

George J. Saraceno, Senior Civil Engineer

TO: Jeff Azano Brown, Superintendent Recycling Disposal Facility

DATE: January 29, 2019

SUBJECT: NPDES Phase II – Multi-Sector General Permit (MSGP)

Under our MSGP, we are required to monitor the stormwater runoff outfalls at the RDF on a quarterly basis. Additionally, we are required to perform visual monitoring once a quarter over the 5 year permit period and note any correction of deficiencies discovered during the inspection. We are operating under the 2015 MSGP. Attached are copies of blank inspection forms that should be complete for the winter sampling period by a competent person at the RDF. Analytical monitoring (laboratory testing) is required under the Phase II 2015 MSGP permit period. The DPW – Engineering Division will conduct all monitoring required by this permit. Collection of samples must be conducted during a measurable storm event and if possible, within the first 30 minutes of discharge. We were not able to sample within 30 minutes or first flush of the storm event.

Matthew Hernon our staff engineer collected samples from your stormwater runoff outfalls and had them analyzed by Alpha Laboratories of Westborough, MA. This sampling period is for the winter 2019 period. The samples were taken during a rainstorm event (depth 2”) on January 24, 2019. The stormwater runoff samples were dark, grey and cloudy. The sampling results, as shown below, have higher EPA cut-off concentrations for all of the parameters sampled. Outfall 406 receives runoff from the detention basin, which should be cleaned at minimum of twice per year. Sampling results for outfall 384 also showed higher concentrations within the sample. However, both samples had sediment that could be contributing towards the higher concentration levels. Outfall 386 receives stormwater runoff from mostly the impervious area around the RDF near the bailer building. We should continue evaluating control measures and reviewing facility procedures at the RDF to determine what corrective actions could be taken to help reduce the analytical monitoring concentrations to at or below the cut-off levels required by EPA. The analytical monitoring results have been submitted to the EPA for review.

WELLESLEY RDF ANALYTICAL MONITORING - Winter 2019 RESULTS			
Parameter	Benchmark Monitoring Cut-off concentration	Outfall 1 (406)	Outfall 2 (384)
Chemical Oxygen Demand	120 mg/L	370 mg/L	200 mg/L
Total Suspended Solids	100 mg/L	380 mg/L	150 mg/L
Aluminum	0.75 mg/L	6.22 mg/L	2.35 mg/L
Copper	0.0090 mg/L	.051 mg/L	0.020 mg/L
Iron	1.0 mg/L	11.4 mg/L	5.17 mg/L
Lead	0.045 mg/L	0.162 mg/L	0.026 mg/l
Zinc	0.08 mg/L	0.386 mg/L	0.206 mg/L

Memo to Jeff Azano Brown
January 29, 2019
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The Quarterly Stormwater Discharge Evaluation and analytical report results are attached to this memo for your review. Please keep these forms and analytical report with the SWPPP (Stormwater pollution Prevention Plan) for the RDF. We will continue sampling at the RDF until further notice by the EPA.

Should you have any questions, or require additional information, please feel free to contact me.



George J. Saraceno
Senior Civil Engineer

Enc.: Quarterly Stormwater Discharge Evaluation
Analytical Report
Inspection Forms

Cc: David Cohen
David Hickey
Shawn Vann
Bill Shaughnessey

QUARTERLY STORMWATER DISCHARGE EVALUATION						Completed by: <i>Matt Herson</i>	Permit No. MAR053632
Weather: <i>57°, Rainy</i>						Date: <i>1/24/2019</i>	
						Snow Melt: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Discharge Location	Discharge Flow Depth (inches)	Sample Time	Sample Volume (gallons)	Sample Appearance/Clarity/Color	Sample Odor	Sample Observed Solids	Probable Source of Observed Contamination
<i>406</i>							
Outfall # 385 (discharge from detention basin)	 <i>1 1/2"</i> Depth	<i>9:25</i> AM		<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy/Milky <input checked="" type="checkbox"/> Dark (Tea) <input type="checkbox"/> Sheen <input type="checkbox"/> Other *	<input type="checkbox"/> None <input type="checkbox"/> Chemical <input type="checkbox"/> Petroleum <input checked="" type="checkbox"/> Other * <i>Hard to tell, odor is strong.</i>	<input type="checkbox"/> None <input type="checkbox"/> Grease/Oil <input type="checkbox"/> Foam <input type="checkbox"/> Paper/Trash <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Other *	<i>Sediment</i>
Outfall # 384 (discharge from east of Recycling Building)	 <i>2"</i> Depth	<i>9:40</i> AM		<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy/Milky <input type="checkbox"/> Dark (Tea) <input type="checkbox"/> Sheen <input checked="" type="checkbox"/> Other * <i>Grey / cloudy</i>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Chemical <input type="checkbox"/> Petroleum <input type="checkbox"/> Other * <i>odorless</i>	<input checked="" type="checkbox"/> None <input type="checkbox"/> Grease/Oil <input type="checkbox"/> Foam <input type="checkbox"/> Paper/Trash <input type="checkbox"/> Sediment <input type="checkbox"/> Other *	<i>N/A</i>
Notes:							
1. Refer to Figure 2 - Site Plan in the Wellesley RDF Stormwater Pollution Plan. * Provide additional comments to describe the observations made for the category.							
2. Was sample taken during first 30 minutes of discharge: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							
3. Reason for not being able to take sample first 30 minutes of discharge: <i>Rainfall started at 4 AM</i>							
Duration of Storm Event (hours): <i>Rainfall was approx .01"/HR from 4AM through 9 AM.</i>							
Rainfall Measurements or Estimates (inches): <i>from 9 AM to 10 AM, rainfall increased to approx .05"/HR.</i>							
Duration from Previous Measureable Storm Event (measurable discharge): <i>Snowmelt from storms on 1/19 & 1/20 a factor. weather No precipitation</i>							
Certification of Storm Water Discharge Evaluation:							
I certify under penalty of law that this document was prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained herein. Based on my inquiry of the person or persons who manage the system, or those persons responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.							
Signature of Authorized Representative: <i>Matthew Herson</i>				Date: <i>1/24/2019</i>			
Print Name: <i>Matthew Herson</i>							

MA & snow storms

Stormwater Pollution Prevention Plan
Wellesley Recycling and Disposal Facility, 169 Great Plain Avenue, Wellesley, MA



ANALYTICAL REPORT

Lab Number:	L1903018
Client:	Town Of Wellesley 20 Municipal Way Wellesley, MA 02481
ATTN:	George Saraceno
Phone:	(617) 235-7600
Project Name:	TOWN OF WELLESLEY, MA
Project Number:	ONGOING SAMPLING
Report Date:	01/28/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:01281919:05

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1903018-01	406	WATER	RDF	01/24/19 09:25	01/24/19
L1903018-02	384	WATER	RDF	01/24/19 09:40	01/24/19

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Case Narrative (continued)

Sample Receipt

L1903018-01: The sample was received above the appropriate pH for the Total Metals analysis. The laboratory added additional HNO₃ to a pH <2.

The samples were received at the laboratory above the required temperature range. The samples were delivered directly from the sampling site but were not on ice.

Total Metals

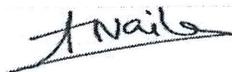
The WG1201033-3 MS recovery for iron (60%), performed on L1903018-01, does not apply because the sample concentration is greater than four times the spike amount added.

Chemical Oxygen Demand

The WG1200701-8 Laboratory Duplicate RPD (18%), performed on L1903018-02, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Amita Naik

Title: Technical Director/Representative

Date: 01/28/19

METALS

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

SAMPLE RESULTS

Lab ID: L1903018-01
 Client ID: 406
 Sample Location: RDF

Date Collected: 01/24/19 09:25
 Date Received: 01/24/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6.22		mg/l	0.100	--	1	01/25/19 14:18	01/25/19 18:48	EPA 3005A	1,6010D	LC
Copper, Total	0.051		mg/l	0.010	--	1	01/25/19 14:18	01/25/19 18:48	EPA 3005A	1,6010D	LC
Iron, Total	11.4		mg/l	0.050	--	1	01/25/19 14:18	01/25/19 18:48	EPA 3005A	1,6010D	LC
Lead, Total	0.162		mg/l	0.010	--	1	01/25/19 14:18	01/25/19 18:48	EPA 3005A	1,6010D	LC
Zinc, Total	0.386		mg/l	0.050	--	1	01/25/19 14:18	01/25/19 18:48	EPA 3005A	1,6010D	LC



Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

SAMPLE RESULTS

Lab ID: L1903018-02
Client ID: 384
Sample Location: RDF

Date Collected: 01/24/19 09:40
Date Received: 01/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2.35		mg/l	0.100	--	1	01/25/19 14:18	01/25/19 19:05	EPA 3005A	1,6010D	LC
Copper, Total	0.020		mg/l	0.010	--	1	01/25/19 14:18	01/25/19 19:05	EPA 3005A	1,6010D	LC
Iron, Total	5.17		mg/l	0.050	--	1	01/25/19 14:18	01/25/19 19:05	EPA 3005A	1,6010D	LC
Lead, Total	0.026		mg/l	0.010	--	1	01/25/19 14:18	01/25/19 19:05	EPA 3005A	1,6010D	LC
Zinc, Total	0.206		mg/l	0.050	--	1	01/25/19 14:18	01/25/19 19:05	EPA 3005A	1,6010D	LC



Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

**Method Blank Analysis
 Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1201033-1									
Aluminum, Total	ND	mg/l	0.100	--	1	01/25/19 14:18	01/25/19 18:36	1,6010D	LC
Copper, Total	ND	mg/l	0.010	--	1	01/25/19 14:18	01/25/19 18:36	1,6010D	LC
Iron, Total	ND	mg/l	0.050	--	1	01/25/19 14:18	01/25/19 18:36	1,6010D	LC
Lead, Total	ND	mg/l	0.010	--	1	01/25/19 14:18	01/25/19 18:36	1,6010D	LC
Zinc, Total	ND	mg/l	0.050	--	1	01/25/19 14:18	01/25/19 18:36	1,6010D	LC

Prep Information

Digestion Method: EPA 3005A



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Lab Control Sample Analysis
Batch Quality Control

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1201033-2								
Aluminum, Total	95		-		80-120	-		
Copper, Total	91		-		80-120	-		
Iron, Total	99		-		80-120	-		
Lead, Total	94		-		80-120	-		
Zinc, Total	98		-		80-120	-		



Serial_No:01281919:05

Matrix Spike Analysis
Batch Quality Control

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1201033-3 QC Sample: L1903018-01 Client ID: 406												
Aluminum, Total	6.22	2	8.43	110		-	-		75-125	-		20
Copper, Total	0.051	0.25	0.276	90		-	-		75-125	-		20
Iron, Total	11.4	1	12.0	60	Q	-	-		75-125	-		20
Lead, Total	0.162	0.51	0.587	83		-	-		75-125	-		20
Zinc, Total	0.386	0.5	0.853	93		-	-		75-125	-		20



Serial_No:01281919:05

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1903018
Report Date: 01/28/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1201033-4 QC Sample: L1903018-01 Client ID: 406						
Aluminum, Total	6.22	6.21	mg/l	0		20
Copper, Total	0.051	0.051	mg/l	1		20
Iron, Total	11.4	11.1	mg/l	3		20
Lead, Total	0.162	0.162	mg/l	0		20
Zinc, Total	0.386	0.388	mg/l	1		20



INORGANICS & MISCELLANEOUS

Serial_No:01281919:05

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

SAMPLE RESULTS

Lab ID: L1903018-01
Client ID: 406
Sample Location: RDF

Date Collected: 01/24/19 09:25
Date Received: 01/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	380		mg/l	50	NA	10	-	01/25/19 06:15	121,2540D	JT
Chemical Oxygen Demand	370		mg/l	20	--	1	01/24/19 18:45	01/24/19 21:57	121,5220D	TL



Serial_No:01281919:05

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

SAMPLE RESULTS

Lab ID: L1903018-02
Client ID: 384
Sample Location: RDF

Date Collected: 01/24/19 09:40
Date Received: 01/24/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	150		mg/l	12	NA	2.5	-	01/25/19 06:15	121,2540D	JT
Chemical Oxygen Demand	200		mg/l	20	--	1	01/24/19 18:45	01/24/19 21:57	121,5220D	TL



Project Name: TOWN OF WELLESLEY, MA

Lab Number: L1903018

Project Number: ONGOING SAMPLING

Report Date: 01/28/19

**Method Blank Analysis
Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1200701-5									
Chemical Oxygen Demand	ND	mg/l	20	--	1	01/24/19 18:45	01/24/19 21:57	121,5220D	TL
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1200819-1									
Solids, Total Suspended	ND	mg/l	5.0	NA	1	-	01/25/19 06:15	121,2540D	JT



Serial_No:01281919:05

Lab Control Sample Analysis
Batch Quality Control

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1200701-6								
Chemical Oxygen Demand	103		-		90-110	-		



Serial_No:01281919:05

Matrix Spike Analysis
Batch Quality Control

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1200701-7 QC Sample: L1903018-02 Client ID: 384												
Chemical Oxygen Demand	200	238	450	105	-	-	-	-	84-120	-	-	12



Serial_No:01281919:05

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1903018
Report Date: 01/28/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-02	QC Batch ID: WG1200701-8	QC Sample: L1903018-02	Client ID: 384		
Chemical Oxygen Demand	200	240	mg/l	18	Q	12
General Chemistry - Westborough Lab	Associated sample(s): 01-02	QC Batch ID: WG1200819-2	QC Sample: L1903018-02	Client ID: 384		
Solids, Total Suspended	150	150	mg/l	0		29



Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Serial_No: 01281919:05
Lab Number: L1903018
Report Date: 01/28/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
N/A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1903018-01A	Plastic 120ml H2SO4 preserved	N/A	<2	<2	9.2	Y	Absent		COD-5220(28)
L1903018-01B	Plastic 250ml HNO3 preserved	N/A	5	<2	9.2	N	Absent		AL-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),FE-TI(180)
L1903018-01C	Plastic 950ml unpreserved	N/A	7	7	9.2	Y	Absent		TSS-2540(7)
L1903018-02A	Plastic 120ml H2SO4 preserved	N/A	<2	<2	9.2	Y	Absent		COD-5220(28)
L1903018-02B	Plastic 500ml HNO3 preserved	N/A	<2	<2	9.2	Y	Absent		AL-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),FE-TI(180)
L1903018-02C	Plastic 950ml unpreserved	N/A	7	7	9.2	Y	Absent		TSS-2540(7)

*Values in parentheses indicate holding time in days



Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: Data Usability Report



Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: TOWN OF WELLESLEY, MA
Project Number: ONGOING SAMPLING

Lab Number: L1903018
Report Date: 01/28/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.
 Facility: **Company-wide**
 Department: **Quality Assurance**
 Title: **Certificate/Approval Program Summary**

ID No.: **17873**
 Revision **12**
 Published Date: **10/9/2018 4:58:19 PM**
 Page **1** of **1**

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

