Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

Drilling Authority No 949

Date Issued 1980-01-02

NORTHERN NON-RENEWABLE RESOURCES BRANCH / **DIRECTION DES RESSOURCES NON-RENOUVELABLES DU NORD**

APPLICATION FOR A DRILLING AUTHORITY / DEMANDE D'AUTORISATION DE FORAGE

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill: —

Name and number of well Paramount HB et al Cameron J-62

Location: Unit J Section 62 Grid 60° 10'N, 117°15'W

Latitude 60° 01' 31" N Longitude 117° 26' 50" W

Unique Well Identifier

Universal Well Location Reference Lat. 60.0253° Long 117.4472°

Proposed Target Location (if different)

Elevation: Ground 747 K.B. 750 metres above sea-level.

Water Depth (for man-made islands, ice-islands and offshore wells)

Well is expected to produce from Keg River formation at a depth of about 1460 metres Expected total final depth 1585 metres

Area assigned to well

(for District Conservation Engineer's use only)

Exploration Agreement No Production Licence No

Permit No Lease No Applied for Containing Hectares

Permittee, licensee, or lessee Hudson's Bay Oil & Gas Company Limited

Exploratory Licence No #2806

Surface Owned by Crown or Crown

(if alienated submit name and address of owner and occupant)

Paramount Exploratory Licence No. 2805

We propose to use the following strings of casing either cementing or landing them as indicated below; —

	Casing Size O.D. (mm)	Mass (kg/m)	Wall thickness (mm)	Grade	New or Used	Estimated Depth	Mass of Cement
1	244.5	48.07	7.93	H--40	New	400	22.5 tonnes
2	139.7	20.8	5.79	J-55	New	Approx. 1585	As required to reach surface casing
3							
4							
5							

Expected water, gas, and oil horizons and type of control equipment Gas in Slave Point and Bistcho, gas or oil in Keg River.

Well will be drilled with Rotary Rig No. 86 by Sedco Drilling

(Drilling Contractor or company)

Responsible agent of applicant: —

At well Address

At registered office Address

Contractor's Business Licence No.

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Dated at Calgary, this 27th day of November 19 79

Signed by [signature] Company Paramount Resources Ltd.

Title Vice President, Operations Operator's Licence No. 2805

(FOR BRANCH USE ONLY)

APPROVED

This application has been examined and approved subject to the following conditions:

(1) That drill cutting samples be collected every 5 m below the 244.5 mm casing shoe.

(2) Subject to conditions stipulated in Attachment 1.

Dated January 2 19 80 [signature]

District Conservation Engineer

Forms to be submitted to District Conservation Engineer, Department of Indian Affairs and Northern Development

PARAMOUNT HB et al CAMERON J-62

Reference Wells H.B. Cameron River F-51 and Cameron Hills A-5

Est. G.L. 747 m Est. K.B. 750 m

Formation Tops	Metres	
	Subsea	Depth est.
Wabamun	+221	529
Jean Marie	+ 69	681
Ft. Simpson	+ 63	687
Twin Falls	- 47	797
Hay River Shale	-185	935
Beaverhill Lake	-492	1242
Muskwa	-524	1274
Slave Point	-549	1299
Watt Mountain	-596	1346
Bistcho-Sulphur Point	-610	1360
Muskeg	-626	1376
Keg River	-708	1458
Chinchaga	-743?	1493?
pre-Devonian	-760?	1510?
pre-Cambrian	-830?	1580?
T.D.		1585 (5200')

Drilling Authority No. 949

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

OIL AND MINERAL DIVISION

Application to Amend a Drilling Authority

This application, in triplicate, must be submitted and approved before commencing operations. If the well location is changed, this application must be accompanied where required, with a plan of survey approved by the Surveyor General.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made to amend Drilling Authority No. 949, concerning Paramount HB et al Cameron J-62

(Name and Number of Well)

(a) to amend the surface casing depth to 524 metres

(b) to amend the "total final depth" to 1605 metres

Reasons for the amendments:

(a) Surface casing: We wished to set surface casing below the Cretaceous-Devonian unconformity which was much deeper than anticipated.

(b) Total final depth - Our agreement with Hudson's Bay called for us to drill to the pre-Cambrian. On the initial application we took "expected total final depth" to be our estimate, and did not add any insurance depth.

Dated at Calgary, this 18th day of March, 19 80

Signed by H. Harris

Title Vice President, Operations

Company Paramount Resources Ltd.

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:

Date 12 May 19 80

Regional District Conservation Engineer

Forms to be submitted to the District Conservation Engineer, Department of Indian Affairs and Northern Development.

IAND-52-90-3 (8-71)

Voir au verso

CANADA

Drilling Authority No. 949

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to [redacted] Suspend Drilling

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well Paramount HB et al Cameron J-62

Location: Unit J Section 62 Grid 60°10'N 117°15'W

Latitude 60°01'31" N Longitude 117°26'50" W

From Established Reference Marker

Universal Well Location Reference Lat. 60.0253° Long. 117.4472°

Permit No. Lease No.

Hudson's Bay Oil & Gas Company Limited
(Permittee, Licencee, Lessee)

Date of commencement of proposed program March 11, 1980

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at –

Gas at 1383-1395

Water at 1319-1348 (Slave Point) and 1515-1529 (Keg River)

Total Depth 1605 m Date of last operations March 11, 1980

Present condition of well Cased to total depth, not perforated

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 244.5	48.07	44 jts.	524.97	10.6 tonnes	
2. 139.7	20.8	134 jts.	1605.00	39.6 tonnes	
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
		Bottom casing shoe not drilled out		

The following logs have been run DLL-SP CNL-FDC GR Caliper

Other operations proposed none

Operations to be carried out by Contractor Licence No.

Address Address

Responsible Agent in field Mr. Kerry Wilson

Dated at Calgary, this 18th Day of March 19 80

Signed by [signature] Company Paramount Resources Ltd.

Title Vice President, Operations Operator's Exploratory Licence No. 2805

Note:–The District Conservation Engineer's office must be notified before work is commenced.

(For OIL AND MINERAL DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Dated 12 May, 1980

[signature]
District Conservation Engineer

Forms to be submitted in triplicate to District Conservation Engineer, Department of Indian Affairs and Northern Development.

IAND 52-90-5 (7-71)

Voir au verso

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
MINISTÈRE DES AFFAIRES INDIENNES ET DU NORD CANADIEN

OIL & MINERAL DIVISION
DIVISION DU PÉTROLE ET DES MINÉRAUX

WELL COMPLETION DATA
RENSEIGNEMENTS SUR LES FORAGES

Drilling Authority No. 949
N° de l'autorisation de forage
Date Issued 1980-01-02
Date de délivrance

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.
À présenter en double dans les trente jours suivant l'achèvement, le remaniement, l'abandon et le reconditionnement de chaque puits, ou après suspension.

Well Name & No – *Nom et n° du puits*	Permit No. – *N° de permis*	Lease No. – *N° de concession*
Paramount HB et al Cameron J-62		921-71

(Permittee, License, Lessee) – *(Détenteur de permis ou de licence, du concessionnaire)*	Exploratory Licence No. – *N° de licence de sondage*
Hudson's Bay Oil & Gas Limited	2806
(Operator) – *(Exécutant)*	Exploratory Licence No. – *N° de licence de sondage*
Paramount Resources Ltd.	2805

LOCATION – *EMPLACEMENT*

Unit – *Unité*	Section	Grid – *Étendue quadrillée*	Latitude	Longitude
J	62	60° 10' N 117° 15' W	60°01'31" N	117°26'50" W

Unique Well Identifier – *Code d'ordinateur*: 300 J 62 60 10 117 15 0

Universal Well Location Reference – *Références universelles d'emplacement du puits*: Lat. 60.0253° Long. 117.4472°

	Date	Depth – *Profondeur*
Spudded – *Début des travaux*	7 Feb. 80	
Suspended – *Suspension des travaux*	11 MAR 80	
Resumed Operations – *Reprise des travaux*		
Finished Drilling – *Forage terminé*	5 Mar. 80	1605
Deepened – *Approfondissement*		
Complete (Gas/Oil) – *Achèvement (Gaz/Pétrole)*		
Abandoned – *Abandon*		
Rig Released – *Fin des travaux*	11 Mar. 80	

Pool(s) – *Gisement(s)*: Sulphur Point

Interval(s) Open to Production – *Intervalle(s) de production*: none (hole cased to T.D.)

Elevation: Gr. – *Altitude du sol*: 751.94 K.B. – *du carré d'entraînement*: 755

Rig No. – *N° de la tour de forage*: #86

Drilling Contractor – *Entrepreneur en forage*: Sedco Drilling

Contractor's Business Licence No. – *N° du permis de l'entrepreneur*:

CASING RECORD – *TUBAGE*

Casing Size (inches) – *Diamètre (en pouces)*	Grade – *Qualité*	Weight – *Poids*	Amount – *Longeur*	Set at – *Fixation à*	Sacks of Cement and Additives – *Sacs de ciment et d'additifs*
1. 244.5	H-40	48.07	44 jts.	524.97	10.6 tonnes
2. 139.7	J-55	20.8	134 jts.	1605.00	39.6 tonnes
3.					
4.					
5.					
6.					

Geological Tops – *Sommet des formations*	Elevation – *Profondeur*	
	Depths – *Sous le niveau du sol*	Sub-Sea – *Sous le niveau de la mer*
Wabamun	548	+207
Jean Marie	684	+ 71
Ft. Simpson	694	+ 61
Twin Falls	804	- 49
Hay River Shale	944	-189
Beaverhill Lake	1257	-502
Muskwa	1291	-536
Slave Point	1317	-562
Watt Mountain	1368	-613
Bistcho	1374	-619
Sulphur Point	1384	-629
Muskeg	1397	-642
Keg River	1495	-740
Chinchaga	1582	-827
pre-Cambrian	1604	-849

Core Record – *Carottes*

From – *de*	To – *à*	Rec. – *Récupérés*	From – *de*	To – *à*	Rec. – *Récup.*

Log Record – *Diagrammes*

Run – *Série*	Type of Log – *Genre de diagramme*	From – *De*	To – *À*
1	DLL-SP	1605	525
1	CNL-FDC GR Cal	1605	525

CEMENTING RECORD (Plug, Squeeze, etc.) CIMENTATION (Bouchon, sous pression, etc.)				PERFORATING RECORD (Bullet, Jet) PERFORATION (à balles, à jet)				SERVICING RECORD (Acidizing, Fracing, etc.) ENTRETIEN (acidification, fracturation, etc.)			
Date	From – de	To – à	Remarks – Remarques	Date	From – de	To – à	Remarks – Remarques	Date	From – de	To – à	Remarks – Remarques

DRILL STEM TESTS – *ESSAIS AUX TIGES*

No. – N°	Date	Formation	From – de	To – à	V.O. Mins. Vanne ouverte (minutes)	I.S.I. Mins. Première obturation (minutes)	F.S.I. Mins. Obturation définitive (minutes)	I.S.I.B.H.P. Pression de fond à la 1re obturation	F.S.I.B.H.P. Pression de fond à l'obturation définitive	I.F.B.H.P. Pression defond au jaillissement	F.F.B.H.P. Pression de fond à l'écoulement définitif	L.H.P. Pression hydrostatique de début	F.H.P. Pression hydrostatique définitif	Remarks – Remarques
1	6 Mr.80	Keg River	1515	1529	10, 60	30	120	10330	10330	5642	10330	16148	15714	Rec. 50 m, 115 m sul. w 925 m gas cut sulphur water
2	7 Mr.80	Sulphur Point	1383	1395	10,300	60	600	9531	9531	3341	4033	14659	14488	Rec. 12 m ammonia water 28 m sulph. salt water.
3	9 Mr.80	Slave Point	1319	1348	10, 60	60	120	8218	9246	1583	1876	14030	13915	Rec. 30 m inhib. water, 40 m mud, 100 m mud cut salt water.
4	10 Mr.80	Twin Falls	812	835	Misrun could not get packer seat									

ANALYSIS – *ANALYSE*

Lab. No. N° de laboratoire	Sample Échantillon	From – de	To – à	Source	Remarks – Remarques

PRESENT STATUS OF WELL ETAT ACTUEL DU PUITS

Oil Pétrole		(Interval)(Intervalle)
Gas Gaz		(Interval)(Intervalle)
Dry Sec		
Susp. Travaux sus.		

Company Société: Paramount Resources Ltd.

Signed by Signé par: [signature]

Title Titre: Vice President, Operations

Date: March 18, 1980

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

File No.

Drilling Authority No. 949

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to Alter Condition of a Well

Notice of Intention to Resume Operations to Recondition, Deepen, Recomplete or Reopen a Suspended Well
(Strike out words that are not applicable.)

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to:

Type of operation: To perforate and acidize the Sulphur Point

Name and number of well: Paramount HB et al Cameron J-62

Location: Unit: J Section: 62 Grid: 60° 10' N 117° 15' W

Latitude: 60° 01' 31" N Longitude: 117° 26' 50" W

Unique Well Identifier: 300J626010117150

Universal Well Location Reference: Lat. 60.0253° Long. 117.4472°

Permit No. Lease No. 921-71

Permittee, Licensee, Lessee: Hudson's Bay Oil and Gas Company Limited

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at

Gas at: 1383-1395

Water at

Total depth: 1605 m Date of last operation: March 11, 1980

Present condition of well: Cased to T. D., not perforated, cap welded on at surface.

CASING RECORD

Casing Size O.D. (Inches)	Weight	Amount	Set at—	Sacks of Cement and Additives	Amount Pulled
1. 244.5	48.07	44 jts.	524.97	10.6 tonnes	
2. 139.7	20.8	134 jts.	1605.00	39.6 tonnes	
3.					
4.					
5.					
6.					

OPERATION PROPOSED
(If more space is required, attach additional sheet)

Program of operations — (Plugs, perforations, rework, etc.)

To perforate 1385-1389, 1392-1394.5, acidize, swab well in and flow test.

Operations to be carried out by: not know yet Contractor's Business Licence No.

Address

Responsible agent in field: Mr. Mike Maddocks Address: Indian Cabins

Dated at: Calgary, Alberta, this: 19th day of: December 19 80

Signed by: Company: Paramount Resources Ltd.

Title: Vice President, Operations Operator's Exploratory Licence No.: 2805

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

This application has been examined and program of operations approved, subject to the following conditions:

The cleanup flow period shall be terminated following a 6 hour stabilized flow.

Dated February 2, 19 81 P. Gordon L. Smith
Oil Conservation Engineer

Forms to be submitted in triplicate to Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alta.

[illegible]

FINAL WELL REPORT

PARAMOUNT HB et al CAMERON J-62

SUMMARY OF WELL DATA

FINAL WELL REPORT

PARAMOUNT HB et al CAMERON J-62

SUMMARY OF WELL DATA

Well Name and Number:	Paramount HB et al Cameron J-62
Permittee:	Hudson's Bay Oil and Gas Company Limited
Operator:	Paramount Resources Ltd. 1800, 717 Seventh Avenue S. W. Calgary, Alberta
Location:	Northwest Territories Unit J Section 62 Latitude 60°01'31" N Longitude 117°26'50" W Unique Identifier: 300J626010117150 Lat. 60.0253° Long. 117.4472°
Lease No.:	921-71
Contractor:	Sedco Drilling Rig No. 86
Drilling Authority No.	949
Classification:	Exploratory well
Elevations:	Ground 751.94 m K.B. 755
Spudded:	7 February, 1980
Completed drilling:	5 March, 1980
Total depth:	1605 m
Rig release:	11 March, 1980
Hole size:	323.85mm to 524 m 222.25mm 524 to 1605 m
Casing:	244.5mm set at 524 m 139.7mm set at 1605 m
Status:	Gaswell Sulphur Point

SUMMARY OF DRILLING OPERATIONS

This well was drilled by Rig 86 of Sedco Drilling. It was intended, at the time the well was spudded, to drill the well with air to increase the penetration rate and to avoid formation damage. An obvious advantage is that gas flows can be monitored and measured while drilling.

As it happened, excessively deep surface hole was drilled in an attempt to get below the basal Cretaceous unconformity which is a likely source of water. The attempt was unsuccessful, and surface casing was set at 524 metres, above the unconformity. Air drilling was attempted below the surface casing, but had to be abandoned almost immediately (580 metres) because of water entry from the Cretaceous. A KCl mud system was used. Samples were extremely poor, most of the material passing through the screen until about 630 metres.

Drilling proceeded without serious problems to a total depth of 1605 metres. The Sulphur Point was found in samples to be porous and stained with light oil. The Keg River, the Slave Point and the Twin Falls also showed some promise on electric logs if not in samples, so all four zones were tested. Test results are listed elsewhere.

The Sulphur Point test merits some discussion. Because of the report of light oil staining in samples, the flow period was extended to five hours when it was known that the zone was flowing gas, in order to see if any oil might also enter the bore hole. In order to be sure of a good build-up curve, the shut-in period was extended to ten hours. It need not have been, as it happened. No oil was recovered, and pressure build-up on final shut-in was complete, and the same as initial shut-in,

in about forty-five minutes. Flow rate on one-half inch down hole orifice was about 2 1/4 MMcf/d. This indicates a good gas reservoir with fairly good permeability and no discernible draw-down after 5 hours of drainage.

No hydrocarbons were recovered in the other tests. The test of the Twin Falls was a misrun because no packer seat could be obtained.

Casing was set to T.D., and the well is a Sulphur Point gas well. From wellhead measurement, the gas contains 400 ppm H_2S (0.04%), little more than a trace. No market is available at present, so completion will probably be deferred until such time as marketing is imminent.

GEOLOGICAL INFORMATION

Formation Tops	Depth	Elevation
Wabamun	548	+207
Jean Marie	684	+ 71
Ft. Simpson	694	+ 61
Twin Falls	804	- 49
Hay River	944	-189
Beaverhill Lake	1257	-502
Muskwa	1291	-536
Slave Point	1317	-562
Watt Mountain	1368	-613
Bistcho	1374	-619
Sulphur Point	1384	-629
Muskeg	1397	-642
Keg River	1495	-740
Chinchaga	1582	-827
pre-Cambrian	1604	-849

GEOLOGICAL REMARKS

CRETACEOUS

Cretaceous sediments, black to dark gray bentonitic shale appeared in the 325 m. sample. However, well above this depth the drilling water turned gradually into a dark gray mud. This suggests that the black bentonitic shales had been dissolved in the water and did not reach the surface before the bit had reached a depth of 325 m. The samples above this depth comprised coarse sand and fine gravel. After converting from air to water drilling the rubber gasket including the steel flange had slipped from the air rotating head down the drill string causing a restricted flow of drilling fluid and a venturi effect wherever it was fixed on the drill stem. The result of this was probably a larger hole diameter in the unconsolidated sand and gravels of the drift. The locally increased anular velocity probably favoured the dissolution of the soft bentonic shale until the drilling fluid was saturated or the obstruction was below the top of the bentonic shale. When the bit was pulled at 524 m the rubber gasket and the steel flange were firmly locked onto the top drill collar, approximately 115 m. above the bit. Therefore it is possible that the top of the Cretaceous could be as much as 115 m. higher, at 210 m.

The 520 m. sample has some black, white speckled shale with some fish remains (second white specks?).

Surface casings were set at 524 m. After the cement was drilled out, air drilling was resumed. However, soon an increasing flow of water requested the use of soap. Samples had to be caught in a bucket. This sample fluid appeared to be sandy. However the solids could not be separated. They disappeared through the screen while being rinsed.

At 540 m. some buff and slightly glauconitic siltstone and some bright green shale pieces were recovered, and from 550 m. down chunks of bituminous coal were prominent.

DEVONIAN

At 580 m. drilling with air became impossible because of the strength of the water flow. Drilling was continued with a KCl-water solution. The first sample after the switch-over was collected at 850 m., comprising a few pieces of bituminous coal. At 590 m. no solids accumulated on the shaker screen. From 595 - 625 m. sacks were used to collect what appeared to be "sand grains". However, these grains were very fine particles of Devonian limestone. Between 620 and 630 m. the size of the drill cuttings increased considerably and normal sampling could be resumed.

Based on sample evidence, the top of the Devonian is at 595 m.

When the well was logged, it was discovered that the pipe tally was out by 8 m. Since the total depth was 1605 m. and not as recorded by the driller 1613 m., the samples have been rearranged and have been labelled two intervals (10 m.) up. This explains why some formation tops appear in samples slightly above the log tops.

Summary of Directional and Deviation Surveys

Depth m	Deviation °
32	1/4
60	1/4
97	1/4
135	1/4
191	1/4
219	1/4
285	1/4
323	1/2
524	1/2
663	1/2
786	1/4
940	1/4
1101	2
1103	2
1133	1 3/4
1142	1 1/4
1180	1
1542	2 1/4

D.S.T. RECORD

DST #1: 1515 - 1529 Keg River
Times 10, 30, 60, 120
Recovered 1090 m. total fluid consisting of
50 m. mud
115 m. sulphur salt water
925 m. gas cut sulphur water (30,400 ppm)
Mud 12,000 ppm

Pressures HP 16148/15714
SIP 10330/10330
FP 5642/10330

DST #2: 1383 - 1395 Sulphur Point
Times 10, 60, 300, 600
G.T.S. 2 1/2 min. on pre-flow
On V.O. fluid to surface in 2 min.
Fine mist after 4 hours, ppm 25,000
68853 cu.m./day (2.289 MMcf/d)
H2S 400 ppm.
HP 14659/14488
FP 3341/4033 PF 1993
SIP 9531/9531
Rec. 12 m. ammonia water
28 m. sulphurous salt water (26,800 ppm)

DST #3: 1319 - 1348 Slave Point
Times 10, 60, 60, 120
W.A.B. on pre-flow
On V.O. W.A.B. increasing to strong then decreasing to dead in 40 min.
Recovered 30 m. inhibited water,
40 m. drilling mud
100 m. mud-cut salt water (28,600 ppm)
HP 14030/13915
FP 1583/1876 PF 1465
SIP 8218/9246

DST #4: 812 - 835 Twin Falls
Misrun, count not seal packer.

Logs

The following logs were run at T.D.

Dual Laterolog: 1605 to Surface Casing.

Compensated Neutron Formation Density with Gamma Ray and Caliper: 1605 to Surface Casing.

The Dual Laterolog was run instead of the Dual Induction Laterolog because of the use of KCl mud. Unfortunately, the deep penetration curve did not function correctly.

Cores

No cores were taken in this well.

Water Samples

Analyses of water samples from DST's 1 and 3 are attached.

EDMONTON FORT ST. JOHN CALGARY

- 8 -

WATER ANALYSIS

SAMPLE NUMBER: E80-1995-3

OPERATOR NAME: PARAMOUNT RESOURCES LTD.

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62

ELEVATIONS: 755 751.9

FIELD OR AREA: CAMERON

POOL OR ZONE: KEG RIVER

NAME OF SAMPLER:

COMPANY: QUINN TESTERS

TEST TYPE: DST NO: 1

TEST RECOVERY: 1095 M: 50 M DRILLING FLUID, 115 M MUDDY SULPHUROUS WATER
925 M GAS CUT SULPHUROUS WATER.

MULTIPLE RECOVERY: Y N X

SAMPLING POINT: 0.305 M ABOVE SIT

AMT. & TYPE OF CUSHION:

MUD RESISTIVITY: @

Test Interval (metres): 1515 - 1529

Perforations (metres):

TYPE OF PRODUCTION: PUMPING | FLOWING | GAS LIFT | SWAB

PRODUCTION RATES: WATER m^3/d | OIL m^3/d | GAS $10^3 m^3/d$

	SEPARATOR	TREATER	RESERVOIR	SOURCE
GAUGE PRESSURE kPa				
TEMPERATURE °C				

DATE SAMPLED (Y-M-D): 80/03/07 | DATE RECEIVED (Y-M-D): 80/03/14 | DATE REPORTED (Y-M-D): 80/03/28 | ANALYST: A.L. | OTHER INFORMATION:

ION	$m \cdot V^{-1} / g \cdot m^{-3}$	Mass Fraction	$c / mol \cdot m^{-3}$
Na	7 729	0.1811	336.21
K	6 846	0.1604	175.26
Ca	2 721	0.0638	67.89
Mg	340	0.0080	13.98
Ba			
Sr			
Fe	TRACE		

ION	$m \cdot V^{-1} / g \cdot m^{-3}$	Mass Fraction	$c / mol \cdot m^{-3}$
Cl	21 280	0.4986	600.10
Br			
I			
HCO_3	715	0.0168	11.73
SO_4	3 047	0.0713	31.69
CO_3	0	0.0000	0.00
OH	0	0.0000	0.00
H_2S	PRESENT		

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

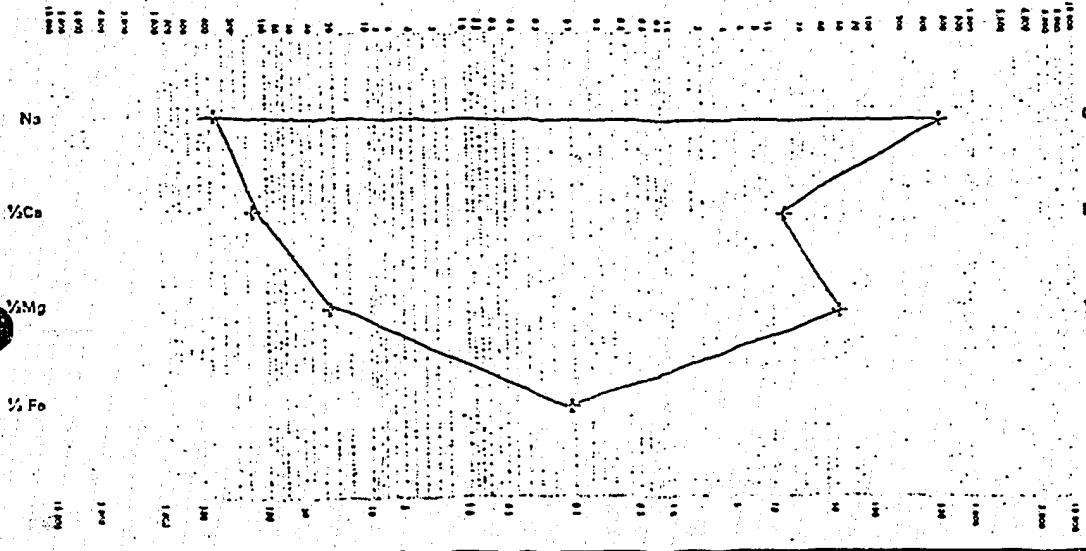
EVAPORATED @ 110°C	EVAPORATED @ 180°C
54 440	
AT IGNITION	CALCULATED
40 070	42 678

ORGANICS: PRESENT

RELATIVE DENSITY	REFRACTIVE INDEX
1.029 @ 25°C	1.3391 @

OBSERVED pH	RESISTIVITY (Ohm-m)
7.6 @ 21°C	0.172 @

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



REMARKS

The sample consis
of muddy salt wat
The analysis
indicates some KC
mud filtrate
contamination.

continued.....

PARAMOUNT RESOURCES LTD LABORATORY REPORT NUMBER: E80-1995

E80-1090-1: Sample taken from 1090 Above Sit

RESTISTIVITY: 0.222 OHM/Meters @ 25°C

Watery mud.

E80-1090-2: Sample taken from 800 Above Sit

RESISTIVITY: 0.103 OHM/Meters @ 25°C

Muddy water. H_2S Present

EDMONTON FORT ST. JOHN CALGARY

GAS ANALYSIS

LABORATORY NUMBER: E80-1996-3

CONTAINER IDENTITY: 6854

LICENCE NUMBER:

OPERATOR NAME: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT H.B. ET AL CAMERON J-62

ELEVATIONS KB / Interest / GPD: 755. / 751.9

FIELD OR AREA: CAMERON

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER:

COMPANY: QUINN TESTERS

TEST TYPE: D.S.T.

NO: 2

TEST PROCEDURE: 40 M: 12 AMMONIA WATER, 28 SULPHEROUS SALT WATER.

MULTIPLE RECOVERY: X

SAMPLING POINT: BUBBLE HOSE

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @ 29 C

Test Interval (metres): 1383 - 1395

Perforations (metres):

TYPE OF PRODUCTION: PUMPING / FLOWING / GAS LIFT / SWAB

PRODUCTION RATES: WATER ... m^3/d OIL ... m^3/d GAS ... $10^3 m^3/d$

	SEPARATOR	TREATER	RESERVOIR	SOURCE	CONTAINER SAMPLED	CONTAINER RECEIVED
GAUGE PRESSURE kPa						
TEMPERATURE °C						

DATE SAMPLED (Y-M-D): 80/03/08

DATE RECEIVED (Y-M-D): 80/03/14

DATE REPORTED (Y-M-D): 80/03/31

ANALYST: J.C.

OTHER INFORMATION:

COMP	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	PETROLEUM LIQUID CONTENT cm^3/m^3
H_2	0.0001	0.0001	
He	0.0002	0.0002	
N_2	0.0226	0.0226	
CO_2	0.0000	0.0000	
H_2S	0.0000	0.0000	
C_1	0.9073	0.9073	
C_2	0.0590	0.0590	
C_3	0.0054	0.0054	19.8
IC_4	0.0009	0.0009	3.9
NC_4	0.0021	0.0021	8.9
IC_5	0.0007	0.0007	3.4
NC_5	0.0007	0.0007	3.4
C_6	0.0008	0.0008	4.4
C_7	0.0002	0.0002	1.1
C_8	TRACE	TRACE	0.2
C_9	0.0000	0.0000	0.0
C_{10+}	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	45.1

GROSS HEATING VALUE MJ/m^3 15 C AND 101.325 kPa

MOISTURE AND ACID GAS FREE MEASURED	MOISTURE AND ACID GAS FREE CALCULATED	DETERMINED DEW POINT °C	VAPOUR PRESSURE PENTANES PLUS kPa
	39.35		88

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED MEASURED	MOISTURE FREE AS SAMPLED CALCULATED	MOISTURE AND ACID GAS FREE MEASURED	MOISTURE AND ACID GAS FREE CALCULATED
INSUFFICIENT	0.608		0.608

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED P_{pc} (abs) kPa	AS SAMPLED T_{pc} K	ACID GAS FREE P_{pc} (abs) kPa	ACID GAS FREE T_{pc} K
4618	198.7	4618	198.7

H_2S cm^3/m^3: 0.00

RELATIVE MOLECULAR MASS: Total Gas 17.6 C_{7+} 100.2

C6+ ML/MOL 0.135

GROSS HEATING VALUE AS PER AGA REPORT #5

39.44 MAJ/M3 @ 15C AND 101.325 KPA

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON FORT ST. JOHN CALGARY

WATER ANALYSIS

CONTAINER IDENTITY:

LABORATORY NUMBER: E80-1996-1

LICENCE NUMBER:

OPERATOR NAME: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT H.B. ET AL CAMERON J-62

ELEVATIONS K.B. 755. GRD. 751.

FIELD OR AREA: CAMERON

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER:

COMPANY: QUINN TESTERS

TEST TYPE: D.S.T. NO.: 2

TEST RECOVERY: 40 M: 12 AMMONIA WATER, 28 SULPHUROUS SALT WATER.

MULTIPLE RECOVERY: Y X N

SAMPLING POINT: 18 M ABOVE SIT

AMT. & TYPE OF CUSHION:

MUD RESISTIVITY: @

Test Interval (metres): 1383 - 1395

Perforations (metres):

TYPE OF PRODUCTION: PUMPING | FLOWING | GAS LIFT | SWAB

PRODUCTION RATES: WATER m^3/d | OIL m^3/d | GAS $10^3m^3/d$

	SEPARATOR	TREATER	RESERVOIR	SOURCE
GAUGE PRESSURE kPa				
TEMPERATURE °C				

DATE SAMPLED (Y-M-D): 80/03/08

DATE RECEIVED (Y-M-D): 80/03/14

DATE REPORTED (Y-M-D): 80/03/31

ANALYST: J.C.

OTHER INFORMATION:

ION	$\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$	Mass Fraction	$\frac{c}{mol \cdot m^{-3}}$
Na	10 943	0.2934	476.02
K	175	0.0047	4.48
Ca	2 092	0.0561	52.20
Mg	492	0.0132	20.22
Ba			
Sr			
Fe	TRACE		

ION	$\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$	Mass Fraction	$\frac{c}{mol \cdot m^{-3}}$
Cl	18 660	0.5004	526.21
Br			
I			
HCO_3	776	0.0208	12.73
SO_4	4 154	0.1114	43.20
CO_3	0	0.0000	0.00
OH	0	0.0000	0.00
H_2S	NIL		

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

EVAPORATED @ 110°C	EVAPORATED @ 180°C
42 010	
AT IGNITION	CALCULATED
36 850	37 292

ORGANICS: PRESENT

RELATIVE DENSITY	REFRACTIVE INDEX
1.026 @ 25°C	1.3391 @ 25°

OBSERVED pH	RESISTIVITY (Ohm-m)
7.4 @ 21°C	0.244 @ 25°

REMARKS

The sample consisted of murky salt water.

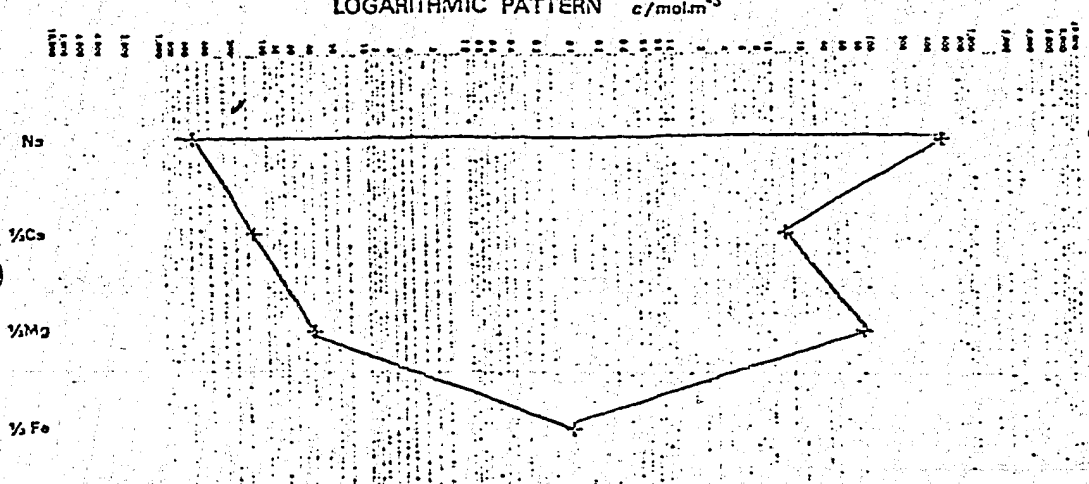
E80-1996-2:

SAMPLED FROM 0.305 ABOVE SIT.

RESISTIVITY: 0.903 Ohm/meters @ 25°C

BLACK MURKY WATER. H_2S PRESENT. AMMONIA PRESE

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



CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON FORT ST. JOHN CALGARY

- 10 -

WATER ANALYSIS

LABORATORY NO. E80-1997-2

CONTAINER IDENTITY

LICENCE NUMBER

OPERATOR NAME: PARAMOUNT RESOURCES LTD

CPA NUMBER

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62

ELEVATIONS (metres) KB: 755 GRD: 751

FIELD OR AREA: CAMERON

POOL OR ZONE: SLAVE POINT

NAME OF SAMPLER

COMPANY: QUINN TESTERS

TEST TYPE: DST NO.: 3

TEST RECOVERY: 170 M: 30 M INHIBITOR WATER, 40 M DRILLING MUD
100 M MUD CUT SALT WATER

MULTIPLE RECOVERY: Y X N

SAMPLING POINT: 90 M ABOVE SIT

AMT. & TYPE OF CUSHION

MUD RESISTIVITY @

Test Interval (metres): 1319 - 1348

Perforations (metres)

TYPE OF PRODUCTION: PUMPING | FLOWING | GAS LIFT | SWAB

PRODUCTION RATES: WATER m^3/d | OIL m^3/d | GAS $10^3m^3/d$

		SEPARATOR	TREATER	RESERVOIR	SOURCE
GAUGE PRESSURE	kPa				
TEMPERATURE	°C				

DATE SAMPLED (Y-M-D): 80/03/09

DATE RECEIVED (Y-M-D): 80/03/14

DATE REPORTED (Y-M-D): 80/03/28

ANALYST: A.L.

OTHER INFORMATION

ION	$\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$	Mass Fraction	$\frac{c}{mol \cdot m^{-3}}$	ION	$\frac{m \cdot V^{-1}}{g \cdot m^{-3}}$	Mass Fraction	$\frac{c}{mol \cdot m^{-3}}$
Na	1 641	0.0516	71.37	Cl	13 600	0.4276	383.52
K	12 390	0.3896	317.18	Br			
Ca	1 074	0.0338	26.80	I			
Mg	23	0.0007	0.95	HCO_3	793	0.0249	13.01
Ba				SO_4	2 284	0.0718	23.76
Sr				CO_3	0	0.0000	0.00
Fe	NIL			OH	0	0.0000	0.00
				H_2S	NIL		

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

EVAPORATED @ 110°C	EVAPORATED @ 180°C
33 690	
AT IGNITION	CALCULATED
30 650	31 805

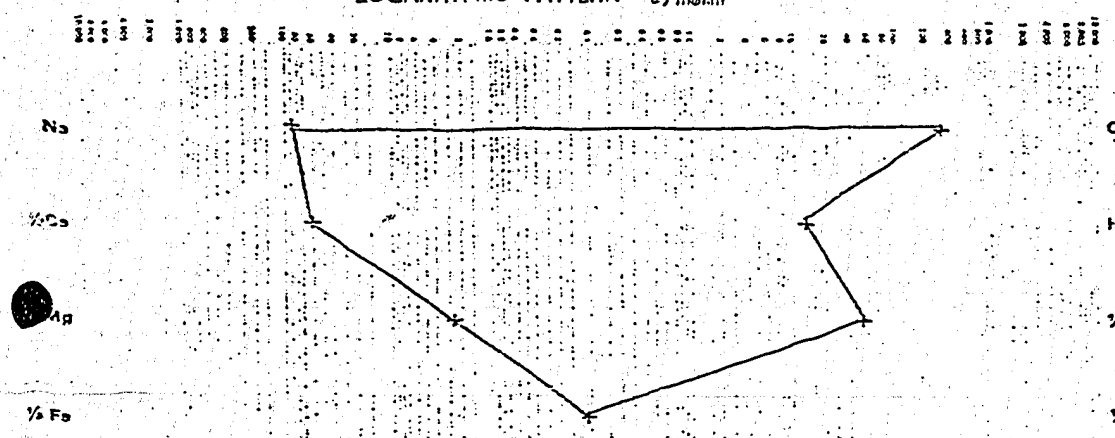
ORGANICS: MUCH

RELATIVE DENSITY	REFRACTIVE INDEX
1.022 @ 27°C	1.3377 @ 27°C

OBSERVED pH	RESISTIVITY (Ohm-m)
7.5 @ 21°C	0.243 @ 27°C

REMARKS

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



The analysis was determined on water extracted from mud and is characteristic of a KCl mud filtrate water.

continued....

PARAMOUNT RESOURCES LTD

LABORATORY REPORT NUMBER: E80-1997

E80-1997-1: Sample taken from Top of Fluid

RESISTIVITY OF THE FILTRATE: 0.712 OHM/ Meters @ 25°C

Mud Sample.

E80-1997-3: Sample taken from 0.305 M

RESISTIVITY: 14.02 OHM/Meters @ 25°C

Murky fresh water.

DAILY DRILLING REPORTS

Paramount Resources Ltd.

Information For Daily Report

DAY 34

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: March 12, 1980 Time received: 8 AM

Depth: 1605 M; Status: SHUT IN GAS WELL

Spud in: _____ hours; Rig release: March 11/80 at 1400 hours

Mud: Wt._____; Vis._____; W.L._____; F.C._____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts._____;

Total_____; Landed at_____M; Cement_____

Plus_____; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Tear out rig and WOC 6 hours.

Moving to B-13

Paramount Resources Ltd.

Information For Daily Report

DAY 33

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: March 11, 1980 Time received: 8 AM

Depth: 1605 M; Status: WAITING ON CEMENT

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____M

Casing: Size 140mm ; Wt. 23.1kg/m ; Grade J-55 ; No. Jts. 134 ;
39.6 tonnes
Total 1608.62 ; Landed at 1605 M; Cement 1:1:2
March 11/80
Plus 4% KCl ; Plug down at 7:30 hours
no returns

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Thaw out stand-pipe 1/2, trip 1, clean to bottom 1½, circulate 2 3/4, lay down drill pipe and collars 5, rig to case and case 8, lay down bad joint 1/2, circulate casing, condition mud 2 3/4, cement 2 1/4, float did not hold on casing. Casing pressure to 4000 kPa and would not pressure any more - float would not hold.

Paramount Resources Ltd.

Information For Daily Report
DAY 32

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: March 10, 1980 Time received: 8 AM

Depth: 1605 M; Status: THAWING STAND-PIPE

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: DST #4 - 812-835 TWIN FALLS

Misrun, no packer seat.

DST #3 - 1319-1348 SLAVE POINT

HP 14030/13915

FP 1583/1876 P/F 1465

SIP 8218/9246.

Recovered 30 m inhibited water, 40 m drilling mud,

100 m mud cut salt water (28,600 ppm)

Preparing to run casing.

Time breakdown: Test 3, thaw stand-pipe 3, handle tool 6, trip 12 hrs.

Paramount Resources Ltd.

Information For Daily Report

DAY 31

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: March 9, 1980 Time received: 8 AM

Depth: 1605 M; Status: TESTING - DTS #3

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis._____; W.L._____; F.C._____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts._____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____ hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: DST #2 Sulphur Point - Recovered 12 m ammonia water

28 m sulf. salt water 26,800 ppm

HP 14659/14488

FP 3341/4033 P/F 1993

SI 9531/9531

DST #3 SLAVE POINT 1319-1348 10/60/60/120

Weak air blow on preflow increasing to good on pre-flow.

On Valve Open - weak air blow increasing to strong,

decreasing to dead after 40 minutes.

Time breakdown: Testing 6½, handle tools 5 3/4, rig repair 3/4,

trip 4½, wait on safety hand 6, safety meeting 1.

Paramount Resources Ltd.

Information For Daily Report
DAY 30

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: March 8, 1980 Time received: 8 AM

Depth: 1605 M; Status: TESTING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis._____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: DST #2 - 1383-1395 SULPHUR POINT 10/60/300/600

Gas to surface 2½ minutes. Fluid after 2 minutes

on Valve Open. Fine mist after 4 hours. PPM 25,000.

1/2-inch orifice test after 275 minutes 64,853 cu. m./day (2.289 MMcf/d)

H_2S 400 ppm on sniffer.

Trip 5 hrs., recover charts and tool 3½, test 14, rig repairs 1½.

DST #1 - KEG RIVER 1515-1529 10/30/60/120

HP 16148/15714

SIP 10330/10330

FP 5642/10330

Recovery 1090 m total fluid (50 m mud, 115 m sulf. water,

925 gas cut sulf. water 30,400 ppm (very little gas)

mud 12,000 ppm)

Paramount Resources Ltd.

Information For Daily Report

DAY 29

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 7, 1980 Time received: 8 AM

Depth: 1605 T.D. M; Status: HOISTING DST #1

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis._____; W.L._____; F.C._____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts._____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: DST #1 515-529 Keg River 10/30/60/120

Recovered 7 m mud, 225 m salt water

Logging 3½, wait on orders 5½, lay down jars 1/2, make up tool 2½, run in with tool 3, test 4.5, hoist test 3½, reverse circulate 1½.

Costs: Mud $200, logging $2,209

Paramount Resources Ltd.

Information For Daily Reports
DAY 28

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 6, 1980 Time received: 8 AM

Depth: Corrected 1605 T.D. M; Status: LOGGING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1090 ; Vis. 52 ; W.L. 10.2 ; F.C. 1.6 ; pH 10

Deviation: ____deg.at____M; ____deg.at____M; ____deg.at____M

Casing: Size____; Wt.____; Grade____; No. Jts. ____;

Total____; Landed at____M; Cement____

Plus____ ; Plug down ____hours

Logs: Type DILL ; Interval 525-1605 ; Scale 1:240 & 1:600

CNLD ; 525-1605 ; 1:240 & 1:600

Remarks: Drill 7 3/4, rig service 1/4, circulate sample 1, trip 6, circulate 1½, rig up 2, log 7 1/2.

Bit #5 J-44 166m 92¼ hrs. 6:6:1 out at 1605

Paramount Resources Ltd.

Information For Daily Report

DAY 27

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 5, 1980 Time received: 8 AM

Depth: 1607 M; Status: Progress 33 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1080 ; Vis. 40 ; W.L. 9 ; F.C. 1.6 ; pH 11

Deviation: ____deg.at____M; ____deg.at____M; ____deg.at____M

Casing: Size____; Wt.____; Grade____; No. Jts. ____;

Total____; Landed at____M; Cement____

Plus____ ; Plug down ____hours

Logs: Type____; Interval____; Scale____

____; ____; ____

Remarks: Drill 22 3/4, rig service 1/2, clean screen on pump 1/4,

dump and clean tank 1/2

Bit J44 89.5 160 m running

Paramount Resources Ltd.

Information For Daily Report

DAY 26

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 4, 1980 Time received: 8 AM

Depth: 1574 M; Status: Progress 49 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1090 ; Vis. 40 ; W.L. 9.5 ; F.C. 1.6 ; pH 11

Deviation: 2¼ deg.at 1542 M; _____ deg.at _____ M; _____ deg.at _____ M

Casing: Size _____; Wt. _____; Grade _____; No. Jts. _____;

Total _____; Landed at _____ M; Cement _____

Plus _____ ; Plug down _____ hours

Logs: Type _____; Interval _____; Scale _____

_____; _____; _____

Remarks: Bit J44 66 3/4 hrs., 127 m drilling

Drilling 22½, rig service 3/4, survey 1/4, check circulation 1/2

1520-1545 Vuggy dolomite, no shows, fair porosity,

1545 Dolomite, more dense, some shale, some streaks anhydrite.

Paramount Resources Ltd.

Information For Daily Report

DAY 25

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 3, 1980 Time received: 8 AM

Depth: 1525 M; Status: Progress 40 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1090 ; Vis. 43 ; W.L. 13 ; F.C. 2.0 ; pH 8

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Drilling 23 1/4, rig service 3/4.

J-54 78 m 44½ hrs. running

Probable KEG RIVER 1520

Paramount Resources Ltd.

Information For Daily Report
DAY 24

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 2, 1980 Time received: 8 AM

Depth: 1485 M; Status: Progress 38 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1120 ; Vis. 45 ; W.L. 16 ; F.C. 16mm ; pH 8.5

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/2, finish trip 1/4, ream 5 singles to bottom 2, clean pump screen and work on pump motor 1/2, drilling 20 3/4. -33° C Clear

Paramount Resources Ltd.

Information For Daily Report
DAY 23

Well Name: PARA HB et al CAMERON J-62 KB 755

Date: March 1, 1980 Time received: 8 AM

Depth: 1447 M; Status: Progress 9 RUNNING IN HOLE

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1140 ; Vis. 65 ; W.L. 16 ; F.C. _____; pH 9

Deviation: ____deg.at_____M; ____deg.at_____M; ____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Tight hole at Muskeg level and at Sulphur Point

Drilling in mostly anhydrite

Rig service 1/2, drilling 4½, survey 1/4, work on air systems 2½

work tight hole 1½, circulate and condition mud 4, pump out

5 singles and trip 9½, set up brakes on draw works 1½

Paramount Resources Ltd.

Information For Daily Report
Day 22

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: February 29, 1980 Time received: 8 AM

Depth: 1438 M; Status: Progress 69 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1140 ; Vis. 35 ; W.L. 19 ; F.C. _____ ; pH 9

Deviation: ____deg.at_____M; ____deg.at_____M; ____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 3/4, drilling 23 1/4 hours.

WATT MOUNTAIN	1375
BISTCHO	1385 ?
SULPHUR POINT	1400
MUSKEG	1415

Slave Point - Limestone, fragmental or pelletoidal, some vuggy porosity, light oil stain.

Sulphur Point - Dolomite, poor to fair intercrystalline porosity, good light oil stain.

Paramount Resources Ltd.

Information For Daily Report
Day 21

Well Name: PARAMOUNT HB et al CAMERON J-62 KB 755

Date: February 28, 1980 Time received: 8 AM

Depth: 1369 M; Status: Progress 78 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____: Scale_____

_____; _____; _____

Remarks: -13° C, clear

Rig service 3/4, survey 1/4, blow out drill 1/2, drilling 22½ hrs.

FORMATION TOPS

MUSKWA 1305 (-550)

SLAVE POINT 1330 (-575)

Paramount Resources Ltd.

Information For Daily Report

DAY 20

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 27, 1980 Time received: 8 AM

Depth: 1291 M; Status: Progress 43 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 35 ; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/4, drilling 10 3/4, trip to casing 2¼, repair pump clutch 10¼, rig circulation and clean to bottom 1/2, -8°C cloudy

Paramount Resources Ltd.

Information For Daily Report
DAY 19

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 26, 1980 Time received: 8 AM

Depth: 1248 M; Status: Progress 77 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 35 ; W.L. _____; F.C. _____; pH_____

Deviation: 1 deg.at 1180 M; _____deg.at_____M; _____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 3/4, lay down drill collars 1/2, drill 22½,
survey 1/4

Still drilling in grey shale, slightly calcareous.

Paramount Resources Ltd.

Information For Daily Report

DAY 18

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 25, 1980 Time received: 8 AM

Depth: 1171 M; Status: Progress 46 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 36 ; W.L. _____; F.C. _____; pH_____

Deviation: 1 3/4deg.at 1133 M; 1½ deg.at1142 M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 3/4, surveys 3/4, drilling 18 3/4, trip 3,

change bits 1/2, break circulation 1/4.

Drilling in grey shale

Medic Unit is on site.

Paramount Resources Ltd.

Information For Daily Report

DAY 17

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 24, 1980 Time received: 8 AM

Depth: 1125 M; Status: Progress 33 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1110 ; Vis. 34 ; W.L. _____; F.C. _____; pH _____

Deviation: 2 deg.at 1101 M; 2 deg.at 1103 M; _____deg.at _____ M

Casing: Size _____; Wt. _____; Grade _____; No. Jts. _____;

Total _____; Landed at _____M; Cement _____

Plus _____ ; Plug down _____hours

Logs: Type _____; Interval _____; Scale _____

_____; _____; _____

Remarks: Rig service 1/2, drill 14 3/4, survey 1, trip 6½, washed out drill collars 5, rig circulation and clean to bottom 1/4, cut and slip line 1.

Drilling in grey shale.

Paramount Resources Ltd.

Information For Daily Report
DAY 16

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 23, 1980 Time received: 8 AM

Depth: 1092 M; Status: Progress 93 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1110; Vis. 35; W.L. _____; F.C. _____; pH _____

Deviation: _____ deg. at _____ M; _____ deg. at _____ M; _____ deg. at _____ M

Casing: Size _____; Wt. _____; Grade _____; No. Jts. _____;

Total _____; Landed at _____ M; Cement _____

Plus _____; Plug down _____ hours

Logs: Type _____; Interval _____; Scale _____

_____; _____; _____

Remarks: Rig service 3/4, change packing on pump 1/4, drill 23

Grey-green shale, few limestone stringers.

Paramount Resources Ltd.

Information For Daily Report

DAY 15

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 22, 1980 Time received: 8 AM

Depth: 999 M; Status: Progress 97 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1030 ; Vis. _____; W.L. _____; F.C. _____; pH _____

Deviation: 1/4 deg.at 940 M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 3/4, survey 1/4, drill 23 hours.

Top of Hay River Shale 935 m

No good definition of tops in interbedded shales and limestones above that point. Picks will have be to made later from logs.

Paramount Resources Ltd.

Information For Daily Report

DAY 14

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 21, 1980 Time received: 8 AM

Depth: 902 M; Status: Progress 30 m DRILLING IN LIMESTONE

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1190 ; Vis. 48 ; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/2, drilling 9, wait on pump 5¼, clean suction tank 1/2, tripping 6¼, work on draw works 1/2, thaw out kelly hose, circulate and clean to bottom 3/4, break circulation 10 stands off bottom 1/4 hr.

Paramount Resources Ltd.

Information For Daily Report

DAY 13

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 20, 1980 Time received: 8 AM

Depth: 872 M; Status: Progress 114 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. 40 ; W.L. _____; F.C._____; pH_____

Deviation: 1/4 deg.at 786 M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 3/4, survey 1/4, clean the suction screen on pump 1/4, drill 22 3/4.

5 m/hr.

Bit - 347 m 58 hrs. 5.9 m/hr.

Interbedded shales and limestones

Paramount Resources Ltd.

Information For Daily Report

DAY 12

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 19, 1980 Time received: 8 AM

Depth: 758 M; Status: Progress 130 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. 43 ; W.L. _____; F.C. _____; pH_____

Deviation: 1/2 deg.at 663 M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Drilling 20, trip 1¼, rig service 3/4, survey 1/4, clean to bottom 1/4, change over to mud system at 740 m.

Paramount Resources Ltd.

Information For Daily Report

DAY 11

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 18, 1980 Time received: 8 AM

Depth: 628 M; Status: Progress 48 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. H_2O; Vis. _____; W.L. _____; F.C. _____; pH _____

Deviation: _____ deg. at _____ M; _____ deg. at _____ M; _____ deg. at _____ M

Casing: Size _____; Wt. _____; Grade _____; No. Jts. _____;

Total _____, Landed at _____ M; Cement _____

Plus _____; Plug down _____ hours

Logs: Type _____; Interval _____; Scale _____

_____; _____; _____

Remarks: Rig up flow line 4½, pick up collars 3½, work on pump 2, thaw mud line 1, fill hole 1, lay down drill pipe 1½, clean to bottom 1, drill 9½, rig service 1/4,

Bit No. 1 F2 104 m 15¼ running

Paramount Resources Ltd.

Information For Daily Report
DAY 10

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 17, 1980 Time received: 8 AM

Depth: 580 M; Status: Progress 55 m RIGGING UP FLOW LINE

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis._____; W.L._____; F.C._____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts._____;

Total_____; Landed at _____M; Cement_____

Plus_____; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/2, drill out 2 3/4, drill 5 3/4, leak-off test 1/4 trip 3, dry hole with air 8 3/4, unload mud 3/4, tear out head and blouie line 2¼.

Paramount Resources Ltd.

Information For Daily Report

DAY 9

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 16, 1980 Time received: 8 AM

Depth: 525 m ~~feet~~; Status: Drilling out cement

Spud in: _____ o'clock; Rig release: _____ o'clock

Mud: Wt. _____; Vis. _____; W.L. _____; F.C. _____; pH _____

Deviation: ____deg.at____ft.; ____deg.at____ft.; ____deg.at____ft.

Casing: Size _____; Wt. _____; Grade _____; No. Jts. _____;

Total _____; Landed at _____ feet; Cement _____ sacks

Plus _____; Plug Down _____ o'clock

Logs: Type _____; Interval _____; Scale _____

_____; _____; _____

Cores: No. _____; Interval from _____ to _____

_____ _____ _____

D. S. T. No. _____ Interval from _____ to _____; Formation _____

Preflow _____ min.; ISI _____ min.; IF _____ min.; FSI _____ min.

Pressures: IHP _____ psi.; ISIP _____ psi.; IFP _____ psi.

FHP _____ psi.; FSIP _____ psi.; FFP _____ psi.

Recovery: Gas to surface _____ minutes at _____ Max. Flow Rate

Oil _____ feet; Mud _____ feet; Water _____ feet;

Gas cut mud _____ feet; Oil cut mud _____ feet;

Gas and oil cut mud _____ feet.

Remarks: Tripping 4½, rig service 1/4, levelling base 2½, installing

Weather, roads, etc. rotating rubber 1/2, nipple up 7, pressure test 5, thaw

kelly 1¼, pick up drill pipe 3/4, lay down collars 1

Remarks: pick up shock sub and jars 1¼ hrs.

Paramount Resources Ltd.

Information For Daily Report

DAY 8

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 15, 1980 Time received: 8 AM

Depth: 524 M; Status: NIPPLE UP

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: WOC 9, cut casing and weld on bowl 6½, head up 8½

Paramount Resources Ltd.

Information For Daily Report

DAY 7

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 14, 1980 Time received: 8 AM

Depth: 524 M; Status: WOC

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____M

Casing: Size 244 ; Wt. 48.1 ; Grade J-55 ; No. Jts. 44 ;

Total 525.46 ; Landed at 524.97 M; Cement 10.60 tonnes

Plus 3% $CaCl_2$; Plug down Feb. 13/80 at 1530 hours

no returns

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Cemented annulus with 60 sacks Oilwell + 3% $CaCl_2$. Returns this A.M.

Running casing 1¼, WOC 6 3/4, wait on wireline 7 3/4, Temperature

Log 4.

Paramount Resources Ltd.

Information For Daily Report

DAY 6

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 13, 1980 Time received: 8 AM

Depth: 524 M; Status: Progress 39 m RUNNING CASING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 100 ; W.L. _____; F.C. _____; pH _____

Deviation: 1/2 deg.at 524 M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Drilling 4 3/4, tripping 6, circulate 1 3/4, mix mud 2,

circulate samples 2, run casing 7.

Bit #3 OSC3 187 m 20 hrs. 5:1:in

Paramount Resources Ltd.

Information For Daily Report
DAY 5

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 12, 1980 Time received: 8 AM

Depth: 485 M; Status: Progress 149 DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 60 ; W.L. _____; F.C. _____; pH_____

Deviation: ____deg.at_____M; ____deg.at_____M; ____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/2, drill 15½, survey 1½, weld on conductor 2,
clean to bottom 1/2, trip 4 1/4.
Bit #3 OSC3 149 m 15½ hrs. running

Paramount Resources Ltd.

Information For Daily Report
Day 4

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 11, 1980 Time received: 8 AM

Depth: 336 M; Status: Progress 130 m RIG UP FLOW LINE

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 70 ; W.L. _____; F.C. _____; pH_____

Deviation: 1/4 deg.at 285 M; 1/2 deg.at 323 M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Drill 11½, trip 3¼, rig service 1/2, surveys 3/4, tear out air head 2½, change air rubbers 2½, wait on conductor pipe 3,

Bit #2 XDV 200 27 hrs. 6-1-1

Paramount Resources Ltd.

Information For Daily Report
DAY 3

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 10, 1980 Time received: 8 AM

Depth: 206 M; Status: Progress 91 m DRILLING

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: 1/4 deg.at 135 M; 1/4 deg.at 191 M; 1/4 deg.at 219 M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Work on pump 4, rig up mud line 1 3/4, drill 15 3/4,
survey 1¼, work on rig compressor 3/4, rig service 1/2
Bit #2 XCZ 150 m 15½ hrs. running

Paramount Resources Ltd.

Information For Daily Report

DAY 2

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 9, 1980 Time received: 8 AM

Depth: 115 M; Status: Progress 18 m WORK ON PUMP

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt. 1100 ; Vis. 75 ; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____ M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig service 1/4, drilling 4, displace to mud 2½, change rubbers 3/4, condition mud 2½, trip 2½, work on pump 11 3/4

Bit #1 XCZ 106 m 50¼ hrs. 4-1-in

Paramount Resources Ltd.

Information For Daily Report

DAY 1

Well Name: PARAMOUNT HB et al CAMERON J-62

Date: February 8, 1980 Time received: 8 AM

Depth: 97 M; Status: Progress 97 DRILLING

Spud in: Feb. 7/80 @ 1700 hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: 1/4 deg.at 32 M; 1/4 deg.at 60 M; 1/4 deg.at 97 M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____ ; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Wait on head 4, rig up head 4, rig up blouey line 1, drill 12 3/4 tighten bushings 3/4, tighten air head equipment 1½, surveys 3/4, rig service 1/4,

Paramount Resources Ltd.

Information For Daily Report

Well Name: PARAMOUNT HS et al CAMERON J-62

Date: February 7, 1980 Time received: 8 AM

Depth: _____ M; Status: WORK ON ROTATING HEAD

Spud in: _____ hours; Rig release: _____ hours

Mud: Wt._____; Vis. _____; W.L. _____; F.C. _____; pH_____

Deviation: _____deg.at_____M; _____deg.at_____M; _____deg.at_____M

Casing: Size_____; Wt._____; Grade_____; No. Jts. _____;

Total_____; Landed at_____M; Cement_____

Plus_____; Plug down _____hours

Logs: Type_____; Interval_____; Scale_____

_____; _____; _____

Remarks: Rig up 9½, work on rotating head 13½, weld on conductor 1.

BEARSPAW LOGGING SERVICES LTD

OPERATOR PARAMOUNT RESOURCES LTD

WELL PARA HB et al CAMERON

STRIP LOG

STATE / PROV N.W.T.
LOCATION Lsd Sec Twp Rge J W 62
Lat
Long
ELEVATION K.B.
DATE SPUDDED 7-2-80
SCALE
TECHNICIANS bill McAulay

MUD LEGEND

W WEIGHT IN kg/m³
V VISCOSITY
WL WATER LOSS IN cc
FC FILTER CAKE
PH ALKALINITY
Rm MUD RESISTIVITY IN Ω-m
Rmf FILTRATE RESISTIVITY IN Ω-m

DRILLING LEGEND

NB NEW BIT
RBS REAMER
DB DRAWWORKS
DCB DRAWING
TB TUBE
DS DRILLSTEM
AVG AVERAGE
RPM ROTATION
PP PUMP PRESSURE
SPM PUMP STROKES
LC LOST CIRCULATION
TG TRIP GAS
NR NO RETURN

LITHOLOGY LEGEND

ENGINEERING LEGEND

DRILLSTEM TEST NO.
WATER
OIL
GAS

GAS IN UNITS
0 1 3 10 30

DEPTH

DESCRIPTION

0 50 100

28·2·80

NB SC 2
F 9000
RPM 80
SPM 56
PP 7500

AKBU54

DEN 1140
VIS 35
WL 20+
pH 8.5

BEGIN GAS SAMPLE'S AT 1395

FG

1375

1400

29·2·80

DEN 1120
VIS 35
WL 13
pH 9.0

F 9000
RPM 80
SPM 56
PP 7500

MET 305
HRS 95.25
COND 4 6

1·3·80

DEN 1140
VIS 40
WL 15+
pH 7.5

NB 24 HW JJ44

F 10000
RPM 60
SPM 56
PP 7500

1450

2·3·80

DEN 1130
VIS 44
WL 15+
pH 8.5

LINE FROZEN

45705

F 9000
RPM 70
SPM 56
PP 7500

CARBIDE

CARBIDE

1500

3·3·80

DEN 1110
VIS 44
WL 13
pH 8.0

F 9000
RPM 40
SPM 56
PP 7500

LOST CIRC 1528

CARBIDE

DS 2 1/2

CARBIDE

1550

4·3·80

DEN 1140
VIS 38
WL 8.5
pH 11

F 9000
RPM 40
SPM 56
PP 7500

CARBIDE

5·3·80

DEN 1180
VIS 38
WL 9
pH 11

F 9000
RPM 40
SPM 56
PP 7500

1600

CARBIDE

FOR GEOLOGY SEE GEOLOIST'S LOG

Note: Strap error - all depths should be revised upward by 8 metres.

ENGINEER
GEOLOIST KERRY WILSON
DRILLING HERBERT STAGHAUS
SEDCO RIG = 86

DRILLERS' TD 1613
TD MARCH 5, 1980
1604

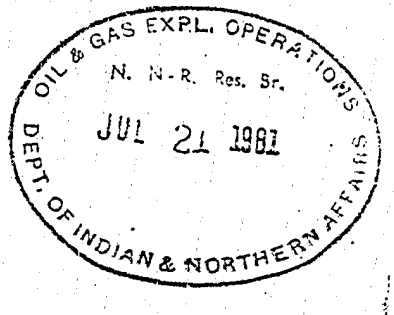
CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

COMPANY	Paramount Resources Ltd.	PAGE	1 of 1
WELL	Paramount HB et al Cameron J-62	FILE	7011-81-77
		DATE	1981 02 16

Sampled From: Separator Gas
Date Sampled: 1981 02 10

Analysis

Hydrogen Sulphide = 0.0068 mole fraction



Remarks

Hydrogen sulphide determined by Tutwiler.

2021 – 41 Avenue N.E.
Calgary, Canada T2E 6P2
(403) 276-9627
Telex 038-25541

CHEMEX
LABS (ALBERTA) LTD.

EDMONTON
6112 Davies Road
Edmonton, Canada T6E 4M9
(403) 465-9977
Telex 037-41596

CONTAINER IDENTITY: 866

GAS ANALYSIS

LABORATORY NUMBER: 9076-4-2543/1

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00, GRD 751.94

FIELD OF AREA: CAMERON ~~EAST~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: S. BARKHOUSE

COMPANY: TESTMASTER

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1354.5 m TO: 1359.0 m KB

TEST RECOVERY:

SAMPLING POINT: METER RUN

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m^3/d OIL TRACE m^3/d GAS 46.6 $10^3m^3/d$

GAUGE PRESSURE · kPa: SEPARATOR ~~130~~ 310 TREATER RESERVOIR

TEMPERATURES °C: SEPARATOR 90 40 TREATER RESERVOIR

DATE SAMPLED Y M D H:M: 1981-02-10

DATE RECEIVED Y M D: 1981-02-19

DATE REPORTED Y M D: 1981-01-19

ANALYST: G. HOWE

COMP	MOL FRACTION AIR FREE AS REC'D	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME mL . m^{-3} AIR FREE AS REC'D
H_2	0.0000	0.0000	
He	0.0008	0.0008	
N_2	0.0445	0.0461	
CO_2	0.0353	0.0000	
H_2S	0.0000	0.0000	
C_1	0.8944	0.9273	
C_2	0.0137	0.0142	
C_3	0.0056	0.0058	20.49
IC_4	0.0009	0.0009	3.91
nC_4	0.0018	0.0019	7.54
IC_5	0.0006	0.0006	2.92
nC_5	0.0007	0.0007	3.37
C_6	0.0008	0.0008	4.30
C_7	0.0009	0.0009	5.41
C_8			
C_9			
C_{10}			
TOTAL	1.0000	1.0000	47.94

GROSS HEATING VALUE
MJ.m^{-3} @ 15°C AND 101.325 kPa
(MOISTURE AND ACID GAS FREE)

MEASURED: CALCULATED: 37.000 DEW POINT: VAPOUR PRESS PENTANES PLUS: 63.000

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED: MEASURED CALCULATED: 0.000

MOISTURE AND ACID GAS FREE: MEASURED: 0.000 CALCULATED

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED: pPc 4673.0 kPa pTc 196.0 °K

ACID GAS FREE: pPc 4573.0 kPa pTc 192.0 °K

REMARKS

ON-SITE H_2S ANALYSIS BY TUTWILER WAS 0.68% @ 1400 K FEB 16 1981

– DETERMINATIONS TO C7+ ONLY

2021 - 41 Avenue N.E.
Calgary, Canada T2E 6P2
(403) 275-3627
Telex 032-25541

CHEMEX
LABS (ALBERTA) LTD.

EDMONTON
5716 Roper Road
Edmonton, Canada T6E 6M9
(403) 465-9877
Telex 037-41596

CONDENSATE ANALYSIS

CONTAINER IDENTITY: PLASTIC BOTTLE

LABORATORY NUMBER: 9076-4-2543/3

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00, GRD 751.94

FIELD OF AREA: CAMERON, LAKE HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1364.5 m TO: 1369.0 m KB

TEST RECOVERY:

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m^3/d OIL TRACE m^3/d GAS 48.6 $10^3m^3/d$

GAUGE PRESSURE - kPa: SEPARATOR 1310 TREATER RESERVOIR

TEMPERATURES °C: SEPARATOR 40 TREATER RESERVOIR

DATE SAMPLED (Y M D H:M): 1981-02-10

DATE RECEIVED (Y M D): 1981-02-19

DATE REPORTED (Y M D): 1981-02-19

ANALYST: G. HOWE

COMP	MOL FRACTION	MASS FRACTION	VOLUME FRACTION
N_2	0.0000	0.0000	0.0000
CO_2	0.0000	0.0000	0.0000
H_2S	0.0000	0.0000	0.0000
C_1	0.0000	0.0000	0.0000
C_2	0.0003	0.0001	0.0001
C_3	0.0017	0.0005	0.0007
iC_4	0.0010	0.0004	0.0005
nC_4	0.0033	0.0012	0.0016
iC_5	0.0051	0.0024	0.0029
nC_5	0.0067	0.0031	0.0037
C_6	0.0267	0.0149	0.0168
C_{7+}	0.9552	0.9774	0.9737
C_8			
C_9			
C_{10}			
C_{11}			
C_{12}			
TOTAL	1.0000	1.0000	1.0000

PROPERTIES OF RESIDUE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY $kg.m^{-3}$ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
0.792		791		158

PROPERTIES OF TOTAL SAMPLE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY $kg.m^{-3}$ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
	0.788	788		155

REMARKS

SAMPLE APPEARS TO CONTAIN GOOD PERCENTAGE DIESEL FUEL

No diesel was used.

Condensate recovery was very low.

DETAILED COMPONENT SUMMARY

PROJECT NO. 9076-4-2543/3
NAME PARAMOUNT RESOURCES
LOCATION PARAMOUNT HB ET AL CAMERON J-62-NWT
SAMPLE POINT SEPARATOR

COMPONENT	BOILING POINT(C)	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
NITROGEN	-196	0.0000	0.0000	0.0000
CARBON DIOXIDE	-79	0.0000	0.0000	0.0000
HYDROGEN SULPHIDE	-60	0.0000	0.0000	0.0000
METHANE	-162	0.0000	0.0000	0.0000
ETHANE	-89	0.0003	0.0001	0.0001
PROPANE	-42	0.0017	0.0005	0.0007
ISO-BUTANE	-12	0.0010	0.0004	0.0005
N-BUTANE	-1	0.0033	0.0012	0.0016
ISO-PENTANE	28	0.0051	0.0024	0.0029
N-PENTANE	36	0.0067	0.0031	0.0037
HEXANES	69	0.0267	0.0149	0.0168
HEPTANES	98	0.0369	0.0241	0.0265
OCTANES	126	0.0595	0.0434	0.0465
NONANES	151	0.0396	0.0323	0.0338
DECANES	174	0.0918	0.0819	0.0844
UNDECANES	196	0.0980	0.0943	0.0958
DODECANES	216	0.1270	0.1315	0.1322
TRIDECANES	236	0.1130	0.1241	0.1234
TETRADECANES	253	0.1174	0.1364	0.1347
PENTADECANES	271	0.0813	0.0993	0.0972
HEXADECANES	287	0.0466	0.0596	0.0580
HEPTADECANES	302	0.0309	0.0422	0.0409
OCTADECANES	317	0.0138	0.0199	0.0191
NONADECANES	331	0.0082	0.0124	0.0119
EICOSANES	344	0.0048	0.0079	0.0076
HENEICOSANES	357	0.0022	0.0037	0.0036
DOCOSANES	369.	0.0024	0.0042	0.0040
TRICOSANES	380	0.0021	0.0037	0.0035
TETRACOSANES	391	0.0013	0.0025	0.0023
PENTACOSANES	402	0.0008	0.0015	0.0014
HEXACOSANES	412	0.0005	0.0010	0.0009
HEPTACOSANES	422	0.0002	0.0005	0.0005
OCTACOSANES	432	0.0001	0.0002	0.0002
NONACOSANES	441	0.0001	0.0001	0.0001
TRIACONTANES+	449	0.0001	0.0001	0.0001
BENZENE	49	0.0005	0.0002	0.0002
TOLUENE	111	0.0083	0.0050	0.0043
XYLENE	139	0.0416	0.0285	0.0246
1,2,4-TRIMETHYLBENZENE	171	0.0062	0.0050	0.0043
CYCLOPENTANE	49	0.0003	0.0001	0.0001
METHYL CYCLOPENTANE	72	0.0034	0.0019	0.0019
CYCLOHEXANE	81	0.0046	0.0025	0.0024
METHYL CYCLOHEXANE	101	0.0117	0.0074	0.0073
TOTALS		1.0000	1.0000	1.0000

CALGARY
2021 - 41 Avenue N E
Calgary, Canada T2E 6P2
(403) 276-0627
Telex 038-25541

CHEMEX LABS (ALBERTA) LTD.

EDMONTON
6112 Davies Road
Edmonton, Canada T6E 4N
(403) 466-9877
Telex 037-41598

OIL ANALYSIS

CONTAINER IDENTITY: PLASTIC BOTTLE

LABORATORY NUMBER: 9076-4-2543/4

LICENCE NO:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS KB: 755.00 METRES GL: 751.94

FIELD OF AREA: CAMERON ~~BAY~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFORATIONS FROM: 1364.5 m TO: 1369.0 m KB

TEST RECOVERY:

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY:

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m³/d OIL TRACE m³/d GAS 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310 TREATER RESERVOIR

TEMPERATURES C: SEPARATOR 40 TREATER RESERVOIR

DATE SAMPLED Y M D HM: 81 02 10

DATE RECEIVED Y M D: 81 02 19

DATE REPORTED Y M D: 81 02 19

ANALYST: G. HOWE

SAMPLE PROPERTIES

VOLUME FRACTION

COLOR OF CLEAN OIL	WATER	BS	TOTAL BS & W
BLACK			

DENSITY

RELATIVE AS RECEIVED	RELATIVE AFTER CLEANING	ABSOLUTE kg m⁻³ AS RECEIVED	ABSOLUTE kg m⁻³ AFTER CLEANING
0.794		793	

TOTAL SULPHUR MASS FRACTION	TOTAL SALT g.m⁻³	POUR POINT °C USBM	POUR POINT °C ASTM
0.002			

RVP	CARBON RESIDUE CONRADSON	CARBON RESIDUE RAMSBOTTOM
1.40		

VISCOSITY

TEMP °C	DYNAMIC mPa s	KINEMATIC mm²·s⁻¹

REMARKS

VOLUME FRACTION DISTILLED	TEMP °C
.05	105
.10	125
.15	140
.20	150
.25	160
.30	170
.35	177
.40	185
.45	192
.50	200
.55	208
.60	215
.65	223
.70	230
.75	238
.80	245
.85	260
.90	282
.92	288
FBP	
CRACKED	

DISTILLATION

METHOD	BAROM PRESS kPa
D-86	92.79

ROOM TEMP °C	INITIAL BOIL PT °C
21	47

DISTILLATION SUMMARY VOLUME FRACTION

204°C NAPTHA	274 C KEROSENE
0.53	0.88

343°C LIGHT GAS/OIL	RECOVERED
0.92	0.92

RESIDUE	DISTILLATION LOSS
0.05	0.03

RELATIVE DENSITY

DISTILLATE	RESIDUE

BASE TYPE

CHARACTERIZATION FACTOR

CALGARY
2021 – 41 Avenue N.E.
Calgary, Canada T2E 6P2
(403) 276-8827
Telex 038-25541

CHEMEX LABS (ALBERTA) LTD.

EDMONTON
6112 Davies Road
Edmonton, Canada T6E 4M9
(403) 485-9877
Telex 037-41696

WATER ANALYSIS

CONTAINER IDENTITY: PLASTIC

LABORATORY NUMBER: 9076-4-2543/2

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT H.B. ET AL CAMERON J-62-N.W.T.

ELEVATIONS METRES: KB 755.00, GRD 751.94

FIELD OF AREA: CAMERON HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BIRKHOUSE

COMPANY: TESTMASTER

TEST RECOVERY:

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m

TO: m

PERFERATIONS FROM: 1364.5 m

TO: 1369.0 m KB

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY @25°C:

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m³/d; OIL TRACE m³/d; GAS 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310; TREATER; RESERVOIR

TEMPERATURES °C: SEPARATOR 40; TREATER; RESERVOIR

DATE SAMPLED (Y M D H:M): 1981-02-10

DATE RECEIVED (Y M D): 1981-02-19

DATE REPORTED (Y M D): 1981-02-20

ANALYST: R.S & G.R

ION	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Na	2300		100
K	2900		74
Ca	520		22
Mg	180		8
Ba			
Sr			
Fe	2		<1

ION	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Cl	7000		197
Br			
I			
HCO_3	1552		25
SO_4	2150		22
CO_3			<1
OH			<1
H_2S	PRESENT		

TOTAL SOLIDS C/g.m⁻³

BY EVAPORATION @ 110° C:

BY EVAPORATION @ 150° C:

AT IGNITION: 15945

CALCULATED: 16604

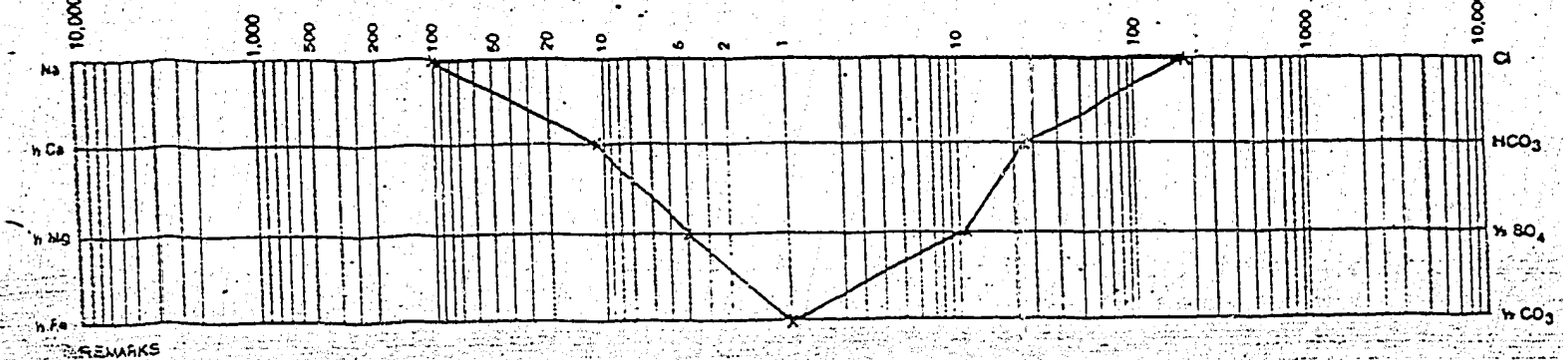
RELATIVE DENSITY: 1.012 @ 21 °C

REFRACTIVE INDEX: 1.340 @ 25 °C

OBSERVED PH: 7.8 @ 21 °C

RESISTIVITY Ω.m: 0.666 @ 25 °C

LOGARITHMIC PATTERN C/mol.m⁻³



REMARKS

949

PARAMOUNT RESOURCES LTD.

PARAMOUNT H.B.

J-62

February 7-16, 1981

ALMECH SUB-SURFACE TOOLS LTD.

OIL & GAS EXPL. OPERATIONS
N. N-R. Res. Br.
JUL 21 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY,ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : GRADIENT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : N/A
RUN DEPTH TOP CF : 1381.7
TEMPERATURE AT RUN DEPTH : 59.6 C
GRAD. AT RUN DEPTH TOP : 2.980
PRES. AT RUN DEPTH TOP. : 9603.3

SHUT-IN TIME : N/A
ON BOTTOM/OFF BOTTOM : 12:01 - 12:06
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9609.2
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CLOCK RANGE : 3 HOURS
CAL. EQUATION : 320.81 * Defl. + 10.17 LATEST CALIBRATION : 19/11/80

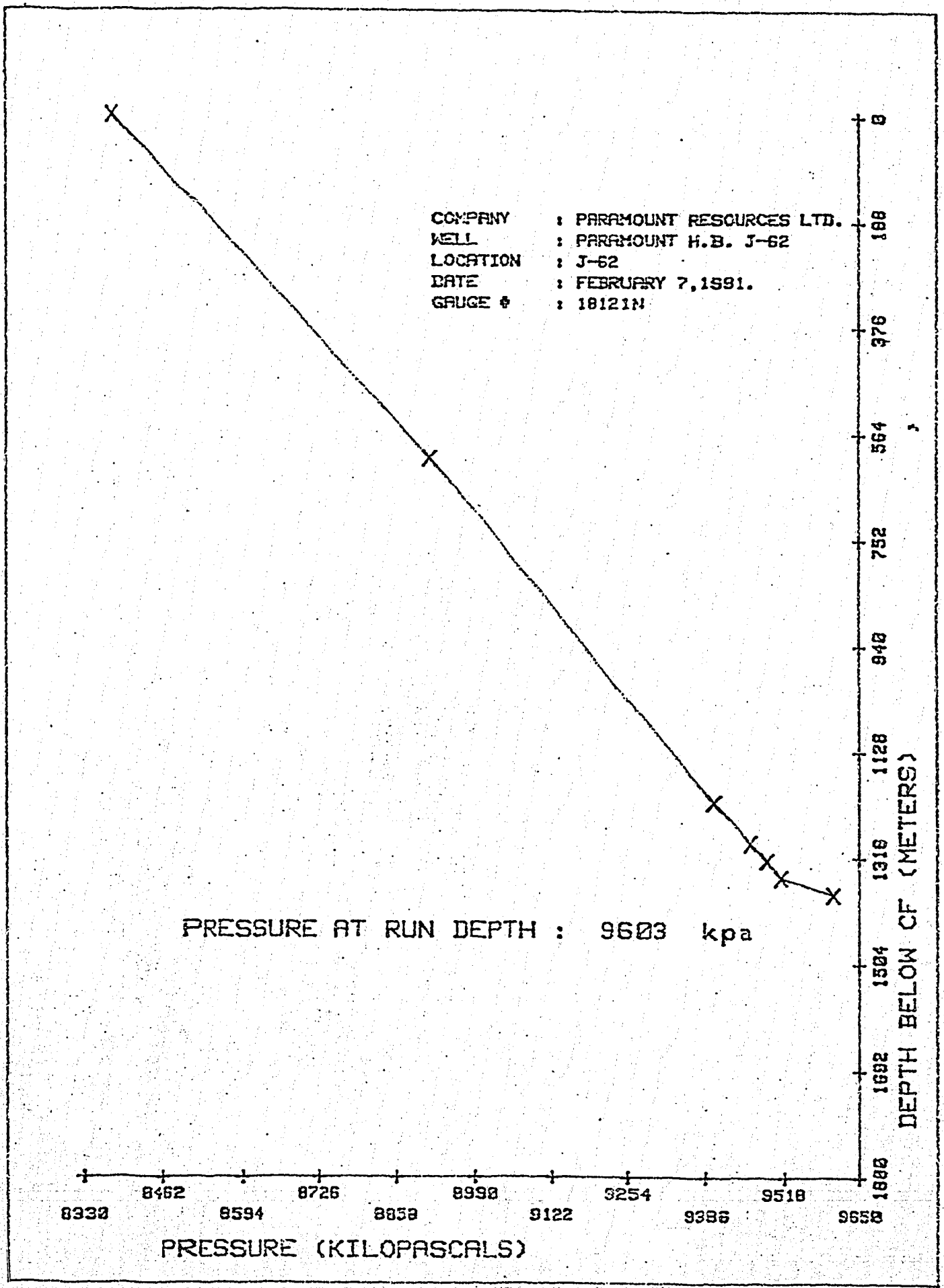
TOP RECORDER DEPTH (m-cf)	DEFLECTION mm	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/m
-1.8	26.085	8378.4	1.0	8379.4	0.000
607.8	27.765	8917.4	-.4	8917.0	.882
1217.4	29.272	9400.8	-1.6	9399.2	.791
1290.2	29.466	9463.1	-1.8	9461.3	.853
1320.7	29.552	9490.7	-1.9	9488.8	.902
1351.2	29.626	9514.4	-1.9	9512.5	.776
1381.7	29.910	9605.5	-2.2	9603.3	2.980

REMARKS :

NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

INTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 7,1991.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9603 kpa
0
188
376
564
752
940
1128
1316
1504
1692
1880
DEPTH BELOW CF (METERS)
8330
8462
8594
8726
8858
8990
9122
9254
9386
9518
9650
PRESSURE (KILOPASCALS)

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY, ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : FOUR POINT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7 - 16,1981
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : 0 KPAG
RUN DEPTH CF : 1368.2
TEMPERATURE AT RUN DEPTH : 55.6 C
PRES. AT RUN DEPTH : 0.0

SHUT-IN TIME : FEB.10 2310h.1981
ON/OFF BOT. : 7/2-1342h - 16/2-1105h
SURFACE TEMP. :
PRES. AT MID-POINT OF PERF. : 29.0
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CAL. EQU. : 320.81 * Defl. + 10.17

CLOCK RANGE : 180 HOURS
LATEST CALIBRATION : 19/11/80

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
Depth : 1368.2 m-cf						
ON BOTTOM	0.00	29.650	9522.1	-1.9	9520.2	9549.2
FEB.7 1342h.	4.00	29.653	9523.1	-1.9	9521.1	9550.1
	8.00	29.653	9523.1	-1.9	9521.1	9550.1
	12.00	29.653	9523.1	-1.9	9521.1	9550.1
	16.00	29.645	9520.5	-1.9	9518.6	9547.6
FEB.8 0900h.	19.30	29.658	9524.7	-1.9	9522.7	9551.7
FLOW RATE #1	0.00	29.658	9524.7	-1.9	9522.7	9551.7
	.25	26.983	8666.5	.2	8666.7	8695.8
	.50	20.805	6684.6	2.8	6687.3	6716.3
	.75	20.722	6657.9	2.8	6660.7	6689.7
	1.00	21.764	6992.2	2.5	6994.7	7023.7
	1.50	22.659	7279.3	2.2	7281.5	7310.6
FEB.8 1100h.	2.00	23.197	7451.9	2.0	7454.0	7483.0
SHUT IN	0.00	23.197	7451.9	2.0	7454.0	7483.0
	.25	28.445	9135.5	-1.0	9134.6	9163.6
	.50	29.052	9330.2	-1.4	9328.8	9357.8
	.75	29.231	9387.7	-1.6	9386.1	9415.1
	1.00	29.286	9405.3	-1.6	9403.7	9432.7
FEB.8 1300h.	2.00	29.317	9415.3	-1.7	9413.6	9442.6
FLOW RATE #2	0.00	29.317	9415.3	-1.7	9413.6	9442.6

REMARKS :

GRADIENT OF 1.878 KPAG/M WAS USED TO EXTRAPOLATE TO MPP.
GRADIENT WAS TAKEN FROM TEST DONE ON FEB.7 1981.
NO TOK CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS(1976)LTD. TEST BY : D.B.

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	.25	18.901	6073.7	3.4	6077.1	6106.1
	.50	18.634	5988.1	3.5	5991.6	6020.6
	.75	19.113	6141.7	3.3	6145.1	6174.1
	1.00	19.717	6335.5	3.1	6338.6	6367.6
	1.50	20.197	6489.5	3.0	6492.5	6521.5
FEB.8 1500h.	2.00	20.062	6446.2	3.0	6449.2	6478.2
SHUT IN	0.00	20.062	6446.2	3.0	6449.2	6478.2
	.25	28.213	9061.1	-.8	9060.3	9089.3
	.50	29.029	9322.9	-1.4	9321.4	9350.5
	1.00	29.213	9381.9	-1.6	9380.3	9409.3
FEB.8 1700h.	2.00	29.269	9399.9	-1.6	9398.2	9427.3
FLOW RATE #3	0.00	29.269	9399.9	-1.6	9398.2	9427.3
	.25	13.641	4386.3	5.4	4391.6	4420.7
	.50	14.212	4569.5	5.1	4574.6	4603.6
	.75	14.221	4572.4	5.1	4577.5	4606.5
	1.00	14.631	4703.9	5.0	4708.9	4737.9
	1.50	14.517	4667.3	5.0	4672.3	4701.4
FEB.8 1900h.	2.00	14.831	4768.1	4.9	4773.0	4802.0
SHUT IN	0.00	14.831	4768.1	4.9	4773.0	4802.0
	.25	24.075	7733.6	1.8	7735.4	7764.4
	.50	28.540	9166.0	-1.0	9165.0	9194.0
	.75	29.283	9404.4	-1.6	9402.7	9431.7
	1.00	29.431	9451.8	-1.8	9450.1	9479.1
FEB.8 2100h.	2.00	29.594	9504.1	-1.9	9502.2	9531.2
FLOW RATE #4	0.00	29.594	9504.1	-1.9	9502.2	9531.2
	.25	11.099	3570.8	5.8	3576.6	3605.6
	.50	12.189	3920.5	5.7	3926.2	3955.2
WELL FREEZING OFF	.75	11.927	3836.4	5.7	3842.1	3871.1
	1.00	11.982	3854.1	5.7	3859.8	3888.8
	1.25	10.287	3310.3	5.8	3316.1	3345.1
	2.00	13.840	4450.1	5.3	4455.4	4484.4
EXTENDED FLOW	3.00	14.040	4514.3	5.2	4519.5	4548.5
	3.50	13.677	4397.8	5.3	4403.2	4432.2
	3.75	13.617	4378.6	5.4	4384.0	4413.0
	4.00	23.918	7683.2	1.8	7685.0	7714.1
	4.50	28.445	9135.5	-1.0	9134.6	9163.6
	5.00	14.408	4632.4	5.1	4637.4	4666.4
	6.00	14.567	4683.4	5.0	4688.4	4717.4
	7.00	14.508	4664.4	5.0	4669.5	4698.5
	8.00	18.997	6104.5	3.4	6107.9	6136.9

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
DATE OF TEST : FEBRUARY 7 - 16,1981
DEPTH : 1368.2

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	9.00	20.034	6437.2	3.0	6440.2	6469.2
	10.00	20.111	6461.9	3.0	6464.9	6493.9
	11.00	20.998	6746.5	2.7	6749.2	6778.2
	12.00	20.416	6559.8	2.9	6562.7	6591.7
	13.00	20.056	6444.3	3.0	6447.3	6476.3
	14.00	20.193	6488.2	3.0	6491.2	6520.2
	14.25	20.193	6488.2	3.0	6491.2	6520.2
	14.50	16.904	5433.1	4.1	5437.2	5466.2
	15.00	14.448	4645.2	5.0	4650.2	4679.3
	16.00	13.697	4404.3	5.3	4409.6	4438.6
	17.00	13.641	4386.3	5.4	4391.6	4420.7
	18.00	13.664	4393.7	5.3	4399.0	4428.0
	19.00	13.462	4328.9	5.4	4334.3	4363.3
	20.00	13.309	4279.8	5.5	4285.3	4314.3
	24.00	13.218	4250.6	5.5	4256.1	4285.1
	28.00	13.132	4223.0	5.5	4228.5	4257.6
	32.00	13.068	4202.5	5.6	4208.0	4237.1
	36.00	13.027	4189.3	5.6	4194.9	4223.9
	40.00	13.107	4215.0	5.5	4220.5	4249.5
	44.00	13.069	4202.8	5.6	4208.4	4237.4
	48.00	12.874	4140.2	5.6	4145.9	4174.9
FEB.10 2310h.	50.17	12.899	4148.3	5 6	4153.9	4182.9
SHUT IN	0.00	12.899	4148.3	5.6	4153.9	4182.9
	.25	22.504	7229.6	2.3	7231.9	7260.9
	.50	26.680	8569.3	.5	8569.8	8598.8
	.75	27.664	8885.0	-.3	8884.7	8913.7
	1.00	27.690	8893.3	-.3	8893.0	8922.0
	1.25	28.464	9141.6	-1.0	9140.6	9169.7
	1.50	28.532	9163.4	-1.0	9162.4	9191.4
	1.75	28.514	9157.7	-1.0	9156.6	9185.7
	2.00	28.399	9120.8	-.9	9119.8	9148.9
	2.50	28.313	9093.2	-.8	9092.3	9121.3
	3.00	28.192	9054.4	-.7	9053.6	9082.6
	4.00	28.228	9065.9	-.8	9065.1	9094.1
	5.00	28.288	9085.2	-.8	9084.3	9113.3
	6.00	28.353	9106.0	-.9	9105.1	9134.1
	8.00	28.500	9153.2	-1.0	9152.2	9181.2
	10.00	28.600	9185.2	-1.1	9184.2	9213.2
	14.00	28.762	9237.2	-1.2	9236.0	9265.0
	18.00	28.865	9270.3	-1.3	9269.0	9298.0

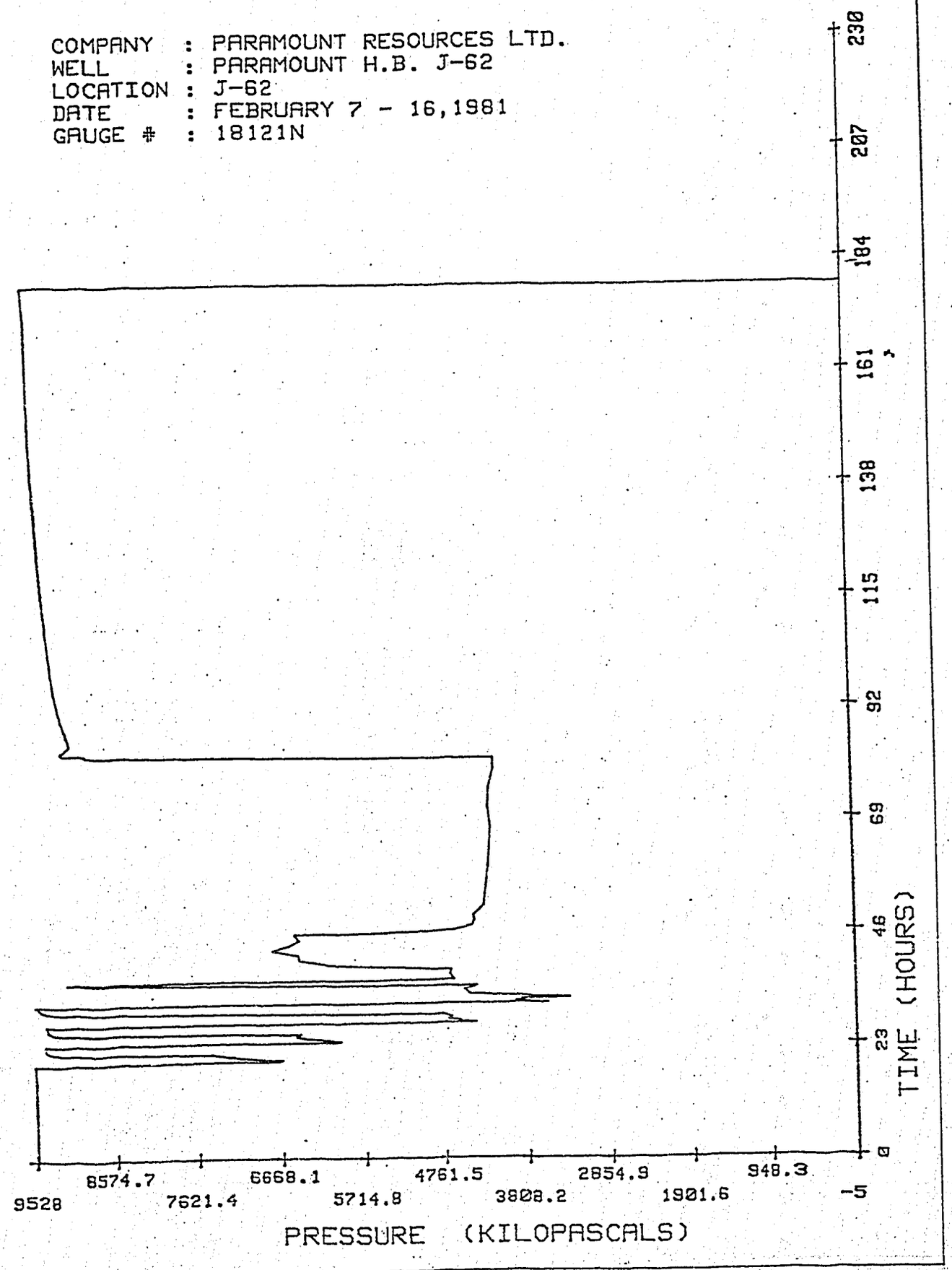
ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	26.00	29.016	9318.7	-1.4	9317.3	9346.3
	34.00	29.140	9358.5	-1.5	9357.0	9386.0
	42.00	29.222	9384.8	-1.6	9383.2	9412.2
	50.00	29.287	9405.6	-1.6	9404.0	9433.0
	58.00	29.361	9429.4	-1.7	9427.7	9456.7
	66.00	29.409	9444.8	-1.7	9443.0	9472.0
	74.00	29.445	9456.3	-1.8	9454.6	9483.6
	82.00	29.460	9461.1	-1.8	9459.4	9488.4
	90.00	29.485	9469.2	-1.8	9467.4	9496.4
	97.00	29.565	9494.8	-1.9	9493.0	9522.0
CLOCK EXPIRED	0.00	0.000	10.2	-10.2	0.0	29.0
OFF BOTTOM	0.00	0.000	10.2	-10.2	0.0	29.0
FEB.16 1105h.						

COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 7 - 16,1981
GAUGE # : 18121N



ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY, ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : GRADIENT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 16,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : 0 KPAG
RUN DEPTH TOP CF : 1381.7
TEMPERATURE AT RUN DEPTH : 55.6 C
GRAD. AT RUN DEPTH TOP : 1.416
PRES. AT RUN DEPTH TOP : 9507.4

SHUT-IN TIME : FEB.10 2310h.1981
ON BOTTOM/OFF BOTTOM : 13:46 - 13:51
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9510.1
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CAL. EQUATION : 320.81 * Defl. + 10.17
CLOCK RANGE : 3 HOURS
LATEST CALIBRATION : 19/11/80

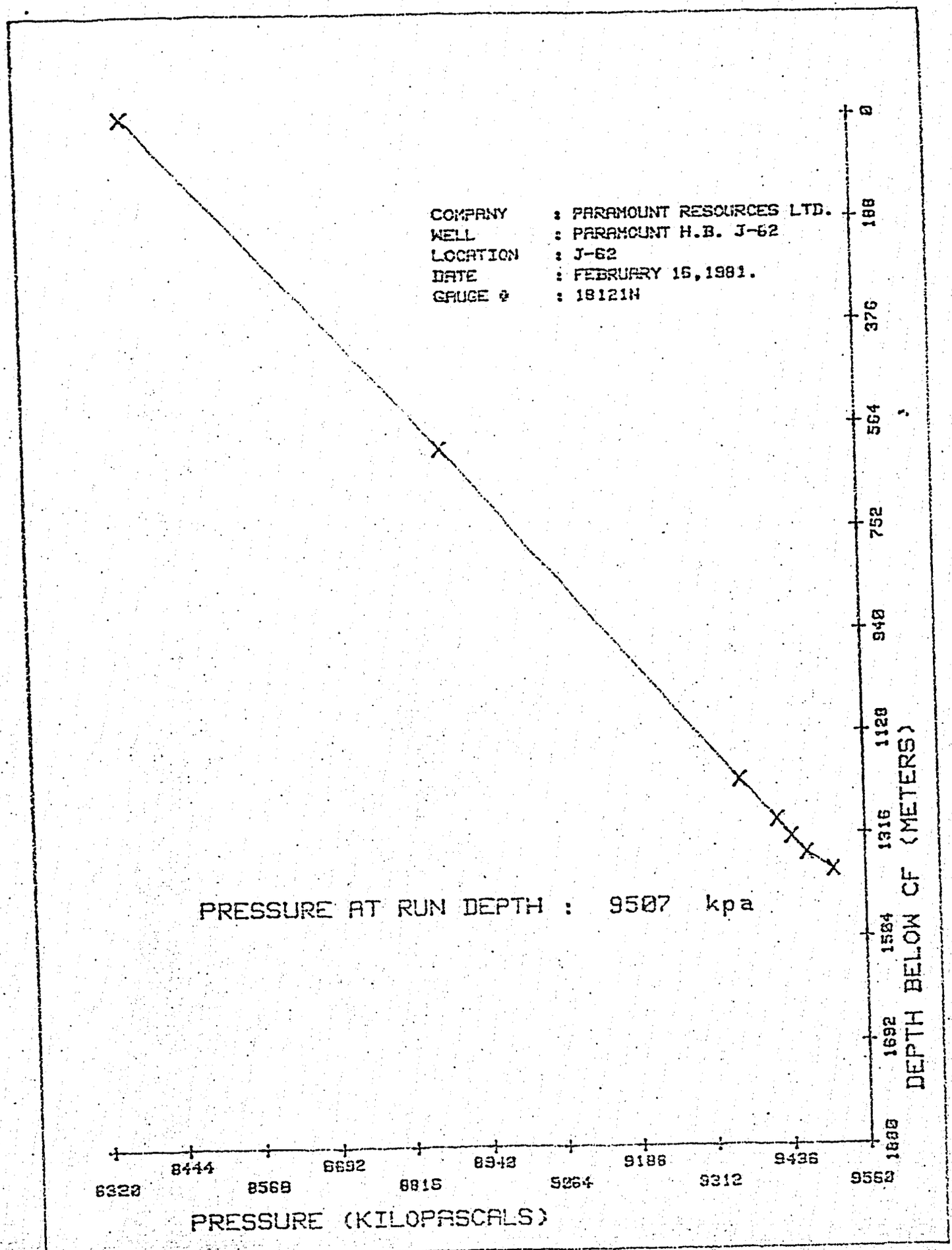
TOP RECORDER DEPTH (m-cf)	DEFLECTION mm	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/m
-1.8	26.047	8366.2	1.0	8367.2	0.000
607.8	27.640	8877.3	-.3	8877.0	.836
1217.4	29.147	9360.7	-1.5	9359.2	.791
1290.2	29.333	9420.4	-1.7	9418.7	.818
1320.7	29.401	9442.2	-1.7	9440.5	.713
1351.2	29.475	9465.9	-1.8	9464.2	.776
1381.7	29.610	9509.3	-1.9	9507.4	1.416

REMARKS :

NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

INTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 15,1981.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9507 kpa
DEPTH BELOW CF (METERS)
0
188
376
564
752
940
1128
1316
1504
1692
1880
6320
8444
6692
8940
9188
9436
9560
8568
8815
9064
9312
PRESSURE (KILOPASCALS)

TESTMASTER

TESTMASTER PRODUCTION SERVICES LTD.
1007D - 55th AVENUE N.E.
CALGARY, ALBERTA, CANADA T2E 6W1
PHONE (403) 274-5777

RECEIVED
MAR - 9 1981
(1972) LTD.

Paramount Resources Limited
Paramount H.B. et al Cameron
J-62-N.W.T.
4 Point Extended Rate
February 7th - 11th, 1981

Testmaster Production Services Ltd.

OIL & GAS EXPL. OPERATIONS
N. N-R. Res. Br.
JUL 21 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 1 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 7/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
					STATIC PRESSURE or Prover		Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____				
	TUBING Pressure	Flow Temp	CASING Pressure		Recorder	D.W.G.								Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches							
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
					Rig in equipment															
0930					Almech wireline on location to run gradient & recorders.															
					Master valve on wellhead frozen															
1230					Almech rigged out															
1630					Water truck on location to fill line heater.															
					Manifold valves on unit frozen Tank valves frozen															
					Thaw valves from 1700hrs to 2200 hrs															
					Power plant quit at 1800 hrs.															

REMARKS

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
0845	8400				Shut in pressure															
0855					Pressure test flow line															
0900	8400			4.76	Open well on 4.76mm choke through separator															
					on 1st Rate of 4 Point test.															
0905	7500																			
0910	7000																			
0915	6550	-7		4.76	1241		16	44	25.4											19.78x10³/D
0930	5510	-5			1654		17	44												23.17x10³/D
0945	5750	-3			1654		15	39												22.04x10³/D
1000	6000	-1			1758		15	38												22.89x10³/D
1030	6220	-2			1758		16	38												22.61x10³/D
										End of 1st Rate										
1100	6450	-2			1758		16	42		Shut in for 2 hr. Build-ups										23.03x10³/D
1105	6710																			

REMARKS

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 3 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ / ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1110	6980																			
1115	7220																			
1130	8220																			
1145	8265																			
1200	8275																			
1230	8280																			
1300	8285																			
1305	7200	-2		Open well through separator on 7.14mm choke to start Second Rate.																
1310	5700	-2																		
1315	5050	-1		7.14	1655		35	33	25.4											35.89×10^3/D
1330	4885	0			1655		32	20												31.65×10^3/D
1345	5000	0			2172		24	42	Back pressure valve malfunctioning											31.09×10^3/D

REMARKS

			TANK NO. 1		TANK NO. 2	
GAS PRODUCTION (24 hr.)		LIQUID PROD. BALANCE	Cond.	Water	Cond.	Water
GAS PRODUCTION CUMULATIVE		OPENING GAUGE				
LIQUID PRODUCTION (24 hr.)		PLUS PRODUCTION				
Condensate/Oil ____ Water		TOTALS				
LIQUID PRODUCTION CUMULATIVE		MINUS SHIPPING				
Condensate/Oil ____ Water		EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 4 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 8/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
					STATIC PRESSURE or Prover		Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____				
	TUBING Pressure	Flow Temp	CASING Pressure		Recorder	D.W.G.														
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
1400	5115	1		7.14	1862		32	40	25.4											33.63x10³/D
1430	5270	1			1551		36	42												33.07x10³/D
1500	5145	1			1551		38	40		End of Second Rate										33.91x10³/D
1505	6030																			
1510	7600																			
1515	7800																			
1530	8090																			
1545	8120																			
1600	8140																			
1630	8190				Third Rate on 34.9mm orifice plate															
1700	8200				Open well through separator on 9.53mm choke															
1705	4000																			

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 5 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft³/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m³/day
1710	3250	1		9.53					34.9											
1715	3175	1			1715		16	41		Methanol pump freezing										42.39x10³/D
1730	3400	2			1586		17	40												45.22x10³/D
1745	3450	2			1586		17	38												45.22x10³/D
1800	3700	2			1551		18	38		Liquid to surface										45.22x10³/D
										Unable to dump water										
1830		2			1862		17	40		Dump lines frozen from separator to dump										48.05x10³/D
										By-pass dump also frozen										
1900		2			2930		17	40		Meter freezing (Approx. water made .150m³)										59.92x10³/D
		Unable to get tubing pressures. Wellhead frozen from 1800 hrs to 2200 hrs.																		
2115		-5			Open well to flow through separator on 12.7mm choke															
					with 38.1mm orifice plate															
2130		-4			1862		16	44		Pumping methanol										56.52x10³/D
2200	3050	-2			2275			40												
										Take off for repairs										
2230	2525	5						32		Unable to get meter readings frozen										

REMARKS
Estimated flow rate for 4 Point
24 hr. production 13.65x10³xm³

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 6 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 per .104		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	cm / m3						
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
2300	3200	3		9.53				33	38.1	Cut choke back for extended rate to 9.53mm choke										
2330	3770	4						39												
2400	3800	3						40												
February 9th, 198					Meter replaced and in service.															
0030	3655	3			2069		13	39												
0100	3690	1			2275		12	41												52.00x10³/D
0115	7100							41		Safety shut down valve closed.										
0135	7995							42												
0140	7800	-6						43		Back pressure valve stuck open use manual block valve.										
0145	5200	1						42												
0200	3835	2			1241		23	45												54.26x10³/D
0215	3850	3			1310		20	43												

REMARKS

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches							m3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3		m3	m3	m3	
0230	3875	1		9.53	1310		20	42	38.1											
0300	3950	3			1310		19	42												50.9x10³/D
0330	3930	1			1276		20	41												
0400	3860	2			1241		20	37												50.9x10³/D
0430	4235	1			1276		19	37												
0500	5195	-3			1138		14	42		Possible ice plug in flowing										40.98x10³/D
0530	5330	-5			1034		14	42												
0600	5630	-8			827		14	42												35.89x10³/D
0630	5340	-8			1241		13	42												
0700	5500	-10			1138		12.5	42												38.15x10³/D
0730	5535	-10			1103		12	42												
0800	5585	-12			1034		11.5	41		Approx. water made .075m³										35.33x10³/D

REMARKS

GAS PRODUCTION (24 hr.) 14.93m³

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 8 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____				
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches	C m	m3	m	m3	m3	m3	m3/day
SI Units	Pga kPa	oC	Pga kPa	mm	Pga kPa	Pga kPa	kPa	oC	mm	Pga kPa	kPa	oC	mm							
0830	5585	-11		9,53	896		11	43	38.1											
0900	5550	-13			862		11,5	43												32.50x10³/D
0930	5500	-12			965		12	43												
1000	5500	-12			1103		12	43												37.87x10³/D
1030	5450	-10			1034		12	43												
1100	5450	-10			1034		12	43		Ice plug in flow line let go.										36.74x10³/D
1130	5530	-9			965		12	43												
1200	4120	+4			1172		20	35		Liquid to surface										49.46x10³/D
1230	3715	+3			1172		18	42												
1300	3680	+3			1241		20	44												50.87x10³/D
1330	3680	+3			1207		21	44		750 ppm H_2S										
1400	3675	3			1207		21	44												52.28x10³/D

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 9 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 per .104		CAP ____ per ____				
	TUBING Pressure	Flow Temp	CASING Pressure		Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	1 cm						
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1430	3695	3		9.53	1207		21	44	38.1											
1500	3700	4			1207		21	45												52.28x10³/D
1530	3700	3			1207		22	45												
1600	3650	3			1207		20	45												49.46x10³/D
1630	3650	3			1172		21	43												
1700	3640	4			1138		21	41												49.46x10³/D
1730	3570	4			1138		21	41												
1800	3585	7			1138		21	40												49.46x10³/D
1830	3585	7			1138		21	38												
1900	3585	8			1138		21	38												49.46x10³/D
1930	3585	9			1138		21	38												
2000	3585	10			1138		21	43												49.46x10³/D

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 10 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks : NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Bbl/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
2030	3575	9		9.53	1138		20	42	38.1											
2100	3580	9			1172		20	43												49.46x10³/D
2130	3580	9			1172		20	43												
2200	3580	9			1241		19	43												49.46x10³/D
2230	3570	9			1241		19	42												
2300	3565	9			1172		20	42												48.33x10³/D
2330	3565	8			1172		19	42												
2400	3565	9			1207		19	43												48.89x10³/D
February 10th, 1981																				
0030	3565	9			1207		19	43												
0100	3565	9			1207		19	43												48.33x10³/D
0130	3565	10			1207		19	43												

REMARKS

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure		STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 per .104		CAP ____ per ____				
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	cm	m3	m	m3	m3	m3	m3/day
0200	3560	9		9.53	1207		19	43	38.1											48.05x10³/D
0230	3560	9			1241		18	44												
0300	3560	10			1241		18	44												48.05x10³/D
0330	3555	10			1276		18	44												
0400	3550	9			1310		18	44												48.61x10³/D
0430	3550	9			1276		18	44												
0500	3550	9			1241		18	44												48.05x10³/D
0530	3550	9			1241		18	43												
0600	3550	9			1379		17	44												48.61x10³/D
0630	3545	10			1276		18	45												
0700	3545	9			1310		18	44												48.61x10³/D
0730	3545	9			1310		18	43												

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 12 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
					STATIC PRESSURE or Prover		Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____				
	TUBING Pressure	Flow Temp	CASING Pressure		Recorder	D.W.G.														
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Mcf/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	10³m³/day
0800	3545	9		9.53	1310		18	43	38.1											48.61x10³/D

REMARKS

GAS PRODUCTION (24 hr.) 47.60x10³m³
GAS PRODUCTION CUMULATIVE 62.53x10³
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 13 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	GAS PRODUCTION
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
0830	3545	10		9.53	1345		17	44	38.1											
0900	3535	10			1345		17	44												48.61×10^3/D
0930	3535	10			1310		18	43												
1000	3545	10			1358		18	43												49.46×10^3/D
1030	3545	10			1358		17	43												
1100	3545	10			1345		18	43												49.46×10^3/D
1130	3545	10			1310		18	43												
1200	3545	10			1345		18	44												49.46×10^3/D
1230	3545	10			1345		18	44												
1300	3545	10			1358		18	44												49.46×10^3/D
1330	3560	10			1379		17	44												
1400	3555	10			1448		17	44												50.87×10^3/D

REMARKS

GAS PRODUCTION (24 hr.)
GAS PRODUCTION CUMULATIVE
LIQUID PRODUCTION (24 hr.)
Condensate/Oil Water
LIQUID PRODUCTION CUMULATIVE
Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 14 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul.	Cumul.	GAS
					STATIC PRESSURE or Prover									CAP 64m3 / 1 per .104		CAP ____ per ____		Oil, Cond	Water	PRODUCTION
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Prod.	Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	cm	m3	m	m3	Barrels	Barrels	mcf/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm					m3	m3	m3/day
1430	3565	10		25.4	1448		17	47	38.1											
1500	3520	10			1448		17	46												50.87×10^3/D
1530	3490	10			1276		18	45		Salinity 26,800 ppm.										
1600	3475	10			1241		19	43		0.68% H^2S.										49.46×10^3/D
1630	3480	10			1379		16	41		Reset back pressure										
1700	3575	10			1379		17	43		Sample from separator trace of Condensate										49.46×10^3/D
1730	3545	10			1379		17	44												
1800	3510	10			1345		17	43												48.33×10^3/D
1830	3470	10			1345		17	42												
1900	3470	10			1310		17	41												48.05×10^3/D
1930	3470	10			1310		17	42												
2000	3475	10			1310		17	42												

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 15 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft³/day
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	m	m3	m	m3	m3	m3	m³/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm							
2030	3495	10		25.4	1310		17	40	38.1											
2100	3500	10			1310		17	41												48.6x10³/D
2130	3495	10			1310		17	40												
2200	3495	10			1310		17	39												48.6x10³/D
2230	3495	10			1310		17	39												
2300	3495	10			1310		17	40												48.6x10³/D
2310	3495	10			1310		17	40		Shut well in Take samples Two H.P. Gas 866,1071										48.6x10³/D
2315	4950																			
2320	6570																			
2325	7370																			
2330	7630																			
2345	7910																			

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 16 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
Feb. 11/81					STATIC PRESSURE or Prover									CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	10³ m³/day
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches							
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	
2400	7890																			
0015	8100																			
0030	8110																			
0100	8080																			
0130	8055																			
0200	8050				End of Build-ups								Rig out equipment							

REMARKS

GAS PRODUCTION (24 hr.) $28.72 \times 10^3 xm^3$

GAS PRODUCTION CUMULATIVE 91.25×10^3

LIQUID PRODUCTION (24 hr.)

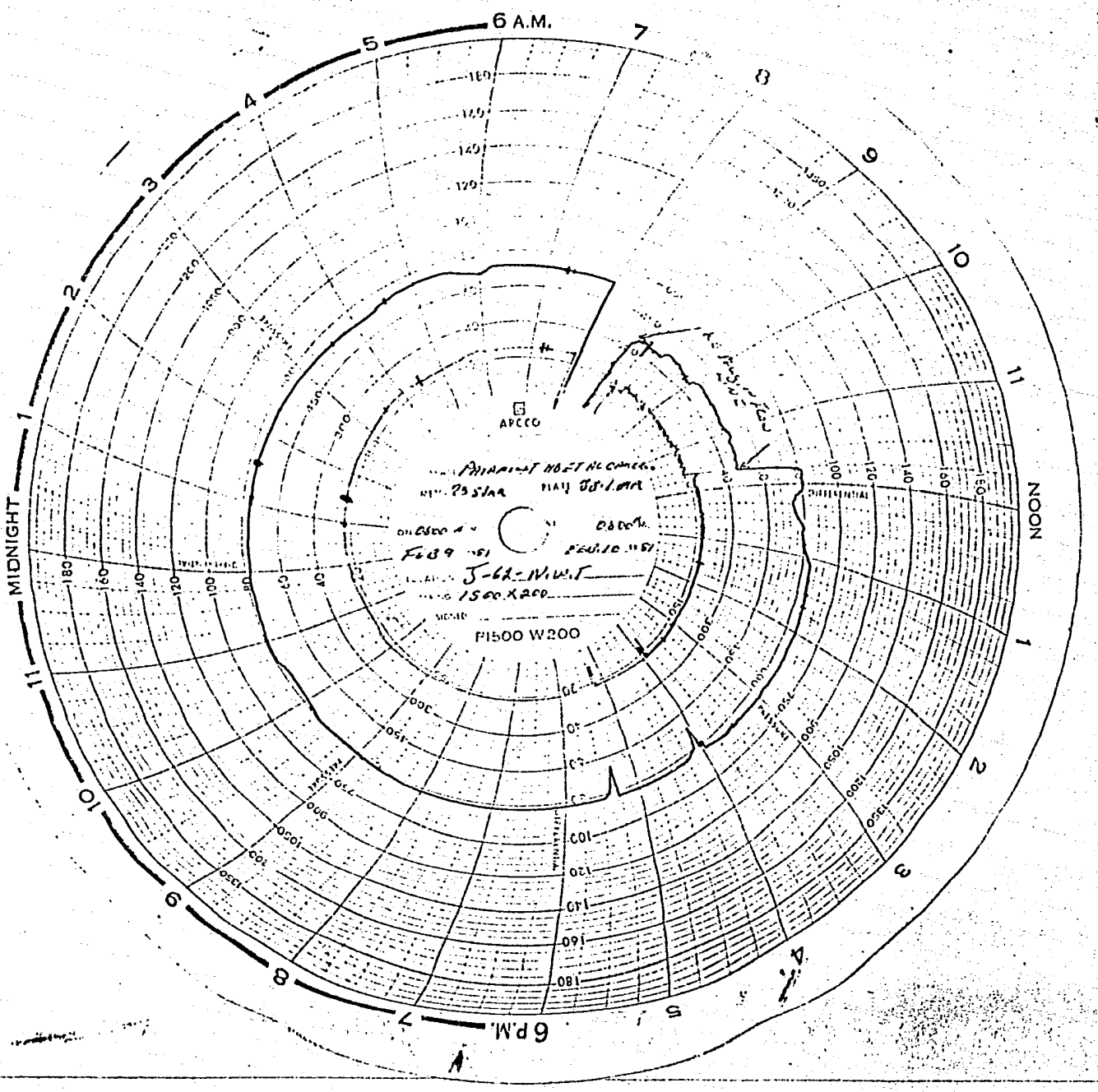
Condensate/Oil Water

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Water
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

MIDNIGHT
NOON
6 A.M.
6 P.M.
1
2
3
4
5
6
7
8
9
10
11
Feb 10 '81
Feb 10 '81
T-62 WT
P1500 W 200
Reset Brk pressure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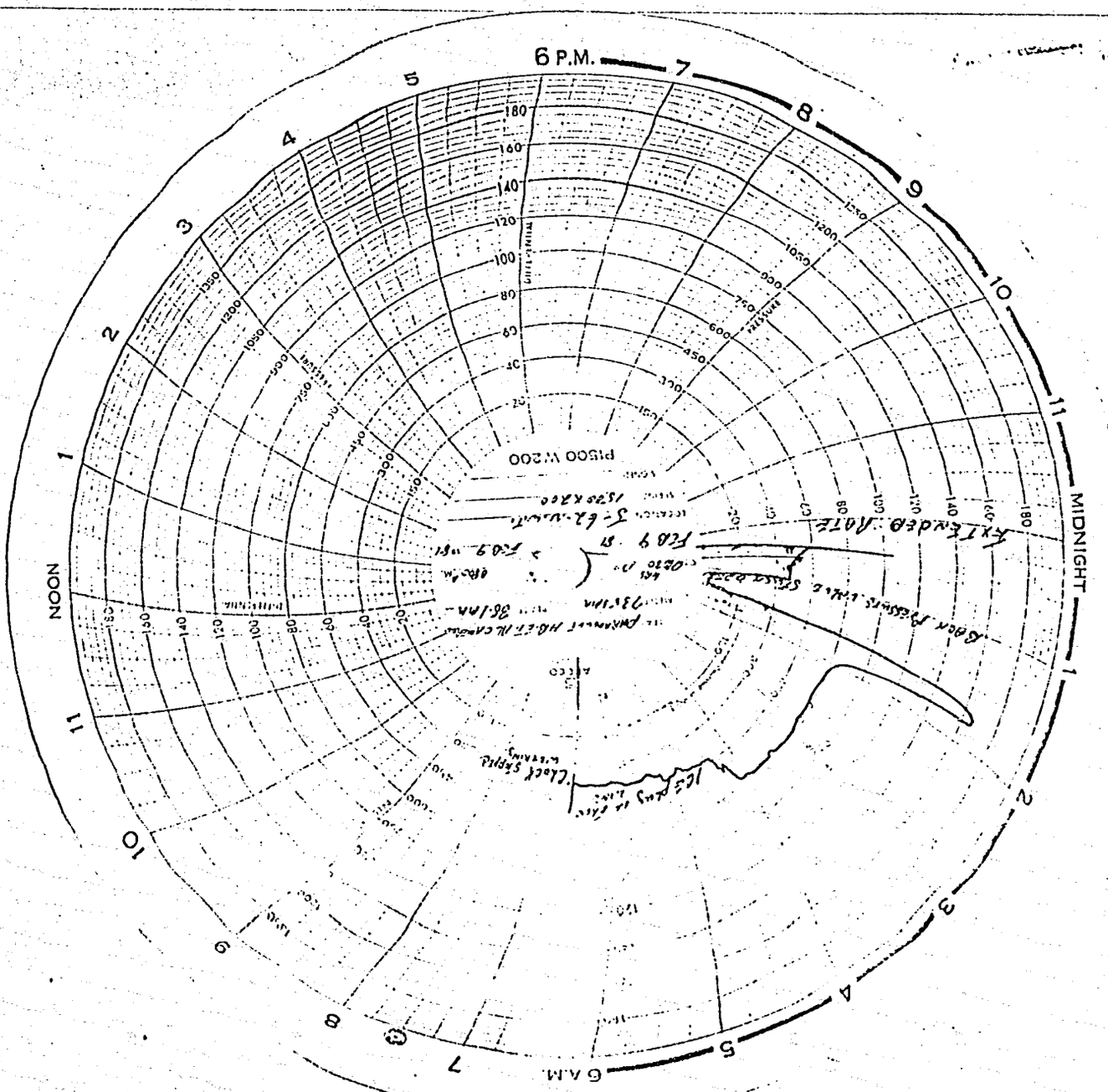
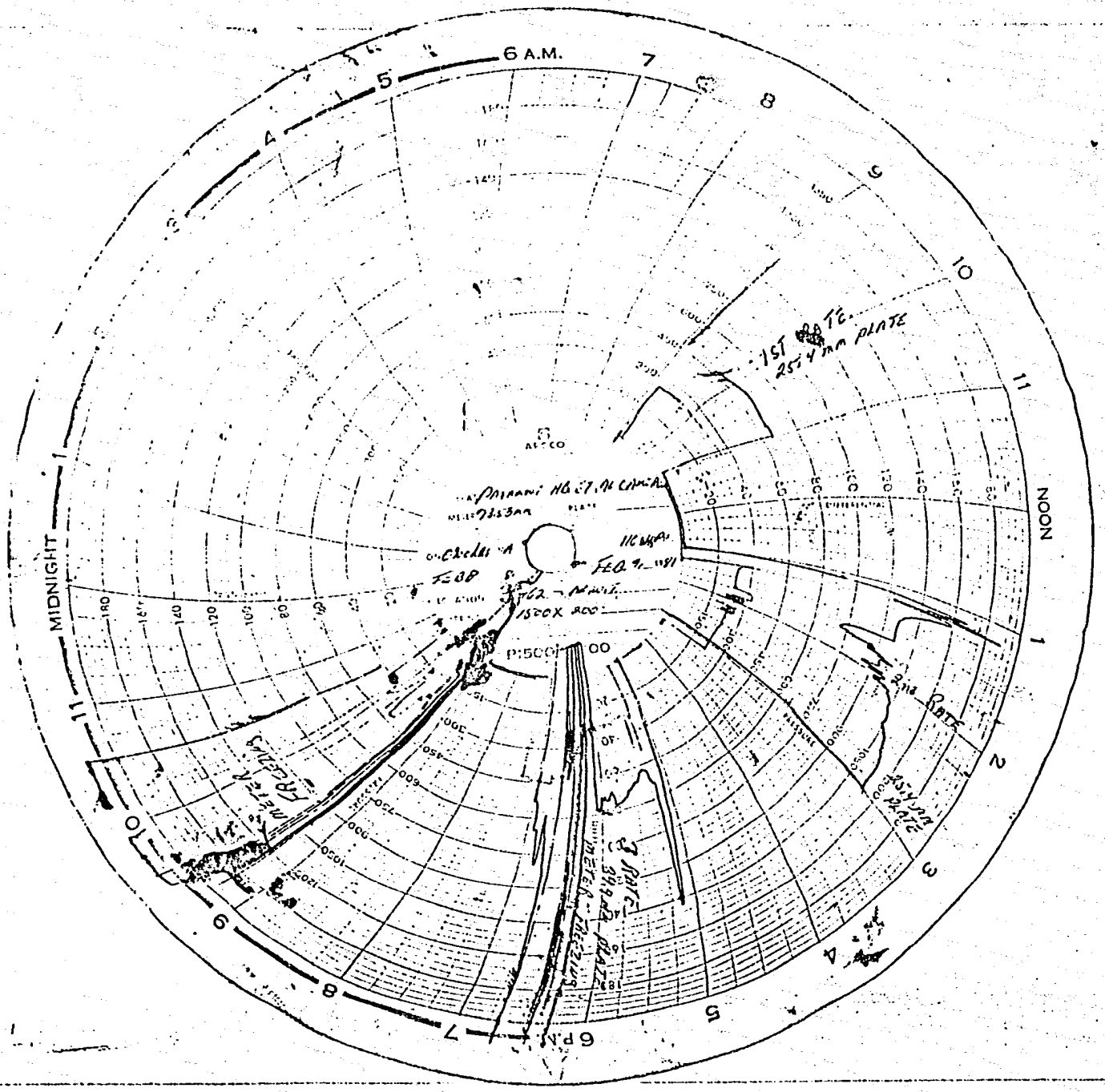
NOON
6 P.M.
MIDNIGHT
APCCO
P1500 W200


6 P.M.
MIDNIGHT
6 A.M.
NOON
1
2
3
4
5
7
8
9
10
11
12
180
160
140
120
100
80
60
40
20
1350
1200
1050
900
750
600
450
300
150

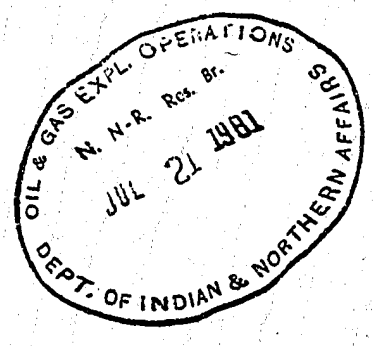

6 A.M.
NOON
6 P.M.
MIDNIGHT
1ST 88 TC.
25.4 mm PLATE
2nd PLATE
3rd PLATE
ASTRONOMY PLATE
METEOROLOGY
P:500
1500X 800

PARAMOUNT RESOURCES LIMITED

PARAMOUNT HB et al CAMERON J-62
N. W. T.

COMPLETION REPORT

February, 1981



FARRIES ENGINEERING (1977) LTD.
Petroleum Consultants
Second Floor, 630 - 6 Avenue S. W.
Calgary, Alberta
T2P 0S8

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WELL DATA

CHRONOLOGICAL REPORT

TUBING TALLY

SUBSURFACE COMPLETION DIAGRAM

SUBSURFACE COMPLETION EQUIPMENT

WELLHEAD DESCRIPTION AND DIAGRAM

PARAMOUNT RESOURCES LIMITED
#1800, 717 - 7 Avenue S. W.
Calgary, Alberta
T2P 0Z3

COMPLETION REPORT
for
PARAMOUNT HB et al CAMERON J-62
N.W.T.

Sulphur Point Gaswell

WELL DATA

Well Name:	Paramount HB et al Cameron J-62
Location:	Northwest Territories Unit J, Section 62 Latitude: 60° 01' 31.00" North, 60.0253° North Longitude: 117° 26' 50.00" West, 117.4472° West
Elevations:	K.B: 755.00 metres Ground: 751.94 metres
Total Depth:	1,605 metres K.B.
Plug Back Total Depth:	1,481.75 metres K.B.
Surface Casing:	244.5 mm, 48.1 kg/m, set at 524.00 metres K.B.
Production Casing:	139.7 mm, 23.10 kg/m, J-55, set at 1605 metres K.B.
Tubing:	73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd. set in a packer at 1375.52 metres K.B. Tubing bottom at 1381.56 metres K.B.
Perforations:	1384.5 - 1389.0 m. KB using a 38.7 mm thru tubing gun at 13 JSPM.
Wellhead:	244.5 mm x 139.7 mm x 73.0 mm, 13790 kPa W.P.
Nipples:	Baker 'F' at 1379.03 m. K.B., I.D. 58.72 mm. Baker 'R' at 1381.17 m. K.B., I.D. 57.15 & 55.80 mm.
Packer:	Baker Model FB-1 permanent retainer production packer set on wireline at 1375.52 metres K.B.
Sliding Sleeve:	Baker Model 'L' at 1372.19 m. K.B., I.D. 58.72 mm.
Status:	Shut-In Sulphur Point Gaswell

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

January 28, 1981 to January 29, 1981.

1000 - 2330 hours	Move rig and camp from 12-26, 13 loads. All trucks had to be pulled up hill with cat. Set up camp, etc.
2330 - 0800 hours	Wait for day light to do dirt work with cat to set up rig. Surface casing bowl flange about 2 to 3 feet lower than the rest of the lease.

January 29, 1981 to January 30, 1981.

0800 - 1200 hours	Spot rig equipment. Dig flare pit. Level lease around wellhead. Received verbal approval from Hal Flanders, Conservation Engineer in Yellowknife, to proceed with completion.
1200 - 1700 hours	Continue to rig up. Raise derrick. Cut off 139 mm casing and install tubing spool. Pressure test secondary seals to 18960 kPa for 15 minutes. Held okay.
1700 - 2300 hours	Put on BOP's. Change rams over to 73 mm. Lay pump lines and flare lines. Change slips, tongs and elevators to 73 mm. Tally - 180 joints, 73 mm tubing.

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT, continued

January 29, 1981 to January 30, 1981,
continued

2300 - 0600 hours	Start in hole with 120.65 mm workover bit and casing scraper for 139.7 mm, 23.06 kg/m casing on 73 mm tubing. Hit ice plug in casing at 14 metres. Pull out of hole. Ran steam hose into hole to ice plug and steam for 30 minutes. Pull out steam hose and run bit and casing scraper on 73 mm tubing to plug back total depth of 1481.75 metres K.B. Pull up 5 metres.
0600 - 0800 hours	Circulate hole clean at 0.5 m^3/min. and 4500 kPa for 45 minutes. Rig up to pressure test casing and BOP's.
	DAILY COST: $ 53,795 includes: tubing, wellhead and rig move to J-62 well.
	CUM. COST: $ 53,795

January 30, 1981 to January 31, 1981.

0800 - 0900 hours	Pressure test casing and pipe rams to 15500 kPa for 15 minutes. Held okay.
0900 - 1200 hours	Pull 73 mm tubing, bit and casing scraper. Lay down 12 singles. Stand 71 stands in derrick.
1200 - 1300 hours	Wait on McCullough for logging.
1300 - 0800 hours	Logging with McCullough. Calibrated GRN from plug back total depth (1472 - 700 metres). Cement Bond Log regular pass and pressure pass from plug back total depth (1472 - 700 metres).
	Daily $ 17,500.00 Cum. $ 71,345.00

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

January 31, 1981 to February 1, 1981.

0800 – 0900 hours	Ran junk basket and 117.91 mm gauge ring from surface to plug back total depth on McCullough electric line. Hole is clear.
0900 – 1000 hours	Dowell and McCullough assemble Baker FB-1 packer, tail pipe and setting tool.
1000 – 1200 hours	Run in hole with Baker FB-1 packer on electric line. Set packer at 1375.52 m K.B. Top of packer at 1375.15 m K.B. Bottom of tail pipe at 1381.50 m K.B.
1200 – 1530 hours	Assemble sliding sleeve and seal assembly on 73 mm tubing. Found bottom of seal assembly to be wrong size. Had to file out 50.04 mm ID to 60.3 mm ID.
1530 – 1700 hours	Run in hole with seal assembly, sliding sleeve and 73 mm tubing. Tag top of packer at 1375.15 metres.
1700 – 1800 hours	Space out tubing using 142 joints and 4 pups.
1800 – 1900 hours	Displace annulus to inhibited water. Continued .5% Nowcor 100. Spot 410 litres of diesel fuel on top.
1900 – 2000 hours	Land tubing in packer with 2670 daN compression. Remove BOP's and install wellhead.
2000 – 2100 hours	Pressure test annulus to 14000 kPa for 15 minutes. Held okay.
2100 – 2215 hours	Swab out 1.6 m^3 water from tubing lowering fluid level to 500 m K.B.
2215 – 0430 hours	Rig up McCullough to perforate. Had two misruns. Perforated interval 1384.5 – 1389.0 m K.B. using 39.7 mm OD through tubing retrievable gun at 13 jet shots per metre. All 60 shots were fired.

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

January 31, 1981 to February 1, 1981, continued

0430 - 0500 hours	Rig out McCullough. Shut in tubing pressure = 931 kPa.
0515 hours	Open well up on 12.7 mm choke. Well unloads 2.54 m^3 water then gas with water spray.
0615 hours	Well flowing on 12.7 mm choke. Flowing tubing pressure = 2070 kPa. Water spray and slight blue color (H_2S) Estimated rate = 55.21 $10^3 m^3$/day.
0800 hours	Well flowing on 12.7 mm choke. Flowing tubing pressure = 1905 kPa. Water spray and the odd slug. Estimated rate = 52.39 $10^3 m^3$/day. Water level in flare pipe staying even.

Daily $ 25,150.00
Cum. $ 96,495.00

February 1, 1981 to February 2, 1981.

0815 hours	Cut choke from 12.7 mm to 9.53 mm after 3 hours of flow. Flowing tubing pressure = 3103 kPa. Estimated rate = 44.39 $10^3 m^3$/day. Less water spray.
1115 hours	Well flowing on 9.53 mm choke. Flowing tubing pressure = 3103 kPa. Estimated rate = 44.39 $10^3 m^3$/day. Very little water spray.
1400 hours	Well flowing on 9.53 mm choke. Flowing tubing pressure = 3068 kPa. Estimated rate = 43.92 $10^3 m^3$/day. All 12.72 m^3 of water in flare pit that was displaced from hole is gone. Very little water spray.

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

February 1, 1981 to February 2, 1981,
continued

1600 hours	Well flowing on 9.53 mm choke. Flowing tubing pressure = 3068 kPa. Estimated rate = 43.92 $10^3 m^3$/day. Very little water spray. Flowing tubing pressure stable for last 8 hours.
1800 hours	Well flowing on 9.53 mm choke. Flowing tubing pressure = 2896 kPa. Very little water spray. Suspect hydrates are starting to form in tubing.
2000 hours	Same conditions as at 1800 hours.
2015 hours	Shut well in. Flowed total of 15 hours including 12 hours on 9.53 mm choke. Hydrates present in flare line and wellhead gauge.
2045 hours	Shut in tubing pressure = 7860 kPa.
2100 hours	Shut in tubing pressure = 8102 kPa.
2125 hours	Shut in tubing pressure = 8102 kPa.
2200 hours	Shut in tubing pressure = 8102 kPa.
0745 hours	Shut in tubing pressure = 8275 kPa. Release service rig and rig out. Ready for move to Paramount HB et al Cameron M-31 on February 2, 1981.

Daily $ 9,350.00
Cum. $ 105,845.00

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

February 7, 1981	Gas testers moved equipment from Ratz 12-26 to Cameron J-62. Cat required on hill on mile 12. Rig up gas test equipment, lay flare and water lines. Install wellhead safety shut down valve.
0900 - 1400 hours	Almech Wireline runs static gradient and sets tandem 180 hour bombs at 1371.31 metres K.B. just above sliding sleeve. Gas testers have trouble with light plant and many freeze offs. Daily cost: $ 5,200.00 Cum. cost: $ 111,045.00

February 8, 1981 to February 9, 1981

0800 - 0900 hours	Gas testers continue rigging up. Cold and windy. T.P.S.I = 8400 kPa.
0900 hours	Commence four point isochronical AOF test.
0900 - 1100 hours	Flow rate #1 = 4.76 mm choke. T.P.F. = 6450 kPa. Wellhead temperature = -2°C Gas rate = 23.03 $10^3 m^3$/day - no liquids.
1100 - 1300 hours	Well shut in. T.P.S.I. = 8285 kPa.
1300 - 1500 hours	Flow rate #2 - 7.14 mm choke. T.P.F. = 5145 kPa. Wellhead temperature = +1°C. Gas rate = 33.91 $10^3 m^3$/day - no liquids.
1500 - 1700 hours	Well shut in. T.P.S.I. = 8200 kPa.

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

February 8, 1981 to February 9, 1981, continued

1700 - 1900 hours	Flow rate #3 = 9.53 mm choke. T.P.F. = 3700 kPa at 1800 hours. Wellhead temperature = +2°C. Gas rate = 48.05 10^3m^3/day. .08 m^3 water in 2 hours.
1900 - 2100 hours	Well shut in. No T.P.S.I. as wellhead frozen. Alcohol pump being prepared.
2100 - 2300 hours	Flow rate #4 = 12.7 mm choke. T.P.F. = 3200 kPa at 2300 hours. Wellhead temperature = -2°C. Water production = 0.16 m^3 over 2 hours.
2300 - 0800 hours	Extended rate = 9.53 mm choke. T.P.F. = 3800 kPa at 2400 hours. Wellhead temperature = +3°C. Gas rate = 53.70 10^3m^3/day at 2400 hours. No water until 0100 hours.

February 9, 1981 to February 10, 1981

0800 - 0800 hours	Well flowing on 9.53 mm choke on extended rate portion of AOF test. T.P.F. declines gradually from 3800 to 3545 kPa at 0800 hours February 10, 1981. Wellhead temperature increases from +3°C to +9°C. Flow rate declines slightly from 50.90 10^3m^3/day to 48.05 10^3m^3/day. Slight water spray at 1200 hours (.08 m^3) then stopped. Daily cost: $ 3,300.00 Cum. cost: $ 117,045.00

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

February 10, 1981, to February 11, 1981

0800 - 2310 hours

Well flowing on extended rate portion of AOF test on 9.53 mm choke with readings as follows:

Time	T.P.F. kPa	Wellhead Temp. °C	Gas Rate 10^3 m^3/D
0800	3545	+9	48.61
0900	3535	10	48.61
1000	3545	10	49.46
1100	3545	10	49.46
1200	3545	10	49.46
1300	3545	10	49.46
1400	3555	10	-
1500	3520	10	50.87
1600	3475	10	49.46
1700	3575	10	49.46
1800	3510	10	48.33
1900	3470	10	48.05
2000	3475	10	48.60
2100	3500	10	48.60
2200	3495	10	48.60
2300	3495	10	48.60
2310	3495	10	48.60

Well shut in at 2310 hours, February 10, 1981.

2315 hours — T.P.S.I. = 4950 kPa

2320 hours — T.P.S.I. = 6570 kPa

1430 hours — On site, H_2S reading 0.68%, February 10, 1981.

1600 hours — Well produces a trace of dark condensate .5 l/hr. and water at .24 l/hr.
Water salinity = 26800 ppm salt by refractometer.

2310 - 0800 hours — Shut well in.
Rig out test equipment.

Daily cost: $ 37,000.00
Cum cost: $ 120,745.00

PARAMOUNT HB et al CAMERON J-62

COMPLETION REPORT

February 16, 1981

0900 - 1300 hours	Rig up Almech Wireline. Run in and pull tandem BHP bombs. Run gradient. Set Monel plug in F nipple at 1378.99 metres K.B. Fill tubing with inhibited water with inhibited diesel fuel on top. Close in well, bull plug all outlets. Chain and padlock wellhead valves.

F I N A L R E P O R T

FARRIES ENGINEERING (1977) LTD.

PAGE NO. 1/2

PIPE TALLY

Date January 29, 1981

Well Name PARAMOUNT HB et al CAMERON J-62 Location J-62 N.W.T.

73mm TBG Landed in Packer at 1375.52mKB K.B. 755.00m

No. of joints on Lease 180 + 10 Pubs Tally 1742.95 Joints Used 142 + 6 Pubs Tally 1373.10

Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters
1	9.64	11	9.63	21	9.67	31	9.50	41	8.81
2	9.64	12	9.64	22	9.64	32	9.63	42	9.66
3	9.65	13	9.64	23	9.52	33	9.44	43	9.63
4	9.46	14	9.46	24	9.63	34	9.38	44	9.65
5	9.68	15	9.62	25	9.42	35	9.50	45	9.64
6	9.63	16	9.63	26	9.64	36	9.55	46	9.61
7	9.64	17	9.62	27	9.64	37	9.52	47	9.37
8	9.61	18	9.61	28	9.63	38	9.66	48	9.62
9	9.63	19	9.61	29	9.62	39	9.66	49	9.65
10	9.62	20	9.67	30	9.66	40	9.65	50	9.66
a	96.20	b	96.13	c	96.07	d	95.49	e	95.30
51	9.54	61	9.66	71	9.56	81	9.51	91	9.63
52	9.57	62	9.70	72	9.64	82	9.66	92	9.63
53	9.63	63	9.55	73	9.65	83	9.63	93	9.62
54	9.62	64	9.54	74	9.65	84	9.64	94	9.61
55	9.63	65	9.51	75	9.62	85	9.42	95	9.60
56	9.57	66	9.65	76	9.62	86	9.63	96	9.70
57	9.54	67	9.64	77	9.62	87	9.63	97	9.63
58	9.62	68	9.65	78	9.65	88	9.41	98	9.64
59	9.65	69	9.66	79	9.62	89	9.61	99	9.64
60	9.65	70	9.52	80	9.64	90	9.50	100	9.61
f	96.02	g	96.08	h	96.27	i	95.64	j	96.31

Size 73.0mm

Make IPSCO

Grade J-55

Wt. 9.67kg/m

Rge. 2

Thrd. 8 Rd.

Cplg. E.U.E.

TOTALS

a	96.20
b	96.13
c	96.07
d	95.49
e	95.30
f	96.02
g	96.08
h	96.27
i	95.64
j	96.31
	959.51

Final Total

Remarks Jts. 1-100 run in the hole.

Tallied By

FARRIES ENGINEERING (1977) LTD.

PIPE TALLY

Date January 29, 1981

Well Name PARAMOUNT HB et al CAMERON J-62 Location J-62 N.W.T.

73mm TBG Landed ~~at~~ in Packer at 1375.52mKB K.B. 755.00m

No. of joints on Lease 1800 + 10 Pubs Tally 1742.95 Joints Used 142 + 6 Pubs Tally 1373.10

Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters	Jt. No.	Meters
1	9.62	11	9.64	21	9.63	31	9.61	41	9.62
2	9.63	12	9.64	22	9.62	32	9.62	42	* 9.64
3	9.63	13	9.61	23	9.53	33	9.62	43	* 9.59
4	9.62	14	9.63	24	9.61	34	9.63	44	* 9.63
5	9.60	15	9.63	25	9.62	35	9.62	45	* 9.64
6	9.61	16	9.64	26	9.65	36	9.54	46	* 9.63
7	9.64	17	9.60	27	9.63	37	9.42	47	* 9.64
8	8.66	18	9.62	28	9.63	38	9.60	48	* 9.35
9	9.64	19	9.63	29	9.63	39	9.62	49	* 9.63
10	8.74	20	9.61	30	9.60	40	9.64	50	* 9.62
a	94.39	b	96.25	c	96.15	d	95.92	e	95.99
51	* 9.63	61	* 9.64	71	* 9.63	81	2.51	91	
52	* 9.62	62	* 8.69	72	* 9.65	82	1.80	92	
53	* 9.62	63	* 9.61	73	* 9.63	83	3.11	93	
54	* 9.52	64	* 9.62	74	* 9.37	84	1.89	94	
55	* 8.92	65	* 9.64	75	* 9.63	85	** 1.89	95	
56	* 9.62	66	* 9.65	76	* 9.65	86	1.16	96	
57	* 9.61	67	8.90	77	* 9.63	87	* 61	97	
58	* 9.63	68	* 9.41	78	* 9.64	88	* 1.22	98	
59	* 9.38	69	* 9.60	79	* 9.62	89	* 1.83	99	
60	* 9.61	70	* 9.66	80	* 9.64	90	* 3.05	100	
f	95.16	g	94.42	h	96.09	i	19.07	j	

Size 73.0mm
Make IPSCO
Grade J-55
Wt. 9.67 kg/m
Rge. 2
Thrd. 8 Rd.
Cplg. E.U.E.

TOTALS

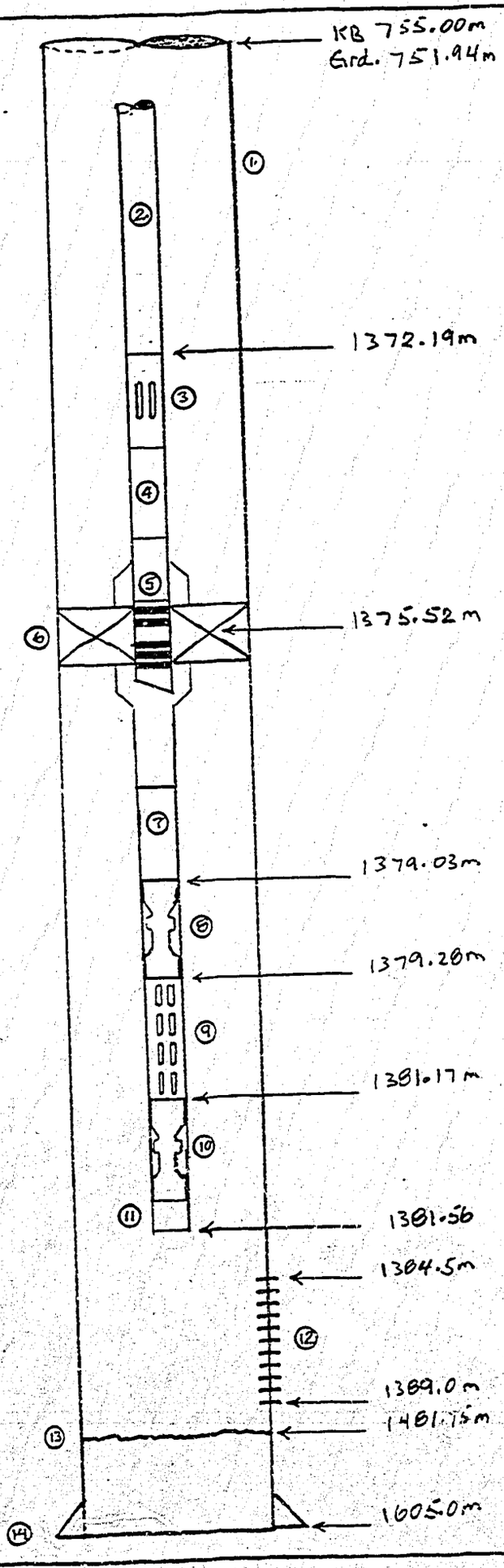
a	94.39
b	96.25
c	96.15
d	95.92
e	95.99
f	95.16
g	94.42
h	96.09
i	19.07
j	783.44
	959.51
	1742.95

Final Total

Remarks * Jts. not run. ** Perforated. Packer at 1375.52mKB. Sliding sleeve at 1372.19mKB. "F" Nipple at 1378.99mKB. Perf pup at 1379.24mKB. "R" Nipple at 1381.13mKB. Bottom of tail pipe assembly at 1381.50mKB

Tallied By M. R. MADDOCKS

PARAMOUNT RESOURCES LTD
PARAMOUNT HB et al CAMERON J-62
N. W. T.
SUB-SURFACE COMPLETION DIAGRAM
FEB 16 1981



FARRIES ENGINEERING (1977) LTD.
M. R. MADDOCKS MAR. 20 1981

FARRIES ENGINEERING (1977) LTD.

PARAMOUNT HB et al CAMERON J-62

Item No.	Description	I.D. (mm)	O.D. (mm)	Length (m)	Depth To Top (m KB)
1	Prod. Casing: 139.7 mm, 23.10 kg/m, J-55, set at 1,605.00 m. K.B.	125.70	139.70	1601.94	3.06
2	Tubing: 73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd.	62.00	73.00	1378.56	3.00
3	Sliding Sleeve: Baker Model 'L', 73.0 mm, EUE, 8rd box up, pin down.	58.72	86.61	0.87	1372.19
4	Pup Joint: 73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd.	62.00	73.00	1.89	1373.06
5	Tubing Anchor Seal Assembly: Baker Model E-22, Size 42-30, c/with 2 Premium seals and 73.0 mm EUE, box up and 1/2 mule shoe down.	60.33	76.20	0.79	1374.95
6	Packer: Baker Model FB-1 retainer production packer, size 45-30 c/with 1.96 m. mill out extension, 73.0 mm EUE, 8rd thd. pin down.	76.20	115.87	2.72	1375.15
7	Pup Joint: 73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd.	62.00	73.00	1.16	1377.87
8	Nipple: Baker Model 'F', non-ported, top No-Go, 73.0 mm, EUE, 8rd thd., box up, pin down.	58.72	78.97	0.25	1379.03
9	Pup Joint: perforated 73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd.	62.00	73.00	1.89	1379.28

FARRIES ENGINEERING (1977) LTD.

PARAMOUNT HB et al CAMERON J-62

continued from page 1

Item No.	Description	I.D. (mm)	O.D. (mm)	Length (m)	Depth To Top (m KB)
10	Nipple: Baker Model R, non-ported, bottom No-Go, 73.0 mm, EUE, 8rd thd., box up, pin down. No-Go I.D. = 55.80 mm	57.15	78.97	0.25	1381.17
11	Tubing Collar Re-Entry guide, 73 mm, J-55, EUE, 8rd thd.	62.00	93.17	0.14	1381.42
12	Perforations: 1384.5 - 1389.0 m. K.B., Sulphur Point, using a 39.7 mm thru tubing gun at 13 JSPM.			4.50	1384.50
13	P.B.T.D. verified with bit on 73 mm tubing on January 30, 1981.				1481.75
14	T.D: 1605.00 metres on March 4, 1979.				1605.00

EDMONTON Ph.: 468-3789
24 Hrs.
Telex 037-2869

Stream Flo INDUSTRIES LTD.

4505 - 74th AVENUE
EDMONTON, ALBERTA T6B 2H5
TELEPHONE: (403) 468-3789

CALGARY Ph.: 269-5531
24 Hrs.

QUOTATION

Paramount Resources
c/o Farries Eng.
630 - 6 Ave.
Calgary, Alberta

QUOTATION No. C.W. - 755

DATE: Jan 12,1981

REQUESTED BY: Mike Maddocks

WE HAVE YOUR Verbal Inquiry DATED _____ AND ARE PLEASED TO QUOTE, SUBJECT TO TERMS AND CONDITIONS SHOWN HEREON.

All bids and contracts made by us are made subject to the following conditions: 1. Stream-Flo Industries Ltd. shall not be liable for any delay in the completion of any contract caused by strike or any other labor difficulties, or by fire, storm, flood, act of God, or act of the public enemy, or by any cause whatsoever beyond its control. 2. Liability, if any, of Sream-Flo Industries Ltd. for any defect in workmanship or material is limited strictly to the proper replacement of any defective part and shall not in any event extend to any consequential damages therefrom. 3. Prices quoted are presently in effect and subject to change without notice.

ITEM No.	Quantity	DESCRIPTION	UNIT LIST	NET EXTENSION
		LOCATION: NORTHWEST TERRITORIES UNIT J - SEC 62		
		One FIP Wellhead Assembly 9 5/8" x 5 1/2" x 2 7/8" 2000#/3000# W.P. Consisting of the following material:		
1	1	Casing Bowl, 10" API 2000# or 3000# x 9 5/8" ODSO		On Location
2	1	Automatic Slip Pack-Off 10" x 5 1/2"		On Location
3	1	Ring Gasket, R - 53 M.S.		28.02
4	16	Studs, 10" - 2000# (1 1/4" x 8 3/4") B7	4.72	75.52
4a	32	Nuts, 10" - 2000# (1 1/4") 2H	1.36	43.52
4b	16	Studs, - 10" - 3000# (1 3/8" x 9 1/2") B7	6.18	98.88
4c	32	Nuts, 10" - 3000# (1 3/8") 2H	2.12	67.84
5	1	Tubing Head, FIP Type "FT - 16 - 00", 10" API 3000# (Double Drilled) x 6" API 3000# c/w 2 - 2" LPSO & Built-In 7" Secondary Seal.		2708.00
6	1	Secondary Pack-Off, FIP Type "00" 7" x 5 1/2"		261.00
7	1	Tubing Hanger, FIP Type "FT - 16", 6" x 2 7/8" EUE		277.00
8	1	Ring Gasket, R - 45 M.S.		17.97
9	12	Studs, 6" - 3000# (1 1/8" x 8") B7	2.73	32.76
9a	24	Nuts, 6" - 3000# (1 1/8") 2H	1.03	24.72
10	1	Adaptor Bonnet, Crown Type "A", 6" API 3000# x 2 7/8" EUE MPU x 2 7/8" EUE Internal Thread.		498.00

(Continued On Page 2)

DELIVERY: _____

WEIGHT: _____

SHIPPING TERMS: _____

SHIPPING POINT: _____

TERMS: _____

STREAM-FLO INDUSTRIES LTD.

PER: _____

EDMONTON Ph.: 465-6789
24 Hrs.
Telex 037-2879

Stream Flo INDUSTRIES LTD.

4505 - 74th AVENUE
EDMONTON, ALBERTA T6B 2H5
TELEPHONE: (403) 468-6789

CALGARY Ph.: 269-5531
24 Hrs.

QUOTATION

QUOTATION No. C.W. - 755 (Page 2)

DATE: Jan 12,1981

REQUESTED BY: Mike Maddocks

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ITEM No.	Quantity	DESCRIPTION	UNIT LIST	NET EXTENSION
11	1	Master Valve, FIP 2 7/8" EUE - 2000#, Full Opening, F - 21 Standard Trim, Expanding Gate		1460.00
12	1	Tubing Nipple, 2 7/8" EUE x 6"		35.09
13	1	Flow Tee, Crown Type "FTT", 2 7/8" EUE x 2" LPSO x 2 7/8" EUE Lift Thread		410.00
14	1	Needle Valve, Type "KF", 1/2" N.P.T., Straight Pattern		19.80
15	1	Pressure Gauge, Type "MARSH", 0 - 2000#, 1/2" N.P.T., 4 1/2" Face.		87.73
16	2	Pipe Nipple, 2" x 6" XXH SMLS	13.13	26.26
17	2	Production Valve, FIP 2" LP - 2000# Full Opening, F - 21 Standard Trim, Expanding Gate.	1065.00	2130.00
18	1	Adjustable Choke, Best, 2" LP - 3000# Standard Trim		601.70
19	1	Bull Plug, 2" LP XH Tapped 1/2" N.P.T.		18.46
20	1	Needle Valve, Type "KF", 1/2" N.P.T., Right Angle Pattern		25.72
21	16	Studs, 2" - 2000# (5/8" x 4 1/2") B7	.56	8.96
21a	32	Nuts, 2" - 2000# (5/8") 2H	.31	9.92
21b	16	Studs, 2" - 5000# (7/8" x 6") B7	1.09	17.44
21c	32	Nuts, 2" - 5000# (7/8") 2H	.48	15.36
22	2	Ring Gasket, R - 23 M.S.	8.90	17.80
22a	2	Ring Gasket, R - 24 M.S.	8.90	17.80
23	2	Companion Flange, 2" API 2000# x 2" LP	45.98	91.96

(Continued On Page 3)

DELIVERY: _____

WEIGHT: _____

SHIPPING TERMS: _____

SHIPPING POINT: _____

TERMS: _____

STREAM-FLO INDUSTRIES LTD.

PER. _____

MONTON Ph.: 468-6789
24 Hrs.
Telex 037-2869

Stream Flo INDUSTRIES LTD.

4505 - 74th AVENUE
EDMONTON, ALBERTA T6B 2H5
TELEPHONE: (403) 468-6789

CALGARY Ph.: 269-5531
24 Hrs.

QUOTATION

QUOTATION No. C.W. - 755 (Page 3)

DATE: Jan 12,1981

REQUESTED BY: Mike Maddocks

WE HAVE YOUR Verbal Inquiry DATED _____ AND ARE PLEASED TO QUOTE. SUBJECT TO TERMS AND CONDITIONS SHOWN HEREON.

l bids and contracts made by us are made subject to the following conditions: 1. Stream-Flo industries Ltd. shall not be liable for any delay in the completion f any contract caused by strike or any other labor difficulties, or by fire, storm, flood, act of God, or act of the public enemy, or by any cause whatsoever beyond its control. 2. Liability, if any, of Sream-Flo Industries Ltd. for any defect in workmanship or material is limited strictly to the proper replacement of anv defective part and shall not in any event extend to any consequential damages therefrom. 3. Prices quoted are presently in effect and subject to change ithout notice.

ITEM No.	Quantity	DESCRIPTION	UNIT LIST	NET EXTENSION
23a	2	Companion Flange, 2" API 5000# x 2" LP	104.06	208.12
24	1	Bull Plug, 2" LP XH		12.41
25	1	Casing Vent Assembly		193.00
		Total		$9,540.76

Assembly & Test Minimum 3 Hours @ $21.00/Hour.

Available Through Your Local Supply Store.

"All FIP Flanged Wellheads and Parts bear the A.P.I. Monogram,and are manufactured in accordance with A.P.I. Specification 6.A, under our A.P.I. Certificate No: 6426."

Quoted Prices are Firm For 30 Days.

ELIVERY: As Required

EIGHT: _____

SHIPPING TERMS: F.O.B. Stream-Flo Plant

HIPPING POINT: Edmonton, Alberta

ERMS: Net 30 Days

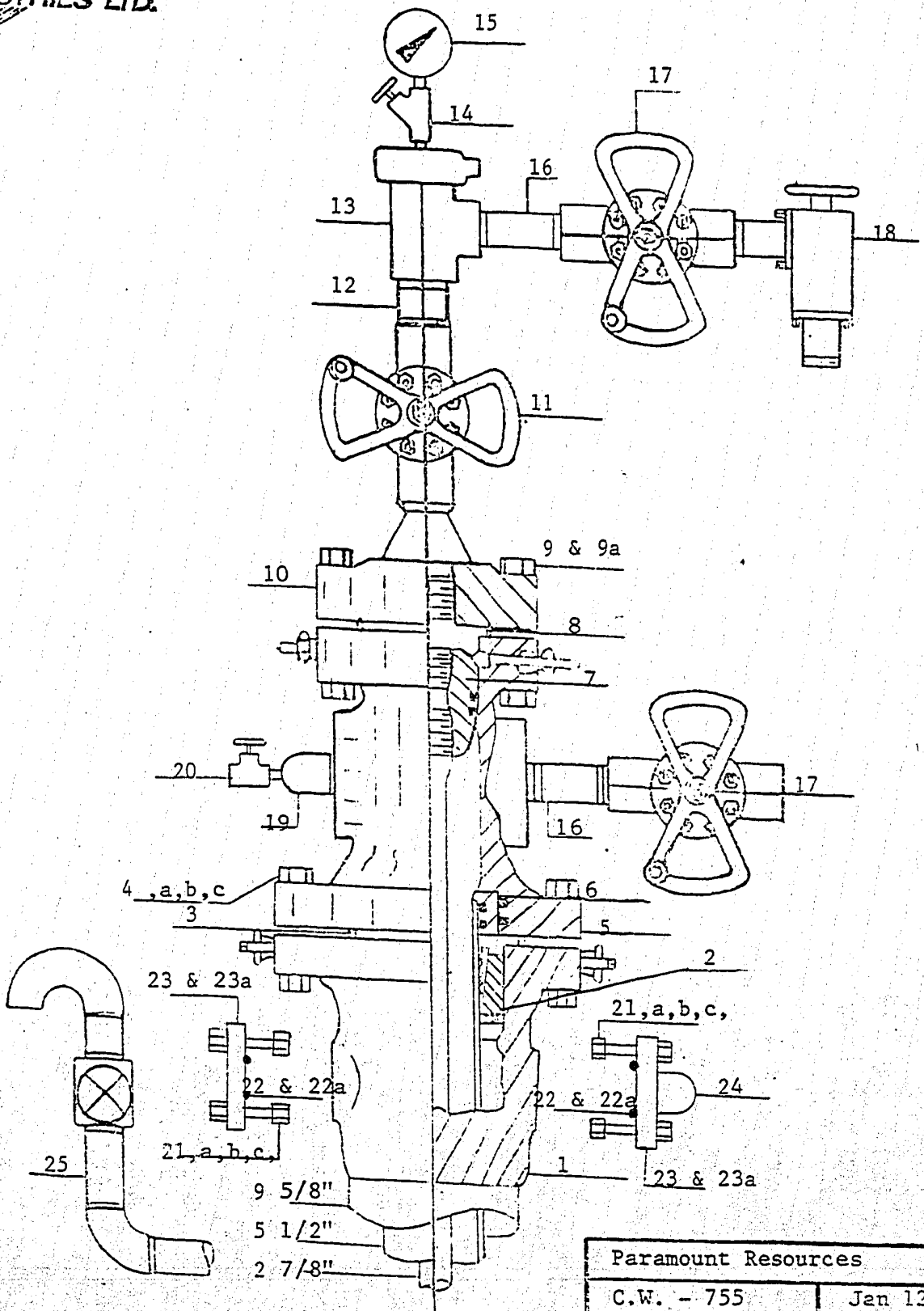
STREAM-FLO INDUSTRIES LTD.

PER. Jim Galts

Jim Galts

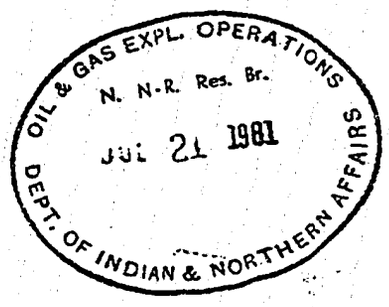
STREAM-FLO INDUSTRIES LTD.

EDMONTON
CALGARY



Paramount Resources	
C.W. - 755	Jan 12,1981
Jim Galts	JG/db
Stream-Flo Industries Ltd.	

Drill Stem Test Report



QUINN TESTERS LTD.

QUINN TESTERS LTD.

CALGARY, ALBERTA — TEST DATA — PHONE 232-1704

CUSTOMER PARAMOUNT RESOURCES LTD. DATE 80-03-06 TEST NO. 1

LOCATION PARAMOUNT HB ET AL CAMERON J-62 FORMATION KEG RIVER

TEST INTERVAL 1515 TO 1529 T.D. 1605 TEST TYPE DSBP

CUSTOMER REP. MR. KARY WILSON TESTER DON WITTMACK & CLINT HOPPUS

IN OR OUT & NO. TIME & RANGE RECORDER DEPTH	IN Rec./No. 14032 / 24 Hr. 24132 / 1509.421 Metres	OUT Rec./No. 15365 / 24 Hr. 35853 / 1523.840 Metres	OUT Rec./No. 15372 / 24 Hr. 36887 / 1537.237 Metres	Rec./No. / Hr. / Metres

Bottom Hole Temperature °C 53 ; K.B. 755 ; Gr. 751.94 No. of Reports Required 6

PERCENTAGE OF POROSITY METRES OF NET PAY

D.P. Size, mm 88.9 Wght. kg/m 21.58 D.C.I.D. mm 73 D.C. Above Tool, m 58.88

Main Hole, mm 222 Rat Hole, mm Rat Hole Depth, m

Mud Wght. kg/m³ 1090 Viscosity, s/L 50 Water Loss cm³ 13.40

Bottom Choke, mm 12.7 Rubber Size, mm 196.8 Anchor Size, mm 127

Amount and Type of Cushion

Preflow 10 Mins. | 1st Flow 60 Mins. | 2nd Flow Mins. | 3rd Flow Mins. | 4th Flow Mins. | Started in @ 1930

1st Shut-In 30 Mins. | 2nd Shut-In 120 Mins. | 3rd Shut-In Mins. | 4th Shut-In Mins. | 5th Shut-In Mins. | Out of Hole @ 1200

Field Readings

Recorder No. 14032 F F 10330 kPa

I H 16148 kPa 2nd S I 10330 kPa

I P F 1817 kPa I F kPa

F P F kPa F F kPa

1st S I 10330 kPa 3rd S I kPa

I F 5642 kPa F H 15748 kPa.

GAS RECOVERY: Measured with

Gas Samples; # ; # To C & G LABS, EDMONTON

Mins	kPa	Temp	Orifice	m³/day	Mins	kPa	Temp	Orifice	m³/day

TOTAL FLUID RECOVERY: 1090 Metres Sampler # ; #

Sampled @ 1090 ; 500 ; .305 ; Above Tool

50 Metres of DRILLING MUD.

115 Metres of MUDDY SULPHUROUS WATER

925 Metres of GAS CUT SULPHUROUS WATER SALINTY (30 400 ppm)

Metres of

P.O. Sub	.305	
B.P./Blank	.305	
Recorder		
Shut-In	1.600	
Sampler		
Sampler		
Hydraulic	1.661	
Jars	1.417	
Recorder	1.524	
Recorder		
Temp Rec.		
By-Pass	.305	
Safety Jt.	.610	
Packer	2.000	
Packer	1.445	1515
Packer	.305	
Perfs	8.230	
By-Pass	.305	
Recorder	1.219	
Recorder		
BLANK	3.048	
D.P./D.C.		
X Over		
Packer	1.000	1529
Packer	1.000	
Packer	1.750	
Perfs	5.182	
Recorder	1.524	
X Over	.305	
D.P./D.C.	65.340	
X Over	.305	
Perfs		
Bullnose	.610	1605

Total Interval 14.107 m.

Total Tail Pipe 76.016 m.

Tool Makeup Time 2.000 Hr.

REMARKS: Misrun : Ok X : Tool Opened @ 0000 Hrs.

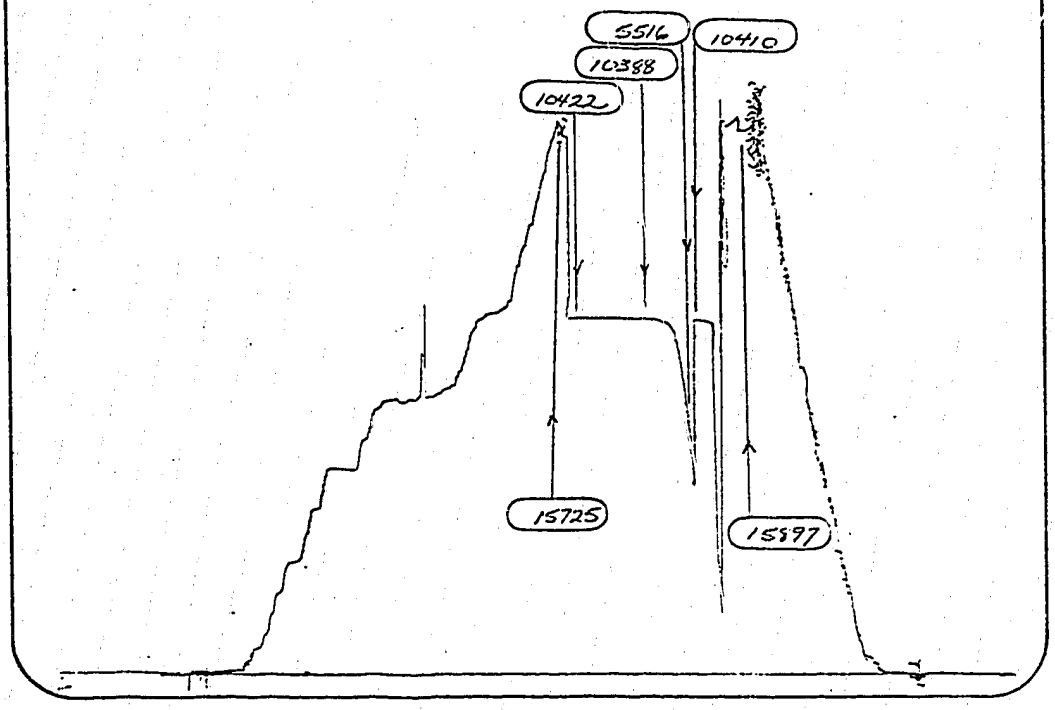
WEAK AIR BLOW BUILDING TO FAIR ON PREFLOW. GOOD AIR BLOW DECREASING TO WEAK, DEAD IN 35 MINUTES. SOUR GAS IN FLUID ON TRIP OUT. ATTEMPTED TO REVERSE CIRCULATE FLAILED DUE TO PLUGGED PUMP OUT PORT.

FORM 1801 REV. 8/78

QUINN TESTERS LTD.

CALGARY, ALBERTA — TEST CHARTS — PHONE 232-1704

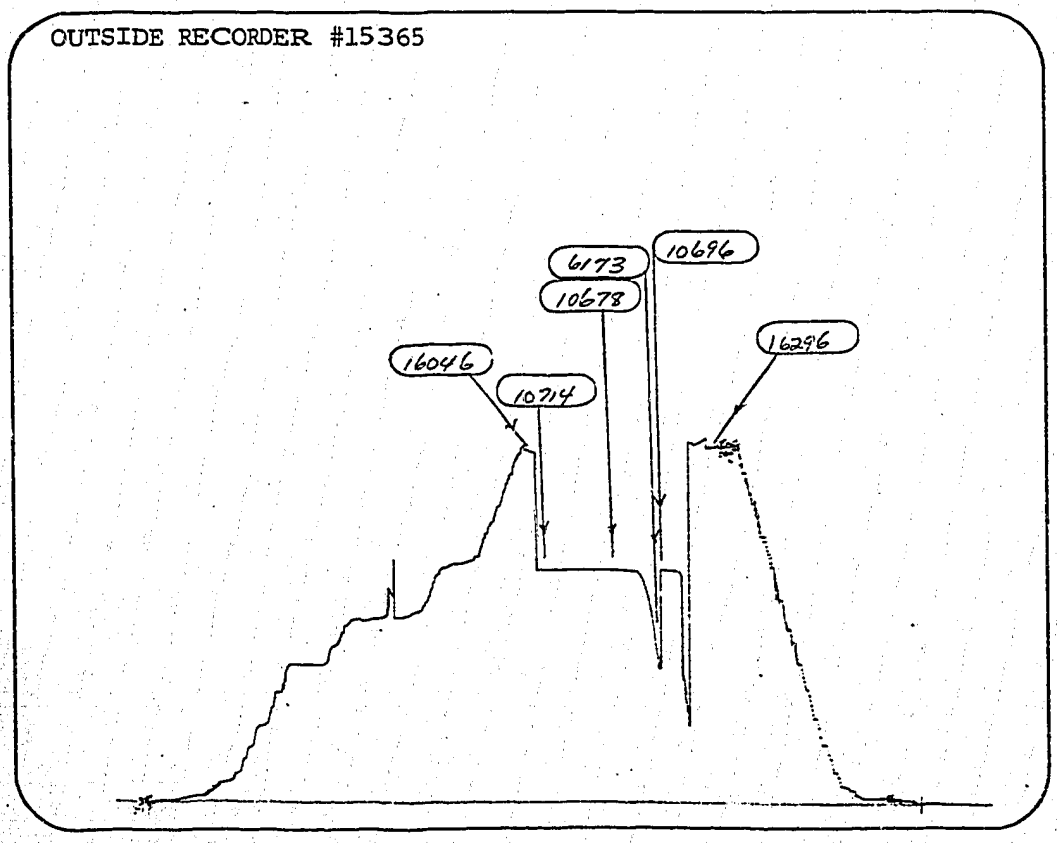
INSIDE RECORDER #14032



INTIAL HYDR. 15897
IN. PREFLOW 1782
F. PREFLOW 5102
1st SHUT-IN 10410
1st IN. FLOW 5516
1st F. FLOW 10388
2nd SHUT-IN 10422
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 15725

PARAMOUNT HB ET AL CAMERON J-62 DST# 1

OUTSIDE RECORDER #15365



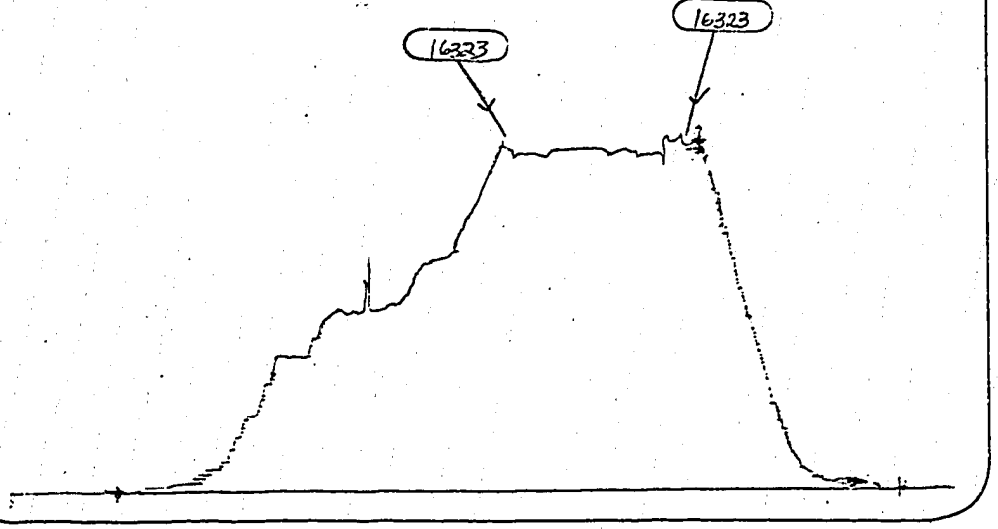
INTIAL HYDR. 16296
IN. PREFLOW 3520
F. PREFLOW 5920
1st SHUT-IN 10696
1st IN. FLOW 6173
1st F. FLOW 10678
2nd SHUT-IN 10714
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 16046

QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA — PHONE 232-1704

OUTSIDE RECORDER #15372



INTIAL HYDR. 16325
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 16323.

PARAMOUNT HB ET AL CAMERON J-62 DST# 1

INTIAL HYDR.
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR.

METRIC CONVERSION TABLE

1 TRADITIONAL UNIT		=		SI UNITS
Depths, Thickness, Elevations	(ft)	=	.304 8	m
Amount of Cushion or Recovery	(ft)	=	.304 8	m
Gauge Depth Temperature	(°F)	=		°C
Casing and Hole Size	(in)	=	25.4	mm
Choke Size	(in)	=	25.4	mm
Drill Pipe and Drill Collar Diameter	(in)	=	25.4	mm
Drill Pipe and Drill Collar Weight	(lbs/ft)	=	1.488 164	kg/m
Hook Loads	(lbs)	=	.444 822	daN
Mud Weight	(ppg)	=	119.826	kg/m^3
Mud Viscosity	(s/qt)	=	1.056 688	s/L
Pressures	(psi)	=	6.894 757	kPa
Gas Volumes	(MSCF/D)	=	28.173 99	m^3/day
Oil Volumes	(BPD)	=	.158 987	m^3/day
Fluid Pressure Gradient	(psi/ft)	=	22.620 593	kPa/m
Flow Capacity	(mD-ft)	=	.304 8	mD.m
Permeability	(mD)	=	1.00	mD
Productivity Index	(bbl/day-psi)	=	.023 059	$m^3/(kPa.d)$
	(MSCF/day-psi)	=	4.107 012	$m^3/(kPa.d)$
Radius of Investigation	(ft)	=	.304 8	m
Oil Viscosity	(cp)	=	1.00	mPa.s

STANDARD PRESSURE NOTATION

over 10,000 kPa use MPa
1-10,000 kPa use kPa
under 1 kPa use Pa

(1 kPa = .145 psi)

QUINN TESTERS LTD.

302, 605 - 7th Street S.W.
CALGARY, ALBERTA
T2P 1Z3

General Office 232-1704
Chart Analysis 232-1708

BRANCH AND FIELD OFFICES

EDMONTON, ALBERTA ..... 403 - 465-9686
BROOKS, ALBERTA ..... 403 - 362-6543
FORT ST. JOHN, BRITISH COLUMBIA ..... 604 - 785-8071
MANNING, ALBERTA ..... 403 - 836-3221

Drill Stem Test Report

OIL & GAS EXPL. OPERATIONS
N. N-R. Res. Br.
JUL 21 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS

QUINN TESTERS LTD.

QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST DATA

PHONE 232-1704

CUSTOMER PARAMOUNT RESOURCES LTD. DATE 80-03-07 TEST NO 2

LOCATION PARAMOUNT HB ET AL CAMERON J-62 FORMATION SULPHUR POINT

TEST INTERVAL 1383 TO 1395 T.D. 1605 TEST TYPE DSBP

CUSTOMER REP. KARY WILSON TESTER WITTMACK & HOPPUS

IN OR OUT & NO.	IN	OUT	OUT	
TIME & RANGE	Rec./No. 14032	Rec./No. 15365	Rec./No. 15372	Rec./No.
RECORDER DEPTH	24 Hr. 24132	24 Hr. 35853	24 Hr. 36887	Hr.
	1377.421 Metres	1392.754 Metres	1404.456 Metres	Metres

Bottom Hole Temperature °C 52 ; K.B. 755 ; Gr. 751.9 No. of Reports Required 6

PERCENTAGE OF POROSITY METRES OF NET PAY

D.P. Size, mm 88.9 Wght. kg/m 21.58 D.C.I.D. mm 73 D.C. Above Tool, m 58.88

Main Hole, mm 222 Rat Hole, mm Rat Hole Depth, m

Mud Wght. kg/m³ 1090 Viscosity, s/L 50 Water Loss cm³ 13.40

Bottom Choke, mm 12.7 Rubber Size, mm 196.80 Anchor Size, mm 127

Amount and Type of Cushion

Preflow 10 Mins. 1st Shut-In 60 Mins.

1st Flow 300 Mins. 2nd Shut-In 600 Mins.

2nd Flow Mins. 3rd Shut-In Mins.

3rd Flow Mins. 4th Shut-In Mins.

4th Flow Mins. 5th Shut-In Mins.

Started in @ 1500 Out of Hole @ 2200

Field Readings

Recorder No. 14032 F F 4033 kPa

I H 14659 kPa 2nd S I 9531 kPa

I P F 1993 kPa I F kPa

F P F kPa F F kPa

1st S I 9531 kPa 3rd S I kPa

I F 3341 kPa F H 14488 kPa.

GAS RECOVERY: Measured with CRITICAL FLOW PROVER

Gas Samples: # 6854 : # To C & G LABS, EDMONTON

Mins	kPa	Temp	Orifice	m³/day	Mins	kPa	Temp	Orifice	m³/day
275	360	-10	31.8	64853					

GAS SOUR WITH FLUID SPRAY WOULD NOT BURN ABOVE RISER.

TOTAL FLUID RECOVERY: 40 Metres Sampler # : #

Sa: .305 ; 18 ; ; Above Tool

1 Metres of AMMONIA WATER

28 Metres of SULPHUROUS SALT WATER SALINTY (26 800 ppm)

Metres of

Metres of

P.O. Sub	.305
B.P./Blank	.305
Recorder	
Shut-In	1.600
Sampler	
Sampler	
Hydraulic	1.661
Jars	1.417
Recorder	1.524
Recorder	
Temp Rec.	
By-Pass	.305
Safety Jt.	.610
Packer	2.000
Packer	1.445 1383
Packer	.305
Perfs	9.144
By-Pass	.305
Recorder	1.219
Recorder	
X Over	
D.P./D.C.	
X Over	
Packer	1.000 1395
Packer	1.000
Packer	1.750
Perfs	6.401
Recorder	1.524
X Over	.305
D.P./D.C.	197.980
X Over	.305
Perfs	
Bullnose	.610 1605

Total Interval 11.973 m.

Total Tail Pipe 209.875 m.

Tool Makeup Time 1.500 Hr.

REMARKS: Misrun : Ok X : Tool Opened @ 1855 Hrs.

STRONG AIR BLOW ON PREFLOW WITH GAS TO SURFACE IN 2.5 MINUTES. GAS TO SURFACE IMMEDIATELY ON VALVE OPEN WITH STRONG FLUID SPRAY AFTER 2 MINUTES. FINE SPRAY AFTER 4 HOURS CAUGHT ONE FLOW PROVER READING BUT GAS SOUR AND WOULD NOT BURN ABOVE RISER. PULLED LOOSE AND WAIT ON SAFETY HAND.

FORM 1801 REV. 8/78

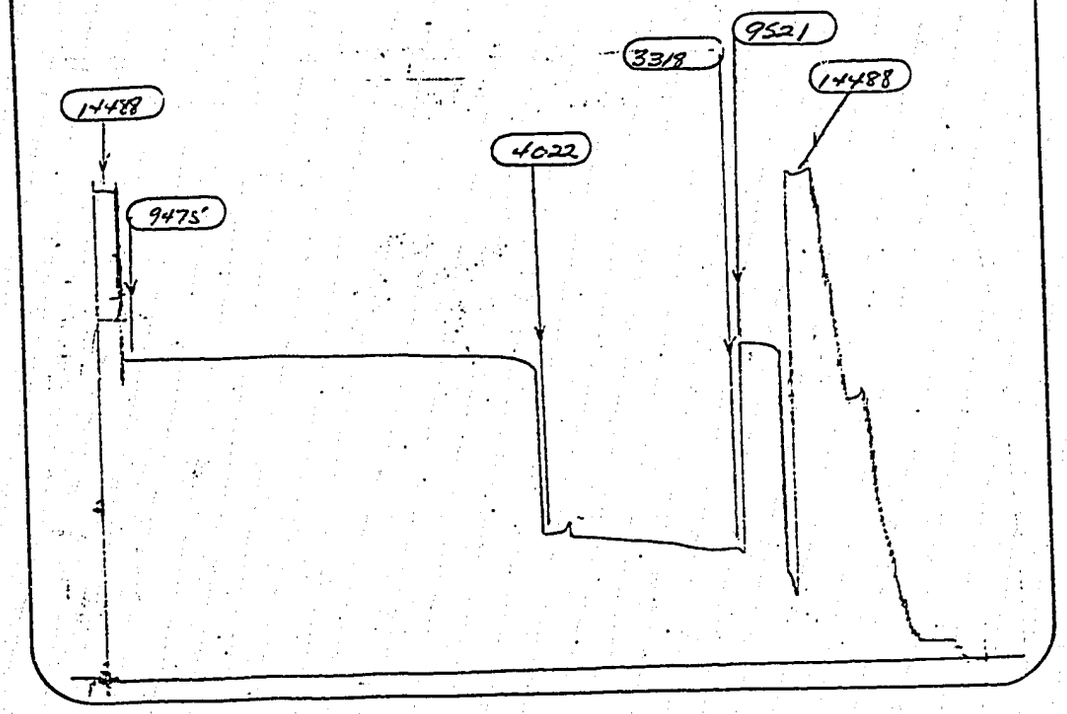
QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA

PHONE 232-1704

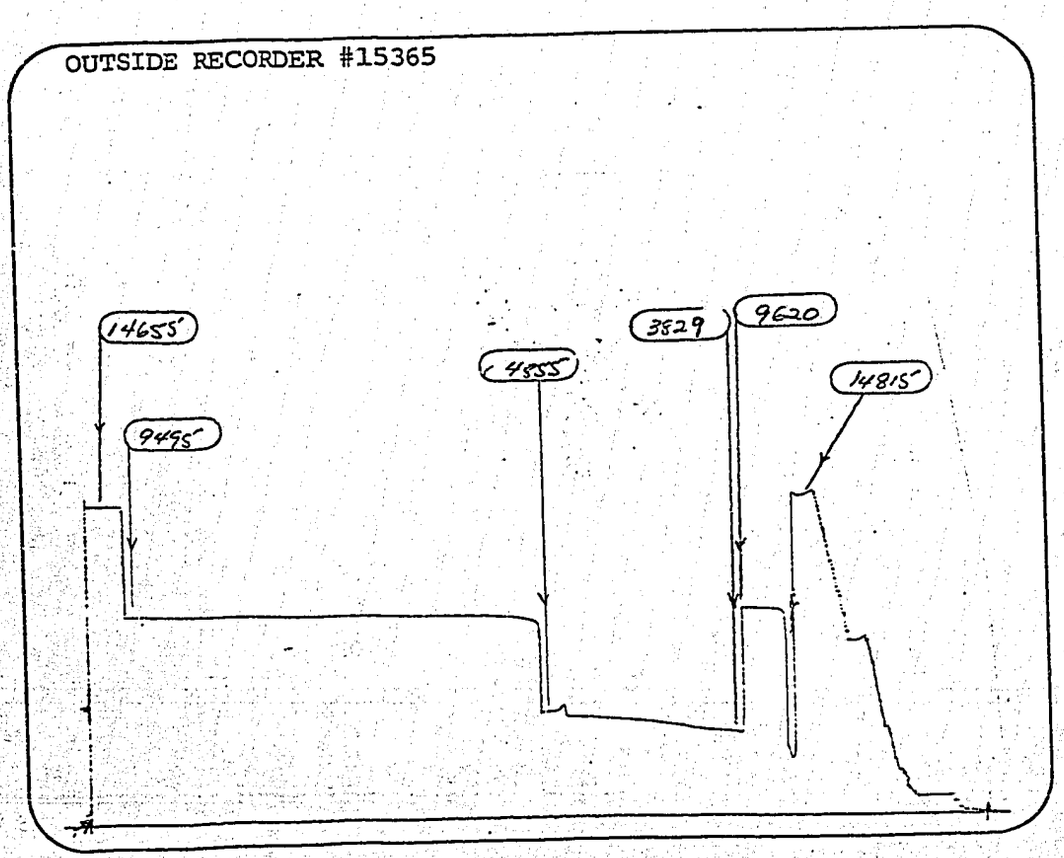
INSIDE RECORDER #14032



INTIAL HYDR.	14488
IN. PREFLOW	2005'
F. PREFLOW	2697
1st SHUT-IN	9521
1st IN. FLOW	3318
1st F. FLOW	4022
2nd SHUT-IN	9475'
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	14488

PARAMOUNT HB ET AL CAMERON J-62 DST# 2

OUTSIDE RECORDER #15365



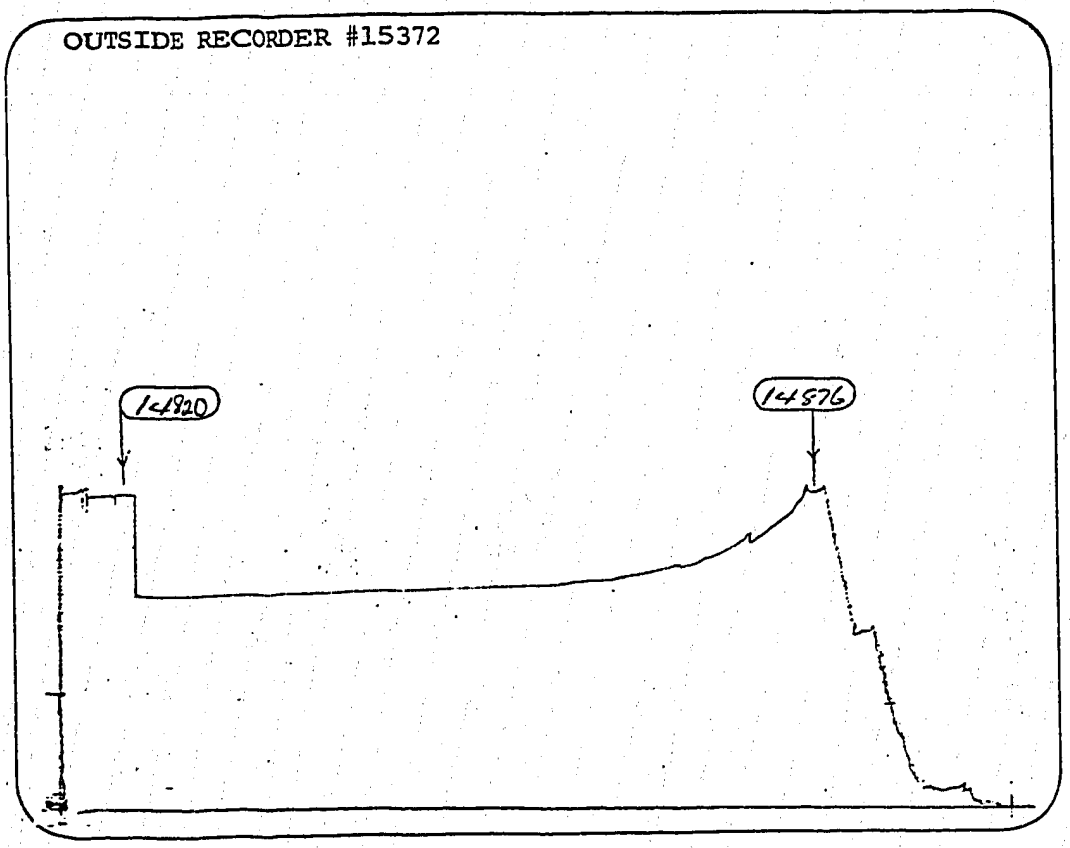
INTIAL HYDR.	14815'
IN. PREFLOW	2689
F. PREFLOW	3195'
1st SHUT-IN	9620
1st IN. FLOW	3829
1st F. FLOW	4855'
2nd SHUT-IN	9495'
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	14655'

QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA — PHONE 232-1704

OUTSIDE RECORDER #15372



INTIAL HYDR. 14876
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 14820

PARAMOUNT HB ET AL CAMERON J-62 DST# 2

INTIAL HYDR.
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR.

METRIC CONVERSION TABLE

1 TRADITIONAL UNIT		=		SI UNITS
Depths, Thickness, Elevations	(ft)	=	.304 8	m
Amount of Cushion or Recovery	(ft)	=	.304 8	m
Gauge Depth Temperature	(°F)	=		°C
Casing and Hole Size	(in)	=	25.4	mm
Choke Size	(in)	=	25.4	mm
Drill Pipe and Drill Collar Diameter	(in)	=	25.4	mm
Drill Pipe and Drill Collar Weight	(lbs/ft)	=	1.488 164	kg/m
Hook Loads	(lbs)	=	.444 822	daN
Mud Weight	(ppg)	=	119.826	kg/m^3
Mud Viscosity	(s/qt)	=	1.056 688	s/L
Pressures	(psi)	=	6.894 757	kPa
Gas Volumes	(MSCF/D)	=	28.173 99	m^3/day
Oil Volumes	(BPD)	=	.158 987	m^3/day
Fluid Pressure Gradient	(psi/ft)	=	22.620 593	kPa/m
Flow Capacity	(mD-ft)	=	.304 8	mD.m
Permeability	(mD)	=	1.00	mD
Productivity Index	(bbl/day-psi)	=	.023 059	$m^3/(kPa.d)$
	(MSCF/day-psi)	=	4.107 012	$m^3/(kPa.d)$
Radius of Investigation	(ft)	=	.304 8	m
Oil Viscosity	(cp)	=	1.00	mPa.s

STANDARD PRESSURE NOTATION

over 10,000 kPa use MPa
1-10,000 kPa use kPa
under 1 kPa use Pa

(1 kPa = .145 psi)

QUINN TESTERS LTD.

302, 605 - 7th Street S.W.
CALGARY, ALBERTA
T2P 1Z3

General Office 232-1704
Chart Analysis 232-1708

BRANCH AND FIELD OFFICES

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FORT ST. JOHN, BRITISH COLUMBIA ..... 604 - 785-8071
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[redacted]

Drill Stem Test Report

OIL & GAS EXPL. OPERATIONS
N. N-R. Res. Br.
JUL 21 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS

QUINN TESTERS LTD.

QUINN TESTERS LTD.

CALGARY, ALBERTA — TEST DATA — PHONE 232-1704

CUSTOMER PARAMOUNT RESOURCES LTD. DATE 80-03-09 TEST NO. 3

LOCATION PARAMOUNT HB ET AL CAMERON J-62 FORMATION SLAVE POINT

TEST INTERVAL 1319 TO 1348 T.D. 1605 TEST TYPE DSBP

CUSTOMER REP. KARY WILSON TESTER WITTMACK & HOPPUS

IN OR OUT & NO. TIME & RANGE RECORDER DEPTH	IN Rec./No. 14032 / 24 Hr. 24132 / 1313.421 Metres	OUT Rec./No. 15365 / 24 Hr. 35853 / 1325.761 Metres	OUT Rec./No. 15372 / 24 Hr. 36887 / 1357.151 Metres	Rec./No. / Hr. / Metres

Bottom Hole Temperature °C 49 ; K.B. 755 ; Gr. 751.9 No. of Reports Required 6

PERCENTAGE OF POROSITY METRES OF NET PAY

D.P. Size, mm 88.9 Wght. kg/m 21.58 D.C.I.D. mm 73 D.C. Above Tool, m 37.89

Main Hole, mm 222 Rat Hole, mm Rat Hole Depth, m

Mud Wght. kg/m³ 1090 Viscosity, s/L 50 Water Loss cm³ 13.40

Bottom Choke, mm 12.7 Rubber Size, mm 196.8 Anchor Size, mm 127

Amount and Type of Cushion

Preflow 10 Mins. | 1st Flow 60 Mins. | 2nd Flow Mins. | 3rd Flow Mins. | 4th Flow Mins. | Started in @ 0200

1st Shut-In 60 Mins. | 2nd Shut-In 120 Mins. | 3rd Shut-In Mins. | 4th Shut-In Mins. | 5th Shut-In Mins. | Out of Hole @ 1500

Field Readings

Recorder No. 14032 F F 1876 kPa

I H 14030 kPa 2nd S I 9246 kPa

I P F 1465 kPa I F kPa

F P F kPa F F kPa

1st S I 8218 kPa 3rd S I kPa

I F 1583 kPa F H 13915 kPa.

GAS RECOVERY: Measured with

Gas Samples: # ; # To C & G LABS, EDMONTON

Mins	kPa	Temp	Orifice	m³/day	Mins	kPa	Temp	Orifice	m³/day

TOTAL FLUID RECOVERY: 170 Metres Sampler # : #

Sampled @ .305 : 90 : 160 : Above Tool

30 Metres of INHIBITOR WATER

40 Metres of DRILLING MUD

100 Metres of MUD CUT SALT WATER (28 600 ppm)

Metres of

REMARKS: Misrun : Ok X : Tool Opened @ 0545 Hrs.

WEAK AIR BLOW INCREASING TO GOOD ON PREFLOW. WEAK AIR BLOW INCREASING TO STRONG FOR 10 MINUTES ON VALVE OPEN. THEN DECREASING TO WEAK. DEAD IN 40 MINUTES.

P.O. Sub	.305
D.P./Blank	.305
Recorder	
Shut-In	1.600
Sampler	
Sampler	
Hydraulic	1.661
Jars	1.417
Recorder	1.524
Recorder	
Temp Rec.	
By-Pass	.305
Safety Jt.	.610
Packer	2.000
Packer	1.445 1319.055
Packer	.305
Perfs	6.096
By-Pass	.305
Recorder	1.219
Recorder	
X Over	.305
D.P./D.C.	19.570
X Over	.305
Packer	1.000 1348.16
Packer	1.000
Packer	1.750
Perfs	6.096
Recorder	1.524
X Over	.305
D.P./D.C.	245.250
X Over	.305
Perfs	
Bullnose	.610 1605

Total Interval 29.105 m.

Total Tail Pipe 256.840 m.

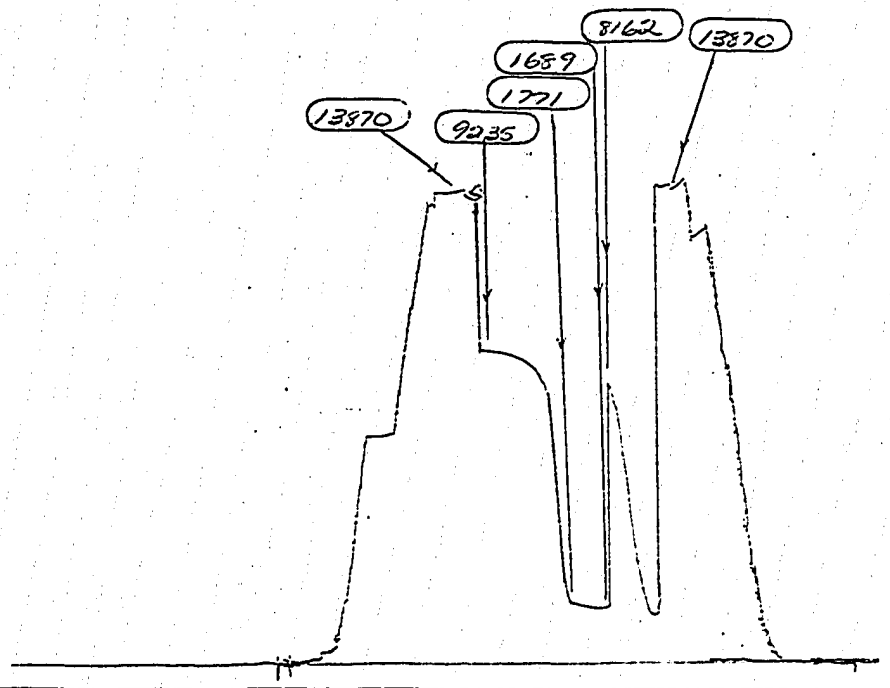
Tool Makeup Time 2.000 Hr.

FORM 1801 REV. 8/78

QUINN TESTERS LTD.

CALGARY, ALBERTA — TEST CHARTS — PHONE 232-1704

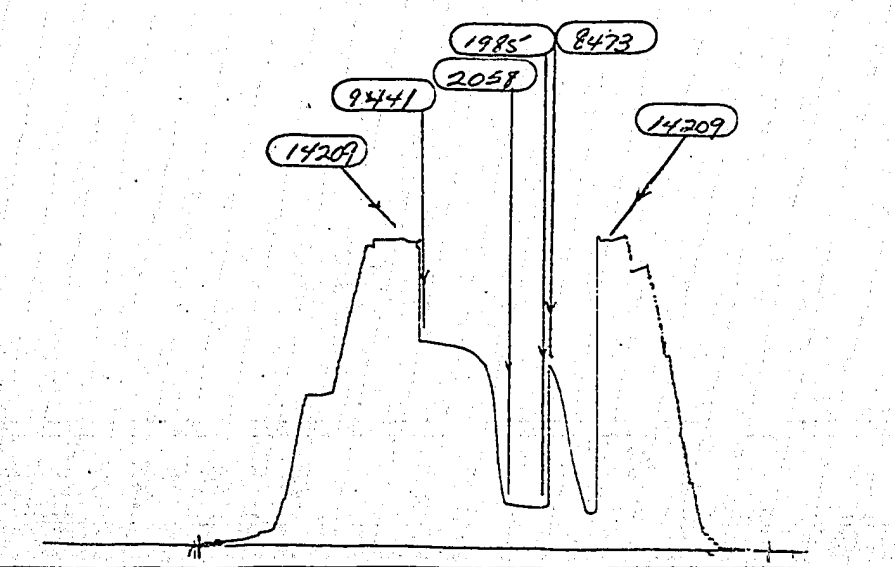
INSIDE RECORDER #14032



INTIAL HYDR.	13870
IN. PREFLOW	1477
F. PREFLOW	1407
1st SHUT-IN	8162
1st IN. FLOW	1689
1st F. FLOW	1771
2nd SHUT-IN	9235
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	13870

PARAMOUNT HB ET AL CAMERON J-62 DST# 3

OUTSIDE RECORDER #15365



INTIAL HYDR.	14209
IN. PREFLOW	1805
F. PREFLOW	1715
1st SHUT-IN	8473
1st IN. FLOW	1985
1st F. FLOW	2058
2nd SHUT-IN	9441
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	14209

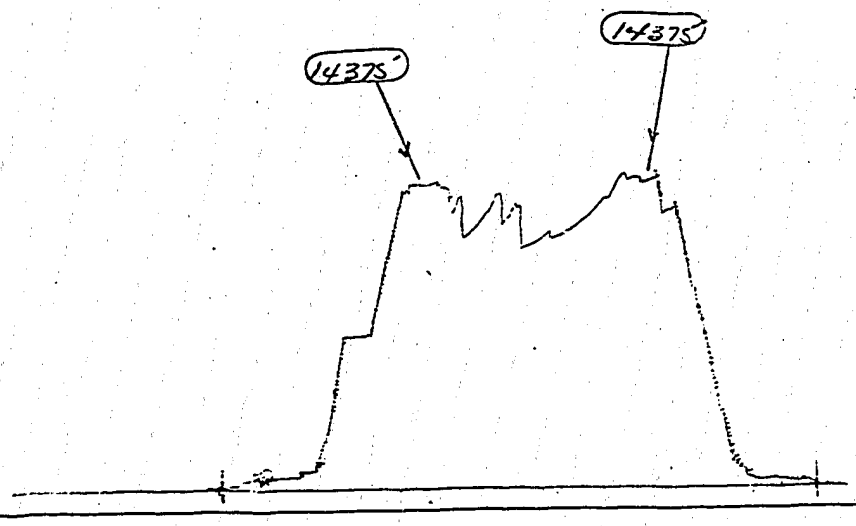
QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA

PHONE 232-1704

OUTSIDE RECORDER #15372



INTIAL HYDR. 1437S'
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 1437S'

PARAMOUNT HB ET AL CAMERON J-62 DST# 3

INTIAL HYDR.
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR.

METRIC CONVERSION TABLE

1 TRADITIONAL UNIT		=		SI UNITS
Depths, Thickness, Elevations	(ft)	=	.304 8	m
Amount of Cushion or Recovery	(ft)	=	.304 8	m
Gauge Depth Temperature	(°F)	=		°C
Casing and Hole Size	(in)	=	25.4	mm
Choke Size	(in)	=	25.4	mm
Drill Pipe and Drill Collar Diameter	(in)	=	25.4	mm
Drill Pipe and Drill Collar Weight	(lbs/ft)	=	1.488 164	kg/m
Hook Loads	(lbs)	=	.444 822	daN
Mud Weight	(ppg)	=	119.826	kg/m^3
Mud Viscosity	(s/qt)	=	1.056 688	s/L
Pressures	(psi)	=	6.894 757	kPa
Gas Volumes	(MSCF/D)	=	28.173 99	m^3/day
Oil Volumes	(BPD)	=	.158 987	m^3/day
Fluid Pressure Gradient	(psi/ft)	=	22.620 593	kPa/m
Flow Capacity	(mD-ft)	=	.304 8	mD.m
Permeability	(mD)	=	1.00	mD
Productivity Index	(bbl/day-psi)	=	.023 059	$m^3/$ (kPa.d)
	(MSCF/day-psi)	=	4.107 012	$m^3/$ (kPa.d)
Radius of Investigation	(ft)	=	.304 8	m
Oil Viscosity	(cp)	=	1.00	mPa.s

STANDARD PRESSURE NOTATION

over 10,000 kPa use MPa
1-10,000 kPa use kPa
under 1 kPa use Pa

(1 kPa = .145 psi)

QUINN TESTERS LTD.

302, 605 - 7th Street S.W.
CALGARY, ALBERTA
T2P 1Z3

General Office 232-1704
Chart Analysis 232-1708

BRANCH AND FIELD OFFICES

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Drill Stem Test Report

OIL & GAS EXPL. OPERATIONS
N. N-R. Res. Br.
JUL 21 1981
DEPT. OF INDIAN & NORTHERN AFFAIRS

QUINN TESTERS LTD.

QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST DATA

PHONE 232-1704

CUSTOMER PARAMOUNT RESOURCES LTD. DATE 80-03-09 TEST NO. 4

LOCATION PARAMOUNT HB ET AL CAMERON J-62 FORMATION TWIN FALLS

TEST INTERVAL 812 TO 835 T.D. 1605 TEST TYPE DSBP

CUSTOMER REP. KARY WILSON TESTER WITTMACK & HOPPUS

IN OR OUT & NO.	IN Rec./No. 14032	OUT Rec./No. 15365	OUT Rec./No. 15372	Rec./No.
TIME & RANGE	24 Hr. 24132	24 Hr. 35853	24 Hr. 36887	Hr.
RECORDER DEPTH	806.421 Metres	818.706 Metres	842.627 Metres	Metres

Bottom Hole Temperature °C 42 ; K.B. 755 ; Gr. 751.9 No. of Reports Required 6

PERCENTAGE OF POROSITY METRES OF NET PAY

D.P. Size, mm 88.9 Wght. kg/m 21.58 D.C.I.D. mm 73 D.C. Above Tool, m 47.958

Main Hole, mm 222 Rat Hole, mm Rat Hole Depth, m

Mud Wght. kg/m³ 1090 Viscosity, s/L 50 Water Loss cm³ 13.400

Bottom Choke, mm 12.7 Rubber Size, mm 196.80 Anchor Size, mm 127

Amount and Type of Cushion

Preflow Mins.	1st Shut-In Mins.	Recorder No.	F F kPa
1st Flow Mins.	2nd Shut-In Mins.	I H kPa	2nd S I kPa
2nd Flow Mins.	3rd Shut-In Mins.	I P F kPa	I F kPa
3rd Flow Mins.	4th Shut-In Mins.	F P F kPa	F F kPa
4th Flow Mins.	5th Shut-In Mins.	1st S I kPa	3rd S I kPa
Started in @ 1830	Out of Hole @ 0300	I F kPa	F H kPa

Field Readings

GAS RECOVERY: Measured with

Gas Samples: # ; # To C & G LABS, EDMONTON

Mins	kPa	Temp	Orifice	m³/day	Mins	kPa	Temp	Orifice	m³/day

TOTAL FLUID RECOVERY: 65 Metres Sampler# ; #

Sampled @ ; ; ; Above Tool

65 Metres of DRILLING MUD.

Metres of

Metres of

Metres of

P.O. Sub	.305	
~~P.~~/Blank	.305	
Recorder		
Shut-In	1.600	
Sampler		
Sampler		
Hydraulic	1.661	
Jars	1.417	
Recorder	1.524	
Recorder		
Temp Rec.		
By-Pass	.305	
Safety Jt.	.610	
Packer	2.000	
Packer	1.445	812
Packer	.305	
Perfs	6.096	
By-Pass	.305	
Recorder	1.219	
BLANK	3.353	
X Over	.305	
D.P./D.C.	10.095	
X Over	.305	
Packer	1.000	835
Packer	1.000	
Packer	1.750	
Perfs	4.572	
Recorder	1.524	
X Over	.305	
D.P./~~D.C.~~	760.010	
X Over	.305	
Perfs		
Bullnose	.610	1605

Total Interval 22.983 m.

Total Tail Pipe 770.076 m.

Tool Makeup Time Hr.

REMARKS: Misrun X : Ok : Tool Opened @ 2030 Hrs.

GOT WEAK AIR BLOW FOR 1 MINUTE ON PREFLOW THEN SLOWLY LOST MUD IN ANNULUS. SAME RESULTS WITH TWO ADDITIONAL ATTEMPTS. HOISTED.

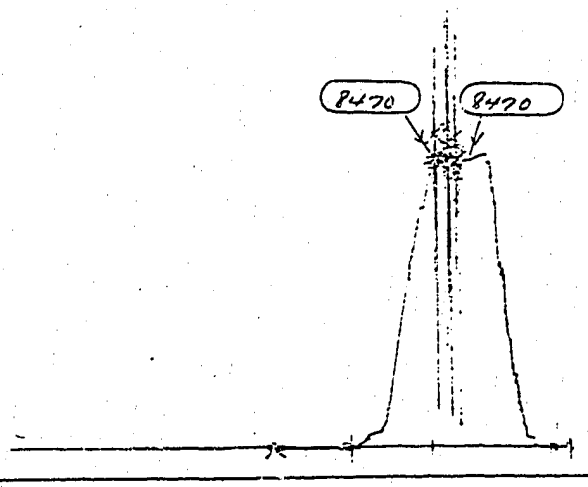
FORM 1801 REV. 8/78

QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA — PHONE 232-1704

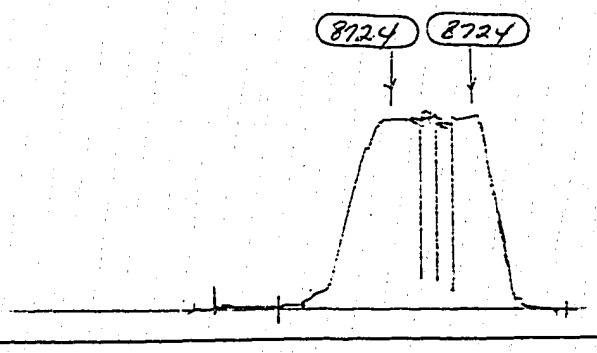
INSIDE RECORDER #14032



INTIAL HYDR. 8470
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 8470

PARAMOUNT HB ET AL CAMERON J-62 DST# 4

OUTSIDE RECORDER #15365



INTIAL HYDR. 8724
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 8724

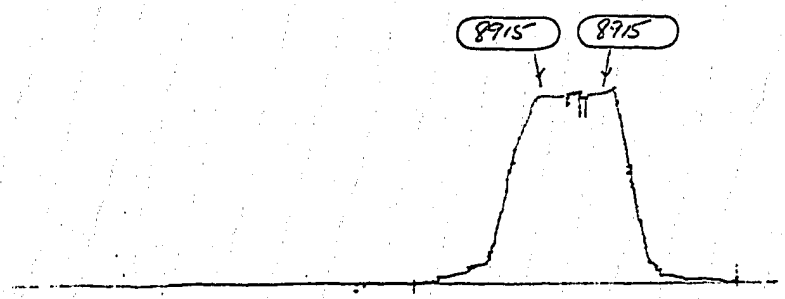
QUINN TESTERS LTD.

TEST CHARTS

CALGARY, ALBERTA

PHONE 232-1704

OUTSIDE RECORDER #15372



INTIAL HYDR. 8915
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR. 8915

PARAMOUNT HB ET AL CAMERON J-62 DST# 4

INTIAL HYDR.
IN. PREFLOW
F. PREFLOW
1st SHUT-IN
1st IN. FLOW
1st F. FLOW
2nd SHUT-IN
2nd IN. FLOW
2nd F. FLOW
3rd SHUT-IN
3rd IN. FLOW
3rd F. FLOW
4th SHUT-IN
FINAL HYDR.

METRIC CONVERSION TABLE

1 TRADITIONAL UNIT		=		SI UNITS
Depths, Thickness, Elevations	(ft)	=	.304 8	m
Amount of Cushion or Recovery	(ft)	=	.304 8	m
Gauge Depth Temperature	(°F)	=		°C
Casing and Hole Size	(in)	=	25.4	mm
Choke Size	(in)	=	25.4	mm
Drill Pipe and Drill Collar Diameter	(in)	=	25.4	mm
Drill Pipe and Drill Collar Weight	(lbs/ft)	=	1.488 164	kg/m
Hook Loads	(lbs)	=	.444 822	daN
Mud Weight	(ppg)	=	119.826	kg/m^3
Mud Viscosity	(s/qt)	=	1.056 688	s/L
Pressures	(psi)	=	6.894 757	kPa
Gas Volumes	(MSCF/D)	=	28.173 99	m^3/day
Oil Volumes	(BPD)	=	.158 987	m^3/day
Fluid Pressure Gradient	(psi/ft)	=	22.620 593	kPa/m
Flow Capacity	(mD-ft)	=	.304 8	mD.m
Permeability	(mD)	=	1.00	mD
Productivity Index	(bbl/day-psi)	=	.023 059	m^3/ (kPa.d)
	(MSCF/day-psi)	=	4.107 012	m^3/ (kPa.d)
Radius of Investigation	(ft)	=	.304 8	m
Oil Viscosity	(cp)	=	1.00	mPa.s

STANDARD PRESSURE NOTATION

over 10,000 kPa use MPa
1-10,000 kPa use kPa
under 1 kPa use Pa

(1 kPa = .145 psi)

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Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 26 LOCATION 5-12 AREA Turner Valley DATE 30-Sept-04

DAY WORK RECORD

40525

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller C. MacNeil	8
Derrick N. Stewart	8
Floor	
Floor D. Ritchie	8
Floor K. Kolson	8
Motor M. Parfitt	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 / 2 / 3 L.P. L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P. L.P.

FUEL Litres | WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

REMARKS	Time Start	Time Stop	Time Interval
Rig Repair			
WAIT ON TRUCKS & RATTIHOLE			

Boiler In Use Yes/No

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller M McRae	12
Derrick R Miciak	12
Floor	
Floor T McRae	12
Floor T McRae	12
Motor R Mancini	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 / 2 / 3 L.P. L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P. L.P.

FUEL Litres | WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

REMARKS	Time Start	Time Stop	Time Interval
Move Rig	08:00	16:00	8

Boiler In Use Yes/No

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller C MacNeil	4
Derrick N Stewart	4
Floor	
Floor D Ritchie	4
Floor K Kolson	4
Motor M Parfitt	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 / 2 / 3 L.P. L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P. L.P.

FUEL Litres | WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

REMARKS	Time Start	Time Stop	Time Interval
Move To New Location Till Dark			

Boiler In Use Yes/No

15-0442

Toolpusher Jack L Mason

Approved by

Shock Sub Start/Stop Camp Start/Stop Ambulance & Medic Start/Stop

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 36 LOCATION J-62 AREA CAMORON HILLS DATE 30-02-05

DAY WORK RECORD

41201

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller CLINT MCCLELLAND	8
Derrick N. STEINHAUER	8
Floor	
Floor D. ROBERTSON	8
Floor K. GOBERT	8
Motor M. PATTERSON	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From / Metres / To — Hours On Bottom — Force of Drill String daN — Stands — Singles — DRILL COLLARS: No. / O.D. mm / I.D. mm / Length m / DC Force daN — SS RMR STB CB JR — m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY °

Motor Hours 1 / 2 / 3 — L.P.

Next Oil Change (Hours) 1 / 2 / 3 — L.P.

FUEL Litres — WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

REMARKS	Time Start	Time Stop	Time Interval
MOVE CAMP & RIG UP SAME ON NEW LOCATION	08⁰⁰	16⁰⁰	8.
SPOT RIG ON NEW LOCATION			

Boiler In Use Yes/No

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller M. MCRAE	12
Derrick K. MICIAK	12
Floor	
Floor T. MCRAE	12
Floor T. MCRAE	12
Motor F. MANCINI	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From / Metres / To — Hours On Bottom — Force of Drill String daN — Stands — Singles — DRILL COLLARS: No. / O.D. mm / I.D. mm / Length m / DC Force daN — SS RMR STB CB JR — m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY °

Motor Hours 1 / 2 / 3 — L.P.

Next Oil Change (Hours) 1 / 2 / 3 — L.P.

FUEL Litres — WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

Boiler In Use Yes/No

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller CLINT MCCLELLAND	4
Derrick N. STEINHAUER	4
Floor	
Floor D. ROBERTSON	4
Floor K. GOBERT	8
Motor M. PATTERSON	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From / Metres / To — Hours On Bottom — Force of Drill String daN — Stands — Singles — DRILL COLLARS: No. / O.D. mm / I.D. mm / Length m / DC Force daN — SS RMR STB CB JR — m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY °

Motor Hours 1 / 2 / 3 — L.P.

Next Oil Change (Hours) 1 / 2 / 3 — L.P.

FUEL Litres — WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

Boiler In Use Yes/No

15-0442

Toolpusher Jack T. McRae

Shock Sub Start/Stop — Camp Start/Stop — Ambulance & Medic Start/Stop — Approved by

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION 5-1-2 AREA CAMERON HILLS DATE 30-02-06

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller CLINT MCNEIL	8
Derrick NORMAN STEWART	8
Floor	
Floor DON ROBERTSON	8
Floor RICK ROBERTSON	8
Motor MIKE CARTMELL	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS RMR STB CB JR	EEEEEE	m Up On Kelly

BITS No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	00:00	02:00	04:00	06:00	DESILTER	SURVEY °	Motor Hours 1	Next Oil Change (Hours) 1	FUEL
Density kg/m³					Stop/Start Hrs.		2	2	Litres
Viscosity s/L					OF kg/m³ UF kg/m³		3	3	WATER
Gel Pa					Flow Rate L/min.		L.P.	L.P.	m³
Press. kPa Pump 1					Additives	Size / Trips / No. Lines / Megajoules / TOTAL MJ	Slip (m) Cut		Next Slip
Press. kPa Pump 2									
Pump S.P.M. Pump 1						GENERAL			
Pump S.P.M. Pump 2									
Liner Size mm Pump 1									
Liner Size mm Pump 2									
W.L. cm³	F.C. mm		pH						

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller M. MCRAE	12
Derrick R. MICIAK	12
Floor	
Floor J. MCRAE	12
Floor T. MCRAE	12
Motor R. MANCINI	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS RMR STB CB JR	EEEEEE	m Up On Kelly

BITS No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	08:00	10:00	12:00	14:00	DESILTER	SURVEY °	Motor Hours 1	Next Oil Change (Hours) 1	FUEL
Density kg/m³					Stop/Start Hrs.		2	2	Litres
Viscosity s/L					OF kg/m³ UF kg/m³		3	3	WATER
Gel Pa					Flow Rate L/min.		L.P.	L.P.	m³
Press. kPa Pump 1					Additives	Size / Trips / No. Lines / Megajoules / TOTAL MJ	Slip (m) Cut		Next Slip
Press. kPa Pump 2									
Pump S.P.M. Pump 1						GENERAL			
Pump S.P.M. Pump 2									
Liner Size mm Pump 1									
Liner Size mm Pump 2									
W.L. cm³	F.C. mm		pH						

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller CLINT MCNEIL	4
Derrick NORMAN STEWART	4
Floor	
Floor DON ROBERTSON	4
Floor RICK ROBERTSON	4
Motor MIKE CARTMELL	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS RMR STB CB JR	EEEEEE	m Up On Kelly

BITS No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	16:00	18:00	20:00	22:00	DESILTER	SURVEY °	Motor Hours 1	Next Oil Change (Hours) 1	FUEL
Density kg/m³					Stop/Start Hrs.		2	2	Litres
Viscosity s/L					OF kg/m³ UF kg/m³		3	3	WATER
Gel Pa					Flow Rate L/min.		L.P.	L.P.	m³
Press. kPa Pump 1					Additives Foamin	Size / Trips / No. Lines / Megajoules / TOTAL MJ	Slip (m) Cut		Next Slip
Press. kPa Pump 2					Gel Jack				
Pump S.P.M. Pump 1						GENERAL			
Pump S.P.M. Pump 2									
Liner Size mm Pump 1									
Liner Size mm Pump 2									
W.L. cm³	F.C. mm		pH						

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41202

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
WAITING ON DAYLIGHT	00	08:00	8
RIG - UP ON NEW LOCATION	08:00	16:00	8
			8
Boiler In Use Yes/No			
RIG - UP	16:00	17:30	1.50
WELD ON CONDUCTOR PIPE	17:30	18:30	1.00
WAIT ON ROTATING HEAD	18:30	24:00	5.30
			8
BOILER 4 HRS			
Boiler In Use Yes/No			
Boiler In Use Yes/No			

Toolpusher Clint McNeil

Approved by _____

Sedco Drilling
Division of Blow Valley Resource Services Ltd

DAILY DRILLING REPORT

DAY WORK RECORD

41203

RIG NO. 76 LOCATION T-62 PEACEMONT AREA CONFEDERATION HILLS DATE 20-02-07

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller CLINT McCLELLAN 8
Derrick NORBERT STEINBRING 8
Floor
Floor RON ROBERTSON 8
Floor RICK RABIERE 8
Motor MIKE PETERSON 8
Mechanic
Extra
Injuries: NIL

METRES DRILLED: From | Metres | To — Hours On Bottom — Force of Drill String daN — Stands — Singles — DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN — SS RMR STB CB JR — E E E E E E — m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				70
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	140	140	140
W.L. cm³				
F.C. mm				
pH				

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.
SURVEY — °
Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.
FUEL Litres — WATER m³
Additives: EMSCO D-375; Gel — 11 SK
Size: 254 — Trips — No. Lines: 6 — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip
GENERAL

Time	Start	Stop	Interval
WAIT ON ROTATING HEAD	00:00	18:00	18

Boiler In Use Yes/No 8 hours.

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller MARC McRAE 8
Derrick RON MICION 8
Floor
Floor
Floor JOHN McRAE 8
Motor TIM McRAE 8 16
Mechanic
Extra
Injuries:

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	140	140	140
W.L. cm³				
F.C. mm				
pH				

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.
SURVEY — °
Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.
FUEL Litres — WATER m³
Additives: EMSCO D-375
Size: 254 — Trips — No. Lines: 6 — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip
GENERAL

Time	Start	Stop	Interval
WAIT ON ROTATING HEAD	08:00	12:00	4:00
INSTALL ROTATING HEAD	12:00	16:00	4:00
			8:00

Boiler In Use Yes/No

26 02 07
T-62

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller BRIAN COATE 4
Derrick PAT PARKS 4
Floor
Floor
Floor ROBERT TURSKI 4
Motor CHRIS BERGEAIS 4
Mechanic
Extra
Injuries: NIL

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION
1A | 311 | XDV | 7620K | HP1 | 148 | 23 | 5.75 | | | RR to

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	140	140	140
W.L. cm³				
F.C. mm				
pH				

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.
SURVEY — °
Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.
FUEL Litres — WATER m³
Additives: EMSCO D-375
Size: 254 — Trips — No. Lines: 6 — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip
GENERAL

Time	Start	Stop	Interval
Hook up Blow Line	16:00	17:00	1:00
Drill [redacted]	17:00	19:45	2:45
Tight Hole Washing on Rotating Head	19:00	19:45	.75
Drill (Rocks)	19:45	22:00	2:25
Tight Hole Washing on Rotating Head	22:00	22:30	.50
Drill	22:30	24:00	1:30
			7

Spudded @ 19:00 HRS.
20-02-07

Boiler In Use Yes/No

Shock Sub Start/Stop — Camp Start/Stop — Ambulance & Medic Start/Stop

Toolpusher — Approved by

15-0442

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION T-62 PARAMOUNT AREA TOMBSTONE DATE 80-02-08

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller M McRAE	8
Derrick R McRAE	8
Floor	
Floor	
Floor T McRAE	8
Motor T McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
22	74	97	7	14000	—	—

DRILL COLLARS: No. 5 | O.D. mm 233 | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | m Up On Kelly 15

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	311mm	HW VDV OPEN	362088	ALL	140	97	12.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	AIR		AIR	
Viscosity s/L		DRILLING		
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	11½ x 356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm	pH		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.
Additives: GEL - 44 SKS

SURVEY: 32 1/4° | 60 1/4° | 97 1/4°
Motor Hours 1 | 2 | 3 | LP.
Next Oil Change (Hours) 1 | 2 | 3 | LP.
FUEL 3/4 Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25-4		6					

GENERAL
BIT S.N. 165 — PREMIXED GEL IN RIG TANK
Xo 65
Xd 63 — COLLARS 5 - 171mm = 47.22
Xc 40 — 4 - 159mm = 36.35
233

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller Brian Cooke	12
Derrick Pat Cooke	12
Floor	
Floor Bob Roach	12
Floor Robert Wiebe	12
Motor Chris Boufounis	12
Mechanic	
Extra	

Injuries:

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
97	9	106	2½	12000		

DRILL COLLARS: No. 5 | O.D. mm 233 | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	311	HW VDV OPEN	362084	ALL	140	106	12.75			RIG

MUD	08:00	10:00	12:00	14:00
Density kg/m³				1050
Viscosity s/L				100
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm	pH 10.5		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.
Additives: GEL 15 SKS LCM

SURVEY
Motor Hours 1 | 2 | 3 | LP.
Next Oil Change (Hours) 1 | 2 | 3 | LP.
FUEL Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
LCM		6					

GENERAL (Continued) 191-4733-5
139-4599-5

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller M McRAE	4
Derrick R McRAE	4
Floor	
Floor T McRAE	4
Floor RON FORBE	4
Motor TIM McRAE	4
Mechanic	
Extra	

Injuries:

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
106						

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	311	HW XDi	P33941							

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1050			
Viscosity s/L	100+			
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	140 x 356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm	pH 10.5		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.
Additives

SURVEY
Motor Hours 1 | 2 | 3 | LP.
Next Oil Change (Hours) 1 | 2 | 3 | LP.
FUEL Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip

GENERAL

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41204

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
RIG SERV	00:00	00:15	.25
DRILL 311mm HOLE	00:15	02:45	2.50
SURVEY @ 32m 1°	02:45	03:00	.25
DRILL	03:00	05:45	2.75
SURVEY @ 60m 1°	05:45	06:00	.25
DRILL	06:00	07:45	1.75
SURVEY 97m	07:45	08:00	.25
			8
Boiler In Use (Yes) No			
RIG SERV	16:00	16:15	.25
DRILL 311mm HOLE	16:15	17:45	1.50
CHANGE ROTATING HEAD	17:45	18:00	.25
DRILL 311mm HOLE	18:00	19:45	1.75
PUMP PREMIXED TO CONDITION HOLE	19:45	20:00	.25
			4
Boiler In Use (Yes) No			
CIRC + CONDITION HOLE	21:00	21:30	.50
DRILL 311mm HOLE	21:30	23:00	1.50
WORK ON PUMP	23:00	24:00	1.00
TRIP FOR BIT	24:00	01:00	1.00
BIT KELLY + CHANGE BIT	01:00	01:30	.50
WORK ON PUMP	01:30	02:30	1.00
RUN IN HOLE	02:30	03:15	.75
BRAKE CIRC	03:15	03:30	.25
WORK ON PUMP	03:30	05:00	1.50
			8
Boiler In Use (Yes) No			

Toolpusher _____ Approved by _____

Sedco Drilling
Division of Sedco Valley Resource Services Ltd

DAILY DRILLING REPORT

DAY WORK RECORD

41205

RIG NO. 26 LOCATION T-42 PARAMOUNT AREA CAMROSE DATE 80-02-09

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller M McRAE	8
Derrick R MICIAK	8
Floor	
Floor T McRAE	8
Floor RON FRERE	8
Motor T McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From — Metres — To | Hours On Bottom | Force of Drill String daN | Stands | Singles | DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | EEEEEE | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 00:00 | 02:00 | 04:00 | 06:00 — Density kg/m³ | Viscosity s/L | Gel Pa | Press. kPa Pump 1 IEMCO D-375 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 140 / Pump 2 140 X 356 | W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size | Trips | No. Lines | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller Bob Cook	12
Derrick Pat Cook	12
Floor	
Floor [illegible]	12
Floor Bob Rock	12
Motor [illegible]	12
Mechanic	
Extra	

Injuries: —

METRES DRILLED: From [illegible] — Metres 9 — To 1195 | Hours On Bottom 12 | Force of Drill String daN [illegible] | Stands | Singles | DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | EEEEEE | m Up On Kelly

BITS: No. 2 | Size 11 | Type & Jet Size HYCALOG 11/16 1/12 | Serial No. B7781 | Force on Bit daN [illegible] | R.P.M. [illegible] | m Drilled 9[illegible] | Hrs. 14.25 | m Reamed | Hrs. | CONDITION R

MUD: 08:00 | 10:00 | 12:00 | 14:00 — Density kg/m³ 1090 | 1090 | Viscosity s/L 50 | 45 | Gel Pa | Press. kPa Pump 1 EMSCO D-375 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 / Pump 2 140 X 356 | W.L. cm³ | F.C. mm | pH 10.0

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives GEL-10 SKS

SURVEY ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size 15.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL COLLARS 171-5-4732 / 159-8-7420 / 12752

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller M McRAE	4
Derrick R MICIAK	4
Floor	
Floor T McRAE	4
Floor R FRERE	4
Motor T. McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From [illegible] — Metres [illegible]95 — To [illegible]210 | Hours On Bottom 7.00 | Force of Drill String daN 16000 | Stands 4 | Singles — | DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m [illegible]2152 | DC Force daN [illegible] | SS RMR STB CB JR [illegible] 233 | EEEEEE | m Up On Kelly 0 IN

BITS: No. [illegible] | Size [illegible] | Type & Jet Size [illegible] 1 | Serial No. [illegible] | Force on Bit daN 7000 | R.P.M. 120 | m Drilled 94 | Hrs. [illegible]9 | m Reamed | Hrs. | CONDITION 0 3

MUD: 16:00 | 18:00 | 20:00 | 22:00 — Density kg/m³ 1090 | | | | Viscosity s/L [illegible] | 60 | 50 | 50 | Gel Pa | Press. kPa Pump 1 [illegible] / Pump 2 4000 | 4000 | Pump S.P.M. Pump 1 / Pump 2 62 | 62 | Liner Size mm Pump 1 / Pump 2 [illegible] | W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY 1[illegible]5 ° | 1[illegible]3 ½° | 1[illegible]1 ¼° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size 15.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL COLLARS 171-5-4732 / 159-8-7420 / 12752

REMARKS	Time Start	Stop	Interval
WORK ON PUMP	00:00	08:00	8
			8
Boiler In Use (Yes) No			
Work on Pump	08:00	12:00	4
Hook up Mud Line	12:00	13:45	1.75
Rig Service	13:45	14:00	.25
Trip out	14:00	16:00	2
Drilling	16:00	17:00	1.00
Boiler In Use Yes/No			
Rig Service	17:00	17:15	.25
Drilling	17:15	17:30	.25
Survey @ 135 ½°	17:30	17:45	.25
Drill	17:45	20:00	2.25
Survey @ 163 ½°	20:00	20:15	.25
Drill	20:15	22:00	1.75
Survey @ 141 ¼°	22:00	22:15	.25
Drill	22:15	24:00	1.75
			8
Boiler In Use Yes/No			

Toolpusher [signature]

Approved by

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION T-62 PARAMOUNT AREA CAMROSE HILLS DATE 80-02-10

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller M McRAE	8
Derrick R MICIAK	8
Floor	
Floor T McRAE	8
Floor R FRERE	8
Motor T. McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 210 | Metres 56 | To 266 | Hours On Bottom 6.50 | Force of Drill String daN 17000 | Stands 7 | Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.52 | DC Force daN 15000 | SS RMR STB CB JR Sizes 2.75 2.33 | E E E E E E | m Up On Kelly (in)

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	311	HW×DV 9/16 9/16	D222D1	7000	120	150	5.50			DRG

MUD	00:00	02:00	04:00	06:00
Density kg/m³				1150
Viscosity s/L	50	60	65	65
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	4000			4000
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	62			62
Liner Size mm Pump 1	140 x 356			
Liner Size mm Pump 2				
W.L. cm³	—	F.C. mm —		pH —

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives GEL - 65 SKS

SURVEY: 219 1° | 257 ¼°

Motor Hours 1 L.P. | 2 | 3

Next Oil Change (Hours) 1 | 2 | 3

FUEL ½ Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
2¼		6					

GENERAL: COLLARS 171.5 - 47.32 / 159-8 71.22 / 121 52

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller Brian Coote	12
Derrick P.C. Cook	12
Floor	
Floor Robert Tweedie	6
Floor Bob Brock	1
Motor Chris Bouwmeester	12
Mechanic	
Extra	

Injuries: —

METRES DRILLED: From 266 | Metres 47 | To 313 | Hours On Bottom 5 | Force of Drill String daN 14000 | Stands 9 | Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR Sizes 2.75 | E E E E E E | m Up On Kelly 0

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	311	HW×DV 9/16 9/16	D222D1	7000	120	147	5.50			RRG

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1040	1130	1130	1130
Viscosity s/L	60	60	50	50
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1	[redacted]			
Pump S.P.M. Pump 2	62	62	62	62
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³		F.C. mm		pH 7-10

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives CAUSTIC / [redacted] / GEL SKS

SURVEY: 285 ¼°

Motor Hours 1 L.P. | 2 | 3

Next Oil Change (Hours) 1 | 2 | 3

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
2¼		6					

GENERAL: Collars 171.5-47.32 / 159-8 74.22 / 121 —

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M McRAE	4
Derrick R MICIAK	4
Floor	
Floor T McRAE	4
Floor R FRERE	4
Motor TIM McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 313 | Metres 23 | To 336 | Hours On Bottom 6.50 | Force of Drill String daN 15000 | Stands 11 | Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | E E E E E E | m Up On Kelly 53

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	311	HW×DV 9/16 9/16	[illegible]	9000	120	220	27			HOISTING

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1120			
Viscosity s/L	[illegible]			70
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	4000			4000
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	62			62
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³		F.C. mm		pH

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives G

SURVEY: 323 ½°

Motor Hours 1 L.P. | 2 | 3

Next Oil Change (Hours) 1 | 2 | 3

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
2¼		6					

GENERAL: COLLARS 171-5-47.32 / 159-8-74.22 / 121 52

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41206

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval	
RIG SERV	00 00	00 15	.25	
DRILL 311 mm HOLE	00 15	01 00	.75	75
SURVEY @ 219 ¼°	01 00	01 15	.25	
DRILL	01 15	03 15	2.00	2 00
WORK ON AIR COMPRESSOR	03 15	04 00	.75	
DRILL	04 00	07 00	3.00	3 00
SURVEY @ 257 ¼°	07 00	07 15	.25	
DRILL	07 15	08 00	.75	75
			8	

Boiler In Use (Yes) No

RIG SERV	8 00	9 00	1 00	
DRILL 311 mm HOLE	9 00	9 15	15	
SURVEY	9 15			
TRIP CHANGE ROTATING HEAD RUBBER		10 15	1 00	1 00
DRILL 311 mm HOLE	10 15	11 15	1	
SURVEY	11 15	11 30	15	
DRILLING HOLE	11 30	13 30	2 00	
CHANGE RUBBER - RIG TO HOLE	13 00	14 30	1 30	
DRILLING HOLE	14 30			
			7	

Boiler In Use (Yes/No

RIG SERV	16 00	16 30	.50	
DRILL 311 mm HOLE	16 30	18 45	2 15	
SURVEY @ 323 ½°	18 45	19 15	.50	
DRILL	19 15	23 15	4 00	
BLOW KELLY	23 15	23 30	.25	
HOIST FOR BIT	23 30	24 00	.50	
			8	

Boiler In Use Yes/No

Toolpusher Gerald Coote

Approved by _____

Sedco Drilling
Division of Sow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 84 LOCATION T-62 REFORMANT AREA CENTRAL ALTA. DATE 80-02-11

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller M McRAE	8
Derrick R MICIAK	8
Floor	
Floor T McRAE	8
Floor R FAERE	8
Motor T McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 326 — Metres — To — | Hours On Bottom — | Force of Drill String daN 19000 | Stands 11 | Singles —

DRILL COLLARS: No. — | O.D. mm — | I.D. mm — | Length m — | DC Force daN — | SS RMR STB CB JR S.135 D.33 | E E E E E E | m Up On Kelly 2

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
										6-1-1

MUD	00:00	02:00	04:00	06:00	DESILTER	SURVEY	°	FUEL
Density kg/m³					Stop/Start Hrs.			Litres
Viscosity s/L					OF kg/m³ UF kg/m³			WATER
Gel Pa					Flow Rate L/min.	Motor Hours 1 2 3 L.P.	Next Oil Change (Hours) 1 2 3 L.P.	m³
Press. kPa Pump 1	FEMCO D-375				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
Press. kPa Pump 2						25:4		6						
Pump S.P.M. Pump 1					GENERAL COLLARS 171-5 4732									
Pump S.P.M. Pump 2					155-8-7420									
Liner Size mm Pump 1	140-356													
Liner Size mm Pump 2														
W.L. cm³	F.C. mm		pH		HOLE TIGHT ON TRIP									

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller B. [illegible]	12
Derrick D. [illegible]	12
Floor	
Floor	
Floor B. [illegible]	12
Motor [illegible]	12
Mechanic	
Extra	

Injuries:

METRES DRILLED: From 336 — Metres — To — | Hours On Bottom 1 | Force of Drill String daN 19000 | Stands 11 | Singles —

DRILL COLLARS: No. 12 | O.D. mm — | I.D. mm — | Length m 171.5 | DC Force daN 5011.24 | SS RMR STB CB JR | E E E E E E | m Up On Kelly —

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	311	[illegible]	2	9000	120	0	1			RIG
		1114	47114							

MUD	08:00	10:00	12:00	14:00	DESILTER	SURVEY	°	FUEL
Density kg/m³				850	Stop/Start Hrs.			Litres
Viscosity s/L				25	OF kg/m³ UF kg/m³			WATER
Gel Pa					Flow Rate L/min.	Motor Hours 1 2 3 L.P.	Next Oil Change (Hours) 1 2 3 L.P.	m³
Press. kPa Pump 1	[illegible]				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
Press. kPa Pump 2						25:4		1						
Pump S.P.M. Pump 1					GENERAL Collars 171.5-4732									
Pump S.P.M. Pump 2					155-8-7430									
Liner Size mm Pump 1														
Liner Size mm Pump 2	140 x 356													
W.L. cm³	F.C. mm		pH 10.5											

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M McRAE	4
Derrick R MICIAN	4
Floor	
Floor T McRAE	4
Floor R FAERE	4
Motor T McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 336 — Metres 64 — To 400 | Hours On Bottom 7.50 | Force of Drill String daN 20000 | Stands 14 | Singles 1

DRILL COLLARS: No. 12 | O.D. mm — | I.D. mm — | Length m 171.5 | DC Force daN — | SS RMR STB CB JR | E E E E E E | m Up On Kelly 8

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	311	[illegible]	47114	9000	120	64	8.50			DRLG

MUD	16:00	18:00	20:00	22:00	DESILTER	SURVEY	°	FUEL
Density kg/m³					Stop/Start Hrs.	341	1/2°	Litres
Viscosity s/L				60	OF kg/m³ UF kg/m³	390	1°	WATER
Gel Pa					Flow Rate L/min.	Motor Hours 1 2 3 L.P.	Next Oil Change (Hours) 1 2 3 L.P.	m³
Press. kPa Pump 1	[illegible]				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
Press. kPa Pump 2				4000		25:4		1						
Pump S.P.M. Pump 1				62	45% - GEL	GENERAL								
Pump S.P.M. Pump 2						Collars 171-5-4732								
Liner Size mm Pump 1						155-8-7430								
Liner Size mm Pump 2	140 x 356													
W.L. cm³	F.C. mm		pH											

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41207

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
HOIST FOR BIT	00:00	02:30	2:30
TEST OUT AIR ASSEMBLY	02:30	05:00	2:30
WELD CONDUCTOR PIPE FOR FLOW TEST	05:00	08:00	3:00
			8
Boiler In Use Yes/No			
R[illegible]	15:00	00:15	9:15
S[illegible]	0[illegible]	15:45	0
R[illegible]	15:45	17:00	1:15
P[illegible]	15:00	1	
[illegible]	3	1[illegible]	17
[illegible]	14:30	16:00	3
D[illegible]	16:00	17:00	1:00 1:00
			7
Boiler In Use Yes/No			
D[illegible]	17:00	20:15	4:25 4:25
SURVEY @ 341'	20:15	20:30	25
DRILL	20:30	22:30	3:00 3:00
SURVEY @ 390'	22:30	22:45	25
DRI[illegible]	22:45	24:00	25 2:25
			8
Boiler In Use Yes/No			

Toolpusher Harold Watts

Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount ET Al Cameron AREA J62 DATE 90-02-12

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	8
Derrick John Telz	8
Floor	
Floor Peter Jarvis	8
Floor Bob Roach	8
Motor Chris Bourgeois	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 514 Metres 12 To 540 | Hours On Bottom 1 3/4 | Force of Drill String daN 22000 | Stands 9 | Singles - | DRILL COLLARS: No. 7, O.D. mm, I.D. mm, Length m 214.10, DC Force daN | SS INAR STB CB 3.43 | 5.46 1.03 | 4.97 | m Up On Kelly 9

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222	SMITH F2 open	BA2152	40000	70	56	5¼			T-T-T

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L	Air Drilling			
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives 20sks KCL

SURVEY: 514 1°

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Press. kPa Pump 1 Emsco D375 / Pump 2

Pump S.P.M. Pump 1 / Pump 2

Liner Size mm Pump 1 / Pump 2 140 x 356

W.L. cm³ | F.C. mm | pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL: Collars 171-5-47 23 / 159-2-18 98

Key Person Shortage - Jars

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller CLINT MCCLELLAND	12
Derrick WAYNE STRANAHAN	12
Floor	
Floor Don ROBERTSON	12
Floor Rick ROBERGE	12
Motor Mike HARTMAN	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 580 Metres To | Hours On Bottom | Force of Drill String daN | Stands | Singles | DRILL COLLARS: No. 13, O.D. mm, I.D. mm, Length m 121.53, DC Force daN 150000 | SS INAR STB CB 8.35 | 2.00 | 1.03 | 9.38 | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222	SMITH F2 3/11	BA2157							

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Press. kPa Pump 1 Emsco D-375 / Pump 2

Pump S.P.M. Pump 1 / Pump 2

Liner Size mm Pump 1 / Pump 2 140 x 356

W.L. cm³ | F.C. mm | pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL: Collars 171-5-47 23 / 159-8-74 30 / 121.53

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	4
Derrick John Telz	4
Floor	
Floor Peter Jarvis	4
Floor Bob Roach	4
Motor Chris Bourgeois	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 580 Metres 10 To 590 | Hours On Bottom 1 3/4 | Force of Drill String daN 36000 | Stands 26 | Singles 1 | DRILL COLLARS: No. 13, O.D. mm, I.D. mm, Length m 121.53, DC Force daN 150000 | SS INAR STB CB 8.35 | 2.00 | 1.03 | Total 9.38 | m Up On Kelly IN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222	[illegible]	BA2152	8000	80	66	7½			Drilling

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Press. kPa Pump 1 Emsco D-375 / Pump 2 750

Pump S.P.M. Pump 1 / Pump 2

Liner Size mm Pump 1 / Pump 2 140 x 356

W.L. cm³ | F.C. mm | pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4							

GENERAL: Collars 171-5-47 23 / 159-8-74 30

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41214

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval
Rig S- v+V Bop	00 00	00 15	0 15
[redacted] Survey 414-10	00 15	00 45	0 30
Drilling	00 45	9 30	8 45
Grease Wt Chain	9 30	9 45	0 15
Pull 6 stands into casing	9 45	3 30	7 45
Wash last 2 FT Mud	3 30	3 45	0 15
Mix Mud	3 45	4 15	0 30
Trip out Hole	4 15	5 45	1 30
Test BT Retrieving Head + Bl.	5 45	7 00	1 15
Line			0
Boiler In Use (Yes)/No			
Work on Flow Line + NIPPLE	08 00	12 30	4 30
Run In w/Bit + Pick up	12 30		
Shock sub Stuck + Jars malfunct +		16 00	3 30
STRAP IN HOLE			8
Boiler In Use (Yes)/No			
W.O. Pump (SCREEN PLUGGED)	16 00	17 00	2.00
THAW MUD ROLL, KICKER HOSE	17 00	18 00	1.00
BREAK CIRC + FULL HOLE	18 00	20 00	1.00
Run in + Lay 3 Stands DOWN	20 00	21 15	1 15
Break Circ - Room to work in Drill	21 15	22 15	1 00
Drilling 2 on Hole	22 15	24 00	1 75
			8
Boiler In Use (Yes)/No			

Toolpusher [signature]

Approved by [signature]

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION J-62 PARAMOUNT AREA CAMERON HILLS DATE 80-02-12

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller M McRAE 8
Derrick R MICIAK 8
Floor
Floor J McRAE 8
Floor R FRERE 8
Motor T McRAE 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
400	85	485	7.00	21000	19	-

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.52 | DC Force daN 15000 | SS RMR STB CB JR 5.1/2 REG | EEEEEE | m Up On Kelly 8

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	311	HYCALOG 3 1/4 x 14	47714	5000	140	149	15.50			DRG

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L	55	60	60	60
Gel Pa				
Press. kPa Pump 1	EMSCO	D-375		
Press. kPa Pump 2	11000	11000	11000	11000
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	62			
Liner Size mm Pump 1	140x356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm	pH		

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: GEL-CHEM

SURVEY: HR 1/4° 447 1/4° 474 1/4°

Motor Hours 1 2 3 LP. | Next Oil Change (Hours) 1 2 3 LP. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 171.5 - 4732
159.8 - 7420

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller BRIAN CRAFT 12
Derrick [redacted]
Floor [redacted] 12
Floor
Floor Bob Rauch 12
Motor [redacted] 12
Mechanic
Extra

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
485	36	523	4 1/2	21000	20	1

DRILL COLLARS: No. 13 | O.D. mm 159 | I.D. mm | Length m 121.52 | DC Force daN 15000 | SS RMR STB CB JR 5.1/2 REG | EEEEEE | m Up On Kelly 0

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	311	HYCALOG 3 1/16 x 14	47714	15000	110	157	20			[redacted] RRG

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1150			
Viscosity s/L	60	95	120	120
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm	pH 9.5		

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: Motor Hours 1 2 3 LP. | Next Oil Change (Hours) 1 2 3 LP. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 171.5 - 4732
159.8 - 7420
STRAP = 524
TALLY = 523

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller M. McRAE 4
Derrick R MICIAK 4
Floor
Floor J McRAE 4
Floor R FRERE 4
Motor T McRAE 4
Mechanic
Extra

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
521	-	-	2	21000	19	1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.52 | DC Force daN 15000 | SS RMR STB CB JR 5.1/2 REG | EEEEEE | m Up On Kelly IN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	311	HYCALOG 3 1/16 x 14	47714	-	-	185	20			

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L	105			
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1			C	
Pump S.P.M. Pump 2			C	
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm	pH		

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: 521 1/4° Motor Hours 1 2 3 LP. | Next Oil Change (Hours) 1 2 3 LP. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 171.5 - 4732
159.8 - 7420
STRAP = 524
TALLY = 523

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41208

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval	
RIG SERV	00:00	00:15	.25	
DRILL	00:15	01:15	1.00	1.00
SURVEY @ 418, 1/4°	01:15	01:30	.25	
DRILL	01:30	04:15	2.75	2.75
SURVEY @ 474 1/2°	04:15	04:40	.25	
DRILL	04:30	07:00	2.50	2.50
SURVEY @ 474 1/2°	07:00	07:15	.25	
DRILL	07:15	08:00	.75	.75
			8	
Boiler In Use (Yes) No				
RIG SERV	12:00	12:15	.25	
DRILL	12:15	9:45	1.50	
CIRC TO MIX SWEEP	9:45	10:00	.25	
DRILL	10:45	11:15		
CIRC SWEEP	11:15	11:30	.25	
DRILL	11:30	11:45	.25	
CIRC SWEEP	11:45	12:15	.50	.50
DRILL	12:15	12:45	.50	
CIRC SWEEP	12:45	13:00	.25	
DRILL	13:00	13:15	.25	
CIRC SWEEP	13:15	13:30	.25	
DRILL	13:30	14:00	.50	
CIRC SWEEP	14:00	14:15	.25	
			7	
Boiler In Use (Yes) No				
RIG SERV	11:30	11:45	.25	
FIRE DRILL 1/2	11:45	15:00	1.15	
PICK UP	15:00	15:15	.25	
DRILL TRIP + SLIP	15:15	22:30	4.25	
CIRC TO CONDITION HOLE	22:30	23:30	1.00	
RIG SERV	23:30	23:45	.25	
HOIST TO RUN CSG	23:45	24:00	.25	
			8	
Boiler In Use (Yes) No				

Toolpusher [signature] Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION 7-62 PARA MARKET AREA CAVENDISH DATE 80-02-12

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller M MCRAE	8
Derrick R MICIAN	8
Floor	
Floor J MCRAE	8
Floor R FRERE	8
Motor T MCRAE	8
Mechanic	
Extra	

Injuries:

METRES DRILLED: From 522 Metres To

Hours On Bottom | Force of Drill String daN | Stands 19 | Singles 1

DRILL COLLARS: No. 12 | O.D. mm | I.D. mm | Length m 121.3 | DC Force daN

SS RMR STB CB JR | EEEEEE | m Up On Kelly IN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1			ENSCO D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	356		
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
2-4		6						

GENERAL
COLLARS 121.3 - 397.2
159.8 - 741.2

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller BRIAN F	12
Derrick T 1-12	12
Floor	
Floor	
Floor B L R	12
Motor C L R	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 522 Metres To

Hours On Bottom | Force of Drill String daN | Stands 19 | Singles 1

DRILL COLLARS: No. 12 | O.D. mm | I.D. mm | Length m 121.3 | DC Force daN

SS RMR STB CB JR | EEEEEE | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1			ENSCO	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	356		
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25/4		1						

GENERAL HAD TO CUT KO/M J-55
CASING S/O 5254L LANDED
AT 5249L CEMENT
IN PLACE RETURNS
RIG RELEASED 13:30 12/2/80

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller M MCRAE	4
Derrick R MICIAN	4
Floor	
Floor J MCRAE	4
Floor R FRERE	4
Motor T MCRAE	4
Mechanic	
Extra	

Injuries:

METRES DRILLED: From 524 Metres To

Hours On Bottom | Force of Drill String daN | Stands 19 | Singles 1

DRILL COLLARS: No. 12 | O.D. mm | I.D. mm | Length m 121.3 | DC Force daN

SS RMR STB CB JR | EEEEEE | m Up On Kelly IN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1			ENSCO D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	140	356		
Liner Size mm Pump 1				
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25/4		6						

GENERAL
RUN TEMPERATURE LOG IN CASING
C/S - J-55 @ 1° m-
COLLARS 5-171-477.3
8-159-741.2

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41209

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
HOIST TO RUN CSG	00:00	01:00	1:00
RIG TO RUN CSG	01:00	01:45	75
WELD FIRST 2 JOINTS CSG	01:45	02:45	1:00
RUN CSG	02:45	08:00	5:25
Boiler In Use (Yes/No)			
RIG SERVICE	10:00	10:45	:45
CIRC CASING	10:45	11:45	1:00
		12:30	1:25
LUNCH	12:30	13:30	
Boiler In Use (Yes/No)			
WIRE LINE	22:00	24:00	2:00
RIG UP WIRE LINE & RUN WIRE LINE			
Boiler In Use (Yes/No)			

Toolpusher Kenneth Cook

Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION J-62 PARAMOUNT/BETA/CAMEROA AREA CAMERON HILLS DATE 80-02-14

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller M McRAE 8
Derrick R MICIAK 8
Floor
Floor J McRAE 8
Floor R FRERE 8
Motor T McRAE 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 524 | Metres - | To -
Hours On Bottom: -
Force of Drill String daN: -
Stands: 19
Singles: 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000
SS RMR STB CB JR
ECCEE
m Up On Kelly: IN

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD | 00:00 | 02:00 | 04:00 | 06:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa Pump 1: EMSCO D-375
Pump 2
Pump S.P.M. Pump 1
Pump 2
Liner Size mm Pump 1: 140 x 356
Pump 2
W.L. cm³ | F.C. mm | pH

DESILTER
Stop/Start Hrs.
OF kg/m³ UF kg/m³
Flow Rate L/min.
Additives

SURVEY °
Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
2¼		6						

GENERAL
COLLARS 5-171-4723
B-159-7430

Boiler In Use (Yes) No

REMARKS	Time Start	Time Stop	Time Interval
LOC CASING	00⁰⁰	02⁰⁰	2.00
W.O.C.	02⁰⁰	08⁰⁰	6.00
			8

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller BRIAN CORTA 8
Derrick JOHN TATE 8
Floor
Floor PETER JARVIS 8
Floor Rob Resch 8
Motor [illegible] 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 524 | Metres - | To -
Hours On Bottom: -
Force of Drill String daN: -
Stands: 19
Singles: 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000
SS RMR STB CB JR
ECCEE
m Up On Kelly: IN

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD | 08:00 | 10:00 | 12:00 | 14:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa Pump 1: Emsco D-375
Pump 2
Pump S.P.M. Pump 1
Pump 2
Liner Size mm Pump 1
Pump 2: 140 x 356
W.L. cm³ | F.C. mm | pH

DESILTER
Stop/Start Hrs.
OF kg/m³ UF kg/m³
Flow Rate L/min.
Additives

SURVEY °
Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
3½		6						

GENERAL
Collars 5-171-4723
B-159-7430
CEMENT 20m OF ANNULUS
w/ 3% CaCl

Boiler In Use Yes/No

REMARKS	Time Start	Time Stop	Time Interval
Pump Cement Behind Casing	13	14	1
W.O.C.	14⁰⁰	16	2
			X

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller CLINT McCLELLAND 8
Derrick HORRELL STRATHDEE 8
Floor
Floor DAN ROBERTSON 8
Floor RICK ROBERTS 8
Motor MIKE PARKINSON 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 524 | Metres - | To -
Hours On Bottom:
Force of Drill String daN:
Stands:
Singles: 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000
SS RMR STB CB JR
ECCEE
m Up On Kelly

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD | 16:00 | 18:00 | 20:00 | 22:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa Pump 1: Emsco D-375
Pump 2
Pump S.P.M. Pump 1
Pump 2
Liner Size mm Pump 1
Pump 2: 140 x 356
W.L. cm³ | F.C. mm | pH

DESILTER
Stop/Start Hrs.
OF kg/m³ UF kg/m³
Flow Rate L/min.
Additives: Gel 5 SKS, BICARB 3 SKS

SURVEY °
Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres
WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
3½		6						

GENERAL
Collars 5-171-4723
B-159-7430

Boiler In Use Yes/No

REMARKS	Time Start	Time Stop	Time Interval
W.O.C.	16⁰⁰	17⁰⁰	1.00
Cut Conductor Pipe + Casing	17⁰⁰		
Lay down Stand		18³⁰	1.50
Weld on Casing Bowl	18³⁰	23³⁰	5.00
Pick up B.O.P.'s + Set	23³⁰	24⁰⁰	.50
			8

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

Toolpusher Gerald Hoath
Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41210

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION I 62 Pc Comm. TLTB ETAL CAMERON AREA Cameron Hills DATE 90-09-15

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller BRIAN COATE	8
Derrick John TeTz	8
Floor	
Floor Peter Tervis	8
Floor Bob Roach	8
Motor Chris Bourgeois	8
Mechanic	
Extra	

Injuries: Nil

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller Clint McClelland	12
Derrick Norman Stevens	12
Floor	
Floor Don Robertson	12
Floor Rick Kasinger	12
Motor Mike Parkinson	12
Mechanic	
Extra	

Injuries: Nil

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller BRIAN COATE	4
Derrick JohN TeTz	4
Floor	
Floor Peter Tervis	4
Floor Bob Roach	4
Motor Chris Bourgeois	4
Mechanic	
Extra	

Injuries: Nil

15-0442

Morning Tour

METRES DRILLED: From 524 — To — Metres —

Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 156000 | SS RMR STB CB JR | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 00:00 | 02:00 | 04:00 | 06:00 — DESILTER

Density kg/m³ | Viscosity s/L | Gel Pa | Press. kPa Pump 1 Emsco D-375 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 / Pump 2 140 x 356 | W.L. cm³ | F.C. mm | pH

Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 / 2 / 3 L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
354		6						

GENERAL Collars 5-171-4723
8-159-7430

Day Tour

METRES DRILLED: From 524 — To — Metres —

Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 156000 | SS RMR STB CB JR | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 08:00 | 10:00 | 12:00 | 14:00 — DESILTER

Density kg/m³ | Viscosity s/L Emsco D-375 | Gel Pa | Press. kPa Pump 1 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 / Pump 2 140 x 356 | W.L. cm³ | F.C. mm | pH

Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 / 2 / 3 L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
354		6						

GENERAL Collars 5-171-4723
8-159-7430
TRANSFER MUD IN MUD TANKS

Evening Tour

METRES DRILLED: From 524 — To — Metres —

Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS RMR STB CB JR | m Up On Kelly

BITS: No. 1 | Size 222 | Type & Jet Size SMITH F20FBN | Serial No. BA2152 | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 16:00 | 18:00 | 20:00 | 22:00 — DESILTER

Density kg/m³ | Viscosity s/L | Gel Pa | Press. kPa Pump 1 Emsco D-375 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 / Pump 2 140 x 356 | W.L. cm³ | F.C. mm | pH

Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 / 2 / 3 L.P.

Next Oil Change (Hours) 1 / 2 / 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
354		6						

GENERAL PRESS TEST BLIND RAMS TO MANIFOLD 10 MIN TEST
KOOMEY TEST

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41211

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
[redacted]			
	15	9 00	7 75
			8
Boiler In Use (Yes)/No			
Night-up	07 00	15 00	7 00
PRESSURE TEST BLIND RAM TO 1300 KPA + 6900 KPA HELD OK 15 MINUTES	15 00	16 00	1 00
			8
Boiler In Use (Yes)/No			
PRESSURE TEST MANIFOLD TO 1300 KPA LEAKING ON RELIEF LINE	16 00		
TIGHTEN UNION LEAKING CHANGE O RING		17 30	1 50
PRESSURE TEST MANIFOLD TO 1300 KPA + 6900 KPA 15 MIN. EACH O.K.	17 30	18 30	1 00
BLOW MANIFOLD W/STEAM & [redacted]	18 30		
DRAG OVER SHOCK SUB + JARS		20 00	1 30
[redacted] E. Hannah Field	20 00		
Finish		20 15	.25
Make up BHA - RIH W/BIT (Stamp)	20 15	23 00	2 75
Lay down BHA in Pipe Shed	23 00	24 00	1 00
			8
Boiler In Use (Yes)/No			

Toolpusher Geoff Coate

Approved by _____

Sedco Drilling — Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 46 LOCATION Paramount HR ETAL Comm AREA T62 DATE 90-02-16

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller Brian Coate	8
Derrick John Tetz	8
Floor	
Floor Peter Jarvis	8
Floor Bob Roach	8
Motor Chris Bourdeau	8
Mechanic	
Extra	

Injuries:

METRES DRILLED: From — Metres — To — Hours On Bottom — Force of Drill String daN — Stands — Singles

DRILL COLLARS: No. 7 — O.D. mm — I.D. mm — Length m 66.10 — DC Force daN — SS 3.43 / RMR STB CB 3.43 / 3.43 / 3.43 /

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 46 LOCATION Paramount HZ ETAL Cameron AREA J62 DATE 90-09-14

41215

DAY WORK RECORD

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller BRIAN COATE	8
Derrick JOHN TETZ	8
Floor	
Floor PETER JARVIS	8
Floor BOB BEACH	8
Motor CHRIS BOURGEOIS	8
Mechanic	
Extra	

Injuries: N.I

METRES DRILLED: From 590 | Metres 28 | To 618 — Hours On Bottom 7 3/4 — Force of Drill String daN 26000 — Stands 31 — Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 150000 — RMR STB CB DRY — XO SUBS Total 9.39 — m Up On Kelly 7.1

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222.2	SMITH F2 3/16 7	BA2152	9000	80	104	16 1/4			RR

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	ENSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	46	46	46	46
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives: 15 SKS KCL

SURVEY: ° — Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356		6					

GENERAL: Collars 5-171-4723 / 4-159-7430
Shock sub 3.43
Jars 4.47
XO subs 1.03

REMARKS	Time Start	Stop	Interval
Rig Service + BOP ✓	00 00	00 15	.25
Drill 222.2 Hole	00 15	DRILL	7.75

Boiler In Use (Yes)/No

Rig Ser + B.O.P. + Motor Shut off ✓	08 00	08 15	.25
Drill	08 15	13 45	5.50
Survey	13 45	14 00	.25
Drill	14 00	16 00	2.00
			8

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller CLINT McCLELLAND	12
Derrick NORBERT STEINHAND	12
Floor	
Floor DON ROBERTSON	12
Floor RICK ROBERGE	12
Motor MIKE PARKINSON	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 618 | Metres 46 | To 674 — Hours On Bottom 7.50 — Force of Drill String daN 27000 — Stands 31 — Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN — RMR STB CB — XO subs 9.39 — m Up On Kelly 10

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222.2	SM F2 3/16 7	BA2152	9000	80	150	22.75			RNG

MUD	08:00	10:00	12:00	14:00
Density kg/m³	H	H	H	H
Viscosity s/L	42	40	42	42
Gel Pa			3	0
Press. kPa Pump 1	ENSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives: Barak - 28 sks / Gel - 10 sks

SURVEY: 663 ½° — Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356		6					

GENERAL: Collars 5-171-4723 Mixing Potash
4-159-7430 in mud system
Shock sub 3.43 Pump Rate when
Jars 4.47 Bit is up on bottom
XO subs 1.03

Boiler In Use (Yes)/No

Rig Ser + B.O.P.	16 00	16 15	.25
Drill	16 15	24 00	7.75
			8

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller BRIAN COATE	4
Derrick JOHN TETZ	4
Floor	
Floor PETER JARVIS	4
Floor BOB BEACH	4
Motor CHRIS BOURGEOIS	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 674 | Metres 53 | To 727 — Hours On Bottom 7 3/4 — Force of Drill String daN 29000 — Stands 33 — Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 150000 — RMR STB CB — XO subs 9.39 — m Up On Kelly 3

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222.2	SM F2 3/16 7	BA2152	9000	90	202	20 1/4			RNG

MUD	16:00	18:00	20:00	22:00
Density kg/m³	H	H	H	H
Viscosity s/L	42	42	42	42
Gel Pa	0	0	2	2
Press. kPa Pump 1	ENSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140		356	
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives: KCL - 20 sks

SURVEY: ° — Motor Hours 1 2 3 LP. — Next Oil Change (Hours) 1 2 3 LP.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356		6					

GENERAL: Collars 5-171-4723
4-159-7430
Shock sub 3.43
Jars 4.47
XO subs 1.03

Boiler In Use (Yes)/No

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

Toolpusher _____

Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount HRET A1 Cameron AREA TG2 DATE 01-02-19

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller Brian Coate	8
Derrick John Tutz	4
Floor	
Floor Peter Jarvis	8
Floor Bob Roach	8
Motor Chris Bourgeois	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
727	31	754	43/4	19 000	35	-

DRILL COLLARS: No. 13; O.D. mm; I.D. mm; Length m 121.53; DC Force daN 15 000; RMR STB CB; XO 3-65 9.78; m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	532.2	EMFP 3 10 7	BA 2152	9 000	60	933	35 1/4			RNG

MUD	00:00	02:00	04:00	06:00	DESILTER	SURVEY	°	Motor Hours 1/2/3 L.P.	Next Oil Change (Hours) 1/2/3 L.P.	FUEL Litres
Density kg/m³	H	H			Stop/Start Hrs.					WATER m³
Viscosity s/L	2	2	46	43	OF kg/m³ UF kg/m³					
Gel Pa	0	0			Flow Rate L/min.					
Press. kPa Pump 1	EMSCO	D-375			Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m) Cut	Next Slip
Press. kPa Pump 2	7500			7500	GEL-15 SKS	254		6				
Pump S.P.M. Pump 1	56			56	KCL-17 SKS	GENERAL Collars S-171-47.23						
Pump S.P.M. Pump 2						9-159-74.30						
Liner Size mm Pump 1						Shock sub 740 Change over To						
Liner Size mm Pump 2	140	356				Jars 457 mill at 740						
W.L. cm³	F.C. mm		pH			12 Stands 5 1/2 DP						

Boiler In Use (Yes) No

REMARKS	Time Start	Stop	Interval
Rig service + Boop	00 00	00 15	.25
Drill 222.9 Hrs + Change over Tools	00 15	7 00	7.75
Blow Kelly + Hoist	7 00		
8 Stands (Close Pipe Rams)		7 45	.75
Test TIW Floor Cocks to Floor	7 45		
Line		8 15	1.50
Run Back in 4 Stands	8 15	8 45	.50
Break in + Run To Bottom	11 45	5 00	.25
Drill 222.9 Hrs	5 00	9 00	7.00
			9

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller Clint McClelland	12
Derrick Norbert Steinhand	12
Floor	
Floor Don Robertson	12
Floor Rick Roberge	12
Motor Mike Parkinson	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
758	57	815	7.75	30 000	38	-

DRILL COLLARS: No. 13; O.D. mm; I.D. mm; Length m 121.53; DC Force daN 15 000; RMR STB CB; 105 SUBS 9.38; m Up On Kelly 0

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222.2	SMF2 3 16.7	BA 2152	9 000	90	290	42 1/2			RNG

MUD	08:00	10:00	12:00	14:00	DESILTER	SURVEY	786	° 1/2	Motor Hours 1/2/3 L.P.	Next Oil Change (Hours) 1/2/3 L.P.	FUEL Litres
Density kg/m³					Stop/Start Hrs.						WATER m³
Viscosity s/L	40	40	40	40	OF kg/m³ UF kg/m³						
Gel Pa					Flow Rate L/min.						
Press. kPa Pump 1	EMSCO	D-375			Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m) Cut	Next Slip
Press. kPa Pump 2		7500	7500	7500	KCL-15 SKS	254		6				
Pump S.P.M. Pump 1	7500					GENERAL						
Pump S.P.M. Pump 2	56	56	56	56		Collars S-171-47.23						
Liner Size mm Pump 1						8-159-74.30						
Liner Size mm Pump 2	140	356										
W.L. cm³	F.C. mm		pH									

Boiler In Use (Yes) No

REMARKS	Time Start	Stop	Interval
Rig-Ser + B.O.P / + Motor shut off	08 00	08 15	.75
Drill	08 15	12 15	4.00
Survey @ 786	12 15	12 30	.25
Clean Screen on Pump	12 30	12 45	.25
Drill	12 45	16 00	3.25
			8

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller BRIAN POOTE	12
Derrick John Tutz	11
Floor	
Floor Peter Jarvis	4
Floor Bob Roach	4
Motor Chris Bourgeois	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
815	30	845	7 3/4	20 000	39	1

DRILL COLLARS: No. 13; O.D. mm; I.D. mm; Length m 121.53; DC Force daN 15 000; RMR STB CB; XO 3-65 9.38; m Up On Kelly 8

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	1	222.2	SMF2 3 16.7	BA 2152	9 000	90	320	50 3/4			RNG

MUD	16:00	18:00	20:00	22:00	DESILTER	SURVEY	°	Motor Hours 1/2/3 L.P.	Next Oil Change (Hours) 1/2/3 L.P.	FUEL Litres
Density kg/m³					Stop/Start Hrs.					WATER m³
Viscosity s/L	40	39	38		OF kg/m³ UF kg/m³					
Gel Pa					Flow Rate L/min.					
Press. kPa Pump 1	EMSCO	D-375			Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m) Cut	Next Slip
Press. kPa Pump 2	7500	7500	75	75	KCL 16 SKS	254		6				
Pump S.P.M. Pump 1						GENERAL						
Pump S.P.M. Pump 2	56	56	56	56		Collars S-171-47.23						
Liner Size mm Pump 1						8-159-74.30						
Liner Size mm Pump 2	140	356										
W.L. cm³	F.C. mm		pH									

Boiler In Use (Yes) No

REMARKS	Time Start	Stop	Interval
Rig-Ser + B.O.P /	16 00	16 15	.25
Drill	16 15	21 00	4.75
			4

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

Toolpusher Brian Coate

Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41217

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount HB ETAL Pemmican AREA J62 DATE 10-02-20

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	4
Derrick John Tetz	4
Floor	
Floor Peter Jarvis	4
Floor Bob Roach	4
Motor Chris Bourgeois	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 845 | Metres 27 | To 872 — Hours On Bottom 7 3/4 — Force of Drill String daN 31000 — Stands 41 — Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.43 | DC Force daN 14000 | RMR STB CB JAR 105 105 105 | E E E E E E | m Up On Kelly 9.31

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
B	1	222	SMF2 3/7 7	RA1152	9000	80	247	5.4			Drilling
I											
T											
S											

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L	32	34	35	41
Gel Pa				

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY °

Motor Hours 1 2 3 LP. LP.

Next Oil Change (Hours) 1 2 3

FUEL Full Litres — WATER m³

Press. kPa	Pump 1	Pump 2
	Emsco	D-375
	7500	7000

Additives: KCL-11 <<<

Pump S.P.M.	Pump 1	Pump 2
	66	66

Liner Size mm	Pump 1	Pump 2
	140	X-356

W.L. cm³ — F.C. mm — pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL Collars 5-171-47.23
8-159-74.30
SS 243 Tells 882-47
Tank 4 877 1.30 Diamond Crown Tank
KCL 1.02

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller CLINT MCMILLAN	12
Derrick NORRIE STEININGER	12
Floor	
Floor RICK RABBIT	12
Motor Mike Fox	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 872 | Metres 4 | To 876 — Hours On Bottom 1.25 — Force of Drill String daN 31000 — Stands 41 — Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.43 | DC Force daN 15000 | RMR STB CB JAR 105 105 105 | E E E E E E | m Up On Kelly 6 | 9.39

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
B	1	222	SMF2 3/7 7	BA2152	9000	80	351	59.25			
I											
T											
S											

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L	40			
Gel Pa				

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY °

Motor Hours 1 2 3 LP. LP.

Next Oil Change (Hours) 1 2 3

FUEL Litres — WATER m³

Press. kPa	Pump 1	Pump 2
	Emsco	D-375
	7500	

Additives:

Pump S.P.M.	Pump 1	Pump 2
	66	

Liner Size mm	Pump 1	Pump 2
	140	X 356

W.L. cm³ — F.C. mm — pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL Collars 5-171-47.23
8-159-74.30
CHECKED OVER PUMP FOR LOSS OF PUMP PRESSURE. PULLED OUT OF HOLE. ONE JET WASHED OUT

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	4
Derrick John Tetz	4
Floor	
Floor Peter Jarvis	4
Floor Bob Roach	4
Motor Chris Bourgeois	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 872 | Metres — | To — — Hours On Bottom — Force of Drill String daN — Stands 39 — Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.43 | DC Force daN 15000 | RMR STB CB JAR 105 105 105 | E E E E E E | m Up On Kelly 9.38

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
B	1	222.2	SM F2 3/7 7	BA2152							2-2 T
I	2	222.2	M F7 3/7 4-7	BU4496							
T											
S											

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY °

Motor Hours 1 2 3 LP. LP.

Next Oil Change (Hours) 1 2 3

FUEL Litres — WATER m³

Press. kPa	Pump 1	Pump 2
	Emsco	D-375

Additives:

Pump S.P.M.	Pump 1	Pump 2

Liner Size mm	Pump 1	Pump 2
	140	356

W.L. cm³ — F.C. mm — pH

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL Collars 5-171-47.23
8-159-74.30
SS 243 Tells 882-47
Tank 4 877 1.30
KCL 1.03

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41218

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
Rig Service - Rig Up	00:00	00:15	.25
Drill 1192 m to 1197 m	00:15	14:00	13.75
			14
Boiler In Use Yes/No			
Rig Service - Rig Up - Make up Tells	07:30	08:15	.25
Drill Losing Pump Pressure	08:15	08:45	.50
W.O. Pump	08:45	09:30	.75
Drill	09:30	10:15	.75
Clean Suction Tank	10:15	10:45	.50
W.O. Pump	10:45	15:15	4.50
Hoist out of Hole	15:15	16:00	.75
Boiler In Use Yes/No			
Finish out of Hole	16:00	17:30	1.50
W.O. Drawworks (Cable)	17:30	18:00	.50
Finish out of Hole (Collars)	18:00	18:30	.50
Rig Service (Grease)	18:30	21:00	2.50
Pick up Kelly, Break out	21:00		
Trip Kelly, Hose out	21:00	22:00	1.00
Break out Jet in 10 and (75°KOA)	22:00	22:15	.25
Blow Kelly - Service Unit	22:15	23:15	1.00
Break Circ + Clean In Bottom	23:15	23:40	.25
Drill [illegible]	23:40	24:00	.25
			4
Boiler In Use Yes/No			

Toolpusher David Watts

Approved by [signature]

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount AB 21 A1 Cameron AREA 162 DATE 80-02-21

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller BRIAN COATE 8
Derrick John Tetz 4
Floor
Floor Peter Jarvis 4
Floor Bob Roach 4
Motor Chris Bourgeois 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 876 | Metres 26 | To 902
Hours On Bottom 7 3/4 | Force of Drill String daN 90000 | Stands 35 | Singles 1
DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15
SS / RMR / STB / CB / JR: 2 3/8 REG 9.34 | m Up On Kelly 0

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	222.2	SM F2 2/19 1/18 2	9H4469	6000	80	26	7 3/4			RNG

MUD	00:00	02:00	04:00	06:00
Density kg/m³	~		1190	1190
Viscosity s/L			48	47
Gel Pa				
Press. kPa Pump 1	EMSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	75	55	55	55
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: KCl - 25 SKS 23.4
SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.
FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars: S-171-4723 B-159-7430

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller CLINT McClelland 8
Derrick NORBERT STEINHAUS 8
Floor
Floor Rick Roberge 8
Motor Mike Parkinson 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 902 | Metres 38 | To 940
Hours On Bottom 7.75 | Force of Drill String daN 32000 | Stands 41 | Singles 1
DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000
SS / RMR / STB / CB / JR: 2 3/8 REG 9.38 | m Up On Kelly 0

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	222.2	SM F2 2/19 1/18 2	AH4269	9000	80	64	15.50			DRILLING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1040	1040	1040	1020
Viscosity s/L	50	40	35	37
Gel Pa				
Press. kPa Pump 1	EMSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH 7	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: KCL - 27 SKS 25.4
SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.
FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars: S-171-4723 B-159-7430 DUMP SETTLING TANK.

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller M McRAE 8
Derrick R MICIAK 8
Floor
Floor J McRAE 8
Floor A FRENZE 8
Motor T McRAE 8
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 940 | Metres 28 | To 968
Hours On Bottom 7.50 | Force of Drill String daN 32000 | Stands 43 | Singles —
DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15
SS / RMR / STB / CB / JR: 3 1/2 REG 9.38 | m Up On Kelly 1N

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	222.2	SM F1 7/9 1/12	AH4210	9000	80	92	23			DRILLING

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1130	1130	1100	1110
Viscosity s/L	37	35	35	36
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	140 x 356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: KCL 25 SKS 25.4
SURVEY: 940 ° 1/2 | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.
FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars S-171-4723 B-159-7430 DUMP SETTLING TANK.

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41219

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
Rig Serv + Rig J	00:00	00:15	.25
Drilling W.O.	00:15	14:00	7.75
			8
Boiler In Use (Yes/No)			
Rig Serv + B.O.P.'s + Motor Shut off	09:00	08:15	.25
DRILL	08:15	16:00	7.75
			8
Boiler In Use (Yes/No)			
Rig Serv + B.O.P.'s	16:00	16:15	.25
Survey @ 940 1/2°	16:15	16:30	.25
DRILL	16:30	24:00	7.50
			8
Boiler In Use (Yes/No)			

Toolpusher _____ Approved by _____

Sedco Drilling
Division of Sow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT HB ET AL CAMERON AREA 562 DATE 80-02-22

DAY WORK RECORD

41220

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller CLINT McCLELLAND	8
Derrick NORBERT STEINHAUS	8
Floor	
Floor DON ROBERTSON	8
Floor RICK ROBERGE	8
Motor MIKE PARKINSON	8
Mechanic	
Extra	

Injuries: N/L

METRES DRILLED: From 968 | Metres 31 | To 999 — Hours On Bottom 7.75 — Force of Drill String daN 32000 — Stands 45 — Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.3 | DC Force daN 15000 | SS/MR/SR/CR/JR 40 subs 938 | m Up On Kelly 7

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	222.2	SM F2 3/79 1/82	AH4869	9000	80	123	3.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1120	1120	1120	1130
Viscosity s/L	36	35	35	36
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	~~7500~~			
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140x356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives KCL - 26 SKS

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 5-176-4723 / 8-159-7430

Time	Start	Stop	Interval	
RIG SERV + B.O.P.	00	00 15	.25	
DRILL	00 15	08 00	7.75	7.75
				6

Boiler In Use (Yes)/No

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller M McRAE	12
Derrick F MICIAK	12
Floor	
Floor J McRAE	12
Floor R FRERE	12
Motor T McRAE	12
Mechanic	
Extra	

Injuries: N/L

METRES DRILLED: From 999 | Metres 30 | To 1029 — Hours On Bottom 7.50 — Force of Drill String daN 34000 — Stands 46 — Singles 1

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000 | SS/MR/SR/CR/JR 2.25 9.38 | m Up On Kelly 5

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	222.2	SM F2 3/79 1/82	AH4869	9000	80	153	3.825			DRILLING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1030	1080	1100	1100
Viscosity s/L	36	38	38	38
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives KCL 25 SKS / GEL 30 SKS

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS - 5-171-4723 / 8-159-7430 / HELD SAFETY MEETING W/CREW / PRE-MIX IN HOLDING TANK

Time	Start	Stop	Interval	
DRILL	08 00	09 00	1.00	1.00
RIG SERV + B.O.P. + MIP KILLS	09 00	09 15	.25	
DRILL	09 15	14 15	5.00	5.00
CHANGE ROD PACKING ON PUMP	14 15	14 30	.25	
DRILL	14 30	16 00	1.50	1.50
				8

Boiler In Use (Yes)/No

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller CLINT McCLELLAND	4
Derrick NORBERT STEINHAUS	4
Floor	
Floor DON ROBERTSON	4
Floor RICK ROBERGE	4
Motor MIKE PARKINSON	4
Mechanic	
Extra	

Injuries: N/L

METRES DRILLED: From 1029 | Metres 31 | To 1060 — Hours On Bottom 7.75 — Force of Drill String daN 34000 — Stands 48 — Singles —

DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 15000 | SS/MR/SR/CR/JR 9.38 | m Up On Kelly 3

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	222.2	SM F2 3/79 1/82	AH4869	9000	80	17.4	4.6			DRILLING

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1100	1100	1110	1110
Viscosity s/L	35	34	35	35
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm		pH 7.0	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives K.C.L. - 5 SKS

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 5-171-4723 / 8-159-7430

Time	Start	Stop	Interval	
DRILL	14 00	17 15	3.25	
RIG SERV + B.O.P.'S	17 15	17 30	.25	
DRILL	17 30	24 00	6.50	
				9

Boiler In Use (Yes)/No

15-0442

Toolpusher Derrick Parks

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____ Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 86 LOCATION CASAMANCE HEAT A CAMEROON AREA 562 DATE 30-07-23

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller C. McCLELLAND	8
Derrick N. STEINWAND	8
Floor	
Floor D. ROBERTSON	8
Floor R. ROBERGE	8
Motor M. PERKINSON	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1060 | Metres 32 | To 1092 | Hours On Bottom 7.75 | Force of Drill String daN 35000 | Stands 49 | Singles 1 | DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.91 | DC Force daN | SS/RMR/STB/CB/CR 939 | EEEEEE | m Up On Kelly 0

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	2222	SMF2 3/19 116.2	AH4269	9000	80	716	53.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1110	1110	1110	1110
Viscosity s/L	35	35	35	35
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH 8	

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY — °

Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives: EMSCO D-375 — KCL - 10 sks. 25.4 — Soda Ash - 25 sks.

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars 5-171-47.23 / 8-159-74.30

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller M McRAE	12
Derrick R MICIAK	12
Floor	
Floor T. McRAE	12
Floor R FRERE	12
Motor T McRAE	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1092 | Metres 11 | To 1103 | Hours On Bottom 2.75 | Force of Drill String daN 35000 | Stands 50 | Singles 1 | DRILL COLLARS: No. 13 | O.D. mm | I.D. mm | Length m 121.53 | DC Force daN 13 | SS/RMR/STB/CB/CR 9.38 | EEEEEE | m Up On Kelly 8

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	2222	SMF2 3/19/12	AH4869	7000	80	227	3.50			HOISTING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1110	1110	TRIP	
Viscosity s/L	35	35		
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500		
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56		
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY — 1101 2° — 1103 2°

Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives: EMSCO D-375 — KCL 15 SKS — 95.4

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars 5-171-47.23 / 8-159-74.30 — Loss of Pump Pressure - Hoist Pipe — Found 2 washed 171mm Collars

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller C. McCLELLAND	4
Derrick N. STEINWAND	4
Floor	
Floor D. ROBERTSON	4
Floor R. ROBERGE	4
Motor M. PERKINSON	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1103 | Metres 8 | To 1111 | Hours On Bottom 4.25 | Force of Drill String daN 35000 | Stands 53 | Singles — | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10 | SS/RMR/STB/GB/CR 9.38 | EEEEEE | m Up On Kelly 3

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	2	2222	SH F-2 7/19 18.2	AH4869	7000	80	235	4.00			DRILLING

MUD	16:00	18:00	20:00	22:00
Density kg/m³			1110	1110
Viscosity s/L			35	35
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2		7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2		56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH 8	

DESILTER — Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

SURVEY — °

Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives: KCL - 5 SKS. — SODA ASH - 15 SK — 2.61

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6			25m	25m		

GENERAL: Collars 3-171-19.87 / 6-159-54.87

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41221

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
RIG SERV + B.O.P	00:00	08:00	2.5
DRILL	08:00	08:00	7.75
			8
Boiler In Use (Yes)/No			
RIG SERV + B.O.P & MTR K.ills	08:00	08:17	.25
DRill	08:25	10:25	2.00 2.00
SURVEY @ 1101 2°	10:15	10:45	.50
DRILL	10:45	11:30	.75 .15
SURVEY @ 1103 2°	11:30	12:00	.50
HOIST 2½ "Z"	12:00	14:00	2.00
LAY DOWN 5 159 COLLARS	14:00	14:30	.50
PULL 171mm COLLARS	14:30	14:45	.25
RUN-IN COLLARS	14:45	16:00	1.25
			8
Boiler In Use (Yes)/No			
PICK-UP 2 159 COLLARS	11:00	11:30	.50
CUT & SLIP LINE	16:30	17:30	1.00
RUN-IN HOLE (SLOW)	17:30	19:00	1.50
PICK-UP 5 SINGLES	19:00	19:30	.50
BREAK CIRC & CLEAN TO BOTTOM	19:30	19:45	.25
DRILL	19:45	24:00	4.75
			8
Boiler In Use (Yes)/No			

Toolpusher _____ Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION BARAMBOUT 46 ET A1 CAMEROON AREA 362 DATE 80-02-24

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller C. McClelland	8
Derrick N. STEINNAES	8
Floor	
Floor D. Robertson	8
Floor R. Roberge	8
Motor M. Parkinson	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1111 | Metres 14 | To 1125 | Hours On Bottom 7.75 | Force of Drill String daN 35000 | Stands 54 | Singles —

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 7674 | DC Force daN 10 | PMR STB CB # 9.38 | EEEEEE | m Up On Kelly 8

BITS:

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	222 2	SM FJ 3/16 1/16	AH4826	7000	80	749	66.50			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1110	1110	1120	1110
Viscosity s/L	35	37	34	34
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

Additives: KCl - 10 SKS

SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL: COLLARS 2-171-1987 6-159-5687

REMARKS	Time Start	Stop	Interval	
RIG SERV + BOPS	00 00	00 15	.25	
DRILL	00 15	08 00	7.75	8

Boiler In Use (Yes) No

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller M McRae	12
Derrick R MICIAK	12
Floor	
Floor J McRae	12
Floor R FRERE	12
Motor T McRAE	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1125 | Metres 17 | To 1142 | Hours On Bottom 7.25 | Force of Drill String daN 35000 | Stands 54 | Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 7674 | DC Force daN 10000 | PMR STB CB # 9.38 | EEEEEE | m Up On Kelly 8

BITS:

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
2	222 2	SM FJ 3/16 1/16	AH4269	8000	80	263	7.75			OUT @ 1142 7-1-0

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1110	1110	1130	1120
Viscosity s/L	25	35	36	38
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500			7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56			56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

Additives: KCl 15 SKS | CFL 6 SKS | CASH 1 SK

SURVEY: 1133 @ 1¾° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL: COLLARS 2-171-1987 6-159-5687

REMARKS	Time Start	Stop	Interval	
Boiler In Use (Yes) No				
DRILL	08 00	11 15	3.25	3.25
RIG SERV + BOPS + MTR KILLS	11 15	11 30	.25	
SURVEY @ 1133 1¾°	11 30	12 00	.50	
DRILL	12 00	16 00	4.00	4.00
				8

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller C McCLELLAND	4
Derrick N. STEINNAES	4
Floor	
Floor D. ROBERTSON	4
Floor R. ROBERGE	4
Motor M. PARKINSON	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1142 | Metres 9 | To 1151 | Hours On Bottom 3.75 | Force of Drill String daN 35000 | Stands 55 | Singles —

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 7674 | DC Force daN 10000 | PMR STB CB # 9.38 | EEEEEE | m Up On Kelly IN

BITS:

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222 2	SM FJ 3/16 1/16	AK8954	9000	80	9	3.75			DRG

MUD	16:00	18:00	20:00	22:00
Density kg/m³			1130	1120
Viscosity s/L	TRIP		38	36
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500		7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	51		56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm		pH 8	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

Additives: KCl - 10 SKS

SURVEY: 1142 @ 1¼° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL: COLLARS 2-171-1987 6-159-5687

REMARKS	Time Start	Stop	Interval	
Boiler In Use (Yes) No				
DRILL	16 00	16 15	.25	.25
RIG SERV / BOPS	16 15	16 30	.25	
DROP SURVEY @ 1142 1¼°	16 30	16 45	.25	
HOIST BIT #2	16 45	18 15	1.50	
CHANGE BIT + CHECK BLIND RAMS	18 15	18 45	.50	
RUN IN HOLE	18 45	20 15	1.50	
BREAK CIRC	20 15	20 30	.25	
DRILL	20 30	24 00	3.50	3.50
				8
Boiler In Use (Yes) No				

15-0442

Toolpusher M. Lapointe

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____ Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41222

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Sedco Drilling — Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

41223

RIG NO. 86 LOCATION PARAMOUNT HR ET AL CAMERON AREA I-62 DATE 80-02-25

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller C McCLELLAND	8
Derrick N STEINWAND	8
Floor	
Floor D ROBERTSON	8
Floor R ROBERGE	8
Motor M PARKINSON	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1151 | Metres 20 | To 1171 — Hours On Bottom 7 3/4 — Force of Drill String daN 25000 — Stands 56 — Singles — — DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 100000 — SS/HWR/STB/CB/JAR 9.38 — EEEEEE — m Up On Kelly IN

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222	SM F-3 3/14/32	AK8954	7 000	90	19	11 50			0 0 E

MUD	00:00	02:00	04:00	06:00	DESILTER	SURVEY	°			FUEL
Density kg/m³	1110	1110	1100	1100	Stop/Start Hrs.			Motor Hours 1	Next Oil Change (Hours) 1	Litres
Viscosity s/L	36	35	34	34	OF kg/m³ UF kg/m³			2	2	WATER
Gel Pa					Flow Rate L/min.			3	3	m³
Press. kPa Pump 1	EMSCO D-375				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
Press. kPa Pump 2	7500	7500	7500	7500	KCL-20 SKS	25#		6					
Pump S.P.M. Pump 1													
Pump S.P.M. Pump 2	56	56	56	56									
Liner Size mm Pump 1													
Liner Size mm Pump 2	140 x 356												
W.L. cm³	F.C. mm		pH										

GENERAL: COLLARS 2-171-1987 / 6-159-5687

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller M McRAE	12
Derrick R MICIAK	12
Floor	
Floor T McRAE	12
Floor R FRERE	12
Motor T McRAE	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1171 | Metres 25 | To 1196 — Hours On Bottom 7.00 — Force of Drill String daN 35000 — Stands 57 — Singles 1 — DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 100000 — SS/HWR/STB/CB/JAR 9.38 — EEEEEE — m Up On Kelly 4

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	12 2 2	SM F-3 3/14 1/32	AK8954	8 000	80	54	18 50			DRILLING

MUD	08:00	10:00	12:00	14:00	DESILTER	SURVEY	°			FUEL
Density kg/m³	1090	1100	1100	1100	Stop/Start Hrs.	1180	1°	Motor Hours 1	Next Oil Change (Hours) 1	Litres
Viscosity s/L	35	35	35	35	OF kg/m³ UF kg/m³			2	2	WATER
Gel Pa					Flow Rate L/min.			3	3	m³
Press. kPa Pump 1	EMSCO D-375				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
Press. kPa Pump 2	7500	7500	7500	7500	KCL-15 SKS / 2-4 - 2 SKS	25#		6					
Pump S.P.M. Pump 1													
Pump S.P.M. Pump 2	56	56	56	56									
Liner Size mm Pump 1													
Liner Size mm Pump 2	140 x 356												
W.L. cm³ —	F.C. mm -		pH 8.5										

GENERAL: COLLARS 2-171-1987 / 6-159-5687

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller C McCLELLAND	4
Derrick N STEINWAND	4
Floor	
Floor D ROBERTSON	4
Floor R ROBERGE	4
Motor M PARKINSON	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1196 | Metres 28 | To 1224 — Hours On Bottom 9.75 — Force of Drill String daN 35000 — Stands 59 — Singles — — DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 100000 — SS/HWR/STB/CB/JAR 9.38 — EEEEEE — m Up On Kelly 4

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222	SM F-3 3/14 1/32	AK8954	7 mm	80	82	25 50			DRILLING

MUD	16:00	18:00	20:00	22:00	DESILTER	SURVEY	°			FUEL
Density kg/m³	1100	1110	1110	1110	Stop/Start Hrs.			Motor Hours 1	Next Oil Change (Hours) 1	Litres
Viscosity s/L	36	36	36	35	OF kg/m³ UF kg/m³			2	2	WATER
Gel Pa					Flow Rate L/min.			3	3	m³
Press. kPa Pump 1	EMSCO D-375				Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
Press. kPa Pump 2	7500	7500	7500	7500	KCL-10 SKS	25#		6					
Pump S.P.M. Pump 1													
Pump S.P.M. Pump 2	56	56	56	56									
Liner Size mm Pump 1													
Liner Size mm Pump 2	140 x 356												
W.L. cm³	F.C. mm		pH										

GENERAL: COLLARS 2-171-1987 / 6-159-5687 / HELD SAFETY MEETING W/ CREW.

Shock Sub Start/Stop — Camp Start/Stop — Ambulance & Medic Start/Stop

15-0442

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval	
R.C. SERV / BOP's	00 00	00 15	.25	
DRILL	00 15	midnight	7.75	
			8	
Boiler In Use (Yes) No				
RIG SERV / BOP's / MUD KILLS	08 00	08 15	.25	
DRILL	08 15	11 00	2.75	2.75
SURVEY @ 1180 1°	11 00	11 15	.25	
BREAK DOWN STAND OF COLLARS IN DERRICK	11 15	11 45	.50	
DRILL	11 45	16 00	4.25	4.25
			8	
Boiler In Use (Yes) No				
DRILL	16 00	17 00	1.00	1.00
RIG SERV / B.O.P's	17 00	17 15	.25	
DRILL	17 15	24 00	6.75	
			8	
Boiler In Use (Yes) No				

Toolpusher Donald Clarke

Approved by [illegible]

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT 48 KM N.E. CAMROSE AREA 3-67 DATE 30-03-26

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

		Hrs.
Driller	C. McClelland	4
Derrick	N. Steinhauer	4
Floor		
Floor	D. Robertson	4
Floor	R. Roberge	4
Motor	M. Parkinson	4
Mechanic		
Extra		

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1224	24	1248	7.75	35000	60	1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 10 | SS MR STB CB OR | 9.38 | EEEEEE | m Up On Kelly 10

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	2222	SMF-3 7/32 1/2	AK0954	7000	80	106	3¾			ORIENTS

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1110	1110	1100	1100
Viscosity s/L	35	35	35	35
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: °

Motor Hours 1 | 2 | 3 | L.P.

Next Oil Change (Hours) 1 | 2 | 3 | L.P.

FUEL ¼ Full Litres | WATER m³

Press. kPa	Pump 1	Pump 2	00:00	02:00	04:00	06:00
			7500	7500	7500	7500

Pump S.P.M.: Pump 1 | Pump 2: 56 | 56 | 56 | 56

Liner Size mm: Pump 1 | Pump 2: 140 x 356

W.L. cm³ | F.C. mm | pH

Additives: Emsco D-375 | KCL-20 sks

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
254		6						

GENERAL: Collars - 2-171-1987
6-159-5687

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

		Hrs.
Driller	M McRae	12
Derrick	R Miciak	12
Floor		
Floor	T McRae	12
Floor	R Ferere	12
Motor	T McRae	12
Mechanic		
Extra		

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1248	26	1274	5.75	35000	61	1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 10 | SS MR STB CB OR | 9.38 | EEEEEE | m Up On Kelly 1

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	2222	SM F-3 7/32 1/32	AK0954	9000	80	132	8.75			Hoisting to work on Pump

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1100	1100	1100	1100
Viscosity s/L	35	38	38	38
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: °

Motor Hours 1 | 2 | 3 | L.P.

Next Oil Change (Hours) 1 | 2 | 3 | L.P.

FUEL Litres | WATER m³

Press. kPa	Pump 1	Pump 2	08:00	10:00	12:00	14:00
			7500	7500	7500	7500

Pump S.P.M.: Pump 1 | Pump 2

Liner Size mm: Pump 1 | Pump 2: 140 x 356

W.L. cm³ | F.C. mm | pH

Additives: Emsco D-375 | KCl 15 sks | Caustic 3 sks | Drispac 1 sk

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
254		6						

GENERAL: Collars - 2-171-1987
6-159-5687
Repair Pump Clutches

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

		Hrs.
Driller	C. McClelland	4
Derrick	N. Steinhauer	4
Floor		
Floor	D. Robertson	4
Floor	R. Roberge	4
Motor	M. Parkinson	4
Mechanic		
Extra		

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1274						

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 10 | SS MR STB CB OR | 9.38 | EEEEEE | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	2222	SM F-3 7/32 1/32	AF7954							

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: °

Motor Hours 1 | 2 | 3 | L.P.

Next Oil Change (Hours) 1 | 2 | 3 | L.P.

FUEL Litres | WATER m³

Press. kPa	Pump 1	Pump 2

Pump S.P.M.: Pump 1 | Pump 2

Liner Size mm: Pump 1 | Pump 2: 140 x 356

W.L. cm³ | F.C. mm | pH

Additives: Emsco D-375

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
254		6						

GENERAL: Collars 2-171-1987
6-159-5687
Repair Pump Clutches

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41224

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval	
Rig-ser + B.O.P.I	00:00	00:15	.25	
Drill	00:15	08:00	7.75	
			8	
Boiler In Use (Yes) No				
Drill	08:00	09:30	1.50	1.50
Rig-ser / Rod + Mtr Hills	09:30	09:45	.25	
Drill	09:45	14:00	4.25	4.25
Hoist to Repair Pump Clutches	14:00	15:15	1.25	
Work on Pump	15:15	16:00	.75	
			8	
Boiler In Use (Yes) No				
Work on Pump	16:00	24:00	8	

Toolpusher: Harold Kirk

Approved by: A.F. Hansen

Sedco Drilling — Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION LARAMIDE HB ETAL CAMERON AREA 562 DATE 80-02-27

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller C. McClelland	8
Derrick N. Steinwand	8
Floor	
Floor R. Robertson	8
Floor R. Roberge	8
Motor M. Parkinson	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1274 | Metres 17 | To 1291 — Hours On Bottom 5.00 — Force of Drill String daN 35000 — Stands 67 — Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10 | (SS) mark STB CB (DB) 9.38 | m Up On Kelly 3

BITS: No. 3 | Size 222 | Type & Jet Size SM F3 3/32 1/2 | Serial No. AK8954 | Force on Bit daN 9000 | R.P.M. 80 | m Drilled 149 | Hrs. 44.75 | m Reamed | Hrs. | CONDITION DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³			1110	1100
Viscosity s/L			40	35
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2	Emsco D-375		7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2			56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm		pH 8.5	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives KCL-12sks 25.4

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P. — FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: Collars - 2-171-19.87 6-159-56.87

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller M. McRae	12
Derrick R. Micak	12
Floor	
Floor T. McRae	12
Floor R. Frere	12
Motor T. McRae	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1291 | Metres 24 | To 1315 — Hours On Bottom 7.25 — Force of Drill String daN 35000 — Stands 64 — Singles —

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN | (SS) mark STB CB (DB) 9.38 | m Up On Kelly 7

BITS: No. 2 | Size 222 | Type & Jet Size SM F3 3/32 1/2 | Serial No. AK8954 | Force on Bit daN 9000 | R.P.M. 80 | m Drilled 173 | Hrs. 52 | m Reamed | Hrs. | CONDITION DRILLING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1100	1100	1100	1100
Viscosity s/L	35	35	38	38
Gel Pa				
Press. kPa Pump 1				
Press. kPa Pump 2	Emsco D-375			
Pump S.P.M. Pump 1	7500	7500	7500	7500
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	56	56	56	56
Liner Size mm Pump 2	140x356			
W.L. cm³ 13	F.C. mm		pH 9.0	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives KCL-10sks; DRIL-PAC-3sks

SURVEY: 1294 1½° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P. — FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 2-171-19.87 6-159-56.87 — HELD BLOW-OUT DRILL W/ CREW

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller C. McClelland	4
Derrick N. Steinwand	4
Floor	
Floor D. Robertson	4
Floor R. Roberge	4
Motor M. Parkinson	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1315 | Metres 30 | To 1345 — Hours On Bottom 7.75 — Force of Drill String daN 35000 — Stands 65 — Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN | (SS) mark STB CB (DB) 9.38 | m Up On Kelly 6

BITS: No. 3 | Size 222 | Type & Jet Size SM F3 3/32 1/2 | Serial No. AK8954 | Force on Bit daN 9000 | R.P.M. 80 | m Drilled 203 | Hrs. 59¾ | m Reamed | Hrs. | CONDITION DRILLING

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1100	1100	1100	1120
Viscosity s/L	38	38	38	36
Gel Pa				
Press. kPa Pump 1	Emsco D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140x356			
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH 8.5	

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives KCL-10sks; 500A ASH-15#

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P. — FUEL Litres — WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS 2-171-19.87 6-159-56.87

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41225

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval	
Work on Pump	00:00	01:30	1.50	
Run in Hole	01:30	02:30	1.00	
Break Circ. + Clean to Bottom	02:30	03:00	.50	
Drill	03:00	08:00	5.00	
				8
Boiler In Use (Yes) No				
Drill	08:00	08:15	.25	.25
Rig Serv / B.O.P's / Mix Mud	08:15	08:30	.25	
Survey @ 1294 1½°	08:30	08:45	.25	
Held Blow-out Drill	08:45	09:00	.25	
Drill	09:00	16:00	7.00	7.00
				8
Boiler In Use (Yes) No				
Drill	16:00	16:15	.75	
Rig-Ser + B.O.P.'s	16:15	16:30	.25	
Drill	16:30	24:00	7.50	
				8
Boiler In Use (Yes) No				

Toolpusher _____ Approved by _____

Sedco Drilling — Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT HB ETAL CAMERON AREA 5-62 DATE 80-02-28

Morning Tour — 00:00 - 00:00

Specify actual hours worked

	Hrs.
Driller C. McCLELLAND	8
Derrick N. STEINWAND	8
Floor	
Floor D. ROBERTSON	8
Floor R. ROBEREE	8
Motor M. PARKINSON	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1345 | Metres 24 | To 1369 | Hours On Bottom 7.75 | Force of Drill String daN 35000 | Stands 66 | Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10 | SS FAM STB DS CB 9.38 | m Up On Kelly 1

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222.2	SMF3 3/9 3/12	AK8954	9000	80	22.74				DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1120	1120	1120	1110
Viscosity s/L	35	35	36	35
Gel Pa				
Press. kPa Pump 1	EMSCO-D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140		356	
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH 8.5	

DESILTER — SURVEY — Motor Hours 1/2/3 — LP. — Next Oil Change (Hours) 1/2/3 — LP. — FUEL 3/4 Full Litres — WATER m³

Additives: Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip

KCL - 20 sks — 25.4 — 1

GENERAL: Collars 2-171-19.87, 6-159-58.87

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller R. MICIAK	8
Derrick T. McRAE	8
Floor R. FRERE	8
Floor	
Floor	
Motor J. McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1369 | Metres 27 | To 1396 | Hours On Bottom 7.75 | Force of Drill String daN 35000 | Stands 68 | Singles —

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10000 | SS FAM STB DS CB 9.38 | m Up On Kelly 6

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222.2	SMF3 3/9 3/12	AK8954	9000	80	3.54	15.25			DRILLING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1140	1140	1140	1140
Viscosity s/L	35	36	37	35
Gel Pa				
Press. kPa Pump 1	EMSCO-D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140		356	
Liner Size mm Pump 2				
W.L. cm³ 20+	F.C. mm 1.6		pH 8.5	

DESILTER — SURVEY — Motor Hours 1/2/3 — LP. — Next Oil Change (Hours) 1/2/3 — LP. — FUEL 3/4 Full Litres — WATER m³

Additives: Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip

KCL 10 sks — 25.4 — 6

Drispac 4 sks; SODA ASH 2 sks

GENERAL: Collars 2-171-19.87, 6-159-58.87

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller BRIAN ROOSE	8
Derrick John TOTZ	8
Floor	
Floor Peter Jarvis	8
Floor Bob Rock	8
Motor Chris Bourgeois	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1396 | Metres 33 | To 1418 | Hours On Bottom 7 3/4 | Force of Drill String daN 35000 | Stands 69 | Singles —

DRILL COLLARS: No. 6 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10000 | SS FAM STB DS CB 9.38 | m Up On Kelly 0

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
3	222.2	SMF3 4/12 1/12	AK8954	9000	80	22.1	23			RNG

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1140	1150	1150	1150
Viscosity s/L	36	35	36	35
Gel Pa				
Press. kPa Pump 1	EMSCO-D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	48	48	48	48
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140	356		
W.L. cm³ 15+	F.C. mm 1.6		pH 7.5	

DESILTER — SURVEY — Motor Hours 1/2/3 — LP. — Next Oil Change (Hours) 1/2/3 — LP. — FUEL Litres — WATER m³

Additives: Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) Cut — Next Slip

KCL-BT sks — 25.4 — 6

SODA ASH - 2 sks; DRISPAC - 3 sks; CAUSTIC - 1 sk

GENERAL: Collars 2-171-19.87, 6-159-58.87

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41176

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
RIG-SER + B.O.P.	00 30	00 45	.25
DRILL	00 45	08 00	7.75
			8

Boiler In Use (Yes/No)

BRK SER + B.O.P.	08 00	08 15	.25
DRILL	08 15	15 00	7.75
			8

Boiler In Use (Yes/No)

R. CUT + B.O.P.	16 00	16 15	.25
DRILL 3777 2 mm HC	16 15	24 00	7.75
			8

Boiler In Use (Yes/No)

Toolpusher Gerald Martin

Approved by J. E. Hansen

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

41177

RIG NO. 86 LOCATION Paramount Hbetal Cameron AREA J-62 DATE 80-02-29

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller R Miciak	8
Derrick T McRae	8
Floor	
Floor	
Floor R Frere	8
Motor J McRae	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1418 | Metres 20 | To 1438
Hours On Bottom: 7.75
Force of Drill String daN: 35000
Stands: 70
Singles: —
DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 1000 | SS WWR STB CB ○ | EEEEEE 9.38
m Up On Kelly: —

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	222	2 [illegible] 13 9 12	AK 8954	9000	80	296	91.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1220	1170	1140	1140
Viscosity s/L	35	25	36	35
Gel Pa				
Press. kPa Pump 1	EMSCO-D375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	19	F.C. mm 2.5	pH 9.0	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.
SURVEY: °
Motor Hours 1 | 2 | 3 | L.P.
Next Oil Change (Hours) 1 | 2 | 3 | L.P.
FUEL over ½ Full Litres
WATER m³

Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
KCL 13 SKS	25.4		6						
ORISPAC 2 SKS									
CAUSTIC 1 SKS									

GENERAL: COLLARS - 2-171-19.87
6-159-58.87

REMARKS	Time Start	Stop	Interval
RIG-SER + BOP ✓	00:00	00:15	.25
DRILL	00:15	08:00	7.75
			8

Boiler In Use (Yes) No

Rig Serv + ✓ Rig + Motor Check Trip	08:00	09:15	1.25
Drill	09:15	12:45	4.50
Blow Kelly + Drop [illegible]	12:45	13:00	.25
[illegible] Check on Draw Works			
Work on [illegible] Slip + Cut	13:00	15:30	2.50
Rig [illegible]	15:30	16:00	.50

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller BRIAN COOTE	12
Derrick John Fehr	12
Floor	
Floor Peter Jarvis	12
Floor Bob Roach	12
Motor Chuck Bowness	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1438 | Metres 9 | To 1447
Hours On Bottom: 4.50
Force of Drill String daN: 36000
Stands: 70
Singles: 1
DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN | SS WWR STB CB ○ | EEEEEE 9.38
m Up On Kelly: 1

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	3	222	SMF3 [illegible] 11 12	AK8954	9000	80	305	95.75			TRIPPING 4-6-I

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1150	1160	1160	Tr
Viscosity s/L	33	39	40	1/2
Gel Pa				1/3
Press. kPa Pump 1	Emsco D-375			
Press. kPa Pump 2	7500	7500	7500	
Pump S.P.M. Pump 1	48	48	48	
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	15+	F.C. mm 2.5	pH 9.0	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.
SURVEY: °
Motor Hours 1 | 2 | 3 | L.P.
Next Oil Change (Hours) 1 | 2 | 3 | L.P.
FUEL over ½ Full Litres
WATER m³

Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
KCL - 15 sks	25.4		6						
ORISPAC - 1 sk									
CAUSTIC - 1 sk									
GEL - 11 sks									

GENERAL: Collars 2-171-19.87
6-159-58.87

Boiler In Use (Yes) No

Trip & Bit # 1	16:00	16:30	.50
Pick up Drill [illegible] Work [illegible]	16:30	16:45	.25
Cond. Mud	16:45	20:45	4.00
Pump Out 5 Singles - TIGHT	20:45	21:15	.50
Work same. Hoist out of hole			
Hoist out of hole WET STANDS	21:15	24:00	2.75
REC THE WAY OUT.			8

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller R Miciak	4
Derrick T McRae	4
Floor R Frere	4
Floor	
Floor	
Motor J McRae	4
Mechanic	
Extra	

Injuries:

METRES DRILLED: From 1447 | Metres | To
Hours On Bottom
Force of Drill String daN: 36000
Stands: 70
Singles: 1
DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 1000 | SS WWR STB CB ○ | EEEEEE 9.38
m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
											Tripping

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1140	1140		
Viscosity s/L	35	605		
Gel Pa				
Press. kPa Pump 1	EMSCO D375			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³		F.C. mm	pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.
SURVEY: °
Motor Hours 1 | 2 | 3 | L.P.
Next Oil Change (Hours) 1 | 2 | 3 | L.P.
FUEL Litres
WATER m³

Additives	Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
KCL 5 sks	25.4		6						

GENERAL: Collars - 2-171-19.87
6-159-58.87

Boiler In Use Yes/No

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

Toolpusher _____ Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount Hbetal Cameron AREA J-62 DATE 80-03-01

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller R Miciak	8
Derrick T McRae	8
Floor	
Floor	
Floor K Freere	8
Motor J McRae	8
Mechanic	
Extra	

Injuries: ✓

METRES DRILLED: From 1447 | Metres 1 | To

Hours On Bottom | Force of Drill String daN 36000 | Stands 70 | Singles 1 | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 1[illegible] | SS RMR STB CB JAR 9.38 | m Up On Kelly

BITS: No. 4 | Size 222.2 | Type & Jet Size J44 3/10-3 | Serial No. 45705 | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION: Tripping

MUD: Density kg/m³ | Viscosity s/L TRIP | Gel Pa | Press. kPa Pump 1 / Pump 2 | Pump S.P.M. Pump 1 / Pump 2 | Liner Size mm Pump 1 / Pump 2 | W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY ° | Motor Hours 1 / 2 / 3 L.P. | Next Oil Change (Hours) 1 / 2 / 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		86					

GENERAL COLLARS 2-171-19 87
6 159-58 87

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	12
Derrick John Tetz	12
Floor	
Floor Peter Jeans	12
Floor Bob Roach	12
Motor Chris Bonnett	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1447 | Metres 9 | To 1456

Hours On Bottom 5 | Force of Drill String daN [illegible] | Stands 71 | Singles — | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN [illegible] | SS RMR STB CB JAR 9.38 | m Up On Kelly

BITS: No. 4 | Size 222.2 | Type & Jet Size J44 3/10-3 | Serial No. 45705 | Force on Bit daN [illegible] | R.P.M. 50 | m Drilled 9 | Hrs. 5.5 | m Reamed 47.67 | Hrs. 2.00 | CONDITION RNG

MUD: Density kg/m³ 1/2 | Viscosity s/L 49 | Gel Pa 4/8 | Press. kPa Pump 1 EMSCO D-375 / Pump 2 1/2 7500 | Pump S.P.M. Pump 1 56 / Pump 2 | Liner Size mm Pump 1 / Pump 2 1410 x 355 | W.L. cm³ 15+ | F.C. mm 1.6 | pH 7.5

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1/2	1090	1140	1140
Viscosity s/L		49	48	46
Gel Pa		4/8		
Press. kPa Pump 1		EMSCO	D-375	
Press. kPa Pump 2	1/2	7500	7500	7500
Pump S.P.M. Pump 1		56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2		1410 x 355		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives: Caustic 2 sks, KEL Cake

SURVEY ° | Motor Hours 1 / 2 / 3 L.P. | Next Oil Change (Hours) 1 / 2 / 3 L.P. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
9.54		6					

GENERAL Collars 2-171-19 87
L-159-58 87

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M. McRAE	4
Derrick R MICIAK	4
Floor	
Floor	
Floor K FRERE	4
Motor T McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1456 | Metres 16 | To 1472

Hours On Bottom 7.75 | Force of Drill String daN 36000 | Stands 72 | Singles — | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN [illegible] | SS RMR STB CB JAR 9.38 | m Up On Kelly 8

BITS: No. 4 | Size 222 | Type & Jet Size J44 3[illegible] | Serial No. 45705 | Force on Bit daN 10000 | R.P.M. 60 | m Drilled 15 | Hrs. 13 | m Reamed | Hrs. | CONDITION

MUD: Density kg/m³ 1130 | Viscosity s/L 47 | Gel Pa | Press. kPa Pump 1 EMSCO / Pump 2 7500 | Pump S.P.M. Pump 1 56 / Pump 2 | Liner Size mm Pump 1 / Pump 2 140 x 356 | W.L. cm³ 15+ | F.C. mm 1.6 | pH 8.5

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1130	1130	1130	1130
Viscosity s/L	47	47	44	44
Gel Pa				
Press. kPa Pump 1	EMSCO		D-375	
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives: KCL - 3SKS

SURVEY ° | Motor Hours 1 / 2 / 3 L.P. | Next Oil Change (Hours) 1 / 2 / 3 L.P. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25.4		6					

GENERAL Collars 2-171-19 87
L-159-58 87

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41178

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
Pull Out of Hole 2 hr for Collars Tight	00:00	03:30	3.30
Rig Serv - BOP ✓	03:30	03:45	.25
Go back in hole	03:45	05:30	1.75
SET up Brakes on DRINKS	05:30	07:00	1.50
Run JW	07:00	08:00	1.00
			8
Boiler In Use (Yes)/No			
Finish JW	08:00	08:15	.25
Pick up Kelly - Ream 5 [illegible] TO	08:15	[illegible]	[illegible]
Rotary		10:15	2.00
Drill 7 7/8"	10:15	11:00	.75
Clean Pump SCREEN	11:00	11:15	.25
Drill 7 7/8"	11:15	14:00	2.75
Wash & Ream to Bottom	14:00	14:15	.25
Drill 7 7/8"	14:15	16:00	1.75
			8
Boiler In Use (Yes)/No			
[illegible] R[illegible]	16:00	16:15	.25
Drill	16:15	24:00	7.75
			8
Boiler In Use (Yes)/No			

Toolpusher Jack Hannah

Approved by _____

Sedco Drilling
Division of Sun Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT HOSPITAL CAMEROON T-62 AREA CAMEROON HILLS DATE 80-03-02

DAY WORK RECORD

41179

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller M MCRAE	8
Derrick R MICIAK	8
Floor	
Floor	
Floor R FRERE	8
Motor T MCRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1467	18	1485	7.75	36000	72	1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10000 | (SS) RMR STB CB (JR) | FEEEEE 9 38 | m Up On Kelly TN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	2222	HW J-44 3/16 3/16	45705	9000	70	38	2.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1130	1120	1120	1120
Viscosity s/L	44	44	44	44
Gel Pa				
Press. kPa Pump 1	FM2CO J-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: GEL 20 SKS; KCL - COATING

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
25.4		6						

GENERAL: COLLARS - 2 - 171 - 19.87; 6 - 159 - 58.87

REMARKS	Time Start	Stop	Interval
DRILL	00:00	01:00	1.00
RIG SERV. / B.O.P.	01:00	01:15	.25
DRILL	01:15	08:00	6.75
			8

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller BRIAN CASTLE	8
Derrick JOHN TITS	
Floor	
Floor PETER JARVIS	
Floor Bob Roach	
Motor CHRIS BOURQUE	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1495	14	1509	7.75	37000	73	

DRILL COLLARS: No. 4 | O.D. mm | I.D. mm | Length m | DC Force daN | FEEEEE 9 32 | m Up On Kelly TN

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	2222	HW J-44 3/16 3/16	45705	9000	70	38	2.75			DRILLING

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1120	1120	1110	1110
Viscosity s/L	42	42	40	41
Gel Pa				
Press. kPa Pump 1	FM2CO J-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	56	56	56
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140x356			
W.L. cm³ 15	F.C. mm 1.6		pH 9.5	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives: CAUSTIC - 2 SKS. 75#; KCL - 6 SKS; GEL - 10 SKS

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
		6						

GENERAL: COMM. [illegible]

REMARKS	Time Start	Stop	Interval
RIG SERV. - Repair Motor T.D.	08:00	09:15	1.25
DRILL	09:15	16:00	7.00
			8

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M MCRAE	4
Derrick R MICIAK	4
Floor	
Floor	
Floor K FRERE	4
Motor T MCRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles
1499	10	1509	3.75	37000	74	

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | FEEEEE 5 | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
						40	62	3.62			DRLG

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1110	1130	1130	1130
Viscosity s/L	44	45	45	50
Gel Pa				
Press. kPa Pump 1	[illegible]			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1	56	[illegible]		
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	[illegible]			
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
6.4		6						

GENERAL: [illegible]

REMARKS	Time Start	Stop	Interval
Boiler In Use (Yes) No			
Oil [illegible] Hill	16:00	20:00	4.00
RIG SERV. / B.O.P.	20:00	20:15	.25
DRILL	20:15	24:00	3.75
			8

Boiler In Use (Yes) No

15-0442

Shock Sub. Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

Toolpusher Jack Moore

Approved by [illegible]

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

DAY WORK RECORD 41180

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

RIG NO. 86 LOCATION PARAMOUNT HB ET AL CAMERON 1-6 AREA CAREY Hills DATE 80-03-02

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller M. McRAE	8
Derrick R. MICIAK	8
Floor	
Floor	
Floor R. FRERE	8
Motor T. McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1509 | Metres 16 | To 1525 | Hours On Bottom 8 | Force of Drill String daN 37000 | Stands 75 | Singles - | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 71.74 | DC Force daN 100000 | SS/RMR/STB/CB/JR | EEEEEE 939 | m Up On Kelly 7

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	222	HW T44 3/10/3	45705	9000	40	78	41 3/4			DRLG

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1110	1110	1090	1090
Viscosity s/L	44	45	43	43
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: ° | Motor Hours 1 | 2 | 3 | LP. | Next 1 | Oil 2 | Change (Hours) 3 | LP. | FUEL Litres | WATER m³

Press. kPa					
Pump 1	EMSCO D-375				
Pump 2	7500	7500	7500	7500	
Pump S.P.M. Pump 1					
Pump S.P.M. Pump 2	56	56	56	56	
Liner Size mm Pump 1					
Liner Size mm Pump 2	140 x 356				

Additives: DRISPAC - 25 KGS. | KCL 4 SKS. | CMC - 20 SKS

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356		6	-				

GENERAL: COLLARS J-171-1987 L-159-3987

W.L. cm³ 13 | F.C. mm 1-6 | pH 8

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller BRIAN COATE	12
Derrick JOHN TITZ	12
Floor	
Floor PETE JARVIS	12
Floor Bob ARSON	12
Motor Chuck BOURGEOIS	12
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1525 | Metres 15 | To 1540 | Hours On Bottom 7 1/2 | Force of Drill String daN 37000 | Stands 75 | Singles 1 | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 71.74 | DC Force daN 100000 | SS/RMR/STB/CB/JR | EEEEEE 939 | m Up On Kelly 3

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	222	HW T44 3/10/3	45702	9000	40	93	51 1/2			DRILL

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1100	1100	1090	1090
Viscosity s/L	43	44	50	50
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: ° | Motor Hours 1 | 2 | 3 | LP. | Next 1 | Oil 2 | Change (Hours) 3 | LP. | FUEL Litres | WATER m³

Press. kPa					
Pump 1	EMSCO D-375				
Pump 2	7500	7500	7500	7500	
Pump S.P.M. Pump 1					
Pump S.P.M. Pump 2	56	56	56	56	
Liner Size mm Pump 1					
Liner Size mm Pump 2	140 x 356				

Additives: DRISPAC - 6 sks | CAUSTIC - 4 sks | KCL - 17 sks | GEL - 12 sks

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356		6					

GENERAL: Collars 2-171-1987 L-159-3987

W.L. cm³ 15 | F.C. mm 1.6 | pH 6.5

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M. McRAE	4
Derrick R. MICIAK	4
Floor	
Floor	
Floor R. FRERE	4
Motor T. McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1540 | Metres 13 | To 1553 | Hours On Bottom 7.50 | Force of Drill String daN 37000 | Stands 76 | Singles 1 | DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 71.74 | DC Force daN | SS/RMR/STB/CB/JR | EEEEEE 939 | m Up On Kelly 7

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	222	HW T44 3/10/3	45702	9000	40	106	59	1		DRILLING

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1080	1080	1080	1080
Viscosity s/L	57	55	55	38
Gel Pa				

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min.

SURVEY: 1542 ° 2 1/4 | Motor Hours 1 | 2 | 3 | LP. | Next 1 | Oil 2 | Change (Hours) 3 | LP. | FUEL Litres | WATER m³

Press. kPa					
Pump 1	EMSCO D-375				
Pump 2	7500	7500	7500	7500	
Pump S.P.M. Pump 1					
Pump S.P.M. Pump 2	56	56	56	56	
Liner Size mm Pump 1					
Liner Size mm Pump 2	140 x 356				

Additives:

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
356	1	6					

GENERAL: Collars 2-171-1987 L-159-3987

W.L. cm³ 14 | F.C. mm 1.6 | pH 9.0

REMARKS	Time Start	Time Stop	Interval	
DRILL	00 00	08 00	8	
		8		
Boiler In Use (Yes) No				
[redacted]				
DRILL	0800	915	1 25	
L-S-T Core @ 1524	915	945	30	
DRILL	945	1145	2 00	
R-S-T-STOP /	1145	200		
DRILL	1200	1100	4 00	4 00
				8
Boiler In Use (Yes) No				
DRILL	1600	1715	2 75	
SURVEY 1542 2 1/4 - R.S.T.	1715	1815	1 00	
DRILL	1815	2400	4 75	
				8
Boiler In Use (Yes) No				

Toolpusher G. Parker / T. Mercer

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____ Approved by _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

15-0442

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT HZ ET AL CAMERON 1-6 AREA Shaunavon Hills DATE 80-03-04

Morning Tour — 00:00 - 08:00

Specify actual hours worked

	Hrs.
Driller M McRAE	8
Derrick R MICIAK	8
Floor	
Floor	
Floor T FRERE	8
Motor T McRAE	8
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1553 | Metres 21 | To 1574 | Hours On Bottom 7.75 | Force of Drill String daN 38000 | Stands 77 | Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 100000 | SS RWB STB CB UR 938 | EEEEEE | m Up On Kelly 5

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	2222	HW J44 3/10 3	45705	9000	40	127	11.75			DRILLING

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1090	1090	1090	1090
Viscosity s/L	39	40	40	40
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 X 356			
W.L. cm³ 95	F.C. mm 1.6	pH 11+		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.

SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Additives: GEL 36 SKS | KCL 13 SKS | CAUSTIC 7 SKS | DRISPAC 3 SKS

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25:4		6					

GENERAL: COLLARS 7-171-1987 | 6-155-5888

Day Tour — 08:00 - 16:00

Specify actual hours worked

	Hrs.
Driller BRIAN CoATS	12
Derrick John Tot	12
Floor	
Floor R. Jim James	12
Floor Bob Roach	12
Motor Chris Bourgeois	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1574 | Metres 12 | To 1586 | Hours On Bottom 7 1/2 | Force of Drill String daN 38000 | Stands 14 | Singles —

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 100000 | SS RWB STB CB UR 938 | EEEEEE | m Up On Kelly 1N

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	2222	HW J44 3/10 3	45705	9000	40	139	7 1/2			Drilling

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1080	1080	1070	1070
Viscosity s/L	35	35	34	37
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 X 356			
W.L. cm³ 15+	F.C. mm 1.6	pH 11+		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.

SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Additives: GEL - 35 SKS | DRISPAC - 5 SKS | KCL - 16 SKS

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
25:4		6					

GENERAL: Collars 2-171-1907 | 6-155-5888 | Clean Suction Tank

Evening Tour — 16:00 - 24:00

Specify actual hours worked

	Hrs.
Driller M McRAE	4
Derrick R MICIAK	4
Floor	
Floor	
Floor T FRERE	4
Motor T McRAE	4
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1586 | Metres 9 | To 1595 | Hours On Bottom 7.50 | Force of Drill String daN 38000 | Stands 78 | Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 74.74 | DC Force daN 100000 | SS RWB STB CB UR 938 | EEEEEE | m Up On Kelly 3

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	2222	HW J44 3/10 3	45705	9000	40	148	9 1/2			DRLG

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1080	1080	1090	1080
Viscosity s/L	38	38	40	40
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 X 356			
W.L. cm³	F.C. mm	pH 11+		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min.

SURVEY: ° | Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Additives:

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip (m)	Cut	Next Slip
15:4		6					

GENERAL: Collars 2-171-1907 | 6-155-5888

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41181

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval	
DRILL	00 00	02 00	2.00	2.00
RIG SERV / B.O.P.'S	02 00	02 15	.25	
DRILL	02 15	08 00	5.75	5.75
			8	

Boiler In Use (Yes)/No

REMARKS	Time Start	Time Stop	Interval	
DRILL	0400	1115	3.25	
RIG SERV - B.O.P. - TOP DRIVE	1115	1130	.25	
DRILL	1130	1400	2.50	
CLEAN PUMP SUCTION	1400	1415	.25	
DRILL	1415		1.75	
			8	

Boiler In Use (Yes)/No

REMARKS	Time Start	Time Stop	Interval	
DRILL	16 00	1900	3.00	
CLEAN SUCTION TANK	19	1930	.50	
DRILL	1930	2400	5.50	

Boiler In Use (Yes)/No

Toolpusher _____

Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION PARAMOUNT H3 FT AL CAMERON T.L. AREA CAMERON HILL DATE 30-03-05

Morning Tour — 00:00 - 08:00

Specify actual hours worked — Hrs.

		Hrs.
Driller	M McRAE	8
Derrick	R MICIAN	8
Floor		
Floor		
Floor	T FRERE	8
Motor	T McRAE	8
Mechanic		
Extra		

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS HMR STB CB (JR) EEEEEE	m Up On Kelly
1595	12	1607	7.75	38000	79	-	8					9.39	1

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	9 7/8	Hut J44 3/16 3	45705	9000	40	160	9.25			Drilling

MUD	00:00	02:00	04:00	06:00
Density kg/m³	1080	1080	1100	1100
Viscosity s/L	40	39	39	40
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140	140	140	140
Liner Size mm Pump 2	146	146	146	146

W.L. cm³ 9 F.C. mm 1.6 pH 11

DESILTER — SURVEY — °

Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives — Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) — Cut — Next Slip

KCL 32 sks 25.4 — 6

Co] 17 sks

GENERAL

COLLARS - 2-171-1987
6-159-7.88

Day Tour — 08:00 - 16:00

Specify actual hours worked — Hrs.

		Hrs.
Driller	Brian COATE	12
Derrick	John TETZ	12
Floor		
Floor	Peter JANVIS	12
Floor	Bob ROACH	12
Motor	Chris BOURGEOIS	12
Mechanic		
Extra		

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS HMR STB CB (JR) EEEEEE	m Up On Kelly
1607	6	1613	7.75	38000	79	1	8					9.39	4

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	9 7/8	HWTUCI 3/16 3	45705	9000	40	166	9.25			Drilling

MUD	08:00	10:00	12:00	14:00
Density kg/m³	1090	1090	1090	1090
Viscosity s/L	38	40	45	50
Gel Pa				
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500	7500	7500	7500
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56	56	56	56
Liner Size mm Pump 1	140	140	140	140
Liner Size mm Pump 2	146	146	146	146

W.L. cm³ 134 F.C. mm 1.6 pH 10

DESILTER — SURVEY — °

Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives — Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) — Cut — Next Slip

KCL - 24 sks 25.4 — 6

DRISPAC - 2 sks

GENERAL

COLLARS - 2-171-1987
1-159-5.88

Evening Tour — 16:00 - 24:00

Specify actual hours worked — Hrs.

		Hrs.
Driller	M McRAE	4
Derrick	R MICIAN	4
Floor		
Floor	T FRERE	4
Motor	T McRAE	4
Mechanic		
Extra		

Injuries: NIL

METRES DRILLED From	Metres	To	Hours On Bottom	Force of Drill String daN	Stands	Singles	DRILL COLLARS No.	O.D. mm	I.D. mm	Length m	DC Force daN	SS HMR STB CB (JR) EEEEEE	m Up On Kelly
1613	-	TD		38000	79	1	8					9.39	4

BITS

No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
4	9 7/8	HWTUCI 3/16 3	45705	9000	40	166	9.25			DULL 1 1/2 5 3 I

MUD	16:00	18:00	20:00	22:00
Density kg/m³	1090	T		
Viscosity s/L	52	K		
Gel Pa		"		
Press. kPa Pump 1	EMSCO D-375			
Press. kPa Pump 2	7500			
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2	56			
Liner Size mm Pump 1	140			
Liner Size mm Pump 2	146			

W.L. cm³ F.C. mm pH

DESILTER — SURVEY — °

Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min.

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres — WATER m³

Additives — Size — Trips — No. Lines — Megajoules — TOTAL MJ — Slip (m) — Cut — Next Slip

25.4 — 6

GENERAL

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41182

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
DRILL	10:00	07:00	2:00
RIG SERV / B.O.P.	07:00	07:15	:25
DRILL	07:15	08:00	5:75
			8
Boiler In Use (Yes) No			
DRILL	1:00	9:00	1:00
RIG CONTROL / CHANGE CHAIN CD	9:00	9:15	:25
DRILL	9:15	11:00	1:75
			4
Boiler In Use Yes (No)			
[redacted]	[redacted]	[redacted]	[redacted]
CIRC CONDITION MUD SAMPLE	16:00	17:00	1:00
DRILL T/D	17:00	20:00	3:00
CIRC TO CONDITION HOLE	20:00	21:00	1:00
HOIST TO LOG (STRAP OUT)	21:00	00:00	3:00
			8
Boiler In Use Yes (No)			

Toolpusher Jack R Wood

Approved by

Sedco Drilling — Division of Slave Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount HORIZONTAL Cameron J-62 AREA Sanctuary Hills DATE 90-03-07

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller BRIAN COATE 8
Derrick John Totz 8
Floor
Floor Peter Jarvis 8
Floor Bob Roach 8
Motor Chris Bourgeois 8
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 | Metres TD | To | Hours On Bottom | Force of Drill String daN | Stands 79 | Singles 1

DRILL COLLARS: No. 4 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 120 000 | SS RMR STB GB JR 10 subs 165.57 | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 00:00 | 02:00 | 04:00 | 06:00 — Density kg/m³ 1251 — Viscosity s/L 49 — Gel Pa 11 — Press. kPa Pump 1 Emsco D-375 — Pump 2 — Pump S.P.M. Pump 1 — Pump 2 — Liner Size mm Pump 1 — Pump 2 140 x 356 — W.L. cm³ — F.C. mm — pH

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL: Litres — WATER: m³

Size 25.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL: Collars 2-171-19.56 / 6-159-58.88 / We Inspected and Ran [redacted]

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller C. McClelland 12
Derrick N. Steinhauer 12
Floor
Floor R. Woods 12
Floor D. Robertson 12
Motor M. Patterson 12
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 | Metres TD | To | Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 76.74 | DC Force daN 10 000 | SS RMR STB GB JR 10 subs 165.57 | m Up On Kelly 4

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 08:00 | 10:00 | 12:00 | 14:00 — Density kg/m³ — Viscosity s/L — Gel Pa — Press. kPa Pump 1 Emsco D-375 — Pump 2 — Pump S.P.M. Pump 1 — Pump 2 — Liner Size mm Pump 1 — Pump 2 140 x 356 — W.L. cm³ — F.C. mm — pH

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL: Litres — WATER: m³

Size 25.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL: Collars 2-171-19.56 / 6-159-58.88 / D.S.T. #2 382-1395. / SULPHUR POINT

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller BRIAN COATE 4
Derrick John Totz 4
Floor
Floor Peter Jarvis 4
Floor Bob Roach 4
Motor Chris Bourgeois 4
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 | Metres T.D. | To | Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. 6 | O.D. mm | I.D. mm | Length m 58.68 | DC Force daN 8 000 | SS RMR STB GB JR | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 16:00 | 18:00 | 20:00 | 22:00 — Density kg/m³ — Viscosity s/L — Gel Pa — Press. kPa Pump 1 Emsco D-375 — Pump 2 — Pump S.P.M. Pump 1 — Pump 2 — Liner Size mm Pump 1 — Pump 2 140 x 356 — W.L. cm³ — F.C. mm — pH

DESILTER: Stop/Start Hrs. — OF kg/m³ UF kg/m³ — Flow Rate L/min. — Additives

SURVEY: ° — Motor Hours 1 2 3 L.P. — Next Oil Change (Hours) 1 2 3 L.P.

FUEL: Litres — WATER: m³

Size 25.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL: 6-159-58.88 / H2S Rig Test

15-0442

Shock Sub Start/Stop — Camp Start/Stop — Ambulance & Medic Start/Stop — Approved by

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41184

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
Testing	00 00	3 30	3.50
Break Down Test Head	3 30	4 00	.50
Pull Packer free 7th Distil	4 00	6 45	2.75
Drop Bar - Reverse Circ + Circ	6 45	7 45	1.00
Trip	7 45	8 00	.25
			4
Boiler In Use Yes/No			
WO Hoisting Valve Chain Fix	18 00	09 00	1.00
Finish out of hole (slow)	09 00	11 30	2.50
Break Down Tool + Recover Recorder	11 30	13 00	1.50
Service Tool + Run In 7 Stands	13 00		
Tail Pipe + Make-up Tool		15 00	2.00
Run In w/ D.S.T. #2 (Slow)	15 00	15 30	.50
Repair Line on High Drum	15 30	16 00	.50
			4
Boiler In Use Yes/No			
Run In w/ D.S.T. #2	16 00	18 00	2.00
Head-up D.S.T. #2	18 00	18 30	.50
Test w/ Quinn	18 30	24 00	5.50
			4
Boiler In Use Yes/No			

Toolpusher

Sedco Drilling
Division of Bow Valley Resource Services Ltd

DAILY DRILLING REPORT

RIG NO. 44 LOCATION Pan Am HB ET Hz Provost 12 AREA Edmonton DATE 10-03-9

Morning Tour — 00:00 - 08:00

Specify actual hours worked	Hrs.
Driller Brian Coate	8
Derrick John Fitz	8
Floor	
Floor Peter Jensen	8
Floor Bob Franch	8
Motor Chris Rawlyk	8
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1613 Metres T.D. To

Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. 6, O.D. mm 159, I.D. mm, Length m 56.88, DC Force daN 8000, SS RMR STB CB JR, EEEEEE, m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	Emsco		D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	140	336		
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
35.4		6						

GENERAL Collars - 6-159-56.88 - 8000 daN

H₂S Compressor Trailer

Day Tour — 08:00 - 16:00

Specify actual hours worked	Hrs.
Driller C. McClelland	12
Derrick N. Steinhauer	12
Floor	
Floor R. Woods	12
Floor D. Robitaille	12
Motor M. Parkinson	12
Mechanic	
Extra	

Injuries: NIL

METRES DRILLED: From 1613 Metres T.D. To

Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. 6, O.D. mm 159, I.D. mm, Length m 56.88, DC Force daN 8000, SS RMR STB CB JR, EEEEEE, m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	Emsco		D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	140		336	
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
35.4		6						

GENERAL Collars - 6-159-58.88 - 8000 daN

Evening Tour — 16:00 - 24:00

Specify actual hours worked	Hrs.
Driller Brian Coate	4
Derrick John Fitz	4
Floor	
Floor Peter Jensen	4
Floor Bob Franch	4
Motor Chris Rawlyk	4
Mechanic	
Extra	

Injuries: Nil

METRES DRILLED: From 1613 Metres T.D. To

Hours On Bottom	Force of Drill String daN	Stands	Singles

DRILL COLLARS: No. 6, O.D. mm 159, I.D. mm, Length m 56.88, DC Force daN 8000, SS RMR STB CB JR, EEEEEE, m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	Emsco		D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1	140		336	
Liner Size mm Pump 2				
W.L. cm³	F.C. mm		pH	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours 1 2 3 L.P.

Next Oil Change (Hours) 1 2 3 L.P.

FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
35.4		6						

GENERAL Collars 6-159-58.88 - 8000 daN

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD

41185

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Time Interval
Test Equipment	00:00	04:00	4.00
			4
Test w/Quinn	08:00	11:00	3.00
Break down Head + check stands	11:00		
Lay down Single		11:30	.50
Wait on Safety Hand	11:30	16:00	4.50
			8
Boiler In Use (Yes/No)			
Wait on Safety Hand	16:00	17:30	1.50
Held safty meeting on H2S w/crew	17:30	18:00	.50
Hoist D.S.T #2. (slow)	18:00	21:30	3.50
Break down Tie-Ti Tool Serv.	21:30		
Secure		24:00	2.50
			4
Boiler In Use (Yes/No)			

Toolpusher _____ Approved by _____

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 86 LOCATION Paramount HB ETAL Pembina J-62 AREA Pembina DATE 90-2-09

41187

DAY WORK RECORD

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Time Stop	Interval
Safety meeting - Make up BHA	08:00	08:30	.50
Make up BHA	08:50	9:00	.10
Trip in hole to Intermediate Point	9:00	2:45	.75
Rig up w/DST #2 [redacted]	3:45	4:30	1.75
[redacted] Blow Down Choke Manifold Lines	4:30	4:45	.25
Hold safety meeting - Test w/ Quinn Testers	4:45	8:00	3.25
Boiler In Use (Yes/No)			
Test w/ Quinn	07:00	10:00	2.00
Break down chick stands + Break Loose Parkers	10:00	10:30	.50
Thaw Flare Line	10:30	11:00	.50
Hoist D.S.T. #3 (slow)	11:00	14:00	3.00
Break down Tool + Service same	14:00		
Recover Recorders		16:00	2.00
			7
Boiler In Use (Yes/No)			
Run in 27 stands of D.P	16:00	18:30	.50
Make up D.S.T #4	16:30	18:30	2.00
Finish In Hole w/D.S.T #4	18:30	19:45	1.25
Heading - Test w/ Quinn	19:45	21:00	1.25
Pull Packer Loose - Hoist D.S.T #4	21:00	23:30	2.50
Rig down Test Tool + Heading Tools	23:30	24:00	.50
			9
Boiler In Use (Yes/No)			

Toolpusher Donald Cook

Approved by [signature]

Morning Tour — 00:00 - 08:00

Specify actual hours worked | Hrs.

Driller BRIAN Poole 8
Derrick John Teiz 8
Floor
Floor Peter Towell 8
Floor Bob Roach 8
Motor Chris Ba[illegible] 8
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 Metres TD To | Hours On Bottom | Force of Drill String daN | Stands | Singles | DRILL COLLARS: No. 6, O.D. mm, I.D. mm, Length m, DC Force daN | SS RMR STB CG JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 00:00 | 02:00 | 04:00 | 06:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa: Pump 1 [illegible] D-375 / Pump 2
Pump S.P.M.: Pump 1 / Pump 2
Liner Size mm: Pump 1 / Pump 2 140 x 356
W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours: 1 | 2 | 3 | L.P.

Next Oil Change (Hours): 1 | 2 | 3 | L.P.

FUEL Litres | WATER m³

Size 95.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL Fm. Top - 1-159-5488

D.S.T #3. 1319-1348. SLAVE POINT.

Day Tour — 08:00 - 16:00

Specify actual hours worked | Hrs.

Driller C. McClelland 12
Derrick N. Steinhauer 12
Floor
Floor K. Woods 12
Floor D. Robertson 12
Motor M. Bertrand 12
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 Metres To | Hours On Bottom | Force of Drill String daN | Stands | Singles | DRILL COLLARS: No. 6, O.D. mm, I.D. mm, Length m 58.39, DC Force daN 7000 | SS RMR STB CG JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 08:00 | 10:00 | 12:00 | 14:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa: Pump 1 Fm. Top D-375 / Pump 2
Pump S.P.M.: Pump 1 / Pump 2
Liner Size mm: Pump 1 / Pump 2 140 x 356
W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours: 1 | 2 | 3 | L.P.

Next Oil Change (Hours): 1 | 2 | 3 | L.P.

FUEL Litres | WATER m³

Size 95.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL Colony 6-159-5488

Evening Tour — 16:00 - 24:00

Specify actual hours worked | Hrs.

Driller BRIAN Poole 4
Derrick John Teiz 4
Floor
Floor Peter Towell 4
Floor Bob Roach 4
Motor Chris Ba[illegible] 4
Mechanic
Extra

Injuries: Nil

METRES DRILLED: From 1613 Metres TD To | Hours On Bottom | Force of Drill String daN | Stands | Singles | DRILL COLLARS: No. 6, O.D. mm, I.D. mm, Length m 58.39, DC Force daN 7000 | SS RMR STB CG JR | E E E E E E | m Up On Kelly

BITS: No. | Size | Type & Jet Size | Serial No. | Force on Bit daN | R.P.M. | m Drilled | Hrs. | m Reamed | Hrs. | CONDITION

MUD: 16:00 | 18:00 | 20:00 | 22:00
Density kg/m³
Viscosity s/L
Gel Pa
Press. kPa: Pump 1 Fm. Top D-375 / Pump 2
Pump S.P.M.: Pump 1 / Pump 2
Liner Size mm: Pump 1 / Pump 2 140 x 356
W.L. cm³ | F.C. mm | pH

DESILTER: Stop/Start Hrs. | OF kg/m³ | UF kg/m³ | Flow Rate L/min. | Additives

SURVEY °

Motor Hours: 1 | 2 | 3 | L.P.

Next Oil Change (Hours): 1 | 2 | 3 | L.P.

FUEL Litres | WATER m³

Size 95.4 | Trips | No. Lines 6 | Megajoules | TOTAL MJ | Slip (m) | Cut | Next Slip

GENERAL Colony 1-159-5488

D.S.T #4 3M-835. TWIN FALLS.

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

Sedco Drilling
Division of Bow Valley Resource Services Ltd.

DAILY DRILLING REPORT

RIG NO. 46 LOCATION Paramount HB ETAL Paramount 7-13 AREA Paramount HB DATE 96-03-10

Morning Tour — 00:00 - 08:00

Specify actual hours worked — Hrs.

Driller BRIAN POOLE 4
Derrick JOHN TUTS 4
Floor
Floor Peter Jarvis 4
Floor Bob Roach 4
Motor Chris Bourgeois 4
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 1613 — Metres TD — To

Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 7774 | DC Force daN | SS FMR STB CB JR | EEEEEE | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	3779	HW T44 OPEN	45705							FLAT FACE

MUD	00:00	02:00	04:00	06:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	EMCO D-725			
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm	pH		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
5 1/4								

GENERAL Polar 6-159-50 SW
9-171-10 RL
BIT #4
10 - 102

Day Tour — 08:00 - 16:00

Specify actual hours worked — Hrs.

Driller C. McClelland 12
Derrick N. Stannard 12
Floor
Floor R. Woods 12
Floor D. Robertson 12
Motor M. Parkinson 12
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From 1613 — Metres T.D. — To —

Hours On Bottom — | Force of Drill String daN 39000 | Stands 79 | Singles 1

DRILL COLLARS: No. 8 | O.D. mm | I.D. mm | Length m 7774 | DC Force daN 10 000 | SS FMR STB CB JR sub 1.68 | EEEEEE | m Up On Kelly 4

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION
	4	3779	HW S44 OPEN	45705							

MUD	08:00	10:00	12:00	14:00
Density kg/m³				
Viscosity s/L			80	
Gel Pa				
Press. kPa Pump 1	EMCO		D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1			6400	
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	140 x 356			
W.L. cm³	F.C. mm	pH	8.5	

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: /

Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
5 1/4		6						

GENERAL

Evening Tour — 16:00 - 24:00

Specify actual hours worked — Hrs.

Driller BRIAN POOLE 4
Derrick JOHN TUTS 4
Floor
Floor Peter Jarvis 4
Floor Bob Roach 4
Motor Chris Bourgeois 4
Mechanic
Extra

Injuries: NIL

METRES DRILLED: From — Metres — To

Hours On Bottom | Force of Drill String daN | Stands | Singles

DRILL COLLARS: No. | O.D. mm | I.D. mm | Length m | DC Force daN | SS FMR STB CB JR | EEEEEE | m Up On Kelly

BITS	No.	Size	Type & Jet Size	Serial No.	Force on Bit daN	R.P.M.	m Drilled	Hrs.	m Reamed	Hrs.	CONDITION

MUD	16:00	18:00	20:00	22:00
Density kg/m³				
Viscosity s/L				
Gel Pa				
Press. kPa Pump 1	EMCO		D-375	
Press. kPa Pump 2				
Pump S.P.M. Pump 1				
Pump S.P.M. Pump 2				
Liner Size mm Pump 1				
Liner Size mm Pump 2	121.8 x 356			
W.L. cm³	F.C. mm	pH		

DESILTER: Stop/Start Hrs. | OF kg/m³ UF kg/m³ | Flow Rate L/min. | Additives

SURVEY: °

Motor Hours 1 2 3 L.P. | Next Oil Change (Hours) 1 2 3 L.P. | FUEL Litres | WATER m³

Size	Trips	No. Lines	Megajoules	TOTAL MJ	Slip	(m)	Cut	Next Slip
5 1/4		1						

GENERAL

15-0442

Shock Sub Start/Stop _____ Camp Start/Stop _____ Ambulance & Medic Start/Stop _____

CONSERVATION BOARD COPY (MAIL TO CALGARY OFFICE)

DAY WORK RECORD 41188

NOTE — Please show metres drilled while "Control Drilling" as well as HOURS.

REMARKS	Time Start	Stop	Interval
Break Down Foot Tool - Locate Tong	00 [illegible]	1 00	1 00
Pull Hose to Tool Pipe	1 00	3 00	2 00
Rig Up Lift	3 00	5 30	2 50
[redacted]			
To [redacted] Pipe [redacted]		0900	350
Boiler In Use Yes/No			
Trip Out Stand Pipe	08[illegible]	08 30	.50
Finish Tri Hole (4 stands)	08 30		
Ream In 1 Stand		09 30	1.00
Break Cir. + Clean to Bottom	09 30	09 45	25
Cir	09 45	12 30	2.75
Hoist To Run Casing	12 30	16 00	3.50
			8
Boiler In Use Yes/No			
Hoist To Run Casing	16 00	16 50	.50
Lay Down Collars	16 30	17 30	1.00
Rig-up To Run Casing	17 30	18 30	1.00
Strap Casing	18 30	18 45	.25
Run Casing	18 45	21 00	2.25
Pull Tri [illegible] (Bad Joint)	2100	2130	.50
[illegible]	2130	24 00	2.50
			9
Boiler In Use Yes/No			

Toolpusher [signature]

Approved by [signature]

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

DRILLING AUTHORITY N° / N° DE L'AUTORISATION DE FORAGE	DATE ISSUED - DATE DE DÉLIVRANCE
949	1981-01-02

WELL COMPLETION DATA

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.

RENSEIGNEMENTS SUR LES FORAGES

À présenter en double dans les trente jours suivant l'achèvement, la reprise, l'abandon, la remise en production et le reconditionnement de chaque puits ou après la suspension.

WELL NAME & N° - NOM ET N° DU PUITS	PERMIT N° - N° DE PERMIS	LEASE N° - N° DE CONCESSION
PARAMOUNT HB ET AL CAMERON J-62		921-7i

HOLDER - TITULAIRE	EXPLORATION AGREEMENT N° - N° D'ACCORD D'EXPLORATION
HUDSON'S BAY OIL & GAS LIMITED	2806

OPERATOR - EXÉCUTANT	PRODUCTION LICENCE N° - N° DE LICENCE DU PRODUCTEUR
PARAMOUNT RESOURCES LIMITED	2805

LOCATION/SURFACE - EMPLACEMENT/SURFACE

UNIT - UNITÉ	SECTION	GRID - ÉTENDUE QUADRILLÉE	LATITUDE	LONGITUDE
J	62	60-10-117-15	60°01'31"N	117°26'50"W

UNIQUE WELL IDENTIFIER - CODE D'ORDINATEUR	UNIVERSAL WELL LOCATION - RÉFÉRENCES UNIVERSELLES D'EMPLACEMENT DU PUITS	
300J626010117150	60.02528°N	117.44722°W

LOCATION/BOTTOM HOLE OR PRODUCING HORIZON - EMPLACEMENT/FONDU DU SONDAGE OU HORIZON PRODUCTIF

UNIT - UNITÉ	SECTION	GRID - ÉTENDUE QUADRILLÉE	LATITUDE	LONGITUDE

UNIQUE WELL IDENTIFIER - CODE D'ORDINATEUR	UNIVERSAL WELL LOCATION - RÉFÉRENCES UNIVERSELLES D'EMPLACEMENT DU PUITS

	DATE	DEPTH - PROFONDEUR	TRUE VERTICAL DEPTH VÉRITABLE PROFONDEUR VERTICALE
SPUDDED DÉBUT DES TRAVAUX	1980-02-07	Surface	
SUSPENDED SUSPENSION DES TRAVAUX			
RESUMED OPERATIONS REPRISE DES TRAVAUX	1981-01-29		
FINISHED DRILLING FORAGE TERMINÉ	1980-03-05	1605 m	
DEEPENED APPROFONDISSEMENT			
COMPLETED (GAS/OIL) ACHÈVEMENT (GAZ/PÉTROLE)	1981-02-16	1472 m	
ABANDONED ABANDON			
RIG RELEASED FIN DES TRAVAUX	1980-03-11 1981-02-16	1472 m	

POOL(S) - GISEMENT(S)

Sulphur Point

INTERVAL(S) OPEN TO PRODUCTION - INTERVALLE(S) DE PRODUCTION

None.

ELEVATION: GR - ALTITUDE DE SOL	K.B. DU CARRÉ D'ENTRAÎNEMENT
751.94	755
WATER DEPTH - PROFONDEUR D'EAU	**RIG N° - N° DE LA TOUR DE FORAGE**
-	86

DRILLING CONTRACTOR — ENTREPRENEUR EN FORAGE

SEDCO DRILLING LIMITED

CASING RECORD - TUBAGE

	CASING SIZE (mm) - DIAMÈTRE (mm)	WALL THICKNESS (mm) ÉPAISSEUR (mm)	GRADE - QUALITÉ	MASS - MASSE	AMOUNT - LONGUEUR	SET AT - FIXATION À	MASS OF CEMENT & ADDITIVES MASSE DE CIMENT ET D'ADDITIFS
1	244.5	15.85	H-40	48.07	44 JTS.	524.97	10.6 Tonnes
2	139.7	12.39	J-55	20.83	134 JTS.	1605.00	39.6 Tonnes
3							
4							
5							
6							

GEOLOGICAL TOPS SOMMET DES FORMATIONS	ELEVATION - PROFONDEUR	
	DEPTHS SOUS LE NIVEAU DU SOL	SUB SEA SOUS LE NIVEAU DE LA MER
Wabamum	548	+207
Jean Marie	684	+71
Ft. Simpson	694	+61
Twin Falls	804	-49
Hay River Shale	944	-189
Beaver Hill Lake	1257	-502
Muskwa	1291	-536
Slave Point	1317	-562
Watt Mountain	1368	-613
Bistcho	1374	-619
Sulphur Point	1384	-629
Muskeg	1397	-642
Keg River	1495	-740
Chin Chaga	1582	-827
Precambrian	1604	-849

CORE RECORD - CAROTTES

FROM - DE	TO - À	REC. RÉC.	FROM - DE	TO - À	REC. RÉC.
NONE	CUT				

LOG RECORD - DIAGRAMMES

RUN SÉRIE	TYPE OF LOG - GENRE DE DIAGRAMME	FROM - DE	TO - À
1	DLL - SP	1605	525
1	CNL-FDC-GR-CAL	1605	525
2	Cement Bond	1480	700
2	GR-Neutron	1484	700

CEMENTING RECORD (Plug, Squeeze, etc.) CIMENTATION (Bouchon, sous pression, etc.)				PERFORATING RECOHD (Bullet, Jet) PERFORATION (à balles, à jet)				SERVICING RECORD (Acidizing, Fracing, etc.) ENTRETIEN (acidification, fracturation, etc.)			
Date	From – de	To – à	Remarks – Remarques	Date	From – de	To – à	Remarks – Remarques	Date	From – de	To – à	Remarks – Remarques
				81-02-01	1389.0	1384.5	13 shots/metre				

DRILL STEM TEST – ESSAIS AUX TIGES

No. – N°	Date	Formation	From – de	To – à	V.O. Mins. Vanne ouverte (minutes)	I.S.I. Mins. Première obturation (minutes)	F.S.I. Mins. Obturation définitive (minutes)	I.S.I.B.H.P. Pression de fond à la 1re obturation	F.S.I.B.H.P. Pression de fond à l'obturation définitive	I.F.B.H.P. Pression de fond au jaillissement	F.F.B.H.P. Pression de fond à l'écoulement définitif	I.H.P. Pression hydrostatique de début	F.H.P. Pression hydrostatique définitif	Remarks – Remarques
1	80-03-06	Keg River	1515	1529	10,60	30	120	10330	10330	5642	10330	16148	15714	Rec 50 m of mud, 115 m sul.W., 925 m gas cut sulphur water.
2	80-03-07	Sulphur Point	1383	1395	10,300	60	600	9531	9531	3341	4033	14659	14488	Rec 12 m ammonia water, 28 m sulphur salt water.
3	80-03-09	Slave Point	1319	1348	10,60	60	120	8218	9246	1583	1876	14030	13915	Rec 30 m inhibited water 40 m mud, 100 m mud cut salt water.
4	80-03-10	Twin Falls	812	835	MISRUN									

ANALYSIS – ANALYSE

Lab. No. N° de laboratoire	Sample Échantillon	From – de	To – à	Source	Remarks – Remarques
9076-4-2543/1	GAS	1384.5	1389.0	Separator	
9076-4-2543/3	CONDENSATE	1384.5	1389.0	Separator	
9076-4-2543/4	OIL	1384.5	1389.0	Separator	
9076-4-2543/2	WATER	1384.5	1389.0	Separator	

PRESENT STATUS OF WELL ÉTAT ACTUEL DU PUITS

		(Interval) (Intervalle)
Oil Pétrole		
Gas Gaz	X	1389-1384.5
Dry Sec		
Susp. Travaux sus.		

Company Société: PARAMOUNT RESOURCES LIMITED

Signed by Signé par: [signature]

Title Titre: V.P. Operations

Date: 4 Aug, 1981

OIL & GAS LANDS BRANCH N.W.T. N.-R. Res. Br. OCT 9 1981 DEPT. OF INDIAN & NORTHERN AFFAIRS

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

IAND 52-90-2 (10-78)

Please File

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
DELIVERABILITY TEST
SULPHUR POINT FEBRUARY, 1981

Macdonald Engineering & Associates (1980) Ltd.

200, 1301 - 8TH STREET S.W.
CALGARY, ALBERTA, CANADA T2R 1B7
TELEPHONE: (403) 245-6851

May 7, 1982

Paramount Resources Ltd.
600, 805-8th Avenue S.W.
Calgary, Alberta T2P 1H7

Attention: Mr. Dave Monachello, P. Geol.

Dear Sir:

A deliverability test was conducted on PARAMOUNT HB ET AL CAMERON J-62-N.W.T. from February 7 to February 16, 1981 by TESTMASTER PRODUCTION SERVICES LTD.

The well was flowed from the SULPHUR POINT formation through 73.0 mm tubing and a portable well testing facility to obtain a four point and modified isochronal deliverability test.

Gas flow rates were calculated in accordance with AGA Report #5 using the standard conditions of 101.325 kPa and 15^{o}C.

The subsurface pressures were measured directly by ALMECH SUBSURFACE TOOLS (1976) LTD. utilizing tandem recorders set at 1371.26 m KB. The measured gauge pressures were converted to absolute pressures by assuming a barometric pressure of 101.3 kPa. These measurements were then extrapolated to the mid-point of the producing interval at 1386.75 m KB.

Build-up data was analyzed by the Horner method and the values of kh, s' and $\bar{P}_R$ derived from that analysis have been used for all other calculations.

RESULTS DETERMINED FROM THE TEST DATA

	METRIC(SI)UNITS	FIELD UNITS
Absolute Open Flow Potential	$58.00 \times 10^3 m^3/D$	2.059 MMCF/D
Wellhead Open Flow Potential	$56.00 \times 10^3 m^3/D$	1.988 MMCF/D
Stabilized Wellhead Open Flow Potential	$50.00 \times 10^3 m^3/D$	1.775 MMCF/D
Average Reservoir Pressure, $\bar{P}_R$	9710.5 kPaa	1408.3 psia
Compressibility Factor, $\bar{Z}$ at $\bar{P}$	0.894	0.894
Formation Flow Capacity, kh	34.751 mD.m	114.012 md.ft.
Average Effective Permeability, k	3.407 mD.	3.452 md.
Apparent Skin Factor, s' at 47103.3 m^3/D, indicating a damaged formation	+3.018	+3.018
Flow Efficiency	70.8 %	70.8 %
Approximate Radius of Investigation	133.3 meters	437.3 feet
Total Gas Produced During Test	108860.7 m^3	3.864 MMCF
Approx. Water Produced During Test	0.225 m^3	1.42 Bbls.
Approx. Condensate Produced During Test	Trace	Trace

Paramount Resources Ltd.
PARAMOUNT HB ET AL CAMERON J-62-N.W.T.

Extrapolation of the Horner Build-up plot indicates that the well will return to the initial shut-in pressure, therefore there does not appear to be reservoir depletion.

The deliverability plots utilized a line of forty five degree slope. A line of this slope was drawn through the extended run point to determine the deliverability.

The calculated flow efficiency being less than unity indicates that the productivity of the well can be increased by approximately 1.4 times upon re-completion.

Gas, condensate, oil and water samples were obtained during the test and forwarded to Chemex Labs (Alberta) Ltd. for analysis. A copy of their analysis is included in this report. H_2S was determined by a Tutweiler test on site as 0.68%, therefore N_2 and CO_2 were adjusted accordingly as 4.42% and 3.51% respectively, and used for the calculations in the build-up analysis.

If you have any questions, please feel free to contact the undersigned at 245-6851.

Yours truly,

MACDONALD ENGINEERING & ASSOCIATES (1980) LTD.

Jack P. Donhuysen, C.E.T.

PARAMOUNT HB ET AL CAMERON

J-62 - N.W.T.

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PARAMOUNT HB ET AL CAMERON
J-62-N.W.T.

INTRODUCTION

A four point, 2.0 hours/point, modified isochronal deliverability test, followed by a 48.17 hour extended run, was conducted from February 7 to February 16, 1981, by TESTMASTER PRODUCTION SERVICES LTD. on the well PARAMOUNT HB ET AL CAMERON J-62-N.W.T.

Gas was produced from the SULPHUR POINT formation at a mean formation depth of 1386.75 mKB through 73.0 mm tubing to surface. Gas volumes were measured through a 73.53 mm meter run. Liquid production was measured in a 64 m^3 test tank.

Subsurface pressures were observed with a dead weight gauge while subsurface conditions were recorded at 1371.26 m KB throughout the test and build-up periods.

Duplicate gas, condensate, oil and water samples were obtained during the extended run for laboratory analysis. H_2S was determined by a Tutweiler test on site as 68.0%, therefore N_2 and CO_2 were adjusted accordingly as 4.42% and 3.51% respectively, and used for the calculations in the build-up analysis.

PROCEDURE

The well has been shut-in as of February 1, 1981.

A static gradient survey was run prior to opening the well on test. Subsurface pressure recorders were run to 1371.26 mKB prior to commencing the test. The four point, 2.0 hours/point, modified isochronal deliverability test was conducted. The fourth point was extended for 48.17 hours. Following the extended run, the well was shut-in and the subsurface pressure build-up was recorded for 97.0 hours. Following this build-up period, a final static gradient survey was conducted.

DISCUSSION

All flow rates were calculated in accordance with AGA report #5. Static and flowing bottomhole pressures were obtained from the subsurface pressure recorders at 1371.26 m KB and extrapolated to MPP at 1386.75 m KB. The static reservoir pressure was calculated from the shut-in bottomhole pressure and the static gradient run prior to the test and confirmed by the Horner build-up plot. The AOF curve plotted on page 3 utilized a line of 45° slope in accordance with E.R.C.B. 75-34 as the slope of the isochronal points was less than 45°. A line of this slope was drawn through the extended run point to determine the AOF.

A Wellhead Open Flow Potential was plotted in a similar manner on page 4.

A Wellhead Deliverability curve is plotted on page 6 to enable one to predict the flow rate at various wellhead pressures.

A Stabilized Wellhead Deliverability curve is plotted on page 8 to enable one to predict the flow rate at various wellhead pressures. The Stabilized Deliverability curve is based on a theoretical flow rate calculation as shown in the build-up analysis.

A Pressure Drawdown and a Horner Build-up plot are presented on pages 9 and 10 respectively.

RESULTS

	METRIC(SI)UNITS	FIELD UNITS
1. Absolute Open Flow		
- Q	$58.00 \times 10^3 m^3/D$	2.059 MMCF/D
- n	1.000	1.000
- c	$6.151 \times 10^{-4} m^3/D/kPaa^2$	1.038×10^{-6} MMCF/D/psia^2
2. Wellhead Open Flow Potential		
- Q	$56.00 \times 10^3 m^3/D$	1.988 MMCF/D
- Q_{st}	$50.00 \times 10^3 m^3/D$	1.775 MMCF/D
3. Reservoir Conditions		
- Pressure, $\bar{P}_R$	9710.5 kPaa	1408.3 psia
- Temperature	55.6 ^oC	132.1 ^oF
4. Final Flow Conditions		
- Q	47103.3 m^3/D	1.672 MMCF/D
- Tubing Wellhead Pressure	3596.0 kPaa	521.5 psia
5. Total Gas Produced	108860.7 m^3	3.864 MMCF
Total Condensate Produced	Trace	Trace
Total Water Produced	0.225 m^3	1.42 Bbls.

6. Wellbore problems were apparent over the test range.

All data pertaining to the above results can be found in the following report.

SIGNED: Richard G. Nygren

Richard G. Nygren

SUMMARY BACK PRESSURE TEST DATA

WELL: PARAMOUNT HB ET AL CAMERON LOCATION: J-62-N.W.T. FIELD: CAMERON HILLS

FORMATION: SULPHUR POINT DATE OF TEST: FEBRUARY 7-16, 1981

TUBING: 73.0mm set at 1381.56m KB CASING: 139.7mm set at 1605.0m KB

PRODUCED THROUGH: TUBING PERFORATIONS: 1384.5m to 1389.0m KB L= 1386.75m KB

GAS: Stage 1 - S.G. 0.626 Stage 2 - S.G.

LIQUID: Stage 1 - S.G. Mol. Mass

Stock Tank - S.G. Mol. Mass

METER SIZE: 73.53 mm RECORDER RUN DEPTH: 1371.25m KB

Run	Dur. of Run - h	WELLHEAD DATA: Choke Size mm	Temp. °C	Tbg. Press. kPaa	Csg. Press. kPaa	METER DATA: Plate Size mm	Static Press. kPaa	Diff. kPa	MR Temp. °C	Press. @ Run Depth kPaa
ISI				8501						
#1	2.00	4.76	-2.0	6551						9624.0
SI	2.00			8386		25.4	1859	16.0	42.0	7555.3
#2	2.00	7.14	1.0	5246						9514.9
SI	2.00			8301		25.4	1652	38.0	40.0	6550.5
#3	2.00	9.53	2.0							9499.5
SI	2.00					34.9	1963	17.0	40.0	4874.3
#4	2.00	9.53	3.0	3301						9603.5
EXT	48.17	9.53	10.0	3596		38.1	1963	16.0	33.0	4585.7
SI	97.00					38.1	1411	17.0	40.0	4255.2
FSI				**8501						9594.3

**Final shut-in pressure same as initial shut-in pressure

WELL EFFLUENT: S.G. P_c T_c

Run	Total Flow Rate m³/d	SANDFACE PRESSURE: P_f or P_s kPaa	P_f^2 or $P_s^2 \times 10^{-4}$ kPaa²	$P_f^2 - P_s^2$ $\times 10^{-4}$ kPaa²	SURFACE PRESSURE: P_w^2 or $P_d^2 \times 10^{-4}$ kPaa²	$P_w^2 - P_d^2$ $\times 10^{-4}$ kPaa²	cond. Prod. m³/d	C.G.R. $\times 10^5$	Water Prod. m³/d
ISI		9710.5	9429.4						
#1	22412.5	7577.2	5741.4	3688.0	7226.7				
SI		9536.8	9095.1		4291.6	2935.1			
#2	32694.8	6572.4	4319.6	4775.5	7032.5				
SI		9521.4	9065.7		2752.1	4280.4			
#3	46185.0	4896.2	2397.3	6668.4	6890.7				
SI		9625.4	9264.8						1.80
#4	54798.5	4607.6	2123.0	7141.8	1089.7				
EXT	47103.3	4277.1	1829.4	7600.0	1293.1	5933.6			
FSI		*9710.5	9429.4		7226.7				0.37

*Final shut-in pressure same as intial shut-in pressure and confirmed by the Horner build-up plot.

AOF 58.00 x $10^3 m^3/D$

"n" 1.000

C 6.151 x $10^{-4} m^3/D/kPaa^2$

BOTTOM HOLE PRESSURE: *9710.5 kPaa

BOTTOM HOLE TEMPERATURE: 55.6 °C

TOTAL GAS PRODUCTION: 108860.7 m^3

TOTAL WATER PRODUCTION: 0.225 m^3

REMARKS:

Calculated by: RGN

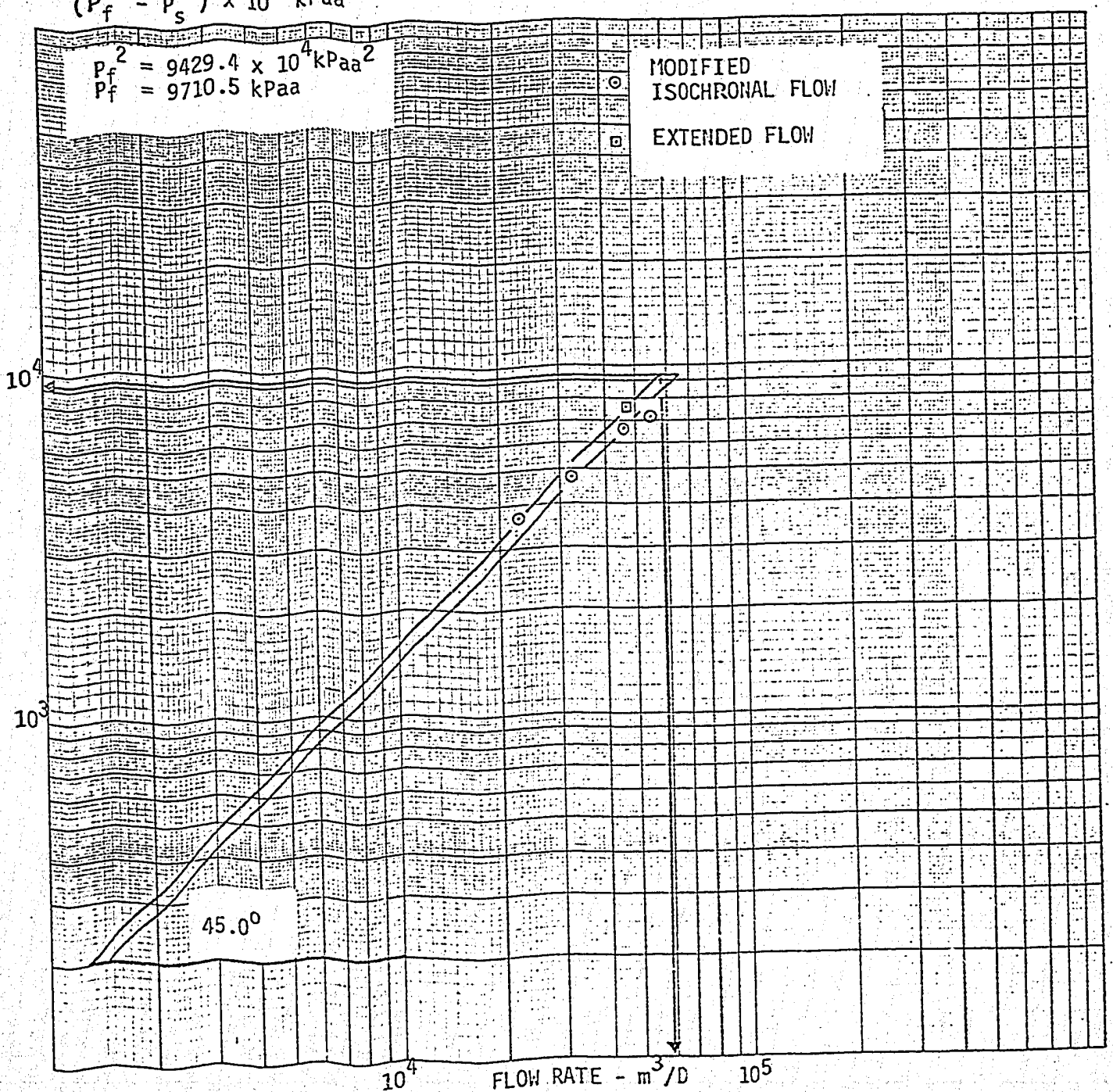
Macdonald Engineering & Associates (1980) Ltd.

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
AOF CURVE
SULPHUR POINT FEBRUARY, 1981

$AOF = 58.00 \times 10^3 m^3/D$

$n = 1.000$

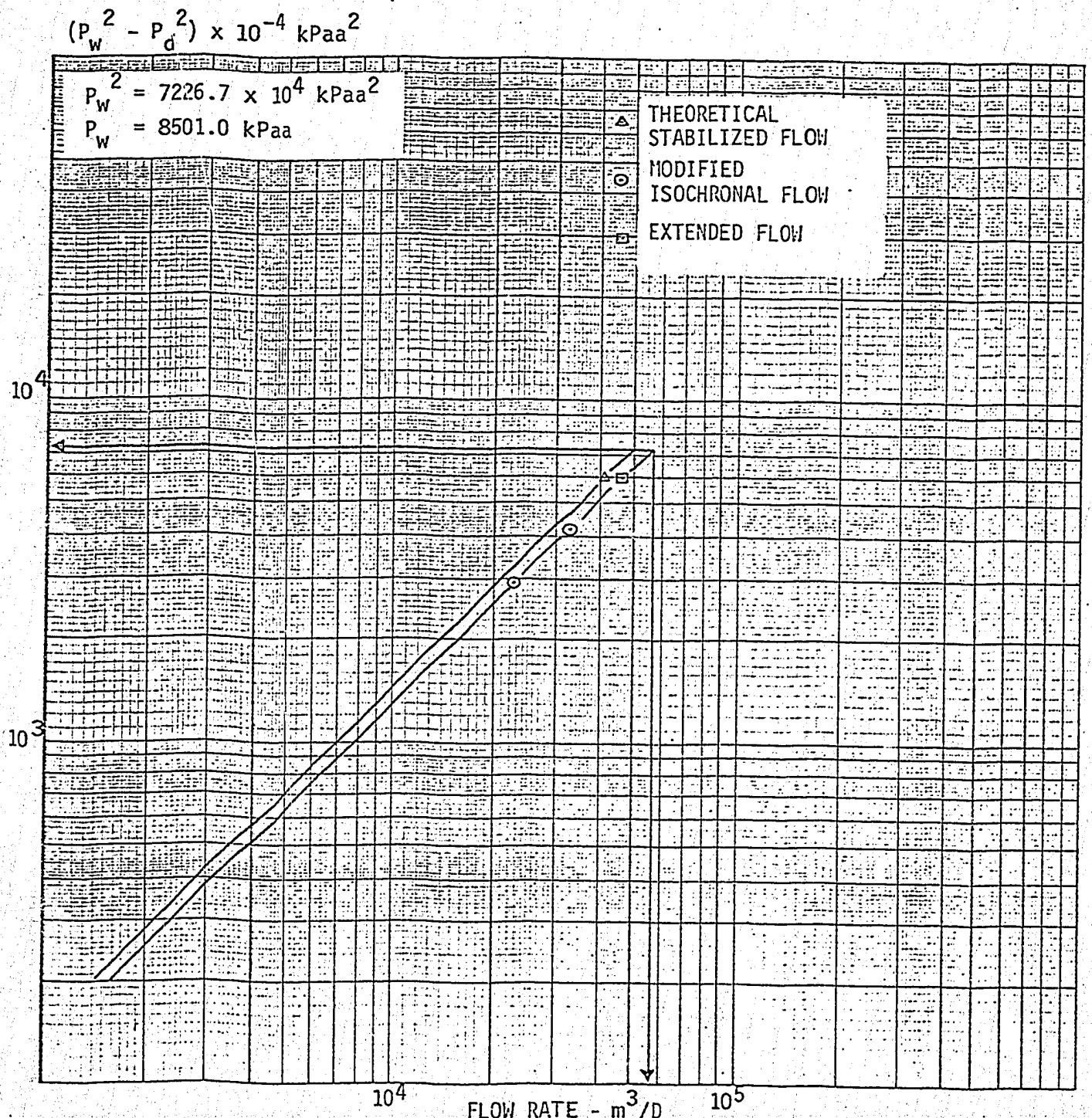
$c = 6.151 \times 10^{-4} m^3/D/kPaa^2$



WELLHEAD OPEN FLOW POTENTIAL =
56.00 x $10^3 m^3/D$

Macdonald Engineering & Associates (1980) Ltd.

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
WELLHEAD OPEN FLOW POTENTIAL
SULPHUR POINT FEBRUARY, 1981



PARAMOUNT HB ET AL CAMERON

J-62 - N.W.T.

DELIVERABILITY CURVE DATA
SULPHUR POINT FEBRUARY, 1982

$Q = c(P_w^2 - P_d^2)^n$

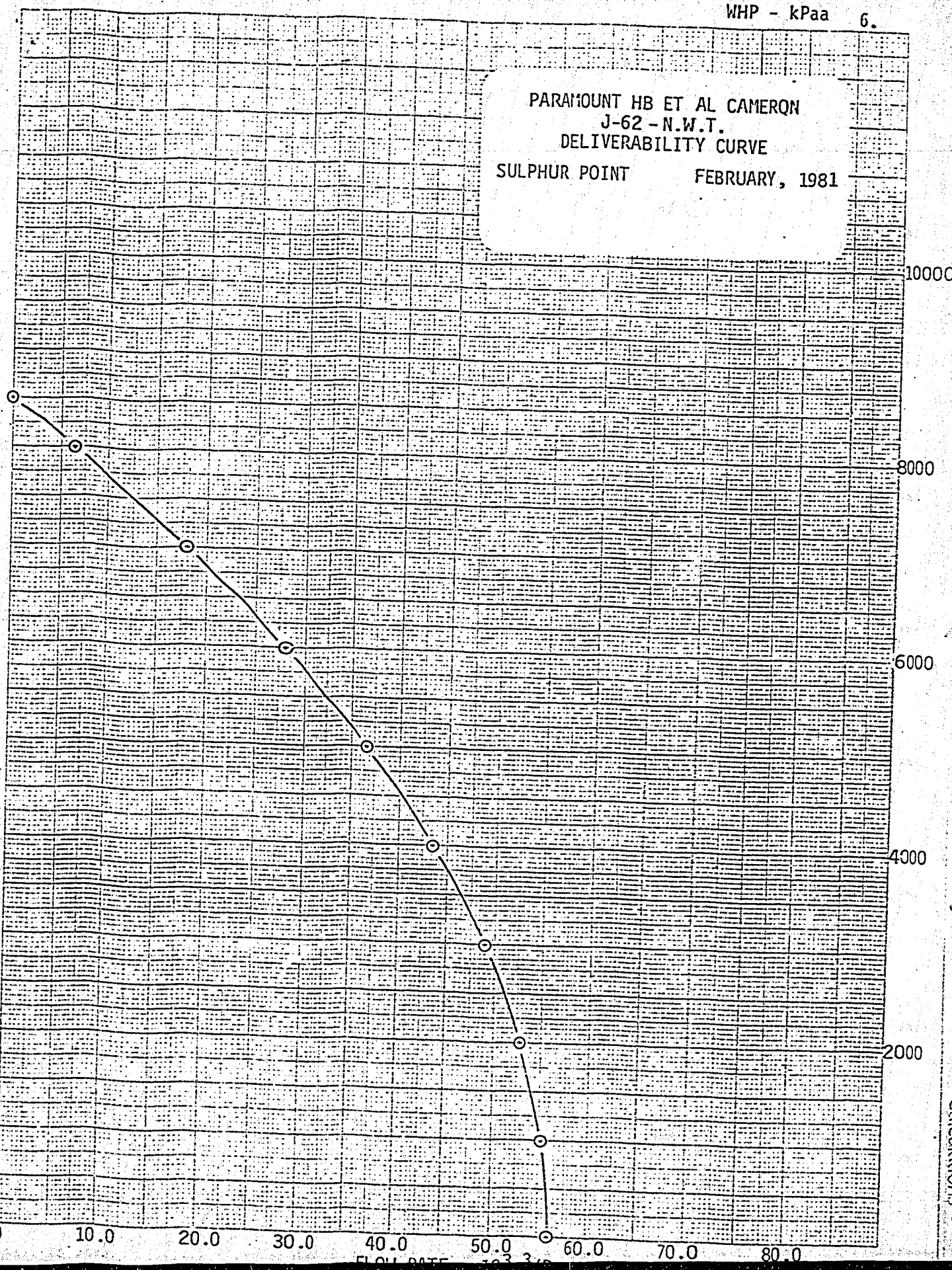
$n = 1.000$

$c = 7.749 \times 10^{-4} m^3/D/kPaa^2$

P_d Tubing Wellhead Pressure - kPaa	Q Flow Rate $10^3 m^3/D$
0.0	56.000
1000.0	55.225
2000.0	52.900
3000.0	49.026
4000.0	43.602
5000.0	36.627
6000.0	28.103
7000.0	18.030
8000.0	6.406
8501.0	0

WHP - kPaa

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
DELIVERABILITY CURVE
SULPHUR POINT FEBRUARY, 1981



Calculations

PARAMOUNT HB ET AL CAMERON

J-62 - N.W.T.

STABILIZED DELIVERABILITY CURVE DATA

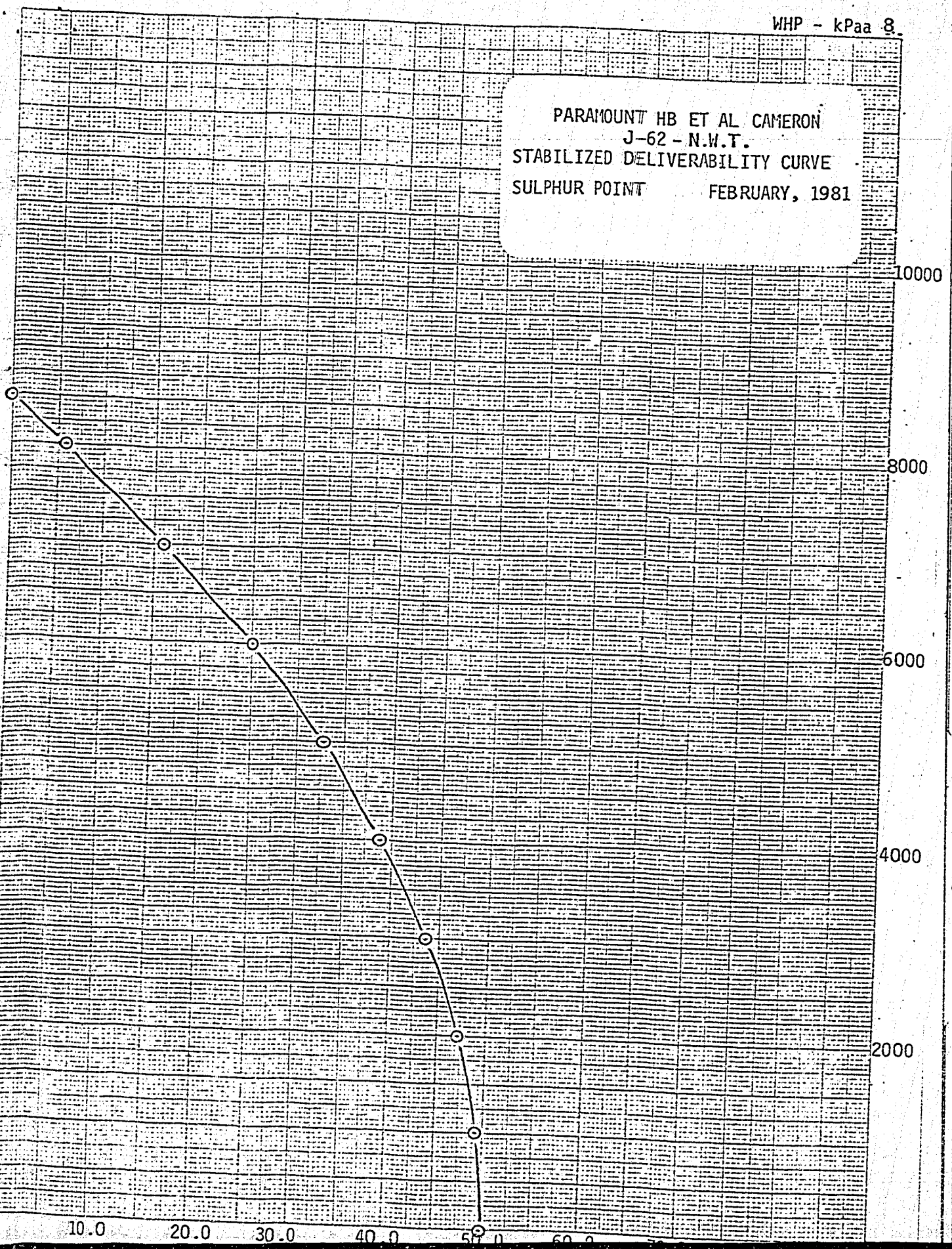
SULPHUR POINT FEBRUARY, 1982

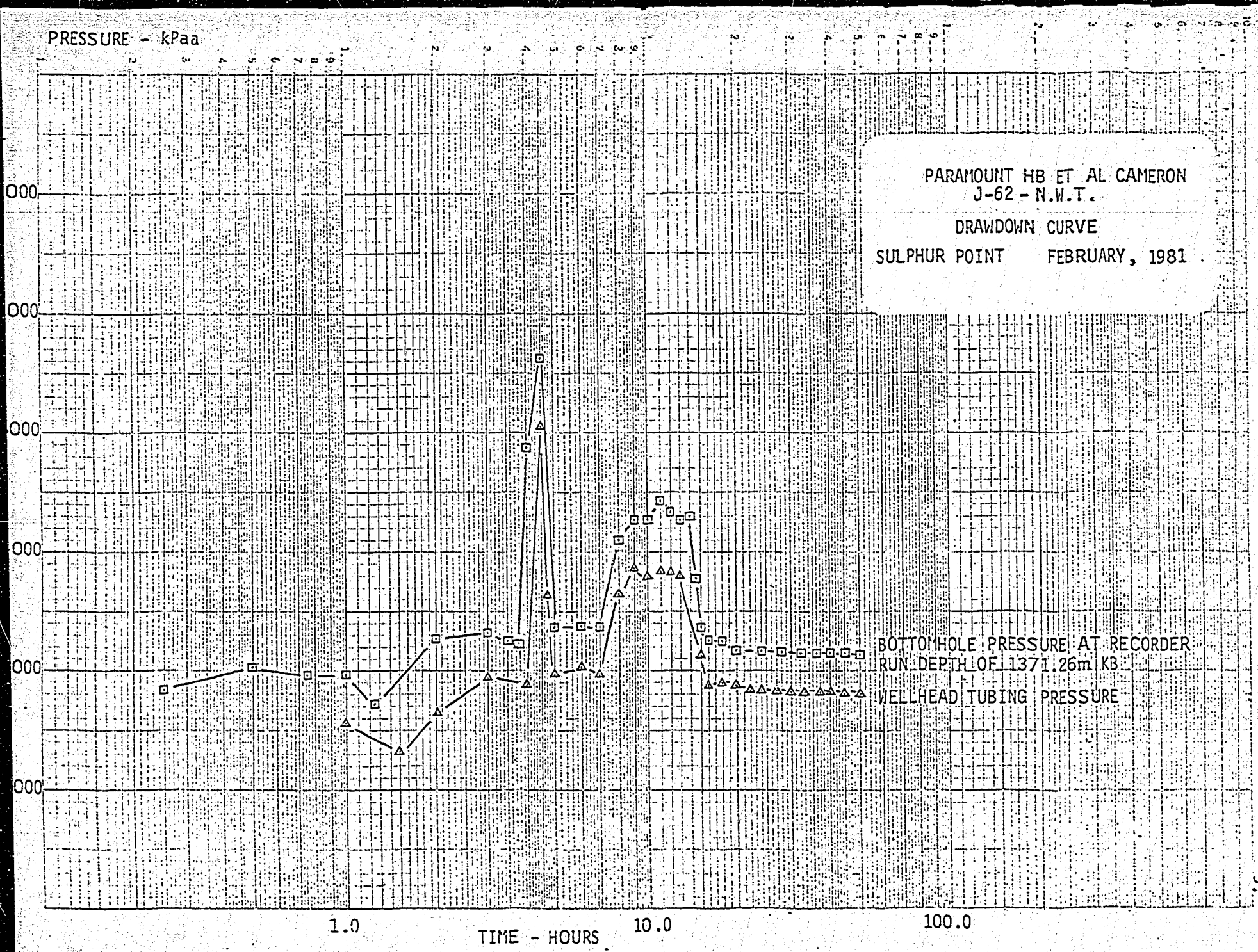
$$Q = c(P_w^2 - P_d^2)^n$$

$n = 1.000$

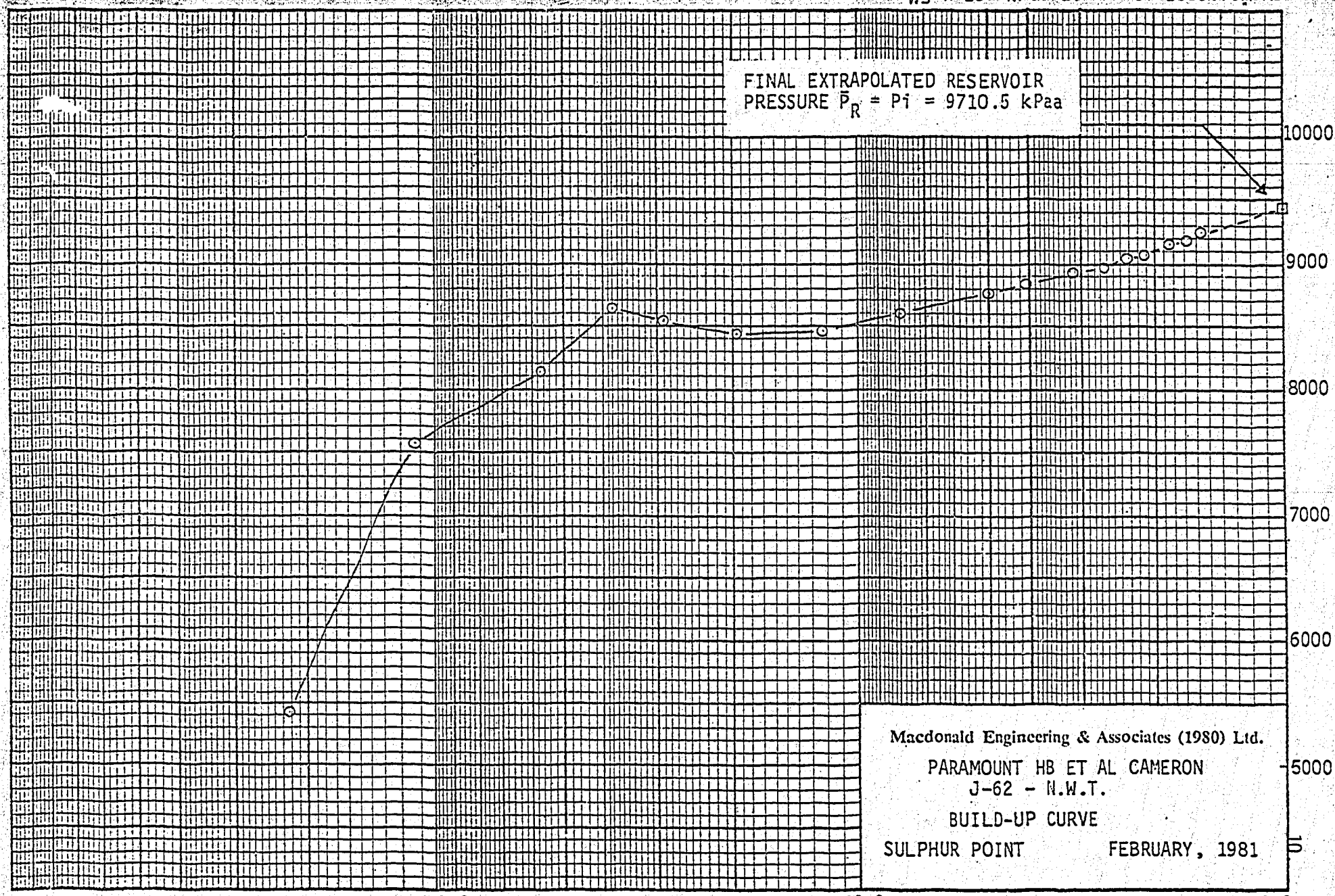
$c = 6.919 \times 10^{-4} m^3/D/kPaa^2$

P_d Tubing Wellhead Pressure - kPaa	Q Flow Rate $10^3 m^3/D$
0.0	50.000
1000.0	49.308
2000.0	47.232
3000.0	43.773
4000.0	38.930
5000.0	32.703
6000.0	25.092
7000.0	16.098
8000.0	5.720
8501.0	0


WHP - kPaa 8
PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
STABILIZED DELIVERABILITY CURVE
SULPHUR POINT FEBRUARY, 1981
10000
8000
6000
4000
2000
0
10.0
20.0
30.0
40.0
50.0
60.0



Calculations Analysis Pressure Fluid Data



Calculations
Analysis
Pressure
Field Data

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
BUILD-UP DATA
SULPHUR POINT FEBRUARY, 1981

Δt	$\frac{t_c + \Delta t}{\Delta t}$	P_{ws} - kPaa AT MPP OF 1386.75m KB	P_{ws}^2 10^4kPaa^2
0.25	222.88	7355.1	5409.7
0.50	111.94	8693.0	7556.8
1.00	56.47	9016.2	8129.2
1.50	37.98	9285.6	8622.2
2.00	28.74	9243.0	8543.3
3.00	19.49	9176.8	8421.4
5.00	12.09	9207.5	8477.8
8.00	7.93	9275.4	8603.3
14.00	4.96	9359.2	8759.5
18.00	4.08	9392.2	8821.3
26.00	3.13	9440.5	8912.3
34.00	2.63	9480.2	8987.4
42.00	2.32	9506.4	9037.2
50.00	2.11	9527.2	9076.8
66.00	1.84	9566.2	9151.2
82.00	1.68	9582.6	9182.6
97.00	1.57	9616.2	9247.1

REMARKS:

CUMULATIVE PRODUCTION: 108860.7 m^3

LAST RATE: 47103.3 m^3/D

$$t_c = \frac{\text{CUM. PROD.}}{\text{LAST RATE}} \times 24$$

$$= \frac{108860.7}{47103.3} \times 24 = 55.47 \text{ HOURS}$$

PARAMOUNT HB ET AL CAMERON

J-62 - N.W.T.

BUILD-UP ANALYSIS

SULPHUR POINT FEBRUARY, 1981

RESULTS

	METRIC(SI) UNITS	FIELD UNITS
1. Average Reservoir Pressure, $\bar{P}_R$	9710.5 kPaa	1408.3 psia
2. Compressibility, $\bar{Z}$ at $\bar{P}$	0.894	0.894
3. Formation Flow Capacity, kh	34.751 mD.m	114.012 md.ft.
4. Permeability, k	3.407 mD.	3.452 md.
5. Apparent Skin Factor, s' at 47103.3 m^3/D indicating a damaged formation	+3.018	+3.018
6. Flow Efficiency	70.8%	70.8%
7. Damage Ratio	1.41	1.41
8. Radius of Investigation	133.3 meters	437.3 feet
9. Time to Stabilization		
- 1 Section Drainage	2048.2 hours	2048.2 hours
- 1/4 Section Drainage	510.8 hours	510.8 hours
10. Stabilized Flow against 3596 kPaa Tubing Wellhead Pressure	41985.9 m^3/D	1.490 MMCF/D

NOTE: The above calculation is a long range theoretical deliverability forecast based on a one section drainage. The estimated time to reach the above theoretical stabilized flow will be approximately 0.23 years.

PARAMOUNT HB ET AL CAMERON

J-62 - N.W.T.

BUILD-UP ANALYSIS

SULPHUR POINT FEBRUARY, 1981

1. Build-Up Data:

Cumulative Production,	G_p	108850.7 m^3
Final Flow Rate,	q	47103.3 m^3/D
Corrected Flow Time,	t_c	55.47 hours
Actual Flow Time,	t	56.17 hours
Slope,	m	8.45 x 10^6 kPa^2/cycle

2. Reservoir Data:

P^* = 9677.3 kPaa	h = 10.2m	$\bar{\mu}$ = 14.22μ Pa.s
$\bar{P}_R$ = 9710.5 kPaa	ϕ_t = 12.0%	$\bar{Z}$ = 0.894
P_{ws1} = 8888.3 kPaa	s_w = 20.0%	$\bar{c}$ = 1.136 x 10^{-4} kPa^{-1}
P_{wfo} = 4277.1 kPaa	r_w = 0.070m	T = 328.9 ^oK
$\bar{P}$ = 9282.8 kPaa		

3. Calculations:

a) Flow Capacity, kh

$$kh = \frac{1.491\, q\, \bar{\mu}\, \bar{Z}\, T}{m} = \frac{1.491(47103.3)(14.22)(0.894)(328.9)}{8.45 \times 10^6}$$

= 34.751 mD.m

b) Permeability, k

$$k = \frac{kh}{h} = 3.407 \text{ mD.}$$

c) Apparent Skin Factor, s'

$$s' = 1.151 \left[\frac{P_{ws1}^2 - P_{wfo}^2}{m} - \log\left(\frac{k}{\phi_g \bar{\mu}\, \bar{c}\, r_w^2} \right) + 2.09 \right]$$

$$= 1.151 \left[\frac{(8888.3)^2 - (4277.1)^2}{8.45 \times 10^6} - \log\left(\frac{3.407}{(0.096)(14.22)(1.136 \times 10^{-4})(0.0049)} \right) + 2.09 \right]$$

= 1.151 (7.184 - 6.652 + 2.09)

= +3.018, indicating a damaged formation

d) Flow Efficiency, FE

$$FE = \frac{(\bar{P}_R^2 - P_{wfo}^2) - 0.869\ ms'}{\bar{P}_R^2 - P_{wfo}^2}$$

$$= \frac{((9710.5)^2 - (4277.1)^2) - 0.869\ (8.45 \times 10^6)(3.018)}{(9710.5)^2 - (4277.1)^2}$$

$$= 0.708$$

e) Damage Ratio, 1/FE

$$1/FE = 1.41$$

f) Radius of Investigation, r_{inv}

$$r_{inv} = \left[\frac{kt}{69.44\ \phi_g \bar{\mu}\ \bar{c}}\right]^{0.5} = \left[\frac{(3.407)(56.17)}{69.44(0.096)(14.22)(1.136 \times 10^{-4})}\right]^{0.5}$$

$$= 133.3 \text{ meters}$$

g) Time to Stabilization

i) 1 Section Drainage $t_s = \frac{69.44\ \phi_g \bar{\mu}\ \bar{c}\ (805)^2}{k} = 2048.2$ hours

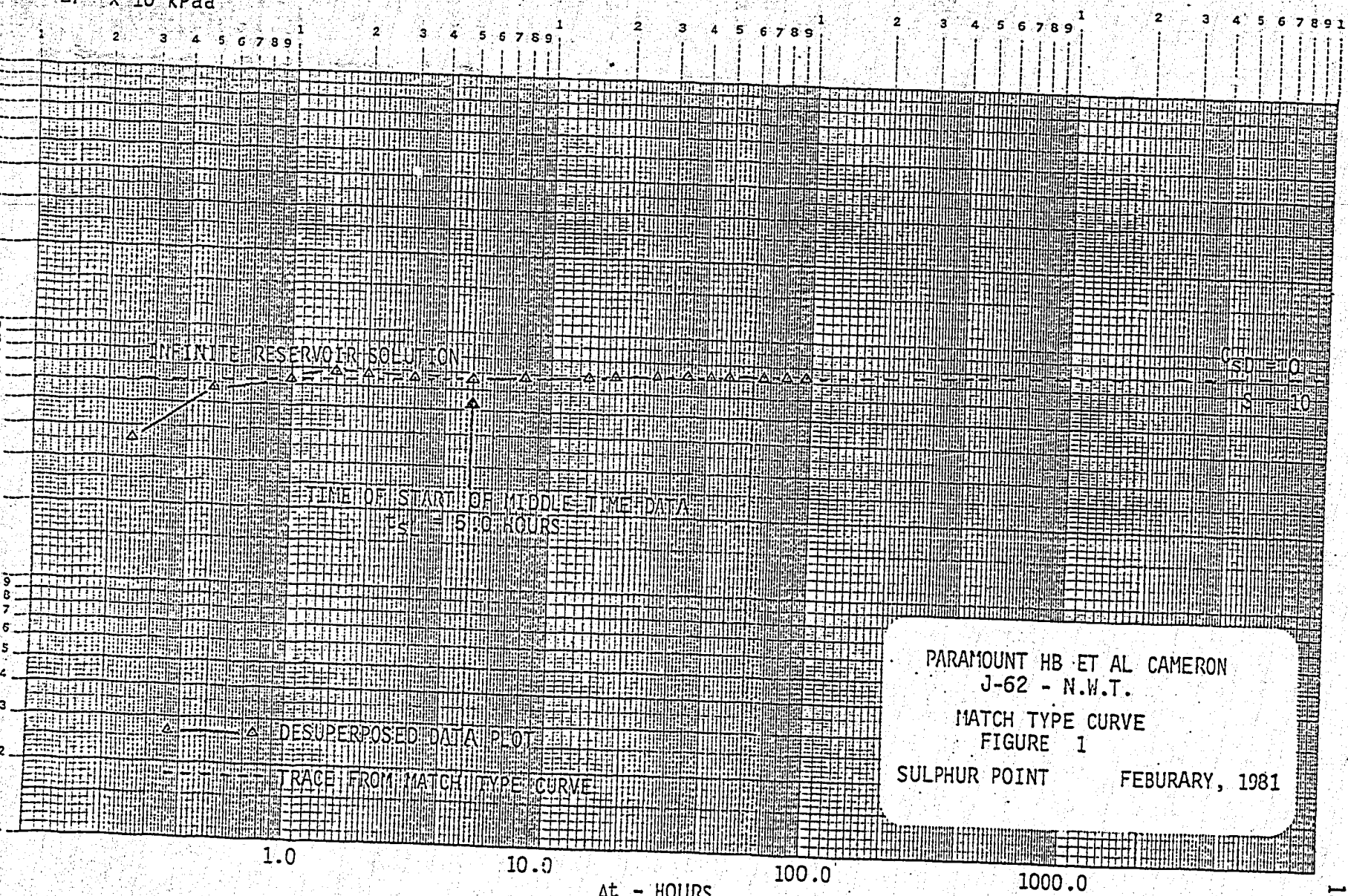
ii) 1/4 Section Drainage $t_s = \frac{69.44\ \phi_g \bar{\mu}\ \bar{c}\ (402)^2}{k} = 510.8$ hours

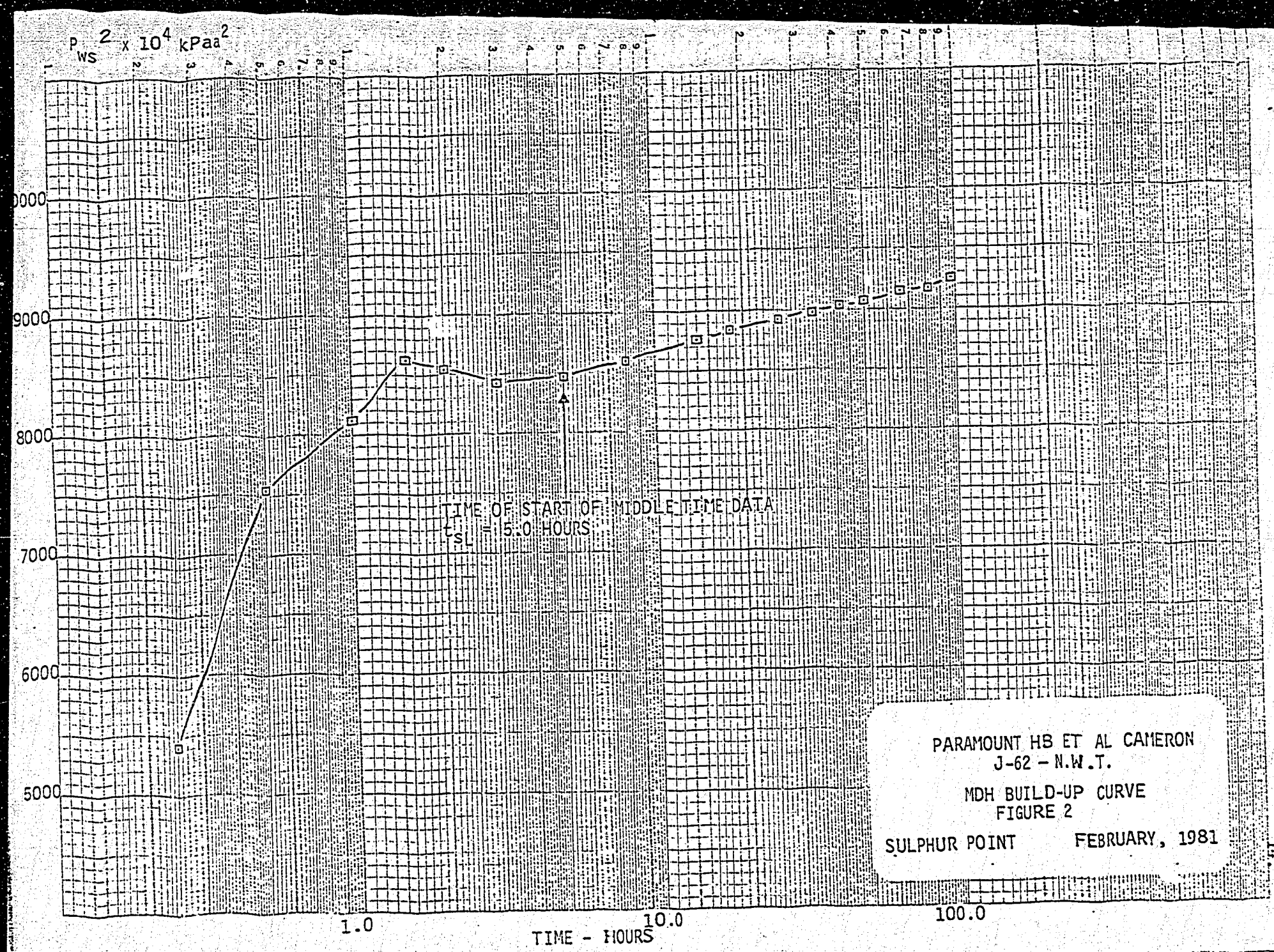
h) Stabilized Flow against 3596 kPaa Tubing Wellhead Pressure.

$$q_{st} = \frac{kh\ (\bar{P}_R^2 - P_{wfo}^2)}{2.982 \bar{\mu}\ \bar{Z}\ T \left[\log\left(\frac{0.472\ r_e}{r_w}\right) + \frac{s'}{2.303}\right]}$$

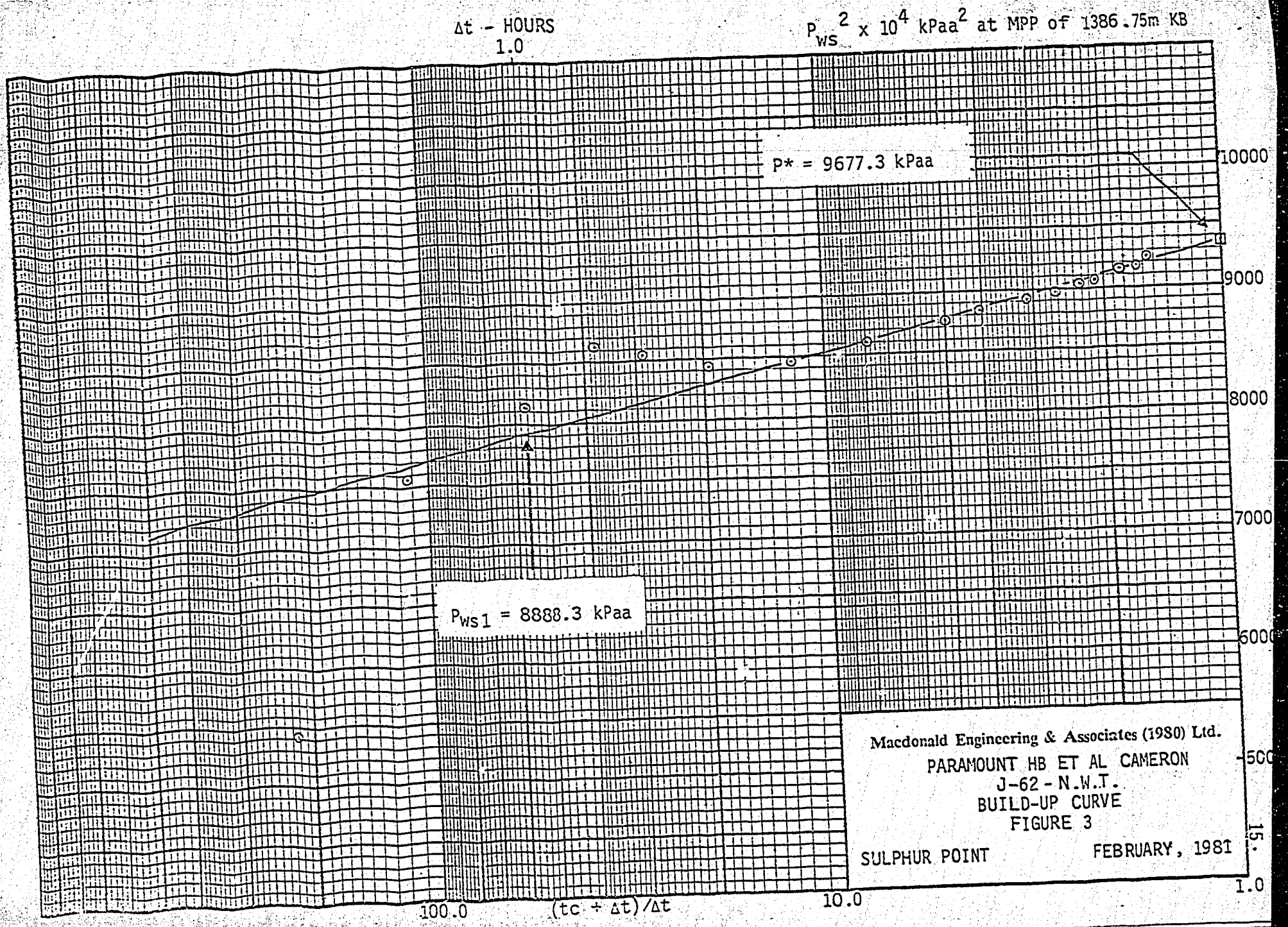
$$= \frac{(34.751)((9710.5)^2 - (4277.1)^2)}{2.982(14.22)(0.894)(328.9)\left[\log\left(\frac{0.472(805)}{0.070}\right) + \frac{3.018}{2.303}\right]}$$

$$= 41985.9\ m^3/D, \text{for 1 section Drainage.}$$


$\Delta P^2 \times 10^4 kPaa^2$
INFINITE RESERVOIR SOLUTION
$C_SD = 0$
$S = -10$
TIME OF START OF MIDDLE TIME DATA
t_{SL} = 5.0 HOURS
DESUPERPOSED DATA PLOT
TRACE FROM MATCH TYPE CURVE
PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
MATCH TYPE CURVE
FIGURE 1
SULPHUR POINT FEBURARY, 1981
1.0
10.0
100.0
1000.0
Δt - HOURS



Field Data | Pressure | Calculations


Δt - HOURS
1.0
$P_{ws}^2 \times 10^4$ kPaa^2 at MPP of 1386.75m KB
P* = 9677.3 kPaa
P_{ws1} = 8888.3 kPaa
10000
9000
8000
7000
6000
500
15.
1.0
100.0
(tc + Δt)/Δt
10.0
Macdonald Engineering & Associates (1980) Ltd.
PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
BUILD-UP CURVE
FIGURE 3
SULPHUR POINT
FEBRUARY, 1981

PARAMOUNT HB ET AL CAMERON
J-62 - N.W.T.
BUILD-UP ANALYSIS DATA
SULPHUR POINT FEBRUARY, 1981

Δt	$\frac{t_c + \Delta t}{\Delta t}$	P_{ws} - kPaa AT MPP OF 1386.75m KB	$\frac{P_{ws}^2}{10^4 kPaa^2}$	$\frac{\Delta P^2}{10^4 kPaa^2}$
0.25	222.88	7355.1	5409.7	3580.3
0.50	111.94	8693.0	7556.8	5727.4
1.00	56.47	9016.2	8129.2	6299.8
1.50	37.98	9285.6	8622.2	6792.8
2.00	28.74	9243.0	8543.3	6713.9
3.00	19.49	9176.8	8421.4	6592.0
5.00	12.09	9207.5	8477.8	6648.4
8.00	7.93	9275.4	8603.3	6773.9
14.00	4.96	9359.2	8759.5	6930.1
18.00	4.08	9392.2	8821.3	6991.9
26.00	3.13	9440.5	8912.3	7082.9
34.00	2.63	9480.2	8987.4	7158.0
42.00	2.32	9506.4	9037.2	7207.8
50.00	2.11	9527.2	9076.8	7247.4
66.00	1.84	9566.2	9151.2	7321.8
82.00	1.68	9582.6	9182.6	7353.2
97.00	1.57	9616.2	9247.1	7417.7

REMARKS:

CUMULATIVE PRODUCTION: 108860.7 m^3

LAST RATE: 47103.3 m^3/D

$$t_c = \frac{\text{CUM. PROD.}}{\text{LAST RATE}} \times 24$$

$$= \frac{108860.7}{47103.3} \times 24 = 55.47 \text{ HOURS}$$

$P_{wfo} = 4277.1$ kPaa

$P_{wfo}^2 = 1829.4 \times 10^4 kPaa^2$

WELL DATA

WELL PARAMOUNT HB ET AL CAMERON FIELD J-62 - N.W.T. CAMERON HILLS

PROVINCE N.W.T. DATE OF TEST FEBRUARY 7-16, 1981

OPERATOR PARAMOUNT RESOURCES LTD. FORMATION SULPHUR POINT

ELEVATIONS: 755.0m K.B. 751.94m C.F. 3.06m C.F. to KB

TUBING: SIZE 73.0mm wt. 9.67 kg/m type J-55 set @ 1381.56m KB

CASING: SIZE 139.7mm wt. 23.1 kg/m type J-55 set @ 1605.0m KB

PERFORATED INTERVAL 1384.5 to 1389.0m KB

_____ to _____

_____ to _____

_____ to _____

_____ to _____

MEAN PERFORATED DEPTH 1386.75 m KB

AVERAGE LENGTH OF PRODUCING STRING _____ m

BOTTOMHOLE: PRESSURE 9710.5 kPaa TEMPERATURE 55.6 °C

BAROMETRIC PRESSURE 101.3 kPaa

MEAN SURFACE TEMPERATURE -3.9 °C

PRODUCING THROUGH TUBING

REMARKS: TOTAL DEPTH AT 1605.0m KB

PBTD AT 1481.75m KB

BAKER MODEL FB-1 PERMANENT PRODUCTION PACKER

AT 1375.52m KB. BAKER MODEL L SLIDING SLEEVE AT

1372.19m KB

```
**************************
*                        *
*      P R O G R A M     *
*      G A S F L O W     *
*                        *
**************************
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PARAMOUNT HB ET AL CAMERON
J-62-N.W.T.

ORIFICE METER CALCULATIONS

NO.	SIZE MM	ORIFICE DIA MM	TEMPR. DEG. C	STATIC PRESS. KPA	DIFFT'L KPA	CPRIME C'	FLOW RATE Q E03 M3/D
1	73.530	25.400	42.0	1859.30	16.0	251.72	22.4125
2	73.530	25.400	40.0	1652.30	38.0	252.76	32.6948
3	73.530	34.900	40.0	1963.30	17.0	489.72	46.1850
4	73.530	38.100	33.0	1963.30	16.0	598.93	54.7985
5	73.530	38.100	37.0	1342.30	20.0	592.00	50.0727
6	73.530	38.100	43.0	1135.30	12.0	584.69	35.2298
7	73.530	38.100	40.0	1411.30	17.0	589.09	47.1033

ORIFICE FACTORS

NO.	BASIC FB	SP. GRAV FG	FL TEMPR FTF	REY. NO FR	EXPNSION Y	SUPERCMP FPV	MANOMETR FM
1	204.06	1.2639	0.9572	1.0003	1.0015	1.0159	1.0000
2	204.06	1.2639	0.9602	1.0002	1.0041	1.0145	1.0000
3	395.29	1.2639	0.9602	1.0003	1.0014	1.0172	1.0000
4	477.51	1.2639	0.9711	1.0003	1.0013	1.0186	1.0000
5	477.51	1.2639	0.9648	1.0004	1.0024	1.0121	1.0000
6	477.51	1.2639	0.9556	1.0005	1.0017	1.0096	1.0000
7	477.51	1.2639	0.9602	1.0004	1.0019	1.0123	1.0000

NOTE: ORIFICE FACTORS ARE IN IMPERIAL FORM

TESTMASTER

TESTMASTER PRODUCTION SERVICES LTD.
1007D - 55th AVENUE N.E.
CALGARY, ALBERTA, CANADA T2E 6W1
PHONE (403) 274-5777

RECEIVED
19.1
MAR - 9 1981
(ST) LTD.

Paramount Resources Limited

Paramount H.B. et al Cameron

J-62-N.W.T.

4 Point Extended Rate

February 7th - 11th, 1981

Testmaster Production Services Ltd.

TESTMASTER PRODUCTION SERVICES LTD.
1007D - 55th AVENUE N.E.
CALGARY, ALBERTA, CANADA T2E 6W1
PHONE (403) 274-5777

METRIC CONVERSIONS

Field Unit	Multiplication Factor	Units	Symbols
Barrel (35 Imp. Gal.)	.159	Cubic Meter	m^3
Gallon	.004546	Cubic Meter	m^3
MMCF	28262.31	Cubic Meter	m^3
PSI	6.895	Kilopascal	kPa
Differential	.249	Kilopascal	kPa
Inches	25.4	Millimeter	mm
Degree (^oF)	(^oF-32)x.555	Degrees Celcius	^oC

Meter Run Size - Upstream - 73.79 mm.
- Downstream - 73.53 mm.

H.P. Meter Size - 2000 PSI (13790 kPa)
- 0 - 200 Inches (0 - 50 kPa)

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 1 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 7/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP. GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	STATIC PRESSURE or Prover D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTIO
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Mcf/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
					Rig in equipment															
0930					Almech wireline on location to run gradient & recorders.															
					Master valve on wellhead frozen															
1230					Almech rigged out															
1630					Water truck on location to fill line heater															
					Manifold valves on unit frozen Tank valves frozen															
					Thaw valves from 1700hrs to 2200 hrs															
					Power plant quit at 1800 hrs.															

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. Cond	TANK NO. Water	TANK NO. Cond	TANK NO. W
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

19.3

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 2 OF

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUC
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels			Barrels	Barrels	fit3/d
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/d
0845	8400				Shut in pressure															
0855					Pressure test flow line															
0900	8400			4.76	Open well on 4.76mm choke through separator on 1st Rate of 4 Point test.															
0905	7500																			
0910	7000																			
0915	6550	-7		4.76	1241		16	44	25.4											19.78x
0930	5510	-5			1654		17	44												23.17x
0945	5750	-3			1654		15	39												22.04x
1000	6000	-1			1758		15	38												22.89x
1030	6220	-2			1758		16	38												22.61x
										End of 1st Rate										
1100	6450	-2			1758		16	42		Shut in for 2 hr. Build-ups										23.03x
1105	6710																			

REMARKS

GAS PRODUCTION (24 hr.)
GAS PRODUCTION CUMULATIVE
LIQUID PRODUCTION (24 hr.)
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.4
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 3 OF 1

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kP

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCT
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/da
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/da
1110	6980																			
1115	7220																			
1130	8220																			
1145	8265																			
1200	8275																			
1230	8280																			
1300	8285																			
1305	7200	-2		Open well through separator on 7.14mm choke to start Second Rate.																
1310	5700	-2																		
1315	5050	-1		7.14	1655		35	33	25.4											35.89x
1330	4885	0			1655		32	20												31.65x
1345	5000	0			2172		24	42	Back pressure valve malfunctioning											31.09x

REMARKS

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK N Cond.	
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS			19	
MINUS SHIPPING			57	
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 4 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 / m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCT
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	oC	Pga kPa	mm	Pga kPa	Pga kPa	kPa	oC	mm	Pga kPa	kPa	oC	mm	c m	m3	m	m3	m3	m3	m3/day
1400	5115	1		7.14	1862		32	40	25.4											33.63x1
1430	5270	1			1551		36	42												33.07x1
1500	5145	1			1551		38	40		End of Second Rate										33.91x1
1505	6030																			
1510	7600																			
1515	7800																			
1530	8090																			
1545	8120																			
1600	8140																			
1630	8190																			
					Third Rate on 34.9mm orifice plate															
1700	8200				Open well through separator on 9.53mm choke															
1705	4000																			

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK N Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.6
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 5 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTI
					STATIC PRESSURE or Prover									CAP 64m3 / 1 per .104		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	cm	m3					
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	f/d
SI Units	Pge kPa	oC	Pge kPa	mm	Pge kPa	Pge kPa	kPa	oC	mm	Pge kPa	kPa	oC	mm	C m	m3	m	m3	m3	m3	m3/day
1710	3250	1		9.53					34.9											
1715	3175	1			1715		16	41		Methanol pump freezing										42.39x10
1730	3400	2			1586		17	40												45.22x10
1745	3450	2			1586		17	38												45.22x10
1800	3700	2			1551		18	38		Liquid to surface										45.22x10
										Unable to dump water										
1830		2			1862		17	40		Dump lines frozen from separator to dump										48.05x10
										By-pass dump also frozen				END of Rate #3						
1900		2			2930		17	40		Meter freezing (Approx. water made 150m3)										59.92x10
	Unable to get tubing pressures. Wellhead frozen from 1800 hrs to 2200 hrs.																			
2115		-5			Open well to flow through separator on 12.7mm choke									Flow Rate #4						
					with 38.1mm orifice plate															
2130		-4			1862		16	44		Pumping methanol										56.52x10
2200	3050	-2			2275			40												
										Take off for repairs										
2230	2525	5						32		Unable to get meter readings frozen										

REMARKS

Estimated flow rate for 4 Point
24 hr. production 13.65x10³xm³

		TANK NO. 1		TANK NO.
GAS PRODUCTION (24 hr.) ____	LIQUID PROD. BALANCE	Cond.	Water	Cond.
GAS PRODUCTION CUMULATIVE ____	OPENING GAUGE			
LIQUID PRODUCTION (24 hr.) ____	PLUS PRODUCTION			
Condensate/Oil ____ Water ____	TOTALS			
LIQUID PRODUCTION CUMULATIVE ____	MINUS SHIPPING			
Condensate/Oil ____ Water ____	EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 6 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 8/81	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
TIME	TUBING Pressure	Flow Temp	CASING Pressure		Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
2300	3200	3		9.53				33	38.1	Cut choke back for extended rate to 9.53mm choke										
2330	3770	4						39												
2400	3800	3						40												
February 9th, 1981					Meter replaced and in service.															
0030	3655	3			2069		13	39												
0100	3690	1			2275		12	41												52.00x10³
0115	7100							41		Safety shut down valve closed.										
0135	7995							42												
0140	7800	-6						43		Back pressure valve stuck open use manual block valve.										
0145	5200	1						42												
0200	3835	2			1241		23	45												54.26x10³
0215	3850	3			1310		20	43												

REMARKS

GAS PRODUCTION (24 hr.)
GAS PRODUCTION CUMULATIVE
LIQUID PRODUCTION (24 hr.)
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. Cond	TANK NO. W
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS			19.8	
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 7 OF

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 9/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ___ per ___		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODU
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3
0230	3875	1		9.53	1310		20	42	38.1											
0300	3950	3			1310		19	42												50.9x
0330	3930	1			1276		20	41												
0400	3860	2			1241		20	37												50.9x
0430	4235	1			1276		19	37												
0500	5195	-3			1138		14	42		Possible ice plug in ~~flowing~~ Tubing										40.98
0530	5330	-5			1034		14	42												
0600	5630	-8			827		14	42												35.89
0630	5340	-8			1241		13	42												
0700	5500	-10			1138		12.5	42												38.15
0730	5535	-10			1103		12	42												
0800	5585	-12			1034		11.5	41		Approx. water made .075m3										35.33

REMARKS

			TANK NO. 1		TANK
GAS PRODUCTION (24 hr.) 14.93m3		LIQUID PROD. BALANCE	Cond.	Water	Cond.
GAS PRODUCTION CUMULATIVE		OPENING GAUGE			
LIQUID PRODUCTION (24 hr.)		PLUS PRODUCTION			
Condensate/Oil ___ Water ___		TOTALS			19.6
LIQUID PRODUCTION CUMULATIVE		MINUS SHIPPING			
Condensate/Oil ___ Water ___		EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 8 OF

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 k

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 9/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3		CAP		Cumul.	Cumul.	GAS
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	1 cm per .104 m3		per		Oil, Cond. Prod.	Water Prod.	PRODUC
IMP. Units	PSIG	°F	PSIG	inches	PSIG	PSIG	inches	°F	inches	PSIG	inches	°F	inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	fit/d
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/d
0830	5585	-11		9.53	896		11.	43.	38.1											
0900	5550	-13			862		11.5	43												32.50x
0930	5500	-12			965		12	43												
1000	5500	-12			1103		12	43												37.87x
1030	5450	-10			1034		12	43												
1100	5450	-10			1034		12	43												36.74x
1130	5530	-9			965		12	43		Ice plug in flow line let go.										
1200	4120	+4			1172		20	35		Liquid to surface										49.46x
1230	3715	+3			1172		18	42												
1300	3680	+3			1241		20	44												50.87x
1330	3680	+3			1207		21	44		750 ppm H_2S										
1400	3675	3			1207		21	44												52.28x

REMARKS

GAS PRODUCTION (24 hr.)

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil Water

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. Cond.	Water	TANK Cond.
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.10
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTIO
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1430	3695	3		9.53	1207		21	44	38.1											
1500	3700	4			1207		21	45												52.28x10
1530	3700	3			1207		22	45												
1600	3650	3			1207		20	45												49.46x10
1630	3650	3			1172		21	43												
1700	3640	4			1138		21	41												49.46x10
1730	3570	4			1138		21	41												
1800	3585	7			1138		21	40												49.46x10
1830	3585	7			1138		21	38												
1900	3585	8			1138		21	38												49.46x10
1930	3585	9			1138		21	38												
2000	3585	10			1138		21	43												49.46x10

REMARKS

			TANK NO. 1		TANK NO.
GAS PRODUCTION (24 hr.)		LIQUID PROD. BALANCE	Cond.	Water	Cond.
GAS PRODUCTION CUMULATIVE		OPENING GAUGE			
LIQUID PRODUCTION (24 hr.)		PLUS PRODUCTION			
Condensate/Oil ____ Water ____		TOTALS			19.11
LIQUID PRODUCTION CUMULATIVE		MINUS SHIPPING			
Condensate/Oil ____ Water ____		EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 10 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
Feb. 9/81 TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ___ per ___		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTIO
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	fit/day
SI Units	Pga kPa	oC	Pga kPa	mm	Pga kPa	Pga kPa	kPa	oC	mm	Pga kPa	kPa	oC	mm	C m	m3	m	m3	m3	m3	m3/day
2030	3575	9		9.53	1138		20	42	38.1											
2100	3580	9			1172		20	43												49.46x10
2130	3580	9			1172		20	43												
2200	3580	9			1241		19	43												49.46x10
2230	3570	9			1241		19	42												
2300	3565	9			1172		20	42												48.33x10
2330	3565	8			1172		19	42												
2400	3565	9			1207		19	43												48.89x10
February 10th, 1981																				
0030	3565	9			1207		19	43												
0100	3565	9			1207		19	43												48.33x10
0130	3565	10			1207		19	43												

REMARKS

GAS PRODUCTION (24 hr.)

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil ___ Water ___

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil ___ Water ___

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO Cond.	TANK NO
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS			6.112	
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

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TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 11 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kP

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 1/cm per .104/m3		CAP ___ per ___		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTI
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft³/day
SI Units	Pge kPa	°C	Pge kPa	mm	Pge kPa	Pge kPa	kPa	°C	mm	Pge kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
0200	3560	9		9.53	1207		19	43	38.1											48.05x1
0230	3560	9			1241		18	44												
0300	3560	10			1241		18	44												48.05x1
0330	3555	10			1276		18	44												
0400	3550	9			1310		18	44												48.61x1
0430	3550	9			1276		18	44												
0500	3550	9			1241		18	44												48.05x1
0530	3550	9			1241		18	43												
0600	3550	9			1379		17	44												48.61x1
0630	3545	10			1276		18	45												
0700	3545	9			1310		18	44												48.61x1
0730	3545	9			1310		18	43												

REMARKS

GAS PRODUCTION (24 hr.)
GAS PRODUCTION CUMULATIVE
LIQUID PRODUCTION (24 hr.)
Condensate/Oil ___ Water ___
LIQUID PRODUCTION CUMULATIVE
Condensate/Oil ___ Water ___

LIQUID PROD. BALANCE	TANK NO. Cond	Water	TANK NO. Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.13
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

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TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 12 OF 1

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53mm DIFF. RANGE 0-50 kP

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCT
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
0800	3545	9		9.53	1310.		18	43	38.1											48.61x1

REMARKS

GAS PRODUCTION (24 hr.)	$47.60 \times 10^3 m^3$
GAS PRODUCTION CUMULATIVE	62.53×10^3
LIQUID PRODUCTION (24 hr.)	
Condensate/Oil ____ Water	
LIQUID PRODUCTION CUMULATIVE	
Condensate/Oil ____ Water	

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.1
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 13 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kP

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTI
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
0830	3545	10		9.53	1345		17	44	38:1											
0900	3535	10			1345		17	44												48.61x10
0930	3535	10			1310		18	43												
1000	3545	10			1358		18	43												49.46x10
1030	3545	10			1358		17	43												
1100	3545	10			1345		18	43												49.46x10
1130	3545	10			1310		18	43												
1200	3545	10			1345		18	44												49.46x10
1230	3545	10			1345		18	44												
1300	3545	10			1358		18	44												49.46x10
1330	3560	10			1379		17	44												
1400	3555	10			1448		17	44												50.87x10

REMARKS

GAS PRODUCTION (24 hr.)

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.15
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 14 OF 1

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 k

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION				Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCT
	TUBING Pressure	Flow Temp	CASING Pressure		STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 1/cm per .104/m3		CAP / per				
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
			4.33																	
1430	3565	10		25.4	1448		17	47	38.1											
1500	3520	10			1448		17	46												50.87x1
1530	3490	10			1276		18	45		Salinity 26,800 ppm										
1600	3475	10			1241		19	43		0.68% H_2S			ON SITE ANALYSIS							49.46x1
1630	3480	10			1379		16	41		Reset back pressure										
1700	3575	10			1379		17	43		Sample from separator trace of Condensate										49.46x1
1730	3545	10			1379		17	44												
1800	3510	10			1345		17	43												48.33x1
1830	3470	10			1315		17	42												
1900	3470	10			1310		17	41												48.05x1
1930	3470	10			1310		17	42												
2000	3475	10			1310		17	42												

REMARKS

GAS PRODUCTION (24 hr.)

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil Water

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. Cond	Water	TANK NO. Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.15
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 15 OF

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ___ per ___		CAP ___ per ___		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCT
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Mcf/da
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/da
			0.93																	
2030	3495	10		25.4	1310		17	40	38.1											
2100	3500	10			1310		17	41												48.6x10
2130	3495	10			1310		17	40												
2200	3495	10			1310		17	39												48.6x10
2230	3495	10			1310		17	39												
2300	3495	10			1310		17	40												48.6x10
2310	3495	10			1310		17	40		Shut well in Take samples Two H.P. Gas 866 1071										48.6x10
2315	4950																			
2320	6570																			
2325	7370																			
2330	7630																			
2345	7910																			

REMARKS

GAS PRODUCTION (24 hr.)
GAS PRODUCTION CUMULATIVE
LIQUID PRODUCTION (24 hr.)
Condensate/Oil Water
LIQUID PRODUCTION CUMULATIVE
Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. Cond	TANK NO. Water	TANK N Cond
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			19.17
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 16 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 11/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTIO
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
2400	7890																			
0015	8100																			
0030	8110																			
0100	8080																			
0130	8055																			
0200	8050				End of Build-ups								Rig out equipment							

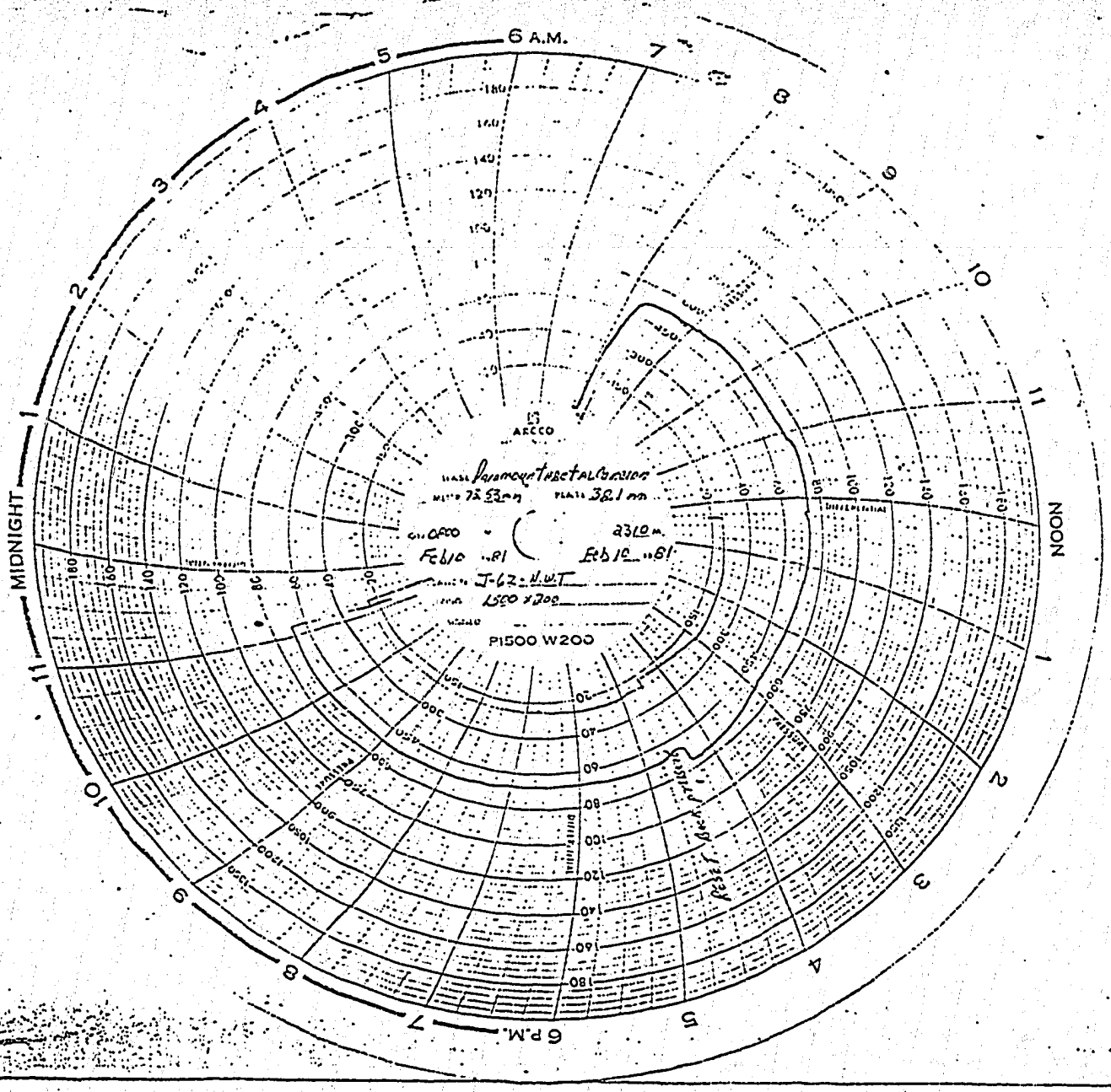
REMARKS ____

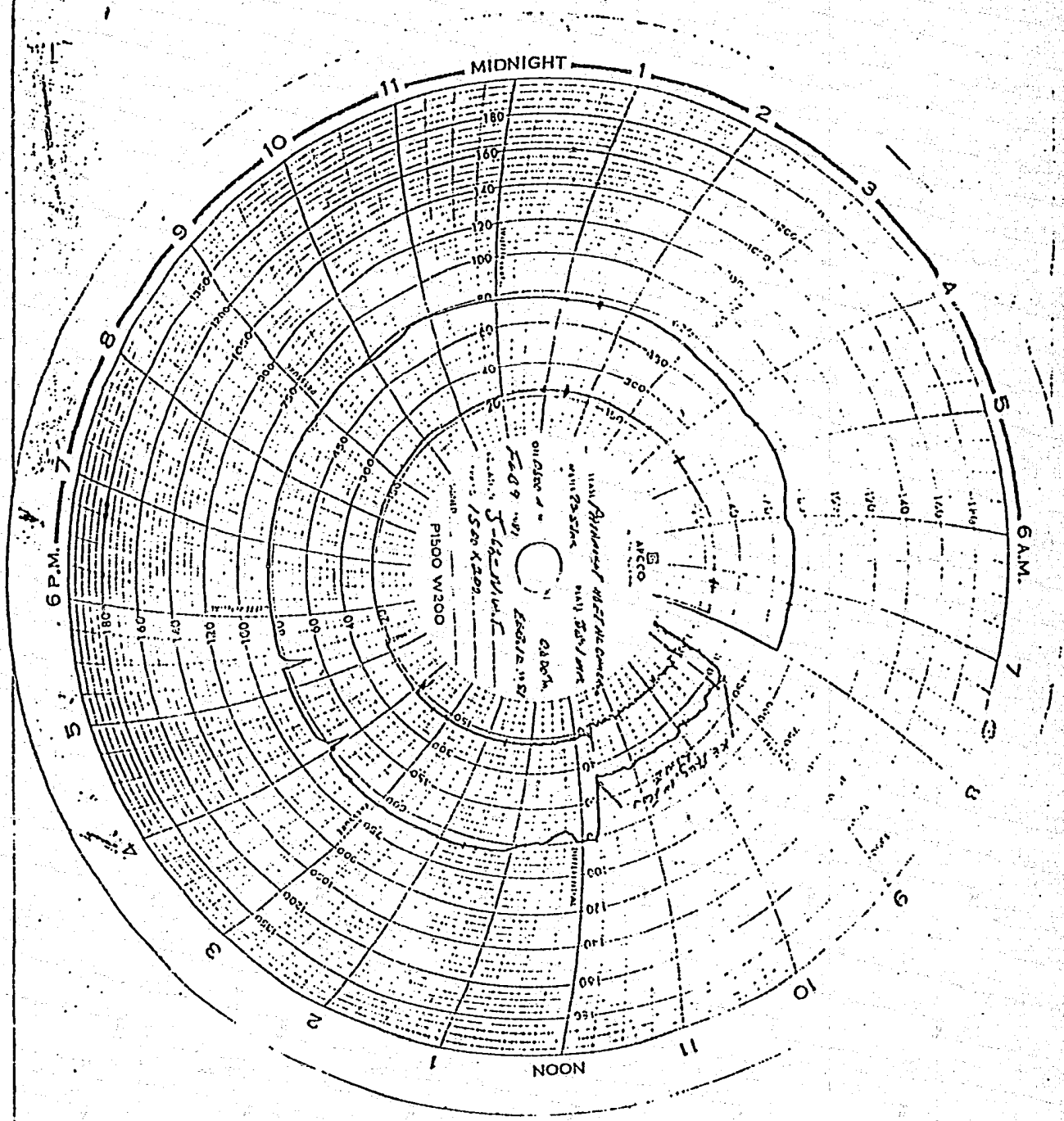
GAS PRODUCTION (24 hr.) $28.72 \times 10^3 xm^3$
GAS PRODUCTION CUMULATIVE 91.25×10^3
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

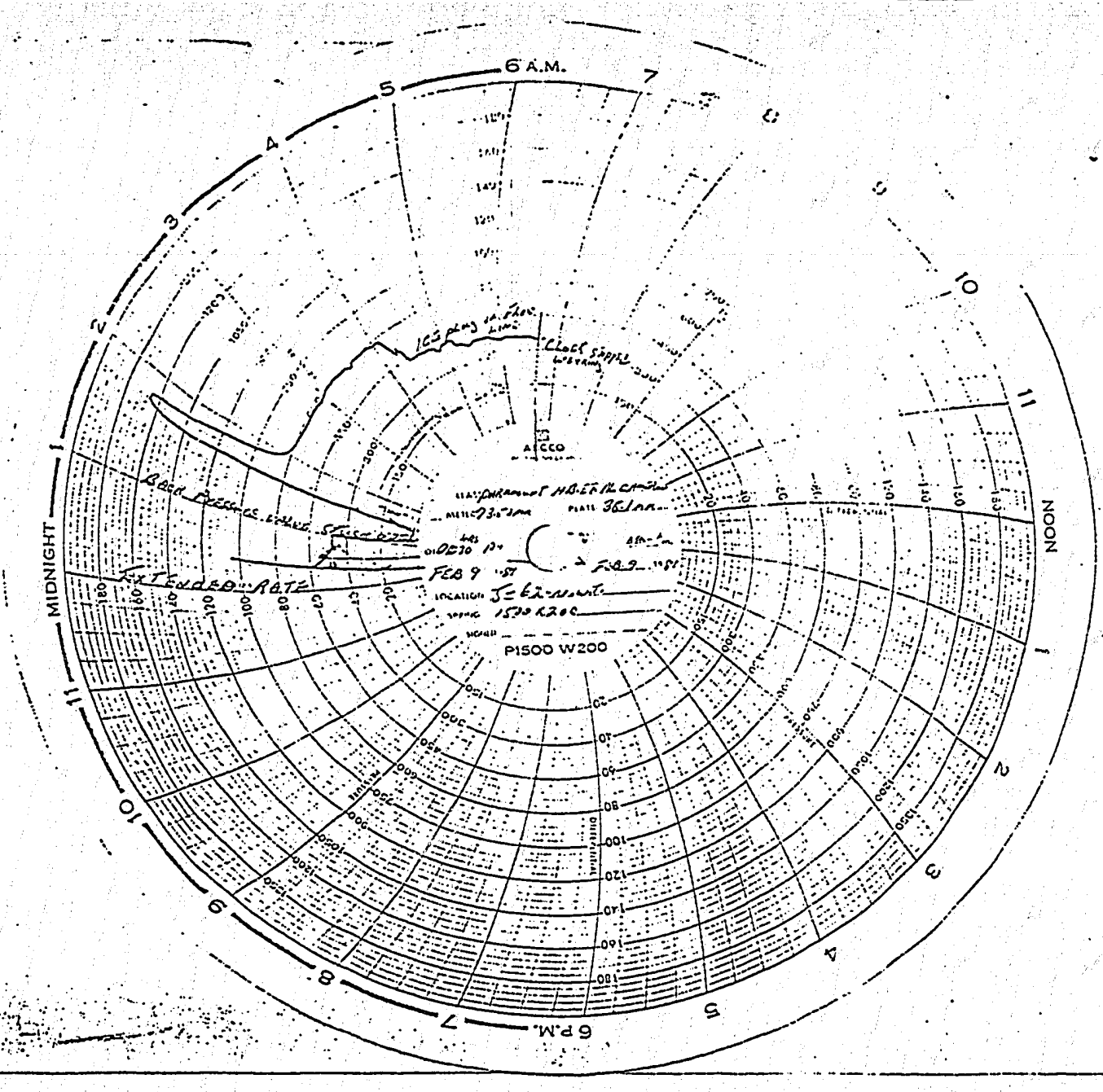
LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. Cond.
OPENING GAUGE			
PLUS PRODUCTION			
TOTALS			
MINUS SHIPPING			
EQUALS CLOSING GAUGE			

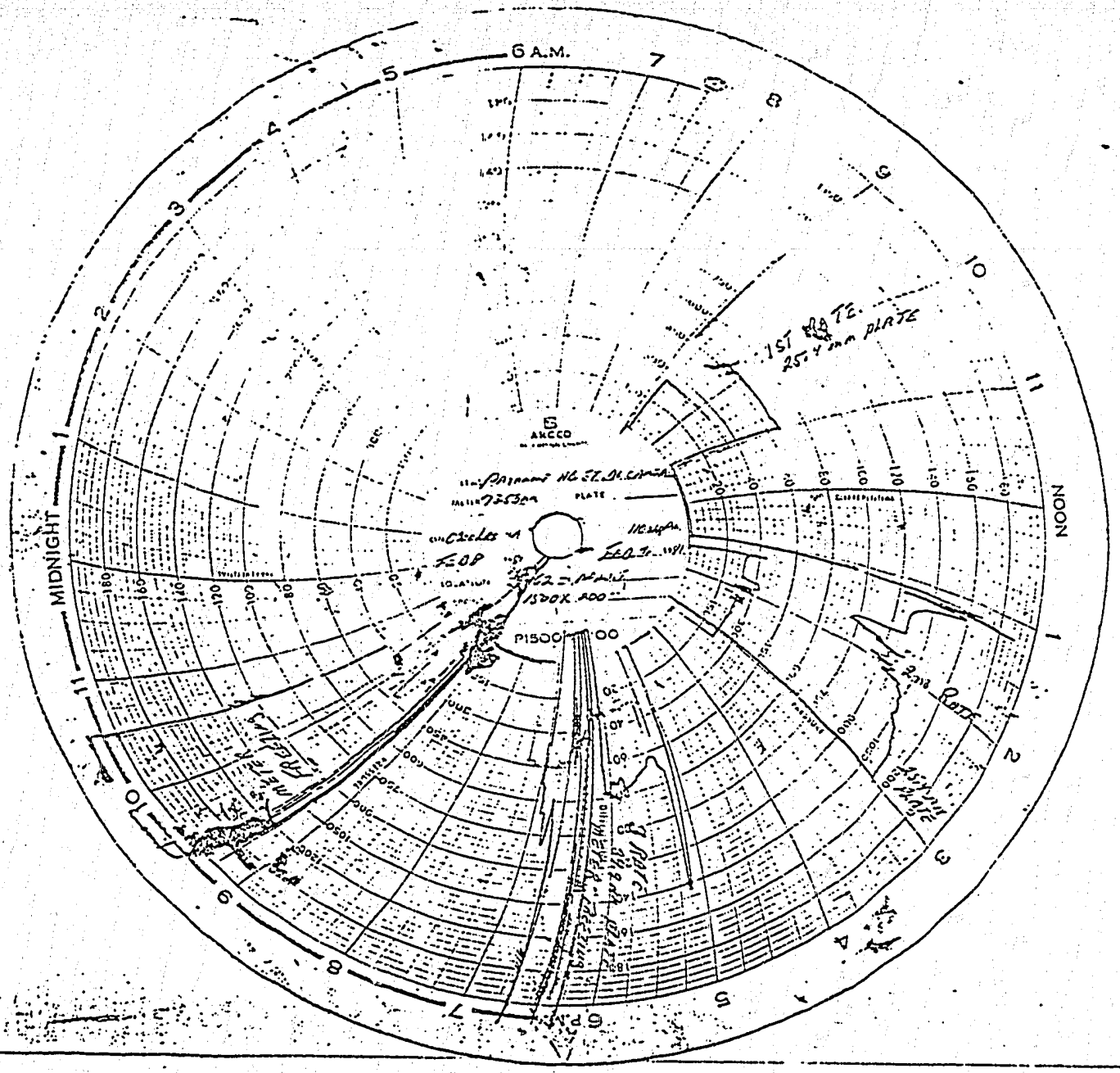
19.18

19.19


6 A.M.
NOON
6 P.M.
MIDNIGHT
ARCCO
Paramount Metal Division
Feb 10 '81
Feb 12 '81
J-62 - N.W.T.
1500 x 200
P1500 W200
2310 m.


MIDNIGHT
NOON
6 P.M.
6 A.M.
1
2
3
4
5
7
8
9
10
11
12
AFCO
P1500 W200


6 A.M.
NOON
6 P.M.
MIDNIGHT
AICCO
P1500 W200
EXTENDED RATE
FEB 9
FEB 9
PRESSURE
DIFFERENTIAL


6 A.M.
NOON
6 P.M.
MIDNIGHT
AKCCO
1ST PLATE
25.4 mm PLATE
P1500
1500X 400
PLATE
Rate
ASTRAL PLATE

RECEIVED
MAR 19 1981
FARRIES ENGINEERING (1977) LTD.

PARAMOUNT RESOURCES LTD.

PARAMOUNT H.B.

J-62

February 7-16, 1981

ALMECH SUB-SURFACE TOOLS LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY,ALBERTA.
FIELD & POOL : SULFER POINT
YPE OF TEST : GRADIENT
ROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
OOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

UBING PRES : 8384 KPAG
CASING PRES : N/A
UN DEPTH TOP CF : 1381.7
EMPERATURE AT RUN DEPTH : 55.6 C
GRAD. AT RUN DEPTH TOP : 2.980
PRES. AT RUN DEPTH TOP : 9603.3

SHUT-IN TIME : N/A 2015 hrs Feb 4/81
ON BOTTOM/OFF BOTTOM : 12:01 - 12:06
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9609.2
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

LEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
AL. EQUATION : 320.81 * Defl. + 10.17

CLOCK RANGE : 3 HOURS
LATEST CALIBRATION : 19/11/80

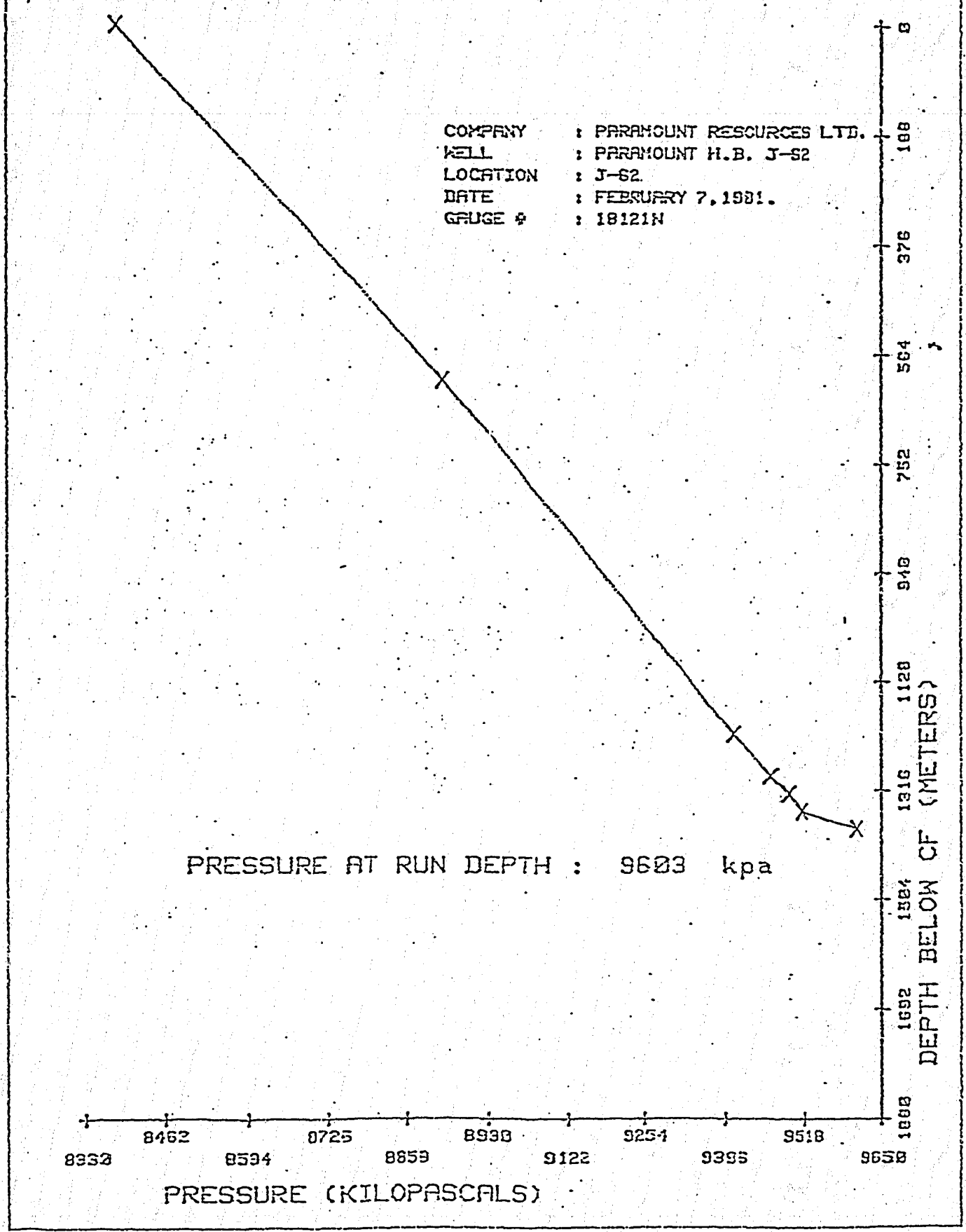
TOP RECORDER DEPTH (m-cf)	DEFLECTION mm	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/m
-1.8	26.085	8378.4	1.0	8379.4	0.000
607.8	27.765	8917.4	-.4	8917.0	.882
1217.4	29.272	9400.8	-1.6	9399.2	.791
1290.2	29.466	9463.1	-1.8	9461.3	.853
1320.7	29.552	9490.7	-1.9	9488.8	.902
1351.2	29.626	9514.4	-1.9	9512.5	.776
1381.7	29.910	9605.5	-2.2	9603.3	2.980

EMARKS :

O TOP CHART DUE TO CLOCK FAILURE.

URVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

NTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-52
LOCATION : J-52.
DATE : FEBRUARY 7,1981.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9603 kpa
DEPTH BELOW CF (METERS)
0
188
376
564
752
940
1128
1316
1504
1692
1880
8330
8462
8594
8725
8859
8998
9122
9254
9395
9518
9650
PRESSURE (KILOPASCALS)

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY,ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : FOUR POINT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7 - 16,1981
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF: 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : 0 KPAG
RUN DEPTH CF : 1368.2
TEMPERATURE AT RUN DEPTH : 55.6 C
PRES. AT RUN DEPTH : 0.0

SHUT-IN TIME : FEB.10 2310h.1981
ON/OFF BOT. : 7/2-1342h - 16/2-1105h
SURFACE TEMP. :
PRES. AT MID-POINT OF PERF. : 29.0
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CAL. EQU. : 320.81 * Defl. + 10.17

CLOCK RANGE : 180 HOURS
LATEST CALIBRATION : 19/11/80

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
Depth : 1368.2 m-cf						
ON BOTTOM	0.00	29.650	9522.1	-1.9	9520.2	9549.2
FEB.7 1342h.	4.00	29.653	9523.1	-1.9	9521.1	9550.1
	8.00	29.653	9523.1	-1.9	9521.1	9550.1
	12.00	29.653	9523.1	-1.9	9521.1	9550.1
	16.00	29.645	9520.5	-1.9	9518.6	9547.6
FEB.8 0900h.	19.30	29.658	9524.7	-1.9	9522.7	9551.7
FLOW RATE #1	0.00	29.658	9524.7	-1.9	9522.7	9551.7
	.25	26.983	8666.5	.2	8666.7	8695.8
	.50	20.805	6684.6	2.8	6687.3	6716.3
	.75	20.722	6657.9	2.8	6660.7	6689.7
	1.00	21.764	6992.2	2.5	6994.7	7023.7
	1.50	22.659	7279.3	2.2	7281.5	7310.6
FEB.8 1100h.	2.00	23.197	7451.9	2.0	7454.0	7483.0
SHUT IN	0.00	23.197	7451.9	2.0	7454.0	7483.0
	.25	28.445	9135.5	-1.0	9134.6	9163.6
	.50	29.052	9330.2	-1.4	9328.8	9357.8
	.75	29.231	9387.7	-1.6	9386.1	9415.1
	1.00	29.286	9405.3	-1.6	9403.7	9432.7
FEB.8 1300h.	2.00	29.317	9415.3	-1.7	9413.6	9442.6
FLOW RATE #2	0.00	29.317	9415.3	-1.7	9413.6	9442.6

REMARKS :

GRADIENT OF 1.878 KPAG/M WAS USED TO EXTRAPOLATE TO MPP.
GRADIENT WAS TAKEN FROM TEST DONE ON FEB.7 1981.
NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS(1976)LTD. TEST BY : D.B.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	.25	18.901	6073.7	3.4	6077.1	6106.1
	.50	18.634	5988.1	3.5	5991.6	6020.6
	.75	19.113	6141.7	3.3	6145.1	6174.1
	1.00	19.717	6335.5	3.1	6338.6	6367.6
	1.50	20.197	6489.5	3.0	6492.5	6521.5
FEB.8 1500h.	2.00	20.062	6446.2	3.0	6449.2	6478.2
SHUT IN	0.00	20.062	6446.2	3.0	6449.2	6478.2
	.25	28.213	9061.1	-.8	9060.3	9089.3
	.50	29.029	9322.9	-1.4	9321.4	9350.5
	1.00	29.213	9381.9	-1.6	9380.3	9409.3
EB.8 1700h.	2.00	29.269	9399.9	-1.6	9398.2	9427.3
LOW RATE #3	0.00	29.269	9399.9	-1.6	9398.2	9427.3
	.25	13.641	4386.3	5.4	4391.6	4420.7
	.50	14.212	4569.5	5.1	4574.6	4603.6
	.75	14.221	4572.4	5.1	4577.5	4606.5
	1.00	14.631	4703.9	5.0	4708.9	4737.9
	1.50	14.517	4667.3	5.0	4672.3	4701.4
EB.8 1900h.	2.00	14.831	4768.1	4.9	4773.0	4802.0
SHUT IN	0.00	14.831	4768.1	4.9	4773.0	4802.0
	.25	24.075	7733.6	1.8	7735.4	7764.4
	.50	28.540	9166.0	-1.0	9165.0	9194.0
	.75	29.283	9404.4	-1.6	9402.7	9431.7
	1.00	29.431	9451.8	-1.8	9450.1	9479.1
EB.8 2100h.	2.00	29.594	9504.1	-1.9	9502.2	9531.2
LOW RATE #4	0.00	29.594	9504.1	-1.9	9502.2	9531.2
	.25	11.099	3570.8	5.8	3576.6	3605.6
	.50	12.189	3920.5	5.7	3926.2	3955.2
WELL FREEZING OFF	.75	11.927	3836.4	5.7	3842.1	3871.1
	1.00	11.982	3854.1	5.7	3859.8	3888.8
	1.25	10.287	3310.3	5.8	3316.1	3345.1
	2.00	13.840	4450.1	5.3	4455.4	4484.4
EXTENDED FLOW	3.00	14.040	4514.3	5.2	4519.5	4548.5
	3.50	13.677	4397.8	5.3	4403.2	4432.2
	3.75	13.617	4378.6	5.4	4384.0	4413.0
	4.00	23.918	7683.2	1.8	7685.0	7714.1
	4.50	28.445	9135.5	-1.0	9134.6	9163.6
	5.00	14.408	4632.4	5.1	4637.4	4666.4
	6.00	14.567	4683.4	5.0	4688.4	4717.4
	7.00	14.508	4664.4	5.0	4669.5	4698.5
	8.00	18.997	6104.5	3.4	6107.9	6136.9

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	9.00	20.034	6437.2	3.0	6440.2	6469.2
	10.00	20.111	6461.9	3.0	6464.9	6493.9
	11.00	20.998	6746.5	2.7	6749.2	6778.2
	12.00	20.416	6559.8	2.9	6562.7	6591.7
	13.00	20.056	6444.3	3.0	6447.3	6476.3
	14.00	20.193	6488.2	3.0	6491.2	6520.2
	14.25	20.193	6488.2	3.0	6491.2	6520.2
	14.50	16.904	5433.1	4.1	5437.2	5466.2
	15.00	14.448	4645.2	5.0	4650.2	4679.3
	16.00	13.697	4404.3	5.3	4409.6	4438.6
	17.00	13.641	4386.3	5.4	4391.6	4420.7
	18.00	13.664	4393.7	5.3	4399.0	4428.0
	19.00	13.462	4328.9	5.4	4334.3	4363.3
	20.00	13.309	4279.8	5.5	4285.3	4314.3
	24.00	13.218	4250.6	5.5	4256.1	4285.1
	28.00	13.132	4223.0	5.5	4228.5	4257.6
	32.00	13.068	4202.5	5.6	4208.0	4237.1
	36.00	13.027	4189.3	5.6	4194.9	4223.9
	40.00	13.107	4215.0	5.5	4220.5	4249.5
	44.00	13.069	4202.8	5.6	4208.4	4237.4
	48.00	12.874	4140.2	5.6	4145.9	4174.9
EB.10 2310h.	50.17	12.899	4148.3	5.6	4153.9	4182.9
SHUT IN	0.00	12.899	4148.3	5.6	4153.9	4182.9
	.25	22.504	7229.6	2.3	7231.9	7260.9
	.50	26.680	8569.3	.5	8569.8	8598.8
	.75	27.664	8885.0	-.3	8884.7	8913.7
	1.00	27.690	8893.3	-.3	8893.0	8922.0
	1.25	28.464	9141.6	-1.0	9140.6	9169.7
	1.50	28.532	9163.4	-1.0	9162.4	9191.4
	1.75	28.514	9157.7	-1.0	9156.6	9185.7
	2.00	28.399	9120.8	-.9	9119.8	9148.9
	2.50	28.313	9093.2	-.8	9092.3	9121.3
	3.00	28.192	9054.4	-.7	9053.6	9082.6
	4.00	28.228	9065.9	-.8	9065.1	9094.1
	5.00	28.288	9085.2	-.8	9084.3	9113.3
	6.00	28.353	9106.0	-.9	9105.1	9134.1
	8.00	28.500	9153.2	-1.0	9152.2	9181.2
	10.00	28.600	9185.2	-1.1	9184.2	9213.2
	14.00	28.762	9237.2	-1.2	9236.0	9265.0
	18.00	28.865	9270.3	-1.3	9269.0	9298.0

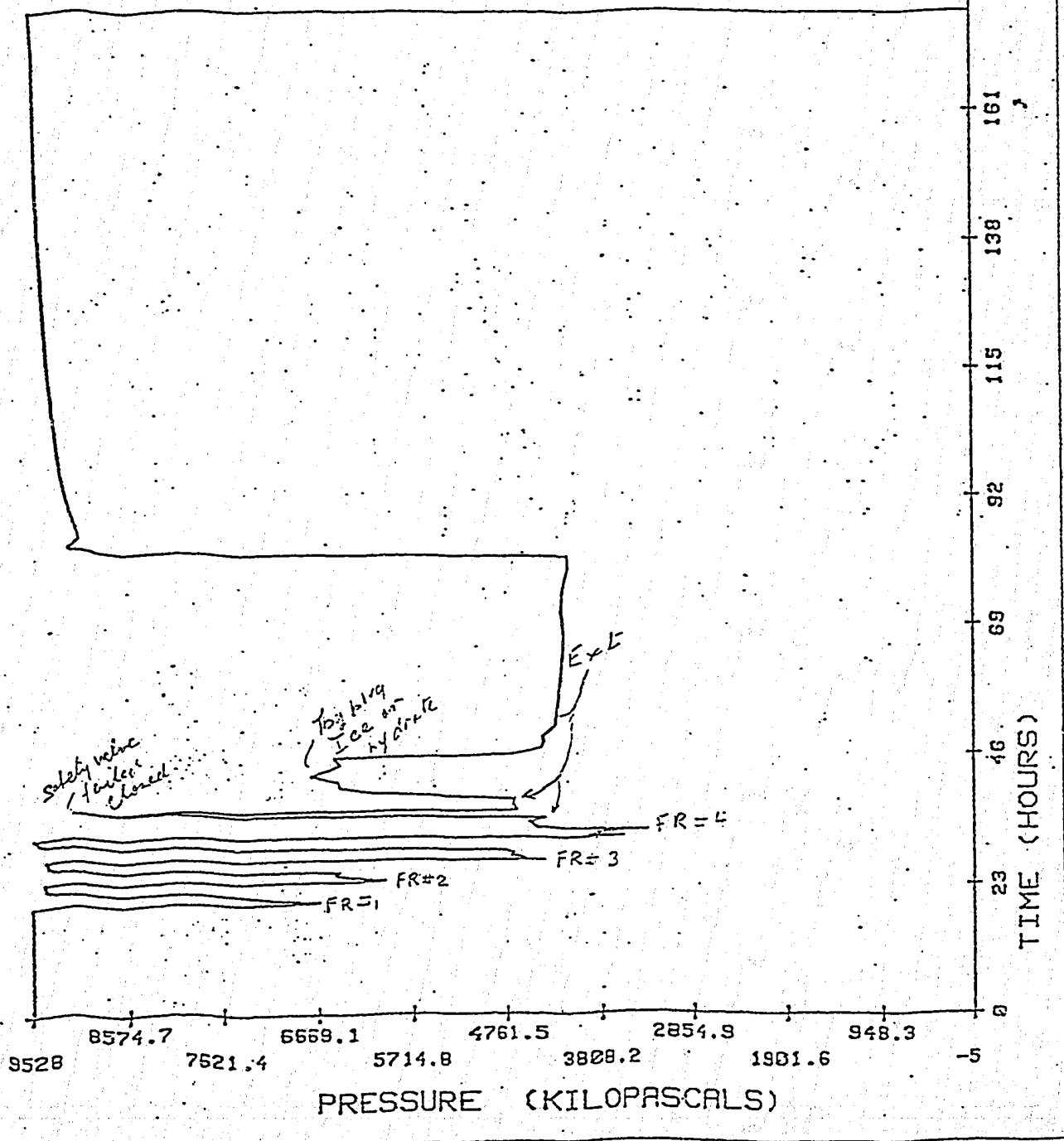
1 psia vs psig
1 atm = 14.7 psi
= 101.3 kPa

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	26.00	29.016	9318.7	-1.4	9317.3	9346.3
	34.00	29.140	9358.5	-1.5	9357.0	9386.0
	42.00	29.222	9384.8	-1.6	9383.2	9412.2
	50.00	29.287	9405.6	-1.6	9404.0	9433.0
	58.00	29.361	9429.4	-1.7	9427.7	9456.7
	66.00	29.409	9444.8	-1.7	9443.0	9472.0
	74.00	29.445	9456.3	-1.8	9454.6	9483.6
	82.00	29.460	9461.1	-1.8	9459.4	9488.4
	90.00	29.485	9469.2	-1.8	9467.4	9496.4
CLOCK EXPIRED	97.00	29.565	9494.8	-1.9	9493.0	9522.0
OFF BOTTOM	0.00	0.000	10.2	-10.2	0.0	29.0
FEB.16 1105h.	0.00	0.000	10.2	-10.2	0.0	29.0

COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 7 - 16, 1981
GAUGE # : 18121N



SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY, ALBERTA.
IELD & POOL : SULFER POINT
YPE OF TEST : GRADIENT
PROD. INT CF : 1381.4 to 1385.9
LEV.(CF) : 751.9 (KB) : 755
OOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 16,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

UBING PRES : 8384 KPAG
ASING PRES : 0 KPAG
UN DEPTH TOP CF : 1381.7
EMPERATURE AT RUN DEPTH : 55.6 C
GRAD. AT RUN DEPTH TOP : 1.416
RES. AT RUN DEPTH TOP : 9507.4

SHUT-IN TIME : FEB.10 2310h.1981
ON BOTTOM/OFF BOTTOM : 13:46 - 13:51
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9510.1
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
ANGE : 0 - 16200
AL. EQUATION : 320.81 * Defl. + 10.17

CLOCK RANGE : 3 HOURS
LATEST CALIBRATION : 19/11/80

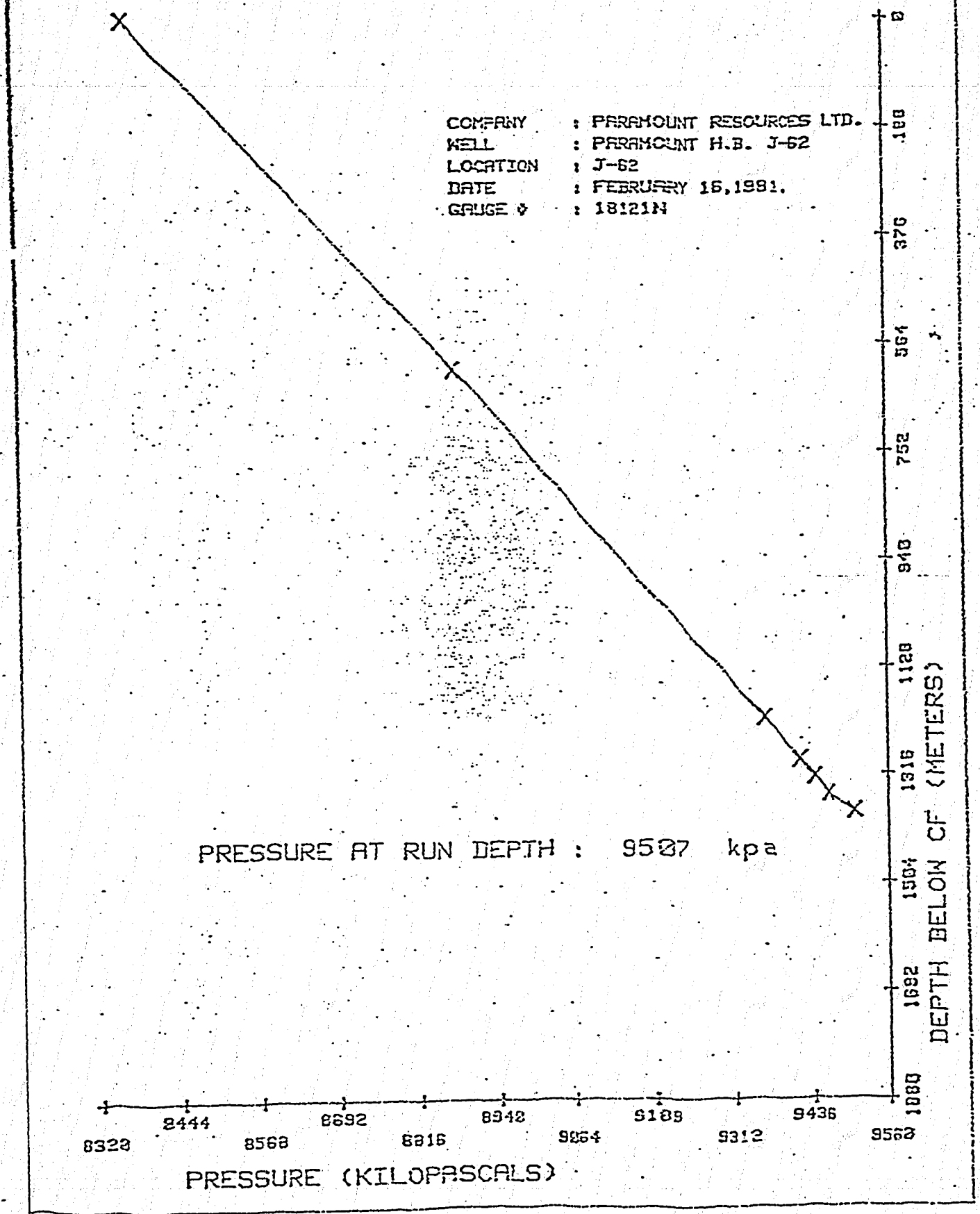
TOP RECORDER DEPTH (M-CF)	DEFLECTION MM	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/M
-1.8	26.047	8366.2	1.0	8367.2	0.000
607.8	27.640	8877.3	-.3	8877.0	.836
1217.4	29.147	9360.7	-1.5	9359.2	.791
1290.2	29.333	9420.4	-1.7	9418.7	.818
1320.7	29.401	9442.2	-1.7	9440.5	.713
1351.2	29.475	9465.9	-1.8	9464.2	.776
1381.7	29.610	9509.3	-1.9	9507.4	1.416

EMARKS :

NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

NTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 16,1991.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9507 kpa
DEPTH BELOW CF (METERS)
0
188
376
564
752
940
1128
1316
1504
1692
1880
8320
8444
8568
8692
8816
8940
9064
9188
9312
9436
9560
PRESSURE (KILOPASCALS)

(403) 276-9627
Telex 038-25541

CHEMEX LABS (ALBERTA) LTD.

(403) 465-9977
Telex 037-41598

21.1

GAS ANALYSIS

CONTAINER IDENTITY: 866

LABORATORY NUMBER: 9076-4-2543/1

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00 GRD 751.94

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: S. BARKHOUSE

COMPANY: TESTMASTER

TEST RECOVERY:

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1384.5 m TO: 1389.0 m KB

SAMPLING POINT: METER RUN

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m^3/d OIL TRACE m^3/d GAS 46.6 $10^3m^3/d$

GAUGE PRESSURE - kPa: SEPARATOR ~~1376~~ 1310 TREATER: RESERVOIR:

TEMPERATURES °C: SEPARATOR 40 TREATER: RESERVOIR:

DATE SAMPLED (Y M D H:M): 1981-02-10

DATE RECEIVED (Y M D): 1981-02-19

DATE REPORTED (Y M D): 1981-01-19

ANALYST: G. HOWE

COMP	MOL FRACTION AIR FREE AS RECD	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME mL·m⁻³ AIR FREE AS RECD
H_2	0.0000	0.0000	
He	0.0008	0.0008	
N_2	0.0445	0.0461	
CO_2	0.0353	0.0000	
H_2S	0.0000	0.0000	
C_1	0.8944	0.9273	
C_2	0.0137	0.0142	
C_3	0.0056	0.0058	20.49
IC_4	0.0009	0.0009	3.91
nC_4	0.0018	0.0019	7.54
IC_5	0.0006	0.0006	2.92
nC_5	0.0007	0.0007	3.37
C_6	0.0008	0.0008	4.30
C_7	0.0009	0.0009	5.41
C_8			
C_9			
C_{10}			
TOTAL	1.0000	1.0000	47.94

GROSS HEATING VALUE
$MJ.m^{-3}$ @ 15°C AND 101.325 kPa

(MOISTURE AND ACID GAS FREE)

MEASURED: CALCULATED: 37.000 DEW POINT: VAPOUR PRESS PENTANES PLUS: 63.000

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED: MEASURED: CALCULATED: ~~0.000~~ 0.626

MOISTURE AND ACID GAS FREE: MEASURED: ~~0.000~~ 0 CALCULATED: 0.593

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED: pPc 4673.0 kPa pTc 196.0 °K

ACID GAS FREE: pPc 4573.0 kPa pTc 192.0

REMARKS

ON-SITE H_2S ANALYSIS BY TUTWILER WAS 0.68% @ 1400K FEB 10 1981

DETERMINATIONS TO C7+ ONLY

Well File

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

21.2

COMPANY	Paramount Resources Ltd.	PAGE	1 of 1
WELL	Paramount HB et al Cameron J-62	FILE	7011-81-77
		DATE	1981 02 16

Sampled From: Separator Gas
Date Sampled: 1981 02 10

Analysis

on site

Hydrogen Sulphide = 0.0068 mole fraction

Remarks

Hydrogen sulphide determined by Tutwiler.

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Telex 038-25541

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Edmonton, Canada T6E 6K9
(403) 486-6877
Telex 037-41528

CONDENSATE ANALYSIS

CONTAINER IDENTITY: PLASTIC BOTTLE

LABORATORY NUMBER: 22.1 9076-A-2543/3

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00 GRD 751.94

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1364.5 m TO: 1369.6 m KB

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m^3/d OIL TRACE m^3/d GAS 48.6 $10^3m^3/d$

GAUGE PRESSURE - kPa: SEPARATOR 1310 TREATER RESERVOIR

TEMPERATURES °C: SEPARATOR 40 TREATER RESERVOIR

DATE SAMPLED Y M D H:M: 1981-02-10

DATE RECEIVED Y M D: 1981-02-19

DATE REPORTED Y M D: 1981-02-19

ANALYST: G. HOWE

COMP	MOL FRACTION	MASS FRACTION	VOLUME FRACTION
N_2	0.0000	0.0000	0.0000
CO_2	0.0000	0.0000	0.0000
H_2S	0.0000	0.0000	0.0000
C_1	0.0000	0.0000	0.0000
C_2	0.0003	0.0001	0.0001
C_3	0.0017	0.0005	0.0007
IC_4	0.0010	0.0004	0.0005
NC_4	0.0033	0.0012	0.0016
IC_5	0.0051	0.0024	0.0029
NC_5	0.0067	0.0031	0.0037
C_6	0.0267	0.0149	0.0168
C_{7+}	0.9552	0.9774	0.9737
C_8			
C_9			
C_{10}			
C_{11}			
C_{12}			
TOTAL	1.0000	1.0000	1.0000

PROPERTIES OF RESIDUE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY $kg.m^{-3}$ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
0.792		791		158

PROPERTIES OF TOTAL SAMPLE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY $kg.m^{-3}$ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
	0.788	788		155

REMARKS

SAMPLE APPEARS TO CONTAIN GOOD PERCENTAGE DIESEL FUE

DETAILED COMPONENT SUMMARY

PROJECT NO. 9076-4-2543/3
NAME PARAMOUNT RESOURCES
LOCATION PARAMOUNT HB ET AL CAMERON J-62-NWT
SAMPLE POINT SEPARATOR

COMPONENT	BOILING POINT(C)	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
NITROGEN	-196	0.0000	0.0000	0.0000
CARBON DIOXIDE	-79	0.0000	0.0000	0.0000
HYDROGEN SULPHIDE	-60	0.0000	0.0000	0.0000
METHANE	-162	0.0000	0.0000	0.0000
ETHANE	-89	0.0003	0.0001	0.0001
PROPANE	-42	0.0017	0.0005	0.0007
ISO-BUTANE	-12	0.0010	0.0004	0.0005
N-BUTANE	-1	0.0033	0.0012	0.0016
ISO-PENTANE	28	0.0051	0.0024	0.0029
N-PENTANE	36	0.0067	0.0031	0.0037
HEXANES	69	0.0267	0.0149	0.0168
HEPTANES	98	0.0369	0.0241	0.0265
OCTANES	126	0.0595	0.0434	0.0465
NONANES	151	0.0396	0.0323	0.0338
DECANES	174	0.0918	0.0819	0.0844
UNDECANES	196	0.0980	0.0943	0.0958
DODECANES	216	0.1270	0.1315	0.1322
TRIDECANES	236	0.1130	0.1241	0.1234
TETRADECANES	253	0.1174	0.1364	0.1347
PENTADECANES	271	0.0813	0.0993	0.0972
HEXADECANES	287	0.0466	0.0596	0.0580
HEPTADECANES	302	0.0309	0.0422	0.0409
OCTADECANES	317	0.0138	0.0199	0.0191
NONADECANES	331	0.0082	0.0124	0.0119
EICOSANES	344	0.0048	0.0079	0.0076
HENEICOSANES	357	0.0022	0.0037	0.0036
DOCOSANES	369	0.0024	0.0042	0.0040
TRICOSANES	380	0.0021	0.0037	0.0035
TETRACOSANES	391	0.0013	0.0025	0.0023
PENTACOSANES	402	0.0008	0.0015	0.0014
HEXACOSANES	412	0.0005	0.0010	0.0009
HEPTACOSANES	422	0.0002	0.0005	0.0005
OCTACOSANES	432	0.0001	0.0002	0.0002
NONACOSANES	441	0.0001	0.0001	0.0001
TRIACONTANES+	449	0.0001	0.0001	0.0001
BENZENE	49	0.0005	0.0002	0.0002
TOLUENE	111	0.0083	0.0050	0.0043
XYLENE	139	0.0416	0.0285	0.0246
1,2,4-TRIMETHYLBENZENE	171	0.0062	0.0050	0.0043
CYCLOPENTANE	49	0.0003	0.0001	0.0001
METHYL CYCLOPENTANE	72	0.0034	0.0019	0.0019
CYCLOHEXANE	81	0.0046	0.0025	0.0024
METHYL CYCLOHEXANE	101	0.0117	0.0074	0.0073
TOTALS		1.0000	1.0000	1.0000

CALGARY
202 5 - 41 Avenue N E
Calgary, Canada T2E 6P2
(403) 276-9627
Telex 038-25541

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6112 Davies Road
Edmonton, Canada T6E 4
(403) 485-9877
Telex 037-41645

OIL ANALYSIS

CONTAINER IDENTITY: PLASTIC BOTTLE

LABORATORY NUMBER: 23. 9076-4-2543/4

LICENCE NO:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00 G 751.4

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST RECOVERY:

TEST TYPE: - NO

MULTIPLE RECOVERY:

EST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1384.5 m TO: 1389.0 m KB

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY:

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m³/d OIL TRACE m³/d GAS 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310 TREATER RESERVOIR

TEMPERATURES C: SEPARATOR 40 TREATER RESERVOIR

DATE SAMPLED (Y M D H:M): 81 02 10

DATE RECEIVED (Y M D): 81 02 19

DATE REPORTED (Y M D): 81 02 19

ANALYST: G. HOWE

SAMPLE PROPERTIES

VOLUME FRACTION

COLOR OF CLEAN OIL	WATER	BS	TOTAL BS & W
BLACK			

DENSITY

RELATIVE AS RECEIVED	RELATIVE AFTER CLEANING	ABSOLUTE kg m⁻³ AS RECEIVED	ABSOLUTE kg m⁻³ AFTER CLEANING
0.794		793	

TOTAL SULPHUR MASS FRACTION	TOTAL SALT g.m⁻³	POUR POINT °C USBM	POUR POINT °C ASTM
0.002			

CARBON RESIDUE

RVP	CONRADSON	RAMSBOTTOM
1.40		

VISCOSITY

TEMP °C	DYNAMIC mPa s	KINEMATIC mm²s⁻¹

VOLUME FRACTION DISTILLED	TEMP °C
.05	105
.10	125
.15	140
.20	150
.25	160
.30	170
.35	177
.40	185
.45	192
.50	200
.55	208
.60	215
.65	223
.70	230
.75	238
.80	245
.85	260
.90	282
.92	288
FBP	
CRACKED	

DISTILLATION

METHOD	BAROM PRESS kPa
D-86	92.79

ROOM TEMP °C	INITIAL BOIL PT C
21	47

DISTILLATION SUMMARY VOLUME FRACTION

204 C NAPTHA	274 C KEROSENE
0.53	0.88

343°C LIGHT GAS/OIL	RECOVERED
0.92	0.92

RESIDUE	DISTILLATION LOSS
0.05	0.03

RELATIVE DENSITY

DISTILLATE	RESIDUE

BASE TYPE

CHARACTERIZATION FACTOR

REMARKS

CALGARY
21 - 41 Avenue N.E.
Calgary, Canada T2E 6P2
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6112 Davies Road
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WATER ANALYSIS

CONTAINER IDENTITY: PLASTIC

LABORATORY NUMBER: 24. 9076-4-2543/2

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT H.B. ET AL CAMERON J-62-N.W.T.

ELEVATIONS METRES: KB 755.00 GRD 751.94

FIELD OF AREA: AMERON HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TESTMASTER

TEST TYPE: NO.: LTIPLE RECOVERY:

TEST RECOVERY:

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TEST INTERVAL
FROM: m
TO: m

PERFORATIONS
FROM: 1364.5 m
TO: 1369.0 m KB

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES
WATER: TRACE m³/d
OIL: TRACE m³/d
GAS: 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310; TREATER; RESERVOIR

TEMPERATURES °C: SEPARATOR 40; TREATER; RESERVOIR

DATE SAMPLED (Y M D H:M): 1981-02-10
DATE RECEIVED (Y M D): 1981-02-19
DATE REPORTED (Y M D): 1981-02-20
ANALYST: R.S & G.R

ION	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Na	2300		100
K	2900		74
Ca	520		22
Mg	180		8
Sr			
Fe	2		<1

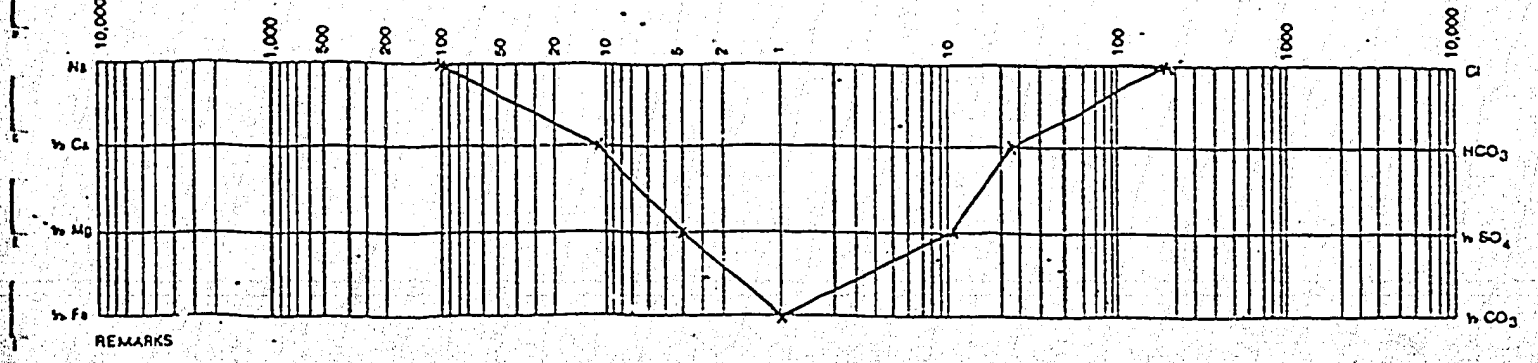
ION	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Cl	7000		197
Br			
I			
HCO_3	1552		25
SO_4	2150		22
CO_3			<1
OH			<1
H_2S	PRESENT		

TOTAL SOLIDS C/g.m⁻³

BY EVAPORATION @ 110°C	BY EVAPORATION @ 180°C
AT IGNITION	CALCULATED
15945	16604

RELATIVE DENSITY	REFRACTIVE INDEX
1.012 @ 21 °C	1.340 @ 25 °C
OBSERVED PH	RESISTIVITY Ω.m
7.8 @ 21 °C	0.666 @ 25 °C

LOGARITHMIC PATTERN C/mol.m⁻³



REMARKS

MACDONALD ENGINEERING & ASSOCIATES (1980) LTD.

NOMENCLATURE

SYMBOL	DESCRIPTION	UNITS FIELD	UNITS METRIC (SI)
a, a_t	Coefficients in the transient form of the deliverability equation	$\frac{psia^2}{(cp)(MMscfd)}$	$\frac{mPa^2}{(Pa.s)(m^3/d)}$
A	Drainage area	ft^2	m^2
AOF	Absolute open flow potential of a well or the deliverability against a zero sandface pressure	MMscfd	m^3/d
b	Coefficient in the stabilized deliverability equation	$\frac{psia^2}{(cp)(MMscfd)^2}$	$\frac{mPa^2}{(Pa.s)(m^3/d)^2}$
B	Formation volume factor	-	-
c	Compressibility of any substance	$psia^{-1}$	kPa^{-1}
$\bar{c}$	Compressibility of a gas at average conditions	$psia^{-1}$	kPa^{-1}
c_f	Formation compressibility	$psia^{-1}$	kPa^{-1}
c_g	Gas compressibility	$psia^{-1}$	kPa^{-1}
c_o	Oil Compressibility	$psia^{-1}$	kPa^{-1}
c_w	Water compressibility	$psia^{-1}$	kPa^{-1}
c_t	Total effective compressibility	$psia^{-1}$	kPa^{-1}
C	Coefficient in the deliverability equation	-	-
C_{sd}	Dimensionless wellbore storage constant	-	-
FE	Flow efficiency	-	-
G	Relative density of a gas	-	-
h	Net formation thickness	ft	m
k	Reservoir permeability	md	mD
kh	Permeability thickness of a formation	md.ft.	mD.m
m	Slope of the semilog straight line	$\frac{psia^2/cp}{cycle}$	$\frac{mPa^2/(Pa.s)}{cycle}$
MBH	Abbreviated form of Matthews, Brons and Hazelbroek	-	-
MDH	Abbreviated form of Miller, Dyes and Hutchinson	-	-

SYMBOL	DESCRIPTION	UNITS FIELD	UNITS METRIC (SI)
n	Reciprocal slope of the deliverability line	-	-
PI	Productivity index	mscfd/psi	$m^3/d/kPa$
p_c	Pseudo-critical pressure	psia	kPa
p_f	Flowing reservoir pressure at any position in the reservoir, except at the external boundary	psia	kPa
p_i	Initial stabilized shut-in pressure in a new reservoir	psia	kPa
p_r	Pseudo-reduced pressure	-	-
$\bar{p}_R$	Stabilized shut-in reservoir pressure	psia	kPa
p_{tf}, p_d	Flowing wellhead pressure	psia	kPa
p_{ts}, p_w	Static wellhead pressure	psia	kPa
$\bar{p}_{ts}$	Stabilized shut-in wellhead pressure	psia	kPa
p_{wf}, p_s	Flowing bottom hole pressure	psia	kPa
p_{ws}, p_f	Static bottom hole pressure	psia	kPa
p^*	Hypothetical reservoir pressure	psia	kPa
p_{1hr}	Extrapolated pressure corresponding to a 1 hour shut-in time on a Horner Plot	psia	kPa
q	Flow rate	MMscfd	m^3/d
r_d	Effective drainage radius	ft	m
r_e	Radius of external boundary	ft	m
r_{inv}	Radius of investigation	ft	m
r_w	Well radius	ft	m
s	Skin factor	-	-
s'	Apparent skin factor	-	-
t	Flowing time	hr	h
t_c	Corrected time of flow	hr	h

SYMBOL	DESCRIPTION	UNITS FIELD	METRIC (SI)
t_s	Time to stabilization	hr	h
t_{ws}	Time for wellbore storage effects to become negligible	hr	h
T	Reservoir temperature	^oR	K
T_c	Pseudo-critical temperature	^oR	K
T_r	Pseudo-reduced temperature	-	-
t*	Modified time	hr	hr
Δt	Shut-in time	hr	h
Z	Compressibility factor of a gas	-	-
μ_g	Gas viscosity	cp	μ Pa.s
μ_o	Oil viscosity	cp	m Pa.s
$\bar{\mu}$	Gas viscosity at average conditions	cp	μ Pa.s
ϕ	Porosity of the medium	-	-
ψ	Pseudo-pressure	$\frac{psia^2}{cp}$	$\frac{mPa^2}{Pa.s}$

ERCB GUIDE G-3 - Energy Resources Conservation Board
"Gas Well Testing - Theory and Practice"
Fourth Edition 1979 (Metric)

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PARAMOUNT RESOURCES LIMITED

PARAMOUNT HB et al CAMERON J-62
N.W.T.

A.O.F. TEST REPORT

February, 1981

FARRIES ENGINEERING (1977) LTD.
Petroleum Consultants
Second Floor, 630 - 6 Avenue S. W.
Calgary, Alberta
T2P 0S8

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- A.O.F.
- Build-up

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- Back Pressure Test Analysis
- Pseudo Pressures - Imperial
- Pseudo Pressures - S.I.
- Build-up

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FLUID ANALYSIS

PRESSURE SURVEY

PARAMOUNT RESOURCES LIMITED
#1800, 717 - 7 Avenue S. W.
Calgary, Alberta
T2P 0Z3

COMPLETION REPORT
for
PARAMOUNT HB et al CAMERON J-62
N.W.T.

Sulphur Point Gaswell

WELL DATA

Well Name:	Paramount HB et al Cameron J-62
Location:	Northwest Territories Unit J, Section 62 Latitude: 60° 01' 31.00" North, 60.0253° North Longitude: 117° 26' 50.00" West, 117.4472° West
Elevations:	K.B.: 755.00 metres Ground: 751.94 metres
Total Depth:	1,605 metres K.B.
Plug Back Total Depth:	1,481.75 metres K.B.
Surface Casing:	244.5 mm, 48.1 kg/m, set at 524.00 metres K.B.
Production Casing:	139.7 mm, 23.10 kg/m, J-55, set at 1,605 metres K.B.
Tubing:	73.0 mm, 9.67 kg/m, J-55, EUE, 8rd thd., set in a packer at 1,375.52 metres K.B. Tubing bottom at 1,381.56 metres K.B.
Perforations:	1384.5 - 1389.0 m. KB using a 38.7 mm thru tubing gun @ 13 JSPM.
Wellhead:	244.5 mm x 139.7 mm x 73.0 mm, 13790 kPa W.P.
Nipples:	Baker 'F' at 1,379.03 m. KB, I.D. 58.72 mm. Baker 'R' at 1,381.17 m. KB, I.D. 57.15 & 55.80 mm.
Packer:	Baker Model FB-1 permanent retainer production packer set on wireline at 1,375.52 metres K.B.
Sliding Sleeve:	Baker Model 'L' at 1,372.19 m. KB, I.D. 58.72 mm.

...continued

PARAMOUNT RESOURCES LIMITED

COMPLETION REPORT
for
PARAMOUNT HB et al CAMERON J-62
N.W.T.

Sulphur Point Gaswell

WELL DATA, continued

Status:	Shut-in Sulphur Point Gaswell	
	A.O.F. =	2.22 MMCF/D, 62.54 x $10^3 m^3$/day
	n =	1.2888
	c =	0.17018 x 10^{-7}
Stimulations:	None	

TEST SUMMARY

INTRODUCTION

The Paramount HB et al Cameron J-62 well was drilled in February, 1980 to a total depth of 1,605 metres. The well encountered 10 metres (30 feet) of porosity (maximum 16%) in the Sulphur Point from 1,384 metres to 1,395 metres K.B. A drill stem test over the interval 1,383 metres to 1,395 metres yielded gas to surface in 2-1/2 minutes, and near the end of the five hour flow period the well was producing sour gas at a rate of 64.853 10^3m^3 per day (2.302 MMCF/D) through a 1/2" bottom hole choke. A fine spray of water was present throughout the flow period. The drill pipe recovery consisted of 12 metres of ammonia water and 28 metres (7.3 bbls.) of sulphurous salt water, with a salinity of 26800 ppm. The initial and final shut-in pressures were 9620 kPag (1395.2 psig) and 9495 kPag (1377.1 psig), after a ten hour shut-in period for build-up. Casing was run to total depth (1,605 metres) and the well remained suspended until January, 1981.

A service rig was moved onto the well on January 28, 1981, and a permanent packer was set on wireline on January 31, 1981 at a depth of 1,375.52 metres K.B. Tubing (73 mm), a seal assembly and a sliding sleeve were run in and the wellhead installed. The well was perforated in an underbalanced condition over the interval 1,384.5 metres to 1,389.0 metres at 13 JSPM. A shut-in tubing pressure of 931 kPa was recorded immediately after the gun fired.

The well was flowed to clean it up for a total of 15 hours at rates of 52.39 $10^3m^3/D$ (1.86 MMCF/D) and 43.92 $10^3m^3/D$ (1.56 MMCF/D). The well did not appear to be producing any water spray at the end of the clean-up period.

A.O.F. TEST

Following the clean-up period, the well was shut-in for a period of 156.75 hours. Near the end of the shut-in period a bottom pressure and gradient was run, and gave a pressure of 9609.2 kPag. Bottom hole bombs, using 180 hour clocks, were run in the hole and recorded the final 19-1/2 hours of the build-up prior to starting the A.O.F. test. The maximum pressure recorded by these bombs prior to the start of the test was 9551.7 kPag.

A four-point modified isochronal A.O.F. test commenced at 0900 hours on February 8, 1981, and consisted of four 2-hour flow periods and three 2-hour shut-in periods. The extended rate commenced at 2300 hours on February 8, 1981, and the well was shut-in at 2310 hours on February 10, 1981.

The surface test equipment consisted of a 750,000 BTU choke heater, a three-phase separator, and the required liquid and gas meters. A wellhead safety shut-down valve was used during the test. Liquid production was piped to a 63.6 m^3 tank and gas was flare through a 4 metre vertical riser. All flow from the well was up the tubing, and bottom hole pressure bombs were in place during the test. A total of 97 hours of pressure build-up after the flow test was recorded on the bombs before they were pulled on February 16, 1981. A final shut-in pressure of 9522.0 kPag was recorded by the extended time bombs. A static gradient run made on the same day recorded a shut-in pressure of 9510.1 kPag.

Only two of the four 2-hour flow rates were used in the calculations, as the gas meter and the wellhead above the flow tee were frozen off due to cold and wind. All surface pressure readings were obtained with a dead weight gauge. Gas and liquid samples were obtained at the end of the extended rate.

Liquid production during the test consisted of 0.32 m^3 (2 bbls.) of water and a trace of condensate. The water is likely load water, as the resistivity is about ten times the value of Sulphur Point formation water from other wells in the area. The condensate sample appears to contain a good percentage of diesel fuel, and this could be from the diesel fuel circulated into the top of the annulus to prevent freezing.

Flow rates were calculated using a computer program and the surface recorded pressures, along with the gas analysis. A hydrogen sulphide content of 0.68% was used, as this was the value obtained by an on-site Tutwiler analysis at 1400 hours on February 10, 1981.

The A.O.F. was calculated by the conventional method, and gave a value of 2.22 MMCF/D or 62.535 10^3m^3 per day. Only the first two flow rates and the extended rate were used in the calculation due to meter freezing problems on Rate No. 3 and No. 4. Hydrate formation in the tubing and wellhead was experienced on both the clean-up and extended rate flow periods. At an A.O.F. of 2.22 MMCF/D, the inverse slope of the line has a value of 1.2888. If this slope is reduced to 1.000 (45 degrees), then the A.O.F. is reduced slightly to 2.05 MMCF/D.

The total gas production from the well consisted of 28.82 10^3m^3 (1.023 MMCF) during the 15 hour clean-up period and 91.25 10^3m^3 (3.24 MMCF) during the 56 hour flow test period.

BUILD-UP

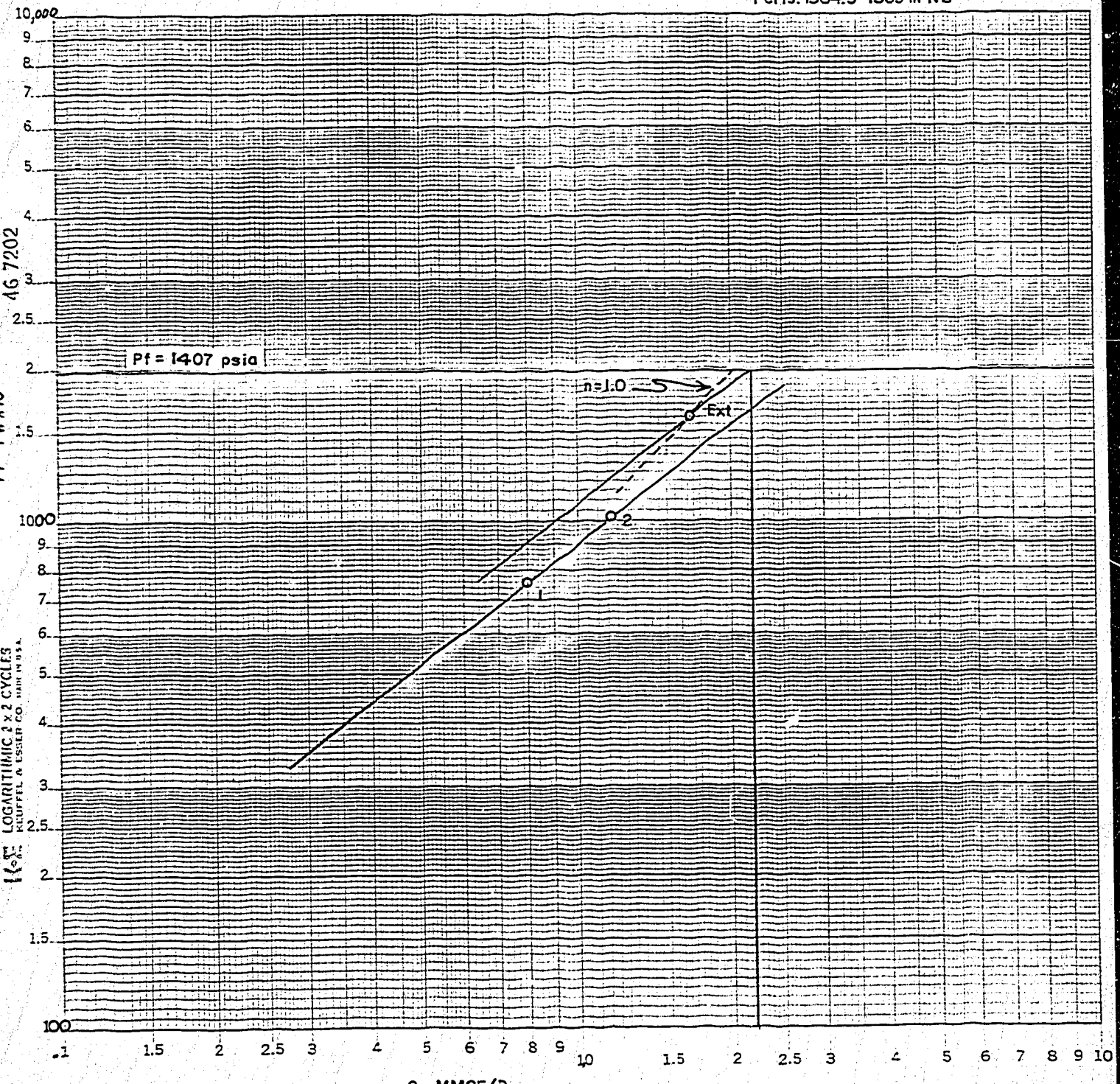
A Horner type buildup plot was prepared using the pressure recorded by the bottom hole bombs. The final extrapolated pressure from this plot was 9701.3 kPaa (1407 psia), and this compares closely with pressures of 9644.2 kPaa (1398.7 psia), and 9701.7 kPaa (1407.1 psia) recorded before the test. These figures also compare closely with the initial shut-in pressure of 9712.5 kPaa (1408.6 psia) recorded on the drill stem test run on March 7, 1980.

CONCLUSION

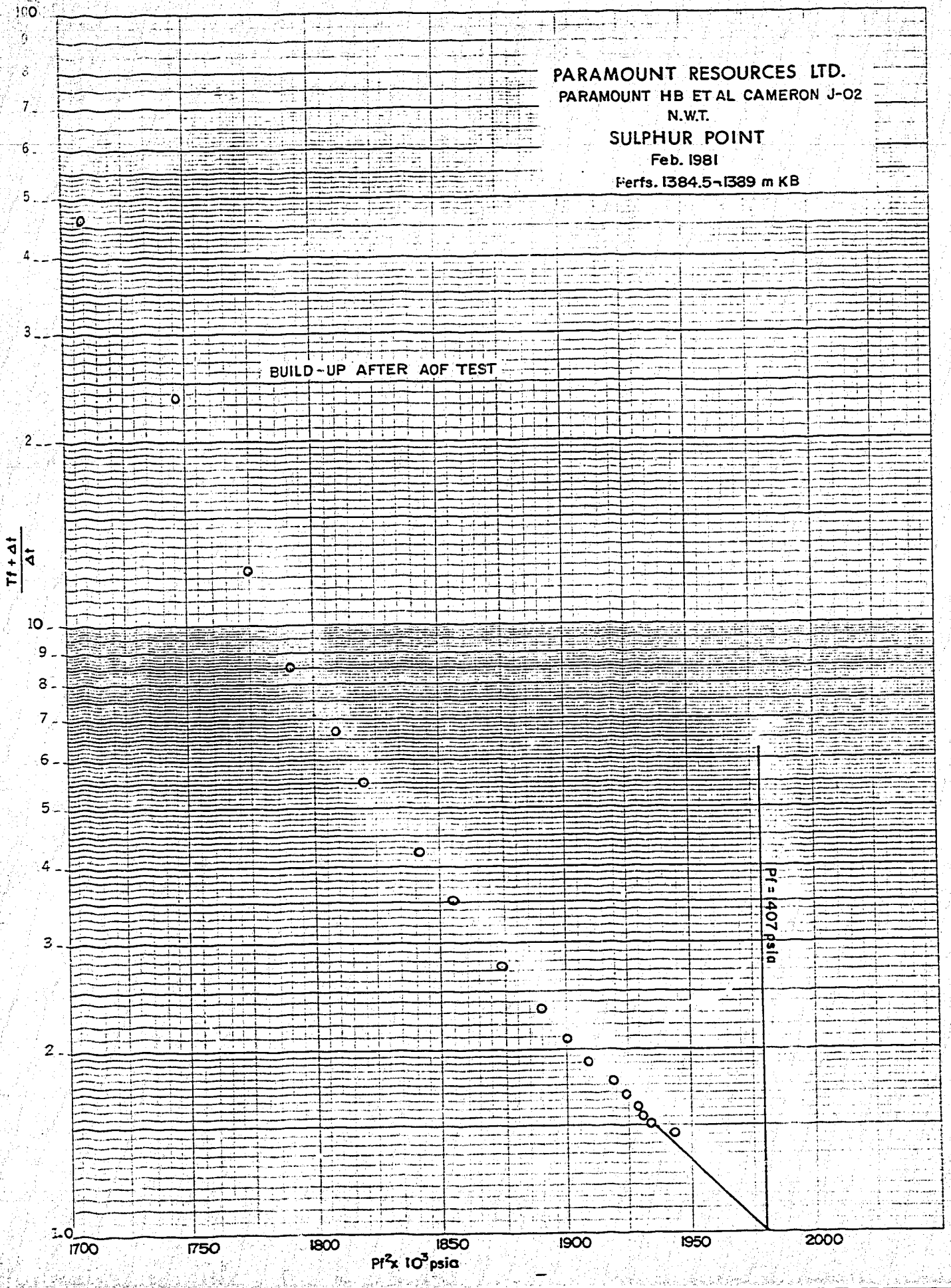
Flowing conditions at this well could likely be improved by an acid stimulation. No stimulation was employed prior to the A.O.F. test. The design of the treatment, however, should also consider the possibility of initiating some water production.

The well is presently suspended due to lack of a market. A plug is set in the tubing string at 1,378.99 metres, and both the tubing and casing are filled with inhibited water with diesel fuel on top.

PARAMOUNT RESOURCES LTD.
PARAMOUNT HB ET AL CAMERON J-02
N.W.T.
SULPHUR POINT
Feb. 1981
Perfs. 1384.5-1389 m KB



AOF 2.22MMCF/D
62.535 x $10^3 M^3/D$
n = 1.2888
c = 0.17018 x 10^{-7}


PARAMOUNT RESOURCES LTD.
PARAMOUNT HB ET AL CAMERON J-02
N.W.T.
SULPHUR POINT
Feb. 1981
Perfs. 1384.5-1389 m KB
BUILD-UP AFTER AOF TEST
Tf + Δt / Δt
Pf = 407 psia
Pf² x 10³ psia
100
9
8
7
6
5
4
3
2
10
9
8
7
6
5
4
3
2
1.0
1700
1750
1800
1850
1900
1950
2000

FARRIES ENGINEERING (1977) LTD.

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*     P R O G R A M      *
*     G A S F L O W      *
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PARAMOUNT RESOURCES LIMITED
PARAMOUNT HB ET AL CAMERON J-62, N.W.T.
TEST RUN FEBRUARY, 1981
J-62 AOF TEST
ORIFICE METER
INPUT IN S.I., OUTPUT IN S.I.
ORIFICE METER

ORIFICE METER CALCULATIONS

NO.	SIZE MM	ORIFICE DIA MM	TEMPR. DEG. C	STATIC PRESS. KPA	DIFFT'L KPA	CPRIME C'	FLOW RATE Q E03 M3/D
1	73.660	25.400	42.0	1859.01	16.0	252.75	22.5022
2	73.660	25.400	40.0	1652.01	38.0	253.81	32.8280
3	73.660	34.900	40.0	1963.01	17.0	491.61	46.3600 Error
4	73.660	38.100	40.0	1411.01	17.0	591.46	47.2884

ORIFICE FACTORS

NO.	BASIC FB	SP. GRAV FG	FL TEMPR FTF	REY. NO FR	EXPNSION Y	SUPERCMP FPV	MANOMETR FM
1	204.04	1.2639	0.9572	1.0003	1.0015	1.0151	1.0000
2	204.04	1.2639	0.9602	1.0002	1.0041	1.0138	1.0000
3	395.20	1.2639	0.9602	1.0003	1.0014	1.0164	1.0000
4	477.36	1.2639	0.9602	1.0004	1.0019	1.0117	1.0000

NOTE: ORIFICE FACTORS ARE IN IMPERIAL FORM

PARAMOUNT RESOURCES LIMITED
PARAMOUNT HB ET AL CAMERON J-62, N.W.T.
FEBRUARY 1981, SULPHUR POINT

****
* BACKPRESSURE TEST ANALYSIS *
* OF SWEET OR SOUR GAS WELLS *
****

RESERVOIR TEMPERATURE, DEG.F	132.0800
GAS GRAVITY	0.6260
PSEUDO-CRITICAL PRESSURE, PSIA	677.7614
PSEUDO-CRITICAL TEMP., DEG.R	352.8000
MOLE PERCENT - HYDROGEN SULPHIDE	0.6800
MOLE PERCENT - CARBON DIOXIDE	3.5300
MOLE PERCENT - NITROGEN	4.4500
WELL DEPTH, FEET	0.3281
TUBING LENGTH, FEET	0.3281
INTERNAL TUBING DIAMETER, INCHES	2.4410
RELATIVE ROUGHNESS	0.0002

GAS FLOW MMCF/D	WELLH TEMP. DEG.F	WELLH PRESS. PSIA	SANDF. PRESS. PSIA	FORM. PRESS. PSIA
0.7987	32.00	1099.	1099.	1399.
1.1652	36.80	953.	953.	1383.
1.6784	50.00	620.	620.	1407.

CONVENTIONAL P - SQUARED ANALYSIS

LEAST SQUARES CORREL. COEFF.	1.00007
INVERSE SLOPE *N*	1.2888
COEFFICIENT *C*	0.170188E-07
CALCULATED A O F P MMCF/D	2.22

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*     P R O G R A M      *
*     P S E U D O P      *
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PARAMOUNT RESOURCES LIMITED
PARAMOUNT HB ET AL CAMERON J-62
N.W.T.
TEST RUN FEBRUARY, 1981
J-62 AOF TEST
CONVERT FIFLD MEASURED PRESSURES TO PSEUDO-PRESSURES
VISCOSITY AND Z-FACTOR VALVES OBTAINED FROM
INTERNAL CORRELATIONS
INPUT IN S.I., OUTPUT IN IMP

GAS TEMPERATURE, DEG.F	132.0800
GAS GRAVITY	0.6260
PSEUDO-CRITICAL TEMP. , DEG.R	352.8000
PSEUDO-CRITICAL PRESSURE ,PSIA	677.7614
MOLE PERCENT - HYDROGEN SULPHIDE	0.6800
MOLE PERCENT - CARBON DIOXIDE	3.5300
MOLE PERCENT - NITROGEN	4.4500

PRESSURE PSIA	VISCOSITY CP	Z-FACTOR	COMPRES-SIBILITY 1/PSIA	PSEUDO-PRESSURE PSIA**2/CP
72.5	0.0121	0.9930	0.013886	0.437001E+06
145.0	0.0122	0.9861	0.006991	0.174991E+07
217.6	0.0123	0.9792	0.004692	0.393959E+07
290.1	0.0124	0.9725	0.003542	0.700349E+07
362.6	0.0125	0.9659	0.002851	0.109355E+08
435.1	0.0126	0.9595	0.002390	0.157270E+08
507.6	0.0127	0.9531	0.002060	0.213789E+08
580.2	0.0129	0.9470	0.001813	0.278701E+08
652.7	0.0130	0.9409	0.001619	0.351820E+08
725.2	0.0131	0.9351	0.001464	0.433221E+08
797.7	0.0133	0.9294	0.001336	0.522630E+08
870.2	0.0135	0.9239	0.001229	0.619738E+08
942.7	0.0137	0.9187	0.001138	0.724539E+08
1015.3	0.0139	0.9136	0.001060	0.836936E+08
1087.8	0.0141	0.9088	0.000991	0.956714E+08
1160.3	0.0142	0.9042	0.000930	0.108374E+09
1232.8	0.0145	0.8998	0.000876	0.121779E+09
1305.3	0.0147	0.8957	0.000827	0.135861E+09
1377.9	0.0149	0.8918	0.000783	0.150595E+09
1450.4	0.0151	0.8883	0.000743	0.165965E+09

INTERPOLATION FOR MEASURED PRESSURES

PRESSURE PSIA	PSEUDO-PRESS. PSIA**2/CP
1385.4	0.152185E+09
1085.3	0.952642E+08
1369.5	0.148904E+09
939.6	0.719970E+08
1367.3	0.148453E+09
696.5	0.400986E+08
1382.4	0.151554E+09
650.4	0.349539E+08
606.7	0.305448E+08
1381.0	0.151272E+09

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*     P R O G R A M      *
*     P S E U D O P      *
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PARAMOUNT RESOURCES LIMITED
PARAMOUNT HB ET AL CAMERON J-62
N.W.T.
TEST RUN FEBRUARY, 1981
J-62 AOF TEST
CONVERT FIELD MEASURED PRESSURES TO PSEUDO-PRESSURES
VISCOSITY AND Z-FACTOR VALVES OBTAINED FROM
INTERNAL CORRELATIONS
INPUT IN S.I., OUTPUT IN S.I.

GAS TEMPERATURE, DEG.C	55.6000
GAS GRAVITY	0.6260
PSEUDO-CRITICAL TEMP. , DEG.K	196.0000
PSEUDO-CRITICAL PRESSURE ,KPA	4673.0000
MOLE PERCENT - HYDROGEN SULPHIDE	0.6800
MOLE PERCENT - CARBON DIOXIDE	3.5300
MOLE PERCENT - NITROGEN	4.4500

PRESSURE KPA	VISCOSITY UPA.S	Z-FACTOR	COMPRES-SIBILITY 1/MPA	PSEUDO-PRESSURE KPA**2/UPA.S
500.0	12.1193	0.9930	2.014048	0.207740E+05
1000.0	12.1780	0.9861	1.013948	0.831865E+05
1500.0	12.2635	0.9792	0.680495	0.187279E+06
2000.0	12.3594	0.9725	0.513687	0.332930E+06
2500.0	12.4766	0.9659	0.413524	0.519849E+06
3000.0	12.6023	0.9595	0.346669	0.747626E+06
3500.0	12.6955	0.9531	0.298837	0.101631E+07
4000.0	12.8821	0.9470	0.262884	0.132488E+07
4500.0	13.0213	0.9409	0.234839	0.167247E+07
5000.0	13.1497	0.9351	0.212322	0.205943E+07
5500.0	13.3455	0.9294	0.193816	0.249446E+07
6000.0	13.5335	0.9239	0.178309	0.294609E+07
6500.0	13.6975	0.9187	0.165104	0.344429E+07
7000.0	13.8789	0.9136	0.153699	0.397860E+07
7500.0	14.0659	0.9088	0.143730	0.454800E+07
8000.0	14.2491	0.9042	0.134921	0.515185E+07
8500.0	14.4548	0.8998	0.127063	0.578909E+07
9000.0	14.6617	0.8957	0.119994	0.645852E+07
9500.0	14.8870	0.8918	0.113587	0.715896E+07
10000.0	15.0965	0.8883	0.107741	0.788959E+07

INTERPOLATION FOR MEASURED PRESSURES

PRESSURE KPA	PSEUDO-PRESS. KPA**2/UPA.S
9551.7	0.723450E+07
7483.0	0.452864E+07
9442.6	0.707855E+07
6478.2	0.342257E+07
9427.3	0.705711E+07
4802.0	0.190620E+07
9531.2	0.720455E+07
4484.4	0.166163E+07
4182.9	0.145203E+07
9522.0	0.719110E+07

WELL: PARAMOUNT HB ET AL CAMERON J-62, N.W.T.
DATE: FEBRUARY 1981
TEST: 4 POINT ISOCHRONOL AOF TEST

TF (HOURS)	FLOW TIME SINCE LAST SHUT IN	45.ØØ
MUE(CP)	VISCOSITY	Ø.Ø15
ZA	COMPRESSIBILITY FACTOR	Ø.Ø92
TA (DR)	AVERAGE TEMPERATURE	592.
Q (MMCFD)	GAS FLOW RATE	1.67Ø
H (FT)	PAY THICKNESS	36.ØØØ
PP (PSIA)	PREVIDUS MEASURED PRESSURE	145Ø.

SHUT IN TIME HOURS	MEAS. PRESS PSIA	EST PRESS PSIA	DEVIAT. IN PERCENT	2 -3 PRESS*1Ø PSIA 2	(TF+DT)/DT
1.Ø	13Ø7.4				
2.Ø	134Ø.3				
4.Ø	1332.4				
6.Ø	1338.1				
8.Ø	1345.Ø				
1Ø.Ø	1349.6				
14.Ø	1357.1				
18.Ø	1361.9				
26.Ø	1368.9	1368.3	Ø.Ø5	1874.Ø	2.7
34.Ø	1374.7	1374.6	Ø.Ø1	1889.8	2.3
42.Ø	1378.5	1379.Ø	-Ø.Ø4	19ØØ.2	2.1
5Ø.Ø	1381.5	1382.4	-Ø.Ø6	19Ø8.5	1.9
58.Ø	1384.9	1385.Ø	-Ø.ØØ	1918.1	1.8
66.Ø	1387.2	1387.1	Ø.Ø1	1924.2	1.7
74.Ø	1388.8	1388.8	Ø.ØØ	1928.9	1.6
82.Ø	1389.5	1389.2	-Ø.Ø5	193Ø.8	1.5
9Ø.Ø	1390.7	1391.5	-Ø.Ø6	1934.Ø	1.5
97.Ø	1394.4	1392.4	Ø.14	1944.4	1.5

CURVE FITTED COLUMN 5 AND LN OF COLUMN 6 TO
Y=A+B*LN(X) WHICH RESULTED IN:

INDEX OF DETERMINATION Ø.99

COEFFICIENT A 1979.52Ø4

SLOPE B -1Ø6.8519

SLOPE IF USING ALOG (BASE 1Ø) OF INVERSE TIME VALUE 246Ø8Ø.

PERMEABILITY PAY KH .. 9.Ø5 MD-FT

EXTRAPOLATED PRESSURE P*= 14Ø7. PSIA

Y FUNCTION CORRELATION Y(U)/2.3Ø3= Ø.4998

U= Ø.3617

TESTMASTER

TESTMASTER PRODUCTION SERVICES LTD.
1007D - 55th AVENUE N.E.
CALGARY, ALBERTA, CANADA T2E 6W1
PHONE (403) 274-5777

RECEIVED
MAR - 9 1981
(SWD) LTD.

Paramount Resources Limited
Paramount H.B. et al Cameron
J-62-N.W.T.
4 Point Extended Rate
February 7th - 11th, 1981

Testmaster Production Services Ltd.

TESTMASTER

TESTMASTER PRODUCTION SERVICES LTD.
1007D - 55th AVENUE N.E.
CALGARY, ALBERTA, CANADA T2E 6W1
PHONE (403) 274-5777

METRIC CONVERSIONS

Field Unit	Multiplication Factor	Units	Symbols
Barrel (35 Imp. Gal.)	.159	Cubic Meter	m^3
Gallon	.004546	Cubic Meter	m^3
MMCF	28262.31	Cubic Meter	m^3
PSI	6.895	Kilopascal	kPa
Differential	.249	Kilopascal	kPa
Inches	25.4	Millimeter	mm
Degree (°F)	(°F-32)x.555	Degrees Celcius	°C

Meter Run Size - Upstream - 73.79 mm.
- Downstream - 73.53 mm.

H.P. Meter Size - 2000 PSI (13790 kPa)
- 0 - 200 Inches (0 - 50 kPa)

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 1 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 7/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure		STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
					Rig in equipment															
0930					Almech wireline on location to run gradient & recorders.															
					Master valve on wellhead frozen															
1230					Almech rigged out															
1630					Water truck on location to fill line heater															
					Manifold valves on unit frozen Tank valves frozen															
					Thaw valves from 1700hrs to 2200 hrs															
					Power plant quit at 1800 hrs.															

REMARKS ____

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Mcf/day
SI Units	Pga kPa	oC	Pga kPa	mm	Pga kPa	Pga kPa	kPa	oC	mm	Pga kPa	kPa	oC	mm	C m	m3	m	m3	m3	m3	m3/day
0845	8400				Shut in pressure															
0855					Pressure test flow line															
0900	8400			4.76	Open well on 4.76mm choke through separator															
					on 1st Rate of 4 Point test.															
0905	7500																			
0910	7000																			
0915	6550	-7		4.76	1241		16	44	25.4											19.78×10^3
0930	5510	-5			1654		17	44												23.17×10^3
0945	5750	-3			1654		15	39												22.04×10^3
1000	6000	-1			1758		15	38												22.89×10^3
1030	6220	-2			1758		16	38												22.61×10^3
1100	6450	-2			1758		16	42		End of 1st Rate Shut in for 2 hr. Build-ups										23.03×10^3
1105	6710																			

REMARKS

		TANK NO. 1		TANK NO. 2	
GAS PRODUCTION (24 hr.) ____	LIQUID PROD. BALANCE	Cond	Water	Cond	Wa
GAS PRODUCTION CUMULATIVE ____	OPENING GAUGE				
LIQUID PRODUCTION (24 hr.) ____	PLUS PRODUCTION				
Condensate/Oil ____ Water ____	TOTALS				
LIQUID PRODUCTION CUMULATIVE ____	MINUS SHIPPING				
Condensate/Oil ____ Water ____	EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 3 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft³/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1110	6980																			
1115	7220																			
1130	8220																			
1145	8265																			
1200	8275																			
1230	8280																			
1300	8285																			
1305	7200	-2		Open well through separator on 7.14mm choke to start Second Rate.																
1310	5700	-2																		
1315	5050	-1		7.14	1655		35	33	25.4											35.89x10³
1330	4885	0			1655		32	20												31.65x10³
1345	5000	0			2172		24	42	Back pressure valve malfunctioning											31.09x10³

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wat.
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE ____ L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 / 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTION
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	fit3/day
IMP. Units	PSIG	oF	PSIG	Inches	PSIG	PSIG	Inches	oF	Inches	PSIG	Inches	oF	Inches							
SI Units	Pga kPa	oC	Pga kPa	mm	Pga kPa	Pga kPa	kPa	oC	mm	Pga kPa	kPa	oC	mm	C m	m3	m	m3	m3	m3	m3/day
1400	5115	1		7.14	1862		32	40	25.4											33.63x10^3/
1430	5270	1			1551		36	42												33.07x10^3/
1500	5145	1			1551		38	40		End of Second Rate										33.91x10^3/
1505	6030																			
1510	7600																			
1515	7800																			
1530	8090																			
1545	8120																			
1600	8140																			
1630	8190																			
1700	8200				Third Rate on 34.9mm orifice plate Open well through separator on 9.53mm choke															
1705	4000																			

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wat
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 8/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 per 1 cm / .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Ft³/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1710	3250	1		9.53					34.9											
1715	3175	1			1715		16	41		Methanol pump freezing										42.39x10³
1730	3400	2			1586		17	40												45.22x10³
1745	3450	2			1586		17	38												45.22x10³
1800	3700	2			1551		18	38		Liquid to surface										45.22x10³
										Unable to dump water										
1830		2			1862		17	40		Dump lines frozen from separator to dump										48.05x10³
1900		2			2930		17	40		By-pass dump also frozen END of Rate # 3 Meter freezing (Approx. water made .150m³)										59.92x10³
	Unable to get tubing pressures. Wellhead frozen from 1800 hrs to 2200 hrs.																			
2115		-5			Open well to flow through separator on 12.7mm choke Flow Rate # 4 with 38.1mm orifice plate															
2130		-4			1862		16	44		Pumping methanol										56.52x10³
2200	3050	-2			2275			40												
2230	2525	5						32		Take off for repairs Unable to get meter readings frozen										

REMARKS

Estimated flow rate for 4 Point
24 hr. production 13.65x10³xm³

		TANK NO. 1		TANK NO. 2	
GAS PRODUCTION (24 hr.) ____	LIQUID PROD. BALANCE	Cond.	Water	Cond.	Wa
GAS PRODUCTION CUMULATIVE ____	OPENING GAUGE				
LIQUID PRODUCTION (24 hr.) ____	PLUS PRODUCTION				
Condensate/Oil ____ Water ____	TOTALS				
LIQUID PRODUCTION CUMULATIVE ____	MINUS SHIPPING				
Condensate/Oil ____ Water ____	EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 6 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
Feb. 8/81 TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 per .104 / cm m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
2300	3200	3		9.53				33	38.1	Cut choke back for extended rate to 9.53mm choke.										
2330	3770	4						39												
2400	3800	3						40												
February 9th, 1981					Meter replaced and in service.															
0030	3655	3			2069		13	39												
0100	3690	1			2275		12	41												52.00x10³
0115	7100							41		Safety shut down valve closed,										
0135	7995							42												
0140	7800	-6						43		Back pressure valve stuck open use manual block valve.										
0145	5200	1						42												
0200	3835	2			1241		23	45												54.26x10³
0215	3850	3			1310		20	43												

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 9/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 54m3 / 1 cm per .104 m3		CAP / per		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTION
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
0230	3875	1		9.53	1310		20	42	38.1											
0300	3950	3			1310		19	42												50.9x10³/
0330	3930	1			1276		20	41												
0400	3860	2			1241		20	37												50.9x10³/
0430	4235	1			1276		19	37												
0500	5195	-3			1138		14	42		Possible ice plug in ~~flowing~~ tubing										40.98x10³
0530	5330	-5			1034		14	42												
0600	5630	-8			827		14	42												35.89x10³
0630	5340	-8			1241		13	42												
0700	5500	-10			1138		12.5	42												38.15x10³
0730	5535	-10			1103		12	42												
0800	5585	-12			1034		11.5	41		Approx. water made .075m³										35.33x10³

REMARKS

GAS PRODUCTION (24 hr.) 14.93m³

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil Water

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 8 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 9/81	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure		STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 / 1 cm per .104 m3		CAP ____ / ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
TIME																				
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
0830	5585	-11		9.53	896		11	43	38.1											
0900	5550	-13			862		11,5	43												32.50x10³
0930	5500	-12			965		12	43												
1000	5500	-12			1103		12	43												37.87x10³
1030	5450	-10			1034		12	43												
1100	5450	-10			1034		12	43												36.74x10³
1130	5530	-9			965		12	43		Ice plug in flow line let go.										
1200	4120	+4			1172		20	35		Liquid to surface										49.46x10³
1230	3715	+3			1172		18	42												
1300	3680	+3			1241		20	44												50.87x10³
1330	3680	+3			1207		21	44		750 ppm H_2S										
1400	3675	3			1207		21	44												52.28x10³

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 per .104		CAP per		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	1 cm						
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
1430	3695	3		9.53	1207		21	44	38,1											
1500	3700	4			1207		21	45												52.28x10³
1530	3700	3			1207		22	45												
1600	3650	3			1207		20	45												49.46x10³
1630	3650	3			1172		21	43												
1700	3640	4			1138		21	41												49.46x10³
1730	3570	4			1138		21	41												
1800	3585	7			1138		21	40												49.46x10³
1830	3585	7			1138		21	38												
1900	3585	8			1138		21	38												49.46x10³
1930	3585	9			1138		21	38												
2000	3585	10			1138		21	43												49.46x10³

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wat
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 10 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks : NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 9/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3		CAP		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTION
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	1 cm per .104 m3		per				
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
2030	3575	9		9.53	1138		20	42	38.1											
2100	3580	9			1172		20	43												49.46x10³
2130	3580	9			1172		20	43												
2200	3580	9			1241		19	43												49.46x10³
2230	3570	9			1241		19	42												
2300	3565	9			1172		20	42												48.33x10³
2330	3565	8			1172		19	42												
2400	3565	9			1207		19	43												48.89x10³
February 10th, 1981																				
0030	3565	9			1207		19	43												
0100	3565	9			1207		19	43												48.33x10³
0130	3565	10			1207		19	43												

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 11 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP 64m3 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft³/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m³/day
0200	3560	9		9.53	1207		19	43	38.1											48.05x10³
0230	3560	9			1241		18	44												
0300	3560	10			1241		18	44												48.05x10³
0330	3555	10			1276		18	44												
0400	3550	9			1310		18	44												48.61x10³
0430	3550	9			1276		18	44												
0500	3550	9			1241		18	44												48.05x10³
0530	3550	9			1241		18	43												
0600	3550	9			1379		17	44												48.61x10³
0630	3545	10			1276		18	45												
0700	3545	9			1310		18	44												48.61x10³
0730	3545	9			1310		18	43												

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 12 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond Prod.	Cumul. Water Prod.	GAS PRODUCTION
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
0800	3545.	9		9.53	1310		18	43	38.1											48.61×10^3

REMARKS

GAS PRODUCTION (24 hr.) $47.60 \times 10^3 m^3$

GAS PRODUCTION CUMULATIVE 62.53×10^3

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 13 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE DIFF. RANGE

LOCATION J-62-N.W.T. PIPELINE OTHER

DATE Feb. 10/81	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						
					STATIC PRESSURE or Prover									CAP 64m3 per .104		CAP per		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	GAS PRODUCTION
TIME	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	1 cm	m3					
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	c m	m3	m	m3	m3	m3	m3/day
0830	3545	10		9.53	1345		17	44	38.1											
0900	3535	10			1345		17	44												48.61×10^3
0930	3535	10			1310		18	43												
1000	3545	10			1358		18	43												49.46×10^3
1030	3545	10			1358		17	43												
1100	3545	10			1345		18	43												49.46×10^3
1130	3545	10			1310		18	43												
1200	3545	10			1345		18	44												49.46×10^3
1230	3545	10			1345		18	44												
1300	3545	10			1358		18	44												49.46×10^3
1330	3560	10			1379		17	44												
1400	3555	10			1448		17	44												50.87×10^3

REMARKS

GAS PRODUCTION (24 hr.)

GAS PRODUCTION CUMULATIVE

LIQUID PRODUCTION (24 hr.)

Condensate/Oil Water

LIQUID PRODUCTION CUMULATIVE

Condensate/Oil Water

LIQUID PROD. BALANCE	TANK NO. 1 Cond	TANK NO. 1 Water	TANK NO. 2 Cond	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER
TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
					STATIC PRESSURE or Prover									CAP 64m3 1 cm per .104 m3		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size							
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	C m	m3	m	m3	m3	m3	m3/day
			9.33																	
1430	3565	10		25.4	1448		17	47	38.1											
1500	3520	10			1448		17	46												50.87x10³
1530	3490	10			1276		18	45		Salinity 26,800 ppm										
1600	3475	10			1241		19	43		0.68% H_2S			ON SITE ANALYSIS							49.46x10³
1630	3480	10			1379		16	41		Reset back pressure										
1700	3575	10			1379		17	43		Sample from separator trace of Condensate										49.46x10³
1730	3545	10			1379		17	44												
1800	3510	10			1345		17	43												48.33x10³
1830	3470	10			1345		17	42												
1900	3470	10			1310		17	41												48.05x10³
1930	3470	10			1310		17	42												
2000	3475	10			1310		17	42												

REMARKS ____

GAS PRODUCTION (24 hr.) ____
GAS PRODUCTION CUMULATIVE ____
LIQUID PRODUCTION (24 hr.) ____
Condensate/Oil ____ Water ____
LIQUID PRODUCTION CUMULATIVE ____
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wat
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 15 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 10/81 TIME	WELLHEAD DATA				H.P. SEP. GAS METERING					COND or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure	Choke Size	STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	ft3/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
			0.53																	
2030	3495	10		25.4	1310		17	40	38.1											
2100	3500	10			1310		17	41												48.6x10³/
2130	3495	10			1310		17	40												
2200	3495	10			1310		17	39												48.6x10³/
2230	3495	10			1310		17	39												
2300	3495	10			1310		17	40												48.6x10³/
2310	3495	10			1310		17	40		Shut well in			Take samples	Two H.P. Gas		866	1071			48.6x10³/
2315	4950																			
2320	6570																			
2325	7370																			
2330	7630																			
2345	7910																			

REMARKS

GAS PRODUCTION (24 hr.) ____

GAS PRODUCTION CUMULATIVE ____

LIQUID PRODUCTION (24 hr.) ____

Condensate/Oil ____ Water ____

LIQUID PRODUCTION CUMULATIVE ____

Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				

TESTMASTER PRODUCTION SERVICES LTD.

TEST UNIT NO. One TYPE OF TEST 4 Point Extended Rate PAGE 16 OF 16

CUSTOMER Paramount Resources Ltd. TEST OPERATOR S. Barkhouse & B. McConnell

REP. BY M. Maddocks NO. 1 HEATER .75m BTU H.P. METER SIZE 73.53 mm DIFF. RANGE 0-50 kPa

WELL Paramount H.B. et al Cameron GAS TO FLARE X CHOKE 25.4mm L.P. METER SIZE ____ DIFF. RANGE ____

LOCATION J-62-N.W.T. PIPELINE ____ OTHER ____

DATE Feb. 11/81 TIME	WELLHEAD DATA			Choke Size	H.P. SEP. GAS METERING					COND. or L.P. SEP GAS METERING				LIQUID PRODUCTION						GAS PRODUCTION
	TUBING Pressure	Flow Temp	CASING Pressure		STATIC PRESSURE or Prover Recorder	D.W.G.	Diff.	Temp	Orifice Plate Size	Static Pressure	Diff.	Temp	Orifice Plate Size	CAP ____ per ____		CAP ____ per ____		Cumul. Oil, Cond. Prod.	Cumul. Water Prod.	
IMP. Units	PSIG	°F	PSIG	Inches	PSIG	PSIG	Inches	°F	Inches	PSIG	Inches	°F	Inches	Ft-Ins	Barrels	Ft-Ins	Barrels	Barrels	Barrels	Mcf/day
SI Units	Pga kPa	°C	Pga kPa	mm	Pga kPa	Pga kPa	kPa	°C	mm	Pga kPa	kPa	°C	mm	m	m3	m	m3	m3	m3	m3/day
2400	7890																			
0015	8100																			
0030	8110																			
0100	8080																			
0130	8055																			
0200	8050				End of Build-ups								Rig cut equipment							

REMARKS

GAS PRODUCTION (24 hr.) $28.72 \times 10^3 m^3$

GAS PRODUCTION CUMULATIVE 91.25×10^3

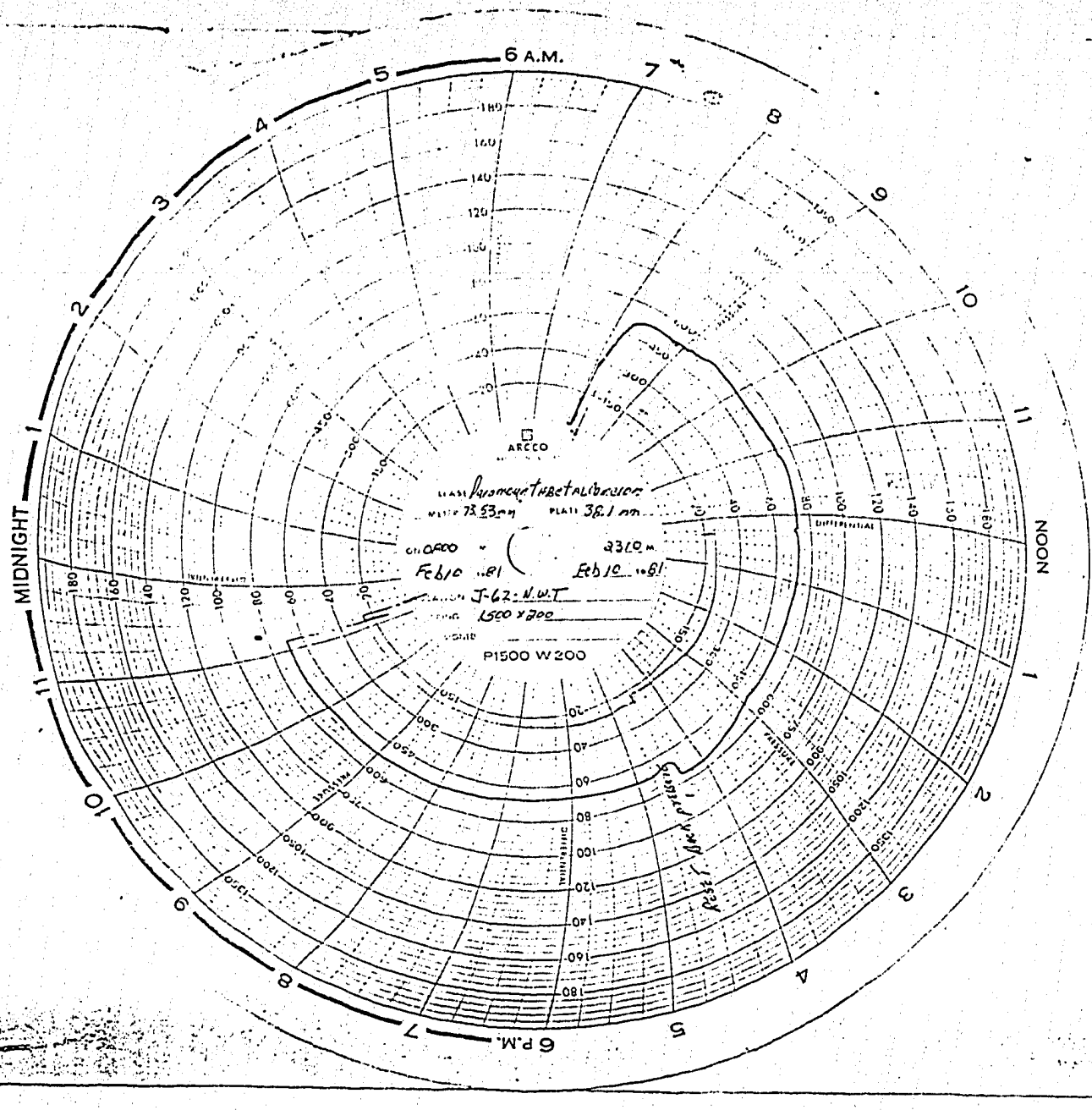
LIQUID PRODUCTION (24 hr.) ____

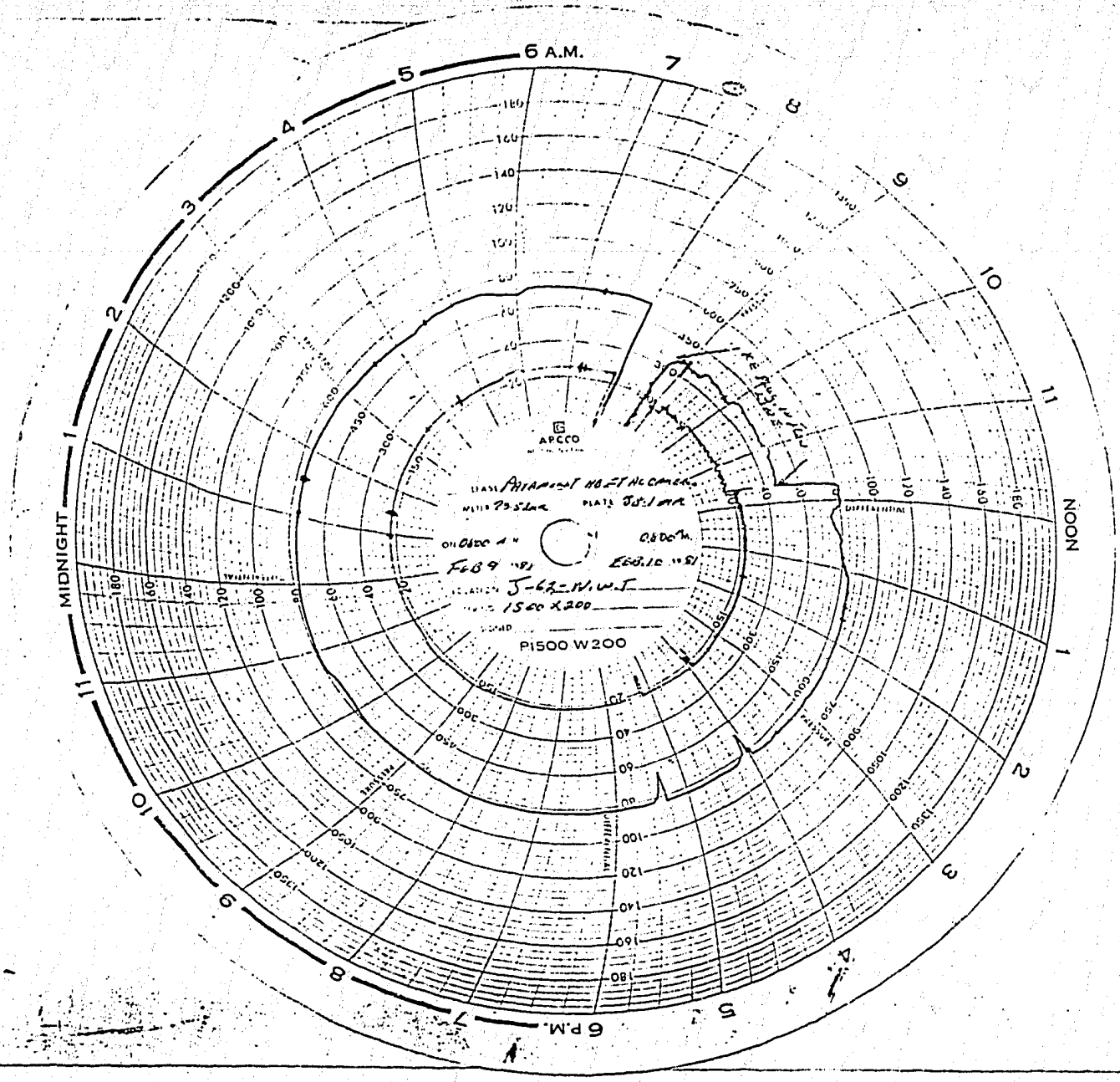
Condensate/Oil ____ Water ____

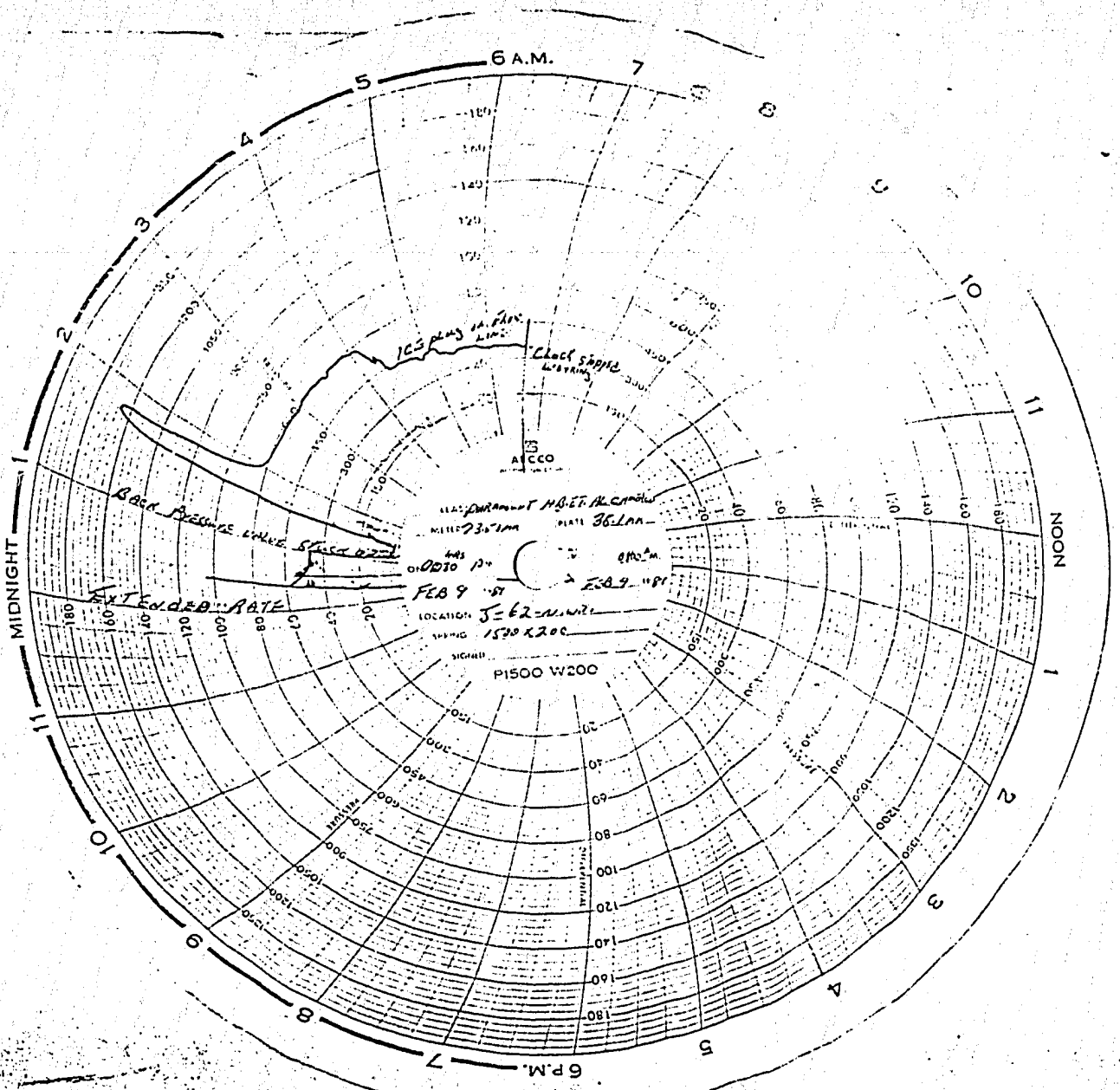
LIQUID PRODUCTION CUMULATIVE ____

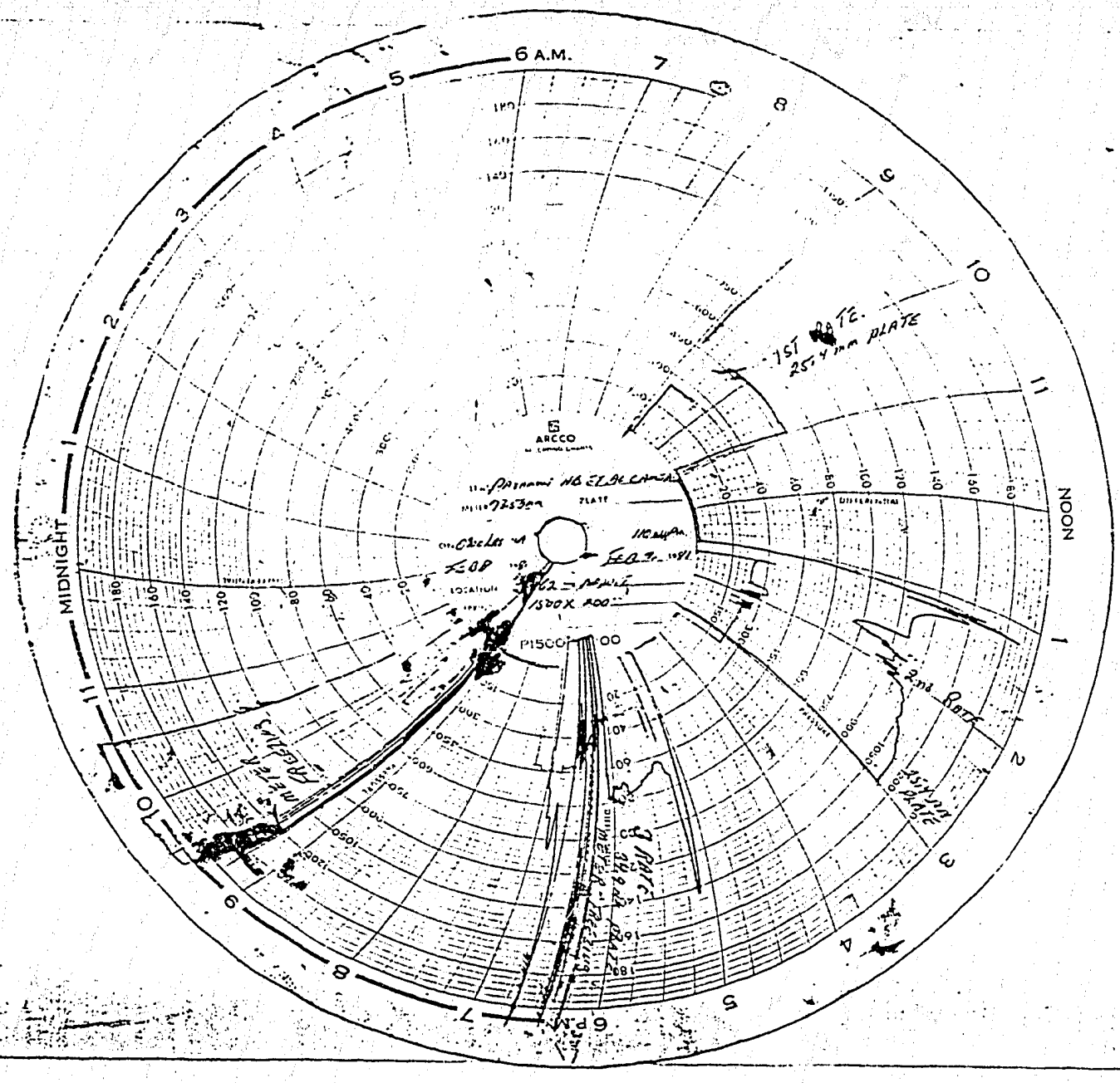
Condensate/Oil ____ Water ____

LIQUID PROD. BALANCE	TANK NO. 1 Cond.	TANK NO. 1 Water	TANK NO. 2 Cond.	TANK NO. 2 Wa
OPENING GAUGE				
PLUS PRODUCTION				
TOTALS				
MINUS SHIPPING				
EQUALS CLOSING GAUGE				


6 A.M.
NOON
6 P.M.
MIDNIGHT
ARCCO
Feb 10 '81
Feb 10 '81
J-62: N.W.T
1500 x 200
P1500 W200


6 A.M.
NOON
6 P.M.
MIDNIGHT
APCCO
P1500 W200


6 A.M.
NOON
6 P.M.
MIDNIGHT
ICE plug in flow line
Clock stopped
Back pressure valve stuck open
EXTENDED RATE
ARCCO
P1500 W200


6 A.M.
NOON
MIDNIGHT
6 P.M.
1ST PLATE
25.4mm PLATE
2nd Plate
3rd PLATE
4TH PLATE
ARCCO

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GAS ANALYSIS

CONTAINER IDENTITY: 866

LABORATORY NUMBER: 9076-4-2543/1

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00, GRD 751.94

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: S. BARKHOUSE

COMPANY: TESTMASTER

TEST RECOVERY:

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m

TO: m

PERFERATIONS FROM: 1364.5 m

TO: 1369.0 m KB

SAMPLING POINT: METER RUN

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m^3/d OIL TRACE m^3/d GAS 48.6 $10^3m^3/d$

GAUGE PRESSURE - kPa: SEPARATOR ~~190~~ 1310, TREATER, RESERVOIR

TEMPERATURES °C: SEPARATOR ~~90~~ 40, TREATER, RESERVOIR

DATE SAMPLED (Y M D H:M): 1981-02-10

DATE RECEIVED (Y M D): 1981-02-19

DATE REPORTED (Y M D): 1981-01-19

ANALYST: G. HOWE

COMP	MOL FRACTION AIR FREE AS REC'D	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME $mL.m^{-3}$ AIR FREE AS REC'D
H_2	0.0000	0.0000	
He	0.0008	0.0008	
N_2	0.0445	0.0461	
CO_2	0.0353	0.0000	
H_2S	0.0000	0.0000	
C_1	0.8944	0.9273	
C_2	0.0137	0.0142	
C_3	0.0056	0.0058	20.49
IC_4	0.0009	0.0009	3.91
nC_4	0.0018	0.0019	7.54
IC_5	0.0006	0.0006	2.92
nC_5	0.0007	0.0007	3.37
C_6	0.0008	0.0008	4.30
C_7	0.0009	0.0009	5.41
C_8			
C_9			
C_{10}			
TOTAL	1.0000	1.0000	47.94

GROSS HEATING VALUE $MJ.m^{-3}$ @ 15°C AND 101.325 kPa

(MOISTURE AND ACID GAS FREE)

MEASURED: CALCULATED: 37.000 DEW POINT: VAPOUR PRESS PENTANES PLUS: 63.000

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED: MEASURED, CALCULATED ~~0.000~~ 0.626

MOISTURE AND ACID GAS FREE: MEASURED ~~0.000~~ 0, CALCULATED 0.593

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED: pPc 4673.0 kPa, pTc 196.0 °K

ACID GAS FREE: pPc 4573.0 kPa, pTc 192.0 °K

REMARKS

ON-SITE H_2S ANALYSIS BY TUTWILER WAS 0.68% @ 1400 h FEB 10 1981

DETERMINATIONS TO C7+ ONLY

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CONTAINER IDENTITY: PLASTIC BOTTLE

CONDENSATE ANALYSIS

LABORATORY NUMBER: 9076-4-2543/3

LICENCE NO.:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES: KB 755.00 GRD 751.94

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST TYPE: NO.:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFERATIONS FROM: 1384.5 m TO: 1384.6 m KB

TEST RECOVERY:

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: @25°C

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m³/d OIL TRACE m³/d GAS 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310 TREATER RESERVOIR

TEMPERATURES °C: SEPARATOR 40 TREATER RESERVOIR

DATE SAMPLED Y M D H:M: 1981-02-10

DATE RECEIVED Y M D: 1981-02-19

DATE REPORTED Y M D: 1981-02-19

ANALYST: G. HOWE

COMP	MOL FRACTION	MASS FRACTION	VOLUME FRACTION
N_2	0.0000	0.0000	0.0000
CO_2	0.0000	0.0000	0.0000
H_2S	0.0000	0.0000	0.0000
C_1	0.0000	0.0000	0.0000
C_2	0.0003	0.0001	0.0001
C_3	0.0017	0.0005	0.0007
iC_4	0.0010	0.0004	0.0005
nC_4	0.0033	0.0012	0.0016
iC_5	0.0051	0.0024	0.0029
nC_5	0.0067	0.0031	0.0037
C_6	0.0267	0.0149	0.0168
C_{7+}	0.9552	0.9774	0.9737
C_8			
C_9			
C_{10}			
C_{11}			
C_{12}			
TOTAL	1.0000	1.0000	1.0000

PROPERTIES OF RESIDUE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY kg.m⁻³ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
0.792		791		158

PROPERTIES OF TOTAL SAMPLE AT 15°C

RELATIVE DENSITY OBSERVED	RELATIVE DENSITY CALCULATED	ABSOLUTE DENSITY kg.m⁻³ CALCULATED	RELATIVE MOLECULAR MASS OBSERVED	RELATIVE MOLECULAR MASS CALCULATED
	0.788	788		155

REMARKS

SAMPLE APPEARS TO CONTAIN GOOD PERCENTAGE DIESEL FUEL

DETAILED COMPONENT SUMMARY

PROJECT NO. 9076-4-2543/3
NAME PARAMOUNT RESOURCES
LOCATION PARAMOUNT HB ET AL CAMERON J-62-NWT
SAMPLE POINT SEPARATOR

COMPONENT	BOILING POINT(C)	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
NITROGEN	-196	0.0000	0.0000	0.0000
CARBON DIOXIDE	-79	0.0000	0.0000	0.0000
HYDROGEN SULPHIDE	-60	0.0000	0.0000	0.0000
METHANE	-162	0.0000	0.0000	0.0000
ETHANE	-89	0.0003	0.0001	0.0001
PROPANE	-42	0.0017	0.0005	0.0007
ISO-BUTANE	-12	0.0010	0.0004	0.0005
N-BUTANE	-1	0.0033	0.0012	0.0016
ISO-PENTANE	28	0.0051	0.0024	0.0029
N-PENTANE	36	0.0067	0.0031	0.0037
HEXANES	69	0.0267	0.0149	0.0168
HEPTANES	98	0.0369	0.0241	0.0265
OCTANES	126	0.0595	0.0434	0.0465
NONANES	151	0.0396	0.0323	0.0338
DECANES	174	0.0918	0.0819	0.0844
UNDECANES	196	0.0980	0.0943	0.0958
DODECANES	216	0.1270	0.1315	0.1322
TRIDECANES	236	0.1130	0.1241	0.1234
TETRADECANES	253	0.1174	0.1364	0.1347
PENTADECANES	271	0.0813	0.0993	0.0972
HEXADECANES	287	0.0466	0.0596	0.0580
HEPTADECANES	302	0.0309	0.0422	0.0409
OCTADECANES	317	0.0138	0.0199	0.0191
NONADECANES	331	0.0082	0.0124	0.0119
EICOSANES	344	0.0048	0.0079	0.0076
HENEICOSANES	357	0.0022	0.0037	0.0036
DOCOSANES	369.	0.0024	0.0042	0.0040
TRICOSANES	380	0.0021	0.0037	0.0035
TETRACOSANES	391	0.0013	0.0025	0.0023
PENTACOSANES	402	0.0008	0.0015	0.0014
HEXACOSANES	412	0.0005	0.0010	0.0009
HEPTACOSANES	422	0.0002	0.0005	0.0005
OCTACOSANES	432	0.0001	0.0002	0.0002
NONACOSANES	441	0.0001	0.0001	0.0001
TRIACONTANES+	449	0.0001	0.0001	0.0001
BENZENE	49	0.0005	0.0002	0.0002
TOLUENE	111	0.0083	0.0050	0.0043
XYLENE	139	0.0416	0.0285	0.0246
1,2,4-TRIMETHYLBENZENE	171	0.0062	0.0050	0.0043
CYCLOPENTANE	49	0.0003	0.0001	0.0001
METHYL CYCLOPENTANE	72	0.0034	0.0019	0.0019
CYCLOHEXANE	81	0.0046	0.0025	0.0024
METHYL CYCLOHEXANE	101	0.0117	0.0074	0.0073
TOTALS		1.0000	1.0000	1.0000

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CONTAINER IDENTITY: PLASTIC BOTTLE

OIL ANALYSIS

LABORATORY NUMBER: 9076-4-2543/4

LICENCE NO:

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES LTD.

CPA NUMBER:

WELL NAME: PARAMOUNT HB ET AL CAMERON J-62-NWT

ELEVATIONS METRES — KB: 733.00 GL: 731.494

FIELD OF AREA: CAMERON ~~LAKE~~ HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TEST MASTER

TEST RECOVERY:

TEST TYPE: NO:

MULTIPLE RECOVERY:

TEST INTERVAL FROM: m TO: m

PERFORATIONS FROM: 1384.5 m TO: 1389.0 m KB

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY:

TYPE OF PRODUCTION — PUMPING: FLOWING: X GAS LIFT: SWAB:

PRODUCTION RATES — WATER: TRACE m³/d OIL: TRACE m³/d GAS: 46.6 10³m³/d

GAUGE PRESSURE - kPa — SEPARATOR: 1310 TREATER: RESERVOIR:

TEMPERATURES C — SEPARATOR: 40 TREATER: RESERVOIR:

DATE SAMPLED Y M D H:M: 81 02 10

DATE RECEIVED Y M D: 81 02 19

DATE REPORTED Y M D: 81 02 19

ANALYST: G. HOWE

SAMPLE PROPERTIES

VOLUME FRACTION

COLOR OF CLEAN OIL	WATER	BS	TOTAL BS & W
BLACK			

DENSITY

RELATIVE AS RECEIVED	RELATIVE AFTER CLEANING	ABSOLUTE kg m⁻³ AS RECEIVED	ABSOLUTE kg m⁻³ AFTER CLEANING
0.794		793	

TOTAL SULPHUR MASS FRACTION	TOTAL SALT g.m⁻³	POUR POINT °C USBM	POUR POINT °C ASTM
0.002			

RVP	CARBON RESIDUE CONRADSON	CARBON RESIDUE RAMSBOTTOM
1.40		

VISCOSITY

TEMP °C	DYNAMIC mPa s	KINEMATIC mm²s⁻¹

REMARKS

VOLUME FRACTION DISTILLED	TEMP °C
.05	105
.10	125
.15	140
.20	150
.25	160
.30	170
.35	177
.40	185
.45	192
.50	200
.55	208
.60	215
.65	223
.70	230
.75	238
.80	245
.85	260
.90	282
.92	288
FBP	
CRACKED	

DISTILLATION

METHOD: D-86

BAROM PRESS kPa: 92.79

ROOM TEMP °C: 21

INITIAL BOIL PT C: 47

DISTILLATION SUMMARY VOLUME FRACTION

204 C NAPTHA	274 C KEROSENE
0.53	0.88

343°C LIGHT GAS/OIL	RECOVERED
0.92	0.92

RESIDUE	DISTILLATION LOSS
0.05	0.03

RELATIVE DENSITY

DISTILLATE	RESIDUE

BASE TYPE

CHARACTERIZATION FACTOR

CALGARY
[redacted]21 • 41 Avenue N.E.
[redacted]gary, Canada T2E 6P2
(403) 276-9627
Telex 038-26541

CHEMEX LABS (ALBERTA) LTD.

EDMONTON
6112 Davies Road
Edmonton, Canada T6E 4M9
(403) 465-9877
Telex 037-41696

WATER ANALYSIS

CONTAINER IDENTITY: PLASTIC

LABORATORY NUMBER: 9076-4-2543/2

LICENCE NO.: [redacted]

OPERATOR NAME AND ADDRESS: PARAMOUNT RESOURCES

CPA NUMBER:

WELL NAME: PARAMOUNT H.B. ET AL CAMERON J-62-N.W.T.

ELEVATIONS METRES: KB 755.00, GRD 751.94

FIELD OF AREA: [redacted]AMERON HILLS

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER: STAN BARKHOUSE

COMPANY: TESTMASTER

TEST RECOVERY:

TEST TYPE: [redacted] NO.: [redacted]

[redacted]LTIPLE RECOVERY: [redacted]

TEST INTERVAL FROM: [redacted] m

TO: [redacted] m

[redacted]FERATIONS FROM: 1364.5 m

TO: [redacted]89.0 m KB

SAMPLING POINT: SEPARATOR

AMT & TYPE OF CUSHION:

MUD RESISTIVITY @ 25°C:

TYPE OF PRODUCTION: PUMPING [ ] FLOWING [X] GAS LIFT [ ] SWAB [ ]

PRODUCTION RATES: WATER TRACE m³/d; OIL TRACE m³/d; GAS 46.6 10³m³/d

GAUGE PRESSURE - kPa: SEPARATOR 1310; TREATER; RESERVOIR

TEMPERATURES °C: SEPARATOR 40; TREATER; RESERVOIR

DATE SAMPLED (Y M D H:M): 1981-02-10

DATE RECEIVED (Y M D): 1981-02-19

DATE REPORTED (Y M D): 1981-02-20

ANALYST: R.S & G.R

[redacted]

[redacted]N	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Na	2300		100
[redacted]K	2900		74
[redacted]a	520		22
Mg	180		8
[redacted]			
Sr			
[redacted]	2		<1
[redacted]			

ION	C g.m⁻³	MASS FRACTION	C mol.m⁻³
Cl	7000		197
Br			
I			
HCO_3	1552		25
SO_4	2150		22
CO_3			<1
OH			<1
H_2S	PRESENT		

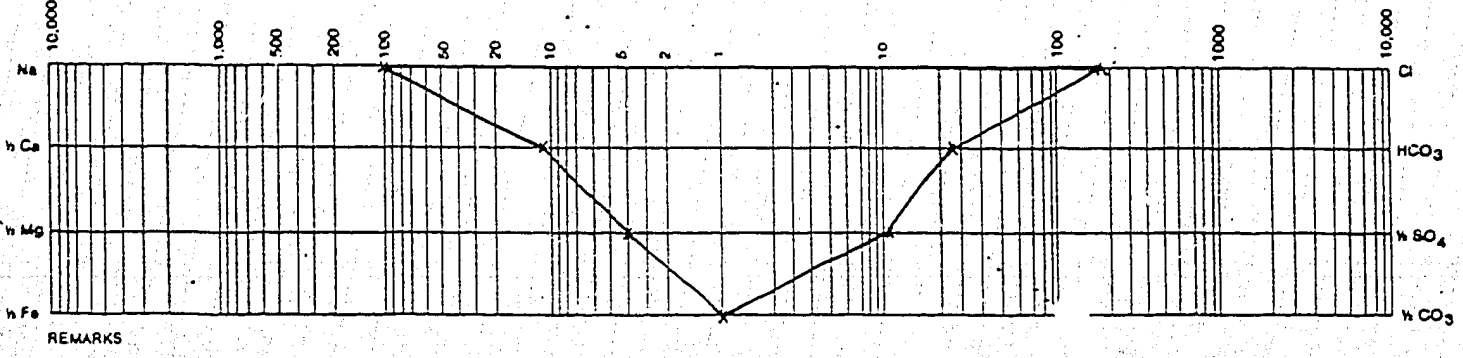
TOTAL SOLIDS C/g.m⁻³

BY EVAPORATION @ 110° C	BY EVAPORATION @ 180° C
AT IGNITION: 15945	CALCULATED: 16604

RELATIVE DENSITY	REFRACTIVE INDEX
1.012 @ 21 °C	1.340 @ 25 °C

OBSERVED PH	RESISTIVITY Ω.m
7.8 @ 21 °C	0.666 @ 25 °C

LOGARITHMIC PATTERN C/mol.m⁻³



REMARKS

well file

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

COMPANY	Paramount Resources Ltd.	PAGE	1 of 1
WELL	Paramount HB et al Cameron J-62	FILE	7011-81-77
		DATE	1981 02 16

Sampled From: Separator Gas
Date Sampled: 1981 02 10

Analysis

on site

Hydrogen Sulphide = 0.0068 mole fraction

Remarks

Hydrogen sulphide determined by Tutwiler.

RECEIVED
MAR 19 1981
FARRIES ENGINEERING (1977) LTD.

PARAMOUNT RESOURCES LTD.

PARAMOUNT H.B.

J-62

February 7-16, 1981

ALMECH SUB-SURFACE TOOLS LTD.

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY, ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : GRADIENT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : N/A
RUN DEPTH TOP CF : 1381.7
TEMPERATURE AT RUN DEPTH : 59.6 C
GRAD. AT RUN DEPTH TOP : 2.980
PRES. AT RUN DEPTH TOP : 9603.3

SHUT-IN TIME : N/A 2015 hrs Feb 1/81
ON BOTTOM/OFF BOTTOM : 12:01 - 12:06
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9609.2
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CAL. EQUATION : 320.81 * Defl. + 10.17

CLOCK RANGE : 3 HOURS
LATEST CALIBRATION : 19/11/80

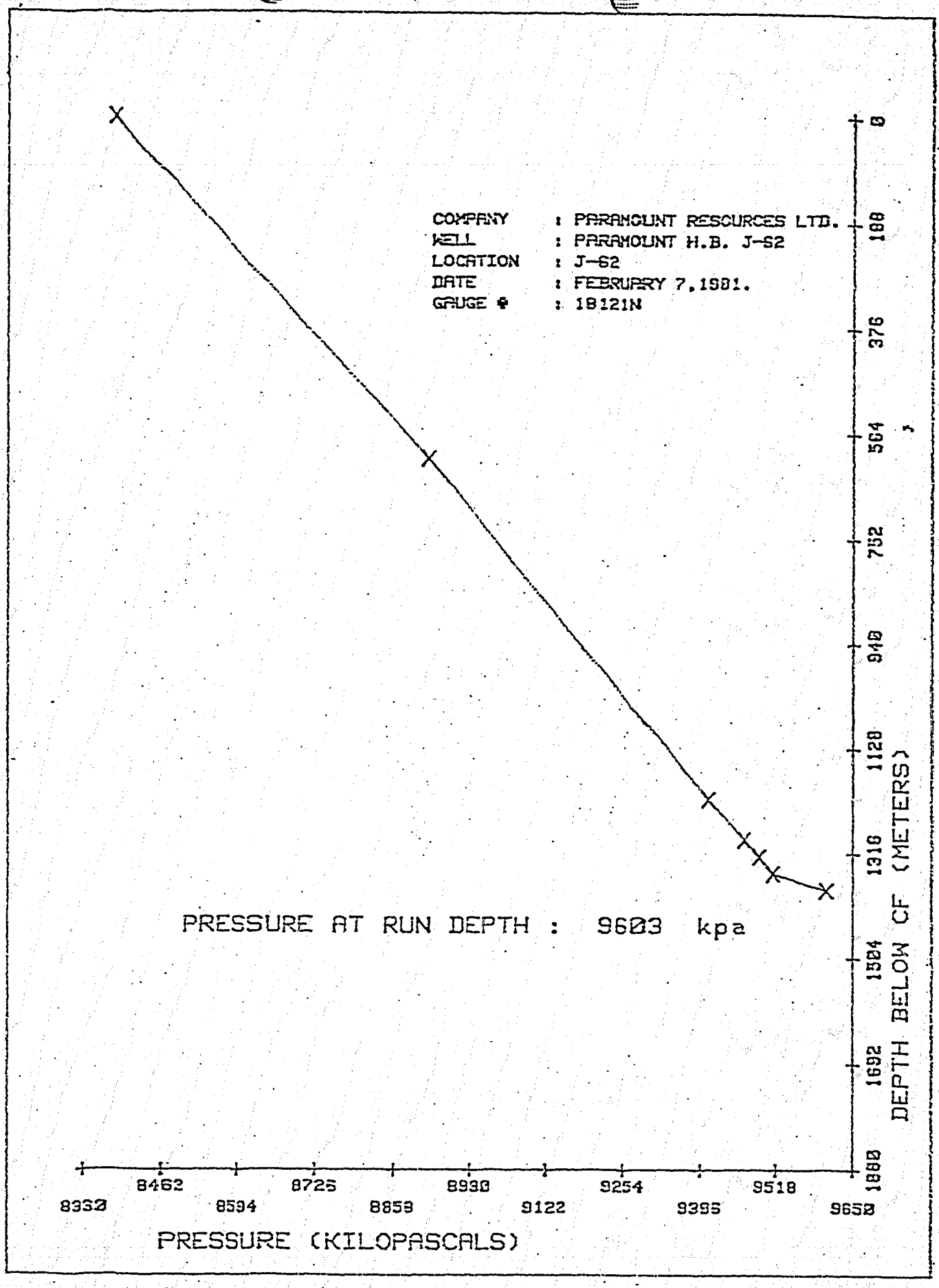
TOP RECORDER DEPTH (m-cf)	DEFLECTION mm	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/m
-1.8	26.085	8378.4	1.0	8379.4	0.000
607.8	27.765	8917.4	-.4	8917.0	.882
1217.4	29.272	9400.8	-1.6	9399.2	.791
1290.2	29.466	9463.1	-1.8	9461.3	.853
1320.7	29.552	9490.7	-1.9	9488.8	.902
1351.2	29.626	9514.4	-1.9	9512.5	.776
1381.7	29.910	9605.5	-2.2	9603.3	2.980

REMARKS :

NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

INTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-52
LOCATION : J-62
DATE : FEBRUARY 7,1981.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9603 kpa
8330
8462
8594
8725
8859
8990
9122
9254
9395
9518
9650
PRESSURE (KILOPASCALS)
0
188
376
564
752
940
1128
1316
1504
1692
1880
DEPTH BELOW CF (METERS)

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY, ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : FOUR POINT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 7 - 16,1981
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF: 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : 0 KPAG
RUN DEPTH CF : 1368.2
TEMPERATURE AT RUN DEPTH : 55.6 C
PRES. AT RUN DEPTH : 0.0

SHUT-IN TIME : FEB.10 2310h.1981
ON/OFF BOT. : 7/2-1342h - 16/2-1105h
SURFACE TEMP. :
PRES. AT MID-POINT OF PERF. : 29.0
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CAL. EQU. : 320.81 * Defl. + 10.17

CLOCK RANGE : 180 HOURS
LATEST CALIBRATION : 19/11/80

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
Depth : 1368.2 m-cf						
ON BOTTOM	0.00	29.650	9522.1	-1.9	9520.2	9549.2
FEB.7 1342h.	4.00	29.653	9523.1	-1.9	9521.1	9550.1
	8.00	29.653	9523.1	-1.9	9521.1	9550.1
	12.00	29.653	9523.1	-1.9	9521.1	9550.1
	16.00	29.645	9520.5	-1.9	9518.6	9547.6
FEB.8 0900h.	19.30	29.658	9524.7	-1.9	9522.7	9551.7
FLOW RATE #1	0.00	29.658	9524.7	-1.9	9522.7	9551.7
	.25	26.983	8666.5	.2	8666.7	8695.8
	.50	20.805	6684.6	2.8	6687.3	6716.3
	.75	20.722	6657.9	2.8	6660.7	6689.7
	1.00	21.764	6992.2	2.5	6994.7	7023.7
	1.50	22.659	7279.3	2.2	7281.5	7310.6
FEB.8 1100h.	2.00	23.197	7451.9	2.0	7454.0	7483.0
SHUT IN	0.00	23.197	7451.9	2.0	7454.0	7483.0
	.25	28.445	9135.5	-1.0	9134.6	9163.6
	.50	29.052	9330.2	-1.4	9328.8	9357.8
	.75	29.231	9387.7	-1.6	9386.1	9415.1
	1.00	29.286	9405.3	-1.6	9403.7	9432.7
FEB.8 1300h.	2.00	29.317	9415.3	-1.7	9413.6	9442.6
FLOW RATE #2	0.00	29.317	9415.3	-1.7	9413.6	9442.6

REMARKS :

GRADIENT OF 1.878 KPAG/M WAS USED TO EXTRAPOLATE TO MPP.
GRADIENT WAS TAKEN FROM TEST DONE ON FEB.7 1981.
NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS(1976)LTD. TEST BY : D.B.

CALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	.25	18.901	6073.7	3.4	6077.1	6106.1
	.50	18.634	5988.1	3.5	5991.6	6020.6
	.75	19.113	6141.7	3.3	6145.1	6174.1
	1.00	19.717	6335.5	3.1	6338.6	6367.6
	1.50	20.197	6489.5	3.0	6492.5	6521.5
FEB.8 1500h.	2.00	20.062	6446.2	3.0	6449.2	6478.2
SHUT IN	0.00	20.062	6446.2	3.0	6449.2	6478.2
	.25	28.213	9061.1	-.8	9060.3	9089.3
	.50	29.029	9322.9	-1.4	9321.4	9350.5
	1.00	29.213	9381.9	-1.6	9380.3	9409.3
FEB.8 1700h.	2.00	29.269	9399.9	-1.6	9398.2	9427.3
FLOW RATE #3	0.00	29.269	9399.9	-1.6	9398.2	9427.3
	.25	13.641	4386.3	5.4	4391.6	4420.7
	.50	14.212	4569.5	5.1	4574.6	4603.6
	.75	14.221	4572.4	5.1	4577.5	4606.5
	1.00	14.631	4703.9	5.0	4708.9	4737.9
	1.50	14.517	4667.3	5.0	4672.3	4701.4
FEB.8 1900h.	2.00	14.831	4768.1	4.9	4773.0	4802.0
SHUT IN	0.00	14.831	4768.1	4.9	4773.0	4802.0
	.25	24.075	7733.6	1.8	7735.4	7764.4
	.50	28.540	9166.0	-1.0	9165.0	9194.0
	.75	29.283	9404.4	-1.6	9402.7	9431.7
	1.00	29.431	9451.8	-1.8	9450.1	9479.1
FEB.8 2100h.	2.00	29.594	9504.1	-1.9	9502.2	9531.2
FLOW RATE #4	0.00	29.594	9504.1	-1.9	9502.2	9531.2
	.25	11.099	3570.8	5.8	3576.6	3605.6
	.50	12.189	3920.5	5.7	3926.2	3955.2
WELL FREEZING OFF	.75	11.927	3836.4	5.7	3842.1	3871.1
	1.00	11.982	3854.1	5.7	3859.8	3888.8
	1.25	10.287	3310.3	5.8	3316.1	3345.1
	2.00	13.840	4450.1	5.3	4455.4	4484.4
EXTENDED FLOW	3.00	14.040	4514.3	5.2	4519.5	4548.5
	3.50	13.677	4397.8	5.3	4403.2	4432.2
	3.75	13.617	4378.6	5.4	4384.0	4413.0
	4.00	23.918	7683.2	1.8	7685.0	7714.1
	4.50	28.445	9135.5	-1.0	9134.6	9163.6
	5.00	14.408	4632.4	5.1	4637.4	4666.4
	6.00	14.567	4683.4	5.0	4688.4	4717.4
	7.00	14.508	4664.4	5.0	4669.5	4698.5
	8.00	18.997	6104.5	3.4	6107.9	6136.9

ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME hrs	DEFL mm	PRESSURE KPAG CALC	CORR	CORRECTED	MIDPNT
	9.00	20.034	6437.2	3.0	6440.2	6469.2
	10.00	20.111	6461.9	3.0	6464.9	6493.9
	11.00	20.998	6746.5	2.7	6749.2	6778.2
	12.00	20.416	6559.8	2.9	6562.7	6591.7
	13.00	20.056	6444.3	3.0	6447.3	6476.3
	14.00	20.193	6488.2	3.0	6491.2	6520.2
	14.25	20.193	6488.2	3.0	6491.2	6520.2
	14.50	16.904	5433.1	4.1	5437.2	5466.2
	15.00	14.448	4645.2	5.0	4650.2	4679.3
	16.00	13.697	4404.3	5.3	4409.6	4438.6
	17.00	13.641	4386.3	5.4	4391.6	4420.7
	18.00	13.664	4393.7	5.3	4399.0	4428.0
	19.00	13.462	4328.9	5.4	4334.3	4363.3
	20.00	13.309	4279.8	5.5	4285.3	4314.3
	24.00	13.218	4250.6	5.5	4256.1	4285.1
	28.00	13.132	4223.0	5.5	4228.5	4257.6
	32.00	13.068	4202.5	5.6	4208.0	4237.1
	36.00	13.027	4189.3	5.6	4194.9	4223.9
	40.00	13.107	4215.0	5.5	4220.5	4249.5
	44.00	13.069	4202.8	5.6	4208.4	4237.4
	48.00	12.874	4140.2	5.6	4145.9	4174.9
FEB.10 2310h.	50.17	12.899	4148.3	5.6	4153.9	4182.9
SHUT IN	0.00	12.899	4148.3	5.6	4153.9	4182.9
	.25	22.504	7229.6	2.3	7231.9	7260.9
	.50	26.680	8569.3	.5	8569.8	8598.8
	.75	27.664	8885.0	-.3	8884.7	8913.7
	1.00	27.690	8893.3	-.3	8893.0	8922.0
	1.25	28.464	9141.6	-1.0	9140.6	9169.7
	1.50	28.532	9163.4	-1.0	9162.4	9191.4
	1.75	28.514	9157.7	-1.0	9156.6	9185.7
	2.00	28.399	9120.8	-.9	9119.8	9148.9
	2.50	28.313	9093.2	-.8	9092.3	9121.3
	3.00	28.192	9054.4	-.7	9053.6	9082.6
	4.00	28.228	9065.9	-.8	9065.1	9094.1
	5.00	28.288	9085.2	-.8	9084.3	9113.3
	6.00	28.353	9106.0	-.9	9105.1	9134.1
	8.00	28.500	9153.2	-1.0	9152.2	9181.2
	10.00	28.600	9185.2	-1.1	9184.2	9213.2
	14.00	28.762	9237.2	-1.2	9236.0	9265.0
	18.00	28.865	9270.3	-1.3	9269.0	9298.0

1 kPa - vs. psig
Elev 1511.9m = 13.41 psi to Pa
2461' = 92.3

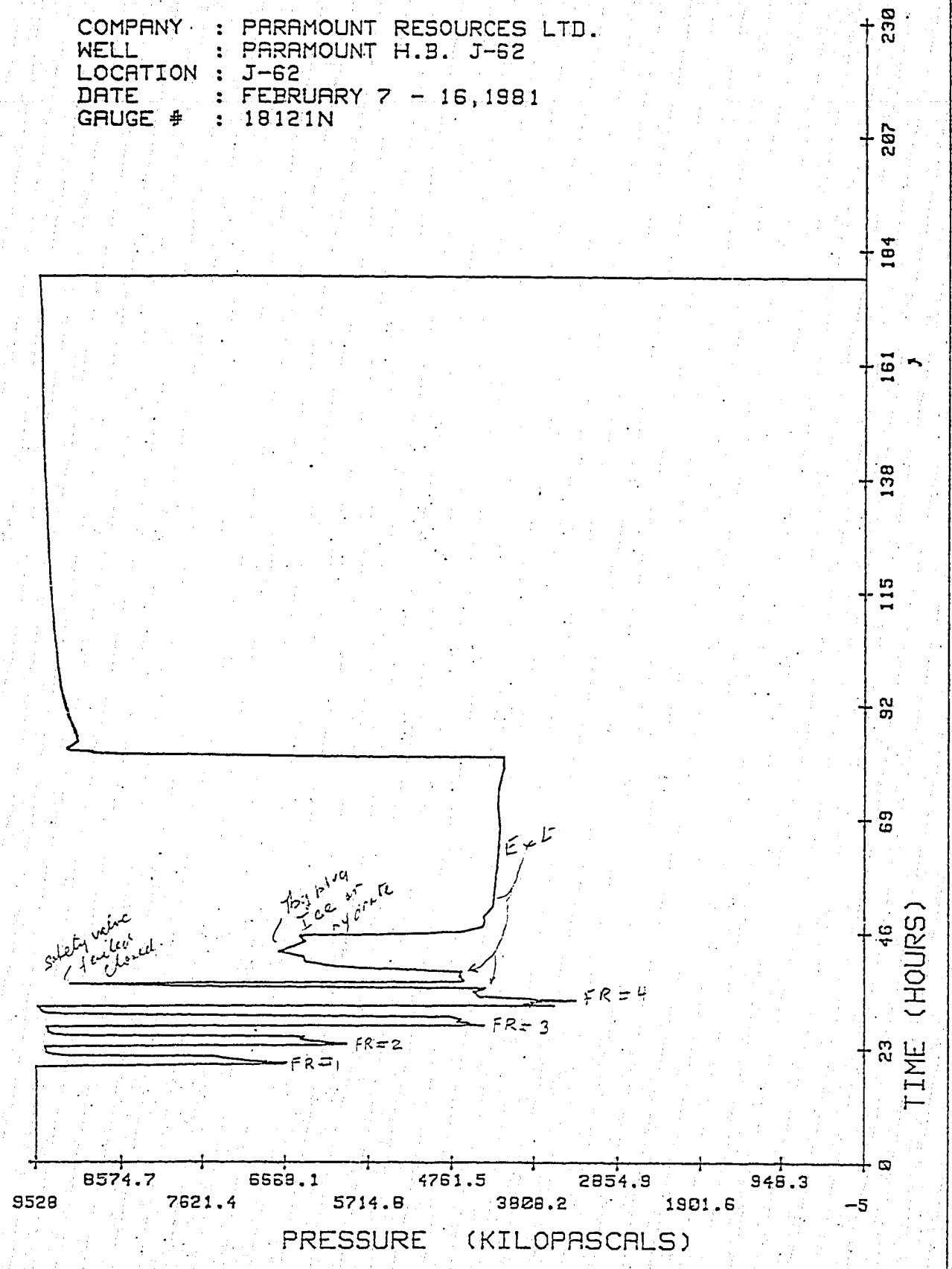
ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD. WELL NAME : PARAMOUNT H.B. J-62
DATE OF TEST : FEBRUARY 7 - 16,1981 LOCATION : J-62
DEPTH : 1368.2 SERIAL NO. : 18121N

COMMENTS	TIME	DEFL	PRESSURE KPAG			
	hrs	mm	CALC	CORR	CORRECTED	MIDPNT
	26.00	29.016	9318.7	-1.4	9317.3	9346.3
	34.00	29.140	9358.5	-1.5	9357.0	9386.0
	42.00	29.222	9384.8	-1.6	9383.2	9412.2
	50.00	29.287	9405.6	-1.6	9404.0	9433.0
	58.00	29.361	9429.4	-1.7	9427.7	9456.7
	66.00	29.409	9444.8	-1.7	9443.0	9472.0
	74.00	29.445	9456.3	-1.8	9454.6	9483.6
	82.00	29.460	9461.1	-1.8	9459.4	9488.4
	90.00	29.485	9469.2	-1.8	9467.4	9496.4
CLOCK EXPIRED	97.00	29.565	9494.8	-1.9	9493.0	9522.0
OFF BOTTOM	0.00	0.000	10.2	-10.2	0.0	29.0
FEB.16 1105h.	0.00	0.000	10.2	-10.2	0.0	29.0

COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 7 - 16, 1981
GAUGE # : 18121N



ALMECH SUBSURFACE TOOLS (1976) LTD.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : PARAMOUNT RESOURCES LTD.
ADDRESS : CALGARY,ALBERTA.
FIELD & POOL : SULFER POINT
TYPE OF TEST : GRADIENT
PROD. INT CF : 1381.4 to 1385.9
ELEV.(CF) : 751.9 (KB) : 755
POOL DATUM :

WELL NAME : PARAMOUNT H.B. J-62
LOCATION : J-62
STATUS : GAS
DATE OF TEST : FEBRUARY 16,1981.
PROD. THROUGH : TUBING
MID-POINT OF PROD. INT. CF : 1383.65
DATUM DEPTH OF WELL CF : 0.00

STATIC TEST

TUBING PRES : 8384 KPAG
CASING PRES : 0 KPAG
RUN DEPTH TOP CF : 1381.7
TEMPERATURE AT RUN DEPTH : 55.6 C
GRAD. AT RUN DEPTH TOP : 1.416
PRES. AT RUN DEPTH TOP : 9507.4

SHUT-IN TIME : FEB.10 2310h.1981
ON BOTTOM/OFF BOTTOM : 13:46 - 13:51
SURFACE TEMPERATURE :
PRES. AT MID-POINT OF PERF. : 9510.1
DATUM DEPTH PRESS. : 0.0

NOTE : All above units in metric (Depth in metres cf; Pressure in KPAG)

ELEMENT SERIAL NO. : 18121N
RANGE : 0 - 16200
CLOCK RANGE : 3 HOURS
CAL. EQUATION : 320.81 * Defl. + 10.17 LATEST CALIBRATION : 19/11/80

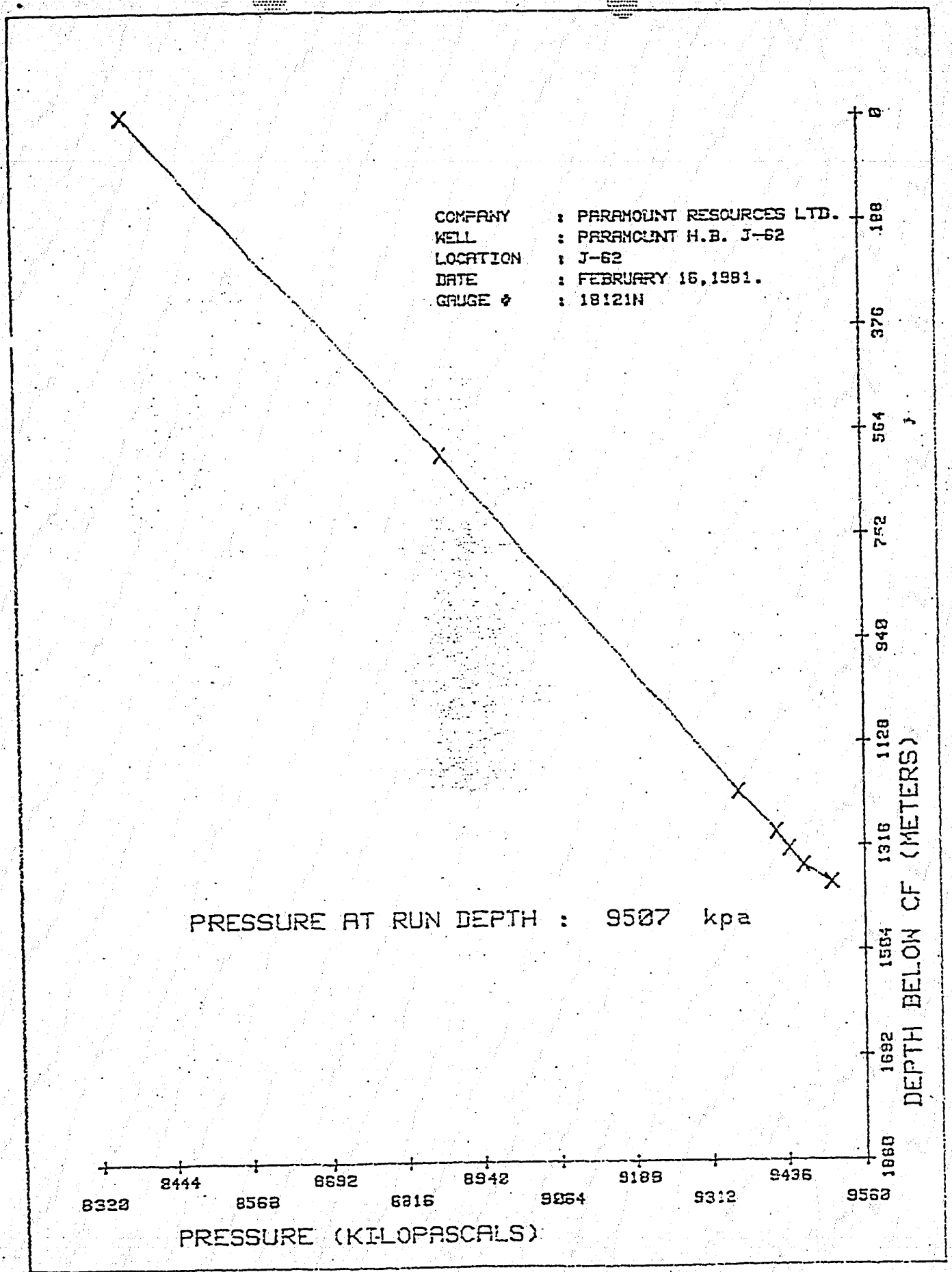
TOP RECORDER DEPTH (M-CF)	DEFLECTION MM	CALCULATED PRESSURE KPAG	CORRECTION P + PC KPAG	CORRECTED PRESSURE KPAG	GRADIENT KPAG/M
-1.8	26.047	8366.2	1.0	8367.2	0.000
607.8	27.640	8877.3	-.3	8877.0	.836
1217.4	29.147	9360.7	-1.5	9359.2	.791
1290.2	29.333	9420.4	-1.7	9418.7	.818
1320.7	29.401	9442.2	-1.7	9440.5	.713
1351.2	29.475	9465.9	-1.8	9464.2	.776
1381.7	29.610	9509.3	-1.9	9507.4	1.416

REMARKS :

NO TOP CHART DUE TO CLOCK FAILURE.

SURVEY COMPANY : ALMECH SUBSURFACE TOOLS (1976)LTD. TEST BY : D.B.

INTERPRETATION BY : E. S. KYLE INSTRUMENT LTD.


COMPANY : PARAMOUNT RESOURCES LTD.
WELL : PARAMOUNT H.B. J-62
LOCATION : J-62
DATE : FEBRUARY 16,1981.
GAUGE # : 18121N
PRESSURE AT RUN DEPTH : 9507 kpa
0
188
376
564
752
940
1128
1316
1504
1692
1880
DEPTH BELOW CF (METERS)
8320
8444
8568
8692
8816
8942
9064
9188
9312
9436
9560
PRESSURE (KILOPASCALS)