



EXTENDED NATURAL GAS ANALYSIS (*DHA)

MAIN PAGE

PRIMARY DB KEY:	NAME/DESCRIP :	300115019 1B CASS-GARBER 1-31B
LEASE #:		BRADEND HEAD
FIELD/AREA:		
PROJECT NO. :	202509022	ANALYSIS NO. : 01
COMPANY NAME :	QB ENERGY OPERATING, LLC	ANALYSIS DATE: SEPTEMBER 12, 2025 07:35
OFFICE / BRANCH:	PARACHUTE, CO	SAMPLE DATE : AUGUST 27, 2025
CUSTOMER REF:		TO: AUGUST 27, 2025
PRODUCER :		EFFECTIVE DATE: AUGUST 27, 2025

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

SAMPLE CYCLE:		SAMPLE TYPE:	SPOT
SAMPLE PRES. :	117 psig	PROBE :	NO
FLOW PRES. :	psig	CYLINDER NO. :	ECA-731
LAB PRES:	psig	SAMPLED BY :	MIKE KELLEY
SAMPLE TEMP. :	63 °f	SAMPLING COMPANY:	QB ENERGY
AMBIENT TEMP.:	°f	H2S BY STAIN TUBE:	— ppm mol
H2O BY STAIN TUBE:	- #/mmcf	CO2 BY STAIN TUBE:	- Mol %
FIELD COMMENTS:			
LAB COMMENTS:			

<u>COMPONENT</u>	<u>MOLE %</u>	<u>MASS %</u>	<u>GPM @ 14.65</u>	<u>GPM @ 14.73</u>
ALCOHOLS	0.0008	0.0016	0.0000	0.0000
HELIUM	0.01	0.00	---	---
HYDROGEN	0.00	0.00	---	---
OXYGEN/ARGON	0.00	0.00	---	---
NITROGEN	0.17	0.27	---	---
CARBON DIOXIDE	0.07	0.18	---	---
METHANE	93.9795	85.9228	---	---
ETHANE	3.8163	6.5398	1.0172	1.0227
PROPANE	0.9750	2.4502	0.2678	0.2692
I-BUTANE	0.2131	0.7059	0.0699	0.0703
N-BUTANE	0.2032	0.6730	0.0639	0.0643
I-PENTANE	0.0906	0.3722	0.0330	0.0331
N-PENTANE	0.0619	0.2545	0.0220	0.0221
HEXANES PLUS	0.4096	2.6300	0.1920	0.1923
TOTALS	100.0000	100.0000	1.6658	1.6740

<u>BTEX COMPONENTS</u>	<u>MOLE%</u>	<u>WT%</u>
BENZENE	0.0066	0.0294
TOLUENE	0.0032	0.0168
ETHYLBENZENE	0.0012	0.0072
XYLENES	0.0024	0.0145
TOTAL BTEX	0.0134	0.0679

	<u>CALCULATED VALUES**</u>	
	<u>BTU @ 14.65</u>	<u>14.73</u>
LHV NET DRY REAL :	978.4 /scf	983.7 /scf
NET WET REAL :	961.3 /scf	966.6 /scf
HHV GROSS DRY REAL :	1083.4 /scf	1089.3 /scf
GROSS WET REAL :	1064.5 /scf	1070.4 /scf
NET HEATING VALUE (60 °F ideal reaction):		21196.4 Btu/lbm
GROSS HEATING VALUE (60°F ideal reaction):		23480.7 Btu/lbm
RELATIVE DENSITY (AIR=1):		0.6051
DENSITY		0.04623 lbm/scf
COMPRESSIBILITY FACTOR :		0.9977
REGULAR WOBBE INDEX		1393.9

**(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. :	202509022	ANALYSIS NO. :	01
COMPANY NAME :	QB ENERGY OPERATING, LLC	ANALYSIS DATE:	SEPTEMBER 12, 2025 07:35
ACCOUNT NO. :		SAMPLE DATE :	AUGUST 27, 2025
PRODUCER :		CYLINDER NO. :	ECA-731
LEASE NO. :	05-045-10944	SAMPLED BY :	MIKE KELLEY
NAME/DESCRIP :	300115019 1B CASS-GARBER 1-31B BRADEND HEAD		

FIELD DATA

SAMPLE PRES. :	117	SAMPLE TEMP. :	63
H2S BY STAIN TUBE:	—	AMBIENT TEMP.:	
COMMENTS :	—		

ppm mol
SPOT NO PROBE

<u>Componet</u>	<u>Mole %</u>	<u>Wt %</u>
Helium	0.01	0.00
Hydrogen	0.00	0.00
Carbon Dioxide	0.07	0.18
Nitrogen	0.17	0.27
Methane	93.9795	85.9228
Ethane	3.8163	6.5398
Propane	0.9750	2.4502
Isobutane	0.2131	0.7059
n-Butane	0.2032	0.6730
Isopentane	0.0875	0.3598
n-Pentane	0.0619	0.2545
Cyclopentane	0.0031	0.0124
n-Hexane	0.0296	0.1454
Cyclohexane	0.0165	0.0792
Other Hexanes	0.0605	0.2955
Heptanes	0.0508	0.2886
Methylcyclohexane	0.0338	0.1891
2,2,4 Trimethylpentane	0.0000	0.0000
Benzene	0.0066	0.0294
Toluene	0.0032	0.0168
Ethylbenzene	0.0012	0.0072
Xylenes	0.0024	0.0145
C8+ Heavies	0.2050	1.5643
<u>Subtotal</u>	<u>99.99920</u>	<u>99.99840</u>
Oxygen/Argon	0.00	0.00
Alcohols	0.0008	0.0016
<u>Total</u>	<u>100.00000</u>	<u>100.00000</u>

Calculated Values BTU @		Total	C6+	C8+	C10+
LHV	Net Dry Real:	978.4	5621.9	6596.3	7224.1 Btu/scf
	Net Wet Real:	961.3	5523.6	6481.0	7097.8 Btu/scf
HHV	Gross Dry Real:	1083.4	6057.5	7116.8	7813.2 Btu/scf
	Gross Wet Real:	1064.5	5951.6	6992.4	7676.6 Btu/scf

Other Calculated Values

Regualr Wobbe Index*	1393.9	3068.8	3322.4	3496.6 Btu/scf
Net Heating Value (60 °F ideal reaction):	21196.4	18896.4	18679.1	18689.4 Btu/lbm
Gross Heating Value (60 °F ideal reaction):	23480.7	20360.3	20146.6	20203.6 Btu/lbm
Molar Mass (MW):	17.54692	112.725	133.521	145.422 g/mol
Relative Density (AIR=1):	0.6051	3.8929	4.6102	5.0216 SG
Density:	0.04623	0.29705	0.35186	0.38322 lbm/scf
Compressibility Factor:	0.9977	0.9964	0.9992	0.9997 Z
Liquid Volume real gas @:	17.5359	0.1914	0.1097	0.0658 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.

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EXTENDED NATURAL GAS ANALYSIS (*DHA)

DHA COMPONENT LIST

PRIMARY DB KEY: NAME/DESCRIP : **300115019 1B CASS-GARBER 1-31B**
 LEASE #: **05-045-10944** **BRADEND HEAD**
 FIELD/AREA:

PROJECT NO. : **202509022** ANALYSIS NO. : **01**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **SEPTEMBER 12, 2025 07:35**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **AUGUST 27, 2025**
 CUSTOMER REF: TO: **AUGUST 27, 2025**
 PRODUCER : EFFECTIVE DATE: **AUGUST 27, 2025**

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **117** **psig** PROBE : **NO**
 FLOW PRES. : **psig** CYLINDER NO. : **ECA-731**
 LAB PRES: **psig** SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : **63** **°f** SAMPLING COMPANY: **QB ENERGY**
 AMBIENT TEMP.: **°f** H2S BY STAIN TUBE: **-** **ppm mol**
 H2O BY STAIN TUBE: **-** **#/mmcf** CO2 BY STAIN TUBE: **-** **Mol %**
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENT	PIANO #	MOLE %	MASS %	GPM @ 14.65	GPM @ 14.73
Helium	---	0.01	0.00	---	---
Nitrogen	---	0.17	0.27	---	---
Carbon Dioxide	---	0.07	0.18	---	---
Methane	P1	93.9795	85.9228	---	---
Ethane	P2	3.8163	6.5398	1.017	1.023
Propane	P3	0.9750	2.4502	0.268	0.269
i-Butane	I4	0.2131	0.7059	0.070	0.070
Methanol	X1	0.0007	0.0012	0.000	0.000
n-Butane	P4	0.2032	0.6730	0.064	0.064
2,2-Dimethylpropane	I5	0.0038	0.0156	0.001	0.001
i-Pentane	I5	0.0837	0.3442	0.031	0.031
n-Pentane	P5	0.0618	0.2541	0.022	0.022
t-Butanol	X4	0.0001	0.0004	0.000	0.000
2,2-Dimethylbutane	I6	0.0038	0.0186	0.002	0.002
Cyclopentane	N5	0.0031	0.0124	0.001	0.001
2,3-Dimethylbutane	I6	0.0058	0.0285	0.002	0.002
2-Methylpentane	I6	0.0237	0.1164	0.010	0.010
3-Methylpentane	I6	0.0133	0.0653	0.005	0.005
UnknownC5s	U5	0.0001	0.0004	0.000	0.000
n-Hexane	P6	0.0296	0.1454	0.012	0.012
2,2-Dimethylpentane	I7	0.0011	0.0063	0.001	0.001
Methylcyclopentane	N6	0.0139	0.0667	0.005	0.005
2,4-Dimethylpentane	I7	0.0017	0.0097	0.001	0.001
2,2,3-Trimethylbutane	I7	0.0005	0.0028	0.000	0.000
Benzene	A6	0.0066	0.0294	0.002	0.002
3,3-Dimethylpentane	I7	0.0007	0.0040	0.000	0.000
Cyclohexane	N6	0.0165	0.0792	0.006	0.006
2-Methylhexane	I7	0.0080	0.0457	0.004	0.004

2,3-Dimethylpentane	I7	0.0022	0.0125	0.001	0.001
1,1-Dimethylcyclopentane	N7	0.0016	0.0089	0.001	0.001
3-Methylhexane	I7	0.0073	0.0417	0.003	0.003
1c,3-Dimethylcyclopentane	N7	0.0024	0.0134	0.001	0.001
1t,3-Dimethylcyclopentane	N7	0.0022	0.0123	0.001	0.001
3-Ethylpentane	I7	0.0004	0.0023	0.000	0.000
1t,2-Dimethylcyclopentane	N7	0.0036	0.0201	0.002	0.002
n-Heptane	P7	0.0173	0.0988	0.008	0.008
1c,2-Dimethylcyclopentane	N7	0.0004	0.0022	0.000	0.000
Methylcyclohexane	N7	0.0338	0.1891	0.014	0.014
2,2-Dimethylhexane	I8	0.0009	0.0059	0.000	0.000
1,1,3-Trimethylcyclopentane	N7	0.0002	0.0012	0.000	0.000
Ethylcyclopentane	N7	0.0012	0.0067	0.000	0.000
2,5-Dimethylhexane	I8	0.0010	0.0065	0.001	0.001
2,2,3-Trimethylpentane	I8	0.0009	0.0059	0.000	0.000
2,4-Dimethylhexane	I8	0.0001	0.0006	0.000	0.000
1c,2t,4-Trimethylcyclopentane	N8	0.0007	0.0045	0.000	0.000
3,3-Dimethylhexane	I8	0.0003	0.0019	0.000	0.000
2,3,3-Trimethylpentane	I8	0.0001	0.0006	0.000	0.000
Toluene	A7	0.0032	0.0168	0.001	0.001
2,3-Dimethylhexane	I8	0.0008	0.0052	0.000	0.000
2-Methyl-3-ethylpentane	I8	0.0001	0.0006	0.000	0.000
2-Methylheptane	I8	0.0044	0.0287	0.002	0.002
4-Methylheptane	I8	0.0014	0.0091	0.001	0.001
3-Methyl-3-ethylpentane	I8	0.0002	0.0013	0.000	0.000
3,4-Dimethylhexane	I8	0.0001	0.0006	0.000	0.000
1c,3-Dimethylcyclohexane	N8	0.0001	0.0006	0.000	0.000
3-Methylheptane	I8	0.0031	0.0202	0.002	0.002
1c,2t,3-Trimethylcyclopentane	N8	0.0055	0.0352	0.003	0.003
3-Ethylhexane	I8	0.0003	0.0019	0.000	0.000
1t,4-Dimethylcyclohexane	N8	0.0023	0.0147	0.001	0.001
1,1-Dimethylcyclohexane	N8	0.0009	0.0058	0.000	0.000
2,2,5-Trimethylhexane	I9	0.0001	0.0007	0.000	0.000
3c-Ethylmethylcyclopentane	N8	0.0002	0.0012	0.000	0.000
3t-Ethylmethylcyclopentane	N8	0.0002	0.0012	0.000	0.000
2t-Ethylmethylcyclopentane	N8	0.0003	0.0019	0.000	0.000
2,2,4-Trimethylhexane	I9	0.0001	0.0007	0.000	0.000
1t,2-Dimethylcyclohexane	N8	0.0018	0.0115	0.001	0.001
1t,3-Dimethylcyclohexane	N8	0.0002	0.0012	0.000	0.000
n-Octane	P8	0.0095	0.0618	0.005	0.005
1c,4-Dimethylcyclohexane	N8	0.0013	0.0083	0.001	0.001
i-Propylcyclopentane	I8	0.0001	0.0006	0.000	0.000
2,3,5-Trimethylhexane	I9	0.0002	0.0015	0.000	0.000
2,2,3,4-Tetramethylpentane	I9	0.0001	0.0007	0.000	0.000
2,3,4-Trimethylhexane	I9	0.0001	0.0007	0.000	0.000
1c,2-Dimethylcyclohexane	N8	0.0001	0.0006	0.000	0.000
2,2-Dimethylheptane	I9	0.0005	0.0036	0.000	0.000
1,1,4-Trimethylcyclohexane	N9	0.0017	0.0122	0.001	0.001
2,2,3-Trimethylhexane	I9	0.0006	0.0044	0.000	0.000
2,4-Dimethylheptane	I9	0.0002	0.0015	0.000	0.000
4,4-Dimethylheptane	I9	0.0002	0.0015	0.000	0.000
Ethylcyclohexane	N8	0.0018	0.0115	0.001	0.001
n-Propylcyclopentane	N8	0.0010	0.0064	0.000	0.000
1c,3c,5-Trimethylcyclohexane	N9	0.0005	0.0036	0.000	0.000
2,5-Dimethylheptane	I9	0.0011	0.0080	0.001	0.001
3,3-Dimethylheptane	I9	0.0003	0.0022	0.000	0.000
3,5-Dimethylheptane	I9	0.0001	0.0007	0.000	0.000
2,6-Dimethylheptane	I9	0.0002	0.0015	0.000	0.000
1,1,3-Trimethylcyclohexane	N9	0.0001	0.0007	0.000	0.000
Ethylbenzene	I8	0.0012	0.0072	0.000	0.000
2,3-Dimethylheptane	I9	0.0001	0.0007	0.000	0.000

1,3-Dimethylbenzene (m-Xylene)	A8	0.0015	0.0091	0.001	0.001
1,4-Dimethylbenzene (p-Xylene)	A8	0.0003	0.0018	0.000	0.000
3,4-Dimethylheptane	I9	0.0001	0.0007	0.000	0.000
3,4-Dimethylheptane (2)	I9	0.0001	0.0007	0.000	0.000
4-Ethylheptane	I9	0.0001	0.0007	0.000	0.000
4-Methyloctane	I9	0.0009	0.0065	0.001	0.001
2-Methyloctane	I9	0.0014	0.0103	0.001	0.001
1c,2t,3-Trimethylcyclohexane	N9	0.0001	0.0007	0.000	0.000
3-Ethylheptane	I9	0.0001	0.0007	0.000	0.000
3-Methyloctane	I9	0.0002	0.0015	0.000	0.000
1c,2t,4c-Trimethylcyclohexane	I9	0.0013	0.0093	0.001	0.001
1,1,2-Trimethylcyclohexane	N9	0.0001	0.0007	0.000	0.000
3,3-Diethylpentane	I9	0.0001	0.0007	0.000	0.000
1,2-Dimethylbenzene (o-Xylene)	A8	0.0006	0.0036	0.000	0.000
i-Butylcyclopentane	N9	0.0007	0.0050	0.000	0.000
n-Nonane	P9	0.0063	0.0460	0.004	0.004
1,1-Methylethylcyclohexane	N9	0.0005	0.0036	0.000	0.000
i-Propylbenzene	A9	0.0002	0.0014	0.000	0.000
i-Propylcyclohexane	N9	0.0003	0.0022	0.000	0.000
2,2-Dimethyloctane	I10	0.0001	0.0008	0.000	0.000
2,4-Dimethyloctane	I10	0.0003	0.0024	0.000	0.000
2,6-Dimethyloctane	I10	0.0001	0.0008	0.000	0.000
2,5-Dimethyloctane	I10	0.0001	0.0008	0.000	0.000
n-Butylcyclopentane	N9	0.0006	0.0043	0.000	0.000
3,3-Dimethyloctane	I10	0.0004	0.0032	0.000	0.000
n-Propylbenzene	A9	0.0014	0.0096	0.001	0.001
3,6-Dimethyloctane	I10	0.0017	0.0138	0.001	0.001
3-Methyl-5-ethylheptane	I10	0.0002	0.0016	0.000	0.000
1,3-Methylethylbenzene	A9	0.0079	0.0541	0.004	0.004
1,4-Methylethylbenzene	A9	0.0036	0.0247	0.002	0.002
1,3,5-Trimethylbenzene	A9	0.0069	0.0472	0.003	0.003
2,3-Dimethyloctane	I10	0.0004	0.0032	0.000	0.000
5-Methylnonane	I10	0.0010	0.0081	0.001	0.001
1,2-Methylethylbenzene	A9	0.0014	0.0096	0.001	0.001
2-Methylnonane	I10	0.0039	0.0316	0.002	0.002
3-Ethylloctane	I10	0.0002	0.0016	0.000	0.000
3-Methylnonane	I10	0.0011	0.0089	0.001	0.001
1,2,4-Trimethylbenzene	A9	0.0001	0.0007	0.000	0.000
t-Butylbenzene	A10	0.0237	0.1813	0.012	0.012
i-Butylcyclohexane	N10	0.0005	0.0040	0.000	0.000
1t-Methyl-2-n-propylcyclohexane	I10	0.0002	0.0016	0.000	0.000
i-Butylbenzene	A10	0.0006	0.0046	0.000	0.000
sec-Butylbenzene	A10	0.0005	0.0038	0.000	0.000
UnknownC9s	U9	0.0012	0.0088	0.001	0.001
n-Decane	P10	0.0126	0.1022	0.008	0.008
1,2,3-Trimethylbenzene	A9	0.0067	0.0459	0.004	0.004
1,3-Methyl-i-propylbenzene	A10	0.0016	0.0122	0.001	0.001
1,4-Methyl-i-propylbenzene	A10	0.0004	0.0031	0.000	0.000
Sec-Butylcyclohexane	A10	0.0012	0.0096	0.001	0.001
1,2-Methyl-i-propylbenzene	A10	0.0009	0.0069	0.001	0.001
3-Ethylnonane	I10	0.0028	0.0250	0.002	0.002
1,3-Diethylbenzene	A10	0.0012	0.0092	0.001	0.001
1,3-Methyl-n-propylbenzene	A10	0.0002	0.0015	0.000	0.000
1,4-Diethylbenzene	A10	0.0007	0.0054	0.000	0.000
1,4-Methyl-n-propylbenzene	A10	0.0014	0.0107	0.001	0.001
n-Butylbenzene	A10	0.0037	0.0283	0.002	0.002
1,3-Dimethyl-5-ethylbenzene	A10	0.0014	0.0107	0.001	0.001
1,2-Diethylbenzene	A10	0.0031	0.0237	0.001	0.001
t-Decahydronaphthalene	A9	0.0003	0.0026	0.000	0.000
1,2-Methyl-n-propylbenzene	A10	0.0008	0.0061	0.001	0.001
1,3-Dimethyl-4-ethylbenzene	A10	0.0030	0.0230	0.002	0.002
1,2-Dimethyl-4-ethylbenzene	A10	0.0011	0.0084	0.001	0.001

1,3-Dimethyl-2-ethylbenzene	A10	0.0011	0.0084	0.001	0.001
1,2-Dimethyl-3-ethylbenzene	A10	0.0003	0.0023	0.000	0.000
1,2-Ethyl-i-propylbenzene	A10	0.0005	0.0042	0.000	0.000
1,4-Methyl-t-butylbenzene	A11	0.0015	0.0126	0.001	0.001
UnknownC10s	U10	0.0035	0.0284	0.002	0.002
n-Undecane	P11	0.0131	0.1167	0.009	0.009
1,4-Ethyl-i-propylbenzene	A11	0.0006	0.0051	0.000	0.000
1,2,4,5-Tetramethylbenzene	A11	0.0006	0.0046	0.000	0.000
1,2-Methyl-n-butylbenzene	A11	0.0002	0.0017	0.000	0.000
1,2,3,5-Tetramethylbenzene	A11	0.0005	0.0038	0.000	0.000
1,2-Methyl-t-butylbenzene	A11	0.0002	0.0017	0.000	0.000
5-Methylindan	A11	0.0008	0.0060	0.001	0.001
4-Methylindan	A11	0.0001	0.0007	0.000	0.000
1,2-Ethyl-n-propylbenzene	A11	0.0006	0.0051	0.000	0.000
2-Methylindan	A11	0.0003	0.0023	0.000	0.000
1,3-Methyl-n-butylbenzene	A11	0.0001	0.0008	0.000	0.000
1,3-Di-i-propylbenzene	A11	0.0003	0.0028	0.000	0.000
sec-Pentylbenzene	A11	0.0004	0.0034	0.000	0.000
n-Pentylbenzene	A11	0.0004	0.0034	0.000	0.000
1,2-Di-n-propylbenzene	A11	0.0004	0.0037	0.000	0.000
1,4-Di-i-propylbenzene	A11	0.0002	0.0018	0.000	0.000
Tetrahydronaphthalene	A10	0.0003	0.0023	0.000	0.000
Naphthalene	A10	0.0007	0.0051	0.001	0.001
1-t-Butyl-3,5-dimethylbenzene	A12	0.0002	0.0018	0.000	0.000
1,4-Ethyl-t-butylbenzene	A11	0.0001	0.0009	0.000	0.000
1,3-Di-n-propylbenzene	A12	0.0002	0.0018	0.000	0.000
UnknownC11s	U11	0.0043	0.0383	0.003	0.003
n-Dodecane	P12	0.0043	0.0417	0.003	0.003
1,3,5-Triethylbenzene	A12	0.0008	0.0074	0.000	0.000
1,2,4-Triethylbenzene	A12	0.0001	0.0009	0.000	0.000
1,4-Methyl-n-pentylbenzene	A12	0.0001	0.0009	0.000	0.000
n-Hexylbenzene	A12	0.0002	0.0018	0.000	0.000
1,2,3,4,5-Pentamethylbenzene	A13	0.0006	0.0051	0.000	0.000
2-Methylnaphthalene	A11	0.0001	0.0008	0.000	0.000
UnknownC12s	U12	0.0033	0.0294	0.002	0.002
n-Tridecane	P13	0.0009	0.0095	0.001	0.001
UnknownC13s	U13	0.0016	0.0168	0.001	0.001
n-Tetradecane	P14	0.0002	0.0023	0.000	0.000
UnknownC14s	U14	0.0004	0.0045	0.000	0.000
n-Pentadecane	P15	0.0002	0.0024	0.000	0.000
UnknownC15s	U15	0.0004	0.0048	0.000	0.000
UnknownC16s	U16	0.0007	0.0091	0.001	0.001
<u>TOTAL</u>		<u>100.0000</u>	<u>100.0000</u>	<u>1.6658</u>	<u>1.6740</u>

BTEX COMPONENTS	MOLE%	WT%
BENZENE	0.0066	0.0294
TOLUENE	0.0032	0.0168
ETHYLBENZENE	0.0012	0.0072
XYLENES	0.0024	0.0145
TOTAL BTEX	0.0134	0.0679

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

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

CALCULATED VALUES**

BTU @	14.65	14.73
LHV NET DRY REAL :	978.4 /scf	983.7 /scf
NET WET REAL :	961.3 /scf	966.6 /scf
HHV GROSS DRY REAL :	1083.4 /scf	1089.3 /scf
GROSS WET REAL :	1064.5 /scf	1070.4 /scf
NET HEATING VALUE (60 °F ideal reaction):		21196.4 Btu/lbm
GROSS HEATING VALUE (60°F ideal reaction):		23480.7 Btu/lbm
RELATIVE DENSITY (AIR=1):		0.6051
DENSITY		0.04623 lb/scf
COMPRESSIBILITY FACTOR :		0.9977
REGULAR WOBBE INDEX		1393.9

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

Net Dry Ideal BTU	<u>5619.4</u> /scf	Relative Density - SG (Air=1)	<u>3.8929</u>	C6+ factors
Gross Dry Ideal BTU	<u>6054.8</u> /scf	Z Compressibility Factor	<u>0.99643</u>	<u>0.99494</u>
Net Dry Ideal BTU	<u>18896.4</u> /lb	Density Factor	<u>297.052</u> lbm/1000 ft3	
Gross Dry Ideal BTU	<u>20360.3</u> /lb	Molar Mass or MW	<u>112.725</u> g/mol	
		Volume Liquid Ideal gas	<u>0.192</u> scf/gal	<u>20.7</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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