



PRIMARY DB KEY: NAME/DESCRIP: **JOHN CRAIG 10-10**
 LEASE #: **GAS AT SEPARATOR**

PROJECT NO. : **201712120** ANALYSIS NO. : **18**
 COMPANY NAME : **NIGHTHAWK PRODUCTION COMPANY** ANALYSIS DATE: **DECEMBER 27, 2017 08:17**
 OFFICE / BRANCH: **HIGHLANDS RANCH, CO** SAMPLE DATE : **DECEMBER 20, 2017 16:35**
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **19** psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **0787**
 LAB PRES: psig SAMPLED BY : **JOHN MOSER**
 SAMPLE TEMP. : **77.3** °f SAMPLING COMPANY: **EMPACT**
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **10.0** ppm
 H2O BY STAIN TUBE #/mmcf CO2 BY STAIN TUBE: **-** Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.73	GPM @ 14.65
HELIUM	0.25	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.03	-	-
NITROGEN	14.38	-	-
CO2	0.61	-	-
METHANE	45.65	-	-
ETHANE	15.54	4.1769	4.1542
PROPANE	13.90	3.8494	3.8284
ISOBUTANE	1.60	0.5260	0.5232
N-BUTANE	4.38	1.3876	1.3800
ISOPENTANE	1.17	0.4303	0.4279
N-PENTANE	1.07	0.3900	0.3879
HEXANES+	1.42	0.6197	0.6164
TOTAL	100.00	11.3799	11.3180

BTU @ 60 DEG F

14.73 **14.65**
 GROSS DRY REAL = **1454.4 /scf** **1446.5 /scf**
 GROSS SATURATED REAL = **1429.1 /scf** **1421.2 /scf**

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) **0.9963**
 GRAVITY (LB/SCF) **0.07605**
 COMPRESSIBILITY FACTOR : **0.99467**

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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