

NATURAL GAS ANALYSIS

PRIMARY DB KEY: NAME/DESCRIP : **NWAU 28**
 LEASE #: **SAMPLE OFF THE CASING**
 FIELD/ AREA:

PROJECT NO. : **202403054** ANALYSIS NO. : **01**
 COMPANY NAME : **MULL DRILLING COMPANY INC** ANALYSIS DATE: **MARCH 18, 2024 09:01**
 OFFICE / BRANCH: **CHEYENNE WELLS, CO** SAMPLE DATE : **MARCH 4, 2024**
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES. : 55 psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : 1176
 LAB PRES: psig SAMPLED BY : TRACY AKERS
 SAMPLE TEMP. : 40 °f SAMPLING COMPANY: MULL DRILLING COMPANY
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: - ppm mol
 H2O BY STAIN TUBE: - #/mmcf CO2 BY STAIN TUBE: - Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.04	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.05	-	-
NITROGEN	2.04	-	-
CO2	0.31	-	-
METHANE	84.25	-	-
ETHANE	9.39	2.5039	2.5176
PROPANE	1.18	0.3239	0.3256
ISOBUTANE	0.08	0.0260	0.0261
N-BUTANE	0.22	0.0690	0.0693
ISOPENTANE	0.14	0.0510	0.0513
N-PENTANE	0.24	0.0870	0.0874
HEXANES+	2.05	0.8866	0.8915
TOTAL	100.00	3.9474	3.9688

BTU @ 60 DEG F

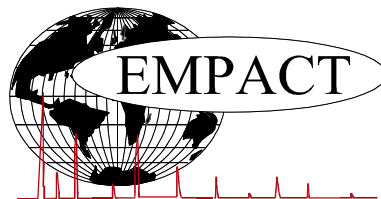
	14.65	14.73
GROSS DRY REAL =	1176.4 /scf	1182.8 /scf
GROSS SATURATED REAL =	1155.8 /scf	1162.2 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	0.6888	
DENSITY (lbm/scf)	0.05255	
COMPRESSIBILITY FACTOR :	0.9973	

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%

The data presented herein has been acquired by means of current analytical techniques and represents the judicious conclusion EMPACT Analytical Systems, Inc. Results of the analysis can be affected by the sampling conditions, therefore, are only warranted through proper lab protocol. EMPACT assumes no responsibility for interpretation or any consequences from application of the reported information and is the sole liability of the user. The reproduction in any media of this reported information may not be made, in portion or as a whole, without the written permission of EMPACT Analytical Systems, Inc.



NATURAL GAS ANALYSIS

PRIMARY DB KEY: NAME/DESCRIP : **NWAU 28**
 LEASE #: **SAMPLE OFF THE BRAIDENHEAD**
 FIELD/ AREA:

PROJECT NO. : **202403054** ANALYSIS NO. : **02**
 COMPANY NAME : **MULL DRILLING COMPANY INC** ANALYSIS DATE: **MARCH 18, 2024 09:27**
 OFFICE / BRANCH: **CHEYENNE WELLS, CO** SAMPLE DATE : **MARCH 4, 2024**
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES. : 18 psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : 0674
 LAB PRES: psig SAMPLED BY : TRACY AKERS
 SAMPLE TEMP. : 40 °f SAMPLING COMPANY: MULL DRILLING COMPANY
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: - ppm mol
 H2O BY STAIN TUBE: - #/mmcf CO2 BY STAIN TUBE: - Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	1.80	-	-
HYDROGEN	0.00	-	-
OXYGEN/ARGON	0.16	-	-
NITROGEN	36.37	-	-
CO2	1.41	-	-
METHANE	58.72	-	-
ETHANE	0.84	0.2236	0.2248
PROPANE	0.39	0.1068	0.1074
ISOBUTANE	0.07	0.0230	0.0231
N-BUTANE	0.13	0.0409	0.0411
ISOPENTANE	0.03	0.0110	0.0110
N-PENTANE	0.03	0.0110	0.0110
HEXANES+	0.05	0.0220	0.0221
TOTAL	100.00	0.4383	0.4405

BTU @ 60 DEG F

	14.65		14.73
GROSS DRY REAL =	628.1	/scf	631.5
GROSS SATURATED REAL =	617.1	/scf	620.5
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)			0.7244
DENSITY (lbm/scf)			0.05529
COMPRESSIBILITY FACTOR :			0.9988

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

Reference: Per GPA 2172-14 sec 9

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