

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins Air Toxics, Inc.
PROJECT NAME : MO DNR – Bridgeton LF
AAC PROJECT NO. : 160540
REPORT DATE : 4/20/2016

On April 19, 2016, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Silonite Canisters for TRS analysis by ASTM D-5504. Upon receipt, each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure (mmHg)
D1 (162226)	160540-89242	702.5
U1 (162227)	160540-89243	679.8

ASTM D-5504 Analysis - Up to a 1 mL aliquot of sample is injected into the GC/SCD for analysis following ASTM D-5504 as specified in the SOW.

No problems were encountered during receiving, preparation and/or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI-ASTM D-5504.

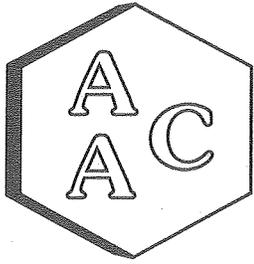
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.


Marcus Hueppe
Laboratory Director

This report consists of 4 pages.





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : Eurofins Air Toxics, Inc.
PROJECT NO. : 160540
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 04/15/2016
RECEIVING DATE : 04/19/2016
ANALYSIS DATE : 04/19/2016
REPORT DATE : 04/20/2016

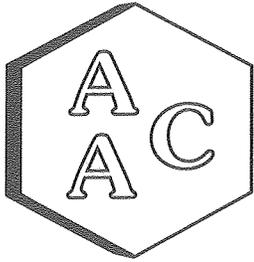
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (162226)	U1 (162227)
AAC ID	160540-89242	160540-89243
Canister Dil. Fac.	1.3	1.3
Analyte	Result	Result
Hydrogen Sulfide	< 0.013	< 0.013
Carbonyl Sulfide	< 0.013	< 0.013
Sulfur Dioxide	< 0.013	< 0.013
Methyl Mercaptan	< 0.013	< 0.013
Ethyl Mercaptan	< 0.013	< 0.013
Dimethyl Sulfide	< 0.013	< 0.013
Carbon Disulfide	< 0.013	< 0.013
Isopropyl Mercaptan	< 0.013	< 0.013
tert-Butyl Mercaptan	< 0.013	< 0.013
n-Propyl Mercaptan	< 0.013	< 0.013
Methylethylsulfide	< 0.013	< 0.013
sec-Butyl Mercaptan	< 0.013	< 0.013
Thiophene	< 0.013	< 0.013
iso-Butyl Mercaptan	< 0.013	< 0.013
Diethyl Sulfide	< 0.013	< 0.013
n-Butyl Mercaptan	< 0.013	< 0.013
Dimethyl Disulfide	< 0.013	< 0.013
2-Methylthiophene	< 0.013	< 0.013
3-Methylthiophene	< 0.013	< 0.013
Tetrahydrothiophene	< 0.013	< 0.013
Bromothiophene	< 0.013	< 0.013
Thiophenol	< 0.013	< 0.013
Diethyl disulfide	< 0.013	< 0.013
Total Unidentified Sulfur	< 0.013	< 0.013
Total Reduced Sulfurs as H ₂ S	< 0.013	< 0.013

All compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)
Sample Reporting Limit (SRL) is equal to Reporting Limit x Canister Dil. Fac. x Analysis Dil. Fac.


Marcus Hueppe
Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report ASTM D-5504

Date Analyzed: 4/19/2016
Analyst: ZB
Units: ppbV

Instrument ID: SCD#10
Calb. Date: 3/14/2016

Opening Calibration Verification Standard

	Resp. (area)	Result	% Rec *	% RPD ****
Initial (H ₂ S)	6035	488	97.6	0.3
Duplicate (H ₂ S)	6056	490	97.9	0.1
Triplicate (H ₂ S)	6061	490	98.0	0.2

Method Blank

Analyte	Result
H ₂ S	<PQL

Duplicate Analysis

Sample ID 160540-89242

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H ₂ S	<PQL	<PQL	0.0	0.0

Matrix Spike & Duplicate

Sample ID 160540-89242

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	<PQL	250.0	242.1	243.4	96.8	97.4	0.6

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result	% Rec **
H ₂ S	500.0	491.5	98.3

* Must be 95-105%, ** Must be 90-110%, *** Must be < 10%, **** Must be < 5% RPD from Mean result.

PQL = 10.0 ppbV as H₂S, MDL = 1.55 ppbV as H₂S



Marcus Hueppe
Laboratory Director



