



**EXTENDED NATURAL GAS ANALYSIS (\*DHA)**

**MAIN PAGE**

PRIMARY DB KEY:	<b>05-103-10625</b>	NAME/DESCRIP :	<b>PICEANCE CREEK UNIT #T35X-11G7</b>
LEASE #:	<b>05-103-10625</b>		<b>RIO BLANCO #103</b>
FIELD/AREA:	<b>PICEANCE CREEK - #68800</b>		<b>BRAIDEN HEAD, INTER-CASING</b>
PROJECT NO. :	<b>202307022</b>	ANALYSIS NO. :	<b>02</b>
COMPANY NAME :	<b>CAERUS OIL &amp; GAS LLC</b>	ANALYSIS DATE:	<b>JULY 12, 2023 07:05</b>
OFFICE / BRANCH:	<b>PARACHUTE, CO</b>	SAMPLE DATE :	<b>JUNE 20, 2023</b>
CUSTOMER REF:		TO:	
PRODUCER :	<b>CAERUS PICEANCE LLC</b>	EFFECTIVE DATE:	

**\*\*\*FIELD DATA\*\*\***

SAMPLE CYCLE:		SAMPLE TYPE:	<b>SPOT</b>
SAMPLE PRES. :	1589 psig	PROBE :	
FLOW PRES. :	psig	CYLINDER NO. :	<b>ECA-701</b>
LAB PRES:	psig	SAMPLED BY :	<b>SHANE COLLETT</b>
SAMPLE TEMP. :	72 °f	SAMPLING COMPANY:	<b>CAERUS OIL &amp; GAS LLC</b>
AMBIENT TEMP.:	°f	H2S BY STAIN TUBE:	<b>- ppm mol</b>
H2O BY STAIN TUBE:	<b>- #/mmcf</b>	CO2 BY STAIN TUBE:	<b>- Mol %</b>
FIELD COMMENTS:	<b>Federal Lease #8920003240</b>		
LAB COMMENTS:			

<u>COMPONENT</u>	<u>MOLE %</u>	<u>MASS %</u>	<u>GPM @ 14.65</u>	<u>GPM @ 14.73</u>
GLYCOLS	0.0011	0.0061	0.0010	0.0010
ALCOHOLS	0.0303	0.0543	0.0040	0.0040
HELIUM	0.00	0.00	---	---
HYDROGEN	0.05	0.01	---	---
OXYGEN/ARGON	0.00	0.00	---	---
NITROGEN	0.15	0.22	---	---
CARBON DIOXIDE	1.91	4.38	---	---
METHANE	90.3666	75.4821	---	---
ETHANE	4.2267	6.6175	1.1262	1.1323
PROPANE	1.0439	2.3967	0.2868	0.2884
I-BUTANE	0.2494	0.7548	0.0809	0.0814
N-BUTANE	0.2293	0.6939	0.0719	0.0723
I-PENTANE	0.1330	0.4990	0.0480	0.0482
N-PENTANE	0.0986	0.3704	0.0360	0.0362
HEXANES PLUS	1.5111	8.5152	0.6920	0.6944
<b>TOTALS</b>	<b>100.00000</b>	<b>100.00000</b>	<b>2.3468</b>	<b>2.3582</b>

<u>BTEX COMPONENTS</u>	<u>MOLE%</u>	<u>WT%</u>
BENZENE	0.0382	0.1554
TOLUENE	0.0734	0.3521
ETHYLBENZENE	0.0060	0.0332
XYLENES	0.0945	0.5223
<b>TOTAL BTEX</b>	<b>0.2121</b>	<b>1.0630</b>

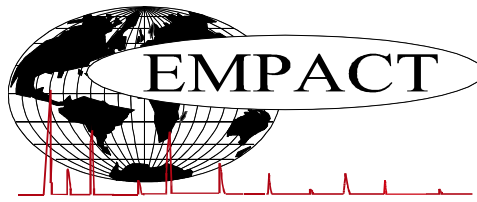
	<u>BTU @ 14.65</u>	<u>BTU @ 14.73</u>
<b>LHV NET DRY REAL :</b>	<b>1018.1 /scf</b>	<b>1023.6 /scf</b>
<b>NET WET REAL :</b>	<b>1000.3 /scf</b>	<b>1005.8 /scf</b>
<b>HHV GROSS DRY REAL :</b>	<b>1124.6 /scf</b>	<b>1130.7 /scf</b>
<b>GROSS WET REAL :</b>	<b>1104.9 /scf</b>	<b>1111.0 /scf</b>
<b>NET HEATING VALUE (60 °F ideal reaction):</b>	<b>20161.8 Btu/lbm</b>	<b>20161.8 Btu/lbm</b>
<b>GROSS HEATING VALUE (60°F ideal reaction):</b>	<b>22284.5 Btu/lbm</b>	<b>22284.5 Btu/lbm</b>
<b>RELATIVE DENSITY (AIR=1):</b>	<b>0.6621</b>	<b>0.6621</b>
<b>DENSITY</b>	<b>0.05060 lbm/scf</b>	<b>0.05060 lbm/scf</b>
<b>COMPRESSIBILITY FACTOR :</b>	<b>0.9976</b>	<b>0.9976</b>
<b>REGULAR WOBBE INDEX</b>	<b>1383.1</b>	<b>1383.1</b>

\*(DETAILED HYDROCARBON ANALYSIS/NJ 1993)

Mod ASTM D6730, GPA 2261 & GPA 2286.

\*\* (CALC: GPA 2172, GPA 2145 & TP-17 @14.696 & 60 F)

*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.*



**EXTENDED NATURAL GAS ANALYSIS (\*DHA)  
GLYCALC INFORMATION**

PROJECT NO. :	202307022	ANALYSIS NO. :	02
COMPANY NAME :	CAERUS OIL & GAS LLC	ANALYSIS DATE:	JULY 12, 2023 07:05
ACCOUNT NO. :		SAMPLE DATE :	JUNE 20, 2023
PRODUCER :	CAERUS PICEANCE LLC	CYLINDER NO. :	ECA-701
LEASE NO. :	05-103-10625	SAMPLED BY :	SHANE COLLETT
NAME/DESCRIP :	PICEANCE CREEK UNIT #T35X-11G7 RIO BLANCO #103 BRAIDEN HEAD, INTER-CASING		
***FIELD DATA***		SAMPLE TEMP. :	72
SAMPLE PRES. :	1589	AMBIENT TEMP.:	
H2S BY STAIN TUBE:	— ppm mol		
COMMENTS :	SPOT Federal Lease #8920003240		

Componet	Mole %	Wt %
Helium	0.00	0.00
Hydrogen	0.05	0.01
Carbon Dioxide	1.91	4.38
Nitrogen	0.15	0.22
Methane	90.3666	75.4821
Ethane	4.2267	6.6175
Propane	1.0439	2.3967
Isobutane	0.2494	0.7548
n-Butane	0.2293	0.6939
Isopentane	0.1269	0.4767
n-Pentane	0.0986	0.3704
Cyclopentane	0.0061	0.0223
n-Hexane	0.0715	0.3208
Cyclohexane	0.0506	0.2218
Other Hexanes	0.1308	0.5835
Heptanes	0.1958	1.0181
Methylcyclohexane	0.1421	0.7264
2,2,4 Trimethylpentane	0.0001	0.0006
Benzene	0.0382	0.1554
Toluene	0.0734	0.3521
Ethylbenzene	0.0060	0.0332
Xylenes	0.0945	0.5223
C8+ Heavies	0.7081	4.5810
<b>Subtotal</b>	<b>99.96860</b>	<b>99.93960</b>
Oxygen/Argon	0.00	0.00
Glycols	0.0011	0.0061
Alcohols	0.0303	0.0543
<b>Total</b>	<b>100.00000</b>	<b>100.00000</b>

	Total	C6+	C8+	C10+
Calculated Values BTU @	Sample	Fraction	Fraction	Fraction
LHV Net Dry Real:	1018.1	5393.4	6065.2	7123.0 Btu/scf
Net Wet Real:	1000.3	5299.1	5959.2	6998.5 Btu/scf
HHV Gross Dry Real:	1124.6	5787.6	6512.0	7673.6 Btu/scf
Gross Wet Real:	1104.9	5686.4	6398.2	7539.5 Btu/scf

**Other Calculated Values**

Regualr Wobbe Index*	1383.1	2992.7	3178.2	3470.1 Btu/scf
Net Heating Value (60 °F ideal reaction):	20161.8	19134.0	19205.6	19073.0 Btu/lbm
Gross Heating Value (60°F ideal reaction):	22284.5	20537.1	20625.2	20545.8 Btu/lbm
Molar Mass (MW):	19.20409	108.228	121.988	142.401 g/mol
Relative Density (AIR=1):	0.6621	3.7364	4.2120	4.9166 SG
Density:	0.05060	0.28518	0.32145	0.37524 lbm/scf
Compressibility Factor:	0.9976	0.9964	0.9985	0.9996 Z
Liquid Volume real gas @:	17.9177	0.6898	0.4107	0.0797 gal/1000 scf

\* The Wobbe pressure base in the number considered is based upon the given Pb of the HHV above.

#DIV/0 or 0 (zero) will appear in the Calculated Value Section when there is no C6+, C8+ or C10+ in the sample to calculate these factors.

BDL - Below Detection Limit. The H2S LOS has a detection limit of 0.25 ppm. A \_ (an underscore) indicates there was no tube pulled for H2S.

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.



**EXTENDED NATURAL GAS ANALYSIS (\*DHA)**

**DHA COMPONENT LIST**

PRIMARY DB KEY: **05-103-10625** NAME/DESCRIP : **PICEANCE CREEK UNIT #T35X-11G7**  
 LEASE #: **05-103-10625** **RIO BLANCO #103**  
 FIELD/AREA: **PICEANCE CREEK - #68800** **BRAIDEN HEAD, INTER-CASING**

PROJECT NO. : **202307022** ANALYSIS NO. : **02**  
 COMPANY NAME : **CAERUS OIL & GAS LLC** ANALYSIS DATE: **JULY 12, 2023 07:05**  
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **JUNE 20, 2023**  
 CUSTOMER REF: TO:  
 PRODUCER : **CAERUS PICEANCE LLC** EFFECTIVE DATE:

**\*\*\*FIELD DATA\*\*\***

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**  
 SAMPLE PRES. : 1589 psig PROBE :  
 FLOW PRES. : psig CYLINDER NO. : **ECA-701**  
 LAB PRES: psig SAMPLED BY : **SHANE COLLETT**  
 SAMPLE TEMP. : 72 °f SAMPLING COMPANY: **CAERUS OIL & GAS LLC**  
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **- ppm mol**  
 H2O BY STAIN TUBE: **- #/mmcf** CO2 BY STAIN TUBE: **- Mol %**  
 FIELD COMMENTS: **Federal Lease #8920003240**  
 LAB COMMENTS:

COMPONENT	PIANO #	MOLE %	MASS %	GPM @ 14.65	GPM @ 14.73
Helium	---	0.00	0.00	---	---
Hydrogen	---	0.05	0.01	---	---
Oxygen/Argon	---	0.00	0.00	---	---
Nitrogen	---	0.15	0.22	---	---
Carbon Dioxide	---	1.91	4.38	---	---
Methane	P1	90.3666	75.4821	---	---
Ethane	P2	4.2267	6.6175	1.126	1.132
Propane	P3	1.0439	2.3967	0.287	0.288
i-Butane	I4	0.2494	0.7548	0.081	0.081
Methanol	X1	0.0284	0.0474	0.004	0.004
n-Butane	P4	0.2293	0.6939	0.072	0.072
2,2-Dimethylpropane	I5	0.0052	0.0195	0.002	0.002
Ethanol	X2	0.0001	0.0003	0.000	0.000
i-Pentane	I5	0.1217	0.4572	0.044	0.044
i-Propanol	X3	0.0004	0.0012	0.000	0.000
n-Pentane	P5	0.0986	0.3704	0.036	0.036
t-Butanol	X4	0.0013	0.0050	0.000	0.000
2,2-Dimethylbutane	I6	0.0080	0.0359	0.003	0.003
Cyclopentane	N5	0.0061	0.0223	0.002	0.002
2,3-Dimethylbutane	I6	0.0117	0.0525	0.005	0.005
2-Methylpentane	I6	0.0497	0.2230	0.021	0.021
3-Methylpentane	I6	0.0291	0.1306	0.012	0.012
n-Hexane	P6	0.0715	0.3208	0.029	0.029
2-Butanol	X4	0.0001	0.0004	0.000	0.000
2,2-Dimethylpentane	I7	0.0024	0.0125	0.001	0.001
Methylcyclopentane	N6	0.0323	0.1415	0.011	0.011
2,4-Dimethylpentane	I7	0.0051	0.0266	0.002	0.002
2,2,3-Trimethylbutane	I7	0.0013	0.0068	0.001	0.001
Benzene	A6	0.0382	0.1554	0.011	0.011
3,3-Dimethylpentane	I7	0.0022	0.0115	0.001	0.001

Cyclohexane	N6	0.0506	0.2218	0.017	0.017
2-Methylhexane	I7	0.0269	0.1403	0.012	0.012
2,3-Dimethylpentane	I7	0.0098	0.0511	0.004	0.004
1,1-Dimethylcyclopentane	N7	0.0057	0.0292	0.002	0.002
3-Methylhexane	I7	0.0276	0.1440	0.013	0.013
1c,3-Dimethylcyclopentane	N7	0.0079	0.0404	0.004	0.004
1t,3-Dimethylcyclopentane	N7	0.0073	0.0373	0.003	0.003
3-Ethylpentane	I7	0.0008	0.0042	0.000	0.000
1t,2-Dimethylcyclopentane	N7	0.0128	0.0654	0.006	0.006
2,2,4-Trimethylpentane	I8	0.0001	0.0006	0.000	0.000
n-Heptane	P7	0.0784	0.4090	0.036	0.036
1c,2-Dimethylcyclopentane	N7	0.0015	0.0076	0.001	0.001
Methylcyclohexane	N7	0.1421	0.7264	0.057	0.057
2,2-Dimethylhexane	I8	0.0040	0.0238	0.002	0.002
1,1,3-Trimethylcyclopentane	N7	0.0014	0.0082	0.001	0.001
Ethylcyclopentane	N7	0.0046	0.0235	0.002	0.002
2,5-Dimethylhexane	I8	0.0054	0.0321	0.003	0.003
2,2,3-Trimethylpentane	I8	0.0053	0.0315	0.003	0.003
1c,2t,4-Trimethylcyclopentane	N8	0.0033	0.0193	0.002	0.002
3,3-Dimethylhexane	I8	0.0020	0.0119	0.001	0.001
2,3,4-Trimethylpentane	I8	0.0002	0.0012	0.000	0.000
2,3,3-Trimethylpentane	I8	0.0002	0.0012	0.000	0.000
Toluene	A7	0.0734	0.3521	0.025	0.025
2,3-Dimethylhexane	I8	0.0047	0.0280	0.002	0.002
2-Methyl-3-ethylpentane	I8	0.0009	0.0054	0.000	0.000
1,1,2-Trimethylcyclopentane	N8	0.0002	0.0011	0.000	0.000
2-Methylheptane	I8	0.0316	0.1880	0.016	0.016
4-Methylheptane	I8	0.0085	0.0506	0.004	0.004
3-Methyl-3-ethylpentane	I8	0.0018	0.0107	0.001	0.001
3,4-Dimethylhexane	I8	0.0008	0.0047	0.000	0.000
1c,2c,4-Trimethylcyclopentane	N8	0.0003	0.0018	0.000	0.000
1c,3-Dimethylcyclohexane	N8	0.0003	0.0018	0.000	0.000
3-Methylheptane	I8	0.0207	0.1231	0.011	0.011
1c,2t,3-Trimethylcyclopentane	N8	0.0349	0.2039	0.018	0.018
3-Ethylhexane	I8	0.0021	0.0125	0.001	0.001
1t,4-Dimethylcyclohexane	N8	0.0140	0.0818	0.007	0.007
1,1-Dimethylcyclohexane	N8	0.0056	0.0327	0.003	0.003
2,2,5-Trimethylhexane	I9	0.0008	0.0054	0.000	0.000
3c-Ethylmethylcyclopentane	N8	0.0013	0.0076	0.001	0.001
3t-Ethylmethylcyclopentane	N8	0.0011	0.0064	0.001	0.001
2t-Ethylmethylcyclopentane	N8	0.0013	0.0076	0.001	0.001
1,1-Methylethylcyclopentane	N8	0.0003	0.0018	0.000	0.000
2,2,4-Trimethylhexane	I9	0.0005	0.0033	0.000	0.000
1t,2-Dimethylcyclohexane	N8	0.0116	0.0678	0.006	0.006
1t,3-Dimethylcyclohexane	N8	0.0006	0.0035	0.000	0.000
UnknownC7s	U7	0.0001	0.0005	0.000	0.000
n-Octane	P8	0.0841	0.5002	0.043	0.043
1c,4-Dimethylcyclohexane	N8	0.0171	0.0999	0.009	0.009
i-Propylcyclopentane	I8	0.0006	0.0035	0.000	0.000
2,3,5-Trimethylhexane	I9	0.0018	0.0120	0.001	0.001
2,2,3,4-Tetramethylpentane	I9	0.0003	0.0020	0.000	0.000
2,3,4-Trimethylhexane	I9	0.0006	0.0040	0.000	0.000
1c,2-Dimethylcyclohexane	N8	0.0002	0.0011	0.000	0.000
2,2-Dimethylheptane	I9	0.0053	0.0354	0.003	0.003
1,1,4-Trimethylcyclohexane	N9	0.0141	0.0927	0.007	0.007
2,2,3-Trimethylhexane	I9	0.0039	0.0260	0.002	0.002
2,4-Dimethylheptane	I9	0.0009	0.0060	0.001	0.001
4,4-Dimethylheptane	I9	0.0002	0.0013	0.000	0.000
Ethylcyclohexane	N8	0.0179	0.1046	0.008	0.008
n-Propylcyclopentane	N8	0.0053	0.0310	0.002	0.002
1c,3c,5-Trimethylcyclohexane	N9	0.0013	0.0085	0.001	0.001
2,5-Dimethylheptane	I9	0.0137	0.0915	0.008	0.008
3,3-Dimethylheptane	I9	0.0022	0.0147	0.001	0.001

3,5-Dimethylheptane	I9	0.0005	0.0033	0.000	0.000
2,6-Dimethylheptane	I9	0.0007	0.0047	0.000	0.000
1,1,3-Trimethylcyclohexane	N9	0.0048	0.0316	0.002	0.002
Ethylbenzene	I8	0.0060	0.0332	0.002	0.002
1c,2t,4t-Trimethylcyclohexane	N9	0.0002	0.0013	0.000	0.000
2,3-Dimethylheptane	I9	0.0004	0.0027	0.000	0.000
1,3-Dimethylbenzene (m-Xylene)	A8	0.0599	0.3311	0.023	0.023
1,4-Dimethylbenzene (p-Xylene)	A8	0.0230	0.1271	0.009	0.009
3,4-Dimethylheptane	I9	0.0008	0.0054	0.000	0.000
3,4-Dimethylheptane (2)	I9	0.0016	0.0107	0.001	0.001
4-Ethylheptane	I9	0.0015	0.0100	0.001	0.001
4-Methyloctane	I9	0.0110	0.0735	0.006	0.006
2-Methyloctane	I9	0.0174	0.1162	0.010	0.010
1c,2t,3-Trimethylcyclohexane	N9	0.0006	0.0040	0.000	0.000
3-Ethylheptane	I9	0.0005	0.0033	0.000	0.000
3-Methyloctane	I9	0.0025	0.0167	0.001	0.001
1c,2t,4c-Trimethylcyclohexane	I9	0.0168	0.1104	0.009	0.009
1,1,2-Trimethylcyclohexane	N9	0.0007	0.0046	0.000	0.000
3,3-Diethylpentane	I9	0.0014	0.0094	0.001	0.001
1,2-Dimethylbenzene (o-Xylene)	A8	0.0116	0.0641	0.004	0.004
i-Butylcyclopentane	N9	0.0081	0.0533	0.004	0.004
n-Nonane	P9	0.0876	0.5850	0.049	0.049
1,1-Methylethylcyclohexane	N9	0.0046	0.0302	0.003	0.003
i-Propylbenzene	A9	0.0019	0.0119	0.001	0.001
i-Propylcyclohexane	N9	0.0019	0.0125	0.001	0.001
2,2-Dimethyloctane	I10	0.0011	0.0082	0.001	0.001
2,4-Dimethyloctane	I10	0.0008	0.0059	0.000	0.000
2,6-Dimethyloctane	I10	0.0032	0.0237	0.002	0.002
2,5-Dimethyloctane	I10	0.0007	0.0052	0.000	0.000
n-Butylcyclopentane	N9	0.0065	0.0427	0.004	0.004
3,3-Dimethyloctane	I10	0.0050	0.0370	0.003	0.003
n-Propylbenzene	A9	0.0123	0.0770	0.005	0.005
Diethylene glycol	GL4	0.0011	0.0061	0.001	0.001
3,6-Dimethyloctane	I10	0.0040	0.0296	0.002	0.002
3-Methyl-5-ethylheptane	I10	0.0017	0.0126	0.001	0.001
1,3-Methylethylbenzene	A9	0.0101	0.0632	0.006	0.006
1,4-Methylethylbenzene	A9	0.0036	0.0225	0.002	0.002
1,3,5-Trimethylbenzene	A9	0.0158	0.0989	0.007	0.007
2,3-Dimethyloctane	I10	0.0024	0.0178	0.001	0.001
1,2-Methylethylbenzene	A9	0.0077	0.0482	0.004	0.004
2-Methylnonane	I10	0.0095	0.0704	0.006	0.006
3-Ethylheptane	I10	0.0019	0.0141	0.001	0.001
3-Methylnonane	I10	0.0061	0.0452	0.004	0.004
1,2,4-Trimethylbenzene	A9	0.0001	0.0006	0.000	0.000
t-Butylbenzene	A10	0.0125	0.0874	0.006	0.006
i-Butylcyclohexane	N10	0.0018	0.0131	0.001	0.001
1t-Methyl-2-n-propylcyclohexane	I10	0.0008	0.0058	0.000	0.000
i-Butylbenzene	A10	0.0007	0.0049	0.000	0.000
sec-Butylbenzene	A10	0.0004	0.0028	0.000	0.000
UnknownC9s	U9	0.0116	0.0775	0.007	0.007
n-Decane	P10	0.0348	0.2578	0.021	0.021
1,2,3-Trimethylbenzene	A9	0.0016	0.0100	0.001	0.001
1,3-Methyl-i-propylbenzene	A10	0.0005	0.0035	0.000	0.000
1,4-Methyl-i-propylbenzene	A10	0.0051	0.0357	0.003	0.003
1,2-Methyl-i-propylbenzene	A10	0.0012	0.0084	0.001	0.001
3-Ethylnonane	I10	0.0004	0.0033	0.000	0.000
1,3-Diethylbenzene	A10	0.0002	0.0014	0.000	0.000
1,3-Methyl-n-propylbenzene	A10	0.0016	0.0112	0.001	0.001
1,4-Methyl-n-propylbenzene	A10	0.0002	0.0014	0.000	0.000
n-Butylbenzene	A10	0.0010	0.0070	0.000	0.000
1,3-Dimethyl-5-ethylbenzene	A10	0.0003	0.0021	0.000	0.000
1,2-Diethylbenzene	A10	0.0004	0.0028	0.000	0.000
t-Decahydronaphthalene	A9	0.0002	0.0016	0.000	0.000
1,2-Methyl-n-propylbenzene	A10	0.0008	0.0056	0.001	0.001

1,3-Dimethyl-4-ethylbenzene	A10	0.0015	0.0105	0.001	0.001
1,2-Dimethyl-4-ethylbenzene	A10	0.0004	0.0028	0.000	0.000
1,3-Dimethyl-2-ethylbenzene	A10	0.0001	0.0007	0.000	0.000
1,2-Dimethyl-3-ethylbenzene	A10	0.0001	0.0007	0.000	0.000
1,2-Ethyl-i-propylbenzene	A10	0.0002	0.0016	0.000	0.000
1,4-Methyl-t-butylbenzene	A11	0.0002	0.0016	0.000	0.000
UnknownC10s	U10	0.0208	0.1541	0.013	0.013
n-Undecane	P11	0.0039	0.0318	0.003	0.003
1,4-Ethyl-i-propylbenzene	A11	0.0001	0.0008	0.000	0.000
1,2,4,5-Tetramethylbenzene	A11	0.0002	0.0014	0.000	0.000
1,2-Methyl-n-butylbenzene	A11	0.0001	0.0008	0.000	0.000
1,2,3,5-Tetramethylbenzene	A11	0.0001	0.0007	0.000	0.000
1,2-Di-n-propylbenzene	A11	0.0001	0.0008	0.000	0.000
1,4-Di-i-propylbenzene	A11	0.0001	0.0008	0.000	0.000
Tetrahydronaphthalene	A10	0.0001	0.0007	0.000	0.000
UnknownC11s	U11	0.0107	0.0871	0.007	0.007
n-Dodecane	P12	0.0002	0.0018	0.000	0.000
1,3,5-Triethylbenzene	A12	0.0001	0.0008	0.000	0.000
UnknownC12s	U12	0.0012	0.0098	0.001	0.001
<b>TOTAL</b>		<b>100.00000</b>	<b>100.00000</b>	<b>2.3468</b>	<b>2.3582</b>

**CALCULATED VALUES\*\***

BTEX COMPONENTS	MOLE%	WT%	BTU @	14.65	14.73
BENZENE	0.0382	0.1554	LHV NET DRY REAL :	1018.1 /scf	1023.6 /scf
TOLUENE	0.0734	0.3521	NET WET REAL :	1000.3 /scf	1005.8 /scf
ETHYLBENZENE	0.0060	0.0332	HHV GROSS DRY REAL :	1124.6 /scf	1130.7 /scf
XYLENES	0.0945	0.5223	GROSS WET REAL :	1104.9 /scf	1111.0 /scf
TOTAL BTEX	0.2121	1.0630	NET HEATING VALUE (60 °F ideal reaction):		20161.8 Btu/lbm
			GROSS HEATING VALUE (60°F ideal reaction):		22284.5 Btu/lbm
			RELATIVE DENSITY (AIR=1):		0.6621
			DENSITY		0.05060 lb/scf
			COMPRESSIBILITY FACTOR :		0.9976
			REGULAR WOBBE INDEX		1383.1

\*(DETAILED HYDROCARBON ANALYSIS/NJ 1993)  
Mod ASTM D6730,GPA 2261 & GPA 2286.

\*\* (CALC: GPA 2172, GPA 2145 & TP-17 @14.696 & 60 F)

**C6+ Fraction of DHA Gas Analysis @60°F, 14.696 psia**

Net Dry Ideal BTU	<u>5390.9</u> /scf	Relative Density - SG (Air=1)	<u>3.7364</u>	<b>C6+ factors</b>
Gross Dry Ideal BTU	<u>5784.9</u> /scf	Z Compressibility Factor	<u>0.99641</u>	<u>0.99562</u>
Net Dry Ideal BTU	<u>19134</u> /lb	Density Factor	<u>285.18</u> lbm/1000 ft3	
Gross Dry Ideal BTU	<u>20537.1</u> /lb	Molar Mass or MW	<u>108.228</u> g/mol	
		Volume Liquid Ideal gas	<u>0.692</u> scf/gal	<u>21.9</u>

**This hexanes plus fraction may be applied in place of published C6+ factors. The Z & GPM need additional calc for C6+ factors.  
#DIV/0 or 0 (zero) will appear in this section when there is no hexanes plus in the sample to calculate C6+ factors.**

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