



NATURAL GAS ANALYSIS

PROJECT NO. : 201005054 ANALYSIS NO. : 07
 COMPANY NAME : NOBLE ENERGY ANALYSIS DATE : May 12, 2010
 ACCOUNT NO. : YUMA SAMPLE DATE : May 3, 2010
 PRODUCER : TO :
 LEASE NO. : E1502321186 CYLINDER NO. : 1079
 NAME/DESCRIP. : Cook Farms 24-9

LOCATION: SEC. 09-02S-38W CHEYENNE COUNTY

FIELD DATA

SAMPLED BY : C. GARTRELL - EMPACT AMBIENT TEMP. :
 SAMPLE PRES. : 39.78 GRAVITY :
 SAMPLE TEMP. : 65.27 VAPOR PRES. :
 SAMPLE TYPE : SPOT
 FIELD COMMENTS : NO PROBE
 LAB COMMENTS :

COMPONENTS	NORM. MOLE%	GPM @	
		14.65	14.73
HELIUM	0.11	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.04	-	-
NITROGEN	5.09	-	-
CO2	2.32	-	-
METHANE	90.66	-	-
ETHANE	1.12	0.298	0.300
PROPANE	0.45	0.123	0.124
ISOBUTANE	0.08	0.026	0.026
N-BUTANE	0.09	0.028	0.028
ISOPENTANE	0.02	0.007	0.007
N-PENTANE	0.01	0.004	0.004
HEXANES+	0.01	0.004	0.004
TOTAL	100.00	0.490	0.493

BTU @ 60 DEG F	14.65	14.73
NET DRY REAL =	858.5	863.2
NET WET REAL =	843.5	848.2
GROSS DRY REAL =	953.0	958.2
GROSS WET REAL =	936.3	941.5

RELATIVE DENSITY REAL (AIR=1 @ 14.696 PSIA 60F) : 0.6111

COMPRESSIBILITY FACTOR : 0.99799

*NOTE: REFERENCE GPA 2261(ASTM D1945), 2145, & 2172 CURRENT PUBLICATIONS
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