



Laboratories



N.E.B. COPY Paul Price

Revised
Replace old
GAS ANALYSIS

Container Identification

AGAT 11409

Laboratory Number

GG45959A

Operator Name

PARAMOUNT RESOURCES LTD.

Unique Well Identifier

60deg10'123deg15'

Well Name

PARAMOUNT et al FT. LIARD I 46

Elevation

KB m 542.20 GRD m 537.20

Field or Area

FORT LIARD

Pool or Zone

FANTASQUE

Sampler's Company

BAKER

Test Type

DST

Test No.

1

Test Recovery

Name of Sampler

Test Interval or Perfs

1365.00-1392.00

mKB

Sampling Point

MAIN FLOW

Separator

Reservoir

Source

Sampled

Received

Pressure (kPa)

50

Temperature (°C)

21

Date Sampled

Dec 07, 1999

Date Received

Dec 14, 1999

Date Reported

Dec 30, 1999

Analyst

PL

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID mL · m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
He	0.0001	0.0001	
N ₂	0.0207	0.0207	
CO ₂	0.0002	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9623	0.9625	
C ₂	0.0120	0.0120	
C ₃	0.0019	0.0019	7.0
IC ₄	0.0003	0.0003	1.3
NC ₄	0.0004	0.0004	1.7
IC ₅	0.0002	0.0002	1.0
NC ₅	0.0003	0.0003	1.5
C ₆	0.0009	0.0009	4.9
C ₇₊	0.0007	0.0007	4.4
Total	1.0000	1.0000	21.8

GROSS HEATING VALUE MJ/m³

15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
37.80	37.81

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.577	0.576

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4578	191.8	4577	191.7

RELATIVE MOLECULAR MASS

Total Gas	C ₇₊
16.7	104.2

VAPOUR PRESSURE (Pentanes +)

46.44 kPa

H₂S g/m³

0.00

NATIONAL ENERGY BOARD
ENGINEERING BRANCH
JAN 21 2000





Laboratories



GAS ANALYSIS

Container Identification	Laboratory Number
AGAT 40040	GG45959B

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation
60deg10'123deg15'	PARAMOUNT et al FT. LIARD I 46	KB m 542.20 GRD m 537.20

Field or Area	Pool or Zone	Sampler's Company
FORT LIARD	FANTASQUE	BAKER

Test Type	Test No.	Test Recovery	Name of Sampler
DST	1		

Test Interval or Perfs	Sampling Point	Separator	Reservoir	Source	Sampled	Received
1365.00-1392.00	mKB					
	MAIN FLOW					
		Pressure (kPa)				1
		Temperature (°C)				21

Date Sampled	Date Received	Date Reported	Analyst
Dec 07, 1999	Dec 14, 1999	Jan 04, 2000	PL

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID mL • m³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H2	0.0001	0.0001	
He	0.0001	0.0001	
N2	0.0045	0.0045	
CO2	0.0000	0.0000	
H2S	0.0000	0.0000	
C1	0.9754	0.9754	
C2	0.0153	0.0153	
C3	0.0025	0.0025	9.2
IC4	0.0003	0.0003	1.3
NC4	0.0002	0.0002	0.8
IC5	0.0001	0.0001	0.5
NC5	0.0001	0.0001	0.5
C6	0.0006	0.0006	3.3
C7+	0.0008	0.0008	5.2
Total	1.0000	1.0000	20.8

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
38.48	38.48

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.571	0.571

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4598	193.1	4598	193.1

RELATIVE MOLECULAR MASS

Total Gas	C7+
16.5	107.2

VAPOUR PRESSURE (Pentanes +)

32.07 kPa

H2S g/m³

0.00





Laboratories



GAS ANALYSIS

Container Identification

AGAT 40029

Laboratory Number

GG45959C

Operator Name

PARAMOUNT RESOURCES LTD.

Unique Well Identifier

60deg10'123deg15'

Well Name

PARAMOUNT et al FT. LIARD I 46

Elevation

KB m 542.20 GRD m 537.20

Field or Area

FORT LIARD

Pool or Zone

FANTASQUE

Sampler's Company

BAKER

Test Type

DST

Test No.

1

Test Recovery

Name of Sampler

Test Interval or Perfs

1365.00-1392.00

mKB

Sampling Point

MAIN FLOW

Pressure (kPa)

Temperature (°C)

Separator

Reservoir

Source

Sampled

Received

1

21

Date Sampled

Dec 07, 1999

Date Received

Dec 14, 1999

Date Reported

Jan 04, 2000

Analyst

PL

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID mL • m³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H2	0.0001	0.0001	
He	TRACE	TRACE	
N2	0.0008	0.0008	
CO2	0.0003	0.0000	
H2S	0.0000	0.0000	
C1	0.9590	0.9593	
C2	0.0261	0.0261	19.8
C3	0.0054	0.0054	
IC4	0.0008	0.0008	
NC4	0.0016	0.0016	
IC5	0.0009	0.0009	
NC5	0.0014	0.0014	6.8
C6	0.0019	0.0019	
C7+	0.0017	0.0017	
Total	1.0000	1.0000	62.4

GROSS HEATING VALUE MJ/m³

15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
39.82	39.83

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.590	0.590

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4598	196.9	4597	196.8

RELATIVE MOLECULAR MASS

Total Gas	C7+
17.1	104.3

VAPOUR PRESSURE (Pentanes +)

60.58 kPa

H2S g/m³

0.00





Laboratories



GAS ANALYSIS

Container Identification

AGAT 21183

Laboratory Number

GG45959D

Operator Name

PARAMOUNT RESOURCES LTD.

Unique Well Identifier

60deg10'123deg15'

Well Name

PARAMOUNT et al FT. LIARD I 46

Elevation

KB m 542.20 GRD m 537.20

Field or Area

FORT LIARD

Pool or Zone

FANTASQUE

Sampler's Company

BAKER

Test Type

DST

Test No.

1

Test Recovery

Name of Sampler

Test Interval or Perfs

1365.00-1392.00

mKB

Sampling Point

MAIN FLOW

Pressure (kPa)

Temperature (°C)

Separator

Reservoir

Source

Sampled

Received

50

21

Date Sampled

Dec 07, 1999

Date Received

Dec 14, 1999

Date Reported

Jan 04, 2000

Analyst

PL

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID mL • m³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H2	0.0010	0.0010	
He	0.0001	0.0001	
N2	0.0088	0.0088	
CO2	0.0000	0.0000	
H2S	0.0000	0.0000	
C1	0.9366	0.9366	
C2	0.0408	0.0408	28.3
C3	0.0077	0.0077	
IC4	0.0011	0.0011	4.8
NC4	0.0008	0.0008	3.4
IC5	0.0002	0.0002	1.0
NC5	0.0002	0.0002	1.0
C6	0.0012	0.0012	6.6
C7+	0.0015	0.0015	9.4
Total	1.0000	1.0000	54.5

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
39.66	39.66

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.595	0.595

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4591	197.3	4591	197.3

RELATIVE MOLECULAR MASS

Total Gas	C7+
17.2	103.0

VAPOUR PRESSURE (Pentanes +)

33.94 kPa

H2S g/m³

0.00

