



NATURAL GAS ANALYSIS

PRIMARY DB KEY: NAME/DESCRIP: SNOWBIRD 9-15
LEASE #: GAS AT SEPARATOR

PROJECT NO.: 201712120 ANALYSIS NO.: 10
COMPANY NAME: NIGHTHAWK PRODUCTION COMPANY ANALYSIS DATE: DECEMBER 27, 2017 10:44
OFFICE / BRANCH: HIGHLANDS RANCH, CO SAMPLE DATE: DECEMBER 20, 2017 11:10
CUSTOMER REF: TO:
PRODUCER: EFFECTIVE DATE:

FIELD DATA

SAMPLE CYCLE: SAMPLE TYPE: SPOT
SAMPLE PRES.: 24 psig PROBE: NO
FLOW PRES.: psig CYLINDER NO.: 1908
LAB PRES: psig SAMPLED BY: JOHN MOSER
SAMPLE TEMP.: 98 °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:
LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.73	GPM @ 14.65
HELIUM	0.96	-	-
HYDROGEN	0.04	-	-
OXYGEN/ARGON	0.40	-	-
NITROGEN	48.06	-	-
CO2	4.12	-	-
METHANE	23.08	-	-
ETHANE	3.83	1.0276	1.0220
PROPANE	6.02	1.6631	1.6540
ISOBUTANE	1.41	0.4625	0.4600
N-BUTANE	5.17	1.6349	1.6260
ISOPENTANE	1.44	0.5279	0.5250
N-PENTANE	2.22	0.8074	0.8030
HEXANES+	3.25	1.4147	1.4070
TOTAL	100.00	7.5381	7.4970

BTU @ 60 DEG F

	14.73	14.65
GROSS DRY REAL =	985.8 /scf	980.4 /scf
GROSS SATURATED REAL =	968.7 /scf	963.3 /scf
RELATIVE DENSITY (AIR=1 @ 14.696 PSIA 60F)	1.1203	
GRAVITY (LB/SCF)	0.08550	
COMPRESSIBILITY FACTOR :	0.99684	

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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