

**AIR MONITORING**

**October 22, 2009 Sampling Event**

TestAmerica Laboratories, Inc.

November 11, 2009

Mr. Edward Van Doren  
Shaw Env. & Infrastructure  
11 Northeastern Blvd.  
Salem, NH 03079

Re: Laboratory Project No. 29000  
ETR: 134420

Dear Mr. Van Doren:

Enclosed are the analytical results for the samples that were received by TestAmerica Burlington on October 28<sup>th</sup>, 2009. Laboratory identification numbers were assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 10/28/09 ETR No: 134420			
811923	CAL GAS 5 PPM	10/22/09	AIR
811924	CAL GAS 5 PPM FILTER	10/22/09	AIR
811925	INLET TO FLARE	10/22/09	AIR
822926	INLET TO FLARE FILTER	10/22/09	AIR

Documentation of the condition of the samples at the time of their receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal.

The Sulfur Dioxide by OSHA ID 200 and Sulfuric Acid analyses for the samples referenced above were performed by Wisconsin Occupational Health Laboratory (WOHL) in Madison, WI. The reports prepared by WOHL are provided in their entirety after this cover letter.

Any reference within this report to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.) The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.



THE LEADER IN ENVIRONMENTAL TESTING

If there are any questions regarding this submittal, please contact me at 802 660-1990.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Dawicki".

Don Dawicki  
Project Manager

## TestAmerica Burlington Data Qualifier Definitions

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### Organic

- U: Compound analyzed but not detected at a concentration above the reporting limit.
- J: Estimated value.
- N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.
- P: SW-846: The relative percent difference for detected concentrations between two GC columns is greater than 40%. Unless otherwise specified the higher of the two values is reported on the Form I.
- CLP SOW: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified the lower of the two values is reported on the Form I.
- C: Pesticide result whose identification has been confirmed by GC/MS.
- B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.
- E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.
- D: Concentrations identified from analysis of the sample at a secondary dilution.
- A: Tentatively identified compound is a suspected aldol condensation product.
- X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

### Inorganic/Metals

- E: Reported value is estimated due to the presence of interference.
- N: Matrix spike sample recovery is not within control limits.
- \* Duplicate sample analysis is not within control limits.
- B: The result reported is less than the reporting limit but greater than the instrument detection limit.
- U: Analyte was analyzed for but not detected above the reporting limit.

#### Method Codes:

- P ICP-AES  
MS ICP-MS  
CV Cold Vapor AA  
AS Semi-Automated Spectrophotometric

FQA009:02.18.08:4  
TestAmerica Burlington

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

Burlington  
Community Drive  
Burlington, VT 5403  
802.660.1990 fax 802.660.1919

Project Manager: Ed Van Doren Tel/Fax: 603-870-4530		Date: 10/27/09				
Client Contact Environmental, Inc. Northeastern Blvd. em. NH 03079 3) 870-4500 1-870-4501 ject Name: Crow Lane Landfill : Crow Lane Landfill )#		Carrier: UPS				
Analysis Turnaround Time Calendar (C) or Work Days (W) X TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Peter Lab Contact: Don Dawicki				
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
Cal Gas 5 ppm	10/22/2009	---	timed	Gas	1	time 20 minutes at 70 ml/min
Cal Gas 5 ppm w/pre-filter	10/22/2009	4:17 PM	timed	Gas	2	time 20 minutes at 70 ml/min
Inlet to Flare	10/22/2009	3:07 PM	timed	Gas	1	time 2 minutes at 70 ml/min
Inlet to Flare w/pre-filter	10/22/2009	3:01 PM	timed	Gas	2	time 2 minutes at 70 ml/min
SO2 by OSHA ID-200 H2SO4 and sulfate particulates						

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

PN# 124246

inquired by: Edward Pilon Spier  
 Date/Time: 10/27/09  
 Company: Shaw Ecu

Received by: [Signature]  
 Date/Time: 10/28/09  
 Company: TH-Bur Legdon

inquired by: [Signature]  
 Date/Time: [Blank]  
 Company: [Blank]





## **Subcontract Data**

# Analytical Laboratory Report

November 03, 2009

Report ID: 9258342

DON DAWICKI  
TEST AMERICA  
STE 11  
30 COMMUNITY DR  
SOUTH BURLINGTON VT 05403

Company Number: 31790

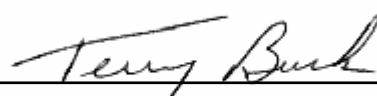
## PROJ CROW LANE LANDFILL

Date Collected: 10/22/2009  
Date Received: 10/30/2009  
Date Reported: 11/3/2009

Analyst: \_\_\_\_\_

  
**LEROY DOBSON, Chemist Supervisor**  
ld@mail.slh.wisc.edu

Reviewe \_\_\_\_\_

  
**TERRY L BURK, CIH - WOHL Lab Director**  
tb@mail.slh.wisc.edu

WOHL uses only verified, secured electronic signatures on reports.

These signatures are as valid as original handwritten signatures.

If you have any questions regarding this report please feel free to contact the laboratory via email (as listed above) or via telephone at 800-446-0403

## Analytical Results

LAB NUMBER	DESCRIPTION	AIR VOLUME
<b>1403082</b>	SPECIAL PTFE	1.4 liters
811924		
Sulfuric Acid	<10 µg/sample	<7.1 mg/m <sup>3</sup>
COMMENTS: Date of Analysis - 11/02/09		
<b>1403083</b>	SPECIAL PTFE	.14 liters
811926		
Sulfuric Acid	<10 µg/sample	<71 mg/m <sup>3</sup>
COMMENTS: Results reflect all sulfates including sulfuric acid. Reporting level based on MCE filters. PTFE filters desorbed in 10 ml of RO water and run as listed in methodology section. The analysis of PTFE filters for sulfuric acid would not fall within the scope of our accreditation.		

Displayed values on report have been rounded; however all calculations are performed using raw, unrounded intermediate results. Please contact the laboratory if you have any questions regarding our result calculation or rounding. All samples were received by the laboratory in acceptable condition unless otherwise noted.

<: Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used.  
The actual amount is less than the reported value.

## Analytical Methodology

### INORGANIC ACIDS/ACID ANIONS COLLECTED ON FILTERS:

Acid anions are analyzed by ion chromatography (IC) using WOHL Method WI002ia.12 based on NIOSH Method 7903 for Inorganic Acids.

Sulfuric and Phosphoric acid will collect on filters. Salts of fluoride, chloride & nitrate compounds may be sampled using a filter. Filters are transferred to a tube and desorbed with the proper desorbing solution. Mixed Cellulose Ester(MCE) filters are recommended over PVC filters because PVC filters will not "wet" in the desorbin solution. An aliquot of the sample was analyzed for acid anions by ion chromatography with conductivity detection.

The results are calculated and expressed as acid anion concentration or after applying the proper gravimetric factor as acid in mg/m<sup>3</sup>. This test is not specific for acids and salts of the corresponding acid will give a positive interference. Samples are not blank corrected unless noted in analytical comments.

REPORTING LIMITS:

This table contains the WOHL determined reporting limits for the compounds specified in this report. These numbers are based on the historical statistical data for a particular analyte or are based on WOHL determined values.

<u>Analyte</u>	<u>Reporting Limit</u>
Sulfuric Acid on SPECIAL PTFE	10 µg/sample

### **Analytical Quality Control**

Due to technical considerations related to the production of known spiked control samples, no external quality control samples were analyzed with this study. However, all other quality assurance measures such as daily calibration, linearity checks, reporting limit and desorption determination and peer and supervisory review of the data have been performed. The results in this report conform to the high quality standards set forth at The Wisconsin Occupational Health Laboratory.

### **End of Analytical Report**

The results in this report apply only to the samples, specifically listed above, tested at the Wisconsin Occupational Health Laboratory .  
This report is not to be reproduced except in full.

# Analytical Laboratory Report

November 03, 2009

Report ID: 9258386

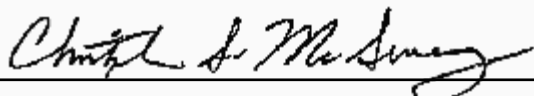
DON DAWICKI  
TEST AMERICA  
STE 11  
30 COMMUNITY DR  
SOUTH BURLINGTON VT 05403

Company Number: 31790

## PROJ CROW LANE LANDFILL

Date Collected: 10/22/2009  
Date Received: 10/30/2009  
Date Reported: 11/3/2009

Analyst:



**CHRISTOPHER MCSWEENY, Advanced Chemist**  
csm@mail.slh.wisc.edu

Reviewer:



**LEROY DOBSON, Chemist Supervisor**  
ld@mail.slh.wisc.edu

WOHL uses only verified, secured electronic signatures on reports.

These signatures are as valid as original handwritten signatures.

If you have any questions regarding this report please feel free to contact the laboratory via email (as listed above) or via telephone at 800-446-0403

## Analytical Results

LAB NUMBER	DESCRIPTION				AIR VOLUME
FIELD NUMBER	DESCRIPTION				AIR VOLUME
<b>1403078</b>	SKC 226-80				1.4 liters
<b>811923</b>					
	Sulfur Dioxide	16 µg/sample	11 mg/m <sup>3</sup>	4.3 ppm	
<b>COMMENTS:</b> Date of Analysis - 11/02/09					
<b>1403079</b>	SKC 226-80				1.4 liters
<b>811924</b>					
	Sulfur Dioxide	16 µg/sample	11 mg/m <sup>3</sup>	4.3 ppm	
<b>1403080</b>	SKC 226-80				.14 liters
<b>811925</b>					
	Sulfur Dioxide	<3.0 µg/sample	<21 mg/m <sup>3</sup>	<8.2 ppm	
<b>1403081</b>	SKC 226-80				.14 liters
<b>811926</b>					
	Sulfur Dioxide	<3.0 µg/sample	<21 mg/m <sup>3</sup>	<8.2 ppm	

Displayed values on report have been rounded; however all calculations are performed using raw, unrounded intermediate results. Please contact the laboratory if you have any questions regarding our result calculation or rounding. All samples were received by the laboratory in acceptable condition unless otherwise noted.

<: Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used. The actual amount is less than the reported value.

## Analytical Methodology

### SULFUR DIOXIDE/TREATED CHARCOAL TUBES:

Samples for sulfur dioxide were collected on treated charcoal tubes and analyzed as per WOHL method WI018so.6 based on OSHA ID-200. The tubes were desorbed with a dilute, basic hydrogen peroxide solution and analyzed by ion chromatography with conductivity detector for sulfate. The results for sulfate were converted gravimetrically to sulfur dioxide.

Results are reported as ppm of SO<sub>2</sub> for samples with air volumes and as ug/sample for samples with no air volumes. Results are not blank corrected unless noted in analytical comments.

#### REPORTING LIMITS:

This table contains the WOHL determined reporting limits for the compounds specified in this report. These numbers are based on the historical statistical data for a particular analyte or are based on WOHL determined values.

<u>Analyte</u>	<u>Reporting Limit</u>
Sulfur Dioxide on SKC 226-80	3 µg/sample

## **Analytical Quality Control**

Due to technical considerations related to the production of known spiked control samples, no external quality control samples were analyzed with this study. However, all other quality assurance measures such as daily calibration, linearity checks, reporting limit and desorption determination and peer and supervisory review of the data have been performed. The results in this report conform to the high quality standards set forth at The Wisconsin Occupational Health Laboratory.

## **End of Analytical Report**

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