



EXTENDED NATURAL GAS ANALYSIS

COMPANY NAME: **KLM Exploration**Lab #: **136238**Sample I.D.: **Bower 2A, #1**SETT#: **n/a**COUNTY: **n/a**LEGAL LOCATION: **n/a 5-10-20E**DATE SAMPLED: **9/12/01, 2:30 p.m.**SAMPLER: **KLM**SAMPLE PRESSURE: **500**TEMPERATURE (F): **n/a**DATE ANALYZED: **9/19/01**QUALITY CONTROL DATE: **9/19/01**

ANALYSIS

CALCULATED AT 14.650 PSIA, 60 F, NORMALIZED

COMPONENT	MOLAL %	BTU AMOUNT	GPM
METHANE	87.3	878.97	
ETHANE	3.89	68.62	1.03
PROPANE	0.61	15.3	0.17
ISOBUTANE	0.1	3.24	0.03
NORMAL BUTANE	0.14	4.55	0.04
ISOPENTANE	0.05	1.99	0.02
NORMAL PENTANE	0.06	2.4	0.02
HEXANES +	0.16	8.08	0.07
NITROGEN	7.56		
OXYGEN	0		
CARBON DIOXIDE	0.03		
HELIUM	0.1		
HYDROGEN	0		
TOTALS	100	983.2	1.38

BTU/FT³ DRY (IDEAL GROSS): **983.2**
 BTU/FT³ SATURATED (IDEAL GROSS): **966.82**

BTU/FT³ DRY (REAL GROSS): **985.3**
 BTU/FT³ SATURATED (REAL GROSS): **968.9**

SPECIFIC GRAVITY: **0.6196**
 COMPRESSIBILITY: **0.9979**
 GPM: **1.38**

RESPECTFULLY SUBMITTED

PRIORITY ANALYTICAL LAB

Hexanes+ parameters: BTU (dry)-5085.8; S.G.-3.1765; Summation factor-.0881, at 14.696 psia.
 Analyzed and calculated by: Modified GPA 2281-90, 2145-94 & 2172-88.

**EXTENDED NATURAL GAS ANALYSIS**COMPANY NAME: **KLM Exploration**Lab #: **136239**Sample I.D.: **Bower 2A, #2**SETT#: **n/a**COUNTY: **n/a**LEGAL LOCATION: **n/a**DATE SAMPLED: **9/12/01, 8:50 p.m.**SAMPLER: **KLM**SAMPLE PRESSURE: **310**TEMPERATURE (F): **n/a**DATE ANALYZED: **9/19/01**QUALITY CONTROL DATE: **9/19/01****ANALYSIS**

CALCULATED AT 14.650 PSIA, 80 F, NORMALIZED

COMPONENT	MOLAL %	BTU AMOUNT	GPM
METHANE	87.9	885.01	
ETHANE	3.41	60.15	0.91
PROPANE	0.51	12.79	0.14
ISOBUTANE	0.09	2.92	0.03
NORMAL BUTANE	0.15	4.88	0.05
ISOPENTANE	0.06	2.39	0.02
NORMAL PENTANE	0.07	2.8	0.03
HEXANES+	0.21	10.6	0.09
NITROGEN	7.15		
OXYGEN	0		
CARBON DIOXIDE	0.26		
HELIUM	0.09		
HYDROGEN	0.1		
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TOTALS	100	981.9	1.27

BTU/FT³ DRY (IDEAL GROSS): **981.9**
 BTU/FT³ SATURATED (IDEAL GROSS): **965.56**

BTU/FT³ DRY (REAL GROSS): **984**
 BTU/FT³ SATURATED (REAL GROSS): **967.6**

SPECIFIC GRAVITY: **0.6182**COMPRESSIBILITY: **0.9979**GPM: **1.27**

RESPECTFULLY SUBMITTED

PRIORITY ANALYTICAL LAB

Hexanes - parameters: BTU (dry) - 5085.8; S.G. - 3.1785; Summation factor - .0861, at 14.686 psia.
 Analyzed and calculated by: Modified GPA 2261-90, 2145-94 & 2172-88.



ANALYTICAL LABORATORY, INC.
424 Greenwood • Wichita, Kansas 67211 • (316) 269-4200

EXTENDED NATURAL GAS ANALYSIS

COMPANY NAME: **KLM Exploration**

Lab #: **136240**

Sample I.D.: **Bower 2A, #3**

SETT#: **n/a**

COUNTY: **n/a**

LEGAL LOCATION: **n/a**

DATE SAMPLED: **9/13/01, 9:30 a.m.**

SAMPLER: **KLM**

SAMPLE PRESSURE: **275**

TEMPERATURE (F): **n/a**

DATE ANALYZED: **9/19/01**

QUALITY CONTROL DATE: **9/19/01**

ANALYSIS

CALCULATED AT 14.650 PSIA, 60 F, NORMALIZED

COMPONENT	MOLAL %	BTU AMOUNT	GPM
METHANE	88.51	891.15	
ETHANE	3.07	54.16	0.82
PROPANE	0.33	8.28	0.09
ISOBUTANE	0.04	1.3	0.01
NORMAL BUTANE	0.06	1.95	0.02
ISOPENTANE	0.02	0.8	0.01
NORMAL PENTANE	0.02	0.8	0.01
HEXANES+	0.04	2.02	0.02
NITROGEN	7.57		
OXYGEN	0		
CARBON DIOXIDE	0.25		
HELIUM	0.09		
HYDROGEN	0		
TOTALS	100	960.5	0.98

BTU/FT³ DRY (IDEAL GROSS): **960.5**

BTU/FT³ SATURATED (IDEAL GROSS): **944.53**

BTU/FT³ DRY (REAL GROSS): **962.4**

BTU/FT³ SATURATED (REAL GROSS): **946.5**

SPECIFIC GRAVITY: **0.6086**

COMPRESSIBILITY: **0.998**

GPM: **0.98**

RESPECTFULLY SUBMITTED

Paul S. Fowkes

PRIORITY ANALYTICAL LAB

Hexanes - parameters: BTU (dry) - 5085.8; S.G. - 3.1765; Summation factor - .0861, at 14.898 psia.

Analyzed and calculated by: Modified GPA 2281-80, 2145-84 & 2172-88.



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EXTENDED NATURAL GAS ANALYSISCOMPANY NAME: **KLM Exploration**Lab #: **136241**Sample I.D.: **Bower 2A, #4**SETT#: **n/a**COUNTY: **n/a**LEGAL LOCATION: **n/a**DATE SAMPLED: **9/13/01, 9:45 a.m.**SAMPLER: **KLM**SAMPLE PRESSURE: **450**TEMPERATURE (F): **n/a**DATE ANALYZED: **9/19/01**QUALITY CONTROL DATE: **9/19/01****ANALYSIS**

CALCULATED AT 14.650 PSIA, 60 F, NORMALIZED

COMPONENT	MOLAL %	BTU AMOUNT	GPM
METHANE	88.48	890.65	
ETHANE	3.13	55.22	0.83
PROPANE	0.33	8.28	0.09
ISOBUTANE	0.04	1.3	0.01
NORMAL BUTANE	0.06	1.95	0.02
ISOPENTANE	0.01	0.4	0
NORMAL PENTANE	0.02	0.8	0.01
HEXANES+	0.05	2.52	0.02
NITROGEN	7.55		
OXYGEN	0		
CARBON DIOXIDE	0.26		
HELIUM	0.09		
HYDROGEN	0		
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TOTALS	100	961.1	0.98

BTU/FT³ DRY (IDEAL GROSS): **961.1**
 BTU/FT³ SATURATED (IDEAL GROSS): **945.18**

BTU/FT³ DRY (REAL GROSS): **963**
 BTU/FT³ SATURATED (REAL GROSS): **947.1**

SPECIFIC GRAVITY: **0.6089**COMPRESSIBILITY: **0.998**GPM: **0.98**

RESPECTFULLY SUBMITTED

PRIORITY ANALYTICAL LAB

Hexanes+ parameters: BTU (dry) = 5065.8; S.G. = 3.1785; Summation factor = .0881, at 14.696 psia.
 Analyzed and calculated by: Modified GPA 2781-90, 2145-B4 & 2177-B8.