

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins Air Toxics, Inc.
PROJECT NAME : MO DNR – Bridgeton LF
AAC PROJECT NO. : 150859
REPORT DATE : 7/16/2015

On July 15, 2015, 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) |
|-------------|--------------|-------------------------|
| U1 (152338) | 150859-80708 | 606.2 |
| D1 (152944) | 150859-80709 | 657.6 |

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.

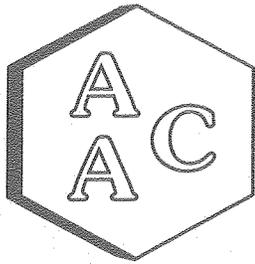
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

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. : 150859
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 07/10/2015
RECEIVING DATE : 07/15/2015
ANALYSIS DATE : 07/15/2015
REPORT DATE : 07/16/2015

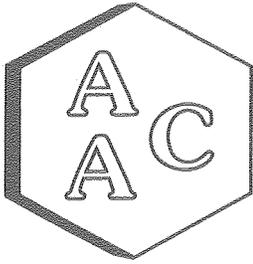
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

| Client ID | U1 (152338) | D1 (152944) |
|---|--------------|--------------|
| AAC ID | 150859-80708 | 150859-80709 |
| Canister Dil. Fac. | 1.5 | 1.4 |
| Analyte | Result | Result |
| Hydrogen Sulfide | < 0.015 | < 0.014 |
| Carbonyl Sulfide | < 0.015 | < 0.014 |
| Sulfur Dioxide | < 0.015 | < 0.014 |
| Methyl Mercaptan | < 0.015 | < 0.014 |
| Ethyl Mercaptan | < 0.015 | < 0.014 |
| Dimethyl Sulfide | < 0.015 | < 0.014 |
| Carbon Disulfide | < 0.015 | < 0.014 |
| Isopropyl Mercaptan | < 0.015 | < 0.014 |
| tert-Butyl Mercaptan | < 0.015 | < 0.014 |
| n-Propyl Mercaptan | < 0.015 | < 0.014 |
| Methylethylsulfide | < 0.015 | < 0.014 |
| sec-Butyl Mercaptan | < 0.015 | < 0.014 |
| Thiophene | < 0.015 | < 0.014 |
| iso-Butyl Mercaptan | < 0.015 | < 0.014 |
| Diethyl Sulfide | < 0.015 | < 0.014 |
| n-Butyl Mercaptan | < 0.015 | < 0.014 |
| Dimethyl Disulfide | < 0.015 | < 0.014 |
| 2-Methylthiophene | < 0.015 | < 0.014 |
| 3-Methylthiophene | < 0.015 | < 0.014 |
| Tetrahydrothiophene | < 0.015 | < 0.014 |
| Bromothiophene | < 0.015 | < 0.014 |
| Thiophenol | < 0.015 | < 0.014 |
| Diethyl disulfide | < 0.015 | < 0.014 |
| Total Unidentified Sulfur | < 0.015 | < 0.014 |
| Total Reduced Sulfurs as H ₂ S | < 0.015 | < 0.014 |

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: 7/15/2015
Analyst: ZB

Instrument ID: SCD#10
Calb. Date: 5/4/2015

Opening Calibration Verification Standard

| | Resp. (area) | Result (ppbV) | % Rec * | % RPD **** |
|------------|--------------|---------------|---------|------------|
| Initial | 4542 | 505 | 100.9 | NA |
| Duplicate | 4579 | 509 | 101.8 | 0.8 |
| Triplicate | 4627 | 514 | 102.8 | 1.9 |

Method Blank

| Analyte | Result |
|---------|--------|
| H2S | ND |

Duplicate Analysis

Sample ID 150850-80657 x5

| Analyte | Sample Result | Duplicate Result | Mean | % RPD *** |
|---------|---------------|------------------|--------|-----------|
| H2S | 1504.8 | 1483.6 | 1494.2 | 1.4 |

Matrix Spike & Duplicate

Sample ID 150850-80657 x10

| Analyte | Sample Conc. | Spike Added | MS Result | MSD Result | MS % Rec ** | MSD % Rec ** | % RPD *** |
|---------|--------------|-------------|-----------|------------|-------------|--------------|-----------|
| H2S | 149.4 | 250.0 | 412.9 | 406.0 | 103.4 | 101.7 | 1.7 |

Closing Calibration Verification Standard

| Analyte | Std. Conc. | Result (ppbV) | % Rec ** |
|---------|------------|---------------|----------|
| H2S | 500.0 | 517.7 | 103.5 |

* Must be 95-105%

** Must be 90-110%

*** Must be < 10%

**** Must be < 5% RPD from Initial result.



 Marcus Hueppe
 Laboratory Director



