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August 2, 2019

Division of Environmental Remediation
Remedial Bureau E, 12th Floor
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7016

Attention: Ms. Lisa Gorton, Project Manager

Subject: **2019 Groundwater Sampling Report**
Town and Country Dry Cleaners Site; Site Number 828149
MACTEC Engineering and Consulting, P.C. Project No. 3612132267

Dear Ms. Gorton:

MACTEC Engineering and Consulting, P.C., (MACTEC), under contract to the New York State Department of Environmental Conservation (NYSDEC) (Work Assignment numbers D007619-21 and D007619-42) is providing this letter report to document the results of groundwater sampling conducted in May 2019 at the Town and Country Dry Cleaners site (Site), NYSDEC Site Number 828149.

BACKGROUND

The Site is located at 2308 and 2310 Monroe Avenue, in the Town of Brighton, Monroe County, New York (Figure 1 and Figure 2). The Site has operated as a dry cleaning and laundry facility from 1969 to the present. The primary dry cleaning solvent, tetrachloroethene (PCE), was used from 1969 to May 2011, when its use was reportedly discontinued. PCE was detected at a concentration of 38,000 milligrams per kilogram in the soil/sediment just below the bottom of an unlined catch basin that was previously located to the rear (northeast) of the site building. Semi-volatile organic

MACTEC Engineering and Consulting, P.C.
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compounds were detected in a single shallow soil sample at concentrations above the New York State (NYS) Soil Cleanup Objectives (SCOs) for commercial use.

A soil removal Interim Remedial Measure (IRM) (shown on Figure 2) was conducted in the fall of 2015 to remove the most contaminated source area soil immediately below and surrounding the catch basin, and to replace the unlined catch basin with a solid bottomed catch basin. Prior to backfilling the excavation, the bottom and sides were sprayed with sodium permanganate to oxidize remaining soil contamination immediately surrounding the excavation.

A Feasibility Study was completed for the Site, and the NYSDEC issued a Record of Decision for the Site remediation in March 2017 (NYSDEC, 2017). The selected remedy consists of:

1) Excavation and off-site disposal of all on-site soils which exceed the NYS SCOs for commercial use
2) Excavation and off-site disposal of all off-site soil which exceed NYS SCOs for residential use
3) In-Situ Enhanced Biodegradation to treat PCE and its associated degradation products in groundwater in an area to be determined during the remedial design.

In 2017, a Pre-Design Investigation was completed for the Site. Soil sample results further delineated the extent of PCE contamination exceeding Residential SCOs for the off-site property and Commercial SCOs on the Site. The sample results are being used during the remedial design to calculate volume estimates for excavation and off-site disposal. Groundwater sample results indicate contaminant concentrations and extent are consistent with previous investigations and display limited potential for reductive dechlorination of PCE.

FIELD ACTIVITIES

The field activities completed are described in the following paragraphs. Field work was conducted in Level D personal protective equipment.

Groundwater Sampling

Groundwater elevation measurements were collected on May 6, 2019, and groundwater sampling was completed from May 6 to May 8, 2019. Monitoring well locations are shown on Figure 2. Table 1 provides the groundwater sampling and analytical program.

Synoptic Water Level Measurements. Prior to monitoring well sampling, a round of water levels was collected by measuring depth to water from the top of the well riser. The monitoring well details and groundwater elevations are provided in Table 2.

Groundwater Sampling. Groundwater samples were collected from the 25 Site monitoring wells in accordance with the Field Activities Plan (MACTEC, 2017) using low flow sampling techniques where possible. Due to the low hydraulic conductivity (K) of the soils, several of the wells purged dry and were allowed to recharge prior to sampling.

Field measurements for pH, temperature, specific conductivity, oxidation reduction potential, dissolved oxygen, and turbidity were collected through a flow through cell (with the exception of turbidity) during purging to evaluate well stabilization prior to sample collection. Field measurements and monitoring well sampling activities are documented on field data records presented in Attachment 1.

Samples were submitted for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260B.

Investigation Derived Waste

Purge water generated during sampling was containerized and treated with granular activated carbon prior to being discharged to the ground surface on the Site.

GROUNDWATER SAMPLING RESULTS

Laboratory results were validated following NYSDEC guidelines (NYSDEC, 2010) and found to be usable as reported by the laboratory or qualified as documented in the Data Usability Summary Report provided as Attachment 2.

Groundwater Results

Groundwater Flow. Interpreted groundwater contours and groundwater flow direction were prepared for the overburden and overburden/bedrock groundwater and are shown on Figures 3 and 4, respectively. Consistent with previous results, overburden and overburden/bedrock interface groundwater flow is primarily to the west. Localized groundwater mounding was observed in the area of the former catch basin. The mounding may be attributed to low permeability of the underlying clay layer on site and higher permeability backfill materials used in the IRM relative to native soils. Such conditions would allow relatively high infiltration of stormwater outside the paved areas into the backfill, and limited infiltration through the clay. The underlying clay layer was not identified off-site.

VOCs. Groundwater results are presented in Table 3 and concentrations of PCE and interpreted iso-concentration lines are presented on Figure 5. A plot of concentrations of PCE over time for select wells near the IRM are presented in Attachment 3. Concentrations of PCE detected in groundwater in May 2019 are generally lower than historic values. The structure of the groundwater plume appears to fairly stable with respect to PCE distribution. The highest concentrations of PCE were observed adjacent to and downgradient of the IRM removal area at monitoring wells MW-1 (2,000 micrograms per liter [µg/L]), MW-2 (63,000 µg/L), MW-13 (2,400 µg/L) and DP-14 (8,100 µg/L) (Table 3 and Figure 5). Two wells near the IRM removal area, MW-2B (20 µg/L) and DP-16 (300 µg/L) had concentrations of PCE slightly higher than historic values.

CONCLUSIONS

Although VOCs detected in groundwater remain at concentrations higher than standards, the plume configuration appears to be stable and groundwater concentrations of PCE were observed to be mostly lower than historic values.

If you have questions on the material provided herein, please feel free to contact us at 207-775-5401.

Sincerely,

MACTEC Engineering and Consulting, P.C.

Charles R. Staples, P.G.
Technical Project Lead

Mark J. Stelmack, P.E.
Project Manager

Enclosures

Figures

Figure 1 – Site Location

Figure 2 – Monitoring Wells and Site Features

Figure 3 – Interpreted Overburden Groundwater Contours – May 2019

Figure 4 – Interpreted Overburden/Bedrock Interface Groundwater Contours– May 2019

Figure 5 – Groundwater PCE Concentrations – May 2019

Tables

Table 1 – Analytical Program - Groundwater

Table 2 – Monitoring Well Details and Groundwater Elevation Data

Table 3 – Volatile Organic Compounds Detected in Groundwater

Attachments

Attachment 1 – Field Data Records

Attachment 2 – Data Usability Summary Report

Attachment 3 – Plot of PCE Concentrations over Time

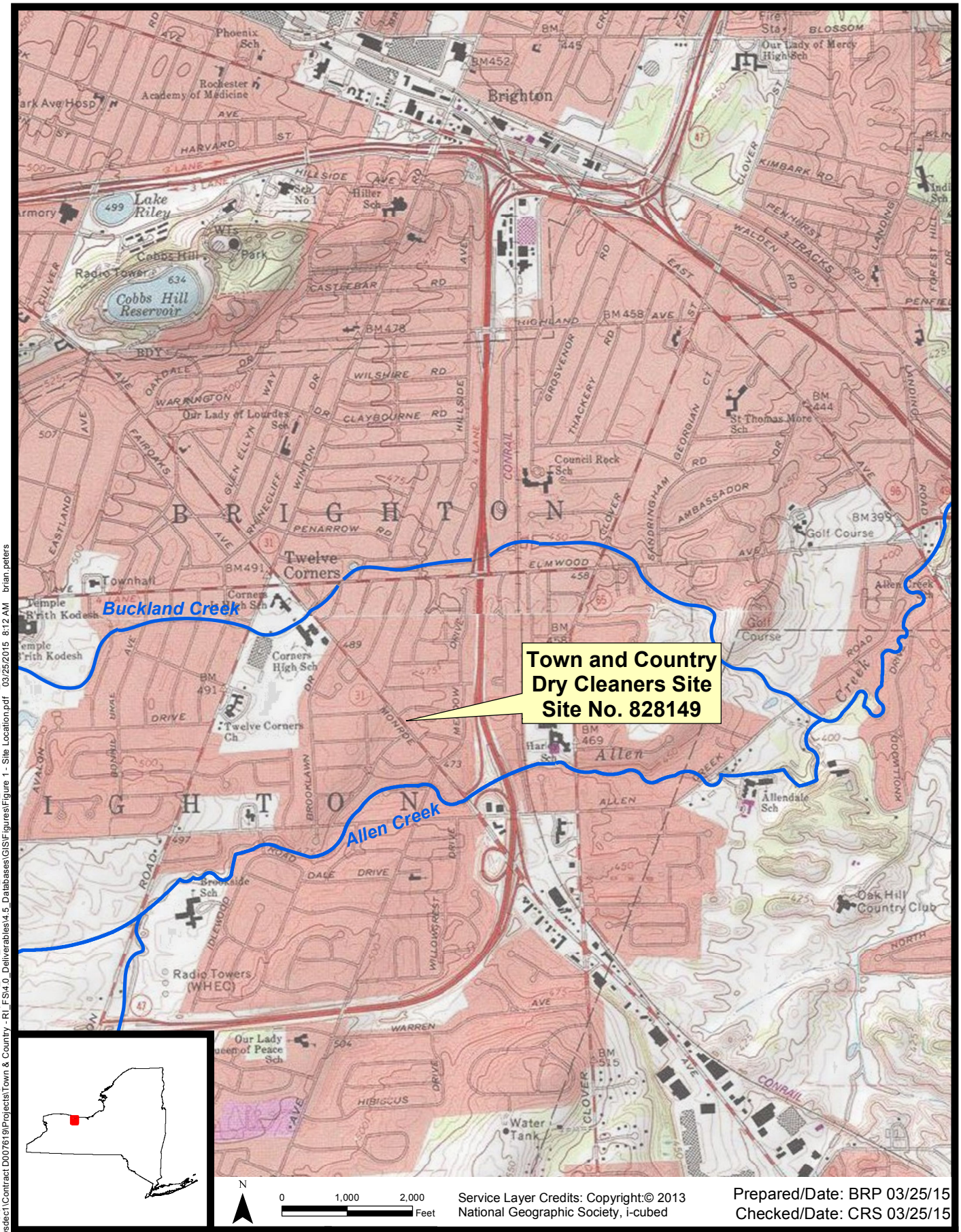
REFERENCES

MACTEC Engineering and Consulting, P.C. (MACTEC), 2017. Pre-design Investigation Field Activities Plan, Town and Country Dry Cleaners Site; Site Number 828149. Prepared for New York State Department of Environmental Conservation, Albany, New York. September 2017.

NYSDEC, 2017. Record of Decision. Town and Country Dry Cleaners State Superfund Project, Brighton, Monroe County, Site No. 828149. March 2017.

NYSDEC, 2010. DER-10, Technical Guidance for Site Investigation and Remediation. May 3, 2010.

FIGURES



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Prepared/Date: BRP 03/25/15
Checked/Date: CRS 03/25/15

TOWN AND COUNTRY DRY CLEANERS
SITE NO. 828149
BRIGHTON, NEW YORK

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SITE LOCATION

Project 3612132267 Figure 1

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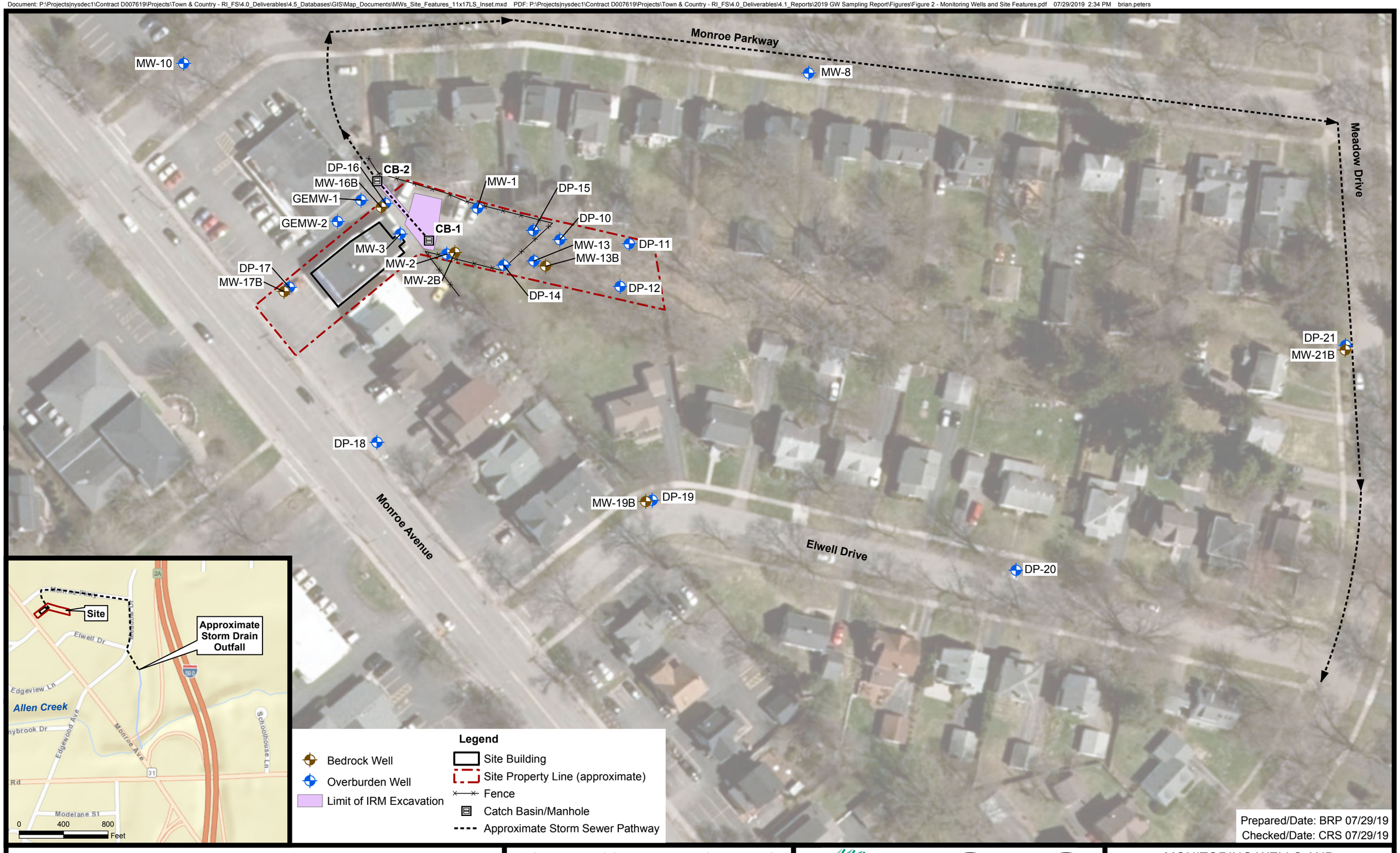
PDF: P:\Projects\nysdec1\Contract D007619\Projects\Town & Country - RI_FS\4.0_Deliverables\4.5_Databases\GIS\Figures\Figure 1 - Site Location.pdf 03/25/2015 8:12 AM brian.peters



N

0 35 70 Feet

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

TOWN AND COUNTRY DRY CLEANERS
SITE NO. 828149
BRIGHTON, NEW YORK

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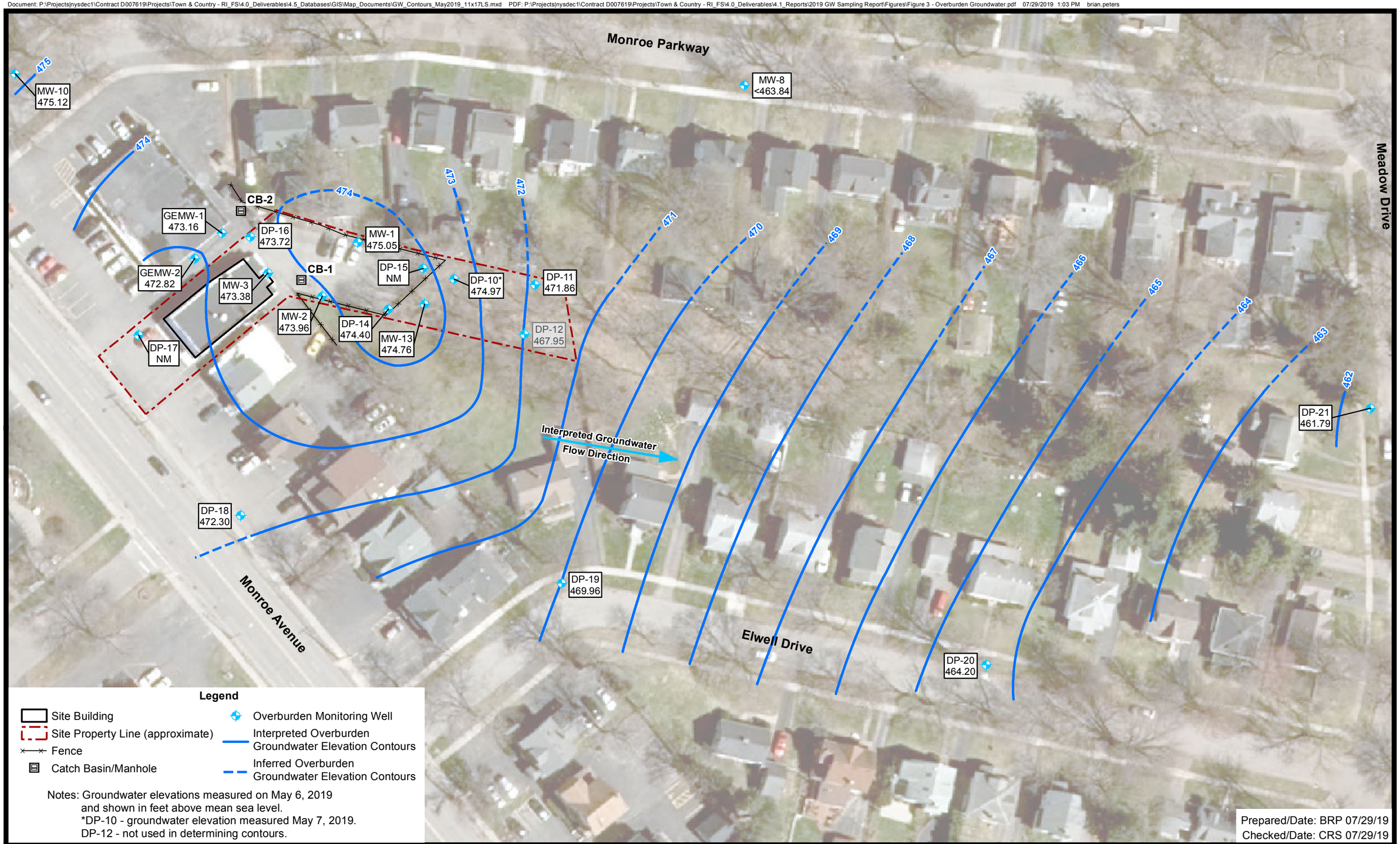
MONITORING WELLS AND SITE FEATURES
Project 3612132267 Figure 2



Legend

- Site Building
- Site Property Line (approximate)
- Fence
- Catch Basin/Manhole
- Overburden Monitoring Well
- Interpreted Overburden Groundwater Elevation Contours
- Inferred Overburden Groundwater Elevation Contours

Notes: Groundwater elevations measured on May 6, 2019 and shown in feet above mean sea level.
*DP-10 - groundwater elevation measured May 7, 2019.
DP-12 - not used in determining contours.

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N

0 30 60 Feet

Monroe County color digital orthoimagery (2015) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

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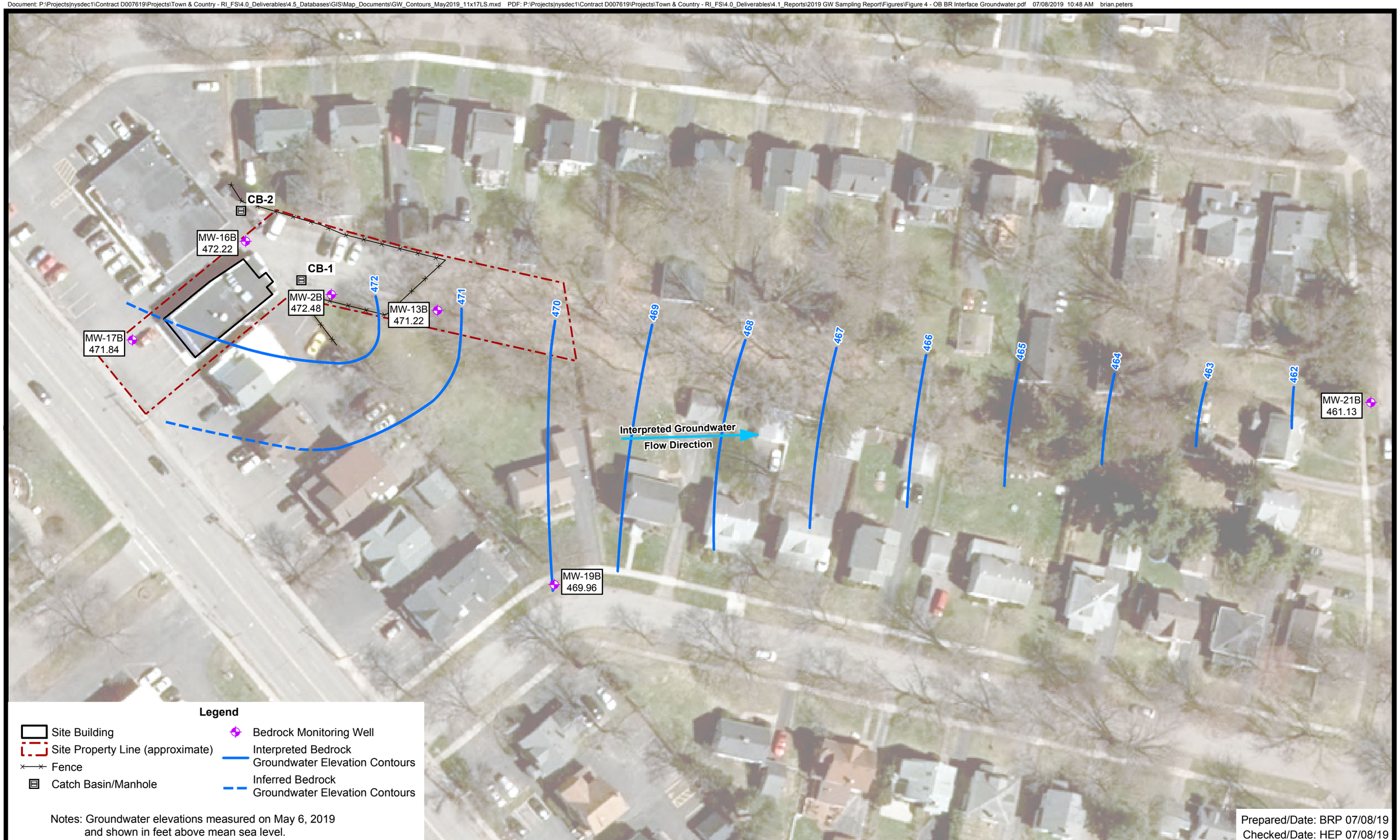
INTERPRETED OVERBURDEN GROUNDWATER CONTOURS - MAY 2019
Project 3612132267 Figure 3



Legend

- Site Building
- Site Property Line (approximate)
- Fence
- Catch Basin/Manhole
- Bedrock Monitoring Well
- Interpreted Bedrock Groundwater Elevation Contours
- Inferred Bedrock Groundwater Elevation Contours

Notes: Groundwater elevations measured on May 6, 2019 and shown in feet above mean sea level.

Prepared/Date: BRP 07/08/19
Checked/Date: HEP 07/08/19

N

0 30 60 Feet

Monroe County color digital orthoimagery (2015) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

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INTERPRETED OVERBURDEN/BEDROCK INTERFACE GROUNDWATER CONTOURS - MAY 2019
Project 3612132267 Figure 4

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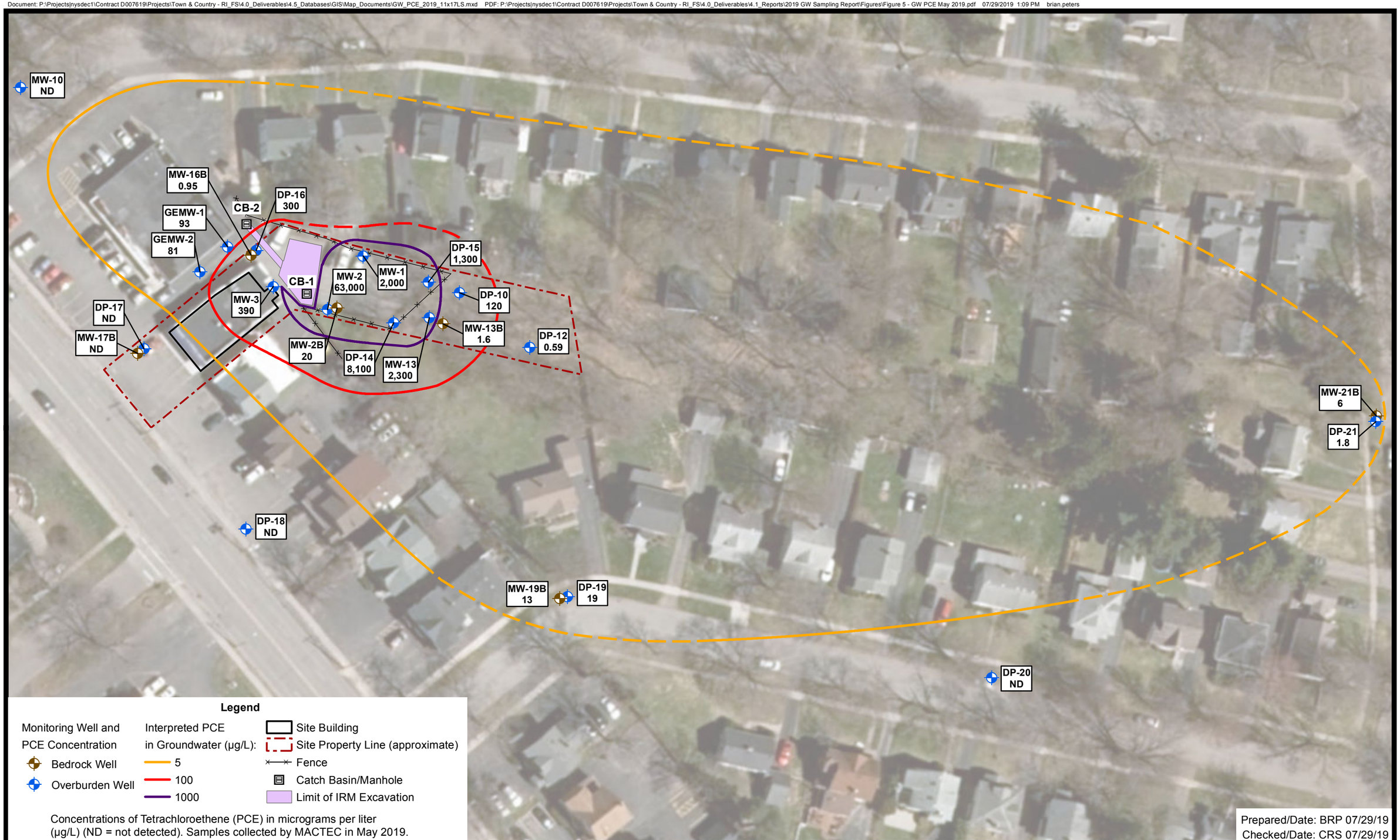

Legend

Monitoring Well and PCE Concentration
- Bedrock Well
- Overburden Well

Interpreted PCE in Groundwater (µg/L):
- 5
- 100
- 1000

- Site Building
- Site Property Line (approximate)
- Fence
- Catch Basin/Manhole
- Limit of IRM Excavation

Concentrations of Tetrachloroethene (PCE) in micrograms per liter (µg/L) (ND = not detected). Samples collected by MACTEC in May 2019.

Prepared/Date: BRP 07/29/19
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N

0 30 60 Feet

ImageSource: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

TOWN AND COUNTRY DRY CLEANERS
SITE NO. 828149
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GROUNDWATER PCE CONCENTRATIONS
MAY 2019
Project 3612132267 Figure 5

TABLES

Table 1 - Groundwater Analytical Program

Location ID	Screen Interval (feet bgs)	Pump intake (feet bgs)	Sample Date	Sample ID	VOCs 8260B	Sampling Method
GEMW-1	9.5-14.5	14	5/7/2019	828149-GEMW001014	X	Purge dry, Sample recharge
GEMW-2	10.5-15.3	14	5/8/2019	828149-GEMW002014	X	Purge dry, Sample recharge
MW-1	UNK-11.6	10	5/7/2019	828149-MW001010	X	Low flow
				828149-MW001010D	X	Low flow
MW-2	UNK-10.7	10	5/8/2019	828149-MW002010	X	Purge dry, Sample recharge
MW-2B	17.6-22.6	20	5/7/2019	828149-MW02B020	X	Low flow
MW-3	UNK-10.4	9	5/6/2019	828149-MW003009	X	Low flow
				828149-MW003009D	X	Low flow
MW-8	4.5-9.5	10	NA	NA	--	Dry, no sample collected
MW-10	4.6-9.6	10	5/9/2019	828149-MW010010	X	Purge dry, Sample recharge
MW-13	8-13	12	5/7/2019	828149-MW013012	X	Purge dry, Sample recharge
MW-13B	20.1-25.1	23	5/7/2019	828149-MW013B023	X	Low flow
MW-16B	20.1-25.1	23	5/6/2019	828149-MW016B023	X	Low flow
MW-17B	15.2-20.2	18	5/8/2019	828149-MW017B018	X	Low flow
MW-19B	22.4-27.4	25	5/8/2019	828149-MW019B025	X	Low flow
MW-21B	16.5-21.5	19	5/8/2019	828149-MW021B019	X	Low flow
DP-10	5.5-9.5	8	5/8/2019	828149-DP010008	X	Purge dry, Sample recharge
DP-11	2.5-12.5	12	5/8/2019	828149-DP011012	X	Purge dry, Sample recharge
DP-12	10.5-20.5	15	5/8/2019	828149-DP012015	X	Low flow
DP-14	5.1-10.1	9	5/7/2019	828149-DP014009	X	Low purge rate
DP-15	4.7-9.7	9	5/8/2019	828149-DP015009	X	Low purge rate
DP-16	5.1-10.1	9	5/8/2019	828149-DP016009	X	Purge dry, Sample recharge
DP-17	6.5-16.5	15	5/8/2019	828149-DP017015	X	Low flow
DP-18	5.5-10.5	9	5/7/2019	828149-DP018009	X	Purge dry, Sample recharge
DP-19	3-13	12	5/8/2019	828149-DP019012	X	Low flow
DP-20	9.8-14.8	12	5/8/2019	828149-DP020012	X	Purge dry, Sample recharge
DP-21	5.4-10.4	9	5/8/2019	828149-DP021009	X	Low flow

NOTES:
bgs = below ground surface
8260C VOCs = NYSDEC Target Compound List Volatile Organic Compounds
UNK = unknown
Sample ID: 828149 = NYSDEC Site No.; followed by well ID and sample depth (three digits).

Table 2 - Monitoring Well Details and Groundwater Elevation Data

Location ID	Northing	Easting	Ground Elevation (ft amsl)	PVC Riser Pipe Elevation (ft amsl)	Screen Length (ft)	Clay Layer? (ft bgs)	DTW 7/22/13 (ft btor)	GW Elevation 7/22/13 (ft amsl)	DTW 4/25/16 (ft btor)	GW Elevation 4/25/16 (ft amsl)	DTW 10/09/2017 (ft btor)	GW Elevation 10/09/2017 (ft amsl)
DP-10	1138737.73	1422305.44	477.84	477.53	6.0	10.5-15	7.34	470.19	4.17	473.36	9.2	468.33
DP-11	1138734.19	1422359.91	478.37	478.05	8.0	None	12.40	465.65	12.16	465.89	12.2	465.85
DP-12	1138700.85	1422352.85	477.42	477.09	10.0	None	11.65	465.44	10.94	466.15	12.48	464.61
DP-14	1138717.51	1422261.09	477.14	476.82	5.0	12.5-13.5	4.53	472.29	3.59	473.23	5.71	471.11
DP-15	1138744.94	1422284.51	477.25	476.98	5.0	9.8-14.6	5.44	471.54	2.61	474.37	6.75	470.23
DP-16	1138766.08	1422168.18	479.06	478.77	5.0	9.3-11.4	5.15	473.62	5.49	473.28	5.97	472.80
DP-17	1138699.91	1422092.66	479.89	479.50	10.0	None	7.06	472.44	7.12	472.38	6.9	472.60
DP-18	1138578.39	1422161.46	478.82	478.29	6.0	10.9-12.8	6.47	471.82	7.06	471.23	5.55	472.74
DP-19	1138532.70	1422378.17	475.49	475.15	10.0	None	5.65	469.50	5.46	469.69	5.06	470.09
DP-20	1138477.85	1422664.27	474.21	473.80	10.0	None	11.61	462.19	11.68	462.12	13.82	459.98
DP-21	1138650.76	1422923.25	468.74	468.38	8.0	None	7.43	460.95	6.21	462.17	9.02	459.36
GEMW-1	1138768.73	1422148.96	479.70	479.57	5.0	NA	6.58	472.99	6.79	472.78	6.87	472.70
GEMW-2	1138751.76	1422130.52	480.36	480.25	5.0	NA	7.80	472.45	7.70	472.55	7.58	472.67
MW-1	1138762.61	1422240.53	477.40	477.05	5?	NA	3.64	473.41	3.66	473.39	3.45	473.60
MW-2	1138726.34	1422216.42	477.13	476.87	5?	NA	2.53	474.34	3.74	473.13	2.6	474.27
MW-2B	1138727.39	1422222.76	477.06	476.71	5.0	UNK-13	4.83	471.88	4.88	471.83	4.3	472.41
MW-3	1138741.96	1422179.86	478.37	478.00	5?	NA	3.27	474.73	5.22	472.78	4.76	473.24
MW-8	1138868.41	1422501.18	473.10	473.04	5.0	NA	>9.2 (dry)	<463.84	>9.2 (dry)	<463.84	>9.2 (dry)	<463.84
MW-10	1138876.06	1422009.43	482.11	481.70	5.0	NA	8.59	473.11	7.16	474.54	8.64	473.06
MW-13	1138720.92	1422285.49	477.39	480.36	5.0	NA	9.10	471.26	6.99	473.37	11.44	468.92
MW-13B	1138716.73	1422294.21	477.80	480.37	5.0	NA	9.29	471.08	9.9	470.47	9.85	470.52
MW-16B	1138763.12	1422164.89	478.95	478.58	5.0	NA	6.74	471.84	6.78	471.80	6.33	472.25
MW-17B	1138696.71	1422088.47	479.75	479.35	5.0	NA	7.26	472.09	8.13	471.22	8.52	470.83
MW-19B	1138531.53	1422373.04	475.69	475.35	5.0	NA	5.91	469.44	5.68	469.67	5.28	470.07
MW-21B	1138654.47	1422923.58	468.55	468.15	5.0	NA	7.82	460.33	7.66	460.49	9.28	458.87

Notes:

Horizontal Coordinates reference to the New York State Plane Coordinate System, West Zone (3103) based on NAD 83 (2011).

Vertical Datum is NAVD88. Survey conducted by Prudent Engineering, dated 8/12/2013.

- = not measured > = greater than < = less than

ft = feet

amsl = above mean sea level

BOW = bottom of well

btor = below top of riser

DTW = depth to water below measuring point

GW = groundwater

NA = not available

UNK = unknown

Prepared By: HEP 6/28/2019
Checked by: CRS 7/26/19

Table 3 - Groundwater VOC Results

			Location	DP-010		DP-011		DP-012		DP-014		DP-015		DP-016		DP-017		DP-018		DP-019		DP-020	
			Sample Date	5/8/2019		5/8/2019		5/8/2019		5/7/2019		5/8/2019		5/8/2019		5/8/2019		5/7/2019		5/8/2019		5/8/2019	
			Sample ID	828149-DP010008		828149-DP011012		828149-DP012015		828149-DP014009		828149-DP015009		828149-DP016009		828149-DP017015		828149-DP018009		828149-DP019012		828149-DP020012	
			QC Code	FS		FS		FS		FS		FS		FS		FS		FS		FS		FS	
Parameter	**GA**	**GV**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethane	5	NC		1	U	1	U	1	UJ	50	U	5	U	**0.44**	J	1	U	1	U	1	UJ	1	U
1,1-Dichloroethene	5	NC		1	U	1	U	1	UJ	50	U	5	U	**3.8**		1	U	1	U	1	UJ	1	U
Acetone	NC	50		5	U	5	U	5	UJ	250	U	25	U	10	U	5	U	5	U	5	UJ	5	U
Carbon disulfide	NC	60		1	U	1	U	1	UJ	50	U	5	U	2	U	1	U	1	U	1	UJ	1	U
Chloroform	7	NC		1	U	1	U	1	UJ	50	U	5	U	2	U	1	U	1	U	1	UJ	1	U
Chloromethane	5	NC		1	U	1	U	1	UJ	50	U	5	U	2	U	1	U	1	U	1	UJ	**0.28**	J
cis-1,2-Dichloroethene	5	NC		**55**		1	U	**0.54**	J	**340**		**47**		**610**		1	U	1	U	**7.8**	J	1	U
Tetrachloroethene	5	NC		**120**		**0.96**	J	**0.59**	J	**8100**		**1300**		**300**		1	U	1	U	**19**	J	1	U
trans-1,2-Dichloroethene	5	NC		**0.45**	J	1	U	1	UJ	50	U	5	U	**4**		1	U	1	U	**0.21**	J	1	U
Trichloroethene	5	NC		**38**		1	U	1	UJ	**310**		**59**		**91**		1	U	1	U	**5.5**	J	1	U
Vinyl chloride	2	NC		1	U	1	U	1	UJ	50	U	5	U	**32**		1	U	1	U	1	UJ	1	U

Notes:
Samples Analyzed for VOCs by Method 8260
Results in micrograms per liter (µg/L)
Only detected compounds shown
(detections in bold)
Qualifier
U = not detected
J = estimated value
QC Code
FS = field sample
FD = field duplicate
GA = New York State Class GA Groundwater
GV = New York State Guidance Values
Highlighted cell exceeds GA or GV criteria
NC = no criteria

Table 3 - Groundwater VOC Results

			Location	DP-021		GEMW-1		GEMW-2		MW-1		MW-1		MW-2		MW-2B		MW-3		MW-3	
			Sample Date	5/8/2019		5/7/2019		5/8/2019		5/7/2019		5/7/2019		5/8/2019		5/7/2019		5/6/2019		5/6/2019	
			Sample ID	828149-DP021009		828149-GEMW001014		828149-GEMW002014		828149-MW001010		828149-MW001010D		828149-MW002010		828149-MW02B020		828149-MW003009		828149-MW003009D	
			QC Code	FS		FS		FS		FS		FD		FS		FS		FS		FD	
Parameter	**GA**	**GV**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethane	5	NC		1	U	1	U	1	U	20	U	20	U	500	U	1	U	5	U	5	U
1,1-Dichloroethene	5	NC		1	U	**1.1**		1	U	20	U	20	U	500	U	1	U	**6.2**		**6.3**	
Acetone	NC	50		5	U	5	U	5	U	100	U	100	U	2500	U	5	U	25	U	25	U
Carbon disulfide	NC	60		1	U	1	U	1	U	20	U	20	U	500	U	1	U	5	U	5	U
Chloroform	7	NC		**0.3**	J	1	U	1	U	20	U	20	U	500	U	1	U	5	U	5	U
Chloromethane	5	NC		1	U	1	U	1	U	20	U	20	U	500	U	1	U	5	U	5	U
cis-1,2-Dichloroethene	5	NC		1	U	**150**		**0.94**	J	**34**		**38**		500	U	**7.4**		**530**		**530**	
Tetrachloroethene	5	NC		**1.8**		**93**		**81**		**1900**	J+	**2000**	J+	**63000**		**20**		**390**		**380**	
trans-1,2-Dichloroethene	5	NC		1	U	**1.2**		1	U	20	U	20	U	500	U	1	U	**3.6**	J	**3.6**	J
Trichloroethene	5	NC		1	U	**38**		**0.93**	J	**34**		**35**		**160**	J	**6**		**220**		**220**	
Vinyl chloride	2	NC		1	U	**7.3**		1	U	20	U	20	U	500	U	1	U	**190**		**190**	

Notes:
Samples Analyzed for VOCs by Method 8260
Results in micrograms per liter (µg/L)
Only detected compounds shown
(detections in bold)
Qualifier
U = not detected
J = estimated value
QC Code
FS = field sample
FD = field duplicate
GA = New York State Class GA Groundwater
GV = New York State Guidance Values
Highlighted cell exceeds GA or GV criteria
NC = no criteria

Table 3 - Groundwater VOC Results

			Location	MW-10		MW-13		MW-13B		MW-16B		MW-17B		MW-19B		MW-21B	
			Sample Date	5/9/2019		5/7/2019		5/7/2019		5/6/2019		5/8/2019		5/8/2019		5/8/2019	
			Sample ID	828149-MW010010		828149-MW013012		828149-MW013B023		828149-MW16B023		828149-MW017B018		828149-MW019B025		828149-MW021B019	
			QC Code	FS		FS		FS		FS		FS		FS		FS	
Parameter	**GA**	**GV**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1-Dichloroethane	5	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U
1,1-Dichloroethene	5	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U
Acetone	NC	50		5	U	50	U	5	U	5	U	5	U	5	UJ	5	U
Carbon disulfide	NC	60		1	U	10	U	**4.1**		1	U	**4.5**		1	UJ	1	U
Chloroform	7	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U
Chloromethane	5	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U
cis-1,2-Dichloroethene	5	NC		1	U	**160**		**2**		**0.95**	J	1	U	**9.4**	J	**0.38**	J
Tetrachloroethene	5	NC		1	U	**2300**		**1.6**		**0.95**	J	1	U	**13**	J	**6**	
trans-1,2-Dichloroethene	5	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U
Trichloroethene	5	NC		1	U	**190**		**1.2**		**0.45**	J	1	U	**6.9**	J	**0.59**	J
Vinyl chloride	2	NC		1	U	10	U	1	U	1	U	1	U	1	UJ	1	U

Notes:
Samples Analyzed for VOCs by Method 8260
Results in micrograms per liter (µg/L)
Only detected compounds shown
(detections in bold)
Qualifier
U = not detected
J = estimated value
QC Code
FS = field sample
FD = field duplicate
GA = New York State Class GA Groundwater
GV = New York State Guidance Values
Highlighted cell exceeds GA or GV criteria
NC = no criteria

ATTACHMENT 1

FIELD DATA RECORDS

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: ~~Ace Cleaners~~ TOWN + COUNTRY
PROJECT NUMBER: ~~36111812.17~~ 36121322.67
PROJECT LOCATION: ~~Sweden, NY~~ BRIGHTON, NY
WEATHER CONDITIONS (AM): 50°F SUN
WEATHER CONDITIONS (PM): INSIDE - HOTEL

TASK NO: .02 DATE: 5/4/19
MACTEC CREW: H. PLANTE, L. BELLIVEAU
SAMPLER NAME: HALEY PLANTE
SAMPLER SIGNATURE:
CHECKED BY: DATE: 06/05/19

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: 556 MPS
UNIT ID NO.: MO15-12

AM CALIBRATION Start Time 0820 /End Time 0850
POST CALIBRATION CHECK Start Time 1910 /End Time 1930

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.00	+/- 0.1 pH Units	7.0	7.02	+/- 0.3 pH Units
pH (10)	SU	10.0	NA	+/- 0.1 pH Units			
Redox	+/- mV	240	240.1	+/- 10 mV	240	230.1	+/- 10 mV
Conductivity	mS/cm	1.413	1.413	+/- 0.5 % of standard	1.413	1.391	+/- 5% of standard
DO (saturated)	%	100	101.4	+/- 2% of standard		102.4%	
DO (saturated)	mg/L [1] (see Chart 1)	12.11	12.09	+/- 0.2 mg/L	9.00	9.31	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	NA	< 0.5 mg/L			
Temperature	°C		7.00			19.99	
Baro. Press.	mmHg		700.4			757.2	

TURBIDITY METER

METER TYPE: HACH
MODEL NO.: 2100Q
UNIT ID NO.: MO24-40

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
~~0.1~~ 10 Standard	NTU	~~0.1~~ 10	9.98	~~0.1~~ 10	9.96	+/- 0.3 NTU of stan.
20 Standard	NTU	20	19.8	20	21.0	+/- 5% of standard
100 Standard	NTU	100	101	100	98.3	+/- 5% of standard
800 Standard	NTU	800	807	800	~~807~~ 787	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50	+/- 10% of standard
O_2	%	20.9		20.9	+/- 10% of standard
H_2S	ppmv	25		25	+/- 10% of standard
CO	ppmv	50		50	+/- 10% of standard

OTHER METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

[X] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
[ ] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

		Cal. Standard Lot Number	Exp. Date
Deionized Water Source:	Portland FOS	pH (4)	BGA602	1/21
Lot#/Date Produced:		pH (7)	BGK167	1/21
Trip Blank Source:	ALS	pH (10)	NA	NA
Sample Preservatives Source:	ALS	ORP	80816	6/23
Disposable Filter Type:	0.45µm cellulose	Conductivity	BGK308	11/19
Calibration Fluids / Standard Source:		~~0.1~~ 10 Turb. Stan.		
- DO Calibration Fluid (<0.1 mg/L)	Portland FOS	20 Turb. Stan.		
- Other		100 Turb. Stan.		
- Other		800 Turb. Stan.		
- Other		PID Span Gas		
		O_2-LEL Span Gas		
		Other		

NOTES:

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME:	Town & Country Cleaners	TASK NO: 5	DATE: 5/6/2019
PROJECT NUMBER:	3612132267	MACTEC CREW:	LCB
PROJECT LOCATION:	Rochester, NY	SAMPLER NAME:	Lindsey Belliveau
WEATHER CONDITIONS (AM):	Sunny, clear, slight breeze, ~70f	SAMPLER SIGNATURE:	
WEATHER CONDITIONS (PM):	Sunny, clear, slight breeze, ~70f	CHECKED BY: ANC	DATE: 5/15/2019

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: Pro plus
UNIT ID NO.: FA00572

	Units	AM CALIBRATION Standard Value	AM CALIBRATION Meter Value	AM CALIBRATION *Acceptance Criteria (AM)	POST CALIBRATION CHECK Standard Value	POST CALIBRATION CHECK Meter Value	POST CALIBRATION CHECK *Acceptance Criteria (PM)
		Start Time 11:45 End Time 07:45			Start Time 18:30 , End Time 18:53		
pH (4)	SU	4.0	4.92	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.01	+/- 0.1 pH Units	7.0	6.99	+/- 0.3 pH Units
pH (10)	SU	10.0	NR	+/- 0.1 pH Units			
Redox	+/- mV	240	NM	+/- 10 mV	240	NM	+/- 10 mV
Conductivity	mS/cm	7*	6.99	+/- 0.5 % of standard	7*	6.75	+/- 5% of standard
DO (saturated)	%	100	98.9	+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)	8.43	8.52	+/- 0.2 mg/L	7.98	7.92	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	NR	< 0.5 mg/L			
Temperature	°C		22.6			25.5	
Baro. Press.	mmHg		749			748.4	

TURBIDITY METER

METER TYPE: LaMotte
MODEL NO.: 2020WE
UNIT ID NO.: FA00413

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
0 Standard	NTU	0*	0	0*	0	+/- 0.3 NTU of stan.
10 Standard	NTU	1*	1	1*	1	+/- 5% of standard
10 Standard	NTU	10	10	10	10	+/- 5% of standard
	NTU		NM		NM	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

[X] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
[ ] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced: CVS Distilled water
Trip Blank Source: ALS
Sample Preservatives Source: ALS
Disposable Filter Type:
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): ECO-SOLUTIONS RENTALS
- Other:
- Other:
- Other:

	Cal. Standard Lot Number	Exp. Date
pH (4)	8GJ315	10/31/2020
pH (7)	8GK366	11/1/2020
pH (10)	NR	NR
ORP	16J100375	10/3/2021
Conductivity	8GL255	12/1/2019
0* 10 Turb. Stan.	NM	NM
1* 20 Turb. Stan.	NM	NM
10* 00 Turb. Stan.	NM	NM
800 Turb. Stan.	NA	NA
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other	NA	NA

NOTES:

*Eco-Rental Solutions provided different standards and equipment

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

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FIGURE 6.1
FIELD INSTRUMENT CALIBRATION RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME:	Town & Country Cleaners	TASK NO: 5	DATE: 5/6/2019
PROJECT NUMBER:	3612132267	MACTEC CREW:	LCB
PROJECT LOCATION:	Rochester, NY	SAMPLER NAME:	Lindsey Belliveau
WEATHER CONDITIONS (AM):	Breezy, chilly, cloudy, ~50f	SAMPLER SIGNATURE:	
WEATHER CONDITIONS (PM):	Breezy, chilly, rainy, ~50f	CHECKED BY: ANC	DATE: 5/15/2019

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: ProPlus Quatro
UNIT ID NO.: FA00572

	Units	AM CALIBRATION Standard Value (Start Time 08:22)	AM CALIBRATION Meter Value (End Time)	*Acceptance Criteria (AM)	POST CALIBRATION CHECK Standard Value (Start Time 18:30)	POST CALIBRATION CHECK Meter Value (End Time 18:53)	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.01	+/- 0.1 pH Units	7.0	6.35	+/- 0.3 pH Units
pH (10)	SU	10.0	NR	+/- 0.1 pH Units			
Redox	+/- mV	240	240	+/- 10 mV	240	245.6	+/- 10 mV
Conductivity	mS/cm	7	7.01	+/- 0.5 % of standard	7	7.07	+/- 5% of standard
DO (saturated)	%	100	98.9	+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)	9.3	9.3	+/- 0.2 mg/L	9.57	10.01	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	NR	< 0.5 mg/L			
Temperature	°C		17.5			17.3	
Baro. Press.	mmHg		752.6			754.4	

TURBIDITY METER

METER TYPE: LaMotte
MODEL NO.: 2020WE
UNIT ID NO.: FA00413

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
0 Standard	NTU	0	0	0	0	+/- 0.3 NTU of stan.
1Standard	NTU	1	1	1	1	+/- 5% of standard
10 Standard	NTU	10	10	10	10	+/- 5% of standard
800 Standard	NTU			800		+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

[ ] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

[X] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

PM pH failure

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced: CVS Distilled water
Trip Blank Source: ALS
Sample Preservatives Source: ALS
Disposable Filter Type:
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): ECO SOLUTIONS
- Other:
- Other:
- Other:

	Cal. Standard Lot Number	Exp. Date
pH (4)	8GJ315	10/31/2020
pH (7)	8GK366	11/1/2020
pH (10)	NR	NR
ORP	16J100375	10/3/2021
Conductivity	8GL255	12/1/2019
10 Turb. Stan.	NM	NM
20 Turb. Stan.	NM	NM
100 Turb. Stan.	NM	NM
800 Turb. Stan.	NA	NA
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other	NA	NA

NOTES:

Eco-Rental Solutions provided different standards and equipment

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

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FIGURE 6.1
FIELD INSTRUMENT CALIBRATION RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME:	Town & Country Cleaners	TASK NO: 5	DATE: 5/6/2019
PROJECT NUMBER:	3612132267	MACTEC CREW:	LCB
PROJECT LOCATION:	Rochester, NY	SAMPLER NAME:	Lindsey Belliveau
WEATHER CONDITIONS (AM):	Sunny, clear, ~50f	SAMPLER SIGNATURE:	
WEATHER CONDITIONS (PM):	Indoors - Hotel	CHECKED BY: ANC	DATE: 5/15/2019

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: Pro plus
UNIT ID NO.: FA00572

	Units	AM CALIBRATION Standard Value (Start Time 08:30 End Time 08:55)	AM CALIBRATION Meter Value	*Acceptance Criteria (AM)	POST CALIBRATION CHECK Standard Value (Start Time 18:30 , End Time 18:53)	POST CALIBRATION CHECK Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.01	+/- 0.1 pH Units	7.0	7.76	+/- 0.3 pH Units
pH (10)	SU	10.0	NR	+/- 0.1 pH Units			
Redox	+/- mV	240	240	+/- 10 mV	240	245.6	+/- 10 mV
Conductivity	mS/cm	7	7	+/- 0.5 % of standard	7	6.94	+/- 5% of standard
DO (saturated)	%	100	99.3	+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)	11.95	12	+/- 0.2 mg/L	9.06	8.6	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	NR	< 0.5 mg/L			
Temperature	°C		7.1			20.2	
Baro. Press.	mmHg		750.7			757.1	

TURBIDITY METER

METER TYPE: LaMotte
MODEL NO.: 2020WE
UNIT ID NO.: FA00413

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
0 Standard	NTU	0	0	0	0	+/- 0.3 NTU of stan.
10 Standard	NTU	1	1	1	1	+/- 5% of standard
10 Standard	NTU	10	10	10	10	+/- 5% of standard
	NTU					+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

[ ] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above. pH failure

[X] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced: CVS Distilled water
Trip Blank Source: ALS
Sample Preservatives Source: ALS
Disposable Filter Type:
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): ECO SOLUTIONS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	8GJ315	10/31/2020
pH (7)	8GK366	11/1/2020
pH (10)	NR	NR
ORP	16J100375	10/3/2021
Conductivity	8GL255	12/1/2019
10 Turb. Stan.	NM	NM
20 Turb. Stan.	NM	NM
100 Turb. Stan.	NM	NM
800 Turb. Stan.	NA	NA
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other	NA	NA

NOTES:

Eco-Rental Solutions provided different standards and equipment

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

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FIGURE 6.1
FIELD INSTRUMENT CALIBRATION RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME:	Town & Country Cleaners	TASK NO: 5	DATE: 5/6/2019
PROJECT NUMBER:	3612132267	MACTEC CREW:	LCB
PROJECT LOCATION:	Rochester, NY	SAMPLER NAME:	Lindsey Belliveau
WEATHER CONDITIONS (AM):	Sunny, clear, ~50f	SAMPLER SIGNATURE:	
WEATHER CONDITIONS (PM):	Indoors - Hotel	CHECKED BY: ANC	DATE: 5/15/2019

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: ProPlus Quatro
UNIT ID NO.: FA00572

	Units	AM CALIBRATION Standard Value	AM CALIBRATION Meter Value	AM CALIBRATION *Acceptance Criteria (AM)	POST CALIBRATION CHECK Standard Value	POST CALIBRATION CHECK Meter Value	POST CALIBRATION CHECK *Acceptance Criteria (PM)
		Start Time 0630 End Time 08:55			Start Time 18:30 , End Time 18:53		
pH (4)	SU	4.0	4.01	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.02	+/- 0.1 pH Units	7.0	7.16	+/- 0.3 pH Units
pH (10)	SU	10.0	NR	+/- 0.1 pH Units			
Redox	+/- mV	240	240	+/- 10 mV	240	242.2	+/- 10 mV
Conductivity	mS/cm	7	7	+/- 0.5 % of standard	7	6.92	+/- 5% of standard
DO (saturated)	%	100	99.3	+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)	8.76	8.75	+/- 0.2 mg/L	8.94	8.6	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1	NR	< 0.5 mg/L			
Temperature	°C		23.3			19.8	
Baro. Press.	mmHg		753.5			749.7	

TURBIDITY METER

METER TYPE: LaMotte
MODEL NO.: 2020WE
UNIT ID NO.: FA00413

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
0 Standard	NTU	0	2	0	0	+/- 0.3 NTU of stan.
1 Standard	NTU	1	2	1	1	+/- 5% of standard
10 Standard	NTU	10	10	10	10	+/- 5% of standard
	NTU					+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE: NA
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

[X] Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
[ ] Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced: CVS Distilled water
Trip Blank Source: ALS
Sample Preservatives Source: ALS
Disposable Filter Type:
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): ECO SOLUTIONS
- Other:
- Other:
- Other:

	Cal. Standard Lot Number	Exp. Date
pH (4)	8GJ315	10/31/2020
pH (7)	8GK366	11/1/2020
pH (10)	NR	NR
ORP	16J100375	10/3/2021
Conductivity	8GL255	12/1/2019
10 Turb. Stan.	NM	NM
20 Turb. Stan.	NM	NM
100 Turb. Stan.	NM	NM
800 Turb. Stan.	NA	NA
PID Span Gas	NA	NA
O_2-LEL Span Gas	NA	NA
Other	NA	NA

NOTES:

Eco-Rental Solutions provided different standards and equipment

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

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FIGURE 6.1
FIELD INSTRUMENT CALIBRATION RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-DP010008
SAMPLE TIME	17:30

LOCATION ID	DP-10
DATE	05/07/19 - 05/08/19
START TIME	13:30
END TIME	17:32
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	2.56 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.27 FT
WELL DEPTH (BMP)	9.25 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	6.69 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.27 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.21 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
13:38	**BEGIN PURGING**									
13:39	NM	400	46.4	1.3	6.75	1.16	Nm	2.4	8	
13:40	9.25	Well ran dry	NM	NM	NM	NM	NM	NM	NA	
17:30	2.65	Return 05/08 to collect sample								
17:31	2.9	120	47.7	1.38	7.58	1.11	76	-14.5	8	
FINAL FIELD PARAMETERS (to appropriate significant figures[SF])			**9**	**1.38**	**7.6**	**1.1**	**76**	**-15**		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0995
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X]	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	No	828149-DP010008

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 0.21

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature collected in ^{o}F, converted to ^{o}C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-DP011012
SAMPLE TIME	17:15

LOCATION ID	DP-11
DATE	5/8/2019
START TIME	9:00
END TIME	17:20
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	6.64 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.33 FT
WELL DEPTH (BMP)	10.23 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	3.59 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.15 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.39 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
9:15	**BEGIN PURGING**									
9:38	10.23	400	NM	NM	NM	NM	100	108.2	9	Ran Dry
17:10	6.95	>90% water column recharged, collect sample								
17:15	8.9	150	47.7	0.98	7.94	3.8	98	-2.3	9	

FINAL FIELD PARAMETERS (to appropriate significant figures[SF])

9	**0.98**	**7.9**	**3.8**	**98**	**-2.3**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	3 x 40mL VOA	Yes	No	828149-DP011012

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 2.39

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Temperature collected in °F, converted to °C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-DP012015
SAMPLE TIME	11:04

LOCATION ID	DP-12
DATE	5/8/2019
START TIME	9:00
END TIME	11:10
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	9.52 FT	**FINAL DTW (BMP)**	10.35 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.29 FT
WELL DEPTH (BMP)	19.86 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	10.34 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.03 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.42 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL.)	3.276 GAL	**DRAWDOWN/ TOTAL PURGED**	0.01	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
9:03	**BEGIN PURGING**									
9:38	10.23	120	48.8	1.67	7.14	2.96	100	108.2	18	
9:43	10.18	120	48.8	1.67	7.15	2.97	70	100.6	18	
9:48	10.18	120	49.0	1.67	7.15	3.08	113	96.7	18	
9:53	10.23	120	49.1	1.67	7.14	3.07	58	95.5	18	
9:58	10.28	120	49.1	1.67	7.16	3.03	66.9	87.1	18	
10:03	10.32	100	49.1	1.66	7.16	2.95	39.6	81	18	
10:08	10.17	100	49.3	1.67	6.77	3.05	55.4	77	18	
10:13	10.21	100	49.3	1.67	6.79	2.98	66.6	74.9	18	
10:23	10.3	100	49.1	1.66	7.26	2.97	68.9	78.7	18	
10:28	10.32	100	49.1	1.67	7.25	3.12	32	72.8	18	
10:33	10.33	100	49.0	1.66	7.21	2.95	28.4	69.4	18	
10:38	10.35	100	48.9	1.66	6.8	2.89	41.9	68.6	18	
10:43	10.34	100	49.0	1.65	6.75	2.82	15.2	68.7	18	
10:48	10.34	100	49.0	1.65	6.7	2.79	15.3	67.7	18	
10:53	10.34	100	49.1	1.65	6.63	2.79	36.6	67.6	18	
10:58	10.35	100	49.1	1.64	6.6	2.81	36.7	67.3	18	
11:03	10.35	100	49.0	1.65	6.52	2.68	58.1	67.2	18	
11:04	Two hour purge limit, collect sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	9	**1.65**	**6.5**	**2.7**	**58**	**67**

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0775
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-DP012015

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		X

NUMBER OF GALLONS GENERATED: 3.28

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Temperature collected in °F, converted to °C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	DP-14
PROJECT NUMBER	3612132267	**DATE**	5/7/2019
SAMPLE ID	828149-DP14009	**START TIME**	9:20
SAMPLE TIME	11:25	**END TIME**	11:30
		SITE NAME/NUMBER	828149
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	2.45 FT	**FINAL DTW (BMP)**	4.38 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.35 FT
WELL DEPTH (BMP)	10 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	7.55 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.08 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.31 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	5.94 GAL	**DRAWDOWN/ TOTAL PURGED**	0.01	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
9:23	**BEGIN PURGING**									
9:26	4.96	400	47.2	2	6.9	4.82	Nm	70.8	9	Plan to purge dry
9:28	4.95	200	47.2	2.24	6.74	2.62	1386	83.3	10	Well appears to be making water
9:40	3.64	140	NM	NM	NM	NM	NM	NM	11	Well appears to be making water
9:50	3.99	140	NM	NM	NM	NM	671	NM	12	
10:22	4.6	120	NM	NM	NM	NM	821	NM	13	Decrease purge to limit drawdown
10:43	4.61	120	47.4	2.82	6.73	2.82	75	61.6	14	
10:48	4.67	120	47.3	2.41	6.69	2.76	20	67.8	15	
10:53	4.82	100	47.3	2.41	6.7	2.76	112	71.7	16	Decrease purge to limit drawdown
10:58	4.45	100	47.5	2.41	6.68	2.78	43	75.3	17	
11:03	4.37	100	47.6	2.41	6.58	2.9	37	78.9	18	
11:08	4.35	100	47.4	2.4	6.57	2.9	46	82.3	19	
11:13	4.6	100	47.4	2.42	6.54	2.8	35	86.3	20	
11:18	4.47	100	47.4	2.43	6.49	2.76	27	88	21	
11:23	4.38	100	47.6	2.42	6.44	2.85	26	96	22	
11:24	Two hour purge limit, collect sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	9	**2.42**	**6.4**	**2.9**	**26**	**96**

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	360175-GW006018

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 5.94

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Screw missing,
Temperature collected in °F, converted to °C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-DP015009
SAMPLE TIME	16:26

LOCATION ID	DP-15
DATE	5/8/2019
START TIME	15:40
END TIME	16:30
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

QzszqGymboree Yes

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	1.9 FT	**FINAL DTW (BMP)**	3.44 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.28 FT
WELL DEPTH (BMP)	9.37 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	7.47 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.06 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.31 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.43 GAL	**DRAWDOWN/ TOTAL PURGED**	0.04	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:45	**BEGIN PURGING**									
16:05	2.85	140	51.1	1.56	7.1	0.43	23.6	-31.6	Preset	
16:10	3.12	180	49.5	1.61	7.13	0.38	18	-33.2		
16:15	3.29	180	49.6	1.57	7.14	0.33	21.5	-32.5		
16:20	3.42	180	49.2	1.59	7.17	0.25	21.9	-33.9		
16:25	3.44	180	49.3	1.58	7.19	0.2	21.8	-35.5		

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

10	**1.58**	**7.2**	**0.2**	**22**	**-36**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0775
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METEI FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-DP015009

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 1.43

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

One screw missing
Temperature collected in °F, converted to °C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	DP-16
PROJECT NUMBER	3612132267	**START TIME**	16:00
SAMPLE ID	828149-DP016009	**SAMPLE TIME**	17:40
SITE NAME/NUMBER	828149	**DATE**	05/06/19 - 05/08/19
		END TIME	5:40:00 PM
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

INITIAL DTW (BMP)	5.1 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.4 FT
WELL DEPTH (BMP)	9.96 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	4.86 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.20 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.21 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:14	**BEGIN PURGING**									
16:16	8.79	400	13.16	2.240	6.99	5.01	NM	118.3	9	
16:17	9.96	Well ran dry, return tomorrow to collect sample								
	HEP returns 05/08/19 to collect sample									
17:30	5.07	NM	13.39	2.371	6.67	3.22	75.7	157	9	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	**2.37**	**6.7**	**3.2**	**76**	**160**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0995
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X]	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-DP016009
[ ]								
[ ]								
[ ]								
[ ]								
[ ]								
[ ]								

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED [X] YES [ ] NO

NUMBER OF GALLONS GENERATED 0.21

NO-PURGE METHOD UTILIZED [ ] YES [X] NO

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name Lindsey Belliveau

Checked By: ANC Date 5/15/2019

SKETCH/NOTES

Well integrity not reported

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	DP-17
PROJECT NUMBER	3612132267	**START TIME**	12:15
SAMPLE ID	828149-DP017015 (MS/MD)	**SAMPLE TIME**	13:31
SITE NAME/NUMBER	828149	**END TIME**	13:40
DATE	5/8/2019	**PAGE**	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	6.53 FT	**FINAL DTW (BMP)**	6.9 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	16.33 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	9.8 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.02 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diamet.	0.40 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.53 GAL	**DRAWDOWN/ TOTAL PURGED**	0.01	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
12:30	**BEGIN PURGING**									
12:40	6.86	100	54.5	3.02	7.04	1.26	50	96.4	15	
12:55	6.86	100	55.1	3.23	7.22	0.99	69	95.8	15	
13:00	6.85	100	54.5	3.28	7.22	0.86	70.2	96.5	15	
13:05	6.85	100	54.5	3.29	7.18	0.77	56.7	98.4	15	
13:10	6.9	120	54.2	3.34	7.07	0.72	44.6	101.8	15	Rate increased to prevent stalling
13:15	6.91	120	54.4	3.37	7.18	0.63	43.5	100.6	15	
13:20	6.91	120	54.3	3.41	7.26	0.59	38.1	96.2	15	
13:25	6.94	120	54.2	3.41	7.29	0.56	39.8	94.1	15	
13:30	6.9	120	55.3	3.42	7.19	0.55	36.9	94.5	15	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	**3.42**	**7.2**	**0.6**	**37**	**95**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0775
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METEI	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	MS/MSD	828149-DP017015 (MS/MD)

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 1.53

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

New Roadbox installed today by Jeff Schweitzer from Nothnagle Drilling. Well was also silted in, Jeff cleaned it out.
Temperature collected in ^{o}F, converted to ^{o}C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	DP-18
PROJECT NUMBER	3612132267	**START TIME**	15:20
SAMPLE ID	828149-DP018009	**SAMPLE TIME**	17:50
SITE NAME/NUMBER	828149	**DATE**	5/6/19 - 5/7/19
		END TIME	17:50
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	5.98 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.4 FT
WELL DEPTH (BMP)	10.28 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	4.3 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	Dry GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.21 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{oC}) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:22	**BEGIN PURGING**									
15:24	NM	400	12.72	3.96	7.13	2.72	NM	40.4	9	
15:25	10.28	Well ran dry								
	HEP returns 05/07/19 to collect sample									
17:50	6.07	NM	12.91	3.898	7.07	6.92	515	194.8	9	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	**3.89**	**7.1**	**6.9**	**200**	**52**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0995
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-DP018009

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 0.21

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature collected in °F, converted to °C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: TOWN + COUNTRY	LOCATION ID: DP-19
PROJECT NUMBER: 3612132867	DATE: 5/8/19
SAMPLE ID: 828149-DP019012	SAMPLE TIME: 1500
START TIME: 1330	END TIME: 1505
SITE NAME/NUMBER: ~~344041~~ 828149	PAGE: 1 OF 1

WELL DIAMETER (INCHES): 1

TUBING ID (INCHES): [✓] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [✓] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	5.33 FT	FINAL DTW (BMP)	5.45 FT	PROT. CASING STICKUP (AGS)	0 FT	TOC/TOR DIFFERENCE	0.36 FT
WELL DEPTH (BMP)	12.68 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	NM PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN	~~0.00~~ 7.35 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~~0.00~~ 6.005 GAL	PID WELL MOUTH	NM PPM	DISCHARGE TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	~~0.00~~ 6.30 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	2.34 GAL	DRAWDOWN/ TOTAL PURGED	~~0.016~~ 0.002	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1338	BEGIN PURGING									
1415	5.46	125	11.67	1.291	6.98	2.33	12.8	40.6	12	
1420	5.47	125	11.49	1.294	6.94	1.12	9.70	43.7	12	
1425	5.46	125	11.46	1.292	6.91	0.82	7.58	45.9	12	
1430	5.45	125	11.35	1.292	6.90	0.74	6.86	47.2	12	
1435	5.45	125	11.28	1.291	6.89	0.69	5.87	48.7	12	
1440	5.45	125	11.17	1.288	6.88	0.61	4.87	50.1	12	
1445	5.45	125	11.14	1.287	6.88	0.55	4.21	51.3	12	
1450	5.45	125	11.08	1.286	6.89	0.59	3.41	53.1	12	
			WELL STABLE, COLLECT SAMPLE							

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	11	1.29	6.9	0.6	3.4	53

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [✓] PERISTALTIC [ ] SUBMERSIBLE [ ] BLADDER [ ] _____ [ ] WATTERA [ ] OTHER [ ] OTHER

DECON FLUIDS USED: [✓] LIQUINOX [✓] DEIONIZED WATER [ ] POTABLE WATER [ ] NITRIC ACID [ ] HEXANE [ ] METHANOL [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS: [✓] SILICON TUBING [ ] TEFLON TUBING [ ] TEFLON LINED TUBING [✓] HDPE TUBING [ ] LDPE TUBING [ ] OTHER [ ] OTHER

[ ] S. STEEL PUMP MATERIAL [ ] PVC PUMP MATERIAL [ ] GEOPROBE SCREEN [ ] TEFLON BLADDER [ ] OTHER [ ] OTHER [ ] OTHER

EQUIPMENT USED: [✓] WL METER N4SDEC5 [ ] PID [✓] WQ METER M015-12 [✓] TURB. METER M024-40 [✓] PUMP ECOSENTIAL [ ] OTHER [ ] FILTERS NO. ___ TYPE ___

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260C	No	4C, HCl	3x40mL	Y	N	
	SVOC	8270D	No	4C				
	TAL Metals w/ Hg	6010,7471		4C, HNO3				
	PCBs	8082	No	4C				
	Pesticides	8081	No	4C				
	PFAs	537	No	4C				
	1,4-Dioxane	8270-SIM	No	4C				

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [✓] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [✓]

NUMBER OF GALLONS GENERATED: 2.5

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Sampler Signature: [signature] Print Name: HALEY PLANTE

Checked By: [signature] Date: 05/10/19

MACTEC
511 Congress Street, Portland Maine 04101

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	DP-20
PROJECT NUMBER	3612132267	**START TIME**	15:50
SAMPLE ID	828149-DP020012	**SAMPLE TIME**	15:40
SITE NAME/NUMBER	828149	**END TIME**	17:05
DATE	05/06/19 - 05/08/09	**PAGE**	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	2.9 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	10.28 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	7.38 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.30 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.31 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{0}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:52	**BEGIN PURGING**									
15:55	NM	400	10.44	1.19	7.21	35.8	>999	102.4	9	
15:56	10.28	Well ran dry								
	HEP returns 05/08/19 to collect sample									
15:40	9.75	NM	12.81	1.369	6.74	4.32	155	167.8	9	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	**1.37**	**6.7**	**4.32**	**150**	**170**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] _____
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER M200-68
- [ ] PID
- [X] WQ METER M015-13
- [X] TURB. METER M024-38
- [X] PUMP
- [ ] OTHER
- [ ] FILTERS NO. ___ TYPE ___

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^0 C	2 x 40mL VOA	Yes	No	828149-DP020012

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 0.31

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Sampler Signature: [signature] Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: TOWN + COUNTRY		LOCATION ID: ~~MW-1~~	DATE: 5/8/19
PROJECT NUMBER: 36121322267		START TIME: 1025	END TIME: 1205
SAMPLE ID: 828149-~~SB~~DP-21009	SAMPLE TIME: 1200	SITE NAME/NUMBER: ~~344041~~ 828149	PAGE: 1 OF 1

WELL DIAMETER (INCHES): 1

TUBING ID (INCHES): [✓] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [✓] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	6.81 FT	FINAL DTW (BMP)	6.78 FT	PROT. CASING STICKUP (AGS)	NA FT	TOC/TOR DIFFERENCE	0.41 FT
WELL DEPTH (BMP)	10.15 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	NM PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN	~~0.00~~ 3.34 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~~0.00~~ 0 GAL	PID WELL MOUTH	NM PPM	DISCHARGE TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	~~0.00~~ 0.14 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	2.21 GAL	DRAWDOWN/ TOTAL PURGED	0	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1030	BEGIN PURGING									
1045	6.74	100	10.85	1.108	7.10	12.15	170	132.2	9	
1050	6.78	100	11.07	1.118	7.17	7.31	78.0	120.5	9	
1055	6.78	100	11.36	1.082	7.15	8.66	51.7	116.3	9	
1105	6.78	100	11.06	1.051	7.15	7.02	45.9	114.6	9	
1110	6.78	100	10.72	1.014	7.08	6.97	30.8	107.9	9	
1120	6.78	100	10.62	0.957	7.01	6.51	15.6	101.7	9	
1130	6.78	100	10.74	0.931	6.98	6.23	10.7	100.3	9	
1140	6.78	100	10.83	0.903	6.94	3.88	9.82	99.7	9	
1145	6.78	100	11.28	0.901	6.94	5.32	8.04	99.5	9	
1150	6.78	100	11.18	0.900	6.93	4.84	7.30	99.2	9	
1155	6.78	100	11.45	0.899	6.93	5.18	4.78	99.8	9	
	WELL STABLE, COLLECT SAMPLE									
	FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])		11	0.899	6.9	5.2	4.8	100		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [✓] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] _____
- [ ] WATTERA
- [ ] OTHER _____
- [ ] OTHER _____

DECON FLUIDS USED
- [✓] LIQUINOX
- [✓] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER _____

TUBING/PUMP/BLADDER MATERIALS
- [✓] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [✓] LDPE TUBING
- [ ] OTHER _____
- [ ] OTHER _____

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER _____
- [ ] OTHER _____
- [ ] OTHER _____

EQUIPMENT USED
- [✓] WL METER NYSDEC 5
- [ ] PID _____
- [✓] WQ METER MOTS-12
- [✓] TURB. METER MO24-40
- [✓] PUMP S008-41
- [ ] OTHER _____
- [ ] FILTERS NO. ____ TYPE _____

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260C	No	4C, HCl	5x40mL	Y	N	
	SVOC	8270D	No	4C				
	TAL Metals w/ Hg	6010,7471		4C, HNO3				
	PCBs	8082	No	4C				
	Pesticides	8081	No	4C				
	PFAs	537	No	4C				
	1,4-Dioxane	8270-SIM	No	4C				

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED _____

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Sampler Signature: [signature] Print Name: HALEY PLANTE

Checked By: [signature] Date: 05/10/19

MACTEC

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LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-GEMW001014
SAMPLE TIME	14:50

LOCATION ID	GEMW-1
DATE	05/06/19 - 05/07/19
START TIME	15:20
END TIME	14:51
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	6.43 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	12.56 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	6.13 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.25 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL.)	6.86 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:22	**BEGIN PURGING**									
16:28	6.43	400	55	1.6	6.98	24	Nm	111.6	11	
16:30	12.56	NM	NM	NM	NM	NM	NM	NM	NA	
14:44	6.46	Return 5/7 to sample								
14:49	7.2	100	54.5	1.74	6.43	2.77	65.6	85.5	11	
14:50	Collect Grab Sample									

FINAL FIELD PARAMETERS (to appropriate significant figures[SF])

13	**1.74**	**6.4**	**2.8**	**66**	**86**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. ___ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-GEMW001014

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		X

NUMBER OF GALLONS GENERATED: 6.86

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Temperature collected in °F, converted to °C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	GEMW-2
PROJECT NUMBER	3612132267	**START TIME**	14:00
SAMPLE ID	828149-GEMW002014	**SAMPLE TIME**	18:15
SITE NAME/NUMBER	828149	**DATE**	05/07/19 - 05/08/19
		END TIME	18:15
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	7.39 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.4 FT
WELL DEPTH (BMP)	14 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	6.61 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.27 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.55 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
14:07	**BEGIN PURGING**									
14:55	13.8	140	12.94	1.13	6.64	7.21	975	80.6	13	
14:58	13.9	Well ran dry								
	HEP returns 05/08/19 to collect sample									
18:15	7.42	NM	13.28	1.061	7.03	7.13	448	140.2	13	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

13	**1.06**	**7**	**7.1**	**450**	**140**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-GEMW002014

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 1.55

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	MW-001
PROJECT NUMBER	3612132267	**START TIME**	10:35
SAMPLE ID	828149-MW001010 (D)	**SAMPLE TIME**	12:41
SITE NAME/NUMBER	828149	**DATE**	5/7/2019
PAGE	1 OF 1	**END TIME**	12:45

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	2.07 FT	**FINAL DTW (BMP)**	3.18 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.25 FT
WELL DEPTH (BMP)	11.38 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	9.31 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.05 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.38 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	3.74 GAL	**DRAWDOWN/ TOTAL PURGED**	0.01	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
10:40	**BEGIN PURGING**									
11:55	3.18	120	50	1.56	6.83	2.69	39.1	73	10	
12:00	3.17	120	50	1.56	6.87	2.69	9.55	71.7	10	
12:05	3.19	120	50.1	1.56	6.77	2.69	7.29	73.3	10	
12:10	3.18	120	50.1	1.56	6.71	2.65	9.04	75.7	10	
12:15	3.18	120	50.1	1.57	6.66	2.66	12.3	77.2	10	
12:20	3.19	120	50	1.57	6.58	2.61	11.5	79.9	10	
12:25	3.19	120	50	1.57	6.55	2.58	15	81.3	10	
12:30	3.2	120	49.9	1.57	6.52	2.63	14.1	82.7	10	
12:35	3.19	120	49.9	1.57	6.56	2.63	11.93	84.1	10	
12:40	3.18	120	49.9	1.58	6.53	2.63	11.11	86.1	10	
12:41	Two hour purge limit, collect samples									

FINAL FIELD PARAMETERS (to appropriate significant figures[SF])

	10	**1.58**	**6.5**	**2.6**	**11**	**86**

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	DUP	828149-MW001010 (D)

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 3.74

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature collected in ^{o}F, converted to ^{o}C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-MW002010
SAMPLE TIME	17:05

LOCATION ID	MW-02
DATE	5/7/19 - 5/8/19
START TIME	15:50
END TIME	17:05
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	2.66 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.4 FT
WELL DEPTH (BMP)	8.25 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	5.59 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.23 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.66 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
15:54	**BEGIN PURGING**									
15:59	5.7	120	10.00	1.430	6.09	2.22	NM	108.5	7	
16:09	8.25	120	9.89	1.400	6.23	3.48	>999	87.7	NM	
16:15	10.35	Ran dry	NM	NM	NM	NM	NM	NM	NA	
	HEP returns 05/08/19 to collect sample									
17:05	3.10	NM	16.59	1.433	7.21	2.70	955	152.2	7	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

17	**1.43**	**7.2**	**2.7**	**960**	**150**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METEI FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-MW002010

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 0.66

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	MW-2B
PROJECT NUMBER	3612132267	**DATE**	5/7/2019
SAMPLE ID	828149-MW02B020	**START TIME**	9:10
SAMPLE TIME	10:24	**END TIME**	10:30
		SITE NAME/NUMBER	828149
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	4.34 FT	**FINAL DTW (BMP)**	4.39 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.35 FT
WELL DEPTH (BMP)	22.53 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	18.19 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.05 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.98 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.55 GAL	**DRAWDOWN/ TOTAL PURGED**	0.02	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
9:13	**BEGIN PURGING**									
9:43	4.42	140	52	1.18	7.12	0.58	3.65	-13	17	
9:48	4.42	140	52	1.17	7.12	0.6	1.49	-24.2	17	
9:53	4.42	140	52	1.17	7.11	0.57	1.69	-29.6	17	
9:58	4.42	140	51.6	1.17	7.11	0.68	1.78	-32.6	17	
10:03	4.43	140	52	1.17	7.11	0.62	2.53	-33.2	17	
10:08	4.43	140	51.9	1.17	7.11	0.58	1.99	-32.1	17	
10:13	4.4	140	52	1.17	7.11	0.49	2.21	-35.8	17	
10:18	4.39	140	51.8	1.16	7.1	0.46	2.38	-38.7	17	
10:23	4.39	140	51.8	1.16	7.1	0.48	1.84	-39.4	17	
10:24	Well Stable, collect samples									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

11	**1.16**	**7.1**	**0.5**	**1.9**	**-39**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0995
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	No	828149-MW02B020

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 2.55

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature recorded in ^{o}F, converted to ^{o}C for final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-MW003009 (D)
SAMPLE TIME	18:04

LOCATION ID	MW-3
DATE	5/6/2019
START TIME	16:00
END TIME	18:10
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	4.54 FT	**FINAL DTW (BMP)**	6.2 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	10.4 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	5.86 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.27 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.96 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL.)	3.744 GAL	**DRAWDOWN/ TOTAL PURGED**	0.07	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:03	**BEGIN PURGING**									
16:33	6.98	120	NM	NM	NM	NM	776	NM	9	
16:53	6.54	120	54.4	2.51	6.94	0.57	725	-17.3	9	
16:58	6.65	120	54.3	2.52	6.95	0.6	878	-18.6	9	
17:03	6.61	120	54.5	2.52	6.95	0.56	157	-22.1	9	
17:08	6.5	120	54.4	2.52	6.95	0.72	26	-23.1	9	
17:13	6.18	120	54.8	2.51	6.96	0.68	62.7	-20.9	9	
17:53	6.2	120	54.2	2.51	7.02	0.61	620	-37.1	9	
17:58	6.19	120	54.7	2.51	6.92	0.57	908	-35.4	9	
18:03	6.2	120	54.2	2.49	6.93	0.36	646	-38.8	9	
18:04	2 hour purge limit, collect samples									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

12	**2.49**	**6.9**	**0.4**	**646**	**-39**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0775
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. ___ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	DUP	828149-MW003009 (D)

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		X

NUMBER OF GALLONS GENERATED: 3.74

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

Temperature recorded in °F, converted to °C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-MW010010
SAMPLE TIME	17:50

LOCATION ID	MW-10
DATE	5/7/19 - 5/9/19
START TIME	8:45
END TIME	8:46
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	6.58 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.3 FT
WELL DEPTH (BMP)	10.28 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	3.7 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.15 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.21 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
8:48	**BEGIN PURGING**									
8:50	Nm	400	48.6	1.88	6.58	2.72	NM	-31.6	9	
8:51	10.28	Well ran dry								
8:40	Return 05/09/19 to collect sample									
8:45	9.5	100	49.4	2.06	6.8	4.57	NM	152	9	Went dry before turbidity could be measured

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

10	**2.06**	**6.8**	**4.6**	**NM**	**150**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	No	828149-MW010010

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	X	
NO-PURGE METHOD UTILIZED		X

NUMBER OF GALLONS GENERATED: 0.21

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

One broken bolt, stuck in flange
Temperature recorded in ^{o}F, converted to ^{o}C in final parameters

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-MW013012
SAMPLE TIME	18:01

LOCATION ID	MW-13
DATE	5/7/2019
START TIME	13:20
END TIME	18:05
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	5.79 FT	**FINAL DTW (BMP)**	Dry FT	**PROT. CASING STICKUP (AGS)**	2.58 FT	**TOC/TOR DIFFERENCE**	0.39 FT
WELL DEPTH (BMP)	12.9 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	7.11 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	Dry GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diamet.	1.17 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	0.21 GAL	**DRAWDOWN/ TOTAL PURGED**	Dry	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
13:21	**BEGIN PURGING**									
13:23	6.9	400	47	1.8	6.41	1.56	Nm	90	11	
13:27	12.9	Well ran dry	NM	NM	NM	NM	NM	NM	NA	
17:49	5.75	Return to well, >90% water column recharge, collect sample								
18:00	6.46	100	48.2	1.79	6.9	2.48	14.8	-70.5	11	

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

9	**1.79**	**6.9**	**2.5**	**14.8**	**-71**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0775
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	No	828149-MW013012

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 0.21

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature recorded in ^{o}F, converted to ^{o}C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	MW-13B
PROJECT NUMBER	3612132267	**DATE**	5/7/2019
SAMPLE ID	828149-MW013B023	**START TIME**	16:10
SAMPLE TIME	17:20	**END TIME**	17:30
		SITE NAME/NUMBER	828149
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	9.24 FT	**FINAL DTW (BMP)**	15.7 FT	**PROT. CASING STICKUP (AGS)**	2.58 FT	**TOC/TOR DIFFERENCE**	0.4 FT
WELL DEPTH (BMP)	25 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	15.76 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	1.06 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.58 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.16 GAL	**DRAWDOWN/ TOTAL PURGED**	0.49	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{o}C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:14	**BEGIN PURGING**									
16:34	12.9	140	50.5	1.14	7.25	0.2	8.25	-88.2	24	
16:39	13.21	120	50.7	1.13	7.29	0.31	11.27	-106.2	24	
16:44	13.55	120	50.6	1.11	7.31	0.26	14.2	-118.1	24	
16:49	13.95	120	50.6	1.1	7.3	0.21	17.3	-124.5	24	
16:54	14.45	120	50.7	1.1	7.29	0.21	11.35	-127.9	24	
16:59	14.5	120	50.8	1.09	7.31	0.17	10.08	-135.7	24	
17:04	15.12	120	50.8	1.09	7.34	0.17	10.05	-144.4	24	
17:09	15.4	120	51	1.07	7.42	0.14	5.88	-152.2	24	
17:14	15.6	120	51.1	1.07	7.46	0.14	9.87	-161	24	
17:19	15.7	120	51.1	1.06	7.49	0.13	7.63	-169.7	24	
17:20	Well stable, collect sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

11	**1.06**	**7.5**	**0.13**	**7.6**	**-170**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^{o} C	2 x 40mL VOA	Yes	No	828149-MW013B023

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 2.16

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Temperature recorded in in ^{o}F, converted to ^{o}C in final parameters

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners
PROJECT NUMBER	3612132267
SAMPLE ID	828149-MW016B023
SAMPLE TIME	17:40

LOCATION ID	MW - 16B
DATE	5/6/2019
START TIME	16:40
END TIME	17:45
SITE NAME/NUMBER	828149
PAGE	1 OF 1

WELL DIAMETER (INCHES) [ ] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	6.35 FT	**FINAL DTW (BMP)**	6.41 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	NM FT
WELL DEPTH (BMP)	20.15 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	13.8 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.01 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	2.26 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	1.86 GAL	**DRAWDOWN/ TOTAL PURGED**	0.01	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
16:44	**BEGIN PURGING**									
16:54	6.35	130	NM	NM	NM	NM	NM	NM	19	
17:04	6.4	130	NM	NM	NM	NM	8.46	NM	19	
17:24	6.42	130	57.4	1.09	7.11	0.49	6.83	-69	19	
17:29	6.41	130	56.4	1.08	7.09	0.45	4.2	-66.6	19	
17:34	6.42	130	57.4	1.08	7.08	0.44	2.81	-65.3	19	
17:39	6.41	130	56.5	1.08	7.06	0.48	2.71	-68.1	19	
17:40	Well Stable, collect samples									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

57	**1.08**	**7.1**	**0.5**	**2.1**	**-68**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED	
[X] PERISTALTIC	[ ] LIQUINOX	[X] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[X] WL METER	FA0995
[ ] SUBMERSIBLE	[X] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID	
[ ] BLADDER	[X] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[X] WQ METER	FA01206
	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[X] TURB. METER	FA00572
[ ] WATTERA	[ ] HEXANE	[X] LDPE TUBING	[ ] OTHER	[X] PUMP	FA01206
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER	
[ ] OTHER	[X] OTHER Alquinox	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO.	TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4° C	2 x 40mL VOA	Yes	No	828149-MW016B023

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 1.86

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Sample bottles/chain mistakenly label sample time as 17:10

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME	Town & Country Cleaners	**LOCATION ID**	MW- 17 B
PROJECT NUMBER	3612132267	**DATE**	5/8/2019
SAMPLE ID	828149-MW017B018	**START TIME**	14:00
SAMPLE TIME	15:02	**END TIME**	15:15
		SITE NAME/NUMBER	828149
		PAGE	1 OF 1

WELL DIAMETER (INCHES) [X] 1 [ ] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER

TUBING ID (INCHES) [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP) [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

INITIAL DTW (BMP)	7.45 FT	**FINAL DTW (BMP)**	8.94 FT	**PROT. CASING STICKUP (AGS)**	NA FT	**TOC/TOR DIFFERENCE**	0.34 FT
WELL DEPTH (BMP)	27.25 FT	**SCREEN LENGTH**	10 FT	**PID AMBIENT AIR**	NM PPM	**REFILL TIMER SETTING**	NA SEC
WATER COLUMN	19.8 FT	**DRAWDOWN VOLUME** (initial DTW- final DTW X well diam. squared X 0.041)	0.24 GAL	**PID WELL MOUTH**	NM PPM	**DISCHARGE TIMER SETTING**	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	3.25 GAL	**TOTAL VOL. PURGED** (mL per minute X total minutes X 0.00026 gal/mL)	2.15 GAL	**DRAWDOWN/ TOTAL PURGED**	0.11	**PRESSURE TO PUMP**	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (^{0}F) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
14:01	**BEGIN PURGING**									
14:19	7.8	150	61.6	0.96	7.77	0.53	11.8	-197.9	18	
14:21	8.15	150	56.6	0.96	7.79	0.17	2.85	-206.1	18	
14:26	8.45	150	56.9	0.94	7.77	0.11	3.91	-211.3	18	
14:31	8.88	150	56.4	0.95	7.8	0.09	2.72	-219.8	18	
14:36	8.85	120	58.2	0.94	8.03	0.1	2.39	-225.0	18	
14:46	8.6	120	56.3	0.95	7.88	0.11	1.77	-239.0	18	
14:51	8.98	120	56.8	0.94	7.75	0.13	2.14	-244.5	18	
14:56	8.99	120	56.6	0.95	7.78	0.12	0.87	-246.6	18	
15:01	8.94	120	56.9	0.95	7.77	0.11	0.81	-251.2	18	
15:02	Well stable, collect sample									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

57	**0.95**	**7.8**	**0.11**	**0.8**	**-250**	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [X] DEIONIZED WATER
- [X] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER Alquinox

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER FA0995
- [ ] PID
- [X] WQ METER FA01206
- [X] TURB. METER FA00572
- [X] PUMP FA01206
- [ ] OTHER
- [ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOCs	8260B	No	HCl, 4^0 C	2 x 40mL VOA	Yes	No	828149-MW017B0180

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [X] NO [ ]

NUMBER OF GALLONS GENERATED: 2.15

NO-PURGE METHOD UTILIZED: YES [ ] NO [X]

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

Sampler Signature: Print Name: Lindsey Belliveau

Checked By: ANC Date: 5/15/2019

SKETCH/NOTES

Oder Present

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FIGURE 4.17
LOW FLOW GROUNDWATER SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME		LOCATION ID	DATE
TOWN + COUNTRY		MW-19B	5/8/19
PROJECT NUMBER		START TIME	END TIME
361213226?		1240	1410
SAMPLE ID	SAMPLE TIME	SITE NAME/NUMBER	PAGE
828149-MW019B025	1400	~~344041~~ 828149	1 OF 1

WELL DIAMETER (INCHES): 2

TUBING ID (INCHES): [✓] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [✓] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	5.40 FT	FINAL DTW (BMP)	5.66 FT	PROT. CASING STICKUP (AGS)	NA FT	TOC/TOR DIFFERENCE	NM FT
WELL DEPTH (BMP)	20.80 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	NM PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN	~~0.00~~ 15.40 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~~0.00~~ 0.04 GAL	PID WELL MOUTH	NM PPM	DISCHARGE TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	~~0.00~~ 2.53 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	1.82 GAL	DRAWDOWN/ TOTAL PURGED	0.023	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1250	BEGIN PURGING									
1300	5.65	100	12.43	1.151	7.01	1.54	7.51	111.0	20	
1310	5.65	100	12.05	1.156	6.99	0.99	6.61	93.4	20	
1320	5.65	100	11.84	1.158	6.98	0.78	6.65	71.9	20	
1325	5.66	100	11.86	1.159	6.98	0.74	6.14	64.5	20	
1330	5.66	100	11.83	1.162	6.98	0.65	6.18	59.7	20	
1335	5.66	100	11.52	1.160	6.97	0.50	5.60	53.8	20	
1340	5.66	100	11.78	1.161	6.98	0.49	3.93	48.6	20	
1345	5.66	100	12.32	1.162	6.98	0.53	4.20	44.5	20	SUN ON TUBING
1350	5.66	100	11.76	1.162	6.98	0.52	4.26	40.5	20	
1355	5.66	100	11.69	1.162	6.97	0.48	3.18	39.4	20	
1400	5.66	100	11.69	1.163	6.97	0.51	2.49	37.7	20	
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])			12	1.16	7.0	0.5	2.5	38		TEMP.: nearest degree (ex. 10.1 = 10); COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696); pH: nearest tenth (ex. 5.53 = 5.5); DO: nearest tenth (ex. 3.51 = 3.5); TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101); ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	DECON FLUIDS USED	TUBING/PUMP/BLADDER MATERIALS		EQUIPMENT USED
[✓] PERISTALTIC	[✓] LIQUINOX	[✓] SILICON TUBING	[ ] S. STEEL PUMP MATERIAL	[✓] WL METER NYSDEC 5
[ ] SUBMERSIBLE	[✓] DEIONIZED WATER	[ ] TEFLON TUBING	[ ] PVC PUMP MATERIAL	[ ] PID
[ ] BLADDER	[ ] POTABLE WATER	[ ] TEFLON LINED TUBING	[ ] GEOPROBE SCREEN	[✓] WQ METER MO15-12
[ ] WATTERA	[ ] NITRIC ACID	[ ] HDPE TUBING	[ ] TEFLON BLADDER	[✓] TURB. METER MO24-40
[ ] OTHER	[ ] HEXANE	[✓] LDPE TUBING	[ ] OTHER	[✓] PUMP SOOB-47
[ ] OTHER	[ ] METHANOL	[ ] OTHER	[ ] OTHER	[ ] OTHER
	[ ] OTHER	[ ] OTHER	[ ] OTHER	[ ] FILTERS NO. TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260C	No	4C, HCl	3x40	Y	Y-MS/MSD	
	SVOC	8270D	No	4C				
	TAL Metals w/ Hg	6010,7471		4C, HNO3				
	PCBs	8082	No	4C				
	Pesticides	8081	No	4C				
	PFAs	537	No	4C				
	1,4-Dioxane	8270-SIM	No	4C				

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ~2

If yes, purged approximately 1 standing volume prior to sampling or _____mL for this sample location.

SKETCH/NOTES

WELL SAMPLE DEPTH HISTORICALLY 25', HARD BOTTOM AT 20.80' TOR

Sampler Signature: [signature] Print Name: HALEY PLANTE

Checked By: [signature] Date: 05/10/19

MACTEC

511 Congress Street, Portland Maine 04101

LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: TODAY'S COUNTRY		LOCATION ID: MW-21B	DATE: 5/8/19
PROJECT NUMBER: 3612132267		START TIME: 0825	END TIME: 1025
SAMPLE ID: B28149-MW021B019	SAMPLE TIME: 1025	SITE NAME/NUMBER: 344041 B28149	PAGE: 1 OF 1

WELL DIAMETER (INCHES): 2

TUBING ID (INCHES): [✓] 1/8 [ ] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER

MEASUREMENT POINT (MP): [✓] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

INITIAL DTW (BMP)	7.13 FT	FINAL DTW (BMP)	7.31 FT	PROT. CASING STICKUP (AGS)	0 FT	TOC/TOR DIFFERENCE	0.35 FT
WELL DEPTH (BMP)	19.30 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	NM PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN	~~0.00~~ 12.17 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~~0.00~~ 0.03 GAL	PID WELL MOUTH	NM PPM	DISCHARGE TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	~~0.00~~ 2.00 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	2.6 GAL	DRAWDOWN/ TOTAL PURGED	0.01	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0840	BEGIN PURGING								~~19~~ 19	
0905	7.28	100	9.38	1.192	6.85	9.42	45.8	224.5	~~19~~ 19	
0915	7.28	100	10.34	1.179	6.98	3.95	26.7	216.0	19	
0940	7.31	100	10.55	1.182	6.52	7.09	24.2	181.4	19	
0945	7.31	100	10.67	1.180	5.12	6.01	12.0	250.2	19	
0950	7.31	100	10.69	1.185	6.96	7.18	12.5	148.1	19	
0955	7.31	100	10.61	1.177	6.99	5.14	9.20	139.0	19	
1000	7.32	100	10.73	1.173	6.98	3.40	3.98	130.3	19	
1005	7.31	100	11.02	1.174	6.97	3.39	5.77	124.9	19	
1010	7.31	100	11.14	1.173	6.95	3.42	4.61	121.2	19	
1015	7.31	100	11.23	1.174	6.94	3.33	3.17	118.2	19	
1020	7.31	100	11.28	1.174	6.92	3.38	2.48	115.5	19	
WELL STABLE, COLLECT SAMPLES										
FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])										
			11	1.17	6.9	3.4	2.5	120		

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [✓] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [✓] LIQUINOX
- [✓] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [✓] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [✓] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [✓] WL METER IN45DEC5
- [ ] PID
- [✓] WQ METER M015-12
- [✓] TURB. METER M024-40
- [✓] PUMP SUCB-41
- [ ] OTHER
- [ ] FILTERS NO. ____ TYPE ____

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
✓	VOC	8260C	No	4C, HCl				
	SVOC	8270D	No	4C				
	TAL Metals w/ Hg	6010,7471		4C, HNO3				
	PCBs	8082	No	4C				
	Pesticides	8081	No	4C				
	PFAs	537	No	4C				
	1,4-Dioxane	8270-SIM	No	4C				

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	✓	
NO-PURGE METHOD UTILIZED		✓

NUMBER OF GALLONS GENERATED: ____

If yes, purged approximately 1 standing volume prior to sampling or ____ mL for this sample location.

SKETCH/NOTES

Sampler Signature: [signature] Print Name: HALEY PLANTE

Checked By: [signature] Date: 05/10/19

MACTEC

511 Congress Street, Portland Maine 04101

LOW FLOW GROUNDWATER SAMPLING RECORD

ATTACHMENT 2

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT
MAY 2019 GROUNDWATER SAMPLING
TOWN & COUNTRY – RI/FS
BRIGHTON, NEW YORK

1.0 INTRODUCTION

Groundwater samples were collected in May 2019 at the Town and Country site in Brighton, New York, and shipped to ALS Environmental, located in Rochester, New York, for analysis. Samples were analyzed by the following method:

- Volatile Organic Compounds (VOCs) by Method 8260C

Results were reported in the following sample delivery groups (SDGs):

- R1904203
- R1904204

A Data Usability Summary Report (DUSR) review was completed based on the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation guidance (NYSDEC, 2010). Sample event information included in this DUSR is presented in the following Tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results
- Table 3 – Summary of Qualification Actions

Laboratory deliverables included:

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

The DUSR review included the following evaluations. A table of the project control limits is presented in Attachment A. Applicable laboratory quality control (QC) summary forms are included in Attachment B to document QC outliers associated with qualification actions.

- Lab Report Narrative Review
- Data Package Completeness and COC Records (Table 1 verification)
- Sample Preservation and Holding Times
- Instrument Calibration (report narrative/lab-qualifier evaluation)
- QC Blanks
- Laboratory Control Samples (LCS)
- Matrix Spike/Matrix Spike Duplicates (MS/MSD)
- Surrogate Spikes (if applicable)
- Field Duplicates
- Target Analyte Identification and Quantitation
- Raw Data (chromatograms), Calculation Checks and Transcription Verifications
- Reporting Limits
- Electronic Data Qualification and Verification

Data qualification actions are applied when necessary based on general procedures in USEPA validation guidelines (USEPA, 2014) and the judgment of the project chemist. The following laboratory or data review qualifiers are used in the final data presentation:

U = target analyte is not detected above the reported detection limit or was qualified not detected
UJ = target analyte is not detected above the reported detection limit and is estimated
J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory or as qualified in the following sections.

2.0 POTENTIAL DATA LIMITATIONS

Based on the DUSR review the data meet the data quality objectives; however, the following potential limitations were identified:

VOCs

- All results in samples 828149-DP012015, 828149-MW019B025, and 828149-DP019012 were qualified estimated (J/UJ) due to headspace present in sample vials.
- Due to low recovery in the LCS/LCSD, reporting limits for 1,2-dibromo-3-chloropropane in a subset of samples in SDG R1904203 were qualified estimated (UJ).
- Reporting limits for 1,2-dibromo-3-chloropropane, methyl acetate, bromoform, and bromomethane in sample 828149-DP017015 were qualified estimated (UJ) due to low recoveries in the associated MS/MSD.
- Reporting limits for methyl acetate and bromomethane in sample 828149-MW019B025 were qualified estimated (UJ) due to low recoveries in the associated MS/MSD.
- Reporting limits for bromoform and bromomethane in sample 828149-MW001010 and associated field duplicate 828149-MW001010D were qualified estimated (UJ) based on low MS/MSD recoveries. Detections of tetrachloroethene in sample 828149-MW001010 and field duplicate 828149-MW001010D were qualified estimated biased high (J+) due to high MS/MSD recoveries.
- Acetone detections in samples 828149-DP011012, 828149-DP016009, 828149-GEMW002014, and 828149-MW010010 were qualified non-detect (U) due to contamination in the associated trip blank.

3.0 ADDITIONAL QC EXCEEDANCES AND OBSERVATIONS

A subset of samples was analyzed at dilution due to high concentrations of target compounds. Reporting limits for non-detects are elevated.

There were no additional observations or quality control exceedances not specifically addressed above (Section 2.0) or included in Table 3. Unless presented in Table 3, sample results are usable as reported by the laboratory.

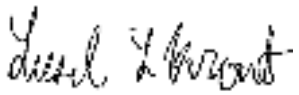
Reference:

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

U.S. Environmental Protection Agency (USEPA), 2014. "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C"; SOP NO. HW-24; Revision 4; Hazardous Waste Support Section; September 2014.

Data Validator: Liesel Krout



July 7, 2019

Reviewed by Julie Ricardi

July 9, 2019

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
DATA USABILITY SUMMARY REPORT
MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

					Method Class	VOCs
					Analysis Method	SW8260C
					Fraction	N
SDG	Location	Sample ID	Sample Date	Media	Qc Code	Param_Count
R1904203	DP-012	828149-DP012015	5/8/2019	GW	FS	52
R1904203	DP-014	828149-DP014009	5/7/2019	GW	FS	52
R1904203	DP-017	828149-DP017015	5/8/2019	GW	FS	52
R1904203	DP-018	828149-DP018009	5/7/2019	GW	FS	52
R1904203	DP-020	828149-DP020012	5/8/2019	GW	FS	52
R1904203	DP-021	828149-DP021009	5/8/2019	GW	FS	52
R1904203	GEMW-1	828149-GEMW001014	5/7/2019	GW	FS	52
R1904203	MW-1	828149-MW001010	5/7/2019	GW	FS	52
R1904203	MW-1	828149-MW001010D	5/7/2019	GW	FD	52
R1904203	MW-13	828149-MW013012	5/7/2019	GW	FS	52
R1904203	MW-13B	828149-MW013B023	5/7/2019	GW	FS	52
R1904203	MW-16B	828149-MW16B023	5/6/2019	GW	FS	52
R1904203	MW-17B	828149-MW017B0180	5/8/2019	GW	FS	52
R1904203	MW-19B	828149-MW019B025	5/8/2019	GW	FS	52
R1904203	MW-21B	828149-MW021B019	5/8/2019	GW	FS	52
R1904203	MW-2B	828149-MW02B020	5/7/2019	GW	FS	52
R1904203	MW-3	828149-MW003009	5/6/2019	GW	FS	52
R1904203	MW-3	828149-MW003009D	5/6/2019	GW	FD	52
R1904204	DP-010	828149-DP010008	5/8/2019	GW	FS	52
R1904204	DP-011	828149-DP011012	5/8/2019	GW	FS	52
R1904204	DP-015	828149-DP015009	5/8/2019	GW	FS	52
R1904204	DP-016	828149-DP016009	5/8/2019	GW	FS	52
R1904204	DP-019	828149-DP019012	5/8/2019	GW	FS	52
R1904204	GEMW-2	828149-GEMW002014	5/8/2019	GW	FS	52
R1904204	MW-10	828149-MW010010	5/9/2019	GW	FS	52
R1904204	MW-2	828149-MW002010	5/8/2019	GW	FS	52
R1904204	QC	Trip Blank	5/8/2019	BW	TB	52

Notes:
FS = Field Sample
FD = Field Duplcate
TB = Trip Blank
Param_Count = number of target analytes reported

Created by: WCG 06/27/2019
Checked by: LLK 07/03/2019

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904203		R1904203		R1904203		R1904203	
		Location	DP-012		DP-014		DP-017		DP-018	
		Sample Date	05/08/19		05/07/19		05/08/19		05/07/19	
		Sample ID	828149-DP012015		828149-DP014009		828149-DP017015		828149-DP018009	
		QC Code	FS		FS		FS		FS	
Method	**Parameter**	**Unit**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethan	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,1,2-Trichloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,1-Dichloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,1-Dichloroethene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	2	UJ	100	UJ	2	UJ	2	U
SW8260C	1,2-Dibromoethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2-Dichlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2-Dichloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,2-Dichloropropane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,3-Dichlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,4-Dichlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	1,4-Dioxane	ug/l	40	UJ	2000	U	40	U	40	U
SW8260C	2-Butanone	ug/l	5	UJ	250	U	5	U	5	U
SW8260C	2-Hexanone	ug/l	5	UJ	250	U	5	U	5	U
SW8260C	4-Methyl-2-pentanone	ug/l	5	UJ	250	U	5	U	5	U
SW8260C	Acetic acid, methyl ester	ug/l	2	UJ	100	U	2	UJ	2	U
SW8260C	Acetone	ug/l	5	UJ	250	U	5	U	5	U
SW8260C	Benzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Bromochloromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Bromodichloromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Bromoform	ug/l	1	UJ	50	U	1	UJ	1	U
SW8260C	Bromomethane	ug/l	1	UJ	50	U	1	UJ	1	U
SW8260C	Carbon disulfide	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Carbon tetrachloride	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Chlorobenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Chloroethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Chloroform	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Chloromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	cis-1,2-Dichloroethene	ug/l	0.54	J	340		1	U	1	U
SW8260C	cis-1,3-Dichloropropene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Cyclohexane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Dibromochloromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Dichlorodifluoromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Ethylbenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Isopropylbenzene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Methyl cyclohexane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Methyl Tertbutyl Ether	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Methylene chloride	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Styrene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Tetrachloroethene	ug/l	0.59	J	8100		1	U	1	U
SW8260C	Toluene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	trans-1,2-Dichloroethene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	trans-1,3-Dichloropropene	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Trichloroethene	ug/l	1	UJ	310		1	U	1	U
SW8260C	Trichlorofluoromethane	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Vinyl chloride	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Xylene, o	ug/l	1	UJ	50	U	1	U	1	U
SW8260C	Xylenes (m&p)	ug/l	2	UJ	100	U	2	U	2	U

Notes:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
UG/L = micrograms per liter
U = Not detected
J = Value is estimated

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904203		R1904203		R1904203		R1904203	
		Location	DP-020		DP-021		GEMW-1		MW-1	
		Sample Date	05/08/19		05/08/19		05/07/19		05/07/19	
		Sample ID	828149-DP020012		828149-DP021009		828149-GEMW001014		828149-MW001010	
		QC Code	FS		FS		FS		FS	
Method	**Parameter**	**Unit**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethan	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,1-Dichloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,1-Dichloroethene	ug/l	1	U	1	U	1.1		20	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	2	UJ	2	UJ	2	UJ	40	U
SW8260C	1,2-Dibromoethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,2-Dichloropropane	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	1,4-Dioxane	ug/l	40	U	40	U	40	U	800	U
SW8260C	2-Butanone	ug/l	5	U	5	U	5	U	100	U
SW8260C	2-Hexanone	ug/l	5	U	5	U	5	U	100	U
SW8260C	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	U	100	U
SW8260C	Acetic acid, methyl ester	ug/l	2	U	2	U	2	U	40	U
SW8260C	Acetone	ug/l	5	U	5	U	5	U	100	U
SW8260C	Benzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Bromochloromethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Bromodichloromethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Bromoform	ug/l	1	U	1	U	1	U	20	UJ
SW8260C	Bromomethane	ug/l	1	U	1	U	1	U	20	UJ
SW8260C	Carbon disulfide	ug/l	1	U	1	U	1	U	20	U
SW8260C	Carbon tetrachloride	ug/l	1	U	1	U	1	U	20	U
SW8260C	Chlorobenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Chloroethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Chloroform	ug/l	1	U	0.3	J	1	U	20	U
SW8260C	Chloromethane	ug/l	0.28	J	1	U	1	U	20	U
SW8260C	cis-1,2-Dichloroethene	ug/l	1	U	1	U	150		34	
SW8260C	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Cyclohexane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Dibromochloromethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Dichlorodifluoromethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Ethylbenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Isopropylbenzene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Methyl cyclohexane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U	20	U
SW8260C	Methylene chloride	ug/l	1	U	1	U	1	U	20	U
SW8260C	Styrene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Tetrachloroethene	ug/l	1	U	1.8		93		1900	J+
SW8260C	Toluene	ug/l	1	U	1	U	1	U	20	U
SW8260C	trans-1,2-Dichloroethene	ug/l	1	U	1	U	1.2		20	U
SW8260C	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U	20	U
SW8260C	Trichloroethene	ug/l	1	U	1	U	38		34	
SW8260C	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	20	U
SW8260C	Vinyl chloride	ug/l	1	U	1	U	7.3		20	U
SW8260C	Xylene, o	ug/l	1	U	1	U	1	U	20	U
SW8260C	Xylenes (m&p)	ug/l	2	U	2	U	2	U	40	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904203		R1904203		R1904203		R1904203	
		Location	MW-1		MW-13		MW-13B		MW-16B	
		Sample Date	05/07/19		05/07/19		05/07/19		05/06/19	
		Sample ID	828149-MW001010D		828149-MW013012		828149-MW013B023		828149-MW16B023	
		QC Code	FD		FS		FS		FS	
Method	**Parameter**	**Unit**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethan	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,1,2-Trichloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,1-Dichloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,1-Dichloroethene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	40	UJ	20	UJ	2	U	2	UJ
SW8260C	1,2-Dibromoethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2-Dichlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2-Dichloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,2-Dichloropropane	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,3-Dichlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,4-Dichlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	1,4-Dioxane	ug/l	800	U	400	U	40	U	40	U
SW8260C	2-Butanone	ug/l	100	U	50	U	5	U	5	U
SW8260C	2-Hexanone	ug/l	100	U	50	U	5	U	5	U
SW8260C	4-Methyl-2-pentanone	ug/l	100	U	50	U	5	U	5	U
SW8260C	Acetic acid, methyl ester	ug/l	40	U	20	U	2	U	2	U
SW8260C	Acetone	ug/l	100	U	50	U	5	U	5	U
SW8260C	Benzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Bromochloromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Bromodichloromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Bromoform	ug/l	20	UJ	10	U	1	U	1	U
SW8260C	Bromomethane	ug/l	20	UJ	10	U	1	U	1	U
SW8260C	Carbon disulfide	ug/l	20	U	10	U	4.1		1	U
SW8260C	Carbon tetrachloride	ug/l	20	U	10	U	1	U	1	U
SW8260C	Chlorobenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Chloroethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Chloroform	ug/l	20	U	10	U	1	U	1	U
SW8260C	Chloromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	cis-1,2-Dichloroethene	ug/l	38		160		2		0.95	J
SW8260C	cis-1,3-Dichloropropene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Cyclohexane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Dibromochloromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Dichlorodifluoromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Ethylbenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Isopropylbenzene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Methyl cyclohexane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Methyl Tertbutyl Ether	ug/l	20	U	10	U	1	U	1	U
SW8260C	Methylene chloride	ug/l	20	U	10	U	1	U	1	U
SW8260C	Styrene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Tetrachloroethene	ug/l	2000	J+	2300		1.6		0.95	J
SW8260C	Toluene	ug/l	20	U	10	U	1	U	1	U
SW8260C	trans-1,2-Dichloroethene	ug/l	20	U	10	U	1	U	1	U
SW8260C	trans-1,3-Dichloropropene	ug/l	20	U	10	U	1	U	1	U
SW8260C	Trichloroethene	ug/l	35		190		1.2		0.45	J
SW8260C	Trichlorofluoromethane	ug/l	20	U	10	U	1	U	1	U
SW8260C	Vinyl chloride	ug/l	20	U	10	U	1	U	1	U
SW8260C	Xylene, o	ug/l	20	U	10	U	1	U	1	U
SW8260C	Xylenes (m&p)	ug/l	40	U	20	U	2	U	2	U

Notes:
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UG/L = micrograms per liter
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904203		R1904203		R1904203		R1904203	
		Location	MW-17B		MW-19B		MW-21B		MW-2B	
		Sample Date	05/08/19		05/08/19		05/08/19		05/07/19	
		Sample ID	828149-MW017B0180		828149-MW019B025		828149-MW021B019		828149-MW02B020	
		QC Code	FS		FS		FS		FS	
Method	Parameter	Unit	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethan	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,1,2-Trichloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,1-Dichloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,1-Dichloroethene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	2	UJ	2	UJ	2	UJ	2	UJ
SW8260C	1,2-Dibromoethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2-Dichlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2-Dichloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,2-Dichloropropane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,3-Dichlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,4-Dichlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	1,4-Dioxane	ug/l	40	U	40	UJ	40	U	40	U
SW8260C	2-Butanone	ug/l	5	U	5	UJ	5	U	5	U
SW8260C	2-Hexanone	ug/l	5	U	5	UJ	5	U	5	U
SW8260C	4-Methyl-2-pentanone	ug/l	5	U	5	UJ	5	U	5	U
SW8260C	Acetic acid, methyl ester	ug/l	2	U	2	UJ	2	U	2	U
SW8260C	Acetone	ug/l	5	U	5	UJ	5	U	5	U
SW8260C	Benzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Bromochloromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Bromodichloromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Bromoform	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Bromomethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Carbon disulfide	ug/l	4.5		1	UJ	1	U	1	U
SW8260C	Carbon tetrachloride	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Chlorobenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Chloroethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Chloroform	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Chloromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	cis-1,2-Dichloroethene	ug/l	1	U	9.4	J	0.38	J	7.4	
SW8260C	cis-1,3-Dichloropropene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Cyclohexane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Dibromochloromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Dichlorodifluoromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Ethylbenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Isopropylbenzene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Methyl cyclohexane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Methyl Tertbutyl Ether	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Methylene chloride	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Styrene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Tetrachloroethene	ug/l	1	U	13	J	6		20	
SW8260C	Toluene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	trans-1,2-Dichloroethene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	trans-1,3-Dichloropropene	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Trichloroethene	ug/l	1	U	6.9	J	0.59	J	6	
SW8260C	Trichlorofluoromethane	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Vinyl chloride	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Xylene, o	ug/l	1	U	1	UJ	1	U	1	U
SW8260C	Xylenes (m&p)	ug/l	2	U	2	UJ	2	U	2	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904203		R1904203	
		Location	MW-3		MW-3	
		Sample Date	05/06/19		05/06/19	
		Sample ID	828149-MW003009		828149-MW003009D	
		QC Code	FS		FD	
Method	Parameter	Unit	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	5	U	5	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	5	U	5	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethan	ug/l	5	U	5	U
SW8260C	1,1,2-Trichloroethane	ug/l	5	U	5	U
SW8260C	1,1-Dichloroethane	ug/l	5	U	5	U
SW8260C	1,1-Dichloroethene	ug/l	6.2		6.3	
SW8260C	1,2,3-Trichlorobenzene	ug/l	5	U	5	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	5	U	5	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	10	UJ	10	UJ
SW8260C	1,2-Dibromoethane	ug/l	5	U	5	U
SW8260C	1,2-Dichlorobenzene	ug/l	5	U	5	U
SW8260C	1,2-Dichloroethane	ug/l	5	U	5	U
SW8260C	1,2-Dichloropropane	ug/l	5	U	5	U
SW8260C	1,3-Dichlorobenzene	ug/l	5	U	5	U
SW8260C	1,4-Dichlorobenzene	ug/l	5	U	5	U
SW8260C	1,4-Dioxane	ug/l	200	U	200	U
SW8260C	2-Butanone	ug/l	25	U	25	U
SW8260C	2-Hexanone	ug/l	25	U	25	U
SW8260C	4-Methyl-2-pentanone	ug/l	25	U	25	U
SW8260C	Acetic acid, methyl ester	ug/l	10	U	10	U
SW8260C	Acetone	ug/l	25	U	25	U
SW8260C	Benzene	ug/l	5	U	5	U
SW8260C	Bromochloromethane	ug/l	5	U	5	U
SW8260C	Bromodichloromethane	ug/l	5	U	5	U
SW8260C	Bromoform	ug/l	5	U	5	U
SW8260C	Bromomethane	ug/l	5	U	5	U
SW8260C	Carbon disulfide	ug/l	5	U	5	U
SW8260C	Carbon tetrachloride	ug/l	5	U	5	U
SW8260C	Chlorobenzene	ug/l	5	U	5	U
SW8260C	Chloroethane	ug/l	5	U	5	U
SW8260C	Chloroform	ug/l	5	U	5	U
SW8260C	Chloromethane	ug/l	5	U	5	U
SW8260C	cis-1,2-Dichloroethene	ug/l	530		530	
SW8260C	cis-1,3-Dichloropropene	ug/l	5	U	5	U
SW8260C	Cyclohexane	ug/l	5	U	5	U
SW8260C	Dibromochloromethane	ug/l	5	U	5	U
SW8260C	Dichlorodifluoromethane	ug/l	5	U	5	U
SW8260C	Ethylbenzene	ug/l	5	U	5	U
SW8260C	Isopropylbenzene	ug/l	5	U	5	U
SW8260C	Methyl cyclohexane	ug/l	5	U	5	U
SW8260C	Methyl Tertbutyl Ether	ug/l	5	U	5	U
SW8260C	Methylene chloride	ug/l	5	U	5	U
SW8260C	Styrene	ug/l	5	U	5	U
SW8260C	Tetrachloroethene	ug/l	390		380	
SW8260C	Toluene	ug/l	5	U	5	U
SW8260C	trans-1,2-Dichloroethene	ug/l	3.6	J	3.6	J
SW8260C	trans-1,3-Dichloropropene	ug/l	5	U	5	U
SW8260C	Trichloroethene	ug/l	220		220	
SW8260C	Trichlorofluoromethane	ug/l	5	U	5	U
SW8260C	Vinyl chloride	ug/l	190		190	
SW8260C	Xylene, o	ug/l	5	U	5	U
SW8260C	Xylenes (m&p)	ug/l	10	U	10	U

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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904204		R1904204		R1904204	
		Location	DP-010		DP-011		DP-015	
		Sample Date	05/08/19		05/08/19		05/08/19	
		Sample ID	828149-DP010008		828149-DP011012		828149-DP015009	
		QC Code	FS		FS		FS	
Method	Parameter	Unit	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	1	U	1	U	5	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	5	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	U	1	U	5	U
SW8260C	1,1,2-Trichloroethane	ug/l	1	U	1	U	5	U
SW8260C	1,1-Dichloroethane	ug/l	1	U	1	U	5	U
SW8260C	1,1-Dichloroethene	ug/l	1	U	1	U	5	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	2	U	2	U	10	U
SW8260C	1,2-Dibromoethane	ug/l	1	U	1	U	5	U
SW8260C	1,2-Dichlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	1,2-Dichloroethane	ug/l	1	U	1	U	5	U
SW8260C	1,2-Dichloropropane	ug/l	1	U	1	U	5	U
SW8260C	1,3-Dichlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	1,4-Dichlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	1,4-Dioxane	ug/l	40	U	40	U	200	U
SW8260C	2-Butanone	ug/l	5	U	5	U	25	U
SW8260C	2-Hexanone	ug/l	5	U	5	U	25	U
SW8260C	4-Methyl-2-pentanone	ug/l	5	U	5	U	25	U
SW8260C	Acetic acid, methyl ester	ug/l	2	U	2	U	10	U
SW8260C	Acetone	ug/l	5	U	5	U	25	U
SW8260C	Benzene	ug/l	1	U	1	U	5	U
SW8260C	Bromochloromethane	ug/l	1	U	1	U	5	U
SW8260C	Bromodichloromethane	ug/l	1	U	1	U	5	U
SW8260C	Bromoform	ug/l	1	U	1	U	5	U
SW8260C	Bromomethane	ug/l	1	U	1	U	5	U
SW8260C	Carbon disulfide	ug/l	1	U	1	U	5	U
SW8260C	Carbon tetrachloride	ug/l	1	U	1	U	5	U
SW8260C	Chlorobenzene	ug/l	1	U	1	U	5	U
SW8260C	Chloroethane	ug/l	1	U	1	U	5	U
SW8260C	Chloroform	ug/l	1	U	1	U	5	U
SW8260C	Chloromethane	ug/l	1	U	1	U	5	U
SW8260C	cis-1,2-Dichloroethene	ug/l	55		1	U	47	
SW8260C	cis-1,3-Dichloropropene	ug/l	1	U	1	U	5	U
SW8260C	Cyclohexane	ug/l	1	U	1	U	5	U
SW8260C	Dibromochloromethane	ug/l	1	U	1	U	5	U
SW8260C	Dichlorodifluoromethane	ug/l	1	U	1	U	5	U
SW8260C	Ethylbenzene	ug/l	1	U	1	U	5	U
SW8260C	Isopropylbenzene	ug/l	1	U	1	U	5	U
SW8260C	Methyl cyclohexane	ug/l	1	U	1	U	5	U
SW8260C	Methyl Tertbutyl Ether	ug/l	1	U	1	U	5	U
SW8260C	Methylene chloride	ug/l	1	U	1	U	5	U
SW8260C	Styrene	ug/l	1	U	1	U	5	U
SW8260C	Tetrachloroethene	ug/l	120		0.96	J	1300	
SW8260C	Toluene	ug/l	1	U	1	U	5	U
SW8260C	trans-1,2-Dichloroethene	ug/l	0.45	J	1	U	5	U
SW8260C	trans-1,3-Dichloropropene	ug/l	1	U	1	U	5	U
SW8260C	Trichloroethene	ug/l	38		1	U	59	
SW8260C	Trichlorofluoromethane	ug/l	1	U	1	U	5	U
SW8260C	Vinyl chloride	ug/l	1	U	1	U	5	U
SW8260C	Xylene, o	ug/l	1	U	1	U	5	U
SW8260C	Xylenes (m&p)	ug/l	2	U	2	U	10	U

Notes:
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UG/L = micrograms per liter
U = Not detected
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904204		R1904204		R1904204	
		Location	DP-016		DP-019		GEMW-2	
		Sample Date	05/08/19		05/08/19		05/08/19	
		Sample ID	828149-DP016009		828149-DP019012		828149-GEMW002014	
		QC Code	FS		FS		FS	
Method	Parameter	Unit	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,1,2-Trichloroethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,1-Dichloroethane	ug/l	0.44	J	1	UJ	1	U
SW8260C	1,1-Dichloroethene	ug/l	3.8		1	UJ	1	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	4	U	2	UJ	2	U
SW8260C	1,2-Dibromoethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,2-Dichlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	1,2-Dichloroethane	ug/l	2	U	1	UJ	1	U
SW8260C	1,2-Dichloropropane	ug/l	2	U	1	UJ	1	U
SW8260C	1,3-Dichlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	1,4-Dichlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	1,4-Dioxane	ug/l	80	U	40	UJ	40	U
SW8260C	2-Butanone	ug/l	10	U	5	UJ	5	U
SW8260C	2-Hexanone	ug/l	10	U	5	UJ	5	U
SW8260C	4-Methyl-2-pentanone	ug/l	10	U	5	UJ	5	U
SW8260C	Acetic acid, methyl ester	ug/l	4	U	2	UJ	2	U
SW8260C	Acetone	ug/l	10	U	5	UJ	5	U
SW8260C	Benzene	ug/l	2	U	1	UJ	1	U
SW8260C	Bromochloromethane	ug/l	2	U	1	UJ	1	U
SW8260C	Bromodichloromethane	ug/l	2	U	1	UJ	1	U
SW8260C	Bromoform	ug/l	2	U	1	UJ	1	U
SW8260C	Bromomethane	ug/l	2	U	1	UJ	1	U
SW8260C	Carbon disulfide	ug/l	2	U	1	UJ	1	U
SW8260C	Carbon tetrachloride	ug/l	2	U	1	UJ	1	U
SW8260C	Chlorobenzene	ug/l	2	U	1	UJ	1	U
SW8260C	Chloroethane	ug/l	2	U	1	UJ	1	U
SW8260C	Chloroform	ug/l	2	U	1	UJ	1	U
SW8260C	Chloromethane	ug/l	2	U	1	UJ	1	U
SW8260C	cis-1,2-Dichloroethene	ug/l	610		7.8	J	0.94	J
SW8260C	cis-1,3-Dichloropropene	ug/l	2	U	1	UJ	1	U
SW8260C	Cyclohexane	ug/l	2	U	1	UJ	1	U
SW8260C	Dibromochloromethane	ug/l	2	U	1	UJ	1	U
SW8260C	Dichlorodifluoromethane	ug/l	2	U	1	UJ	1	U
SW8260C	Ethylbenzene	ug/l	2	U	1	UJ	1	U
SW8260C	Isopropylbenzene	ug/l	2	U	1	UJ	1	U
SW8260C	Methyl cyclohexane	ug/l	2	U	1	UJ	1	U
SW8260C	Methyl Tertbutyl Ether	ug/l	2	U	1	UJ	1	U
SW8260C	Methylene chloride	ug/l	2	U	1	UJ	1	U
SW8260C	Styrene	ug/l	2	U	1	UJ	1	U
SW8260C	Tetrachloroethene	ug/l	300		19	J	81	
SW8260C	Toluene	ug/l	2	U	1	UJ	1	U
SW8260C	trans-1,2-Dichloroethene	ug/l	4		0.21	J	1	U
SW8260C	trans-1,3-Dichloropropene	ug/l	2	U	1	UJ	1	U
SW8260C	Trichloroethene	ug/l	91		5.5	J	0.93	J
SW8260C	Trichlorofluoromethane	ug/l	2	U	1	UJ	1	U
SW8260C	Vinyl chloride	ug/l	32		1	UJ	1	U
SW8260C	Xylene, o	ug/l	2	U	1	UJ	1	U
SW8260C	Xylenes (m&p)	ug/l	4	U	2	UJ	2	U

Notes:
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FD = Field Duplicate
TB = Trip Blank
UG/L = micrograms per liter
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

		SDG	R1904204		R1904204		R1904204	
		Location	MW-10		MW-2		QC	
		Sample Date	05/09/19		05/08/19		05/08/19	
		Sample ID	828149-MW010010		828149-MW002010		Trip Blank	
		QC Code	FS		FS		TB	
Method	Parameter	Unit	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	ug/l	1	U	500	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	ug/l	1	U	500	U	1	U
SW8260C	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	U	500	U	1	U
SW8260C	1,1,2-Trichloroethane	ug/l	1	U	500	U	1	U
SW8260C	1,1-Dichloroethane	ug/l	1	U	500	U	1	U
SW8260C	1,1-Dichloroethene	ug/l	1	U	500	U	1	U
SW8260C	1,2,3-Trichlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	1,2,4-Trichlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	1,2-Dibromo-3-chloropropane	ug/l	2	U	1000	U	2	U
SW8260C	1,2-Dibromoethane	ug/l	1	U	500	U	1	U
SW8260C	1,2-Dichlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	1,2-Dichloroethane	ug/l	1	U	500	U	1	U
SW8260C	1,2-Dichloropropane	ug/l	1	U	500	U	1	U
SW8260C	1,3-Dichlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	1,4-Dichlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	1,4-Dioxane	ug/l	40	U	20000	U	40	U
SW8260C	2-Butanone	ug/l	5	U	2500	U	5	U
SW8260C	2-Hexanone	ug/l	5	U	2500	U	5	U
SW8260C	4-Methyl-2-pentanone	ug/l	5	U	2500	U	5	U
SW8260C	Acetic acid, methyl ester	ug/l	2	U	1000	U	2	U
SW8260C	Acetone	ug/l	5	U	2500	U	3	J
SW8260C	Benzene	ug/l	1	U	500	U	1	U
SW8260C	Bromochloromethane	ug/l	1	U	500	U	1	U
SW8260C	Bromodichloromethane	ug/l	1	U	500	U	1	U
SW8260C	Bromoform	ug/l	1	U	500	U	1	U
SW8260C	Bromomethane	ug/l	1	U	500	U	1	U
SW8260C	Carbon disulfide	ug/l	1	U	500	U	1	U
SW8260C	Carbon tetrachloride	ug/l	1	U	500	U	1	U
SW8260C	Chlorobenzene	ug/l	1	U	500	U	1	U
SW8260C	Chloroethane	ug/l	1	U	500	U	1	U
SW8260C	Chloroform	ug/l	1	U	500	U	1	U
SW8260C	Chloromethane	ug/l	1	U	500	U	1	U
SW8260C	cis-1,2-Dichloroethene	ug/l	1	U	500	U	1	U
SW8260C	cis-1,3-Dichloropropene	ug/l	1	U	500	U	1	U
SW8260C	Cyclohexane	ug/l	1	U	500	U	1	U
SW8260C	Dibromochloromethane	ug/l	1	U	500	U	1	U
SW8260C	Dichlorodifluoromethane	ug/l	1	U	500	U	1	U
SW8260C	Ethylbenzene	ug/l	1	U	500	U	1	U
SW8260C	Isopropylbenzene	ug/l	1	U	500	U	1	U
SW8260C	Methyl cyclohexane	ug/l	1	U	500	U	1	U
SW8260C	Methyl Tertbutyl Ether	ug/l	1	U	500	U	1	U
SW8260C	Methylene chloride	ug/l	1	U	500	U	1	U
SW8260C	Styrene	ug/l	1	U	500	U	1	U
SW8260C	Tetrachloroethene	ug/l	1	U	63000		1	U
SW8260C	Toluene	ug/l	1	U	500	U	1	U
SW8260C	trans-1,2-Dichloroethene	ug/l	1	U	500	U	1	U
SW8260C	trans-1,3-Dichloropropene	ug/l	1	U	500	U	1	U
SW8260C	Trichloroethene	ug/l	1	U	160	J	1	U
SW8260C	Trichlorofluoromethane	ug/l	1	U	500	U	1	U
SW8260C	Vinyl chloride	ug/l	1	U	500	U	1	U
SW8260C	Xylene, o	ug/l	1	U	500	U	1	U
SW8260C	Xylenes (m&p)	ug/l	2	U	1000	U	2	U

Notes:
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank
UG/L = micrograms per liter
U = Not detected
J = Value is estimated

TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

SDG	Method	Lab Sample ID	Field Sample ID	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Val Reason Code	Units
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1,1-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1,2,2-Tetrachloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1,2-Trichloro-1,2,2-Trifluoroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1,2-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,1-Dichloroethene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2,3-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2,4-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2-Dibromo-3-chloropropane	2	U	2	UJ	SP, LCSL	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2-Dibromoethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,2-Dichloropropane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,3-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,4-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	1,4-Dioxane	40	U	40	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	2-Butanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	2-Hexanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	4-Methyl-2-pentanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Acetic acid, methyl ester	2	U	2	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Acetone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Benzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Bromochloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Bromodichloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Bromoform	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Bromomethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Carbon disulfide	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Carbon tetrachloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Chlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Chloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Chloroform	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Chloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	cis-1,2-Dichloroethene	0.54	J	0.54	J	SP	ug/l

TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

SDG	Method	Lab Sample ID	Field Sample ID	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Val Reason Code	Units
R1904203	SW8260C	R1904203-013	828149-DP012015	cis-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Cyclohexane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Dibromochloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Dichlorodifluoromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Ethylbenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Isopropylbenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Methyl cyclohexane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Methyl Tertbutyl Ether	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Methylene chloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Styrene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Tetrachloroethene	0.59	J	0.59	J	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Toluene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	trans-1,2-Dichloroethene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	trans-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Trichloroethene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Trichlorofluoromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Vinyl chloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Xylene, o	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-013	828149-DP012015	Xylenes (m&p)	2	U	2	UJ	SP	ug/l
R1904203	SW8260C	R1904203-005	828149-DP014009	1,2-Dibromo-3-chloropropane	100	U	100	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-015	828149-DP017015	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL, MSL	ug/l
R1904203	SW8260C	R1904203-015	828149-DP017015	Acetic acid, methyl ester	2	U	2	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-015	828149-DP017015	Bromoform	1	U	1	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-015	828149-DP017015	Bromomethane	1	U	1	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-018	828149-DP020012	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-014	828149-DP021009	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-008	828149-GEMW001014	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-006	828149-MW001010	Bromoform	20	U	20	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-006	828149-MW001010	Bromomethane	20	U	20	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-006	828149-MW001010	Tetrachloroethene	1900		1,900	J+	MSH	ug/l
R1904203	SW8260C	R1904203-007	828149-MW001010D	Bromoform	20	U	20	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-007	828149-MW001010D	Bromomethane	20	U	20	UJ	MSL	ug/l
R1904203	SW8260C	R1904203-007	828149-MW001010D	Tetrachloroethene	1900		1,900	J+	MSH	ug/l

TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

SDG	Method	Lab Sample ID	Field Sample ID	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Val Reason Code	Units
R1904203	SW8260C	R1904203-007	828149-MW001010D	1,2-Dibromo-3-chloropropane	40	U	40	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-002	828149-MW003009	1,2-Dibromo-3-chloropropane	10	U	10	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-003	828149-MW003009D	1,2-Dibromo-3-chloropropane	10	U	10	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-011	828149-MW013012	1,2-Dibromo-3-chloropropane	20	U	20	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-017	828149-MW017B0180	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1,1-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1,2,2-Tetrachloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1,2-Trichloro-1,2,2-Trifluoroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1,2-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,1-Dichloroethene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2,3-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2,4-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2-Dibromo-3-chloropropane	2	U	2	UJ	SP, LCSL	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2-Dibromoethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,2-Dichloropropane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,3-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,4-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	1,4-Dioxane	40	U	40	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	2-Butanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	2-Hexanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	4-Methyl-2-pentanone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Acetic acid, methyl ester	2	U	2	UJ	SP, MSL	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Acetone	5	U	5	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Benzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Bromochloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Bromodichloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Bromoform	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Bromomethane	1	U	1	UJ	SP, MSL	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Carbon disulfide	1	U	1	UJ	SP	ug/l

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BRIGHTON, NEW YORK

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R1904203	SW8260C	R1904203-016	828149-MW019B025	Carbon tetrachloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Chlorobenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Chloroethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Chloroform	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Chloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	cis-1,2-Dichloroethene	9.4		9.4	J	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	cis-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Cyclohexane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Dibromochloromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Dichlorodifluoromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Ethylbenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Isopropylbenzene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Methyl cyclohexane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Methyl Tertbutyl Ether	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Methylene chloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Styrene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Tetrachloroethene	13		13	J	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Toluene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	trans-1,2-Dichloroethene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	trans-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Trichloroethene	6.9		6.9	J	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Trichlorofluoromethane	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Vinyl chloride	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Xylene, o	1	U	1	UJ	SP	ug/l
R1904203	SW8260C	R1904203-016	828149-MW019B025	Xylenes (m&p)	2	U	2	UJ	SP	ug/l
R1904203	SW8260C	R1904203-012	828149-MW021B019	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-004	828149-MW02B020	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904203	SW8260C	R1904203-001	828149-MW16B023	1,2-Dibromo-3-chloropropane	2	U	2	UJ	LCSL	ug/l
R1904204	SW8260C	R1904204-003	828149-DP011012	Acetone	3.1	J	5	U	BL2	ug/l
R1904204	SW8260C	R1904204-005	828149-DP016009	Acetone	9.3	J	10	U	BL2	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1,1-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1,2,2-Tetrachloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1,2-Trichloro-1,2,2-Trifluoroethane	1	U	1	UJ	SP	ug/l

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DATA USABILITY SUMMARY REPORT - MAY 2019 GROUNDWATER SAMPLING
TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

SDG	Method	Lab Sample ID	Field Sample ID	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Val Reason Code	Units
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1,2-Trichloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,1-Dichloroethene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2,3-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2,4-Trichlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2-Dibromo-3-chloropropane	2	U	2	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2-Dibromoethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2-Dichloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,2-Dichloropropane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,3-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,4-Dichlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	1,4-Dioxane	40	U	40	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	2-Butanone	5	U	5	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	2-Hexanone	5	U	5	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	4-Methyl-2-pentanone	5	U	5	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Acetic acid, methyl ester	2	U	2	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Acetone	5	U	5	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Benzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Bromochloromethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Bromodichloromethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Bromoform	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Bromomethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Carbon disulfide	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Carbon tetrachloride	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Chlorobenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Chloroethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Chloroform	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Chloromethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	cis-1,2-Dichloroethene	7.8		7.8	J	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	cis-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Cyclohexane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Dibromochloromethane	1	U	1	UJ	SP	ug/l

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TOWN COUNTRY – RI/FS
BRIGHTON, NEW YORK

SDG	Method	Lab Sample ID	Field Sample ID	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Val Reason Code	Units
R1904204	SW8260C	R1904204-010	828149-DP019012	Dichlorodifluoromethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Ethylbenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Isopropylbenzene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Methyl cyclohexane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Methyl Tertbutyl Ether	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Methylene chloride	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Styrene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Tetrachloroethene	19		19	J	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Toluene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	trans-1,2-Dichloroethene	0.21	J	0.21	J	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	trans-1,3-Dichloropropene	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Trichloroethene	5.5		5.5	J	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Trichlorofluoromethane	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Vinyl chloride	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Xylene, o	1	U	1	UJ	SP	ug/l
R1904204	SW8260C	R1904204-010	828149-DP019012	Xylenes (m&p)	2	U	2	UJ	SP	ug/l
R1904204	SW8260C	R1904204-006	828149-GEMW002014	Acetone	2.1	J	5	U	BL2	ug/l
R1904204	SW8260C	R1904204-008	828149-MW010010	Acetone	2.3	J	5	U	BL2	ug/l

Notes:
SP = sample preservation/collection does not meet method requirement
BL2 = field or trip blank contamination
LCSL = laboratory control sample recovery low
MSL = matrix spike recovery low
MSH = matrix spike recovery high

ATTACHMENT A
SUMMARY OF VALIDATION QC LIMITS FOR SURROGATES, SPIKES, AND DUPLICATES
BASED ON THE REGION 2 VALIDATION GUIDELINES

PARAMETER	QC TEST	ANALYTE	WATER (%R)	Water (RPD)
Volatiles	Surrogate	All Surrogate Compounds	80 - 120	
	LCS	All Target Compounds	70 - 130	
	MS/MSD	All Target Compounds	70 - 130	20
	Field Duplicate	All Target Compounds		50

Notes:
LCS - Laboratory Control Sample
MS/MSD - Matrix spike/ Matrix Spike Duplicate
RPD = Relative percent difference
%R = percent recovery
QC Limits are based on USEPA Region II Data Validation Guidelines and Project QA/QC Objectives

ATTACHMENT B

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Town and Country Dry Cleaners
Method: 8260C
Laboratory: ALS Rochester **SDG(s):** R1904203
Date: 06/27/2019
Reviewer: Liesel Krout

Review Level [X] NYSDEC DUSR USEPA Region II Guideline

1. [✓] **Case Narrative Review and COC/Data Package Completeness** COMMENTS
Were problems noted? Yes - see attached
Are Field Sample IDs and Locations assigned correctly? (YES) NO (circle one)
Were all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. [✓] **Holding time and Sample Collection**
All samples were analyzed within the 14 day holding time. (YES) NO (circle one)

3. [✓] **QC Blanks**
Are method blanks free of contamination? YES (NO) (circle one) see attached;
Are Trip blanks free of contamination? YES (NO) (circle one) * see Trip Blank from SDG: R1904204*
Are Rinse blanks free of contamination? YES NO (NA) (circle one)

4. [✓] **Instrument Tuning – Data Package Narrative Review**
Did the laboratory narrative identify any results that were not within method criteria? YES (NO) (circle one) ↓ acetone, but all nd ↓ okay
If yes, use professional judgment to evaluate data and qualify results if needed

5. [✓] **Instrument Calibration – Data Package Narrative Review**
Did the laboratory narrative identify compounds that were not within criteria in the initial and/or continuing calibration standards? (YES) NO (circle one) see attached

Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
Initial Avg RRF and Continuing RRF should be ≥ 0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane

Continuing Calibration %D = 20%

Did the laboratory qualify results based on initial or continuing calibration exceedances? YES (NO)
If yes to above, use professional judgment to evaluate data and qualify results if needed

6. [✓] **Internal Standards – Data Package Narrative Review**
(Area Limits = -50% to +100%, RTs within 30 seconds of daily CCAL standard (or ICAL mid-point if samples follow ICAL)
Did the laboratory narrative identify any sample internal standards that were not within criteria? YES (NO) (circle one)

Did the laboratory qualify results based on internal standard exceedances? YES (NO)
If yes to above, use professional judgment to evaluate data and qualify results if needed

7. [✓] **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

Were all results within Region II limits? (YES) NO (circle one)

8. [✓] **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)

Were MS/MSDs submitted/analyzed? (YES) NO

Were all results within the Region II limits? YES (NO) NA (circle one) see attached

9. ☑ **Duplicates** - Region II Limits (water RPD 50, soil RPD 100)

Were Field Duplicates submitted/analyzed? (YES) NO

Were all results within Region II limits? (soil RPD<100, water RPD<50) (YES) NO NA

10. ☑ **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? YES (NO) (circle one) see attached

11. ☑ **Raw Data Review and Calculation Checks** see attached

12. ☑ **Electronic Data Review and Edits**
Does the EDD match the Form Is? (YES) NO (circle one)

13. ☑ **Tables and TIC Review**
Table 1 (Samples and Analytical Methods)
Table 2 (Analytical Results)
Table 3 (Qualification Actions)
Were all tables produced and reviewed? (YES) NO (circle one)

Table 4 (TICs) Did lab report TICs? YES (NO) (circle one)

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

ALS Environmental

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners
Sample Matrix: Water

Service Request: R1904203
Date Received: 05/09/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Eighteen water samples were received for analysis at ALS Environmental on 05/09/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 8260C, 05/16/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

okay no impact.

Method 8260C, 05/17/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

okay - no impact

Approved by Samantha Gagnon

LLK 07/02/2019

Date 05/22/2019

Cooler Receipt and Preservation Check Form

R1904203 5
Wood E&IS - Portland ME
Town and Country Dry Cleaners

Project/Client Wood Folder Number

Cooler received on 5/9/19 by: [illegible]

COURIER: ALS UPS FEDEX VELOCITY (CLIENT)

1	Were **Custody seals** on outside of cooler?	Y (N)
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did (VOA vials) Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
6	Where did the bottles originate?	(ALS/ROC) CLIENT
7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 5/9/19 Time: 1135 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	+0.3						
Corrected Temp (°C)	4.4						
Temp from:Type of bottle	cnt tube						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by [illegible] on 5/9/19 at 1140
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 5/9/19 Time: 1555 by: [illegible]

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-						
		HCl	**	**	client label					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: client label

Explain all Discrepancies/ Other Comments:

Headspace: MSD (2 vials) MW0198025 MSD
MS (2 vials) " MS
see SDG: R1904264 → DP019012 (3 vials)
MW0213019 (1 vial)
MW0198025 (3 vials) → J subset UJ subset

DP012015 (3 vials) → J/UJ (subset subset)
Trip Blank (2 vials)

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: [illegible]
PC Secondary Review: [illegible] 5/13/19

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r16.doc 3/12/18

LK 06/27/2019

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/08/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	828149-DP017015	**Units:**	ug/L
Lab Code:	R1904203-015	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

70-130 ✓ <35

Analyte Name	Sample Result	Matrix Spike RQ1904638-05 Result	Spike Amount	% Rec	Duplicate Matrix Spike RQ1904638-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	1.0 U	42.0	50.0	84	41.7	50.0	83	74-127	<1	30
1,1,2,2-Tetrachloroethane	1.0 U	40.6	50.0	81	43.0	50.0	86	72-122	6	30
1,1,2-Trichloroethane	1.0 U	44.8	50.0	90	44.6	50.0	89	82-121	<1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	41.8	50.0	84	42.2	50.0	84	50-147	<1	30
1,1-Dichloroethane (1,1-DCA)	1.0 U	45.9	50.0	92	46.5	50.0	93	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	42.7	50.0	85	45.9	50.0	92	71-118	7	30
1,2,3-Trichlorobenzene	1.0 U	44.7	50.0	89	47.5	50.0	95	59-129	6	30
1,2,4-Trichlorobenzene	1.0 U	45.9	50.0	92	49.6	50.0	99	69-122	8	30
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	33.3	50.0	67	36.1	50.0	72	37-150	8	30
1,2-Dibromoethane	1.0 U	44.8	50.0	90	47.5	50.0	95	67-127	6	30
1,2-Dichlorobenzene	1.0 U	44.1	50.0	88	46.6	50.0	93	77-120	5	30
1,2-Dichloroethane	1.0 U	44.9	50.0	90	46.4	50.0	93	68-130	3	30
1,2-Dichloropropane	1.0 U	47.8	50.0	96	49.2	50.0	98	79-124	3	30
1,3-Dichlorobenzene	1.0 U	44.4	50.0	89	46.2	50.0	92	83-121	4	30
1,4-Dichlorobenzene	1.0 U	43.8	50.0	88	46.1	50.0	92	82-120	5	30
1,4-Dioxane	40 U	753	1000	75	905	1000	91	44-154	18	30
2-Butanone (MEK)	5.0 U	46.4	50.0	93	46.5	50.0	93	61-137	<1	30
2-Hexanone	5.0 U	43.9	50.0	88	45.8	50.0	92	56-132	4	30
4-Methyl-2-pentanone	5.0 U	47.9	50.0	96	48.9	50.0	98	60-141	2	30
Acetone	5.0 U	39.0	50.0	78	42.8	50.0	86	35-183	9	30
Benzene	1.0 U	47.3	50.0	95	48.0	50.0	96	76-129	2	30
Bromochloromethane	1.0 U	44.7	50.0	89	44.3	50.0	89	80-122	<1	30
Bromodichloromethane	1.0 U	40.8	50.0	82	42.0	50.0	84	78-133	3	30
Bromoform	1.0 U	32.3	50.0	65	35.8	50.0	72	58-133	10	30
Bromomethane	1.0 U	30.3	50.0	61	33.9	50.0	68	10-184	11	30
Carbon Disulfide	1.0 U	47.5	50.0	95	49.6	50.0	99	59-140	4	30
Carbon Tetrachloride	1.0 U	42.9	50.0	86	43.4	50.0	87	65-135	1	30
Chlorobenzene	1.0 U	46.7	50.0	93	48.6	50.0	97	76-125	4	30
Chloroethane	1.0 U	40.0	50.0	80	39.4	50.0	79	48-146	2	30
Chloroform	1.0 U	44.4	50.0	89	44.5	50.0	89	75-130	<1	30
Chloromethane	1.0 U	47.8	50.0	96	52.5	50.0	105	55-160	9	30
Cyclohexane	1.0 U	46.7	50.0	93	44.1	50.0	88	52-145	6	30
Dibromochloromethane	1.0 U	36.6	50.0	73	38.8	50.0	78	72-128	6	30
Dichlorodifluoromethane (CFC 12)	1.0 U	47.9	50.0	96	52.6	50.0	105	49-154	9	30
Dichloromethane	1.0 U	48.0	50.0	96	46.3	50.0	93	73-122	4	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

LLK 06/27/2019

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Superset Reference:19-0000508716 rev 00

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/08/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	828149-DP017015	**Units:**	ug/L
Lab Code:	R1904203-015	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1904638-05			Duplicate Matrix Spike RQ1904638-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	1.0 U	47.4	50.0	95	48.4	50.0	97	72-134	2	30
Isopropylbenzene (Cumene)	1.0 U	43.9	50.0	88	44.7	50.0	89	77-128	2	30
Methyl Acetate J105	2.0 U	34.5	50.0	69	36.3	50.0	73	26-121	5	30
Methyl tert-Butyl Ether	1.0 U	45.3	50.0	91	45.7	50.0	91	75-119	<1	30
Methylcyclohexane	1.0 U	43.6	50.0	87	40.4	50.0	81	45-146	8	30
Styrene	1.0 U	47.3	50.0	95	49.3	50.0	99	74-136	4	30
Tetrachloroethene (PCE)	1.0 U	47.8	50.0	96	48.8	50.0	98	72-125	2	30
Toluene	1.0 U	47.1	50.0	94	47.6	50.0	95	79-119	1	30
Trichloroethene (TCE)	1.0 U	47.8	50.0	96	47.9	50.0	96	74-122	<1	30
Trichlorofluoromethane (CFC 11)	1.0 U	47.0	50.0	94	45.1	50.0	90	71-136	4	30
Vinyl Chloride	1.0 U	48.4	50.0	97	50.5	50.0	101	74-159	4	30
cis-1,2-Dichloroethene	1.0 U	44.1	50.0	88	44.6	50.0	89	77-127	1	30
cis-1,3-Dichloropropene	1.0 U	41.6	50.0	83	42.5	50.0	85	52-134	2	30
m,p-Xylenes	2.0 U	92.8	100	93	96.6	100	97	80-126	4	30
o-Xylene	1.0 U	46.4	50.0	93	47.4	50.0	95	79-123	2	30
trans-1,2-Dichloroethene	1.0 U	46.4	50.0	93	47.0	50.0	94	73-118	1	30
trans-1,3-Dichloropropene	1.0 U	41.1	50.0	82	43.0	50.0	86	71-133	4	30

LLK 06/27/2019

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Superset Reference:19-0000508716 rev 00

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/08/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	828149-MW019B025	**Units:**	ug/L
Lab Code:	R1904203-016	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1904638-07			Duplicate Matrix Spike RQ1904638-08					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	1.0 U	43.3	50.0	87	44.3	50.0	89	74-127	2	30
1,1,2,2-Tetrachloroethane	1.0 U	42.5	50.0	85	43.4	50.0	87	72-122	2	30
1,1,2-Trichloroethane	1.0 U	44.6	50.0	89	45.0	50.0	90	82-121	<1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	45.9	50.0	92	47.9	50.0	96	50-147	4	30
1,1-Dichloroethane (1,1-DCA)	1.0 U	47.2	50.0	94	48.1	50.0	96	74-132	2	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	46.3	50.0	93	47.3	50.0	95	71-118	2	30
1,2,3-Trichlorobenzene	1.0 U	47.2	50.0	94	47.9	50.0	96	59-129	1	30
1,2,4-Trichlorobenzene	1.0 U	49.0	50.0	98	49.2	50.0	98	69-122	<1	30
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	35.5	50.0	71	37.2	50.0	74	37-150	5	30
1,2-Dibromoethane	1.0 U	45.9	50.0	92	47.0	50.0	94	67-127	2	30
1,2-Dichlorobenzene	1.0 U	46.3	50.0	93	47.1	50.0	94	77-120	2	30
1,2-Dichloroethane	1.0 U	45.8	50.0	92	46.6	50.0	93	68-130	2	30
1,2-Dichloropropane	1.0 U	49.3	50.0	99	50.0	50.0	100	79-124	1	30
1,3-Dichlorobenzene	1.0 U	46.9	50.0	94	47.6	50.0	95	83-121	2	30
1,4-Dichlorobenzene	1.0 U	45.8	50.0	92	46.5	50.0	93	82-120	2	30
1,4-Dioxane	40 U	771	1000	77	808	1000	81	44-154	5	30
2-Butanone (MEK)	5.0 U	46.7	50.0	93	47.8	50.0	96	61-137	2	30
2-Hexanone	5.0 U	43.5	50.0	87	45.4	50.0	91	56-132	4	30
4-Methyl-2-pentanone	5.0 U	46.9	50.0	94	49.2	50.0	98	60-141	5	30
Acetone	5.0 U	38.8	50.0	78	44.6	50.0	89	35-183	14	30
Benzene	1.0 U	47.8	50.0	96	49.3	50.0	99	76-129	3	30
Bromochloromethane	1.0 U	44.6	50.0	89	45.3	50.0	91	80-122	1	30
Bromodichloromethane	1.0 U	42.7	50.0	85	43.2	50.0	86	78-133	1	30
Bromoform	1.0 U	36.1	50.0	72	37.1	50.0	74	58-133	3	30
Bromomethane J (03)	1.0 U	31.7	50.0	63	34.0	50.0	68	10-184	7	30
Carbon Disulfide	1.0 U	51.1	50.0	102	51.6	50.0	103	59-140	1	30
Carbon Tetrachloride	1.0 U	45.6	50.0	91	46.6	50.0	93	65-135	2	30
Chlorobenzene	1.0 U	47.9	50.0	96	49.3	50.0	99	76-125	3	30
Chloroethane	1.0 U	37.9	50.0	76	39.2	50.0	78	48-146	3	30
Chloroform	1.0 U	44.5	50.0	89	44.1	50.0	88	75-130	<1	30
Chloromethane	1.0 U	53.4	50.0	107	54.1	50.0	108	55-160	1	30
Cyclohexane	1.0 U	49.1	50.0	98	49.8	50.0	100	52-145	1	30
Dibromochloromethane	1.0 U	39.7	50.0	79	40.7	50.0	81	72-128	3	30
Dichlorodifluoromethane (CFC 12)	1.0 U	57.2	50.0	114	57.9	50.0	116	49-154	1	30
Dichloromethane	1.0 U	47.5	50.0	95	48.0	50.0	96	73-122	<1	30

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LLC 06/27/2019

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/08/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	828149-MW019B025	**Units:**	ug/L
Lab Code:	R1904203-016	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1904638-07			Duplicate Matrix Spike RQ1904638-08					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	1.0 U	49.2	50.0	98	49.1	50.0	98	72-134	<1	30
Isopropylbenzene (Cumene)	1.0 U	45.9	50.0	92	47.0	50.0	94	77-128	2	30
Methyl Acetate	2.0 U	35.0	50.0	70	31.4	50.0	63	26-121	11	30
Methyl tert-Butyl Ether	1.0 U	45.5	50.0	91	45.8	50.0	92	75-119	<1	30
Methylcyclohexane	1.0 U	44.0	50.0	88	45.8	50.0	92	45-146	4	30
Styrene	1.0 U	48.6	50.0	97	49.1	50.0	98	74-136	1	30
Tetrachloroethene (PCE)	13	63.5	50.0	101	64.8	50.0	103	72-125	2	30
Toluene	1.0 U	48.2	50.0	96	48.6	50.0	97	79-119	<1	30
Trichloroethene (TCE)	6.9	56.1	50.0	98	58.3	50.0	103	74-122	4	30
Trichlorofluoromethane (CFC 11)	1.0 U	48.1	50.0	96	49.2	50.0	98	71-136	2	30
Vinyl Chloride	1.0 U	52.3	50.0	105	52.6	50.0	105	74-159	<1	30
cis-1,2-Dichloroethene	9.4	52.8	50.0	87	54.6	50.0	90	77-127	3	30
cis-1,3-Dichloropropene	1.0 U	42.0	50.0	84	43.3	50.0	87	52-134	3	30
m,p-Xylenes	2.0 U	97.0	100	97	98.3	100	98	80-126	1	30
o-Xylene	1.0 U	47.4	50.0	95	47.9	50.0	96	79-123	1	30
trans-1,2-Dichloroethene	1.0 U	46.7	50.0	93	47.8	50.0	96	73-118	2	30
trans-1,3-Dichloropropene	1.0 U	43.9	50.0	88	43.5	50.0	87	71-133	<1	30

LLK 06/27/2019

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/07/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/17/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

LLK06/28/2019

Sample Name:	828149-MW001010	**Units:**	ug/L
Lab Code:	R1904203-006	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

Sample from R1904004 (similar sample names)

	Matrix Spike RQ1904760-05				Duplicate Matrix Spike RQ1904760-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20 U	885	1000	89	925	1000	93	74-127	4	30
1,1,2,2-Tetrachloroethane	20 U	798	1000	80	884	1000	88	72-122	10	30
1,1,2-Trichloroethane	20 U	916	1000	92	969	1000	97	82-121	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20 U	1020	1000	102	1070	1000	107	50-147	5	30
1,1-Dichloroethane (1,1-DCA)	20 U	981	1000	98	1010	1000	101	74-132	3	30
1,1-Dichloroethene (1,1-DCE)	20 U	956	1000	96	984	1000	98	71-118	3	30
1,2,3-Trichlorobenzene	20 U	899	1000	90	959	1000	96	59-129	7	30
1,2,4-Trichlorobenzene	20 U	945	1000	95	1010	1000	101	69-122	7	30
1,2-Dibromo-3-chloropropane (DBCP)	40 U	709	1000	71	799	1000	80	37-150	12	30
1,2-Dibromoethane	20 U	941	1000	94	996	1000	100	67-127	6	30
1,2-Dichlorobenzene	20 U	929	1000	93	989	1000	99	77-120	6	30
1,2-Dichloroethane	20 U	947	1000	95	985	1000	98	68-130	4	30
1,2-Dichloropropane	20 U	1010	1000	101	1060	1000	106	79-124	5	30
1,3-Dichlorobenzene	20 U	933	1000	93	1000	1000	100	83-121	7	30
1,4-Dichlorobenzene	20 U	938	1000	94	992	1000	99	82-120	6	30
1,4-Dioxane	800 U	17500	20000	88	17700	20000	88	44-154	<1	30
2-Butanone (MEK)	100 U	894	1000	89	910	1000	91	61-137	2	30
2-Hexanone	100 U	960	1000	96	991	1000	99	56-132	3	30
4-Methyl-2-pentanone	100 U	1010	1000	101	1050	1000	105	60-141	4	30
Acetone	100 U	829	1000	83	791	1000	79	35-183	5	30
Benzene	20 U	992	1000	99	1030	1000	103	76-129	4	30
Bromochloromethane	20 U	907	1000	91	955	1000	96	80-122	5	30
Bromodichloromethane	20 U	843	1000	84	898	1000	90	78-133	6	30
Bromoform	20 U	651	1000	65	739	1000	74	58-133	13	30
Bromomethane	20 U	581	1000	58	630	1000	63	10-184	8	30
Carbon Disulfide	20 U	992	1000	99	1050	1000	105	59-140	5	30
Carbon Tetrachloride	20 U	940	1000	94	1010	1000	101	65-135	7	30
Chlorobenzene	20 U	1000	1000	100	1040	1000	104	76-125	4	30
Chloroethane	20 U	849	1000	85	846	1000	85	48-146	<1	30
Chloroform	20 U	916	1000	92	928	1000	93	75-130	1	30
Chloromethane	20 U	1050	1000	105	1130	1000	113	55-160	8	30
Cyclohexane	20 U	1080	1000	108	1110	1000	111	52-145	2	30
Dibromochloromethane J+	20 U	776	1000	78	856	1000	86	72-128	10	30
Dichlorodifluoromethane (CFC 12)	20 U	1200	1000	120	1350	1000	135	49-154	11	30
Dichloromethane	20 U	959	1000	96	1020	1000	102	73-122	6	30

UJ UJ UJ nd no qual

Results flagged with an asterisk (*) indicate values outside control criteria. LLK07/09/2019

Results flagged with a pound (#) indicate the control criteria is not applicable.

LLK06/27/2019

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Superset Reference:19-0000508716 rev 00

Printed 5/22/2019 10:04:57 AM

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	05/07/19
Sample Matrix:	Water	**Date Received:**	05/09/19
		Date Analyzed:	05/17/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	828149-MW001010	**Units:**	ug/L
Lab Code:	R1904203-006	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1904760-05			Duplicate Matrix Spike RQ1904760-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	20 U	1030	1000	103	1070	1000	107	72-134	4	30
Isopropylbenzene (Cumene)	20 U	907	1000	91	977	1000	98	77-128	7	30
Methyl Acetate	40 U	945	1000	94	972	1000	97	26-121	3	30
Methyl tert-Butyl Ether	20 U	925	1000	92	962	1000	96	75-119	4	30
Methylcyclohexane	20 U	1030	1000	103	1070	1000	107	45-146	4	30
Styrene	20 U	1020	1000	102	1060	1000	106	74-136	4	30
Tetrachloroethene (PCE)	1900	3190	1000	126 *	3270	1000	134 *	72-125	2	30
Toluene	20 U	1010	1000	101	1030	1000	103	79-119	2	30
Trichloroethene (TCE)	34	1050	1000	101	1100	1000	107	74-122	5	30
Trichlorofluoromethane (CFC 11)	20 U	1040	1000	104	1070	1000	107	71-136	3	30
Vinyl Chloride	20 U	1040	1000	104	1110	1000	111	74-159	6	30
cis-1,2-Dichloroethene	34	969	1000	94	992	1000	96	77-127	2	30
cis-1,3-Dichloropropene	20 U	908	1000	91	946	1000	95	52-134	4	30
m,p-Xylenes	40 U	2030	2000	102	2120	2000	106	80-126	4	30
o-Xylene	20 U	993	1000	99	1030	1000	103	79-123	4	30
trans-1,2-Dichloroethene	20 U	967	1000	97	1000	1000	100	73-118	4	30
trans-1,3-Dichloropropene	20 U	909	1000	91	955	1000	96	71-133	5	30

LLK 06/27/2019

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Wood E&IS - Portland ME	**Service Request:**	R1904203
Project:	Town and Country Dry Cleaners/3612132267.05	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1904638-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.21	1	05/15/19 22:04	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.25	1	05/15/19 22:04	
1,2,3-Trichlorobenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,2,4-Trichlorobenzene	0.26 J	1.0	0.25	1	05/15/19 22:04	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	05/15/19 22:04	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,3-Dichlorobenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
1,4-Dioxane	40 U	40	13	1	05/15/19 22:04	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	05/15/19 22:04	
2-Hexanone	5.0 U	5.0	0.20	1	05/15/19 22:04	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	05/15/19 22:04	
Acetone	5.0 U	5.0	2.1	1	05/15/19 22:04	
Benzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
Bromochloromethane	1.0 U	1.0	0.24	1	05/15/19 22:04	
Bromodichloromethane	1.0 U	1.0	0.22	1	05/15/19 22:04	
Bromoform	1.0 U	1.0	0.25	1	05/15/19 22:04	
Bromomethane	1.0 U	1.0	0.70	1	05/15/19 22:04	
Carbon Disulfide	1.0 U	1.0	0.25	1	05/15/19 22:04	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	05/15/19 22:04	
Chlorobenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
Chloroethane	1.0 U	1.0	0.23	1	05/15/19 22:04	
Chloroform	1.0 U	1.0	0.24	1	05/15/19 22:04	
Chloromethane	1.0 U	1.0	0.28	1	05/15/19 22:04	
Cyclohexane	1.0 U	1.0	0.26	1	05/15/19 22:04	
Dibromochloromethane	1.0 U	1.0	0.20	1	05/15/19 22:04	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	0.21	1	05/15/19 22:04	
Dichloromethane	1.0 U	1.0	0.36	1	05/15/19 22:04	
Ethylbenzene	1.0 U	1.0	0.20	1	05/15/19 22:04	
Isopropylbenzene (Cumene)	1.0 U	1.0	0.20	1	05/15/19 22:04	
Methyl Acetate	2.0 U	2.0	0.33	1	05/15/19 22:04	
Methyl tert-Butyl Ether	1.0 U	1.0	0.20	1	05/15/19 22:04	
Methylcyclohexane	1.0 U	1.0	0.20	1	05/15/19 22:04	
Styrene	1.0 U	1.0	0.20	1	05/15/19 22:04	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	05/15/19 22:04	
Toluene	1.0 U	1.0	0.20	1	05/15/19 22:04	

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LLK 06/27/2019

ALS Group USA, Corp.
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Analytical Report

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners/3612132267.05
Sample Matrix: Water

Service Request: R1904203
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1904760-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.21	1	05/17/19 17:39	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.25	1	05/17/19 17:39	
1,2,3-Trichlorobenzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,2,4-Trichlorobenzene	**0.26 J**	1.0	0.25	1	05/17/19 17:39	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	05/17/19 17:39	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,3-Dichlorobenzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
1,4-Dichlorobenzene	**0.21 J**	1.0	0.20	1	05/17/19 17:39	
1,4-Dioxane	40 U	40	13	1	05/17/19 17:39	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	05/17/19 17:39	
2-Hexanone	5.0 U	5.0	0.20	1	05/17/19 17:39	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	05/17/19 17:39	
Acetone	5.0 U	5.0	2.1	1	05/17/19 17:39	
Benzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
Bromochloromethane	1.0 U	1.0	0.24	1	05/17/19 17:39	
Bromodichloromethane	1.0 U	1.0	0.22	1	05/17/19 17:39	
Bromoform	1.0 U	1.0	0.25	1	05/17/19 17:39	
Bromomethane	1.0 U	1.0	0.70	1	05/17/19 17:39	
Carbon Disulfide	**0.25 J**	1.0	0.25	1	05/17/19 17:39	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	05/17/19 17:39	
Chlorobenzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
Chloroethane	1.0 U	1.0	0.23	1	05/17/19 17:39	
Chloroform	1.0 U	1.0	0.24	1	05/17/19 17:39	
Chloromethane	1.0 U	1.0	0.28	1	05/17/19 17:39	
Cyclohexane	1.0 U	1.0	0.26	1	05/17/19 17:39	
Dibromochloromethane	1.0 U	1.0	0.20	1	05/17/19 17:39	
Dichlorodifluoromethane (CFC 12)	1.0 U	1.0	0.21	1	05/17/19 17:39	
Dichloromethane	1.0 U	1.0	0.36	1	05/17/19 17:39	
Ethylbenzene	1.0 U	1.0	0.20	1	05/17/19 17:39	
Isopropylbenzene (Cumene)	1.0 U	1.0	0.20	1	05/17/19 17:39	
Methyl Acetate	2.0 U	2.0	0.33	1	05/17/19 17:39	
Methyl tert-Butyl Ether	1.0 U	1.0	0.20	1	05/17/19 17:39	
Methylcyclohexane	1.0 U	1.0	0.20	1	05/17/19 17:39	
Styrene	1.0 U	1.0	0.20	1	05/17/19 17:39	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	05/17/19 17:39	
Toluene	1.0 U	1.0	0.20	1	05/17/19 17:39	

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nd subset and no qual subset (result>CRQL)

Printed 5/22/2019 10:04:57 AM

Superset Reference:19-0000508716 rev 00

LUK 06/27/2019

ALS Group USA, Corp.
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QA/QC Report

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners/3612132267.05
Sample Matrix: Water

Service Request: R1904203
Date Analyzed: 05/15/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1904638-03

70-130

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	16.7	20.0	84	75-125
1,1,2,2-Tetrachloroethane	8260C	17.6	20.0	88	78-126
1,1,2-Trichloroethane	8260C	19.5	20.0	97	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.8	20.0	94	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.3	20.0	96	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.4	20.0	97	71-118
1,2,3-Trichlorobenzene	8260C	19.1	20.0	96	67-136
1,2,4-Trichlorobenzene	8260C	19.8	20.0	99	75-132
1,2-Dibromo-3-chloropropane (DBCP) J(U5)	8260C	13.4	20.0	67	55-136
1,2-Dibromoethane	8260C	19.9	20.0	99	82-127
1,2-Dichlorobenzene	8260C	19.5	20.0	97	80-119
1,2-Dichloroethane	8260C	19.5	20.0	97	71-127
1,2-Dichloropropane	8260C	20.1	20.0	100	80-119
1,3-Dichlorobenzene	8260C	18.7	20.0	93	83-121
1,4-Dichlorobenzene	8260C	18.7	20.0	93	79-119
1,4-Dioxane	8260C	370	400	93	44-154
2-Butanone (MEK)	8260C	18.3	20.0	92	61-137
2-Hexanone	8260C	18.6	20.0	93	63-124
4-Methyl-2-pentanone	8260C	19.2	20.0	96	66-124
Acetone	8260C	17.0	20.0	85	40-161
Benzene	8260C	19.8	20.0	99	79-119
Bromochloromethane	8260C	19.0	20.0	95	81-126
Bromodichloromethane	8260C	17.0	20.0	85	81-123
Bromoform	8260C	14.1	20.0	70	65-146
Bromomethane	8260C	15.9	20.0	79	42-166
Carbon Disulfide	8260C	19.8	20.0	99	66-128
Carbon Tetrachloride	8260C	17.1	20.0	86	70-127
Chlorobenzene	8260C	18.9	20.0	94	80-121
Chloroethane	8260C	16.4	20.0	82	62-131
Chloroform	8260C	18.5	20.0	92	79-120
Chloromethane	8260C	23.3	20.0	117	65-135
Cyclohexane	8260C	20.6	20.0	103	69-120
Dibromochloromethane	8260C	15.5	20.0	78	72-128

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Superset Reference:19-0000508716 rev 00

LLK 06/27/2019

1st KR 05/01/19
2nd DL 05/02/19

Quantitation Report (QT Reviewed)

ICal checks

Data Path : I:\ACQUDATA\msvoa12\Data\050119\
Data File : P26240.D
Acq On : 1 May 2019 3:42 pm
Operator : K.Ruest
Sample : 200ppb
Misc : 8260/624 ICAL
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: May 01 17:56:09 2019
Quant Method : I:\ACQUDATA\msvoa12\Methods\W050119.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed May 01 16:11:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.407	168	457798	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.493	114	581385	50.00	ppb		0.00
71) d5-Chlorobenzene	9.791	117	524540	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	342354	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.267	113	170280	50.94	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.88%				
48) surr1,1,2-dichloroetha...	5.798	65	176633	48.44	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 96.88%				
65) SURR3,Toluene-d8	8.303	98	673897	48.56	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.12%				
70) SURR2,BFB	10.864	95	261765	48.27	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.54%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	826221	191.65	ppb		100
3) Chloromethane	1.341	50	718751	183.58	ppb		96
4) Vinyl Chloride	1.414	62	867674	180.31	ppb		98
5) Bromomethane	1.646	94	670698	139.52	ppb		99
6) Chloroethane	1.719	64	647661	163.63	ppb		100
7) Freon 21	1.865	67	1264821	182.33	ppb		100
8) Trichlorofluoromethane	1.914	101	1119000	187.01	ppb		99
9) Diethyl Ether	2.146	59	575043	165.82	ppb		98
10) Freon 123a	2.152	67	720900	169.53	ppb		93
11) Freon 123	2.201	83	891422	179.47	ppb		98
12) Acrolein	2.250	56	713412	866.01	ppb		96
13) 1,1-Diclethene	2.335	96	668018	175.50	ppb		92
14) Freon 113	2.341	101	626566	185.91	ppb		82
15) Acetone	2.384	43	295953	161.13	ppb		97
16) 2-Propanol	2.518	45	1939575m	4086.96	ppb		
17) Iodomethane	2.469	142	1180920	278.76	ppb		97
18) Carbon Disulfide	2.530	76	1662605	181.31	ppb		100
19) Acetonitrile	2.627	40	153069	715.94	ppb		90
20) Allyl Chloride	2.664	76	332017	166.71	ppb		94
21) Methyl Acetate	2.688	43	784070	197.87	ppb		97
22) Methylene Chloride	2.780	84	699327	164.00	ppb		97
23) TBA	2.920	59	3428745m	3922.12	ppb		
24) Acrylonitrile	3.036	53	1716087	859.33	ppb		99
25) Methyl-t-Butyl Ether	3.091	73	2346533	169.72	ppb		99
26) trans-1,2-Dichloroethene	3.079	96	738336	176.89	ppb		94
28) 1,1-Diclethane	3.572	63	1160261	170.03	ppb		99
29) Vinyl Acetate	3.664	86	170754	200.29	ppb	#	93
30) DIPE	3.700	45	1834756	171.70	ppb		98
31) 2-Chloro-1,3-Butadiene	3.694	53	854785	166.46	ppb		94
32) ETBE	4.225	59	1999168	169.51	ppb		99
33) 2,2-Dichloropropane	4.402	77	1078099	172.63	ppb		98
34) cis-1,2-Dichloroethene	4.408	96	815931	165.45	ppb		92
35) 2-Butanone	4.456	43	407400	160.96	ppb		97
36) Propionitrile	4.536	54	838772m	928.67	ppb		
37) Bromochloromethane	4.804	130	609525	184.16	ppb		92
38) Methacrylonitrile	4.810	67	404757	163.41	ppb		95
39) Tetrahydrofuran	4.895	42	284613m	165.33	ppb		
40) Chloroform	4.981	83	1201115	165.83	ppb		100
41) 1,1,1-Trichloroethane	5.273	97	1163880	172.42	ppb		96

LLL 06/27/2019

1st KR 05/01/19
2nd DL 05/02/19

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\050119\
Data File : P26240.D
Acq On : 1 May 2019 3:42 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260/624 ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 01 17:56:09 2019
Quant Method : I:\ACQUDATA\msvoa12\Methods\W050119.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed May 01 16:11:38 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	TAME	6.115	73	2130901	171.73	ppb		98
44)	Cyclohexane	5.365	41	550933	175.87	ppb		99
46)	Carbontetrachloride	5.554	117	1062701	210.26	ppb		98
47)	1,1-Dichloropropene	5.560	75	903993	193.16	ppb		98
49)	Benzene	5.877	78	2802869	186.04	ppb		100
50)	1,2-Dichloroethane	5.913	62	955852	178.99	ppb		97
51)	Iso-Butyl Alcohol	5.895	43	1348561	4165.42	ppb		98
52)	n-Heptane	6.358	43	734225	183.26	ppb		97
53)	1-Butanol	6.852	56	2468851	11180.16	ppb		99
54)	Trichloroethene	6.816	130	947017	202.27	ppb		97
55)	Methylcyclohexane	7.053	55	798658	182.65	ppb		91
56)	1,2-Diclpropane	7.096	63	678093	187.70	ppb		100
57)	Dibromomethane	7.236	93	494478	194.38	ppb		85
58)	1,4-Dioxane	7.322	88	391429	3982.91	ppb		90
59)	Methyl Methacrylate	7.322	69	690650	193.46	ppb		90
60)	Bromodichloromethane	7.462	83	966990	192.87	ppb		96
61)	2-Nitropropane	7.742	41	550255	423.91	ppb		91
62)	2-Chloroethylvinyl Ether	7.870	63	515897	201.27	ppb		91
63)	cis-1,3-Dichloropropene	8.005	75	1215680	187.89	ppb		96
64)	4-Methyl-2-pentanone	8.212	43	884981	193.95	ppb		98
66)	Toluene	8.376	91	3148212	184.77	ppb		97
67)	trans-1,3-Dichloropropene	8.645	75	1141429	197.45	ppb		98
68)	Ethyl Methacrylate	8.785	69	1192271	192.19	ppb		99
69)	1,1,2-Trichloroethane	8.828	97	771065	188.79	ppb		98
72)	Tetrachloroethene	8.968	164	806156	213.76	ppb		98
73)	2-Hexanone	9.120	43	707292	200.78	ppb		98
74)	1,3-Dichloropropane	8.998	76	1213390	191.36	ppb		99
75)	Dibromochloromethane	9.224	129	964290	209.78	ppb		96
76)	N-Butyl Acetate	9.279	43	1295636	192.85	ppb		99
77)	1,2-Dibromoethane	9.321	107	846432	199.90	ppb		99
78)	Chlorobenzene	9.815	112	2266299	196.53	ppb		99
79)	3-CBTF	9.833	180	1511069	228.19	ppb		98
80)	4-CBTF	9.888	180	1333854	222.02	ppb		95
81)	1,1,1,2-Tetrachloroethane	9.907	131	909248	203.23	ppb		99
82)	Ethylbenzene	9.937	106	1261051	202.28	ppb	#	87
83)	(m+p)Xylene	10.053	106	3017864	390.97	ppb		89
84)	o-Xylene	10.406	106	1530892	195.88	ppb		93
85)	Styrene	10.419	104	2490966	203.93	ppb		97
87)	Bromoform	10.571	173	854932	215.33	ppb		99
88)	2-CBTF	10.650	180	1506887	200.05	ppb		98
89)	Isopropylbenzene	10.742	105	3632037	168.68	ppb		94
90)	Cyclohexanone	10.809	55	3869802	3601.99	ppb		95
91)	trans-1,4-Dichloro-2-B...	11.047	53	309301	174.06	ppb		96
92)	1,1,2,2-Tetrachloroethane	10.998	83	1123199	172.62	ppb		99
93)	Bromobenzene	10.986	156	1184677	182.47	ppb		98
94)	1,2,3-Trichloropropane	11.028	110	434941	178.08	ppb		98
95)	n-Propylbenzene	11.101	91	3908191	167.39	ppb		93
96)	2-Chlorotoluene	11.162	91	2481708	170.89	ppb		99
97)	3-Chlorotoluene	11.217	91	2536922	184.87	ppb		96
98)	4-Chlorotoluene	11.254	91	2803792	168.88	ppb		97
99)	1,3,5-Trimethylbenzene	11.254	105	3167505	175.12	ppb		95
100)	tert-Butylbenzene	11.522	119	2956089	178.89	ppb		97
101)	1,2,4-Trimethylbenzene	11.565	105	3200104	177.90	ppb		94
102)	3,4-DCBTF	11.626	214	1352016	210.46	ppb		98
103)	sec-Butylbenzene	11.705	105	3959664	171.22	ppb		97
104)	p-Isopropyltoluene	11.827	119	3629614	180.44	ppb		95

$RRF = \frac{806156}{524540} \times \frac{50}{213.76} = 0.3595$

$RRF = \frac{806156}{524540} \times \frac{50}{200} = 0.3842$

LLK 06/27/2019

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners

Service Request: R1904203
Calibration Date: 5/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900051
Instrument ID: R-MS-12

Signal ID: 1

$\overline{RRF} = 0.3595$

$\%RSD = \frac{0.0205}{0.3595} = 0.0569$

Analyte

Methyl Acetate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4144	07	100.000	0.4608	08	150.000	0.4512	09	200.000	0.4282

Methyl tert-Butyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.54	02	1.000	1.568	03	2.000	1.665	04	5.000	1.56
05	20.000	1.703	06	50.000	1.517	07	100.000	1.449	08	150.000	1.308
09	200.000	1.281									

Methylcyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4182	03	2.000	0.424	04	5.000	0.3587	05	20.000	0.3862
06	50.000	0.3892	07	100.000	0.3565	08	150.000	0.3322	09	200.000	0.3434

Styrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.085	02	1.000	0.9628	03	2.000	1.117	04	5.000	1.169
05	20.000	1.308	06	50.000	1.245	07	100.000	1.245	08	150.000	1.16
09	200.000	1.187									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3718	02	1.000	0.3128	03	2.000	0.3576	04	5.000	0.3574
05	20.000	0.3628	06	50.000	0.3482	07	100.000	0.3739	08	150.000	0.3667
09	200.000	0.3842									

Toluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.522	02	1.000	1.347	03	2.000	1.602	04	5.000	1.475
05	20.000	1.593	06	50.000	1.496	07	100.000	1.455	08	150.000	1.345
09	200.000	1.354									

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.36	05	20.000	1.177	06	50.000	1.216	07	100.000	1.163
08	200.000	1.051									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4002	02	1.000	0.4063	03	2.000	0.4045	04	5.000	0.3994
05	20.000	0.4138	06	50.000	0.3976	07	100.000	0.4058	08	150.000	0.3889
09	200.000	0.4072									

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6699	02	1.000	0.5998	03	2.000	0.6776	04	5.000	0.6466
05	20.000	0.7136	06	50.000	0.6607	07	100.000	0.6772	08	150.000	0.6254
09	200.000	0.6111									

LLK 06/27/2019

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners

Service Request: R1904203
Calibration Date: 5/1/2019

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1900051
Instrument ID: R-MS-12

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Dibromofluoromethane	SURR	Average RF	% RSD	6.8	≤20	0.2875	
Dichlorodifluoromethane (CFC 12)	TRG	Average RF	% RSD	8.2	≤20	0.4666	0.100
Dichloromethane	TRG	Quadratic	COD	0.9990	≥0.99	0.4618	0.100
Ethylbenzene	TRG	Average RF	% RSD	6.7	≤20	0.5943	0.100
Isopropylbenzene (Cumene)	TRG	Average RF	% RSD	11.6	≤20	3.145	0.100
Methyl Acetate	TRG	Average RF	% RSD	8.7	≤20	0.4161	0.100
Methyl tert-Butyl Ether	TRG	Average RF	% RSD	9.5	≤20	1.51	0.100
Methylcyclohexane	TRG	Average RF	% RSD	9.0	≤20	0.3761	0.100
Styrene	TRG	Average RF	% RSD	8.8 ✓	≤20	1.164	0.300
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	5.7 ✓	≤20	0.3595 ✓	0.200
Toluene	TRG	Average RF	% RSD	6.8	≤20	1.465	0.400
Toluene-d8	SURR	Average RF	% RSD	9.3	≤20	1.193	
Trichloroethene (TCE)	TRG	Average RF	% RSD	1.8	≤20	0.4026	0.200
Trichlorofluoromethane (CFC 11)	TRG	Average RF	% RSD	5.6	≤20	0.6535	0.100
Vinyl Chloride	TRG	Average RF	% RSD	9.9	≤20	0.5197	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	11.4	≤20	0.5291	0.100
cis-1,3-Dichloropropene	TRG	Average RF	% RSD	5.6	≤20	0.5564	0.200
m,p-Xylenes	TRG	Average RF	% RSD	4.4	≤20	0.7358	0.100
o-Xylene	TRG	Average RF	% RSD	4.0	≤20	0.745	0.300
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	9.8	≤20	0.4525	0.100
trans-1,3-Dichloropropene	TRG	Average RF	% RSD	7.3	≤20	0.493	0.100

$\overline{RRF} = 0.3595$ $\quad \%RSD = \frac{0.0205}{0.3595} = 0.0569$ ✓

LLK 6/27/2019

1st MR 05/17/19
2nd FJ 05/20/19

Quantitation Report (QT Reviewed)

Sample Calc

Data Path : I:\ACQUDATA\msvoa12\Data\051519\
Data File : P26839.D
Acq On : 15 May 2019 11:10 pm
Operator : K.Ruest
Sample : R1904203-001|1.0 Inst : MSVOA-12
Misc : WOOD 8260 T4
ALS Vial : 31 Sample Multiplier: 1

Quant Time: May 17 16:59:52 2019
Quant Method : I:\ACQUDATA\msvoa12\Methods\W050119.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu May 02 11:39:03 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.414	168	378367	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.493	114	522498	50.00	ppb		0.00
71) d5-Chlorobenzene	9.791	117	467499	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	261472	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.273	113	145013	48.27	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.54%				
48) surr1,1,2-dichloroetha...	5.798	65	179205	54.68	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.36%				
65) SURR3,Toluene-d8	8.303	98	636787	51.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.12%				
70) SURR2,BFB	10.864	95	234434	48.10	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.20%				
Target Compounds							Qvalue
16) 2-Propanol	2.530	45	3813	9.48	ppb		66
34) cis-1,2-Dichloroethene	4.426	96	3795m	0.95	ppb		
54) Trichloroethene	6.816	130	1905	0.45	ppb		86
72) Tetrachloroethene	8.974	164	3194	0.95	ppb	#	83
112) Trielution Dichlorotol...	12.900	125	2092	0.28	ppb		94
119) 2,4,5-Trichlorotolene	14.412	159	1008m	0.21	ppb		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

$$\text{Conc} = \frac{3194}{467499} \times \frac{50}{0.3595} = 0.95 \checkmark$$

LLK 06/27/2019

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Town and Country Dry Cleaners
Method: 8260 C
Laboratory: ALS Rochester, NY **SDG(s):** R1904204
Date: 06/28/2019
Reviewer: Liesel Kraut

Review Level ☒ NYSDEC DUSR USEPA Region II Guideline

1. ☑ **Case Narrative Review and COC/Data Package Completeness** COMMENTS listed
   Were problems noted? Yes - see attached; no impact
   Are Field Sample IDs and Locations assigned correctly? (YES) NO (circle one) → one not labeled on COC
   Were all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one) ↓ see attached
2. ☑ **Holding time and Sample Collection** Okay - no impact
   All samples were analyzed within the 14 day holding time. (YES) NO (circle one)
3. ☑ **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Trip blanks free of contamination? YES (NO) (circle one) see attached
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)
4. ☑ **Instrument Tuning – Data Package Narrative Review**
   Did the laboratory narrative identify any results that were not within method criteria? YES (NO) (circle one)
   If yes, use professional judgment to evaluate data and qualify results if needed
5. ☑ **Instrument Calibration – Data Package Narrative Review**
   Did the laboratory narrative identify compounds that were not within criteria in the initial and/or continuing calibration standards? YES (NO) (circle one) see attached; no impact
   LLK 06/28/19
   Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
   Initial Avg RRF and Continuing RRF should be ≥ 0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane

   Continuing Calibration %D = 20%

   Did the laboratory qualify results based on initial or continuing calibration exceedances? YES (NO)
   If yes to above, use professional judgment to evaluate data and qualify results if needed
6. ☑ **Internal Standards – Data Package Narrative Review**
   (Area Limits = -50% to +100%, RTs within 30 seconds of daily CCAL standard (or ICAL mid-point if samples follow ICAL)
   Did the laboratory narrative identify any sample internal standards that were not within criteria? YES NO (circle one)

   Did the laboratory qualify results based on internal standard exceedances? YES (NO)
   If yes to above, use professional judgment to evaluate data and qualify results if needed
7. ☑ **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

   Were all results within Region II limits? (YES) NO (circle one)
8. ☑ **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)

   Were MS/MSDs submitted/analyzed? YES (NO)

   Were all results within the Region II limits? YES NO (NA) (circle one)

9. ☑ **Duplicates** - Region II Limits (water RPD 50, soil RPD 100)

Were Field Duplicates submitted/analyzed? YES (NO)

Were all results within Region II limits? (soil RPD<100, water RPD<50) YES NO (NA)

10. ☑ **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? YES (NO) (circle one) see attached

11. ☑ **Raw Data Review and Calculation Checks** & see SDG R1904203

12. ☑ **Electronic Data Review and Edits**

Does the EDD match the Form Is? (YES) NO (circle one)

13. ☑ **Tables and TIC Review**

Table 1 (Samples and Analytical Methods)
Table 2 (Analytical Results)
Table 3 (Qualification Actions)
Were all tables produced and reviewed? (YES) NO (circle one)

Table 4 (TICs) Did lab report TICs? YES (NO) (circle one)

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

ALS Environmental

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners
Sample Matrix: Water

Service Request: R1904204
Date Received: 05/09/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 05/09/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

okay - no impact

Method 8260C, 05/17/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.
Method 8260C, 05/18/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

okay - no impact

Approved by Jamie Kopp

LLK 06/28/2019

Date 05/22/2019

U subset for R1904204

LK 06/27/19

ALS Environmental

SAMPLE DETECTION SUMMARY

CLIENT ID: Trip Blank — Lab ID: R1904204-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	3.0	J	2.1	5.0	ug/L	8260C

No subset all for SDG: R1904203

CLIENT ID: 828149-MW010010 — Lab ID: R1904204-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	2.3	J	2.1	5.0	ug/L	8260C

CLIENT ID: 828149-MW002010 — Lab ID: R1904204-009

Analyte	Results	Flag	MDL	MRL	Units	Method
Tetrachloroethene (PCE)	63000		110	500	ug/L	8260C
Trichloroethene (TCE)	160	J	100	500	ug/L	8260C

CLIENT ID: 828149-DP019012 — Lab ID: R1904204-010

Analyte	Results	Flag	MDL	MRL	Units	Method
Tetrachloroethene (PCE)	19		0.21	1.0	ug/L	8260C
Trichloroethene (TCE)	5.5		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	7.8		0.23	1.0	ug/L	8260C
trans-1,2-Dichloroethene	0.21	J	0.20	1.0	ug/L	8260C

06/27/2019

Cooler Receipt and Preservation Check Form

R1904204 5
Wood E&IS - Portland ME
Town and Country Dry Cleaners

Project/Client Wood Folder Number

Cooler received on 5/9/19 by: GP

COURIER: ALS UPS FEDEX VELOCITY (CLIENT)

1	Were **Custody seals** on outside of cooler?	Y (N)
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did (VOA vials), Alk, or Sulfide have sig* **bubbles**?	(Y) N NA
6	Where did the bottles originate?	(ALS/ROC) CLIENT
7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 5/9/19 Time: 1135 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.1						
Correction Factor (°C)	+0.3						
Corrected Temp (°C)	4.4						
Temp from: Type of bottle	Cent tube						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by C on 5/9/19 at 1140
5035 samples placed in storage location: _____ by _____ on _____ at _____

5/10/19 15:20

Cooler Breakdown/Preservation Check**: Date: 5/9/19 Time: 1555 by: DW

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-						
		HCl	**	**	Client label					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: Client label

Explain all Discrepancies/ Other Comments:

Headspace: MSD (2 vials) MW0198025 MSD
MS (2 vials) " MS
J/US & DP019012 (3 vials)
book MW0213019 (1 vial)
See R1904203 → MW019B025 (3 vials)

DP012015 (3 vials) ← See R1904203
Trip Blank (2 vials)

** Rec'd a location that was not on C.O.C (828149-DP019012).

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: JK
PC Secondary Review: JWS 5/13/19 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Wood E&IS - Portland ME
Project: Town and Country Dry Cleaners/3612132267.05
Sample Matrix: Water

Service Request: R1904204
Date Analyzed: 05/17/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

70-130

Lab Control Sample
RQ1904923-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12) J+ nd	8260C	27.6	20.0	138	59-155
Dichloromethane	8260C	19.1	20.0	95	73-122
Ethylbenzene	8260C	19.8	20.0	99	76-120
Isopropylbenzene (Cumene)	8260C	19.1	20.0	96	77-128
Methyl Acetate	8260C	20.7	20.0	103	40-112
Methyl tert-Butyl Ether	8260C	19.9	20.0	99	75-118
Methylcyclohexane	8260C	20.5	20.0	102	51-129
Styrene	8260C	19.4	20.0	97	80-124
Tetrachloroethene (PCE)	8260C	19.7	20.0	99	72-125
Toluene	8260C	19.4	20.0	97	79-119
Trichloroethene (TCE)	8260C	19.5	20.0	97	74-122
Trichlorofluoromethane (CFC 11)	8260C	20.8	20.0	104	71-136
Vinyl Chloride	8260C	21.5	20.0	108	74-159
cis-1,2-Dichloroethene	8260C	20.4	20.0	102	80-121
cis-1,3-Dichloropropene	8260C	19.4	20.0	97	77-122
m,p-Xylenes	8260C	38.1	40.0	95	80-126
o-Xylene	8260C	19.2	20.0	96	79-123
trans-1,2-Dichloroethene	8260C	20.4	20.0	102	73-118
trans-1,3-Dichloropropene	8260C	19.0	20.0	95	71-133

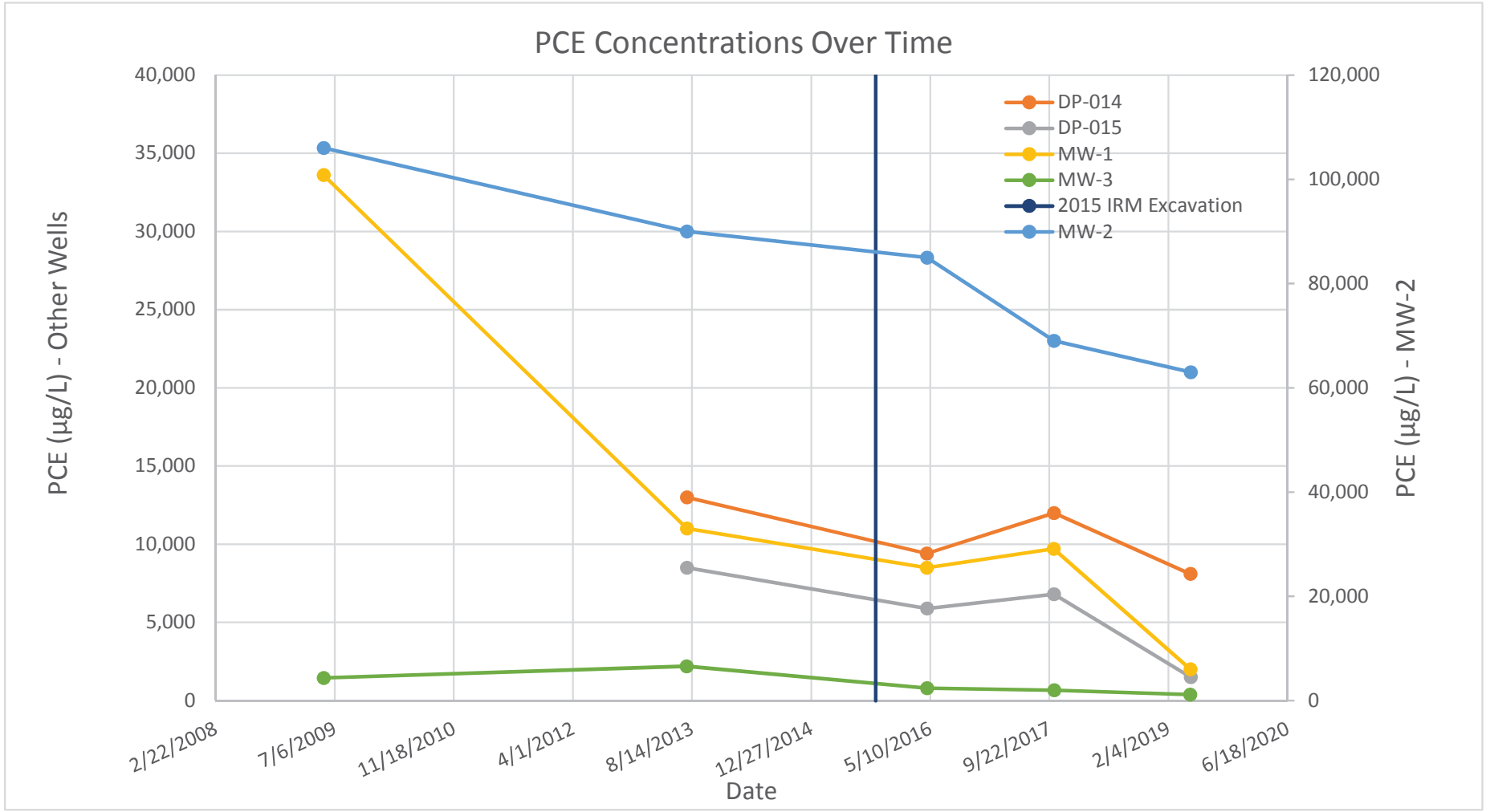
LLK 06/27/2019

Superset Reference:19-0000508972 rev 00

Printed 5/22/2019 5:10:47 PM

ATTACHMENT 3

PLOT OF VOC CONCENTRATIONS OVER TIME


PCE Concentrations Over Time
PCE (µg/L) - Other Wells
PCE (µg/L) - MW-2
Date
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
120,000
100,000
80,000
60,000
40,000
20,000
0
2/22/2008
7/6/2009
11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
DP-014
DP-015
MW-1
MW-3
2015 IRM Excavation
MW-2