

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins
PROJECT NAME : MO DNR – Bridgeton Landfill
AAC PROJECT NO. : 180041
REPORT DATE : 1/11/2018

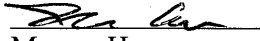
On January 10, 2018, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Silonite Canisters for TRS analysis by ASTM D-5504. Upon receipt, each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure (mmHg)
D1 (180971)	180041-105752	774.7
U1 (180972)	180041-105753	775.7

All of the analyses mentioned above were performed in accordance with AAC's ISO/IEC 17025:2005 and NELAP approved Quality Assurance Plan. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Laboratory Director or his/her designee, as verified by the following signature, has authorized release of the data contained in this hardcopy report.

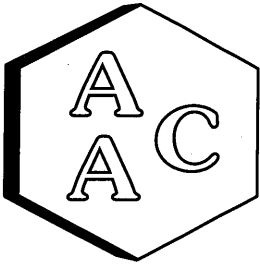
If you have any questions or require further explanation of data results, please contact the undersigned.



Marcus Hueppe
Laboratory Director

This report consists of 4 pages.





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : Eurofins
PROJECT NO. : 180041
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 01/08/2018
RECEIVING DATE : 01/10/2018
ANALYSIS DATE : 01/10/2018
REPORT DATE : 01/11/2018

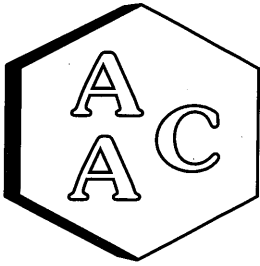
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (180971)	U1 (180972)
AAC ID	180041-105752	180041-105753
Canister Dil. Fac.	1.2	1.2
Analyte	Result	Result
Hydrogen Sulfide	< 0.012	< 0.012
Carbonyl Sulfide	< 0.012	< 0.012
Sulfur Dioxide	< 0.012	< 0.012
Methyl Mercaptan	< 0.012	< 0.012
Ethyl Mercaptan	< 0.012	< 0.012
Dimethyl Sulfide	< 0.012	< 0.012
Carbon Disulfide	< 0.012	< 0.012
Isopropyl Mercaptan	< 0.012	< 0.012
tert-Butyl Mercaptan	< 0.012	< 0.012
n-Propyl Mercaptan	< 0.012	< 0.012
Methylethylsulfide	< 0.012	< 0.012
sec-Butyl Mercaptan	< 0.012	< 0.012
Thiophene	< 0.012	< 0.012
iso-Butyl Mercaptan	< 0.012	< 0.012
Diethyl Sulfide	< 0.012	< 0.012
n-Butyl Mercaptan	< 0.012	< 0.012
Dimethyl Disulfide	< 0.012	< 0.012
2-Methylthiophene	< 0.012	< 0.012
3-Methylthiophene	< 0.012	< 0.012
Tetrahydrothiophene	< 0.012	< 0.012
Bromothiophene	< 0.012	< 0.012
Thiophenol	< 0.012	< 0.012
Diethyl Disulfide	< 0.012	< 0.012
Total Unidentified Sulfur	< 0.012	< 0.012
Total Reduced Sulfurs	< 0.012	< 0.012

All unidentified 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: 1/10/2018
 Analyst: ZB
 Units: ppbV

Instrument ID: SCD#10
 Calb. Date: 1/10/2018

Opening Calibration Verification Standard

510.75 ppbV H2S (SS1041)

H ₂ S	Resp. (area)	Result	% Rec *	% RPD ****
Initial	2875	510	99.8	0.0
Duplicate	2877	510	99.9	0.1
Triplicate	2874	509	99.7	0.0

511.75 ppbV MeSH (SS1041)

MeSH	Resp. (area)	Result	% Rec *	% RPD ****
Initial	2960	512	100.1	0.3
Duplicate	2944	509	99.6	0.2
Triplicate	2948	510	99.7	0.1

522.75 ppbV DMS (SS1041)

DMS	Resp. (area)	Result	% Rec *	% RPD ****
Initial	3345	522	99.8	0.2
Duplicate	3360	524	100.2	0.7
Triplicate	3309	516	98.7	0.9

Method Blank

Analyte	Result
H ₂ S	<PQL
MeSH	<PQL
DMS	<PQL

Duplicate Analysis

Sample ID 180041-105752

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

Matrix Spike & Duplicate

Sample ID 180041-105752

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	<PQL	255.4	235.0	241.5	92.0	94.6	2.7
MeSH	<PQL	255.9	237.3	242.1	92.7	94.6	2.0
DMS	<PQL	261.4	238.0	247.4	91.1	94.7	3.9

Closing Calibration Verification Standard

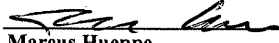
Analyte	Std. Conc.	Result	% Rec **
H ₂ S	510.8	512.9	100.4
MeSH	511.8	518.7	101.4
DMS	522.8	530.6	101.5

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

H₂S: PQL = 10.0 ppbV, MDL = 1.09 ppbV

MeSH: PQL = 10.0 ppbV, MDL = 1.13 ppbV

DMS: PQL = 10.0 ppbV, MDL = 1.39 ppbV


 Marcus Hueppe
 Laboratory Director



