CERTIFICATION

SDG No:	1701428A	Laboratory:	Eurofins, Folson, CA
Site:	BMSMC	Matrix:	Air

SUMMARY: Air samples (Table 1) were collected on the BMSMC facility. The BMSMC facility is located in Humacao, PR. Samples were taken January 21 & 23, 2017 and were analyzed in Eurofins Laboratory of Folson, California that reported the data under SDG No.: 1701428A. The sample results were assessed according to USEPA data validation guidance documents in the following order of precedence: QC criteria from "Compendium Method TO-15. Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), January, 1999"; USEPA Hazardous Waste Support Branch. Validating Air Samples. Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, (SOP # HW-31. Revision #6. June, 2014). The analyses performed are shown in Table 1. Individual data review worksheets are enclosed for each target analyte group. The data sample summary form shows analytes results that were qualified.

In summary, the results are valid and can be used for decision making purposes.

Table 1. Samples analyzed and analysis performed

SAMPLE ID	SAMPLE DESCRIPTION	MATRIX	ANALYSIS PERFORMED
1701428A-01A	B30IA-1-012117	Air	TO-15 (full suite)
1701428A-02A	B30IA-2-012117	Air	TO-15 (full suite)
1701428A-03A	B30IA-3-012117	Air	TO-15 (full suite)
1701428A-04A	B30IA-4-012117	Air	TO-15 (full suite)
1701428A-05A	B30IA-4D-012117	Air	TO-15 (full suite)
1701428A-06A	B30IA-5-012117	Air	TO-15 (full suite)
1701428A-07A	B1830AA-012117	Air	TO-15 (full suite)
1701428A-08A	B18IA-1-012117	Air	TO-15 (full suite)
1701428A-09A	B18IA-1D-012117	Air	TO-15 (full suite)
1701428A-10A	B18IA-2-012117	Air	TO-15 (full suite)
1701428A-11A	B18IA-3-012117	Air	TO-15 (full suite)
1701428A-12A	B18IA-4-012117	Air	TO-15 (full suite)
1701428A-13A	B8IA-2-012317	Air	TO-15 (full suite)
1701428A-14A	B8IA-2D-012317	Air	TO-15 (full suite)
1701428A-15A	B8AA-012317	Air	TO-15 (full suite)

Reviewer Name: Rafael Infante
Chemist License 1888

Signature:

Date: March 18, 2017

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Rafael Infante Méndez
LIC. # 1888
QUIMICO LICENCIADO
$1.00
A 1617195

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Client Sample ID: B30IA-1-012117

Lab ID#: 1701428A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013109	Date of Collection:	1/21/17 6:17:00 PM
Dil. Factor:	1.61	Date of Analysis:	1/31/17 12:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.0	1.7	2.2
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.31	0.90	1.7
Ethanol	0.80	7.4	1.5	14
Freon 113	0.16	0.089 J	1.2	0.68 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	9.6	1.9	23
2-Propanol	0.80	17	2.0	41
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.24 J	1.1	0.84 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.15 J	0.57	0.52 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.99	2.4	2.9
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.037 J	0.79	0.18 J
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	0.042 J	0.55	0.14 J
Carbon Tetrachloride	0.16	0.083 J	1.0	0.52 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.17	0.51	0.54
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	0.097 J	0.66	0.40 J
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	0.067 J	0.58	0.24 J
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	0.052 J	0.66	0.22 J
Toluene	0.16	0.51	0.61	1.9
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected

Manuel Infante Méndez
IC # 1888

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Client Sample ID: B30IA-1-012117

Lab ID#: 1701428A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013109**	**Date of Collection:**	**1/21/17 6:17:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 12:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.062 J	0.70	0.27 J
m,p-Xylene	0.16	0.16 J	0.70	0.68 J
o-Xylene	0.16	0.066 J	0.70	0.29 J
Styrene	0.16	0.074 J	0.68	0.32 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	0.048 J	1.1	0.33 J
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.052 J	0.79	0.25 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.056 J	0.79	0.28 J
1,3-Dichlorobenzene	0.16	0.047 J	0.97	0.28 J
1,4-Dichlorobenzene	0.16	0.061 J	0.97	0.36 J
alpha-Chlorotoluene	0.16	0.071 J	0.83	0.37 J
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	0.094 J	6.0	0.70 J
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.036 J	4.2	0.19 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	104	70-130

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IQ # 1888
QUIMICO LICENCIADO

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Client Sample ID: B30IA-2-012117

Lab ID#: 1701428A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013110	Date of Collection:	1/21/17 6:20:00 PM
Dil. Factor:	1.64	Date of Analysis:	1/31/17 12:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	0.84	1.7	1.7
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.33	0.92	1.9
Ethanol	0.82	14	1.5	27
Freon 113	0.16	0.070 J	1.2	0.53 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	12	1.9	27
2-Propanol	0.82	15	2.0	36
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.20 J	1.1	0.69 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.083 J	0.58	0.29 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.3	2.4	3.9
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	0.044 J	0.56	0.15 J
Carbon Tetrachloride	0.16	0.066 J	1.0	0.41 J
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.20	0.52	0.62
1,2-Dichloroethane	0.16	0.44	0.66	1.8
Heptane	0.16	0.063 J	0.67	0.26 J
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.11 J	0.67	0.45 J
Toluene	0.16	0.63	0.62	2.4
trans-1,3-Dichloropropene	0.16	Not Detected	[illegible]	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	0.13 J	3.4	0.52 J

ASOCIADO DE PUERTO RICO
Jacl Infante Méndez
IQ # 1888
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Client Sample ID: B30IA-2-012117

Lab ID#: 1701428A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013110**	**Date of Collection:**	**1/21/17 6:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 12:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.12 J	0.71	0.53 J
o-Xylene	0.16	0.060 J	0.71	0.26 J
Styrene	0.16	0.091 J	0.70	0.39 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	0.037 J	0.81	0.18 J
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.046 J	0.99	0.28 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	Not Detected	4.3	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	109	70-130

ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
LICENCIADO

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Client Sample ID: B30IA-3-012117

Lab ID#: 1701428A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013119	Date of Collection:	1/21/17 6:21:00 PM
Dil. Factor:	1.91	Date of Analysis:	1/31/17 07:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.55	0.94	2.7
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.96	1.0	2.0	2.1
Vinyl Chloride	0.19	Not Detected	0.49	Not Detected
1,3-Butadiene	0.19	Not Detected	0.42	Not Detected
Bromomethane	0.96	Not Detected	3.7	Not Detected
Chloroethane	0.96	Not Detected	2.5	Not Detected
Freon 11	0.19	0.28	1.1	1.6
Ethanol	0.96	19	1.8	35
Freon 113	0.19	0.075 J	1.5	0.58 J
1,1-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Acetone	0.96	7.9	2.3	19
2-Propanol	0.96	24	2.3	60
Carbon Disulfide	0.96	Not Detected	3.0	Not Detected
3-Chloropropene	0.96	Not Detected	3.0	Not Detected
Methylene Chloride	0.38	0.23 J	1.3	0.81 J
Methyl tert-butyl ether	0.19	Not Detected	0.69	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Hexane	0.19	0.082 J	0.67	0.29 J
1,1-Dichloroethane	0.19	Not Detected	0.77	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	1.6	2.8	4.6
cis-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.93	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.66	Not Detected
Carbon Tetrachloride	0.19	0.053 J	1.2	0.34 J
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.19	0.15 J	0.61	0.48 J
1,2-Dichloroethane	0.19	Not Detected	0.77	Not Detected
Heptane	0.19	0.049 J	0.78	0.20 J
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.88	Not Detected
1,4-Dioxane	0.19	0.069 J	0.69	0.25 J
Bromodichloromethane	0.19	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.87	Not Detected
4-Methyl-2-pentanone	0.19	0.12 J	0.78	[illegible]
Toluene	0.19	0.65	0.72	2.5
trans-1,3-Dichloropropene	0.19	Not Detected	0.87	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.96	Not Detected	3.9	Not Detected

COLEGIO DE QUIMICOS DE PUERTO RICO
QUIMICO LICENCIADO
Jorge Infante Méndez
0084 01-1210

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Client Sample ID: B30IA-3-012117

Lab ID#: 1701428A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013119**	**Date of Collection:**	**1/21/17 6:21:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**1/31/17 07:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.5	Not Detected
Chlorobenzene	0.19	Not Detected	0.88	Not Detected
Ethyl Benzene	0.19	0.086 J	0.83	0.37 J
m,p-Xylene	0.19	0.23	0.83	0.99
o-Xylene	0.19	0.073 J	0.83	0.32 J
Styrene	0.19	0.10 J	0.81	0.43 J
Bromoform	0.19	Not Detected	2.0	Not Detected
Cumene	0.19	Not Detected	0.94	Not Detected
1,1,2,2-Tetrachloroethane	0.19	0.036 J	1.3	0.24 J
Propylbenzene	0.19	Not Detected	0.94	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.94	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.94	Not Detected
1,2,4-Trimethylbenzene	0.19	0.044 J	0.94	0.22 J
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	0.066 J	1.1	0.40 J
alpha-Chlorotoluene	0.19	0.058 J	0.99	0.30 J
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.96	0.078 J	7.1	0.58 J
Hexachlorobutadiene	0.96	Not Detected	10	Not Detected
Naphthalene	0.96	0.042 J	5.0	0.22 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130

ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
1888
QUIMICO LICENCIADO

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Client Sample ID: B30IA-4-012117

Lab ID#: 1701428A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013120	Date of Collection:	1/21/17 6:22:00 PM
Dil. Factor:	1.61	Date of Analysis:	1/31/17 08:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.54	0.80	2.7
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	0.98	1.7	2.0
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.31	0.90	1.8
Ethanol	0.80	26	1.5	49
Freon 113	0.16	0.086 J	1.2	0.66 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	18	1.9	42
2-Propanol	0.80	24	2.0	58
Carbon Disulfide	0.80	0.086 J	2.5	0.27 J
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.25 J	1.1	0.88 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.091 J	0.57	0.32 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	3.3	2.4	9.7
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.035 J	0.79	0.17 J
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	0.033 J	0.55	0.11 J
Carbon Tetrachloride	0.16	0.072 J	1.0	0.45 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.14 J	0.51	0.46 J
1,2-Dichloroethane	0.16	0.085 J	0.65	0.34 J
Heptane	0.16	0.093 J	0.66	0.38 J
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	0.13 J	[illegible]	0.52 J
Toluene	0.16	0.58	0.61	2.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	[illegible]	Not Detected
2-Hexanone	0.80	0.24 J	3.3	1.0 J

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Q # 1888
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Client Sample ID: B30IA-4-012117

Lab ID#: 1701428A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013120**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**1/31/17 08:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.054 J	0.70	0.23 J
m,p-Xylene	0.16	0.17	0.70	0.73
o-Xylene	0.16	0.068 J	0.70	0.30 J
Styrene	0.16	0.088 J	0.68	0.38 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.054 J	0.79	0.26 J
1,3,5-Trimethylbenzene	0.16	0.032 J	0.79	0.16 J
1,2,4-Trimethylbenzene	0.16	0.097 J	0.79	0.48 J
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	0.056 J	0.97	0.34 J
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	0.040 J	6.0	0.30 J
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.060 J	4.2	0.31 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	106	70-130

LIBRE ASOCIADO DE PUERTO RICO
Rafael Infante Méndez
IQ # 1888
QUIMICO LICENCIADO

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Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013121	Date of Collection:	1/21/17 6:22:00 PM
Dil. Factor:	1.68	Date of Analysis:	1/31/17 09:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.83	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	0.99	1.7	2.0
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.39	0.94	2.2
Ethanol	0.84	48	1.6	90
Freon 113	0.17	0.081 J	1.3	0.62 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	18	2.0	43
2-Propanol	0.84	24	2.1	58
Carbon Disulfide	0.84	0.22 J	2.6	0.69 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.24 J	1.2	0.84 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.075 J	0.59	0.26 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	3.0	2.5	9.0
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	0.038 J	0.82	0.18 J
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	0.037 J	0.58	0.13 J
Carbon Tetrachloride	0.17	0.064 J	1.0	0.40 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.14 J	0.54	0.43 J
1,2-Dichloroethane	0.17	0.096 J	0.68	0.39 J
Heptane	0.17	0.13 J	0.69	0.54 J
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	0.14 J	0.69	0.58 J
Toluene	0.17	0.59	[illegible]	2.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	[illegible]	Not Detected
2-Hexanone	0.84	0.27 J	[illegible]	1.1 J

Colegio de Químicos de Puerto Rico — Rafael Infante Méndez — # 1888 — Químico Licenciado

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Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013121**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**1/31/17 09:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.063 J	0.73	0.27 J
m,p-Xylene	0.17	0.14 J	0.73	0.60 J
o-Xylene	0.17	0.057 J	0.73	0.25 J
Styrene	0.17	0.084 J	0.72	0.36 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.036 J	0.82	0.18 J
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	0.041 J	0.82	0.20 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	0.047 J	1.0	0.28 J
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.023 J	4.4	0.12 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

LIBRE ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
1888
QUIMICO LICENCIADO

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Client Sample ID: B30IA-5-012117

Lab ID#: 1701428A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013122	Date of Collection:	1/21/17 6:25:00 PM
Dil. Factor:	1.64	Date of Analysis:	1/31/17 10:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	1.1	1.7	2.4
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.38	0.92	2.2
Ethanol	0.82	42	1.5	80
Freon 113	0.16	0.082 J	1.2	0.63 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	11	1.9	27
2-Propanol	0.82	16	2.0	40
Carbon Disulfide	0.82	0.091 J	2.6	0.28 J
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.24 J	1.1	0.84 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.067 J	0.58	0.24 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.1	2.4	3.1
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	0.037 J	0.80	0.18 J
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	0.030 J	0.56	0.10 J
Carbon Tetrachloride	0.16	0.064 J	1.0	0.40 J
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.21	0.52	0.68
1,2-Dichloroethane	0.16	0.075 J	0.66	0.30 J
Heptane	0.16	Not Detected	0.67	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	0.066 J	0.59	0.24 J
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.10 J	[illegible]	0.43 J
Toluene	0.16	0.92	0.62	3.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected

Yael Infante Vélez M.T. # 1888 QUIMICO LICENCIADO ASOCIADO DE PUERTO RICO

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Client Sample ID: B30IA-5-012117

Lab ID#: 1701428A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013122**	**Date of Collection:**	**1/21/17 6:25:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**1/31/17 10:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.18	0.71	0.78
m,p-Xylene	0.16	0.66	0.71	2.8
o-Xylene	0.16	0.56	0.71	2.4
Styrene	0.16	0.18	0.70	0.78
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	0.091 J	0.81	0.45 J
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	0.37	0.81	1.8
4-Ethyltoluene	0.16	4.1	0.81	20
1,3,5-Trimethylbenzene	0.16	1.6	0.81	8.1
1,2,4-Trimethylbenzene	0.16	6.6	0.81	32
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.062 J	0.99	0.37 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	0.65 J	4.3	3.4 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

...BRE ASOCIADO DE PUERTO RICO
...uel Infante Méndez
K = 1888
...MICO LICENCIADO

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Client Sample ID: B1830AA-012117

Lab ID#: 1701428A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013126	Date of Collection:	1/21/17 6:42:00 PM
Dil. Factor:	1.64	Date of Analysis:	2/1/17 09:11 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.60	0.81	2.9
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	1.2	1.7	2.4
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.39	0.92	2.2
Ethanol	0.82	1.9	1.5	3.6
Freon 113	0.16	0.088 J	1.2	0.67 J
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	9.5	1.9	22
2-Propanol	0.82	2.0	2.0	4.9
Carbon Disulfide	0.82	0.93	2.6	2.9
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.17 J	1.1	0.60 J
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.16 J	0.58	0.55 J
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	1.0	2.4	3.0
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	0.18	1.0	1.1
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.19	0.52	0.60
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	0.15 J	0.67	0.63 J
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	0.074 J	[illegible]	0.30 J
Toluene	0.16	0.43	[illegible]	1.6
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	[illegible]	Not Detected
Tetrachloroethene	0.16	Not Detected	[illegible]	Not Detected
2-Hexanone	0.82	0.20 J	[illegible]	0.80 J

Luis Infante Méndez
Lic. 3941888
Colegio de Químicos Licenciados de Puerto Rico

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Client Sample ID: B1830AA-012117

Lab ID#: 1701428A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013126**	**Date of Collection:**	**1/21/17 6:42:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/1/17 09:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	0.051 J	0.71	0.22 J
m,p-Xylene	0.16	0.14 J	0.71	0.61 J
o-Xylene	0.16	0.057 J	0.71	0.25 J
Styrene	0.16	0.038 J	0.70	0.16 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	0.12 J	0.81	0.60 J
1,3,5-Trimethylbenzene	0.16	0.066 J	0.81	0.32 J
1,2,4-Trimethylbenzene	0.16	0.11 J	0.81	0.55 J
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	0.033 J	0.99	0.20 J
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected
Naphthalene	0.82	0.51 J	4.3	2.7 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	106	70-130

ABOGADO DE PUERTO RICO
Manuel Infante Méndez
1888
QUIMICO LICENCIADO

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Client Sample ID: B18IA-1-012117

Lab ID#: 1701428A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013124**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/1/17 07:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.88	2.8
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	1.1	1.8	2.3
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	2.9	1.0	16
Ethanol	0.90	66	1.7	120
Freon 113	0.18	0.065 J	1.4	0.50 J
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	160 E	2.1	380 E
2-Propanol	0.90	3.2	2.2	7.8
Carbon Disulfide	0.90	0.092 J	2.8	0.29 J
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	0.26 J	1.2	0.89 J
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Hexane	0.18	0.13 J	0.63	0.45 J
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	2.3	2.6	6.8
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	0.065 J	0.87	0.32 J
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	0.058 J	0.62	0.20 J
Carbon Tetrachloride	0.18	0.078 J	1.1	0.49 J
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	0.19	0.57	0.62
1,2-Dichloroethane	0.18	1.5 J0	0.72	6.2 J0
Heptane	0.18	0.11 J	0.73	0.45 J
Trichloroethene	0.18	0.52	0.96	2.8
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	Not Detected	0.64	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
4-Methyl-2-pentanone	0.18	0.31 J0	0.73	1.3 J0
Toluene	0.18	2.5	[illegible]	9.6
trans-1,3-Dichloropropene	0.18	Not Detected	[illegible]	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	[illegible]	Not Detected
2-Hexanone	0.90	0.22 J	[illegible]	0.90 J

Luis Infante Méndez
1888
QUÍMICO LICENCIADO

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Client Sample ID: B18IA-1-012117

Lab ID#: 1701428A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013124**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/1/17 07:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.23	0.78	1.0
m,p-Xylene	0.18	0.52	0.78	2.2
o-Xylene	0.18	0.27	0.78	1.2
Styrene	0.18	0.095 J	0.76	0.40 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	0.093 J	0.88	0.46 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	0.11 J	0.88	0.55 J
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	0.045 J	1.1	0.27 J
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
Naphthalene	0.90	0.032 J	4.7	0.17 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

...BRE ASOCIADO DE PUERTO RICO
...uel Infante Méndez
K # 1888
...MICO LICENCIADO

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Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013127**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/1/17 10:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.83	3.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	1.3	1.7	2.6
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	3.0	0.94	17
Ethanol	0.84	67	1.6	130
Freon 113	0.17	0.070 J	1.3	0.53 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	160 E	2.0	390 E
2-Propanol	0.84	4.2	2.1	10
Carbon Disulfide	0.84	0.12 J	2.6	0.38 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.28 J	1.2	0.96 J
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.16 J	0.59	0.55 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	1.7	2.5	5.0
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	0.069 J	0.82	0.34 J
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	0.088 J	0.58	0.30 J
Carbon Tetrachloride	0.17	0.079 J	1.0	0.50 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.23	0.54	0.74
1,2-Dichloroethane	0.17	1.8 J0	0.68	7.4 J0
Heptane	0.17	0.13 J	0.69	0.52 J
Trichloroethene	0.17	0.53	0.90	2.8
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	0.29 J0	0.69	1.2 J0
Toluene	0.17	3.2	0.63	12
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	0.15 J	3.4	0.62 J

LIBRE ASOCIADO DE PUERTO RICO
Jaciel Infante Méndez
1888
QUÍMICO LICENCIADO

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Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013127**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/1/17 10:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.26	0.73	1.1
m,p-Xylene	0.17	0.57	0.73	2.5
o-Xylene	0.17	0.22	0.73	0.97
Styrene	0.17	0.087 J	0.72	0.37 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.10 J	0.82	0.50 J
1,3,5-Trimethylbenzene	0.17	0.043 J	0.82	0.21 J
1,2,4-Trimethylbenzene	0.17	0.12 J	0.82	0.59 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	0.046 J	1.0	0.27 J
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.026 J	4.4	0.13 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
IC # 1888
QUIMICO LICENCIADO

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Client Sample ID: B18IA-2-012117

Lab ID#: 1701428A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20013128	Date of Collection:	1/21/17 6:00:00 PM
Dil. Factor:	1.75	Date of Analysis:	2/1/17 11:11 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.57	0.86	2.8
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	1.2	1.8	2.5
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	4.3	0.98	24
Ethanol	0.88	41	1.6	77
Freon 113	0.18	0.072 J	1.3	0.55 J
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	280 E	2.1	660 E
2-Propanol	0.88	4.2	2.2	10
Carbon Disulfide	0.88	0.12 J	2.7	0.37 J
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.31 J	1.2	1.1 J
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	0.12 J	0.62	0.44 J
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.2
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	0.072 J	0.85	0.35 J
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	0.063 J	0.60	0.22 J
Carbon Tetrachloride	0.18	0.074 J	1.1	0.47 J
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	0.17 J	0.56	0.55 J
1,2-Dichloroethane	0.18	1.1 J0	0.71	4.5 J0
Heptane	0.18	0.11 J	0.72	0.47 J
Trichloroethene	0.18	0.47	0.94	2.6
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	0.15 J	0.72	0.62 J
Toluene	0.18	2.8	[illegible]	10
trans-1,3-Dichloropropene	0.18	Not Detected	[illegible]	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	0.42 J	3.6	1.7 J

Ingel Infante Méndez IQ # 1888 QUÍMICO LICENCIADO

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Client Sample ID: B18IA-2-012117

Lab ID#: 1701428A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20013128**	**Date of Collection:**	**1/21/17 6:00:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/1/17 11:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.14 J	0.76	0.60 J
m,p-Xylene	0.18	0.39	0.76	1.7
o-Xylene	0.18	0.16 J	0.76	0.68 J
Styrene	0.18	0.073 J	0.74	0.31 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	0.054 J	0.86	0.26 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.067 J	0.86	0.33 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	0.044 J	1.0	0.26 J
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
Naphthalene	0.88	0.039 J	4.6	0.20 J

J = Estimated value.
E = Exceeds instrument calibration range.
J0 = Estimated value due to bias in the CCV.
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	95	70-130

LIBRE ASOCIADO DE PUERTO RICO
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1888
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Client Sample ID: B18IA-3-012117

Lab ID#: 1701428A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020611**	**Date of Collection:**	**1/21/17 6:10:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/6/17 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.78	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	0.92	1.6	1.9
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	0.12 J	3.1	0.45 J
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.58	0.89	3.2
Ethanol	0.79	12	1.5	22
Freon 113	0.16	0.075 J	1.2	0.58 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	9.4	1.9	22
2-Propanol	0.79	1.9	1.9	4.7
Carbon Disulfide	0.79	0.33 J	2.5	1.0 J
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.078 J	1.1	0.27 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.19	0.56	0.67
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	1.2	2.3	3.4
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	0.034 J	0.77	0.17 J
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	0.063 J	0.54	0.22 J
Carbon Tetrachloride	0.16	0.073 J	0.99	0.46 J
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	0.16	0.50	0.51
1,2-Dichloroethane	0.16	0.086 J	0.64	0.35 J
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	0.089 J	0.85	0.48 J
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	0.088 J	0.65	0.36 J
Toluene	0.16	0.79	0.60	3.0
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected

Colegio de Químicos de Puerto Rico
Licenciado
Rafael Infante Méndez
Nº 1888

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Client Sample ID: B18IA-3-012117

Lab ID#: 1701428A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020611**	**Date of Collection:**	**1/21/17 6:10:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/6/17 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	0.098 J	0.69	0.43 J
m,p-Xylene	0.16	0.26	0.69	1.1
o-Xylene	0.16	0.12 J	0.69	0.53 J
Styrene	0.16	0.049 J	0.67	0.21 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	0.049 J	0.78	0.24 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	0.043 J	0.78	0.21 J
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	0.039 J	0.95	0.23 J
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected
Naphthalene	0.79	0.040 J	4.1	0.21 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

ABOGADO ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
K # 1888
QUÍMICO LICENCIADO

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Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020612**	**Date of Collection:**	**1/21/17 6:12:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**2/6/17 04:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.40	0.70	2.0
Freon 114	0.14	Not Detected	0.98	Not Detected
Chloromethane	0.70	1.0	1.4	2.1
Vinyl Chloride	0.14	0.11 J	0.36	0.28 J
1,3-Butadiene	0.14	Not Detected	0.31	Not Detected
Bromomethane	0.70	Not Detected	2.7	Not Detected
Chloroethane	0.70	Not Detected	1.9	Not Detected
Freon 11	0.14	1.9	0.79	11
Ethanol	0.70	75 E	1.3	140 E
Freon 113	0.14	0.052 J	1.1	0.40 J
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	25	1.7	59
2-Propanol	0.70	7.4	1.7	18
Carbon Disulfide	0.70	0.48 J	2.2	1.5 J
3-Chloropropene	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	0.15 J	0.98	0.51 J
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Hexane	0.14	0.30	0.50	1.1
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	2.7	2.1	8.1
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Chloroform	0.14	0.073 J	0.69	0.36 J
1,1,1-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Cyclohexane	0.14	0.17	0.48	0.58
Carbon Tetrachloride	0.14	0.091 J	0.89	0.58 J
2,2,4-Trimethylpentane	0.70	0.11 J	3.3	0.51 J
Benzene	0.14	0.18	0.45	0.56
1,2-Dichloroethane	0.14	0.67	0.57	2.7
Heptane	0.14	0.19	0.58	0.77
Trichloroethene	0.14	0.45	0.76	2.4
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
1,4-Dioxane	0.14	0.060 J	0.51	0.22 J
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	0.26	[illegible]	1.0
Toluene	0.14	5.3	0.53	20
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.77	Not Detected
Tetrachloroethene	0.14	Not Detected	0.96	Not Detected
2-Hexanone	0.70	0.28 J	2.9	1.1 J

Juan Infante Méndez R.Q. 1888 Químico Licenciado Colegio de Químicos de Puerto Rico

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Client Sample ID: B18IA-4-012117

Lab ID#: 1701428A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020612**	**Date of Collection:**	**1/21/17 6:12:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**2/6/17 04:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.65	Not Detected
Ethyl Benzene	0.14	0.30	0.61	1.3
m,p-Xylene	0.14	1.1	0.61	4.8
o-Xylene	0.14	0.53	0.61	2.3
Styrene	0.14	0.14	0.60	0.61
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.97	Not Detected
Propylbenzene	0.14	0.042 J	0.69	0.20 J
4-Ethyltoluene	0.14	0.11 J	0.69	0.52 J
1,3,5-Trimethylbenzene	0.14	0.042 J	0.69	0.21 J
1,2,4-Trimethylbenzene	0.14	0.11 J	0.69	0.53 J
1,3-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,4-Dichlorobenzene	0.14	0.038 J	0.85	0.23 J
alpha-Chlorotoluene	0.14	Not Detected	0.73	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.85	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected	5.2	Not Detected
Hexachlorobutadiene	0.70	Not Detected	7.5	Not Detected
Naphthalene	0.70	0.030 J	3.7	0.16 J

J = Estimated value.
E = Exceeds instrument calibration range.
Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: B8IA-2-012317

Lab ID#: 1701428A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e020616	Date of Collection:	1/23/17 12:23:00 PM
Dil. Factor:	1.75	Date of Analysis:	2/6/17 08:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.47	0.86	2.3
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	0.90	1.8	1.8
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	0.12 J	3.4	0.47 J
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.20	0.98	1.1
Ethanol	0.88	4.6	1.6	8.6
Freon 113	0.18	0.067 J	1.3	0.51 J
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	12	2.1	28
2-Propanol	0.88	1.8	2.2	4.5
Carbon Disulfide	0.88	0.48 J	2.7	1.5 J
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.12 J	1.2	0.41 J
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	0.22	0.62	0.76
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	2.1	2.6	6.3
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	0.41 J	2.6	1.2 J
Chloroform	0.18	0.039 J	0.85	0.19 J
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	0.084 J	1.1	0.53 J
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	0.23	0.56	0.72
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	0.11 J	0.72	0.45 J
Toluene	0.18	0.46	0.66	1.7
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	0.30 J	3.6	1.2 J

ASOCIADO DE PUERTO RICO
Raúl Infante Méndez
IQ # 1888
QUÍMICO LICENCIADO

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Client Sample ID: B8IA-2-012317

Lab ID#: 1701428A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020616**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/6/17 08:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.062 J	0.76	0.27 J
m,p-Xylene	0.18	0.25	0.76	1.1
o-Xylene	0.18	0.10 J	0.76	0.43 J
Styrene	0.18	0.052 J	0.74	0.22 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	0.089 J	0.86	0.44 J
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.099 J	0.86	0.49 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	0.039 J	1.0	0.23 J
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
Naphthalene	0.88	Not Detected	4.6	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	106	70-130

ASOCIADO DE PUERTO RICO
Manuel Infante Méndez
1888
QUIMICO LICENCIADO

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Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e020614	Date of Collection:	1/23/17 12:23:00 PM
Dil. Factor:	1.87	Date of Analysis:	2/6/17 06:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.42	0.92	2.1
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	1.3	1.9	2.7
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.41	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	0.21	1.0	1.2
Ethanol	0.94	4.0	1.8	7.6
Freon 113	0.19	0.076 J	1.4	0.58 J
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	18	2.2	42
2-Propanol	0.94	3.1	2.3	7.7
Carbon Disulfide	0.94	0.87 J	2.9	2.7 J
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	0.082 J	1.3	0.29 J
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	0.23	0.66	0.82
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	3.0	2.8	8.8
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	0.39 J	2.8	1.2 J
Chloroform	0.19	0.21	0.91	1.0
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.64	Not Detected
Carbon Tetrachloride	0.19	0.079 J	1.2	0.50 J
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	0.21	0.60	0.67
1,2-Dichloroethane	0.19	Not Detected	0.76	Not Detected
Heptane	0.19	Not Detected	0.77	Not Detected
Trichloroethene	0.19	0.20	1.0	1.1
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected
1,4-Dioxane	0.19	Not Detected	0.67	Not Detected
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	0.19	0.77	0.80
Toluene	0.19	0.46	[illegible]	1.7
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	Not Detected	3.8	Not Detected

Rafael Infante Méndez
Nº 1888
QUÍMICO LICENCIADO

eurofins | Air Toxics

Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020614**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**2/6/17 06:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	0.095 J	0.81	0.41 J
m,p-Xylene	0.19	0.21	0.81	0.92
o-Xylene	0.19	0.074 J	0.81	0.32 J
Styrene	0.19	0.063 J	0.80	0.27 J
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	0.025 J	0.92	0.12 J
4-Ethyltoluene	0.19	0.099 J	0.92	0.49 J
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	0.089 J	0.92	0.44 J
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	0.044 J	1.1	0.27 J
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
Naphthalene	0.94	Not Detected	4.9	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

QUIMICO ASOCIADO DE PUERTO RICO
Rafael Infante Méndez
RQ # 1888
QUIMICO LICENCIADO

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Client Sample ID: B8AA-012317

Lab ID#: 1701428A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e020615	Date of Collection:	1/23/17 9:20:00 AM
Dil. Factor:	1.46	Date of Analysis:	2/6/17 07:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.49	0.72	2.4
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.73	0.97	1.5	2.0
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.73	0.17 J	2.8	0.67 J
Chloroethane	0.73	Not Detected	1.9	Not Detected
Freon 11	0.15	0.25	0.82	1.4
Ethanol	0.73	3.9	1.4	7.3
Freon 113	0.15	0.054 J	1.1	0.41 J
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	5.2	1.7	12
2-Propanol	0.73	2.1	1.8	5.2
Carbon Disulfide	0.73	0.42 J	2.3	1.3 J
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	0.13 J	1.0	0.44 J
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	0.28	0.51	0.98
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	0.70 J	2.2	2.1 J
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	0.047 J	0.71	0.23 J
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	0.085 J	0.92	0.53 J
2,2,4-Trimethylpentane	0.73	0.10 J	3.4	0.47 J
Benzene	0.15	0.20	0.47	0.65
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Heptane	0.15	0.18	0.60	0.73
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	0.40	[illegible]	1.5
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	[illegible]	Not Detected
Tetrachloroethene	0.15	Not Detected	[illegible]	Not Detected
2-Hexanone	0.73	Not Detected	[illegible]	Not Detected

[illegible] ABOGADO DE PUERTO RICO
[illegible] Infante
[illegible]ández
[illegible] 1888

eurofins | Air Toxics

Client Sample ID: B8AA-012317

Lab ID#: 1701428A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e020615**	**Date of Collection:**	**1/23/17 9:20:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**2/6/17 07:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	0.051 J	0.63	0.22 J
m,p-Xylene	0.15	0.19	0.63	0.81
o-Xylene	0.15	0.070 J	0.63	0.30 J
Styrene	0.15	0.038 J	0.62	0.16 J
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	0.021 J	0.72	0.10 J
4-Ethyltoluene	0.15	0.070 J	0.72	0.34 J
1,3,5-Trimethylbenzene	0.15	0.032 J	0.72	0.15 J
1,2,4-Trimethylbenzene	0.15	0.077 J	0.72	0.38 J
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	0.036 J	0.88	0.22 J
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected
Naphthalene	0.73	Not Detected	3.8	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

LIBRE ASOCIADO DE PUERTO RICO • QUIMICO LICENCIADO
Manuel Infante Méndez
IQ # 1888

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 2

Project Manager: Terry Taylor
Collected by: (Print and Sign) RO, TT, DL, RNO
Company: AMAI Email: ttaylor@amiconsult.com
Address: 2700 Westchester Ave. City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 x309 Fax: 914-251-1286

Project Info:
P.O. #:
Project #: BMS V1
Project Name: BMS V1

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	B301A-1-012117	25236	01/21/17	1817	TO-15, MeOH, CH_4	30"	5"		
02A	B301A-2-012117	N1755	01/21/17	1820	TO-15, MeOH, CH_4	30"	6.5		
03A	B301A-3-012117	9551	01/21/17	1821	TO-15, MeOH, CH_4	28"	10.5"		
04A	B301A-4-012117	00895	01/21/17	1822	TO-15, MeOH, CH_4	30"	5"		
05A	B301A-4D-012117 00898	~~00898~~	01/21/17	1822	TO-15, MeOH, CH_4	30"	6"		
06A	B301A-5-012117	33787	01/21/17	1825	TO-15, MeOH, CH_4	30"+	6"		
07A	B1830AA-012117	33585	1/21/17	1842	TO-15, MeOH, CH_4	30"	6"		
08A	B181A-1-012117	N1735	1/21/17	1807	TO-15, MeOH, CH_4	30"+	8"		
09A	B181A-1D-012117	00138	1/21/17	1807	TO-15, MeOH, CH_4	30"	7.5"		
10A	B181A-2-012117	6L1216	1/21/17	1800	TO-15, MeOH, CH_4	30"+	5"		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	1-27-17 1400	Fed EX Track No. 7782 9053 0772	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		[signature]	1/30/17 0920
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: Tag for canister 00898 indicated it is N00448. That ID is not on the packing slip. The canister has the serial # 00898, and is listed on the packing slip

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		N/A	good	Yes No None	1701428

Form 1293 rev.11

Air Toxics LTD.

Chain-of-Custody Record

Contact Person Terry Taylor
Company Anderson Mulholland & Associates, Inc.
Address 2700 Winchester, Suite 417 City Purchase State NY Zip 10577
Phone 914-251-0400, x 309 FAX
Collected By: (Signature)

Project Information:
P.O. #
Project #
Project Name BMS VI Invest.
Buildings 8,13, 5, 18, and 30

Turn Around Time:
[X] Normal
[ ] Rush
Specify

Pressurized by:
Date:
Press. Gas: N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
11A	B18IA-3-012117	34320	1/21/17:1810	TO-15, MeOH, CH_4	29 "Hg	6		
12A	B18IA-4-012117	N1591	1/21/17:1812	TO-15, MeOH, CH_4	29.5 "Hg	6		
13A	B8IA-2-012317	N1726	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	8		
14A	B8IA-2D-012317	N0416	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	9		
15A	B8AA-012317	0Ø316	1/23/17:0920	TO-15, MeOH, CH_4	29 "Hg	3		
16A	B8SS-2-012417	1L1603	1/24/17:1535	TO-15, MeOH, CH_4	30 "Hg	5		
17A	B8SS-2D-012417	12373	1/24/17:1535	TO-15, MeOH, CH_4	29 "Hg	5		
18A	B18SS-1-012617	1L1720	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	5		
~~19A~~	~~B18SS-1DUP-012617~~				"Hg			
20A	B18SS-1DUP-012617	N1939	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	6		

V.V 1/30/17
V.V 1/30/17
1/27

Relinquished By: (Signature) Date/Time
1-27-17 1400 Fed EX
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
1/30/17 0920
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Notes:
FedEx Tracking No. 7782 9053 0772

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
Fed Ex		EAZL	N/A	Good	Yes No (None)	1701428

EXECUTIVE NARRATIVE

SDG No:	**1701428A**	Laboratory:	**Eurofins, Folson, CA**
Analysis:	**TO-15**	Number of Samples:	**15**
Location:			

SUMMARY: Nineteen (19) samples were analyzed for VOCs in ambient air following Compendium Method TO-15. The sample results were assessed according to USEPA data validation guidance documents in the following order of precedence: QC criteria from "Compendium Method TO-15. Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), January, 1999"; USEPA Hazardous Waste Support Branch. Validating Air Samples. Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, (SOP # HW-31. Revision #6. June, 2014). The QC criteria and data validation actions listed on the data review worksheets are from the primary guidance document, unless otherwise noted.

Results are valid and can be used for decision making purposes.

Critical issues: **None**
Major: **None**
Minor: **None**

Critical findings: **None**
Major findings: **None**
Minor findings:

1. Initial and continuing calibrations meet method specific requirements except for the cases described in the Data Review Worksheet. 1,2-dichloroethane and 4-methyl-2-pentanone did not meet the % difference continuing calibration criteria, their results qualified as estimated (J or UJ) in affected samples.

2. All method blank meet method specific criteria except for the cases described in the Data Review Worksheet. Concentration detected below the reporting limit, results qualified following the table 7 – blank action for to-15 analysis.

Samples 1701428A-01A to 1701428A-06A qualified for methylene chloride.

Samples 1701428A-11A to 1701428A-15A qualified for all the VOCs detected in the method blank analyzed 02/06/17.

3. LCS/LCSD (Blank_spike) analyzed in this data package. % recoveries and RPD within laboratory control limits except for the cases described in the Data Review Worksheet. Detected compounds are qualified with a J qualifier in affected samples.

4. Laboratory/field duplicate analyzed with this data package. RPD were within laboratory and method performance criteria for target analytes except for the cases described in the Data Review Worksheet. Acetone field duplicate RPD outside the laboratory control limit but within the method performance criteria. No action taken.

Chloroethane RPD outside the laboratory control limit in the LCS/LCSD but within the method performance criteria. No action taken QC sample.

COMMENTS: Results are valid and can be used for decision making purposes.

Reviewers Name: Rafael Infante
Chemist License 1888

Signature: Rafael Infante

Date: March 17, 2017

TO-15 DATA SAMPLE SUMMARY

Sample ID: 1701428A-01A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.7	ug/m^3	1.61	-	-	Yes
Freon 114	1.1	ug/m^3	1.61	-	U	Yes
Chloromethane	2.2	ug/m^3	1.61	-	-	Yes
Vinyl Chloride	0.41	ug/m^3	1.61	-	U	Yes
1,3-Butadiene	0.36	ug/m^3	1.61	-	U	Yes
Bromomethane	3.1	ug/m^3	1.61	-	U	Yes
Chloroethane	2.1	ug/m^3	1.61	-	-	Yes
Freon 11	1.7	ug/m^3	1.61	-	-	Yes
Ethanol	14	ug/m^3	1.61	-	-	Yes
Freon 113	0.68	ug/m^3	1.61	J	J	Yes
1,1-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Acetone	23	ug/m^3	1.61	-	-	Yes
2-Propanol	41	ug/m^3	1.61	-	-	Yes
Carbon Disulfide	2.5	ug/m^3	1.61	-	U	Yes
3-Chloropropene	2.5	ug/m^3	1.61	-	U	Yes
Methylene Chloride	1.1	ug/m^3	1.61	J	U	Yes
Methyl tert-butyl ether	0.58	ug/m^3	1.61	-	U	Yes
trans-1,2-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Hexane	0.52	ug/m^3	1.61	J	J	Yes
1,1-Dichloroethane	0.65	ug/m^3	1.61	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	2.9	ug/m^3	1.61	-	-	Yes
cis-1,2-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Tetrahydrofuran	2.4	ug/m^3	1.61	-	U	Yes
Chloroform	0.18	ug/m^3	1.61	J	J	Yes
1,1,1-Trichloroethane	0.88	ug/m^3	1.61	-	U	Yes
Cyclohexane	0.14	ug/m^3	1.61	J	J	Yes
Carbon Tetrachloride	0.52	ug/m^3	1.61	J	J	Yes
2,2,4-Trimethylpentane	3.8	ug/m^3	1.61	-	U	Yes
Benzene	0.54	ug/m^3	1.61	-	-	Yes
1,2-Dichloroethane	0.65	ug/m^3	1.61	-	U	Yes
Heptane	0.40	ug/m^3	1.61	J	J	Yes
Trichloroethene	0.86	ug/m^3	1.61	-	U	Yes
1,2-Dichloropropane	0.74	ug/m^3	1.61	-	U	Yes
1,4-Dioxane	0.24	ug/m^3	1.61	J	J	Yes
Bromodichloromethane	1.1	ug/m^3	1.61	-	U	Yes
cis-1,3-Dichloropropene	0.73	ug/m^3	1.61	-	U	Yes

4-Methyl-2-pentanone	0.22	ug/m^3	1.61	J	J	Yes
Toluene	1.9	ug/m^3	1.61	-	-	Yes
trans-1,3-Dichloropropene	0.73	ug/m^3	1.61	-	U	Yes
1,1,2-Trichloroethane	0.88	ug/m^3	1.61	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.61	-	U	Yes
2-Hexanone	3.3	ug/m^3	1.61	-	U	Yes
Dibromochloromethane	1.4	ug/m^3	1.61	-	U	Yes
1,2-Dibromoethane (EDB)	1.2	ug/m^3	1.61	-	U	Yes
Chlorobenzene	0.74	ug/m^3	1.61	-	U	Yes
Ethyl Benzene	0.27	ug/m^3	1.61	J	J	Yes
m,p-Xylene	0.68	ug/m^3	1.61	J	J	Yes
o-Xylene	0.29	ug/m^3	1.61	J	J	Yes
Styrene	0.32	ug/m^3	1.61	J	J	Yes
Bromoform	1.7	ug/m^3	1.61	-	U	Yes
Cumene	0.79	ug/m^3	1.61	-	U	Yes
1,1,2,2-Tetrachloroethane	0.33	ug/m^3	1.61	J	J	Yes
Propylbenzene	0.79	ug/m^3	1.61	-	U	Yes
4-Ethyltoluene	0.25	ug/m^3	1.61	J	J	Yes
1,3,5-Trimethylbenzene	0.79	ug/m^3	1.61	-	U	Yes
1,2,4-Trimethylbenzene	0.28	ug/m^3	1.61	J	J	Yes
1,3-Dichlorobenzene	0.28	ug/m^3	1.61	J	J	Yes
1,4-Dichlorobenzene	0.36	ug/m^3	1.61	J	J	Yes
alpha-Chlorotoluene	0.37	ug/m^3	1.61	J	J	Yes
1,2-Dichlorobenzene	0.97	ug/m^3	1.61	-	U	Yes
1,2,4-Trichlorobenzene	0.70	ug/m^3	1.61	J	J	Yes
Hexachlorobutadiene	8.6	ug/m^3	1.61	-	U	Yes
Naphthalene	0.19	ug/m^3	1.61	J	J	Yes

Sample ID: 1701428A-02A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.4	ug/m^3	1.64	-	-	Yes
Freon 114	1.1	ug/m^3	1.64	-	U	Yes
Chloromethane	1.7	ug/m^3	1.64	-	-	Yes
Vinyl Chloride	0.42	ug/m^3	1.64	-	U	Yes
1,3-Butadiene	0.36	ug/m^3	1.64	-	U	Yes
Bromomethane	3.2	ug/m^3	1.64	-	U	Yes
Chloroethane	2.2	ug/m^3	1.64	-	U	Yes
Freon 11	1.9	ug/m^3	1.64	-	-	Yes
Ethanol	27	ug/m^3	1.64	-	-	Yes
Freon 113	0.53	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Acetone	27	ug/m^3	1.64	-	-	Yes
2-Propanol	36	ug/m^3	1.64	-	-	Yes
Carbon Disulfide	2.6	ug/m^3	1.64	-	U	Yes
3-Chloropropene	2.6	ug/m^3	1.64	-	U	Yes
Methylene Chloride	1.1	ug/m^3	1.64	J	U	Yes
Methyl tert-butyl ether	0.59	ug/m^3	1.64	-	U	Yes
trans-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Hexane	0.29	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethane	0.66	ug/m^3	1.64	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	3.9	ug/m^3	1.64	-	-	Yes
cis-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Tetrahydrofuran	2.4	ug/m^3	1.64	-	U	Yes
Chloroform	0.80	ug/m^3	1.64	-	U	Yes
1,1,1-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Cyclohexane	0.15	ug/m^3	1.64	J	J	Yes
Carbon Tetrachloride	0.41	ug/m^3	1.64	J	J	Yes
2,2,4-Trimethylpentane	3.8	ug/m^3	1.64	-	U	Yes
Benzene	0.62	ug/m^3	1.64	-	-	Yes
1,2-Dichloroethane	1.8	ug/m^3	1.64	-	-	Yes
Heptane	0.26	ug/m^3	1.64	J	J	Yes
Trichloroethene	0.88	ug/m^3	1.64	-	U	Yes
1,2-Dichloropropane	0.76	ug/m^3	1.64	-	U	Yes
1,4-Dioxane	0.59	ug/m^3	1.64	-	U	Yes
Bromodichloromethane	1.1	ug/m^3	1.64	-	U	Yes
cis-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
4-Methyl-2-pentanone	0.45	ug/m^3	1.64	J	J	Yes
Toluene	2.4	ug/m^3	1.64	-	-	Yes

trans-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
1,1,2-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.64	-	U	Yes
2-Hexanone	0.52	ug/m^3	1.64	J	J	Yes
Dibromochloromethane	1.4	ug/m^3	1.64	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.64	-	U	Yes
Chlorobenzene	0.76	ug/m^3	1.64	-	U	Yes
Ethyl Benzene	0.22	ug/m^3	1.64	J	J	Yes
m,p-Xylene	0.53	ug/m^3	1.64	J	J	Yes
o-Xylene	0.26	ug/m^3	1.64	J	J	Yes
Styrene	0.39	ug/m^3	1.64	J	J	Yes
Bromoform	1.7	ug/m^3	1.64	-	U	Yes
Cumene	0.81	ug/m^3	1.64	-	U	Yes
1,1,2,2-Tetrachloroethane	1.1	ug/m^3	1.64	-	U	Yes
Propylbenzene	0.81	ug/m^3	1.64	-	U	Yes
4-Ethyltoluene	0.81	ug/m^3	1.64	-	U	Yes
1,3,5-Trimethylbenzene	0.81	ug/m^3	1.64	-	U	Yes
1,2,4-Trimethylbenzene	0.18	ug/m^3	1.64	J	J	Yes
1,3-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,4-Dichlorobenzene	0.28	ug/m^3	1.64	J	J	Yes
alpha-Chlorotoluene	0.85	ug/m^3	1.64	-	U	Yes
1,2-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,2,4-Trichlorobenzene	6.1	ug/m^3	1.64	-	U	Yes
Hexachlorobutadiene	8.7	ug/m^3	1.64	-	U	Yes
Naphthalene	4.3	ug/m^3	1.64	-	U	Yes

Sample ID: 1701428A-03A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.7	ug/m^3	1.91	-	-	Yes
Freon 114	1.3	ug/m^3	1.91	-	U	Yes
Chloromethane	2.1	ug/m^3	1.91	-	-	Yes
Vinyl Chloride	0.49	ug/m^3	1.91	-	U	Yes
1,3-Butadiene	0.42	ug/m^3	1.91	-	U	Yes
Bromomethane	3.7	ug/m^3	1.91	-	U	Yes
Chloroethane	2.5	ug/m^3	1.91	-	U	Yes
Freon 11	1.6	ug/m^3	1.91	-	-	Yes
Ethanol	35	ug/m^3	1.91	-	-	Yes
Freon 113	0.58	ug/m^3	1.91	J	J	Yes
1,1-Dichloroethene	0.76	ug/m^3	1.91	-	U	Yes
Acetone	19	ug/m^3	1.91	-	-	Yes
2-Propanol	60	ug/m^3	1.91	-	-	Yes
Carbon Disulfide	3.0	ug/m^3	1.91	-	U	Yes
3-Chloropropene	3.0	ug/m^3	1.91	-	U	Yes
Methylene Chloride	1.3	ug/m^3	1.91	J	U	Yes
Methyl tert-butyl ether	0.69	ug/m^3	1.91	-	U	Yes
trans-1,2-Dichloroethene	0.76	ug/m^3	1.91	-	U	Yes
Hexane	0.29	ug/m^3	1.91	J	J	Yes
1,1-Dichloroethane	0.77	ug/m^3	1.91	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	4.6	ug/m^3	1.91	-	-	Yes
cis-1,2-Dichloroethene	0.76	ug/m^3	1.91	-	U	Yes
Tetrahydrofuran	2.8	ug/m^3	1.91	-	U	Yes
Chloroform	0.93	ug/m^3	1.91	-	U	Yes
1,1,1-Trichloroethane	1.0	ug/m^3	1.91	-	U	Yes
Cyclohexane	0.66	ug/m^3	1.91	-	U	Yes
Carbon Tetrachloride	0.34	ug/m^3	1.91	J	J	Yes
2,2,4-Trimethylpentane	4.5	ug/m^3	1.91	-	U	Yes
Benzene	0.48	ug/m^3	1.91	J	J	Yes
1,2-Dichloroethane	0.77	ug/m^3	1.91	-	UJ	Yes
Heptane	0.20	ug/m^3	1.91	J	J	Yes
Trichloroethene	1.0	ug/m^3	1.91	-	U	Yes
1,2-Dichloropropane	0.88	ug/m^3	1.91	-	U	Yes
1,4-Dioxane	0.25	ug/m^3	1.91	J	J	Yes
Bromodichloromethane	1.3	ug/m^3	1.91	-	U	Yes
cis-1,3-Dichloropropene	0.87	ug/m^3	1.91	-	U	Yes
4-Methyl-2-pentanone	0.48	ug/m^3	1.91	J	J	Yes
Toluene	2.5	ug/m^3	1.91	-	-	Yes

trans-1,3-Dichloropropene	0.87	ug/m^3	1.91	-	U	Yes
1,1,2-Trichloroethane	1.0	ug/m^3	1.91	-	U	Yes
Tetrachloroethene	1.3	ug/m^3	1.91	-	U	Yes
2-Hexanone	3.9	ug/m^3	1.91	-	U	Yes
Dibromochloromethane	1.6	ug/m^3	1.91	-	U	Yes
1,2-Dibromoethane (EDB)	1.5	ug/m^3	1.91	-	U	Yes
Chlorobenzene	0.88	ug/m^3	1.91	-	U	Yes
Ethyl Benzene	0.37	ug/m^3	1.91	J	J	Yes
m,p-Xylene	0.99	ug/m^3	1.91	-	-	Yes
o-Xylene	0.32	ug/m^3	1.91	J	J	Yes
Styrene	0.43	ug/m^3	1.91	J	J	Yes
Bromoform	2	ug/m^3	1.91	-	U	Yes
Cumene	0.94	ug/m^3	1.91	-	U	Yes
1,1,2,2-Tetrachloroethane	0.24	ug/m^3	1.91	J	J	Yes
Propylbenzene	0.94	ug/m^3	1.91	-	U	Yes
4-Ethyltoluene	0.94	ug/m^3	1.91	-	U	Yes
1,3,5-Trimethylbenzene	0.94	ug/m^3	1.91	-	U	Yes
1,2,4-Trimethylbenzene	0.22	ug/m^3	1.91	J	J	Yes
1,3-Dichlorobenzene	1.1	ug/m^3	1.91	-	U	Yes
1,4-Dichlorobenzene	0.40	ug/m^3	1.91	J	J	Yes
alpha-Chlorotoluene	0.30	ug/m^3	1.91	J	J	Yes
1,2-Dichlorobenzene	1.1	ug/m^3	1.91	-	U	Yes
1,2,4-Trichlorobenzene	0.58	ug/m^3	1.91	J	J	Yes
Hexachlorobutadiene	10	ug/m^3	1.91	-	U	Yes
Naphthalene	0.22	ug/m^3	1.91	J	J	Yes

Sample ID: 1701428A-04A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.7	ug/m^3	1.61	-	-	Yes
Freon 114	1.1	ug/m^3	1.61	-	U	Yes
Chloromethane	2.0	ug/m^3	1.61	-	-	Yes
Vinyl Chloride	0.41	ug/m^3	1.61	-	U	Yes
1,3-Butadiene	0.36	ug/m^3	1.61	-	U	Yes
Bromomethane	3.1	ug/m^3	1.61	-	U	Yes
Chloroethane	2.1	ug/m^3	1.61	-	U	Yes
Freon 11	1.8	ug/m^3	1.61	-	-	Yes
Ethanol	49	ug/m^3	1.61	-	-	Yes
Freon 113	0.66	ug/m^3	1.61	J	J	Yes
1,1-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Acetone	42	ug/m^3	1.61	-	-	Yes
2-Propanol	58	ug/m^3	1.61	-	-	Yes
Carbon Disulfide	0.27	ug/m^3	1.61	J	J	Yes
3-Chloropropene	2.5	ug/m^3	1.61	-	U	Yes
Methylene Chloride	1.1	ug/m^3	1.61	J	U	Yes
Methyl tert-butyl ether	0.58	ug/m^3	1.61	-	U	Yes
trans-1,2-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Hexane	0.32	ug/m^3	1.61	J	J	Yes
1,1-Dichloroethane	0.65	ug/m^3	1.61	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	9.7	ug/m^3	1.61	-	-	Yes
cis-1,2-Dichloroethene	0.64	ug/m^3	1.61	-	U	Yes
Tetrahydrofuran	2.4	ug/m^3	1.61	-	U	Yes
Chloroform	0.17	ug/m^3	1.61	J	J	Yes
1,1,1-Trichloroethane	0.88	ug/m^3	1.61	-	U	Yes
Cyclohexane	0.11	ug/m^3	1.61	J	J	Yes
Carbon Tetrachloride	0.45	ug/m^3	1.61	J	J	Yes
2,2,4-Trimethylpentane	3.8	ug/m^3	1.61	-	U	Yes
Benzene	0.46	ug/m^3	1.61	J	J	Yes
1,2-Dichloroethane	0.34	ug/m^3	1.61	J	J	Yes
Heptane	0.38	ug/m^3	1.61	J	J	Yes
Trichloroethene	0.86	ug/m^3	1.61	-	U	Yes
1,2-Dichloropropane	0.74	ug/m^3	1.61	-	U	Yes
1,4-Dioxane	0.58	ug/m^3	1.61	-	U	Yes
Bromodichloromethane	1.1	ug/m^3	1.61	-	U	Yes
cis-1,3-Dichloropropene	0.73	ug/m^3	1.61	-	U	Yes
4-Methyl-2-pentanone	0.52	ug/m^3	1.61	J	J	Yes
Toluene	2.2	ug/m^3	1.61	-	-	Yes

trans-1,3-Dichloropropene	0.73	ug/m^3	1.61	-	U	Yes
1,1,2-Trichloroethane	0.88	ug/m^3	1.61	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.61	-	U	Yes
2-Hexanone	1.0	ug/m^3	1.61	J	J	Yes
Dibromochloromethane	1.4	ug/m^3	1.61	-	U	Yes
1,2-Dibromoethane (EDB)	1.2	ug/m^3	1.61	-	U	Yes
Chlorobenzene	0.74	ug/m^3	1.61	-	U	Yes
Ethyl Benzene	0.23	ug/m^3	1.61	J	J	Yes
m,p-Xylene	0.73	ug/m^3	1.61	-	-	Yes
o-Xylene	0.30	ug/m^3	1.61	J	J	Yes
Styrene	0.38	ug/m^3	1.61	J	J	Yes
Bromoform	1.7	ug/m^3	1.61	-	U	Yes
Cumene	0.79	ug/m^3	1.61	-	U	Yes
1,1,2,2-Tetrachloroethane	1.1	ug/m^3	1.61	-	U	Yes
Propylbenzene	0.79	ug/m^3	1.61	-	U	Yes
4-Ethyltoluene	0.26	ug/m^3	1.61	J	J	Yes
1,3,5-Trimethylbenzene	0.16	ug/m^3	1.61	J	J	Yes
1,2,4-Trimethylbenzene	0.48	ug/m^3	1.61	J	J	Yes
1,3-Dichlorobenzene	0.97	ug/m^3	1.61	-	U	Yes
1,4-Dichlorobenzene	0.34	ug/m^3	1.61	J	J	Yes
alpha-Chlorotoluene	0.83	ug/m^3	1.61	-	U	Yes
1,2-Dichlorobenzene	0.97	ug/m^3	1.61	-	U	Yes
1,2,4-Trichlorobenzene	0.30	ug/m^3	1.61	J	J	Yes
Hexachlorobutadiene	8.6	ug/m^3	1.61	-	U	Yes
Naphthalene	0.31	ug/m^3	1.61	J	J	Yes

Sample ID: 1701428A-05A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.8	ug/m^3	1.68	-	-	Yes
Freon 114	1.2	ug/m^3	1.68	-	U	Yes
Chloromethane	2.0	ug/m^3	1.68	-	-	Yes
Vinyl Chloride	0.43	ug/m^3	1.68	-	U	Yes
1,3-Butadiene	0.37	ug/m^3	1.68	-	U	Yes
Bromomethane	3.3	ug/m^3	1.68	-	U	Yes
Chloroethane	2.2	ug/m^3	1.68	-	U	Yes
Freon 11	2.2	ug/m^3	1.68	-	-	Yes
Ethanol	90	ug/m^3	1.68	-	-	Yes
Freon 113	0.62	ug/m^3	1.68	J	J	Yes
1,1-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Acetone	43	ug/m^3	1.68	-	-	Yes
2-Propanol	58	ug/m^3	1.68	-	-	Yes
Carbon Disulfide	0.69	ug/m^3	1.68	J	J	Yes
3-Chloropropene	2.6	ug/m^3	1.68	-	U	Yes
Methylene Chloride	1.2	ug/m^3	1.68	J	U	Yes
Methyl tert-butyl ether	0.60	ug/m^3	1.68	-	U	Yes
trans-1,2-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Hexane	0.26	ug/m^3	1.68	J	J	Yes
1,1-Dichloroethane	0.68	ug/m^3	1.68	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	9.0	ug/m^3	1.68	-	-	Yes
cis-1,2-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Tetrahydrofuran	2.5	ug/m^3	1.68	-	U	Yes
Chloroform	0.18	ug/m^3	1.68	J	J	Yes
1,1,1-Trichloroethane	0.92	ug/m^3	1.68	-	U	Yes
Cyclohexane	0.13	ug/m^3	1.68	J	J	Yes
Carbon Tetrachloride	0.40	ug/m^3	1.68	J	J	Yes
2,2,4-Trimethylpentane	3.9	ug/m^3	1.68	-	U	Yes
Benzene	0.43	ug/m^3	1.68	J	J	Yes
1,2-Dichloroethane	0.39	ug/m^3	1.68	J	J	Yes
Heptane	0.54	ug/m^3	1.68	J	J	Yes
Trichloroethene	0.9	ug/m^3	1.68	-	U	Yes
1,2-Dichloropropane	0.78	ug/m^3	1.68	-	U	Yes
1,4-Dioxane	0.60	ug/m^3	1.68	-	U	Yes
Bromodichloromethane	1.1	ug/m^3	1.68	-	U	Yes
cis-1,3-Dichloropropene	0.76	ug/m^3	1.68	-	U	Yes
4-Methyl-2-pentanone	0.58	ug/m^3	1.68	J	J	Yes
Toluene	2.2	ug/m^3	1.68	-	-	Yes

trans-1,3-Dichloropropene	0.76	ug/m^3	1.68	-	U	Yes
1,1,2-Trichloroethane	0.92	ug/m^3	1.68	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.68	-	U	Yes
2-Hexanone	1.1	ug/m^3	1.68	J	J	Yes
Dibromochloromethane	1.4	ug/m^3	1.68	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.68	-	U	Yes
Chlorobenzene	0.77	ug/m^3	1.68	-	U	Yes
Ethyl Benzene	0.27	ug/m^3	1.68	J	J	Yes
m,p-Xylene	0.60	ug/m^3	1.68	J	J	Yes
o-Xylene	0.25	ug/m^3	1.68	J	J	Yes
Styrene	0.36	ug/m^3	1.68	J	J	Yes
Bromoform	1.7	ug/m^3	1.68	-	U	Yes
Cumene	0.82	ug/m^3	1.68	-	U	Yes
1,1,2,2-Tetrachloroethane	1.2	ug/m^3	1.68	-	U	Yes
Propylbenzene	0.82	ug/m^3	1.68	-	U	Yes
4-Ethyltoluene	0.18	ug/m^3	1.68	J	J	Yes
1,3,5-Trimethylbenzene	0.82	ug/m^3	1.68	-	U	Yes
1,2,4-Trimethylbenzene	0.20	ug/m^3	1.68	J	J	Yes
1,3-Dichlorobenzene	1.0	ug/m^3	1.68	-	U	Yes
1,4-Dichlorobenzene	0.28	ug/m^3	1.68	J	J	Yes
alpha-Chlorotoluene	0.87	ug/m^3	1.68	-	U	Yes
1,2-Dichlorobenzene	1.0	ug/m^3	1.68	-	U	Yes
1,2,4-Trichlorobenzene	6.2	ug/m^3	1.68	-	U	Yes
Hexachlorobutadiene	9.0	ug/m^3	1.68	-	U	Yes
Naphthalene	0.12	ug/m^3	1.68	J	J	Yes

Sample ID: 1701428A-06A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.4	ug/m^3	1.64	-	-	Yes
Freon 114	1.1	ug/m^3	1.64	-	U	Yes
Chloromethane	2.4	ug/m^3	1.64	-	-	Yes
Vinyl Chloride	0.42	ug/m^3	1.64	-	U	Yes
1,3-Butadiene	0.36	ug/m^3	1.64	-	U	Yes
Bromomethane	3.2	ug/m^3	1.64	-	U	Yes
Chloroethane	2.2	ug/m^3	1.64	-	U	Yes
Freon 11	2.2	ug/m^3	1.64	-	-	Yes
Ethanol	80	ug/m^3	1.64	-	-	Yes
Freon 113	0.63	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Acetone	27	ug/m^3	1.64	-	-	Yes
2-Propanol	40	ug/m^3	1.64	-	-	Yes
Carbon Disulfide	0.28	ug/m^3	1.64	J	J	Yes
3-Chloropropene	2.6	ug/m^3	1.64	-	U	Yes
Methylene Chloride	1.1	ug/m^3	1.64	J	U	Yes
Methyl tert-butyl ether	0.59	ug/m^3	1.64	-	U	Yes
trans-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Hexane	0.24	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethane	0.66	ug/m^3	1.64	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	3.1	ug/m^3	1.64	-	-	Yes
cis-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Tetrahydrofuran	2.4	ug/m^3	1.64	-	U	Yes
Chloroform	0.18	ug/m^3	1.64	J	J	Yes
1,1,1-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Cyclohexane	0.10	ug/m^3	1.64	J	J	Yes
Carbon Tetrachloride	0.40	ug/m^3	1.64	J	J	Yes
2,2,4-Trimethylpentane	3.8	ug/m^3	1.64	-	U	Yes
Benzene	0.68	ug/m^3	1.64	-	-	Yes
1,2-Dichloroethane	0.30	ug/m^3	1.64	J	J	Yes
Heptane	0.67	ug/m^3	1.64	-	U	Yes
Trichloroethene	0.88	ug/m^3	1.64	-	U	Yes
1,2-Dichloropropane	0.76	ug/m^3	1.64	-	U	Yes
1,4-Dioxane	0.24	ug/m^3	1.64	J	J	Yes
Bromodichloromethane	1.1	ug/m^3	1.64	-	U	Yes
cis-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
4-Methyl-2-pentanone	0.43	ug/m^3	1.64	J	J	Yes
Toluene	3.4	ug/m^3	1.64	-	-	Yes

trans-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
1,1,2-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.64	-	U	Yes
2-Hexanone	3.4	ug/m^3	1.64	-	U	Yes
Dibromochloromethane	1.4	ug/m^3	1.64	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.64	-	U	Yes
Chlorobenzene	0.76	ug/m^3	1.64	-	U	Yes
Ethyl Benzene	0.78	ug/m^3	1.64	-	-	Yes
m,p-Xylene	2.8	ug/m^3	1.64	-	-	Yes
o-Xylene	2.4	ug/m^3	1.64	-	-	Yes
Styrene	0.78	ug/m^3	1.64	-	-	Yes
Bromoform	1.7	ug/m^3	1.64	-	U	Yes
Cumene	0.45	ug/m^3	1.64	J	J	Yes
1,1,2,2-Tetrachloroethane	1.1	ug/m^3	1.64	-	U	Yes
Propylbenzene	1.8	ug/m^3	1.64	-	-	Yes
4-Ethyltoluene	20	ug/m^3	1.64	-	-	Yes
1,3,5-Trimethylbenzene	8.1	ug/m^3	1.64	-	-	Yes
1,2,4-Trimethylbenzene	32	ug/m^3	1.64	-	-	Yes
1,3-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,4-Dichlorobenzene	0.37	ug/m^3	1.64	J	J	Yes
alpha-Chlorotoluene	0.85	ug/m^3	1.64	-	U	Yes
1,2-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,2,4-Trichlorobenzene	6.1	ug/m^3	1.64	-	U	Yes
Hexachlorobutadiene	8.7	ug/m^3	1.64	-	U	Yes
Naphthalene	3.4	ug/m^3	1.64	J	J	Yes

Sample ID: 1701428A-07A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.9	ug/m^3	1.64	-	-	Yes
Freon 114	1.1	ug/m^3	1.64	-	U	Yes
Chloromethane	2.4	ug/m^3	1.64	-	-	Yes
Vinyl Chloride	0.42	ug/m^3	1.64	-	U	Yes
1,3-Butadiene	0.36	ug/m^3	1.64	-	U	Yes
Bromomethane	3.2	ug/m^3	1.64	-	U	Yes
Chloroethane	2.2	ug/m^3	1.64	-	U	Yes
Freon 11	2.2	ug/m^3	1.64	-	-	Yes
Ethanol	3.6	ug/m^3	1.64	-	-	Yes
Freon 113	0.67	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Acetone	22	ug/m^3	1.64	-	-	Yes
2-Propanol	4.9	ug/m^3	1.64	-	-	Yes
Carbon Disulfide	2.9	ug/m^3	1.64	-	-	Yes
3-Chloropropene	2.6	ug/m^3	1.64	-	U	Yes
Methylene Chloride	0.60	ug/m^3	1.64	J	J	Yes
Methyl tert-butyl ether	0.59	ug/m^3	1.64	-	U	Yes
trans-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Hexane	0.55	ug/m^3	1.64	J	J	Yes
1,1-Dichloroethane	0.66	ug/m^3	1.64	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	3.0	ug/m^3	1.64	-	-	Yes
cis-1,2-Dichloroethene	0.65	ug/m^3	1.64	-	U	Yes
Tetrahydrofuran	2.4	ug/m^3	1.64	-	U	Yes
Chloroform	0.80	ug/m^3	1.64	-	U	Yes
1,1,1-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Cyclohexane	0.56	ug/m^3	1.64	-	U	Yes
Carbon Tetrachloride	1.1	ug/m^3	1.64	-	-	Yes
2,2,4-Trimethylpentane	3.8	ug/m^3	1.64	-	U	Yes
Benzene	0.60	ug/m^3	1.64	-	-	Yes
1,2-Dichloroethane	0.66	ug/m^3	1.64	-	UJ	Yes
Heptane	0.63	ug/m^3	1.64	J	J	Yes
Trichloroethene	0.88	ug/m^3	1.64	-	U	Yes
1,2-Dichloropropane	0.76	ug/m^3	1.64	-	U	Yes
1,4-Dioxane	0.59	ug/m^3	1.64	-	U	Yes
Bromodichloromethane	1.1	ug/m^3	1.64	-	U	Yes
cis-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
4-Methyl-2-pentanone	0.30	ug/m^3	1.64	J	J	Yes
Toluene	1.6	ug/m^3	1.64	-	-	Yes

trans-1,3-Dichloropropene	0.74	ug/m^3	1.64	-	U	Yes
1,1,2-Trichloroethane	0.89	ug/m^3	1.64	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.64	-	U	Yes
2-Hexanone	0.80	ug/m^3	1.64	J	J	Yes
Dibromochloromethane	1.4	ug/m^3	1.64	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.64	-	U	Yes
Chlorobenzene	0.76	ug/m^3	1.64	-	U	Yes
Ethyl Benzene	0.22	ug/m^3	1.64	J	J	Yes
m,p-Xylene	0.61	ug/m^3	1.64	J	J	Yes
o-Xylene	0.25	ug/m^3	1.64	J	J	Yes
Styrene	0.16	ug/m^3	1.64	J	J	Yes
Bromoform	1.7	ug/m^3	1.64	-	U	Yes
Cumene	0.81	ug/m^3	1.64	-	U	Yes
1,1,2,2-Tetrachloroethane	1.1	ug/m^3	1.64	-	U	Yes
Propylbenzene	0.81	ug/m^3	1.64	-	U	Yes
4-Ethyltoluene	0.60	ug/m^3	1.64	J	J	Yes
1,3,5-Trimethylbenzene	0.32	ug/m^3	1.64	J	J	Yes
1,2,4-Trimethylbenzene	0.55	ug/m^3	1.64	J	J	Yes
1,3-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,4-Dichlorobenzene	0.20	ug/m^3	1.64	J	J	Yes
alpha-Chlorotoluene	0.85	ug/m^3	1.64	-	U	Yes
1,2-Dichlorobenzene	0.99	ug/m^3	1.64	-	U	Yes
1,2,4-Trichlorobenzene	6.1	ug/m^3	1.64	-	U	Yes
Hexachlorobutadiene	8.7	ug/m^3	1.64	-	U	Yes
Naphthalene	2.7	ug/m^3	1.64	J	J	Yes

Sample ID: 1701428A-08A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.8	ug/m^3	1.79	-	-	Yes
Freon 114	1.2	ug/m^3	1.79	-	U	Yes
Chloromethane	2.3	ug/m^3	1.79	-	-	Yes
Vinyl Chloride	0.46	ug/m^3	1.79	-	U	Yes
1,3-Butadiene	0.40	ug/m^3	1.79	-	U	Yes
Bromomethane	3.5	ug/m^3	1.79	-	U	Yes
Chloroethane	2.4	ug/m^3	1.79	-	U	Yes
Freon 11	16	ug/m^3	1.79	-	-	Yes
Ethanol	120	ug/m^3	1.79	-	-	Yes
Freon 113	0.50	ug/m^3	1.79	J	J	Yes
1,1-Dichloroethene	0.71	ug/m^3	1.79	-	U	Yes
Acetone	380	ug/m^3	1.79	E	J	Yes
2-Propanol	7.8	ug/m^3	1.79	-	-	Yes
Carbon Disulfide	0.29	ug/m^3	1.79	J	J	Yes
3-Chloropropene	2.8	ug/m^3	1.79	-	U	Yes
Methylene Chloride	0.89	ug/m^3	1.79	J	J	Yes
Methyl tert-butyl ether	0.64	ug/m^3	1.79	-	U	Yes
trans-1,2-Dichloroethene	0.71	ug/m^3	1.79	-	U	Yes
Hexane	0.45	ug/m^3	1.79	J	J	Yes
1,1-Dichloroethane	0.72	ug/m^3	1.79	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	6.8	ug/m^3	1.79	-	-	Yes
cis-1,2-Dichloroethene	0.71	ug/m^3	1.79	-	U	Yes
Tetrahydrofuran	2.6	ug/m^3	1.79	-	U	Yes
Chloroform	0.32	ug/m^3	1.79	J	J	Yes
1,1,1-Trichloroethane	0.98	ug/m^3	1.79	-	U	Yes
Cyclohexane	0.20	ug/m^3	1.79	J	J	Yes
Carbon Tetrachloride	0.5	ug/m^3	1.79	J	J	Yes
2,2,4-Trimethylpentane	4.2	ug/m^3	1.79	-	U	Yes
Benzene	0.62	ug/m^3	1.79	-	-	Yes
1,2-Dichloroethane	6.20	ug/m^3	1.79	JO	J	Yes
Heptane	0.45	ug/m^3	1.79	J	J	Yes
Trichloroethene	2.8	ug/m^3	1.79	-	-	Yes
1,2-Dichloropropane	0.83	ug/m^3	1.79	-	U	Yes
1,4-Dioxane	0.64	ug/m^3	1.79	-	U	Yes
Bromodichloromethane	1.2	ug/m^3	1.79	-	U	Yes
cis-1,3-Dichloropropene	0.81	ug/m^3	1.79	-	U	Yes
4-Methyl-2-pentanone	1.30	ug/m^3	1.79	JO	J	Yes
Toluene	9.6	ug/m^3	1.79	-	-	Yes

trans-1,3-Dichloropropene	0.81	ug/m^3	1.79	-	U	Yes
1,1,2-Trichloroethane	0.98	ug/m^3	1.79	-	U	Yes
Tetrachloroethene	1.2	ug/m^3	1.79	-	U	Yes
2-Hexanone	0.90	ug/m^3	1.79	J	J	Yes
Dibromochloromethane	1.5	ug/m^3	1.79	-	U	Yes
1,2-Dibromoethane (EDB)	1.4	ug/m^3	1.79	-	U	Yes
Chlorobenzene	0.82	ug/m^3	1.79	-	U	Yes
Ethyl Benzene	1.0	ug/m^3	1.79	-	-	Yes
m,p-Xylene	2.2	ug/m^3	1.79	-	-	Yes
o-Xylene	1.2	ug/m^3	1.79	-	-	Yes
Styrene	0.40	ug/m^3	1.79	J	J	Yes
Bromoform	1.8	ug/m^3	1.79	-	U	Yes
Cumene	0.88	ug/m^3	1.79	-	U	Yes
1,1,2,2-Tetrachloroethane	1.2	ug/m^3	1.79	-	U	Yes
Propylbenzene	0.88	ug/m^3	1.79	-	U	Yes
4-Ethyltoluene	0.46	ug/m^3	1.79	J	J	Yes
1,3,5-Trimethylbenzene	0.88	ug/m^3	1.79	-	U	Yes
1,2,4-Trimethylbenzene	0.55	ug/m^3	1.79	J	J	Yes
1,3-Dichlorobenzene	1.1	ug/m^3	1.79	-	U	Yes
1,4-Dichlorobenzene	0.27	ug/m^3	1.79	J	J	Yes
alpha-Chlorotoluene	0.93	ug/m^3	1.79	-	U	Yes
1,2-Dichlorobenzene	1.1	ug/m^3	1.79	-	U	Yes
1,2,4-Trichlorobenzene	6.6	ug/m^3	1.79	-	U	Yes
Hexachlorobutadiene	9.5	ug/m^3	1.79	-	U	Yes
Naphthalene	0.17	ug/m^3	1.79	J	J	Yes

Sample ID: 1701428A-09A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	3.0	ug/m^3	1.68	-	-	Yes
Freon 114	1.2	ug/m^3	1.68	-	U	Yes
Chloromethane	2.6	ug/m^3	1.68	-	-	Yes
Vinyl Chloride	0.43	ug/m^3	1.68	-	U	Yes
1,3-Butadiene	0.37	ug/m^3	1.68	-	U	Yes
Bromomethane	3.3	ug/m^3	1.68	-	U	Yes
Chloroethane	2.2	ug/m^3	1.68	-	U	Yes
Freon 11	17	ug/m^3	1.68	-	-	Yes
Ethanol	130	ug/m^3	1.68	-	-	Yes
Freon 113	0.53	ug/m^3	1.68	J	J	Yes
1,1-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Acetone	390	ug/m^3	1.68	E	J	Yes
2-Propanol	10	ug/m^3	1.68	-	-	Yes
Carbon Disulfide	0.38	ug/m^3	1.68	J	J	Yes
3-Chloropropene	2.6	ug/m^3	1.68	-	U	Yes
Methylene Chloride	0.96	ug/m^3	1.68	J	J	Yes
Methyl tert-butyl ether	0.60	ug/m^3	1.68	-	U	Yes
trans-1,2-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Hexane	0.55	ug/m^3	1.68	J	J	Yes
1,1-Dichloroethane	0.68	ug/m^3	1.68	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	5.0	ug/m^3	1.68	-	-	Yes
cis-1,2-Dichloroethene	0.67	ug/m^3	1.68	-	U	Yes
Tetrahydrofuran	2.5	ug/m^3	1.68	-	U	Yes
Chloroform	0.34	ug/m^3	1.68	J	J	Yes
1,1,1-Trichloroethane	0.92	ug/m^3	1.68	-	U	Yes
Cyclohexane	0.30	ug/m^3	1.68	J	J	Yes
Carbon Tetrachloride	0.50	ug/m^3	1.68	J	J	Yes
2,2,4-Trimethylpentane	3.9	ug/m^3	1.68	-	U	Yes
Benzene	0.74	ug/m^3	1.68	-	-	Yes
1,2-Dichloroethane	7.40	ug/m^3	1.68	JO	J	Yes
Heptane	0.52	ug/m^3	1.68	J	J	Yes
Trichloroethene	2.8	ug/m^3	1.68	-	-	Yes
1,2-Dichloropropane	0.78	ug/m^3	1.68	-	U	Yes
1,4-Dioxane	0.60	ug/m^3	1.68	-	U	Yes
Bromodichloromethane	1.1	ug/m^3	1.68	-	U	Yes
cis-1,3-Dichloropropene	0.76	ug/m^3	1.68	-	U	Yes
4-Methyl-2-pentanone	1.20	ug/m^3	1.68	JO	J	Yes
Toluene	12	ug/m^3	1.68	-	-	Yes

trans-1,3-Dichloropropene	0.76	ug/m^3	1.68	-	U	Yes
1,1,2-Trichloroethane	0.92	ug/m^3	1.68	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.68	-	U	Yes
2-Hexanone	0.62	ug/m^3	1.68	J	J	Yes
Dibromochloromethane	1.4	ug/m^3	1.68	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.68	-	U	Yes
Chlorobenzene	0.77	ug/m^3	1.68	-	U	Yes
Ethyl Benzene	1.1	ug/m^3	1.68	-	-	Yes
m,p-Xylene	2.5	ug/m^3	1.68	-	-	Yes
o-Xylene	0.97	ug/m^3	1.68	-	-	Yes
Styrene	0.37	ug/m^3	1.68	J	J	Yes
Bromoform	1.7	ug/m^3	1.68	-	U	Yes
Cumene	0.82	ug/m^3	1.68	-	U	Yes
1,1,2,2-Tetrachloroethane	1.2	ug/m^3	1.68	-	U	Yes
Propylbenzene	0.82	ug/m^3	1.68	-	U	Yes
4-Ethyltoluene	0.50	ug/m^3	1.68	J	J	Yes
1,3,5-Trimethylbenzene	0.21	ug/m^3	1.68	J	J	Yes
1,2,4-Trimethylbenzene	0.59	ug/m^3	1.68	J	J	Yes
1,3-Dichlorobenzene	1.0	ug/m^3	1.68	-	U	Yes
1,4-Dichlorobenzene	0.27	ug/m^3	1.68	J	J	Yes
alpha-Chlorotoluene	0.87	ug/m^3	1.68	-	U	Yes
1,2-Dichlorobenzene	1.0	ug/m^3	1.68	-	U	Yes
1,2,4-Trichlorobenzene	6.2	ug/m^3	1.68	-	U	Yes
Hexachlorobutadiene	9.0	ug/m^3	1.68	-	U	Yes
Naphthalene	0.13	ug/m^3	1.68	J	J	Yes

Sample ID: 1701428A-10A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.8	ug/m^3	1.75	-	-	Yes
Freon 114	1.2	ug/m^3	1.75	-	U	Yes
Chloromethane	2.5	ug/m^3	1.75	-	-	Yes
Vinyl Chloride	0.45	ug/m^3	1.75	-	U	Yes
1,3-Butadiene	0.39	ug/m^3	1.75	-	U	Yes
Bromomethane	3.4	ug/m^3	1.75	-	U	Yes
Chloroethane	2.3	ug/m^3	1.75	-	U	Yes
Freon 11	24	ug/m^3	1.75	-	-	Yes
Ethanol	77	ug/m^3	1.75	-	-	Yes
Freon 113	0.55	ug/m^3	1.75	J	J	Yes
1,1-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Acetone	660	ug/m^3	1.75	E	J	Yes
2-Propanol	10	ug/m^3	1.75	-	-	Yes
Carbon Disulfide	0.37	ug/m^3	1.75	J	J	Yes
3-Chloropropene	2.7	ug/m^3	1.75	-	U	Yes
Methylene Chloride	1.10	ug/m^3	1.75	J	J	Yes
Methyl tert-butyl ether	0.63	ug/m^3	1.75	-	U	Yes
trans-1,2-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Hexane	0.44	ug/m^3	1.75	J	J	Yes
1,1-Dichloroethane	0.71	ug/m^3	1.75	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	6.2	ug/m^3	1.75	-	-	Yes
cis-1,2-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Tetrahydrofuran	2.6	ug/m^3	1.75	-	U	Yes
Chloroform	0.35	ug/m^3	1.75	J	J	Yes
1,1,1-Trichloroethane	0.95	ug/m^3	1.75	-	U	Yes
Cyclohexane	0.22	ug/m^3	1.75	J	J	Yes
Carbon Tetrachloride	0.47	ug/m^3	1.75	J	J	Yes
2,2,4-Trimethylpentane	4.1	ug/m^3	1.75	-	U	Yes
Benzene	0.55	ug/m^3	1.75	J	J	Yes
1,2-Dichloroethane	4.5	ug/m^3	1.75	JO	J	Yes
Heptane	0.47	ug/m^3	1.75	J	J	Yes
Trichloroethene	2.6	ug/m^3	1.75	-	-	Yes
1,2-Dichloropropane	0.81	ug/m^3	1.75	-	U	Yes
1,4-Dioxane	0.63	ug/m^3	1.75	-	U	Yes
Bromodichloromethane	1.2	ug/m^3	1.75	-	U	Yes
cis-1,3-Dichloropropene	0.79	ug/m^3	1.75	-	U	Yes
4-Methyl-2-pentanone	0.62	ug/m^3	1.75	J	J	Yes
Toluene	10	ug/m^3	1.75	-	-	Yes

trans-1,3-Dichloropropene	0.79	ug/m^3	1.75	-	U	Yes
1,1,2-Trichloroethane	0.95	ug/m^3	1.75	-	U	Yes
Tetrachloroethene	1.2	ug/m^3	1.75	-	U	Yes
2-Hexanone	1.7	ug/m^3	1.75	J	J	Yes
Dibromochloromethane	1.5	ug/m^3	1.75	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.75	-	U	Yes
Chlorobenzene	0.80	ug/m^3	1.75	-	U	Yes
Ethyl Benzene	0.60	ug/m^3	1.75	J	J	Yes
m,p-Xylene	1.7	ug/m^3	1.75	-	-	Yes
o-Xylene	0.68	ug/m^3	1.75	J	J	Yes
Styrene	0.31	ug/m^3	1.75	J	J	Yes
Bromoform	1.8	ug/m^3	1.75	-	U	Yes
Cumene	0.86	ug/m^3	1.75	-	U	Yes
1,1,2,2-Tetrachloroethane	1.2	ug/m^3	1.75	-	U	Yes
Propylbenzene	0.86	ug/m^3	1.75	-	U	Yes
4-Ethyltoluene	0.26	ug/m^3	1.75	J	J	Yes
1,3,5-Trimethylbenzene	0.86	ug/m^3	1.75	-	U	Yes
1,2,4-Trimethylbenzene	0.33	ug/m^3	1.75	J	J	Yes
1,3-Dichlorobenzene	1.0	ug/m^3	1.75	-	U	Yes
1,4-Dichlorobenzene	0.26	ug/m^3	1.75	J	J	Yes
alpha-Chlorotoluene	0.90	ug/m^3	1.75	-	U	Yes
1,2-Dichlorobenzene	1.0	ug/m^3	1.75	-	U	Yes
1,2,4-Trichlorobenzene	6.5	ug/m^3	1.75	-	U	Yes
Hexachlorobutadiene	9.3	ug/m^3	1.75	-	U	Yes
Naphthalene	0.2	ug/m^3	1.75	J	J	Yes

Sample ID: 1701428A-11A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.4	ug/m^3	1.58	-	-	Yes
Freon 114	1.1	ug/m^3	1.58	-	U	Yes
Chloromethane	1.9	ug/m^3	1.58	-	-	Yes
Vinyl Chloride	0.40	ug/m^3	1.58	-	U	Yes
1,3-Butadiene	0.35	ug/m^3	1.58	-	U	Yes
Bromomethane	3.1	ug/m^3	1.58	J	U	Yes
Chloroethane	2.1	ug/m^3	1.58	-	U	Yes
Freon 11	3.2	ug/m^3	1.58	-	-	Yes
Ethanol	22	ug/m^3	1.58	-	J	Yes
Freon 113	0.58	ug/m^3	1.58	J	J	Yes
1,1-Dichloroethene	0.63	ug/m^3	1.58	-	U	Yes
Acetone	22	ug/m^3	1.58	-	-	Yes
2-Propanol	4.7	ug/m^3	1.58	-	-	Yes
Carbon Disulfide	2.5	ug/m^3	1.58	J	U	Yes
3-Chloropropene	2.5	ug/m^3	1.58	-	U	Yes
Methylene Chloride	0.27	ug/m^3	1.58	J	J	Yes
Methyl tert-butyl ether	0.57	ug/m^3	1.58	-	U	Yes
trans-1,2-Dichloroethene	0.63	ug/m^3	1.58	-	U	Yes
Hexane	0.67	ug/m^3	1.58	-	-	Yes
1,1-Dichloroethane	0.64	ug/m^3	1.58	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	3.4	ug/m^3	1.58	-	-	Yes
cis-1,2-Dichloroethene	0.63	ug/m^3	1.58	-	U	Yes
Tetrahydrofuran	2.3	ug/m^3	1.58	-	U	Yes
Chloroform	0.17	ug/m^3	1.58	J	J	Yes
1,1,1-Trichloroethane	0.86	ug/m^3	1.58	-	U	Yes
Cyclohexane	0.22	ug/m^3	1.58	J	J	Yes
Carbon Tetrachloride	0.46	ug/m^3	1.58	J	J	Yes
2,2,4-Trimethylpentane	3.7	ug/m^3	1.58	-	U	Yes
Benzene	0.50	ug/m^3	1.58	-	U	Yes
1,2-Dichloroethane	0.35	ug/m^3	1.58	J	J	Yes
Heptane	0.65	ug/m^3	1.58	-	-	Yes
Trichloroethene	0.48	ug/m^3	1.58	J	J	Yes
1,2-Dichloropropane	0.73	ug/m^3	1.58	-	U	Yes
1,4-Dioxane	0.57	ug/m^3	1.58	-	U	Yes
Bromodichloromethane	1.0	ug/m^3	1.58	-	U	Yes
cis-1,3-Dichloropropene	0.72	ug/m^3	1.58	-	U	Yes
4-Methyl-2-pentanone	0.36	ug/m^3	1.58	J	J	Yes
Toluene	3.0	ug/m^3	1.58	-	-	Yes

trans-1,3-Dichloropropene	0.72	ug/m^3	1.58	-	U	Yes
1,1,2-Trichloroethane	0.86	ug/m^3	1.58	-	U	Yes
Tetrachloroethene	1.1	ug/m^3	1.58	-	U	Yes
2-Hexanone	3.2	ug/m^3	1.58	-	U	Yes
Dibromochloromethane	1.3	ug/m^3	1.58	-	U	Yes
1,2-Dibromoethane (EDB)	1.2	ug/m^3	1.58	-	U	Yes
Chlorobenzene	0.73	ug/m^3	1.58	-	U	Yes
Ethyl Benzene	0.43	ug/m^3	1.58	J	J	Yes
m,p-Xylene	1.1	ug/m^3	1.58	-	-	Yes
o-Xylene	0.53	ug/m^3	1.58	J	J	Yes
Styrene	0.21	ug/m^3	1.58	J	J	Yes
Bromoform	1.6	ug/m^3	1.58	-	U	Yes
Cumene	0.78	ug/m^3	1.58	-	U	Yes
1,1,2,2-Tetrachloroethane	1.1	ug/m^3	1.58	-	U	Yes
Propylbenzene	0.78	ug/m^3	1.58	-	U	Yes
4-Ethyltoluene	0.78	ug/m^3	1.58	J	U	Yes
1,3,5-Trimethylbenzene	0.78	ug/m^3	1.58	-	U	Yes
1,2,4-Trimethylbenzene	0.78	ug/m^3	1.58	J	U	Yes
1,3-Dichlorobenzene	0.95	ug/m^3	1.58	-	U	Yes
1,4-Dichlorobenzene	0.95	ug/m^3	1.58	J	U	Yes
alpha-Chlorotoluene	0.82	ug/m^3	1.58	-	U	Yes
1,2-Dichlorobenzene	0.95	ug/m^3	1.58	-	U	Yes
1,2,4-Trichlorobenzene	5.9	ug/m^3	1.58	-	U	Yes
Hexachlorobutadiene	8.4	ug/m^3	1.58	-	U	Yes
Naphthalene	4.1	ug/m^3	1.58	J	U	Yes

Sample ID: 1701428A-12A
Sample location: BMSMC, Humacao, PR
Sampling date: 21-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.0	ug/m^3	1.41	-	-	Yes
Freon 114	0.98	ug/m^3	1.41	-	U	Yes
Chloromethane	2.1	ug/m^3	1.41	-	-	Yes
Vinyl Chloride	0.28	ug/m^3	1.41	J	J	Yes
1,3-Butadiene	0.31	ug/m^3	1.41	-	U	Yes
Bromomethane	2.7	ug/m^3	1.41	-	U	Yes
Chloroethane	1.9	ug/m^3	1.41	-	U	Yes
Freon 11	11	ug/m^3	1.41	-	-	Yes
Ethanol	140	ug/m^3	1.41	E	J	Yes
Freon 113	0.40	ug/m^3	1.41	J	J	Yes
1,1-Dichloroethene	0.56	ug/m^3	1.41	-	U	Yes
Acetone	59	ug/m^3	1.41	-	-	Yes
2-Propanol	18	ug/m^3	1.41	-	-	Yes
Carbon Disulfide	2.2	ug/m^3	1.41	J	U	Yes
3-Chloropropene	2.2	ug/m^3	1.41	-	U	Yes
Methylene Chloride	0.51	ug/m^3	1.41	J	J	Yes
Methyl tert-butyl ether	0.51	ug/m^3	1.41	-	U	Yes
trans-1,2-Dichloroethene	0.56	ug/m^3	1.41	-	U	Yes
Hexane	1.1	ug/m^3	1.41	-	-	Yes
1,1-Dichloroethane	0.57	ug/m^3	1.41	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	8.1	ug/m^3	1.41	-	-	Yes
cis-1,2-Dichloroethene	0.56	ug/m^3	1.41	-	U	Yes
Tetrahydrofuran	2.1	ug/m^3	1.41	-	U	Yes
Chloroform	0.36	ug/m^3	1.41	J	J	Yes
1,1,1-Trichloroethane	0.77	ug/m^3	1.41	-	U	Yes
Cyclohexane	0.58	ug/m^3	1.41	-	-	Yes
Carbon Tetrachloride	0.58	ug/m^3	1.41	J	J	Yes
2,2,4-Trimethylpentane	0.51	ug/m^3	1.41	J	J	Yes
Benzene	0.45	ug/m^3	1.41	-	U	Yes
1,2-Dichloroethane	2.7	ug/m^3	1.41	-	-	Yes
Heptane	0.77	ug/m^3	1.41	-	-	Yes
Trichloroethene	2.4	ug/m^3	1.41	-	-	Yes
1,2-Dichloropropane	0.65	ug/m^3	1.41	-	U	Yes
1,4-Dioxane	0.22	ug/m^3	1.41	J	J	Yes
Bromodichloromethane	0.94	ug/m^3	1.41	-	U	Yes
cis-1,3-Dichloropropene	0.64	ug/m^3	1.41	-	U	Yes
4-Methyl-2-pentanone	1.0	ug/m^3	1.41	J	J	Yes
Toluene	20	ug/m^3	1.41	-	-	Yes

trans-1,3-Dichloropropene	0.64	ug/m^3	1.41	-	U	Yes
1,1,2-Trichloroethane	0.77	ug/m^3	1.41	-	U	Yes
Tetrachloroethene	0.96	ug/m^3	1.41	-	U	Yes
2-Hexanone	1.1	ug/m^3	1.41	J	J	Yes
Dibromochloromethane	1.2	ug/m^3	1.41	-	U	Yes
1,2-Dibromoethane (EDB)	1.1	ug/m^3	1.41	-	U	Yes
Chlorobenzene	0.65	ug/m^3	1.41	-	U	Yes
Ethyl Benzene	1.30	ug/m^3	1.41	-	-	Yes
m,p-Xylene	4.8	ug/m^3	1.41	-	-	Yes
o-Xylene	2.3	ug/m^3	1.41	-	-	Yes
Styrene	0.61	ug/m^3	1.41	-	-	Yes
Bromoform	1.4	ug/m^3	1.41	-	U	Yes
Cumene	0.69	ug/m^3	1.41	-	U	Yes
1,1,2,2-Tetrachloroethane	0.97	ug/m^3	1.41	-	U	Yes
Propylbenzene	0.20	ug/m^3	1.41	J	J	Yes
4-Ethyltoluene	0.69	ug/m^3	1.41	J	U	Yes
1,3,5-Trimethylbenzene	0.21	ug/m^3	1.41	J	J	Yes
1,2,4-Trimethylbenzene	0.69	ug/m^3	1.41	J	U	Yes
1,3-Dichlorobenzene	0.85	ug/m^3	1.41	-	U	Yes
1,4-Dichlorobenzene	0.85	ug/m^3	1.41	J	U	Yes
alpha-Chlorotoluene	0.73	ug/m^3	1.41	-	U	Yes
1,2-Dichlorobenzene	0.85	ug/m^3	1.41	-	U	Yes
1,2,4-Trichlorobenzene	5.2	ug/m^3	1.41	-	U	Yes
Hexachlorobutadiene	7.5	ug/m^3	1.41	-	U	Yes
Naphthalene	3.7	ug/m^3	1.41	J	U	Yes

Sample ID: 1701428A-13A
Sample location: BMSMC, Humacao, PR
Sampling date: 23-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.3	ug/m^3	1.75	-	-	Yes
Freon 114	1.2	ug/m^3	1.75	-	U	Yes
Chloromethane	1.8	ug/m^3	1.75	-	-	Yes
Vinyl Chloride	0.45	ug/m^3	1.75	-	U	Yes
1,3-Butadiene	0.39	ug/m^3	1.75	-	U	Yes
Bromomethane	3.4	ug/m^3	1.75	J	U	Yes
Chloroethane	2.3	ug/m^3	1.75	-	U	Yes
Freon 11	1.1	ug/m^3	1.75	-	-	Yes
Ethanol	8.6	ug/m^3	1.75	-	J	Yes
Freon 113	0.51	ug/m^3	1.75	J	J	Yes
1,1-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Acetone	28	ug/m^3	1.75	-	-	Yes
2-Propanol	4.5	ug/m^3	1.75	-	-	Yes
Carbon Disulfide	2.7	ug/m^3	1.75	J	U	Yes
3-Chloropropene	2.7	ug/m^3	1.75	-	U	Yes
Methylene Chloride	0.41	ug/m^3	1.75	J	J	Yes
Methyl tert-butyl ether	0.63	ug/m^3	1.75	-	U	Yes
trans-1,2-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Hexane	0.76	ug/m^3	1.75	-	-	Yes
1,1-Dichloroethane	0.71	ug/m^3	1.75	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	6.3	ug/m^3	1.75	-	-	Yes
cis-1,2-Dichloroethene	0.69	ug/m^3	1.75	-	U	Yes
Tetrahydrofuran	1.2	ug/m^3	1.75	J	J	Yes
Chloroform	0.19	ug/m^3	1.75	J	J	Yes
1,1,1-Trichloroethane	0.95	ug/m^3	1.75	-	U	Yes
Cyclohexane	0.60	ug/m^3	1.75	-	U	Yes
Carbon Tetrachloride	0.53	ug/m^3	1.75	J	J	Yes
2,2,4-Trimethylpentane	4.1	ug/m^3	1.75	-	U	Yes
Benzene	0.56	ug/m^3	1.75	-	U	Yes
1,2-Dichloroethane	0.71	ug/m^3	1.75	-	U	Yes
Heptane	0.72	ug/m^3	1.75	J	J	Yes
Trichloroethene	0.94	ug/m^3	1.75	-	-	Yes
1,2-Dichloropropane	0.81	ug/m^3	1.75	-	U	Yes
1,4-Dioxane	0.63	ug/m^3	1.75	-	U	Yes
Bromodichloromethane	1.2	ug/m^3	1.75	-	U	Yes
cis-1,3-Dichloropropene	0.79	ug/m^3	1.75	-	U	Yes
4-Methyl-2-pentanone	0.45	ug/m^3	1.75	J	J	Yes
Toluene	1.7	ug/m^3	1.75	-	-	Yes

trans-1,3-Dichloropropene	0.79	ug/m^3	1.75	-	U	Yes
1,1,2-Trichloroethane	0.95	ug/m^3	1.75	-	U	Yes
Tetrachloroethene	1.2	ug/m^3	1.75	-	U	Yes
2-Hexanone	1.2	ug/m^3	1.75	J	J	Yes
Dibromochloromethane	1.5	ug/m^3	1.75	-	U	Yes
1,2-Dibromoethane (EDB)	1.3	ug/m^3	1.75	-	U	Yes
Chlorobenzene	0.80	ug/m^3	1.75	-	U	Yes
Ethyl Benzene	0.27	ug/m^3	1.75	J	J	Yes
m,p-Xylene	1.1	ug/m^3	1.75	-	-	Yes
o-Xylene	0.43	ug/m^3	1.75	J	J	Yes
Styrene	0.22	ug/m^3	1.75	J	J	Yes
Bromoform	1.8	ug/m^3	1.75	-	U	Yes
Cumene	0.86	ug/m^3	1.75	-	U	Yes
1,1,2,2-Tetrachloroethane	1.2	ug/m^3	1.75	-	U	Yes
Propylbenzene	0.86	ug/m^3	1.75	-	U	Yes
4-Ethyltoluene	0.86	ug/m^3	1.75	J	U	Yes
1,3,5-Trimethylbenzene	0.86	ug/m^3	1.75	-	U	Yes
1,2,4-Trimethylbenzene	0.86	ug/m^3	1.75	J	U	Yes
1,3-Dichlorobenzene	1.0	ug/m^3	1.75	-	U	Yes
1,4-Dichlorobenzene	1.0	ug/m^3	1.75	J	U	Yes
alpha-Chlorotoluene	0.90	ug/m^3	1.75	-	U	Yes
1,2-Dichlorobenzene	1.0	ug/m^3	1.75	-	U	Yes
1,2,4-Trichlorobenzene	6.5	ug/m^3	1.75	-	U	Yes
Hexachlorobutadiene	9.3	ug/m^3	1.75	-	U	Yes
Naphthalene	4.6	ug/m^3	1.75	-	U	Yes

Sample ID: 1701428A-14A
Sample location: BMSMC, Humacao, PR
Sampling date: 23-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.1	ug/m^3	1.87	-	-	Yes
Freon 114	1.3	ug/m^3	1.87	-	U	Yes
Chloromethane	2.7	ug/m^3	1.87	-	-	Yes
Vinyl Chloride	0.48	ug/m^3	1.87	-	U	Yes
1,3-Butadiene	0.41	ug/m^3	1.87	-	U	Yes
Bromomethane	3.6	ug/m^3	1.87	-	U	Yes
Chloroethane	2.5	ug/m^3	1.87	-	U	Yes
Freon 11	1.2	ug/m^3	1.87	-	-	Yes
Ethanol	7.6	ug/m^3	1.87	-	J	Yes
Freon 113	0.58	ug/m^3	1.87	J	J	Yes
1,1-Dichloroethene	0.74	ug/m^3	1.87	-	U	Yes
Acetone	42	ug/m^3	1.87	-	-	Yes
2-Propanol	7.7	ug/m^3	1.87	-	-	Yes
Carbon Disulfide	2.9	ug/m^3	1.87	J	U	Yes
3-Chloropropene	2.9	ug/m^3	1.87	-	U	Yes
Methylene Chloride	0.29	ug/m^3	1.87	J	J	Yes
Methyl tert-butyl ether	0.67	ug/m^3	1.87	-	U	Yes
trans-1,2-Dichloroethene	0.74	ug/m^3	1.87	-	U	Yes
Hexane	0.82	ug/m^3	1.87	-	-	Yes
1,1-Dichloroethane	0.76	ug/m^3	1.87	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	8.8	ug/m^3	1.87	-	-	Yes
cis-1,2-Dichloroethene	0.74	ug/m^3	1.87	-	U	Yes
Tetrahydrofuran	1.2	ug/m^3	1.87	J	J	Yes
Chloroform	1.0	ug/m^3	1.87	-	-	Yes
1,1,1-Trichloroethane	1.0	ug/m^3	1.87	-	U	Yes
Cyclohexane	0.64	ug/m^3	1.87	-	U	Yes
Carbon Tetrachloride	0.50	ug/m^3	1.87	J	J	Yes
2,2,4-Trimethylpentane	4.4	ug/m^3	1.87	-	U	Yes
Benzene	0.60	ug/m^3	1.87	-	U	Yes
1,2-Dichloroethane	0.76	ug/m^3	1.87	-	U	Yes
Heptane	0.77	ug/m^3	1.87	J	J	Yes
Trichloroethene	1.1	ug/m^3	1.87	-	-	Yes
1,2-Dichloropropane	0.86	ug/m^3	1.87	-	U	Yes
1,4-Dioxane	0.67	ug/m^3	1.87	-	U	Yes
Bromodichloromethane	1.2	ug/m^3	1.87	-	U	Yes
cis-1,3-Dichloropropene	0.85	ug/m^3	1.87	-	U	Yes
4-Methyl-2-pentanone	0.80	ug/m^3	1.87	-	-	Yes
Toluene	1.7	ug/m^3	1.87	-	-	Yes

trans-1,3-Dichloropropene	0.85	ug/m^3	1.87	-	U	Yes
1,1,2-Trichloroethane	1.0	ug/m^3	1.87	-	U	Yes
Tetrachloroethene	1.3	ug/m^3	1.87	-	U	Yes
2-Hexanone	3.8	ug/m^3	1.87	-	U	Yes
Dibromochloromethane	1.6	ug/m^3	1.87	-	U	Yes
1,2-Dibromoethane (EDB)	1.4	ug/m^3	1.87	-	U	Yes
Chlorobenzene	0.86	ug/m^3	1.87	-	U	Yes
Ethyl Benzene	0.41	ug/m^3	1.87	J	J	Yes
m,p-Xylene	0.92	ug/m^3	1.87	-	-	Yes
o-Xylene	0.32	ug/m^3	1.87	J	J	Yes
Styrene	0.27	ug/m^3	1.87	J	J	Yes
Bromoform	1.9	ug/m^3	1.87	-	U	Yes
Cumene	0.92	ug/m^3	1.87	-	U	Yes
1,1,2,2-Tetrachloroethane	1.3	ug/m^3	1.87	-	U	Yes
Propylbenzene	0.12	ug/m^3	1.87	J	J	Yes
4-Ethyltoluene	0.92	ug/m^3	1.87	J	U	Yes
1,3,5-Trimethylbenzene	0.92	ug/m^3	1.87	-	U	Yes
1,2,4-Trimethylbenzene	0.92	ug/m^3	1.87	J	U	Yes
1,3-Dichlorobenzene	1.1	ug/m^3	1.87	-	U	Yes
1,4-Dichlorobenzene	1.1	ug/m^3	1.87	J	U	Yes
alpha-Chlorotoluene	0.97	ug/m^3	1.87	-	U	Yes
1,2-Dichlorobenzene	1.1	ug/m^3	1.87	-	U	Yes
1,2,4-Trichlorobenzene	6.9	ug/m^3	1.87	-	U	Yes
Hexachlorobutadiene	10	ug/m^3	1.87	-	U	Yes
Naphthalene	4.9	ug/m^3	1.87	-	U	Yes

Sample ID: 1701428A-15A
Sample location: BMSMC, Humacao, PR
Sampling date: 23-Jan-17
Matrix: Air

METHOD: TO-15

Analyte Name	Result	Units	Dilution Factor	Lab Flag	Validation	Reportable
Freon 12	2.4	ug/m^3	1.46	-	-	Yes
Freon 114	1.0	ug/m^3	1.46	-	U	Yes
Chloromethane	2.0	ug/m^3	1.46	-	-	Yes
Vinyl Chloride	0.37	ug/m^3	1.46	-	U	Yes
1,3-Butadiene	0.32	ug/m^3	1.46	-	U	Yes
Bromomethane	2.8	ug/m^3	1.46	J	U	Yes
Chloroethane	1.9	ug/m^3	1.46	-	U	Yes
Freon 11	1.4	ug/m^3	1.46	-	-	Yes
Ethanol	7.3	ug/m^3	1.46	-	J	Yes
Freon 113	0.41	ug/m^3	1.46	J	J	Yes
1,1-Dichloroethene	0.58	ug/m^3	1.46	-	U	Yes
Acetone	12	ug/m^3	1.46	-	-	Yes
2-Propanol	5.2	ug/m^3	1.46	-	-	Yes
Carbon Disulfide	2.3	ug/m^3	1.46	J	U	Yes
3-Chloropropene	2.3	ug/m^3	1.46	-	U	Yes
Methylene Chloride	0.44	ug/m^3	1.46	J	J	Yes
Methyl tert-butyl ether	0.53	ug/m^3	1.46	-	U	Yes
trans-1,2-Dichloroethene	0.58	ug/m^3	1.46	-	U	Yes
Hexane	0.98	ug/m^3	1.46	-	-	Yes
1,1-Dichloroethane	0.59	ug/m^3	1.46	-	U	Yes
2-Butanone (Methyl Ethyl Ketone)	2.1	ug/m^3	1.46	J	J	Yes
cis-1,2-Dichloroethene	0.58	ug/m^3	1.46	-	U	Yes
Tetrahydrofuran	2.2	ug/m^3	1.46	-	U	Yes
Chloroform	0.23	ug/m^3	1.46	J	J	Yes
1,1,1-Trichloroethane	0.80	ug/m^3	1.46	-	U	Yes
Cyclohexane	0.50	ug/m^3	1.46	-	U	Yes
Carbon Tetrachloride	0.53	ug/m^3	1.46	J	J	Yes
2,2,4-Trimethylpentane	0.47	ug/m^3	1.46	J	J	Yes
Benzene	0.47	ug/m^3	1.46	-	U	Yes
1,2-Dichloroethane	0.59	ug/m^3	1.46	-	U	Yes
Heptane	0.73	ug/m^3	1.46	-	-	Yes
Trichloroethene	0.78	ug/m^3	1.46	-	U	Yes
1,2-Dichloropropane	0.67	ug/m^3	1.46	-	U	Yes
1,4-Dioxane	0.53	ug/m^3	1.46	-	U	Yes
Bromodichloromethane	0.98	ug/m^3	1.46	-	U	Yes
cis-1,3-Dichloropropene	0.66	ug/m^3	1.46	-	U	Yes
4-Methyl-2-pentanone	0.60	ug/m^3	1.46	-	U	Yes
Toluene	1.5	ug/m^3	1.46	-	-	Yes

trans-1,3-Dichloropropene	0.66	ug/m^3	1.46	-	U	Yes
1,1,2-Trichloroethane	0.80	ug/m^3	1.46	-	U	Yes
Tetrachloroethene	0.99	ug/m^3	1.46	-	U	Yes
2-Hexanone	3.0	ug/m^3	1.46	-	U	Yes
Dibromochloromethane	1.2	ug/m^3	1.46	-	U	Yes
1,2-Dibromoethane (EDB)	1.1	ug/m^3	1.46	-	U	Yes
Chlorobenzene	0.67	ug/m^3	1.46	-	U	Yes
Ethyl Benzene	0.22	ug/m^3	1.46	J	J	Yes
m,p-Xylene	0.81	ug/m^3	1.46	-	-	Yes
o-Xylene	0.30	ug/m^3	1.46	J	J	Yes
Styrene	0.16	ug/m^3	1.46	J	J	Yes
Bromoform	1.5	ug/m^3	1.46	-	U	Yes
Cumene	0.72	ug/m^3	1.46	-	U	Yes
1,1,2,2-Tetrachloroethane	1.0	ug/m^3	1.46	-	U	Yes
Propylbenzene	0.10	ug/m^3	1.46	J	J	Yes
4-Ethyltoluene	0.72	ug/m^3	1.46	J	U	Yes
1,3,5-Trimethylbenzene	0.15	ug/m^3	1.46	J	J	Yes
1,2,4-Trimethylbenzene	0.72	ug/m^3	1.46	J	U	Yes
1,3-Dichlorobenzene	0.88	ug/m^3	1.46	-	U	Yes
1,4-Dichlorobenzene	0.88	ug/m^3	1.46	J	U	Yes
alpha-Chlorotoluene	0.76	ug/m^3	1.46	-	U	Yes
1,2-Dichlorobenzene	0.88	ug/m^3	1.46	-	U	Yes
1,2,4-Trichlorobenzene	5.4	ug/m^3	1.46	-	U	Yes
Hexachlorobutadiene	7.8	ug/m^3	1.46	-	U	Yes
Naphthalene	3.8	ug/m^3	1.46	-	U	Yes

Project Number:__1701428A___
Date:_____01/21_&_23/17____

REVIEW OF VOLATILE ORGANIC PACKAGE

The following guidelines for evaluating volatile organics were created to delineate required validation actions. This document will assist the reviewer in using professional judgment to make more informed decision and in better serving the needs of the data users. The sample results were assessed according to USEPA data validation guidance documents in the following order of precedence: QC criteria from "Compendium Method TO-15. Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), January, 1999"; USEPA Hazardous Waste Support Branch. Validating Air Samples. Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, (SOP # HW-31. Revision #6. June, 2014). The QC criteria and data validation actions listed on the data review worksheets are from the primary guidance document, unless otherwise noted.

The hardcopied (laboratory name) _Eurofins_____ data package received has been reviewed and the quality control and performance data summarized. The data review for VOCs included:

Lab. Project/SDG No.: __1701428A_____ Sample matrix: ___Air_____
No. of Samples: _____15_____

Trip blank No.: _____-_____
Field blank No.: _____-_____
Equipment blank No.:___-_____
Field duplicate No.:__1701428A-04A/1701428A-05A;_1701428A-08A/1701428A-09A;_____
_____1701428A-13A/1701428A-14A_____

___X___ Data Completeness
___X___ Sampling Integrity/Preservation
___X___ GC/MS Tuning
___X___ Internal Standard Performance
___X___ Blanks
___X___ Surrogate Recoveries
___X___ Laboratory Control Spikes
___X___ Field Duplicates
___X___ Calibrations
___X___ Compound Identifications
___X___ Compound Quantitation
___X___ Quantitation Limits

Overall Comments:_____VOCs_(full_suite)_by_method_TO-15_____
_____

Definition of Qualifiers:

J- Estimated results
U- Compound not detected
R- Rejected data
UJ- Estimated nondetect

Reviewer:_____ Rafael Dafaut _____
Date:__ _____03/16/17_____

DATA COMPLETENESS

MISSING INFORMATION	DATE LAB. CONTACTED	DATE RECEIVED

All criteria were met __X___
Criteria were not met
and/or see below _____

SAMPLE INTEGRITY AND PRESERVATION

Canister used for sampling of the ambient air must be demonstrated clean, and leak free prior to sample collection. Cleanliness is demonstrated by the analysis of an individual canister or analysis of a representative canister, if only batch cleaning was required. Leak proof testing is performed on individual canisters. Canisters are used in conjunction with gauges, valves and flow controllers. Therefore, canister should be demonstrated clean and leak free inclusive of these components as appropriate.

a. Leak proof test:

Was the pressure of each canister measured before shipping? **Yes** or No

Was the pressure of each canister measured before sampling? **Yes** or No

Did the canister hold vacuum/pressure within +/- 2 psi from the date shipped to the sampling date? **Yes** or No

Note:

1. The laboratory should be notified if the difference between the laboratory and field pressure is greater than 2 psi.

Actions:

Actions for use of canisters with failing leak test criteria are indicated in Table 1 below.

Table 1. Canister Leak test Actions for TO-15 Analysis*

Matrix	Difference in initial and 24 hour pressure (psi) Criteria	Action	
		Detected Associated Compounds	Non-Detected Associated Compounds
Air	≤ 5	No qualification	
Air	> 5	J	UJ or R

*Excessive time period (> 3months) elapsed between leak test and actual use should be considered in evaluation of canister integrity.

b. Cleanliness

Integrity of the canister used for sampling of air for analysis should be maintained at all times including time of shipment to the field, sampling, shipping back to the laboratory and time of analysis. Analytical results of canister cleaning verification must be taken into account in the validation of sample results.

Does the canister meet the cleanliness criteria? **Yes** or No

Is the canister verification included in the data package? **Yes** or No

Actions:

Canister contamination actions are stated in Table 2 below.

Note:

Table 2. Canister Contamination Actions for TO-15 Analyses

Contamination Type/level	Canister Cleaning Result	Sample Result	Action for Samples
Clean Canister analysis	Detects	Analytes found in clean canister analysis are non-detects	No qualification required
	<CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and < 2x the CRQL	Report concentration of sample with a U
		≥ 2x the CRQL	No qualification required
	> CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and ≤ clean canister value	Report clean canister value with a U
		≥ CRQL and > clean canister value	No qualification required
	= CRQL	≤ CRQL	Report CRQL value with a U
		> CRQL	No qualification required

c. Holding time and sample integrity

SUMMA canisters are to minimize sample charges or loss for majority of the analyte. Sample integrity is maintained by ensuring the system is closed tight and canister pressure from the time of sampling to the time of analysis is maintained within a difference allowable due to temperature change.

Was the canister pressure measured at the conclusion of the sampling period? **Yes** or No

Was the canister pressure measured upon arrival to the laboratory? **Yes** or No

Was the canister pressure difference between sampling and analysis less than 5 psi? **Yes** or No

Actions:

Qualify sample results using technical holding time information as stated in Table 3.

Pressure difference between sampling and analysis should be less than 5 psi. Qualify samples as per Table 3 requirements.

Table 3. Holding Time Actions for TO-15 Volatile Analyses

Matrix	Preserved (Pressure difference between sampling and analysis ≤ 5psi)	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Air	Yes	< 30 days	No qualification	
	Yes	>30 days	J	UJ
Air	No	< 30 days	J	UJ
	No	>30 days	J	R

Complete table for all samples and note the integrity and/or preservation not within criteria

SAMPLE ID	DATE SAMPLED	DATE ANALYZED	Pressure difference < 5 psi	ACTION
All samples analyzed within the recommended method holding time. All summa canisters received in good conditions. Pressure difference < 5 psi between sampling and analysis.				

<u>The following pressure conversion is used, if necessary</u>

PRESSURE CONVERSION TABLE								
PSI	ATM	kgf/cm²	in.H_2O	mmHg	in.Hg	Kpa	Bar	mm H_2O
1	0.068046	0.070307	27.7276	51.715	2.03602	6.895	0.6895	704.28104
14.696	1	1.0332	407.484	760	29.921	101.325	1.01325	10350.0936
14.2233	0.96784	1	394.38	735.559	28.959	98.096	0.98067	10000
0.036092	0.002454	0.00253	1	1.8651	0.07343	0.249	0.00249	25.4
0.019336	0.001315	0.001359	0.53616	1	0.03937	0.1333	0.001333	13.618464
0.491154	0.0033421	0.03453	13.6185	25.4	1	3.3864	0.033864	345.9099
0.145	0.00987	0.010197	4.0186	7.5006	0.2953	1	0.01	102.07244
14.5038	0.98692	1.01972	402.156	750.062	29.53	100	1	10214.7624

All criteria were met __X___
Criteria were not met see below _____

GC/MS TUNING

The assessment of the tuning results is to determine if the sample instrumentation is within the standard tuning QC limits

Gas Chromatograph/Mass Spectrometer (GC/MS) Instrument Performance Check

Action:

NOTES: This requirement does not apply when samples are analyzed by the Selected Ion Monitoring (SIM) technique.
All mass spectrometer instrument conditions must be identical to those used during the sample analysis. Background subtraction actions resulting in spectral distortions for the sole purpose of meeting the method specifications are contrary to the Quality Assurance (QA) objectives, and are therefore unacceptable.

NOTES: No data should be qualified based on BFB or DFTTP failure. Instances of this should be noted in the narrative.
All ion abundance ratios must be normalized to m/z 95, the nominal base peak, even though the ion abundance of m/z 174 may be up to 120% that of m/z 95.

1. If samples are analyzed without a preceding valid instrument performance check, qualify all data in those samples as unusable (R).
2. If the laboratory has made minor transcription errors which do not significantly affect the data, the data reviewer should make the necessary corrections on a copy of the form.
3. If the laboratory has failed to provide the correct forms or has made significant transcription or calculation errors, the Region's designated representative should contact the laboratory and request corrected data. If the information is not available, the reviewer must use professional judgment to assess the data and notify the Project Officer (PO).
4. If ion abundance criteria are not met, professional judgment may be applied to determine to what extent the data may be utilized. When applying professional judgment to this topic, the most important factors to consider are the empirical results that are relatively insensitive to location on the chromatographic profile and the type of instrumentation. Therefore, the critical ion abundance criteria for BFB are the m/z 95/96, 174/175, 174/176, and 176/177 ratios. The relative abundances of m/z 50 and 75 are of lower importance. This issue is more critical for Tentatively Identified Compounds (TICs) than for target analytes.
5. Note, in the Data Review Narrative, decisions to use analytical data associated with BFB instrument performance check failures (not meeting contract requirements).
6. If the reviewer has reason to believe that instrument performance check criteria were achieved using techniques other than those described in the Compendium method TO-15 entitled "Determination Of Volatile Organic Compounds(VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry(GC/MS)", section 10.4, obtain additional information on the instrument performance checks. If the techniques employed are found to be at variance with the contract requirements, the performance and procedures of the laboratory may merit evaluation.
7. Use professional judgment to determine whether associated data should be qualified based on the spectrum of the mass calibration compound.

__X___ The BFB performance results were reviewed and found to be within the specified criteria.

__X___ BFB tuning was performed for every 24 hours of sample analysis.

If no, use professional judgment to determine whether the associated data should be accepted, qualified or rejected.

List the samples affected: _____

If mass calibration is in error, all associated data are rejected.

All criteria were met __X___
Criteria were not met
and/or see below _____

CALIBRATION VERIFICATION

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing and maintaining acceptable quantitative data.

Date of initial calibration:_____12/19/2016;_12/29/16_____
Date of initial calibration verification:_____-_____
Dates of continuing calibration:_01/31/17(8:53_AM);_01/31/17_(3:51_PM);_02/06/17__
Instrument ID numbers:_____MSD-20_____
Matrix/Level:_____Air/low_____

DATE	LAB FILE ID#	CRITERIA OUT RFs, %RSD, **%D**, r	COMPOUND	SAMPLES AFFECTED
Initial and continuing calibrations meet method specific requirements except for the cases described in this document.				
01/31/2017 (3:51 PM)	1701428A-17B	34 %	1,2-dichloroethane	1701428A-03A to 1701428A-10A
		32 %	4-methyl-2-pentanone	

Note: For analytes not meeting the % difference continuing calibration criteria their results qualified as estimated (J or UJ) in affected samples.

The following criteria apply:

Table 5. Initial Calibration Actions for TO-15 Analyses

Criteria for TO-15 Analysis	Action	
	Detected Associated Compounds	Non-Detected Associated Compounds
RRF < 0.010 (poor response volatile target compounds, Table 4) RRF < 0.050 (all other volatile target compounds)	J (based on mass spectral identification)	R
RRF > 0.010 (poor response volatile target compounds, Table 4) RRF > 0.050 (all other volatile target compounds)	No qualification	
% RSD > 40.0 or < -40.0 (poor response volatile target compounds, Table 4) % RSD > 30.0 or < -30.0 (all other Volatile target compounds)	No qualification	
% RSD < 40.0 and > -40.0 (poor response volatile target compounds, Table 4) % RSD < 30.0 and > -30.0 (all other volatile target compounds)	J	Use professional judgment

Table 6. Continuing Calibration Verification (CCV) Actions for TO-15 Analyses

Criteria for CCV	Action	
	Detected Associated Compounds	**Non-Detected Associated Compounds**
RRF < 0.010 (poor response volatile target compounds, Table 4) RRF < 0.050 (all other volatile target compounds)	J (based on mass spectral identification)	R
RRF > 0.010 (poor response volatile target compounds, Table 4) RRF > 0.050 (all other volatile target compounds)	No qualification	
%D > 40.0 or < -40.0 (poor response volatile target compounds, Table 4) %D > 30.0 or < -30.0 (all other Volatile target compounds)	J	UJ
%D < 40.0 and > -40.0 (poor response volatile target compounds, Table 4) %D < 30.0 and > -30.0 (all other volatile target compounds)	No qualification	

If the % D for daily calibration exceeds -90, use professional judgment to see if non-detects nee to be qualified as unusable "R"

A separate worksheet should be filled for each initial curve

Table 4. TO 15 Volatile Compounds List*

Compound	**CAS Number**	**Synonyms**
Acetone	67-64-1	Dimethyl ketone; Dimethylformaldehyde; 2-Propanone
Allyl chloride	107-05-1	3-Chloropropene; 3-Chloroprene
Benzene	71-43-2	Benzol; Benzine
Benzyl chloride	100-44-7	Chloromethylbenzene; alpha-Chlorotoluene
Bromodichloromethane	75-27-4	Monobromodichloromethane; Methane-bromodichloro
Bromoethene	593-60-2	Vinyl bromide; Monobromoethene
Bromoform	75-25-2	Tribromoethane
Bromomethane	74-83-9	Methyl bromide; Monobromomethane
1,3-Butadiene	106-99-0	Biethylene; Erythrene; Pyrrolyene
Carbon disulfide	***75-15-0***	***Carbon bisulfide; Carbon sulfide***
Carbon tetrachloride	56-23-5	Carbon tet; Tetrachloromethane
Chlorobenzene	108-90-7	Monochlorobenzene; Chlorobenzol; Benzene chloride
Chloroethane	***75-00-3***	***Ethyl chloride; Chlorene; Chloryl***
Chloroethene	75-01-4	Vinyl chloride; Ethylene monochloride
Chloroform	67-66-3	Trichloromethane; Methyltrichloride; Methane trichloride
Chloromethane	***74-87-3***	***R40; Methyl chloride; Monochloromethane***
Cyclohexane	110-82-7	Hexamethylene; Hexahydrobenzene; Hexanaphthene
Dibromochloromethane	124-48-1	Chlorodibromomethane
1,2-Dibromoethane	***106-93-4***	***EDB; Ethylene dibromide***
1,2-Dichlorobenzene	95-50-1	ODB; Chloroben
1,3-Dichlorobenzene	541-73-1	meta-Dichlorobenzene; m-Phenylenedichloride
1,4-Dichlorobenzene	106-46-7	para-Dichlorobenzene; Parazene; Santochlor
1,1-Dichloroethane	75-34-3	Ethylidene chloride; Ethylidene dichloride
1,2-Dichloroethane	107-06-2	Ethylene dichloride; Glycol dichloride; 1,2-DCA
1,1-Dichloroethene	75-35-4	1,1-DCE; Vinylidene chloride
cis-1,2-Dichloroethylene	156-59-2	cis-1,2-DCE; cis-Acetylene dichloride
trans-1,2-Dichloroethylene	156-60-5	trans-1,2-DCE; trans-Acetylene dichloride
1,2-Dichloropropane	***78-87-5***	***Propylene dichloride; Propylene chloride***
cis-1,3-Dichloropropene	10061-01-5	1-Propene,1,3-dichloro-,(z)-; cis-1,3-Dichloro-1-Propene
trans-1,3-Dichloropropene	10061-02-6	trans-1,3-Dichloro-1-Propene; trans-1,3-Dichloropropylene
1,4-Dioxane	***123-91-1***	***Diethylene dioxide; Diethylene ether***
Ethyl acetate	141-78-6	Acetic acid ethyl ester; Acetic ether
Ethylbenzene	100-41-4	Ethylbenzol; Phenylethane
4-Ethyltoluene	622-96-8	1-Ethyl-4-methyl benzene; p-Methylethylbenzene
Freon 11 (CCl3F)	75-69-4	Trichlorofluoromethane; Fluorotrichloromethane; Fluorocarbon 11

Freon 12 (CCl2F2)	75-71-8	Dichlorodifluoromethane; Fluorocarbon 12
Freon 113 (C2Cl3F3)	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane; Fluorocarbon 113; 1,1,2-Trichlorotrifluoroethane
Freon 114 (C2Cl2F4)	76-14-2	1,2-Dichlorotetrafluoroethane; Halocarbon 114; 1,2-Dichloro-1,1,2,2-tetrafluoroethane
Heptane	142-82-5	Dipropylmethane; Heptyl hydride
Hexachlorobutadiene	87-68-3	1,3-Hexachlorobutadiene; Perchlorobutadiene
Hexane	110-54-3	n-Hexane; Hexyl hydride
2-Hexanone	591-78-6	Methyl butyl ketone; Butyl methyl ketone; Hexan-2-one
Isopropyl alcohol	67-63-0	2-Propanol; Isopropanol
Methylene chloride	***75-09-2***	***Dichloromethane; Methylene dichloride***
Methyl ethyl ketone	***78-93-3***	***MEK; 2-Butanone; Ethyl methyl ketone***
Methyl isobutyl ketone	108-10-1	MIBK; 2-Pentanone; Hexone; Isopropylacetone
Methyl tert-butyl ether	1634-04-4	MTBE; 2-Methoxy-2-methylpropane; tert-Butyl methyl ether
Propylene	115-07-1	Propene; Methylethylene
Styrene	100-42-5	Vinylbenzene; Phenylethylene
1,1,2,2-Tetrachloroethane	79-34-5	Tetrachloroethane; Acetylene tetrachloride; Bonoform
Tetrachloroethene	127-18-4	PCE; PERC; Perchloroethylene; Ethylene tetrachloride; Carbon bichloride; Carbon dichloride
Tetrahydrofuran	109-99-9	Diethylene oxide; Butylene oxide
Toluene	108-88-3	Toluol; Methylbenzene
1,2,4-Trichlorobenzene	120-82-1	1,2,4-Trichlorobenzol
1,1,1-Trichloroethane	71-55-6	Methyl chloroform; Trichloroethane
1,1,2-Trichloroethane	79-00-5	beta-Trichloroethane; Ethane trichloride; Vinyl trichloride
Trichloroethene	79-01-6	TCE; Acetylene trichloride; Ethinyl trichloride
1,2,4-Trimethylbenzene	95-63-6	Pseudocumene; Pseudocumol
1,3,5-Trimethylbenzene	108-67-8	Mesitylene; Trimethylbenzol
2,2,4-Trimethylpentane	540-84-1	Iso-octane; Isobutyltrimethylmethane
Vinyl acetate	108-05-4	Acetic acid ethenyl ether; Ethenyl acetate
p-Xylene	106-42-3	p-Methyltoluene; 1,4-dimethylbenzene
m-Xylene	108-38-3	m-Methyltoluene; 1,3-dimethylbenzene
o-Xylene	95-47-6	o-Methyltoluene; 1,2-Dimethylbenzene

*Laboratories use different sets and subsets of analytes on as needed basis.

NOTES:

Compounds in bold italicized letters may have poor GCMS response. These poor response compounds are evaluated using more relaxed relative response factor criteria as stated below.

Note: 4-methyl-2-pentanone does not have poor GCMS response.

All criteria were met _____
Criteria were not met
and/or see below ____X___

V A. BLANK ANALYSIS RESULTS (Sections 1 & 2)

The assessment of the blank analysis results is to determine the existence and magnitude of contamination problems. The criteria for evaluation of blanks apply only to blanks associated with the samples, including trip, equipment, and laboratory blanks. If problems with any blanks exist, all data associated with the case must be carefully evaluated to determine whether or not there is an inherent variability in the data for the case, or if the problem is an isolated occurrence not affecting other data.

List the contamination in the blanks below. High and low levels blanks must be treated separately.

Blanks criteria and appropriate actions

Table 7. Blank Actions for TO-15 Analyses

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument***	Detects	Not detected	No qualification required
	< CRQL *	< CRQL*	Report CRQL value with a U
		≥ CRQL* and < 2x the CRQL**	Report concentration of sample with a "U"
		≥ 2x the CRQL**	No qualification required
	> CRQL *	< CRQL*	Report CRQL value with a U
		≥ CRQL* and ≤ blank concentration	Report blank value for sample concentration with a U
		≥ CRQL* and > blank concentration	No qualification required
	= CRQL*	≤ CRQL*	Report CRQL value with a U
		> CRQL*	No qualification required
	Gross contamination **	Detects	Report blank value for sample concentration with a U

* 2x the CRQL for methylene chloride, 2-butanone and acetone.

** 4x the CRQL for methylene chloride, 2-butanone, and acetone.

*** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 µg/L.

DATE ANALYZED	LAB ID	LEVEL/ MATRIX	COMPOUND	CONCENTRATION UNITS
All method blank meet method specific criteria except for the cases described in this document.				
01/31/17	1701428A-16A	Air/low	Methylene chloride	0.023 ppbv
02/06/17	1701428A-16C	Air/low	Bromomethane	0.069 ppbv
			Acetone	0.22 ppbv
			Carbon disulfide	0.22 ppbv
			Benzene	0.045 ppbv
			trans-1,3-dichloropropene	0.046 ppbv
			1,2-dibromoethane (EDB)	0.025 ppbv
			Bromoform	0.016 ppbv
			Carbon disulfide	0.22 ppbv
			4-ethyltoluene	0.022 ppbv
			1,2,4-trimethylbenzene	0.029 ppbv
			1,3-dichlorobenzene	0.052 ppbv
			1,4-dichlorobenzene	0.069 ppbv
			alpha-chlorotoluene	0.071 ppbv
			1,2-dichlorobenzene	0.059 ppbv
			1,2,4-trichlorobenzene	0.23 ppbv
			hexachlorobutadiene	0.074 ppbv
			Naphthalene	0.041 ppbv

Note: Concentration detected below the reporting limit, results qualified following the table above.

Samples 1701428A-01A to 1701428A-06A qualified for methylene chloride.

Samples 1701428A-11A to 1701428A-15A qualified for all the other VOCs.

Field/Equipment/Trip blank

DATE ANALYZED	LAB ID	LEVEL/ MATRIX	COMPOUND	CONCENTRATION UNITS

No field/trip/equipment blanks analyzed with this data package.

Field/trip blank actions

Field or Trip blank when available should be assessed for possible contaminants in the canister used for trip blank. This canister and its analytical results are specific to the trip blank sample **only**. If contaminants are present in the canister used for trip blank, its suitability for use as trip blank can be assessed using the following criteria.

Table 8. Field/Trip Blank suitability based on Canister contamination

Clean canister Result	**Field/Trip Blank Result**	**Action for Field/Trip Blank**
Detects	Not detected	No qualification, no action for samples is required
Detects	< clean canister result or ≥ clean canister result but < 2X the clean canister result	Report as non-detect "U", invalid as trip blank, no action for samples is required.
	≥ 2x the clean canister result	No qualification, valid trip blank for sample actions.

CONTAMINATION SOURCE/LEVEL	COMPOUND	CONC/UNITS	AL/UNITS	SQL	AFFECTED SAMPLES

All criteria were met __X___
Criteria were not met
and/or see below _____

SURROGATE SPIKE RECOVERIES

Laboratory performance of individual samples is established by evaluation of surrogate spike recoveries. All samples are spiked with surrogate compounds prior to sample analysis. The accuracy of the analysis is measured by the surrogate percent recovery. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the validation of data is frequently subjective and demands analytical experience and professional judgment.
List the percent recoveries (%Rs) which do not meet the criteria for surrogate recovery.
Matrix: solid/aqueous

SAMPLE ID **SURROGATE COMPOUND** **ACTION**
1,2-DICHLOROETHANE-d4 **Toluene-d8** **4-BFB**

_Surrogate_recoveries_within_laboratory_control_limits_____
_____
_____
_____
_____
_____

QC Limits* (Air)

_____LL_to_UL___70__to_130__ _70__to_130_ _70__to_130__

* QC limits are laboratory in-house performance criteria, LL = lower limit, UL = upper limit.
* If QC limits are not available, use limits of 80 – 120 % for aqueous and 70 – 130 % for solid samples.

Actions:

QUALITY	%R < 10%	%R = 10% - LL	%R > UL
Positive results	J	J	J
Nondetects results	R	UJ	Accept

Surrogate action should be applied:

If one or more surrogate in the VOC fraction is out of specification, but has a recovery of > 10%.

If any one surrogate in a fraction shows < 10 % recovery.

All criteria were met __X___
Criteria were not met
and/or see below _____

VIII. LABORATORY CONTROL SAMPLE (LCS) ANALYSIS

This data is generated to determine accuracy of the analytical method for various matrices. LCS concentration should be in the middle of the calibration range and under the same sample conditions.

1. LCS Recoveries Criteria

Table 9. LCS/LCSD Actions for TO-15 Analyses

Criteria	Action	
	Detected Associated Compounds	Non-detected Associated Compounds
Percent recovery Criteria		
%R > Upper Acceptance Limit (>130%)	J	No qualification
%R in the acceptable range, 70-130%	No qualification	
%R < Lower Acceptance Limit (< 70 %)	J	UJ
%R < 50%	J	R
Lower Acceptance Limit ≤ %R ≤ Upper Acceptance Limit	No qualification	
Relative Percent Difference Criteria		
% RPD ≤ 25%	No qualification	
% RPD > 25 %	J	UJ

LCS ID COMPOUND % R QC LIMIT

LCS/LCSD(Blank_spike)_analyzed_in_this_data_package._%_recoveries_and_RPD_____
_within_laboratory_control_limits_except_for_the_cases_described_in_this_document_____

_____1701428A-18A_____4-methyl-2-pentanone_____131_%_____70_-_130_%__
_____1701428A-18B_____chloroethane_____133_%_____70_-_130_%__
_____4-methyl-2-pentanone_____138_%_____70_-_130_%__
_____1701428A-18BB_____4-methyl-2-pentanone_____134_%_____70_-_130_%__
_____1701428A-18C_____ethanol_____68_%_____70_-_130_%__
_____carbon_tetrachloride_____50_%_____70_-_130_%__
_____1701428A-18CC____ethanol_____63_%_____70_-_130_%__
_____carbon_tetrachloride_____51_%_____70_-_130_%__

Note: Detected compounds are qualified with a J qualifier in affected samples.

LCS/LCSD	Affected samples
1701428A-18A	1701428A-01A to 1701428A-06A
1701428A-18B/1701428A-18BB	1701428A-07A to 1701428A-10A
1701428A-18C/1701428A-18CC	1701428A-11A to 1701428A-15A

2. Frequency Criteria:

Where LCS analyzed at the required frequency and for each matrix? **Yes** or No.
If no, the data may be affected. Use professional judgment to determine the severity of the effect and qualify data accordingly. Discuss any actions below and list the samples affected.

All criteria were met ____X____
Criteria were not met
and/or see below _____

IX. FIELD/LABORATORY DUPLICATE PRECISION

Sample IDs:____LCS/LCSD_(lab)_____ Matrix:_____Air____
Sample IDs:____1701428A-04A/1701428A-05A____ Matrix:_____Air____
Sample IDs:____1701428A-08A/1701428A-09A____ Matrix:_____Air____
Sample IDs:____1701428A-13A/1701428A-14A____ Matrix:_____Air____

Field duplicates samples may be taken and analyzed as an indication of overall precision. These analyses measure both field and lab precision; therefore, the results may have more variability than laboratory duplicates which only laboratory performance. It is also expected that soil duplicate results will have a greater variance than water matrices due to difficulties associated with collecting identical field duplicate samples.

The project QAPP should be reviewed for project-specific information. In the absence of QAPP guidance for validated data from field duplicates, the following action will be taken.

Identify which samples within the data package are field duplicates. Estimate the relative percent difference (RPD) between the vales for each compound. Note large RPDs (>50 %) in the narrative. Use professional judgment to qualify data when RPD > 50 %.

COMPOUND	SQL	SAMPLE CONC.	DUPLICATE CONC.	RPD	ACTION
1701428A-13A/1701428A-14A					
Acetone	0.94	12	18	40 %	No action
LCS/LCSD					
Chloroethane	-	133 %	98 %	30 %	No action taken; QC sample
Laboratory/field duplicate analyzed with this data package. RPD within laboratory and method performance criteria for target analytes except for the cases described in this document. Acetone RPD outside the laboratory control limit but within the method performance criteria. No action taken.					

Other suggested actions:

Qualify as estimated positive results (J) and nondetects (UJ) for the compound that exceeded the above criteria. For organics, only the sample and duplicate will be qualified.

If an RPD cannot be calculated because one or both of the sample results is not detected, the following actions apply:

If one sample result is not detected and the other is greater than 5x the SQL qualify (J/UJ).

If one sample value is not detected and the other is greater than 5x the SQL and the SQLs for the sample and duplicate are significantly different, use professional judgment to determine if qualification is appropriate.

If one sample value is not detected and the other is less than 5x, use professional judgment to determine if qualification is appropriate.

If both sample and duplicate results are not detected, no action is needed.

All criteria were met __X___
Criteria were not met
and/or see below _____

X. INTERNAL STANDARD PERFORMANCE

The assessment of the internal standard (IS) parameter is used to assist the data reviewer in determining the condition of the analytical instrumentation.

List the internal standard area of samples which do not meet the criteria.

* Area of +40% or -40% of the IS area in the associated calibration standard (CCV standard or mid-point from initial calibration).
* Retention time (RT) within ± 20 seconds of the IS area in the associated calibration standard.

Table 10. Internal Standard Actions for TO-15 Analyses

Criteria	Action	
	Detected Associated Compounds*	Non-detected Associated Compounds*
Area counts > 140% of CCV or mid-point standard from initial calibration)	J-	No qualification
Area counts < 60% of CCV or mid-point standard from initial calibration)	J+	R
Area counts ≥ 60% but ≤ 140% of CCV or mid-point standard from initial calibration)	No qualification	
RT difference > 20.0 seconds between samples CCV or mid-point standard from initial calibration)	R*	
RT difference < 20.0 seconds between samples and CCV or mid-point standard from initial calibration)	No qualification	

* Examine the chromatographic profile for that sample to determine if any false positives or negatives exist. For shifts of a large magnitude, the reviewer may consider partial or total rejection of the data for that sample fraction. Detects should not need to be qualified as unusable (R) if the mass spectral criteria are met.

DATE	SAMPLE ID	IS OUT	IS AREA	ACCEPTABLE RANGE	ACTION

_Internal_standard_area_and_retention_times_within_laboratory_control_limits_for_both_samples_and_calibration_standards_____
_____
_____
_____
_____
_____
_____

All criteria were met __X___
Criteria were not met
and/or see below _____

XII. SAMPLE QUANTITATION

The sample quantitation evaluation is to verify laboratory quantitation results. In the space below, please show a minimum of one sample calculation:

1701428A-1A

Ethanol RF = 0.51106

[ ] = (75147)(5.0)/(160481)(0.51106)

= 4.58 ppbv OK

All criteria were met __X___
Criteria were not met
and/or see below _____

XII. QUANTITATION LIMITS

A. Dilution performed

SAMPLE ID	DILUTION FACTOR	REASONS FOR DILUTION
Samples diluted by a factor of 1.91 or less.		

System Performance

Action:

Use professional judgment to qualify the data if it is determined that system performance has degraded during sample analyses. Note, for Laboratory Project Officer (PO) action, any degradation of system performance which significantly affected the data.

Note:

Overall Assessment of Data

Action:

1. Use professional judgment to determine if there is any need to qualify data which were not qualified based on the Quality Control (QC) criteria previously discussed.
2. Write a brief narrative to give the user an indication of the analytical limitations of the data. Note, for Laboratory Project Officer (PO) action, any inconsistency of the data with the Sample Delivery Group (SDG) Narrative. If sufficient information on the intended use and required quality of the data is available, the reviewer should include their assessment of the usability of the data within the given context. This may be used as part of a formal Data Quality Assessment (DQA).

Overall assessment of the data: Results are valid; the data can be used for decision making purposes.