Data Usability Summary Report
June 2018 Additional Monitoring Request
Perfluorinated Chemicals and 1,4-Dioxane Groundwater Sampling
R38559 Amphenol - Sidney Center Landfill (EPA ID: NYD980507677)
Sidney Center, New York

1.0 INTRODUCTION

Groundwater samples were collected at the Sidney Center Landfill Site in Sidney Center, New York, in May 2018 and submitted for off-site laboratory analysis. Samples were analyzed by SGS Accutest located in Orlando, Florida and Dayton, New Jersey. Samples were analyzed using the following methods:

- 1,4-Dioxane by USEPA Method 8270D-Selected Ion Monitoring (SIM)
- Per- and Polyfluorinated Alkyl Substances (PFAS) by Modified EPA Method 537

Results were reported in the following sample delivery group (SDG):

- JC65910

Data quality objectives are identified in the 2018 Additional Monitoring Request Plan: May 2018 (Amec Foster Wheeler, 2018). PFAS target compounds include 21 compounds specified in the New York State Department of Environmental Conservation (NYSDEC) guidance for Groundwater Sampling for Emerging Contaminants (NYSDEC, 2018). Only pefluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were reported by the laboratory in the original analysis. Sample data were subsequently reprocessed by the laboratory to include the full list of 21 compounds. A Data Usability Summary Report (DUSR) was completed for PFAS compounds and 1,4-dioxane laboratory data in accordance with New York State Department of Environmental Conservation (NYSDEC) guidelines (NYSDEC, 2010). Additional raw data verification completed on samples MW-06SX-1802-XX and MW-06SX-1802-XD for PFAS method. Sample event information included in this chemist review is presented in the following tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results

Laboratory deliverables included:

- Category B deliverable as defined in the NYSDEC Analytical Services Protocols (NYSDEC, 2005).

The chemist review and DUSR included the following evaluations.

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- QC Blanks
- Instrument Calibration

- Laboratory Control Samples (LCS)
- Matrix Spike/Matrix Spike Duplicates (MS/MSD)
- Surrogate/Labeled Internal Standard Spikes
- Field Duplicates
- Reporting Limits
- Raw Data and Calculation Checks
- Electronic Data Qualification and Verification

Control limits reported by the laboratory were used to evaluate quality control performance. Data qualification actions are applied when necessary based on general procedures in USEPA validation guidelines (USEPA, 2016) and the judgment of the project chemist. The following laboratory or data review qualifiers are used in the final data presentation:

U = The target compound was not detected at a concentration greater than, or equal to, the quantitation limit.
J = The reported concentration is considered an estimated value.
UJ = The target compound was not detected and the reporting limit is considered to be estimated.
R = The reported value is rejected and is considered to be unusable

The validation qualification actions for this data set and associated validation reason codes are summarized on Table 2. The following data validation reason codes were applied to one or more sample results:

LCSL = LCS recovery less than the lower limit
MSL = Matrix spike recovery less than the lower limit
MSDL = Matrix spike duplicate recovery less than the lower limit

Sample results that are not included on Table 2 were interpreted to be usable as reported by the laboratory. A complete summary of final sample results is provided on Table 3.

2.0 VALIDATION ACTIONS

2.1 PFAS

Data were evaluated based on the following parameters:

* Lab Report Narrative Review
* Data Package Completeness and COC records (Table 1 verification)
* Sample Preservation and Holding Times
* QC Blanks
* Instrument Calibration
  Laboratory Control Samples (LCS)
  Matrix Spike/Matrix Spike Duplicates (MS/MSD)
* Surrogate/Labeled Internal Standard Spikes
* Field Duplicates

* Reporting Limits
* Electronic Data Verification
* Raw data review and Calculation Verification

* - QC criteria were met for this parameter.

LCS

The laboratory reported that a styrene divinylbenzene (SDVB) solid phase extraction (SPE) was used during extraction in the original analysis. The SDVB SPE may have low recoveries for perfluorobutanoic acid (PFBA) and perfluoropentanoic acid (PFPeA). The LCS percent recovery was less than the lower QC limit of 10 for PFBA (3) in batch OP70086, which indicate low bias. Non-detected results of PFBA in associated samples were qualified as rejected (R) with reason code LCSL.

MS/MSD

MS/MSD analyses were completed using sample MW-06SX-1802-XX. The MS/MSD percent recoveries of perfluorobutanoic acid (3/4) were less than the lower QC limit of 10, which indicate low bias. This compound was not detected sample MW-06SX-1802-XX and associated field duplicate MW-06SX-1802-XD and reporting limits were qualified as rejected (R) with reason code MSL/MSDL.

2.2 1,4-Dioxane

Data were evaluated based on the following parameters:

* Lab Report Narrative Review
* Data Package Completeness and COC records (Table 1 verification)
* Sample Preservation and Holding Times
* QC Blanks
* Instrument Calibration
* Laboratory Control Samples (LCS)
* Matrix Spike/Matrix Spike Duplicates (MS/MSD)
* Surrogate/Labeled Internal Standard Spikes
* Field Duplicates
* Reporting Limits
* Electronic Data Qualification and Verification

* - QC criteria were met for this parameter.

No QC issues were identified.

Reference:

Amec Foster Wheeler, 2018. 2018 Additional Monitoring Request Perfluorinated Chemicals (PFOA & PFOS) and 1,4-dioxane Groundwater Sampling R38559 Amphenol – Sidney Center Landfill (EPA ID: NYD980507677); May 1, 2018.

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

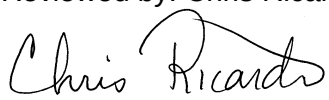
New York State Department of Environmental Conservation (NYSDEC), 2018. “Groundwater Sampling for Emerging Contaminants”; April 2018.

U.S. Environmental Protection Agency (USEPA), 2016. "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review"; Office of Emergency and Remedial Response; EPA-540-/R-2016-002; September 2016.

Data Validator: Lakshmi Devi

November 22, 2019

Reviewed by: Chris Ricardi, NRCC-EAC



December 16, 2019

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
CHEMIST REVIEW SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

				Parameter	1,4-Dioxane	PFAS
				Method	SW8270D-SIM	EPA 537
SDG	Field Sample ID	Location ID	Type	Date		
JC65910	EQUIPMENT BLANK-050918	QC	EB	05/09/2018	1	21
JC65910	MW-01DX-1802-XX	MW-01D	REG	05/08/2018	1	21
JC65910	MW-02DX-1802-XX	MW-02D	REG	05/08/2018	1	21
JC65910	MW-02SX-1802-XX	MW-02S	REG	05/08/2018	1	21
JC65910	MW-03SX-1802-XX	MW-03S	REG	05/07/2018	1	21
JC65910	MW-06DX-1802-XX	MW-06D	REG	05/09/2018	1	21
JC65910	MW-06SX-1802-XD	MW-06S	FD	05/09/2018	1	21
JC65910	MW-06SX-1802-XX	MW-06S	REG	05/09/2018	1	21
JC65910	MW-08DX-1802-XX	MW-08D	REG	05/09/2018	1	21
JC65910	MW-08SX-1802-XX	MW-08S	REG	05/07/2018	1	21
JC65910	MW-09SX-1802-XX	MW-09S	REG	05/07/2018	1	21
JC65910	MW-14SX-1802-XX	MW-14S	REG	05/08/2018	1	21
JC65910	MW-15DX-1802-XX	MW-15D	REG	05/08/2018	1	21
JC65910	MW-15SR-1802-XX	MW-15SR	REG	05/08/2018	1	21
JC65910	MW-16SX-1802-XX	MW-16S	REG	05/08/2018	1	21
JC65910	MW-17XX-1802-XX	MW-17	REG	05/07/2018	1	21
JC65910	MW-18XX-1802-XX	MW-18	REG	05/08/2018	1	21
JC65910	MW-19XX-1802-XX	MW-19	REG	05/08/2018	1	21
JC65910	MW-23XX-1802-XX	MW-23	REG	05/07/2018	1	21
JC65910	FIELD BLANK-050918	QC	FB	05/09/2018		21

Notes:
EB = Equipment Blank
FB = Field Blank
FD= Field Duplicate
REG= Regular Sample

Prepared by: Lakshmi Devi 11/22/2019
Reviewed by: Chris Ricardi 12/16/2019

TABLE 2
VALIDATON ACTIONS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

SDG	Field Sample ID	Type	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
JC65910	MW-01DX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-02DX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-02SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-03SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-06DX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-06SX-1802-XD	FD	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL,MSL,MSDL	ng/L
JC65910	MW-06SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL,MSL,MSDL	ng/L
JC65910	MW-08DX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-08SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-09SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-14SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-15DX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-15SR-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-16SX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-17XX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-18XX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-19XX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L
JC65910	MW-23XX-1802-XX	REG	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	R	LCSL	ng/L

Notes:
LCSL = LCS recovery greater than the lower control limit
MSL = Matrix spike recovery less than the lower limit
MSDL = Matrix spike duplicate recovery less than the lower limit
J = Estimated
U = Undetected

Prepared by: Lakshmi Devi 11/22/2019
Reviewed by: Chris Ricardi 12/16/2019

TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-01DX-1802-XX		MW-02DX-1802-XX		MW-02SX-1802-XX	
		Location	MW-01D		MW-02D		MW-02S	
		Sample Date	05/08/2018		05/08/2018		05/08/2018	
		Sample Delivery Group	JC65910		JC65910		JC65910	
Units	**Method**	**Parameter Name**						
µg/l	SW8270D-SIM	1,4-Dioxane	0.215		0.10	U	0.0784	J
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0	R	8.0	R	8.0	R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	2.82		2.00	U	2.00	U
ng/L	E537M	Perfluorooctanoic acid (PFOA)	2.63		2.00	U	2.00	U
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20	U	20	U	20	U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20	U	20	U	20	U

Notes:
U= undetected
J= estimated value

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Reviewed by: Chris Ricardi 12/16/2019

TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-03SX-1802-XX		MW-06DX-1802-XX		MW-06SX-1802-XX	
		Location	MW-03S		MW-06D		MW-06S	
		Sample Date	05/07/2018		05/09/2018		05/09/2018	
		Sample Delivery Group	JC65910		JC65910		JC65910	
Units	**Method**	**Parameter Name**						
µg/l	SW8270D-SIM	1,4-Dioxane	0.0960	J	0.189		0.235	
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0	R	8.0	R	8.0	R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	5.81		2.00	U	7.14	
ng/L	E537M	Perfluorooctanoic acid (PFOA)	3.83		1.04	J	14.00	
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20	U	20	U	20	U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20	U	20	U	20	U

Notes:
U= undetected
J= estimated value

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Reviewed by: Chris Ricardi 12/16/2019

TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-06SX-1802-XD		MW-08DX-1802-XX		MW-08SX-1802-XX	
		Location	MW-06S		MW-08D		MW-08S	
		Sample Date	05/09/2018		05/09/2018		05/07/2018	
		Sample Delivery Group	JC65910		JC65910		JC65910	
Units	**Method**	**Parameter Name**						
µg/l	SW8270D-SIM	1,4-Dioxane	0.237		0.257		1.23	
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0	R	8.0	R	8.0	R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	6.70		5.42		4.98	
ng/L	E537M	Perfluorooctanoic acid (PFOA)	12.90		5.89		6.70	
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20	U	20	U	20	U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20	U	20	U	20	U

Notes:
U= undetected
J= estimated value

Prepared by: Lakshmi Devi 11/22/2019
Reviewed by: Chris Ricardi 12/16/2019

TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-09SX-1802-XX		MW-14SX-1802-XX		MW-15DX-1802-XX	
		Location	MW-09S		MW-14S		MW-15D	
		Sample Date	05/07/2018		05/08/2018		05/08/2018	
		Sample Delivery Group	JC65910		JC65910		JC65910	
Units	Method	Parameter Name						
µg/l	SW8270D-SIM	1,4-Dioxane	0.10	U	0.10	U	0.0668	J
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0	R	8.0	R	8.0	R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0	U	2.0	U	2.0	U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	U	2.00	U
ng/L	E537M	Perfluorooctanoic acid (PFOA)	2.00	U	2.00	U	2.00	U
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0	U	4.0	U	4.0	U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0	U	8.0	U	8.0	U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20	U	20	U	20	U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20	U	20	U	20	U

Notes:
U= undetected
J= estimated value

Prepared by: Lakshmi Devi 11/22/2019
Reviewed by: Chris Ricardi 12/16/2019

TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-15SR-1802-XX	MW-16SX-1802-XX	MW-17XX-1802-XX
		Location	MW-15SR	MW-16S	MW-17
		Sample Date	05/08/2018	05/08/2018	05/07/2018
		Sample Delivery Group	JC65910	JC65910	JC65910
Units	**Method**	**Parameter Name**			
µg/l	SW8270D-SIM	1,4-Dioxane	0.10 U	0.10 U	0.10 U
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0 R	8.0 R	8.0 R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	2.00 U	2.00 U	2.00 U
ng/L	E537M	Perfluorooctanoic acid (PFOA)	2.00 U	2.00 U	2.00 U
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0 U	8.0 U	8.0 U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0 U	8.0 U	8.0 U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20 U	20 U	20 U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20 U	20 U	20 U

Notes:
U= undetected
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TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	MW-18XX-1802-XX	MW-19XX-1802-XX	MW-23XX-1802-XX
		Location	MW-18	MW-19	MW-23
		Sample Date	05/08/2018	05/08/2018	05/07/2018
		Sample Delivery Group	JC65910	JC65910	JC65910
Units	**Method**	**Parameter Name**			
µg/l	SW8270D-SIM	1,4-Dioxane	0.10 U	0.10 U	0.11 U
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0 R	8.0 R	8.0 R
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0 U	2.0 U	2.0 U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	2.00 U	2.00 U	2.00 U
ng/L	E537M	Perfluorooctanoic acid (PFOA)	2.00 U	2.00 U	1.01 J
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0 U	4.0 U	4.0 U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0 U	8.0 U	8.0 U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0 U	8.0 U	8.0 U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20 U	20 U	20 U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20 U	20 U	20 U

Notes:
U= undetected
J= estimated value

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TABLE 3
FINAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2018 ADDITIONAL MONITORING REQUEST
PFAS AND 1,4-DIOXANE GROUNDWATER SAMPLING
R38559 AMPHENOL - SIDNEY CENTER LANDFILL (EPA ID: NY980507677)
NEW YORK

		Field Sample ID	EQUIPMENT BLANK-050918		FIELD BLANK-050918	
		Location	QC		QC	
		Sample Date	05/09/2018		05/09/2018	
		Sample Delivery Group	JC65910		JC65910	
Units	**Method**	**Parameter Name**				
µg/l	SW8270D-SIM	1,4-Dioxane	0.10	U		
ng/L	E537M	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	U
ng/L	E537M	Perfluorobutanoic acid (PFBA)	8.0	U	8.0	U
ng/L	E537M	Perfluorodecanesulfonic acid (PFDS)	4.0	U	4.0	U
ng/L	E537M	Perfluorodecanoic acid (PFDA)	4.0	U	4.0	U
ng/L	E537M	Perfluorododecanoic acid (PFDoA)	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanesulfonic acid (PFHpS)	4.0	U	4.0	U
ng/L	E537M	Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	U
ng/L	E537M	Perfluorohexanoic acid (PFHxA)	4.0	U	4.0	U
ng/L	E537M	Perfluorononanoic acid (PFNA)	2.0	U	2.0	U
ng/L	E537M	Perfluorooctane sulfonamide (FOSA)	4.0	U	4.0	U
ng/L	E537M	Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	U
ng/L	E537M	Perfluorooctanoic acid (PFOA)	2.00	U	2.00	U
ng/L	E537M	Perfluoropentanoic acid (PFPeA)	4.0	U	4.0	U
ng/L	E537M	Perfluorotetradecanoic acid (PFTeDA)	4.0	U	4.0	U
ng/L	E537M	Perfluorotridecanoic acid (PFTrDA)	4.0	U	4.0	U
ng/L	E537M	Perfluoroundecanoic acid (PFUnDA)	4.0	U	4.0	U
ng/L	E537M	6:2 Fluorotelomer sulfonate (6:2 FTS)	8.0	U	8.0	U
ng/L	E537M	8:2 Fluorotelomer sulfonate (8:2 FTS)	8.0	U	8.0	U
ng/L	E537M	N-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	20	U	20	U
ng/L	E537M	N-Methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	20	U	20	U

Notes:
U= undetected
J= estimated value

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