

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-33545

	Sample Information
Sample Name	Kline 10-4 Tubing
Station Number	2300450187
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-04-12 12:15:13
Report Date	2018-04-12 12:19:07
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-04-12 12:15:02 (GMT -06-00)Kline 10-4 Tubing.dat
EZReporter Data File	Kline 10-4 Tubing-20180412-121907.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	938376.0	1.37817	0.0	0.01333	0.152
Methane	0.325	42629528.0	90.93038	920.5	0.50366	15.446
Carbon Dioxide	0.375	4528637.0	6.72299	0.0	0.10216	1.150
Ethane	0.430	56487.0	0.07953	1.4	0.00083	0.021
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.524	1064912.0	0.54951	13.9	0.00837	0.152
i-Butane	0.565	433501.0	0.19208	6.3	0.00385	0.063
n-Butane	0.611	56240.0	0.02442	0.8	0.00049	0.008
i-Pentane	0.707	242270.0	0.09462	3.8	0.00236	0.035
n-Pentane	0.758	30123.0	0.01132	0.5	0.00028	0.004
Hexanes Plus	0.000	55021.0	0.01698	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	947.1	0.63532	17.030

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	95.43070	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	947.1	930.6
Gross Heating Value (BTU / Real cu.ft.)	949.2	933.0
Relative Density (G), Real	0.6365	0.6365
Compressibility (Z) Factor	0.9978	0.9974
Total GPM	17.030	16.839

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GPA 2145-03 Analysis

Sample Information

Sample Information	
Sample Name	Kline 10-4 Casing
Station Number	2300450187
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-04-12 12:00:52
Report Date	2018-04-12 12:05:12
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-04-12 12-00-41 (GMT -06-00)Kline 10-4 Casing
EZReporter Data File	Kline 10-4 Casing-20180412-120512.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	665415.0	0.96956	0.0	0.00938	0.107
Methane	0.325	45274374.0	95.81153	969.9	0.53070	16.273
Carbon Dioxide	0.376	1763326.0	2.59710	0.0	0.03946	0.444
Ethane	0.430	69956.0	0.09773	1.7	0.00101	0.026
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.525	572598.0	0.29318	7.4	0.00446	0.081
i-Butane	0.564	298973.0	0.13141	4.3	0.00264	0.043
n-Butane	0.609	23469.0	0.01008	0.3	0.00020	0.003
i-Pentane	0.706	203490.0	0.07891	3.2	0.00197	0.029
n-Pentane	0.756	11570.0	0.00426	0.2	0.00011	0.002
Hexanes Plus	0.000	20508.0	0.00624	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	987.0	0.58993	17.007

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	96.18810	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	987.0	969.8
Gross Heating Value (BTU / Real cu.ft.)	989.1	972.2
Relative Density (G), Real	0.5909	0.5917
Compressibility (Z) Factor	0.9979	0.9976
Total GPM	17.007	16.817

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

Sample Information	
Sample Name	Kline 10-4 Braden Head
Station Number	2300450187
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-04-12 11:49:30
Report Date	2018-04-12 11:53:20
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-04-12 11-48-54 (GMT -06-00)Kline 10-4 Braden Head
EZReporter Data File	Kline 10-4 Braden Head-20180412-115320.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	794382.0	1.15174	0.0	0.01114	0.127
Methane	0.324	45624232.0	96.06944	972.5	0.53213	16.317
Carbon Dioxide	0.377	0.0	0.00000	0.0	0.00000	0.000
Ethane	0.427	1485421.0	2.06432	36.6	0.02143	0.553
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.529	705101.0	0.35916	9.1	0.00547	0.099
i-Butane	0.576	266123.0	0.11648	3.8	0.00234	0.038
n-Butane	0.610	255638.0	0.10965	3.6	0.00220	0.035
i-Pentane	0.714	143879.0	0.05545	2.2	0.00138	0.020
n-Pentane	0.757	90399.0	0.03352	1.3	0.00084	0.012
Hexanes Plus	0.000	132331.0	0.04024	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	1029.2	0.57692	17.201

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	96.67110	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	1029.2	1011.3
Gross Heating Value (BTU / Real cu.ft.)	1031.3	1013.7
Relative Density (G), Real	0.5779	0.5789
Compressibility (Z) Factor	0.9979	0.9976
Total GPM	17.201	17.007