

All4, Inc.

2393 Kimberton Road
Kimberton, PA 19442

U.S. Steel Corp – Clairton Works
Client Project # 00701-0002.00

Analytical Report
(1022-034)

EPA Method TO-15

TO-15 Target Compound List



Enthalpy Analytical, LLC

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I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 42 pages.

Report Issued: 10/28/22



Results

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC01_221011_S
Sample Info. 1022-034; 500mL load; Can #0701
Sampling Date 2022-10-11 09:10
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201889.D
Dilution 1.000
Pressurization Factor 1.753
Acquisition Date 2022-10-18 18:59
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC01_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	1.66	0.0677	0.0613	2.85	0.116	0.106	
Freon 12 (CCl2F2)	0.437	0.0686	0.0613	2.16	0.339	0.303	
Freon 114 (C2Cl2F4)	ND	0.702	0.0613	ND	4.91	0.429	
Chloromethane	0.471	0.0693	0.0613	0.971	0.143	0.127	
Chloroethene (Vinyl chloride)	ND	0.0700	0.0613	ND	0.179	0.157	
1,3-Butadiene	ND	0.0682	0.0613	ND	0.151	0.136	
Bromomethane	ND	0.0688	0.0613	ND	0.267	0.238	
Chloroethane	ND	0.0712	0.0613	ND	0.188	0.162	
Bromoethene (Vinyl bromide)	ND	0.0686	0.0613	ND	0.300	0.268	
Freon 11 (CCl3F)	0.222	0.0740	0.0613	1.24	0.415	0.344	
Ethanol	1.97	0.0695	0.0701	3.71	0.131	0.132	
Acrolein	0.278	0.0691	0.0613	0.636	0.158	0.141	
Freon 113 (C2Cl3F3)	0.0702	0.0712	0.0613	0.538	0.545	0.470	J
1,1-Dichloroethene	ND	0.0705	0.0613	ND	0.279	0.243	
Acetone	2.46	0.0702	0.0613	5.84	0.167	0.146	
Carbon disulfide	ND	0.0699	0.0613	ND	0.218	0.191	
Isopropyl alcohol	0.604	0.0699	0.0613	1.48	0.172	0.151	m
Allyl chloride (3-chloropropene)	ND	0.0757	0.0613	ND	0.237	0.192	
Acetonitrile	0.139	0.0699	0.0613	0.233	0.117	0.103	
Methylene chloride	0.117	0.0718	0.0613	0.406	0.249	0.213	
trans-1,2-Dichloroethene	ND	0.0715	0.0613	ND	0.283	0.243	
Methyl tert-butyl ether	ND	0.0721	0.0613	ND	0.260	0.221	
Acrylonitrile	ND	0.0714	0.0613	ND	0.155	0.133	
Hexane	0.202	0.0712	0.0613	0.713	0.251	0.216	
1,1-Dichloroethane	ND	0.0696	0.0613	ND	0.282	0.248	
Vinyl acetate	ND	0.0717	0.0613	ND	0.252	0.216	
cis-1,2-Dichloroethene	ND	0.0708	0.0613	ND	0.281	0.243	
Methyl ethyl ketone (2-Butanone)	0.318	0.0725	0.0613	0.938	0.214	0.181	m
Ethyl acetate	0.257	0.0700	0.0613	0.927	0.252	0.221	m
Chloroform	ND	0.0703	0.0613	ND	0.343	0.299	
Tetrahydrofuran	ND	0.0710	0.0613	ND	0.209	0.181	
1,1,1-Trichloroethane	ND	0.0708	0.0613	ND	0.386	0.334	
Cyclohexane	0.242	0.0719	0.0613	0.833	0.247	0.211	

Enthalpy Analytical

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All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC01_221011_S
 Sample Info. 1022-034; 500mL load; Can #0701
 Sampling Date 2022-10-11 09:10
 Received Date 2022-10-14 00:00
 Sample Type Sample
 Batch Xavier_X101822D.v1
 Data File X2201889.D
 Dilution 1.000
 Pressurization Factor 1.753
 Acquisition Date 2022-10-18 18:59
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-034.VOC01_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0743	0.0706	0.0613	0.467	0.444	0.386	
Benzene	1.11	0.0705	0.0613	3.54	0.225	0.196	
2,2,4-trimethylpentane	0.0939	0.0725	0.0613	0.439	0.338	0.286	
1,2-Dichloroethane	ND	0.0721	0.0613	ND	0.292	0.248	
Heptane	0.101	0.0710	0.0613	0.415	0.291	0.251	
Trichloroethene	ND	0.0709	0.0613	ND	0.381	0.329	
1,2-Dichloropropane	ND	0.0706	0.0613	ND	0.326	0.283	
Methyl methacrylate	ND	0.0734	0.0613	ND	0.300	0.251	
1,4-Dioxane	ND	0.0703	0.0613	ND	0.253	0.221	
Bromodichloromethane	ND	0.0708	0.0613	ND	0.474	0.411	
cis-1,3-Dichloropropene	ND	0.0696	0.0613	ND	0.316	0.278	
Methyl isobutyl ketone	ND	0.0728	0.0613	ND	0.298	0.251	
Toluene	2.19	0.0714	0.0613	8.27	0.269	0.231	
trans-1,3-Dichloropropene	ND	0.0724	0.0613	ND	0.328	0.278	
1,1,2-Trichloroethane	ND	0.0713	0.0613	ND	0.389	0.334	
Tetrachloroethene	ND	0.0717	0.0613	ND	0.486	0.416	
2-Hexanone (Methyl butyl ketone)	ND	0.0717	0.0613	ND	0.294	0.251	
Dibromochloromethane	ND	0.0707	0.0613	ND	0.602	0.522	
1,2-Dibromoethane	ND	0.0717	0.0613	ND	0.551	0.471	
Chlorobenzene	ND	0.0722	0.0613	ND	0.332	0.282	
Ethylbenzene	0.0724	0.0696	0.0613	0.314	0.302	0.266	
1,1,1,2-Tetrachloroethane	ND	0.0707	0.0613	ND	0.485	0.421	
m-/p-Xylenes	0.235	0.0711	0.0613	1.02	0.309	0.266	
o-Xylene	0.0991	0.0702	0.0613	0.430	0.305	0.266	
Styrene	0.0728	0.0687	0.0613	0.310	0.292	0.261	
Bromoform	ND	0.0703	0.0613	ND	0.726	0.634	
1,1,2,2-Tetrachloroethane	ND	0.0709	0.0613	ND	0.486	0.421	
4-Ethyltoluene	0.0875	0.0713	0.0613	0.430	0.350	0.301	
2-Chlorotoluene	ND	0.0707	0.0613	ND	0.366	0.317	
1,3,5-Trimethylbenzene	ND	0.0711	0.0613	ND	0.349	0.301	
1,2,4-Trimethylbenzene	0.109	0.0702	0.0613	0.533	0.345	0.301	
1,3-Dichlorobenzene	ND	0.0712	0.0613	ND	0.428	0.369	
1,4-Dichlorobenzene	ND	0.0705	0.0613	ND	0.423	0.369	

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All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

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Received Date 2022-10-14 00:00
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Batch Xavier_X101822D.v1
Data File X2201889.D
Dilution 1.000
Pressurization Factor 1.753
Acquisition Date 2022-10-18 18:59
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC01_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0705	0.0613	ND	0.365	0.317	
1,2-Dichlorobenzene	ND	0.0710	0.0613	ND	0.427	0.369	
1,2,4-Trichlorobenzene	ND	0.0698	0.0613	ND	0.518	0.455	
Hexachlorobutadiene	ND	0.0693	0.0613	ND	0.738	0.654	
Naphthalene	ND	0.0706	0.0613	ND	0.370	0.321	
1-Bromopropane	ND	0.0695	0.0613	ND	0.350	0.308	
1-Octene	ND	0.0692	0.0613	ND	0.317	0.281	
n-Octane	ND	0.0722	0.0613	ND	0.337	0.286	
Isopropylbenzene	ND	0.0712	0.0613	ND	0.350	0.301	
n-Propylbenzene	0.0755	0.0719	0.0613	0.371	0.353	0.301	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	737,901	11.05	5.21	pass
1,4-Difluorobenzene (IS)	2,734,262	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,306,472	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC02_221011_S
Sample Info. 1022-034; 500mL load; Can #1793
Sampling Date 2022-10-11 09:00
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201890.D
Dilution 1.000
Pressurization Factor 1.869
Acquisition Date 2022-10-18 19:53
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC02_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	1.81	0.0722	0.0654	3.11	0.124	0.113	
Freon 12 (CCl2F2)	0.441	0.0732	0.0654	2.18	0.362	0.323	
Freon 114 (C2Cl2F4)	ND	0.749	0.0654	ND	5.23	0.457	
Chloromethane	0.492	0.0739	0.0654	1.01	0.153	0.135	
Chloroethene (Vinyl chloride)	ND	0.0747	0.0654	ND	0.191	0.167	
1,3-Butadiene	0.0981	0.0727	0.0654	0.217	0.161	0.145	
Bromomethane	ND	0.0733	0.0654	ND	0.285	0.254	
Chloroethane	ND	0.0759	0.0654	ND	0.200	0.172	
Bromoethene (Vinyl bromide)	ND	0.0731	0.0654	ND	0.320	0.286	
Freon 11 (CCl3F)	0.227	0.0789	0.0654	1.27	0.443	0.367	
Ethanol	1.54	0.0741	0.0748	2.90	0.139	0.141	m
Acrolein	0.214	0.0736	0.0654	0.489	0.169	0.150	
Freon 113 (C2Cl3F3)	ND	0.0759	0.0654	ND	0.581	0.501	
1,1-Dichloroethene	ND	0.0752	0.0654	ND	0.298	0.259	
Acetone	2.17	0.0749	0.0654	5.15	0.178	0.155	
Carbon disulfide	0.0750	0.0745	0.0654	0.234	0.232	0.204	
Isopropyl alcohol	0.460	0.0745	0.0654	1.13	0.183	0.161	
Allyl chloride (3-chloropropene)	ND	0.0807	0.0654	ND	0.253	0.205	
Acetonitrile	0.208	0.0745	0.0654	0.350	0.125	0.110	
Methylene chloride	0.137	0.0765	0.0654	0.474	0.266	0.227	
trans-1,2-Dichloroethene	ND	0.0762	0.0654	ND	0.302	0.259	
Methyl tert-butyl ether	ND	0.0768	0.0654	ND	0.277	0.236	
Acrylonitrile	ND	0.0761	0.0654	ND	0.165	0.142	
Hexane	0.241	0.0759	0.0654	0.847	0.268	0.230	
1,1-Dichloroethane	ND	0.0742	0.0654	ND	0.300	0.265	
Vinyl acetate	ND	0.0765	0.0654	ND	0.269	0.230	
cis-1,2-Dichloroethene	0.133	0.0755	0.0654	0.526	0.299	0.259	m
Methyl ethyl ketone (2-Butanone)	0.276	0.0773	0.0654	0.812	0.228	0.193	
Ethyl acetate	0.175	0.0746	0.0654	0.629	0.269	0.236	m
Chloroform	ND	0.0750	0.0654	ND	0.366	0.319	
Tetrahydrofuran	ND	0.0757	0.0654	ND	0.223	0.193	
1,1,1-Trichloroethane	ND	0.0755	0.0654	ND	0.412	0.357	
Cyclohexane	0.391	0.0766	0.0654	1.34	0.264	0.225	m

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC02_221011_S
 Sample Info. 1022-034; 500mL load; Can #1793
 Sampling Date 2022-10-11 09:00
 Received Date 2022-10-14 00:00
 Sample Type Sample
 Batch Xavier_X101822D.v1
 Data File X2201890.D
 Dilution 1.000
 Pressurization Factor 1.869
 Acquisition Date 2022-10-18 19:53
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-034.VOC02_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0720	0.0753	0.0654	0.453	0.473	0.411	J
Benzene	1.50	0.0752	0.0654	4.79	0.240	0.209	
2,2,4-trimethylpentane	ND	0.0773	0.0654	ND	0.361	0.305	
1,2-Dichloroethane	ND	0.0769	0.0654	ND	0.311	0.265	
Heptane	0.192	0.0757	0.0654	0.786	0.310	0.268	
Trichloroethene	ND	0.0756	0.0654	ND	0.406	0.351	
1,2-Dichloropropane	ND	0.0753	0.0654	ND	0.348	0.302	
Methyl methacrylate	0.184	0.0783	0.0654	0.753	0.320	0.268	
1,4-Dioxane	ND	0.0750	0.0654	ND	0.270	0.236	
Bromodichloromethane	ND	0.0755	0.0654	ND	0.506	0.438	
cis-1,3-Dichloropropene	ND	0.0742	0.0654	ND	0.337	0.297	
Methyl isobutyl ketone	ND	0.0777	0.0654	ND	0.318	0.268	
Toluene	2.50	0.0761	0.0654	9.42	0.287	0.246	
trans-1,3-Dichloropropene	ND	0.0771	0.0654	ND	0.350	0.297	
1,1,2-Trichloroethane	0.204	0.0760	0.0654	1.11	0.415	0.357	
Tetrachloroethene	0.120	0.0765	0.0654	0.814	0.518	0.443	
2-Hexanone (Methyl butyl ketone)	0.0714	0.0765	0.0654	0.292	0.313	0.268	J, m
Dibromochloromethane	ND	0.0754	0.0654	ND	0.641	0.557	
1,2-Dibromoethane	ND	0.0765	0.0654	ND	0.587	0.502	
Chlorobenzene	ND	0.0770	0.0654	ND	0.354	0.301	
Ethylbenzene	0.0694	0.0742	0.0654	0.301	0.322	0.284	J
1,1,1,2-Tetrachloroethane	ND	0.0754	0.0654	ND	0.517	0.449	
m-/p-Xylenes	0.238	0.0758	0.0654	1.03	0.329	0.284	
o-Xylene	0.109	0.0749	0.0654	0.473	0.325	0.284	
Styrene	0.124	0.0733	0.0654	0.526	0.312	0.278	
Bromoform	ND	0.0750	0.0654	ND	0.775	0.676	
1,1,2,2-Tetrachloroethane	ND	0.0756	0.0654	ND	0.519	0.449	
4-Ethyltoluene	0.0962	0.0760	0.0654	0.473	0.373	0.321	
2-Chlorotoluene	ND	0.0754	0.0654	ND	0.390	0.338	
1,3,5-Trimethylbenzene	0.0752	0.0758	0.0654	0.369	0.372	0.321	J
1,2,4-Trimethylbenzene	0.153	0.0748	0.0654	0.752	0.368	0.321	
1,3-Dichlorobenzene	ND	0.0759	0.0654	ND	0.456	0.393	
1,4-Dichlorobenzene	ND	0.0751	0.0654	ND	0.451	0.393	

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Pressurization Factor 1.869
Acquisition Date 2022-10-18 19:53
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC02_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0752	0.0654	ND	0.389	0.338	
1,2-Dichlorobenzene	ND	0.0757	0.0654	ND	0.455	0.393	
1,2,4-Trichlorobenzene	ND	0.0745	0.0654	ND	0.552	0.485	
Hexachlorobutadiene	ND	0.0739	0.0654	ND	0.787	0.697	
Naphthalene	1.66	0.0753	0.0654	8.70	0.394	0.343	
1-Bromopropane	ND	0.0742	0.0654	ND	0.373	0.329	
1-Octene	ND	0.0738	0.0654	ND	0.338	0.300	
n-Octane	0.118	0.0770	0.0654	0.551	0.359	0.305	
Isopropylbenzene	ND	0.0759	0.0654	ND	0.373	0.321	
n-Propylbenzene	0.0969	0.0767	0.0654	0.476	0.377	0.321	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	713,862	11.06	5.21	pass
1,4-Difluorobenzene (IS)	2,640,497	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,275,956	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_S
Sample Info. 1022-034; 500mL load; Can #1719
Sampling Date 2022-10-11 08:55
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201891.D
Dilution 1.000
Pressurization Factor 1.764
Acquisition Date 2022-10-18 20:48
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC03_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	2.24	0.0682	0.0617	3.85	0.117	0.106	
Freon 12 (CCl2F2)	0.473	0.0691	0.0617	2.34	0.341	0.305	
Freon 114 (C2Cl2F4)	ND	0.707	0.0617	ND	4.94	0.431	
Chloromethane	0.493	0.0698	0.0617	1.02	0.144	0.127	
Chloroethene (Vinyl chloride)	ND	0.0705	0.0617	ND	0.180	0.158	
1,3-Butadiene	0.122	0.0687	0.0617	0.270	0.152	0.136	
Bromomethane	ND	0.0692	0.0617	ND	0.269	0.240	
Chloroethane	ND	0.0717	0.0617	ND	0.189	0.163	
Bromoethene (Vinyl bromide)	ND	0.0690	0.0617	ND	0.302	0.270	
Freon 11 (CCl3F)	0.221	0.0744	0.0617	1.24	0.418	0.347	
Ethanol	1.47	0.0699	0.0706	2.77	0.132	0.133	m
Acrolein	0.169	0.0695	0.0617	0.388	0.159	0.141	m
Freon 113 (C2Cl3F3)	0.0659	0.0716	0.0617	0.505	0.549	0.473	J
1,1-Dichloroethene	ND	0.0710	0.0617	ND	0.281	0.245	
Acetone	2.07	0.0707	0.0617	4.92	0.168	0.147	
Carbon disulfide	0.213	0.0703	0.0617	0.662	0.219	0.192	
Isopropyl alcohol	0.368	0.0703	0.0617	0.905	0.173	0.152	
Allyl chloride (3-chloropropene)	ND	0.0762	0.0617	ND	0.238	0.193	
Acetonitrile	0.356	0.0703	0.0617	0.597	0.118	0.104	
Methylene chloride	0.124	0.0723	0.0617	0.432	0.251	0.214	
trans-1,2-Dichloroethene	ND	0.0720	0.0617	ND	0.285	0.245	
Methyl tert-butyl ether	ND	0.0725	0.0617	ND	0.261	0.222	
Acrylonitrile	ND	0.0718	0.0617	ND	0.156	0.134	
Hexane	0.183	0.0717	0.0617	0.643	0.253	0.217	
1,1-Dichloroethane	ND	0.0701	0.0617	ND	0.283	0.250	
Vinyl acetate	ND	0.0722	0.0617	ND	0.254	0.217	
cis-1,2-Dichloroethene	ND	0.0713	0.0617	ND	0.282	0.245	
Methyl ethyl ketone (2-Butanone)	0.279	0.0730	0.0617	0.823	0.215	0.182	m
Ethyl acetate	0.142	0.0704	0.0617	0.510	0.254	0.222	m
Chloroform	ND	0.0708	0.0617	ND	0.345	0.301	
Tetrahydrofuran	ND	0.0714	0.0617	ND	0.210	0.182	
1,1,1-Trichloroethane	ND	0.0713	0.0617	ND	0.389	0.337	
Cyclohexane	0.272	0.0723	0.0617	0.936	0.249	0.212	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs
 All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_S
 Sample Info. 1022-034; 500mL load; Can #1719
 Sampling Date 2022-10-11 08:55
 Received Date 2022-10-14 00:00
 Sample Type Sample
 Batch Xavier_X101822D.v1
 Data File X2201891.D
 Dilution 1.000
 Pressurization Factor 1.764
 Acquisition Date 2022-10-18 20:48
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-034.VOC03_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m ³)	RL (ug/m ³)	MDL (ug/m ³)	Flags
Carbon tetrachloride	0.0679	0.0711	0.0617	0.427	0.447	0.388	J
Benzene	14.7	0.0710	0.0617	47.0	0.227	0.197	
2,2,4-trimethylpentane	ND	0.0730	0.0617	ND	0.341	0.288	
1,2-Dichloroethane	ND	0.0726	0.0617	ND	0.294	0.250	
Heptane	ND	0.0715	0.0617	ND	0.293	0.253	
Trichloroethene	ND	0.0713	0.0617	ND	0.383	0.332	
1,2-Dichloropropane	ND	0.0711	0.0617	ND	0.328	0.285	
Methyl methacrylate	ND	0.0739	0.0617	ND	0.302	0.253	
1,4-Dioxane	ND	0.0708	0.0617	ND	0.255	0.222	
Bromodichloromethane	ND	0.0713	0.0617	ND	0.477	0.413	
cis-1,3-Dichloropropene	ND	0.0701	0.0617	ND	0.318	0.280	
Methyl isobutyl ketone	ND	0.0733	0.0617	ND	0.300	0.253	
Toluene	3.43	0.0718	0.0617	12.9	0.271	0.233	
trans-1,3-Dichloropropene	ND	0.0728	0.0617	ND	0.330	0.280	
1,1,2-Trichloroethane	ND	0.0718	0.0617	ND	0.391	0.337	
Tetrachloroethene	ND	0.0722	0.0617	ND	0.489	0.418	
2-Hexanone (Methyl butyl ketone)	ND	0.0722	0.0617	ND	0.296	0.253	
Dibromochloromethane	ND	0.0711	0.0617	ND	0.605	0.526	
1,2-Dibromoethane	ND	0.0722	0.0617	ND	0.554	0.474	
Chlorobenzene	ND	0.0727	0.0617	ND	0.334	0.284	
Ethylbenzene	ND	0.0701	0.0617	ND	0.304	0.268	
1,1,1,2-Tetrachloroethane	ND	0.0711	0.0617	ND	0.488	0.424	
m-/p-Xylenes	0.248	0.0715	0.0617	1.08	0.310	0.268	
o-Xylene	0.0963	0.0707	0.0617	0.418	0.307	0.268	
Styrene	0.170	0.0691	0.0617	0.723	0.294	0.263	
Bromoform	ND	0.0708	0.0617	ND	0.731	0.638	
1,1,2,2-Tetrachloroethane	ND	0.0713	0.0617	ND	0.489	0.424	
4-Ethyltoluene	0.0995	0.0718	0.0617	0.489	0.353	0.303	
2-Chlorotoluene	ND	0.0712	0.0617	ND	0.368	0.319	
1,3,5-Trimethylbenzene	0.0756	0.0715	0.0617	0.371	0.351	0.303	
1,2,4-Trimethylbenzene	0.134	0.0706	0.0617	0.659	0.347	0.303	
1,3-Dichlorobenzene	ND	0.0717	0.0617	ND	0.431	0.371	
1,4-Dichlorobenzene	ND	0.0709	0.0617	ND	0.426	0.371	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_S
Sample Info. 1022-034; 500mL load; Can #1719
Sampling Date 2022-10-11 08:55
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201891.D
Dilution 1.000
Pressurization Factor 1.764
Acquisition Date 2022-10-18 20:48
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC03_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0710	0.0617	ND	0.367	0.319	
1,2-Dichlorobenzene	ND	0.0715	0.0617	ND	0.429	0.371	
1,2,4-Trichlorobenzene	ND	0.0703	0.0617	ND	0.521	0.458	
Hexachlorobutadiene	ND	0.0697	0.0617	ND	0.743	0.658	
Naphthalene	0.652	0.0711	0.0617	3.41	0.372	0.323	
1-Bromopropane	ND	0.0700	0.0617	ND	0.352	0.310	
1-Octene	ND	0.0696	0.0617	ND	0.319	0.283	
n-Octane	ND	0.0727	0.0617	ND	0.339	0.288	
Isopropylbenzene	ND	0.0717	0.0617	ND	0.352	0.303	
n-Propylbenzene	0.0838	0.0724	0.0617	0.412	0.356	0.303	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	710,807	11.05	5.21	pass
1,4-Difluorobenzene (IS)	2,618,187	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,246,773	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_D
Sample Info. 1022-034; 500mL load; Can #0746
Sampling Date 2022-10-11 08:56
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201892.D
Dilution 1.000
Pressurization Factor 1.748
Acquisition Date 2022-10-18 21:42
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC03_221011_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	2.20	0.0675	0.0612	3.78	0.116	0.105	
Freon 12 (CCl2F2)	0.461	0.0685	0.0612	2.28	0.338	0.302	
Freon 114 (C2Cl2F4)	ND	0.701	0.0612	ND	4.89	0.427	
Chloromethane	0.512	0.0692	0.0612	1.06	0.143	0.126	
Chloroethene (Vinyl chloride)	ND	0.0699	0.0612	ND	0.178	0.156	
1,3-Butadiene	0.112	0.0680	0.0612	0.248	0.150	0.135	
Bromomethane	ND	0.0686	0.0612	ND	0.266	0.237	
Chloroethane	ND	0.0710	0.0612	ND	0.187	0.161	
Bromoethene (Vinyl bromide)	ND	0.0684	0.0612	ND	0.299	0.267	
Freon 11 (CCl3F)	0.234	0.0738	0.0612	1.31	0.414	0.344	
Ethanol	1.39	0.0693	0.0699	2.62	0.130	0.132	m
Acrolein	0.119	0.0689	0.0612	0.273	0.158	0.140	m
Freon 113 (C2Cl3F3)	0.0787	0.0710	0.0612	0.603	0.544	0.469	
1,1-Dichloroethene	ND	0.0703	0.0612	ND	0.279	0.242	
Acetone	2.62	0.0701	0.0612	6.21	0.166	0.145	
Carbon disulfide	0.211	0.0697	0.0612	0.656	0.217	0.190	
Isopropyl alcohol	0.467	0.0697	0.0612	1.15	0.171	0.150	m
Allyl chloride (3-chloropropene)	ND	0.0755	0.0612	ND	0.236	0.191	
Acetonitrile	0.276	0.0697	0.0612	0.464	0.117	0.103	
Methylene chloride	0.125	0.0716	0.0612	0.435	0.249	0.212	m
trans-1,2-Dichloroethene	ND	0.0713	0.0612	ND	0.283	0.242	
Methyl tert-butyl ether	ND	0.0719	0.0612	ND	0.259	0.220	
Acrylonitrile	ND	0.0712	0.0612	ND	0.154	0.133	
Hexane	0.183	0.0710	0.0612	0.644	0.250	0.216	
1,1-Dichloroethane	ND	0.0694	0.0612	ND	0.281	0.247	
Vinyl acetate	ND	0.0715	0.0612	ND	0.252	0.215	
cis-1,2-Dichloroethene	ND	0.0706	0.0612	ND	0.280	0.242	
Methyl ethyl ketone (2-Butanone)	0.302	0.0723	0.0612	0.890	0.213	0.180	m
Ethyl acetate	0.0920	0.0698	0.0612	0.331	0.251	0.220	m
Chloroform	ND	0.0701	0.0612	ND	0.342	0.299	
Tetrahydrofuran	ND	0.0708	0.0612	ND	0.209	0.180	
1,1,1-Trichloroethane	ND	0.0706	0.0612	ND	0.385	0.334	
Cyclohexane	0.254	0.0717	0.0612	0.875	0.247	0.210	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_D
Sample Info. 1022-034; 500mL load; Can #0746
Sampling Date 2022-10-11 08:56
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201892.D
Dilution 1.000
Pressurization Factor 1.748
Acquisition Date 2022-10-18 21:42
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC03_221011_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0684	0.0704	0.0612	0.430	0.443	0.385	J
Benzene	12.0	0.0703	0.0612	38.5	0.225	0.195	
2,2,4-trimethylpentane	ND	0.0723	0.0612	ND	0.338	0.286	
1,2-Dichloroethane	ND	0.0720	0.0612	ND	0.291	0.247	
Heptane	0.0714	0.0708	0.0612	0.292	0.290	0.251	
Trichloroethene	ND	0.0707	0.0612	ND	0.380	0.329	
1,2-Dichloropropane	ND	0.0704	0.0612	ND	0.325	0.283	
Methyl methacrylate	ND	0.0732	0.0612	ND	0.300	0.250	
1,4-Dioxane	ND	0.0701	0.0612	ND	0.253	0.220	
Bromodichloromethane	ND	0.0706	0.0612	ND	0.473	0.410	
cis-1,3-Dichloropropene	ND	0.0694	0.0612	ND	0.315	0.278	
Methyl isobutyl ketone	ND	0.0727	0.0612	ND	0.297	0.250	
Toluene	3.23	0.0712	0.0612	12.2	0.268	0.230	
trans-1,3-Dichloropropene	ND	0.0722	0.0612	ND	0.327	0.278	
1,1,2-Trichloroethane	ND	0.0711	0.0612	ND	0.388	0.334	
Tetrachloroethene	ND	0.0715	0.0612	ND	0.485	0.415	
2-Hexanone (Methyl butyl ketone)	ND	0.0715	0.0612	ND	0.293	0.250	
Dibromochloromethane	ND	0.0705	0.0612	ND	0.600	0.521	
1,2-Dibromoethane	ND	0.0715	0.0612	ND	0.549	0.470	
Chlorobenzene	ND	0.0720	0.0612	ND	0.331	0.281	
Ethylbenzene	ND	0.0694	0.0612	ND	0.301	0.266	
1,1,1,2-Tetrachloroethane	ND	0.0705	0.0612	ND	0.484	0.420	
m-/p-Xylenes	0.229	0.0709	0.0612	0.995	0.308	0.266	
o-Xylene	0.0826	0.0701	0.0612	0.358	0.304	0.266	
Styrene	0.136	0.0685	0.0612	0.579	0.292	0.260	
Bromoform	ND	0.0701	0.0612	ND	0.724	0.632	
1,1,2,2-Tetrachloroethane	ND	0.0707	0.0612	ND	0.485	0.420	
4-Ethyltoluene	0.0975	0.0711	0.0612	0.479	0.349	0.301	m
2-Chlorotoluene	ND	0.0706	0.0612	ND	0.365	0.317	
1,3,5-Trimethylbenzene	0.0705	0.0709	0.0612	0.346	0.348	0.301	J
1,2,4-Trimethylbenzene	0.114	0.0700	0.0612	0.561	0.344	0.301	
1,3-Dichlorobenzene	ND	0.0710	0.0612	ND	0.427	0.368	
1,4-Dichlorobenzene	ND	0.0703	0.0612	ND	0.422	0.368	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC03_221011_D
Sample Info. 1022-034; 500mL load; Can #0746
Sampling Date 2022-10-11 08:56
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201892.D
Dilution 1.000
Pressurization Factor 1.748
Acquisition Date 2022-10-18 21:42
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC03_221011_D.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0703	0.0612	ND	0.364	0.317	
1,2-Dichlorobenzene	ND	0.0708	0.0612	ND	0.426	0.368	
1,2,4-Trichlorobenzene	ND	0.0696	0.0612	ND	0.517	0.454	
Hexachlorobutadiene	ND	0.0691	0.0612	ND	0.736	0.652	
Naphthalene	0.277	0.0704	0.0612	1.45	0.369	0.321	
1-Bromopropane	ND	0.0694	0.0612	ND	0.349	0.308	
1-Octene	ND	0.0690	0.0612	ND	0.317	0.281	
n-Octane	ND	0.0720	0.0612	ND	0.336	0.286	
Isopropylbenzene	ND	0.0710	0.0612	ND	0.349	0.301	
n-Propylbenzene	0.0822	0.0717	0.0612	0.404	0.352	0.301	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	700,293	11.06	5.21	pass
1,4-Difluorobenzene (IS)	2,618,672	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,211,515	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC04_221011_S
Sample Info. 1022-034; 500mL load; Can #0838
Sampling Date 2022-10-11 08:49
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201893.D
Dilution 1.000
Pressurization Factor 1.995
Acquisition Date 2022-10-18 22:36
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC04_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	2.40	0.0771	0.0698	4.14	0.133	0.120	m
Freon 12 (CCl2F2)	0.461	0.0781	0.0698	2.28	0.386	0.345	
Freon 114 (C2Cl2F4)	ND	0.800	0.0698	ND	5.59	0.488	
Chloromethane	0.514	0.0789	0.0698	1.06	0.163	0.144	
Chloroethene (Vinyl chloride)	ND	0.0797	0.0698	ND	0.204	0.178	
1,3-Butadiene	0.162	0.0776	0.0698	0.358	0.172	0.154	
Bromomethane	ND	0.0783	0.0698	ND	0.304	0.271	
Chloroethane	ND	0.0811	0.0698	ND	0.214	0.184	
Bromoethene (Vinyl bromide)	ND	0.0780	0.0698	ND	0.341	0.305	
Freon 11 (CCl3F)	0.244	0.0842	0.0698	1.37	0.473	0.392	
Ethanol	1.37	0.0791	0.0798	2.59	0.149	0.150	m
Acrolein	0.184	0.0786	0.0698	0.421	0.180	0.160	m
Freon 113 (C2Cl3F3)	ND	0.0810	0.0698	ND	0.620	0.535	
1,1-Dichloroethene	ND	0.0803	0.0698	ND	0.318	0.277	
Acetone	3.66	0.0800	0.0698	8.69	0.190	0.166	
Carbon disulfide	0.221	0.0796	0.0698	0.687	0.248	0.217	
Isopropyl alcohol	0.498	0.0796	0.0698	1.22	0.195	0.172	m
Allyl chloride (3-chloropropene)	ND	0.0862	0.0698	ND	0.270	0.218	
Acetonitrile	0.579	0.0796	0.0698	0.971	0.133	0.117	
Methylene chloride	0.144	0.0817	0.0698	0.501	0.284	0.242	
trans-1,2-Dichloroethene	ND	0.0814	0.0698	ND	0.323	0.277	
Methyl tert-butyl ether	ND	0.0820	0.0698	ND	0.296	0.252	
Acrylonitrile	ND	0.0812	0.0698	ND	0.176	0.151	
Hexane	0.172	0.0811	0.0698	0.604	0.286	0.246	
1,1-Dichloroethane	ND	0.0792	0.0698	ND	0.321	0.282	
Vinyl acetate	ND	0.0816	0.0698	ND	0.287	0.246	
cis-1,2-Dichloroethene	ND	0.0806	0.0698	ND	0.319	0.277	
Methyl ethyl ketone (2-Butanone)	0.261	0.0825	0.0698	0.768	0.243	0.206	m
Ethyl acetate	ND	0.0796	0.0698	ND	0.287	0.251	
Chloroform	ND	0.0800	0.0698	ND	0.391	0.341	
Tetrahydrofuran	ND	0.0808	0.0698	ND	0.238	0.206	
1,1,1-Trichloroethane	ND	0.0806	0.0698	ND	0.439	0.381	
Cyclohexane	0.321	0.0818	0.0698	1.10	0.281	0.240	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC04_221011_S
 Sample Info. 1022-034; 500mL load; Can #0838
 Sampling Date 2022-10-11 08:49
 Received Date 2022-10-14 00:00
 Sample Type Sample
 Batch Xavier_X101822D.v1
 Data File X2201893.D
 Dilution 1.000
 Pressurization Factor 1.995
 Acquisition Date 2022-10-18 22:36
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID 1022-034.VOC04_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	ND	0.0804	0.0698	ND	0.505	0.439	
Benzene	18.1	0.0803	0.0698	57.8	0.256	0.223	
2,2,4-trimethylpentane	ND	0.0825	0.0698	ND	0.385	0.326	
1,2-Dichloroethane	ND	0.0821	0.0698	ND	0.332	0.282	
Heptane	0.149	0.0808	0.0698	0.611	0.331	0.286	
Trichloroethene	ND	0.0807	0.0698	ND	0.433	0.375	
1,2-Dichloropropane	ND	0.0804	0.0698	ND	0.371	0.322	
Methyl methacrylate	ND	0.0836	0.0698	ND	0.342	0.286	
1,4-Dioxane	ND	0.0800	0.0698	ND	0.288	0.251	
Bromodichloromethane	ND	0.0806	0.0698	ND	0.540	0.468	
cis-1,3-Dichloropropene	ND	0.0792	0.0698	ND	0.359	0.317	
Methyl isobutyl ketone	ND	0.0829	0.0698	ND	0.339	0.286	
Toluene	3.68	0.0812	0.0698	13.9	0.306	0.263	
trans-1,3-Dichloropropene	ND	0.0824	0.0698	ND	0.374	0.317	
1,1,2-Trichloroethane	ND	0.0812	0.0698	ND	0.443	0.381	
Tetrachloroethene	ND	0.0816	0.0698	ND	0.553	0.473	
2-Hexanone (Methyl butyl ketone)	ND	0.0816	0.0698	ND	0.334	0.286	
Dibromochloromethane	ND	0.0804	0.0698	ND	0.685	0.594	
1,2-Dibromoethane	ND	0.0816	0.0698	ND	0.627	0.536	
Chlorobenzene	ND	0.0822	0.0698	ND	0.378	0.321	
Ethylbenzene	ND	0.0792	0.0698	ND	0.344	0.303	
1,1,1,2-Tetrachloroethane	ND	0.0804	0.0698	ND	0.552	0.479	
m-/p-Xylenes	0.364	0.0809	0.0698	1.58	0.351	0.303	
o-Xylene	0.126	0.0800	0.0698	0.546	0.347	0.303	
Styrene	0.187	0.0782	0.0698	0.794	0.333	0.297	
Bromoform	ND	0.0800	0.0698	ND	0.827	0.721	
1,1,2,2-Tetrachloroethane	ND	0.0807	0.0698	ND	0.554	0.479	
4-Ethyltoluene	0.0895	0.0812	0.0698	0.439	0.399	0.343	
2-Chlorotoluene	ND	0.0805	0.0698	ND	0.417	0.361	
1,3,5-Trimethylbenzene	ND	0.0809	0.0698	ND	0.398	0.343	
1,2,4-Trimethylbenzene	0.125	0.0799	0.0698	0.616	0.392	0.343	
1,3-Dichlorobenzene	ND	0.0811	0.0698	ND	0.487	0.420	
1,4-Dichlorobenzene	ND	0.0802	0.0698	ND	0.482	0.420	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC04_221011_S
Sample Info. 1022-034; 500mL load; Can #0838
Sampling Date 2022-10-11 08:49
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201893.D
Dilution 1.000
Pressurization Factor 1.995
Acquisition Date 2022-10-18 22:36
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC04_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzyl chloride	ND	0.0803	0.0698	ND	0.415	0.361	
1,2-Dichlorobenzene	ND	0.0808	0.0698	ND	0.486	0.420	
1,2,4-Trichlorobenzene	ND	0.0795	0.0698	ND	0.589	0.518	
Hexachlorobutadiene	ND	0.0788	0.0698	ND	0.840	0.744	
Naphthalene	1.33	0.0804	0.0698	6.97	0.421	0.366	
1-Bromopropane	ND	0.0792	0.0698	ND	0.398	0.351	
1-Octene	ND	0.0788	0.0698	ND	0.361	0.320	
n-Octane	ND	0.0822	0.0698	ND	0.384	0.326	
Isopropylbenzene	ND	0.0811	0.0698	ND	0.398	0.343	
n-Propylbenzene	0.0779	0.0819	0.0698	0.383	0.402	0.343	J

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	706,647	11.06	5.21	pass
1,4-Difluorobenzene (IS)	2,605,314	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,225,261	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC05_221011_S
Sample Info. 1022-034; 500mL load; Can #1738
Sampling Date 2022-10-11 09:24
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201894.D
Dilution 1.000
Pressurization Factor 1.747
Acquisition Date 2022-10-18 23:30
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC05_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	2.46	0.0675	0.0611	4.24	0.116	0.105	
Freon 12 (CCl2F2)	0.452	0.0684	0.0611	2.24	0.338	0.302	
Freon 114 (C2Cl2F4)	ND	0.700	0.0611	ND	4.89	0.427	
Chloromethane	0.476	0.0691	0.0611	0.983	0.143	0.126	
Chloroethene (Vinyl chloride)	ND	0.0698	0.0611	ND	0.178	0.156	
1,3-Butadiene	0.240	0.0680	0.0611	0.530	0.150	0.135	
Bromomethane	ND	0.0685	0.0611	ND	0.266	0.237	
Chloroethane	ND	0.0710	0.0611	ND	0.187	0.161	
Bromoethene (Vinyl bromide)	ND	0.0683	0.0611	ND	0.299	0.267	
Freon 11 (CCl3F)	0.246	0.0737	0.0611	1.38	0.414	0.343	
Ethanol	2.35	0.0692	0.0699	4.42	0.130	0.132	m
Acrolein	0.174	0.0688	0.0611	0.400	0.158	0.140	
Freon 113 (C2Cl3F3)	0.0619	0.0709	0.0611	0.474	0.543	0.468	J
1,1-Dichloroethene	ND	0.0703	0.0611	ND	0.279	0.242	
Acetone	2.34	0.0700	0.0611	5.55	0.166	0.145	
Carbon disulfide	0.523	0.0697	0.0611	1.63	0.217	0.190	
Isopropyl alcohol	1.05	0.0697	0.0611	2.57	0.171	0.150	
Allyl chloride (3-chloropropene)	ND	0.0755	0.0611	ND	0.236	0.191	
Acetonitrile	1.59	0.0697	0.0611	2.67	0.117	0.103	
Methylene chloride	0.170	0.0716	0.0611	0.589	0.248	0.212	
trans-1,2-Dichloroethene	ND	0.0713	0.0611	ND	0.282	0.242	
Methyl tert-butyl ether	ND	0.0718	0.0611	ND	0.259	0.220	
Acrylonitrile	ND	0.0711	0.0611	ND	0.154	0.133	
Hexane	0.235	0.0710	0.0611	0.827	0.250	0.215	
1,1-Dichloroethane	ND	0.0694	0.0611	ND	0.281	0.247	
Vinyl acetate	ND	0.0715	0.0611	ND	0.252	0.215	
cis-1,2-Dichloroethene	0.127	0.0706	0.0611	0.503	0.280	0.242	m
Methyl ethyl ketone (2-Butanone)	0.274	0.0723	0.0611	0.808	0.213	0.180	m
Ethyl acetate	0.530	0.0697	0.0611	1.91	0.251	0.220	m
Chloroform	ND	0.0701	0.0611	ND	0.342	0.298	
Tetrahydrofuran	ND	0.0707	0.0611	ND	0.208	0.180	
1,1,1-Trichloroethane	ND	0.0706	0.0611	ND	0.385	0.333	
Cyclohexane	0.207	0.0716	0.0611	0.714	0.246	0.210	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC05_221011_S
Sample Info. 1022-034; 500mL load; Can #1738
Sampling Date 2022-10-11 09:24
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201894.D
Dilution 1.000
Pressurization Factor 1.747
Acquisition Date 2022-10-18 23:30
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC05_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Carbon tetrachloride	0.0741	0.0704	0.0611	0.466	0.442	0.384	
2,2,4-trimethylpentane	0.0859	0.0723	0.0611	0.401	0.337	0.285	m
1,2-Dichloroethane	ND	0.0719	0.0611	ND	0.291	0.247	
Heptane	0.113	0.0708	0.0611	0.464	0.290	0.250	
Trichloroethene	ND	0.0706	0.0611	ND	0.379	0.328	
1,2-Dichloropropane	ND	0.0704	0.0611	ND	0.325	0.282	
Methyl methacrylate	ND	0.0732	0.0611	ND	0.299	0.250	
1,4-Dioxane	ND	0.0701	0.0611	ND	0.252	0.220	
Bromodichloromethane	ND	0.0706	0.0611	ND	0.473	0.409	
cis-1,3-Dichloropropene	ND	0.0694	0.0611	ND	0.315	0.277	
Methyl isobutyl ketone	ND	0.0726	0.0611	ND	0.297	0.250	
Toluene	8.15	0.0711	0.0611	30.7	0.268	0.230	
trans-1,3-Dichloropropene	ND	0.0721	0.0611	ND	0.327	0.277	
1,1,2-Trichloroethane	ND	0.0711	0.0611	ND	0.387	0.333	
Tetrachloroethene	ND	0.0715	0.0611	ND	0.485	0.414	
2-Hexanone (Methyl butyl ketone)	ND	0.0715	0.0611	ND	0.293	0.250	
Dibromochloromethane	ND	0.0704	0.0611	ND	0.600	0.521	
1,2-Dibromoethane	ND	0.0715	0.0611	ND	0.549	0.469	
Chlorobenzene	ND	0.0720	0.0611	ND	0.331	0.281	
Ethylbenzene	0.0968	0.0694	0.0611	0.420	0.301	0.265	
1,1,1,2-Tetrachloroethane	ND	0.0704	0.0611	ND	0.483	0.419	
m-/p-Xylenes	1.11	0.0709	0.0611	4.82	0.307	0.265	
o-Xylene	0.285	0.0700	0.0611	1.24	0.304	0.265	
Styrene	0.707	0.0685	0.0611	3.01	0.292	0.260	
Bromoform	ND	0.0701	0.0611	ND	0.724	0.632	
1,1,2,2-Tetrachloroethane	ND	0.0706	0.0611	ND	0.485	0.419	
4-Ethyltoluene	0.0704	0.0711	0.0611	0.346	0.349	0.300	J
2-Chlorotoluene	ND	0.0705	0.0611	ND	0.365	0.316	
1,3,5-Trimethylbenzene	0.104	0.0709	0.0611	0.511	0.348	0.300	
1,2,4-Trimethylbenzene	0.195	0.0699	0.0611	0.960	0.344	0.300	
1,3-Dichlorobenzene	ND	0.0710	0.0611	ND	0.427	0.367	
1,4-Dichlorobenzene	ND	0.0702	0.0611	ND	0.422	0.367	
Benzyl chloride	ND	0.0703	0.0611	ND	0.364	0.316	

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC05_221011_S
Sample Info. 1022-034; 500mL load; Can #1738
Sampling Date 2022-10-11 09:24
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201894.D
Dilution 1.000
Pressurization Factor 1.747
Acquisition Date 2022-10-18 23:30
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC05_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
1,2-Dichlorobenzene	ND	0.0708	0.0611	ND	0.425	0.367	
1,2,4-Trichlorobenzene	ND	0.0696	0.0611	ND	0.516	0.453	
Hexachlorobutadiene	ND	0.0690	0.0611	ND	0.736	0.652	
Naphthalene	10.7	0.0704	0.0611	56.1	0.369	0.320	
1-Bromopropane	ND	0.0693	0.0611	ND	0.348	0.307	
1-Octene	ND	0.0690	0.0611	ND	0.316	0.280	
n-Octane	ND	0.0720	0.0611	ND	0.336	0.285	
Isopropylbenzene	ND	0.0710	0.0611	ND	0.349	0.300	
n-Propylbenzene	0.0616	0.0717	0.0611	0.302	0.352	0.300	J

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	727,111	11.06	5.21	pass
1,4-Difluorobenzene (IS)	2,678,565	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,261,589	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name VOC05_221011_S
Sample Info. 1022-034; *5=100mL load; Can #1738
Sampling Date 2022-10-11 09:24
Received Date 2022-10-14 00:00
Sample Type Sample
Batch Xavier_X101822D.v1
Data File X2201902.D
Dilution 5.000
Pressurization Factor 1.747
Acquisition Date 2022-10-19 07:15
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID 1022-034.VOC05_221011_S.Can

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzene	65.3	0.351	0.306	208	1.12	0.976	

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
1,4-Difluorobenzene (IS)	2,450,179	12.47	5.16	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical -- Canister Pressurization

Job No. 1022-034
 Company All4, Inc.
 Site U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Can Number	0701	0746	0838	1719	1738	1793
Job	1022-034	1022-034	1022-034	1022-034	1022-034	1022-034
Sample ID	VOC01_221011_S	VOC03_221011_D	VOC04_221011_S	VOC03_221011_S	VOC05_221011_S	VOC02_221011_S
CleanDate	08/18/2022	08/18/2022	08/17/2022	08/18/2022	08/18/2022	08/17/2022
LeakCheckDate	08/18/2022	08/17/2022	08/17/2022	08/18/2022	08/17/2022	08/17/2022
LeakCheckAnalyst	aamears	aamears	aamears	aamears	aamears	aamears
BlankCheckRef	X2201698	X2201690	X2201688	X2201701	X2201689	X2201686
Weather Station ID	81	81	81	81	81	81
Weather Station Exp.	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022
Transducer ID	3	3	3	3	3	3
Transducer Exp.	02/22/2023	02/22/2023	02/22/2023	02/22/2023	02/22/2023	02/22/2023
Can Size (L)	6	6	6	6	6	6
Evac Temp (F)	69.6	69.6	69.6	69.6	69.6	69.6
Evac Pbar (mmHg)	765.6	765.6	765.6	765.6	765.6	765.6
Evac Gauge (mmHg)	-765.6	-765.6	-765.6	-765.6	-765.6	-765.6
Evac Analyst	aamears	aamears	aamears	aamears	aamears	aamears
Evac Time	10/14/22 15:34	10/14/22 15:37	10/14/22 15:38	10/14/22 15:37	10/14/22 15:39	10/14/22 15:35
Evac Vol (L)	0.000	0.000	0.000	0.000	0.000	0.000
Recd. Temp (F)	70.1	70.1	70.1	70.1	70.1	70.1
Recd. Pbar (mmHg)	762.3	762.3	762.3	762.3	762.3	762.3
Recd. Gauge (mmHg)	-191.0	-142.0	-305.0	-185.0	-220.0	-219.0
Recd Vol (L)	4.492	4.877	3.596	4.539	4.264	4.272
P1 Temp (F)	70.1	70.1	70.1	70.1	70.1	70.1
P1 Pbar (mmHg)	762.3	762.3	762.3	762.3	762.3	762.3
P1 Gauge (mmHg)	239.0	322.0	150.0	256.0	185.0	253.0
P1 Analyst	aamears	aamears	aamears	aamears	aamears	aamears
P1 Time	10/14/22 15:34	10/14/22 15:37	10/14/22 15:38	10/14/22 15:37	10/14/22 15:39	10/14/22 15:35
P1 Vol (L)	7.873	8.526	7.173	8.007	7.449	7.983
P1 DF Override	false	false	false	false	false	false
P1 Dilution Factor	1.753	1.748	1.995	1.764	1.747	1.869

Lab QC

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs
All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 1022-034.VOC05_221011_S.LD
Sample Info. 1022-034; *5=100mL load; Can #1738
Sampling Date 2022-10-11 09:24
Received Date 2022-10-14 00:00
Sample Type LabDup
Batch Xavier_X101822D.v1
Data File X2201903.D
Dilution 5.000
Pressurization Factor 1.747
Acquisition Date 2022-10-19 08:02
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 1022-034.VOC05_221011_S.LD

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Dup Diff (%)	Flags
Benzene	62.9	0.351	0.306	201	1.12	0.976	3.7	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
1,4-Difluorobenzene (IS)	2,576,125	12.47	5.16	pass

(ND) = Not Detected
(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name Humid Blank Can #1585
 Sample Info. 500mL load; Can #1585
 Sample Type Blank
 Batch Xavier_X101822D.v1
 Data File X2201883.D
 Dilution 1.000
 Pressurization Factor 1.000
 Acquisition Date 2022-10-18 14:06
 Instrument Method TO15_SCNV6.M
 Matrix Air
 Analyst TDD
 Instrument Xavier
 Enthalpy ID Humid Blank Can #1585

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Propylene	ND	0.0386	0.0350	ND	0.0665	0.0602	pass
Freon 12 (CCl2F2)	ND	0.0392	0.0350	ND	0.194	0.173	pass
Freon 114 (C2Cl2F4)	ND	0.401	0.0350	ND	2.80	0.245	pass
Chloromethane	ND	0.0396	0.0350	ND	0.0816	0.0722	pass
Chloroethene (Vinyl chloride)	ND	0.0400	0.0350	ND	0.102	0.0894	pass
1,3-Butadiene	ND	0.0389	0.0350	ND	0.0860	0.0774	pass
Bromomethane	ND	0.0392	0.0350	ND	0.152	0.136	pass
Chloroethane	ND	0.0406	0.0350	ND	0.107	0.0923	pass
Bromoethene (Vinyl bromide)	ND	0.0391	0.0350	ND	0.171	0.153	pass
Freon 11 (CCl3F)	ND	0.0422	0.0350	ND	0.237	0.197	pass
Ethanol	0.0947	0.0396	0.0400	0.178	0.0746	0.0753	pass
Acrolein	ND	0.0394	0.0350	ND	0.0903	0.0802	pass
Freon 113 (C2Cl3F3)	ND	0.0406	0.0350	ND	0.311	0.268	pass
1,1-Dichloroethene	ND	0.0402	0.0350	ND	0.159	0.139	pass
Acetone	0.0777	0.0401	0.0350	0.184	0.0951	0.0831	pass, m
Carbon disulfide	ND	0.0399	0.0350	ND	0.124	0.109	pass
Isopropyl alcohol	0.0374	0.0399	0.0350	0.0919	0.0980	0.0860	pass, J, m
Allyl chloride (3-chloropropene)	ND	0.0432	0.0350	ND	0.135	0.109	pass
Acetonitrile	ND	0.0399	0.0350	ND	0.0669	0.0587	pass
Methylene chloride	ND	0.0410	0.0350	ND	0.142	0.122	pass
trans-1,2-Dichloroethene	ND	0.0408	0.0350	ND	0.162	0.139	pass
Methyl tert-butyl ether	ND	0.0411	0.0350	ND	0.148	0.126	pass
Acrylonitrile	ND	0.0407	0.0350	ND	0.0883	0.0759	pass
Hexane	ND	0.0406	0.0350	ND	0.143	0.123	pass
1,1-Dichloroethane	ND	0.0397	0.0350	ND	0.161	0.142	pass
Vinyl acetate	ND	0.0409	0.0350	ND	0.144	0.123	pass
cis-1,2-Dichloroethene	ND	0.0404	0.0350	ND	0.160	0.139	pass
Methyl ethyl ketone (2-Butanone)	ND	0.0414	0.0350	ND	0.122	0.103	pass
Ethyl acetate	ND	0.0399	0.0350	ND	0.144	0.126	pass
Chloroform	ND	0.0401	0.0350	ND	0.196	0.171	pass
Tetrahydrofuran	ND	0.0405	0.0350	ND	0.119	0.103	pass
1,1,1-Trichloroethane	ND	0.0404	0.0350	ND	0.220	0.191	pass
Cyclohexane	ND	0.0410	0.0350	ND	0.141	0.120	pass
Carbon tetrachloride	ND	0.0403	0.0350	ND	0.253	0.220	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name Humid Blank Can #1585
Sample Info. 500mL load; Can #1585
Sample Type Blank
Batch Xavier_X101822D.v1
Data File X2201883.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 14:06
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID Humid Blank Can #1585

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
Benzene	ND	0.0402	0.0350	ND	0.128	0.112	pass
2,2,4-trimethylpentane	ND	0.0414	0.0350	ND	0.193	0.163	pass
1,2-Dichloroethane	ND	0.0412	0.0350	ND	0.166	0.142	pass
Heptane	ND	0.0405	0.0350	ND	0.166	0.143	pass
Trichloroethene	ND	0.0404	0.0350	ND	0.217	0.188	pass
1,2-Dichloropropane	ND	0.0403	0.0350	ND	0.186	0.162	pass
Methyl methacrylate	ND	0.0419	0.0350	ND	0.171	0.143	pass
1,4-Dioxane	ND	0.0401	0.0350	ND	0.144	0.126	pass
Bromodichloromethane	ND	0.0404	0.0350	ND	0.271	0.234	pass
cis-1,3-Dichloropropene	ND	0.0397	0.0350	ND	0.180	0.159	pass
Methyl isobutyl ketone	ND	0.0416	0.0350	ND	0.170	0.143	pass
Toluene	ND	0.0407	0.0350	ND	0.153	0.132	pass
trans-1,3-Dichloropropene	ND	0.0413	0.0350	ND	0.187	0.159	pass
1,1,2-Trichloroethane	ND	0.0407	0.0350	ND	0.222	0.191	pass
Tetrachloroethene	ND	0.0409	0.0350	ND	0.277	0.237	pass
2-Hexanone (Methyl butyl ketone)	ND	0.0409	0.0350	ND	0.168	0.143	pass
Dibromochloromethane	ND	0.0403	0.0350	ND	0.343	0.298	pass
1,2-Dibromoethane	ND	0.0409	0.0350	ND	0.314	0.269	pass
Chlorobenzene	ND	0.0412	0.0350	ND	0.190	0.161	pass
Ethylbenzene	ND	0.0397	0.0350	ND	0.172	0.152	pass
1,1,1,2-Tetrachloroethane	ND	0.0403	0.0350	ND	0.277	0.240	pass
m-/p-Xylenes	ND	0.0406	0.0350	ND	0.176	0.152	pass
o-Xylene	ND	0.0401	0.0350	ND	0.174	0.152	pass
Styrene	ND	0.0392	0.0350	ND	0.167	0.149	pass
Bromoform	ND	0.0401	0.0350	ND	0.414	0.362	pass
1,1,2,2-Tetrachloroethane	ND	0.0404	0.0350	ND	0.277	0.240	pass
4-Ethyltoluene	ND	0.0407	0.0350	ND	0.200	0.172	pass
2-Chlorotoluene	ND	0.0404	0.0350	ND	0.209	0.181	pass
1,3,5-Trimethylbenzene	ND	0.0406	0.0350	ND	0.199	0.172	pass
1,2,4-Trimethylbenzene	ND	0.0400	0.0350	ND	0.197	0.172	pass
1,3-Dichlorobenzene	ND	0.0406	0.0350	ND	0.244	0.210	pass
1,4-Dichlorobenzene	ND	0.0402	0.0350	ND	0.242	0.210	pass
Benzyl chloride	ND	0.0402	0.0350	ND	0.208	0.181	pass
1,2-Dichlorobenzene	ND	0.0405	0.0350	ND	0.243	0.210	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name Humid Blank Can #1585
Sample Info. 500mL load; Can #1585
Sample Type Blank
Batch Xavier_X101822D.v1
Data File X2201883.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 14:06
Instrument Method TO15_SCNV6.M
Matrix Air
Analyst TDD
Instrument Xavier
Enthalpy ID Humid Blank Can #1585

Target Compound	Concentration (ppbv)	RL (ppbv)	MDL (ppbv)	Concentration (ug/m³)	RL (ug/m³)	MDL (ug/m³)	Flags
1,2,4-Trichlorobenzene	ND	0.0398	0.0350	ND	0.295	0.260	pass
Hexachlorobutadiene	ND	0.0395	0.0350	ND	0.421	0.373	pass
Naphthalene	ND	0.0403	0.0350	ND	0.211	0.183	pass
1-Bromopropane	ND	0.0397	0.0350	ND	0.199	0.176	pass
1-Octene	ND	0.0395	0.0350	ND	0.181	0.161	pass
n-Octane	ND	0.0412	0.0350	ND	0.192	0.163	pass
Isopropylbenzene	ND	0.0406	0.0350	ND	0.200	0.172	pass
n-Propylbenzene	ND	0.0410	0.0350	ND	0.202	0.172	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	800,183	11.06	5.21	pass
1,4-Difluorobenzene (IS)	2,904,635	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,520,338	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QC
Batch Xavier_X101822D.v1
Data File X2201880.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 11:29
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
Propylene	619,979	4.64	4.83	96.1	pass
Freon 12 (CCl2F2)	1,941,051	5.03	4.90	102.7	pass
Freon 114 (C2Cl2F4)	2,111,622	5.29	5.01	105.6	pass
Chloromethane	691,273	4.97	4.95	100.6	pass
Chloroethene (Vinyl chloride)	438,188	5.34	5.00	107.0	pass, m
1,3-Butadiene	715,512	5.18	4.87	106.4	pass
Bromomethane	419,105	4.73	4.91	96.4	pass, m
Chloroethane	332,139	5.04	5.08	99.3	pass
Bromoethene (Vinyl bromide)	763,304	4.82	4.89	98.5	pass
Freon 11 (CCl3F)	2,040,832	5.31	5.28	100.6	pass
Ethanol	304,055	3.92	4.96	79.2	pass
Acrolein	251,745	4.61	4.93	93.6	pass
Freon 113 (C2Cl3F3)	1,377,759	4.96	5.08	97.8	pass
1,1-Dichloroethene	1,258,663	5.08	5.03	100.9	pass
Acetone	1,305,431	4.58	5.01	91.3	pass
Carbon disulfide	2,023,264	5.19	4.99	104.1	pass
Isopropyl alcohol	1,435,480	4.91	4.99	98.5	pass
Allyl chloride (3-chloropropene)	293,507	5.26	5.04	104.3	pass
Acetonitrile	719,018	5.48	4.99	109.9	pass
Methylene chloride	1,051,660	4.96	5.12	96.9	pass
trans-1,2-Dichloroethene	1,088,520	5.38	5.10	105.5	pass
Methyl tert-butyl ether	1,765,436	5.17	5.14	100.6	pass
Acrylonitrile	577,280	5.37	5.09	105.5	pass
Hexane	1,055,747	5.15	5.08	101.4	pass
1,1-Dichloroethane	1,233,928	5.02	4.97	101.1	pass
Vinyl acetate	1,936,896	4.84	5.12	94.6	pass, m
cis-1,2-Dichloroethene	1,210,843	5.43	5.05	107.5	pass
Methyl ethyl ketone (2-Butanone)	317,911	5.18	5.17	100.2	pass, m
Ethyl acetate	289,856	4.88	4.99	97.7	pass
Chloroform	1,465,338	5.04	5.02	100.4	pass
Tetrahydrofuran	300,667	5.27	5.06	104.1	pass
1,1,1-Trichloroethane	1,488,138	4.95	5.05	98.0	pass
Cyclohexane	1,075,613	5.17	5.13	100.8	pass
Carbon tetrachloride	1,678,779	4.98	5.04	98.8	pass
Benzene	1,907,933	4.93	5.03	98.0	pass
2,2,4-trimethylpentane	3,559,880	5.23	5.17	101.2	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QC
Batch Xavier_X101822D.v1
Data File X2201880.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 11:29
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
1,2-Dichloroethane	991,426	4.78	5.15	92.9	pass
Heptane	672,159	4.95	5.07	97.7	pass
Trichloroethene	1,105,725	4.84	5.06	95.7	pass
1,2-Dichloropropane	815,536	5.06	5.04	100.5	pass
Methyl methacrylate	715,443	5.29	5.24	101.0	pass
1,4-Dioxane	447,970	5.02	5.02	100.1	pass
Bromodichloromethane	1,549,139	4.95	5.05	98.0	pass
cis-1,3-Dichloropropene	1,144,273	4.88	4.97	98.4	pass
Methyl isobutyl ketone	2,172,826	5.05	5.20	97.2	pass
Toluene	2,695,927	5.01	5.09	98.5	pass
trans-1,3-Dichloropropene	1,195,322	4.89	5.16	94.8	pass
1,1,2-Trichloroethane	932,075	4.93	5.09	97.0	pass
Tetrachloroethene	1,490,127	4.78	5.12	93.4	pass
2-Hexanone (Methyl butyl ketone)	2,093,980	5.05	5.12	98.7	pass
Dibromochloromethane	2,023,074	5.10	5.04	101.2	pass
1,2-Dibromoethane	1,674,346	5.03	5.12	98.3	pass
Chlorobenzene	2,378,945	5.05	5.15	98.0	pass
Ethylbenzene	3,542,971	5.05	4.97	101.8	pass
1,1,1,2-Tetrachloroethane	1,361,909	4.90	5.04	97.2	pass
m-/p-Xylenes	2,666,315	5.03	5.07	99.2	pass
o-Xylene	2,751,391	4.98	5.01	99.4	pass
Styrene	2,190,452	5.05	4.90	103.0	pass
Bromoform	2,043,789	4.93	5.02	98.3	pass
1,1,2,2-Tetrachloroethane	2,121,163	5.03	5.06	99.6	pass
4-Ethyltoluene	4,139,018	5.21	5.09	102.5	pass
2-Chlorotoluene	3,333,103	5.08	5.05	100.7	pass
1,3,5-Trimethylbenzene	3,369,563	5.11	5.07	100.8	pass
1,2,4-Trimethylbenzene	3,383,922	5.03	5.01	100.5	pass
1,3-Dichlorobenzene	2,771,070	5.08	5.08	100.0	pass
1,4-Dichlorobenzene	2,786,321	5.01	5.03	99.7	pass
Benzyl chloride	3,220,684	5.51	5.03	109.5	pass
1,2-Dichlorobenzene	2,691,317	5.12	5.07	101.1	pass
1,2,4-Trichlorobenzene	2,531,239	5.57	4.98	111.9	pass
Hexachlorobutadiene	2,093,327	5.29	4.94	107.2	pass
Naphthalene	6,311,897	6.07	5.04	120.5	pass
1-Bromopropane	1,452,677	4.83	4.96	97.4	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QC
Batch Xavier_X101822D.v1
Data File X2201880.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 11:29
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Recovery (%)	Flags
1-Octene	548,898	4.99	4.94	101.1	pass
n-Octane	708,758	4.85	5.02	96.8	pass
Isopropylbenzene	3,998,590	4.98	5.08	98.1	pass
n-Propylbenzene	4,711,398	5.23	5.13	101.9	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	838,343	11.06	5.21	pass
1,4-Difluorobenzene (IS)	3,092,025	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,694,364	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS LD
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QcDup
Batch Xavier_X101822D.v1
Data File X2201881.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 12:17
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
Propylene	618,599	4.68	4.83	4.64	96.8%	0.7	pass
Freon 12 (CCl2F2)	1,961,434	5.13	4.90	5.03	104.8%	2.0	pass
Freon 114 (C2Cl2F4)	2,076,562	5.25	5.01	5.29	104.9%	0.7	pass
Chloromethane	693,535	5.04	4.95	4.97	101.9%	1.3	pass
Chloroethene (Vinyl chloride)	439,948	5.42	5.00	5.34	108.5%	1.4	pass, m
1,3-Butadiene	704,569	5.15	4.87	5.18	105.8%	0.6	pass
Bromomethane	421,335	4.80	4.91	4.73	97.8%	1.5	pass, m
Chloroethane	338,632	5.19	5.08	5.04	102.2%	2.9	pass
Bromoethene (Vinyl bromide)	765,295	4.88	4.89	4.82	99.8%	1.2	pass
Freon 11 (CCl3F)	2,021,634	5.31	5.28	5.31	100.7%	0.0	pass
Ethanol	315,560	4.11	4.96	3.92	83.0%	4.7	pass
Acrolein	253,377	4.69	4.93	4.61	95.2%	1.6	pass
Freon 113 (C2Cl3F3)	1,385,283	5.04	5.08	4.96	99.3%	1.5	pass
1,1-Dichloroethene	1,261,166	5.14	5.03	5.08	102.1%	1.2	pass
Acetone	1,284,917	4.55	5.01	4.58	90.8%	0.6	pass
Carbon disulfide	2,032,020	5.26	4.99	5.19	105.6%	1.4	pass
Isopropyl alcohol	1,447,701	5.00	4.99	4.91	100.3%	1.8	pass
Allyl chloride (3-chloropropene)	297,818	5.39	5.04	5.26	106.9%	2.4	pass
Acetonitrile	705,490	5.43	4.99	5.48	108.9%	0.9	pass
Methylene chloride	1,069,626	5.10	5.12	4.96	99.5%	2.7	pass
trans-1,2-Dichloroethene	1,078,820	5.39	5.10	5.38	105.6%	0.1	pass
Methyl tert-butyl ether	1,772,658	5.24	5.14	5.17	102.0%	1.4	pass
Acrylonitrile	576,288	5.41	5.09	5.37	106.3%	0.8	pass
Hexane	1,054,556	5.20	5.08	5.15	102.3%	0.9	pass
1,1-Dichloroethane	1,244,859	5.11	4.97	5.02	103.0%	1.9	pass
Vinyl acetate	1,929,036	4.87	5.12	4.84	95.2%	0.6	pass
cis-1,2-Dichloroethene	1,210,914	5.48	5.05	5.43	108.5%	1.0	pass
Methyl ethyl ketone (2-Butanone)	306,421	5.04	5.17	5.18	97.6%	2.7	pass
Ethyl acetate	285,504	4.85	4.99	4.88	97.2%	0.5	pass
Chloroform	1,468,323	5.09	5.02	5.04	101.6%	1.2	pass
Tetrahydrofuran	291,915	5.16	5.06	5.27	102.1%	2.0	pass
1,1,1-Trichloroethane	1,465,572	4.92	5.05	4.95	97.4%	0.6	pass
Cyclohexane	1,080,076	5.24	5.13	5.17	102.2%	1.4	pass
Carbon tetrachloride	1,668,146	4.99	5.04	4.98	99.2%	0.3	pass
Benzene	1,915,454	5.07	5.03	4.93	100.9%	2.9	pass
2,2,4-trimethylpentane	3,539,083	5.33	5.17	5.23	103.1%	1.9	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS LD
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QcDup
Batch Xavier_X101822D.v1
Data File X2201881.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 12:17
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
1,2-Dichloroethane	984,663	4.87	5.15	4.78	94.6%	1.8	pass
Heptane	667,544	5.04	5.07	4.95	99.5%	1.8	pass
Trichloroethene	1,104,844	4.95	5.06	4.84	98.0%	2.4	pass
1,2-Dichloropropane	821,464	5.23	5.04	5.06	103.8%	3.2	pass
Methyl methacrylate	718,867	5.45	5.24	5.29	104.0%	3.0	pass
1,4-Dioxane	451,647	5.19	5.02	5.02	103.4%	3.3	pass
Bromodichloromethane	1,556,369	5.10	5.05	4.95	101.0%	3.0	pass
cis-1,3-Dichloropropene	1,153,975	5.05	4.97	4.88	101.7%	3.3	pass
Methyl isobutyl ketone	2,137,897	5.09	5.20	5.05	98.1%	0.9	pass
Toluene	2,727,196	5.13	5.09	5.01	100.9%	2.4	pass
trans-1,3-Dichloropropene	1,205,964	5.00	5.16	4.89	96.8%	2.1	pass
1,1,2-Trichloroethane	921,386	4.93	5.09	4.93	97.0%	0.1	pass
Tetrachloroethene	1,475,744	4.79	5.12	4.78	93.6%	0.2	pass
2-Hexanone (Methyl butyl ketone)	2,069,763	5.05	5.12	5.05	98.7%	0.0	pass
Dibromochloromethane	2,030,991	5.18	5.04	5.10	102.8%	1.6	pass
1,2-Dibromoethane	1,686,756	5.13	5.12	5.03	100.3%	2.0	pass
Chlorobenzene	2,362,534	5.07	5.15	5.05	98.5%	0.5	pass
Ethylbenzene	3,543,382	5.12	4.97	5.05	103.0%	1.2	pass
1,1,1,2-Tetrachloroethane	1,367,711	4.98	5.04	4.90	98.8%	1.6	pass
m-/p-Xylenes	2,687,077	5.13	5.07	5.03	101.2%	2.0	pass
o-Xylene	2,703,481	4.95	5.01	4.98	98.9%	0.5	pass
Styrene	2,190,047	5.11	4.90	5.05	104.2%	1.2	pass
Bromoform	2,044,871	4.99	5.02	4.93	99.5%	1.3	pass
1,1,2,2-Tetrachloroethane	2,110,718	5.07	5.06	5.03	100.3%	0.7	pass
4-Ethyltoluene	4,228,185	5.39	5.09	5.21	106.0%	3.3	pass
2-Chlorotoluene	3,340,598	5.15	5.05	5.08	102.2%	1.4	pass
1,3,5-Trimethylbenzene	3,404,765	5.23	5.07	5.11	103.1%	2.3	pass
1,2,4-Trimethylbenzene	3,416,828	5.14	5.01	5.03	102.7%	2.2	pass
1,3-Dichlorobenzene	2,773,154	5.14	5.08	5.08	101.3%	1.3	pass
1,4-Dichlorobenzene	2,822,936	5.14	5.03	5.01	102.3%	2.5	pass
Benzyl chloride	3,211,339	5.56	5.03	5.51	110.5%	0.9	pass
1,2-Dichlorobenzene	2,712,437	5.22	5.07	5.12	103.1%	2.0	pass
1,2,4-Trichlorobenzene	2,586,831	5.76	4.98	5.57	115.7%	3.4	pass
Hexachlorobutadiene	2,102,418	5.38	4.94	5.29	108.9%	1.6	pass
Naphthalene	6,418,186	6.25	5.04	6.07	124.1%	2.9	pass
1-Bromopropane	1,460,689	4.91	4.96	4.83	98.9%	1.5	pass

Enthalpy Analytical

Job No.: 1022-034-1 EPA Method TO-15 Analysis -- Runs

All4, Inc. 00701-0002.00 U.S. Steel Corp-Clariton Works-Clariton, PA ICR

Sample Name 5ppbv TO15 LCS LD
Sample Info. 125mL load; Can #2052; GCMSPrepPg1199
Sample Type QcDup
Batch Xavier_X101822D.v1
Data File X2201881.D
Dilution 1.000
Pressurization Factor 1.000
Acquisition Date 2022-10-18 12:17
Instrument Method TO15_SCNV6.M
Matrix Air
Enthalpy ID 5ppbv TO15 LCS LD

Target Compound	Response	Concentration (ppbv)	Expected Conc (ppbv)	Parent Conc (ppbv)	Recovery (%)	Diff (%)	Flags
1-Octene	533,041	4.90	4.94	4.99	99.3%	1.7	pass
n-Octane	703,366	4.88	5.02	4.85	97.2%	0.4	pass
Isopropylbenzene	4,061,520	5.12	5.08	4.98	100.9%	2.8	pass
n-Propylbenzene	4,739,060	5.32	5.13	5.23	103.7%	1.8	pass

Compound	Response	Retention Time (min)	Concentration (ppbv)	Flag
Bromochloromethane (IS)	830,240	11.06	5.21	pass
1,4-Difluorobenzene (IS)	3,016,011	12.47	5.16	pass
Chlorobenzene-d5 (IS)	2,661,895	16.61	4.92	pass

(ND) = Not Detected

(J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration

IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	All4, Inc.
Analyst	TDD
Parameters	EPA Method TO-15

Client #	00701-0002.00; U.S. Steel Corp – Clairton Works
Job #	1022-034
# Samples	6 Canisters

Custody

Alyssa Miller received the samples on 10/14/22 after being relinquished by All4, Inc. The samples were received at ambient temperature and in good condition.

Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Analysis

The samples were analyzed for the TO-15 target compound list using the analytical procedures in EPA 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)*.

Upon receipt, the canister pressures were measured and recorded. The canisters were then pressurized with UHP nitrogen and a dilution ratio was calculated for each canister. See the Canister Pressurization Datasheet located in the Results section of this report.

All samples were analyzed undiluted and sample **VOC05_221011_S** was analyzed at a subsequent 5-fold analytical dilution to bring benzene within the instrument's calibration range. Dilution factors are displayed in the sample header information.

The Agilent Technologies Model 6890N, Gas Chromatograph "Xavier" (S/N US10721018) equipped with a 5975C VL Mass Selective Detector (S/N US71215962) was used for this analysis. All samples and standards were introduced directly to the analyzer using an Entech 7200 Preconcentrator.

Calibration

The associated BFB tune analyses associated with the initial and continuing calibrations met all method acceptance criteria.

The initial calibration (**X100722A-TO15**) met the 30% RSD criteria. The initial calibration verification (ICV) met the 70-130% recovery criteria. The continuing calibration (CCV) met the 30% difference criteria. Full calibration data is available upon request.



Enthalpy Analytical Narrative Summary (continued)

Chromatographic Conditions

The acquisition method (*TO15-SCNv6.M*) may be made available upon request.

QC Notes

All internal standard area responses and retention time criteria were met for these analyses.

The Laboratory Control Samples (LCS) associated with this sample data met 70-130% recovery criteria.

The Laboratory Duplicate (LD) associated with this sample data met the 25% difference acceptance criteria. The LCS was also analyzed in duplicate and met the 25% difference criteria for all compounds.

The laboratory humid blank associated with this analysis did not contain any of the target analytes at a concentration greater than 3x their MDL.

The samples were analyzed within the 7-day holding time requested in the ICR protocol.

Reporting Notes

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as “**Type**” represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as “EPA Method 16-Type” because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym **MDL** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym **LOQ** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym **ND** following a value indicates a non-detect or analytical result below the MDL.
- The letter **J** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter **E** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- Sample results are presented ‘as measured’ for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - i.e. 0.540 with a J flag.
- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).
- The acronym **DF** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of **MS** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).



General Reporting Notes

(continued)

- The addition of **MSD** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows for further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of **LD** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of **AD** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID **LCS** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.
- **Significant Figures:** Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug cat ch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.
- **Manual Integration:** The data system s used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was *not integrated* by the software "**NI**", the peak was *integrated incorrectly* by the software "**II**" or the *wrong peak* was integrated by the software "**WP**". These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.



Sample Custody



Turn Around Time (rush by advanced notice only)

✓

PROJECT INFORMATION

00701-0002.00

N/A

Sampled By:

Ambient temp
good condition
Ammb 3 10.14.22

Analysis Requested

[illegible]

Date / Time

22/10/12 11:07am

10.14.22 1200

³ Received By:

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**This Is The Last Page
Of This Report.**