

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: ShaleTest
Project: [REDACTED] Metering Station
Sample Matrix: Air

Service Request: R1203998
Date Analyzed: 6/28/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 298901

Lab Control Sample
RQ1207563-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	5.30	5.11	104	70 - 130
Vinyl Chloride	5.95	6.33	94	70 - 130
Bromomethane	8.40	9.60	87	70 - 130
Chloroethane	5.64	6.46	87	70 - 130
Acetone	5.71	6.29	91	70 - 130
Trichlorofluoromethane (CFC 11)	14.3	15.0	95	70 - 130
1,1-Dichloroethene	9.67	10.0	97	70 - 130
Methylene Chloride	8.38	8.86	95	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	18.3	19.2	95	70 - 130
Carbon Disulfide	8.59	7.94	108	70 - 130
trans-1,2-Dichloroethene	9.33	10.2	91	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.59	10.2	94	70 - 130
Methyl tert-Butyl Ether	8.48	9.37	91	70 - 130
Vinyl Acetate	7.91	9.24	86	70 - 130
2-Butanone (MEK)	7.34	7.81	94	70 - 130
cis-1,2-Dichloroethene	9.44	10.2	92	70 - 130
Chloroform	12.3	12.8	96	70 - 130
1,2-Dichloroethane	11.2	10.4	108	70 - 130
1,1,1-Trichloroethane (TCA)	14.6	13.8	106	70 - 130
Benzene	7.87	8.14	97	70 - 130
Carbon Tetrachloride	17.6	16.2	109	70 - 130
1,2-Dichloropropane	11.5	11.9	97	70 - 130
Bromodichloromethane	18.5	17.2	107	70 - 130
Trichloroethene (TCE)	14.4	13.8	104	70 - 130
cis-1,3-Dichloropropene	11.9	11.9	100	70 - 130
4-Methyl-2-pentanone	10.1	11.0	93	70 - 130
trans-1,3-Dichloropropene	11.3	11.0	103	70 - 130
1,1,2-Trichloroethane	14.2	14.2	100	70 - 130
Toluene	9.54	9.80	97	70 - 130
2-Hexanone	10.5	11.7	90	70 - 130
Dibromochloromethane	23.9	23.6	101	70 - 130
1,2-Dibromoethane	19.7	19.8	99	70 - 130
Tetrachloroethene (PCE)	20.0	17.5	115	70 - 130
Chlorobenzene	11.8	12.1	97	70 - 130
Ethylbenzene	10.8	11.3	95	70 - 130
m,p-Xylenes	20.7	22.1	94	70 - 130

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

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

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Lab Control Sample
RQ1207563-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	29.5	26.3	112	70 - 130
Styrene	10.6	11.2	94	70 - 130
o-Xylene	10.8	12.3	88	70 - 130
1,1,2,2-Tetrachloroethane	16.4	19.4	85	70 - 130
1,3-Dichlorobenzene	16.2	16.2	100	70 - 130
1,4-Dichlorobenzene	15.5	15.8	98	70 - 130
1,2-Dichlorobenzene	15.7	15.8	99	70 - 130

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