

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins
PROJECT NAME : MO DNR – Bridgeton Landfill
AAC PROJECT NO. : 180823
REPORT DATE : 6/15/2018

On June 11, 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 (181398)	180823-109405	636.1
U1 (182080)	180823-109406	698.6

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.

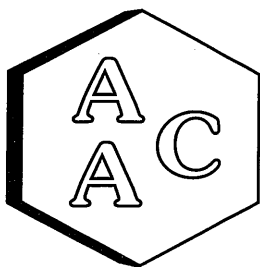
I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Laboratory Director or his/her designee, as verified by the following signature,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

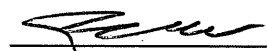
CLIENT : Eurofins
PROJECT NO. : 180823
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 06/06/2018
RECEIVING DATE : 06/11/2018
ANALYSIS DATE : 06/13/2018
REPORT DATE : 06/15/2018

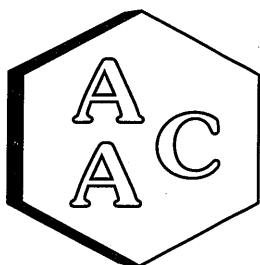
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (181398)	U1 (182080)
AAC ID	180823-109405	180823-109406
Canister Dil. Fac.	1.4	1.3
Analyte	Result	Result
Hydrogen Sulfide	< 0.014	< 0.013
Carbonyl Sulfide	< 0.014	< 0.013
Sulfur Dioxide	< 0.014	< 0.013
Methyl Mercaptan	< 0.014	< 0.013
Ethyl Mercaptan	< 0.014	< 0.013
Dimethyl Sulfide	< 0.014	< 0.013
Carbon Disulfide	< 0.014	< 0.013
Isopropyl Mercaptan	< 0.014	< 0.013
tert-Butyl Mercaptan	< 0.014	< 0.013
n-Propyl Mercaptan	< 0.014	< 0.013
Methylethylsulfide	< 0.014	< 0.013
sec-Butyl Mercaptan	< 0.014	< 0.013
Thiophene	< 0.014	< 0.013
iso-Butyl Mercaptan	< 0.014	< 0.013
Diethyl Sulfide	< 0.014	< 0.013
n-Butyl Mercaptan	< 0.014	< 0.013
Dimethyl Disulfide	< 0.014	< 0.013
2-Methylthiophene	< 0.014	< 0.013
3-Methylthiophene	< 0.014	< 0.013
Tetrahydrothiophene	< 0.014	< 0.013
Bromothiophene	< 0.014	< 0.013
Thiophenol	< 0.014	< 0.013
Diethyl Disulfide	< 0.014	< 0.013
Total Unidentified Sulfur	< 0.014	< 0.013
Total Reduced Sulfurs	< 0.014	< 0.013

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: 6/13/2018
 Analyst: ZB
 Units: ppbV

Instrument ID: SCD#10
 Calb. Date: 6/4/2018

Opening Calibration Verification Standard

510.75 ppbV H₂S (SS1041)

H ₂ S	Resp. (area)	Result	% Rec *	% RPD ****
Initial	5334	508	99.5	1.3
Duplicate	5410	515	100.9	0.1
Triplicate	5464	521	101.9	1.1

511.75 ppbV MeSH (SS1041)

MeSH	Resp. (area)	Result	% Rec *	% RPD ****
Initial	5367	531	103.8	0.5
Duplicate	5346	529	103.4	0.1
Triplicate	5312	526	102.7	0.6

522.75 ppbV DMS (SS1041)

DMS	Resp. (area)	Result	% Rec *	% RPD ****
Initial	5704	544	104.1	0.4
Duplicate	5667	541	103.4	0.3
Triplicate	5681	542	103.7	0.1

Method Blank

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

Duplicate Analysis

Sample ID 180823-109406

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 180823-109406

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	<PQL	255.4	231.0	240.3	90.4	94.1	4.0
MeSH	<PQL	255.9	240.2	254.5	93.9	99.4	5.8
DMS	<PQL	261.4	248.4	268.3	95.0	102.7	7.7

Closing Calibration Verification Standard

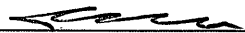
Analyte	Std. Conc.	Result	% Rec **
H ₂ S	510.8	460.5	90.2
MeSH	511.8	477.4	93.3
DMS	522.8	503.8	96.4

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

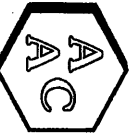
H₂S: PQL = 10.0 ppbV, MDL = 1.09 ppbV

MeSH: PQL = 10.0 ppbV, MDL = 1.13 ppbV

DMS: PQL = 10.0 ppbV, MDL = 1.39 ppbV


 Marcus Hueppe
 Laboratory Director





ATMOSPHERIC ANALYSIS & CONSULTING, INC.
 1534 Eastman Avenue, Suite A
 Ventura, California 93003
 Phone (805) 650-1642 Fax (805) 650-1644
 E-mail: info@aacalab.com

AAC Project No. 180823

Page 1 of 1

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name MO DAVE		Project Name Brixton Landfill		Analysis Requested		Send report:	
Project Mgr (Print Name) Michael Parris		Project Number				Attn: _____	
Sampler's Name (Print Name) Teresa Trevany		Sampler's Signature <i>[Signature]</i>				Phone #: _____	
AAC Sample No.		Date Sampled		Time Sampled		Fax #: _____	
Can # 823		6/6/18		1155-1250		Send invoice to:	
Can # 815		6/6/18		1205-1300		P.O. # _____	
						Turnaround Time	
						24 - 48 Hr _____ 72 Hr _____	
						5 Day <input checked="" type="checkbox"/> Normal _____	
						Other (Specify) _____	
						Special Instructions/remarks: Shipped via UPS. Tracking # 1ZK0Y0WB0295341708	
Relinquished by (Signature): <i>[Signature]</i>		Print Name: Teresa Trevany		Date/Time 6/6/18 1500		Received by (signature): <i>[Signature]</i>	
Relinquished by (Signature):		Print Name:		Date/Time		Received by (signature):	
						Print Name 6/11/18 1755	

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