October 4, 2018

Payson Long
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233

RE: Stanton Cleaners NYSDEC Site #130072 - January 2018 Groundwater Sampling

Dear Mr. Long,

In accordance with the NYSDEC August 2017 *Collection of Groundwater Samples for Perfluorooctanoic Acid (PFOA) and Perfluorinated Compounds (PFCs) from Monitoring Wells Sample Protocol* and the NYSDEC March 1991 *Sampling Guidelines and Protocols,* HDR collected 10 groundwater field samples and one groundwater field duplicate sample from January 18-22, 2018 at the Station Cleaners site (see attached figure). HDR also collected quality control samples, including seven bladder pump blanks, two equipment blanks and one matrix spike/matrix spike duplicate. All of the groundwater field samples were analyzed for per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane using analytical methods modified USEPA 537 and USEPA 8270D SIM, except for two samples. The two samples "EPA-CL-4S-011818" and "EPA-CL-4D-011818" were analyzed for 1,4-dioxane only. A data usability study report (DUSR) was prepared by Data Validation Services in October 2018 (see attached).

The results from this sampling event are summarized on Table 1 along with the appropriate qualifiers based on the DUSR. Data from these samples were compared to the NYS Maximum Contaminant Levels (MCLs) and the United States Environmental Protection Agency (USEPA) Health Advisories for Lifetime exposure. Review of the table indicates no exceedances of these standards, except for one instance. In sample "EPA-MW-26-012218", the sum of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) is 88.6 ng/L compared to the EPA Health Advisory Lifetime of 70 ng/L. 1,4-dioxane was also detected in this sample at a concentration of 2.5 ug/L. Monitoring well EPA-MW-26 is an upgradient upper glacial aquifer well and it is unlikely that the noted compounds are related to Stanton Cleaners.

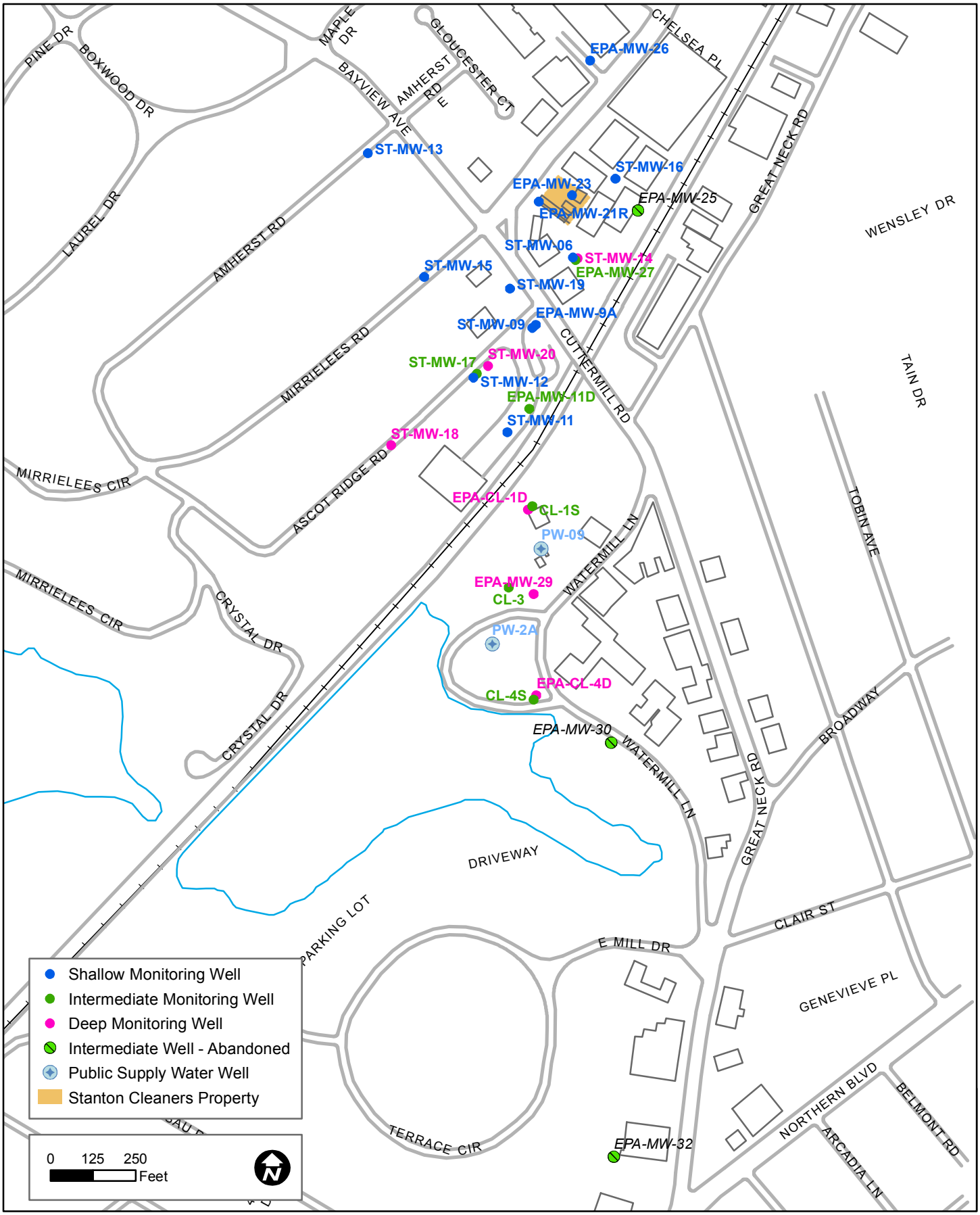
Please let me know if you have any comments and HDR will submit the electronic data deliverable.

Sincerely,

Michael Lehtinen
Project Manager, HDR

hdrinc.com

16 Corporate Woods Blvd., First FloorAlbany, NY 12211-2527
(518) 937-9500



Monitoring Well Network
Stanton Cleaners
NYSDEC Site # 130072
Great Neck-North Hempstead, New York

Figure 6

October 29, 2013

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

October 2, 2018

Michael Lehtinen
HDR
16 Corporate Woods Blvd Suite 204
Albany, NY 12211

RE: Data Usability Summary Report (DUSR) of Stanton Cleaners Site Data Packages
TestAmerica Laboratories SDG Nos. 320-35137, 320-35294, 460-148719, 460-148827, and 460-148869

Dear Mr. Lehtinen:

Review has been completed for the data packages generated by TestAmerica Laboratories that pertain to the analyses of aqueous samples collected between 01/18/18 and 01/22/18 at the Stanton Cleaners site. Eight samples and a field duplicate were analyzed for for per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. Two additional samples were processed for 1,4-dioxane. Equipment and bladder blanks were also processed. The analytical methods utilized are USPA 8270D SIM and a modified USEPA method 537.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. Full validation has not been performed. However, the reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national data review guidance documents, in consideration of the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate/Isotopic Standard Recoveries
* Internal Standard Recoveries
* Laboratory Duplicate Correlations
* Field Duplicate Correlations
* Method, Equipment, and Bladder Blanks
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level of review.

In summary, sample processing was conducted in compliance with the analysis protocol. All sample reported results are usable either as reported or with minor qualification.

Data completeness, accuracy, precision, representativeness, and comparability are acceptable.

Sample identifications and validation qualifier definitions are attached to this text. Also included in this report are the laboratory EQuIS EDDs, with validation qualifiers and edits made in red.

The laboratory report forms within the data packages improperly show method detection limits (MDLs) as reporting limits. The EDDs show the proper reporting limit concentrations, but improperly show MDLs as PQLS.

Chain-of-Custody/Sample Receipt

The initial relinquish date and time are not present on the custody form for the samples collected 01/18/18.

1,4-Dioxane Analyses by USEPA Method 8270D SIM

Holding time requirements were met. Sample surrogate and internal standard recoveries are compliant. Calibration standards show responses within the validation guidelines. Blanks show no contamination.

The matrix spike evaluation of EPA-MW-23-011918 shows recoveries and correlations within laboratory acceptance ranges.

The field duplicate correlations at location ST-MW-16 are acceptable.

PFAS by Modified EPA Method 537

PFAS compounds are at times identified by their common acronyms in this report. The data package report forms reference both the technical names and the acronyms.

Method, bladder, and equipment blanks consistently show low level responses of PFBA and PFHxS. Therefore, the field sample detections of these analytes that are within fivefold concentration of the associated blanks are considered external contamination and edited to reflect non-detection.

Internal and surrogate standards recoveries are within the laboratory acceptance ranges.

The matrix spike evaluation of EPA-M-23-011918 shows recoveries and correlations within laboratory acceptance ranges.

The field duplicate correlations at location ST-MW-16 are acceptable. LCS recoveries are within the laboratory acceptance ranges.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample Identifications

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC Stanton Cleaners; Site: 130072

TestAmerica Job ID: 320-35237-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-35237-1	BB-EPA-MW-23-011918	Water	01/19/18 08:15	01/20/18 10:10
320-35237-2	EB-PUMP1-011918	Water	01/19/18 08:30	01/20/18 10:10
320-35237-3	BB-ST-MW-16-011918	Water	01/19/18 08:55	01/20/18 10:10
320-35237-4	EB-PUMP2-011918	Water	01/19/18 09:05	01/20/18 10:10
320-35237-5	ST-MW-16-011918	Water	01/19/18 10:47	01/20/18 10:10
320-35237-6	EPA-MW-23-011918	Water	01/19/18 10:55	01/20/18 10:10
320-35237-7	DUPLICATE1-011918	Water	01/19/18 00:00	01/20/18 10:10
320-35237-8	BB-ST-MW-19-011918	Water	01/19/18 11:41	01/20/18 10:10
320-35237-9	ST-MW-19-011918	Water	01/19/18 14:05	01/20/18 10:10

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC Stanton Cleaners; Site: 130072

TestAmerica Job ID: 320-35294-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-35294-1	BB-ST-MW-15-012218	Water	01/22/18 09:55	01/23/18 09:55
320-35294-2	BB-EPA-MW-26-012218	Water	01/22/18 09:50	01/23/18 09:55
320-35294-3	EPA-EXT-02-012218	Water	01/22/18 09:40	01/23/18 09:55
320-35294-4	BB-ST-MW-18-012218	Water	01/22/18 07:55	01/23/18 09:55
320-35294-5	ST-MW-20-012218	Water	01/22/18 08:47	01/23/18 09:55
320-35294-6	ST-MW-18-012218	Water	01/22/18 09:00	01/23/18 09:55
320-35294-7	BB-ST-MW-20-012218	Water	01/22/18 07:50	01/23/18 09:55
320-35294-8	EPA-MW-26-012218	Water	01/22/18 10:55	01/23/18 09:55
320-35294-9	ST-MW-15-012218	Water	01/22/18 11:10	01/23/18 09:55

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC Stanton Cleaners; Site: 130072

TestAmerica Job ID: 460-148719-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-148719-1	EPA-CL-4S-011818	Water	01/18/18 12:29	01/18/18 19:40
460-148719-2	EPA-CL-4D-011818	Water	01/18/18 14:20	01/18/18 19:40

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC Stanton Cleaners; Site: 130072

TestAmerica Job ID: 460-148827-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-148827-1	EB-PUMP1-011918	Water	01/19/18 08:30	01/19/18 19:20
460-148827-2	St-MW-16-011918	Water	01/19/18 10:47	01/19/18 19:20
460-148827-3	Duplicate1-011918	Water	01/19/18 00:00	01/19/18 19:20
460-148827-4	EPA-MW-23-011918	Water	01/19/18 10:55	01/19/18 19:20
460-148827-5	ST-MW-19-011918	Water	01/19/18 14:05	01/19/18 19:20

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC Stanton Cleaners; Site: 130072

TestAmerica Job ID: 460-148869-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-148869-1	EPA-EXT-02-012218	Water	01/22/18 09:40	01/22/18 19:05
460-148869-2	ST-MW-20-012218	Water	01/22/18 08:47	01/22/18 19:05
460-148869-3	ST-MW-18-012218	Water	01/22/18 09:00	01/22/18 19:05
460-148869-4	EPA-MW-26-012218	Water	01/22/18 10:55	01/22/18 19:05
460-148869-5	ST-MW-15-012218	Water	01/22/18 11:10	01/22/18 19:05

Groundwater Sampling Results for Emerging Contaminants
January 2018

			SAMPLE ID:	EPA-CL-4D-011818		EPA-CL-4S-011818		EPA-EXT-02-012218		EPA-MW-23-011918		EPA-MW-26-012218		ST-MW-15-012218	
			LAB ID:	460-148719-2		460-148719-1		320-35294-3 / 460-148869-1		320-35237-6 / 460-148827-4		320-35294-8 / 460-148869-4		320-35294-9 / 460-148869-5	
			SAMPLE DATE:	1/18/2018		1/18/2018		1/22/2018		1/19/2018		1/22/2018		1/22/2018	
Constituent	NYS MCL[1]	EPA Health Advisory - Lifetime[2]	Units	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,4-Dioxane	50	200	ug/L	ND	U	ND	U	0.11	J	ND	U	2.5		0.046	J
Perfluorooctane Sulfonic Acid (PFOS)	NS	70	ng/L	NA	--	NA	--	15		25.5		64.2		ND	U
Perfluorooctanoic Acid (PFOA)	50,000	70	ng/L	NA	--	NA	--	17		19.8		24.4		1.2	J
Sum of PFOA and PFOS	NS	70	ng/L	NA	--	NA	--	32		45.3		**88.6**		1.2	J
2-(N-Methyl Perfluorooctanesulfonamido) Acetic Acid	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
N-Ethyl-N-((Heptadecafluorooctyl)Sulphonyl) Glycine	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluorobutanesulfonic Acid	NS	NS	ng/L	NA	--	NA	--	2.81		2.98		4.3		0.57	J
Perfluorobutyric Acid (PFBA)	NS	NS	ng/L	NA	--	NA	--	5.99	B	9.32	B	14	B	ND	U
Perfluorodecane Sulfonic Acid	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluorodecanoic Acid (PFDA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	0.32	J	ND	U
Perfluorododecanoic Acid (PFDOA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluoroheptane Sulfonate (PFHPS)	NS	NS	ng/L	NA	--	NA	--	0.74	J	0.84	J	1.82	J	ND	U
Perfluoroheptanoic Acid (PFHPA)	NS	NS	ng/L	NA	--	NA	--	6.61		7.67		18.8		0.52	J
Perfluorohexanesulfonic Acid	NS	NS	ng/L	NA	--	NA	--	6.8	B	9.58	B	25.8	B	ND	U
Perfluorohexanoic Acid (PFHXA)	NS	NS	ng/L	NA	--	NA	--	9.15		13.1		28.8		0.6	J
Perfluorononanoic Acid	NS	NS	ng/L	NA	--	NA	--	2.22		9.13		8.7		ND	U
Perfluorooctane Sulfonamide (FOSA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluoropentanoic Acid (PFPEA)	NS	NS	ng/L	NA	--	NA	--	11.7		21.6		40.7		0.6	J
Perfluorotetradecanoic Acid (PFTEA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluorotridecanoic Acid (PFTRIA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Perfluoroundecanoic Acid (PFUNA)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	NS	NS	ng/L	NA	--	NA	--	ND	U	ND	U	ND	U	ND	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	NS	NS	ng/L	NA	--	NA	--	4.47	J	ND	U	ND	U	ND	U

Notes:
Bold/highlighted cell indicates exceedance of NYS MCL or USEPA Health Advisory Lifetime.
The field duplicate sample was collected from ST-MW-16.
NA - Not Analyzed
NS - No Standard

Qualifiers:
B - Detected in associated method blank
J - Estimated value
ND or U - Not detected

Reference:

(1) New York State (NYS). 2017. Federal and New York State Regulation of Drinking Water Contaminants. Office of the New York State Comptroller. June. Available online: https://osc.state.ny.us/reports/environmental/drinking-water-contaminants.pdf

(1) NYS. 2018. SubPart 5-1 Public Water Supplies, 5-1.52 Tables. Department of Health. May 16. Available online: https://www.health.ny.gov/regulations/nycrr/title_10/part_5/docs/subpart_5-1_tables.pdf
(2) United States Environmental Protection Agency (USEPA). 2016. Fact Sheet, PFOA & PFOS Drinking Water Health Advisories, EPA 800-F-16-003. November. Website Last Updated July 8, 2018. Available online: https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos
(2) USEPA. 2018. 2018 Edition of the Drinking Water Standards and Health Advisories Tables, EPA 822-F-18-001. Office of Water. March. Website Last Updated October 3, 2018. Available online: https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information

Groundwater Sampling Results for Emerging Contaminants
January 2018

			SAMPLE ID:	ST-MW-16-011918		DUPLICATE1-011918		ST-MW-18-012218		ST-MW-19-011918		ST-MW-20-012218	
			LAB ID:	320-35237-5 / 460-148827-2		320-35237-7 / 460-148827-3		320-35294-6 / 460-148869-3		320-35237-9 / 460-148827-5		320-35294-5 / 460-148869-2	
			SAMPLE DATE:	1/19/2018		1/19/2018		1/22/2018		1/19/2018		1/22/2018	
Constituent	NYS MCL[1]	EPA Health Advisory - Lifetime[2]	Units	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,4-Dioxane	50	200	ug/L	ND	U	ND	U	ND	U	ND	U	0.3	J
Perfluorooctane Sulfonic Acid (PFOS)	NS	70	ng/L	21.4		21.9		1.12	J	20.8		1.07	J
Perfluorooctanoic Acid (PFOA)	50,000	70	ng/L	13.5		13.6		1.19	J	25.4		3.46	
Sum of PFOA and PFOS	NS	70	ng/L	34.9		35.5		2.31	J	46.2		4.53	J
2-(N-Methyl Perfluorooctanesulfonamido) Acetic Acid	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
N-Ethyl-N-((Heptadecafluorooctyl)Sulphonyl) Glycine	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluorobutanesulfonic Acid	NS	NS	ng/L	4.52		4.23		0.65	J	2.56		2.44	
Perfluorobutyric Acid (PFBA)	NS	NS	ng/L	ND	U	ND	U	5.97	B	ND	U	3.8	B
Perfluorodecane Sulfonic Acid	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluorodecanoic Acid (PFDA)	NS	NS	ng/L	ND	U	ND	U	0.37	J	ND	U	ND	U
Perfluorododecanoic Acid (PFDOA)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluoroheptane Sulfonate (PFHPS)	NS	NS	ng/L	0.36	J	0.41	J	ND	U	0.79	J	0.64	J
Perfluoroheptanoic Acid (PFHPA)	NS	NS	ng/L	7.43		8.01		0.8	J	7.51		3.53	
Perfluorohexanesulfonic Acid	NS	NS	ng/L	5.22	B	5.8	B	ND	U	6.72	B	4.47	B
Perfluorohexanoic Acid (PFHXA)	NS	NS	ng/L	10.6		10.7		1.73	J	7.79		6.2	
Perfluorononanoic Acid	NS	NS	ng/L	2.51		2.84		0.43	J	3.86		ND	U
Perfluorooctane Sulfonamide (FOSA)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluoropentanoic Acid (PFPEA)	NS	NS	ng/L	15		15.6		1.1	J	8.22		6.13	
Perfluorotetradecanoic Acid (PFTEA)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluorotridecanoic Acid (PFTRIA)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Perfluoroundecanoic Acid (PFUNA)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	NS	NS	ng/L	ND	U	ND	U	ND	U	ND	U	ND	U

Notes:
Bold/highlighted cell indicates exceedance of NYS MCL or USEPA Health Advisory Lifetime.
The field duplicate sample was collected from ST-MW-16.
NA - Not Analyzed
NS - No Standard

Qualifiers:
B - Detected in associated method blank
J - Estimated value
ND or U - Not detected

Reference:

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(1) NYS. 2018. SubPart 5-1 Public Water Supplies, 5-1.52 Tables. Department of Health. May 16. Available online: https://www.health.ny.gov/regulations/nycrr/title_10/part_5/docs/subpart_5-1_tables.pdf
(2) United States Environmental Protection Agency (USEPA). 2016. Fact Sheet, PFOA & PFOS Drinking Water Health Advisories, EPA 800-F-16-003. November. Website Last Updated July 8, 2018. Available online: https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos
(2) USEPA. 2018. 2018 Edition of the Drinking Water Standards and Health Advisories Tables, EPA 822-F-18-001. Office of Water. March. Website Last Updated October 3, 2018. Available online: https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information