

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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February 1, 2022

Jeremy Porter, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Porter:

Included are the results from the testing of material submitted on January 21, 2022 from the Spic n Span 060172, F&BI 201302 project. There are 13 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Aspect Data
ASP0201R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 21, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Spic n Span 060172, F&BI 201302 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
201302 -01	VGAC-1-EFF-012022
201302 -02	VGAC-1-INF-012022

Individually certified canisters were provided for TO-15 sampling.

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

The concentration of several analytes exceeded the calibration range of the instrument. The data were flagged accordingly.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-EFF-012022	Client:	Aspect Consulting, LLC
Date Received:	01/21/22	Project:	060172, F&BI 201302
Date Collected:	01/20/22	Lab ID:	201302-01 1/5.8
Date Analyzed:	01/27/22	Data File:	012631.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	470
APH EC9-12 aliphatics	210
APH EC9-10 aromatics	<140

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VGAC-1-INF-012022	Client:	Aspect Consulting, LLC
Date Received:	01/21/22	Project:	060172, F&BI 201302
Date Collected:	01/20/22	Lab ID:	201302-02 1/17
Date Analyzed:	01/27/22	Data File:	012633.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration
	ug/m3

APH EC5-8 aliphatics	6,700
APH EC9-12 aliphatics	34,000 ve
APH EC9-10 aromatics	490

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	060172, F&BI 201302
Date Collected:	Not Applicable	Lab ID:	02-0214 MB
Date Analyzed:	01/26/22	Data File:	012612.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VGAC-1-EFF-012022	Client:	Aspect Consulting, LLC
Date Received:	01/21/22	Project:	060172, F&BI 201302
Date Collected:	01/20/22	Lab ID:	201302-01 1/5.8
Date Analyzed:	01/27/22	Data File:	012631.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	71	41	1,2-Dichloropropane	<1.3	<0.29
Dichlorodifluoromethane	<2.9	<0.58	1,4-Dioxane	<2.1	<0.58
Chloromethane	<22	<10	2,2,4-Trimethylpentane	<27	<5.8
F-114	<4.1	<0.58	Methyl methacrylate	<24	<5.8
Vinyl chloride	<1.5	<0.58	Heptane	<24	<5.8
1,3-Butadiene	<0.26	<0.12	Bromodichloromethane	<0.39	<0.058
Butane	<28	<12	Trichloroethene	<0.62	<0.12
Bromomethane	<14	<3.5	cis-1,3-Dichloropropene	<2.6	<0.58
Chloroethane	<15	<5.8	4-Methyl-2-pentanone	<24	<5.8
Vinyl bromide	<2.5	<0.58	trans-1,3-Dichloropropene	<2.6	<0.58
Ethanol	200 ve	110 ve	Toluene	<110	<29
Acrolein	<0.66	<0.29	1,1,2-Trichloroethane	<0.32	<0.058
Pentane	<17	<5.8	2-Hexanone	<24	<5.8
Trichlorofluoromethane	<13	<2.3	Tetrachloroethene	<39	<5.8
Acetone	810 ve	340 ve	Dibromochloromethane	<0.49	<0.058
2-Propanol	<50	<20	1,2-Dibromoethane (EDB)	<0.45	<0.058
1,1-Dichloroethene	<2.3	<0.58	Chlorobenzene	<2.7	<0.58
trans-1,2-Dichloroethene	<2.3	<0.58	Ethylbenzene	4.6	1.1
Methylene chloride	<200	<58	1,1,2,2-Tetrachloroethane	<0.8	<0.12
t-Butyl alcohol (TBA)	<70	<23	Nonane	<30	<5.8
3-Chloropropene	<9.1	<2.9	Isopropylbenzene	<14	<2.9
CFC-113	<4.4	<0.58	2-Chlorotoluene	<30	<5.8
Carbon disulfide	<36	<12	Propylbenzene	<14	<2.9
Methyl t-butyl ether (MTBE)	<10	<2.9	4-Ethyltoluene	<14	<2.9
Vinyl acetate	<41	<12	m,p-Xylene	17	3.8
1,1-Dichloroethane	<2.3	<0.58	o-Xylene	5.7	1.3
cis-1,2-Dichloroethene	<2.3	<0.58	Styrene	<4.9	<1.2
Hexane	<20	<5.8	Bromoform	<12	<1.2
Chloroform	<0.28	<0.058	Benzyl chloride	<0.3	<0.058
Ethyl acetate	<42	<12	1,3,5-Trimethylbenzene	<14	<2.9
Tetrahydrofuran	19	6.4	1,2,4-Trimethylbenzene	<14	<2.9
2-Butanone (MEK)	<17	<5.8	1,3-Dichlorobenzene	<3.5	<0.58
1,2-Dichloroethane (EDC)	<0.23	<0.058	1,4-Dichlorobenzene	<1.3	<0.22
1,1,1-Trichloroethane	<3.2	<0.58	1,2-Dichlorobenzene	<3.5	<0.58
Carbon tetrachloride	<1.8	<0.29	1,2,4-Trichlorobenzene	<4.3	<0.58
Benzene	<1.9	<0.58	Naphthalene	<1.5	<0.29
Cyclohexane	<40	<12	Hexachlorobutadiene	<1.2	<0.12

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID: VGAC-1-INF-012022	Client: Aspect Consulting, LLC
Date Received: 01/21/22	Project: 060172, F&BI 201302
Date Collected: 01/20/22	Lab ID: 201302-02 1/17
Date Analyzed: 01/27/22	Data File: 012633.D
Matrix: Air	Instrument: GCMS7
Units: ug/m3	Operator: bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration		Compounds:	Concentration	
	ug/m3	ppbv		ug/m3	ppbv
Propene	67	39	1,2-Dichloropropane	<3.9	<0.85
Dichlorodifluoromethane	<8.4	<1.7	1,4-Dioxane	<6.1	<1.7
Chloromethane	<63	<31	2,2,4-Trimethylpentane	<79	<17
F-114	<12	<1.7	Methyl methacrylate	<70	<17
Vinyl chloride	<4.3	<1.7	Heptane	<70	<17
1,3-Butadiene	<0.75	<0.34	Bromodichloromethane	<1.1	<0.17
Butane	<81	<34	Trichloroethene	100	19
Bromomethane	<40	<10	cis-1,3-Dichloropropene	<7.7	<1.7
Chloroethane	<45	<17	4-Methyl-2-pentanone	<70	<17
Vinyl bromide	<7.4	<1.7	trans-1,3-Dichloropropene	<7.7	<1.7
Ethanol	280	150	Toluene	<320	<85
Acrolein	25	11	1,1,2-Trichloroethane	<0.93	<0.17
Pentane	<50	<17	2-Hexanone	<70	<17
Trichlorofluoromethane	<38	<6.8	Tetrachloroethene	850	120
Acetone	4,600 ve	1,900 ve	Dibromochloromethane	<1.4	<0.17
2-Propanol	<150	<59	1,2-Dibromoethane (EDB)	<1.3	<0.17
1,1-Dichloroethene	<6.7	<1.7	Chlorobenzene	<7.8	<1.7
trans-1,2-Dichloroethene	<6.7	<1.7	Ethylbenzene	23	5.2
Methylene chloride	<590	<170	1,1,2,2-Tetrachloroethane	<2.3	<0.34
t-Butyl alcohol (TBA)	<210	<68	Nonane	<89	<17
3-Chloropropene	<27	<8.5	Isopropylbenzene	<42	<8.5
CFC-113	<13	<1.7	2-Chlorotoluene	<88	<17
Carbon disulfide	<110	<34	Propylbenzene	<42	<8.5
Methyl t-butyl ether (MTBE)	<31	<8.5	4-Ethyltoluene	<42	<8.5
Vinyl acetate	<120	<34	m,p-Xylene	68	16
1,1-Dichloroethane	<6.9	<1.7	o-Xylene	27	6.1
cis-1,2-Dichloroethene	47	12	Styrene	<14	<3.4
Hexane	<60	<17	Bromoform	<35	<3.4
Chloroform	8.5	1.8	Benzyl chloride	<0.88	<0.17
Ethyl acetate	<120	<34	1,3,5-Trimethylbenzene	<42	<8.5
Tetrahydrofuran	33	11	1,2,4-Trimethylbenzene	46	9.3
2-Butanone (MEK)	760 ve	260 ve	1,3-Dichlorobenzene	<10	<1.7
1,2-Dichloroethane (EDC)	2.3	0.56	1,4-Dichlorobenzene	<3.9	<0.65
1,1,1-Trichloroethane	<9.3	<1.7	1,2-Dichlorobenzene	<10	<1.7
Carbon tetrachloride	<5.3	<0.85	1,2,4-Trichlorobenzene	<13	<1.7
Benzene	37	12	Naphthalene	270	52
Cyclohexane	<120	<34	Hexachlorobutadiene	<3.6	<0.34

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ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	060172, F&BI 201302
Date Collected:	Not Applicable	Lab ID:	02-0214 MB
Date Analyzed:	01/26/22	Data File:	012612.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv	Compounds:	Concentration ug/m3	ppbv
Propene	<1.2	<0.7	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<4.8	<2	Trichloroethene	<0.11	<0.02
Bromomethane	<2.3	<0.6	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<19	<5
Acrolein	<0.11	<0.05	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.6	<0.5	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.59	<0.2	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/01/22

Date Received: 01/21/22

Project: Spic n Span 060172, F&BI 201302

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 201302-01 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	470	520	10
APH EC9-12 aliphatics	ug/m3	210	210	0
APH EC9-10 aromatics	ug/m3	<140	<140	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	77	70-130
APH EC9-12 aliphatics	ug/m3	67	95	70-130
APH EC9-10 aromatics	ug/m3	67	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/01/22

Date Received: 01/21/22

Project: Spic n Span 060172, F&BI 201302

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 201302-01 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	71	61	15
Dichlorodifluoromethane	ug/m3	<2.9	3.5	nm
Chloromethane	ug/m3	<22	<22	nm
F-114	ug/m3	<4.1	<4.1	nm
Vinyl chloride	ug/m3	<1.5	<1.5	nm
1,3-Butadiene	ug/m3	<0.26	<0.26	nm
Butane	ug/m3	<28	<28	nm
Bromomethane	ug/m3	<14	<14	nm
Chloroethane	ug/m3	<15	<15	nm
Vinyl bromide	ug/m3	<2.5	<2.5	nm
Ethanol	ug/m3	200	190	5
Acrolein	ug/m3	<0.66	<0.66	nm
Pentane	ug/m3	<17	<17	nm
Trichlorofluoromethane	ug/m3	<13	<13	nm
Acetone	ug/m3	810	820	1
2-Propanol	ug/m3	<50	<50	nm
1,1-Dichloroethene	ug/m3	<2.3	<2.3	nm
trans-1,2-Dichloroethene	ug/m3	<2.3	<2.3	nm
Methylene chloride	ug/m3	<200	<200	nm
t-Butyl alcohol (TBA)	ug/m3	<70	<70	nm
3-Chloropropene	ug/m3	<9.1	<9.1	nm
CFC-113	ug/m3	<4.4	<4.4	nm
Carbon disulfide	ug/m3	<36	<36	nm
Methyl t-butyl ether (MTBE)	ug/m3	<10	<10	nm
Vinyl acetate	ug/m3	<41	<41	nm
1,1-Dichloroethane	ug/m3	<2.3	<2.3	nm
cis-1,2-Dichloroethene	ug/m3	<2.3	<2.3	nm
Hexane	ug/m3	<20	<20	nm
Chloroform	ug/m3	<0.28	<0.28	nm
Ethyl acetate	ug/m3	<42	<42	nm
Tetrahydrofuran	ug/m3	19	20	5
2-Butanone (MEK)	ug/m3	<17	<17	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.23	<0.23	nm
1,1,1-Trichloroethane	ug/m3	<3.2	<3.2	nm
Carbon tetrachloride	ug/m3	<1.8	<1.8	nm
Benzene	ug/m3	<1.9	<1.9	nm
Cyclohexane	ug/m3	<40	<40	nm
1,2-Dichloropropane	ug/m3	<1.3	<1.3	nm
1,4-Dioxane	ug/m3	<2.1	<2.1	nm
2,2,4-Trimethylpentane	ug/m3	<27	<27	nm

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/01/22

Date Received: 01/21/22

Project: Spic n Span 060172, F&BI 201302

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 201302-01 1/5.8 (Duplicate, continued)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<24	<24	nm
Heptane	ug/m3	<24	<24	nm
Bromodichloromethane	ug/m3	<0.39	<0.39	nm
Trichloroethene	ug/m3	<0.62	<0.62	nm
cis-1,3-Dichloropropene	ug/m3	<2.6	<2.6	nm
4-Methyl-2-pentanone	ug/m3	<24	<24	nm
trans-1,3-Dichloropropene	ug/m3	<2.6	<2.6	nm
Toluene	ug/m3	<110	<110	nm
1,1,2-Trichloroethane	ug/m3	<0.32	<0.32	nm
2-Hexanone	ug/m3	<24	<24	nm
Tetrachloroethene	ug/m3	<39	<39	nm
Dibromochloromethane	ug/m3	<0.49	<0.49	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.45	<0.45	nm
Chlorobenzene	ug/m3	<2.7	<2.7	nm
Ethylbenzene	ug/m3	4.6	4.6	0
1,1,2,2-Tetrachloroethane	ug/m3	<0.8	<0.8	nm
Nonane	ug/m3	<30	<30	nm
Isopropylbenzene	ug/m3	<14	<14	nm
2-Chlorotoluene	ug/m3	<30	<30	nm
Propylbenzene	ug/m3	<14	<14	nm
4-Ethyltoluene	ug/m3	<14	<14	nm
m,p-Xylene	ug/m3	17	16	6
o-Xylene	ug/m3	5.7	5.6	2
Styrene	ug/m3	<4.9	<4.9	nm
Bromoform	ug/m3	<12	<12	nm
Benzyl chloride	ug/m3	<0.3	<0.3	nm
1,3,5-Trimethylbenzene	ug/m3	<14	<14	nm
1,2,4-Trimethylbenzene	ug/m3	<14	<14	nm
1,3-Dichlorobenzene	ug/m3	<3.5	<3.5	nm
1,4-Dichlorobenzene	ug/m3	<1.3	<1.3	nm
1,2-Dichlorobenzene	ug/m3	<3.5	<3.5	nm
1,2,4-Trichlorobenzene	ug/m3	<4.3	<4.3	nm
Naphthalene	ug/m3	<1.5	<1.5	nm
Hexachlorobutadiene	ug/m3	<1.2	<1.2	nm

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/01/22

Date Received: 01/21/22

Project: Spic n Span 060172, F&BI 201302

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ug/m3	23	85	70-130
Dichlorodifluoromethane	ug/m3	67	107	70-130
Chloromethane	ug/m3	28	89	70-130
F-114	ug/m3	94	105	70-130
Vinyl chloride	ug/m3	35	96	70-130
1,3-Butadiene	ug/m3	30	92	70-130
Butane	ug/m3	32	95	70-130
Bromomethane	ug/m3	52	104	70-130
Chloroethane	ug/m3	36	98	70-130
Vinyl bromide	ug/m3	59	99	70-130
Ethanol	ug/m3	25	119	70-130
Acrolein	ug/m3	31	95	70-130
Pentane	ug/m3	40	97	70-130
Trichlorofluoromethane	ug/m3	76	108	70-130
Acetone	ug/m3	32	97	70-130
2-Propanol	ug/m3	33	93	70-130
1,1-Dichloroethene	ug/m3	54	97	70-130
trans-1,2-Dichloroethene	ug/m3	54	98	70-130
Methylene chloride	ug/m3	94	77	70-130
t-Butyl alcohol (TBA)	ug/m3	41	95	70-130
3-Chloropropene	ug/m3	42	93	70-130
CFC-113	ug/m3	100	107	70-130
Carbon disulfide	ug/m3	42	93	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	95	70-130
Vinyl acetate	ug/m3	48	85	70-130
1,1-Dichloroethane	ug/m3	55	99	70-130
cis-1,2-Dichloroethene	ug/m3	54	97	70-130
Hexane	ug/m3	48	95	70-130
Chloroform	ug/m3	66	105	70-130
Ethyl acetate	ug/m3	49	100	70-130
Tetrahydrofuran	ug/m3	40	87	70-130
2-Butanone (MEK)	ug/m3	40	100	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	109	70-130
1,1,1-Trichloroethane	ug/m3	74	108	70-130
Carbon tetrachloride	ug/m3	85	111	70-130
Benzene	ug/m3	43	95	70-130
Cyclohexane	ug/m3	46	91	70-130
1,2-Dichloropropane	ug/m3	62	94	70-130
1,4-Dioxane	ug/m3	49	98	70-130
2,2,4-Trimethylpentane	ug/m3	63	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/01/22

Date Received: 01/21/22

Project: Spic n Span 060172, F&BI 201302

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: Laboratory Control Sample (Continued)

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Methyl methacrylate	ug/m3	55	98	70-130
Heptane	ug/m3	55	92	70-130
Bromodichloromethane	ug/m3	90	108	70-130
Trichloroethene	ug/m3	73	101	70-130
cis-1,3-Dichloropropene	ug/m3	61	103	70-130
4-Methyl-2-pentanone	ug/m3	55	96	70-130
trans-1,3-Dichloropropene	ug/m3	61	109	70-130
Toluene	ug/m3	51	108	70-130
1,1,2-Trichloroethane	ug/m3	74	103	70-130
2-Hexanone	ug/m3	55	93	70-130
Tetrachloroethene	ug/m3	92	115	70-130
Dibromochloromethane	ug/m3	120	113	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	100	70-130
Chlorobenzene	ug/m3	62	112	70-130
Ethylbenzene	ug/m3	59	97	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	101	70-130
Nonane	ug/m3	71	82	70-130
Isopropylbenzene	ug/m3	66	112	70-130
2-Chlorotoluene	ug/m3	70	106	70-130
Propylbenzene	ug/m3	66	98	70-130
4-Ethyltoluene	ug/m3	66	96	70-130
m,p-Xylene	ug/m3	120	100	70-130
o-Xylene	ug/m3	59	101	70-130
Styrene	ug/m3	58	98	70-130
Bromoform	ug/m3	140	121	70-130
Benzyl chloride	ug/m3	70	106	70-130
1,3,5-Trimethylbenzene	ug/m3	66	92	70-130
1,2,4-Trimethylbenzene	ug/m3	66	88	70-130
1,3-Dichlorobenzene	ug/m3	81	110	70-130
1,4-Dichlorobenzene	ug/m3	81	97	70-130
1,2-Dichlorobenzene	ug/m3	81	104	70-130
1,2,4-Trichlorobenzene	ug/m3	100	95	70-130
Naphthalene	ug/m3	71	92	70-130
Hexachlorobutadiene	ug/m3	140	122	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

01-71-77

2.

17

PO#

0600172

INVOICE TO

SAMPLE DISPOSAL

☐ Default: Clean after 3 days

☐ Archive (Fee may apply).

ANALYSIS PROTESTED

Samples received at 18 °C

DATE	TIME
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1541	1541
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1600	1600

1/21/22	1541
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1101	-3/101
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