



LEASE #:

NAME/DESCRIP :

KONIG 2-31-11-59

PROJECT NO. : 201609069
 COMPANY NAME : CARRIZO OIL & GAS, INC
 OFFICE / BRANCH: HOUSTON, TX
 CUSTOMER REF:
 PRODUCER :

ANALYSIS NO. : 02
 ANALYSIS DATE: SEPTEMBER 15, 2016 22:45
 SAMPLE DATE : SEPTEMBER 15, 2016
 TO:
 EFFECTIVE DATE:

*****FIELD DATA*****

SAMPLE CYCLE: SAMPLE TYPE: SPOT
 SAMPLE PRES. : 29.0 psig CYLINDER NO. : 1999
 LAB PRES: psig SAMPLED BY : JOHN MOSER
 SAMPLE TEMP. : 94.0 °f SAMPLING COMPANY: EMPACT
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: 3.5 ppm
 H2O BY STAIN TUBE: #/mmcf CO2 BY STAIN TUBE: - Mol %
 FIELD COMMENTS: NO PROBE
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.73	GPM @ 14.65
HELIUM	0.02	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.01	-	-
NITROGEN	0.96	-	-
CO2	3.37	-	-
METHANE	64.56	-	-
ETHANE	11.02	2.9621	2.9460
PROPANE	10.41	2.8825	2.8668
ISOBUTANE	1.09	0.3587	0.3567
N-BUTANE	4.31	1.3652	1.3578
ISOPENTANE	0.93	0.3415	0.3397
N-PENTANE	1.40	0.5098	0.5070
HEXANES+	1.91	0.8332	0.8287
TOTAL	100.00	9.2530	9.2027
BTU @ 60 DEG F		14.73	14.65
GROSS DRY REAL =		1487.4 /scf	1479.3 /scf
GROSS SATURATED REAL =		1461.5 /scf	1453.4 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)		0.9191	
GRAVITY (LB/SCF)		0.07014	
COMPRESSIBILITY FACTOR :		0.99485	

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

Reference: Per GPA 2261 sec 7.3.6

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

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