ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY:	**05-045-09067**	NAME/DESCRIP :	**N5A COUEY 5-10C**
LEASE #:	**05-045-09067**		**BRAIDEN HEAD**
FIELD/AREA:			
PROJECT NO. :	**202107021**	ANALYSIS NO. :	**04**
COMPANY NAME :	**CAERUS OIL & GAS LLC**	ANALYSIS DATE:	JULY 08, 2021 11:08
OFFICE / BRANCH:	PARACHUTE, CO	SAMPLE DATE :	JUNE 30, 2021
CUSTOMER REF:		TO:	
PRODUCER :	CAERUS OIL & GAS LLC	EFFECTIVE DATE:	

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

SAMPLE CYCLE:			SAMPLE TYPE:	SPOT	
SAMPLE PRES. :	98	psig	PROBE :	NO	
FLOW PRES. :		psig	CYLINDER NO. :	ECA-726	
LAB PRES:		psig	SAMPLED BY :	MIKE KELLEY	
SAMPLE TEMP. :	63	°f	SAMPLING COMPANY:	COG	
AMBIENT TEMP.:		°f	H2S BY STAIN TUBE:	-	ppm
H2O BY STAIN TUBE:	-	#/mmcf	CO2 BY STAIN TUBE:	-	Mol %

FIELD COMMENTS:

LAB COMMENTS:

COMPONENTS	NORM. MOLE%	**GPM @ 14.65**	**d13C ‰ VPDB**	**dD ‰ VSMOW**
HELIUM	0.09	-	-	-
HYDROGEN	0.01	-	-	-
OXYGEN/ARGON	0.02	-	-	-
NITROGEN	3.19	-	-	-
CO2	0.02	-	0.0	-
METHANE	90.78	-	-37.1	-181
ETHANE	3.78	1.0072	-26.9	-
PROPANE	1.14	0.3127	-24.9	-
ISOBUTANE	0.24	0.0779	-25.4	-
N-BUTANE	0.24	0.0749	-25.2	-
ISOPENTANE	0.10	0.0330	-24.9	-
N-PENTANE	0.08	0.0290	-25.7	-
HEXANES+	0.31	0.1339	-	-
TOTAL	100.00	1.6686		

BTU @ 60 DEG F		**14.65**	
	GROSS DRY REAL =	1049.9	**/scf**
	GROSS SATURATED REAL =	1031.5	**/scf**

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	0.6148
GRAVITY (LB/SCF)	0.04692
COMPRESSIBILITY FACTOR :	0.99770

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 NG Composition File #: **202107021-04-A-359**
The Isotopic Data File #: **DIG-025711**

Note:Stable isotope results based on multi-point laboratory calibration
Presicion $\delta^{13}C$ < 0.5 ‰ **Precision δD < 5.0 ‰**
Values in red represent low peak heights. Interpret with caution.

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.