

FINAL WELL REPORT
PARAMOUNT HB ET AL CAMERON J-76

I Summary of Well Data

(a) Well: Paramount HB et al Cameron J-76

(b) Permittee: Hudson's Bay Oil and Gas Company Limited

(c) Operator: Paramount Resources Ltd.
1800 Elveden House
717 Seventh Avenue S.W.
Calgary, Alberta T2P 0Z3

(d) Location: Unit J Section 76 Grid 60°10'N 117°00'W
Latitude 60°05'35.84"N
Longitude 117°14'01.17"W
Universal Well Location Reference:
Lat. 60.09329° N
Long. 117.23366° W
Unique Well Identifier: 300J766010117000

(e) Lease No.: 919-71

(f) Drilling Contractor: S & T Drilling (Northern) Ltd.
Rig #10

(g) Drilling Authority: No. 975, Issued 1981-02-02

(h) Classification: New Field Wildcat

(i) Elevation: Ground 831.1 m
K.B. 835.0 m

(j) Spud Date: 1981-02-08

(k) Completed Drilling Date: 1981-03-08

(l) Total Depth: 1627 m

(m) Well Status: Dry and Abandoned

(n) Rig Release Date: 1981-03-12

(o) Hole sizes: 0-12 m 444.5 mm
12-411 m 311.15 mm
411-1627 m 215.9 mm

(p) Casing: 0-11.6 m 406.4 mm 81.84 kg/m
0-411 m 244.5 mm 59.5 kg/m N-80

**MICROFILMED
SUR MICROFILM:**

II Geological Summary

(a) Formation Tops

<u>Formation</u>	<u>Sample</u>	<u>E-Log</u>
Wabamun	602	604
Jean Marie	661	668
Ft. Simpson	715	709
Twin Falls	805	811
Hay River	950	950
Beaverhill Lake	1235	1263
Slave Point	1334	1333
Ft. Vermilion	1365	1366
Watt Mountain	1386	1384
Sulphur Point	1395	1396
Muskeg	1415	1418
Keg River	1520	1515
Chinchaga	1596	1586
Cambrian Sandstone	1610	1608
pre-Cambrian	1615	1611

(b) No cores were cut in this well.

(c) Three copies of the geologist's log were forwarded to DIAN on March 19, 1981.

III Engineering Summary

(a) Drill Stem Tests

DST #1 1516-1546 Keg River, Dual Straddle
Times: 10, 30, 120, 240 minutes
Pretlow: Fair air blow increasing to strong air blow.
No gas to surface.
Valve-open: Strong air blow, gas to surface 45 minutes, too small to measure. 2' flame.
HP 17631/17403 kPa SIP 7483/9513 kPa
FP 912/954 kPa PF 622 kPa
Recovery: 113.56 m oil-cut drilling mud.

DST #2 1406-1416 Sulphur Point, Dual Bottom-hole
Times: 10, 60, 65, 240 minutes
Pretlow: Fair air blow. Lost 5 meters mud. No gas to surface.
Valve-open: Weak air blow. Lost 3 meters mud at 35 minutes and another 3 m at 65 minutes. Tried to get new seat, failed. No gas to surface.
HP 16213/16367 kPa SIP 10038/16367 kPa
FP 1638/1482 kPa PF 1690 kPa
Recovery 130 m salt-cut drilling mud.

Drill Stem Tests (Continued)

DST #3 1346-1362 Slave Point, Dual straddle
 Times: 10, 60, 120, 240 minutes.
 Preflow: Very weak air blow, no gas to surface.
 Valve-open: Very weak air blow. Dead in 10 minutes,
 no gas to surface.
 HP 15529/15695 kPa SIP 5371/-
 FP 270/134 kPa P/F 62 kPa
 Recovery: 9 m drilling mud.

Copies of DST #1 were forwarded March 13, 1981; DST #2 March 17, 1981 and
 DST #3 March 26th.

(b) Casing Record:

<u>String</u>	<u>Diameter</u>	<u>Weight</u>	<u>Type</u>	<u>Jts.</u>	<u>Landed</u>
1	406.4 mm	81.84 kg/m	Conductor	1	11.6 m
2	244.5	59.5	N-80	35	411 m

(c) Bit Record

<u>Bit No.</u>	<u>Size mm</u>	<u>Make</u>	<u>Type</u>	<u>Depth</u> <u>Out</u>	<u>Meters</u>	<u>Hours</u>
1A	311	Reed	S-11	66	66	12 3/4
2A	311	Reed	S13G	169	103	21
3A	311	Reed	S13G	212	43	14 3/4
4A	311	Smith	DSJ	337	125	28
5A	311	Smith	DSJ	411	74	7 1/2
1	216	Hughes West.	X3A	673	262	16
2	216	Smith	SDGH	725	52	23
3	216	Hughes West.	J-22	1346	621	130 1/2
4	216	Hughes West.	J-22	1497	151	50 1/2
5	216	Hughes West.	J-33	1509	12	9 3/4
6	216	Hughes West.	J-3	1551	42	26 3/4
7	216	Smith	F-2	1627	76	24 1/4

(d) Mud Report

<u>Product</u>	<u>Weight</u>	<u>Quantity</u>
Benex	22 lb.	60
Bicarbonate of Soda	100 lb.	5
Calcium Chloride	50 lb.	7
Caustic Soda	50 lb.	18
CMC	55 lb.	35
Gell	100 lb.	822
Lime	44 lb.	6
Peltex	55 lb.	23
Sawdust	40 lb.	78

(e) Deviation Record

3 copies forwarded to Yellowknife April 9, 1981

(f) Abandonment Plugs

Plug #1	1627 m - 1300 m	12 cubic metres of Class "G" Oilwell cement.	March 11, 1981
Plug #2	426 m - 396 m	3 cubic metres of Class "G" Oilwell cement.	March 12, 1981
Plug #3	10 m - surface	0.4 cubic metres of Class "G" Oilwell cement.	

(g) Lost Circulation Zones

At 673 m, while drilling in the Jean Marie formation with water as drilling fluid, circulation was lost. The drilling string was pulled up 8 metres and mud materials were mixed to thicken the mud. Lost circulation continued, and then the pipe became differentially stuck. 75 barrels of crude oil and then diesel fuel were added to the system. After two days the pipe came free. Drilling was carried out blind to 693 m in an attempt to get through the lost circulation zone prior to running a plug. A cement plug of 16 tonnes of Class "G" Oilwell cement plus 2% CaCl_2 was then mixed and run. This volume should have filled the hole from 695 m up to 386 m. The top was found at 502 m, indicating a considerable loss of cement to the formation. The cement was drilled out and mud again was lost to the formation. A pill of lost circulation material at the ratio of 5 lbs. LCM/bbl. for a total of 700 bbls. was then run. Circulation was regained and drilling continued without further incident.

(h) Blowouts

No blowouts occurred in this well.

IV Logs

The following logs were run at total depth (1627 m) on March 8, 1981:

Dual Induction - SFL	1627 m to surface casing (4117m)
Compensated Neutron-Formation Density	1627 m to surface casing
Borehole Compensated Sonic	1627 m to surface casing
Continuous Dipmeter	1623 m to 421 m.

V Analyses

No cores were cut in this well, hence there are no porosity or permeability analyses.

Attached are oil, gas, and water analyses from DST #1 (Keg River) and a water analysis from DST #2 (Sulphur Point).

VI Completion

This well was abandoned.

PARAMOUNT RESOURCES LTD.

LAB REPORT NO: C81-7489

C81-7489-1 TOP

Resistivity: 0.675 ohm/meters @ 25°C.

Amber colored filtrate recovered from oil flecked mud.

C81-7489-2 MIDDLE

Resistivity: 0.306 ohm/meters @ 25°C.

Amber colored filtrate recovered from oil flecked mud.



CHEMICAL & GEOLOGICAL LABORATORY LTD.
EDMONTON FORT ST. JOHN CALGARY



CONTAINER IDENTITY

7381

GAS ANALYSIS

LABORATORY NUMBER

C81-7489-4

LICENCE NUMBER

OPERATOR NAME

PARAMOUNT RESOURCES LTD. 1800, 717 - 7 Ave. S.W., Calgary, Alta.

LOCATION NUMBER

WELL NAME

Para HB et al Cameron J-76

ELEVATIONS
K.B. (metres) GRD.

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

Keg River

Scott Testers

TEST TYPE

NO.

DST

1

TEST RECOVERY

113.56 m oil cut drilling mud

MULTIPLE
RECOVERY

Y N

X

SAMPLING POINT

AMT. & TYPE OF CUSHION

MUD RESISTIVITY

Surface

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³ m³/d

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

GAUGE PRESSURE

SPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

TEMPERATURE

°C

20

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

1981-03-09

1981-03-11

1981-03-12

B. Anderson

COMP.	MOLE FRACTION			PETROLEUM LIQUID CONTENT
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE		
H ₂				$\frac{e}{m \cdot m^3}$
He				
N ₂				
CO ₂				
H ₂ S				
C ₁				
C ₂				
C ₃				
IC ₄				
NC ₄				
IC ₅				
NC ₅				
C ₈				
C ₇				
C ₈				
C ₉				
C ₁₀₊				

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

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

DETERMINED

DEW POINT

VAPOUR PRESSURE

PENTANES PLUS

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (abs)

SPa

pTc

K

ACID GAS FREE

pPc (abs)

SPa

pTc

K

H₂S gm³

RELATIVE MOLECULAR MASS

Total Gas

C₇₊

SAMPLE RECEIVED WITH AN OPENING PRESSURE OF
0 KPA @ 20°C. INSUFFICIENT GAS FOR ANALYSIS
DUE TO HIGH AIR CONTAMINATION.



CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON FORT ST. JOHN CALGARY

LABORATORY NUMBER
C81-7489-2

OIL ANALYSIS

CONTAINER IDENTITY

LICENCE NUMBER

OPERATOR NAME

PARAMOUNT RESOURCES LTD. 1800, 717 - 7 Ave. S.W., Calgary, Alta.

LOCATION

WELL NAME

Para HB et al Cameron J-76

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

Scott Testers

TEST TYPE

NO

DST

1

TEST RECOVERY

113.56 m oil cut drilling mud

MULTIPLE
RECOVERY

Y N

X

SAMPLING POINT

AMT. & TYPE OF CUSHION

MUD RESISTIVITY

Middle

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³m³/d

SEPARATOR

TREATER

RESERVOIR

SOURCE

GAUGE PRESSURE

kPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

TEMPERATURE

°C

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

1981-03-09

1981-03-11

1981-03-12

D. Barber

SAMPLE PROPERTIES

COLOR OF CLEAN OIL

S.S. & W. (VOLUME FRACTION)

WATER

SEDIMENT

TOTAL

0.320

0.600

0.920

DENSITY

RELATIVE

ABSOLUTE $\rho_{40^\circ\text{C}}$

AS RECEIVED

AFTER CLEANING

AS RECEIVED

AFTER CLEANING

TOTAL SULFUR
(MASS FRACTION)TOTAL SALT
(g/m³)POUR POINT
°C

U.S.B.M.

A.S.T.M.

CARBON RESIDUE
(MASS FRACTION)

RVP kPa

CONRADSON

RAMSBOTTOM

VISCOSITY

TEMP.
°C

ABSOLUTE mPa.s

KINEMATIC mm²/s

DISTILLATION

METHOD

VOLUME
FRACTION
DISTILLEDTEMP.
°C

I.B.P.

0.05

0.10

0.15

0.20

0.25

0.30

0.35

0.40

0.45

0.50

0.55

0.60

0.65

0.70

0.75

0.80

0.85

0.90

0.95

1.00

F.B.P.

CRACKED

BAROM. PRESS. kPa (mmHg)

ROOM TEMP. °C

DISTILLATION SUMMARY

(VOLUME FRACTION)

200°C
NAPHTHA270°C
KEROSENE350°C
LIGHT GAS OIL

RECOVERED

RESIDUE

DISTILLATION
LOSS

RELATIVE DENSITY

DISTILLATE

RESIDUE

BASE TYPE:

CHARACTERIZATION FACTOR:



CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON FORT ST. JOHN CALGARY



LABORATORY NUMBER

C81-7489-3

CONTAINER IDENTITY

OIL ANALYSIS

LICENCE NUMBER

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

1800, 717 - 7 Ave. S.W., Calgary, Alta.

LOCATION

WELL NAME

Para HB et al Cameron J-76

ELEVATIONS
E.S. (metres) G.D.

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

Keg River

Scott Testers

TEST TYPE

NO.

DST

1

113.56 m oil cut drilling mud

TEST RECOVERY

MULTIPLE
RECOVERY

Y N

X

SAMPLING POINT

AMT. & TYPE OF CUSHION

MUD RESISTIVITY

Bottom

Test Interval (metres)

1516 - 1546

Perforations (metres)

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³ m³/d

GAUGE PRESSURE

kPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

TEMPERATURE

°C

SEPARATOR

TREATER

RESERVOIR

SOURCE

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

1981-03-09

1981-03-11

1981-03-12

D. Barber

SAMPLE PROPERTIES

COLOR OF CLEAN OIL

B.B. & W. (VOLUME FRACTION)

WATER

0.480

SEDIMENT

0.420

TOTAL

0.900

DENSITY

RELATIVE

ABSOLUTE ρ/kgm^{-3}

AS RECEIVED

AFTER CLEANING

AS RECEIVED

AFTER CLEANING

TOTAL SULFUR
(MASS FRACTION)TOTAL SALT
(g/m³)POUR POINT
°C

U.S.M.

A.S.T.M.

CARBON RESIDUE
(MASS FRACTION)

RVP kPa

CONRADSON

RAMSBOTTOM

VISCOSITY

TEMP. °C	ABSOLUTE mPa.s	KINEMATIC mm ² /s

VOLUME
FRACTION
DISTILLEDTEMP.
°C

L.B.P.

0.05

0.10

0.15

0.20

0.25

0.30

0.35

0.40

0.45

0.50

0.55

0.60

0.65

0.70

0.75

0.80

0.85

0.90

0.95

1.00

F.R.P.

CRACKED

DISTILLATION

METHOD

BAROM. PRESS (kPa)

ROOM TEMP °C

DISTILLATION SUMMARY

(VOLUME FRACTION)

200°C
NAPHTHA270°C
KEROSENE350°C
LIGHT GAS OIL

RECOVERED

RESIDUE

DISTILLATION
LOSS

RELATIVE DENSITY

DISTILLATE

RESIDUE

BASE TYPE:

CHARACTERIZATION FACTOR:

PARAMOUNT RESOURCES LTD.

LAB REPORT NO: C81-7490

C81-7490-1 TOP

Resistivity: 0.801 ohm/meters @ 25°C.

Amber filtrate recovered from mud.

C81-7490-3 BOTTOM

Resistivity: 0.738 ohm/meters @ 25°C.

Amber filtrate recovered from mud.



WATER ANALYSIS

LABORATORY NUMBER
C81-7490-2

LICENCE NUMBER

OPERATOR NAME

PARAMOUNT RESOURCES LTD. 717 - 7 Ave. S.W., Calgary, Alta.

C/P NUMBER

WELL NAME

Paramount HB et al Cameron J-76

ELEVATIONS
A B metres GRD

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

Sulphur Point

COMPANY

Scott Testers

TEST TYPE

NO.

TEST RECOVERY

DST

2

130 m drilling mud, not gas cut

MULTIPLE
RECOVERY

Y N

X

SAMPLING POINT

AMT. & TYPE OF CUSHION

MUD RESISTIVITY

Middle

Test Interval (metres)

TYPE OF PRODUCTION

1406 - 1416

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³ m³/d

SEPARATOR

TREATER

RESERVOIR

SOURCE

GAUGE PRESSURE

MPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

TEMPERATURE

°C

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

1981-03-10

1981-03-11

1981-03-18

D. Barber

ION $\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$ Mass Fraction $\frac{c}{mol \cdot m^{-3}}$

Na 3 056 0.2561 132.94

K 31 0.0026 0.79

Ca 781 0.0654 19.49

Mg 0 0.0000 0.00

Ba

Sr

Fe PRESENT

ION $\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$ Mass Fraction $\frac{c}{mol \cdot m^{-3}}$

Cl 1 975 0.1655 55.70

Br

I

HCO₃ 293 0.0246 4.81

SO₄ 5 798 0.4858 60.30

CO₃ 0 0.0000 0.00

OH 0 0.0000 0.00

H₂S NIL

TOTAL SOLIDS $\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$

EVAPORATED @ 110°C

13 130

AT IGNITION

11 500

EVAPORATED @ 150°C

CALCULATED

11 934

ORGANICS: PRESENT

RELATIVE DENSITY

1.005 @ 20°C

REFRACTIVE INDEX

1.3346 @ 20°C

OBSERVED pH

8.6 @ 24°C

RESISTIVITY (Ohm m)

0.683 @ 20°C

REMARKS

Amber filtrate recovered from watery mud.

LOGARITHMIC PATTERN $c/mol \cdot m^{-3}$



DEPARTMENT OF INDIAN
& NORTHERN AFFAIRS
Regional Conservation Engineer
JUN 12 1981
Northern Natural Resources
& Environmental Branch

OIL & GAS EXPL. OPERATIONS
N. N.-R. Res. Br.
OCT 19 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS