



GAS ANALYSIS

CONTAINER IDENTIFICATION

21181/17688

LABORATORY NUMBER

G41946RA

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

KB m ELEVATIONS

GRD m

PARAMOUNT et al LAIRD F-36

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LAIRD

RF

AGAT

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

CALCULATED WELLSTREAM

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

4413

4413

24

24

DATE SAMPLED (Y-M-D)

99-08-19

DATE RECEIVED (Y-M-D)

99-08-21

DATE REPORTED (Y-M-D)

99-08-31

ANALYST

GE

NCO

OTHER INFORMATION

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL · m ⁻³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
He	0.0001	0.0001	
N ₂	0.0032	0.0033	
CO ₂	0.0133	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9490	0.9618	
C ₂	0.0226	0.0229	
C ₃	0.0063	0.0064	23.2
IC ₄	0.0013	0.0013	5.7
NC ₄	0.0015	0.0015	6.3
IC ₅	0.0007	0.0007	3.4
NC ₅	0.0005	0.0005	2.4
C ₆	0.0004	0.0004	2.2
C ₇	+ 0.0011	0.0011	6.8
C ₈			
C ₉			
C ₁₀ +			
TOTAL	1.0000	1.0000	50.0

GROSS HEATING VALUE MJm⁻³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

39.29

AIR FREE AS RECEIVED

38.77

VAPOUR PRESSURE PENTANES PLUS

66.0

kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.596

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.583

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (abs)

4634

pTc

197.0 K

ACID GAS FREE

pPc (abs)

4592

pTc

195.6 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.3

C₇ +

100.2

H₂S g/m³

0.00

REMARKS:

FIELD GOR = 178108m³/m³

3650 - 21st STREET N.E.
CALGARY, ALBERTA
CANADA T2E 6V6

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PARAMOUNT RESOURCES LTD.

4000-350 7th Avenue SW

Calgary, AB

T2P 3W5

ATTENTION: WAYNE TOMM

Date Sampled: 99-09-19

Date Received: 99-09-21

Date Reported: 99-09-21

TRACE SULPHUR ANALYSIS (GC-SCD) - GAS

File Number: F41946	
Lab Number: SAMPIA	
Sample I.D.: F-36, Paramount et al Liard, test separator, code 2480	
PARAMETER	CONCENTRATION (ppm, v/v)
i - Butyl mercaptan	<0.1
n - Butyl mercaptan	<0.1
s - Butyl mercaptan	<0.1
t - Butyl mercaptan	<0.1
t - Butyl methyl sulphide	<0.1
Carbon disulphide	<0.1
Carbonyl sulphide	<0.1
Ethyl disulphide	<0.1
Ethyl mercaptan	<0.1
Ethyl methyl sulphide	<0.1
Ethyl sulphide	<0.1
Hydrogen sulphide	1.8
Methyl disulphide	<0.1
Methyl mercaptan	<0.1
Methyl sulphide	<0.1
1 - Propyl mercaptan	<0.1
2 - Propyl mercaptan	<0.1
Thiophene	<0.1
Total organic sulphur	1.8

Method Detection Limit: 0.1 ppm (v/v)

Identification based on retention time relative to standards.

Certified By:

Brian Watson

Brian Watson, B.Sc.

Analyst, Trace Organics