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**§ Sulfur Gas Profile §**

by FPD-TCD-HID Gas Chromatography  
 ELAP Cert. 1396

**Customer:** EXAMPLE  
**Address:** EXAMPLE  
 EXAMPLE  
**Attention:** EXAMPLE

**Log #:** EXAMPLE  
**Date in:** EXAMPLE  
**Date completed:** EXAMPLE  
**Date reported:** EXAMPLE

**Sample Description:** EXAMPLE  
**Analytical Parameter:** Sulfur gas profile by FPD-TCD Gas Chromatography ( C-5 and lighter Sulfur compounds)

Constituent	Formula	ppmv	Constituent	Formula	ppmv
Hydrogen Sulfide	H2S	253.00	Methyl Ethyl Sulfide	CH3SCH2CH3	0.00
Carbonyl Sulfide	COS	0.00	Thiopene	C4H8S	1.38
Sulfur Dioxide	SO2	0.00	sec-Butyl Mercaptan	C4H9-SH	1.89
Methyl Mercaptan	CH3-SH	2.11	Iso-butyl Mercaptan	C4H9-SH	0.00
Ethyl Mercaptan	C2H5-SH	0.00	Diethyl Sulfide	(CH3CH2)2-S	0.99
Dimethyl Sulfide	CH3-S-CH3	0.00	N-butyl & t-amyl Mercaptan	C4+C5-SH	0.00
**Carbon Disulfide	CS2	0.00	** Dimethyl Disulfide	CH3-S-S-CH3	0.00
Iso-Propyl Mercaptan	C3H7-SH	2.34	**Methyl Ethyl Disulfide	CH3-SS-CH2CH3	0.00
t-Butyl Mercaptan	C4H9-SH	1.71	1-Pentathiol	C5H11-SH	0.00
N-Propyl Mercaptan	C3H7-SH	2.26	**Diethyl Disulfide	CH3CH2-SS-CH2CH3	0.00
			* Unknowns	Rx-SH (+)	0.00

**\*The unknown sulfur compounds in this sample have a molecular weight of 105 or greater (C-5+ sulfur)**

**Notes:**

- \*Unknown compounds are calculated as "monosulfur" containing compounds.
- MDL - Method detection limit, 0.2 ppmv.
- ppmv - parts per million per unit volume.
- \*\* Correct to formula ppmv by dividing reported ppmv by two.
- FPD - Flame Photometric Detector
- TCD - Thermal Conductivity Detector
- HID - Helium Ionization Detector

Total Sulfur-S, ppmv	=	265.68
Total grains of Sulfur/100 cu.ft.	=	15.92
Total Sulfur <b>less</b> H2S-S, ppmv	=	12.68

**References:**

1. ASTM D 6228 - 00
2. ASTM D 1945 - 00
3. ASTM E 260 - 86
4. EPA-15, 40 CFR, CH.1, Part 60-A

QC \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_

Jeff R. Scheidemantel, Laboratory Director Midway Laboratory, Inc.