

Gas Composition and Properties

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Effective March 21, 2016 00:00 - January 18, 2038 21:14

Source #: 100205020
Name: CHAMPLIN 569-E

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	4.7360		5.3485
Nitrogen, N2	0.6470		0.4651
Methane, C1	28.0936		11.5652
Ethane, C2	14.9642	4.0546	11.5464
Propane, C3	27.5992	7.7035	31.2297
iso-Butane, iC4	3.2429	1.0752	4.8368
n-Butane, nC4	12.8838	4.1152	19.2158
iso-Pentane, iC5	2.5899	0.9596	4.7950
n-Pentane, nC5	2.8547	1.0484	5.2853
Neo-Pentane, NeoC5			
Hexanes Plus, C6+	2.3887	1.0561	5.7122
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	87.156	
Cricondentherm	226.854	
HV, Dry @ Base P, T	2142.56	
HV, Sat @ Base P, T	2105.27	
HV, Sat @ Sample P, T	2127.04	
Relative Density	1.3630	

C6+: 60 - 30 - 10

Totals 100.0000 20.0130 100.0000

Sample

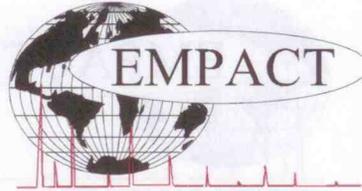
Date: 03/21/2016 Pressure: 30.0
Type: Spot Temperature 65.0
Tech: A. YEAROUS H2O: lbs/mm
H2S: 0 ppm

Remarks:

Analysis

Date: 03/31/2016 Instrument: 101 B
Cylinder:
Tech: B. GEHRMAN

Remarks:



NATURAL GAS ANALYSIS

PRIMARY DB KEY: NAME/DESCRIP : CPC 569 AMOCO E TANK BATTERY
 LEASE #: 05-039-06354
 FIELD/ AREA:
 PROJECT NO. : 201907047 ANALYSIS NO. : 03
 COMPANY NAME : RENEGADE OIL & GAS COMPANY ANALYSIS DATE: JULY 15, 2019 13:57
 OFFICE / BRANCH: AURORA, CO SAMPLE DATE : JULY 10, 2019
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

FIELD DATA

SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES. : 12 psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : 0533
 LAB PRES: psig SAMPLED BY : CODY BAYLIS
 SAMPLE TEMP. : 80 °f SAMPLING COMPANY: RENEGADE
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: .3 ppm
 H2O BY STAIN TUBE #/mmcf CO2 BY STAIN TUBE: - Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.00	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.00	-	-
NITROGEN	0.55	-	-
CO2	5.04	-	-
METHANE	27.54	-	-
ETHANE	14.66	3.9453	3.9669
PROPANE	25.44	7.0523	7.0908
ISOBUTANE	2.85	0.9382	0.9433
N-BUTANE	11.79	3.7395	3.7599
ISOPENTANE	2.79	1.0269	1.0325
N-PENTANE	3.25	1.1853	1.1918
HEXANES+	6.09	2.6591	2.6736
TOTAL	100.00	20.5466	20.6588

BTU @ 60 DEG F

	14.65	14.73
GROSS DRY REAL =	2228.7 /scf	2240.9 /scf
GROSS SATURATED REAL =	2189.7 /scf	2201.9 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	1.4142	
GRAVITY (LB/SCF)	0.10793	
COMPRESSIBILITY FACTOR :	0.98820	

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS

Reference: Per GPA 2172-14 sec 9

The C6+ is derived from the following ratios of C6, C7 & C8+ respectively: 60% 30% 10%

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