

Gas Analytical Labs

 Bossier City, Louisiana
 1408 Alpine Boulevard
 Bossier City, LA 71111

Report Date: Jul 26, 2017 9:21a

Client:	COMSTOCK	Date Sampled:	Jul 21, 2017
Client Code:	1122	Analysis Date:	Jul 25, 2017 12:00a
Site:	MASON 21 HZ1	Collected By:	LM
Field:	383 - LOGANSFORT	Date Effective:	Aug 1, 2017 12:00a
Meter:	COG1093	Source Pressure (PSI):	994.0
Source Laboratory	Bossier City, LA	Source Temp (°F):	82
Lab File No:	516699205	Field H2O (lb/MMSCFD):	0.0000
Cylinder No:	4813		
Analysis Status:	good		
Sample Type:	Spot		
Measurement Analyst:	<i>Deborah J. Murphy</i>		

Component	Mol %	Liquid Recovery GPM
H2S (H2S)		
Helium (He)		
Nitrogen (N2)	0.4179	0.0000
Oxygen (O2)		
CO2 (CO2)	2.3107	0.0000
Methane (C1)	96.6585	0.0000
Ethane (C2)	0.5627	0.1504
Propane (C3)	0.0364	0.0100
I-Butane (IC4)	0.0062	0.0020
N-Butane (NC4)	0.0044	0.0014
I-Pentane (IC5)	0.0013	0.0005
N-Pentane (NC5)	0.0007	0.0003
Hexanes Plus (C6+)	0.0012	0.0005
TOTAL	100.0000	0.1651

Analytical Results at Base Conditions (Real)	
BTU/SCF (Dry):	989.6487 BTU/ft ³
BTU/SCF (Saturated):	972.7099 BTU/ft ³
PSIA:	14.696 PSI
Temperature (°F):	60.0 °F
Z Factor (Dry):	0.99794
Z Factor (Saturated):	0.99760

Analytical Results at Contract Conditions (Real)	
BTU/SCF (Dry):	1,011.8508 BTU/ft ³
BTU/SCF (Saturated):	994.9183 BTU/ft ³
PSIA:	15.025 PSI
Temperature (°F):	60.0 °F
Z Factor (Dry):	0.99790
Z Factor (Saturated):	0.99761

Calculated Specific Gravities			
Ideal Gravity:	0.5812	Real Gravity:	0.5822
Molecular Wt:	16.8344	lb/lbmol	

Methods, standards, and uncertainties based on GPA 2261-13.
 Analytical Calculations performed in accordance with GPA 2172-09.

* CUST. NAME: Comstock Sta. #: COG 1093

FIELD NAME: Loganport

* STATION NAME: Mason 21421

* COUNTY/PARISH: DESOIR STATE: _____

* BOTTLE #: 4813 BY: LM

* SAMPLE TYPE: SPOT COMPOSITE GAS LIQUID

* TEMP: 82 * SAMPLE PSIG: 994 950

H₂S: _____ H₂O: _____ CO₂: _____

* SAMPLE DATE: 7-21 EFFECTIVE DATE: _____

COMPOSITE DATE ON: _____ COMPOSITE DATE OFF: _____

* TYPE OF ANALYSIS: STD. EXTENDED DISTILLATION API GRAVITY

New
COMOI

1122383 COG 1093

4813



* Required Information

Date: 07/25/2017

SHV	Mole %	GPA repea	run #1	diff 1&2	repeat	reproduce repro diff	GPA Reproducibility	SHV	Mole%	run#2	Diff	reproduce
C1	88.698	0.04	88.7498	-0.029	pass	pass	0.13	C1	88.698	88.7787	-0.081	pass
N2	1.006	0.04	0.9779	0.009	pass	pass	0.16	N2	1.006	0.9692	0.037	pass
C2	3.002	0.02	2.9937	0.003	pass	pass	0.05	C2	3.002	2.9908	0.011	pass
CO2	1	0.01	0.9965	0.001	pass	pass	0.12	CO2	1	0.9951	0.005	pass
C3	1.499	0.01	1.497	0.001	pass	pass	0.03	C3	1.499	1.4957	0.003	pass
IC4	1.499	0.01	1.4905	0	pass	pass	0.02	IC4	1.499	1.4872	0.01	pass
NC4	1.498	0.01	1.4888	0	pass	pass	0.04	NC4	1.498	1.486	0.012	pass
IC5	0.7	0.01	0.6969	0	pass	pass	0.02	IC5	0.7	0.6952	0.005	pass
NC5	0.699	0.01	0.6925	0	pass	pass	0.02	NC5	0.699	0.693	0.01	pass
C6+	0.399	0.01	0.4164	0.007	pass	pass	0.03	C6+	0.399	0.4091	-0.01	pass

comp	unnorm	norm	Run#1	comp	unorm.	norm.	Run#2
C1	88.7496	88.7498	88.7787	C1	88.7787	88.7787	88.7787
N2	0.9779	0.9779	0.9692	N2	0.9692	0.9692	0.9692
C2	2.9937	2.9937	2.9908	C2	2.9908	2.9908	2.9908
CO2	0.9965	0.9965	0.9951	CO2	0.9951	0.9951	0.9951
C3	1.497	1.497	1.4957	C3	1.4957	1.4957	1.4957
IC4	1.4905	1.4905	1.4872	IC4	1.4872	1.4872	1.4872
NC4	1.4888	1.4888	1.486	NC4	1.486	1.486	1.486
IC5	0.6969	0.6969	0.6952	IC5	0.6952	0.6952	0.6952
NC5	0.6925	0.6925	0.693	NC5	0.693	0.693	0.693
C6+	0.4164	0.4164	0.4091	C6+	0.4091	0.4091	0.4091
	99.9998	100	100		100	100	100