



From:  
Trace Analytics, LLC  
15768 Hamilton Pool Road  
Austin, Texas 78738  
  
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Report 17-34294, Sampled on  
**11/14/2017**

Next Sample Due Quarterly, Approximately  
**2/14/2018**

To:  
**Mr. Matthew Sherman**  
Sherman Air Services, LLC  
PO Box 388  
Norwich, NY 13815  
(607) 343-3467

**SOUTH PLATTSBURG FIRE DEPARTMENT**  
IS IN COMPLIANCE WITH THE AIR/GAS QUALITY PORTION OF THE SPECIFICATION:  
**NFPA 1989-2013 (N) & CGA G-7.1-2011 GRADE D (0)**  
AS ANALYZED AND REPORTED ON THIS CERTIFICATE  
FOR THE SAMPLE DESCRIBED UNDER SECTION "SAMPLE & REPORT INFORMATION"



American Assn for Laboratory Accreditation  
1991: Certificate No. 322.01 Chemical Field of Testing

*Richard A. Smith*  
Richard A. Smith, Laboratory Director

Analytical Test Methods		Media Sampled	Estimate of Uncertainty
Gases & Vapors	CAT-A-01 Gas Chromatography/Mass Spectrometry	Source Bottle: 774163	The average analytical uncertainty (k=2) is 98.8±2.4% (relative) at the specification limit for the ten compounds normally reported. For uncertainty information for a specific compound, contact Trace Analytics.
Oil & Particulate	CAT-A-03 Analytical Gravimetry	Ambient Bottle: N/A	
Particle Size	CAT-A-04 Optical Microscopy	Source Filter: 168399	
Pressure Dew Point	CAT-A-07 Gas Detector Tube	Detector Tube: Draeger 5-a/P	

Results relate only to items tested. This report shall not be reproduced except in full without the written permission of Trace Analytics, LLC  
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**Sample & Report Information**

**Results of Test: PASS**

Sampled For	South Plattsburg Fire Department	Analytes	Source Results	Ambient Results	Specification <sup>1</sup> Allowable Limits
Sampled By	Matthew Sherman	Oxygen, Volume %	21.0	N/A	19.5-23.5
Sampled On	11/14/2017	Nitrogen, Volume %	78.2	N/A	75.0-81.0
Received On	11/20/2017	Argon, Volume %	0.8	N/A	N/A
Analyzed On	11/20/2017	Nitrogen Plus Argon, Volume %	79.0	N/A	N/A
Sampled From	Compressor	Carbon Monoxide (CO), ppmv	<0.3	N/A	5
Make	Eagle	Carbon Dioxide (CO <sub>2</sub> ), ppmv	331	N/A	1000
Model	T2GP15G3D4E	Water Content (H <sub>2</sub> O), ppmv/Dewpoint, °F	<3.4 / <-91	N/A	24 / -65 (W)
Serial No.	04563701	Atmospheric Dew Point, °F (DT)	<-93	N/A	N/A
		TVHC (including CH <sub>4</sub> ), ppmv	6.8	N/A	N/A
		Methane (CH <sub>4</sub> ) ppmv	2.1	N/A	N/A
		TVHC (excluding CH <sub>4</sub> ), ppmv	4.7	N/A	25
		Oil (condensed) & Particulate, mg/m <sup>3</sup>	<0.04	N/A	2
Hours	1125	Odor (provided by customer)	Not Pronounced	N/A	Not Pronounced
Sample Phase	Routine	Other	N/A	N/A	N/A
Customer Comments		Other	N/A	N/A	N/A
		Other	N/A	N/A	N/A

**PASS**

(N) The Analysis Certificate refers to compliance of the referenced air sample with NFPA 1989 5.6 Breathing Air Quality Requirements, not the entirety of NFPA 1989.  
(0) CGA G-7.1 notes the typical use for Grade D as "OSHA breathing air" and for Grade L as "SCBA air".  
(W) Dew point is expressed in °F at one atmosphere pressure absolute.

(DT) Dew point is calculated at 1 atmosphere pressure (14.7 psia) from the detector tube reading.

Report Number 17-34294  
Customer ID 40239  
Date Reported 11/21/2017  
Frequency Quarterly  
Next Sample Due Approx. **2/14/2018**



15768 Hamilton Pool Road  
Austin, Texas 78738

Fax 512-263-0002  
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www.AirCheckLab.com  
service@AirCheckLab.com

## ANALYSIS CERTIFICATE

To: Mr. Matthew Sherman  
Sherman Air Services, LLC  
PO Box 388  
Norwich, NY 13815  
(607) 343-3467

### SOUTH PLATTSBURG FIRE DEPARTMENT

# THIS BREATHING AIR HAS BEEN TESTED TO THE REQUIREMENTS OF NFPA 1989, 2013 EDITION

Eagle T2GP15G3D4E 04563701 Routine  
Next Sample Due On or Before 2/14/2018



American Assn for Laboratory Accreditation  
1991: Certificate No. 322.01 Chemical Field of Testing

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Report Number	17-34294
Customer ID	40239
Sampled On	11/14/2017

Received On	11/20/2017
Analyzed On	11/20/2017
Date Reported	11/21/2017
Frequency	Quarterly



15768 Hamilton Pool Road  
 Austin, Texas 78738  
 800-AIR-1024 or 512-263-0000 • Fax: 512-263-0002  
 E-mail: ServiceTeam@AirCheckLab.com

Last Report No.: 17-34294  
 Last Sample Date: 11/14/2017

SOME INFORMATION BELOW IS PREPRINTED FROM YOUR PREVIOUS AIR TEST. IF ANY OF THE INFORMATION HAS CHANGED OR IS INCORRECT, PLEASE MARK ONE LINE THROUGH IT AND CAREFULLY PRINT THE CORRECT INFORMATION.

1 Contact Information

Customer ID: 40239 Customer Name: Sherman Air Services, LLC Country: USA  
 Contact: Mr. Matthew Sherman E-mail: shermanairservicesllc@gmail.com Phone: (607) 343-3467 Fax:   
 Alternate: E-mail: Phone: Fax:   
 Please check box to the left if you'd like the AirCheck Report sent to the person below (fill in information).  
 Contact: E-mail:

2 Rush Analysis Request

IMPORTANT: PLEASE CALL 1-800-247-1024 (ext. 2) or 1-512-263-0000 (ext. 2) TO SCHEDULE

RUSH  By marking this box, I understand that I am authorizing Same Day Analysis & Reporting for an additional \$100 per sample. Initial here:

3 Purchase Order Information (if applicable)

5 Customer Comments (use back if needed)

PO Number: PO Valid Thru:

4 System Information

6 Sampled By and Sample Date

System ID: 159635  
 Sampled For: South Plattsburg Fire Department  
 Testing Schedule:  45 Days  Bimonthly  Random Sample    
 90 Days  Monthly  Semi-Annual   
 120 Days  Other  Startup   
 Annual  Quarterly  Verification  
 Air Spec: NFPA 1989-2013 (N) & CGA G-7.1-2011 Grade D (0)  
 If above is incorrect, indicate air spec below:  
 OSHA 1910.134-Cylinders  OSHA 1910.134-Compressor  
 OSHA 1910.430-Com. Diving  Fire - NFPA 1989  
 CGA Grade D-SCBA  CGA Grade D2-not SCBA  
 O Sport Diving - CGA Grade E  Other  
 O CSA(>2216 psig)  O CSA(15-2216 psig)  O CSA<15 psig  
 Make: Eagle  
 Model: T2GP15G3D4E  
 Serial No: 04563701  
 Cylinder:  
 Other ID:  
 Pressure:  High Pressure (1,000-6,000 psi)  
 Low Pressure (less than 1,000 psi)  
 Air used for:  SCBA  Airline Respirator  
 SCUBA  Other  
 Purification:  Molecular Sieve/Desiccant  No Purification  
 Refrigerated Dryer  Unknown  
 No Dryer  
 Sampled From:  Compressor  Source  Other  
 Stored Air  Outlet  Not Provided  
 Comp. & Storage  Breather Box  
 Comp. Hours:

SIGNATURE PRINT Name (Person taking the test sample)  
 Date Sample Taken MONTH DAY YEAR

Submission of this air sample authorizes Trace Analytics, LLC to provide services. If a purchase order number is required by your company, please attach it to this data sheet or write it in the spaces provided in section "3". I attest that all information provided on this datasheet is truthful and accurate to the best of my knowledge.

7 Sample Information

Is this sample a Retest taken within 30 days of a failed test?  Yes  No

A Source Bottle, Filter, and Data Sheet MUST BE RETURNED for a complete analysis.

Filter Number (red or green label)  
 Flowrate (liters per minute)  
 Sample Time (minimum of 10 min.)

Detector Tube (OMIT data if sampling media does not include Detector Tube)

Tube Reading (0 - 200) Total Minutes Sampled  
 Source Bottle Number (blue label)  
 Ambient Bottle Number (white label)

Odor is REQUIRED. It's determined by sniffing the air from the side port of the Bottle Holder. MARK ONLY ONE.  None/Slight  Pronounced

PLEASE NOTE:

Sample Shelf Life  
 Once a sample is taken, it must be received by our laboratory within 60 days. NO EXCEPTIONS.

Shelf Life  
 Sampling media must be used or returned for free replacement within 2 years of shipment date. See expiration date on return box.

For TRACE Use Only - CPPDS

DT Reading: Red / Gray

Receiving I.D.

Receiver's Initials

Next Sample Due Approx: 2/14/2018

## Sampling Notes for Water Vapor Detector Tube

1: Break BOTH tips of detector tube before inserting. Arrow on tube points away from Fitting. 50 LPM for 10 minutes.

2: The DT is filled with yellow filler material that reacts to the presence of water by changing color from yellow to a grayish/reddish brown. At any time during the 10 minute test if color change reaches 200 mark, remove tube and note elapsed time on data sheet.

## Reading the Detector Tube for High Pressure Air Used for SCBA

The purpose of providing a detector tube for onsite testing is to allow you the opportunity to correct a problem without having to wait for the complete report. To determine if your sample passes; identify the farthest color change on the tube between 0 and 200; locate that number on chart below; identify the flowrate you took your sample on the left hand side of chart between 40 and 60; where the two readings intersect is the approximate result in °F. For example: If tube showed color change to 50, and flowrate was 50 LPM, the result would be -49°F. The number between 0 and 200 should be written on the data sheet not the dew point from the chart below.



		Det. Tube Reading, mg/m <sup>3</sup>															
		2.5	5	10	20	30	40	50	60	70	80	90	100	125	175	200	
Flowrate Reading	60	-93	-84	-75	-66	-60	-56	-52	-49	-47	-45	-43	-42	-38	-33	-31	
	55	-92	-83	-74	-65	-58	-54	-51	-48	-45	-44	-42	-40	-36	-31	-29	
	50	-90	-81	-72	-62	-56	-52	-49	-46	-44	-42	-40	-38	-34	-29	-27	
	45	-88	-79	-70	-60	-54	-50	-47	-44	-41	-39	-38	-36	-32	-26	-24	
	40	-86	-77	-68	-58	-52	-47	-44	-41	-39	-36	-35	-33	-29	-23	-21	
PASS								FAIL									

Above area marked "Pass" is for high pressure air used for SCBA; with a -65°F limit per CGA Grade D/NFPA 1989. See AirCheck Notebook Instructions for complete range of flowrates and further details.

If your detector tube reading indicates that you have a problem (anything outside of the PASS area in chart above); go through the following checklist; take corrective action; then retake your sample to see if the problem has been corrected. The 2<sup>nd</sup> test is free. Submit both samples for analysis to Trace's laboratory.

## Troubleshooting Checklist

Purification filters/ Depressurized filters	High ambient air temperatures (above 70°F) affect the operating life of the cartridge. Chemicals used in purification filters begin to degrade as soon as they are installed. Is it time to change the filters?
Manual/auto drain or priority valve	If not working properly can be source for excess water and reduce filter life.
Remote fill or hose reel	Long lengths (>25 ft) of hose are notorious for accumulating and retaining water. A short 1-2 minute purge WILL NOT be sufficient. It is best to take sample from a short fill hose (5-10 ft) or directly from containment fill station. - View our resource videos at <a href="http://www.AirCheckLab.com">www.AirCheckLab.com</a>
Recent hydrostat	Bottles must be properly dried after hydrostat and should be immediately pressurized with dry air.
Valves left open	Ambient air can easily have 10,000 - 50,000 ppm of water. Purge sufficiently to remove water accumulated from ambient air.
Sample taken from storage	Take sample from compressor to identify if compressor is producing dry air. If yes, storage banks may contain excess water. Drain and refill with dry air. This may require 2-3 fills to drive off water from inside cylinders. You can request extra detector tubes (\$10 ea) to do several checks for water without doing a complete air sample.
Detector tube cracked	Only the tips of the tube should be broken. If a crack runs down the main body of the tube, results will not be dependable.
Tube fitting wet	If multiple samples are taken consecutively, excess water may pool inside the fitting. Dry fitting between uses.
Other	Keep in mind that 1 milliliter (which is about 20 drops from an eyedropper) in a 1.7 cubic ft cylinder at 4500 psig would be 90 ppm of water vapor. It doesn't take much to fail.