.0000	5340.0000	11	515.0000	190.0000 D	124.0000
Arsenic	.4 mg/l					<	<	<.01	<.28	0.0051 B	<	U	U
Acetone	na ppm					<	<	0.001	0.003 J	0.001 J	<	U	0.041
pH	5 - 12.5	6.91	7.2000	6.8000	8.2000	7.8000	7.1000	7.1000		TEMP	4.9100	6.9500	7.1800
Aluminum	na	0.0891	<.05	0.06	0.26	1	11	<.2	<.95	0.0228 B	<	0.332	0.0512 B
Barium	8 mg/l	1.3	0.9800	0.5800	0.1100	0.0850	0.4900	0.8050	0.4900 B	4.5600	<	U	2.8300
Lead		.00427J	<	<	<	<	0.13	0.0078	<.1	0.0242	0.0086	U	0.0018 B
Zinc		0.0853	<	<	0.1000	0.6200	1.6000	0.0240	<.03	0.1590	<	0.1440	0.0234
Toluene	2.5 mg/l *			<	<	<	<	<	<	<	<	U	U
Cadmium	.8 mg/l		<	<	<	<	<	<.005	<.01	0.0016 B	<	U	U
Vanadium			<	<	<	<	<	<.05	0.03 B	<	<	U	0.0029 B
Tin													
Antimony			<	<	<	<	<	<.06	<.12	0.0067 B	<	U	0.0071 B
Copper	1.6 mg/l	0.0443	<	<	<	<	<	<.025	<.04	0.0082 B	<	0.0269	U
Selenium	.4 mg/l		<	<	<	<	<	<.005	<.23	<	<	U	U
Silver	.4 mg/l		<	<	<	<	<	<.01	<.02	0.0027 B	<	U	U
Berylium			<	<	<	<	<	<.005	<.01	<	<	U	U
Chromium	8 mg/l		<	<	<	<	<	<.01	0.07 B	0.003 B	<	U	0.0021 B
Nickel	8 mg/l		<	<	<	<	<	<.04	<.03	<	<	U	0.0018 B
Thallium			<	<	<	<	<	<.01	<.19	0.0068 B	0.0133	U	U
Carbon disulfide			<	<	<	<	<	<	<	<	<	U	U
Methylene Chloride	2.5 mg/l	.0042B	<	<	<	<	<	<	<	<	<	U	U
Alkalinity		318	230	200	590	180	360	209	275 D	202 D	273 D	338 D	102
Ammonia		13.1	7.6	1.8	0.6	0.8	14	1.08	2.72	60 D	1.99	1.89	53.8 D
Hardness		1910	5300	5100	570	220	2800	4500	4100 D	27000 D	3000 D	3100 D	20400 D
1,4 dioxane	ug/l												

SA PARAMETERS	03 MCL	Dec_09	10-Jun	DEC_10	June_11	11-Dec	12-Jun	DEC_12	June_13	Dec_13	14-Jun	14-Dec	June_15
		Dec_09	Jun_10	Dec_10	Jun_11	Dec_11	June_12	Dec_12			June_14	Dec_14	Jun_15
Chloride		4900					6200	34300			3140	1840	
Sulfate		77.7					320	151			515	190	
Alkalinity		318					360	209			273	338	
Na		40.3	2000	1900	300	27	1000	1580			782	479	8160
K		198	640	3500	21	9.2	470	550			232	192	3310
Ca		693	2000	1900	190	81	1100	1640			995	533	8440
Mg		43.7					20	75.9			141	59.7	19
pH		6.91					7.1	7.1			4.91	6.95	7.18
perfluorobutanoic acid (PFBA)													
perfluoropentanoic acid (PFPeA)													
perfluorohexanoic acid(PFHxA)													
perfluoroheptanoic acid													
perfluorooctanoic acid(PFOA)													
perfluorononanoic acid(PFNA)													
perfluorodecanoic acid (PFDA)													
perfluoroundecanoic acid(PFUnA)													
perfluorododecanoic acid(PFDoA)													
perfluorotridecanoic acid(PFTriA)													
perfluorotetradecanoic acid(PFTeA)													
perfluorobutanesulfonic acid(PFBS)													
perfluorohexanesulfonic acid(PFHxS)													
perfluoroheptanesulfonic acid(PFHpS)													
perfluorooctanesulfonic acid(PFOS)													
perfluorodecanesulfonic acid(PFDS)													
perfluorooctanesulfonamide(FOSA)													
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)													
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)													
6:2FTS													
8:2FTS													
total PFAS													

SA PARAMETERS	03 MCL	Dec_15	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	June_19	Dec_19	Jun_20	Dec_20
TKN	na	9.4700 D	3.8800	43.2000	28.4000	24.2000	0.5800	1.8000	17.0000 D	2.9	1.2	1.3
TDS	na	16600.0000	12.6000	39900	43000.0000	33200.0000	6130.0000	6300.0000	9360.0000	6800	8290	5250
Phenols	na	<.005	<.005	0.277	0.0124	0.0103	0.0569 J	0.0028 J	<.01	0.0092	<.005	0.0051
Chloride	na	6990.0000 D	########	31100.0000	15400	57900.0000	3630.0000	2330	5830 D	5470	6860	2540
Sulfide	12		<20	<2	<.61	<2	<2	<2	6.4	<2	<2	<2
Iron	na	17.8000	2.3500	<5	6.86	11.7000	0.4540	12.8	210	2.85	21.5	64.3
Manganese	8 mg/l	4.97	1.87	<.5	3.42	3.86	2.09	1.09	8.44	5.31	6.67	4.21
Phenol	1.5 mg/l											
Xylene	2.5 mg/l *		<	<.005	<.0005	<.002	<.003	<.003	<.003	<.003	<.003	<.003
1,2,4 Trimethylbenzene	na											
SULFATE	na	263.0000 D	182.0000 D	246	221.0000	423.0000	251.0000	267.0000 D	361.0000 D	427	322	621
Arsenic	.4 mg/l	0.0048 B	<.01	<.5	<.0068	<.01	<.01	<.01	0.0599	<.01	<.01	0.0154
Acetone	na ppm	0.002 J	<	0.048	0.0755	0.0264	0.0032 J	<.005	0.0016 J	<.005	<.005	<.005
pH	5 - 12.5	7.0100	6.5300	7.21/6.5	6.18	6.95	8.08	8.05	8	7.24	8.12	8.59
Aluminum	na	0.0527 B	<	<10	<.0134	.0823 J	0.0506 J	0.564	13.5	<.2	0.531	3.86
Barium	8 mg/l	0.6040	0.4350	<10	1.62	1.08	0.205	0.17 J	0.481	0.158 J	0.264	0.189
Lead		0.0042	0.0023 J	<.25	<.0013	0.0058	0.0028 J	0.013	0.279	<.005	0.011	0.0982
Zinc		0.0109 B	0.1060	<1	0.0352	.0163 J	0.0097 J	0.0652	1.87	0.0064 J	0.0762	0.486
Toluene	2.5 mg/l *		<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Cadmium	.8 mg/l	0.0011 B	<	<.125	<.000063	<.0025	<.0025	<.0025	0.0125	<.0025	<.0025	0.0036
Vanadium		<	<	<2.5	<.0008	<.05	<.05	0.0016 J	0.0226 J	<.05	<.05	0.0113 J
Tin												
Antimony		<	<	<3	<.003	<.06	<.06	<.06	0.0765	<.06	<.06	0.0252 J
Copper	1.6 mg/l	0.0073 B	0.0026 J	<1.25	<.0025	.011 J	0.0042 J	0.0185 J	0.36	0.0087 J	0.0374	0.188
Selenium	.4 mg/l	0.0026 B	<	<.5	<.0062	<.01	<.01	<.01	<.01	<.01	<.01	<.01
Silver	.4 mg/l	0.0035 B	<	<.5	<.0036	<.01	<.01	<.01	0.0043 J	0.0038 J	0.0028	<.01
Berylium		<	0.0009 J	<.25	0.0051	.0018 J	<.005	<.05	<.005	0.00022 J	0.00011	<.005
Chromium	8 mg/l	0.0016 B	0.0414	<.5	<.0016	<.01	0.003 J	0.0067	0.0989	0.0156	0.0342	0.0195
Nickel	8 mg/l	0.0054 B	0.0243 J	<2	<.00088	<.04	<.04	<.04	0.069	<.04	0.0352	0.0415
Thallium		0.0244	<	<.5	<.0036	.0025 J	<.01	<.01	0.0276	0.012	<.01	<.01
Carbon disulfide			<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	0.0015
Methylene Chloride	2.5 mg/l		<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Alkalinity		261 D	178	151	206	149	225	223	183	268	199	244
Ammonia		1.28	4.39 D	57.1000	11.8	26.9	0.05 J	0.75	4.7	2.9	0.23	0.00097 J
Hardness		4700 D	3400 D	16400.0000	11800	9600	2500	2200	4000	4000	10000	1400
1,4 dioxane	ug/l						0.37 JH	0.75	0.88	<.2	0.9	0.81

SA PARAMETERS	03 MCL	Dec_15	Jun_16	Dec_16	17-Jun	Dec_17	Aug_18	Dec_18	June_19	Dec_19	Jun_20	Dec_20
		Dec_15										
Chloride												
Sulfate												
Alkalinity												
Na		329	1170	1494.3944	4180	3360	560	538	1330	843	1200	565
K		640	520	1087.2889	1770	1750	305	293	486	324	418	247
Ca		1820	1410	2053.8333	4660	4420	914	807	1760	991	1550	642
Mg		99.5	63.1	70.7500	70.6	83.7	56.4	64.2	103	105	90.6	55.2
pH		7.01	7.01		6.18	6.95	8.08	8.05	8	7.24	8.12	8.59
perfluorobutanoic acid (PFBA)										70 B	76	37
perfluoropentanoic acid (PFPeA)										110	82	48
perfluorohexanoic acid(PFHxA)										130	130	58
perfluoroheptanoic acid										52	44	30
perfluorooctanoic acid(PFOA)										130	110	86
perfluorononanoic acid(PFNA)										11	11	9.8
perfluorodecanoic acid (PFDA)										15	19	18
perfluoroundecanoic acid(PFUnA)										ND	ND	nd
perfluorododecanoic acid(PFDoA)										ND	0.95 J	nd
perfluorotridecanoic acid(PFTriA)										ND	ND	nd
perfluorotetradecanoic acid(PFTeA)										ND	ND	nd
perfluorobutanesulfonic acid(PFBS)										23	36	15
perfluorohexanesulfonic acid(PFHxS)										36 B	46 B	14
perfluoroheptanesulfonic acid(PFHpS)										ND	2.8	1.2 J
perfluorooctanesulfonic acid(PFOS)										51	110	57
perfluorodecanesulfonic acid(PFDS)										ND	ND	nd
perfluorooctanesulfonamide(FOSA)										ND	0.38 JB	nd
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)										ND	ND	nd
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)										ND	ND	nd
6:2FTS										6.3 J	11 J	nd
8:2FTS										ND	ND	0.73 J
total PFAS										634.3	679.13	374.73

SA PARAMETERS	03 MCL	Jun_21	Dec_21	Jul_22
TKN	na	1.5	8	<.5
TDS	na	3670	10400	6120
Phenols	na	<.005	<.005	0.041
Chloride	na	3120	5870	3730
Sulfide	12	9.6	<2	<2
Iron	na	0.962	0.768 J	6.57
Manganese	8 mg/l	2.4	3.35	7.58
Phenol	1.5 mg/l			
Xylene	2.5 mg/l *	<.003	<.003	<.003
1,2,4 Trimethylbenzene	na			
SULFATE	na	328	329	407
Arsenic	.4 mg/l	<.01	<.1	<.01
Acetone	na ppm	<.005	<.005	0.0019 J
pH	5 - 12.5	8.12	8.2	8.26
Aluminum	na	<.2	<2	<.2
Barium	8 mg/l	0.148	0.296 J	1.02
Lead		<.005	<.05	<.005
Zinc		<.02	<.2	<.02
Toluene	2.5 mg/l *	<.001	<.001	<.001
Cadmium	.8 mg/l	<.0025	<.025	<.0025
Vanadium		<.05	<.5	0.0052 J
Tin				
Antimony		<.06	<.6	<.06
Copper	1.6 mg/l	<.025	<.25	<.025
Selenium	.4 mg/l	<.01	<.1	<.01
Silver	.4 mg/l	<.01	<.1	0.0027 J
Berylium		<.005	<.05	<.005
Chromium	8 mg/l	<.01	<.1	0.0021 J
Nickel	8 mg/l	0.0144	<.4	0.022 J
Thallium		<.01	<.1	<.01
Carbon disulfide		<.001	<.001	<.001
Methylene Chloride	2.5 mg/l	<.001	<.001	<.001
Alkalinity		240	188	174
Ammonia		0.12	3.5	0.092 J
Hardness		4000	4000	3200
1,4 dioxane	ug/l	0.93	0.75	1.1

SA PARAMETERS	03 MCL	Jun_21	Dec_21	Jul_22
Chloride				
Sulfate				
Alkalinity				
Na		599	1530	1190
K		258	536	396
Ca		654	1930	1540
Mg		52.82	79.4	65.3
pH		8.12	8.2	8.26
perfluorobutanoic acid (PFBA)		46	72	
perfluoropentanoic acid (PFPeA)		48	66	
perfluorohexanoic acid(PFHxA)		63	86	
perfluoroheptanoic acid		32	33	
perfluorooctanoic acid(PFOA)		85	100	
perfluorononanoic acid(PFNA)		8.3	7.5	
perfluorodecanoic acid (PFDA)		15	12	
perfluoroundecanoic acid(PFUnA)		ND	ND	
perfluorododecanoic acid(PFDoA)		ND	ND	
perfluorotridecanoic acid(PFTriA)		ND	ND	
perfluorotetradecanoic acid(PFTeA)		ND	ND	
perfluorobutanesulfonic acid(PFBS)		15	29	
perfluorohexanesulfonic acid(PFHxS)		13	22	
perfluoroheptanesulfonic acid(PFHpS)		ND	1.1	JCL
perfluorooctanesulfonic acid(PFOS)		43	42	
perfluorodecanesulfonic acid(PFDS)		ND	ND	
perfluorooctanesulfonamide(FOSA)		ND	ND	
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND	ND	
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		1.4 J	ND	
6:2FTS		ND	ND	
8:2FTS		ND	0.46	J
total PFAS		369.7	471.06	

TOBSWMF's Leachate Monitoring Program

New Northern U Ashfill

July 2022

Pursuant to NYSDEC 6NYCRR Part 363 (formerly part 360) requirements for the operation of the Town of Babylon's New Northern U Ashfill (NNU), leachate from the NNU Primary and Secondary Leachate Collection and Recovery System (PLCRS and SLCRS) were sampled in accordance with the procedures detailed in the TOBSWMF's Updated SAP (TOBDEC, 2018). These facilities are sampled semi-annually for baseline parameters as part of Babylon's Leachate Monitoring Program (LMP). Pursuant to NYSDEC requirement to sample for "emerging contaminants", Babylon expanded sampling to include 1,4 dioxane and PFAS/PFOA's for this facility beginning in December 2019. Due to a sampling error, PFAS was not sampled in July. A sample for PFAS will be obtained from the NNU facilities with the GMP monitoring scheduled for September 2022. This document includes the laboratory report from Pace Analytical Services, Inc., a spreadsheet summarizing parameters of concern at the facility, a Piper diagram of leachate from each liner system, and a discussion of the results.

The NNU which began accepting ash in 2003 sits atop the ONU, separated by a double liner system, with each layer consisting of a bentonite blanket, liner and geocomposite. The NNU SLCRS is also separated from the ONU by the ONU cap. Both systems serve as near impermeable barriers. The elevation of the NNU system (approximately 25-30 feet above the water table) prevents groundwater infiltration from being considered a source of leachate to the system.

The attached spreadsheet provides a historical overview of leachate composition at the NNU, highlighting any exceedance of an MCL from the facility's PLCRS and SLCRS. The following discussion summarizes any noteworthy findings from the July 2022 sampling and provides follow-up analysis or discussion wherever necessary or recommended in previous reports.

- For the July 2022 LMP pH was 7.5 at the NNU SLCRS and 7.58 at the NNU PLCRS.
- The overall leachate characteristics of the NNU PLCRS and SLCRS largely conform to the historical dataset for this facility.
- Arsenic and lead were not detected above their mdl at the NNUS. At the NNUP lead (.071 mg/l) was detected in July 2022. Arsenic (<.01) was below its mdl. Low values of arsenic and lead have been intermittently observed in the NNU leachate systems.
- Mercury (.0029 mg/l) was observed at the NNU PLCRS and below its RL at the NNU SLCRS for July 2022.

- Organics from the baseline parameters list observed above their reporting limit at the NNU for July 2022 included:

  Carbon disulfide was observed at .0015 mg/l at the NNUS.

  Acetone was observed below its RL at the NNU PLCRS (.0028 mg/l) and .402 mg/l at the NNU SLCRS. Low concentrations of acetone have been observed at this facility since June 2010.

  MEK was detected at .0405 mg/l at NNU-SLCRS during July 2022 sampling. Trace values of MEK have been intermittently observed at this facility.

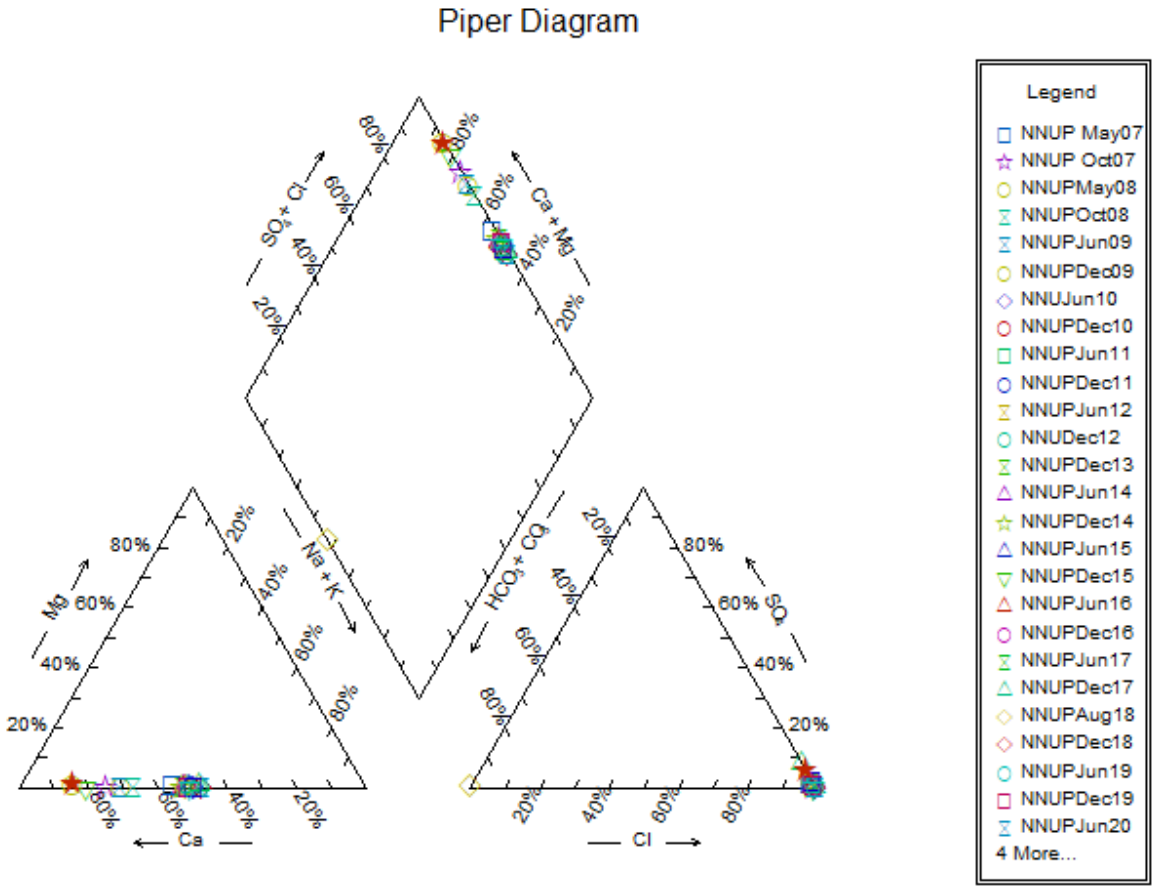
  TTO as defined on the Town of Babylon discharge certificate issued by Suffolk County Department of Public Works is <.01 mg/l at the NNU facility.

  Total baseline organics for the NNU PLCRS was ND and .444 mg/l at the NNU SLCRS.

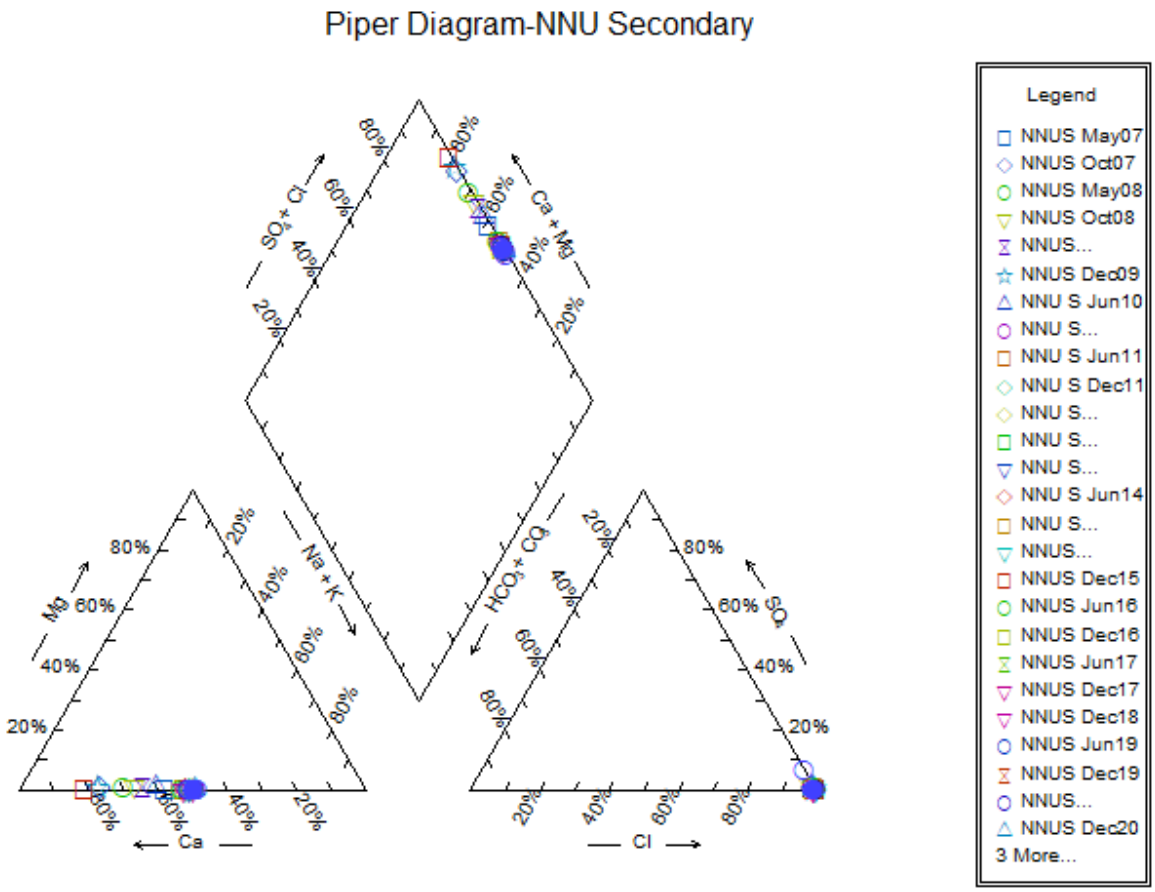
- 1,4 dioxane was observed at .78 ug/l at the NNU PLCRS and 3.3 ug/l at the NNU SLCRS.
- Barium was observed below its MCL at the NNU PLCRS (.521 mg/l) and NNU SLCRS (2.18 mg/l) for July 2022. Barium has been observed exceeding its MCL at the NNU PLCRS 5 times over 38 sampling events through the life of the facility. Barium has exceeded its MCL at the NNU SLCRS 3 times over 38 sampling events through the life of the facility. The last exceedance for barium at each of the facilities was December 2012.
- Other metals observed above their reporting limit and below their MCL at the NNU PLCRS for July 2022 include aluminum (.53 mg/l), antimony (.087 mg/l), boron (7.15 mg/l), calcium (6410 mg/l), copper (.055 mg/l), iron (.661 mg/l), magnesium (42.8 mg/l), manganese (1.49 mg/l), nickel (.044 mg/l), potassium (2270 mg/l), sodium (<5 mg/l) and zinc (.58 mg/l). The value for sodium reported is well below its historical range and is viewed as suspicious.
- Other metals observed above their mdl and below their MCL at the NNU SLCRS for July 2022 include boron (5.85 mg/l), calcium (15800 mg/l), chromium (.091 mg/l), iron (3.69 mg/l), magnesium (56.45 mg/l), manganese (.2 mg/l), potassium (5920 mg/l) and sodium (14800 mg/l).
- Sulfide was observed below its MCL at the NNUP (3.2 mg/l) and exceeded its MCL at the NNUS (101 mg/l) for the July 2022 LMP. Sulfide has exceeded its MCL at the NNUP for 8 of 13 sampling rounds since June 2016. At the NNUS sulfide has exceeded its MCL since December 2017 (except for December 2020).
- BOD was below its RL at the NNUP and below its MCL (300 mg/l) at the NNUS (110 mg/l). BOD has intermittently exceeded its MCL at these facilities.

- A Piper diagram was prepared with the July 2022 data added to the historical dataset. The geochemical fingerprint for the NNU facilities matches its historical pattern. Slight movement to the lower right triangle of the diagram was noted with the July 2022 data at the NNUP facility. The likely cause was sulfate observed above its normal range and MCL. This previously occurred (elevated sulfate) in December 2020 with a similar result on the Piper diagram. The same observance (elevated sulfate) was made at the NNUS for June 2021 with a similar result on the Piper diagram. The lower left of the diagram also included a slight shift to the left. This was likely due to sodium which was reported well below the average values. This was previously observed in December 2009 and December 2015 with similar affect to the Piper diagram.
- PFAS/PFOA's is scheduled to be sampled during September 2022.

The next round of sampling is scheduled for December 2022.



Note: solid star represents July 2022 data.



Note: solid circle represents July 2022 data.

NNUP PARAMETERS	95 MCL	03 MCL	Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	June_12
CHLORIDE	500mg/l	na	24800	6400	36100	31600	32100	18800	32600	17500	33000	30000	25300	34500	27800	51000	45000	46000	42000	55000
SULFATE	500mg/l	na		357	92.3	11.3	1.51	344	12.4	323	32.2	85.5	147	104	600	70	<	85	50	280
Alkalinity										211	130	169	128	143	157	360	230	280	220	240
Na										3080	38.6	925	1800	1160	33.9	10000	9000	9200	8700	12000
K										2410	5310	3930	3410	2960	434	6600	6000	6000	5800	7400
Ca										4930	8190	6640	6660	6150	1380	12000	11000	11000	11000	14000
Mg										14.3	0.509	0.407	0.86	1.03	3.6	3.9	6.1	8.4	68	8.6
pH	6.5-8.5	5 - 12.5	5.34	7.89	8.96	9.07	8.87	8.91	8.78	7.12	8.37	9.01	9.2	8.29	6.95	6.6	6.57	6.6	6.7	6
hardness																				
TDS	1000 mg/l	na	30700	11000	54000	46000	58000	11600	53700	30900	57000	52400	42700	50500	43300	81000	69000	88000	68000	94000
PHENOL	0.002mg/l	1.5 mg/l	0.01																	
PHENOLS				1.52		0.02	0.02		0.09	0.26		0.0888	0.0128		0.0935	0.19	0.066	0.16	0.16	0.1
IRON	0.6mg/l	na	3.64	0.09	0.08	1.81	0.1	0.13	0.04	1.41	0.02	0.0289	0.0642	0.217	**5.27**	0.58	2.2	0.54	0.9	9.3
MANGANESE	0.6mg/l	8 mg/l	19.7	0.06	0.82	0.69	0.26	0.11	0.09	0.72	0.14	0.0554	0.0848	0.168	0.528	2.1	1.1	0.88	0.94	4.6
TKN	10 mg/l	na	18.2	5.2	36.4	70.2	88.4	11.4	42.2	14.2	42.9	83.8	77.8	66.2	52.4	78	87	78	130	98
ALUMINUM	2mg/l	na		0.48	0.69	0.45	0.83	0.94	0.93	0.28	0.98	1.28	0.54	0.478	2.94	0.31	0.52	0.49	<	1.8
ACETONE	50 mg/l	50 mg/l	38.9													0.15	0.12	0.16	0.22	0.34
Methyl Ethyl Ketone	5000 ppm	na														<	0.018	<	<	0.15
Arsenic	50 ppb	400 ppb					20.9J									65	<	<	<	<
Lead	50 ppb	400 ppb		106	15.6	333	8.97J		0.06	.01J					193	<	<	<	<	<
Barium		8 mg/l	3.52	1.31	9.82	11.5	18	3.1	7.11	2.7	6.6	4.96	5.34	4.1	2.73	0.64	7	4.5	**37**	5.7
Cadmium		.8mg/l			.013J	0.01		73.1		.01J					0.0586	<	<	<	<	<
Copper		1.6		0.16		0.05			.01J	0.1		0.00314J	0.0128	.0122J	0.652	0.19	<	<	<	0.1
Selenium		.4mg/l	0.05			0.05										<	<	<	<	<
Zinc		5 mg/l	0.01	0.12		0.32	0.0097		0.19	0.19	0.04	0.0228	0.0341	0.0505	1.54	0.18	<	0.22	0.34	0.39
Carbon disulfide		mg/l				0.0076										0.007	<	0.016	0.024	0.003
BOD		300 mg/l				136			220	28.6	129	175	67	**630**	240	280		250	230	**310**
Antimony			0.01												0.0802	0.03	<	<	<	<
Beryillium																<	<	<	<	<
Chromium		8 mg/l	0.01				0.0063							.0144J	0.0344	<	<	<	<	0.38
Nickel		8 mg/l	0.01								.01J	.01J	0.0094	.0103J	0.0247	<	<	<	<	0.27
Thallium			0.1									0.308	0.0492	0.0358		<	<	<	<	<
Vanadium					.008J		.00575J									<	<	<	<	<
methylene chloride		2.5 mg/l							.02B	2.6B		.011B	11B	7B		<	<	<	<	<
Toluene											.64J					<	<	<	<	<
Mercury															0.0005	<	<	<	<	<
4-Methyl-2-pentanone																				
Iodomethane																				
sulfide mg/l		12 mg/l																		
1,4 Dioxane		ug/l																		
perfluorobutanoic acid (PFBA)		ng/l																		
perfluoropentanoic acid (PFPeA)																				
perfluorohexanoic acid(PFHxA)																				
perfluoroheptanoic acid																				
perfluorooctanoic acid(PFOA)																				
perfluorononanoic acid(PFNA)																				

NNUP PARAMETERS	95 MCL	03 MCL	Aug_03	Mar_04	Sept_04	Mar_05	Sept_05	Apr_06	Oct_06	May_07	Oct_07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	June_12
perfluorodecanoic acid (PFDA)																				
perfluoroundecanoic acid(PFUnA)																				
perfluorododecanoic acid(PFDoA)																				
perfluorotridecanoic acid(PFTriA)																				
perfluorotetradecanoic acid(PFTeA)																				
perfluorobutanesulfonic acid(PFBS)																				
perfluorohexanesulfonic acid(PFHxS)																				
perfluoroheptanesulfonic acid(PFHpS)																				
perfluorooctanesulfonic acid(PFOS)																				
perfluorodecanesulfonic acid(PFDS)																				
perfluorooctanesulfonamide(FOSA)																				
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																				
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																				
6:2FTS																				
8:2FTS																				
Total PFAS																				

NNUP PARAMETERS	Dec_12	June_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June_19	Dec_19
CHLORIDE	57800	56300	65100 D	55500 D	35300 D	59100	63300	49100	54500	43600	214000	<2	44400 D	44200	39100
SULFATE	<5	**4730**	6.82	<5	256 D	<5 U	<5	<5	<5	11.4	18.3	0.68 J	15.5	15.6	413
Alkalinity	270	255	269 D	276 D	73.5	258 D	333	285	272	245	181	296	154	327	139
Na	17200	10900	13400	15600 D	8740 D	14400	647	14400	13600	13700	13400	13200	13400 D	12600 D	7250
K	8710	5220	6180	7450 D	4340 D	6730	6910	5800	5820	5510	5190	4970	5320 D	4900 D	2980
Ca	19800	13400	16400	19100 D	11000 D	16600	17000	16600	15700	14300	15200	15100	12900 D	12400 D	8200
Mg	<5	20.5	7.24	13.4	12.2	6.62	4.75	6.58	<10	3.98	2.03	<10	4.08	3.49	4.11
pH	6.15		6.45	3.69	6.83	6.23	5.83	6.31	6.38	6.09	7.17	6.78	6.85	7.77	8.49
hardness															
TDS	111000	178000	148 D	114000	74600	175000	153000	139000	88500	125000	114000	86700	80900	79800	44900
PHENOL															
PHENOLS	0.089	0.051	0.239 D	0.12	0.096 D	0.0664 D	0.284 D	0.352 D	0.339	0.0401	0.16	0.288	0.119	0.099	0.0543
IRON	0.368	0.77	0.143	0.176	0.36	0.105	0.942	0.296	<5	0.106	.0131 J	0.585 J	0.184	0.452	0.19
MANGANESE	1.01	1.34	0.887	1.08	0.674	0.734	0.617	0.46	0.896	0.332	0.289	0.715	0.0761	0.136	0.203
TKN	72.8	126	138 D	114 D	76.3 D	135 D	159 D	105 D	113	126	111	110	89.4 D	97.9	47.9
ALUMINUM	0.12 B	0.95	0.0998 B	<.2	U	0.137 B	0.233	0.109 J	<10	<.0134	0.237	<10	0.323	0.507	0.0731 J
ACETONE	0.34	0.47 E	0.38 E	0.21 E	0.28 E	0.29 D	0.48 D	0.31 D	0.591	0.404	.184 D	0.555	0.116	0.11	0.0806
Methyl Ethyl Ketone	0.036	0.062	0.048 Z	0.03	0.031	0.041	0.047	0.034	0.0495	0.0193	0.0205	0.0442	0.0067	0.0062 J	0.0036 J
Arsenic	5.7 B	<	3.7 B	58.3	U	U	9 B	8.6 J	<500	<6.8	<500 D	<500	<10	<200	<10
Lead	28.7	215	7.5	8.2	U	U	32	12.4	<250	<25.4	286	<250	21.8	71.6	<5
Barium	11.7	3.85 B	2.94	3.2	3.01	3.73	3.86	3.39	<10	3.14	2.57	2.84 J	2.57	2.74	1.75
Cadmium	<	0.02 B	<	<	U	U	<	<	<.125	<.000063	<.0025	0.0176 J	<.0125 D	<.05 D	0.00089 J
Copper	<	<	0.0061 B	<	0.035	U	<	0.004 J	<1.25	<.0025	**2.97**	<1.25	0.0298	0.0081 J	<.025
Selenium	0.0154	<	<	0.0058	U	0.0029 B	0.0036 B	<	<.5	<.0062	<.01	<.5	0.149 D	0.167 JD	0.0154
Zinc	0.065	0.15 B	0.0151 B	0.0223	0.236	0.0156 B	0.0557	0.01 J	<1	<.0012	**9.8**	0.547 J	<.1 D	0.121 JD	0.0067 J
Carbon disulfide	<	<	<	<	U	U	<	<	<.005	<.0005	0.0021	0.0017	0.0032	<.001	<.001
BOD	<	281	**405**	**328**	79	**402**	**623**	**412**	239	157	**356**	**363**	**310** D	**861** D	179
Antimony	0.0089 B	<	<	<	U	0.0134 B	0.006 B	0.0136 J	<3	<.003	<.06	<3	<.06	<.06	0.0175 J
Beryillium	<	<	<	<	U	U	<	0.003 J	<.25	<.00057	0.006	<.25	<.025	0.0023 JD	<.005
Chromium	0.005 B	0.14 B	0.0042 B	0.012	0.0218	0.0092 B	0.0984	0.0593	<.5	0.0102	0.0215	<.5	0.0285	0.0698	0.0132
Nickel	<	<	<	<	U	0.0025 B	0.0168	0.0029 J	<2	<.00088	<.04	<2	0.0018 J	<.04	<.04
Thallium	0.0072 B	<	<	<	U	0.004 B	<	<	<.5	<.0036	<.01	<.5	0.0094 J	0.0235	<.01
Vanadium	0.0037 B	<	0.0022 B	<	U	0.003 B	0.0074 B	<	<2.5	<.0008	<.05	<2.5	<.05	<.05	<.05
methylene chloride	<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
Toluene	<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
Mercury	<	0.00017 B	<	<	U	U	<	<	<.0002	<.000023	<.0002	<.0002	<.0002	0.00013 J	0.00022
4-Methyl-2-pentanone	0.005	0.008	0.009	<	U	0.006	0.01	0.006	0.013	<.0005	.0046 J	0.0081	0.0014 J	0.0025 J	<.005
Iodomethane															
sulfide mg/l								**35.4**	<2	3	**88**	**147**	8	**72**	**25.6**
1,4 Dioxane												1 H	5.4	4.8	3.8
perfluorobutanoic acid (PFBA)															250 B
perfluoropentanoic acid (PFPeA)															130
perfluorohexanoic acid(PFHxA)															230
perfluoroheptanoic acid															42
perfluorooctanoic acid(PFOA)															62
perfluorononanoic acid(PFNA)															3 J

NNUP PARAMETERS	Dec_12	June_13	Dec_13	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June_19	Dec_19
perfluorodecanoic acid (PFDA)															ND
perfluoroundecanoic acid(PFUnA)															ND
perfluorododecanoic acid(PFDoA)															ND
perfluorotridecanoic acid(PFTriA)															ND
perfluorotetradecanoic acid(PFTeA)															ND
perfluorobutanesulfonic acid(PFBS)															210
perfluorohexanesulfonic acid(PFHxS)															11 B
perfluoroheptanesulfonic acid(PFHpS)															ND
perfluorooctanesulfonic acid(PFOS)															9.8
perfluorodecanesulfonic acid(PFDS)															ND
perfluorooctanesulfonamide(FOSA)															ND
N-methylperfluorooctanesulfonamidoacetic acil															ND
N-ethylperfluorooctanesulfonamidoacetic acit(N															ND
6:2FTS															ND
8:2FTS															ND
Total PFAS															947.8

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22
CHLORIDE	60800	24500	29100	68800	17200
SULFATE	24.7	**2670**	784	25.5	**1390**
Alkalinity	172	80.3	139	281	70
Na	10100	6420	6870	12700	<5
K	4040	2780	3070	4680	2270
Ca	11300	6400	7340	13900	6410
Mg	2	16	3.75	5.29	**42.8**
pH	6.96	8.56	7.92	7.78	7.58
hardness		16200	21200	29600	12200
TDS	70300	39900	40400	30800	29400
PHENOL					
PHENOLS	0.118	0.0302	0.0348	0.222	<.01
IRON	0.368	0.247	0.324	0.495 J	0.071
MANGANESE	0.335	0.53	0.197	0.476	1.49
TKN	107	61.1	75.8	103	24.8
ALUMINUM	<1	0.236	0.21	<20	0.53
ACETONE	0.375	0.173	0.172	0.293	0.0029 J
Methyl Ethyl Ketone	0.0412	0.0064	0.0187	0.0412	<.005
Arsenic	<.05	<.01	<.01	<.1	<.01
Lead	0.368	0.0047 J	0.005 J	<.05	0.071
Barium	2.24	1.59	1.44	2.94	0.521
Cadmium	<.0125	0.0194	<.0025	<.025	0.0088
Copper	0.103	0.211	<.025	0.088 J	0.0553
Selenium	<.052	<.01	<.01	<.1	<1
Zinc	0.12	0.096	<.02	<.2	0.58
Carbon disulfide	<.001	<.001	<.001	0.0011	<.001
BOD	184	89.7	124	**390**	<100
Antimony	<.3	0.026 J	<.06	<.6	0.087
Beryillium	0.00085	<.005	<.005	<.05	<.005
Chromium	0.237	0.0301	<.01	0.099 J	0.0031 J
Nickel	0.111	0.0401	<.0155 J	<.4	0.045
Thallium	0.0528	<.01	<.01	<.1	<.01
Vanadium	<.25	<.05	0.0085 J	<.5	<.05
methylene chloride	<.001	<.001	<.001	<.001	<.001
Toluene	<.001	<.001	<.001	<.001	<.001
Mercury	<.0002	<.0002	<.0002	<.0002	0.00029
4-Methyl-2-pentanone	0.0052	<.005	<.005	0.0051	<.005
Iodomethane	0.0043	<.004	<.004	<.004	<.004
sulfide mg/l	**17.6**	<2	**41.6**	**19.2**	3.2
1,4 Dioxane	2.9	2.3	1.9	2.3	0.78
perfluorobutanoic acid (PFBA)	270	150	200	260	
perfluoropentanoic acid (PFPeA)	130	120	130	120	
perfluorohexanoic acid(PFHxA)	190	170	160	150	
perfluoroheptanoic acid	31	39	33	25	
perfluorooctanoic acid(PFOA)	43	54	31	36	
perfluorononanoic acid(PFNA)	2.5	4.5	1.9	2.1	

NNUP PARAMETERS	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22
perfluorodecanoic acid (PFDA)	0.66 J	1.8 J	0.57 J	0.42 J	
perfluoroundecanoic acid(PFUnA)	ND	nd	ND	ND	
perfluorododecanoic acid(PFDoA)	ND	nd	ND	ND	
perfluorotridecanoic acid(PFTriA)	ND	nd	ND	ND	
perfluorotetradecanoic acid(PFTeA)	Nd	nd	ND	ND	
perfluorobutanesulfonic acid(PFBS)	230	190	170	200	
perfluorohexanesulfonic acid(PFHxS)	14 B	9.9	10	13	
perfluoroheptanesulfonic acid(PFHpS)	0.29 J	.19 J	ND	ND	
perfluorooctanesulfonic acid(PFOS)	12	12	3.9	8	
perfluorodecanesulfonic acid(PFDS)	ND	nd	ND	ND	
perfluorooctanesulfonamide(FOSA)	0.7 JB	nd	0.98 J	ND	
N-methylperfluorooctanesulfonamidoacetic acit	ND	nd	ND	ND	
N-ethylperfluorooctanesulfonamidoacetic acit(N	ND	nd	ND	ND	
6:2FTS	4.3 J	6	3 J	5.2	
8:2FTS	ND	.59 J	ND	ND	
Total PFAS	928.45	755.4	744.35	819.72	

NNUSPARAMETERS	95 MCL	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	April '06	oct '06	May '07	Oct'07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	Jun_12
CHLORIDE	500mg/l	na	11400.0	15800.0	5700.0	16500.0	12000.0	14900.0	16400.0	16700.0	22000.0	23600	13600	11300	31300	39000	51000	37000	52000	54000
SULFATE	500mg/l	na		396.00	657.00	751.00	1070.00	1140.00	440.00	110.00	128.00	144	357	60.9	0	100	5	7	<5	5
Alkalinity										144.00	227.00	204	140	145	157	140	180	180	130	180
Na										3710.00	42.30	933	1220	897	970	5200	12000	8700	8800	11000
K										3430.00	3200.00	3450	1680	1490	2540	5200	7900	5600	5800	7100
Ca										6890.00	5410.00	5890	3780	2760	7350	11000	14000	11000	11000	13000
Mg										0.83	13.10	6.43	28.9	7.28	13.9	31	13	9.8	8.8	11
pH	6.5-8.5	5 - 12.5	5.52	7.33	7.17	6.76	7.36	7.96	6.99	9.93	9.58	9.2	9.11	6.77	7.28	6.6	6.4	6.8	6.7	6.3
TDS	1000 mg/l	na	24200.0	6200.0	16000.0	27000.0	18000.0	8810.0	31400.0	29700.0	36500.0	40000	30900	21500	51500	70000	82000	85000	70000	91000
PHENOL	0.002mg/l	1.5 mg/l																		
PHENOLS				1.9		0.0			0.0	0.3		0.051	0.0173	0.0142		0.01	0.2	0.11	0.14	0.31
IRON	0.6mg/l	na	2.09	0.01	2.98	1.48	4.87	0.58	4.79		0.49	5.26	2.78	2.09	0.827	2.4	12	0.71	0.7	1.3
MANGANESE	0.6mg/l	8 mg/l	7.87	4.95	2.74	2.02	1.10	2.89	1.32	0.22	1.02	0.596	1.71	1.44	2.27	3.6	<	0.95	0.98	1.5
TKN	10 mg/l	na		4.64	13.40	6.65	7.06	4.20	5.20	32.20	22.00	20.8	16.2	35.4	78.8	64	96	78	140	110
ALUMINUM	2mg/l	na	1.53	0.05	0.13	0.35	7.71	0.59	9.41	0.65	0.05	0.908	0.0352	0.243		0.2	0.5	0.63	<.1	<
ACETONE	5 ppb	50 mg/l														0.037	0.14	0.19	0.2	0.35
Methyl Ethyl Ketone	5 ppb	ppm														<	0.02	<	0.033	0.05
Arsenic	50 ppb	400 ppb		17.00 J					0.04							100	<	<	<	<
Lead	50 ppb	400 ppb				22.00	21.50		110.00	20.00	10.00 J	27.8	10.3	25	3.8	<	<	<	<	<
Barium		8 mg/l	2.36	1.26	0.96	2.15	1.33	0.58	2.02	6.13	5.45	3.84	1.94	3.53	7.62	**9.6**	**10**	5.3	5.4	6.2
Cadmium		.8mg/l	0.01	0.02		0.01	0.01 J	0.01	0.09			0.0107				<	<	<	<	<
Copper		1.6mg/l	0.01	0.02 J		0.03	0.04	0.02	0.33		0.00 J	0.12	0.115	0.176	0.0087	0.06	<	<	<	<
Zinc		5 mg/l	0.40	0.26		0.19	0.25	0.12	1.09	0.02	0.04	1.09	0.142	0.11	0.0323	0.37	0.12	0.1	0.33	0.21
Antimony			0.01	0.02 J												0.2	<	<	<	<
Beryillium			0.00													<	<	<	<	<
Chromium		8 mg/l	0.01				0.04		0.06			0.184	0.00866 J	0.0279		<	<	<	<	<
Nickel		8 mg/l	0.02	0.02			0.07		0.03			0.244	0.0146 J	0.0204	0.00646	<	<	<	<	<
Selenium		.4mg/l	0.04						0.03							<	<	<	<	<
Thallium			0.09									0.0277	0.0303	0.0189	0.0258	<	<	<	<	<
Vanadium			0.00	0.01 J												<	<	<	<	<
Silver		.4mg/l		0.02 J											.00838J	<	<	<	<	<
methylene chloride		2.5 mg/l							0.02 B	3.70 B		0.026 B	11 B	11 B	10B	<	<	<	<	<
ammonia												34.8	7.33	31	77	61	93	64	72	98
hardness												762	9550	6930	18400	27000	36000	26000	27000	33000
carbon disulfide																		0.012	0.007	<
4methyl2pentano	ppb																			
2 hexanone																				
Iodomethane																				
sulfide	12 mg/l																			
BOD	300 mg/l																			
1,4 dioxane	ug/l																			
perfluorobutanoic acid (PFBA)		ng/l																		
perfluoropentanoic acid (PFPeA)																				
perfluorohexanoic acid(PFHxA)																				
perfluoroheptanoic acid																				
perfluorooctanoic acid(PFOA)																				

NNUSPARAMETERS	95 MCL	03 MCL	Aug '03	Mar '04	Sept '04	Mar '05	Sept '05	April '06	oct '06	May '07	Oct'07	May_08	Oct_08	June_09	Dec_09	Jun_10	DEC_10	Jun_2011	DEC_11	Jun_12
perfluorononanoic acid(PFNA)																				
perfluorodecanoic acid (PFDA)																				
perfluoroundecanoic acid(PFUnA)																				
perfluorododecanoic acid(PFDoA)																				
perfluorotridecanoic acid(PFTriA)																				
perfluorotetradecanoic acid(PFTeA)																				
perfluorobutanesulfonic acid(PFBS)																				
perfluorohexanesulfonic acid(PFHxS)																				
perfluoroheptanesulfonic acid(PFHpS)																				
perfluorooctanesulfonic acid(PFOS)																				
perfluorodecanesulfonic acid(PFDS)																				
perfluorooctanesulfonamide(FOSA)																				
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																				
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																				
6:2FTS																				
8:2FTS																				
total PFAS																				

NNUSPARAMETERS	95 MCL	Dec_12	June_13	13-Dec	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June _19	Dec_19
CHLORIDE	500mg/l	48000	51600 D	99700 D	52600	38500 D	96800 D	58100	47900	63300 D	44500.0	48300 D	<2	47700 D	41700	51900
SULFATE	500mg/l	<5	**4820** D	<5	<5	191 D	<5 U	<5	337	<5	<.21	<5	0.32 J	2.4 J	<5	<50
Alkalinity		153	123 D	240 D	210 D	89.1	126	217	211	392	241	240	331	227	217	215
Na		13400	12100	13600	13800 D	9780 D	13900	597	14800	16000	10800.00	12800 D	13100	13800 D	10700 D	9050
K		7160	5680	6280	6820 D	4830 D	6220	6310	5970	6620	4540.00	5160 D	4990	5500 D	4340 D	3880
Ca		16100	14200	15400	16700 D	12100 D	16600	15900	17900	17600	12200.00	15200 D	14900	14600 D	11400 D	10400
Mg		6.35	12.7 B	5.05	13	13.1	7.78	4.58	5.64	<10	7.67	3.46	4.02 J	4.65	3.63	2.92
pH	6.5-8.5	6.26		6.06	3.96	6.76	6.31	5.82	6.35	6.37	5.74	7.42	6.63	6.65	6.94	7.74
TDS	1000 mg/l	106000	159000 D	138000	110000	79400	151000	141000	139000	94300	87000.00	112000	89400	78100	69700	60700
PHENOL	0.002mg/l															
PHENOLS		<.025	0.105	0.27 D	0.109	0.0918 D	0.041	0.13 D	0.206 D	0.334	0.06	.15 D	0.416	0.247	0.16	0.209
IRON	0.6mg/l	0.715	0.26 B	0.129	0.934	0.45	0.121	2.78	0.246	<5	0.12	<1 D	<1	0.0524	0.204	0.0975
MANGANESE	0.6mg/l	1.49	1.41 B	0.868	0.941	0.786	0.981	1.12	0.814	0.72	0.58	0.534	0.637	0.432	0.425	0.414
TKN	10 mg/l	126	124 D	130 D	107 D	87.5 D	100 D	140	101 D	110	126.00	127	122	103 D	56.9	75.1
ALUMINUM	2mg/l	0.0426 B	<	0.0219 B	<	0.214	U	0.449	<	<10	<.0134	<.2	<10	0.0375 J	<.2	<.4
ACETONE	5 ppb	0.43	0.46 E	0.61 EZ	0.23 E	0.33 E	0.31 D	0.43 D	0.34 D	0.494	0.59	.306 D	0.608	0.318 D	0.224 D	0.331
Methyl Ethyl Ketone	5 ppb	0.051	0.069	0.069	0.028 D	0.036	0.037	0.065	0.045	0.0446	0.02	0.0377	0.046	0.0487	0.0241	0.0523
Arsenic	50 ppb	11	<	6.2 B	57.7	U	1.9 B	3.2 B	10.1	<500	<6.8	<500 D	<500	<10	<200 D	<.02
Lead	50 ppb	29.4	126 B	37.9	20	U	1.8 B	6.1	14.4	<250	20.10	57	<250	24.1	61.8	<.01
Barium		9.29	4.88 B	2.81	3.75	3.37	3.43	3.45	3.17	<10	2.59	2.64	2.79 J	2.52	2.07	2.1
Cadmium		<	<	<	<	U	U	<	<	<.125	<.063	<.125 D	<.125	<.0125 D	<.05 D	0.0027
Copper		<	<	<	<	0.0375	U	0.0064 B	0.0046 J	<1.25	0.11	0.455	<2.5	<.025	<.025	<.05
Zinc		0.0243	<	0.0184 B	0.0223	0.251	0.0196 B	0.0601	0.0146 J	<1	0.65	1.42	0.143 J	<.1	D 0.0988 JD	0.0117 J
Antimony		0.0061 B	<	0.0057 B	<	U	0.012 B	0.008 B	0.0189 J	<3	<.003	<.06	<3	<.06	<.06	<.12
Beryillium		<	<	<	<	U	U	<	0.0022 J	<.25	<.00057	0.0058	<.25	<.025 D	0.0022 JD	<.01
Chromium		<	0.12 B	0.0133	0.136	0.0112	0.0114	0.192	0.0079 J	<.5	<.0016	.006 J	<.5	0.0082 J	0.094	<.02
Nickel		<	<	<	<	U	0.0018 B	0.0468	<	<2	<.00088	<.04	<2	<.04	<.04	<.08
Selenium		0.0169	<	<	<	U	0.0061	<	<	<.5	<.0062	.0068 J	<.5	<.01	0.204 D	0.0242
Thallium		<	<	0.0012 B	<	U	0.0049 B	0.0069 B	<	<.5	<.0036	<.01	<.5	0.0161	0.0289	<.02
Vanadium		0.0038 B	<	0.0032 B	<	U	0.0019 B	0.0084 B	0.0043 J	<2.5	<.0008	<.05	<2.5	<.05	<.05	<.1
Silver		<	0.0288 B	<	<	U	U	<	<	<.5	<.0036	<.01	<.5	<.05 D	<.01	<.02
methylene chloride		<	<	<	<	U	U	<	<	<.005	<.0005	<.001	<.001	<.001	<.001	<.001
ammonia		72.3	124 D	139 D	120 D	95.7 D	124 D	157 D	149 D	154	120	121	20.1	96.2 D	93.7 D	95.6
hardness		32400	36600 D	37600 D	32200 D	27500 D	38400 D	38600 D	37400 D	40000	31200	34400	8000	32000	29000	30000
carbon disulfide		<	<	<	<	U	U	<	<	<.005	0.0778	0.0051	<.001	0.0118	0.001	<.001
4methyl2pentano	ppb	0.006	0.009	0.009	<	U	0.006	0.016	0.008	0.0139	<.0005	0.0079	0.0077	0.0074	0.0049 J	0.0072
2 hexanone								0.002 J	<	<.005	<.0005	<.005	<.005	<.005	<.005	<.005
Iodomethane																
sulfide	12 mg/l								**20.2**	<2	5.4	**126**	**170**	**64**	**72**	**24**
BOD	300 mg/l											**387**	**356**	294	254 D	228
1,4 dioxane	ug/l												0.96 H	3.3	2.1	3.9
perfluorobutanoic acid (PFBA)																260 B
perfluoropentanoic acid (PFPeA)																140
perfluorohexanoic acid(PFHxA)																190
perfluoroheptanoic acid																32
perfluorooctanoic acid(PFOA)																32

NNUSPARAMETERS	95 MCL	Dec_12	June_13	13-Dec	Jun_14	DEC_14	June_15	Dec_15	Jun_16	Dec_16	June_17	Dec_17	Aug_18	Dec_18	June _19	Dec_19	
perfluorononanoic acid(PFNA)																ND	
perfluorodecanoic acid (PFDA)																ND	
perfluoroundecanoic acid(PFUnA)																ND	
perfluorododecanoic acid(PFDoA)																ND	
perfluorotridecanoic acid(PFTriA)																ND	
perfluorotetradecanoic acid(PFTeA)																ND	
perfluorobutanesulfonic acid(PFBS)																250	
perfluorohexanesulfonic acid(PFHxS)																11	B
perfluoroheptanesulfonic acid(PFHpS)																ND	
perfluorooctanesulfonic acid(PFOS)																7.1	J
perfluorodecanesulfonic acid(PFDS)																ND	
perfluorooctanesulfonamide(FOSA)																ND	
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)																ND	
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)																ND	
6:2FTS																ND	
8:2FTS																ND	
total PFAS																922.1	

NNUSPARAMETERS	95 MCL	Jun_20	Dec_20	Jun_21	Dec_21	Jul_22
CHLORIDE	500mg/l	61600	45900	46600	48900	45100
SULFATE	500mg/l	8.9	65.9	J **4250**	6.2	7.6
Alkalinity		140	176	268	272	180
Na		10600	10400	12700	14100	14800
K		4300	4680	5480	5220	5920
Ca		11900	11100	13000	15300	15800
Mg		2.02	2.3	3.06	5.8	6.45
pH	6.5-8.5	6.66	7.37	7.45	7.56	7.5
TDS	1000 mg/l	70800	71200	63600	35400	13700
PHENOL	0.002mg/l					
PHENOLS		0.104	0.256	0.0862	0.165	0.151
IRON	0.6mg/l	0.108	0.185	0.0447	3.67	3.69
MANGANESE	0.6mg/l	0.322	0.312	0.146	0.431	0.2
TKN	10 mg/l	106	113	107	116	19.9
ALUMINUM	2mg/l	<1	0.0446 J	0.144	<20	<1
ACETONE	5 ppb	0.333	0.617	0.597	0.336	0.402
Methyl Ethyl Ketone	5 ppb	0.0406	0.0718	0.036	0.0367	0.0405
Arsenic	50 ppb	<.05	<.01	0.0116	<.1	<.05
Lead	50 ppb	<.025	<.005	0.0048	<.05	<.5
Barium		2.3	2.42	2.6	2.83	2.18
Cadmium		<.0125	<.0025	<.0025	<.025	<.0125
Copper		0.0895	<.025	<.025	0.099 J	<.25
Zinc		0.0405	<.02	<.02	<.2	<2
Antimony		<.3	<.06	<.06	<.6	<.3
Beryillium		0.00089	<.005	<.005	<.05	<.025
Chromium		0.232	0.0201	<.01	0.538	0.091
Nickel		0.112	0.0281 J	0.0236	0.086 J	0.0955 J
Selenium		0.0468	<.01	<.01	<.1	<1
Thallium		0.054	<.01	<.01	<.1	<1
Vanadium		<.25	0.0062 J	0.01	<.5	0.0204 J
Silver		0.0287	<.01	<.01	0.018 J	0.0118 J
methylene chloride		<.001	<.001	<.001	<.001	<.001
ammonia		98.3	107	142	145	71.6
hardness		30800	32000	1000	31000	26000
carbon disulfide		0.0018	0.0034	<.001	<.001	0.0015
4methyl2pentano	ppb	0.0056	0.0064	<.005	0.0048 J	<.005
2 hexanone		<.005	<.005	<.005	<.005	<.005
Iodomethane		0.0043	<.004	<.004	<.005	<.004
sulfide	12 mg/l	**12.8**	<2	**83.2**	**91.2**	**101**
BOD	300 mg/l	180	167	265	**347**	110
1,4 dioxane	ug/l	2.7	2.6	3.8	2.8	3.3
perfluorobutanoic acid (PFBA)		270	210	270	280	
perfluoropentanoic acid (PFPeA)		130	150	130	130	
perfluorohexanoic acid(PFHxA)		190	170	150	150	
perfluoroheptanoic acid		30	29	24	25	
perfluorooctanoic acid(PFOA)		36	28	34	32	

NNUSPARAMETERS	95 MCL	Jun_20		Dec_20		Jun_21		Dec_21		Jul_22
perfluorononanoic acid(PFNA)		1.8	J	1.6	J	1.4	J	1.7	J	
perfluorodecanoic acid (PFDA)		0.72	J	0.58	J	0.68	J	0.47	J	
perfluoroundecanoic acid(PFUnA)		ND		nd		ND		ND		
perfluorododecanoic acid(PFDoA)		ND		nd		ND		ND		
perfluorotridecanoic acid(PFTriA)		ND		nd		ND		ND		
perfluorotetradecanoic acid(PFTeA)		ND		nd		ND		ND		
perfluorobutanesulfonic acid(PFBS)		240		280		220		200		
perfluorohexanesulfonic acid(PFHxS)		12	B	12		12		12		
perfluoroheptanesulfonic acid(PFHpS)		ND		nd		0.19	J	ND		
perfluorooctanesulfonic acid(PFOS)		9.1		6.9		6		7		
perfluorodecanesulfonic acid(PFDS)		ND		nd		ND		ND		
perfluorooctanesulfonamide(FOSA)		3.1	B	nd		ND		ND		
N-methylperfluorooctanesulfonamidoacetic acit(NMeFOSAA)		ND		nd		ND		ND		
N-ethylperfluorooctanesulfonamidoacetic acit(NEtFOSAA)		ND		nd		ND		ND		
6:2FTS		3.5	J	2.7	J	4.5		4.6		
8:2FTS		ND		nd		ND		ND		
total PFAS		926.22		890.78		852.77		842.77		

TOBSWMF's Leachate Monitoring Program

Cell 7

July 2022

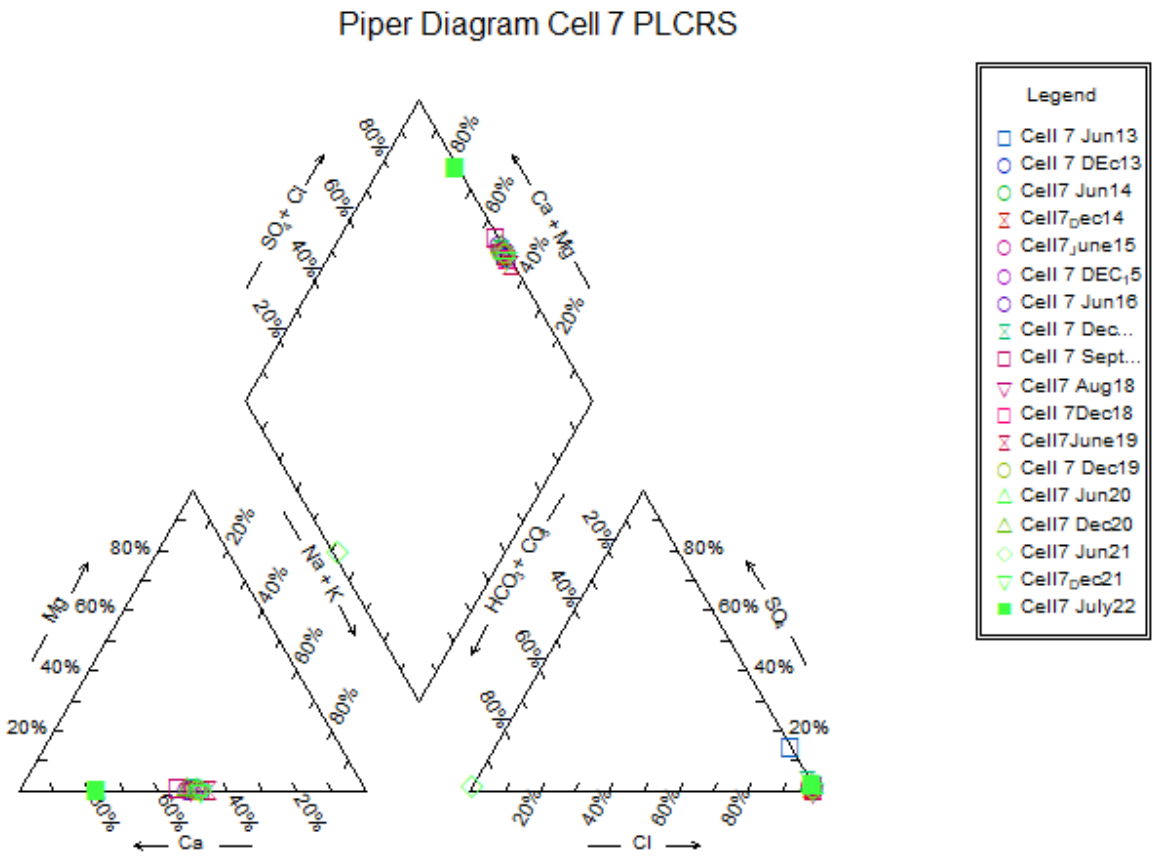
Pursuant to the NYSDEC operating permit for the operation of the Cell 7 Ashfill (Cell 7), leachate from that facility's PLCRS was sampled in accordance with the procedures detailed in the TOBSWMF's SAP (TOBDEC, 2018). The Cell 7 operating permit requires semiannual sampling of leachate for expanded parameters plus a scan for dioxins and furans from the facility's PLCRS. The expanded parameters list is found within 6NYCRR part 363-4.6(h) and includes 1,4 dioxane, fluorinated alkyl substances (PFOA's) and various other additional parameters (appendix 2) not found previously in NYCRR part 360. This report includes the laboratory report from Pace Analytical Services Inc., a spreadsheet summarizing the results, a Piper diagram and brief discussion.

- For June 2021 chloride was observed at 0.36 mg/l at the Cell 7 facility. Historical values of chloride at Cell 7 caused this result to be viewed as suspicious. For December 2021 (63200 mg/l) and July 2022 (89700 mg/l) chloride returned to a value in line with historical results.
- The Piper diagram prepared for June 2021 included a substantial change associated with the low value for chloride. This value was viewed as suspicious. The Piper diagram for December 2021 returned to its historical pattern as chloride returned to its previous range. For July 2022, a shift in the Piper diagram was again noted. Lab data from July 2022 included sodium observed below its reporting limit and calcium reported above its normal range. This combination is likely responsible for the shift noted. It is noted that the diagram for Cell 7 is within the range or fingerprint observed at the other Babylon ash facilities.
- For July 2022 pH at Cell 7 was measured at 7.18.
- Analysis for 2378 TCDD / TCDF for July 2022 was ND (Reporting limit 10 pg/l).
- Analysis for 1,4 dioxane for July 2022 was reported at 5.7 ug/l.
- Mercury (.00009 mg/l) was not detected above its RL at Cell 7 for July 2022.
- Organics from the expanded parameters list observed during July 2022 included acetone (.394 mg/l), MEK (.056 mg/l), 3-4 methylphenol (.263 mg/l), 4methy-2pentanone (.0025 mg/l (<RL)), heptachlor (.00059 mg/l), 2,4D (.0033 mg/l), dinoseb (.0014 mg/l), Di-n-butylphtalate (.15 mg/l) and anthracene (.00079 mg/l (<RL)). Total expanded organics observed for July 2022 was .87 mg/l.
- TTO as defined in the SCDPW leachate discharge permit (>.01 mg/l) observed at the Cell 7 facility for July 2022 is .1559 mg/l. This is below the overall TTO limit of 10 mg/l, below the

limit for acid extractable organic compounds of 1.5 mg/l and below the limit for pesticides and PCB's (1.0 mg/L) set forth in the Town of Babylon Discharge Certification issued by SCDPW.

- Barium was observed at 9.9 mg/l at the Cell 7 facility, exceeding its MCL (8 mg/l). This is the second exceedance of barium above its MCL at the Cell 7 facility.
- Metals observed above their reporting limit include aluminum (.223 mg/l), arsenic (.019 mg/l), boron (.706 mg/l), calcium (17200 mg/l), iron (3.75 mg/l), magnesium (3.99 mg/l), manganese (1.22 mg/l), potassium (9720 mg/l), selenium (.011 mg/l), sodium (< 5000 mg/l) and zinc (.0235 mg/l). Sodium (<5000 mg/l) was reported below its reporting limit and was previously discussed in the discussion of the Piper diagram.
- Sulfide was detected at 3.2 mg/l, below its MCL of 12 mg/l. Sulfide has exceeded its MCL in 4 of 16 samples over the life of the facility, and three of the past five since June 2020.
- BOD at Cell 7 (294 mg/l) for July 2022 was reported below its MCL (300 mg/l).
- PFAS/PFOA and 1,4 dioxane results are included in appendix 1.

The next round of sampling for leachate at the Cell 7 facility is scheduled for December 2022.



Note: solid green square represents July 2022 data.

Client Sample ID: CELL 7 PLCRS

Date Collected: 07/13/22 08:35
Date Received: 07/16/22 09:30

Lab Sample ID: 200-64187-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**231**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroheptanoic acid (PFHpA)	**38.9**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanoic acid (PFOA)	**39.8**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorononanoic acid (PFNA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorodecanoic acid (PFDA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroundecanoic acid (PFUnA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorododecanoic acid (PFDoA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorotridecanoic acid (PFTriA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorotetradecanoic acid (PFTeA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorohexanesulfonic acid (PFHxS)	**5.07**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroheptanesulfonic acid (PFHpS)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanesulfonic acid (PFOS)	**2.42**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorodecanesulfonic acid (PFDS)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanesulfonamide (PFOSA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.01	U	4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.01	U	4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**5.46**		4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	79		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C4 PFHpA	94		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C4 PFOA	92		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C4 PFOS	72		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C5 PFNA	85		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C2 PFDA	95		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C2 PFUnA	98		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C2 PFDoA	77		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C8 FOSA	62		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C5 PFPeA	73		50 - 150	07/21/22 08:39	07/21/22 16:56	1
13C2 PFTeDA	43	*5-	50 - 150	07/21/22 08:39	07/21/22 16:56	1
d3-NMeFOSAA	85		50 - 150	07/21/22 08:39	07/21/22 16:56	1
d5-NEtFOSAA	83		50 - 150	07/21/22 08:39	07/21/22 16:56	1
M2-6:2 FTS	83		50 - 150	07/21/22 08:39	07/21/22 16:56	1
M2-8:2 FTS	93		50 - 150	07/21/22 08:39	07/21/22 16:56	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**362**	**D**	20.0		ng/L		07/21/22 08:39	07/22/22 16:14	5
Perfluorohexanoic acid (PFHxA)	**615**	**D**	8.02		ng/L		07/21/22 08:39	07/22/22 16:14	5
Perfluorobutanesulfonic acid (PFBS)	**302**	**D**	8.02		ng/L		07/21/22 08:39	07/22/22 16:14	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	76		25 - 150	07/21/22 08:39	07/22/22 16:14	5
13C2 PFHxA	100		25 - 150	07/21/22 08:39	07/22/22 16:14	5

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
TestNo	Analyte	CAS	Units											
	pH				7.88	1/30/2014	5.91	6.93	6.95		6.01	8.21	6.48	
	DO		mg/l		2.24	1/30/2014	1.31	0.86	1.77		0.87	1.87	0.53	
	Spec cond				61484		50900	45794	48822		56196	25443	65674	
	ORP						-256.4	-281.9	-276.2		-79.5	11.5	-326.5	
SW8270C	Pyrene	129-00-0	µg/L	10 U	10 U		ND U	ND U	ND U		10U	<2.5		<5.0
SW8270C	Safrole	94-59-7	µg/L	10 U	10 U		ND U	ND U	ND U	10 U	10U	<2.5		<5.0
SW9014	Cyanide	57-12-5	UG/L	10.0 U	10 U		50.0 U	10 U	20 U	10 U	10U	<2.9	<10	
SW9060	Total Organic Carbon		mg/L	51.6 D	108 D		35.2	88.0 D	21.3	2.5	22.6	<0.63	43.2	
E1613	Dioxin		Pg/L	1.0 U	10 U		ND	ND	ND U	10 U	10 U			
E300.0	Bromide	24959-67-9	mg/L	308 D	336 D			311 D	ND U	230 D	248D	117	373	
E300.0	Sulfate	14808-79-8	mg/L	5140 D	55 D		157 D	270 D	720 D	364 D	329D	338	375	
E351.2	Nitrogen, Kjeldahl, Total		mg/L	63.6 D	95 D		85.0 D	61.2 D	49.7 D	52.0 D	57.2D	17.1	67	
E353.2	Nitrate as N	14797-55-8	mg/L	2.50 U	2.00 U		2.00 U	0.100 U	0.100 U	0.10 U	.1U	<0.0050	<.05	
E353.2	Nitrite as N	14797-65-0	mg/L	0.100 U	0.100 U		0.100 U	0.100 U	0.100 U	0.10 U	.1U	<0.0050	<.05	
E410.4	Chemical Oxygen Demand		mg/L	517 D	1220 D		445 D	852 D	550 D	175 D	1400 D	560	1560	
E420.1	Phenolics, Total Recoverable		µg/L	49.4 D	309 D		66.6	47.5	54.8 D	5.0 U	41.9	76.2	110	
M3500-Cr D	Chromium, Hexavalent	18540-29-9	mg/L	0.0200 U	0.0200 U		0.0200 U	0.0200 U	0.0200 U	0.02 U	0.0200 U	<0.0030	<.1	
SM2120B	Color		units	75 D	150 D		200 D	150 D	75.0 D	15.0	25.0	40.0	25	
SM2320B	Alkalinity, Total (As CaCO3)		mg/L	181 D	266 D		223 D	273 D	175 D	119 D	122	78.6	160	
SM2340C	Hardness (As CaCO3)		mg/L	17200 D	13100 D		14200 D	17700 D	17800 D	13200 D	25800 D	6400	19600	
SM2540C	Total Dissolved Solids		mg/L	93900 D	39300 D		49400	51700	74000	55500	61100	2960	74800	
SM4500-CL-	Chloride	16887-00-6	mg/L	23500 D	21600 D		21800 D	27900 D	26500 D	18400 D	18600 D	**8320**	31600	
SM4500-NH	Nitrogen, Ammonia (As N)	7664-41-7	mg/L	55.8 D	89.5 D		79.0 D	58.1 D	63.9 D	46.3 D	66.5 D	16.3	56.4	
SM5210B	Biochemical Oxygen Demand		mg/L	42	101		30	266	25	10 U	4	<3.3	43.5	
SW6010B	Aluminum	7429-90-5	UG/L	190 U	28.0 B		43.9 B	200 U	17.6 BN	39.5 B	200 U	200 U		
SW6010B	Antimony	7440-36-0	UG/L	24.0 U	4.0 B		15.8 B	60.0 U	13.2 BN	10.9 B	15.7 J	20.3 J		
SW6010B	Arsenic	7440-38-2	UG/L	56.0 U	8.4 B		39.0	19.1	11.4 N	21.1	19.9	7.6 J		
SW6010B	Barium	7440-39-3	UG/L	3170 B	2430		3490	2750	3940	2790	4250	954		
SW6010B	Beryllium	7440-41-7	UG/L	2.0 U	0.14 U		0.091 U	5.00 U	0.15 U	0.20 U	1.4 J	0.61 J		
SW6010B	Boron	7440-42-8	UG/L	958 B	381		333	666	673	480	651	429		
SW6010B	Cadmium	7440-43-9	UG/L	2.0 U	0.11 U		0.14 U	5.00 U	0.16 U	0.10 U	2.5 U	2.8	<2.5	
SW6010B	Calcium	7440-70-2	UG/L	6610000	6300000		7460000	7100000 D	7360000	5490000 DE	8830000	2570000	7180000	
SW6010B	Chromium	7440-47-3	UG/L	8.0 U	3.2 B		3.8 B	10.0 U	2.8 B	41.9	10 U	10 U		
SW6010B	Cobalt	7440-48-4	UG/L	8.0 U	0.19 U		0.16 U	50.0 U	1.5 B	0.20 U	50 U	2.6 J		
SW6010B	Copper	7440-50-8	UG/L	90.0 B	13.1 B		4.3 B	28.9	0.37 U	4.0 B	10.4 J	25 U		
SW6010B	Iron	7439-89-6	UG/L	896 B	839		1560	1480	894	3110	1230	1680	260	
SW6010B	Lead	7439-92-1	UG/L	20.0 U	10.6		7.7	3.00 U	0.85 UN	1.3 UN	5.8	<50	<100	
SW6010B	Magnesium	7439-95-4	UG/L	9900 B	3710 B		4560 B	7160	8620	9510	10400	8040	24000	
SW6010B	Manganese	7439-96-5	UG/L	2640	1690		2300	852	2100	672	755	304	861	
SW6010B	Nickel	7440-02-0	UG/L	6.0 U	0.34 U		0.29 U	40.0 U	2.8 B	0.30 U	40 U	3.1 J		
SW6010B	Potassium	7440-09-7	UG/L	2990000	3570000		3910000	3990000 D	3860000	2900000 D	4170000	1270000	415000	
SW6010B	Selenium	7782-49-2	UG/L	46.0 U	2.2 B		1.7 B	5.00 U	2.7 UN	2.2 UN	10 U	10 U		
SW6010B	Silver	7440-22-4	UG/L	4.0 U	0.43 U		0.37 U	10.0 U	0.87 UN	0.50 U	10 U			
SW6010B	Sodium	7440-23-5	UG/L	6310000	5760000		6490000	6240000 D	6230000	4870000 DE	7100000	2190000	6730000	
SW6010B	Thallium	7440-28-0	UG/L	38.0 U	1.3 U		4.6 B	10.0 U	1.0 U	1.9 U	10 U	10 U		
SW6010B	Tin	7440-31-5	UG/L	14.0 U	3.7 B		7.7 B	40.0 U	6.6	3.4 B	3.2 J	50 U		
SW6010B	Vanadium	7440-62-2	UG/L	6.0 U	6.4 B		3.7 B	50.0 U	5.4 B	5.0 B	50 U	1.6 J		

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW6010B	Zinc	7440-66-6	UG/L	6.0 U	8.7 B		11.5 B	154	12.8 BN	1.6 U	4.2 J	20 U		
SW7470	Mercury	7439-97-6	UG/L	0.18 B	1.2 B		0.10 U	0.3	0.10 U	0.10 U	0.20 U	<0.2	.039J	
SW8081/808	4,4´-DDD	72-54-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	4,4´-DDE	72-55-9	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	4,4´-DDT	50-29-3	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Aldrin	309-00-2	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	alpha-BHC	319-84-6	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Aroclor 1016	12674-11-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1221	11104-28-2	µg/L	ND U	ND U		ND U	ND U	2.0 U	2.0 U	2.0 U	2 U		<2.0
SW8081/808	Aroclor 1232	11141-16-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1242	53469-21-9	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1248	12672-29-6	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1254	11097-69-1	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	Aroclor 1260	11096-82-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	1 U		<1.0
SW8081/808	beta-BHC	319-85-7	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		0.14
SW8081/808	Chlordane	57-74-9	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U			
SW8081/808	delta-BHC	319-86-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Dieldrin	60-57-1	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endosulfan I	959-98-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Endosulfan II	33213-65-9	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endosulfan sulfate	1031-07-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endrin	72-20-8	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	Endrin aldehyde	7421-93-4	µg/L	ND U	ND U		ND U	ND U	0.10 U	0.10 U	0.10 U	.1 U		<0.10
SW8081/808	gamma-BHC	58-89-9	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Heptachlor	76-44-8	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		0.61
SW8081/808	Heptachlor epoxide	1024-57-3	µg/L	ND U	ND U		ND U	ND U	0.050 U	0.050 U	0.050 U	.05 U		<0.050
SW8081/808	Methoxychlor	72-43-5	µg/L	ND U	ND U		ND U	ND U	0.50 U	0.50 U	0.50 U	.5 U		<0.50
SW8081/808	Toxaphene	8001-35-2	µg/L	ND U	ND U		ND U	ND U	5.0 U	5.0 U	5.0 U	5 U		<5.0
SW8141A	Dimethoate	60-51-5	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Disulfoton	298-04-4	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Methyl parathion	298-00-0	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Parathion	56-38-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		<.96
SW8141A	Phorate	298-02-2	µg/L	ND U	ND U		ND U	ND U	1.0 U	1.0 U	1.0 U	.96 U		
SW8141A	Thionazin	297-97-2	µg/L	ND U	10 U		ND U					<2.5		<5.0
SW8151	2,4,5-T	93-76-5	µg/L	ND U	ND U		ND U	0.25 U	0.25 U	0.25 U	0.25 U	.047 J		<0.25
SW8151	2,4,5-TP (Silvex)	93-72-1	µg/L	ND U	ND U		0.33 P	0.25 U	0.25 U	0.25 U	0.25 U	.25 U		<0.25
SW8151	2,4-D	94-75-7	µg/L	3.2 P	ND U		0.26 PJ	0.50 U	0.57 P	0.52 P	0.50 U	.5 U		0.28 J
SW8151	Dinoseb	88-85-7	µg/L	ND	ND U		ND U	1.3	0.37 P	0.76 P	0.20 U	.085 J		<0.20
SW8260B	1,1,1,2-Tetrachloroethane	630-20-6	µg/L	ND U	ND U		ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,1-Trichloroethane	71-55-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1,2-Trichloroethane	79-00-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloroethane	75-34-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloroethene	75-35-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,1-Dichloropropene	563-58-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2,3-Trichloropropane	96-18-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dibromo-3-chloropropane	96-12-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dibromoethane	106-93-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dichlorobenzene	95-50-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW8260B	1,2-Dichloroethane	107-06-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,2-Dichloropropane	78-87-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,3-Dichlorobenzene	541-73-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,3-Dichloropropane	142-28-9	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	1,4-Dichlorobenzene	106-46-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
	1,4-Dioxane (p-Dioxane)		ug/l											<100
SW8260B	2,2-Dichloropropane	594-20-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	2-Butanone	78-93-3	µg/L	17	41 Z	39 DZ	23	35	16	5 U	5.0 U	<0.50	15.3	9.2
SW8260B	2-Hexanone	591-78-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<5.0	<5.0
SW8260B	4-Methyl-2-pentanone	108-10-1	µg/L	1 J	3 J	3 DJ	2 J	2 J	1 J	5 U	5.0 U	<0.50	<5.0	1.3 J
SW8260B	Acetone	67-64-1	µg/L	120	260 E	270 D	110	300 E	110	5 U	5.0 U	15.6	209	77.1
SW8260B	Acetonitrile	75-05-8	µg/L	ND U	28	25 D	35	100	49	40	5.0 U	<2.5	<5.0	<5.0
SW8260B	Acrolein	107-02-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Acrylonitrile	107-13-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Allyl Chloride	107-05-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Benzene	71-43-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromochloromethane	74-97-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromodichloromethane	75-27-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromoform	75-25-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Bromomethane	74-83-9	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Carbon disulfide	75-15-0	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Carbon tetrachloride	56-23-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chlorobenzene	108-90-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroethane	75-00-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroform	67-66-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloromethane	74-87-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Chloroprene	126-99-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	cis-1,2-Dichloroethene	156-59-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	cis-1,3-Dichloropropene	10061-01-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dibromochloromethane	124-48-1	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dibromomethane	74-95-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Dichlorodifluoromethane	75-71-8	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Ethyl Methacrylate	97-63-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Ethylbenzene	100-41-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Iodomethane	74-88-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	2 J	<0.50	<1.0	<1.0
SW8260B	Isobutyl alcohol	78-83-1	µg/L	ND U	ND U	ND U	14 J	ND U	25 U	25 U	25 U			
SW8260B	Methacrylonitrile	126-98-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Methyl Methacrylate	80-62-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Methylene chloride	75-09-2	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Propionitrile	107-12-0	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<2.0	<4.0	<4.0
SW8260B	Silane, methoxytrimethyl-		ug/L	5 JN										
SW8260B	Silanol, trimethyl-		ug/L	19 JN				15 JN		13 JN				
SW8260B	Styrene	100-42-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Tetrachloroethene	127-18-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Toluene	108-88-3	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,2-Dichloroethene	156-60-5	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,3-Dichloropropene	10061-02-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	trans-1,4-Dichloro-2-butene	110-57-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Trichloroethene	79-01-6	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW8260B	Trichlorofluoromethane	75-69-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Trimethylsilyl fluoride+Sulfur diox		ug/L	220 JN										
SW8260B	Vinyl acetate	108-05-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Vinyl chloride	75-01-4	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<1.0	<1.0
SW8260B	Xylene (total)	1330-20-7	µg/L	ND U	ND U	ND U	ND U	ND U	5.0 U	5 U	5.0 U	<0.50	<2.0	<2.0
SW8270C	1,2,4,5-Tetrachlorobenzene	95-94-3	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,2,4-Trichlorobenzene	120-82-1	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,2-Dichlorobenzene	95-50-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3,5-Trinitrobenzene	99-35-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3-Dichlorobenzene	541-73-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,3-Dinitrobenzene	99-65-0	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,4-Dichlorobenzene	106-46-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1,4-Naphthoquinone	130-15-4	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	1-Naphthylamine	134-32-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,2´-oxybis(1-chloropropane)	108-60-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,3,4,6-Tetrachlorophenol	58-90-2	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4,5-Trichlorophenol	95-95-4	µg/L	25 U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	2,4,6-Trichlorophenol	88-06-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dichlorophenol	120-83-2	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dimethylphenol	105-67-9	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,4-Dinitrophenol	51-28-5	µg/L	ND U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	2,4-Dinitrotoluene	121-14-2	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,6-Dichlorophenol	87-65-0	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2,6-Dinitrotoluene	606-20-2	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Acetylaminofluorene	53-96-3	µg/L	ND U	ND U	ND U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	2-Chloronaphthalene	91-58-7	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Chlorophenol	95-57-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Methylnaphthalene	91-57-6	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	2-Methylphenol	95-48-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Naphthylamine	91-59-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	2-Nitroaniline	88-74-4	µg/L	25 U	25 U	100 U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	2-Nitrophenol	88-75-5	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3,3´-Dichlorobenzidine	91-94-1	µg/L	ND U	ND U	80 U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	3,3´-Dimethylbenzidine	119-93-7	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3-Methylcholanthrene	56-49-5	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	3-Methylphenol/4-Methylphenol	12-03-3	µg/L	9 J	150	170 D	ND U	9 J	41	10 U	10 U			16.8
SW8270C	3-Nitroaniline	99-09-2	µg/L	ND U	25 U	ND U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	4,6-Dinitro-2-methylphenol	534-52-1	µg/L	ND U	ND U	ND U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	4-Aminobiphenyl	92-67-1	µg/L	20 U	ND U	80 U	ND U	ND U	20 U	20 U	20 U	<2.5		<5.0
SW8270C	4-Bromophenyl-phenylether	101-55-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chloro-3-methylphenol	59-50-7	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chloroaniline	106-47-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Chlorophenyl-phenylether	7005-72-3	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	4-Nitroaniline	100-01-6	µg/L	25 U	ND U	100 U	ND U	ND U	25 U	25 U	25 U	<2.5		<5.0
SW8270C	4-Nitrophenol	100-02-7	µg/L	25 U	ND U	100 U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	5-Nitro-o-toluidine	99-55-8	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	7,12-Dimethylbenz(a)anthracene	57-97-6	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Acenaphthene	83-32-9	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.22		<5.0
SW8270C	Acenaphthylene	208-96-8	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.21		<5.0

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW8270C	Acetophenone	98-86-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		1.2 J
SW8270C	Anthracene	120-12-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		0.61 J
SW8270C	Benzo(a)anthracene	56-55-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(a)pyrene	50-32-8	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(b)fluoranthene	205-99-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(g,h,i)perylene	191-24-2	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzo(k)fluoranthene	207-08-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Benzyl alcohol	100-51-6	µg/L	1	ND U	40 U	ND U	4 J	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-chloroethoxy)methane	111-91-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-chloroethyl)ether	111-44-4	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Bis(2-ethylhexyl)phthalate	117-81-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		1.0 J
SW8270C	Butyl benzyl phthalate	85-68-7	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Chlorobenzilate	510-15-6	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Chrysene	218-01-9	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Diallate	2303-16-4	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Dibenzo(a,h)anthracene	53-70-3	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Dibenzofuran	132-64-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Diethylphthalate	84-66-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		0.15 J
SW8270C	Dimethylphthalate	131-11-3	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Di-n-butyl phthalate	84-74-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Di-n-octyl phthalate	117-84-0	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Ethyl methanesulfonate	62-50-0	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Famphur	52-85-7	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<5.0		<10.0
SW8270C	Fluoranthene	206-44-0	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Fluorene	86-73-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	Hexachlorobenzene	118-74-1	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachlorobutadiene	87-68-3	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U			<5
SW8270C	Hexachlorocyclopentadiene	77-47-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachloroethane	67-72-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Hexachloropropene	1888-71-7	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isodrin	465-73-6	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isophorone	78-59-1	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Isosafrole	120-58-1	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Kepone	143-50-0	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<5.0		<10.0
SW8270C	Methapyrilene	91-80-5	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Methyl methanesulfonate	66-27-3	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Naphthalene	91-20-3	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<0.18		<5.0
SW8270C	Nitrobenzene	98-95-3	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosodiethylamine	55-18-5	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosodimethylamine	62-75-9	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitroso-di-n-butylamine	924-16-3	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5
SW8270C	N-Nitroso-di-n-propylamine	621-64-7	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5
SW8270C	N-Nitrosodiphenylamine	86-30-6	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosomethylethylamine	10595-95-6	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosopiperidine	100-75-4	µg/L	ND U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	N-Nitrosopyrrolidine	930-55-2	µg/L	10 U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	O,O,O-Triethylphosphorothioate	126-68-1	µg/L	ND U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	o-Toluidine	95-53-4	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0

	CELL 7 PLCRS													
				07/01/13	3/13/2014	3/13/2014	06/25/14	12/12/14	06/16/15	12/14/2015				
				7/1/2013	13-Dec	DUP_1213	6/25/2014	12/12/2014	6/16/2015	12/14/2015	6/20/2016	Jan-17	Sept_17	Dec_17
SW8270C	p-Dimethylaminoazobenzene	60-11-7	µg/L	10 U	ND U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachlorobenzene	608-93-5	µg/L	ND U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachloronitrobenzene	82-68-8	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Pentachlorophenol	87-86-5	µg/L	ND U	25 U	100 U	ND U	ND U	25 U	25 U	25 U	<5.0		<10.0
SW8270C	Phenacetin	62-44-2	µg/L	10 U	ND U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
SW8270C	Phenanthrene	85-01-8	µg/L	ND U	10 U	40 U	ND U	ND U	10 U	10 U	10 U	<0.17		<5.0
SW8270C	Phenol	108-95-2	µg/L	20	10 U	40 U	ND U	34	6 J	10 U	10 U	<2.5		19.4
SW8270C	p-Phenylenediamine	106-50-3	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U			<5.0
SW8270C	Pronamide	23950-58-5	µg/L	10 U	10 U	ND U	ND U	ND U	10 U	10 U	10 U	<2.5		<5.0
	Sulfide	18496-25-8	mg/L		2.00 U		2.00 U	**25.3**	2 U		20 U	<0.61	6.4	
EPA1613B	2378-TCDF		pg/l				ND		2 U					ND
EPA1613B	2378-TCDD		pg/l				ND		2 U		10 U			ND
ASTM D517	Total Uranium	7440-61-1	ng/l											1.07 ± 0.050 (0.193) C:NA T:NA
EPA 537	Perfluorobutanesulfonic acid PFBS	375-73-5	ng/l											<84
EPA 537	Perfluoroheptanoic acid PFHpA	375-85-9	ng/l											23
EPA 537	Perfluorohexanesulfonic acid PFHxS	355-46-4	ng/l											13 J
EPA 537	Perfluorononanoic acid PFNA	375-95-1	ng/l											<19
EPA 537	Perfluorooctanesulfonic acid PFOS	1763-23-1	ng/l											<38
EPA 537	Perfluorooctanoic acid PFOA	335-67-1	ng/l											29
EPA 903.1	Radium-226	13982-63-3	ng/l											3.02 ± 1.28 (1.13) C:NA T:33%
EPA 904.0	Radium-228	15262-20-1	ng/l											4.14 ± 1.79 (2.70) C:75% T:16%
	6:2 FTS		ng/l											
	8:2 FTS		ng/l											
	N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA		ng/l											
	N-methylperflurooctansulfamicacetic acid NMeFOSAA		ng/l											
	perfluorobutanoic acid PFBA		ng/l											
	perfluorodecansulfonic acid PFDS		ng/l											
	perfluorodecanoic acid PFDA		ng/l											
	perfluorododecanoic acid PFDoA		ng/l											
	perfluoroheptanesulfonic acid PFHps		ng/l											
	perfluorohexanoic acid PFHxA		ng/l											
	perfluorooctane sulfonamide FOSA		ng/l											
	perfluoropentanoic acid PFPeA		ng/l											
	perfluorotetradecanoic acid PFTeA		ng/l											
	perfluorotridecnaoic acid PFTriA		ng/l											
	perfluoroundecanoic acid PFUnA		ng/l											
	n-Nitrosomorpholine													
	Dimethylbenz(A) Antracene													
	Bis(2-chloroisopropyl)ether													
	total PFOA/PFAS													

CELL 7 PLCRS												
	Aug_18		Dec_18		Jun_19		Dec_19		June_20		Dec_20	June_21
Analyte												
pH	7.11		7.43		7.81		7.48		7.36		7.93	7.25
DO	0.05		2.01		0		1.7		2.59		2.02	2.42
Spec cond	788		1112		876		2194		>20,000		>20,000	>20,000
ORP	-55.8		-75.1		-96.3		-79.2		-73.9		-102.4	-65.3
Pyrene	U		<5		<5.0		<.25		<5		<5.0	<5.0
Safrole	U		<5		<5.0		<.25		<5		<5.0	<5.0
Cyanide	<10		21.3		4.6J		7		4.7	J	3.2J	4.3 J
Total Organic Carbon	94.7		84.8		257 D		147		69.2		28.8	131
Dioxin												
Bromide	353		350		516		422		480		260	764
Sulfate	10.3		6.5		7.2		335		129 D		305J D	3.8
Nitrogen, Kjeldahl, Total	51.2		56.3		104 D		65.2 D		93.8 D		21.6	15.8
Nitrate as N	<.05		0.051		0.090		<0.50 D		<0.050		<0.25 D	<.25
Nitrite as N	<.05		<.05		<0.050		<0.050		<0.050		<0.050	<.05
Chemical Oxygen Demand	1810		1690		3870		3410		2240		1120	3240
Phenolics, Total Recoverable	236		177				358 D		278 D		35.3	188
Chromium, Hexavalent	<.1D		<.02		<.02		<.02		<.02		0.052	<0.020
Color			15				50.0				250 D	60.0
Alkalinity, Total (As CaCO3)	275		216		336		223		176		123	282
Hardness (As CaCO3)	20400		20100		28800		26700		28400		15800	30000
Total Dissolved Solids	54000		54400		74600		62000		58800		34000	65200
Chloride	30500		29600		50600		48500		49500		22700	**0.36**
Nitrogen, Ammonia (As N)	51.7D		29.8		93.3		78.7		82.2		50.7 D	108
Biochemical Oxygen Demand	137D		134		494		235		103		46.8 D	179
Aluminum	<10000 D		<200		<1000 D		77.6J D		<1000 D		311	<10000
Antimony	<3000 D		18.8J		<300 D		45.4J D		<300 D		19.2J	<3000
Arsenic	<500 D		<10.0		<50.0 D		28.4 D		<50.0 D		<10.0	<500
Barium	3580J D		3130		6450 D		5840 D		5550 D		3160	6450 J
Beryllium	<250 D		<5.0		1.7J D		<10.0 D		0.58J D		0.20J	<250
Boron	612J D		718		334 D		1040 D		92.5J D		594	740 J
Cadmium	<125 D		14.4J D		<12.5 D		<5.0 D		<12.5 D		<2.5	<125
Calcium	8140000 D		7430000		9750000 D		9300000 D		9900000 D		6120000 D	13000000
Chromium	<500 D		<10.0		46.1J D		<20.0 D		157 D		11.4	<500
Cobalt	<2500 D		5.0J		<250 D		<100 D		<250 D		<50.0	<2500
Copper	<1250 D		<25.0		59.0J D		<50.0 D		56.0J D		<25.0	<1250
Iron	10600 D		362		150 D		388 D		109 D		702	<1000
Lead	<250 D		<50.0 D		<25.0 D		<10.0 D		<25.0 D		<5.0	<250
Magnesium	18100 D		11400		4420 D		11100 D		6450 D		7170	10600
Manganese	3250 D		649		1440 D		750 D		221 D		255	496 J
Nickel	<2000 D		<40.0		<200 D		<80.0 D		72.0J D		26.2J	<2000
Potassium	3930000 D		4600000 D		6390000 D		5700000 D		5550000 D		3160000 D	8100000
Selenium	<500 D		<10.0		125 D		17.8J D		<50.0 D		<10.0	<500
Silver	<500 D		<10.0		<50.0 D		<20.0 D		18.8J D		<10.0	<500
Sodium	6910000 D		6870000 D		9900000 D		7950000 D		8800000 D		4860000 D	11800000
Thallium	<500 D		4.5J		<50.0 D		<20.0 D		<50.0 D		<10.0	<500
Tin	<2500 D		<50.0		<250 D		<100 D		<250 D		<50.0	<2500
Vanadium	<2500 D		<50.0		<250 D		13.6J D		<250 D		10.0J	<2500

CELL 7 PLCRS										
	Aug_18		Dec_18	Jun_19	Dec_19		June_20		Dec_20	June_21
Zinc	<1000 D		16.8J D	132 D	<40.0 D		<100 D		<20.0	<1000
Mercury	<.2		<0.20	0.15J	0.15J		<.2		<0.200	<0.20
4,4´-DDD	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
4,4´-DDE	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
4,4´-DDT	<0.10		<0.10	<0.10	<0.10		<.1		0.023J	<0.094
Aldrin	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
alpha-BHC	<0.050		<.05	<0.050	<.05		<.05		<0.050	<0.047
Aroclor 1016	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1221	<2.0		<2.0	<2.0	<2.0		<1		<1.0	<0.94
Aroclor 1232	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1242	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1248	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
Aroclor 1254	<1.0		<1.0	<1.0	0.68J		<1		<1.0	<0.94
Aroclor 1260	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<0.94
beta-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	<0.047
Chlordane										
delta-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	0.75
Dieldrin	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endosulfan I	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
Endosulfan II	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endosulfan sulfate	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endrin	<0.10		<0.10	<0.10	<0.10		<.1		<0.10	<0.094
Endrin aldehyde	<0.10		<0.10	<0.10	<0.10		<.1		0.026J	<0.094
gamma-BHC	<.05		<.05	<0.050	<.05		<.05		<0.050	<0.047
Heptachlor	<.05		<0.050	<0.050	<0.050		<.05		<0.050	0.23
Heptachlor epoxide	<0.050		<0.050	<0.050	<0.050		<.05		<0.050	<0.047
Methoxychlor	<0.50		<0.50	<0.50	<0.50		<.5		<0.50	<0.47
Toxaphene	<5.0		<5.0	<5.0	<5.0		<.5		<5.0	<4.7
Dimethoate	<.95		<5	<5	<.25		<5		<5.0	<5.0
Disulfoton	<.95		<5	<5.0			<5		<5.0	<5.0
Methyl parathion	<.95		<5	<5.0	<.25		<5		<5	<5.0
Parathion	<.95		<5	<5.0	<.25		<5		<5.0	<5.0
Phorate										
Thionazin	U		<5		<.25		<5		<5.0	<5.0
2,4,5-T	0.055J		0.19J	<0.25	<0.25		0.12	J	<0.25	1.9
2,4,5-TP (Silvex)	<0.25		<0.25	<0.25	0.16J		<.25		0.12J	2.0
2,4-D	<0.50		1.4	1.7	1.0		1.3		1.4	11.6
Dinoseb	0.14J		0.16J	0.30	0.43		<.2		<0.20	1.2
1,1,1,2-Tetrachloroethane	<1.0		<1.0	<1.0	<1		<1		<1.0	<1.0
1,1,1-Trichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1,2-Trichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloroethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloroethene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,1-Dichloropropene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2,3-Trichloropropane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dibromoethane	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0
1,2-Dichlorobenzene	<1.0		<1.0	<1.0	<1.0		<1		<1.0	<1.0

CELL 7 PLCRS							
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
1,4-Dioxane (p-Dioxane)	0.59	2.7	<100 SIM 2.4ug/l	4.2	<100 SIM 3.3 ug/l	1.7	4.2
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
2-Butanone	16.7	14.4	10.8	13.1	14.2	3.6J	22.9
2-Hexanone	<5.0	<5.0	<5.0	<5.0	<5	<5.0	<5.0
4-Methyl-2-pentanone	1.8J	1.6J	1.4J	<5.0	<5	<5.0	<5.0
Acetone	274 D	195	103	179	124	49.7	267
Acetonitrile	62.9	156	128	193	<5	<5.0	191
Acrolein	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Acrylonitrile	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Allyl Chloride	<1.0	<1.0	<1.0	<1.0	<4	<4.0	<4.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Carbon disulfide	<1.0	1.1	<1.0	<1.0	<1	1.1	<1.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Chloroprene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Ethyl Methacrylate	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Iodomethane	<1.0	<1.0	<1.0	<1.0	4.2	<4.0	<4.0
Isobutyl alcohol				5.8JJ	<20	<20.0	<20.0
Methacrylonitrile	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Methyl Methacrylate	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Methylene chloride	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Propionitrile	<4.0	<4.0	<4.0	<4.0	<4	<4.0	<4.0
Silane, methoxytrimethyl-			<1.0				
Silanol, trimethyl-							20.2 J
Styrene	<1.0	<1.0	<1.0		<1	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
trans-1,4-Dichloro-2-butene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1	<1.0	<1.0

CELL 7 PLCRS												
	Aug_18		Dec_18		Jun_19		Dec_19		June_20		Dec_20	June_21
Trichlorofluoromethane	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Trimethylsilyl fluoride+Sulfur diox												
Vinyl acetate	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Vinyl chloride	<1.0		<1.0		<1.0		<1.0		<1		<1.0	<1.0
Xylene (total)	<3.0		<3.0		<3.0		<3.0		<3		<3.0	<3.0
1,2,4,5-Tetrachlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,2,4-Trichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,2-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3,5-Trinitrobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,3-Dinitrobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,4-Dichlorobenzene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1,4-Naphthoquinone	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
1-Naphthylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,2´-oxybis(1-chloropropane)			<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,3,4,6-Tetrachlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4,5-Trichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4,6-Trichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dimethylphenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,4-Dinitrophenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
2,4-Dinitrotoluene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,6-Dichlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2,6-Dinitrotoluene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Acetylaminofluorene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Chloronaphthalene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Chlorophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Methylnaphthalene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Methylphenol	0.328		<5.0		1.0J		<25.0 D		0.63	J	<5.0	<5.0
2-Naphthylamine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
2-Nitrophenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3,3´-Dichlorobenzidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3,3´-Dimethylbenzidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3-Methylcholanthrene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
3-Methylphenol/4-Methylphenol	46.8		39.1		110 D				44.4		1.2J	83.3
3-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4,6-Dinitro-2-methylphenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
4-Aminobiphenyl	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Bromophenyl-phenylether	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chloro-3-methylphenol	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chloroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Chlorophenyl-phenylether	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Nitroaniline	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
4-Nitrophenol	U		<10.0		<10.0		<50.0 D		<10		<10.0	<10.0
5-Nitro-o-toluidine	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
7,12-Dimethylbenz(a)anthracene			<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Acenaphthene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0
Acenaphthylene	U		<5.0		<5.0		<25.0 D		<5		<5.0	<5.0

CELL 7 PLCRS							
	Aug_18	Dec_18	Jun_19	Dec_19	June_20	Dec_20	June_21
Acetophenone	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(a)anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(a)pyrene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(b)fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(g,h,i)perylene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzo(k)fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Benzyl alcohol	U	<5.0	<5.0	<25.0 D	<5	0.88J	<5.0
Bis(2-chloroethoxy)methane	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5
Bis(2-chloroethyl)ether	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5
Bis(2-ethylhexyl)phthalate	U	<5.0	<5.0	8.9J D	<5	<5.0	<5
Butyl benzyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Chlorobenzilate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Chrysene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Diallate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dibenzo(a,h)anthracene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dibenzofuran	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Diethylphthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Dimethylphthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Di-n-butyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Di-n-octyl phthalate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Ethyl methanesulfonate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Famphur	<.95	<10.0	<10.0	<50.0 D	<10	<10.0	<20.0
Fluoranthene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Fluorene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachlorobenzene	U	<5.0	<5.0	<.25	<5	<5.0	<5.0
Hexachlorobutadiene	U	<5	<5	<025	<5	<5.0	<5.0
Hexachlorocyclopentadiene	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachloroethane	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Hexachloropropene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Indeno(1,2,3-cd)pyrene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isodrin	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isophorone	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Isosafrole	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Kepone	U	<10.0	<10.0	<50.0 D	<10	<10.0	<20.0
Methapyrilene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
Methyl methanesulfonate	U	<5		<25.0 D	<5	<5.0	<5.0
Naphthalene	U	<5.0	<5.0	<25.0 D	<5	<5.0	0.62 J
Nitrobenzene	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosodiethylamine	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosodimethylamine	U	<5	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitroso-di-n-butylamine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitroso-di-n-propylamine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosodiphenylamine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosomethylethylamine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosopiperidine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
N-Nitrosopyrrolidine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
O,O,O-Triethylphosphorothioate	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0
o-Toluidine	U	<5.0	<5.0	<25.0 D	<5	<5.0	<5.0

CELL 7 PLCRS										
	Aug_18	Dec_18	Jun_19	Dec_19		June_20		Dec_20		June_21
p-Dimethylaminoazobenzene	U	<5.0	<5.0	<25.0 D		<5		<5.0		<5.0
Pentachlorobenzene	U	<5.0	<5.0	<25.0 D		<5		<5.0		<5.0
Pentachloronitrobenzene	U	<5.0	<5.0	<25.0 D		<5		<5.0		<5.0
Pentachlorophenol	2.37	<10.0	<10.0	<50.0 D		<10		<10.0		<10.0
Phenacetin	U	<5.0	<5.0	<25.0 D		<5		<5.0		<5.0
Phenanthrene	U	<5.0	<5.0	<25.0 D		<5		<5.0		<5.0
Phenol	52.2	31.4	115 D	70.0 D		87.1	D	3.1J		62.7
p-Phenylenediamine	U	<5	<10.0	<50		<10		<10.0		<6900
Pronamide	U	<5.0	<5.0	<.25		<5		<5.0		<5.0
Sulfide	1.6J	8	8.0	4.8		**25.6**		<2.0		**16.0**
2378-TCDF	ND	ND		ND		ND		ND		ND
2378-TCDD	ND	ND	ND	ND		ND		ND		ND
Total Uranium	0.347 ± 0.013 (0.262) C:NA T:NA	.855+-.049 (2.62) C:NA T:NA	0.281 ± 0.014 (0.262) C:NA T:NA	0.789 ± 0.039 (0.262) C:NA T:NA		0.751 ± 0.045 (2.620) C:NA T:NA		0.526 ± 0.049 (2.620) C:NA T:NA		1.09 ± 0.061 (2.620) C:NA T:NA
Perfluorobutanesulfonic acid PFBS	130	130		170		160		120		240
Perfluoroheptanoic acid PFHpA	19	18		24		26		35		26
Perfluorohexanesulfonic acid PFHxS	4.7	4.2		11	B	8.6	B	5.9		8.2
Perfluorononanoic acid PFNA	1.7	1.2		1.4	J	5		2		nd
Perfluorooctanesulfonic acid PFOS	3.3	2		3		16		4		nd
Perfluorooctanoic acid PFOA	22	22		32		50		47		38
Radium-226	6.34 ± 2.29 (1.80) C:NA T:42%	15.7 ± 7.46 (2.36) C:NA T:88%	9.05 ± 2.77 (0.511) C:NA T:85%	2.93 ± 1.62 (1.44) C:NA T:61%		3.77 ± 2.18 (0.852) C:NA T:43%		1.21 ± 0.852 (0.938) C:NA T:89%		3.05 ± 2.60 (3.15) C:NA T:94%
Radium-228	10.2 ± 3.75 (5.39) C:72% T:85%	6.62 ± 2.38 (3.68) C:80% T:89%	6.45 ± 1.59 (1.46) C:78% T:52%	3.90 ± 2.48 (4.69) C:81% T:24%		7.79 ± 2.29 (2.88) C:78% T:33%		3.50 ± 1.31 (2.03) C:79% T:37%		8.59 ± 3.67 (5.94) C:70% T:92%
6:2 FTS	5.4	6.6		11	J	10	J	6.2		nd
8:2 FTS	ND	ND		ND		ND		ND		nd
N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA	19U	ND		ND		ND		ND		nd
N-methylperflurooctansulfamicacetic acid NMeFOSAA	19U	ND		ND		ND		ND		nd
perfluorobutanoic acid PFBA	260	170		180		260	B	170		310
perfluorodecansulfonic acid PFDS	19U	ND		ND		ND		ND		nd
perfluorodecanoic acid PFDA	4.5	0.44		0.38	J	3.2		0.55	J	nd
perfluorododecanoic acid PFDoA	19U	ND		ND		ND		ND		nd
perfluoroheptanesulfonic acid PFHps	19U	ND		ND		0.26	J	ND		nd
perfluorohexanoic acid PFHxA	210	250		320		370		350		430
perfluorooctane sulfonamide FOSA	19U	ND		1	J	2.2	B	ND		nd
perfluoropentanoic acid PFPeA	100	94		130		140		120		190
perfluorotetradecanoic acid PFTeA	19U	ND		ND		ND		ND		nd
perfluorotridecnaoic acid PFTriA	19U	ND		ND		ND		ND		nd
perfluoroundecanoic acid PFUnA	19U	ND		ND		ND		ND		nd
n-Nitrosomorpholine	U									
Dimethylbenz(A) Antracene	U									
Bis(2-chloroisopropyl)ether	U									
total PFOA/PFAS	760.6	698.44		883.78		1051.26		860.65		1242.2

CELL 7 PLCRS		
	Dec_21	July_22
Analyte		
pH	7.01	7.18
DO	4.24	4.02
Spec cond	>20,000	>20,000
ORP	-60.6	-62.4
Pyrene	<5.0	<4.8
Safrole	<5.0	
Cyanide	34.0	26.7
Total Organic Carbon	273 D	227 D
Dioxin		
Bromide	534	580
Sulfate	171	**1840J D**
Nitrogen, Kjeldahl, Total	248	164 D
Nitrate as N	<.05	0.25 D
Nitrite as N	<.05	<0.050
Chemical Oxygen Demand	3080	3800
Phenolics, Total Recoverable	689	351 D
Chromium, Hexavalent	<0.020	<.02
Color	70.0 D	60
Alkalinity, Total (As CaCO3)	344	257
Hardness (As CaCO3)	43000	
Total Dissolved Solids	37700	19200
Chloride	63200	89700
Nitrogen, Ammonia (As N)	356 D	155
Biochemical Oxygen Demand	**529 D**	294
Aluminum	<20000	223
Antimony	<600 D	37.9
Arsenic	<100 D	18.6
Barium	**8190 D**	**9900**
Beryllium	<50.0 D	<5.0
Boron	793 D	706
Cadmium	<25.0 D	<2.5
Calcium	14900000 D	17200000 D
Chromium	<100 D	5.9J
Cobalt	<500 D	<50.0
Copper	386 D	22.2J
Iron	<1000 D	3750
Lead	<50.0 D	8.9
Magnesium	4910 D	3990
Manganese	526 D	1220
Nickel	<400 D	24.8J
Potassium	8790000 D	9720000 D
Selenium	<100 D	11.1
Silver	14.5J D	<10.0
Sodium	13900000 D	<5000
Thallium	<100 D	8.8J
Tin	<500 D	<50.0
Vanadium	48.2J D	11.0J

CELL 7 PLCRS		
	Dec_21	July_22
Zinc	<200 D	23.5
Mercury	<0.20	0.090J
4,4´-DDD	<0.094	<0.096
4,4´-DDE	<0.094	<0.096
4,4´-DDT	<0.094	<0.096
Aldrin	<0.047	<0.048
alpha-BHC	<0.047	<0.048
Aroclor 1016	<0.94	<0.95
Aroclor 1221	<0.94	<0.95
Aroclor 1232	<0.94	<0.95
Aroclor 1242	<0.94	<0.95
Aroclor 1248	<0.94	<0.95
Aroclor 1254	<0.94	<0.95
Aroclor 1260	<0.94	<0.95
beta-BHC	<0.047	<0.048
Chlordane		
delta-BHC	<0.047	<0.048
Dieldrin	<0.094	<0.096
Endosulfan I	<0.047	<0.048
Endosulfan II	<0.094	<0.096
Endosulfan sulfate	<0.094	<0.096
Endrin	<0.094	<0.096
Endrin aldehyde	<0.094	<0.096
gamma-BHC	<0.047	<0.048
Heptachlor	<0.047	0.59
Heptachlor epoxide	<0.047	<0.048
Methoxychlor	<0.47	<0.48
Toxaphene	<4.7	<4.8
Dimethoate	<5.0	
Disulfoton	<5.0	
Methyl parathion	<5.0	
Parathion	<5.0	
Phorate		
Thionazin	<5.0	
2,4,5-T	<200 D	<0.25
2,4,5-TP (Silvex)	<200 D	<0.25
2,4-D	<200 D	3.3
Dinoseb	<200 D	1.4
1,1,1,2-Tetrachloroethane	<1.0	<1.0
1,1,1-Trichloroethane	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0
1,1-Dichloropropene	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0

CELL 7 PLCRS		
	Dec_21	July_22
1,2-Dichloroethane	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0
1,4-Dioxane (p-Dioxane)	4.1	5.7
2,2-Dichloropropane	<1.0	<1.0
2-Butanone	27.2	55.8
2-Hexanone	<5.0	<5.0
4-Methyl-2-pentanone	2.1J	2.5J
Acetone	308 D	394 D
Acetonitrile	<5.0	<5.0
Acrolein	<1.0	<1.0
Acrylonitrile	<1.0	<1.0
Allyl Chloride	<4.0	<4.0
Benzene	<1.0	<1.0
Bromochloromethane	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0
Bromoform	<1.0	<1.0
Bromomethane	<1.0	<1.0
Carbon disulfide	<1.0	<1.0
Carbon tetrachloride	<1.0	<1.0
Chlorobenzene	<1.0	<1.0
Chloroethane	<1.0	<1.0
Chloroform	<1.0	<1.0
Chloromethane	<1.0	<1.0
Chloroprene	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0
Dibromomethane	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0
Ethyl Methacrylate	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Iodomethane	<4.0	<4.0
Isobutyl alcohol	11.7J	
Methacrylonitrile	<1.0	<1.0
Methyl Methacrylate	<1.0	<1.0
Methylene chloride	<1.0	<1.0
Propionitrile	<4.0	<4.0
Silane, methoxytrimethyl-	29.4J	
Silanol, trimethyl-	31.9J	
Styrene	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0
Toluene	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0
trans-1,4-Dichloro-2-butene	<1.0	<1.0
Trichloroethene	<1.0	<1.0

CELL 7 PLCRS		
	Dec_21	July_22
Trichlorofluoromethane	<1.0	<1.0
Trimethylsilyl fluoride+Sulfur diox	5.6J	
Vinyl acetate	<1.0	<1.0
Vinyl chloride	<1.0	<1.0
Xylene (total)	<3.0	<3.0
1,2,4,5-Tetrachlorobenzene	<5.0	
1,2,4-Trichlorobenzene	<5.0	<4.8
1,2-Dichlorobenzene	<5.0	<4.8
1,3,5-Trinitrobenzene	<5.0	
1,3-Dichlorobenzene	<5.0	<4.8
1,3-Dinitrobenzene	<5.0	<4.8
1,4-Dichlorobenzene	<5.0	<4.8
1,4-Naphthoquinone	<5.0	
1-Naphthylamine	<5.0	
2,2´-oxybis(1-chloropropane)	<5.0	<4.8
2,3,4,6-Tetrachlorophenol	<5.0	<4.8
2,4,5-Trichlorophenol	<5.0	<4.8
2,4,6-Trichlorophenol	<5.0	<10.0
2,4-Dichlorophenol	<5.0	<4.8
2,4-Dimethylphenol	<5.0	<4.8
2,4-Dinitrophenol	<10.0	<9.5
2,4-Dinitrotoluene	<5.0	<4.8
2,6-Dichlorophenol	<5.0	
2,6-Dinitrotoluene	<5.0	<4.8
2-Acetylaminofluorene	<5.0	
2-Chloronaphthalene	<5.0	<4.8
2-Chlorophenol	<5.0	<4.8
2-Methylnaphthalene	<5.0	<4.8
2-Methylphenol	1.8J	<4.8
2-Naphthylamine	<5.0	
2-Nitroaniline	<5.0	<4.8
2-Nitrophenol	<5.0	<4.8
3,3´-Dichlorobenzidine	<5.0	<4.8
3,3´-Dimethylbenzidine	<5.0	
3-Methylcholanthrene	<5.0	
3-Methylphenol/4-Methylphenol	305 D	263 D
3-Nitroaniline	<5.0	<4.8
4,6-Dinitro-2-methylphenol	<10.0	<9.5
4-Aminobiphenyl	<5.0	
4-Bromophenyl-phenylether	<5.0	<4.8
4-Chloro-3-methylphenol	<5.0	<4.8
4-Chloroaniline	<5.0	<4.8
4-Chlorophenyl-phenylether	<5.0	<4.8
4-Nitroaniline	<5.0	<4.8
4-Nitrophenol	<10.0	<9.5
5-Nitro-o-toluidine	<5.0	
7,12-Dimethylbenz(a)anthracene	<5.0	
Acenaphthene	<5.0	<4.8
Acenaphthylene	<5.0	<4.8

CELL 7 PLCRS		
	Dec_21	July_22
Acetophenone	<5.0	<4.8
Anthracene	<5.0	0.79J
Benzo(a)anthracene	<5.0	<4.8
Benzo(a)pyrene	<5.0	<4.8
Benzo(b)fluoranthene	<5.0	<4.8
Benzo(g,h,i)perylene	<5.0	<4.8
Benzo(k)fluoranthene	<5.0	<4.8
Benzyl alcohol	<5.0	
Bis(2-chloroethoxy)methane	<5.0	<4.8
Bis(2-chloroethyl)ether	<5.0	<4.8
Bis(2-ethylhexyl)phthalate	<5.0	<4.8
Butyl benzyl phthalate	<5.0	<4.8
Chlorobenzilate	<5.0	
Chrysene	<5.0	<4.8
Diallate	<5.0	
Dibenzo(a,h)anthracene	<5.0	<4.8
Dibenzofuran	<5.0	<4.8
Diethylphthalate	<5.0	<4.8
Dimethylphthalate	<5.0	<4.8
Di-n-butyl phthalate	<5.0	150 D
Di-n-octyl phthalate	<5.0	<4.8
Ethyl methanesulfonate	<5.0	
Famphur	<20.0	<20.0
Fluoranthene	<5.0	<4.8
Fluorene	<5.0	<4.8
Hexachlorobenzene	<5.0	<4.8
Hexachlorobutadiene		
Hexachlorocyclopentadiene	<5.0	<4.8
Hexachloroethane	<5.0	<4.8
Hexachloropropene	<5.0	
Indeno(1,2,3-cd)pyrene	<5.0	<4.8
Isodrin	<5.0	
Isophorone	<5.0	<4.8
Isosafrole	<5.0	
Kepone	<20.0	<20.0
Methapyrilene	<5.0	
Methyl methanesulfonate	<5.0	
Naphthalene	<5.0	<4.8
Nitrobenzene	<5.0	<4.8
N-Nitrosodiethylamine	<5.0	
N-Nitrosodimethylamine	<5.0	
N-Nitroso-di-n-butylamine	<5.0	
N-Nitroso-di-n-propylamine	<5.0	<4.8
N-Nitrosodiphenylamine	<5.0	<4.8
N-Nitrosomethylethylamine	<5.0	
N-Nitrosopiperidine	<5.0	
N-Nitrosopyrrolidine	<5.0	
O,O,O-Triethylphosphorothioate	<5.0	
o-Toluidine	<5.0	

CELL 7 PLCRS		
	Dec_21	July_22
p-Dimethylaminoazobenzene	<5.0	
Pentachlorobenzene	<5.0	
Pentachloronitrobenzene	<5.0	
Pentachlorophenol	<10.0	
Phenacetin	<5.0	
Phenanthrene	<5.0	<4.8
Phenol	350 D	<4.8
p-Phenylenediamine	<6900	<6900
Pronamide	<5.0	
Sulfide	**20.8**	3.2
2378-TCDF	ND	ND
2378-TCDD	ND	ND
Total Uranium	5.13 ± 0.424 (26.200) C:NA T:NA	0.203 ± 0.010 (2.620) C:NA T:NA
Perfluorobutanesulfonic acid PFBS	280	302
Perfluoroheptanoic acid PFHpA	33	38.9
Perfluorohexanesulfonic acid PFHxS	7	5.07
Perfluorononanoic acid PFNA	1.1	ND
Perfluorooctanesulfonic acid PFOS	2.1	2.42
Perfluorooctanoic acid PFOA	33	39.8
Radium-226	4.57 ± 3.05 (3.27) C:NA T:98%	3.74 ± 1.37 (0.317) C:NA T:106%
Radium-228	7.45 ± 4.64 (8.93) C:56% T:91%	9.86 ± 3.71 (5.57) C:76% T:88%
6:2 FTS	6	5.46
8:2 FTS	ND	1.6
N-ethyl perfluorooctandsulfamidoacetic acidNEtFOSAA	ND	ND
N-methylperflurooctansulfamicacetic acid NMeFOSAA	ND	ND
perfluorobutanoic acid PFBA	440	362
perfluorodecansulfonic acid PFDS	ND	ND
perfluorodecanoic acid PFDA	0.58	ND
perfluorododecanoic acid PFDoA	ND	ND
perfluoroheptanesulfonic acid PFHps	ND	ND
perfluorohexanoic acid PFHxA	560	615
perfluorooctane sulfonamide FOSA	ND	ND
perfluoropentanoic acid PFPeA	180	231
perfluorotetradecanoic acid PFTeA	ND	ND
perfluorotridecnaoic acid PFTriA	ND	ND
perfluoroundecanoic acid PFUnA	ND	ND
n-Nitrosomorpholine		
Dimethylbenz(A) Antracene		
Bis(2-chloroisopropyl)ether		
total PFOA/PFAS	1542.78	1603.25

Appendix 1

July 2022 Pace Analytical Laboratory Report and QA/QC

BABYLON LANDFILL - FIELD DATA - SECOND QTR 2022

Leachate Sampling Data

WELL #	Date	Start Purge	Stop Purge	Gallons Purged	Well Notes For Sampling
NNU-PLCRS	7/13/2022	800	804	~ 40	Clear, slightly cloudy, sulfur odors
NNU-SLCRS	7/13/2022	806	809	~ 40	Black particles, sulfur odors
ONU-SLCRS	7/13/2022	727	730	~ 60	Clear, odors
SA-SLCRS	7/13/2022	Direct Sample	Direct Sample	0	Clear, small black sediment
CELL - 7	7/13/2022	Direct Sample	Direct Sample	0	Clear, odors, small black particles

Leachate Parameters

WELL #	Sampling Time	pH (SU)	ORP (mv)	Conductivity (umhos/cm2)	Temp. (oC)	Turbidity (NTU)	Dissolved Oxygen (DO) mg/L
NNU-PLCRS	810	7.58	-121.4	>20,000	20.2	24.10	2.15
NNU-SLCRS	815	7.50	-35.2	>20,000	22.7	52.40	2.48
ONU-SLCRS	735	8.62	-162.3	>20,000	18.8	2.31	3.56
SA-SLCRS	905	8.26	-65.1	15,870	19.9	10.64	3.98
CELL - 7	835	7.18	-62.4	>20,000	18.4	4.85	4.02

Field Notes: **MS/MSD performed on ONU-SLCRS @ 740**

NNU-PLCRS: New Northern U Primary * One Tap Location for Primary/Secondary (Top Road)

NNU-SLCRS: New Northern U Secondary * One Tap Location for Primary/Secondary (Top Road)

ONU-SLCRS: Old Northern U Secondary *One Tap Location for Primary/Secondary (Lower Road)

SA-SLCRS: Southern Ash Secondary *Use Bailer / Square Metal Door

CELL 7: Primary System * Use Bailer / First Round Black Cover (Left Cover)

PFCs Sampling Checklist

Date: Tue. 7-12-2022

Weather (*temp./precipitation*): Cloudy, 75° Site Name: Babylon Landfill

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [x] Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [x] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [x] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

- [x] No food or drink on-site with exception of bottled water and/or hydration drinks (i.e., Gatorade and Powerade) that is available for consumption only in the staging area

If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: Brian Nichols

Field Lead Signature: Brian Nichols Time: 7:00 AM

PFCs Sampling Checklist

Date: WED. 7-13-2022

Weather (*temp./precipitation*): Sunny, 75 Site Name: Babylon Landfill

Field Clothing and PPE:

- [x] No clothing or boots containing Gore-Tex™
- [x] All safety boots made from polyurethane and PVC
- [x] No materials containing Tyvek®
- [x] Field crew has not used fabric softener on clothing
- [x] Field crew has not used cosmetics, moisturizers, hand cream, or other related products this morning
- [x] Field crew has not applied unauthorized sunscreen or insect repellant

Field Equipment:

- [x] No Teflon® or LDPE containing materials on-site
- [x] All sample materials made from stainless steel, HDPE, acetate, silicon, or polypropylene
- [x] No waterproof field books on-site
- [x] No plastic clipboards, binders, or spiral hard cover notebooks on-site
- [x] No adhesives (Post-It Notes) on-site
- [x] Coolers filled with regular ice only. No chemical (blue) ice packs in possession

Sample Containers:

- [x] All sample containers made of HDPE or polypropylene
- [x] Caps are unlined and made of HDPE or polypropylene

Wet Weather (as applicable):

- [x] Wet weather gear made of polyurethane and PVC only

Equipment Decontamination:

- [x] "PFC-free" water on-site for decontamination of sample equipment. No other water sources to be used.
- [x] Alconox and Liquinox to be used as decontamination materials

Food Considerations:

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If any applicable boxes cannot be checked, the Field Lead shall describe the noncompliance issues below and work with field personnel to address noncompliance issues prior to commencement of that day's work. Corrective action shall include removal of noncompliance items from the site or removal of worker offsite until in compliance.

Describe the noncompliance issues (include personnel not in compliance) and action/outcome of noncompliance:

Field Lead Name: Brian Nichols

Field Lead Signature: Brian Nichols Time: 7:10 AM

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

August 24, 2022

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Dear Joe Guarino:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

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

Sincerely,

Kimberley Mack

Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Elizabeth Barry, Town of Babylon Department of Environmental Control

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

CERTIFICATIONS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

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

PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 6010C by Pace Analytical Services Melville. 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 3005A 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.

QC Batch: 265487

B: Analyte was detected in the associated method blank.

- BLANK for HBN 265487 [MPRP/140 (Lab ID: 1341537)
  - Potassium

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: 265487

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028001

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

- MS (Lab ID: 1341540)
  - Calcium
  - Magnesium
  - Potassium
  - Sodium

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 7470A**
Description: 7470 Mercury
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 7470A by Pace Analytical Services Melville. 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 7470A 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: 265936

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003,70222765010

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

- MS (Lab ID: 1343596)
  - Mercury

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260C SIM/5030C**
Description: 8260C SIM Volatile Organics
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 8260C SIM/5030C by Pace Analytical Services Melville. 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.

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.

QC Batch: 266167

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003

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

- MSD (Lab ID: 1344806)
  - 1,4-Dioxane (p-Dioxane)

Additional Comments:

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

PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 24, 2022

General Information:
5 samples were analyzed for EPA 8260C/5030C by Pace Analytical Services Melville. 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.

QC Batch: 265051

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 1339517)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
- MS (Lab ID: 1341486)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
- MSD (Lab ID: 1341487)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
- NNU PLCRS (Lab ID: 70222028001)
  - Acetone
- NNU SLCRS (Lab ID: 70222028002)
  - 2-Butanone (MEK)
  - Acetone
- ONU SLCRS (Lab ID: 70222028003)
  - Acetone
- SA SLCRS (Lab ID: 70222028004)
  - Acetone
- TRIP BLANK (Lab ID: 70222028005)
  - Acetone

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

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 24, 2022

QC Batch: 265051

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- BLANK (Lab ID: 1339516)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- LCS (Lab ID: 1339517)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- MS (Lab ID: 1341486)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- MSD (Lab ID: 1341487)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- NNU PLCRS (Lab ID: 70222028001)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 24, 2022

QC Batch: 265051

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- Bromomethane
- Carbon disulfide
- Chloroethane
- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

• NNU SLCRS (Lab ID: 70222028002)
- 1,1-Dichloroethene
- 1,2-Dibromo-3-chloropropane
- Bromomethane
- Carbon disulfide
- Chloroethane
- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

• ONU SLCRS (Lab ID: 70222028003)
- 1,1-Dichloroethene
- 1,2-Dibromo-3-chloropropane
- Bromomethane
- Carbon disulfide
- Chloroethane
- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

• SA SLCRS (Lab ID: 70222028004)
- 1,1-Dichloroethene
- 1,2-Dibromo-3-chloropropane
- Bromomethane
- Carbon disulfide
- Chloroethane
- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

• TRIP BLANK (Lab ID: 70222028005)
- 1,1-Dichloroethene
- 1,2-Dibromo-3-chloropropane
- Bromomethane
- Carbon disulfide
- Chloroethane

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 24, 2022

QC Batch: 265051

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

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.

QC Batch: 265051

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1339517)
  - Carbon disulfide

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

QC Batch: 265051

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003

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

- MSD (Lab ID: 1341487)
  - 1,1,1-Trichloroethane

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 8260**
Description: TIC MSV Water
Client: Town of Babylon
Date: August 24, 2022

General Information:
2 samples were analyzed for EPA 8260 by Pace Analytical Services Melville. 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.

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:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 2120B by Pace Analytical Services Melville. 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 2320B by Pace Analytical Services Melville. 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: 265535

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003

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

- MS (Lab ID: 1341686)
  - Alkalinity, Total as CaCO3

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 2340C**
Description: 2340C Hardness, Total
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 2340C by Pace Analytical Services Melville. 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 2540C by Pace Analytical Services Melville. 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.

QC Batch: 265548

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

- DUP (Lab ID: 1341733)
  - Total Dissolved Solids

Additional Comments:

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 3500-Cr B by Pace Analytical Services Melville. 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 410.4 by Pace Analytical Services Melville. 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: 265853

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003,70222475001

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

- MS (Lab ID: 1343380)
  - Chemical Oxygen Demand

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 5210B by Pace Analytical Services Melville. 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:

Analyte Comments:

QC Batch: 264903

B2: Oxygen usage is less than 2.0 for all dilutions set. The reported value is an estimated less than value and is calculated for the dilution using the most amount of sample.

- NNU PLCRS (Lab ID: 70222028001)
  - BOD, 5 day

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PROJECT NARRATIVE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 9034**
Description: 9034 Sulfide, Titration
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 9034 by Pace Analytical Services Melville. 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 9030B 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 300.0 by Pace Analytical Services Melville. 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: 265903

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70221562006,70222028003

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

- MS (Lab ID: 1343505)
  - Bromide
  - Chloride
- MS (Lab ID: 1343507)
  - Bromide

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 351.2 by Pace Analytical Services Melville. 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: 266615

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70221775001,70222028003

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

- MS (Lab ID: 1347222)
  - 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 353.2 by Pace Analytical Services Melville. 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: 265018

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003,70222038001

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

- MS (Lab ID: 1339410)
  - Nitrate-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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 353.2 by Pace Analytical Services Melville. 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: 265009

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70221999001,70222028003

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

- MS (Lab ID: 1339339)
  - 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 420.1 by Pace Analytical Services Melville. 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for SM22 4500 NH3 H by Pace Analytical Services Melville. 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 9014 Total Cyanide**
Description: 9014 Cyanide, Total
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 9014 Total Cyanide by Pace Analytical Services Melville. 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 9010C 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: 266333

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003,70222765010

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

- MS (Lab ID: 1345613)
  - Cyanide

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Method: **EPA 9060A**
Description: 9060A TOC as NPOC
Client: Town of Babylon
Date: August 24, 2022

General Information:
4 samples were analyzed for EPA 9060A by Pace Analytical Services Melville. 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: 266203

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003

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

- MS (Lab ID: 1344876)
  - Total Organic Carbon

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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU PLCRS **Lab ID: 70222028001** Collected: 07/13/22 08:10 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**530**	ug/L	200	1	07/19/22 09:15	07/26/22 10:52	7429-90-5	
Antimony	**86.5**	ug/L	60.0	1	07/19/22 09:15	07/26/22 10:52	7440-36-0	
Arsenic	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 10:52	7440-38-2	
Barium	**521**	ug/L	200	1	07/19/22 09:15	07/26/22 10:52	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/19/22 09:15	07/26/22 10:52	7440-41-7	
Boron	**7150**	ug/L	50.0	1	07/19/22 09:15	07/26/22 10:52	7440-42-8	
Cadmium	**8.8**	ug/L	2.5	1	07/19/22 09:15	07/26/22 10:52	7440-43-9	
Calcium	**6410000**	ug/L	20000	100	07/19/22 09:15	08/17/22 13:13	7440-70-2	M1
Chromium	**3.1J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 10:52	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/19/22 09:15	07/26/22 10:52	7440-48-4	
Copper	**55.3**	ug/L	25.0	1	07/19/22 09:15	07/26/22 10:52	7440-50-8	
Iron	**661**	ug/L	100	1	07/19/22 09:15	07/26/22 10:52	7439-89-6	
Lead	**70.7**	ug/L	5.0	1	07/19/22 09:15	07/26/22 10:52	7439-92-1	
Magnesium	**42800**	ug/L	200	1	07/19/22 09:15	07/26/22 10:52	7439-95-4	M1
Manganese	**1490**	ug/L	10.0	1	07/19/22 09:15	07/26/22 10:52	7439-96-5	
Nickel	**44.6**	ug/L	40.0	1	07/19/22 09:15	07/26/22 10:52	7440-02-0	
Potassium	**2270000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:13	7440-09-7	M1
Selenium	**<1000**	ug/L	1000	100	07/19/22 09:15	08/17/22 13:13	7782-49-2	
Silver	**1.3J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 10:52	7440-22-4	
Sodium	**<5000**	ug/L	5000	1	07/19/22 09:15	07/26/22 10:52	7440-23-5	M1
Thallium	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 10:52	7440-28-0	
Vanadium	**<50.0**	ug/L	50.0	1	07/19/22 09:15	07/26/22 10:52	7440-62-2	
Zinc	**580**	ug/L	20.0	1	07/19/22 09:15	07/26/22 10:52	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**0.29**	ug/L	0.20	1	07/21/22 11:45	07/22/22 12:00	7439-97-6	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**0.78**	ug/L	0.20	1		07/22/22 16:17	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	94	%	43-153	1		07/22/22 16:17	2199-69-1	
4-Bromofluorobenzene (S)	96	%	79-139	1		07/22/22 16:17	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**2.8J**	ug/L	5.0	1		07/15/22 11:56	67-64-1	IH
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 11:56	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	74-83-9	v3
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/15/22 11:56	78-93-3	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU PLCRS **Lab ID: 70222028001** Collected: 07/13/22 08:10 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 11:56	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 11:56	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	74-87-3	v3
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	96-12-8	v3
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 11:56	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	110-57-6	v3
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-35-4	v3
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 11:56	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 11:56	74-88-4	v3
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/15/22 11:56	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:56	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:56	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 11:56	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 11:56	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 11:56	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%	81-122	1		07/15/22 11:56	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-118	1		07/15/22 11:56	460-00-4	
Toluene-d8 (S)	91	%	82-122	1		07/15/22 11:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU PLCRS **Lab ID: 70222028001** Collected: 07/13/22 08:10 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TIC MSV Water	Analytical Method: EPA 8260 Pace Analytical Services - Melville							
TIC Search	**No TIC's Found**			1		07/19/22 19:50		
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**12.0**	units	5.0	1		07/14/22 09:27		
pH	**7.3**	Std. Units	0.10	1		07/14/22 09:27		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**70.0**	mg/L	1.0	1		07/19/22 13:20		
2340C Hardness, Total	Analytical Method: SM22 2340C Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**12200**	mg/L	5.0	1		07/21/22 18:16		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**29400**	mg/L	10.0	1		07/19/22 14:35		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		07/14/22 09:24	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**1230**	mg/L	100	1	07/21/22 05:56	07/21/22 08:15		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<100**	mg/L	100	50	07/14/22 14:25	07/19/22 11:36		B2
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**3.2**	mg/L	2.0	1	07/19/22 11:00	07/19/22 14:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**332**	mg/L	50.0	100		07/25/22 20:59	24959-67-9	
Chloride	**17200**	mg/L	1000	500		07/22/22 13:20	16887-00-6	
Sulfate	**1390**	mg/L	500	100		07/25/22 20:59	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**24.8**	mg/L	0.50	1	07/27/22 05:56	07/27/22 12:24	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Melville, NY 11747
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU PLCRS **Lab ID: 70222028001** Collected: 07/13/22 08:10 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**<0.050**	mg/L	0.050	1		07/15/22 07:32	14797-55-8	
Nitrate-Nitrite (as N)	**<0.050**	mg/L	0.050	1		07/15/22 07:32	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		07/15/22 00:49	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<10.0**	ug/L	10.0	2	08/01/22 15:10	08/01/22 20:51		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**42.7**	mg/L	10.0	100		07/19/22 13:27	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**<10.0**	ug/L	10.0	1	07/25/22 18:40	07/25/22 19:43	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**15.7**	mg/L	10.0	10		07/23/22 01:19	7440-44-0	
Total Organic Carbon	**11.2**	mg/L	10.0	10		07/23/22 01:19	7440-44-0	
Total Organic Carbon	**10.6**	mg/L	10.0	10		07/23/22 01:19	7440-44-0	
Total Organic Carbon	**11.1**	mg/L	10.0	10		07/23/22 01:19	7440-44-0	

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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU SLCRS **Lab ID: 70222028002** Collected: 07/13/22 08:15 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**<1000**	ug/L	1000	5	07/19/22 09:15	08/17/22 13:24	7429-90-5	
Antimony	**<300**	ug/L	300	5	07/19/22 09:15	08/17/22 13:24	7440-36-0	
Arsenic	**<50.0**	ug/L	50.0	5	07/19/22 09:15	08/17/22 13:24	7440-38-2	
Barium	**2180**	ug/L	1000	5	07/19/22 09:15	08/17/22 13:24	7440-39-3	
Beryllium	**<25.0**	ug/L	25.0	5	07/19/22 09:15	08/17/22 13:24	7440-41-7	
Boron	**5850**	ug/L	250	5	07/19/22 09:15	08/17/22 13:24	7440-42-8	
Cadmium	**<12.5**	ug/L	12.5	5	07/19/22 09:15	08/17/22 13:24	7440-43-9	
Calcium	**15800000**	ug/L	20000	100	07/19/22 09:15	08/17/22 13:27	7440-70-2	
Chromium	**91.0**	ug/L	50.0	5	07/19/22 09:15	08/17/22 13:24	7440-47-3	
Cobalt	**<250**	ug/L	250	5	07/19/22 09:15	08/17/22 13:24	7440-48-4	
Copper	**<125**	ug/L	125	5	07/19/22 09:15	08/17/22 13:24	7440-50-8	
Iron	**3690**	ug/L	500	5	07/19/22 09:15	08/17/22 13:24	7439-89-6	
Lead	**<500**	ug/L	500	100	07/19/22 09:15	08/17/22 13:27	7439-92-1	
Magnesium	**6450**	ug/L	1000	5	07/19/22 09:15	08/17/22 13:24	7439-95-4	
Manganese	**200**	ug/L	50.0	5	07/19/22 09:15	08/17/22 13:24	7439-96-5	
Nickel	**95.5J**	ug/L	200	5	07/19/22 09:15	08/17/22 13:24	7440-02-0	
Potassium	**5920000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:27	7440-09-7	
Selenium	**<1000**	ug/L	1000	100	07/19/22 09:15	08/17/22 13:27	7782-49-2	
Silver	**11.8J**	ug/L	50.0	5	07/19/22 09:15	08/17/22 13:24	7440-22-4	
Sodium	**14800000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:27	7440-23-5	
Thallium	**<1000**	ug/L	1000	100	07/19/22 09:15	08/17/22 13:27	7440-28-0	
Vanadium	**20.4J**	ug/L	250	5	07/19/22 09:15	08/17/22 13:24	7440-62-2	
Zinc	**<2000**	ug/L	2000	100	07/19/22 09:15	08/17/22 13:27	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**0.087J**	ug/L	0.20	1	07/21/22 11:45	07/22/22 12:02	7439-97-6	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**3.3**	ug/L	0.20	1		07/22/22 16:41	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	96	%	43-153	1		07/22/22 16:41	2199-69-1	
4-Bromofluorobenzene (S)	99	%	79-139	1		07/22/22 16:41	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**402**	ug/L	25.0	5		07/15/22 13:33	67-64-1	IH
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 12:16	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	74-83-9	v3
2-Butanone (MEK)	**40.5**	ug/L	5.0	1		07/15/22 12:16	78-93-3	IH

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(631)694-3040

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU SLCRS **Lab ID: 70222028002** Collected: 07/13/22 08:15 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Carbon disulfide	**1.5**	ug/L	1.0	1		07/15/22 12:16	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 12:16	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 12:16	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	74-87-3	v3
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	96-12-8	v3
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 12:16	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	110-57-6	v3
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-35-4	v3
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 12:16	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 12:16	74-88-4	v3
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/15/22 12:16	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:16	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:16	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 12:16	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:16	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 12:16	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%	81-122	1		07/15/22 12:16	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/15/22 12:16	460-00-4	
Toluene-d8 (S)	93	%	82-122	1		07/15/22 12:16	2037-26-5	
Tentatively Identified Compounds								
Sulfur dioxide	**12.0J**	ug/L		1		07/15/22 12:16	7446-09-5	N
Silanol, trimethyl-	**10.8J**	ug/L		1		07/15/22 12:16	1066-40-6	N

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU SLCRS **Lab ID: 70222028002** Collected: 07/13/22 08:15 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Tentatively Identified Compounds								
Unknown	**6.9J**	ug/L		1		07/15/22 12:16		
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**32.0**	units	10.0	2		07/14/22 09:28		
pH	**6.4**	Std. Units	0.10	2		07/14/22 09:28		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**180**	mg/L	1.0	1		07/19/22 13:30		
2340C Hardness, Total	Analytical Method: SM22 2340C Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**26000**	mg/L	5.0	1		07/21/22 18:19		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**13700**	mg/L	100	1		07/19/22 14:52		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		07/14/22 09:25	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**2340**	mg/L	100	1	07/21/22 05:56	07/21/22 08:15		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**110**	mg/L	100	50	07/14/22 14:28	07/19/22 11:38		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**101**	mg/L	2.0	1	07/19/22 11:00	07/19/22 14:22		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**<0.50**	mg/L	0.50	1		07/25/22 21:13	24959-67-9	
Chloride	**45100**	mg/L	1000	500		07/25/22 21:27	16887-00-6	
Sulfate	**7.6**	mg/L	5.0	1		07/25/22 21:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: NNU SLCRS **Lab ID: 70222028002** Collected: 07/13/22 08:15 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**19.9**	mg/L	0.50	1	07/27/22 05:56	07/27/22 12:25	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.053**	mg/L	0.050	1		07/15/22 07:34	14797-55-8	
Nitrate-Nitrite (as N)	**0.080**	mg/L	0.050	1		07/15/22 07:34	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		07/15/22 00:50	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**151**	ug/L	5.0	1	08/01/22 15:10	08/01/22 18:42		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**71.6**	mg/L	10.0	100		07/19/22 13:28	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**21.1**	ug/L	10.0	1	07/25/22 18:40	07/25/22 19:44	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**11.4**	mg/L	10.0	10		07/23/22 01:31	7440-44-0	
Total Organic Carbon	**11.7**	mg/L	10.0	10		07/23/22 01:31	7440-44-0	
Total Organic Carbon	**11.3**	mg/L	10.0	10		07/23/22 01:31	7440-44-0	
Total Organic Carbon	**11.5**	mg/L	10.0	10		07/23/22 01:31	7440-44-0	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: ONU SLCRS **Lab ID: 70222028003** Collected: 07/13/22 07:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**<200**	ug/L	200	1	07/19/22 09:15	07/26/22 11:06	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	07/19/22 09:15	07/26/22 11:06	7440-36-0	
Arsenic	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7440-38-2	
Barium	**927**	ug/L	200	1	07/19/22 09:15	07/26/22 11:06	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/19/22 09:15	07/26/22 11:06	7440-41-7	
Boron	**797**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:06	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	07/19/22 09:15	07/26/22 11:06	7440-43-9	
Calcium	**4340000**	ug/L	20000	100	07/19/22 09:15	08/17/22 13:29	7440-70-2	
Chromium	**2.0J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:06	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	07/19/22 09:15	07/26/22 11:06	7440-50-8	
Iron	**5990**	ug/L	100	1	07/19/22 09:15	07/26/22 11:06	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	07/19/22 09:15	07/26/22 11:06	7439-92-1	
Magnesium	**67900**	ug/L	200	1	07/19/22 09:15	07/26/22 11:06	7439-95-4	
Manganese	**6900**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7439-96-5	
Nickel	**21.6J**	ug/L	40.0	1	07/19/22 09:15	07/26/22 11:06	7440-02-0	
Potassium	**1660000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:29	7440-09-7	
Selenium	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7782-49-2	
Silver	**2.4J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7440-22-4	
Sodium	**3970000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:29	7440-23-5	
Thallium	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:06	7440-28-0	
Vanadium	**5.1J**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:06	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	07/19/22 09:15	07/26/22 11:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**<0.20**	ug/L	0.20	1	07/21/22 11:45	07/22/22 12:03	7439-97-6	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**8.4**	ug/L	0.20	1		07/22/22 17:05	123-91-1	M1
Surrogates								
1,2-Dichlorobenzene-d4 (S)	98	%	43-153	1		07/22/22 17:05	2199-69-1	
4-Bromofluorobenzene (S)	100	%	79-139	1		07/22/22 17:05	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**2.4J**	ug/L	5.0	1		07/15/22 12:35	67-64-1	IH
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 12:35	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	74-83-9	v3
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/15/22 12:35	78-93-3	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: ONU SLCRS **Lab ID: 70222028003** Collected: 07/13/22 07:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 12:35	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 12:35	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	74-87-3	v3
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	96-12-8	v3
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 12:35	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	110-57-6	v3
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-35-4	v3
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 12:35	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 12:35	74-88-4	v3
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/15/22 12:35	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	71-55-6	M1
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:35	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:35	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 12:35	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:35	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 12:35	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%	81-122	1		07/15/22 12:35	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-118	1		07/15/22 12:35	460-00-4	
Toluene-d8 (S)	95	%	82-122	1		07/15/22 12:35	2037-26-5	
Tentatively Identified Compounds								
Sulfur dioxide	**19.3J**	ug/L		1		07/15/22 12:35	7446-09-5	N

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: ONU SLCRS **Lab ID: 70222028003** Collected: 07/13/22 07:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**42.0**	units	5.0	1		07/14/22 09:24		
pH	**6.6**	Std. Units	0.10	1		07/14/22 09:24		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**305**	mg/L	1.0	1		07/19/22 13:46		M1
2340C Hardness, Total	Analytical Method: SM22 2340C Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**8700**	mg/L	5.0	1		07/22/22 17:30		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**19300**	mg/L	100	1		07/19/22 14:52		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		07/14/22 09:20	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**952**	mg/L	40.0	1	07/21/22 05:56	07/21/22 08:15		M1
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<4.0**	mg/L	4.0	2	07/14/22 14:31	07/19/22 11:40		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**8.0**	mg/L	2.0	1	07/19/22 11:00	07/19/22 14:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**160**	mg/L	100	200		07/22/22 13:47	24959-67-9	M1
Chloride	**10000**	mg/L	400	200		07/22/22 13:47	16887-00-6	M1
Sulfate	**97.9**	mg/L	25.0	5		07/25/22 21:40	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**15.5**	mg/L	0.50	1	07/27/22 05:56	07/27/22 12:26	7727-37-9	M1
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.098**	mg/L	0.050	1		07/15/22 07:26	14797-55-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: ONU SLCRS **Lab ID: 70222028003** Collected: 07/13/22 07:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate-Nitrite (as N)	**0.098**	mg/L	0.050	1		07/15/22 07:26	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		07/15/22 00:43	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**<5.0**	ug/L	5.0	1	08/05/22 12:10	08/05/22 16:15		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**17.7**	mg/L	2.5	25		07/19/22 13:29	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**<10.0**	ug/L	10.0	1	07/25/22 18:40	07/25/22 19:44	57-12-5	M1
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**14.0**	mg/L	10.0	10		07/23/22 01:55	7440-44-0	M1
Total Organic Carbon	**13.8**	mg/L	10.0	10		07/23/22 01:55	7440-44-0	M1
Total Organic Carbon	**13.8**	mg/L	10.0	10		07/23/22 01:55	7440-44-0	M1
Total Organic Carbon	**14.3**	mg/L	10.0	10		07/23/22 01:55	7440-44-0	M1

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: SA SLCRS **Lab ID: 70222028004** Collected: 07/13/22 07:40 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**<200**	ug/L	200	1	07/19/22 09:15	07/26/22 11:08	7429-90-5	
Antimony	**<60.0**	ug/L	60.0	1	07/19/22 09:15	07/26/22 11:08	7440-36-0	
Arsenic	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7440-38-2	
Barium	**1020**	ug/L	200	1	07/19/22 09:15	07/26/22 11:08	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/19/22 09:15	07/26/22 11:08	7440-41-7	
Boron	**729**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:08	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	07/19/22 09:15	07/26/22 11:08	7440-43-9	
Calcium	**1540000**	ug/L	20000	100	07/19/22 09:15	08/17/22 13:38	7440-70-2	
Chromium	**2.1J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:08	7440-48-4	
Copper	**<25.0**	ug/L	25.0	1	07/19/22 09:15	07/26/22 11:08	7440-50-8	
Iron	**6570**	ug/L	100	1	07/19/22 09:15	07/26/22 11:08	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	07/19/22 09:15	07/26/22 11:08	7439-92-1	
Magnesium	**65300**	ug/L	200	1	07/19/22 09:15	07/26/22 11:08	7439-95-4	
Manganese	**7580**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7439-96-5	
Nickel	**21.6J**	ug/L	40.0	1	07/19/22 09:15	07/26/22 11:08	7440-02-0	
Potassium	**396000J**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:38	7440-09-7	B
Selenium	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7782-49-2	
Silver	**2.7J**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7440-22-4	
Sodium	**1190000**	ug/L	500000	100	07/19/22 09:15	08/17/22 13:38	7440-23-5	
Thallium	**<10.0**	ug/L	10.0	1	07/19/22 09:15	07/26/22 11:08	7440-28-0	
Vanadium	**5.2J**	ug/L	50.0	1	07/19/22 09:15	07/26/22 11:08	7440-62-2	
Zinc	**<20.0**	ug/L	20.0	1	07/19/22 09:15	07/26/22 11:08	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**<0.20**	ug/L	0.20	1	07/21/22 11:45	07/22/22 12:08	7439-97-6	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**1.1**	ug/L	0.20	1		07/22/22 17:28	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	99	%	43-153	1		07/22/22 17:28	2199-69-1	
4-Bromofluorobenzene (S)	101	%	79-139	1		07/22/22 17:28	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**1.9J**	ug/L	5.0	1		07/15/22 12:55	67-64-1	IH
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 12:55	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	74-83-9	v3
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/15/22 12:55	78-93-3	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: SA SLCRS **Lab ID: 70222028004** Collected: 07/13/22 07:40 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 12:55	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 12:55	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	74-87-3	v3
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	96-12-8	v3
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 12:55	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	110-57-6	v3
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-35-4	v3
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 12:55	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 12:55	74-88-4	v3
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/15/22 12:55	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 12:55	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 12:55	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 12:55	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 12:55	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 12:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%	81-122	1		07/15/22 12:55	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-118	1		07/15/22 12:55	460-00-4	
Toluene-d8 (S)	94	%	82-122	1		07/15/22 12:55	2037-26-5	
Tentatively Identified Compounds								
Sulfur dioxide	**20.7J**	ug/L		1		07/15/22 12:55	7446-09-5	N

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: SA SLCRS **Lab ID: 70222028004** Collected: 07/13/22 07:40 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**18.0**	units	5.0	1		07/14/22 09:26		
pH	**7.6**	Std. Units	0.10	1		07/14/22 09:26		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**174**	mg/L	1.0	1		07/19/22 14:28		
2340C Hardness, Total	Analytical Method: SM22 2340C Pace Analytical Services - Melville							
Tot Hardness asCaCO3 (SM 2340B	**3200**	mg/L	5.0	1		07/22/22 17:40		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**6120**	mg/L	20.0	1		07/19/22 14:54		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		07/14/22 09:23	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**178**	mg/L	10.0	1	07/21/22 05:56	07/21/22 08:15		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**<4.0**	mg/L	4.0	2	07/14/22 14:39	07/19/22 11:45		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**<2.0**	mg/L	2.0	1	07/19/22 12:30	07/19/22 14:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**<0.50**	mg/L	0.50	1		07/21/22 23:30	24959-67-9	
Chloride	**3730**	mg/L	400	200		07/25/22 23:15	16887-00-6	
Sulfate	**407**	mg/L	25.0	5		07/25/22 22:21	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**<0.50**	mg/L	0.50	1	07/27/22 05:56	07/27/22 12:29	7727-37-9	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**1.6**	mg/L	0.050	1		07/15/22 07:30	14797-55-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: SA SLCRS **Lab ID: 70222028004** Collected: 07/13/22 07:40 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate-Nitrite (as N)	**1.6**	mg/L	0.050	1		07/15/22 07:30	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		07/15/22 00:40	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**40.6**	ug/L	5.0	1	08/01/22 15:10	08/01/22 18:45		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**0.092J**	mg/L	0.10	1		07/19/22 13:35	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**9.4J**	ug/L	10.0	1	07/25/22 18:40	07/25/22 19:47	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**4.2J**	mg/L	10.0	10		07/23/22 02:32	7440-44-0	
Total Organic Carbon	**4.4J**	mg/L	10.0	10		07/23/22 02:32	7440-44-0	
Total Organic Carbon	**4.2J**	mg/L	10.0	10		07/23/22 02:32	7440-44-0	
Total Organic Carbon	**4.5J**	mg/L	10.0	10		07/23/22 02:32	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: TRIP BLANK **Lab ID: 70222028005** Collected: 07/13/22 00:00 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Acetone	**1.6J**	ug/L	5.0	1		07/15/22 11:37	67-64-1	IH
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 11:37	107-13-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	74-83-9	v3
2-Butanone (MEK)	**<5.0**	ug/L	5.0	1		07/15/22 11:37	78-93-3	
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 11:37	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 11:37	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	74-87-3	v3
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	96-12-8	v3
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	124-48-1	
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 11:37	106-93-4	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	95-50-1	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	110-57-6	v3
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-34-3	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	107-06-2	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-35-4	v3
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	156-60-5	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	78-87-5	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	10061-01-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	10061-02-6	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	100-41-4	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 11:37	591-78-6	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 11:37	74-88-4	v3
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<5.0**	ug/L	5.0	1		07/15/22 11:37	108-10-1	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	108-88-3	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	71-55-6	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	79-00-5	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 11:37	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 11:37	96-18-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 11:37	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 11:37	75-01-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Sample: TRIP BLANK **Lab ID: 70222028005** Collected: 07/13/22 00:00 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 11:37	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	81-122	1		07/15/22 11:37	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-118	1		07/15/22 11:37	460-00-4	
Toluene-d8 (S)	92	%	82-122	1		07/15/22 11:37	2037-26-5	
TIC MSV Water	Analytical Method: EPA 8260 Pace Analytical Services - Melville							
TIC Search	**No TIC's Found**			1		07/19/22 19:50		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265936 | Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1343592 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	07/22/22 11:56	

LABORATORY CONTROL SAMPLE: 1343593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.1	108	80-120	

MATRIX SPIKE SAMPLE: 1343594

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	1.1	102	75-125	

MATRIX SPIKE SAMPLE: 1343596

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	0.66	65	75-125	M1

SAMPLE DUPLICATE: 1343595

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

SAMPLE DUPLICATE: 1343597

Parameter	Units	70222765010 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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265487
QC Batch Method: EPA 3005A
Analysis Method: EPA 6010C
Analysis Description: 6010 MET Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1341537 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	07/26/22 10:48	
Antimony	ug/L	<60.0	60.0	07/26/22 10:48	
Arsenic	ug/L	<10.0	10.0	07/26/22 10:48	
Barium	ug/L	<200	200	07/26/22 10:48	
Beryllium	ug/L	<5.0	5.0	07/26/22 10:48	
Boron	ug/L	1.7J	50.0	07/26/22 10:48	
Cadmium	ug/L	<2.5	2.5	07/26/22 10:48	
Calcium	ug/L	<200	200	07/26/22 10:48	
Chromium	ug/L	<10.0	10.0	07/26/22 10:48	
Cobalt	ug/L	<50.0	50.0	07/26/22 10:48	
Copper	ug/L	<25.0	25.0	07/26/22 10:48	
Iron	ug/L	<100	100	07/26/22 10:48	
Lead	ug/L	<5.0	5.0	07/26/22 10:48	
Magnesium	ug/L	<200	200	07/26/22 10:48	
Manganese	ug/L	<10.0	10.0	07/26/22 10:48	
Nickel	ug/L	<40.0	40.0	07/26/22 10:48	
Potassium	ug/L	1150J	5000	07/26/22 10:48	
Selenium	ug/L	<10.0	10.0	07/26/22 10:48	
Silver	ug/L	<10.0	10.0	07/26/22 10:48	
Sodium	ug/L	<5000	5000	07/26/22 10:48	
Thallium	ug/L	<10.0	10.0	07/26/22 10:48	
Vanadium	ug/L	<50.0	50.0	07/26/22 10:48	
Zinc	ug/L	<20.0	20.0	07/26/22 10:48	

LABORATORY CONTROL SAMPLE: 1341538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	25000	24600	98	80-120	
Antimony	ug/L	1000	972	97	80-120	
Arsenic	ug/L	500	476	95	80-120	
Barium	ug/L	500	489	98	80-120	
Beryllium	ug/L	500	490	98	80-120	
Boron	ug/L	1000	970	97	80-120	
Cadmium	ug/L	500	482	96	80-120	
Calcium	ug/L	25000	24800	99	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	485	97	80-120	
Copper	ug/L	500	471	94	80-120	
Iron	ug/L	12500	12000	96	80-120	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

LABORATORY CONTROL SAMPLE: 1341538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	489	98	80-120	
Magnesium	ug/L	25000	24100	96	80-120	
Manganese	ug/L	500	485	97	80-120	
Nickel	ug/L	500	488	98	80-120	
Potassium	ug/L	25000	23700	95	80-120	
Selenium	ug/L	500	470	94	80-120	
Silver	ug/L	250	244	98	80-120	
Sodium	ug/L	25000	27300	109	80-120	
Thallium	ug/L	250	250	100	80-120	
Vanadium	ug/L	500	483	97	80-120	
Zinc	ug/L	500	481	96	80-120	

MATRIX SPIKE SAMPLE: 1341540

Parameter	Units	70222028001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	530	12500	13900	107	75-125	
Antimony	ug/L	86.5	1000	1150	106	75-125	
Arsenic	ug/L	<10.0	500	518	104	75-125	
Barium	ug/L	521	500	1020	100	75-125	
Beryllium	ug/L	<5.0	500	436	87	75-125	
Boron	ug/L	7150	1000	8160	101	75-125	
Cadmium	ug/L	8.8	500	427	84	75-125	
Calcium	ug/L	6410000	12500	6640000	1840	75-125	M1
Chromium	ug/L	3.1J	500	449	89	75-125	
Cobalt	ug/L	<50.0	500	439	87	75-125	
Copper	ug/L	55.3	500	454	80	75-125	
Iron	ug/L	661	5000	4930	85	75-125	
Lead	ug/L	70.7	500	493	84	75-125	
Magnesium	ug/L	42800	12500	51800	72	75-125	M1
Manganese	ug/L	1490	500	1950	92	75-125	
Nickel	ug/L	44.6	500	449	81	75-125	
Potassium	ug/L	2270000	12500	2390000	960	75-125	M1
Selenium	ug/L	<1000	500	487	89	75-125	
Silver	ug/L	1.3J	250	198	79	75-125	
Sodium	ug/L	<5000	12500	<5000	0	75-125	M1
Thallium	ug/L	<10.0	250	194	77	75-125	
Vanadium	ug/L	<50.0	500	461	92	75-125	
Zinc	ug/L	580	500	988	82	75-125	

SAMPLE DUPLICATE: 1341539

Parameter	Units	70222028001 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	530	501	6	
Antimony	ug/L	86.5	78.1	10	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

SAMPLE DUPLICATE: 1341539

Parameter	Units	70222028001 Result	Dup Result	RPD	Qualifiers
Arsenic	ug/L	<10.0	<10.0		
Barium	ug/L	521	499	4	
Beryllium	ug/L	<5.0	<5.0		
Boron	ug/L	7150	6870	4	
Cadmium	ug/L	8.8	8.4	5	
Calcium	ug/L	6410000	6430000	0	
Chromium	ug/L	3.1J	3.0J		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	55.3	55.1	0	
Iron	ug/L	661	631	5	
Lead	ug/L	70.7	70.0	1	
Magnesium	ug/L	42800	41200	4	
Manganese	ug/L	1490	1430	4	
Nickel	ug/L	44.6	43.6	2	
Potassium	ug/L	2270000	2270000	0	
Selenium	ug/L	<1000	<1000		
Silver	ug/L	1.3J	<10.0		
Sodium	ug/L	<5000	<5000		
Thallium	ug/L	<10.0	<10.0		
Vanadium	ug/L	<50.0	<50.0		
Zinc	ug/L	580	562	3	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 266167 | Analysis Method: EPA 8260C SIM/5030C
QC Batch Method: EPA 8260C SIM/5030C | Analysis Description: 8260C SIM 5030C
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1344759 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	0.20	07/22/22 15:30	
1,2-Dichlorobenzene-d4 (S)	%	94	43-153	07/22/22 15:30	
4-Bromofluorobenzene (S)	%	97	79-139	07/22/22 15:30	

LABORATORY CONTROL SAMPLE: 1344760

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2.5	2.3	93	59-135	
1,2-Dichlorobenzene-d4 (S)	%			102	43-153	
4-Bromofluorobenzene (S)	%			100	79-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1344805 1344806

Parameter	Units	70222028003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	8.4	2.5	2.5	12.0	12.5	142	162	42-159	4	M1
1,2-Dichlorobenzene-d4 (S)	%						99	99	43-153		
4-Bromofluorobenzene (S)	%						101	101	79-139		

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265051 Analysis Method: EPA 8260C/5030C
QC Batch Method: EPA 8260C/5030C Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004, 70222028005

METHOD BLANK: 1339516 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004, 70222028005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	v3
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	07/15/22 09:55	v3
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
2-Butanone (MEK)	ug/L	<5.0	5.0	07/15/22 09:55	
2-Hexanone	ug/L	<5.0	5.0	07/15/22 09:55	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	07/15/22 09:55	
Acetone	ug/L	<5.0	5.0	07/15/22 09:55	
Acrylonitrile	ug/L	<1.0	1.0	07/15/22 09:55	
Benzene	ug/L	<1.0	1.0	07/15/22 09:55	
Bromochloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Bromodichloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Bromoform	ug/L	<1.0	1.0	07/15/22 09:55	
Bromomethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
Carbon disulfide	ug/L	<1.0	1.0	07/15/22 09:55	v3
Carbon tetrachloride	ug/L	<1.0	1.0	07/15/22 09:55	
Chlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
Chloroethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
Chloroform	ug/L	<1.0	1.0	07/15/22 09:55	
Chloromethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	07/15/22 09:55	
Dibromochloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Dibromomethane	ug/L	<1.0	1.0	07/15/22 09:55	
Ethylbenzene	ug/L	<1.0	1.0	07/15/22 09:55	
Iodomethane	ug/L	<4.0	4.0	07/15/22 09:55	v3
Methylene Chloride	ug/L	<1.0	1.0	07/15/22 09:55	
Styrene	ug/L	<1.0	1.0	07/15/22 09:55	
Tetrachloroethene	ug/L	<1.0	1.0	07/15/22 09:55	v3
Toluene	ug/L	<1.0	1.0	07/15/22 09:55	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

METHOD BLANK: 1339516 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004, 70222028005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	07/15/22 09:55	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	07/15/22 09:55	v3
Trichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Vinyl acetate	ug/L	<1.0	1.0	07/15/22 09:55	
Vinyl chloride	ug/L	<1.0	1.0	07/15/22 09:55	
Xylene (Total)	ug/L	<3.0	3.0	07/15/22 09:55	
1,2-Dichloroethane-d4 (S)	%	113	81-122	07/15/22 09:55	
4-Bromofluorobenzene (S)	%	102	79-118	07/15/22 09:55	
Toluene-d8 (S)	%	91	82-122	07/15/22 09:55	

LABORATORY CONTROL SAMPLE: 1339517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	44.7	89	75-122	
1,1,1-Trichloroethane	ug/L	50	46.4	93	72-126	
1,1,2,2-Tetrachloroethane	ug/L	50	45.1	90	70-127	
1,1,2-Trichloroethane	ug/L	50	45.6	91	81-119	
1,1-Dichloroethane	ug/L	50	43.8	88	72-126	
1,1-Dichloroethene	ug/L	50	33.7	67	66-133	v3
1,2,3-Trichloropropane	ug/L	50	47.6	95	69-120	
1,2-Dibromo-3-chloropropane	ug/L	50	41.4	83	47-133	v3
1,2-Dibromoethane (EDB)	ug/L	50	49.6	99	81-123	
1,2-Dichlorobenzene	ug/L	50	47.9	96	80-117	
1,2-Dichloroethane	ug/L	50	53.8	108	69-134	
1,2-Dichloropropane	ug/L	50	45.4	91	75-125	
1,4-Dichlorobenzene	ug/L	50	47.7	95	80-117	
2-Butanone (MEK)	ug/L	50	46.6	93	33-165	IH
2-Hexanone	ug/L	50	49.1	98	50-128	IH
4-Methyl-2-pentanone (MIBK)	ug/L	50	47.8	96	62-131	
Acetone	ug/L	50	60.8	122	14-156	IH
Acrylonitrile	ug/L	50	45.3	91	60-136	
Benzene	ug/L	50	46.7	93	78-117	
Bromochloromethane	ug/L	50	48.1	96	77-122	
Bromodichloromethane	ug/L	50	50.4	101	80-123	
Bromoform	ug/L	50	45.2	90	49-138	
Bromomethane	ug/L	50	32.8	66	10-143	IH,v3
Carbon disulfide	ug/L	50	32.1	64	66-133	L2,v3
Carbon tetrachloride	ug/L	50	42.6	85	64-135	
Chlorobenzene	ug/L	50	45.3	91	79-117	
Chloroethane	ug/L	50	30.3	61	31-156	v3
Chloroform	ug/L	50	49.7	99	79-123	
Chloromethane	ug/L	50	24.4	49	39-116	v3
cis-1,2-Dichloroethene	ug/L	50	44.3	89	77-125	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

LABORATORY CONTROL SAMPLE: 1339517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	45.3	91	78-131	
Dibromochloromethane	ug/L	50	45.0	90	65-123	
Dibromomethane	ug/L	50	54.9	110	81-123	
Ethylbenzene	ug/L	50	42.3	85	79-115	
Iodomethane	ug/L	50	19.5	39	10-183	v3
Methylene Chloride	ug/L	50	44.2	88	67-123	
Styrene	ug/L	50	45.1	90	82-121	
Tetrachloroethene	ug/L	50	33.2	66	65-120	v3
Toluene	ug/L	50	46.7	93	80-114	
trans-1,2-Dichloroethene	ug/L	50	42.5	85	74-123	
trans-1,3-Dichloropropene	ug/L	50	44.1	88	73-135	
trans-1,4-Dichloro-2-butene	ug/L	50	39.3	79	52-137	v3
Trichloroethene	ug/L	50	45.9	92	79-115	
Trichlorofluoromethane	ug/L	50	41.7	83	51-136	
Vinyl acetate	ug/L	50	46.3	93	49-136	
Vinyl chloride	ug/L	50	32.4	65	49-118	
Xylene (Total)	ug/L	150	126	84	80-118	
1,2-Dichloroethane-d4 (S)	%			109	81-122	
4-Bromofluorobenzene (S)	%			103	79-118	
Toluene-d8 (S)	%			94	82-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1341486 1341487

Parameter	Units	70222028003 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	50.6	51.8	101	104	65-122	2	
1,1,1-Trichloroethane	ug/L	<1.0	50	50	60.3	64.8	121	130	72-123	7	M1
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	49.0	52.7	98	105	64-133	7	
1,1,2-Trichloroethane	ug/L	<1.0	50	50	51.7	55.2	103	110	78-120	6	
1,1-Dichloroethane	ug/L	<1.0	50	50	51.6	52.6	103	105	70-124	2	
1,1-Dichloroethene	ug/L	<1.0	50	50	39.1	40.4	78	81	61-139	3	v3
1,2,3-Trichloropropane	ug/L	<1.0	50	50	50.9	55.7	102	111	64-120	9	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	50	50	44.4	48.0	89	96	32-137	8	v3
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	56.0	57.5	112	115	78-121	3	
1,2-Dichlorobenzene	ug/L	<1.0	50	50	54.4	58.0	109	116	75-120	6	
1,2-Dichloroethane	ug/L	<1.0	50	50	58.7	59.7	117	119	58-138	2	
1,2-Dichloropropane	ug/L	<1.0	50	50	52.0	54.6	104	109	74-122	5	
1,4-Dichlorobenzene	ug/L	<1.0	50	50	54.8	58.8	110	118	76-118	7	
2-Butanone (MEK)	ug/L	<5.0	50	50	47.1	47.7	94	95	33-148	1	IH
2-Hexanone	ug/L	<5.0	50	50	52.1	53.1	104	106	49-124	2	IH
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	50	55.6	59.7	111	119	60-136	7	
Acetone	ug/L	2.4J	50	50	41.2	41.7	78	79	35-112	1	IH
Acrylonitrile	ug/L	<1.0	50	50	48.1	50.5	96	101	45-132	5	
Benzene	ug/L	<1.0	50	50	54.9	58.4	110	117	70-130	6	
Bromochloromethane	ug/L	<1.0	50	50	52.4	53.1	105	106	70-122	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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1341486 1341487

Parameter	Units	70222028003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Bromodichloromethane	ug/L	<1.0	50	50	54.7	57.1	109	114	74-122	4	
Bromoform	ug/L	<1.0	50	50	46.9	49.2	94	98	39-139	5	
Bromomethane	ug/L	<1.0	50	50	29.7	34.9	59	70	10-130	16	IH,v3
Carbon disulfide	ug/L	<1.0	50	50	38.1	39.2	76	78	60-129	3	v3
Carbon tetrachloride	ug/L	<1.0	50	50	57.0	61.6	114	123	56-143	8	
Chlorobenzene	ug/L	<1.0	50	50	53.8	55.4	108	111	74-122	3	
Chloroethane	ug/L	<1.0	50	50	37.0	38.7	74	77	35-146	5	v3
Chloroform	ug/L	<1.0	50	50	56.8	57.9	114	116	71-129	2	
Chloromethane	ug/L	<1.0	50	50	28.5	31.0	57	62	29-112	8	v3
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	51.5	53.5	103	107	73-129	4	
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	47.7	52.7	95	105	67-130	10	
Dibromochloromethane	ug/L	<1.0	50	50	49.6	51.7	99	103	55-126	4	
Dibromomethane	ug/L	<1.0	50	50	56.7	60.5	113	121	71-127	6	
Ethylbenzene	ug/L	<1.0	50	50	54.4	54.5	109	109	70-126	0	
Iodomethane	ug/L	<4.0	50	50	24.4	28.6	49	57	10-167	16	v3
Methylene Chloride	ug/L	<1.0	50	50	48.0	48.1	96	96	69-117	0	
Styrene	ug/L	<1.0	50	50	51.6	53.1	103	106	79-123	3	
Tetrachloroethene	ug/L	<1.0	50	50	45.2	46.8	90	94	64-124	3	v3
Toluene	ug/L	<1.0	50	50	57.7	60.8	115	122	76-123	5	
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	50.0	53.2	100	106	69-127	6	
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	45.3	50.2	91	100	61-130	10	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	50	38.4	43.8	77	88	18-144	13	v3
Trichloroethene	ug/L	<1.0	50	50	57.8	61.9	116	124	73-125	7	
Trichlorofluoromethane	ug/L	<1.0	50	50	56.3	57.6	113	115	59-129	2	
Vinyl acetate	ug/L	<1.0	50	50	45.6	46.6	91	93	34-123	2	
Vinyl chloride	ug/L	<1.0	50	50	42.5	42.7	85	85	33-127	0	
Xylene (Total)	ug/L	<3.0	150	150	158	163	106	108	78-123	3	
1,2-Dichloroethane-d4 (S)	%						106	107	81-122		
4-Bromofluorobenzene (S)	%						106	103	79-118		
Toluene-d8 (S)	%						95	92	82-122		

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 264820 | Analysis Method: SM22 2120B
QC Batch Method: SM22 2120B | Analysis Description: 2120B Color
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1338476 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	07/14/22 09:21	

LABORATORY CONTROL SAMPLE: 1338477

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

SAMPLE DUPLICATE: 1338478

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	42.0	42.0	0	
pH	Std. Units	6.6	6.6	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265535 | Analysis Method: SM22 2320B
QC Batch Method: SM22 2320B | Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1341683 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	07/19/22 12:36	

LABORATORY CONTROL SAMPLE: 1341684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	22.5	90	85-115	

MATRIX SPIKE SAMPLE: 1341686

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	305	50	341	73	75-125	M1

SAMPLE DUPLICATE: 1341685

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	305	310	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265974
QC Batch Method: SM22 2340C
Analysis Method: SM22 2340C
Analysis Description: 2340C Hardness, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002

METHOD BLANK: 1343679 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	<5.0	5.0	07/21/22 17:40	

LABORATORY CONTROL SAMPLE: 1343680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	100	100	100	90-110	

MATRIX SPIKE SAMPLE: 1343682

Parameter	Units	70221293011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	73.3	667	840	115	75-125	

SAMPLE DUPLICATE: 1343810

Parameter	Units	70221293011 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	73.3	73.3	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 266145
QC Batch Method: SM22 2340C
Analysis Method: SM22 2340C
Analysis Description: 2340C Hardness, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028003, 70222028004

METHOD BLANK: 1344641 Matrix: Water
Associated Lab Samples: 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	<5.0	5.0	07/22/22 17:22	

LABORATORY CONTROL SAMPLE: 1344642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	100	100	100	90-110	

MATRIX SPIKE SAMPLE: 1344643

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	8700	10000	19200	105	75-125	

SAMPLE DUPLICATE: 1344644

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Tot Hardness asCaCO3 (SM 2340B	mg/L	8700	8600	1	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265548 | Analysis Method: SM22 2540C
QC Batch Method: SM22 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1341731 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	07/19/22 14:00	

LABORATORY CONTROL SAMPLE: 1341732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	526	105	85-115	

MATRIX SPIKE SAMPLE: 1341734

Parameter	Units	70221999004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	230	600	768	90	75-125	

MATRIX SPIKE SAMPLE: 1341736

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	19300	3000	21700	81	75-125	

SAMPLE DUPLICATE: 1341733

Parameter	Units	70221999004 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	230	208	10	D6

SAMPLE DUPLICATE: 1341735

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	19300	19200	0	

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 264813 | Analysis Method: SM22 3500-Cr B
QC Batch Method: SM22 3500-Cr B | Analysis Description: Chromium, Hexavalent by 3500
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1338452 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	07/14/22 09:17	

LABORATORY CONTROL SAMPLE: 1338453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.20	98	85-115	

MATRIX SPIKE SAMPLE: 1338462

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.24	118	75-125	

SAMPLE DUPLICATE: 1338463

Parameter	Units	70222028003 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
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265853 | Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 | Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1343378 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	07/21/22 08:15	

LABORATORY CONTROL SAMPLE: 1343379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	515	103	90-110	

MATRIX SPIKE SAMPLE: 1343380

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	952	2000	2420	73	90-110	M1

MATRIX SPIKE SAMPLE: 1343382

Parameter	Units	70222475001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	39.0	1000	972	93	90-110	

SAMPLE DUPLICATE: 1343381

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	952	943	1	

SAMPLE DUPLICATE: 1343383

Parameter	Units	70222475001 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	39.0	36.8	6	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 264903 | Analysis Method: SM22 5210B
QC Batch Method: SM22 5210B | Analysis Description: 5210B BOD, 5 day
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1338732 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	07/19/22 09:39	

LABORATORY CONTROL SAMPLE: 1338733

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	195	99	84.5-115.4	

SAMPLE DUPLICATE: 1338734

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	<4.0	<4.0		

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265494
QC Batch Method: EPA 9030B
Analysis Method: EPA 9034
Analysis Description: 9034 Sulfide Waste Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1341566 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<2.0	2.0	07/19/22 14:06	

LABORATORY CONTROL SAMPLE: 1341567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	2800	2400	86	80-120	

SAMPLE DUPLICATE: 1341568

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	8.0	8.0	0	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265903 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1343503 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	07/21/22 20:20	
Chloride	mg/L	0.14J	2.0	07/21/22 20:20	
Sulfate	mg/L	0.13J	5.0	07/21/22 20:20	

LABORATORY CONTROL SAMPLE: 1343504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	1.1	110	90-110	
Chloride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	11.0	110	90-110	

MATRIX SPIKE SAMPLE: 1343505

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	160	200	167	4	90-110	M1
Chloride	mg/L	10000	2000	10400	19	90-110	M1
Sulfate	mg/L	97.9	50	145	93	90-110	

MATRIX SPIKE SAMPLE: 1343507

Parameter	Units	70221562006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	<0.50	1	0.88	86	90-110	M1
Chloride	mg/L	20.8	10	30.9	101	90-110	
Sulfate	mg/L	53.2	10	62.3	92	90-110	

SAMPLE DUPLICATE: 1343506

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	160	160	0	
Chloride	mg/L	10000	10000	0	
Sulfate	mg/L	97.9	101	3	

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REPORT OF LABORATORY ANALYSIS

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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

SAMPLE DUPLICATE: 1343508

Parameter	Units	70221562006 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	<0.50	<0.50		
Chloride	mg/L	20.8	20.8	0	
Sulfate	mg/L	53.2	54.4	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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 266615 | Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 | Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1347218 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	07/27/22 12:12	

LABORATORY CONTROL SAMPLE: 1347219

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: 1347220

Parameter	Units	70221775001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.4	20	20.1	93	90-110	

MATRIX SPIKE SAMPLE: 1347222

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	15.5	20	38.0	112	90-110	M1

SAMPLE DUPLICATE: 1347221

Parameter	Units	70221775001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.4	<0.50		

SAMPLE DUPLICATE: 1347223

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	15.5	14.3	8	

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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: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265009
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1339337 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	07/15/22 00:24	

LABORATORY CONTROL SAMPLE: 1339338

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: 1339339

Parameter	Units	70221999001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.56	111	90-110	M1

MATRIX SPIKE SAMPLE: 1339341

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.54	107	90-110	

SAMPLE DUPLICATE: 1339340

Parameter	Units	70221999001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1339342

Parameter	Units	70222028003 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
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(631)694-3040

QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265018 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1339406 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	07/15/22 07:23	

LABORATORY CONTROL SAMPLE: 1339407

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	0.90	90	90-110	

MATRIX SPIKE SAMPLE: 1339408

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.098	0.5	0.55	90	90-110	

MATRIX SPIKE SAMPLE: 1339410

Parameter	Units	70222038001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.5	0.22	39	90-110	M1

SAMPLE DUPLICATE: 1339409

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	0.098	0.084	16	

SAMPLE DUPLICATE: 1339411

Parameter	Units	70222038001 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 267292
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028004

METHOD BLANK: 1350333 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	08/01/22 18:29	

LABORATORY CONTROL SAMPLE: 1350334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	102	102	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 267943
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028003

METHOD BLANK: 1353530 Matrix: Water
Associated Lab Samples: 70222028003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	08/05/22 16:36	

LABORATORY CONTROL SAMPLE: 1353531

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	93.0	93	90-110	

MATRIX SPIKE SAMPLE: 1350335

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	50	41.1	82	75-125	

SAMPLE DUPLICATE: 1350336

Parameter	Units	70222028003 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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Melville, NY 11747
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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 265549 | Analysis Method: SM22 4500 NH3 H
QC Batch Method: SM22 4500 NH3 H | Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1341737 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	07/19/22 13:18	

LABORATORY CONTROL SAMPLE: 1341738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.97	97	90-110	

MATRIX SPIKE SAMPLE: 1341739

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	17.7	25	41.0	93	75-125	

SAMPLE DUPLICATE: 1341740

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	17.7	16.6	7	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 266333 — Analysis Method: EPA 9014 Total Cyanide
QC Batch Method: EPA 9010C — Analysis Description: 9014 Cyanide, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1345611 — Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	<10.0	10.0	07/25/22 19:41	

LABORATORY CONTROL SAMPLE: 1345612

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	82.2	110	85-115	

MATRIX SPIKE SAMPLE: 1345613

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	<10.0	100	26.9	20	75-125	M1

MATRIX SPIKE SAMPLE: 1345615

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	<10.0	100	112	109	75-125	

SAMPLE DUPLICATE: 1345614

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	<10.0	<10.0		

SAMPLE DUPLICATE: 1345616

Parameter	Units	70222765010 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	<10.0	<10.0		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

QC Batch: 266203
QC Batch Method: EPA 9060A
Analysis Method: EPA 9060A
Analysis Description: 9060 TOC
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

METHOD BLANK: 1344861 Matrix: Water
Associated Lab Samples: 70222028001, 70222028002, 70222028003, 70222028004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	07/23/22 00:53	
Total Organic Carbon	mg/L	<1.0	1.0	07/23/22 00:53	
Total Organic Carbon	mg/L	<1.0	1.0	07/23/22 00:53	
Total Organic Carbon	mg/L	<1.0	1.0	07/23/22 00:53	

LABORATORY CONTROL SAMPLE: 1344862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.9	109	85-115	
Total Organic Carbon	mg/L	10	10.6	106	85-115	
Total Organic Carbon	mg/L	10	10.8	108	85-115	
Total Organic Carbon	mg/L	10	11.0	110	85-115	

MATRIX SPIKE SAMPLE: 1344876

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	14.3	10	27.2	130	75-125	M1
Total Organic Carbon	mg/L	13.8	10	28.0	142	75-125	M1
Total Organic Carbon	mg/L	13.8	10	27.9	141	75-125	M1
Total Organic Carbon	mg/L	14.0	10	27.1	131	75-125	M1

SAMPLE DUPLICATE: 1344877

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	14.0	14.0	0	
Total Organic Carbon	mg/L	13.8	14.6	5	
Total Organic Carbon	mg/L	13.8	15.6	12	
Total Organic Carbon	mg/L	14.3	14.9	4	

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

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 - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
B2	Oxygen usage is less than 2.0 for all dilutions set. The reported value is an estimated less than value and is calculated for the dilution using the most amount of sample.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N	The reported TIC has an 85% or higher match on a mass spectral library search.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70222028001	**NNU PLCRS**	EPA 3005A	265487	EPA 6010C	265556
70222028002	**NNU SLCRS**	EPA 3005A	265487	EPA 6010C	265556
70222028003	**ONU SLCRS**	EPA 3005A	265487	EPA 6010C	265556
70222028004	**SA SLCRS**	EPA 3005A	265487	EPA 6010C	265556
70222028001	**NNU PLCRS**	EPA 7470A	265936	EPA 7470A	265983
70222028002	**NNU SLCRS**	EPA 7470A	265936	EPA 7470A	265983
70222028003	**ONU SLCRS**	EPA 7470A	265936	EPA 7470A	265983
70222028004	**SA SLCRS**	EPA 7470A	265936	EPA 7470A	265983
70222028001	**NNU PLCRS**	EPA 8260C SIM/5030C	266167		
70222028002	**NNU SLCRS**	EPA 8260C SIM/5030C	266167		
70222028003	**ONU SLCRS**	EPA 8260C SIM/5030C	266167		
70222028004	**SA SLCRS**	EPA 8260C SIM/5030C	266167		
70222028001	**NNU PLCRS**	EPA 8260C/5030C	265051		
70222028002	**NNU SLCRS**	EPA 8260C/5030C	265051		
70222028003	**ONU SLCRS**	EPA 8260C/5030C	265051		
70222028004	**SA SLCRS**	EPA 8260C/5030C	265051		
70222028005	**TRIP BLANK**	EPA 8260C/5030C	265051		
70222028001	**NNU PLCRS**	EPA 8260			
70222028005	**TRIP BLANK**	EPA 8260			
70222028001	**NNU PLCRS**	SM22 2120B	264820		
70222028002	**NNU SLCRS**	SM22 2120B	264820		
70222028003	**ONU SLCRS**	SM22 2120B	264820		
70222028004	**SA SLCRS**	SM22 2120B	264820		
70222028001	**NNU PLCRS**	SM22 2320B	265535		
70222028002	**NNU SLCRS**	SM22 2320B	265535		
70222028003	**ONU SLCRS**	SM22 2320B	265535		
70222028004	**SA SLCRS**	SM22 2320B	265535		
70222028001	**NNU PLCRS**	SM22 2340C	265974		
70222028002	**NNU SLCRS**	SM22 2340C	265974		
70222028003	**ONU SLCRS**	SM22 2340C	266145		
70222028004	**SA SLCRS**	SM22 2340C	266145		
70222028001	**NNU PLCRS**	SM22 2540C	265548		
70222028002	**NNU SLCRS**	SM22 2540C	265548		
70222028003	**ONU SLCRS**	SM22 2540C	265548		
70222028004	**SA SLCRS**	SM22 2540C	265548		
70222028001	**NNU PLCRS**	SM22 3500-Cr B	264813		
70222028002	**NNU SLCRS**	SM22 3500-Cr B	264813		
70222028003	**ONU SLCRS**	SM22 3500-Cr B	264813		
70222028004	**SA SLCRS**	SM22 3500-Cr B	264813		
70222028001	**NNU PLCRS**	EPA 410.4	265853	EPA 410.4	265857
70222028002	**NNU SLCRS**	EPA 410.4	265853	EPA 410.4	265857
70222028003	**ONU SLCRS**	EPA 410.4	265853	EPA 410.4	265857
70222028004	**SA SLCRS**	EPA 410.4	265853	EPA 410.4	265857

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LEACHATES BASELINE 7/13
Pace Project No.: 70222028

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70222028001	**NNU PLCRS**	SM22 5210B	264903	SM22 5210B	265774
70222028002	**NNU SLCRS**	SM22 5210B	264903	SM22 5210B	265774
70222028003	**ONU SLCRS**	SM22 5210B	264903	SM22 5210B	265774
70222028004	**SA SLCRS**	SM22 5210B	264903	SM22 5210B	265774
70222028001	**NNU PLCRS**	EPA 9030B	265494	EPA 9034	265573
70222028002	**NNU SLCRS**	EPA 9030B	265494	EPA 9034	265573
70222028003	**ONU SLCRS**	EPA 9030B	265494	EPA 9034	265573
70222028004	**SA SLCRS**	EPA 9030B	265494	EPA 9034	265573
70222028001	**NNU PLCRS**	EPA 300.0	265903		
70222028002	**NNU SLCRS**	EPA 300.0	265903		
70222028003	**ONU SLCRS**	EPA 300.0	265903		
70222028004	**SA SLCRS**	EPA 300.0	265903		
70222028001	**NNU PLCRS**	EPA 351.2	266615	EPA 351.2	266620
70222028002	**NNU SLCRS**	EPA 351.2	266615	EPA 351.2	266620
70222028003	**ONU SLCRS**	EPA 351.2	266615	EPA 351.2	266620
70222028004	**SA SLCRS**	EPA 351.2	266615	EPA 351.2	266620
70222028001	**NNU PLCRS**	EPA 353.2	265018		
70222028002	**NNU SLCRS**	EPA 353.2	265018		
70222028003	**ONU SLCRS**	EPA 353.2	265018		
70222028004	**SA SLCRS**	EPA 353.2	265018		
70222028001	**NNU PLCRS**	EPA 353.2	265009		
70222028002	**NNU SLCRS**	EPA 353.2	265009		
70222028003	**ONU SLCRS**	EPA 353.2	265009		
70222028004	**SA SLCRS**	EPA 353.2	265009		
70222028001	**NNU PLCRS**	EPA 420.1	267292	EPA 420.1	267383
70222028002	**NNU SLCRS**	EPA 420.1	267292	EPA 420.1	267383
70222028003	**ONU SLCRS**	EPA 420.1	267943	EPA 420.1	267383
70222028004	**SA SLCRS**	EPA 420.1	267292	EPA 420.1	267383
70222028001	**NNU PLCRS**	SM22 4500 NH3 H	265549		
70222028002	**NNU SLCRS**	SM22 4500 NH3 H	265549		
70222028003	**ONU SLCRS**	SM22 4500 NH3 H	265549		
70222028004	**SA SLCRS**	SM22 4500 NH3 H	265549		
70222028001	**NNU PLCRS**	EPA 9010C	266333	EPA 9014 Total Cyanide	266404
70222028002	**NNU SLCRS**	EPA 9010C	266333	EPA 9014 Total Cyanide	266404
70222028003	**ONU SLCRS**	EPA 9010C	266333	EPA 9014 Total Cyanide	266404
70222028004	**SA SLCRS**	EPA 9010C	266333	EPA 9014 Total Cyanide	266404
70222028001	**NNU PLCRS**	EPA 9060A	266203		
70222028002	**NNU SLCRS**	EPA 9060A	266203		
70222028003	**ONU SLCRS**	EPA 9060A	266203		
70222028004	**SA SLCRS**	EPA 9060A	266203		

Pace Analytical

CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOC

WO# : 70222028

70222028

Page: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax:	Project Name:	Leachates Baseline 360	Pace Project Manager:	Kimberly.Mack@PaceLabs.com
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE

Regulatory Agency	
State / Location	
	NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Part 360 VOA	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	No2,ALK,TDS	COD,NH3,NO3,TKN,Phenol	TOC	Cyanide	Sulfide	1,4 Dioxane	PFOA / PFAS			Residual Chlorine (Y/N)	
1	NNU PLCRS	WT				7/13/22	810		14										X	X	X	X	X	X	X	X	X			
2	NNU SLCRS	WT					815		14										X	X	X	X	X	X	X	X	X			
3	ONU SLCRS	WT					735		14										X	X	X	X	X	X	X	X	X			
4	SA SLCRS	WT					905		14										X	X	X	X	X	X	X	X	X			
5	MS/MSD (Performed on ONU-SLCRS)	WT					740		14										X	X	X	X	X	X	X	X	X			
6	Trip Blank	WT				7/13/22	LAB		2										X											
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Part 360 Baseline Leachates Includes MS/MSD and Trip Blank	Brian Nichols / Zion Environmental, LLC	7/13/22	1220		7/13	1238	01	W	N	Y

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Brian Nichols					
SIGNATURE of SAMPLER:		DATE Signed: 7-13-2022				

Pace Analytical®

Sample Condition Upon Receipt

WO#: 70222028

PM: KMM Due Date: 07/22/22

CLIENT: BAB-ECO

Client Name: BAB-ECO Proj

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

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No ☐ N/A

Temperature Blank Present: ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☒ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: ~~TH091~~ TH148 Correction Factor: +0.1

☐ Samples on ice, cooling process has begun

Cooler Temperature(°C): .1 Cooler Temperature Corrected(°C): .2

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: KW 7/13/22

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 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 I	☑ 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, 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 # HC258122				
All containers needing preservation are found to be in compliance with method recommendation?				Sample #
(HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water).				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Per Method, VOA pH is checked after analysis				
Samples checked for dechlorination:	☐ Yes	☐ No	☒ N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sulfide?	☐ Yes	☐ No	☒ N/A	15.
Lead Acetate Strips Lot #				Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Present:	☑ Yes	☒ No	☐ N/A	17.
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

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

August 18, 2022

Joe Guarino
Town of Babylon
281 Phelps Lane
North Babylon, NY 11703

RE: Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Dear Joe Guarino:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses were subcontracted outside of the Pace Network. The test report from the external subcontractor is attached to this report in its entirety.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville
- Pace National - Mt. Juliet
- Pace Analytical Services - Greensburg

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

Sincerely,

Kimberley Mack

Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Elizabeth Barry, Town of Babylon Department of Environmental Control

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

CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
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 Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Pace Analytical Services National

Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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

SAMPLE ANALYTE COUNT

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
70222027001	**CELL 7 PLCRS**	EPA 8081B	SKF	20	PACE-MV
		EPA 8082A	SB2	9	PACE-MV
		EPA 8151A	MJM	5	PACE-MV
		EPA 6010C	JP2	24	PACE-MV
		EPA 7470A	JJS	1	PACE-MV
		EPA 8270E	AGW, AO	10	PAN
		EPA 8270E	RP1	77	PACE-MV
		EPA 8260C SIM/5030C	BBL	3	PACE-MV
		EPA 8260C/5030C	KGG	65	PACE-MV
		EPA 903.1	SLC	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		ASTM D5174-97	PS1	1	PASI-PA
		SM22 2120B	SM2	2	PACE-MV
		SM22 2320B	GML	1	PACE-MV
		SM22 2540C	AKM	1	PACE-MV
		SM22 3500-Cr B	CEA	1	PACE-MV
		EPA 410.4	JCA	1	PACE-MV
		SM22 5210B	VNS	1	PACE-MV
		EPA 9034	NAA	1	PACE-MV
		EPA 300.0	SPM	3	PACE-MV
		EPA 351.2	DJM	1	PACE-MV
		EPA 353.2	JP1	2	PACE-MV
		EPA 353.2	DJM	1	PACE-MV
		EPA 420.1	RESE	1	PACE-MV
		SM22 4500 NH3 H	BNK	1	PACE-MV
		EPA 9014 Total Cyanide	RESE	1	PACE-MV
		EPA 9060A	JWT	5	PACE-MV

PACE-MV = Pace Analytical Services - Melville
PAN = Pace National - Mt. Juliet
PASI-PA = Pace Analytical Services - Greensburg

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

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Date: August 18, 2022

p-Phenylenediamine is reporting with critically low recovery in the laboratory control sample(s). This compound is a method defined poor performer. Results are estimated.

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

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8081B**
Description: 8081 GCS Pesticides
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8081B by Pace Analytical Services Melville. 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 3510C 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.

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:

Analyte Comments:

QC Batch: 265621

C2: Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.

- CELL 7 PLCRS (Lab ID: 70222027001)
  - Tetrachloro-m-xylene (S)
- LCS (Lab ID: 1342012)
  - Decachlorobiphenyl (S)
- LCSD (Lab ID: 1342014)
  - Decachlorobiphenyl (S)

Pace Analytical Services, LLC
575 Broad Hollow Road
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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8082A**
Description: 8082 GCS PCB
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8082A by Pace Analytical Services Melville. 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 3510C 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.

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8151A**
Description: 8151A Chlorinated Herbicides
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8151A by Pace Analytical Services Melville. 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 8151A 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.

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 6010C by Pace Analytical Services Melville. 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 3005A 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 7470A**
Description: 7470 Mercury
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 7470A by Pace Analytical Services Melville. 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 7470A 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: 265936

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003,70222765010

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

- MS (Lab ID: 1343596)
  - Mercury

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8270E**
Description: SVOA (GC/MS) 8270E
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8270E by Pace National Mt. Juliet. 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.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- CELL 7 PLCRS (Lab ID: 70222027001)

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.

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.

QC Batch: 1897460

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: R3820477-1)
  - p-Phenylenediamine

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8270E**
Description: 8270E MSSV
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8270E by Pace Analytical Services Melville. 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 3510C with any exceptions noted below.

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

QC Batch: 265623

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 1342019)
  - Benzaldehyde
  - Caprolactam
  - bis(2-Ethylhexyl)phthalate
- CELL 7 PLCRS (Lab ID: 70222027001)
  - Benzaldehyde
  - Caprolactam
  - bis(2-Ethylhexyl)phthalate
- LCS (Lab ID: 1342020)
  - Benzaldehyde
  - Caprolactam
  - bis(2-Ethylhexyl)phthalate
- LCSD (Lab ID: 1342021)
  - Benzaldehyde
  - Caprolactam
  - bis(2-Ethylhexyl)phthalate

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

QC Batch: 265623

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- LCS (Lab ID: 1342020)
  - Butylbenzylphthalate
  - Di-n-octylphthalate
- LCSD (Lab ID: 1342021)
  - Butylbenzylphthalate
  - Di-n-octylphthalate

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

PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8270E**
Description: 8270E MSSV
Client: Town of Babylon
Date: August 18, 2022

QC Batch: 265623

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- CELL 7 PLCRS (Lab ID: 70222027001)
  - 4-Chloro-3-methylphenol
- LCS (Lab ID: 1342020)
  - 4-Chloro-3-methylphenol
- LCSD (Lab ID: 1342021)
  - 4-Chloro-3-methylphenol

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:

Analyte Comments:

QC Batch: 265623

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- LCS (Lab ID: 1342020)
  - 2,4,6-Tribromophenol (S)
- LCSD (Lab ID: 1342021)
  - 2,4,6-Tribromophenol (S)

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8260C SIM/5030C**
Description: 8260C SIM Volatile Organics
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8260C SIM/5030C by Pace Analytical Services Melville. 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.

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.

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 8260C/5030C by Pace Analytical Services Melville. 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.

QC Batch: 265051

IC: The initial calibration for this compound was outside of method control limits. The result is estimated.

- BLANK (Lab ID: 1339516)
  - Acrolein
- CELL 7 PLCRS (Lab ID: 70222027001)
  - Acrolein
- LCS (Lab ID: 1339517)
  - Acrolein
- MS (Lab ID: 1341486)
  - Acrolein
- MSD (Lab ID: 1341487)
  - Acrolein

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- CELL 7 PLCRS (Lab ID: 70222027001)
  - 2-Butanone (MEK)
  - Acetone
- LCS (Lab ID: 1339517)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
  - Dichlorodifluoromethane
- MS (Lab ID: 1341486)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
  - Dichlorodifluoromethane
- MSD (Lab ID: 1341487)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Acetone
  - Bromomethane
  - Dichlorodifluoromethane

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 18, 2022

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

QC Batch: 265051

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- LCS (Lab ID: 1339517)
  - Acrolein
- MS (Lab ID: 1341486)
  - Acrolein
- MSD (Lab ID: 1341487)
  - Acrolein

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- BLANK (Lab ID: 1339516)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- CELL 7 PLCRS (Lab ID: 70222027001)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- LCS (Lab ID: 1339517)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene
- MS (Lab ID: 1341486)
  - 1,1-Dichloroethene

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 18, 2022

QC Batch: 265051

v3: The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- 1,2-Dibromo-3-chloropropane
- Bromomethane
- Carbon disulfide
- Chloroethane
- Chloromethane
- Iodomethane
- Tetrachloroethene
- trans-1,4-Dichloro-2-butene

- MSD (Lab ID: 1341487)
  - 1,1-Dichloroethene
  - 1,2-Dibromo-3-chloropropane
  - Bromomethane
  - Carbon disulfide
  - Chloroethane
  - Chloromethane
  - Iodomethane
  - Tetrachloroethene
  - trans-1,4-Dichloro-2-butene

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.

QC Batch: 265051

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1339517)
  - Carbon disulfide

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

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: Town of Babylon
Date: August 18, 2022

QC Batch: 265051

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222028003

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

- MSD (Lab ID: 1341487)
  - 1,1,1-Trichloroethane
  - Chloroprene

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. 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:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. 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:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **ASTM D5174-97**
Description: D517497 Total Uranium KPA
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for ASTM D5174-97 by Pace Analytical Services Greensburg. 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:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 2120B**
Description: 2120B W Apparent Color
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 2120B by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 2320B**
Description: 2320B Alkalinity
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 2320B by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 2540C**
Description: 2540C Total Dissolved Solids
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 2540C by Pace Analytical Services Melville. 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.

QC Batch: 265548

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

- DUP (Lab ID: 1341733)
  - Total Dissolved Solids

Additional Comments:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 3500-Cr B**
Description: Chromium, Hexavalent
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 3500-Cr B by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 410.4**
Description: 410.4 COD
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 410.4 by Pace Analytical Services Melville. 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:

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 5210B**
Description: 5210B BOD, 5 day
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 5210B by Pace Analytical Services Melville. 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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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 9034**
Description: 9034 Sulfide, Titration
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 9034 by Pace Analytical Services Melville. 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 9030B 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 300.0 by Pace Analytical Services Melville. 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: 267257

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70223149001,70223149005

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

- MS (Lab ID: 1350222)
  - Bromide
  - Chloride
  - Sulfate
- MS (Lab ID: 1350224)
  - Bromide
  - Sulfate

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 351.2 by Pace Analytical Services Melville. 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: 269441

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70223937006,70224928001

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

- MS (Lab ID: 1361757)
  - 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 pres.
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 353.2 by Pace Analytical Services Melville. 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: 267058

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70222765010,70222766008

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

- MS (Lab ID: 1349320)
  - Nitrate-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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 353.2 by Pace Analytical Services Melville. 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: 265009

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 70221999001,70222028003

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

- MS (Lab ID: 1339339)
  - Nitrite as N

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 420.1 by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **SM22 4500 NH3 H**
Description: 4500 Ammonia Water
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for SM22 4500 NH3 H by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 9014 Total Cyanide**
Description: 9014 Cyanide, Total
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 9014 Total Cyanide by Pace Analytical Services Melville. 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 9010C 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Method: **EPA 9060A**
Description: 9060A TOC as NPOC
Client: Town of Babylon
Date: August 18, 2022

General Information:
1 sample was analyzed for EPA 9060A by Pace Analytical Services Melville. 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081B Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Aldrin	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	309-00-2	
alpha-BHC	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	319-84-6	
beta-BHC	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	319-85-7	
delta-BHC	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	319-86-8	
gamma-BHC (Lindane)	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	58-89-9	
4,4'-DDD	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	72-54-8	
4,4'-DDE	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	72-55-9	
4,4'-DDT	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	50-29-3	
Dieldrin	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	60-57-1	
Endosulfan I	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	959-98-8	
Endosulfan II	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	33213-65-9	
Endosulfan sulfate	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	1031-07-8	
Endrin	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	72-20-8	
Endrin aldehyde	**<0.096**	ug/L	0.096	1	07/19/22 19:21	07/20/22 11:08	7421-93-4	
Heptachlor	**0.59**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	76-44-8	
Heptachlor epoxide	**<0.048**	ug/L	0.048	1	07/19/22 19:21	07/20/22 11:08	1024-57-3	
Methoxychlor	**<0.48**	ug/L	0.48	1	07/19/22 19:21	07/20/22 11:08	72-43-5	
Toxaphene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/20/22 11:08	8001-35-2	
Surrogates								
Decachlorobiphenyl (S)	37	%	10-167	1	07/19/22 19:21	07/20/22 11:08	2051-24-3	
Tetrachloro-m-xylene (S)	44	%	27-139	1	07/19/22 19:21	07/20/22 11:08	877-09-8	C2
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3510C Pace Analytical Services - Melville							
PCB-1016 (Aroclor 1016)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	12674-11-2	
PCB-1221 (Aroclor 1221)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	11104-28-2	
PCB-1232 (Aroclor 1232)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	11141-16-5	
PCB-1242 (Aroclor 1242)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	53469-21-9	
PCB-1248 (Aroclor 1248)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	12672-29-6	
PCB-1254 (Aroclor 1254)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	11097-69-1	
PCB-1260 (Aroclor 1260)	**<0.95**	ug/L	0.95	1	07/22/22 11:08	07/25/22 17:23	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	48	%	37-105	1	07/22/22 11:08	07/25/22 17:23	877-09-8	
Decachlorobiphenyl (S)	39	%	10-138	1	07/22/22 11:08	07/25/22 17:23	2051-24-3	
8151A Chlorinated Herbicides	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Pace Analytical Services - Melville							
2,4-D	**3.3**	ug/L	0.50	1	07/18/22 09:00	07/21/22 09:38	94-75-7	
Dinoseb	**1.4**	ug/L	0.20	1	07/18/22 09:00	07/21/22 09:38	88-85-7	
2,4,5-T	**<0.25**	ug/L	0.25	1	07/18/22 09:00	07/21/22 09:38	93-76-5	
2,4,5-TP (Silvex)	**<0.25**	ug/L	0.25	1	07/18/22 09:00	07/21/22 09:38	93-72-1	
Surrogates								
2,4-DCAA (S)	106	%	38-155	1	07/18/22 09:00	07/21/22 09:38	19719-28-9	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Pace Analytical Services - Melville							
Aluminum	**223**	ug/L	200	1	07/15/22 09:20	07/22/22 14:08	7429-90-5	
Antimony	**37.9J**	ug/L	60.0	1	07/15/22 09:20	07/22/22 14:08	7440-36-0	
Arsenic	**18.6**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7440-38-2	
Barium	**9900**	ug/L	200	1	07/15/22 09:20	07/22/22 14:08	7440-39-3	
Beryllium	**<5.0**	ug/L	5.0	1	07/15/22 09:20	07/22/22 14:08	7440-41-7	
Boron	**706**	ug/L	50.0	1	07/15/22 09:20	07/22/22 14:08	7440-42-8	
Cadmium	**<2.5**	ug/L	2.5	1	07/15/22 09:20	07/22/22 14:08	7440-43-9	
Calcium	**17200000**	ug/L	20000	100	07/15/22 09:20	07/26/22 11:45	7440-70-2	
Chromium	**5.9J**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7440-47-3	
Cobalt	**<50.0**	ug/L	50.0	1	07/15/22 09:20	07/22/22 14:08	7440-48-4	
Copper	**22.2J**	ug/L	25.0	1	07/15/22 09:20	07/22/22 14:08	7440-50-8	
Iron	**3750**	ug/L	100	1	07/15/22 09:20	07/22/22 14:08	7439-89-6	
Lead	**8.9**	ug/L	5.0	1	07/15/22 09:20	07/22/22 14:08	7439-92-1	
Magnesium	**3990**	ug/L	200	1	07/15/22 09:20	07/22/22 14:08	7439-95-4	
Manganese	**1220**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7439-96-5	
Nickel	**24.8J**	ug/L	40.0	1	07/15/22 09:20	07/22/22 14:08	7440-02-0	
Potassium	**9720000**	ug/L	500000	100	07/15/22 09:20	07/26/22 11:45	7440-09-7	
Selenium	**11.1**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7782-49-2	
Silver	**<10.0**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7440-22-4	
Sodium	**<5000**	ug/L	5000	1	07/15/22 09:20	07/22/22 14:08	7440-23-5	
Thallium	**8.8J**	ug/L	10.0	1	07/15/22 09:20	07/22/22 14:08	7440-28-0	
Tin	**<50.0**	ug/L	50.0	1	07/15/22 09:20	07/22/22 14:08	7440-31-5	
Vanadium	**11.0J**	ug/L	50.0	1	07/15/22 09:20	07/22/22 14:08	7440-62-2	
Zinc	**23.5**	ug/L	20.0	1	07/15/22 09:20	07/22/22 14:08	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Melville							
Mercury	**0.090J**	ug/L	0.20	1	07/21/22 11:45	07/22/22 12:21	7439-97-6	
SVOA (GC/MS) 8270E	Analytical Method: EPA 8270E Preparation Method: 3510C Pace National - Mt. Juliet							
2,4,6-Trichlorophenol	**<10.0**	ug/L	10.0	1	07/21/22 15:55	07/22/22 15:36	88-06-2	G6,H3
Famphur	**<20.0**	ug/L	20.0	1	07/21/22 15:55	07/26/22 14:23	52-85-7	G6,H3
Kepone	**<20.0**	ug/L	20.0	1	07/21/22 15:55	07/26/22 14:23	143-50-0	G6,H3
p-Phenylenediamine	**<6900**	ug/L	6900	1	07/21/22 15:55	07/26/22 14:23	106-50-3	G6,H3, L0
Surrogates								
2-Fluorophenol (S)	26.6	%	10.0-120	1	07/21/22 15:55	07/22/22 15:36	367-12-4	
Phenol-d5 (S)	21.0	%	10.0-120	1	07/21/22 15:55	07/22/22 15:36	4165-62-2	
Nitrobenzene-d5 (S)	34.0	%	10.0-127	1	07/21/22 15:55	07/22/22 15:36	4165-60-0	
2-Fluorobiphenyl (S)	36.2	%	10.0-130	1	07/21/22 15:55	07/22/22 15:36	321-60-8	
2,4,6-Tribromophenol (S)	43.4	%	10.0-155	1	07/21/22 15:55	07/22/22 15:36	118-79-6	
p-Terphenyl-d14 (S)	28.3	%	10.0-128	1	07/21/22 15:55	07/22/22 15:36	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV	Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Acenaphthene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	83-32-9	
Acenaphthylene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	208-96-8	
Acetophenone	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	98-86-2	
Anthracene	**0.79J**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	120-12-7	
Atrazine	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	1912-24-9	
Benzaldehyde	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	100-52-7	IC
Benzo(a)anthracene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	56-55-3	
Benzo(a)pyrene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	50-32-8	
Benzo(b)fluoranthene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	205-99-2	
Benzo(g,h,i)perylene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	191-24-2	
Benzo(k)fluoranthene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	207-08-9	
Biphenyl (Diphenyl)	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	92-52-4	
4-Bromophenylphenyl ether	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	101-55-3	
Butylbenzylphthalate	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	85-68-7	
Caprolactam	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	105-60-2	IC
4-Chloro-3-methylphenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	59-50-7	v3
4-Chloroaniline	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	106-47-8	
bis(2-Chloroethoxy)methane	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	111-91-1	
bis(2-Chloroethyl) ether	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	111-44-4	
2-Chloronaphthalene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	91-58-7	
2-Chlorophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	95-57-8	
4-Chlorophenylphenyl ether	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	7005-72-3	
Chrysene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	218-01-9	
Dibenz(a,h)anthracene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	53-70-3	
Dibenzofuran	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	132-64-9	
1,2-Dichlorobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	95-50-1	
1,3-Dichlorobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	541-73-1	
1,4-Dichlorobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	106-46-7	
3,3'-Dichlorobenzidine	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	91-94-1	
2,4-Dichlorophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	120-83-2	
Diethylphthalate	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	84-66-2	
2,4-Dimethylphenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	105-67-9	
Dimethylphthalate	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	131-11-3	
Di-n-butylphthalate	**150**	ug/L	47.6	10	07/19/22 19:21	07/21/22 21:31	84-74-2	
4,6-Dinitro-2-methylphenol	**<9.5**	ug/L	9.5	1	07/19/22 19:21	07/21/22 04:20	534-52-1	
2,4-Dinitrophenol	**<9.5**	ug/L	9.5	1	07/19/22 19:21	07/21/22 04:20	51-28-5	
2,4-Dinitrotoluene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	121-14-2	
2,6-Dinitrotoluene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	606-20-2	
Di-n-octylphthalate	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	117-84-0	
bis(2-Ethylhexyl)phthalate	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	117-81-7	IC
Fluoranthene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	206-44-0	
Fluorene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	86-73-7	
Hexachloro-1,3-butadiene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	87-68-3	
Hexachlorobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	118-74-1	
Hexachlorocyclopentadiene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	77-47-4	
Hexachloroethane	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	67-72-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV	Analytical Method: EPA 8270E Preparation Method: EPA 3510C Pace Analytical Services - Melville							
Indeno(1,2,3-cd)pyrene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	193-39-5	
Isophorone	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	78-59-1	
2-Methylnaphthalene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	91-57-6	
2-Methylphenol(o-Cresol)	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	95-48-7	
3&4-Methylphenol(m&p Cresol)	**263**	ug/L	47.6	10	07/19/22 19:21	07/21/22 21:31		
Naphthalene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	91-20-3	
2-Nitroaniline	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	88-74-4	
3-Nitroaniline	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	99-09-2	
4-Nitroaniline	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	100-01-6	
Nitrobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	98-95-3	
2-Nitrophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	88-75-5	
4-Nitrophenol	**<9.5**	ug/L	9.5	1	07/19/22 19:21	07/21/22 04:20	100-02-7	
N-Nitroso-di-n-propylamine	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	621-64-7	
N-Nitrosodiphenylamine	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	86-30-6	
2,2'-Oxybis(1-chloropropane)	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	108-60-1	
Pentachlorophenol	**<9.5**	ug/L	9.5	1	07/19/22 19:21	07/21/22 04:20	87-86-5	
Phenanthrene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	85-01-8	
Phenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	108-95-2	
Pyrene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	129-00-0	
2,3,4,6-Tetrachlorophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	58-90-2	
1,2,4-Trichlorobenzene	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	120-82-1	
2,4,5-Trichlorophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	95-95-4	
2,4,6-Trichlorophenol	**<4.8**	ug/L	4.8	1	07/19/22 19:21	07/21/22 04:20	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	67	%	30-113	1	07/19/22 19:21	07/21/22 04:20	4165-60-0	
2-Fluorobiphenyl (S)	68	%	13-100	1	07/19/22 19:21	07/21/22 04:20	321-60-8	
p-Terphenyl-d14 (S)	57	%	10-138	1	07/19/22 19:21	07/21/22 04:20	1718-51-0	
Phenol-d5 (S)	44	%	10-100	1	07/19/22 19:21	07/21/22 04:20	4165-62-2	
2-Fluorophenol (S)	49	%	26-113	1	07/19/22 19:21	07/21/22 04:20	367-12-4	
2,4,6-Tribromophenol (S)	92	%	10-168	1	07/19/22 19:21	07/21/22 04:20	118-79-6	
2-Chlorophenol-d4 (S)	67	%	29-98	1	07/19/22 19:21	07/21/22 04:20	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	50	%	14-101	1	07/19/22 19:21	07/21/22 04:20	2199-69-1	
8260C SIM Volatile Organics	Analytical Method: EPA 8260C SIM/5030C Pace Analytical Services - Melville							
1,4-Dioxane (p-Dioxane)	**5.7**	ug/L	0.20	1		07/18/22 19:21	123-91-1	
Surrogates								
1,2-Dichlorobenzene-d4 (S)	97	%	43-153	1		07/18/22 19:21	2199-69-1	
4-Bromofluorobenzene (S)	101	%	79-139	1		07/18/22 19:21	460-00-4	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	630-20-6	
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	79-00-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-34-3	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-35-4	v3
1,1-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	563-58-6	
1,2,3-Trichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	96-18-4	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	96-12-8	v3
1,2-Dibromoethane (EDB)	**<1.0**	ug/L	1.0	1		07/15/22 13:14	106-93-4	
1,2-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	95-50-1	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	107-06-2	
1,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	78-87-5	
1,3-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	541-73-1	
1,3-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	142-28-9	
1,4-Dichlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	106-46-7	
1,4-Dioxane (p-Dioxane)	**<100**	ug/L	100	1		07/15/22 13:14	123-91-1	
2,2-Dichloropropane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	594-20-7	
2-Butanone (MEK)	**55.8**	ug/L	5.0	1		07/15/22 13:14	78-93-3	IH
2-Hexanone	**<5.0**	ug/L	5.0	1		07/15/22 13:14	591-78-6	
4-Methyl-2-pentanone (MIBK)	**2.5J**	ug/L	5.0	1		07/15/22 13:14	108-10-1	
Acetone	**394**	ug/L	25.0	5		07/15/22 13:53	67-64-1	IH
Acetonitrile	**<5.0**	ug/L	5.0	1		07/15/22 13:14	75-05-8	
Acrolein	**<1.0**	ug/L	1.0	1		07/15/22 13:14	107-02-8	IC
Acrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 13:14	107-13-1	
Allyl chloride	**<4.0**	ug/L	4.0	1		07/15/22 13:14	107-05-1	
Benzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	71-43-2	
Bromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-27-4	
Bromoform	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-25-2	
Bromomethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	74-83-9	v3
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-15-0	L2,v3
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/15/22 13:14	56-23-5	
Chlorobenzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	108-90-7	
Chloroethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-00-3	v3
Chloroform	**<1.0**	ug/L	1.0	1		07/15/22 13:14	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	74-87-3	v3
Chloroprene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	126-99-8	
Dibromochloromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	124-48-1	
Dibromomethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	74-95-3	
Dichlorodifluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-71-8	
Ethyl methacrylate	**<1.0**	ug/L	1.0	1		07/15/22 13:14	97-63-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	100-41-4	
Iodomethane	**<4.0**	ug/L	4.0	1		07/15/22 13:14	74-88-4	v3
Isobutanol	**<20.0**	ug/L	20.0	1		07/15/22 13:14	78-83-1	
Methacrylonitrile	**<1.0**	ug/L	1.0	1		07/15/22 13:14	126-98-7	
Methyl methacrylate	**<1.0**	ug/L	1.0	1		07/15/22 13:14	80-62-6	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-09-2	
Propionitrile	**<4.0**	ug/L	4.0	1		07/15/22 13:14	107-12-0	
Styrene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	100-42-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	127-18-4	v3
Toluene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	79-01-6	
Trichlorofluoromethane	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-69-4	
Vinyl acetate	**<1.0**	ug/L	1.0	1		07/15/22 13:14	108-05-4	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/15/22 13:14	75-01-4	
Xylene (Total)	**<3.0**	ug/L	3.0	1		07/15/22 13:14	1330-20-7	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	156-59-2	
cis-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	10061-01-5	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	156-60-5	
trans-1,3-Dichloropropene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	10061-02-6	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1		07/15/22 13:14	110-57-6	v3
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%	81-122	1		07/15/22 13:14	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-118	1		07/15/22 13:14	460-00-4	
Toluene-d8 (S)	92	%	82-122	1		07/15/22 13:14	2037-26-5	
2120B W Apparent Color	Analytical Method: SM22 2120B Pace Analytical Services - Melville							
Apparent Color	**60.0**	units	25.0	5		07/14/22 09:32		
pH	**6.7**	Std. Units	0.10	5		07/14/22 09:32		
2320B Alkalinity	Analytical Method: SM22 2320B Pace Analytical Services - Melville							
Alkalinity, Total as CaCO3	**257**	mg/L	1.0	1		07/18/22 15:34		
2540C Total Dissolved Solids	Analytical Method: SM22 2540C Pace Analytical Services - Melville							
Total Dissolved Solids	**19200**	mg/L	100	1		07/19/22 14:32		
Chromium, Hexavalent	Analytical Method: SM22 3500-Cr B Pace Analytical Services - Melville							
Chromium, Hexavalent	**<0.020**	mg/L	0.020	1		07/14/22 09:26	18540-29-9	
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4 Pace Analytical Services - Melville							
Chemical Oxygen Demand	**3800**	mg/L	100	1	07/27/22 05:40	07/27/22 07:59		
5210B BOD, 5 day	Analytical Method: SM22 5210B Preparation Method: SM22 5210B Pace Analytical Services - Melville							
BOD, 5 day	**294**	mg/L	100	50	07/14/22 14:22	07/19/22 11:34		
9034 Sulfide, Titration	Analytical Method: EPA 9034 Preparation Method: EPA 9030B Pace Analytical Services - Melville							
Sulfide	**3.2**	mg/L	2.0	1	07/19/22 09:30	07/19/22 14:14		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Melville							
Bromide	**580**	mg/L	250	500		08/08/22 21:55	24959-67-9	
Chloride	**89700**	mg/L	2000	1000		08/09/22 15:33	16887-00-6	
Sulfate	**1840J**	mg/L	2500	500		08/08/22 21:55	14808-79-8	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Melville							
Nitrogen, Kjeldahl, Total	**164**	mg/L	12.5	5	08/16/22 05:49	08/16/22 21:44	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrate as N	**0.25**	mg/L	0.25	5		07/29/22 18:11	14797-55-8	
Nitrate-Nitrite (as N)	**0.25**	mg/L	0.25	5		07/29/22 18:11	7727-37-9	
353.2 Nitrogen, NO2	Analytical Method: EPA 353.2 Pace Analytical Services - Melville							
Nitrite as N	**<0.050**	mg/L	0.050	1		07/15/22 00:51	14797-65-0	
Phenolics, Total Recoverable	Analytical Method: EPA 420.1 Preparation Method: EPA 420.1 Pace Analytical Services - Melville							
Phenolics, Total Recoverable	**351**	ug/L	25.0	5	08/01/22 16:40	08/01/22 20:50		
4500 Ammonia Water	Analytical Method: SM22 4500 NH3 H Pace Analytical Services - Melville							
Nitrogen, Ammonia	**155**	mg/L	10.0	100		07/21/22 14:57	7664-41-7	
9014 Cyanide, Total	Analytical Method: EPA 9014 Total Cyanide Preparation Method: EPA 9010C Pace Analytical Services - Melville							
Cyanide	**26.7**	ug/L	10.0	1	07/18/22 14:40	07/18/22 18:04	57-12-5	
9060A TOC as NPOC	Analytical Method: EPA 9060A Pace Analytical Services - Melville							
Total Organic Carbon	**226**	mg/L	25.0	25		07/15/22 14:04	7440-44-0	
Total Organic Carbon	**227**	mg/L	25.0	25		07/15/22 14:04	7440-44-0	
Total Organic Carbon	**226**	mg/L	25.0	25		07/15/22 14:04	7440-44-0	
Total Organic Carbon	**220**	mg/L	25.0	25		07/15/22 14:04	7440-44-0	
Mean Total Organic Carbon	**225**	mg/L	25.0	25		07/15/22 14:04	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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265936
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1343592 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.20	0.20	07/22/22 11:56	

LABORATORY CONTROL SAMPLE: 1343593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.1	108	80-120	

MATRIX SPIKE SAMPLE: 1343594

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	1.1	102	75-125	

MATRIX SPIKE SAMPLE: 1343596

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.20	1	0.66	65	75-125	M1

SAMPLE DUPLICATE: 1343595

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

SAMPLE DUPLICATE: 1343597

Parameter	Units	70222765010 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	<0.20	<0.20		

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265048
QC Batch Method: EPA 3005A
Analysis Method: EPA 6010C
Analysis Description: 6010 MET Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1339505 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	<200	200	07/22/22 12:36	
Antimony	ug/L	<60.0	60.0	07/22/22 12:36	
Arsenic	ug/L	<10.0	10.0	07/22/22 12:36	
Barium	ug/L	<200	200	07/22/22 12:36	
Beryllium	ug/L	<5.0	5.0	07/22/22 12:36	
Boron	ug/L	1.7J	50.0	07/22/22 12:36	
Cadmium	ug/L	<2.5	2.5	07/22/22 12:36	
Calcium	ug/L	<200	200	07/22/22 12:36	
Chromium	ug/L	<10.0	10.0	07/22/22 12:36	
Cobalt	ug/L	<50.0	50.0	07/22/22 12:36	
Copper	ug/L	<25.0	25.0	07/22/22 12:36	
Iron	ug/L	<100	100	07/22/22 12:36	
Lead	ug/L	<5.0	5.0	07/22/22 12:36	
Magnesium	ug/L	<200	200	07/22/22 12:36	
Manganese	ug/L	<10.0	10.0	07/22/22 12:36	
Nickel	ug/L	<40.0	40.0	07/22/22 12:36	
Potassium	ug/L	<5000	5000	07/22/22 12:36	
Selenium	ug/L	<10.0	10.0	07/22/22 12:36	
Silver	ug/L	<10.0	10.0	07/22/22 12:36	
Sodium	ug/L	<5000	5000	07/22/22 12:36	
Thallium	ug/L	<10.0	10.0	07/22/22 12:36	
Tin	ug/L	<50.0	50.0	07/22/22 12:36	
Vanadium	ug/L	<50.0	50.0	07/22/22 12:36	
Zinc	ug/L	<20.0	20.0	07/22/22 12:36	

LABORATORY CONTROL SAMPLE: 1339506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	25000	25100	100	80-120	
Antimony	ug/L	1000	981	98	80-120	
Arsenic	ug/L	500	485	97	80-120	
Barium	ug/L	500	494	99	80-120	
Beryllium	ug/L	500	500	100	80-120	
Boron	ug/L	1000	980	98	80-120	
Cadmium	ug/L	500	491	98	80-120	
Calcium	ug/L	25000	25100	100	80-120	
Chromium	ug/L	500	486	97	80-120	
Cobalt	ug/L	500	489	98	80-120	
Copper	ug/L	500	479	96	80-120	

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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE: 1339506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	12500	12600	101	80-120	
Lead	ug/L	500	491	98	80-120	
Magnesium	ug/L	25000	25100	100	80-120	
Manganese	ug/L	500	495	99	80-120	
Nickel	ug/L	500	490	98	80-120	
Potassium	ug/L	25000	24200	97	80-120	
Selenium	ug/L	500	483	97	80-120	
Silver	ug/L	250	243	97	80-120	
Sodium	ug/L	25000	25700	103	80-120	
Thallium	ug/L	250	244	98	80-120	
Tin	ug/L	1000	996	100	80-120	
Vanadium	ug/L	500	492	98	80-120	
Zinc	ug/L	500	488	98	80-120	

MATRIX SPIKE SAMPLE: 1339508

Parameter	Units	70221775008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	<200	12500	12800	102	75-125	
Antimony	ug/L	<60.0	1000	1010	101	75-125	
Arsenic	ug/L	<10.0	500	504	101	75-125	
Barium	ug/L	<200	500	517	103	75-125	
Beryllium	ug/L	<5.0	500	525	105	75-125	
Boron	ug/L	3.0J	1000	1000	100	75-125	
Cadmium	ug/L	<2.5	500	518	104	75-125	
Calcium	ug/L	<200	12500	12800	102	75-125	
Chromium	ug/L	<10.0	500	514	103	75-125	
Cobalt	ug/L	<50.0	500	515	103	75-125	
Copper	ug/L	<25.0	500	506	101	75-125	
Iron	ug/L	<100	5000	5190	104	75-125	
Lead	ug/L	<5.0	500	516	103	75-125	
Magnesium	ug/L	<200	12500	12800	102	75-125	
Manganese	ug/L	<10.0	500	520	104	75-125	
Nickel	ug/L	<40.0	500	498	100	75-125	
Potassium	ug/L	<5000	12500	13100	99	75-125	
Selenium	ug/L	<10.0	500	515	103	75-125	
Silver	ug/L	<10.0	250	249	99	75-125	
Sodium	ug/L	<5000	12500	14900	119	75-125	
Thallium	ug/L	<10.0	250	257	103	75-125	
Tin	ug/L	<50.0	1000	1020	102	75-125	
Vanadium	ug/L	<50.0	500	512	102	75-125	
Zinc	ug/L	<20.0	500	511	102	75-125	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

SAMPLE DUPLICATE: 1339507

Parameter	Units	70221775008 Result	Dup Result	RPD	Qualifiers
Aluminum	ug/L	<200	<200		
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	3.0J	2.6J		
Cadmium	ug/L	<2.5	<2.5		
Calcium	ug/L	<200	<200		
Chromium	ug/L	<10.0	<10.0		
Cobalt	ug/L	<50.0	<50.0		
Copper	ug/L	<25.0	<25.0		
Iron	ug/L	<100	<100		
Lead	ug/L	<5.0	<5.0		
Magnesium	ug/L	<200	<200		
Manganese	ug/L	<10.0	<10.0		
Nickel	ug/L	<40.0	<40.0		
Potassium	ug/L	<5000	<5000		
Selenium	ug/L	<10.0	<10.0		
Silver	ug/L	<10.0	<10.0		
Sodium	ug/L	<5000	<5000		
Thallium	ug/L	<10.0	<10.0		
Tin	ug/L	<50.0	<50.0		
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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 1897460
QC Batch Method: 3510C
Analysis Method: EPA 8270E
Analysis Description: SVOA (GC/MS) 8270E
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 70222027001

METHOD BLANK: R3818356-3 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,6-Trichlorophenol	ug/L	<10.0	10.0	07/22/22 12:18	
2-Fluorophenol (S)	%	22.8	10.0-120	07/22/22 12:18	
Phenol-d5 (S)	%	16.1	10.0-120	07/22/22 12:18	
Nitrobenzene-d5 (S)	%	27.8	10.0-127	07/22/22 12:18	
2-Fluorobiphenyl (S)	%	30.8	10.0-130	07/22/22 12:18	
2,4,6-Tribromophenol (S)	%	41.5	10.0-155	07/22/22 12:18	
p-Terphenyl-d14 (S)	%	56.3	10.0-128	07/22/22 12:18	

METHOD BLANK: R3820477-2 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Famphur	ug/L	<20.0	20.0	07/26/22 12:06	
Kepone	ug/L	<20.0	20.0	07/26/22 12:06	
p-Phenylenediamine	ug/L	<6900	6900	07/26/22 12:06	

LABORATORY CONTROL SAMPLE & LCSD: R3818356-1 R3818356-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,4,6-Trichlorophenol	ug/L	50.0	23.6	24.4	47.2	48.8	42.0-120	3.33	23	
2-Fluorophenol (S)	%				19.4	17.5	10.0-120			
Phenol-d5 (S)	%				14.8	15.4	10.0-120			
Nitrobenzene-d5 (S)	%				30.0	29.5	10.0-127			
2-Fluorobiphenyl (S)	%				38.2	39.3	10.0-130			
2,4,6-Tribromophenol (S)	%				51.5	50.0	10.0-155			
p-Terphenyl-d14 (S)	%				52.3	51.7	10.0-128			

LABORATORY CONTROL SAMPLE: R3820477-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Famphur	ug/L	50.0	32.0	64.0	32.0-120	
Kepone	ug/L	50.0	24.7	49.4	10.0-120	
p-Phenylenediamine	ug/L	50.0	0.0228	0.0456	50.0-150	L0

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265396
QC Batch Method: EPA 8260C SIM/5030C
Analysis Method: EPA 8260C SIM/5030C
Analysis Description: 8260C SIM 5030C
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1340991 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	0.20	07/18/22 14:59	
1,2-Dichlorobenzene-d4 (S)	%	106	43-153	07/18/22 14:59	
4-Bromofluorobenzene (S)	%	104	79-139	07/18/22 14:59	

LABORATORY CONTROL SAMPLE: 1340992

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2.5	2.5	99	59-135	
1,2-Dichlorobenzene-d4 (S)	%			96	43-153	
4-Bromofluorobenzene (S)	%			100	79-139	

MATRIX SPIKE SAMPLE: 1341390

Parameter	Units	70221779003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.20	2.5	2.2	89	42-159	
1,2-Dichlorobenzene-d4 (S)	%				99	43-153	
4-Bromofluorobenzene (S)	%				102	79-139	

SAMPLE DUPLICATE: 1341388

Parameter	Units	70222251001 Result	Dup Result	RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	1.4	1.3	12	
1,2-Dichlorobenzene-d4 (S)	%	105	100		
4-Bromofluorobenzene (S)	%	102	102		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265051
QC Batch Method: EPA 8260C/5030C
Analysis Method: EPA 8260C/5030C
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1339516 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1-Dichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,1-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	v3
1,1-Dichloropropene	ug/L	<1.0	1.0	07/15/22 09:55	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	07/15/22 09:55	v3
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichloroethane	ug/L	<1.0	1.0	07/15/22 09:55	
1,2-Dichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
1,3-Dichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
1,4-Dioxane (p-Dioxane)	ug/L	<100	100	07/15/22 09:55	
2,2-Dichloropropane	ug/L	<1.0	1.0	07/15/22 09:55	
2-Butanone (MEK)	ug/L	<5.0	5.0	07/15/22 09:55	
2-Hexanone	ug/L	<5.0	5.0	07/15/22 09:55	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	5.0	07/15/22 09:55	
Acetone	ug/L	<5.0	5.0	07/15/22 09:55	
Acetonitrile	ug/L	<5.0	5.0	07/15/22 09:55	
Acrolein	ug/L	<1.0	1.0	07/15/22 09:55	IC
Acrylonitrile	ug/L	<1.0	1.0	07/15/22 09:55	
Allyl chloride	ug/L	<4.0	4.0	07/15/22 09:55	
Benzene	ug/L	<1.0	1.0	07/15/22 09:55	
Bromochloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Bromodichloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Bromoform	ug/L	<1.0	1.0	07/15/22 09:55	
Bromomethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
Carbon disulfide	ug/L	<1.0	1.0	07/15/22 09:55	v3
Carbon tetrachloride	ug/L	<1.0	1.0	07/15/22 09:55	
Chlorobenzene	ug/L	<1.0	1.0	07/15/22 09:55	
Chloroethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
Chloroform	ug/L	<1.0	1.0	07/15/22 09:55	
Chloromethane	ug/L	<1.0	1.0	07/15/22 09:55	v3
Chloroprene	ug/L	<1.0	1.0	07/15/22 09:55	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	07/15/22 09:55	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

METHOD BLANK: 1339516 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Dibromomethane	ug/L	<1.0	1.0	07/15/22 09:55	
Dichlorodifluoromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Ethyl methacrylate	ug/L	<1.0	1.0	07/15/22 09:55	
Ethylbenzene	ug/L	<1.0	1.0	07/15/22 09:55	
Iodomethane	ug/L	<4.0	4.0	07/15/22 09:55	v3
Isobutanol	ug/L	<20.0	20.0	07/15/22 09:55	
Methacrylonitrile	ug/L	<1.0	1.0	07/15/22 09:55	
Methyl methacrylate	ug/L	<1.0	1.0	07/15/22 09:55	
Methylene Chloride	ug/L	<1.0	1.0	07/15/22 09:55	
Propionitrile	ug/L	<4.0	4.0	07/15/22 09:55	
Styrene	ug/L	<1.0	1.0	07/15/22 09:55	
Tetrachloroethene	ug/L	<1.0	1.0	07/15/22 09:55	v3
Toluene	ug/L	<1.0	1.0	07/15/22 09:55	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	07/15/22 09:55	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	07/15/22 09:55	v3
Trichloroethene	ug/L	<1.0	1.0	07/15/22 09:55	
Trichlorofluoromethane	ug/L	<1.0	1.0	07/15/22 09:55	
Vinyl acetate	ug/L	<1.0	1.0	07/15/22 09:55	
Vinyl chloride	ug/L	<1.0	1.0	07/15/22 09:55	
Xylene (Total)	ug/L	<3.0	3.0	07/15/22 09:55	
1,2-Dichloroethane-d4 (S)	%	113	81-122	07/15/22 09:55	
4-Bromofluorobenzene (S)	%	102	79-118	07/15/22 09:55	
Toluene-d8 (S)	%	91	82-122	07/15/22 09:55	

LABORATORY CONTROL SAMPLE: 1339517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	44.7	89	75-122	
1,1,1-Trichloroethane	ug/L	50	46.4	93	72-126	
1,1,2,2-Tetrachloroethane	ug/L	50	45.1	90	70-127	
1,1,2-Trichloroethane	ug/L	50	45.6	91	81-119	
1,1-Dichloroethane	ug/L	50	43.8	88	72-126	
1,1-Dichloroethene	ug/L	50	33.7	67	66-133	v3
1,1-Dichloropropene	ug/L	50	44.1	88	69-124	
1,2,3-Trichloropropane	ug/L	50	47.6	95	69-120	
1,2-Dibromo-3-chloropropane	ug/L	50	41.4	83	47-133	v3
1,2-Dibromoethane (EDB)	ug/L	50	49.6	99	81-123	
1,2-Dichlorobenzene	ug/L	50	47.9	96	80-117	
1,2-Dichloroethane	ug/L	50	53.8	108	69-134	
1,2-Dichloropropane	ug/L	50	45.4	91	75-125	
1,3-Dichlorobenzene	ug/L	50	48.3	97	82-116	
1,3-Dichloropropane	ug/L	50	45.3	91	81-118	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE: 1339517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	47.7	95	80-117	
1,4-Dioxane (p-Dioxane)	ug/L	1250	1090	87	32-175	
2,2-Dichloropropane	ug/L	50	43.8	88	47-151	
2-Butanone (MEK)	ug/L	50	46.6	93	33-165	IH
2-Hexanone	ug/L	50	49.1	98	50-128	IH
4-Methyl-2-pentanone (MIBK)	ug/L	50	47.8	96	62-131	
Acetone	ug/L	50	60.8	122	14-156	IH
Acetonitrile	ug/L	250	251	100	60-146	
Acrolein	ug/L	50	58.3	117	10-204	IC,v1
Acrylonitrile	ug/L	50	45.3	91	60-136	
Allyl chloride	ug/L	50	41.7	83	60-131	
Benzene	ug/L	50	46.7	93	78-117	
Bromochloromethane	ug/L	50	48.1	96	77-122	
Bromodichloromethane	ug/L	50	50.4	101	80-123	
Bromoform	ug/L	50	45.2	90	49-138	
Bromomethane	ug/L	50	32.8	66	10-143	IH,v3
Carbon disulfide	ug/L	50	32.1	64	66-133	L2,v3
Carbon tetrachloride	ug/L	50	42.6	85	64-135	
Chlorobenzene	ug/L	50	45.3	91	79-117	
Chloroethane	ug/L	50	30.3	61	31-156	v3
Chloroform	ug/L	50	49.7	99	79-123	
Chloromethane	ug/L	50	24.4	49	39-116	v3
Chloroprene	ug/L	50	44.1	88	63-126	
cis-1,2-Dichloroethene	ug/L	50	44.3	89	77-125	
cis-1,3-Dichloropropene	ug/L	50	45.3	91	78-131	
Dibromochloromethane	ug/L	50	45.0	90	65-123	
Dibromomethane	ug/L	50	54.9	110	81-123	
Dichlorodifluoromethane	ug/L	50	27.1	54	13-149	IH
Ethyl methacrylate	ug/L	50	47.1	94	62-140	
Ethylbenzene	ug/L	50	42.3	85	79-115	
Iodomethane	ug/L	50	19.5	39	10-183	v3
Isobutanol	ug/L	250	185	74	25-162	
Methacrylonitrile	ug/L	50	42.2	84	59-139	
Methyl methacrylate	ug/L	50	49.3	99	66-133	
Methylene Chloride	ug/L	50	44.2	88	67-123	
Propionitrile	ug/L	50	44.2	88	58-137	
Styrene	ug/L	50	45.1	90	82-121	
Tetrachloroethene	ug/L	50	33.2	66	65-120	v3
Toluene	ug/L	50	46.7	93	80-114	
trans-1,2-Dichloroethene	ug/L	50	42.5	85	74-123	
trans-1,3-Dichloropropene	ug/L	50	44.1	88	73-135	
trans-1,4-Dichloro-2-butene	ug/L	50	39.3	79	52-137	v3
Trichloroethene	ug/L	50	45.9	92	79-115	
Trichlorofluoromethane	ug/L	50	41.7	83	51-136	
Vinyl acetate	ug/L	50	46.3	93	49-136	
Vinyl chloride	ug/L	50	32.4	65	49-118	
Xylene (Total)	ug/L	150	126	84	80-118	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE: 1339517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			109	81-122	
4-Bromofluorobenzene (S)	%			103	79-118	
Toluene-d8 (S)	%			94	82-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1341486 1341487

Parameter	Units	70222028003 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	50.6	51.8	101	104	65-122	2	
1,1,1-Trichloroethane	ug/L	<1.0	50	50	60.3	64.8	121	130	72-123	7	M1
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	50	49.0	52.7	98	105	64-133	7	
1,1,2-Trichloroethane	ug/L	<1.0	50	50	51.7	55.2	103	110	78-120	6	
1,1-Dichloroethane	ug/L	<1.0	50	50	51.6	52.6	103	105	70-124	2	
1,1-Dichloroethene	ug/L	<1.0	50	50	39.1	40.4	78	81	61-139	3	v3
1,1-Dichloropropene	ug/L	<1.0	50	50	59.2	61.8	118	124	71-125	4	
1,2,3-Trichloropropane	ug/L	<1.0	50	50	50.9	55.7	102	111	64-120	9	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	50	50	44.4	48.0	89	96	32-137	8	v3
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	50	56.0	57.5	112	115	78-121	3	
1,2-Dichlorobenzene	ug/L	<1.0	50	50	54.4	58.0	109	116	75-120	6	
1,2-Dichloroethane	ug/L	<1.0	50	50	58.7	59.7	117	119	58-138	2	
1,2-Dichloropropane	ug/L	<1.0	50	50	52.0	54.6	104	109	74-122	5	
1,3-Dichlorobenzene	ug/L	<1.0	50	50	55.4	58.5	111	117	78-119	5	
1,3-Dichloropropane	ug/L	<1.0	50	50	51.2	52.0	102	104	74-118	1	
1,4-Dichlorobenzene	ug/L	<1.0	50	50	54.8	58.8	110	118	76-118	7	
1,4-Dioxane (p-Dioxane)	ug/L	<100	1250	1250	1220	1360	98	109	10-192	11	
2,2-Dichloropropane	ug/L	<1.0	50	50	54.6	56.4	109	113	43-136	3	
2-Butanone (MEK)	ug/L	<5.0	50	50	47.1	47.7	94	95	33-148	1	IH
2-Hexanone	ug/L	<5.0	50	50	52.1	53.1	104	106	49-124	2	IH
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	50	50	55.6	59.7	111	119	60-136	7	
Acetone	ug/L	2.4J	50	50	41.2	41.7	78	79	35-112	1	IH
Acetonitrile	ug/L	<5.0	250	250	261	240	105	96	57-124	8	
Acrolein	ug/L	<1.0	50	50	60.5	66.4	121	133	11-209	9	IC,v1
Acrylonitrile	ug/L	<1.0	50	50	48.1	50.5	96	101	45-132	5	
Allyl chloride	ug/L	<4.0	50	50	45.0	50.7	90	101	65-120	12	
Benzene	ug/L	<1.0	50	50	54.9	58.4	110	117	70-130	6	
Bromochloromethane	ug/L	<1.0	50	50	52.4	53.1	105	106	70-122	1	
Bromodichloromethane	ug/L	<1.0	50	50	54.7	57.1	109	114	74-122	4	
Bromoform	ug/L	<1.0	50	50	46.9	49.2	94	98	39-139	5	
Bromomethane	ug/L	<1.0	50	50	29.7	34.9	59	70	10-130	16	IH,v3
Carbon disulfide	ug/L	<1.0	50	50	38.1	39.2	76	78	60-129	3	v3
Carbon tetrachloride	ug/L	<1.0	50	50	57.0	61.6	114	123	56-143	8	
Chlorobenzene	ug/L	<1.0	50	50	53.8	55.4	108	111	74-122	3	
Chloroethane	ug/L	<1.0	50	50	37.0	38.7	74	77	35-146	5	v3
Chloroform	ug/L	<1.0	50	50	56.8	57.9	114	116	71-129	2	
Chloromethane	ug/L	<1.0	50	50	28.5	31.0	57	62	29-112	8	v3

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1341486 1341487

Parameter	Units	70222028003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chloroprene	ug/L	<1.0	50	50	57.2	57.8	114	116	76-114	1	M1
cis-1,2-Dichloroethene	ug/L	<1.0	50	50	51.5	53.5	103	107	73-129	4	
cis-1,3-Dichloropropene	ug/L	<1.0	50	50	47.7	52.7	95	105	67-130	10	
Dibromochloromethane	ug/L	<1.0	50	50	49.6	51.7	99	103	55-126	4	
Dibromomethane	ug/L	<1.0	50	50	56.7	60.5	113	121	71-127	6	
Dichlorodifluoromethane	ug/L	<1.0	50	50	36.6	37.5	73	75	10-123	2	IH
Ethyl methacrylate	ug/L	<1.0	50	50	55.4	58.8	111	118	36-135	6	
Ethylbenzene	ug/L	<1.0	50	50	54.4	54.5	109	109	70-126	0	
Iodomethane	ug/L	<4.0	50	50	24.4	28.6	49	57	10-167	16	v3
Isobutanol	ug/L	<20.0	250	250	247	248	99	99	30-134	0	
Methacrylonitrile	ug/L	<1.0	50	50	46.8	45.8	94	92	26-132	2	
Methyl methacrylate	ug/L	<1.0	50	50	53.1	58.5	106	117	35-130	10	
Methylene Chloride	ug/L	<1.0	50	50	48.0	48.1	96	96	69-117	0	
Propionitrile	ug/L	<4.0	50	50	52.9	48.1	106	96	23-128	10	
Styrene	ug/L	<1.0	50	50	51.6	53.1	103	106	79-123	3	
Tetrachloroethene	ug/L	<1.0	50	50	45.2	46.8	90	94	64-124	3	v3
Toluene	ug/L	<1.0	50	50	57.7	60.8	115	122	76-123	5	
trans-1,2-Dichloroethene	ug/L	<1.0	50	50	50.0	53.2	100	106	69-127	6	
trans-1,3-Dichloropropene	ug/L	<1.0	50	50	45.3	50.2	91	100	61-130	10	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	50	50	38.4	43.8	77	88	18-144	13	v3
Trichloroethene	ug/L	<1.0	50	50	57.8	61.9	116	124	73-125	7	
Trichlorofluoromethane	ug/L	<1.0	50	50	56.3	57.6	113	115	59-129	2	
Vinyl acetate	ug/L	<1.0	50	50	45.6	46.6	91	93	34-123	2	
Vinyl chloride	ug/L	<1.0	50	50	42.5	42.7	85	85	33-127	0	
Xylene (Total)	ug/L	<3.0	150	150	158	163	106	108	78-123	3	
1,2-Dichloroethane-d4 (S)	%						106	107	81-122		
4-Bromofluorobenzene (S)	%						106	103	79-118		
Toluene-d8 (S)	%						95	92	82-122		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265621
QC Batch Method: EPA 3510C
Analysis Method: EPA 8081B
Analysis Description: 8081 GCS Pesticides
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1342011 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	<0.10	0.10	07/20/22 10:13	
4,4'-DDE	ug/L	<0.10	0.10	07/20/22 10:13	
4,4'-DDT	ug/L	<0.10	0.10	07/20/22 10:13	
Aldrin	ug/L	<0.050	0.050	07/20/22 10:13	
alpha-BHC	ug/L	<0.050	0.050	07/20/22 10:13	
beta-BHC	ug/L	<0.050	0.050	07/20/22 10:13	
delta-BHC	ug/L	<0.050	0.050	07/20/22 10:13	
Dieldrin	ug/L	<0.10	0.10	07/20/22 10:13	
Endosulfan I	ug/L	<0.050	0.050	07/20/22 10:13	
Endosulfan II	ug/L	<0.10	0.10	07/20/22 10:13	
Endosulfan sulfate	ug/L	<0.10	0.10	07/20/22 10:13	
Endrin	ug/L	<0.10	0.10	07/20/22 10:13	
Endrin aldehyde	ug/L	<0.10	0.10	07/20/22 10:13	
gamma-BHC (Lindane)	ug/L	<0.050	0.050	07/20/22 10:13	
Heptachlor	ug/L	<0.050	0.050	07/20/22 10:13	
Heptachlor epoxide	ug/L	<0.050	0.050	07/20/22 10:13	
Methoxychlor	ug/L	<0.50	0.50	07/20/22 10:13	
Toxaphene	ug/L	<5.0	5.0	07/20/22 10:13	
Decachlorobiphenyl (S)	%	42	10-167	07/20/22 10:13	
Tetrachloro-m-xylene (S)	%	87	27-139	07/20/22 10:13	

LABORATORY CONTROL SAMPLE & LCSD: 1342012 1342014

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
4,4'-DDD	ug/L	0.4	0.40	0.39	101	97	35-143	4	20	
4,4'-DDE	ug/L	0.4	0.38	0.36	94	90	36-135	4	20	
4,4'-DDT	ug/L	0.4	0.36	0.35	91	88	36-143	2	20	
Aldrin	ug/L	0.4	0.31	0.31	78	79	25-119	0	20	
alpha-BHC	ug/L	0.4	0.38	0.37	94	93	38-131	1	20	
beta-BHC	ug/L	0.4	0.41	0.41	102	103	41-134	1	20	
delta-BHC	ug/L	0.4	0.40	0.40	100	100	46-145	0	20	
Dieldrin	ug/L	0.4	0.36	0.35	90	88	39-134	3	20	
Endosulfan I	ug/L	0.4	0.24	0.24	60	59	35-114	2	20	
Endosulfan II	ug/L	0.4	0.29	0.28	72	71	44-127	1	20	
Endosulfan sulfate	ug/L	0.4	0.35	0.35	89	87	37-144	2	20	
Endrin	ug/L	0.4	0.39	0.38	98	96	43-143	2	20	
Endrin aldehyde	ug/L	0.4	0.37	0.38	93	94	39-136	2	20	
gamma-BHC (Lindane)	ug/L	0.4	0.37	0.38	94	94	41-136	0	20	
Heptachlor	ug/L	0.4	0.34	0.34	85	85	31-121	1	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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE & LCSD: 1342012 1342014

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Heptachlor epoxide	ug/L	0.4	0.37	0.37	94	92	41-132	2	20	
Methoxychlor	ug/L	0.4	0.37J	0.36J	92	90	39-155		20	
Decachlorobiphenyl (S)	%				64	92	10-167		20	C2
Tetrachloro-m-xylene (S)	%				82	83	27-139		20	

LABORATORY CONTROL SAMPLE: 1342013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toxaphene	ug/L	20	18.3	92	16-149	
Decachlorobiphenyl (S)	%			80	10-167	
Tetrachloro-m-xylene (S)	%			86	27-139	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 266071
QC Batch Method: EPA 3510C
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1344352 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1221 (Aroclor 1221)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1232 (Aroclor 1232)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1242 (Aroclor 1242)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1248 (Aroclor 1248)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1254 (Aroclor 1254)	ug/L	<1.0	1.0	07/25/22 10:33	
PCB-1260 (Aroclor 1260)	ug/L	<1.0	1.0	07/25/22 10:33	
Decachlorobiphenyl (S)	%	60	10-138	07/25/22 10:33	
Tetrachloro-m-xylene (S)	%	58	37-105	07/25/22 10:33	

LABORATORY CONTROL SAMPLE & LCSD: 1344353 1344354

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	3.1	2.9	62	58	16-139	7	30	
PCB-1260 (Aroclor 1260)	ug/L	5	4.2	3.9	83	78	27-150	7	30	
Decachlorobiphenyl (S)	%				63	66	10-138		30	
Tetrachloro-m-xylene (S)	%				60	56	37-105		30	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265294
QC Batch Method: EPA 8151A
Analysis Method: EPA 8151A
Analysis Description: 8151A GCS Herbicides
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1340593 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-T	ug/L	<0.25	0.25	07/21/22 08:46	
2,4,5-TP (Silvex)	ug/L	<0.25	0.25	07/21/22 08:46	
2,4-D	ug/L	<0.50	0.50	07/21/22 08:46	
Dinoseb	ug/L	0.12J	0.20	07/21/22 08:46	
2,4-DCAA (S)	%	70	38-155	07/21/22 08:46	

LABORATORY CONTROL SAMPLE & LCSD: 1340594 1340595

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,4,5-T	ug/L	1	0.77	0.71	77	71	17-153	9	30	
2,4,5-TP (Silvex)	ug/L	1	0.79	0.73	78	72	43-136	8	30	
2,4-D	ug/L	3	2.3	2.2	77	75	45-137	3	30	
Dinoseb	ug/L	2	1.9	2.0	94	100	10-111	6	30	
2,4-DCAA (S)	%				83	73	38-155		30	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265623
QC Batch Method: EPA 3510C
Analysis Method: EPA 8270E
Analysis Description: 8270E Water MSSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1342019 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
2,2'-Oxybis(1-chloropropane)	ug/L	<5.0	5.0	07/20/22 21:39	
2,3,4,6-Tetrachlorophenol	ug/L	<5.0	5.0	07/20/22 21:39	
2,4,5-Trichlorophenol	ug/L	<5.0	5.0	07/20/22 21:39	
2,4,6-Trichlorophenol	ug/L	<5.0	5.0	07/20/22 21:39	
2,4-Dichlorophenol	ug/L	<5.0	5.0	07/20/22 21:39	
2,4-Dimethylphenol	ug/L	<5.0	5.0	07/20/22 21:39	
2,4-Dinitrophenol	ug/L	<10.0	10.0	07/20/22 21:39	
2,4-Dinitrotoluene	ug/L	<5.0	5.0	07/20/22 21:39	
2,6-Dinitrotoluene	ug/L	<5.0	5.0	07/20/22 21:39	
2-Chloronaphthalene	ug/L	<5.0	5.0	07/20/22 21:39	
2-Chlorophenol	ug/L	<5.0	5.0	07/20/22 21:39	
2-Methylnaphthalene	ug/L	<5.0	5.0	07/20/22 21:39	
2-Methylphenol(o-Cresol)	ug/L	<5.0	5.0	07/20/22 21:39	
2-Nitroaniline	ug/L	<5.0	5.0	07/20/22 21:39	
2-Nitrophenol	ug/L	<5.0	5.0	07/20/22 21:39	
3&4-Methylphenol(m&p Cresol)	ug/L	<5.0	5.0	07/20/22 21:39	
3,3'-Dichlorobenzidine	ug/L	<5.0	5.0	07/20/22 21:39	
3-Nitroaniline	ug/L	<5.0	5.0	07/20/22 21:39	
4,6-Dinitro-2-methylphenol	ug/L	<10.0	10.0	07/20/22 21:39	
4-Bromophenylphenyl ether	ug/L	<5.0	5.0	07/20/22 21:39	
4-Chloro-3-methylphenol	ug/L	<5.0	5.0	07/20/22 21:39	
4-Chloroaniline	ug/L	<5.0	5.0	07/20/22 21:39	
4-Chlorophenylphenyl ether	ug/L	<5.0	5.0	07/20/22 21:39	
4-Nitroaniline	ug/L	<5.0	5.0	07/20/22 21:39	
4-Nitrophenol	ug/L	<10.0	10.0	07/20/22 21:39	
Acenaphthene	ug/L	<5.0	5.0	07/20/22 21:39	
Acenaphthylene	ug/L	<5.0	5.0	07/20/22 21:39	
Acetophenone	ug/L	<5.0	5.0	07/20/22 21:39	
Anthracene	ug/L	<5.0	5.0	07/20/22 21:39	
Atrazine	ug/L	<5.0	5.0	07/20/22 21:39	
Benzaldehyde	ug/L	<5.0	5.0	07/20/22 21:39	IC
Benzo(a)anthracene	ug/L	<5.0	5.0	07/20/22 21:39	
Benzo(a)pyrene	ug/L	<5.0	5.0	07/20/22 21:39	
Benzo(b)fluoranthene	ug/L	<5.0	5.0	07/20/22 21:39	
Benzo(g,h,i)perylene	ug/L	<5.0	5.0	07/20/22 21:39	
Benzo(k)fluoranthene	ug/L	<5.0	5.0	07/20/22 21:39	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

METHOD BLANK: 1342019 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Biphenyl (Diphenyl)	ug/L	<5.0	5.0	07/20/22 21:39	
bis(2-Chloroethoxy)methane	ug/L	<5.0	5.0	07/20/22 21:39	
bis(2-Chloroethyl) ether	ug/L	<5.0	5.0	07/20/22 21:39	
bis(2-Ethylhexyl)phthalate	ug/L	<5.0	5.0	07/20/22 21:39	IC
Butylbenzylphthalate	ug/L	<5.0	5.0	07/20/22 21:39	
Caprolactam	ug/L	<5.0	5.0	07/20/22 21:39	IC
Chrysene	ug/L	<5.0	5.0	07/20/22 21:39	
Di-n-butylphthalate	ug/L	<5.0	5.0	07/20/22 21:39	
Di-n-octylphthalate	ug/L	<5.0	5.0	07/20/22 21:39	
Dibenz(a,h)anthracene	ug/L	<5.0	5.0	07/20/22 21:39	
Dibenzofuran	ug/L	<5.0	5.0	07/20/22 21:39	
Diethylphthalate	ug/L	<5.0	5.0	07/20/22 21:39	
Dimethylphthalate	ug/L	<5.0	5.0	07/20/22 21:39	
Fluoranthene	ug/L	<5.0	5.0	07/20/22 21:39	
Fluorene	ug/L	<5.0	5.0	07/20/22 21:39	
Hexachloro-1,3-butadiene	ug/L	<5.0	5.0	07/20/22 21:39	
Hexachlorobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
Hexachlorocyclopentadiene	ug/L	<5.0	5.0	07/20/22 21:39	
Hexachloroethane	ug/L	<5.0	5.0	07/20/22 21:39	
Indeno(1,2,3-cd)pyrene	ug/L	<5.0	5.0	07/20/22 21:39	
Isophorone	ug/L	<5.0	5.0	07/20/22 21:39	
N-Nitroso-di-n-propylamine	ug/L	<5.0	5.0	07/20/22 21:39	
N-Nitrosodiphenylamine	ug/L	<5.0	5.0	07/20/22 21:39	
Naphthalene	ug/L	<5.0	5.0	07/20/22 21:39	
Nitrobenzene	ug/L	<5.0	5.0	07/20/22 21:39	
Pentachlorophenol	ug/L	<10.0	10.0	07/20/22 21:39	
Phenanthrene	ug/L	<5.0	5.0	07/20/22 21:39	
Phenol	ug/L	<5.0	5.0	07/20/22 21:39	
Pyrene	ug/L	<5.0	5.0	07/20/22 21:39	
1,2-Dichlorobenzene-d4 (S)	%	65	14-101	07/20/22 21:39	
2,4,6-Tribromophenol (S)	%	101	10-168	07/20/22 21:39	
2-Chlorophenol-d4 (S)	%	74	29-98	07/20/22 21:39	
2-Fluorobiphenyl (S)	%	85	13-100	07/20/22 21:39	
2-Fluorophenol (S)	%	48	26-113	07/20/22 21:39	
Nitrobenzene-d5 (S)	%	77	30-113	07/20/22 21:39	
p-Terphenyl-d14 (S)	%	104	10-138	07/20/22 21:39	
Phenol-d5 (S)	%	32	10-100	07/20/22 21:39	

LABORATORY CONTROL SAMPLE & LCSD: 1342020 1342021

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trichlorobenzene	ug/L	25	16.5	18.6	66	74	35-107	12	30	
1,2-Dichlorobenzene	ug/L	25	14.2	16.7	57	67	33-101	16	30	
1,3-Dichlorobenzene	ug/L	25	13.9	16.3	56	65	30-100	15	30	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE & LCSD: 1342020 1342021

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dichlorobenzene	ug/L	25	14.1	16.7	56	67	28-97	17	30	
2,2'-Oxybis(1-chloropropane)	ug/L	25	17.7	20.1	71	81	35-101	13	30	
2,3,4,6-Tetrachlorophenol	ug/L	25	23.7	21.7	95	87	50-122	9	30	
2,4,5-Trichlorophenol	ug/L	25	24.4	24.6	98	98	52-122	0	30	
2,4,6-Trichlorophenol	ug/L	25	22.9	23.2	92	93	48-113	1	30	
2,4-Dichlorophenol	ug/L	25	18.8	19.8	75	79	51-109	5	30	
2,4-Dimethylphenol	ug/L	25	16.6	17.4	67	70	24-94	5	30	
2,4-Dinitrophenol	ug/L	25	21.4	22.6	86	91	10-174	5	30	
2,4-Dinitrotoluene	ug/L	25	23.9	23.2	96	93	53-124	3	30	
2,6-Dinitrotoluene	ug/L	25	23.9	23.5	96	94	61-118	2	30	
2-Chloronaphthalene	ug/L	25	19.9	20.6	80	82	49-104	3	30	
2-Chlorophenol	ug/L	25	16.0	18.2	64	73	47-93	13	30	
2-Methylnaphthalene	ug/L	25	18.8	21.0	75	84	46-102	11	30	
2-Methylphenol(o-Cresol)	ug/L	25	14.7	16.0	59	64	38-88	9	30	
2-Nitroaniline	ug/L	25	18.5	22.5	74	90	44-108	19	30	
2-Nitrophenol	ug/L	25	20.4	22.5	82	90	52-114	10	30	
3&4-Methylphenol(m&p Cresol)	ug/L	25	13.1	16.0	52	64	36-88	20	30	
3,3'-Dichlorobenzidine	ug/L	25	24.3	23.0	97	92	59-126	6	30	
3-Nitroaniline	ug/L	25	25.0	24.2	100	97	63-113	3	30	
4,6-Dinitro-2-methylphenol	ug/L	25	21.9	24.3	88	97	26-148	10	30	
4-Bromophenylphenyl ether	ug/L	25	23.2	23.3	93	93	59-114	0	30	
4-Chloro-3-methylphenol	ug/L	25	20.6	20.7	82	83	55-106	0	30	v3
4-Chloroaniline	ug/L	25	17.9	19.4	72	77	54-100	8	30	
4-Chlorophenylphenyl ether	ug/L	25	21.3	23.4	85	94	59-108	9	30	
4-Nitroaniline	ug/L	25	24.3	24.6	97	98	64-113	1	30	
4-Nitrophenol	ug/L	25	7.8J	8.1J	31	32	10-83		30	
Acenaphthene	ug/L	25	22.3	22.4	89	90	54-101	0	30	
Acenaphthylene	ug/L	25	21.3	21.8	85	87	56-105	2	30	
Acetophenone	ug/L	25	17.8	19.9	71	80	50-99	11	30	
Anthracene	ug/L	25	23.6	23.6	95	94	61-108	0	30	
Atrazine	ug/L	25	29.1	28.1	116	113	59-136	3	30	
Benzaldehyde	ug/L	25	22.5	26.7	90	107	18-176	17	30	IC
Benzo(a)anthracene	ug/L	25	24.2	23.0	97	92	62-109	5	30	
Benzo(a)pyrene	ug/L	25	23.7	24.8	95	99	62-117	4	30	
Benzo(b)fluoranthene	ug/L	25	24.1	25.0	96	100	60-111	4	30	
Benzo(g,h,i)perylene	ug/L	25	23.9	24.0	95	96	58-123	1	30	
Benzo(k)fluoranthene	ug/L	25	24.3	24.6	97	98	63-111	1	30	
Biphenyl (Diphenyl)	ug/L	25	20.8	20.7	83	83	53-104	0	30	
bis(2-Chloroethoxy)methane	ug/L	25	18.7	20.9	75	84	47-94	11	30	
bis(2-Chloroethyl) ether	ug/L	25	16.3	19.2	65	77	45-95	16	30	
bis(2-Ethylhexyl)phthalate	ug/L	25	25.9	24.7	104	99	58-114	5	30	IC
Butylbenzylphthalate	ug/L	25	28.3	26.7	113	107	41-115	6	30	v1
Caprolactam	ug/L	25	8.1	7.7	32	31	11-40	5	30	IC
Chrysene	ug/L	25	24.1	23.6	96	94	61-109	2	30	
Di-n-butylphthalate	ug/L	25	25.4	23.9	102	96	46-119	6	30	
Di-n-octylphthalate	ug/L	25	27.8	27.9	111	111	47-130	0	30	v1
Dibenz(a,h)anthracene	ug/L	25	23.8	22.7	95	91	62-121	5	30	

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

LABORATORY CONTROL SAMPLE & LCSD: 1342020 1342021

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Dibenzofuran	ug/L	25	21.7	22.0	87	88	58-107	1	30	
Diethylphthalate	ug/L	25	24.1	24.1	96	96	10-140	0	30	
Dimethylphthalate	ug/L	25	24.3	24.5	97	98	10-159	1	30	
Fluoranthene	ug/L	25	23.4	23.6	94	94	61-112	1	30	
Fluorene	ug/L	25	22.0	23.1	88	92	57-106	5	30	
Hexachloro-1,3-butadiene	ug/L	25	15.2	17.4	61	70	23-109	14	30	
Hexachlorobenzene	ug/L	25	23.2	23.4	93	93	49-121	1	30	
Hexachlorocyclopentadiene	ug/L	25	14.2	15.8	57	63	10-122	11	30	
Hexachloroethane	ug/L	25	12.8	15.8	51	63	21-98	21	30	
Indeno(1,2,3-cd)pyrene	ug/L	25	23.1	23.4	92	93	59-116	1	30	
Isophorone	ug/L	25	19.9	22.6	79	91	53-99	13	30	
N-Nitroso-di-n-propylamine	ug/L	25	17.8	19.4	71	78	48-104	9	30	
N-Nitrosodiphenylamine	ug/L	25	23.2	23.5	93	94	61-107	1	30	
Naphthalene	ug/L	25	17.2	19.9	69	80	46-99	14	30	
Nitrobenzene	ug/L	25	18.0	20.6	72	83	46-99	13	30	
Pentachlorophenol	ug/L	25	23.7	22.6	95	91	15-138	5	30	
Phenanthrene	ug/L	25	22.7	22.7	91	91	60-109	0	30	
Phenol	ug/L	25	7.0	7.5	28	30	19-49	8	30	
Pyrene	ug/L	25	24.7	24.0	99	96	59-112	3	30	
1,2-Dichlorobenzene-d4 (S)	%				50	59	14-101			
2,4,6-Tribromophenol (S)	%				109	108	10-168			E
2-Chlorophenol-d4 (S)	%				62	70	29-98			
2-Fluorobiphenyl (S)	%				77	86	13-100			
2-Fluorophenol (S)	%				38	44	26-113			
Nitrobenzene-d5 (S)	%				69	78	30-113			
p-Terphenyl-d14 (S)	%				102	94	10-138			
Phenol-d5 (S)	%				28	31	10-100			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 264820
QC Batch Method: SM22 2120B
Analysis Method: SM22 2120B
Analysis Description: 2120B Color
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1338476 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	<5.0	5.0	07/14/22 09:21	

LABORATORY CONTROL SAMPLE: 1338477

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

SAMPLE DUPLICATE: 1338478

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Apparent Color	units	42.0	42.0	0	
pH	Std. Units	6.6	6.6	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265363
QC Batch Method: SM22 2320B
Analysis Method: SM22 2320B
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1340737 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<1.0	1.0	07/18/22 12:37	

LABORATORY CONTROL SAMPLE: 1340738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	25	25.6	102	85-115	

MATRIX SPIKE SAMPLE: 1340740

Parameter	Units	30504884001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	5.8	50	56.2	101	75-125	

SAMPLE DUPLICATE: 1340739

Parameter	Units	30504884001 Result	Dup Result	RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	5.8	5.9	2	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265548
QC Batch Method: SM22 2540C
Analysis Method: SM22 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1341731 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<10.0	10.0	07/19/22 14:00	

LABORATORY CONTROL SAMPLE: 1341732

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	500	526	105	85-115	

MATRIX SPIKE SAMPLE: 1341734

Parameter	Units	70221999004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	230	600	768	90	75-125	

MATRIX SPIKE SAMPLE: 1341736

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	19300	3000	21700	81	75-125	

SAMPLE DUPLICATE: 1341733

Parameter	Units	70221999004 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	230	208	10	D6

SAMPLE DUPLICATE: 1341735

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Total Dissolved Solids	mg/L	19300	19200	0	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 264813
QC Batch Method: SM22 3500-Cr B
Analysis Method: SM22 3500-Cr B
Analysis Description: Chromium, Hexavalent by 3500
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1338452 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.020	07/14/22 09:17	

LABORATORY CONTROL SAMPLE: 1338453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	0.2	0.20	98	85-115	

MATRIX SPIKE SAMPLE: 1338462

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	<0.020	0.2	0.24	118	75-125	

SAMPLE DUPLICATE: 1338463

Parameter	Units	70222028003 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
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 266614
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1347212 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	10.0	07/27/22 07:54	

LABORATORY CONTROL SAMPLE: 1347213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	501	100	90-110	

MATRIX SPIKE SAMPLE: 1347214

Parameter	Units	70222940002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	43.5	1000	1020	97	90-110	

MATRIX SPIKE SAMPLE: 1347216

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	1000	1020	102	90-110	

SAMPLE DUPLICATE: 1347215

Parameter	Units	70222940002 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	43.5	39.0	11	

SAMPLE DUPLICATE: 1347217

Parameter	Units	70222765010 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	<10.0	5.9J		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 264903
QC Batch Method: SM22 5210B
Analysis Method: SM22 5210B
Analysis Description: 5210B BOD, 5 day
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1338732 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	07/19/22 09:39	

LABORATORY CONTROL SAMPLE: 1338733

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	195	99	84.5-115.4	

SAMPLE DUPLICATE: 1338734

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	<4.0	<4.0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265494
QC Batch Method: EPA 9030B
Analysis Method: EPA 9034
Analysis Description: 9034 Sulfide Waste Water
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1341566 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	<2.0	2.0	07/19/22 14:06	

LABORATORY CONTROL SAMPLE: 1341567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	2800	2400	86	80-120	

SAMPLE DUPLICATE: 1341568

Parameter	Units	70222028003 Result	Dup Result	RPD	Qualifiers
Sulfide	mg/L	8.0	8.0	0	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 267257
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1350220 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	<0.50	0.50	08/08/22 14:40	
Chloride	mg/L	0.022J	2.0	08/08/22 14:40	
Sulfate	mg/L	<5.0	5.0	08/08/22 14:40	

LABORATORY CONTROL SAMPLE: 1350221

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	1	0.98	98	90-110	
Chloride	mg/L	10	9.8	98	90-110	
Sulfate	mg/L	10	9.8	98	90-110	

MATRIX SPIKE SAMPLE: 1350222

Parameter	Units	70223149001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	0.10	1	1.3	121	90-110	M1
Chloride	mg/L	38.8	10	54.6	158	90-110	M1
Sulfate	mg/L	<5.0	10	17.6	128	90-110	M1

MATRIX SPIKE SAMPLE: 1350224

Parameter	Units	70223149005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	0.074	1	1.2	111	90-110	M1
Chloride	mg/L	27.2	10	37.7	105	90-110	
Sulfate	mg/L	<5.0	10	14.6	111	90-110	M1

SAMPLE DUPLICATE: 1350223

Parameter	Units	70223149001 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	0.10	0.11J		
Chloride	mg/L	38.8	43.2	11	
Sulfate	mg/L	<5.0	5.4		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

SAMPLE DUPLICATE: 1350225

Parameter	Units	70223149005 Result	Dup Result	RPD	Qualifiers
Bromide	mg/L	0.074	0.074J		
Chloride	mg/L	27.2	27.0	1	
Sulfate	mg/L	<5.0	3.5J		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 269441
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1361753 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.10	0.10	08/16/22 20:49	

LABORATORY CONTROL SAMPLE: 1361754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.4	110	90-110	

MATRIX SPIKE SAMPLE: 1361755

Parameter	Units	70223937006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.4	4	5.7	108	90-110	

MATRIX SPIKE SAMPLE: 1361757

Parameter	Units	70224928001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.50	4	4.9	116	90-110	M1

SAMPLE DUPLICATE: 1361756

Parameter	Units	70223937006 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.4	1.4	2	

SAMPLE DUPLICATE: 1361758

Parameter	Units	70224928001 Result	Dup Result	RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.50	0.68		

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265009
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrite, Unpres.
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1339337 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.050	07/15/22 00:24	

LABORATORY CONTROL SAMPLE: 1339338

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: 1339339

Parameter	Units	70221999001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.56	111	90-110	M1

MATRIX SPIKE SAMPLE: 1339341

Parameter	Units	70222028003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	<0.050	0.5	0.54	107	90-110	

SAMPLE DUPLICATE: 1339340

Parameter	Units	70221999001 Result	Dup Result	RPD	Qualifiers
Nitrite as N	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1339342

Parameter	Units	70222028003 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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 267058
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1349316 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.050	07/29/22 17:38	

LABORATORY CONTROL SAMPLE: 1349317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	1	1.1	108	90-110	

MATRIX SPIKE SAMPLE: 1349320

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.5	0.61	122	90-110	M1

MATRIX SPIKE SAMPLE: 1349322

Parameter	Units	70222766008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	0.5	0.51	97	90-110	

SAMPLE DUPLICATE: 1349321

Parameter	Units	70222765010 Result	Dup Result	RPD	Qualifiers
Nitrate-Nitrite (as N)	mg/L	<0.050	<0.050		

SAMPLE DUPLICATE: 1349323

Parameter	Units	70222766008 Result	Dup Result	RPD	Qualifiers
Nitrate-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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 267294
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics Macro
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1350338 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	5.0	08/01/22 19:30	

LABORATORY CONTROL SAMPLE: 1350339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	100	92.6	93	90-110	

MATRIX SPIKE SAMPLE: 1350340

Parameter	Units	70222765010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	50	51.4	98	75-125	

SAMPLE DUPLICATE: 1350341

Parameter	Units	70222765010 Result	Dup Result	RPD	Qualifiers
Phenolics, Total Recoverable	ug/L	<5.0	<5.0		

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

QUALITY CONTROL DATA

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265895
QC Batch Method: SM22 4500 NH3 H
Analysis Method: SM22 4500 NH3 H
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1343483 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	0.10	07/21/22 14:23	

LABORATORY CONTROL SAMPLE: 1343484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	0.91	91	90-110	

MATRIX SPIKE SAMPLE: 1343485

Parameter	Units	70222391003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	1	0.90	85	75-125	

SAMPLE DUPLICATE: 1343486

Parameter	Units	70222391003 Result	Dup Result	RPD	Qualifiers
Nitrogen, Ammonia	mg/L	<0.10	<0.10		

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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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265292
QC Batch Method: EPA 9010C
Analysis Method: EPA 9014 Total Cyanide
Analysis Description: 9014 Cyanide, Total
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1340585 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	ug/L	<10.0	10.0	07/18/22 17:49	

LABORATORY CONTROL SAMPLE: 1340586

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	75	75.5	101	85-115	

MATRIX SPIKE SAMPLE: 1340587

Parameter	Units	70221306005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	ug/L	<10.0	100	110	110	75-125	

SAMPLE DUPLICATE: 1340588

Parameter	Units	70221306005 Result	Dup Result	RPD	Qualifiers
Cyanide	ug/L	<10.0	<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: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 265033
QC Batch Method: EPA 9060A
Analysis Method: EPA 9060A
Analysis Description: 9060 TOC
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70222027001

METHOD BLANK: 1339466 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	1.0	07/15/22 13:00	
Total Organic Carbon	mg/L	<1.0	1.0	07/15/22 13:00	
Total Organic Carbon	mg/L	<1.0	1.0	07/15/22 13:00	
Total Organic Carbon	mg/L	<1.0	1.0	07/15/22 13:00	
Total Organic Carbon	mg/L	<1.0	1.0	07/15/22 13:00	

LABORATORY CONTROL SAMPLE: 1339467

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	10	9.4	94	85-115	
Total Organic Carbon	mg/L	10	9.4	94	85-115	
Total Organic Carbon	mg/L	10	9.5	95	85-115	
Total Organic Carbon	mg/L	10	9.4	94	85-115	
Total Organic Carbon	mg/L	10	9.4	94	85-115	

MATRIX SPIKE SAMPLE: 1339469

Parameter	Units	70221749001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	10	10.4	102	75-125	
Total Organic Carbon	mg/L	<1.0	10	10.4	102	75-125	
Total Organic Carbon	mg/L	<1.0	10	10.5	102	75-125	
Total Organic Carbon	mg/L	<1.0	10	10.3	101	75-125	
Total Organic Carbon	mg/L	<1.0	10	10.4	102	75-125	

SAMPLE DUPLICATE: 1339468

Parameter	Units	70221749001 Result	Dup Result	RPD	Qualifiers
Mean Total Organic Carbon	mg/L	<1.0	<1.0		
Total Organic Carbon	mg/L	<1.0	<1.0		
Total Organic Carbon	mg/L	<1.0	<1.0		
Total Organic Carbon	mg/L	<1.0	<1.0		
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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Sample: CELL 7 PLCRS **Lab ID: 70222027001** Collected: 07/13/22 08:35 Received: 07/13/22 12:38 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**3.74 ± 1.37 (0.317) C:NA T:106%**	pCi/L	08/02/22 11:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**9.86 ± 3.71 (5.57) C:76% T:88%**	pCi/L	07/29/22 18:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Uranium	ASTM D5174-97	**0.203 ± 0.010 (2.620) C:NA T:NA**	ug/L	08/11/22 14:31	7440-61-1	

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 519971
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70222027001

METHOD BLANK: 2520861 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.639 ± 0.342 (0.602) C:77% T:96%	pCi/L	07/29/22 13:10	

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 - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 519925
QC Batch Method: ASTM D5174-97
Analysis Method: ASTM D5174-97
Analysis Description: D5174.97 Total Uranium KPA
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70222027001

METHOD BLANK: 2520740 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.000 ± 0.001 (0.262) C:NA T:NA	ug/L	08/11/22 13:56	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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QUALITY CONTROL - RADIOCHEMISTRY

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

QC Batch: 519970
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 70222027001

METHOD BLANK: 2520860 Matrix: Water
Associated Lab Samples: 70222027001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.284 (0.600) C:NA T:87%	pCi/L	08/02/22 11:32	

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

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 - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 70222027

[1]	p-Phenylenediamine is reporting with critically low recovery in the laboratory control sample(s). This compound is a method defined poor performer. Results are estimated.

ANALYTE QUALIFIERS

C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
G6	An aliquot for analysis was taken from the original container received due to volume requirements of the laboratory's procedure. Rinsing of the original sample container for inclusion in the sample extraction was not performed.
H3	Sample was received or analysis requested beyond the recognized method holding time.
IC	The initial calibration for this compound was outside of method control limits. The result is estimated.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

ANALYTE QUALIFIERS

IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CELL 7 LEACHATE EXPANDED 7/13
Pace Project No.: 70222027

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70222027001	**CELL 7 PLCRS**	EPA 3510C	265621	EPA 8081B	265655
70222027001	**CELL 7 PLCRS**	EPA 3510C	266071	EPA 8082A	266195
70222027001	**CELL 7 PLCRS**	EPA 8151A	265294	EPA 8151A	265686
70222027001	**CELL 7 PLCRS**	EPA 3005A	265048	EPA 6010C	265085
70222027001	**CELL 7 PLCRS**	EPA 7470A	265936	EPA 7470A	265983
70222027001	**CELL 7 PLCRS**	3510C	1897460	EPA 8270E	1897460
70222027001	**CELL 7 PLCRS**	EPA 3510C	265623	EPA 8270E	265656
70222027001	**CELL 7 PLCRS**	EPA 8260C SIM/5030C	265396		
70222027001	**CELL 7 PLCRS**	EPA 8260C/5030C	265051		
70222027001	**CELL 7 PLCRS**	EPA 903.1	519970		
70222027001	**CELL 7 PLCRS**	EPA 904.0	519971		
70222027001	**CELL 7 PLCRS**	ASTM D5174-97	519925		
70222027001	**CELL 7 PLCRS**	SM22 2120B	264820		
70222027001	**CELL 7 PLCRS**	SM22 2320B	265363		
70222027001	**CELL 7 PLCRS**	SM22 2540C	265548		
70222027001	**CELL 7 PLCRS**	SM22 3500-Cr B	264813		
70222027001	**CELL 7 PLCRS**	EPA 410.4	266614	EPA 410.4	266617
70222027001	**CELL 7 PLCRS**	SM22 5210B	264903	SM22 5210B	265774
70222027001	**CELL 7 PLCRS**	EPA 9030B	265494	EPA 9034	265573
70222027001	**CELL 7 PLCRS**	EPA 300.0	267257		
70222027001	**CELL 7 PLCRS**	EPA 351.2	269441	EPA 351.2	269448
70222027001	**CELL 7 PLCRS**	EPA 353.2	267058		
70222027001	**CELL 7 PLCRS**	EPA 353.2	265009		
70222027001	**CELL 7 PLCRS**	EPA 420.1	267294	EPA 420.1	267388
70222027001	**CELL 7 PLCRS**	SM22 4500 NH3 H	265895		
70222027001	**CELL 7 PLCRS**	EPA 9010C	265292	EPA 9014 Total Cyanide	265429
70222027001	**CELL 7 PLCRS**	EPA 9060A	265033		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical I

The Chain-of-Custody is a LEGAL DOCUMENT. All re

WO# : 70222027

70222027

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
North Babylon, NY 11703				Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax:	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	Kimberly.Mack@PaceLabs.com
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency	
State / Location	
	NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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 (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: 8260	8270	8081	8082	8151	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	NO2, Alk, TDS	Cyanide	COD,NH3,NO3,TKN,Phenol	TOC	Sulfide	Residual Chlorine (Y/N)
1	Cell 7 PLCRS	WT				7/12/22	825		18										X	X	X	X	X	X	X	X	X	X	X	
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	7/13/22	1220		7/13	1238	0.1	W	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Brian Nichols		
SIGNATURE of SAMPLER:		DATE Signed:	7-13-2022

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical

CHAIN-OF-CUSTODY / Analyti

The Chain-of-Custody is a LEGAL DOCUMENT

WO#: 70222027
PM: KMM Due Date: 07/22/22
CLIENT: BAB-ECO

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
North Babylon, NY 11703				Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax:	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	Kimberly.Mack@PaceLabs.com
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency
State / Location
NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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 (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Dioxin/Furan Scan	Radium 226	Radium 228	Uranium	1,4 Dioxane	PFAS/PFOS	Residual Chlorine (Y/N)
13	Cell 7 PLCRS	WT				7/13/22	835		9										X	X	X	X	X	X	
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	7/13/22	1220		7/13	1238	0.1	W	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Brian Nichols		
SIGNATURE of SAMPLER:		DATE Signed:	7-13-2022

TEMP In C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical®

Sample Condition Upon Rec

WO#: 70222027

PM: KMM Due Date: 07/22/22

CLIENT: BAB-ECO

Client Name: BAB-ECO Proje

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

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No ☐ N/A

Temperature Blank Present: ☐ Yes ☐ No

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

Type of Ice: (Wet) Blue None

Thermometer Used: ~~TH091~~ TH148 Correction Factor: +0.1

☐ Samples on ice, cooling process has begun

Cooler Temperature(°C): .1 Cooler Temperature Corrected(°C): .2

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: KJ 7/13/22

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 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 I	☑ 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/ 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 # HC258570				
All containers needing preservation are found to be in compliance with method recommendation?				Sample #
(HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water).				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Per Method, VOA pH is checked after analysis				
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sulfide?	☐ Yes	☐ No	☑ N/A	15.
Lead Acetate Strips Lot #				Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Present:	☑ Yes	☐ No	☐ N/A	17.
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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-64187-1
Laboratory Sample Delivery Group: 70222027
Client Project/Site: Cell 7 Leachate Expanded 7/13

For:
Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, New York 11747

Attn: Kimberley Mack

Elizabeth A. Nye

Authorized for release by:
7/27/2022 12:11:00 PM

Elizabeth Nye, Project Manager I
(802)923-1029
Elizabeth.Nye@et.eurofinsus.com

Table of Contents

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-64187-1

Laboratory: Eurofins Burlington

Narrative

CASE NARRATIVE

Client: Pace Analytical Services, LLC

Project: Cell 7 Leachate Expanded 7/13

Report Number: 200-64187-1

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

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

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

RECEIPT

The sample was received on 07/16/2022; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.2º C.

PERFLUORINATED HYDROCARBONS

Sample CELL 7 PLCRS was analyzed for Perfluorinated Hydrocarbons in accordance with TAL SOP BR-LC-009. The sample was prepared on 07/21/2022 and analyzed on 07/21/2022 and 07/22/2022.

13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: CELL 7 PLCRS. Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Results for sample CELL 7 PLCRS ws reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

Detection Summary

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Client Sample ID: CELL 7 PLCRS

Lab Sample ID: 200-64187-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	231		1.60		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	38.9		1.60		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	39.8		1.60		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.07		1.60		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.42		1.60		ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.46		4.01		ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	362	D	20.0		ng/L	5		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	615	D	8.02		ng/L	5		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	302	D	8.02		ng/L	5		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Client Sample ID: CELL 7 PLCRS

Date Collected: 07/13/22 08:35
Date Received: 07/16/22 09:30

Lab Sample ID: 200-64187-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**231**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroheptanoic acid (PFHpA)	**38.9**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanoic acid (PFOA)	**39.8**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorononanoic acid (PFNA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorodecanoic acid (PFDA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroundecanoic acid (PFUnA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorododecanoic acid (PFDoA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorotridecanoic acid (PFTriA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorotetradecanoic acid (PFTeA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorohexanesulfonic acid (PFHxS)	**5.07**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluoroheptanesulfonic acid (PFHpS)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanesulfonic acid (PFOS)	**2.42**		1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorodecanesulfonic acid (PFDS)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
Perfluorooctanesulfonamide (PFOSA)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.01	U	4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.01	U	4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**5.46**		4.01		ng/L		07/21/22 08:39	07/21/22 16:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.60	U	1.60		ng/L		07/21/22 08:39	07/21/22 16:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*79*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C4 PFHpA	*94*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C4 PFOA	*92*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C4 PFOS	*72*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C5 PFNA	*85*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C2 PFDA	*95*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C2 PFUnA	*98*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C2 PFDoA	*77*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C8 FOSA	*62*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C5 PFPeA	*73*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
13C2 PFTeDA	*43*	*5-	*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
d3-NMeFOSAA	*85*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
d5-NEtFOSAA	*83*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
M2-6:2 FTS	*83*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*
M2-8:2 FTS	*93*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:56*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**362**	**D**	20.0		ng/L		07/21/22 08:39	07/22/22 16:14	5
Perfluorohexanoic acid (PFHxA)	**615**	**D**	8.02		ng/L		07/21/22 08:39	07/22/22 16:14	5
Perfluorobutanesulfonic acid (PFBS)	**302**	**D**	8.02		ng/L		07/21/22 08:39	07/22/22 16:14	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*76*		*25 - 150*	*07/21/22 08:39*	*07/22/22 16:14*	*5*
13C2 PFHxA	*100*		*25 - 150*	*07/21/22 08:39*	*07/22/22 16:14*	*5*

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Client Sample ID: CELL 7 PLCRS
Date Collected: 07/13/22 08:35
Date Received: 07/16/22 09:30

Lab Sample ID: 200-64187-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	87		25 - 150	07/21/22 08:39	07/22/22 16:14	5

Isotope Dilution Summary

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
200-64187-1	CELL 7 PLCRS	79	94	92	72	85			95
LCS 200-181889/2-A	Lab Control Sample	77	100	99	73	95	106	107	98
MB 200-181889/1-A	Method Blank	80	108	103	76	97	108	113	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
200-64187-1	CELL 7 PLCRS	98	77	62	73	43 *5-	85	83	83
LCS 200-181889/2-A	Lab Control Sample	88	80	61	112	77	93	94	83
MB 200-181889/1-A	Method Blank	92	83	69	116	79	97	92	83

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS	C3PFBS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
200-64187-1	CELL 7 PLCRS	93	
LCS 200-181889/2-A	Lab Control Sample	88	83
MB 200-181889/1-A	Method Blank	89	82

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)		
		PFBA	PFHxA	C3PFBS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)
200-64187-1 - DL	CELL 7 PLCRS	76	100	87

Surrogate Legend

PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-181889/1-A
Matrix: Water
Analysis Batch: 181913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 181889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00		ng/L		07/21/22 08:39	07/21/22 16:24	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00		ng/L		07/21/22 08:39	07/21/22 16:24	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C4 PFHpA	*108*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C4 PFOA	*103*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C4 PFOS	*76*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C5 PFNA	*97*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C4 PFBA	*108*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C2 PFHxA	*113*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C2 PFDA	*98*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C2 PFUnA	*92*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C2 PFDoA	*83*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C8 FOSA	*69*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C5 PFPeA	*116*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
M2-6:2 FTS	*83*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
M2-8:2 FTS	*89*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*
13C3 PFBS	*82*		*50 - 150*	*07/21/22 08:39*	*07/21/22 16:24*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-181889/2-A
Matrix: Water
Analysis Batch: 181913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 181889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	40.64		ng/L		102	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	41.17		ng/L		103	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	40.09		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	43.32		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	41.86		ng/L		105	70 - 130
Perfluorononanoic acid (PFNA)	40.0	41.86		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	40.19		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	42.01		ng/L		105	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	39.88		ng/L		100	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.51		ng/L		96	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	40.42		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	37.14		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.81		ng/L		101	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	38.1	39.81		ng/L		105	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	36.56		ng/L		98	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	36.31		ng/L		94	70 - 130
Perfluorooctanesulfonamide (PFOSA)	40.0	42.20		ng/L		106	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.55		ng/L		104	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.88		ng/L		92	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	37.74		ng/L		100	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	33.93		ng/L		89	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*77*		*50 - 150*
13C4 PFHpA	*100*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*73*		*50 - 150*
13C5 PFNA	*95*		*50 - 150*
13C4 PFBA	*106*		*50 - 150*
13C2 PFHxA	*107*		*50 - 150*
13C2 PFDA	*98*		*50 - 150*
13C2 PFUnA	*88*		*50 - 150*
13C2 PFDoA	*80*		*50 - 150*
13C8 FOSA	*61*		*50 - 150*
13C5 PFPeA	*112*		*50 - 150*
13C2 PFTeDA	*77*		*50 - 150*
d3-NMeFOSAA	*93*		*50 - 150*
d5-NEtFOSAA	*94*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-181889/2-A
Matrix: Water
Analysis Batch: 181913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 181889

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	83		50 - 150
M2-8:2 FTS	88		50 - 150
13C3 PFBS	83		50 - 150

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

LCMS

Prep Batch: 181889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-64187-1	CELL 7 PLCRS	Total/NA	Water	3535	
200-64187-1 - DL	CELL 7 PLCRS	Total/NA	Water	3535	
MB 200-181889/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-181889/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 181913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-64187-1	CELL 7 PLCRS	Total/NA	Water	537 (modified)	181889
MB 200-181889/1-A	Method Blank	Total/NA	Water	537 (modified)	181889
LCS 200-181889/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	181889

Analysis Batch: 181963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-64187-1 - DL	CELL 7 PLCRS	Total/NA	Water	537 (modified)	181889

Lab Chronicle

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Client Sample ID: CELL 7 PLCRS

Date Collected: 07/13/22 08:35
Date Received: 07/16/22 09:30

Lab Sample ID: 200-64187-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181889	07/21/22 08:39	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	181913	07/21/22 16:56	ND	TAL BUR
Total/NA	Prep	3535	DL		181889	07/21/22 08:39	KFW	TAL BUR
Total/NA	Analysis	537 (modified)	DL	5	181963	07/22/22 16:14	KFW	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Laboratory: Eurofins Burlington

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-23
Florida	NELAP	E87467	06-30-23
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-23
New York	NELAP	10391	04-01-23
Pennsylvania	NELAP	68-00489	04-30-23
Rhode Island	State	LAO00298	12-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-23
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

Method Summary

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Pace Analytical Services, LLC
Project/Site: Cell 7 Leachate Expanded 7/13

Job ID: 200-64187-1
SDG: 70222027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-64187-1	CELL 7 PLCRS	Water	07/13/22 08:35	07/16/22 09:30

Chain of Custody

PASI New York Laboratory

Pace Analytical®
www.pacelabs.com

Workorder: 70222027 **Workorder Name:** CELL 7 LEACHATE EXPANDED 7/13 **Results Requested By:** 8/4/2022

Report / Invoice To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040 Email: kimberley.mack@pacelabs.com	Eurofins Burlington (T A) 30 Community Drive, Suite 11 South Burlington, VT 05403 P.O. 70222027 KMM

State of Sample Origin: NY

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	PFAS	LAB USE ONLY
1	CELL 7 PLCRS	7/13/2022 08 35	70222027001	Water		X	
2							
3							
4							
5							

Transfers	Released By	Date/Time	Received By	Date/Time
1	L Swiney Pace L	7/15/22 1400		7/16/22 9:30
2				
3				

Comments

Cooler Temperature on Receipt °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

200-64187 COC


ORIGIN ID:ZMVA (631) 6943040
NORANNE SAAGER
PACE ANALYTICAL SERVICES
575 BROADHOLLOW RD
MELVILLE, NY 11747
UNITED STATES US
SHIP DATE: 15JUL22
ACTWGT: 15.00 LB MAN
CAD: 499472/CAFE3313
BILL SENDER
TO BETSY NYE
EUROFINS BURLINGTON
30 COMMUNITY DRIVE, SUITE 11
SOUTH BURLINGTON VT 05403
(000) 000-0000
INV:
PO:
REF:
DEPT:
FedEx
Express
TRK# 0201 5901 5094 5250
SATURDAY 12:00P
PRIORITY OVERNIGHT
XO BTVA
05403
VT-US BTV
Part # 167077-434 MTW EXP 01/23

Login Sample Receipt Checklist

Client: Pace Analytical Services, LLC

Job Number: 200-64187-1
SDG Number: 70222027

Login Number: 64187
List Number: 1
Creator: Cunningham, Caroline R

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Kimberley Mack
PASI Long Island
575 Broad Hollow Road
Melville NY 11747

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

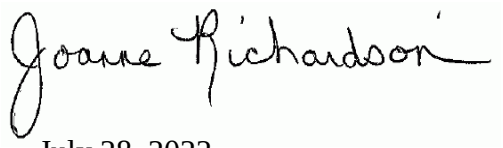
Pace Project #: 10617258
Sample Receipt Date: 07/16/2022
Client Project #: 70222027
Client Sub PO #: N/A
State Cert #: 11647

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:



July 28, 2022

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
July 28, 2022

Report of Laboratory Analysis

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report. Estimated maximum possible concentration (EMPC) values, where present, were treated as positives in the toxic equivalence calculations.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 34-95%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 81-110% with relative percent differences of 0.0-6.3%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Mississippi	MN00064
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-	27700
California	2929	North Carolina-	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (170	CL101
Georgia	959	Ohio-VAP (180	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon- rimary	MN300001
Illinois	200011	Oregon-Second	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-D	382
Minnesota	027-053-137	West Virginia-D	9952C
Minnesota-Ag	via MN 027-053	Wisconsin	999407970
Minnesota-Petr	1240	Wyoming-UST	via A2LA 2926.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

[X] Samples Pre-Logged into eCOC.

State Of Origin: NY
Cert. Needed: [X] Yes [ ] No
Owner Received Date: 7/13/2022 **Results Requested By:** 8/4/2022

Workorder: 70222027 **Workorder Name:** CELL 7 LEACHATE EXPANDED 7/13

Report To	Subcontract To
Kimberley M. Mack Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040	Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

WO# : 10617258
10617258

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	DIOXIN/FURAN-METHOD	LAB USE ONLY
1	CELL 7 PLCRS	PS	7/13/2022 08:35	70222027001	Water	1	X	001
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature] Pace Ltr	7/15/22 18	[signature] PACE	7-16/9:10
2				
3				

Comments

Cooler Temperature on Receipt 2.1 °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

No Spare

WO# : 70222027

70222027

Pace Analytical

CHAIN-OF-CUSTODY / Analytical I

The Chain-of-Custody is a LEGAL DOCUMENT. All re

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax:	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	Kimberly.Mack@PaceLabs.com
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency	State / Location
	NY

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: 8260	8270	8081	8082	8151	TAL Metals +B & Hardness	BOD,Br,Cl,SO4,Color,Cr+6	NO2, Alk, TDS	Cyanide	COD,NH3,NO3,TKN,Phenol	TOC	Sulfide	Residual Chlorine (Y/N)
1	Cell 7 PLCRS	WT				7/13/22	835		18										X	X	X	X	X	X	X	X	X	X	X	
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	7/13/22	1220		7/13	1238	0.1	W	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Brian Nichols		
SIGNATURE of SAMPLER:		DATE Signed:	7-13-2022

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

WO#: 70222027
PM: KMM Due Date: 07/22/22
CLIENT: BAB-ECO

Pace Analytical

CHAIN-OF-CUSTODY / Analyti

The Chain-of-Custody is a LEGAL DOCUMENT

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Town of Babylon	Report To:	Joe Guarino	Attention:	
Address:	281 Phelps Lane	Copy To:		Company Name:	
	North Babylon, NY 11703			Address:	
Email:	jguarino@townofbabylon.com	Purchase Order #:		Pace Quote:	
Phone:	631-422-7640 Fax:	Project Name:	Cell 7 Leachate Expanded 360	Pace Project Manager:	Kimberly.Mack@PaceLabs.com
Requested Due Date:		Project #:		Pace Profile #:	5271 LINE 2 & 6

Regulatory Agency	
State / Location	NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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 (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Dioxin/Furan Scan	Radium 226	Radium 228	Uranium	1,4 Dioxane	PFAS/PFOS	Residual Chlorine (Y/N)
13	Cell 7 PLCRS	WT				7/13/22	835		9										X	X	X	X	X	X	
14																									
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Cell 7 Leachate Expanded 360	Brian Nichols / Zion Environmental, LLC	7/13/22	1220		7/13	1238	0.1	W	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Brian Nichols		
SIGNATURE of SAMPLER:		DATE Signed:	7-13-2022

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical®

Sample Condition Upon Rec

WO#: 70222027

PM: KMM Due Date: 07/22/22

CLIENT: BAB-ECO

Client Name: BAB-Eco Proje

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

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No ☐ N/A

Temperature Blank Present: ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☒ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: ~~TH091~~ T-H148 Correction Factor: + 0.1

☐ Samples on ice, cooling process has begun

Cooler Temperature(°C): .1 Cooler Temperature Corrected(°C): .2

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: KJ 7/13/22

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 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 I	☑ 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/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 # HC285270				
All containers needing preservation are found to be in compliance with method recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☐ N/A	Sample #
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14.
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
SM 4500 CN samples checked for sulfide?	☐ Yes	☐ No	☑ N/A	15.
Lead Acetate Strips Lot #				Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Present:	☑ Yes	☐ No	☐ N/A	17.
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.

ENV-FRM-MELV-0024 01

DC#_Title: ENV-FRM-MIN4-0150 v05_Sample Condition Upon Receipt (SCUR)

Effective Date: 04/12/2022

Sample Condition Upon Receipt

Client Name: PACE, NY

Project #:

WO#: 10617258

PM: JMR **Due Date: 08/01/22**

CLIENT: PASI-LINY

Courier: ☒Fed Ex ☐UPS ☐USPS ☐Client ☐Pace ☐SpeeDee ☐Commercial

See Exceptions ☐ENV-FRM-MIN4-0142

Tracking Number: 5901 5094 5385

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Packing Material: ☐Bubble Wrap ☒Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☒Yes ☐No

Thermometer: ☐T1(0461) ☒T2(1336) ☐T3(0459) ☐T4(0254) ☐T5(0489) ☐T6(0235) ☐T7 (0042) ☐01339252/1710 ☐122639816 ☐140792808

Type of Ice: ☒Wet ☐Blue ☐None ☐Dry ☐Melted

Did Samples Originate in West Virginia? ☐Yes ☒No **Were All Container Temps Taken?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 2.1 °C

Correction Factor: TRUE **Cooler Temp Corrected w/temp blank:** 2.1 °C

Average Corrected Temp (no temp blank only): _____ °C ☐See Exceptions ENV-FRM-MIN4-0142 ☐1 Container

USDA Regulated Soil: (☒N/A, water sample/Other:_____)

Date/Initials of Person Examining Contents: JM 7-16-22

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 maps)? ☐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 ENV-FRM-MIN4-0154 and include with SCUR/COC paperwork.

Location (check one): ☐ Duluth ☒ Minneapolis ☐ Virginia

Chain of Custody Present and Filled Out?	☒Yes	☐No		1.
Chain of Custody Relinquished?	☒Yes	☐No		2.
Sampler Name and/or Signature on COC?	☒Yes	☐No	☐N/A	3.
Samples Arrived within Hold Time?	☒Yes	☐No		4. If Fecal: ☐<8 hrs ☐>8hr, <24 hrs, ☐>24 hrs
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No		5. ☐Fecal Coliform ☐HPC ☐Total Coliform/E coli ☐BOD/cBOD ☐Hex Chrome ☐Turbidity ☐Nitrate ☐Nitrite ☐Orthophos ☐Other
Rush Turn Around Time Requested?	☐Yes	☒No		6.
Sufficient Volume?	☒Yes	☐No		7.
Correct Containers Used?	☒Yes	☐No		8.
-Pace Containers Used?	☒Yes	☐No		
Containers Intact?	☒Yes	☐No		9.
Field Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	10. Is sediment visible in the dissolved container? ☐Yes ☐No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒Water ☐Soil ☐Oil ☐Other-	☒Yes	☐No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐ **ENV-FRM-MIN4-0142**
All containers needing acid/base preservation have been checked?	☐Yes	☐No	☒N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐Yes	☐No	☒N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☐Yes	☐No	☒N/A	Positive for Res. Chlorine? ☐Yes ☐No **pH Paper Lot#** **See Exception** ☐ **ENV-FRM-MIN4-0142**
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐Yes	☐No	☒N/A	
Extra labels present on soil VOA or WIDRO containers?	☐Yes	☐No	☒N/A	13. **See Exception** ☐ **ENV-FRM-MIN4-0140**
Headspace in VOA Vials (greater than 6mm)?	☐Yes	☐No	☒N/A	
Trip Blank Present?	☐Yes	☐No	☒N/A	14.
Trip Blank Custody Seals Present?	☐Yes	☐No	☒N/A	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____ **Field Data Required?** ☐Yes ☐No

Comments/Resolution: _____

Project Manager Review: Joanne Richardson **Date:** 7-16-22

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e.,, out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: WB (2)

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

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Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Long Island

Client's Sample ID	CELL 7 PLCRS		
Lab Sample ID	70222027001		
Filename	L220721B_09		
Injected By	SMT		
Total Amount Extracted	1090 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	07/13/2022 08:35
ICAL ID	L220718	Received	07/16/2022 09:10
CCal Filename(s)	L220721B_01	Extracted	07/19/2022 12:45
Method Blank ID	BLANK-100068	Analyzed	07/22/2022 03:27

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	10	2,3,7,8-TCDF-13C	2.00	67
Total TCDF	ND	-----	10	2,3,7,8-TCDD-13C	2.00	65
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	-----	10	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	-----	10	1,2,3,7,8-PeCDD-13C	2.00	78
				1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	ND	-----	50	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	-----	50	2,3,4,6,7,8-HxCDF-13C	2.00	82
Total PeCDF	ND	-----	50	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	-----	50	1,2,3,6,7,8-HxCDD-13C	2.00	83
Total PeCDD	ND	-----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	55
				1,2,3,4,7,8,9-HpCDF-13C	2.00	47
1,2,3,4,7,8-HxCDF	ND	-----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	-----	50	OCDD-13C	4.00	34
2,3,4,6,7,8-HxCDF	ND	-----	50			
1,2,3,7,8,9-HxCDF	ND	-----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	50	2,3,7,8-TCDD-37Cl4	0.20	92
1,2,3,6,7,8-HxCDD	ND	-----	50			
1,2,3,7,8,9-HxCDD	ND	-----	50			
Total HxCDD	ND	-----	50			
1,2,3,4,6,7,8-HpCDF	ND	-----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	50	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	50			
Total HpCDD	ND	-----	50			
OCDF	ND	-----	100			
OCDD	ND	-----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Minneapolis, MN 55414

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKQP		
Lab Sample ID	BLANK-100068	Matrix	Water
Filename	L220721A_11	Dilution	NA
Total Amount Extracted	950 mL	Extracted	07/19/2022 12:45
ICAL ID	L220718	Analyzed	07/21/2022 15:44
CCal Filename(s)	L220721A_03	Injected By	SMT

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	10	2,3,7,8-TCDF-13C	2.00	61
Total TCDF	ND	-----	10	2,3,7,8-TCDD-13C	2.00	60
				1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	10	2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	-----	10	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	ND	-----	50	1,2,3,6,7,8-HxCDF-13C	2.00	65
2,3,4,7,8-PeCDF	ND	-----	50	2,3,4,6,7,8-HxCDF-13C	2.00	64
Total PeCDF	ND	-----	50	1,2,3,7,8,9-HxCDF-13C	2.00	67
				1,2,3,4,7,8-HxCDD-13C	2.00	61
1,2,3,7,8-PeCDD	ND	-----	50	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	ND	-----	50	1,2,3,4,6,7,8-HpCDF-13C	2.00	54
				1,2,3,4,7,8,9-HpCDF-13C	2.00	45
1,2,3,4,7,8-HxCDF	ND	-----	50	1,2,3,4,6,7,8-HpCDD-13C	2.00	54
1,2,3,6,7,8-HxCDF	ND	-----	50	OCDD-13C	4.00	35
2,3,4,6,7,8-HxCDF	ND	-----	50			
1,2,3,7,8,9-HxCDF	ND	-----	50	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	50	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	50	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	-----	50			
1,2,3,7,8,9-HxCDD	ND	-----	50			
Total HxCDD	ND	-----	50			
1,2,3,4,6,7,8-HpCDF	ND	-----	50	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	50	Equivalence: 0.00 pg/L		
Total HpCDF	ND	-----	50	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	50			
Total HpCDD	ND	-----	50			
OCDF	ND	-----	100			
OCDD	ND	-----	100			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-100069		
Filename	L220721A_13	Matrix	Water
Total Amount Extracted	934 mL	Dilution	NA
ICAL ID	L220718	Extracted	07/19/2022 12:45
CCal Filename	L220721A_03	Analyzed	07/21/2022 17:41
Method Blank ID	BLANK-100068	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	107
2,3,7,8-TCDD	10	11	6.7	15.8	110
1,2,3,7,8-PeCDF	50	47	40.0	67.0	95
2,3,4,7,8-PeCDF	50	49	34.0	80.0	98
1,2,3,7,8-PeCDD	50	45	35.0	71.0	89
1,2,3,4,7,8-HxCDF	50	45	36.0	67.0	90
1,2,3,6,7,8-HxCDF	50	46	42.0	65.0	93
2,3,4,6,7,8-HxCDF	50	47	35.0	78.0	93
1,2,3,7,8,9-HxCDF	50	47	39.0	65.0	94
1,2,3,4,7,8-HxCDD	50	49	35.0	82.0	99
1,2,3,6,7,8-HxCDD	50	46	38.0	67.0	92
1,2,3,7,8,9-HxCDD	50	48	32.0	81.0	95
1,2,3,4,6,7,8-HpCDF	50	46	41.0	61.0	91
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	91
1,2,3,4,6,7,8-HpCDD	50	41	35.0	70.0	81
OCDF	100	99	63.0	170.0	99
OCDD	100	97	78.0	144.0	97
2,3,7,8-TCDD-37Cl4	10	9.2	3.1	19.1	92
2,3,7,8-TCDF-13C	100	72	22.0	152.0	72
2,3,7,8-TCDD-13C	100	68	20.0	175.0	68
1,2,3,7,8-PeCDF-13C	100	87	21.0	192.0	87
2,3,4,7,8-PeCDF-13C	100	90	13.0	328.0	90
1,2,3,7,8-PeCDD-13C	100	94	21.0	227.0	94
1,2,3,4,7,8-HxCDF-13C	100	77	19.0	202.0	77
1,2,3,6,7,8-HxCDF-13C	100	75	21.0	159.0	75
2,3,4,6,7,8-HxCDF-13C	100	71	22.0	176.0	71
1,2,3,7,8,9-HxCDF-13C	100	76	17.0	205.0	76
1,2,3,4,7,8-HxCDD-13C	100	71	21.0	193.0	71
1,2,3,6,7,8-HxCDD-13C	100	78	25.0	163.0	78
1,2,3,4,6,7,8-HpCDF-13C	100	60	21.0	158.0	60
1,2,3,4,7,8,9-HpCDF-13C	100	51	20.0	186.0	51
1,2,3,4,6,7,8-HpCDD-13C	100	61	26.0	166.0	61
OCDD-13C	200	80	26.0	397.0	40

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-100070		
Filename	L220721A_14	Matrix	Water
Total Amount Extracted	973 mL	Dilution	NA
ICAL ID	L220718	Extracted	07/19/2022 12:45
CCal Filename	L220721A_03	Analyzed	07/21/2022 18:40
Method Blank ID	BLANK-100068	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	106
2,3,7,8-TCDD	10	11	6.7	15.8	106
1,2,3,7,8-PeCDF	50	47	40.0	67.0	93
2,3,4,7,8-PeCDF	50	48	34.0	80.0	96
1,2,3,7,8-PeCDD	50	44	35.0	71.0	87
1,2,3,4,7,8-HxCDF	50	43	36.0	67.0	87
1,2,3,6,7,8-HxCDF	50	44	42.0	65.0	89
2,3,4,6,7,8-HxCDF	50	46	35.0	78.0	93
1,2,3,7,8,9-HxCDF	50	46	39.0	65.0	92
1,2,3,4,7,8-HxCDD	50	48	35.0	82.0	97
1,2,3,6,7,8-HxCDD	50	46	38.0	67.0	91
1,2,3,7,8,9-HxCDD	50	47	32.0	81.0	93
1,2,3,4,6,7,8-HpCDF	50	45	41.0	61.0	89
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	92
1,2,3,4,6,7,8-HpCDD	50	41	35.0	70.0	81
OCDF	100	93	63.0	170.0	93
OCDD	100	92	78.0	144.0	92
2,3,7,8-TCDD-37Cl4	10	9.5	3.1	19.1	95
2,3,7,8-TCDF-13C	100	63	22.0	152.0	63
2,3,7,8-TCDD-13C	100	60	20.0	175.0	60
1,2,3,7,8-PeCDF-13C	100	73	21.0	192.0	73
2,3,4,7,8-PeCDF-13C	100	75	13.0	328.0	75
1,2,3,7,8-PeCDD-13C	100	80	21.0	227.0	80
1,2,3,4,7,8-HxCDF-13C	100	74	19.0	202.0	74
1,2,3,6,7,8-HxCDF-13C	100	75	21.0	159.0	75
2,3,4,6,7,8-HxCDF-13C	100	66	22.0	176.0	66
1,2,3,7,8,9-HxCDF-13C	100	63	17.0	205.0	63
1,2,3,4,7,8-HxCDD-13C	100	64	21.0	193.0	64
1,2,3,6,7,8-HxCDD-13C	100	71	25.0	163.0	71
1,2,3,4,6,7,8-HpCDF-13C	100	49	21.0	158.0	49
1,2,3,4,7,8,9-HpCDF-13C	100	39	20.0	186.0	39
1,2,3,4,6,7,8-HpCDD-13C	100	50	26.0	166.0	50
OCDD-13C	200	65	26.0	397.0	33

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

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Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Long Island		
Spike 1 ID	LCS-100069	Spike 2 ID	LCSD-100070
Spike 1 Filename	L220721A_13	Spike 2 Filename	L220721A_14

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	107	106	0.9
2,3,7,8-TCDD	110	106	3.7
1,2,3,7,8-PeCDF	95	93	2.1
2,3,4,7,8-PeCDF	98	96	2.1
1,2,3,7,8-PeCDD	89	87	2.3
1,2,3,4,7,8-HxCDF	90	87	3.4
1,2,3,6,7,8-HxCDF	93	89	4.4
2,3,4,6,7,8-HxCDF	93	93	0.0
1,2,3,7,8,9-HxCDF	94	92	2.2
1,2,3,4,7,8-HxCDD	99	97	2.0
1,2,3,6,7,8-HxCDD	92	91	1.1
1,2,3,7,8,9-HxCDD	95	93	2.1
1,2,3,4,6,7,8-HpCDF	91	89	2.2
1,2,3,4,7,8,9-HpCDF	91	92	1.1
1,2,3,4,6,7,8-HpCDD	81	81	0.0
OCDF	99	93	6.3
OCDD	97	92	5.3

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Appendix 2

Baseline and Expanded Parameters List (6NYCRR Part 363-4.6(h))

(5) Data quality assessment. At the conclusion of each sampling event and analysis of the samples collected, data quality assessment must occur. A data quality assessment report must be submitted with the results from each sampling event. Data quality assessment must occur in two phases – data validation and data usability analysis.

(i) Data validation.

(a) For those sampling events for which only routine parameters are analyzed, the required data validation may be performed by the laboratory that performed the sample analyses.

(b) For those sampling events in which groundwater samples are analyzed for baseline or expanded parameters, the data validation must be performed by a person with experience with similar validation projects and who is not affiliated with the laboratory that performed the analyses and who is acceptable to the department.

(c) The data validation must be performed on all analytical data for the facility at a rate acceptable to the department, but not less than five percent of the data generated, and must consist, at a minimum, of the following:

(1) field records and analytical data are reviewed to determine whether the data are accurate and defensible. All AQA/AQC information must be reviewed along with any corrective actions taken during that sampling event; and

(2) all data summaries must be clearly marked to identify any data that are not representative of environmental conditions at the site, or that were not generated in accordance with the site analytical plan.

(ii) Data usability analysis.

(a) The data usability analysis must be performed on all analytical data generated by the requirements for this Part for the facility and must consist of the following:

(1) an assessment to determine if the data quality objectives were met;

(2) for consistency, comparison of the analytical data with the results from previous sampling events;

(3) evaluation of field duplicate results to indicate the samples are representative;

(4) comparison of the results of all field blanks, trip blanks, equipment rinstate blanks, and method blanks with full data sets to provide information concerning contaminants that may have been introduced during sampling, shipping, or analysis;

(5) evaluation of matrix effects to assess the performance of the analytical method with respect to the sample matrix, and determine whether the data have been biased high or low due to matrix effects;

(6) integration of the field and laboratory data with geological, hydrogeological, and meteorological data to provide information about the extent of contamination, if it occurs; and

(7) comparison of precision, accuracy, representativeness, comparability, completeness, and defensibility of the data generated with that required to meet the data quality objectives established in the site analytical plan.

(h) Water quality analysis tables.

The water quality analysis tables in this section list the routine, baseline, and expanded parameters for analysis of all monitoring samples. The department may modify the parameters for analysis based on the location of the landfill or site-specific characteristics of waste disposed at the landfill.

TABLE 1: ROUTINE PARAMETERS [1]

Common Name (and CAS number, as appropriate) [2]		
Field Parameters:	Leachate Indicators:	Inorganic Parameters (total):
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Arsenic
Specific Conductance	Ammonia (7664-41-7)	Cadmium
Temperature	Nitrate	Calcium
Floaters or Sinkers [3]	Chemical Oxygen Demand	Iron
Temperature	Biochemical Oxygen Demand (BOD_5)	Lead
pH	Total Organic Carbon	Magnesium
Eh	Total Dissolved Solids	Manganese
Dissolved Oxygen [4]	Sulfate	Potassium
Field Observations [5]	Alkalinity	Sodium
Turbidity	Phenols (108-95-2)	
	Chloride	
	Bromide (24959-67-9)	
	Total hardness as $CaCO_3$	

TABLE 2A: BASELINE PARAMETERS: Field Parameters, Leachate Indicators, and Inorganic Parameters [6]

Common Name (and CAS number, as appropriate)[7]		
Field Parameters:	Leachate Indicators:	Inorganic Parameters (total unless otherwise noted):
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Aluminum
Specific Conductance	Ammonia (7664-41-7)	Antimony
Temperature	Nitrate	Arsenic
Floaters or Sinkers[8]	Chemical Oxygen Demand	Barium
Temperature	Biochemical Oxygen Demand (BOD_5)	Beryllium
pH	Total Organic Carbon	Cadmium
Eh	Total Dissolved Solids	Calcium
Dissolved Oxygen[9]	Sulfate	Chromium
Field Observations[10]	Alkalinity	Chromium (Hexavalent)[11]
Turbidity	Phenols (108-95-2)	Cobalt
	Chloride	Copper
	Bromide (24959-67-9)	Cyanide
	Total hardness as $CaCO_3$	Iron
	Color	Lead
	Boron (7440-42-8)	Magnesium
		Manganese
		Mercury
		Nickel
		Potassium
		Selenium
		Silver
		Sodium
		Thallium
		Vanadium
		Zinc

TABLE 2B: BASELINE PARAMETERS: Organic Parameters[12]

Common Name (and CAS number, as appropriate)[13]		
Organic Parameters:		
Acetone (67-64-1)	1,1-Dichloroethane; Ethylidene chloride (75-34-3)	Styrene (100-42-5)
Acrylonitrile (107-13-1)	1,2-Dichloroethane; Ethylene dichloride (107-06-02)	1,1,1,2-Tetrachloroethane (630-20-6)
Benzene (71-43-2)	1,1-Dichloroethylene, 1,1-Dichloroethene; Vinylidene chloride (75-35-4)	1,1,2,2-Tetrachloroethane (79-34-5)
Bromochloromethane (74-97-5)	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene (156-59-2)	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene (127-18-4)
Bromodichloromethane (75-27-4)	trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene (156-60-2)	Toluene (108-88-3)
Bromoform; Tribromomethane (75-25-2)	1,2-Dichloropropane; Propylene dichloride (78-87-5)	1,1,1-Trichloroethane, Methylchloroform (71-55-6)
Carbon disulfide (75-15-0)	cis-1,3-Dichloropropene (10061-01-5)	1,1,2-Trichloroethane (79-00-5)
Carbon tetrachloride (56-23-5)	trans-1,3-Dichloropropene (10061-02-6)	Trichloroethylene, Trichloroethene (79-01-6)
Chlorobenzene (108-90-7)	Ethylbenzene (100-41-4)	Trichlorofluoromethane, CFC-11 (75-69-4)
Chloroethane; Ethyl chloride (75-00-3)	2-Hexanone; Methyl butyl ketone (591-78-6)	1,2,3-Trichloropropane (96-18-4)
Chloroform; Trichloromethane (67-66-3)	Methyl bromide; Bromomethane (74-83-9)	Vinyl acetate (108-05-4)
Dibromochloromethane; Chlorodibromomethane (124-48-1)	Methyl chloride; Chloromethane (74-87-3)	Vinyl chloride; Chloroethene (75-01-4)
1,2-Dibromo-3-chloropropane; DBCP (96-12-8)	Methylene bromide; Dibro- momethane (74-95-3)	Xylenes (1330-20-7)
1,2-Dibromoethane; Ethylene dibromide; EDB (106-93-4)	Methylene chloride; Dichloromethane (75-09-2)	
o-Dichlorobenzene; 1,2-Dichlorobenzene (95-50-1)	Methyl ethyl ketone; MEK; 2-Butanone (78-93-3)	
p-Dichlorobenzene; 1,4-Dichlorobenzene (106-46-7)	Methyl Iodide; Iodomethane (74-88-4)	
trans-1,4-Dichloro-2-butene (110-57-6)	4-Methyl-2-pentanone; Methyl isobutyl ketone (108-10-1)	

TABLE 3A: EXPANDED PARAMETERS: Field Parameters, Leachate Indicators, Radionuclides, and Inorganic Parameters[14]

Common Name (and CAS number, as appropriate)[15]			

Field Parameters:	Leachate Indicators:	Inorganic Parameters: (total unless otherwise noted)	Radionuclides [16]
Static water level (in wells and sumps)	Total Kjeldahl Nitrogen	Aluminum	Radium-226 per EPA 903.1
Specific Conductance	Ammonia (7664-41-7)	Antimony	Radium-228 per EPA 904.0
Temperature	Nitrate	Arsenic	Total Uranium per EPA 908.0
Floaters or Sinkers [17]	Chemical Oxygen Demand	Barium	
Temperature	Biochemical Oxygen Demand (BOD_5)	Beryllium	
pH	Total Organic Carbon	Cadmium	
Eh	Total Dissolved Solids	Calcium	
Dissolved Oxygen [18]	Sulfate	Chromium	
Field Observations [19]	Alkalinity	Chromium (Hexavalent) [20]	
Turbidity	Phenols (108-95-2)	Cobalt	
	Chloride	Copper	
	Bromide (24959-67-9)	Cyanide	
	Total hardness as $CaCO_3$	Iron	
	Color	Lead	
	Boron (7440-42-8)	Magnesium	
		Manganese	
		Mercury	
		Nickel	
		Potassium	
		Selenium	
		Silver	
		Sodium	
		Thallium	
		Tin	
		Vanadium	
		Zinc	

TABLE 3B: EXPANDED PARAMETERS: Organic Parameters [21]

Common Name (and CAS number, as appropriate) [22]		
Organic Parameters:		
Acenaphthene (83-32-9)	2,4-Dichlorophenol (120-83-2)	Naphthalene (91-20-3)
Acenaphthylene (208-96-8)	2,6-Dichlorophenol (87-65-0)	1,4-Naphthoquinone (130-15-4)
Acetone (67-64-1)	1,2-Dichloropropane; Propylene dichloride (78-87-5)	1-Naphthylamine (134-32-7)
Acetonitrile; Methyl cyanide (75-05-8)	1,3-Dichloropropane, Trimethylene dichloride (142-28-9)	2-Naphthylamine (91-59-8)
Acetophenone (98-86-2)	2,2-Dichloropropane, Isopropylidene chloride (594-20-7)	o-Nitroaniline; 2-Nitroaniline (88-74-4)
2-Acetylaminofluorene; 2-AAF (53-96-3)	1,1-Dichloropropene (563-58-6)	m-Nitroaniline; 3-Nitroaniline (99-09-2)
Acrolein (107-02-8)	cis-1,3-Dichloropropene (10061-01-5)	p-Nitroaniline; 4-Nitroaniline (100-01-6)
Acrylonitrile (107-13-1)	trans-1,3-Dichloropropene (10061-02-6)	Nitrobenzene (98-95-3)
Aldrin (309-00-2)	Dieldrin (60-57-1)	o-Nitrophenol 2-Nitrophenol (88-75-5)
Allyl chloride (107-05-1)	Diethyl phthalate (84-66-2)	p-Nitrophenol; 4-Nitrophenol (100-02-7)
4- aminobiphenyl (92-67-1)	0,0-Diethyl 0-2-pyrazinyl	N-Nitrosodi-n-butylamine (924-16-3)
Anthracene (120-12-7)	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene (156-59-2)	
N-Nitrosodiethylamine (55-18-5)		
Benzene (71-43-2)	trans-1,2-Dichloroethylene (156-60-2)	N-Nitrosodimethylamine (62-75-9)
Benzo[a]anthracene; Benzanthracene (56-55-3)	Phosphorothioate; Thionazin (297-97-2)	N-Nitrosodiphenylamine (86-30-6)
Benzo[b]fluoranthene (205-99-2)	Dimethoate (60-51-5)	N-Nitrosodipropylamine; N-Nitroso-N-dipropyl-amine; Di-n-propylni-trosamine (621-64-7)
Benzo[k]fluoranthene (207-08-9)	p-(Dimethylamino)azobenzene (60-11-7)	N-Nitrosomethylethalamine (10595-95-6)
Benzo[ghi]perylene (191-24-2)	7,12-Dimethylbenz[a]anthracene (57-97-6)	N-Nitrosopiperidine (100-75-4)
Benzo[a]pyrene (50-32-8)	3,3 [21]-Dimethylbenzidine (119-93-7)	N-Nitrosopyrrolidine (930-55-2)
Benzyl alcohol (100-51-6)	2,4-Dimethylphenol, m-Xylenol (105-67-9)	5-Nitro-o-toluidine (99-55-8)
alpha-BHC (319-84-6)	Dimethyl phthalate (131-11-3)	Parathion (56-38-2)
beta-BHC (319-85-7)	m-Dinitrobenzene (99-65-0)	Pentachlorobenzene (608-93-5)
delta-BHC (319-86-8)	4,6-Dinitro-o-cresol 4,6- Dinitro-2-methylphenol (534-52-1)	Pentachloronitrobenzene (82-68-8)

gamma-BHC, Lindane (58-89-9)	2,4-Dinitrophenol (51-28-5)	Pentachlorophenol (87-86-5)
Bis(2-chloroethoxy)methane (111-91-1)	2,4-Dinitrotoluene (121-14-2)	Phenacetin (62-44-2)
Bis(2-chloroethyl) ether; Dichloroethyl ether (111-44-4)	2,6-Dinitrotoluene (606-20-2)	Phenanthrene (85-01-8)
Bis-(2-chloro-1-methyl-ethyl)ether; 2,2[21]-Dichlorodiisopropyl ether; DCIP[23]	Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol (88-85-7)	Phenol (108-95-2)
Bis(2-ethylhexyl)phthalate (117-81-7)	Di-n-octyl phthalate (117-84-0)	p-Phenylenediamine (106-50-9)
Bromochloromethane (74-97-5)	Diphenylamine (122-39-4)	Phorate (298-02-2)
Bromodichloromethane (75-27-4)	Disulfoton (298-04-4)	Polychlorinated biphenyls; PCBs; Aroclors[24]
Bromoform (75-25-2)	Endosulfan I (959-98-8)	Polychlorinated dibenzo-p- dioxins; PCDDs[25]
4-Bromophenyl phenyl ether (101-55-3)	Endosulfan II (33213-65-9)	Polychlorinated dibenzo- furans; PCDFs[26]
Butyl benzyl phthalate; Benzyl butyl phthalate (117-81-7)	Endosulfan sulfate (1031-07-8)	Pronamide (23950-58-5)
Carbon disulfide (75-15-0)	Endrin (72-20-8)	Propionitrile; Ethyl cyanide (107-12-0)
Carbon tetrachloride (56-23-5)	Endrin aldehyde (7421-93-4)	Pyrene (129-00-0)
Chlordane[27]	Ethylbenzene (100-41-4)	Safrole (94-59-7)
p-Chloroaniline (106-47-8)	Ethyl methacrylate (97-63-2)	Silvex, 2,4,5-TP (93-72-1)
Chlorobenzene (108-90-7)	Ethyl methanesulfonate (62-50-0)	Styrene (100-42-5)
Chlorobenzilate (510-15-6)	Famphur (52-85-7)	2,4,5-T, 2,4,5-trichloro- phenoxyacetic acid (93-76-5)
p-Chloro-m-cresol; 4-Chloro-3-methylphenol (59-50-7)	Fluoranthene (206-44-0)	1,2,4,5-Tetrachlorobenzene (95-94-3)
Chloroethane; Ethyl chloride (75-00-3)	Fluorene (86-73-7)	2,3,7,8-Tetrachlorodi- benzo-p-dioxin, 2,3,7,8-TCDD (1746-01-6)
Chloroform; Trichloromethane (67-66-3)	Heptachlor (76-44-8)	1,1,1,2-Tetrachloroethane (630-20-6)
2-Chloronaphthalene (91-58-7)	Heptachlor epoxide (1024-57-3)	1,1,2,2-Tetrachloroethane (79-34-5)
2-Chlorophenol (95-57-8)	Hexachlorobenzene (118-74-1)	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene (127-18-4)
4-Chlorophenyl phenyl ether (7005-72-3)	Hexachlorobutadiene (87-68-3)	2,3,4,6-Tetrachlorophenol (58-90-2)
Chloroprene (126-99-8)	Hexachlorocyclopentadiene (77-47-4)	Toluene (108-88-3)
Chrysene (218-01-9)	Hexachloroethane (67-72-1)	o-Toluidine (95-53-4)
m-Cresol, 3-methylphenol (108-39-4)	Hexachloropropene (1888-71-7)	Toxaphene[28]
o-Cresol, 2-methylphenol (95-48-7)	2-Hexanone, Methyl butyl ketone (591-78-6)	1,2,4-Trichlorobenzene (120-82-1)
p-Cresol; 4-methylphenol (106-44-5)	Indeno(1,2,3-cd)pyrene (193-39-5)	1,1,1-Trichloroethane, Methylchloroform (71-55-6)
2,4-D; 2,4-Dichlorophen- oxyacetic acid (94-75-7)	Isobutyl alcohol (78-83-1)	1,1,2-Trichloroethane (79-00-5)
4,4[21]-DDD (72-54-8)	Isodrin (465-73-6)	Trichloroethylene, Trichloroethene (79-01-6)
4,4[21]-DDE (72-55-9)	Isophorone (78-59-1)	Trichlorofluoromethane, R-11 (75-69-4)
4,4[21]-DDT (50-29-3)	Isosafrole (120-58-1)	2,4,5-Trichlorophenol (95-95-4)
Diallate (2303-16-4)	Kepone (143-50-0)	2,4,6-Trichlorophenol (88-06-2)
Dibenz[a,h]anthracene (53-70-3)	Methacrylonitrile (126-98-7)	1,2,3-Trichloropropane (96-18-4)
Dibenzofuran (132-64-9)	Methapyrilene (91-80-5)	0,0,0-Triethyl phosphorothioate (126-68-1)
Dibromochloromethane; Chlorodibromomethane (124-48-1)	Methoxychlor (72-43-5)	sym-Trinitrobenzene (99-35-4)
1,2-Dibromo-3-chloro- propane; DBCP (96-12-8)	Methyl bromide; Bromomethane (74-83-9)	Vinyl acetate (108-05-4)
1,2-Dibromoethane; Ethylene dibromide; EDB (106-93-4)	Methyl chloride; Chloromethane (74-87-3)	Vinyl chloride; Chloroethene (75-01-4)
Di-n-butyl phthalate (84-74-2)	3-Methylcholanthrene (56-49-5)	Xylene (total)
o-Dichlorobenzene; 1,2-Dichlorobenzene (95-50-1)	Methyl ethyl ketone; MEK; 2-Butanone (78-93-3)	Per- and polyfluoroalkyl substances[29]
m-Dichlorobenzene; 1,3-Dichlorobenzene (541-73-1)	Methyl iodide; Iodomethane (74-88-4)	1,4-Dioxane (123-91-1)
p-Dichlorobenzene; 1,4-dichlorobenzene (106-46-7)	Methyl methacrylate (80-62-6)	
3,3[21]-Dichlorobenzidine (91-94-1)	Methyl methanesulfonate (66-27-3)	
trans-1,4-Dichloro- 2-butene (110-57-6)	2-Methylnaphthalene (91-57-6)	

Dichlorodifluoromethane, CFC 12 (75-71-8)	Methyl parathion; Parathion methyl (298-00-0)	
1,1-Dichloroethane; Ethyldidene chloride (75-34-3)	4-Methyl-2-pentanone; Methyl isobutyl ketone (108-10-1)	
1,2-Dichloroethane; Ethylene dichloride (107-06-2)	Methylene bromide; Dibromomethane (74-95-3)	
1,1-Dichloroethylene, 1,1-Dichloroethene; Vinylidene chloride (75-35-4)	Methylene chloride; Dichloromethane (75-09-2)	

(i) Leachate management plan.

The leachate management plan must include:

(1) a description of how the landfill will be constructed, operated, and closed in a manner that minimizes the generation of leachate, except in those cases where the department has approved the recirculation of leachate for waste mass stabilization enhancement, and how the migration of leachate into surface water or groundwater will be prevented;

(2) a description of operational methods to minimize the occurrence of perched leachate trapped above the leachate collection and removal system and surface seeps of leachate from above-grade landfill operations;

(3) a schedule for biennial video inspection and annual maintenance of the primary and secondary leachate collection and removal system;

(4) a schedule for the monitoring and recording of the secondary leachate collection and removal system flow data to determine the presence, quantity, nature and significance of any liquid detected;

(5) a discussion of the specific design and operational features related to the system, including leachate monitoring and sampling, locations of all leachate sampling points, alarm systems and maintenance, and any required back up equipment; and

(6) if leachate recirculation is proposed, the leachate management plan must include

(i) a supporting geotechnical analysis evaluating the effect of leachate recirculation on the structural integrity and stability of the landfill's liner system, leachate collection and removal system, and waste mass;

(ii) a description of how increased landfill gas emissions and associated odors will be controlled;

(iii) a description of the methods and rate of leachate recirculation and addition;

(iv) procedures for recording the date and volume of recirculated leachate;

(v) a description of the operation, which addresses:

(a) the use of permeable operating cover or alternative operating cover to facilitate leachate distribution throughout the waste mass; and

(b) operational controls such as monitoring of surface seeps, liner system performance and excessive leachate head buildup, prevention of subsurface fires, odor control, and instruction for cessation of leachate recirculation and remediation of these conditions.

(j) Odor control plan.

The odor control plan must include:

(1) identification of all potential sources for odors and a description of the operational procedures and strategies to be followed to effectively control odors at the facility;

(2) procedures to be taken in the event of proposed waste volume increases or changes in waste characterization that may increase landfill gas emissions or odors;

(3) identification of the landfill personnel who would be responsible for implementation of the odor control plan; and

(4) operational and design-related recommendations that can be implemented upon detection of odor control problems, including impervious membranes and interim covers in conjunction with other landfill gas control methods. The odor control plan may include but not be limited to, gas control systems that are appropriately connected to the landfill liner system's primary leachate collection and removal system (including the drainage area on the landfill's side slopes), use of a horizontal gas collection lines, which may include rejection or mitigation of odiferous wastes that are determined to be contributing to off-site odors.

(k) Gas monitoring and emission control plan.

The gas monitoring and emission control plan must include:

(1) a description of the day-to-day operation of the landfill gas management system with respect to operation of odor and emission controls;

(2) a description of any air quality monitoring, including monitoring for fugitive landfill odor and air emissions; and

(3) for a landfill with an appurtenant landfill gas-to-energy facility or other landfill gas recovery facility, a discussion of how the landfill's odor and air emission controls are integrated with a recovery facility.

(l) Winter and inclement weather operation plan.

A description of how winter and inclement weather operations will be conducted, including identification of the specific actions to be taken to prevent frost action on the liner system in places where waste will not be placed within one year of construction certification approval.

(m) Residential drop-off operation plan.

A description of the operation of a residential drop-off area, if applicable, for non-commercial vehicles to unload waste and recyclables at an area other than the landfill working face.

(n) A radioactive waste detection plan.

The radioactive waste detection plan must include procedures for detecting radioactive material; operation and maintenance documents for radiation detectors which address proper equipment placement for effective operation and include setting of investigation alarm setpoint settings and calibration methods; and response procedures to be implemented if radioactive waste is detected.

(o) Emergency response plan.

An emergency response plan must include a description of, at a minimum, the actions to be taken in response to:

(1) uncontrolled explosive landfill gases detected on-site or beyond the property boundary;

(2) unexpected events during the construction and operation of the landfill gas management system, including the equipment to be utilized to maintain proper landfill gas venting and control when normal operations cease; and

(3) unexpected events during the subsequent construction and/or daily operation of the landfill's leachate collection and removal system.

(p) Conceptual closure, post-closure care, custodial care, and end use plan.

The conceptual closure, post-closure care, custodial care, and end use plan must include:

(1) a site plan that shows proposed final contours, property lines, storm water drainage system, streams and water courses, roads, structures and, if applicable, the groundwater and leachate treatment system, air pollution control system and any active landfill gas collection system;

(2) typical details of final cover system components and facility structures;

(3) a description of how the sequential closure of areas of the landfill is expected to progress in concert with the fill progression schedule, including effects of landfill reclamation activities if proposed;

(4) an estimate of the greatest number of landfill cells which, at any given point during the lifetime of the facility, will have received waste but not undergone final closure;

(5) an estimate of the maximum volume of waste and alternative operating cover that will be contained within the landfill;

(6) sufficient information upon which to estimate closure costs and post-closure and custodial care monitoring and maintenance costs. This information must be based upon the requirements of Subpart 363-9 of this Part, including a rolling 30-year post-closure care period, and must include estimates of:

(i) quantities and costs for each component of the final cover system, including related construction costs;

(ii) the anticipated length of the post-closure care period based on the types of wastes disposed and the criteria provided in section 363-9.6(a) of this Part;

(iii) post-closure operational, monitoring and maintenance costs including costs to replace system components based on predicted service life; and

(iv) custodial care monitoring and maintenance costs including costs to replace system components based on predicted service life; and

(7) a conceptual end use for the site, if proposed.

Footnotes

1 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I

(July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in section 360.3 of this Title.

2 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

3 Any floaters or sinkers found must be analyzed separately for baseline parameters.

4 Surface water only.

5 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

6 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in section 360.3 of this Title.

7 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

8 Any floaters or sinkers found must be analyzed separately for baseline parameters.

9 Surface water only.

10 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

11 The department may waive the requirement to analyze hexavalent chromium provided that total and hexavalent and trivalent chromium values do not exceed 0.05 mg/l.

12 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March, 1983, incorporated by reference in 360.3 of this Title.

13 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

14 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March 1983, incorporated by reference in 360.3 of this Title. *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*, USEPA-600/4-80-032, August 1980, incorporated by reference in section 360.3 of this Title.

15 Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals. "Total" indicates all species in the groundwater that contain this element.

16 Two sets of samples must be collected: one filtered and one unfiltered. Filtered samples must be filtered using a 0.45 micron filter via standard techniques.

17 Any floaters or sinkers found must be analyzed separately for baseline parameters.

18 Surface water only.

19 Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

20 The department may waive the requirement to analyze hexavalent chromium provided that total and hexavalent and trivalent chromium values do not exceed 0.05 mg/l.

21 This list contains parameters for which possible analytical procedures are provided in: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 (Third Edition, (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998) document number 955-001-00000-1), incorporated by reference in section 360.3 of this Title. *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March 1983, incorporated by reference in section 360.3 of this Title.

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Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

23 This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2"-oxybis[2]-chloro- (CAS RN 39638-32-9).

24 Polychlorinated biphenyls (1336-36-3): This category contains congener chemicals, including constituents of Aroclor 1016 (12674-11-2), Aroclor 1221 (11104-28-2), Aroclor 1232 (11097-69-1), and Aroclor 1260 (11096-82-5).

25 Polychlorinated dibenzo-p-dioxins: This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins, pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins.

26 Polychlorinated dibenzofurans: This category includes congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

27 Chlordane: This entry includes alpha-chlordane (5103-71-9), beta-chlordane (5103-74-2), gamma-chlordane (5566-34-7), and constituents of chlordane (57-74-9; 12789-03-6).

28 Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), *i.e.*, chlorinated camphene.

29 Per- and polyfluoroalkyl substances (PFAS): This category contains congener chemicals, including but not limited to perfluorooctanoic acid, perfluorooctanesulfonic acid, perfluorononanoic acid, perfluorohexanesulfonic acid, perfluoroheptanoic acid, perfluorobutanesulfonic acid.

6 CRR-NY 363-4.6
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