

EXCO

CAMERON RIVER L-II

9211-E9-1-1



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

D.A. 1210

E.A. 213

Nova Scotia
Newfoundland
Gulf of St. Lawrence

☐ West Coast
☐ Northern
☐ Hudson Bay

☐ Exploratory
☒ Development
☐ Delineation
☐ Service

AUTHORITY TO DRILL A WELL

APPLICATION

This application is submitted with Section 82 of the Canada Oil and Gas Drilling Regulations. When approved under Section 83 of the Regulations, it is the requisite authority for the commencement of drilling operations.

Well Name in Full: FORWARD ET AL CAMERON RIVER L-11
Operator: Forward Resources Ltd. Drilling Program No.: N/A
Contractor: Arnco Industries Ltd. Permit or Lease No.: N/A
Drilling Rig ~~XXXXXX~~ Arnco #1 Estimated Well Cost: Less than One (1) Million Dollars
Location-Unit: L Section: 11 Grid Area: 60-10-117-00
Coordinates: Lat: 60° 00' 38.49" N Long: 117° 03' 28.00" W
Area: Cameron Hills, N.W.T. Field/Pool: N/A
Elevation ~~ASL~~ KB: 318.00 m (ASL) Ground 314.03 ASL
Approx. Spud Date: December 20, 1984 Estimated Days on Location: 20 days
Anticipated Total Depth: 1014 m Target Horizon(s) Keg River, Oil (primary)
UWI: 300L113010117000 Slave Point, Gas (secondary)
Bistcho, Gas (secondary)

EVALUATION PROGRAM

Ten-metre sample intervals N/A
Five-metre sample intervals As specified from under the conductor casing to T.D.
Canned sample intervals At 10 m intervals - for geochemical analyses
Conventional cores at Not anticipated
Logs and Tests As specified in drilling program

CASING AND CEMENTING PROGRAM

O.D.	Weight:	Grade:	Setting Depth (m KB)	Cementing Program (Volumes):
339 mm	81.1 kg/m	K-55	Approx. 55 m	Class "G" + 3% CaCl ₂ 100% excess
244 mm	53.57 kg/m	K-55	300 m	Class "G" + 2% CaCl ₂ 50% excess
139.7 mm	20.83 kg/m	K-55	1014 m	Class "G" + .75% CFR-2 30% excess

B.O.P. Equipment: (Surface to T.D.)

Refer to accompanying drilling program.

Other Information:

Refer to accompanying drilling program.

Signed: [Signature] Title: President
Date: November 29, 1984 Company: Forward Resources Ltd.

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Signed: [Signature]
Engineering Branch
Date: 18 Dec 84
File: 9211-F9-3-1
9211-E9-1-1

Department of Energy,
Mines and Resources
Ministère de l'Énergie
des Mines et des Ressources

Department of Indian Affairs
and Northern Development
Ministère des Affaires indiennes
et du Nord Canadien

Canada



Canada Oil and Gas Administration du pétrole
Lands Administration et du gaz des terres du Canada

Nova Scotia ☐
Newfoundland ☐
Gulf of St. Lawrence ☐

West Coast ☐
Northern ☒
Hudson Bay ☐

Well Status
Suspended ☐
Completed ☐
Abandoned ☒

WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Exco et al Cameron River L-11 Area: Cameron Hills, N.W.T.
Grid Area: 60 - 10 - 117 - 00 Field No: N/A
Permit or Lease No.: N/A Final Coordinates: Lat: 60° 00' 38.49" Long: 117° 03' 28.00"
Drilling Unit: N/A Elevations RT/KB: 318.58 m SF/GL: 314.03 m
Spud Date: 1984-12-23 0300 hrs Rig Released: 1985-01-18 1600 hrs Total Depth: 1105.8 m

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
339 mm	81.1 kg/m	K-55	59.7	10.2 T Class "G" + 2% CaCl ₂ to surface
244 mm	53.7 kg/m	K-55	302.4	18.5 T Class "G" + 2% CaCl ₂ to surface

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Gary Laviolette from
(person) John Hamilton of the Canada Oil and Gas Lands Administration by means of
verbal confirmation on January 16 1985 Abandonment program by telecopied
report 1985-01-19

Type of Plug:	Interval:	Felt:	Cement and Additives:
Cement	1000 m to 775 m	Yes at 762.5 m	Class "G" + 2% CaCl ₂ 11.7 m ³
Cement	330 m to 270 m	Yes at 263.3 m	Class "G" + 3% CaCl ₂ 3.5 m ³
Cement	25 m to 0 m	No	Class "G" + 3% CaCl ₂ 2.0 m ³

Lost Circulation/Overpressure Zones:

Equipment left on Seafloor (Describe): N/A

Provision for Re-entry (Describe and attach sketch): N/A

Cores: Type: N/A Intervals: N/A

Other Downhole Completion/Suspension Equipment: None

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: G. Laviolette P. Eng.
Name: Gary Laviolette

Winterhawk Petroleum Consulting Services Ltd.
Agents of Exco Energy Ltd.
Title: Special Projects Engineer
Date: February 1, 1985

Acknowledged by: [Signature]
Engineering Branch

Date: 1985.02.19

File: 9211-F-9-3-1

Department of Energy,
Mines and Resources

Department of Indian Affairs
and Northern Development

Ministère de l'Énergie,
des Mines et des Ressources

Ministère des Affaires indiennes
et du Nord canadien

Canada

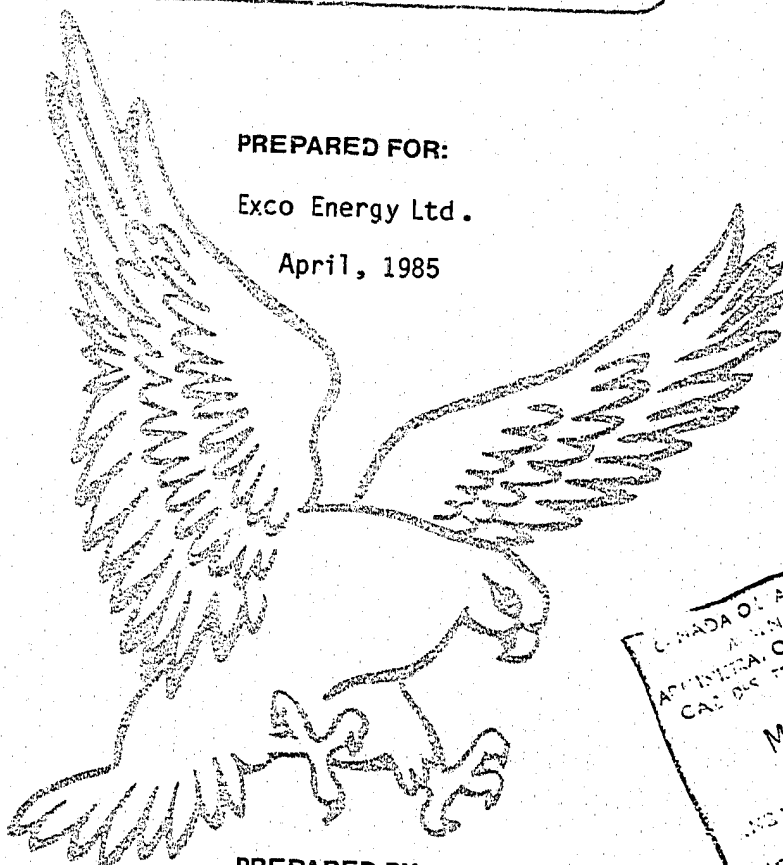
9211-E9-1-1

EXCO ET AL CAMERON RIVER
L-11
60°00' 38.49"N 117°03' 28.00"W
FINAL DRILLING SUMMARY

PREPARED FOR:

Exco Energy Ltd.

April, 1985



PREPARED BY:

Winterhawk Petroleum Consulting Services Ltd.
102, 1040 - 7th Avenue S.W., Calgary, Alberta T2P 3G9 Telephone 237-8370

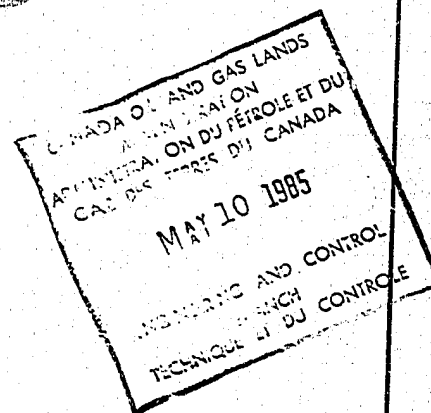


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SECTION I

SUMMARY - GENERAL DATA

INTRODUCTION

In October of 1983 Exco Energy Ltd. concluded a farmout agreement with Hudson's Bay Oil and Gas Company Limited ("HBOG") and Paramount Resources Limited ("Paramount"), whereby Exco was committed to complete four hundred miles (400 m) of seismic and to drill two (2) wells prior to May 1, 1985. By completing the terms of the Exploration Agreement (No. 213), in a timely fashion, Exco would be entitled to earn a specified interest in the subject lands.

Towards this end, Exco contracted for Arnco Industries of Calgary, Alberta to complete the drilling program on a turnkey contract basis. Winterhawk Petroleum Consulting Services Ltd., acting as agents of Exco, obtained the required licences, both from the Canada Oil and Gas Lands Administration (COGLA) and the Department of Indian and Northern Affairs (DIAND), for the drilling of the first well,

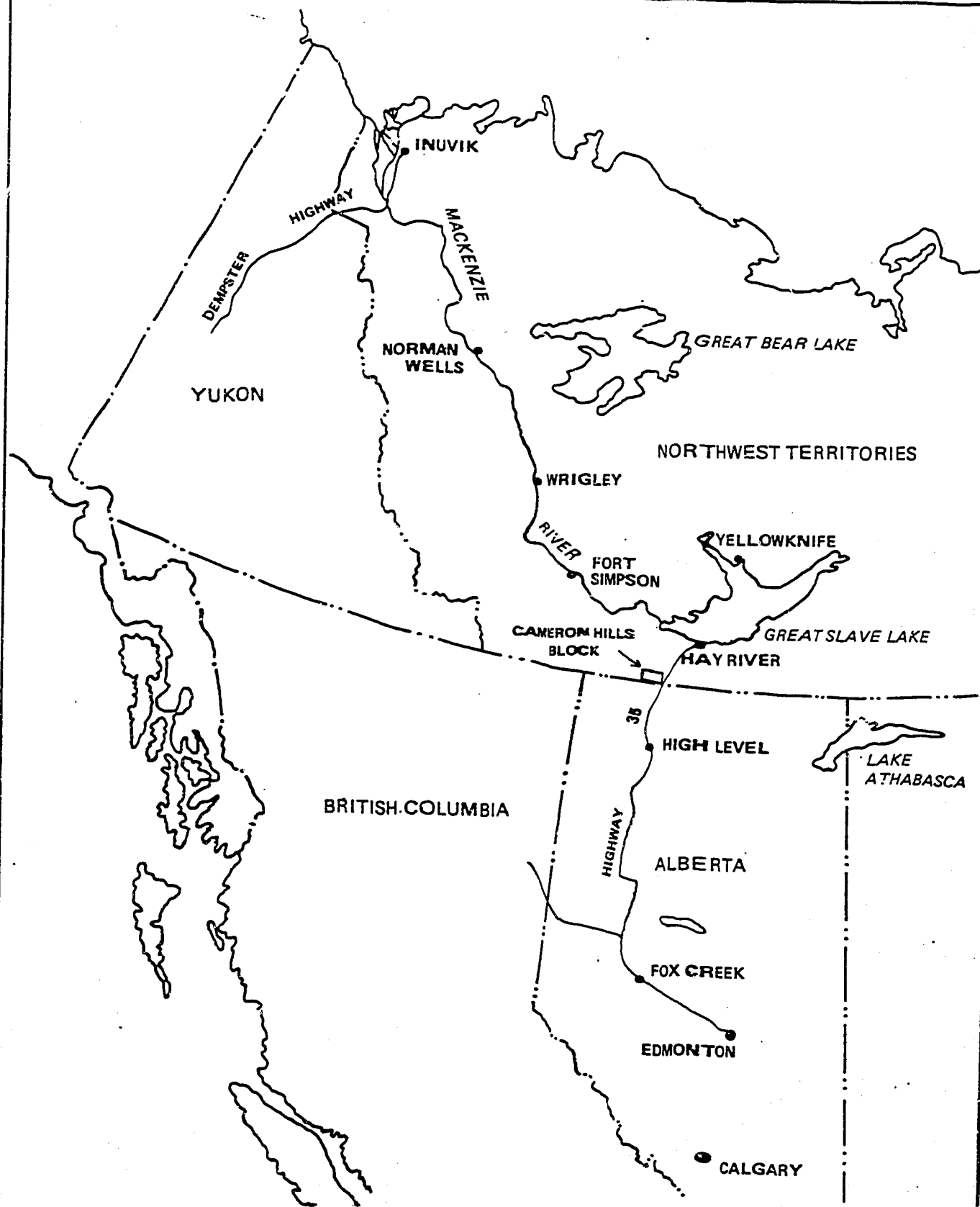
Exco et al Cameron River L-11.

The drilling rig, together with supplies and support services for this project were transported to the well location in mid December, 1984. Since the well site was located only several miles from the main highway which runs north from High Level, Alberta, to Hay River, North West Territory, transportation was not a major concern.

Rigging up required only several days and consequently, the rig was spudded December 20, 1984, only three (3) days later than originally prognosed.

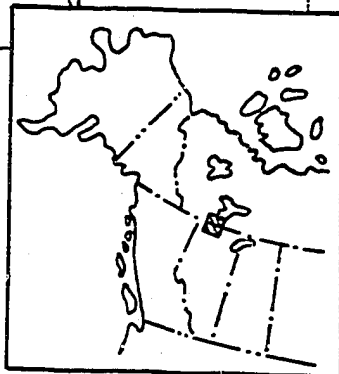
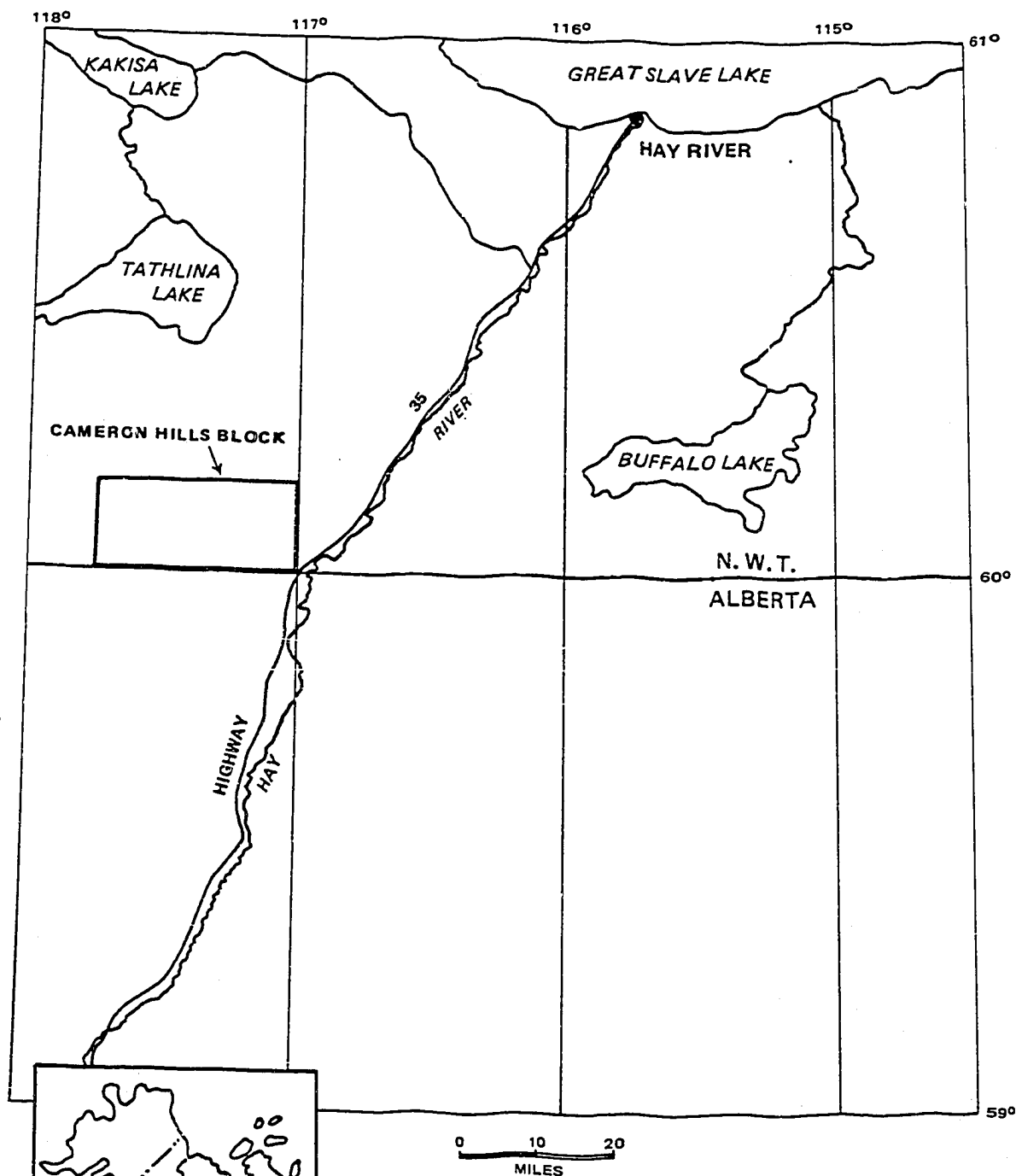
The 311 mm surface hole drilling proceeded on schedule and 244.4 mm surface casing was run and set to the 302 metre depth by December 28, 1984. After nippling up and pressure testing, 215.9 m main hole was drilled to the 858 metre depth, at which point a drill stem test was conducted to test the sulphur point formation. Following the drill stem test, main hole was drilled to total depth of 1105.8 metres. After logging the well two additional tests were run before a decision was made to abandon the well.

Exco hereby gives notice that the enclosed report is to be considered the "Final Drilling Summary" for the Exco et al Cameron River L-11 well.



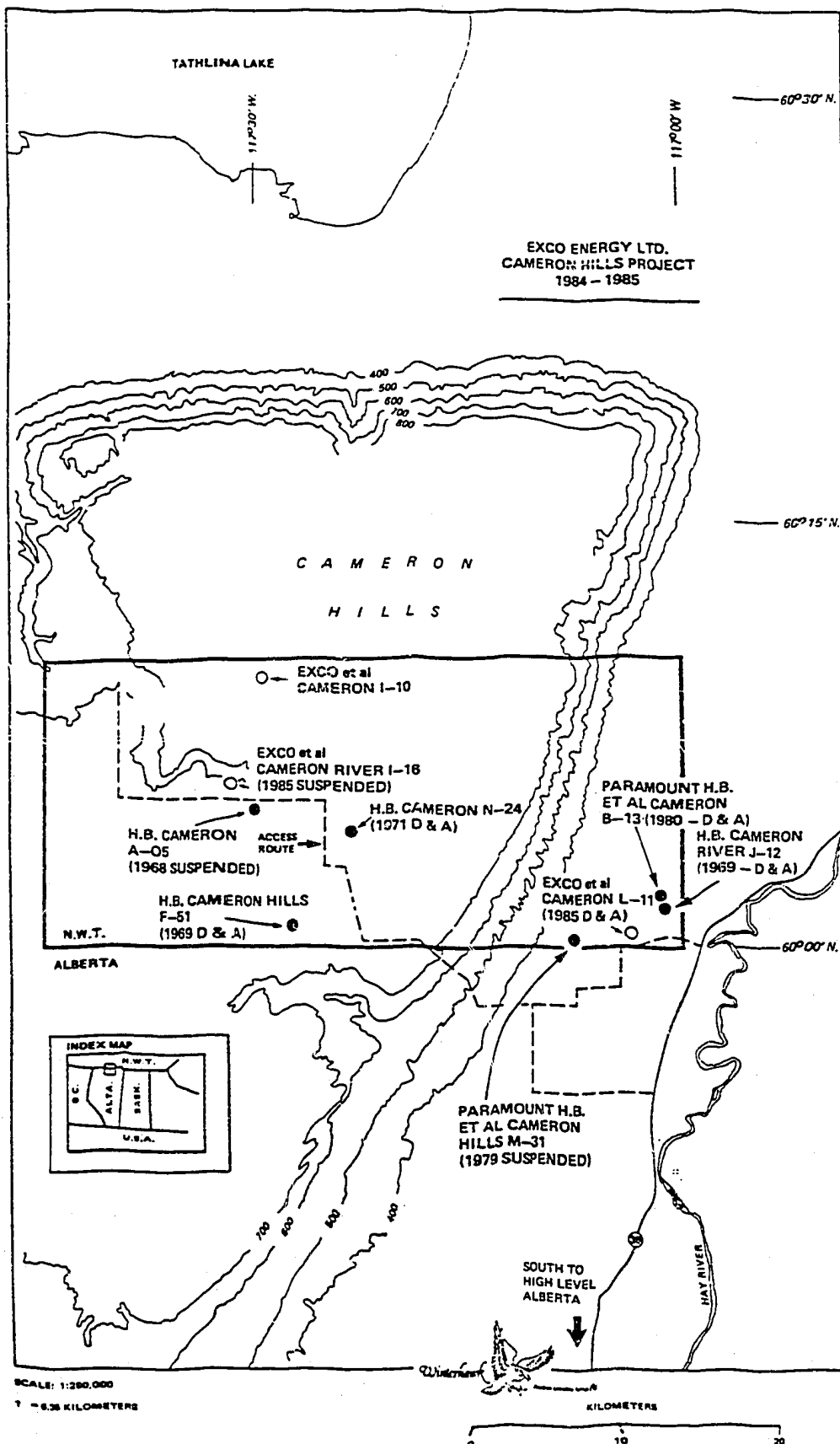
EXCO ENERGY LTD.
INDEX MAP SHOWING 1984 - 1985 CAMERON HILLS
PROJECT





EXCO ENERGY LTD.
1984 - 1985 CAMERON HILLS PROJECT





GENERAL WELL INFORMATION

WELL NAME: Exco et al Cameron River L-11

LESSOR: Dome Petroleum Limited (on behalf of Hudson's Bay Oil and Gas Company Limited, and Paramount Resources Limited)

OPERATOR: Exco Energy Ltd.
6th Floor, 700 - 4th Avenue S.W.
Calgary, Alberta
T2P 3J4

GRID AREA: 60-10-117-15; Unit L; Section 11

CO-ORDINATES: 60° 00' 38.49"N
117° 03' 28.00"W

UNIQUE WELL IDENTIFIER: 300 L11 60 10 117 000

EXPLORATION AGREEMENT: No. 213

DRILLING AUTHORITY: No. 1210 issued 84-12-18

DRILLING CONTRACTOR: Arnco Industries Limited
2181 - 41 Avenue N.E.
Calgary, Alberta
T2E 6P2

DRILLING RIG: Arnco #1

CLASSIFICATION: New Field Exploratory (Northern)

ELEVATIONS: G.L. 314.03m
K.B. 318.58m

SPUD DATE: 1984-12-23 @ 0300 hrs.

COMPLETED DRILLING DATE: 1985-01-14 @ 0400 hrs.

RIG RELEASE: 1985-01-18 @ 1600 hrs.

WELL STATUS: Dry & Abandoned



WELL SUMMARY

DATE 84-12-23Well Exco et al Cameron River L-11

Location _____

Elevations: KB 318.58 m

GL _____

314.03 m

CF _____

4.55 m

History: Spud Date 84-12-23 0300 hrsR.R. Date 85-01-18 1600 hrs

TD _____

1105.8 m

Status Abandoned

Producing Zone(s) _____

Nil

A. DRILLING DETAILS

Hole Size 444mm

Depth _____

59.77 m

Logs _____

N/A

Hole Size 311mm

Depth _____

302.60 m

Logs _____

N/A

Hole Size 215mm

Depth _____

1105.80 m

Logs _____

DIL/BCS-GR-CL/CDL-CNS-GR-CL 4/WEL

Hole Size _____

Depth _____

Logs _____

Casing Size 339.7mm

Grade _____

K-55

Depth _____

0 - 59.72 m

Cement Vol. _____

7.75 m³Casing Size 244.4mm

Grade _____

K-55

Depth _____

0 - 302.36 m

Cement Vol. _____

14.06 m³

Casing Size _____

Grade _____

Depth _____

Cement Vol. _____

Casing Size _____

Grade _____

Depth _____

Cement Vol. _____

DST No. 1

Int _____

340.5 m - 858 m

Zone _____

Bischo Sulphur Point

DST No. 2

Int _____

961 m - 985.5 m

Zone _____

Keg River

DST No. 3

Int _____

782 m - 805 m

Zone _____

Slave Point

DST No. _____

Int _____

Zone _____

DST No. _____

Int _____

Zone _____

Core No. _____

Int _____

Zone _____

Rec. _____

Core No. _____

Int _____

Zone _____

Rec. _____

Core No. _____

Int _____

Zone _____

Rec. _____

Plug No. 1

Int _____

1000 m - 775 m

Cement Vol. _____

11.80 m³Felt 762.5 mPlug No. 2

Int _____

330 m - 270 m

Cement Vol. _____

3.50 m³Felt 263.3 mPlug No. 3

Int _____

25 m - 0 Surf.

Cement Vol. _____

1.98 m³Felt Surface

Plug No. _____

Int _____

Cement Vol. _____

Felt _____

B. COMPLETION DETAILS

COMPLETION DATE: _____

Perforations: Int _____

N/A

Zone _____

N/A

Type _____

N/A

Int _____

Zone _____

Type _____

Int _____

Zone _____

Type _____

Stimulations: Formation _____

Tubing Details: _____

Anchor/Packer Details: _____

Pumping Equipment: _____

Remarks: _____

See specific forms for more detail.

ENGINEER _____

Mel Nichols

DOWNHOLE PROBLEMS ENCOUNTERED

SUMMARY

After rigging up to spud, 444 mm conductor hole was drilled to the 59.77 metre mark. At this point 339 mm conductor casing was run and cemented to surface. A diverter was subsequently installed to provide protection while drilling surface hole.

Surface hole required the drilling of 311 mm hole to the 302.36 metre mark. This hole section was drilled without problems, as lost circulation was not noted. In fact, aside from several intervals where tight hole was experienced this section was drilled in near record time. Following the running and cementing of 244 mm surface casing, a 229 mm, 21 000 kPa stack was nipples up. After drilling out the float and shoe a formation integrity test was conducted. Accidentally, the formation was broken down while running the leak off test. Moreover, communication was noted between the 339 mm conductor and the 244 mm surface casing which necessitated the running of a RTTS packer in order to determine if the casing had also parted. Fortunately, the fracture was confined to the annulus where it appeared that the cement bond was less than adequate. As a result, an EZI-drill packer was run to the base of the surface casing and a cement squeeze was run. After successfully pressure testing the annulus, the EZI-drill packer was drilled out and 215.9 mm main hole drilling continued. In total, approximately 52 hours of lost time are attributed to the operations required to establish a competent cement bond.

Main hole drilling continued down to the 858 metre depth where a drill stem test was run to test the Sulphur Point formation. Prior to this point some sloughing shale had presented a problem between 777 metres and 848 metres. Gasified mud had also been noted which required raising the drilling fluid density to 1120 Kg/m³.

After running the Sulphur Point test, 215.9 mm main hole was drilled to total depth of 1105.8 metres. While drilling the interval from 879 metres and below the drilling mud had to be treated with Soda Ash as anhydrite was prevalent in this lower section.

Once total depth was reached, the hole was logged and then drill stem tests were run across the Keg River (961.0m - 985.0m) and the Slave Point formations (782.0m - 805.0m). Successful tests were run on the first try across both of these formations. Following evaluation a decision was made to abandon the well.

SYNOPSIS OF LOST TIME

<u>DRILLING DAY</u>	<u>PARTICULARS</u>	<u>LOST TIME</u>
4	Rig Repair	5 hours - work on hydraulic lines
6	Tight Hole	1 hour - work stuck pipe at 185 m
7	Tight Hole	at 282 m
10	Leak-off Test	5 hours - communication noted between 339 mm and 244 mm casing
11	Leak off - Squeeze Cement	24 hours - wait on RTTS packer - test casing and formation; trip out and run in with EZI - drill packer
12	Squeeze Cement	23 hours - squeeze cement - - run in and drill out packer - pressure test - drill ahead
15	Tight Hole	Between 777 m and 848 m; sloughing shale; mud gasified - weight up slightly to 1120 Kg/m ³
17	Anhydrite Present	Treat mud with Soda Ash from 899 m mark below
18	Anhydrite	Treatment of drilling fluid
26	Waiting on Pumping Unit	14.25 hours - wait on

SECTION II
GEOLOGICAL SUMMARY

GEOLOGICAL REPORT

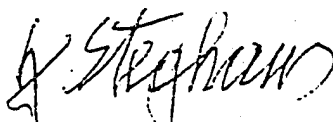
FORWARD et al CAMERON RIVER L-11

60°00' 38.49'N, 117°03' 28.00'W

PREPARED FOR

EXCO ENERGY LTD.

JANUARY, 1985

A handwritten signature in dark ink, appearing to read 'H. Steghaus', is written over the printed name.

H. Steghaus, PH.D., P. Geol.

GEOLOGICAL MARKERS

<u>MARKERS</u>	<u>PROGNOSIS</u> <u>m</u>	<u>SAMPLE</u> <u>m</u>	<u>LOG</u> <u>m</u>	<u>SUBSEA</u> <u>m</u>
Hay River	328.6	----	380.0	- 61.4
Beaverhill Lake	-----	----	694.3	-375.7
Slave Point	756.6	775	774.0	-455.4
Watt Mountain	808.6	830	827.0	-508.4
Bistcho/Sulphur Point	813.6	840	838.5	-519.9
Muskeg	833.6	860	859.7	-541.1
Keg River	923.6	970	963.5	-644.9
Chinchaga	-----	1045	1043.0	-724.4
Granite Wash	-----	1065	1062.0	-743.4
Red Beds	-----	1085	1077.0	-758.4
Pre-Devonian	998.6	1090	1089.0	-770.4

SAMPLE DESCRIPTION

FORWARD et al CAMERON RIVER L-11
60°00' 38.49'N, 117°03' 28.00'W

- 745 - 750m Shale, greenish gray to dark gray, slightly calcareous, micropyrritic; stringers of limestone, buff, microcrystalline, part argillaceous
- 750 - 755m Shale, black, fissile, variably calcareous
- 755 - 760m Limestone, buff to tan, micro to crytocrystalline, micropyrritic, trace fossil debris; shale, black to dark brown, calcareous; shale, greenish gray to dark gray, slightly calcareous; some brachiopod fragments in shales
- 760 - 765m Shale, gray, slightly greenish, few pieces dark gray, micropyrritic, part calcareous, little marlstone grading to limestone, buff to gray, part pyritic, few brachiopod fragments
- 765 - 770m Shale, gray to dark gray, calcareous, part micropyrritic, few brachiopod fragments and crinoid ossicles; some limestone, buff to gray, microcrystalline, pyritic, part argillaceous, few crinoid ossicles
- SLAVE POINT 775m
- 770 - 775m Shale as above; limestone, buff to brown, crypto to microcrystalline, part argillaceous, part micropyrritic, few brachiopods
- 775 - 780m limestone, brown to buff, crypto to microcrystalline, few pieces micropyrritic, part argillaceous some coarse calcite fill, probably some vuggy porosity, few brachiopod fragments; stringers of shale, black to gray, variably calcareous, slightly pyritic, few brachiopod fragments
- 780 - 785m Dolomitic limestone, tan, speckled, fine and very fine dolomite crystals, suspended in matrix of crypto to microcrystalline limestone; stringers of shale as above

- 785 - 795m Limestone, brown to buff, micro to cryptocrystalline part argillaceous, few stylolites and brachiopod debris, trace pin-point porosity and spotty condensate staining
- 795 - 800m Limestone, brown to tan, micro to cryptocrystalline, some scattered dolomite crystals, some poor vuggy porosity, spotty light oil stain; stringers of shale, black, calcareous
- 800 - 805m Limestone, tan to brown, micro to cryptocrystalline, trace pin-point porosity and bitumen fill; stringers of shale as above
- FORT VERMILION 810m
- 805 - 810m Anhydrite, white to brown, micro to medium crystalline, part calcareous, stringers of dolomite and limestone, brown gray, microcrystalline, argillaceous
- 810 - 815m Shale, greenish gray; splintery; some limestone, brown to tan, micro to cryptocrystalline, grading to dolomite; stringers and lumps of anhydrite, white to tan, microcrystalline
- 815 - 820m Shale, greenish gray to dark gray, splintery part micropyrritic, dolomite grading to anhydrite, buff to tan, microcrystalline
- 820 - 825m Limestone grading to dolomite and anhydrite, buff to tan, microcrystalline; shale, gray, part brownish and slightly calcareous
- WATT MOUNTAIN 830m
- 825 - 835m Shale, gray to brown and dark gray, part micropyrritic; shale, green, waxy, calcareous, slightly pyritic, pentaculites
- BISTCHO / SULPHUR POINT 840m
- 835 - 840m Limestone and some anhydrite, buff to brown, crypto to microcrystalline, slightly pyritic; shale as above
- 840 - 845m Limestone, tan, cryptocrystalline, good vuggy porosity, part condensate stained

- 845 - 850m Limestone, brown to cream, part pelletoidal, few pieces pyritic; stringers of shale, greenish gray
- 850 - 855m Dolomite, tan to brown, finely crystalline, some medium dolomitic vug fill and probably vuggy porosity
- MUSKEG 860 m
- 855 - 865m Dolomite, tan to brown, finely to microcrystalline, little pin-point vuggy porosity, spotty light oil stain; little anhydrite, white to tan, microcrystalline
- 865 - 870m Anhydrite, white to tan, micro to cryptocrystalline
- 870 - 875m Dolomite, tan, very finely to microcrystalline, part anhydritic; anhydrite as above; stringers of shale, gray
- 875 - 880m Mainly gray and green shales (cavings?); dolomite and anhydrite as above, trace poor intercrystalline porosity
- 880 - 885m Anhydrite, white to tan, micro to cryptocrystalline; little dolomite, tan to light brown, finely to microcrystalline; stringers of shale, gray
- 885 - 890m Dolomite, tan to brown, micro to very finely crystalline, part anhydritic, trace pin-point porosity and faint staining; stringers of anhydrite as above, some shale (cavings?)
- 890 - 895m Anhydrite, white to tan, micro to cryptocrystalline; dolomite, tan to dark brown, very finely to microcrystalline, part anhydritic
- 895 - 905m Anhydrite as above; stringers of dolomite, tan to brown, very finely to microcrystalline
- 905 - 915m Anhydrite as above; dolomite tan to brown, micro to very finely crystalline, little very poor intercrystalline porosity with interstitial bitumen
- 915 - 920m Anhydrite, brown to tan, crypto to microcrystalline
- 920 - 925m Anhydrite as above; dolomite, brown to tan, very finely to microcrystalline

- 925 - 935m Anhydrite, cream to brown and gray, crypto to micro-crystalline
- 935 - 940m Dolomite, tan, micro to very finely crystalline, spotty intercrystalline porosity and interstitial bitumen, trace faint oil staining; some anhydrite as above
- 940 - 945m Anhydrite, white to tan, crypto to microcrystalline; stringers of dolomite, tan, microcrystalline
- 945 - 950m Dolomite and anhydrite as above
- 950 - 955m Dolomite, tan to dark brown, micro to very finely crystalline, trace very poor pin-point porosity with heavy oil stain; anhydrite, white to tan, crypto-crystalline
- 955 - 960m Anhydrite as above
- 960 - 965m Anhydrite as above; dolomite, tan, microcrystalline, stringers of shale, gray and brown, slightly calcareous
- KEG RIVER 970m
- 965 - 975m Dolomite, buff to dark brown, microcrystalline, stringers of shale, gray to black
- 975 - 980m Dolomite, buff to tan; few pieces brown, microcrystalline; stringers of shale, black
- 980 - 985m Dolomite, cream to dark brown, very finely to micro-crystalline, few stylolites, trace fair vuggy porosity with residual oil; stringers of shale, black
- 985 - 990m Dolomite, tan, some pieces white or brown, very finely crystalline, trace vuggy porosity, one piece oil stained
- 990 - 995m Dolomite, tan to brown, few pieces cream, finely to microcrystalline, some vuggy porosity and coarse, white vug lining
- 995 - 1000m Dolomite, tan to light brown; micro to very finely crystalline, some gypsum and dolomite vug fill, probably some vuggy porosity

- 1000 - 1005m Dolomite, tan to dark brown, micro to very finely crystalline, few fossil shadows and few closed fractures
- 1005 - 1010m Dolomite, dark brown to tan, micro to very finely crystalline, some coarse white vug fill and vug lining, some closed fractures, trace crinoid ossicles, some fair intercrystalline and some vuggy porosity, trace residual oil or bitumen
- 1010 - 1015m Dolomite, dark brown to brown, micro to medium crystalline, some stylolites and white vug fill and vug lining, probably some vuggy porosity, few crinoid ossicles
- 1015 - 1020m Dolomite, black brown to brown, very finely to microcrystalline, some coarse vug lining and poor vuggy porosity some very poor intercrystalline porosity with heavy oil staining, copper ore in fracture, brachiopod
- 1020 - 1025m Dolomite, brown to black brown, micro to very finely crystalline, some coarse vug lining, fossil shadows, some vuggy porosity
- 1025 - 1035m Dolomite, black brown to tan, micro to very finely crystalline, crinoid ossicles. coarse vug fill, few stylolites, probably some vuggy porosity
- 1035 - 1040m Dolomite as above, micropyrritic and pyritic
- CHINCHAGA 1045m
- 1040 - 1045m Anhydrite, cream to tan and gray, cryptocrystalline; little dolomite, light brown, cryptocrystalline in part probably algae laminate with very poor pinpoint porosity and residual oil; limestone, brown to tan, very finely to microcrystalline
- 1045 - 1050m Anhydrite as above, dolomite, tan to brown, crypto to microcrystalline, part anhydritic, some scattered anhydrite crystals; stringers of shale, gray to light gray
- 1050 - 1055m Anhydrite and shale as above, anhydrite part argillaceous
- 1055 - 1060m Assortment of various shales (largely range siliceous) and dolomites; some buff, cryptocrystalline anhydrite; probably largely cavings

GRANITE WASH 1065m

1060 - 1065m

As above; trace sandstone, clear to white, part calcareous, part siliceous, coarse to very fine, subangular to subrounded, poorly sorted

1065 - 1070m

Dolomite, tan to brown micro to very finely crystalline; shale, gray slightly greenish and calcareous, few pieces green and waxy; sandstone, buff part calcareous, part siliceous, slightly pyritic, very fine to coarse subangular to subrounded, poorly sorted, probably some intergranular porosity

1070 - 1075m

Sandstone, buff, very coarse to fine, calcareous, friable, largely loose grains, subrounded to subangular, poorly sorted, probably fair to good intergranular porosity

1075 - 1080m

Shale, gray and brown, part slightly greenish, part calcareous, part micromicaceous; some sandstone as above, pyritic; siltstone, tan, part very finely sandy, finely pyritic, trace red granite (?)

RED BEDS 1085m

1080 - 1085m

Siltstone, red to gray, few pieces greenish, some scattered small nodules and round grains

PREDEVONIAN 1090m

1085 - 1090m

Siltstone as above, no grains on nodules; quartzite, dark gray, few red (hematite?) spots, dense, hard, microcrystalline, probably silicified siltstone

1090 - 1095m

Quartzite as above, predominantly black

1095 - 1105 m

Gneiss (?)

SECTION III
ENGINEERING SUMMARY

DRILL STEM TESTS

The Sulphur Point, Keg River and Slave Point formations all were successfully tested; in each case on the first run in the hole.

Inflate tests were run across the Keg River and Slave Point formations, while a bottom hole conventional test was run across the Sulphur Point formation. No downhole problems were encountered while running any of the above mentioned tests.



A. WELL DATA

FIELD DRILL STEM TEST REPORT

DATE 85-01-07

Well: Exco et al Cameron River L-11 Location _____
DST No. 1 Interval 840.5 - 858.0 m (bottom hole) Formation Bischo Sulphur Point
Last Casing: Size 244mm Depth 302 m Open Hole: Size 215.9mm Depth 858.0 m
Hole Troubles: Slight sloughing shale Caliper at Packer(s) Unknown - no caliper log
Mud: Wt. 1145 kg/m³ Vis 46 W.L. 6.2 % Oil Nil ppm Cl 550

B. TEST STRING DATA

Testing Company Quinn Testers Ltd. Type of Test Bottom hole conventional
Type and Number of Packers 2 Size 200mm
DP Size 102mm Wt. 20.84 kg/m Length 656.66 m
DC Size 156mm Wt. 135 kg/m I.D. 57 mm Length 171.45 m
Tail Pipe Size 156mm Wt. 135 kg/m Length 955 m Perfs 3.05 m
T.D. String 858.0 m Recorder Depth 845.706 m Water Cushion 72 L inhib. BH Choke 12.7mm
Packer Depth(s) 840.522 m 844.182 m + 2 above interval Weight on Packer(s) 8000 daN
Other Equipment 4 Recorders, Dual Samplers, Pump Out Sub, Safety Joint, Fail Safe Head Jars and Floor Manifold

C. TEST RESULTS

Times: PF 11 ISI 60 Flow 60 SI - Flow - FSI 120
Pressures: PF 559 kPa IH 9830 kPa ISI 9830 kPa IF 559 kPa
TEMP 50 °C FH 9830 kPa FSI 9830 kPa FF 1118 kPa

Flow Descriptions:

Preflow: Fair, increase to strong. Strong throughout. N.G.T.S.Valve Open Flow: Very strong blow. Gas to surface immediately.Flair - 7', decrease to 3 to 4'. Lazy flair throughout.Recoveries: Critical flow prover. Gas sampler. 110 m recovery total.35 m inhibitor + mud. 55 m oil + gas cut mud. 20 m salt water.19,300 parts per million.

D. SAMPLE DETAILS:

Chemex - High Level, Alberta

Sent to: _____ Via: _____ Date Sent: _____

E. REMARKS:

Gas readings: 6.35mm orifice - #1 Shut In 9830 kPa- #2 Shut In 9830 kPa- Final Hydrostatic 9830 kPa

Note: Data reported on this form are field readings taken at the time of test, and are subject to correction.

ENGINEER Mel Nichols

QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST DATA

PHONE 290-1704

CUSTOMER ARNCO DRILLING C/O J-HORN DRILLING DATE 85-01-07 TEST NO. ONE
 LOCATION 60°-00'-38.49"N 117°-03'-28.00"W FORWARD ET AL CAMERON RIVER 1-113
 FORMATION SULPHUR POINT
 TEST INTERVAL 840.5 TO 858 T.D. 858 TEST TYPE DBH
 CUSTOMER REP. Mr. MEL NICHOLS & JACK WEIGEL TESTER TED MONCRIEFF

INS Rec./No. <u>14562</u> 24 Hr. <u>16201</u> <u>833.724</u> Metres	INS Rec./No. <u>19578</u> 24 Hr. <u>35853</u> <u>835.248</u> Metres	OUT Rec./No. <u>15371</u> 24 Hr. <u>36887</u> <u>844.182</u> Metres	OUT Rec./No. <u>19160</u> 24 Hr. <u>46189</u> <u>845.706</u> Metres	Rec./No. _____ Hr. _____ Metres _____
---	---	---	---	---

PERCENTAGE OF POROSITY _____ METRES OF NET PAY _____ No. of Reports Required 5

D.P. Size, mm 102 Wght. kg/m 20.84 D.C.I.D. mm 57 D.C. Above Tool, m 171.45
 Main Hole, mm 215 Rat Hole, mm _____ Rat Hole Depth, m _____
 Mud Wght. kg/m³ 1130 Viscosity, s/L 60 Water Loss cm³ 6.0
 Bottom Choke, mm 12.7 Rubber Size, mm 200 Anchor Size, mm 158 & 127
 Amount and Type of Cushion 72 LITRES INHIBITOR MIXTURE

Preflow <u>10</u> Mins.	1st Shut-In <u>60</u> Mins.	Recorder No. <u>15371</u>	Field Readings
1st Flow <u>60</u> Mins.	2nd Shut-In <u>120</u> Mins.	I H <u>9830</u> kPa	FF <u>1118</u> kPa
2nd Flow _____ Mins.	3rd Shut-In _____ Mins.	I P F <u>559</u> kPa	2nd SI <u>9830</u> kPa
Bottom Hole Temperature °C <u>50</u>		F P F <u>559</u> kPa	I F _____ kPa
K B <u>318.14</u> Gr. <u>314.03</u>		1st SI <u>9830</u> kPa	FF _____ kPa
Started in @ <u>1345</u>	Out of Hole @ <u>0030</u>	I F <u>559</u> kPa	3rd SI _____ kPa
			F H <u>9830</u> kPa

GAS RECOVERY: Measured with CRITICAL FLOW PROVER
 Gas Samples: # 735 To CHEMEX HIGH LEVEL

Mins	kPa	Temp	Orifice	m ³ /day	Mins	kPa	Temp	Orifice	m ³ /day
5	7.47	-11	6.35	238.1					
10	7.97	-11	6.35	246.2					
15	5.98	-11	6.35	212.2					
20	5.48	-11	6.35	202.9					
25	5.48	-11	6.35	202.9					
30	5.48	-11	6.35	202.9					
35	4.98	-11	6.35	193.3					
40	4.98	-11	6.35	193.3					
45	4.98	-11	6.35	193.3					
50	4.48	-11	6.35	183.1					
55	3.98	-11	6.35	172.4					
60	3.98	-11	6.35	172.4					

TOTAL FLUID RECOVERY: 110 Metres Sampler # 1545: # 1525 TOTAL MUD LOSS 0 M
 Sampled @ 100 65 10 Above Tool
35 Metres of INHIBITOR AND MUD
55 Metres of OIL AND GAS CUT MUD
20 Metres of SALT WATER (SALINITY 19,300 PPM)
 Metres of _____

REMARKS: Misrun _____: Ok X: Tool Opened @ 1713 Hrs.

PREFLOW: STRONG AIR BLOW THROUGHOUT. NO GAS TO SURFACE. GAS TO SURFACE DURING SHUT-IN.
 VALVE OPEN: GAS TO SURFACE IMMEDIATELY. SAMPLE TAKEN. FLOWING AT ABOVE RATES.
 LOW PERMEABILITY IS INDICATED WITHIN THE INTERVAL TESTED.

P.O. Sub	<u>.305</u>
D.P./D.C.	<u>.305</u>
Blank	<u>1.829</u>
Shut-In	<u>1.630</u>
Sampler	<u>1.000</u>
Sampler	<u>1.000</u>
Hydraulic	<u>1.665</u>
Jars	<u>1.630</u>
Recorder	<u>1.524</u>
Recorder	<u>1.524</u>
Temp Rec.	
By-Pass	
Safety Jt.	<u>.610</u>
Packer	<u>2.000</u>
Packer	<u>1.445 840.522</u>
Packer	<u>.305</u>
Perfs	<u>3.050</u>
By-Pass	
Recorder	<u>1.524</u>
Recorder	<u>1.829</u>
X Over	<u>.305</u>
D.P./D.C.	<u>9.550</u>
X Over	<u>.305</u>
Packer	
Packer	
Perfs	
Recorder	
X Over	
D.P./D.C.	
X Over	
Perfs	
Bullnose	<u>.610 858.000</u>

Total Interval 17.478 m.
 Total Tail Pipe 17.478 m.
 Tool Makeup Time 1.75 Hr.

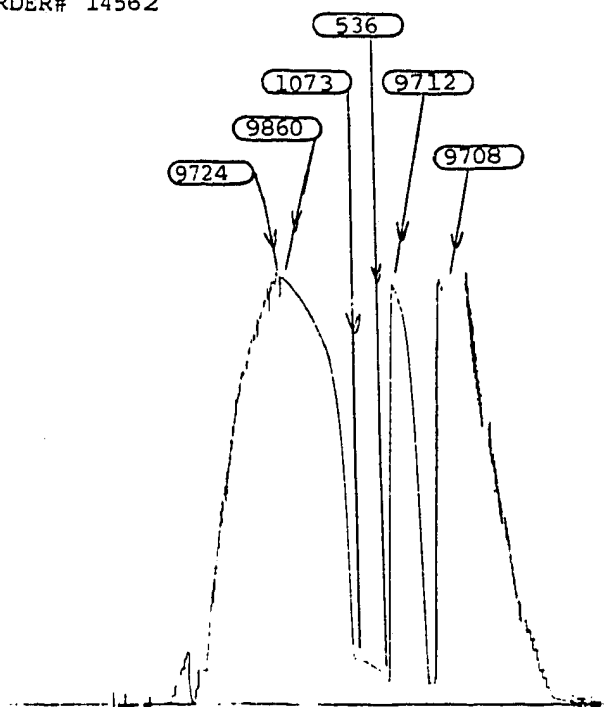
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

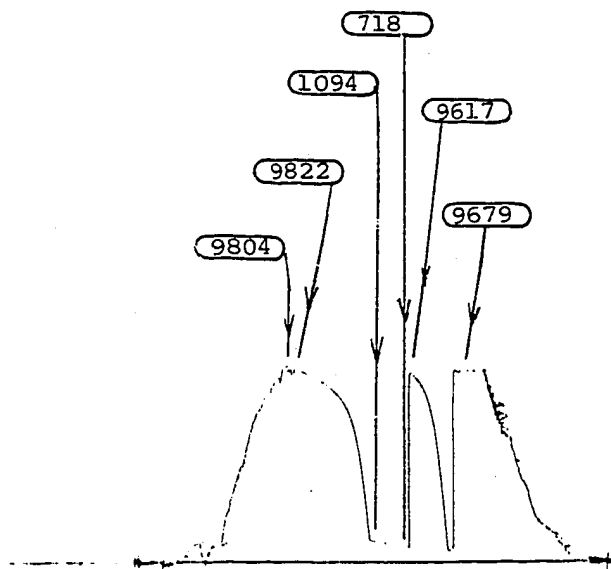
INSIDE RECORDER# 14562



INITIAL HYDR.	9 708
IN. PREFLOW	486
F. PREFLOW	511
1st SHUT-IN	9 712
1st IN. FLOW	536
1st F. FLOW	1 073
2nd SHUT-IN	9 860
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	9 724

FORWARD ET AL CAMERON RIVER 60°-00'-38.49" N 117°-03'-28.00" W DST 1

INSIDE RECORDER# 19578



INITIAL HYDR.	9 679
IN. PREFLOW	664
F. PREFLOW	592
1st SHUT-IN	9 617
1st IN. FLOW	718
1st F. FLOW	1 094
2nd SHUT-IN	9 822
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	9 804

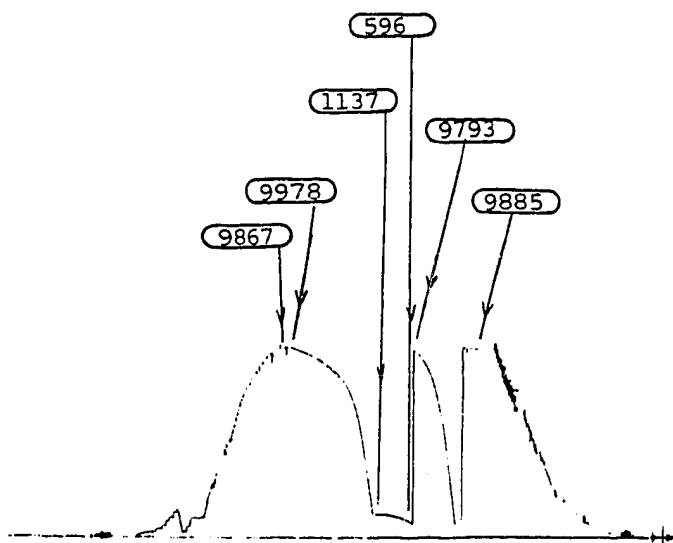
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

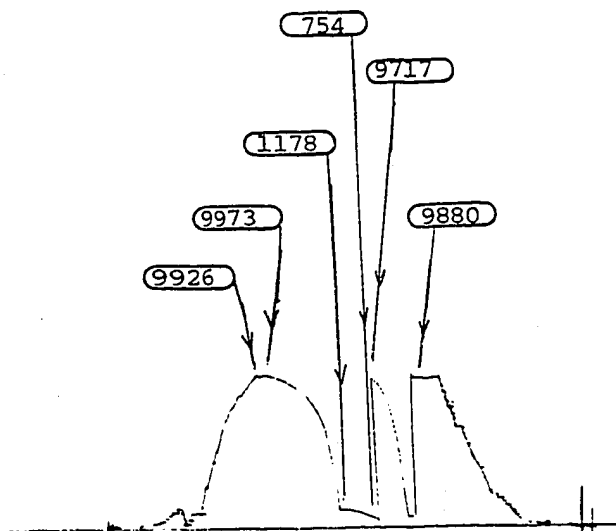
OUTSIDE RECORDER# 15371



INITIAL HYDR.	9 885
IN. PREFLOW	690
F. PREFLOW	615
1st SHUT-IN	9 793
1st IN. FLOW	596
1st F. FLOW	1 137
2nd SHUT-IN	9 978
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	9 867

FORWARD ET AL CAMERON RIVER 60°-00'-38.49" N 117°-03'-28.00" W DST 1

OUTSIDE RECORDER# 19160



INITIAL HYDR.	9 880
IN. PREFLOW	778
F. PREFLOW	707
1st SHUT-IN	9 717
1st IN. FLOW	754
1st F. FLOW	1 178
2nd SHUT-IN	9 973
2nd IN. FLOW	
2nd F. FLOW	
3rd SHUT-IN	
3rd IN. FLOW	
3rd F. FLOW	
4th SHUT-IN	
FINAL HYDR.	9 926

GAS AND DOWNHOLE SAMPLER ANALYSIS
FOR DST #1
SULPHUR POINT 840.5^m - 858^m

ALGARY, ALBERTA

CHEMEX LABS (ALBERTA) LTD.

Exco W.F.
GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA

GAS ANALYSIS

LABORATORY NUMBER

84-2085-1

CONTAINER IDENTITY

COL #1545

LICENCE NO

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

WELL NUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

ELEVATION METERS

318.14

GRD

314.03

FIELD OF AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

CAMERON RIVER

SULPHUR POINT

QUINN TESTERS

TEST RECOVERY

TEST TYPE

NO

DST 1

MULTIPLE RECOVERY

TEST INTERVAL FROM

840.5 m

TO

858 m

PERFORATIONS FROM

TO

SAMPLING POINT

DOWNHOLE SAMPLER

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@25°C

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER m³/d

OIL m³/d

GAS 10³m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

85-01-07

85-01-10

85-01-10

D.H.

COMP	MOL FRACTION AIR FREE AS REC'D	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME m ³ m ³ AIR FREE AS REC'D
H ₂	0.0004	0.0004	
He	0.0005	0.0005	
N ₂	0.0154	0.0154	
CO ₂	0.0000	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9237	0.9237	
C ₂	0.0322	0.0322	
C ₃	0.0162	0.0162	59.26
iC ₄	0.0026	0.0026	11.30
nC ₄	0.0054	0.0054	22.62
iC ₅	0.0013	0.0013	6.32
nC ₅	0.0013	0.0013	6.26
C ₆	0.0006	0.0006	3.23
C ₇₊	0.0004	0.0004	2.40
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	111.39

GROSS HEATING VALUE

MJ m³ @ 15°C AND 101.325 KPa

(MOISTURE AND ACID GAS FREE)

MEASURED

CALCULATED

DEW POINT

VAPOUR PRESS
PENTANES PLUS

95.76

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.610

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.610

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

p_{pc}

4607.9

p_{tc}

199.4

ACID GAS FREE

p_{pc}

4607.9

p_{tc}

199.4

REMARKS

TOOL HAD AN OPENING PRESSURE OF 800 KPA.
TOOL CONTAINED 10911CC OF GAS, 250CC OF OIL, AND
1800CC MUDDY WATER.
G.O.R. = 43.6M3GAS/M3OIL H2S FROM TOOL = <1PPM

CALGARY, ALBERTA



CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA

WATER ANALYSIS

LABORATORY NUMBER

84-2085-3

CONTAINER IDENTITY

001 #1545

LICENCENO

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

CPANUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

KB

ELEVATIONS

METERS

GRD

318.14

314.03

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

CAMERON RIVER

SULPHUR POINT

QUINN TESTERS

TEST TYPE

NO

DST 1

MULTIPLE RECOVERY

TEST INTERVAL

FROM

840.5 m

TO

858 m

PERFORATIONS

FROM

m

TO

m

TEST RECOVERY

35M. INHIBITOR & MUD, 55M. OIL & GAS CUT MUD, 20M SALT WATER

SAMPLING POINT

DOWNHOLE SAMPLER

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@25°C

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³ m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

1118

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

85-01-07

85-01-10

85-01-10

G.A.

ION	C g m ⁻³	MASS FRACTION	C mol m ⁻³
Na	13710		596.1
K	150		3.8
Ca	1010		25.3
Mg	247		10.3
Ba			
Sr			
Fe	42		<1

ION	C g m ⁻³	MASS FRACTION	C mol m ⁻³
Cl	20000		563.4
Br			
I			
HCO ₃	312		5.1
SO ₄	2550		26.6
CO ₃	<1		<1
OH	<1		<1
H ₂ S	ABSENT		

TOTAL SOLIDS C/g m⁻³

BY EVAPORATION

BY EVAPORATION

@ 110°C

@ 180°C

AT IGNITION

CALCULATED

35512

37862

RELATIVE DENSITY

REFRACTIVE INDEX

1.028 @ 21°C

1.337 @ 25°C

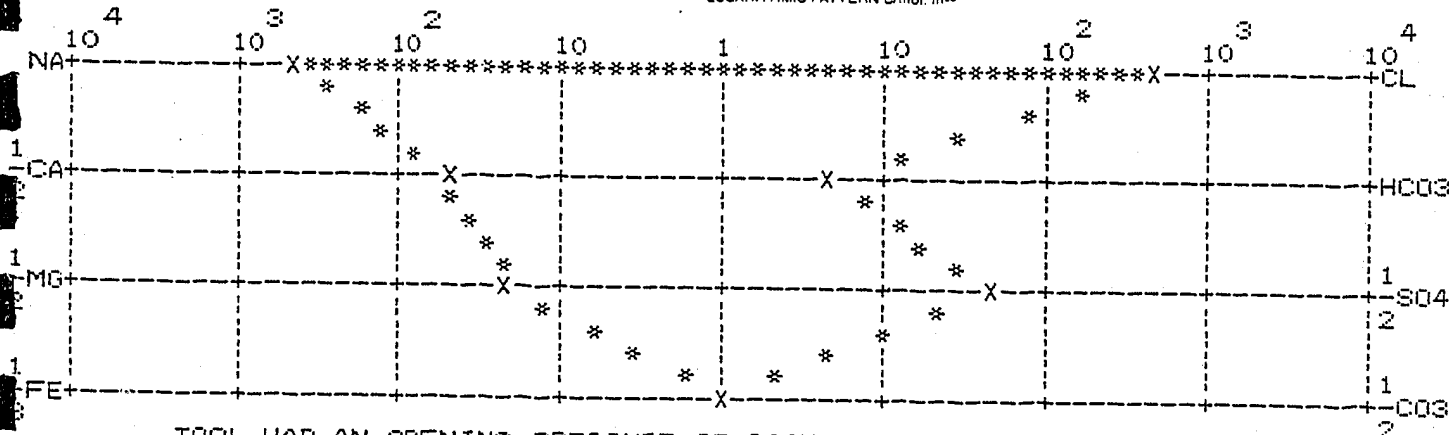
OBSERVED PH

RESISTIVITY Ωm

6.9 @ 21°C

0.171 @ 25°C

LOGARITHMIC PATTERN C/mol m⁻³



REMARKS

TOOL HAD AN OPENING PRESSURE OF 800KPA.
TOOL CONTAINED 10911CC GAS, 2500CC OIL, 1800CC
MUDDY WATER.
G.O.R. = 43.6M3GAS/M3OIL.

FORWARD RESOURCES LTD.
6th FLOOR,
700 - 4th AVE. S.W.
CALGARY, ALTA
T2P 3J4

PROJECT: 84-2085-4
DATE: JAN. 11, 1985

FORWARD ETAL CAMERON RIVER L-11

KB: 318.4M
GRD: 314.03M

FORMATION: SULPHUR POINT
INTERVAL: 840.5 - 858

DST #1

DATE SAMPLED: 85-01-07

SAMPLED BY: QUINN TESTERS

TOOL #1525 HAD AN OPENING PRESSURE OF 850 KPA.
TOOL CONTAINED 11.159cc GAS, 250cc OIL AND 700cc
OF MUDDY WATER.

G.O.R. = $44.6\text{m}^3\text{gas}/\text{m}^3\text{oil}$.



A. WELL DATA

FIELD DRILL STEM TEST REPORT

DATE 85-01-14

Well: Exco et al Cameron River L-11 Location _____
DST No. 2 Interval 961.0 - 985.5 m (24.5 m) Formation Keg River
Last Casing: Size 244mm Depth 302 m Open Hole: Size 215mm Depth 1105.8 m
Hole Troubles: Nil Caliper at Packer(s) 245mm
Mud: Wt. 1210 kg/m³ Vis 55 W.L. 6.8 % Oil Nil ppm Cl 3840

B. TEST STRING DATA

Testing Company Lynes United Services Ltd. Type of Test Inflate
Type and Number of Packers 2 Inflate Size 194mm x 1.68 m
DP Size 102mm Wt 20.84 kg/m Length 840.45 m
DC Size 156mm Wt 135 kg/m I.D. 57 Length 148.8 m
Tail Pipe Size N/A Wt N/A Length N/A Perfs .3 m
T.D. String 961.0-985.5 Recorder Depth 963.0 m Water Cushion 29 m inhib. + heater BH Choke 25.4mm
Packer Depth(s) 961.0 - 985.5 m Weight on Packer(s) 8000 daN
Other Equipment Dual Bottom Hole Sampler, Manifold

C. TEST RESULTS

Times: PF 10 ISI 60 Flow 60 SI - Flow - FSI 120
Pressures: PF 587 kPa IH 11887 kPa ISI 9412 kPa IF 839 kPa
TEMP 50 °C FH 11716 kPa FSI 9327 kPa FF 1007 kPa

Flow Descriptions:

Preflow: Very weak, increasing to weak. 1" bubbles to 2" bubbles.Valve Open Flow: 2" bubbles to 1/2" bubbles in 40 mins.Valve closed. Weak to very weak.Recoveries: Total 75.5 m. 38 m Corban + water37.5 m drilling mud, very slightly gas cut oilstained drilling mud.

D. SAMPLE DETAILS:

Bottom hole sampler: #187 sent to Chemex. Number of fluid samples taken - 3
(Sent to Chemex)

Sent to: _____ Via: _____ Date Sent: _____

E. REMARKS:

Very slight oil stain on tool parts.BH Sampler #217 drained on location - contained 3l oil cut mud.

Note: Data reported on this form are field readings taken
at the time of test, and are subject to correction.

ENGINEER Mel Nichols

FORWARD ET AL CAMERON RIVER L-11
400/ 60.003 / 117.030 /00

TEST DATE: 85/01/15

961.00m ~~DS-102~~ 985.50m
KEG RIVER

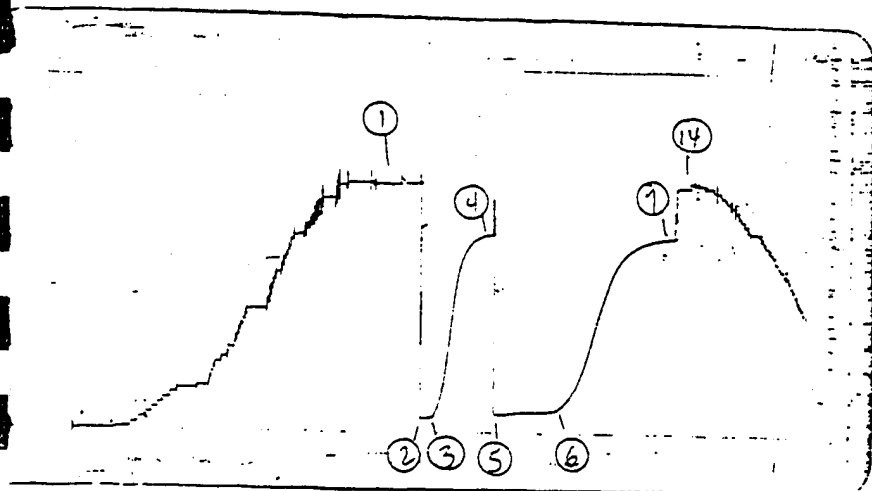
DEPTH: 963.00m

PRESSURE
kPa(a)

- 1) Initial Hydro : 11980.
- 2) 1st Flow Start: 707.
- 3) 1st Flow End : 793.
- 4) END 1st Shutin: 9653.
- 5) 2nd Flow Start: 879.
- 6) 2nd Flow End : 1120.
- 7) END 2nd Shutin: 9498.
- 14) Final Hydro. : 11928.

TEST TIMES (MIN)

1stFLOW : 8.
SHUTIN: 59.
2ndFLOW : 61.
SHUTIN: 121.



RECOVERY DATA

NO GAS TO SURFACE. TOTAL FLUID RECOVERY WAS 75.5 METERS CONSISTING OF 38.00 M OF CORBAN & WATER AND 37.5 M OF VERY SLIGHTLY GAS CUT OIL STAINED DRILLING MUD.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest LOW PERMEABILITY within the interval tested. Bottom hole sampler #217 was drained on location. It contained 3.00 liters of oil cut mud. The final shut-in was incremented but not extrapolated due to insufficient curve development.

TABLE OF CONTENTS

PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Flow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

Well name : FORWARD ET AL CAMERON RIVER L-11
Location : 400/ 60.003 / 117.030 /00
Interval : 961.00m to 985.50m
Test Date : 85/01/15
Test Type : INFLATE STRADDLE
Formation : KEG RIVER

K.B.Elevation : 318.58m
Grd.Elevation : 314.03m
TD @ test Date: 1105.00m
Ticket Number : 69837
Unit Number : 579

Started in hole at : 0100 hrs
Tool opened at : 0540 hrs
Reverse circulated?: NO
Contractor & Rig No: ARNCO #1
LINES#1 : 1 OF 1 ON THE SAME TRIP.

CUSHION : LIQUID 29.00m

Operator: FORWARD RESOURCES LTD.
6TH FLR.
700 - 4TH AVE. S.W.
CALGARY ALBERTA
T2P3J4

Company Rep : NICHOLS M
Testers : DIEBOLT R

5 REPORTS(S) TO: MR. MCLEAN
Company: C/O EXCO ENERGY LTD.
6TH FLOOR
700 - 4TH AVE. S.W.

BLOW DESCRIPTION

Weak air blow immediately and remaining throughout preflow. No gas to surface.

Weak air blow decreasing to very weak after 40 minutes on final flow. No gas to surface.

TOTAL LIQUID RECOVERY : 75.50m

For DST# 2 through DST# 2
3 Fluid Samples
Sent to: CHEMEX

Btm. Hole Sampler #: 187
Sent to: CHEMEX

38.00m CORBAN AND WATER.

37.50m VERY SLIGHTLY GAS CUT OIL STAINED DRILLING MUD.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

*****RECORDER SUMMARY*****

SUB	LENGTH
	(m)
PUMP OUT SUB	.30
CROSS OVER SUB	.30
INSIDE RECORDER	1.38
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
BTM. HOLE SAMPLER	1.03
INSIDE RECORDER	1.38
HYDRAULIC JARS	2.19
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACKER STICK DOWN	.82
PORTED COMB. SUB	.30
RECORDER CARRIER	2.06
SPACING	1.17
CROSS OVER SUB	.30
DRILL COLLARS	19.05
CROSS OVER SUB	.30
PACKER STICK UP	.50
BTM. INFLATE PACKER	1.90
PERFORATIONS	.61
BELLY SPRING	2.00

1) NUMBER : 001786	ELECTRONIC GAUGE.
TYPE : DMRB	PRESSURES AND
LOCATION: OUTSIDE	TEMPERATURE.
RANGE: 68900.00kPa (a)	
DEPTH : 963.00m	
2) NUMBER : 008932	ABOVE HYDRAULIC
TYPE : K-3	TOOL RECORDER.
LOCATION: INSIDE	
RANGE: 21400.00kPa	
DEPTH : 947.00m	
3) NUMBER : 009986	ABOVE INTERVAL
TYPE : K-3	RECORDER.
LOCATION: INSIDE	
RANGE: 20300.00kPa	
DEPTH : 952.00m	
4) NUMBER : 013965	
TYPE : K-3	
LOCATION: OUTSIDE	
RANGE: 20300.00kPa	
DEPTH : 963.00m	

***** TOOL TOTAL 43.99

DRILL COLLARS

ID= 60.0mm: 148.80
ID= :

DRILL PIPE

OD=101.0mm: 804.45
OD= :

COLLAR-PIPE TOTAL 953.25

STICK UP ABOVE TABLE : 7.23
TOOL ABOVE INTERVAL : 14.98
TOTAL INTERVAL : 24.50
BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 240.00mm	Water Loss : 7.0cc/s
Hole Condition at Test Time : GOOD	Filter Cake: 1.0 mm
Hole Conditioned Prior to Test? : NO	
Mud Weight : 1210.0 kg/m3	Main Hole Size: 215.00mm
Mud Type : GEL CHEMICAL	
Viscosity : 56.0s/l	Temperature @963.00m = 51.0C

Location: 400/ 60.003 / 117.030 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 001786
Recorder Depth: 963.00 m
Subsea Depth: -644.42 m

TIME-PRESSURE LISTING

CART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSUPE(T+dt)/dt kPa(a)	ABSCISSA
1	INITIAL HYDROSTATIC			11980	
2	START OF 1st FLOW	0.0		707	
		1.		741	
		2.		758	
		3.		776	
		4.		793	
		5.		793	
		7.		793	
	END OF 1st FLOW	8.		793	
	1st SHUTIN PERIOD	0.0		793	
		2.	121	914	5.0000
		4.	327	1120	3.0000
		7.	741	1534	2.1429
		9.	1120	1913	1.8889
		11.	1603	2396	1.7273
		13.	2224	3016	1.6154
		16.	3499	4292	1.5000
		18.	4430	5223	1.4444
		20.	4378	5171	1.4000
		23.	6498	7291	1.3478
		25.	7050	7843	1.3200
		27.	7464	8256	1.2963
		29.	7774	8567	1.2759
		32.	8101	8894	1.2500
		34.	8256	9049	1.2353
		36.	8394	9187	1.2222
		39.	8532	9325	1.2051
		41.	8601	9394	1.1951
		43.	8653	9446	1.1860
		45.	8705	9498	1.1778
		48.	8756	9549	1.1667
		50.	8774	9566	1.1600*

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 60.003 / 117.030 /00
 Test Type: INFLATE STRADDLE
 Formation: KEG RIVER

Recorder Number: 001786
 Recorder Depth: 963.00 m
 Subsea Depth: -644.42 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA
		52.	8791	9584	1.1538*
		55.	8825	9618	1.1455*
		57.	8843	9635	1.1404*
	END OF 1st SHUTIN	59.	8860	9653	1.1356*
5	START OF 2nd FLOW	0.0		879	
		4.		896	
		7.		914	
		11.		948	
		14.		948	
		18.		983	
		21.		983	
		24.		1000	
		28.		1017	
		31.		1017	
		35.		1034	
		38.		1034	
		42.		1051	
		45.		1069	
		48.		1086	
		52.		1086	
		55.		1103	
		59.		1120	
	END OF 2nd FLOW	61.		1120	
	2nd SHUTIN PERIOD	0.0		1120	
		3.	103	1224	24.0000
		7.	259	1379	10.8571
		10.	379	1500	7.9000
		14.	603	1724	5.9286
		17.	793	1913	5.0588
		21.	1086	2206	4.2857
		24.	1362	2482	3.8750
		27.	1672	2792	3.5556

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 60.003 / 117.030 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 001786
Recorder Depth: 963.00 m
Subsea Depth: -644.42 m

TIME-PRESSURE LISTING

CART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA
		31.	2155	3275	3.2258
		34.	2586	3706	3.0294
		38.	3241	4361	2.8158
		41.	3792	4913	2.6829
		45.	4551	5671	2.5333
		48.	5102	6223	2.4375
		51.	5619	6740	2.3529
		55.	6223	7343	2.2545
		58.	6602	7722	2.1897
		62.	6998	8119	2.1129
		65.	7240	8360	2.0615
		69.	7481	8601	2.0000
		72.	7619	8739	1.9583
		75.	7757	8877	1.9200
		79.	7895	9015	1.8734
		82.	7963	9084	1.8415
		86.	8050	9170	1.8023
		89.	8101	9222	1.7753
		93.	8153	9273	1.7419
		96.	8188	9308	1.7188
		99.	8222	9342	1.6970
		103.	8256	9377	1.6699
		106.	8274	9394	1.6509
		110.	8308	9429	1.6273
		113.	8325	9446	1.6106
		117.	8360	9480	1.5897
		120.	8377	9498	1.5750
	END OF 2nd SHUTIN	121.	8377	9498	1.5702
14	FINAL HYDROSTATIC			11928	

* VALUES USED FOR EXTRAPOLATIONS

DST#02
FORWARD ET AL CAMERON RIVER L-11
961.00 m to 985.50 m

p.3c

Location: 400/ 60.003 / 117.030 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 001786
Recorder Depth: 963.00 m
Subsea Depth: -644.42 m

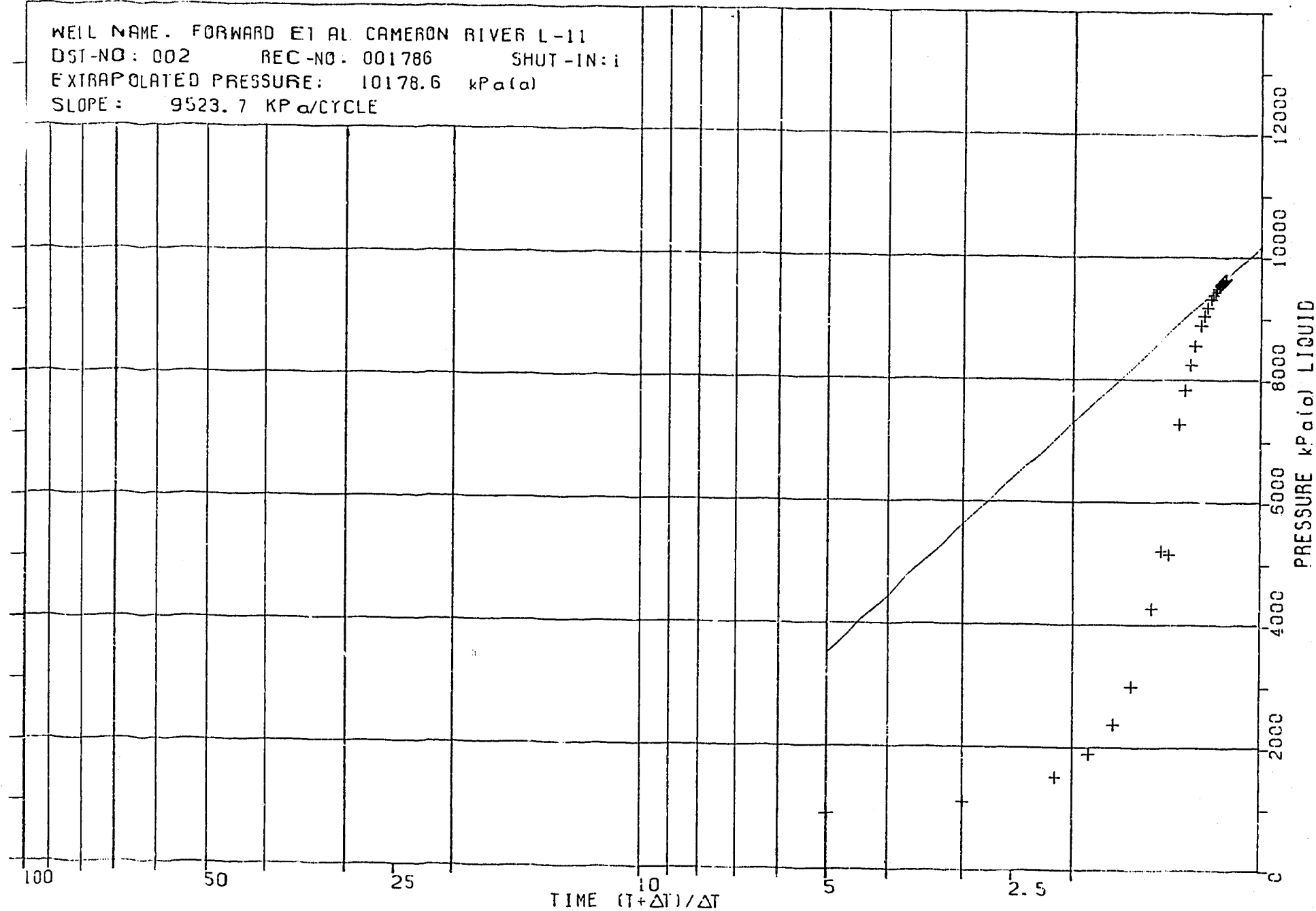
1st SHUT-IN

HORNER EXTRAPOLATION 10178.61 kPa(a)
HORNER SLOPE 9523.69141 kPa/cycle

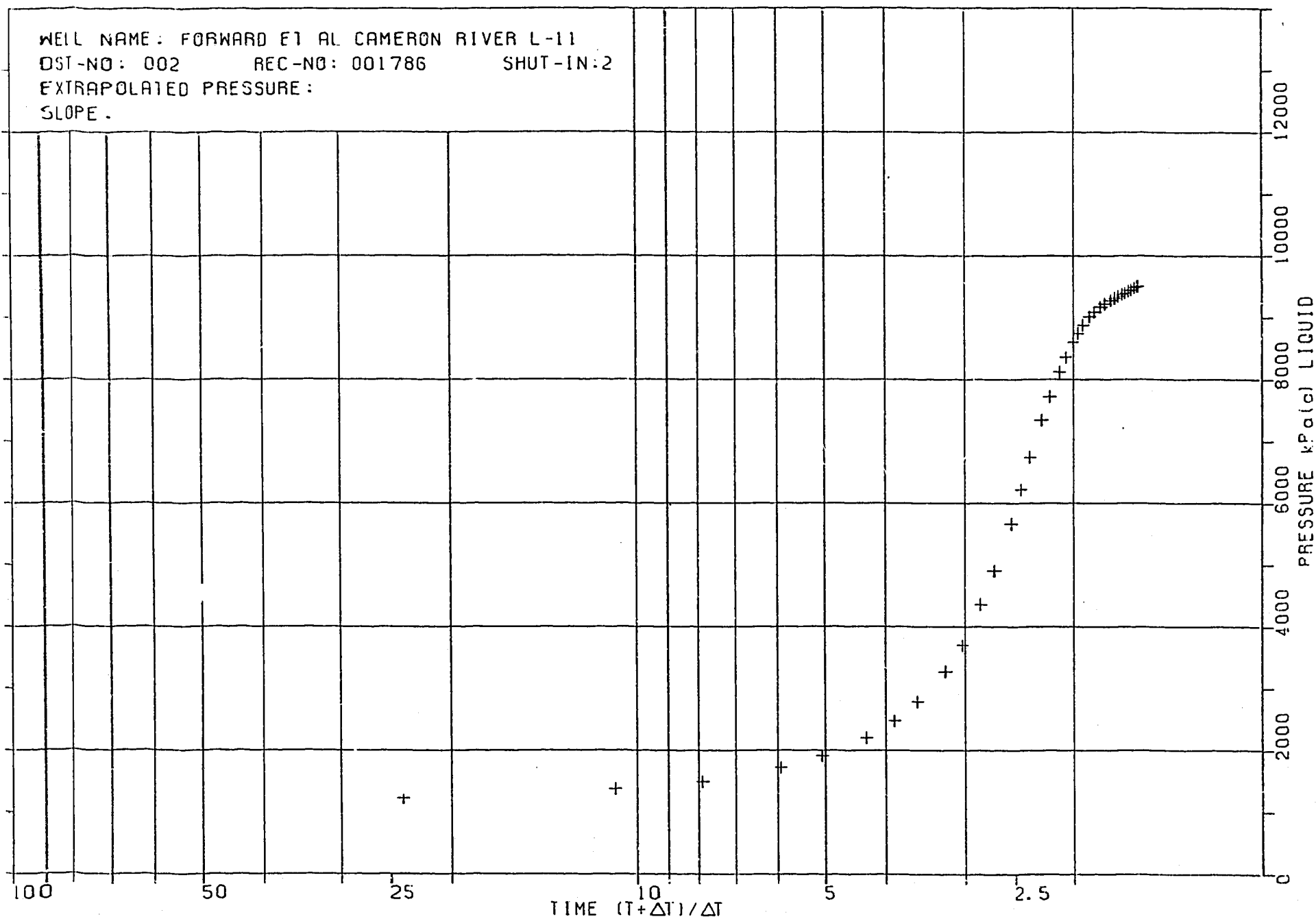
2nd SHUT-IN

HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

WELL NAME. FORWARD ET AL CAMERON RIVER L-11
DST-NO: 002 REC-NO: 001786 SHUT-IN: 1
EXTRAPOLATED PRESSURE: 10178.6 kPa(a)
SLOPE: 9523.7 kPa/CYCLE



WELL NAME: FORWARD E1 AL CAMERON RIVER L-11
DST-NO: 002 REC-NO: 001786 SHUT-IN: 2
EXTRAPOLATED PRESSURE:
SLOPE.



FORWARD ET AL CAMERON RIVER L-11

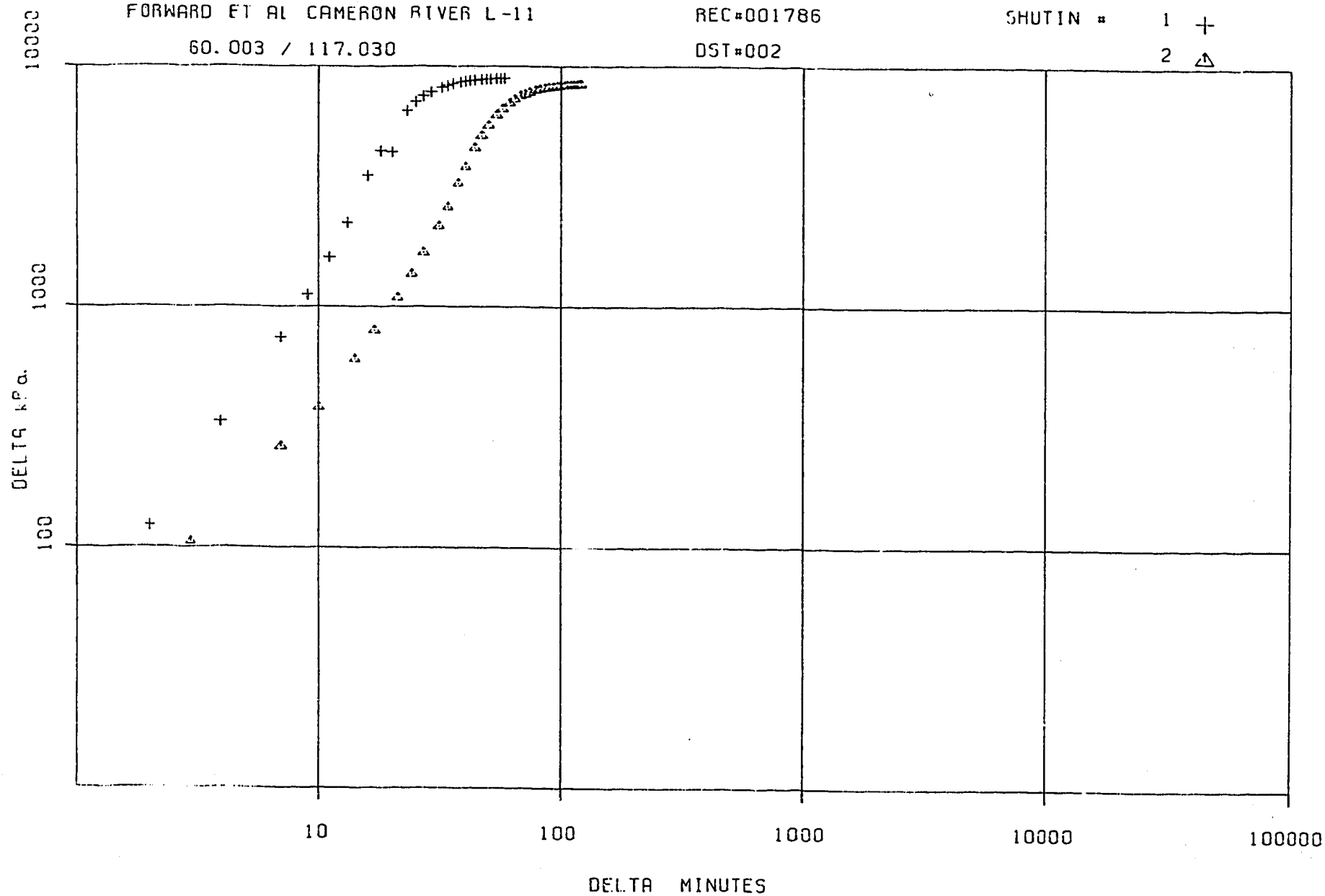
REC#001786

SHUTIN # 1 +

60.003 / 117.030

DST#002

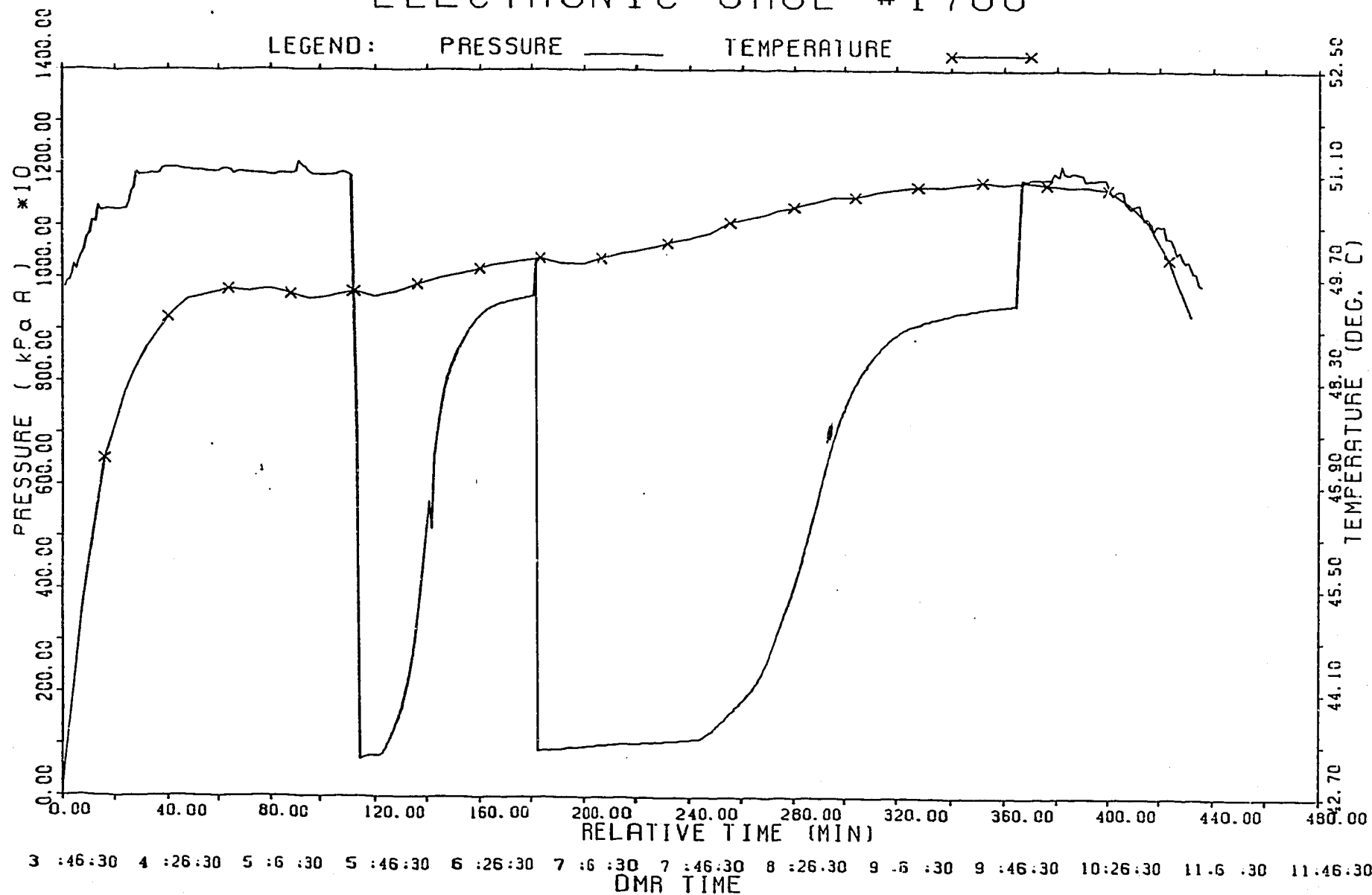
2 Δ



FORWARD ET AL CAMERON RIVER L-11

60.003 / 117.03 DST #2

ELECTRONIC GAGE #1786



DST#02
FORWARD ET AL CAMERON RIVER L-11
961.00m to 985.50m

PRESSURE RECORDER NUMBER : 001786

DEPTH : 963.00m

LOCATION : OUTSIDE

TYPE : DMRB

CAPACITY : 68900.00kPa(a)

PRESSURE
kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 51.0 C

- 1) Initial Hydro : 11980.
- 2) 1st Flow Start: 707.
- 3) 1st Flow End : 793.
- 4) END 1st Shutin: 9653.
- 5) 2nd Flow Start: 879.
- 6) 2nd Flow End : 1120.
- 7) END 2nd Shutin: 9498.
- 14) Final Hydro. : 11928.

ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

TEST TIMES (MIN)

- 1st FLOW : 8.
SHUTIN: 59.
2nd FLOW : 61.
SHUTIN: 121.

PRESSURE RECORDER NUMBER : 008932

DEPTH : 947.00m

LOCATION : INSIDE

TYPE : K-3

CAPACITY : 21400.00 kPa

PRESSURE
kPa

- 1) Initial Hydro :
- 2) 1st Flow Start: 464.
- 3) 1st Flow End : 589.
- 4) END 1st Shutin:
- 5) 2nd Flow Start: 589.
- 6) 2nd Flow End : 929.
- 7) END 2nd Shutin: 929.
- 14) Final Hydro. :

Above Hydraulic Tool

② ③ ⑤ ⑥

⑦

ABOVE HYDRAULIC
TOOL RECORDER.

DST#02
FORWARD ET AL CAMERON RIVER L-11
961.00m to 985.50m

PRESSURE RECORDER NUMBER : 009986

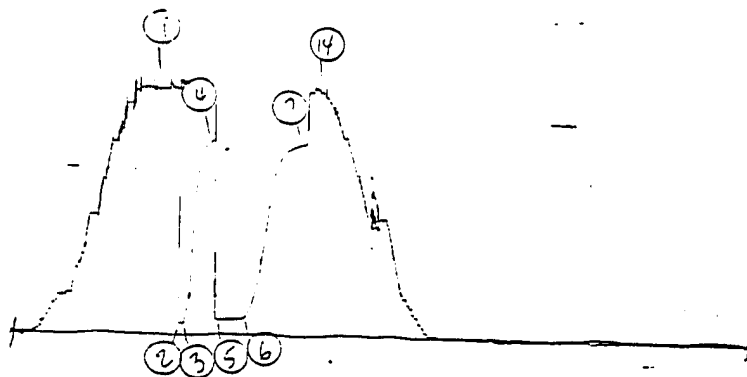
DEPTH : 952.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 11852.
- 2) 1st Flow Start: 601.
- 3) 1st Flow End : 618.
- 4) END 1st Shutin: 9406.
- 5) 2nd Flow Start: 876.
- 6) 2nd Flow End : 918.
- 7) END 2nd Shutin: 9270.
- 14) Final Hydro. : 11767.

Above interval



ABOVE INTERVAL
RECORDER.

TEST TIMES (MIN)

- 1st FLOW : 8.
SHUTIN: 59.
2nd FLOW : 61.
SHUTIN: 121.

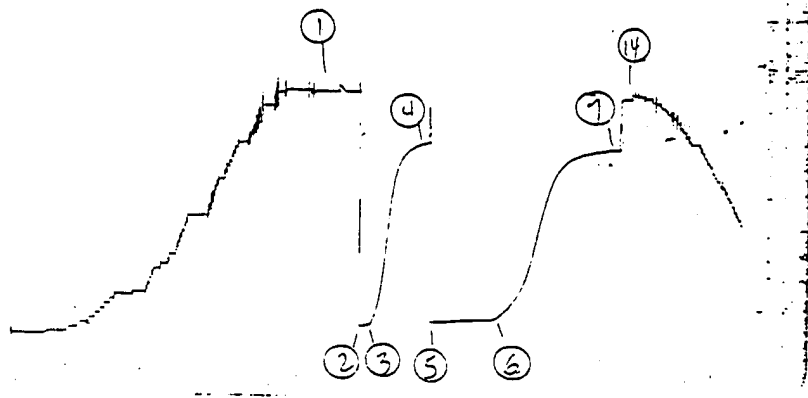
PRESSURE RECORDER NUMBER : 013965

DEPTH : 963.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 11972.
- 2) 1st Flow Start: 663.
- 3) 1st Flow End : 747.
- 4) END 1st Shutin: 9480.
- 5) 2nd Flow Start: 881.
- 6) 2nd Flow End : 1040.
- 7) END 2nd Shutin: 9344.
- 14) Final Hydro. : 11818.



GAS AND DOWNHOLE SAMPLER ANALYSIS
FOR DST #2
KEG RIVER 961.0^m - 985.5^m

LGARY, ALBERTA

CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA

GAS ANALYSIS

LABORATORY NUMBER

84-2177-1

CONTAINER IDENTITY

TOOL #187

LICENSING

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

CPANUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

KB ELEVATIONS METERS

318.58 314.03

FIELD OF AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

CAMERON RIVER

KEG RIVER

LYNES UNITED

TEST RECOVERY

75.5 METRES

TEST TYPE

NO

QST 2

MULTIPLE RECOVERY

TEST INTERVAL

FROM

761 m

TO

785.5 m

PERFORATIONS

FROM

m

TO

m

SAMPLING POINT

DOWNHOLE SAMPLER

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@25°C

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER m³/d

OIL m³/d

GAS 10³m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

50

SEPARATOR

TREATER

AS RECEIVED

m

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

85-01-15

85-01-21

85-01-22

O.L. & R.A.

GROSS HEATING VALUE

MJ m³ @ 15°C AND 101.325 KPa

(MOISTURE AND ACID GAS FREE)

MEASURED

CALCULATED

DEW POINT

VAPOUR PRESS PENTANES PLUS

95.10

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.730

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.729

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc

4557.7

pTc

218.5

ACID GAS FREE

pPc

4556.6

pTc

218.5

REMARKS

TOOL HAD AN OPENING PRESSURE OF 500 KPA.
TOOL CONTAINED GAS AND 2050 ML OF MUDDY WATER
WITH A TRACE OF OIL.

COMP	MOL FRACTION AIR FREE AS REC'D	MOL FRACTION ACID GAS FREE	LIQUID VOLUME ml m ³ AIR FREE AS REC'D
H ₂	0.0005	0.0005	
He	0.0006	0.0006	
N ₂	0.0390	0.0390	
CO ₂	0.0004	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.7674	0.7678	
C ₂	0.0995	0.0995	
C ₃	0.0605	0.0605	221.32
iC ₄	0.0078	0.0078	33.90
nC ₄	0.0150	0.0150	62.84
iC ₅	0.0034	0.0034	16.54
nC ₅	0.0032	0.0032	15.41
C ₆	0.0017	0.0017	9.14
C ₇₊	0.0010	0.0010	6.01
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	345.16

DST#02
FORWARD ET AL CAMERON RIVER L-11
961.00m to 985.50m

PRESSURE RECORDER NUMBER : 009986

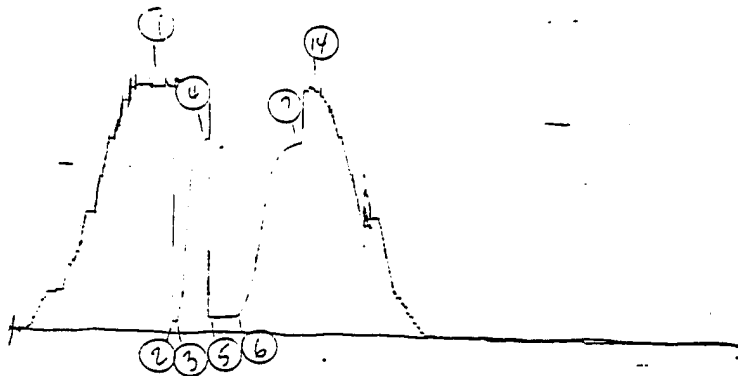
DEPTH : 952.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 11852.
- 2) 1st Flow Start: 601.
- 3) 1st Flow End : 618.
- 4) END 1st Shutin: 9406.
- 5) 2nd Flow Start: 876.
- 6) 2nd Flow End : 918.
- 7) END 2nd Shutin: 9270.
- 14) Final Hydro. : 11767.

Above interval



ABOVE INTERVAL
RECORDER.

TEST TIMES (MIN)

- 1st FLOW : 8.
SHUTIN: 59.
2nd FLOW : 61.
SHUTIN: 121.

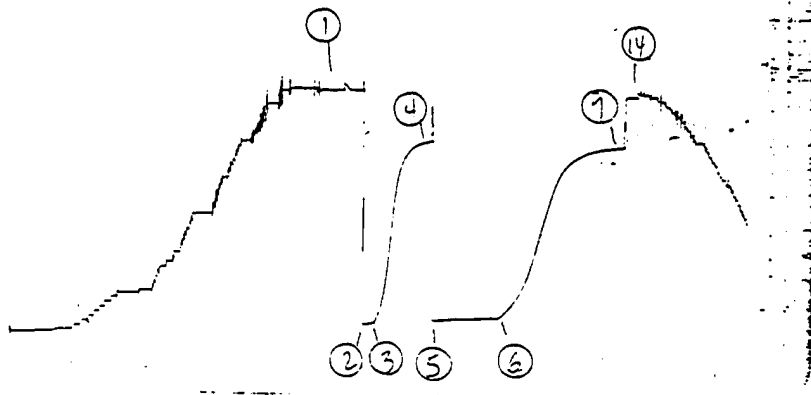
PRESSURE RECORDER NUMBER : 013965

DEPTH : 963.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 11972.
- 2) 1st Flow Start: 663.
- 3) 1st Flow End : 747.
- 4) END 1st Shutin: 9480.
- 5) 2nd Flow Start: 881.
- 6) 2nd Flow End : 1040.
- 7) END 2nd Shutin: 9344.
- 14) Final Hydro. : 11818.



GAS AND DOWNHOLE SAMPLER ANALYSIS
FOR DST #2
KEG RIVER 961.0m - 985.5m

EDMONTON, ALBERTA

CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA
GAS ANALYSIS

LABORATORY NUMBER

84-2177-1

CONTAINER IDENTITY

TOOL #187

LICENCE NO

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

CPA NUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

KB ELEVATIONS METERS

318.58 314.03

FIELD OF AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

CAMERON RIVER

KEG RIVER

LYNES UNITED

TEST RECOVERY

75.5 METRES

TEST TYPE NO

QST 12

MULTIPLE RECOVERY

TEST INTERVAL FROM

261 m

TO

285.5 m

PERFORATIONS FROM

m

TO

m

SAMPLING POINT

DOWNHOLE SAMPLER

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@25°C

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER m³/d

OIL m³/d

GAS 10 m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

50

SEPARATOR

TEMPERATURES °C

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

85-01-15

85-01-21

85-01-22

D.L. & R.A.

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	0.0005	0.0005	
He	0.0006	0.0006	
N ₂	0.0390	0.0390	
CO ₂	0.0004	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.7674	0.7678	
C ₂	0.0995	0.0995	
C ₃	0.0605	0.0605	221.32
iC ₄	0.0078	0.0078	33.90
nC ₄	0.0150	0.0150	62.84
iC ₅	0.0034	0.0034	16.54
nC ₅	0.0032	0.0032	15.41
C ₆	0.0017	0.0017	9.14
C ₇₊	0.0010	0.0010	6.01
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	365.16

GROSS HEATING VALUE

MJ m⁻³ @ 15°C AND 101.325 KPa

(MOISTURE AND ACID GAS FREE)

MEASURED

CALCULATED

45.630

DEW POINT

VAPOUR PRESS
PENTANES PLUS

95.10

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.730

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.729

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc

4557.7

pTc

218.5

ACID GAS FREE

pPc

4556.6

pTc

218.5

REMARKS

TOOL HAD AN OPENING PRESSURE OF 500 KPA.
TOOL CONTAINED GAS AND 2050 ML OF MUDDY WATER
WITH A TRACE OF OIL.

ALGARY, ALBERTA.

CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA

WATER ANALYSIS

CONTAINER IDENTITY

PLASTIC

LICENCE NO

LABORATORY NUMBER

84-2177-3

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

CPA NUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

KB

ELEVATIONS
METERS

GRD

318.58 314.03

FIELD OR AREA

CAMERON RIVER

PCOLOR ZONE

KEG RIVER

NAME OF SAMPLER

COMPANY

LYNES UNITED

TEST TYPE NO

DST 2

MULTIPLE RECOVERY

TEST INTERVAL
FROM

961 m

TO

985.5 m

PERFORATIONS
FROM

TO

75.5 METRES

TEST RECOVERY

SAMPLING POINT

MIDDLE

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@25°C

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

TEMPERATURES °C

SEPARATOR

TREATER

AS RECEIVED

ANALYST

85-01-15

85-01-21

85-01-22

M.V.

ION	C g m ⁻³	MASS FRACTION	C mol m ⁻³
Na	10120		440.0
K	144		3.7
Ca	960		24.0
Mg	69		2.9
Ba			
Sr			
Fe	2.8		<1

ION	C g m ⁻³	MASS FRACTION	C mol m ⁻³
Cl	8000		225.4
Br			
I			
HCO ₃	215		3.5
SO ₄	11750		122.4
CO ₃	48		<1
OH	<1		<1
H ₂ S	ABSENT		

TOTAL SOLIDS C/g m³

BY EVAPORATION

@ 110°C

BY EVAPORATION,

@ 180°C

AT IGNITION

32104

CALCULATED

31200

RELATIVE DENSITY

1.023 @ 21°C

REFRACTIVE INDEX

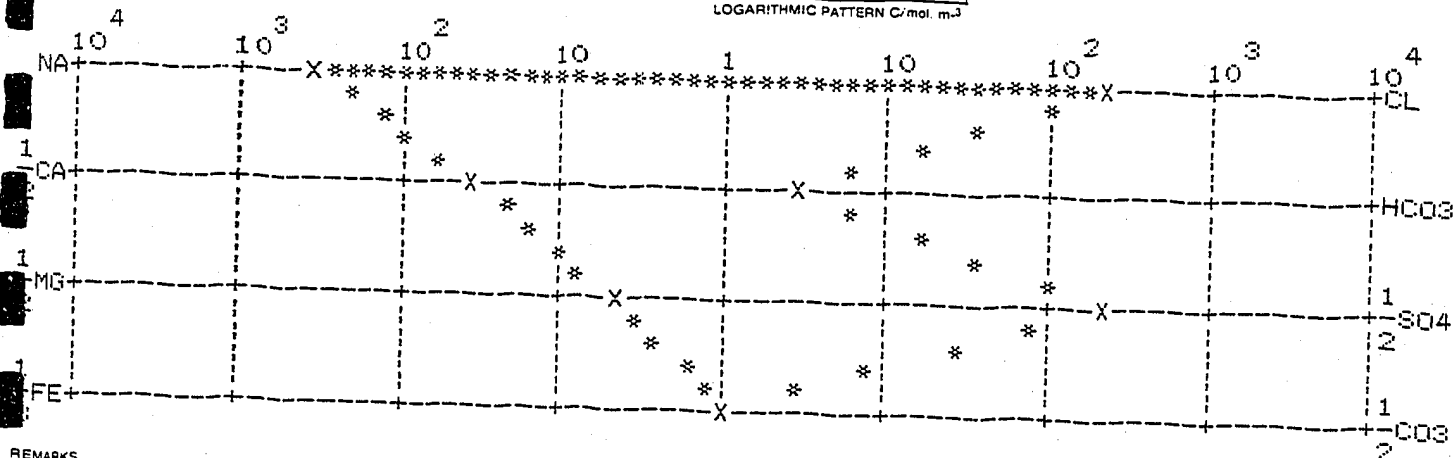
1.340 @ 25°C

OBSERVED PH

9.1 @ 21°C

RESISTIVITY Ω_m

0.20 @ 25°C

LOGARITHMIC PATTERN C/mol m⁻³

REMARKS



A. WELL DATA FIELD DRILL STEM TEST REPORT

DATE 85-01-16

Well: Exco et al Cameron River L-11 Location _____
DST No. 3 Interval 782.0 - 805.0 m (23.0 m) Formation Slave Point
Last Casing: Size 244.4mm Depth 302 m Open Hole: Size 215.9mm Depth 1105.8 m
Hole Troubles: Small amounts migrating gas Caliper at Packer(s) 225 + 230mm bottom
Mud: Wt. 1180 kg/m³ Vis 64 W.L. 7.2 % Oil Nil ppm Cl Nil

B. TEST STRING DATA

Testing Company Lynes United Services Ltd. Type of Test Inflate
Type and Number of Packers 2 Inflate Size 194mm x 1.68 m
DP Size 102mm Wt 20.84 kg/m Length 623.54 m
DC Size 156mm Wt 135 kg/m I.D. 57 Length 149.41 m
Tail Pipe Size N/A Wt N/A Length N/A Perfs N/A m
T.D. String N/A Recorder Depth 784.0 m Water Cushion 29 m BH Choke 25.4mm
Packer Depth(s) 782.0 m top 805.0 m bottom Weight on Packer(s) 8000 daN
Other Equipment Dual Samplers, Floor Manifold

C. TEST RESULTS

Times: PF 10 ISI 60 Flow 60 SI - Flow - FSI 120
Pressures: PF 587 kPa IH 9412 kPa ISI 7876 kPa IF 839 kPa
TEMP 42 °C FH 9412 kPa FSI 7791 kPa FF 1174 kPa

Flow Descriptions:

PREFLOW: Weak air blow, building to fair in 4 mins. Fair throughout N.G.T.S.

Valve Open Flow: Fair air blow, decreasing to weak in 20 mins., and very weak in 60 mins - N.G.T.S.

Recoveries: Total Fluid Recovery - 95.5 m. 19 m Corban + water + mud
76.5 m drilling mud. Bottom sample was just slightly gasified.

D. SAMPLE DETAILS: Bottom hole sampler: #88 taken in for analysis.
3 fluid samples taken and submitted to Chemex.

Sent to: _____ Via: _____ Date Sent: _____

E. REMARKS:

COGLA samples delivered by Hubert Steghaus to Calgary

Note: Data reported on this form are field readings taken at the time of test, and are subject to correction.

ENGINEER Mel Nichols

FORWARD ET AL CAMERON RIVER L-11

400/ 60.003 / 117.030 /00

~~DST#03~~

782.00m to 805.00m

SLAVE POINT

DEPTH: 784.00m

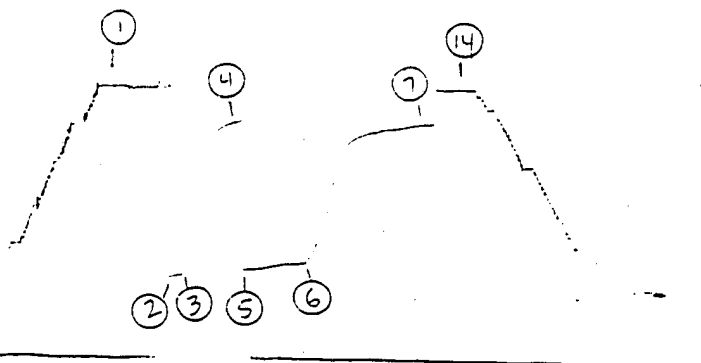
PRESSURE

kPa(a)

- 1) Initial Hydro : 9601.
- 2) 1st Flow Start: 689.
- 3) 1st Flow End : 776.
- 4) END 1st Shutin: 8015.
- 5) 2nd Flow Start: 914.
- 6) 2nd Flow End : 1362.
- 7) END 2nd Shutin: 7981.
- 14) Final Hydro. : 9566.

TEST TIMES (MIN)

- 1stFLOW : 9.
 SHUTIN: 57.
 2ndFLOW : 63.
 SHUTIN: 124.



RECOVERY DATA

GAS TO SURFACE. TOTAL FLUID RECOVERY WAS 95.5 METERS CONSISTING OF 19.00 M OF CORBAN & WATER & MUD AND 76.5 M OF DRILLING MUD.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest LOW PERMEABILITY within the interval tested. The initial and final shut-in curves were incremented but not extrapolated due to insufficient curve development.

TABLE OF CONTENTS

PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Flow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

LYNES UNITED SERVICES LTD
DST#03 REPORT

p.1

Well name : FORWARD ET AL CAMERON RIVER L-11
Location : 400/ 60.003 / 117.030 /00
Interval : 782.00m to 805.00m
Test Date : 85/01/16
Test Type : INFLATE STRADDLE
Formation : SLAVE POINT

K.B.Elevation : 318.58m
Grd.Elevation : 314.03m
TD @ test Date: 1105.00m
Ticket Number : 69838
Unit Number : 579

Started in hole at : 0430 hrs
Tool opened at : 0734 hrs
Reverse circulated?: NO
Contractor & Rig No: ARNCO #1
WYNES#2 : 1 OF 1 ON THE SAME TRIP.

CUSHION : LIQUID 21.00m

Operator: FORWARD RESOURCES LTD.
6TH FLR.
700 - 4TH AVE. S.W.
CALGARY ALBERTA
T2P3J4

Company Rep : NICHOLS M
Testers : DIEBOLT R

5 REPORTS(S) TO: MR. MCLEAN
Company: C/O EXCO ENERGY LTD.
6TH FLOOR
700 - 4TH AVE. S.W.

FLOW DESCRIPTION

Weak air blow increasing to fair in 4 minutes and remaining throughout the preflow. No gas to surface.
Fair air blow decreasing to weak in 20 minutes and continuing to decrease to very weak in 60 minutes on final flow. No gas to surface.

TOTAL LIQUID RECOVERY : 95.50m

For DST# 3 through DST# 3
3 Fluid Samples
Sent to: CHEMEX

Btm. Hole Sampler #: 88,104
Sent to: CHEMEX

19.00m CORBAN AND WATER AND MUD.
76.50m DRILLING MUD.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.30
CROSS OVER SUB	.30
INSIDE RECORDER	1.38
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
BTM. HOLE SAMPLER	1.03
INSIDE RECORDER	1.38
HYDRAULIC JARS	2.19
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACKER STICK DOWN	.82
PORTED COMB. SUB	.30
RECORDER CARRIER	2.06
SPACING	.29
CROSS OVER SUB	.30
DRILL COLLARS	18.43
CROSS OVER SUB	.30
PACKER STICK UP	.50
BTM. INFLATE PACKER	1.90
PERFORATIONS	.61
BELLY SPRING	2.00

1) NUMBER : 001786	ELECTRONIC GAUGE.
TYPE : DMRB	PRESSURES AND
LOCATION: OUTSIDE	TEMPERATURE.
RANGE: 68900.00kPa (a)	
DEPTH : 784.00m	
2) NUMBER : 008932	ABOVE HYDRAULIC
TYPE : K-3	TOOL RECORDER.
LOCATION: INSIDE	
RANGE: 21400.00kPa	
DEPTH : 768.00m	
3) NUMBER : 009986	ABOVE INTERVAL
TYPE : K-3	RECORDER.
LOCATION: INSIDE	
RANGE: 20300.00kPa	
DEPTH : 773.00m	
4) NUMBER : 013965	
TYPE : K-3	
LOCATION: OUTSIDE	
RANGE: 20300.00kPa	
DEPTH : 784.00m	

***** TOOL TOTAL 42.49

DRILL COLLARS

ID= 60.0mm: 149.41

ID= :

DRILL PIPE

OD=101.0mm: 623.54

OD= :

COLLAR-PIPE TOTAL 772.95

STICK UP ABOVE TABLE : 5.93

TOOL ABOVE INTERVAL : 14.98

TOTAL INTERVAL : 23.00

BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 230.00mm	Water Loss : 7.2cc/s
Hole Condition at Test Time : GOOD	Filter Cake: .5 mm
Hole Conditioned Prior to Test? : YES	
Mud Weight : 1180.0 kg/m3	Main Hole Size: 215.00mm
Mud Type : GEL CHEMICAL	
Viscosity : 64.0s/l	Temperature @784.00m = 45.1C

Location: 400/ 60.003 / 117.030 /00
 Test Type: INFLATE STRADDLE
 Formation: SLAVE POINT

Recorder Number: 001786
 Recorder Depth: 784.00 m
 Subsea Depth: -465.42 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa(a)	ABSCISSA
1	INITIAL HYDROSTATIC			9601	
2	START OF 1st FLOW	0.0		689	
		1.		689	
		2.		707	
		3.		707	
		4.		724	
		5.		741	
		6.		758	
		8.		776	
3	END OF 1st FLOW	9.		776	
	1st SHUTIN PERIOD	0.0		776	
		2.	69	845	5.5000
		4.	190	965	3.2500
		7.	414	1189	2.2857
		9.	586	1362	2.0000
		11.	810	1586	1.8182
		13.	1103	1879	1.6923
		16.	1741	2517	1.5625
		18.	2379	3154	1.5000
		20.	3223	3999	1.4500
		23.	4619	5395	1.3913
		25.	5447	6223	1.3600
		27.	5998	6774	1.3333
		29.	6343	7119	1.3103
		32.	6619	7395	1.2813
		34.	6757	7533	1.2647
		36.	6843	7619	1.2500
		39.	6929	7705	1.2308
		41.	6998	7774	1.2195
		43.	7033	7808	1.2093
		45.	7067	7843	1.2000
		48.	7119	7895	1.1875

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 60.003 / 117.030 /00
 Test Type: INFLATE STRADDLE
 Formation: SLAVE POINT

Recorder Number: 001786
 Recorder Depth: 784.00 m
 Subsea Depth: -465.42 m

TIME-PRESSURE LISTING

HART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T,dt)/dt kPa(a)	ABSCISSA
		50.	7153	7929	1.1800
		52.	7188	7963	1.1731
		55.	7205	7981	1.1636
4	END OF 1st SHUTIN	57.	7239	8015	1.1579
5	START OF 2nd FLOW	0.0		914	
		4.		983	
		7.		1017	
		11.		1051	
		14.		1069	
		17.		1086	
		21.		1120	
		24.		1138	
		28.		1172	
		31.		1189	
		35.		1224	
		38.		1224	
		41.		1241	
		45.		1276	
		48.		1293	
		52.		1293	
		55.		1310	
		59.		1344	
6	END OF 2nd FLOW	62.		1362	
		63.		1362	
	2nd SHUTIN PERIOD	0.0		1362	
		4.	276	1638	19.0000
		7.	552	1913	11.2857
		10.	896	2258	8.2000
		14.	1500	2861	6.1429
		17.	2068	3430	5.2353
		21.	2896	4258	4.4286
		24.	3620	4981	4.0000

* VALUES USED FOR EXTRAPOLATIONS

DST#03
FORWARD ET AL CAMERON RIVER L-11
782.00 m to 805.00 m

p.3b

Location: 400/ 60.003 / 117.030 /00
Test Type: INFLATE STRADDLE
Formation: SLAVE POINT

Recorder Number: 001786
Recorder Depth: 784.00 m
Subsea Depth: -465.42 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE (T+dt)/dt kPa (a)	ABSCISSA
		28.	4447	5809	3.5714
		31.	4930	6291	3.3226
		34.	5257	6619	3.1176
		38.	5550	6912	2.8947
		41.	5671	7033	2.7561
		45.	5809	7171	2.6000
		48.	5878	7239	2.5000
		52.	5964	7326	2.3846
		55.	6016	7377	2.3091
		58.	6067	7429	2.2414
		62.	6119	7481	2.1613
		65.	6154	7515	2.1077
		69.	6205	7567	2.0435
		72.	6240	7601	2.0000
		76.	6274	7636	1.9474
		79.	6309	7670	1.9114
		82.	6343	7705	1.8780
		86.	6360	7722	1.8372
		89.	6378	7739	1.8090
		93.	6429	7791	1.7742
		96.	6447	7808	1.7500
		100.	6481	7843	1.7200
		103.	6481	7843	1.6990
		106.	6516	7877	1.6792
		110.	6533	7895	1.6545
		113.	6550	7912	1.6372
		117.	6585	7946	1.6154
		120.	6585	7946	1.6000
7	END OF 2nd SHUTIN	124.	6619	7981	1.5806
4	FINAL HYDROSTATIC			9566	

* VALUES USED FOR EXTRAPOLATIONS

DST#03
FORWARD ET AL CAMERON RIVER L-11
782.00 m to 805.00 m

p.3c

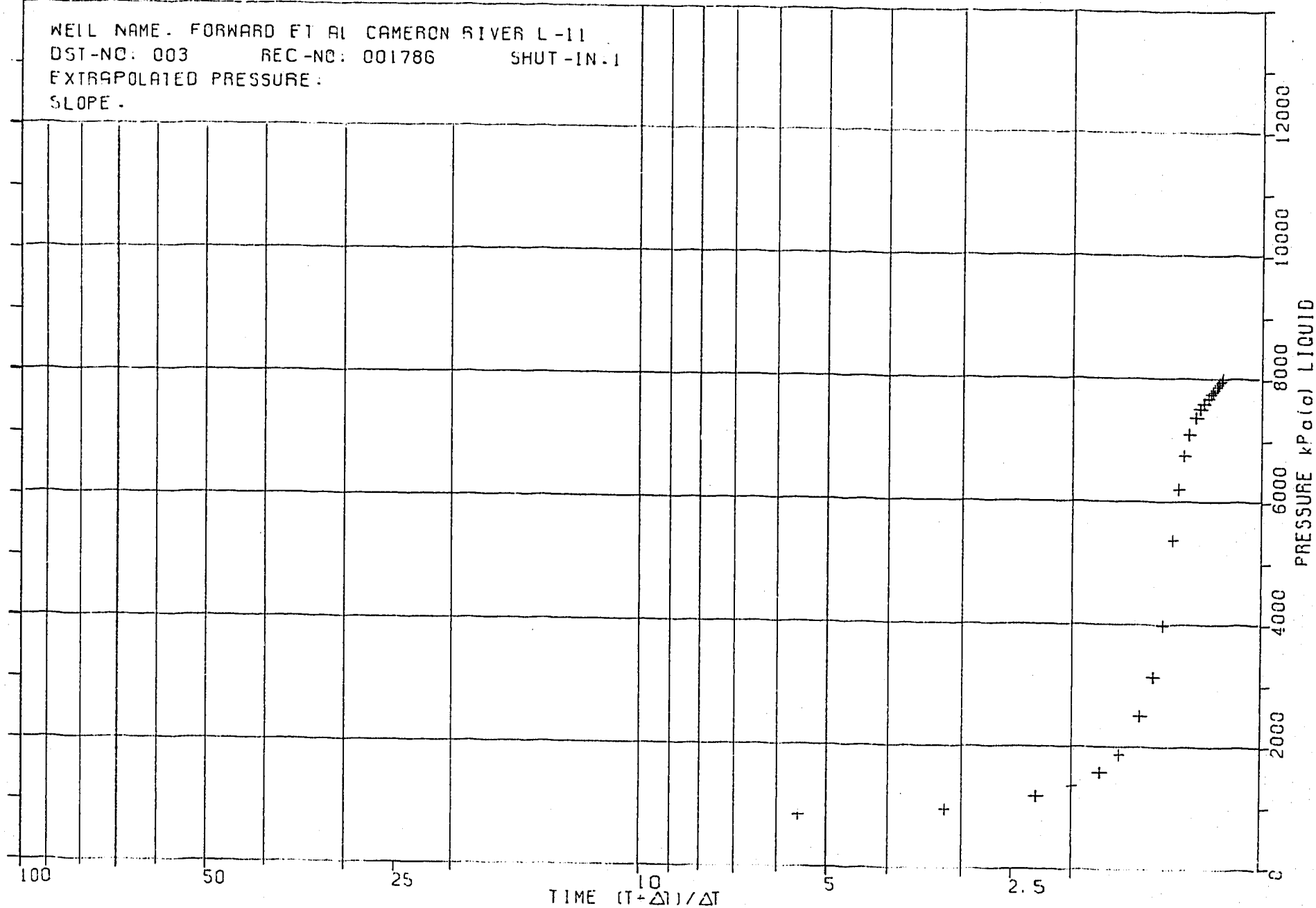
Location: 400/ 60.003 / 117.030 /00
Test Type: INFLATE STRADDLE
Formation: SLAVE POINT

Recorder Number: 001786
Recorder Depth: 784.00 m
Subsea Depth: -465.42 m

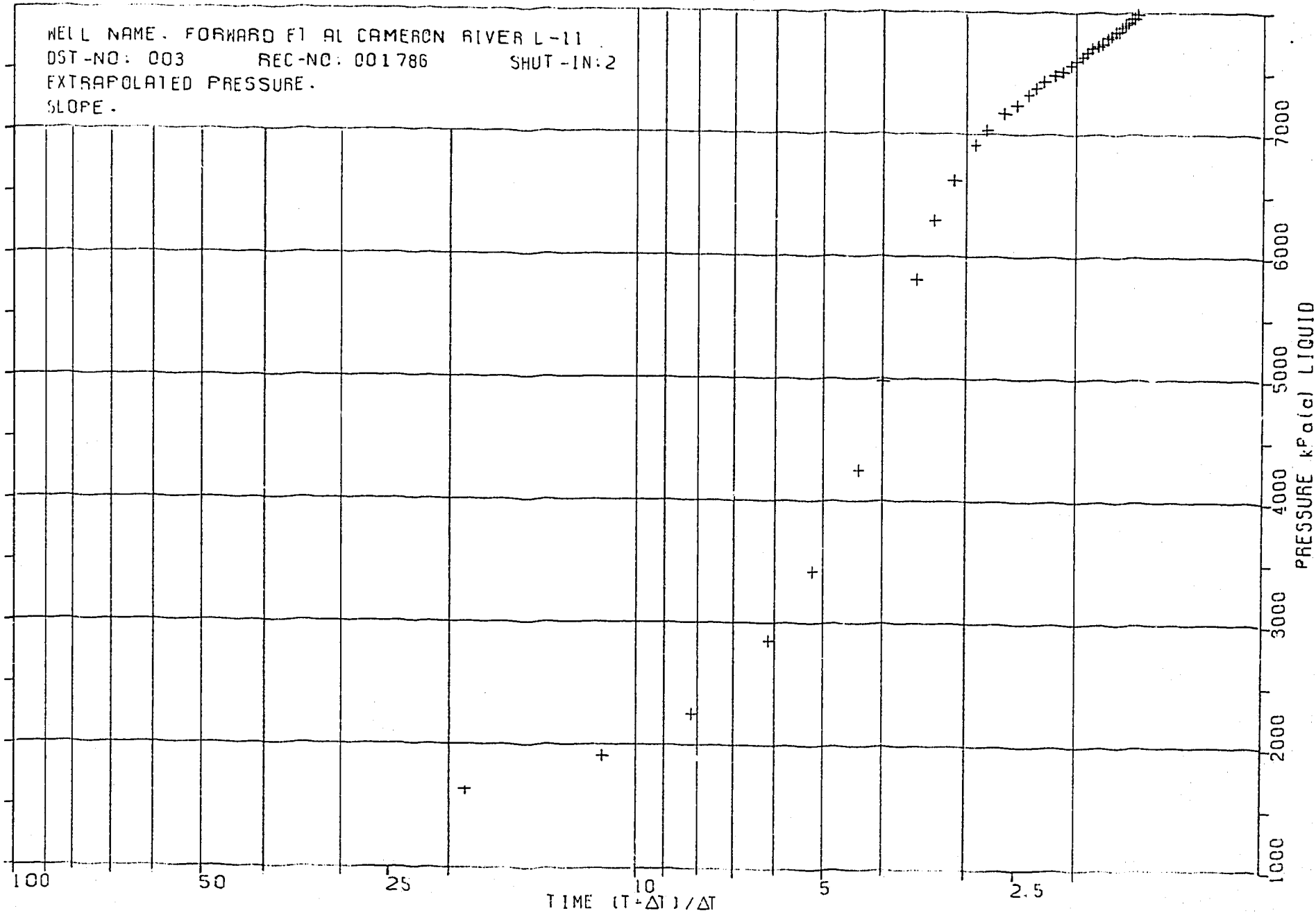
1st SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

2nd SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

WELL NAME. FORWARD FT AL CAMERON RIVER L-11
DST-NO: 003 REC-NO: 001786 SHUT-IN.1
EXTRAPOLATED PRESSURE:
SLOPE.



WELL NAME. FORWARD F1 AL CAMERON RIVER L-11
DST-NO: 003 REC-NO: 001786 SHUT-IN: 2
EXTRAPOLATED PRESSURE.
SLOPE.



FORWARD FT AL CAMERON RIVER L-11

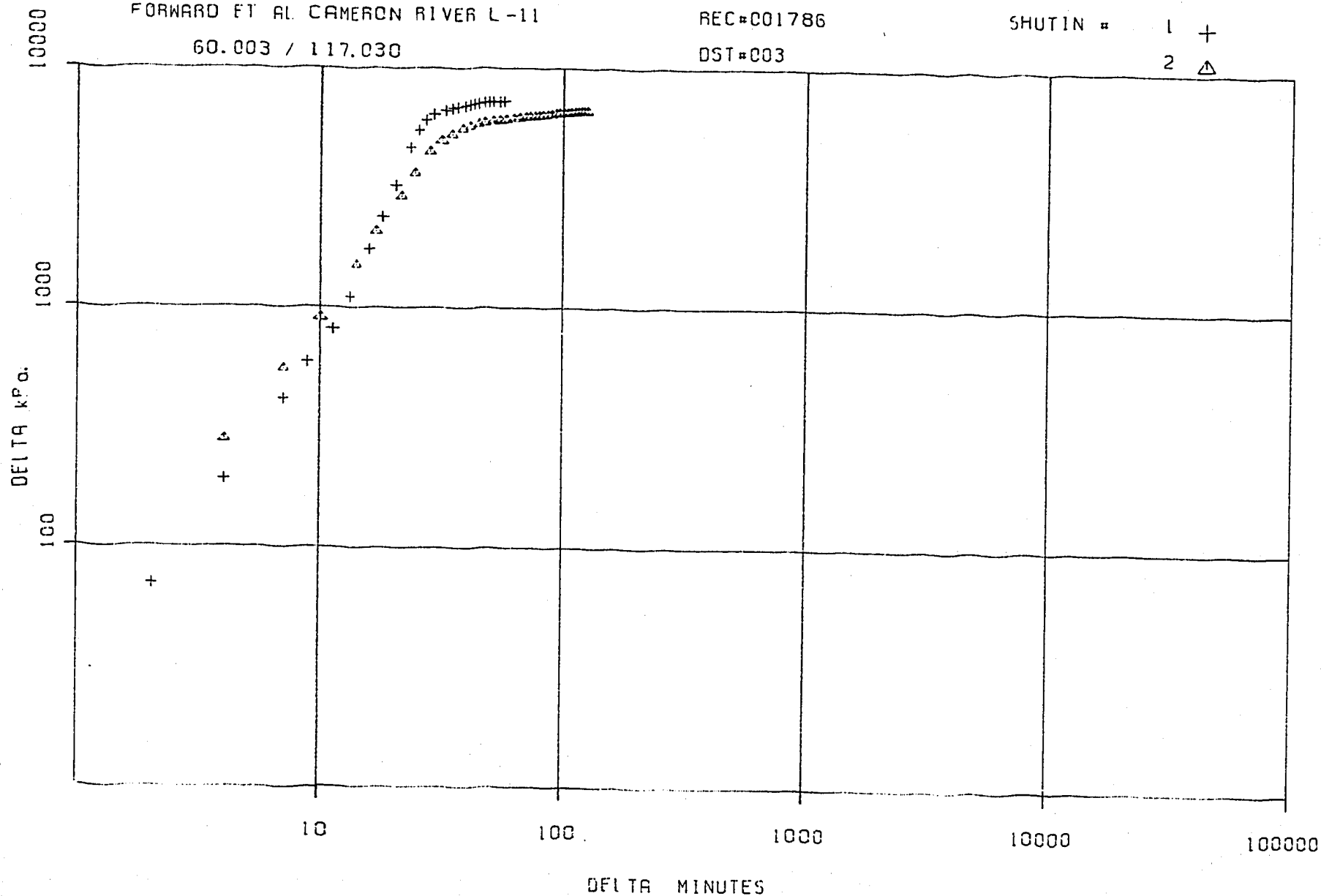
60.003 / 117.030

REC#001786

DST#003

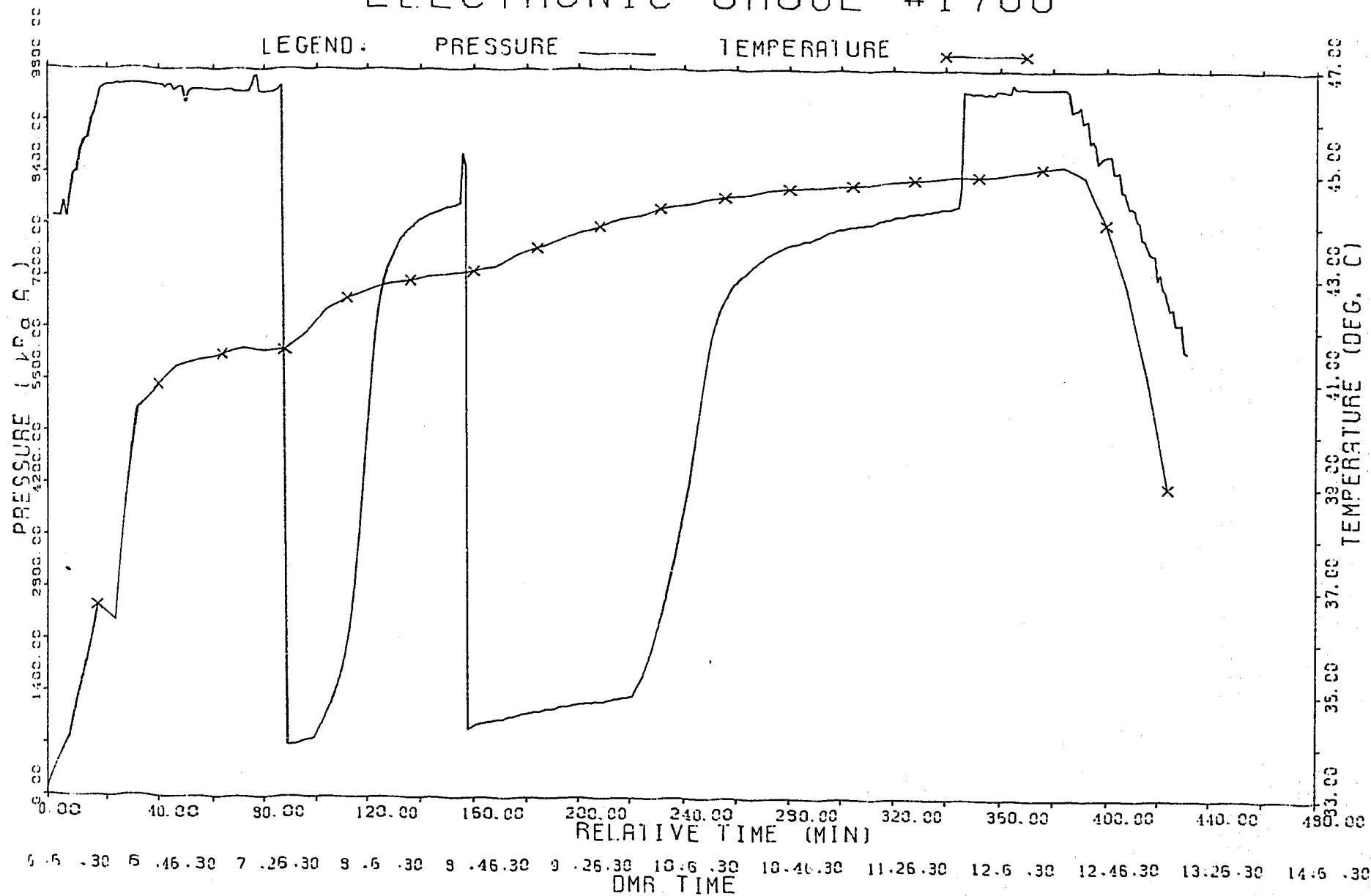
SHUTIN # 1 +

2 Δ



FORWARD ET AL CAMERON RIVER L-11

60.003 / 117.03 DST #3
ELECTRONIC GAUGE #1786



DST#03
FORWARD ET AL CAMERON RIVER L-11
782.00m to 805.00m

PRESSURE RECORDER NUMBER : 001786

DEPTH : 784.00m
TYPE : DMRB

LOCATION : OUTSIDE
CAPACITY : 68900.00kPa(a)

PRESSURE
kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 45.1 C

- 1) Initial Hydro : 9601.
- 2) 1st Flow Start: 689.
- 3) 1st Flow End : 776.
- 4) END 1st Shutin: 8015.
- 5) 2nd Flow Start: 914.
- 6) 2nd Flow End : 1362.
- 7) END 2nd Shutin: 7981.
- 14) Final Hydro. : 9566.

ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

TEST TIMES (MIN)
1st FLOW : 9.
SHUTIN: 57.
2nd FLOW : 63.
SHUTIN: 124.

PRESSURE RECORDER NUMBER : 008932

DEPTH : 768.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 21400.00 kPa

PRESSURE
kPa

- 1) Initial Hydro :
- 2) 1st Flow Start: 241.
- 3) 1st Flow End : 518.
- 4) END 1st Shutin:
- 5) 2nd Flow Start: 554.
- 6) 2nd Flow End : 1125.
- 7) END 2nd Shutin: 1107.
- 14) Final Hydro. :

Above Hydraulic Tool



ABOVE HYDRAULIC
TOOL RECORDER.

DST#03
FORWARD ET AL CAMERON RIVER L-11
782.00m to 805.00m

PRESSURE RECORDER NUMBER : 009986

DEPTH : 773.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 9457.
- 2) 1st Flow Start: 543.
- 3) 1st Flow End : 626.
- 4) END 1st Shutin: 7814.
- 5) 2nd Flow Start: 977.
- 6) 2nd Flow End : 1202.
- 7) END 2nd Shutin: 7806.
- 14) Final Hydro. : 9457.

Above interval

ABOVE INTERVAL
RECORDER.

TEST TIMES (MIN)

- 1st FLOW : 9.
SHUTIN: 57.
2nd FLOW : 63.
SHUTIN: 124.

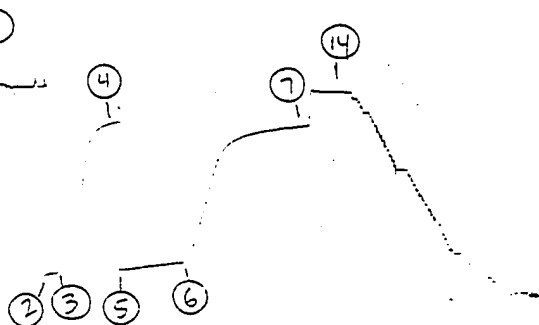
PRESSURE RECORDER NUMBER : 013965

DEPTH : 784.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 20300.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 9480.
- 2) 1st Flow Start: 470.
- 3) 1st Flow End : 646.
- 4) END 1st Shutin: 7876.
- 5) 2nd Flow Start: 872.
- 6) 2nd Flow End : 1216.
- 7) END 2nd Shutin: 7842.
- 14) Final Hydro. : 9480.



GAS AND DOWNHOLE SAMPLER ANALYSIS
FOR DST #3
SLAVE POINT 782.0m - 805.0m

ALGARY, ALBERTA



CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

CONTAINER IDENTITY

001 #38

EDMONTON, ALBERTA

WATER ANALYSIS

LABORATORY NUMBER

24-2178-1

LICENCE NO

OPERATOR NAME AND ADDRESS

FORWARD RESOURCES LTD.

CPA NUMBER

WELL NAME

FORWARD ETAL CAMERON RIVER L-11

KB

ELEVATIONS

METERS

GRD

318.58

314.03

FIELD OR AREA

CAMERON RIVER

POOL OR ZONE

SLAVE POINT

NAME OF SAMPLER

COMPANY

LYNES UNITED

TEST TYPE

NO

DST 3

MULTIPLE RECOVERY

TEST INTERVAL

FROM

782 m

TO

805 m

PERFORATIONS

FROM

m

TO

m

95.5 METERS

TEST RECOVERY

SAMPLING POINT

DOWNHOLE SAMPLER

AMT & TYPE OF CUSHION

MUD RESISTIVITY

@ 25°C

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER m³/dOIL m³/dGAS 10³m³/d

GAUGE PRESSURE - KPa

SEPARATOR

TREATER

AS RECEIVED

TEMPERATURES °C

SEPARATOR

TREATER

AS RECEIVED

DATE SAMPLED

DATE RECEIVED

DATE REPORTED

ANALYST

Y M D H M

Y M D

Y M D

85-01-16

85-01-21

85-01-22

M.V.

ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Na	9390		408.3
K	77		2.0
Ca	480		12.0
Mg	16		<1
Ba			
Sr			
Fe	3.7		<1

ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Cl	6000		169.0
Br			
I			
HCO ₃	361		5.9
SO ₄	13750		143.2
CO ₃	67		1.1
OH	<1		<1
H ₂ S	ABSENT		

TOTAL SOLIDS C.1. m⁻³

BY EVAPORATION

@ 110°C

BY EVAPORATION

@ 180°C

AT IGNITION

27715

CALCULATED

29961

RELATIVE DENSITY

1.022 @ 21°C

REFRACTIVE INDEX

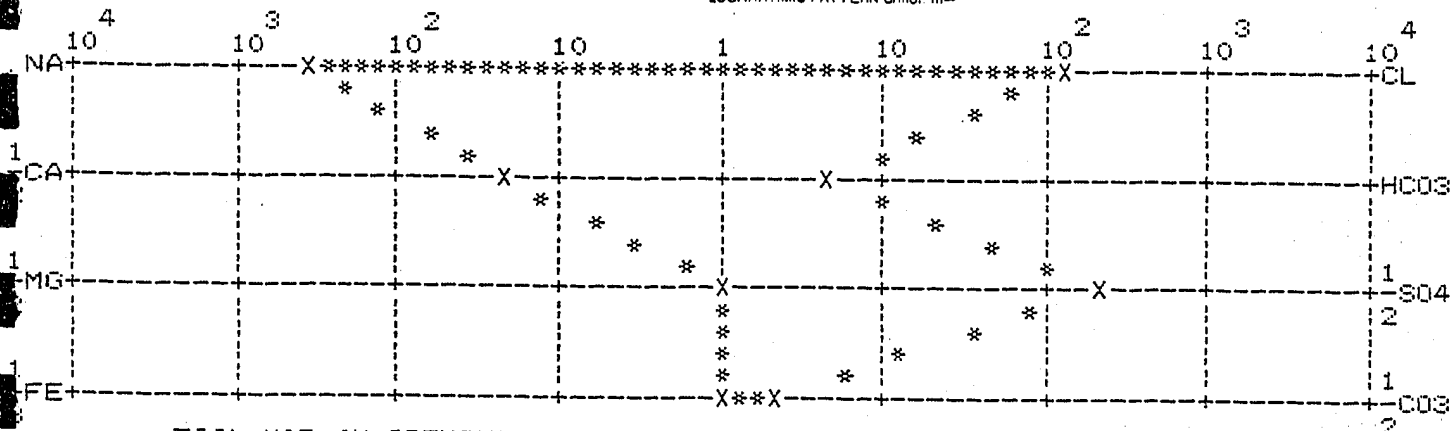
1.340 @ 25°C

OBSERVED PH

9.1 @ 21°C

RESISTIVITY Ω_m

0.21 @ 25°C

LOGARITHMIC PATTERN C/mol. m.⁻³

REMARKS

TOOL HAD AN OPENING PRESSURE OF 0 KPA.
TOOL CONTAINED GAS AND 2300 ML. OF MUD.

ALGARY, ALBERTA

CHEMEX LABS (ALBERTA) LTD.

GRANDE PRAIRIE, ALBERTA

EDMONTON, ALBERTA
WATER ANALYSIS

CONTAINER IDENTITY: **ELASTIC**

LICENCE NO:

CPA NUMBER:

FIELD OR AREA: **CAMERON RIVER**

POOL OR ZONE: **SLAVE POINT**

NAME OF SAMPLER:

COMPANY: **LYNES UNITED**

TEST TYPE: **DST** NO: **3**

MULTIPLE RECOVERY:

TEST INTERVAL FROM: **782** m TO: **805** m

PERFORATIONS FROM: m TO: m

OPERATOR NAME AND ADDRESS: **FORWARD RESOURCES LTD.**

WELLNAME: **FORWARD ETAL CAMERON RIVER L-11**

LABORATORY NUMBER: **84-2178-2**

ELEVATIONS METERS: **318.58** **314.03**

TEST RECOVERY:

SAMPLING POINT: **MIDDLE**

AMT & TYPE OF CUSHION:

MUD RESISTIVITY: **@25°C**

TYPE OF PRODUCTION:

PUMPING: FLOWING: GAS LIFT: SWAB:

PRODUCTION RATES:

WATER: m³/d OIL: m³/d GAS: 10³m³/d

GAUGE PRESSURE - KPa:

SEPARATOR: TREATER: AS RECEIVED:

DATE SAMPLED: **85-01-16** DATE RECEIVED: **85-01-21** DATE REPORTED: **85-01-22**

TEMPERATURES °C:

SEPARATOR: TREATER: AS RECEIVED:

ANALYST: **M.V.**

ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Na	7540		327.8
K	52		1.3
Ca	320		8.0
Mg	1.4		<1
Ba			
Sr			
Fe	1.1		<1

ION	C g. m. ⁻³	MASS FRACTION	C mol. m. ⁻³
Cl	4000		112.7
Br			
I			
HCO ₃	234		3.8
SO ₄	10500		109.4
CO ₃	58		1.0
OH	<1		<1
H ₂ S	ABSENT		

TOTAL SOLIDS C/g. m.⁻³

BY EVAPORATION @ 110°C: **22000**

BY EVAPORATION @ 180°C: **22588**

AT IGNITION: **22000**

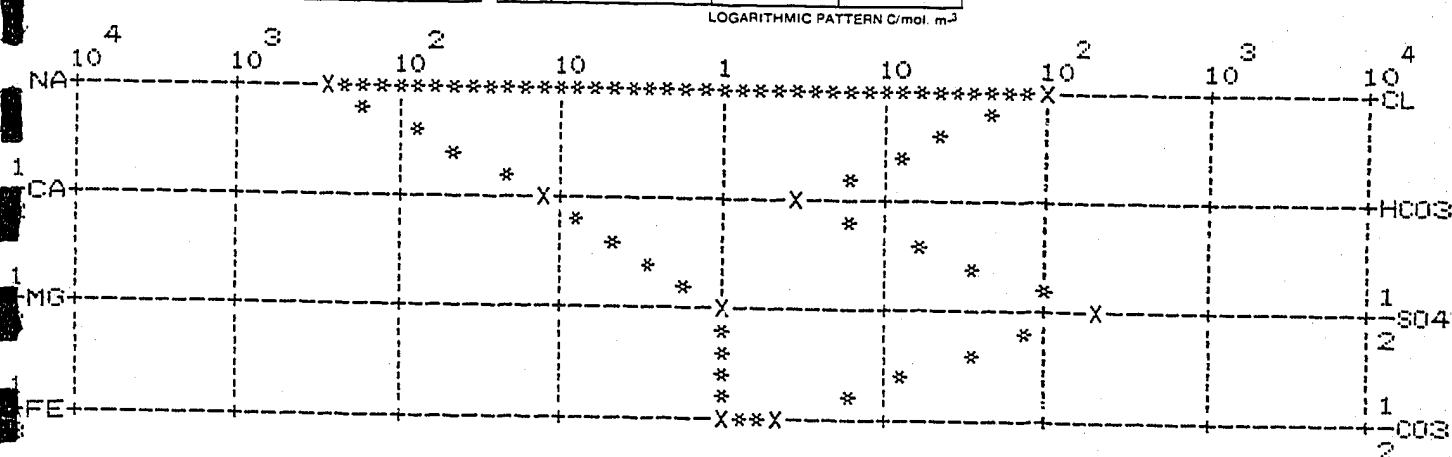
CALCULATED: **22588**

RELATIVE DENSITY: **1.017 @ 21°C**

REFRACTIVE INDEX: **1.338 @ 25°C**

OBSERVED PH: **9.3 @ 21°C**

RESISTIVITY Ω_m: **0.27 @ 25°C**



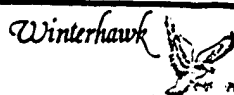
REMARKS

CASING SUMMARY

Enclosed are casing-cementing summaries for 339mm conductor and 244 mm surface casing.

A cementing report is enclosed for the squeeze cementing work performed after the formation integrity test - i.e. to seal the fractures induced as a result of running the test.

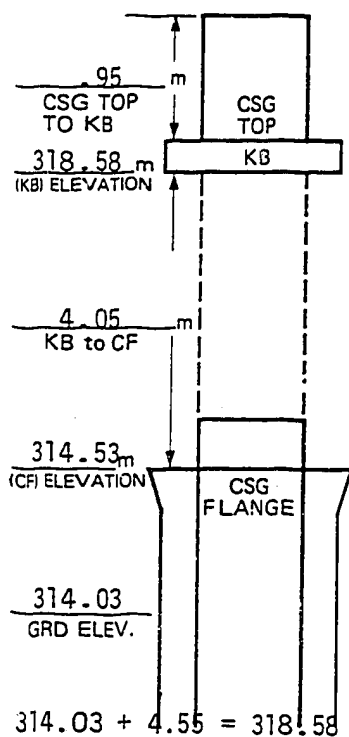
339 mm CONDUCTOR



PAGE _____

CASING SUMMARY

WELL Exco et al Cameron River LOCATION L-11 DATE 84-12-24
CONDUCTOR _____
_____ 339.7 m KB 318.58 m KB to CF 4.05 m
New/Used Inspected By: Mel Nichols Drifted To: 12.615mm API diam.



NO.	DESCRIPTION	MEASURED LENGTH	KB DEPTH
1	Guide Shoe - 244mm	0.47	59.25
1	jt. 339mm, 81.1 kg/m K-55 ST&C	11.82	47.43
1	Float collar - 244mm	0.47	46.96
4	jts. 339mm, 81.1 kg/m K-55 ST&C	47.91	+ 0.95
	Scratchers Nil		
	Centralizers 3		
	Total String	60.67	Cut-off Jt. Length
	minus KB to Csg Top (STICK UP)	0.95	
	Landed Depth KB	59.72	
	Hole Depth KB	59.77	
	Distance Csg Landed Off Bottom	.05	

Cementing Company Halliburton - High Level, Alberta

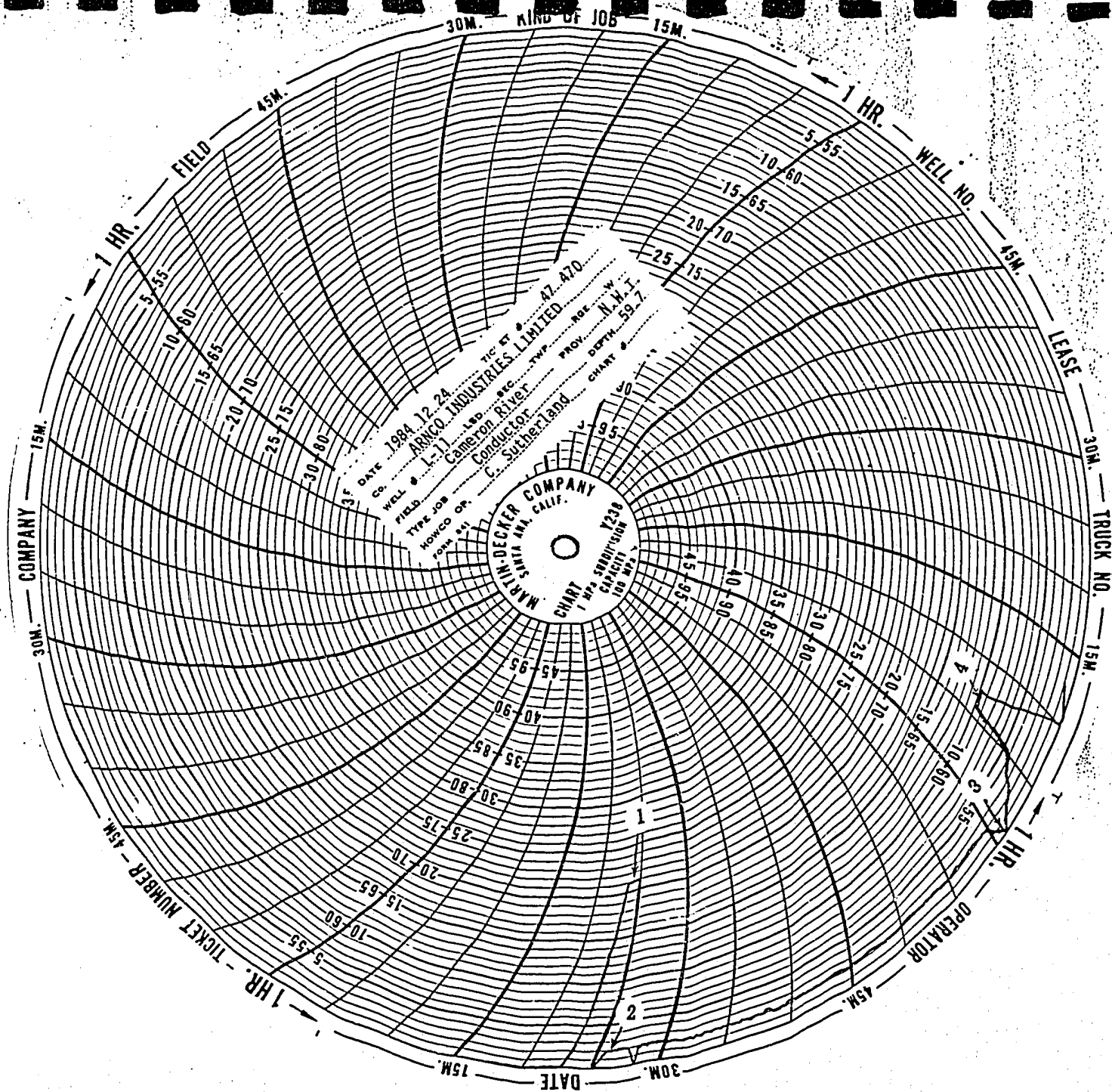
Wash - Type: Water Volume 1.58
Cement Type - Lead Slurry 0:1:0 Class "G" Volume: 7.752 m³
Additives 2% CaCl₂ Volume: _____
Cement Type - Tail Slurry N/A Volume: _____
Additives N/A Volume: _____
Cement Type - Above Stage Collar N/A Volume: _____
Additives N/A Volume: _____

Displacement Rate: Max. 1.0 mPa /vg. .64 (m3/min)
Calculated Cement Top(s) Surface KB N/A KB
Returns: Mud 13.202 m3 Cement 3.86 m3
String Wt. in a mud wt. of: 1070 kg/m3 = 9000 daN
Wt. set on Slips: N/A daN

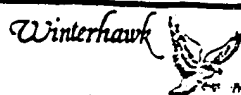
Remarks: Ran 10.2 T 0:1:0 Class "G" + 2% CaCl₂ - 1.58 m³
Water ahead - 4.5 m³ to mix - 5.8 m³ to displace 3.48 m³
Good returns. Plug down 1706 hours on 84-12-24

Engineer: Mel Nichols

NOTE: Use a new page for each casing type. Number joints in order of running. Indicate joints not run by * and do not include in total length.

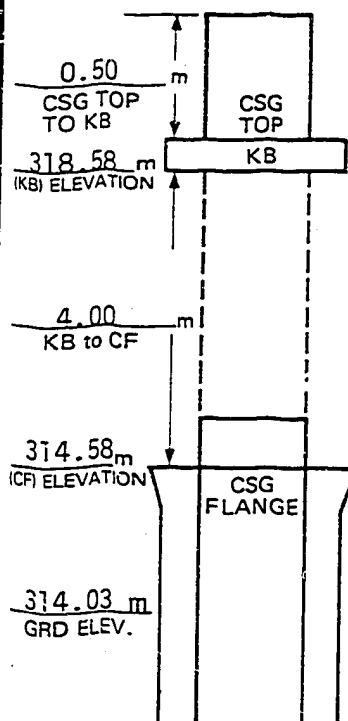


244 mm SURFACE CASING



CASING SUMMARY

WELL Exco et al Cameron River LOCATION L-11 DATE 84-12-29
SURF/ 244.4mm KB 318.58 m KB to CF 4.00 m
New/ Inspected By: Mel Nichols Drifted To: 226.60mm API diam.



NO.	DESCRIPTION	MEASURED LENGTH	KB DEPTH
1	Baker Float Shoe - 244mm	0.47	301.89
1	jt. 244mm 53.57 kg/m K-55	11.63	290.26
1	Baker Float Collar - 244mm	0.47	289.79
25	jts 244mm 53.57 kg/m K-55	290.29	+ 0.50
Nil	Scratchers		
2	Centralizers #1 & #3		
Total String		302.86	Cut-off Jt. Length 4.50 m
minus KB to Csg Top (STICK UP)		0.50	
Landed Depth KB		302.36	
Hole Depth KB		302.60	
Distance Csg Landed Off Bottom		0.24	

Cementing Company Halliburton - High Level, Alberta

Wash - Type: Water Volume 1.6 m³
Cement Type - Lead Slurry Class "G" - 18.5 T Volume: 14.06 m³
Additives 2% CaCl₂ Volume: _____
Cement Type - Tail Slurry N/A Volume: _____
Additives N/A Volume: _____
Cement Type - Above Stage Collar N/A Volume: _____
Additives N/A Volume: _____
Displacement Rate: Max. 1.0 m³/min. Avg. 0.703 (m³/min)
Calculated Cement Top(s) Surface KB _____ KB _____
Returns: Mud 24.2 m³ Cement 3.7 m³
String Wt. in a mud wt. of: 1140 kg/m³ = 11000 daN
Wt. set on Slips: N/A daN

Remarks: Ran orange rubber wiper plug. Black rubber displacement plug. Full
returns throughout job. Good cement returns. Float held - pumped to
9 mPa. Plug down 0830 hours on 84-12-30. Landed at 302.36 m K.B.

Engineer: Mel Nichols



PIPE TALLY SHEET

PAGE _____ OF _____

WELL Exco et al Cameron River 1-11 LOCATION _____

SIZE 244mm WT. 53.57 kg/m GRADE K-55 COUPLING ST&C THRD 8 RD

DATE _____

JOINT	LENGTH		JOINT	LENGTH		JOINT	LENGTH		JOINT	LENGTH		JOINT	LENGTH	
1	11	63	11	11	92	21	12	32	31			41		
2	11	74	12	11	39	22	11	03	32			42		
3	12	07	13	11	80	23	11	36	33			43		
4	11	60	14	11	36	24	11	97	34			44		
5	11	08	15	11	42	25	11	70	35			45		
6	11	59	16	11	90	26	11	30	36			46		
7	11	06	17	11	30	27			37			47		
8	11	95	18	11	53	28			38			48		
9	11	82	19	11	37	29			39			49		
10	11	86	20	11	85	30			40			50		
A	116	40	B	115	84	C	69	68	D			E		
51			61			71			81			91		
52			62			72			82			92		
53			63			73			83			93		
54			64			74			84			94		
55			65			75			85			95		
56			66			76			86			96		
57			67			77			87			97		
58			68			78			88			98		
59			69			79			89			99		
60			70			80			90			100		
F			G			H			I			J		

A	116	40	SUB TOTAL			
B	115	84	232	24		
C	69	68	301	92		
D						
E						
F						
G						
H						
I						
J						
TOTAL	301	92				

Shoe 47 Baker Float
Float 47 Baker
Collar _____
Other _____

PAGE TOTAL
BROUGHT FWD
GRAND TOTAL

JOINTS	LENGTH
26	301.92 m
	.94 m
	302.86 m

JOINTS ON LOCATION _____

Remarks: Centrilized on Shoe Joint #1 & #3

ENGINEER Mel Nichols

NOTE: Use a new page for each casing type. Number joints in order of running. Indicate joints not run by * and do not include in total length.



ATTACH TO
INVOICE No. 47 469

JOB DATE 1984 12 30
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arcco Industries Limited				FIELD OR AREA Cameron River				WELL NO. AND LEASE L-11											
CALLED OUT 84-12-28 12:00		ON LOCATION 84-12-29 08:00		JOB STARTED 84-12-30 07:45		JOB COMPLETED 84-12-30 08:30		PROVINCE N.W.T.		LSD Long Lat		SEC 60° 38' 119° 3'		TYP Min 49 Min 28		RANGE Sec. Sec.		MERIDIAN W	

TYPE OF JOB		WELL OR HOLE DATA										PRODUCTS				
SURFACE	✓											EQUIPMENT	QUANTITY			
INTERMEDIATE		HOLE DATA:	HOLE SIZE	311	mm	TOTAL DEPTH	301.92	m	TYPE MUD	Gel Chem	VISC.	40	DENSITY	1140	BASKETS	
PRODUCTION		CASING, TUBING OR LINER DATA	NEW	X	USED	C	SIZE	244	mm	kg/m	53.5	GRADE	J-55	DEPTH	301.92 m	CENTRALIZERS
PER							SIZE		mm	kg/m		GRADE		DEPTH		CLAMPS
SQUEEZE		PERFORATIONS: FROM		m	TO		m	FROM		m	TO		m			FLOAT COLLAR
PLUG																FLOAT SHOE
PUMP		WASH FLUID TYPE:	H2O	VOL.	1.59	m³	DISPLACING FLUID TYPE:	H2O	VOL.	11.7	m³					GUIDE SHOE
PRESSURE TEST		TEMP MIXING DATA	20	°C	SLURRY	18	°C	DISPLACING FLUID	H2O	°C	RETURNS	3.66	°C			INSERT FLOAT
OTHER																SCRATCHERS
																OTHER

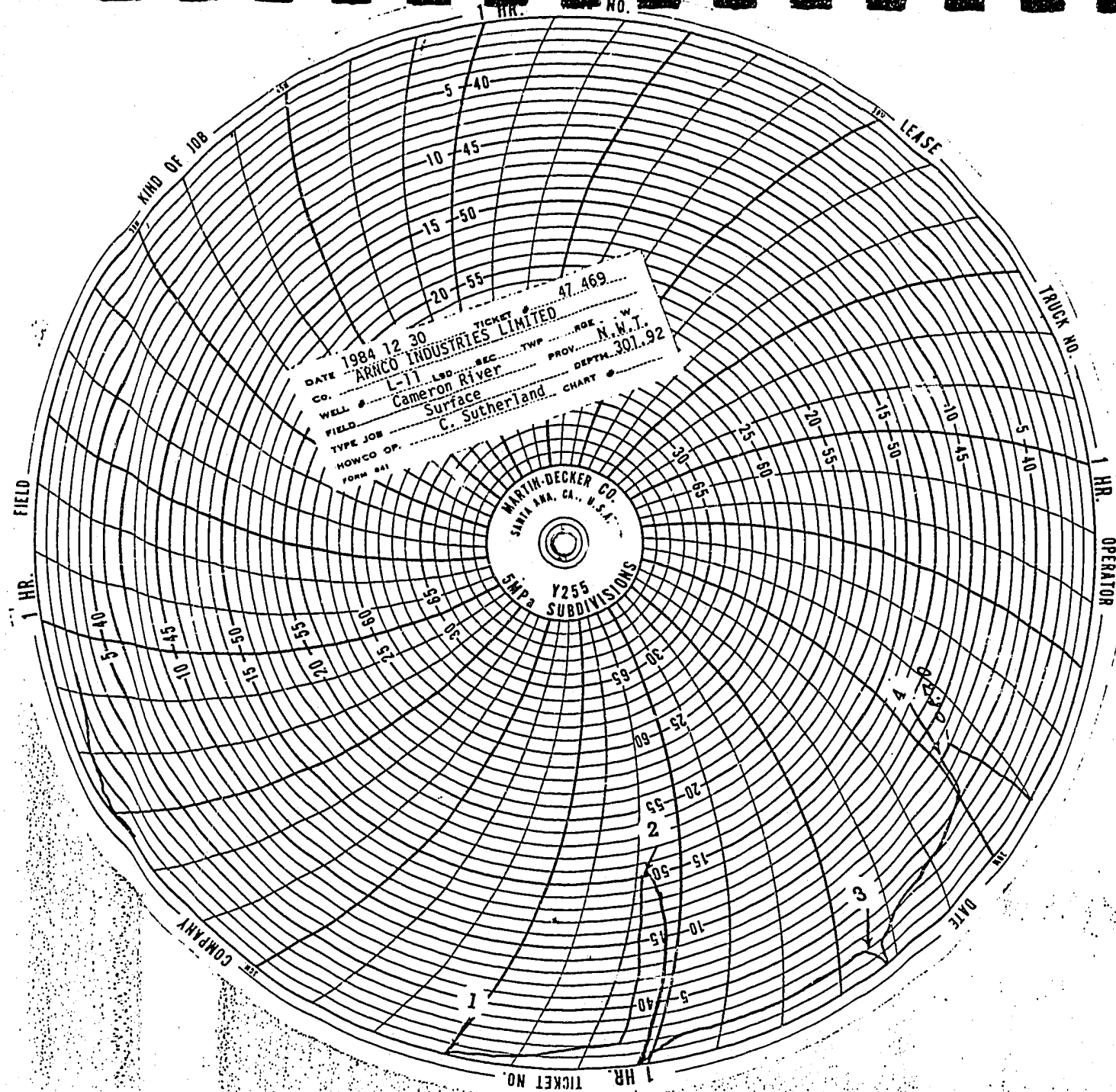
PACKER

TYPE _____	SIZE _____ mm	TOP PLUG TYPE <u>Halliburton</u>	CEMENT HEAD CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☒ OTHER _____
DEPTH _____ m	TAIL PIPE _____ m	BOTTOM PLUG TYPE <u>Halliburton</u>	

TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m ³	m ³ /tonne
8.5	G	Inland	bulk	Class "G" Neat	2% Cal	1895	0.76

HALLIBURTON OPERATOR C. Sutherland CUSTOMER REP

[illegible]



CEMENT SQUEEZE CONDUCTED
AFTER FORMATION INTEGRITY TEST
(PRIOR TO DRILLING AHEAD IN 215.9 mm MAIN HOLE)

HALLIBURTON

CEMENTING AND/OR SPECIAL TOOLS SERVICE REPORT

 ATTACH TO
INVOICE No. **59 301**

 HALLIBURTON DISTRICT
Grande Prairie

 JOB
DATE **1985 01 03**
YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arnco Industries Limited				FIELD OR AREA Cameron River				WELL No. AND LEASE L-11			
DATE TIME	ON LOCATION DATE TIME	JOB STARTED DATE TIME	JOB COMPLETED DATE TIME	PROVINCE	LSD	SEC	TWP	RANGE	MERIDIAN		
	21:00	85-01-02 23:50	85-01-03 02:05	N.W.T.					W		

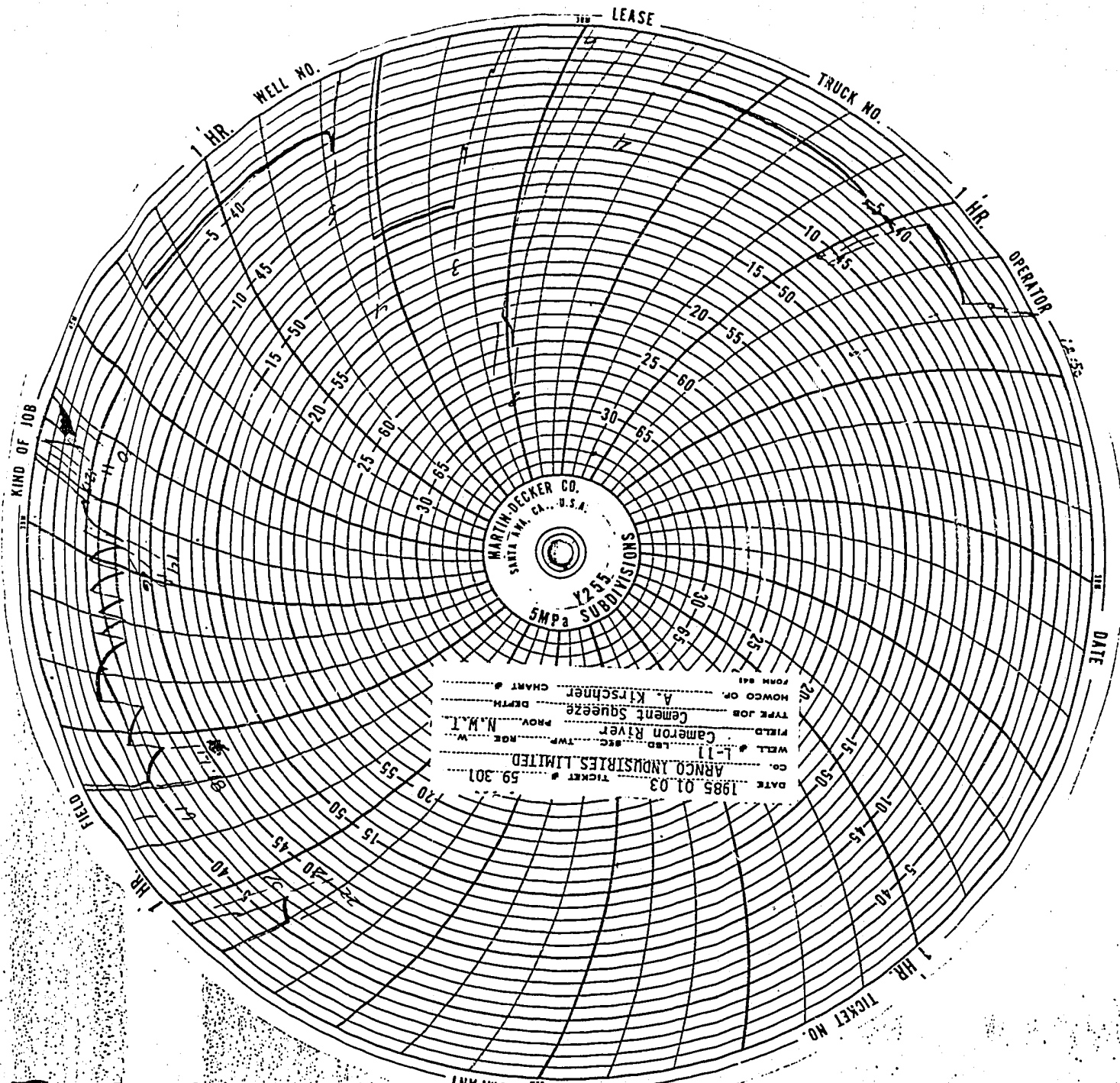
TYPE OF JOB	WELL OR HOLE DATA										PRODUCTS	
											EQUIPMENT	QUAN
SURFACE											BASKETS	
INTERMEDIATE											CENTRALIZERS	
PRODUCTION											CLAMPS	
INNER											FLOAT COLLAR	
SQUEEZE											FLOAT SHOE	
PLUG											GUIDE SHOE	
PUMP											INSERT FLOAT	
PRESSURE TEST											SCRATCHERS	
OTHER											OTHER	

EQUIPMENT			
PACKER		CEMENT HEAD	
TYPE F7 Drill	SIZE mm	TOP PLUG TYPE	CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☐
DEPTH 294 m	TAIL PIPE	BOTTOM PLUG TYPE	OTHER Nubbin

CEMENT DATA						
TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m³ m³/tonne
5	G	Oilwell	Bulk	"G"	2% CaCl₂ 0.5% CFR-2	1895 0.76

HALLIBURTON OPERATOR A. Kirschner	CUSTOMER REP.
--	---------------

TREATING LOG								
CHART POSITION	TIME	RATE m³/min	VOLUME PUMPED IN m³			PRESSURE MPa		REMARKS
			STAGE	TOTAL	IN FORMATION	TUBING	CASING	
1	23:50					0.0		Pump 0.05 m³.
2	23:52			0.05		5.0		Stop.
3	23:59					6.0		Establish feedrate.
4	00:02	0.07		0.23		5.5		Stop hold pressure.
5	00:23					4.0		Bleed off.
6	00:36					0.0		Pressure test surface line 13.
7	00:46					0.0		Bleed off.
8	00:48					6.0		Pressure up for leak off test.



BIT RECORD



LOCATION

Rig No.

1

Field Cameron Hills

T.D. Date

85-01-14 0400 hours

Rig Release Date 85-01-18 1600 hours

REMARKS:

MUD REPORT

For details as to the mud properties maintained while drilling refer to the enclosed "Daily Drilling Reports" found in Section VI.

MUD ADDITIVES

Well: Exco et al Cameron River L-11

Drilling Day	Gel	Lime	Bicarb	Caustic	Soda Ash	Polysec	Polyguard	Staflo	Cypan	Peltex	Barite	Sawdust
1	40	1										
2	40											
3			1									
4												
5	66		2	1	2	11						
6	31			2		5						
7	38			1		6	15					
8												
9												
10												
11												
12												
13	46		1		2	8						
14	31			2		5	15	1	2			
15	16			8	9	3		1		6		10
16	29					5	5	2	2		79	
17	8			9	18	1	15			5		
18	17			4	26			4	3	1	227	10
19	17			2	13			1	1		30	
20	14			2	3		10	1	1			
21	8			4	4			1	1			
22	22			3	5			3	3		194	
23	11			2			10	1			30	10
24												
Totals	434	1	4	40	82	44	70	15	13	12	560	30

ABANDONMENT REPORT



PAGE _____

ABANDONMENT REPORT

DATE 85-01-17Well Exco et al: Cameron River L-11 Location _____

A. WELL DATA

KE Elevation 314.03 m KB to CF 4.00 m FTD 1105.80 m

Hole Size	Hole Depth	Casing Size	Casing Depth	Cement Top(s)	Perfs
444mm	59.77 m	339mm	59.72 m	Surface	N/A
311mm	302.60 m	244mm	302.36 m	Surface	N/A
215.9mm	1105.80 m	--	--	--	--

B. ABANDONMENT DATA

Fluid in Hole Gel Chem Mud Abandonment Company Exco Energy Ltd.Cementing Company Halliburton - High Level Gov't Official COGLA - John Hamilton

Plug	Interval	Formation	Cem Vol/m ³	Cem Type	Cem Wt/kg	Plug Down	Felt Plug Time	Felt Plug Depth
1	1000 - 775 m	Slave Point top to Keg River	11.78	"G"+2% CaCl ₂ Class	1895	1045	1500	762.5 m
2	330 - 270 m	28 m below surf. casing	3.5	"G"+3% "	1895	0105	0530	263.3 m
3	25 m - 0	Surface casing	1.98	"G"+3% "	1890	0932	--	Surface

Method of Feeling Plugs Drill PipeSurface Casing Cut 1 m below Ground Level Surface Plug To Surface Plate Welded Yes

Make up legal co-ordinates sign.

Place on hole centre after abandonment

C. SALVAGE DATA

Casing Salvaged Nil

D. REMARKS	Formations: Keg River	963.5 m
	Muskeg	859.7 m
	Bistcho Sulphur Point	835.8 m
	Watt Mountain	827.0 m
	Slave Point	774.0 m

ENGINEER Mei Nichols

HALLIBURTON

CEMENTING AND/OR SPECIAL TOOLS
SERVICE REPORTATTACH TO
INVOICE No.

59 322

HALLIBURTON DISTRICT

Grande Prairie

JOB
DATE 1985 01 18

YEAR MONTH DAY

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN GOOD CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA.

CUSTOMER Arnco Industries Ltd.				FIELD OR AREA Cameron River				WELL No. AND LEASE L-11			
85-01-16 20:00 DATE TIME	ON LOCATION 85-01-17 01:00 DATE TIME	JOB STARTED 85-01-17 10:15 DATE TIME	JOB COMPLETED 85-01-18 09:32 DATE TIME	PROVINCE N.W.T.	LONG Lat	SEC 60° 38 min 49 sec	TWP 17° 3 min 28 sec	RANGE sec	MERIDIAN W		

TYPE OF JOB	WELL OR HOLE DATA								PRODUCTS	
☒ SURFACE ☐ INTERMEDIATE ☐ PRODUCTION ☐ OVER ☐ SQUEEZE ☒ PLUG ☐ PUMP ☐ PRESSURE TEST ☐ OTHER	HOLE DATA: SIZE <u>215.9 mm</u> Casing, tubing or liner data NEW ☐ USED ☐ PERFORATIONS: FROM <u> </u> m TO <u> </u> m FROM <u> </u> m TO <u> </u> m WASH FLUID TYPE: <u>H2O</u> VOL <u> </u> m ³ TEMP MIXING <u> </u> °C SLURRY <u> </u> °C DATA WATER <u> </u> °C	TOTAL DEPTH <u>1106</u> m	TYPE MUD <u>Gel Chem</u>	MISC. <u>45</u>	DENSITY <u>1120</u>			EQUIPMENT BASKETS CENTRALIZERS CLAMPS FLOAT COLLAR FLOAT SHOE GUIDE SHOE INSERT FLOAT SCRATCHERS OTHER		

EQUIPMENT.

PACKER		CEMENT HEAD	
TYPE <u> </u>	SIZE <u> </u> mm	TOP PLUG TYPE <u> </u>	CONTINUOUS ☐ KNOCK OFF ☐ SWAGE ☐
DEPTH <u> </u> m	TAIL PIPE <u> </u> m	BOTTOM PLUG TYPE <u> </u>	OTHER <u>4" full hole Nubbin</u>

CEMENT DATA

TONNE	API CLASS	BRAND	BULK OR SACKED	CEMENT BLEND	ADDITIVES TYPE AND PERCENT	kg/m ³	m ³ /tonne
22.9	G	Inland	Bulk	Class "G"	2% Lac	1895	0.76

HALLIBURTON OPERATOR C. Sutherland CUSTOMER REP.

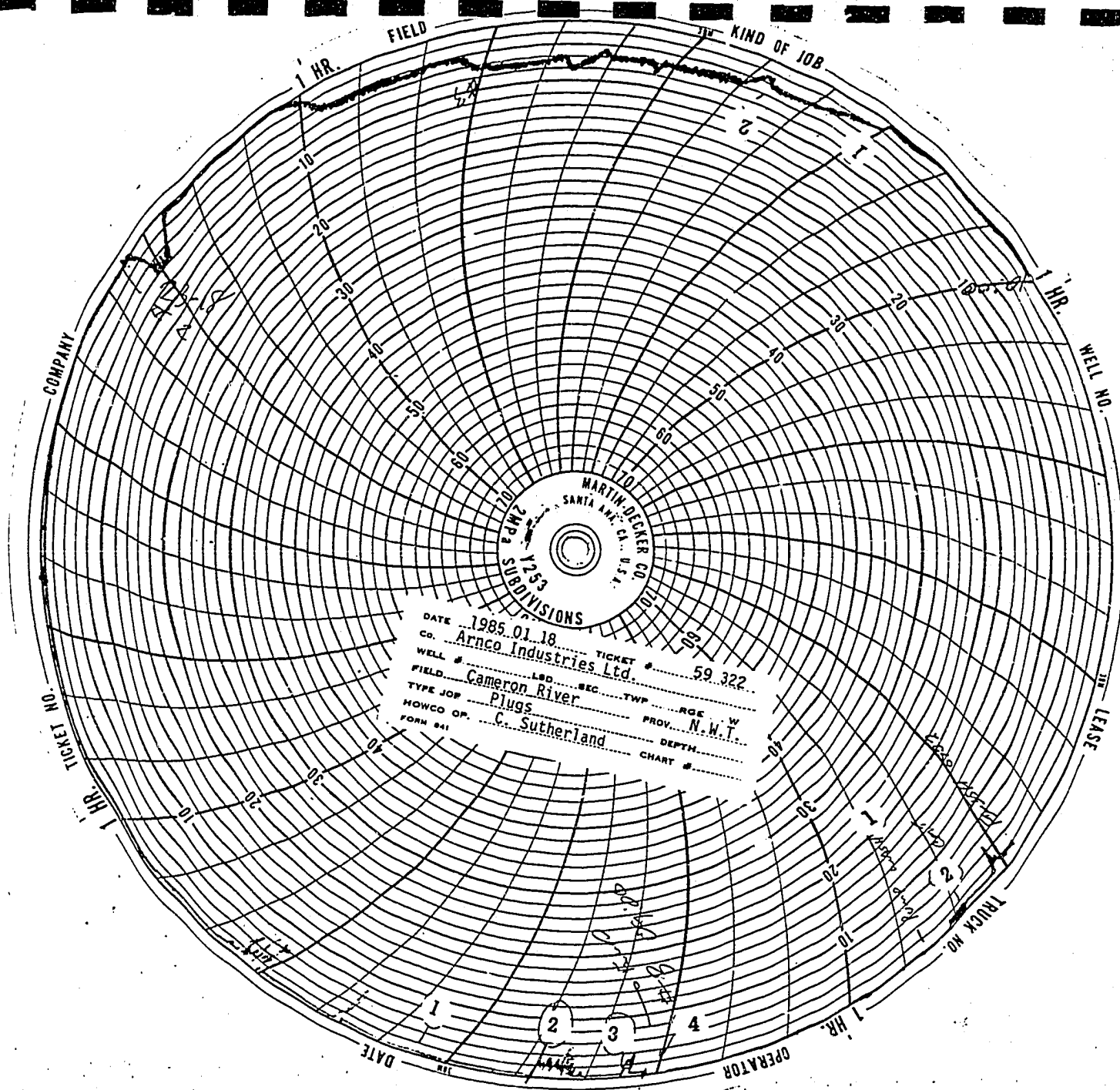
TREATING LOG

CHART POSITION	TIME	RATE m ³ /min	VOLUME PUMPED IN m ³			PRESSURE MPa		REMARKS
			STAGE	TOTAL	IN FORMATION	TUBING	CASING	
								PLUG #1 1985 01 17
1	10:15	0.2		1.59			4.0	Pump wash.
2	10:23	0.535		11.78			6.0	Pump cement.
3	10:45	0.24		3.579			4.0	Pump displacement.
4	11:00							Plug down.
								PLUG #2 1985 01 18
1	00:43	0.17		1.59			2.0	Pump wash.
2	00:52	0.73		3.648			4.0	Pump cement.

Arnco Industries Ltd.
L-11
Ticke No.: 59 322

PLUG BACK JOB DATA

PLUG NO.	DEPTH TOP	BOTTOM	TONNE	DISPLACEMENT (m ³)	TIME (min)
1	775	1000	15.5	3.579	15
2	270	330	4.6	1.45	9
3	25	Surf.	2.6	0	



SECTION IV

LOGGING SUMMARY

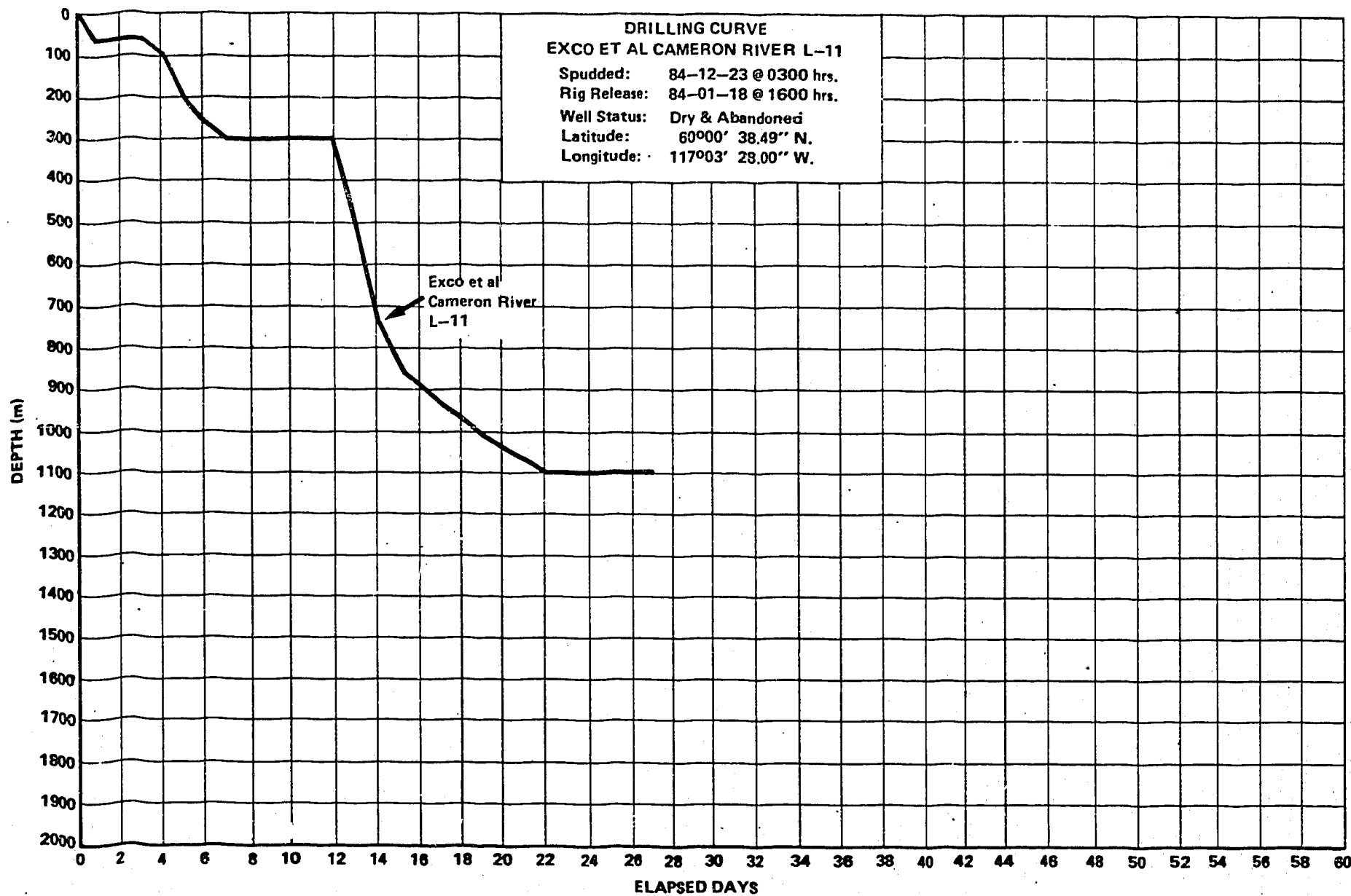
JANUARY 14, 1985

DIL/ BCS-GR-CL/ CDL-CNS-GR-CL4/ WEL

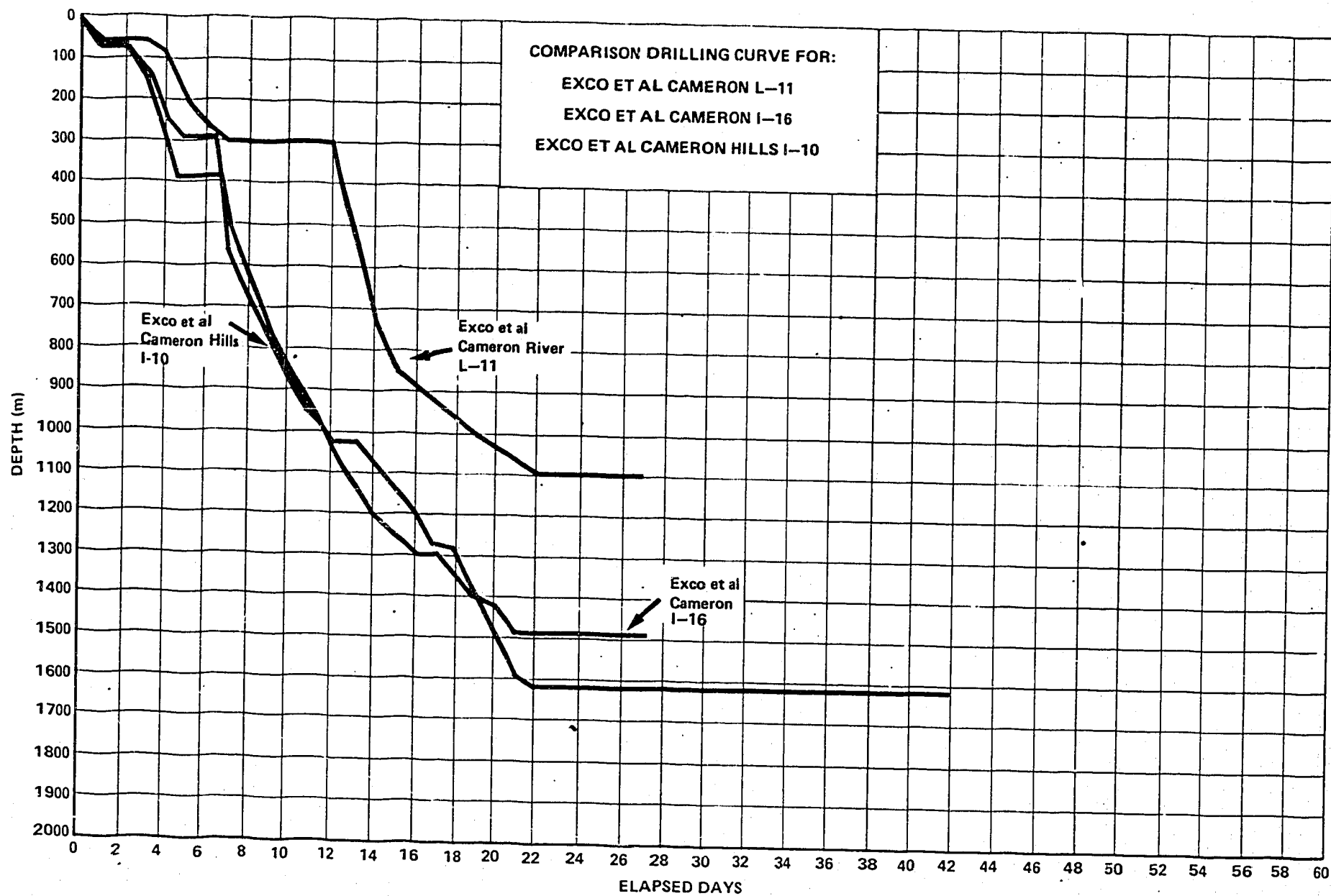
SECTION V
DRILLING CURVE

DRILLING CURVE
EXCO ET AL CAMERON RIVER L-11

Spudded: 84-12-23 @ 0300 hrs.
Rig Release: 84-01-18 @ 1600 hrs.
Well Status: Dry & Abandoned
Latitude: 60°00' 38.49" N.
Longitude: 117°03' 28.00" W.



COMPARISON DRILLING CURVE FOR:
EXCO ET AL CAMERON L-11
EXCO ET AL CAMERON I-16
EXCO ET AL CAMERON HILLS I-10



SECTION VI
DAILY DRILLING REPORTS



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

84 12 23

Year - Month - Day - Time

WELLNAME Forward et al Cameron River L-11

LOCATION _____

DAY 1 DEPTH 59.7 m METRES LAST 24 HRS. 59.7 m

ROTATING HRS. 5.75

ACTIVITY AT REPORT TIME Rigging up to run 339 mm pipe

DRILLING MUD PROPERTIES AT MAKER/SUCTION/PIT:

WT. 1070 VIS. 55 WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____

% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
1A	311	FDT	Retip	2-3000	80-90	59.7	59.7	59.7	5.75	5.75	10.4	4	1	1
2A	444	S3SJ	935297											

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
1A	11.1	11.1	11.1	356	60	152	1.2		56	60		3500

DEVIATION SURVEYS

1/2 ° at 41 _____ ° at _____
1/2 ° at 50 _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 40 sx _____
Lime 1 sk _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit sub	71		0.38	
X/O	71	229	0.49	
X/O	51	229	0.29	
1 - 9" DC	51	229	8.41	
X/O	51	156	0.93	
4 DCs	51	156	28.61	

COSTS

DAILY N/A
CUM. _____

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	5.75	5.75
2. TRIPS	2.25	2.25
3. RIG SERVICE	0.25	0.25
4. DEVIATION SURVEY	0.25	0.25
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING	2.00	2.00
8. RIG REPAIR		
9. RUN CASING & CEMENT		
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON: Bit	10.50	10.50
15. NIPPLE UP & TEST BOP		
16. DRILLING OUT		
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - XXXXXX	3.00	3.00
21.		
TOTALS	24.00	24.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 23 2400 hours
Year - Month - Day - Time

Rig to spud. Spud at 0300 hours 84 12 23.

Spud 444mm hole with 311mm pilot bit. Drill
to 59.7m with 311mm bit, circulate; pull out
of hole. Rig to run in no bit sub; order out
bit with 6-5/8 RIN to fit bell sub used on
311mm bit. Wait on bit to ream down 444mm hole.

WANT LIST: _____

WEATHER -40° C (if not colder)

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING
84 12 24 2400 hrs
Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 2 DEPTH 59.7 m METRES LAST 24 HRS. Ream 59.7 m ROTATING HRS. 5.75
ACTIVITY AT REPORT TIME Nipple up

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1070 VIS 46 WL. _____ GELS 2.4 % SOLIDS 1.05 PV _____ YP 3.5 pH 9.5
% OIL _____ % SAND _____ CAKE 2 PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
2A	444	S3SJ	935297	2-4	80/90	59.7	59.7	59.7	5.75	5.75	10.4		I	N

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

1/2 ° at 51 m _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 40 sx _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit sub	71	228	0.91	
3 DCs	71	228	27.00	
Bell sub	71	228	0.93	
X/O	57	156	0.39	
2 DCs	57	156	19.06	
1 X/O	57	156	0.50	
X/O	57	156	0.29	
Kelly in	51	89	10.62	

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	5.75	11.50
2. TRIPS	4.50	6.75
3. RIG SERVICE	.50	.75
4. DEVIATION SURVEY	.25	.50
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING	2.50	4.50
8. RIG REPAIR		
9. RUN CASING & CEMENT	3.50	3.50
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON: cement	7.00	17.50
15. NIPPLE UP & TEST BOP		
16. DRILLING OUT		
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - XXXXXX		3.00
21.		
TOTALS	24.00	48.00

COSTS

DAILY N/A
CUM. _____

SUPERVISOR: Mei Nichols

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 24 2400 hours

Year - Month - Day - Time

Finish reaming out pilot hole. Circulate and condition POH. Run casing 5 joints, 81.1 kg/m, K-55, ST&C, 339 mm with Baker float shoe and float collar - 3 centralizers on joints #1, #3 and #5. Landed at 59.55 mKB. Cemented with Howco 10.2 T 0:1:0 Class "G" with 2% CaCl_2 . Plug down at 1706 hours 84 12 24. 3.86 m³ good cement returns throughout job. Seeped into formation. Cement down 5 m in annulus.

WANT LIST: _____

WEATHER -35° C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING
84 12 25 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 3 DEPTH 59.7 m METRES LAST 24 HRS. -

ROTATING HRS. -

ACTIVITY AT REPORT TIME Make up bit - blow out lines. Run in hole.

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. _____ VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____
% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP			m ³ /min	ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER		DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		11.50
2. TRIPS		6.75
3. RIG SERVICE	.25	1.00
4. DEVIATION SURVEY		.50
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING		4.50
8. RIG REPAIR		
9. RUN CASING & CEMENT		3.50
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON: (cement)	1	18.50
15. NIPPLE UP & TEST BOP	22.75	22.75
16. DRILLING OUT		
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - NEAR OUT		3.00
21.		
TOTALS	24.00	72.00

COSTS

DAILY

N/A

CUM.

SUPERVISOR: Mei Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 25

Year - Month - Day - Time

Wait on cement and weld on bowl (5 hours); nipple up diverter; change valves from BOP stack; connect flare line and sweep line to manifold; thaw out hydraulic lines with propane torch; prepare to pressure test.

WANT LIST: _____

WEATHER _____

-40° C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING
84 12 26 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 4 DEPTH 74 m METRES LAST 24 HRS. 15 ROTATING HRS. 5.75
ACTIVITY AT REPORT TIME Drilling at 79 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1045 VIS 33 WL. - GELS 1.5/2.5 % SOLIDS .027 PV 5 YP 2 pH 10.0
% OIL nil %SAND 0.001 CAKE 2 PPMCL 0.430 PPMCa 24

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
3A	311	DSJ-S	retip	5/6	100	74	15	15	5.75	5.75	2.61	1	2	1

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
3A	16	16	14	356	60	152	1.26	18.5	36.2-9"			1500

DEVIATION SURVEYS

_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Bicarb 1 sk _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit sub	71	225	0.91	
3-228 mm DCs	71	225	27.0	
X/O	71	225	0.93	
X/O	57	156	0.39	
4-158 mm DCs	57	156	37.49	
X/O	57	156	0.50	
Kelly	50.8	89	7.22	
			74.44	

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	5.75	17.25
2. TRIPS	4.00	10.75
3. RIG SERVICE	.25	1.25
4. DEVIATION SURVEY		.50
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING		4.50
8. RIG REPAIR	5.00	5.00
9. RUN CASING & CEMENT		3.50
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP	4.00	26.75
16. DRILLING OUT	5.00	5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - REAR OUT		3:00
21.		
TOTALS	24.00	96.00

COSTS

DAILY N/A
CUM. _____

SUPERVISOR: Mei Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 26 2400 hours

Year - Month - Day - Time

Work on hydraulic lines. Pressure test stack, manifold flare line; stabbing valve; kill valve and HCR to 1700 kPa for 15 minutes. Repair leaks in flare line flange and casing bowl valve. Repressure test to 1500 kPa. Everything held well. Check motor shut-offs and remote controls to annular preventor and HCR valve. Check-Okay. Blow out and winterize lines. Run in hole and pick up 229 mm DCs, drill out float collar and shoe joint and guide shoe. Drill 5 m with 311 mm hole at 1 m/hour. Blow kelly, pull out of hole with bit 3A.

WANT LIST: _____

WEATHER -35⁰ C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

84 12 27 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____

DAY 5 DEPTH 145 METRES LAST 24 HRS. 71 ROTATING HRS. 16

ACTIVITY AT REPORT TIME Drill ahead with bit #5 at 209 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT

WT. 1070 VIS 49 WL. 14 GELS 1.5/2.5 % SOLIDS 0.027 PV 5 YP 2 pH 10.0

% OIL nil %SAND .001 CAKE 2 PPMCL .430 PPMCa 24

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
4A	311	FDT	EC9367	4-6	60/100	135	61	61	14.5	14.5	4.20	5	5	I
5A	311	FDT	CP4552	6-7	60/100	IN	10	10	1.5	1.5	6.67	I	N	

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5A	16	16	16	356	60	152	1.26	19.5	36.2			2000

DEVIATION SURVEYS

7/8 ° at 88 ° at _____
1/2 ° at 116 ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 66 sx Bicarb 2 sx
Caustic 1 sk
Soda Ash 2 sx
Polysec 11 sx

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit sub	71	225	0.91	
3-228 mm DCs	71	225	27.00	
X/O	71	225	0.93	
X/O	57	156	0.39	
X/O	57	156	0.29	
11 DCs	57	156	103.87	
X/O	57	156	0.50	
Kelly	50.8	89		145.27

COSTS

DAILY N/A
CUM. _____

SUPERVISOR: Mei Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	16.00	33.25
2. TRIPS	6.75	17.50
3. RIG SERVICE	.75	2.00
4. DEVIATION SURVEY	.50	1.00
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING		4.50
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		3.50
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP		26.75
16. DRILLING OUT		5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		
TOTALS	24.00	120.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 27 2400

Year - Month - Day - Time

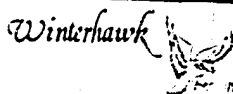
Hoist bit #3 at 74 m. Run in with bit #4. Survey at 88 m - 1/2⁰; drill ahead to 116 m, survey 1/2⁰; drill to 135 m; hoist bit #4; drill ahead until 2400 hours.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

84 12 28 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 6 DEPTH 277 METRES LAST 24 HRS. 132

ROTATING HRS. 21.25

ACTIVITY AT REPORT TIME Run in hole after dummy trip

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1120 VIS 55 WL. 13 GELS 4/8 % SOLIDS _____ PV 4 YP 8.5 pH 9.3

% OIL Nil %SAND .002 CAKE 1.5 PPMCL 480 PPMCa Trace

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
5	311	FDT	CP4552	6/7	60/100	Drill	132	142	21.25	22.75	6.24	I	N	

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5	12.7	12.7	12.7	356	60	152	1.25	18.5	36.2			2,500

DEVIATION SURVEYS

1	°at	145	°at	
1	°at	164	°at	
1/2	°at	220	°at	
	°at		°at	

MUD & CHEMICALS ADDED

Gel	31 sx	
Polysec	5 sx	
Caustic	2 sx	

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	71	225	.91	
3-228 mm DC's	71	225	27.00	
X/O	71	225	.93	
X/O	57	156	.39	
X/O	57	156	.29	
11 DC's	57	156	103.87	
X/O	57	156	.50	
Kelly	50.8	89		

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	21.25	54.50
2. TRIPS		17.50
3. RIG SERVICE	.75	2.75
4. DEVIATION SURVEY	1.00	2.00
5. REAM & COND. HOLE		
6. MIX & COND. MUD		
7. CIRCULATING		4.50
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		3.50
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP		26.75
16. DRILLING OUT		5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Work Tight Hole	1.00	1.00
TOTALS	24.00	144.00

COSTS

DAILY

N/A

CUM.

SUPERVISOR: Mel Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 28 2400

Year - Month - Day - Time

Drill to 145 m and survey. Drill to 165 m and survey. Drill to 185 m, work stuck pipe and drill ahead. While drilling ahead raise viscosity to 55 sec/L. Survey at 220 m.

No lost circulation noted.

WANT LIST: _____

WEATHER -40°C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

84 12 29 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____

DAY 7 DEPTH 302 METRES LAST 24 HRS. 25 ROTATING HRS. 5.50

ACTIVITY AT REPORT TIME Cement with Howco

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1140 VIS 45 WL. 10.8 GELS 2/3 % SOLIDS .084 PV 22 YP 5.5 pH 9.0

% OIL Nil % SAND .003 CAKE 1.5 PPMCL _____ PPMCa Trace

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
5A	311	FDT	CP4552	7/8	100	282	5	147	2.25	25	5.88	4	5	I
6A	311	FDT	JL2747	7/8	100	302	20	20	3.25	6.15	3.08	2	2	I

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5A	12.7	12.7	12.7	356	60	152	1.6	18.5	36.2			2,500

DEVIATION SURVEYS

1/4 ° at 302 _____ ° at _____
 _____ ° at _____ ° at _____
 _____ ° at _____ ° at _____
 _____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 38 sx _____
 Caustic 1 sk _____
 Polysec 6 sx _____
 Polyguard 15 pails _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	71	225	.91	
3 D.C.'s	71	225	27.00	
X/O	71	225	.93	
X/O	57	156	.39	
13 D.C.'s	57	156	122.94	
X/O	57	156	.50	
X/O	57	156	.29	
15 singles	84	101	141.10	

COSTS

DAILY N/A

CUM.

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	5.50	60.00
2. TRIPS	7.00	24.50
3. RIG SERVICE	.75	3.50
4. DEVIATION SURVEY	.25	2.25
5. REAM & COND. HOLE	1.00	1.00
6. MIX & COND. MUD		
7. CIRCULATING	3.25	7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT	6.25	9.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP		26.75
16. DRILLING OUT		5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		1.00
TOTALS	24.00	168.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 29 2400
Year - Month - Day - Time

Drill to 282 m, work tight hole, lay down 2 singles; ream back to bottom and drill to 286 m. Circulate, dummy trip, drill to 302.6 m, hoist to run casing.

Ran 26 joints of 244 mm, 53.57 kg/m, K-55, R-3, LT&C, 8RND casing with Baker float shoe and float collar. Two centralizers - one on first (shoe joint) and second on third joint.

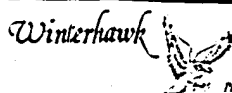
Circulate casing and wait on pumper. Ran 1.6 m^3 preflush (water). Ran 18.5 T Class "G" + 2% CaCl_2 (50% excess). Displace with 11.7 m^3 water. Bump plug with 7000 kPa, bled off, floats held well. 3.7 m^3 good cement returns. Plug down at 0830 hours 84 12 30. Landed at 302.6 m (slightly off bottom).

WANT LIST: _____

WEATHER -25°C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

84 12 30 2400

Year · Month · Day · Time

WELLNAME Forward et al Cameron River L-11

LOCATION _____

DAY 8 DEPTH 302.36

METRES LAST 24 HRS. _____

ROTATING HRS. _____

ACTIVITY AT REPORT TIME Nipple up BOP's

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. _____ VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____

% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		60.00
2. TRIPS		24.50
3. RIG SERVICE	.25	3.75
4. DEVIATION SURVEY		2.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT	13.00	22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP	3.50	30.25
16. DRILLING OUT		5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Wait on Halliburton	7.25	8.25
TOTALS	24.00	192.00

COSTS

DAILY N/A

CUM. _____

SUPERVISOR: Mel Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

84 12 30 2400

Year - Month - Day - Time

Tear out cementers (pumper broke down) and wait on Howco. Rigged up pumper #2.
Pressure test lines. Pump 1.6 m³ H₂O scavenger followed by 18.5 T class "G" +
2% CaCl₂. Displace with rubber displacement plug and 11.7 m³ H₂O. Pump plug with
7000 kPa. Float held. Plug down 1984-12-30 at 0830 hours. 3.7 m³ good cement
returns. Wait on cement. Cut conductor casing.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING
1984-12 - 31 2400 hrs
Year - Month - Day - Time

WELLNAME Forward et al Cameron River L-11

LOCATION _____

DAY 9 DEPTH 302 METRES LAST 24 HRS. _____

ROTATING HRS. _____

ACTIVITY AT REPORT TIME Nippling up - choke mounted in manifold

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. _____ VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____
% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

none

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

COSTS

DAILY

CUM.

N/A

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		60.00
2. TRIPS	3.50	28.00
3. RIG SERVICE		3.75
4. DEVIATION SURVEY		2.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		
14. WAITING ON:		18.50
15. NIPPLE UP & TEST BOP	20.50	50.75
16. DRILLING OUT		5.00
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. _____		8.25
TOTALS	24.00	216.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

1984

12

31

2400 hrs.

Year - Month - Day - Time

Dress casing and weld on bowl - nipple up BOP's. Pressure test HCR and manifold to 2000 kPa for 15 minutes; 10 000 kPa for 15 minutes. Winterize all lines - make up bit and run in hole. Pressure test hydril, kill line and stabbing valve - 2000 kPa low and 10 000 kPa high. Bleed off and pick up kelly - pressure test pipe rams, kelly cock - 1700 kPa low for 5 minutes - slow pressure loss, boost pressure to 7000 kPa - slow leak - change out pipe rams - re pressure test - to 1700 kPa - held for 15 minutes - no pressure drop. Circulate and hook up SHACO equipment - check motor kills and remotes.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

1985 01 01 2400

Year · Month · Day · Time

WELLNAME Forward et al Cameron River L-11 LOCATION _____

DAY 10 DEPTH 307.44 METRES LAST 24 HRS. 5 ROTATING HRS. 0.25

ACTIVITY AT REPORT TIME Make up test packer and prepare to run in hole

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

Water

WT. 1010 VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____

% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
1	215	FDT	ET0608	5	60	-	5	5	0.25	0.25	-		IN	

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
1	10.3	10.3	9.5	356	60	152	1.20	42.2	72.9			6000

DEVIATION SURVEYS

° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

COSTS

DAILY

CUM.

N/A

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	0.25	60.25
2. TRIPS		28.00
3. RIG SERVICE		3.75
4. DEVIATION SURVEY		2.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING	1.00	1.00
14. WAITING ON: Tools	4.00	22.50
15. NIPPLE UP & TEST BOP	16.00	66.75
16. DRILLING OUT	2.75	7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		8.25
TOTALS	24.00	240.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

1985 01 01 2400 hours
Year - Month - Day - Time

Rig service - mount SWACO remote control in manifold. Pressure test choke 1900 kPa low - 15 minutes; pressure test to 9000 kPa high for 15 minutes. BOP drill and safety meeting during installation of choke - Drill out float and shoe - drill 5 m new hole and ran leak off test.

Conduct leak off test - pressure to 16600 kPa - Pressure dropped off - fluid noted at surface between 13 3/8" (339 mm) and 9 5/8" (244 mm) casing.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 02 2400

Year Month Day Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____

DAY 11 DEPTH 307.44 METRES LAST 24 HRS. 0 ROTATING HRS. 0

ACTIVITY AT REPORT TIME Wait to drill out

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1010 VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____

% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

COSTS

DAILY N/A
CUM. _____

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		60.25
2. TRIPS		28.00
3. RIG SERVICE		3.75
4. DEVIATION SURVEY		2.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		1.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Other		
TOTALS	24.00	32.25
	24.00	264.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 02 2400

Year - Month - Day - Time

85-01-01

Trip out of hole. Wait on RTTS tool, make up and run in hole, pressure test casing to 2400 kPa. Held steady at 2100 kPa for 15 minutes. Release pressure. Pressure up below packer to 2500 kPa. Bled back to 400 kPa over 15 minutes. Re-pressure to 2800 kPa. Bled back to 300 kPa in 15 minutes, trip out RTTS packer and run in hole with Ezi-drill packer.

85-01-02

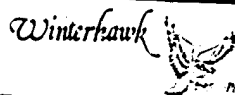
Pump formation to 6000 kPa. Bled to 4000 kPa and held for 21 minutes. Pressure test up to 6000 kPa. Held at 4000 kPa. Bled to 3500 kPa. Mix 1.5 T Class "G" with 2% CaCl_2 + .5% CFR-2. Packer set. Pick on tool to allow cement to free fall to the top of the packer. Displaced .9 m^3 over 21 minutes to a pressure of 7000 kPa (pressure built up quickly). Squeezed over 3 stages. Pump .1 m^3 of cement into formation over next 17 minutes. Pressure bled back to 5000 kPa. Pulled up and backwash pipe. Obtained .1 m^3 of cement. Tagged back in and displaced .1 m^3 of water at 7000 kPa. Back pressure on tool. Run in with bit and wait to drill. Tool set at 297 m.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 03 2400

Year - Month - Day - Time

WELLNAME Forward et al Cameron River L-11

DAY 12 DEPTH 310 METRES LAST 24 HRS. 3 LOCATION

ACTIVITY AT REPORT TIME Drill ahead. 215 mm hole at 333 m. ROTATING HRS. .50

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1010 VIS 28 WL. GELS % SOLIDS PV YP pH
% OIL % SAND CAKE PPMCL PPMCa

BIT RECORD

(12.25 hours reaming)

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
1	215	FDT	ET0608	5/9	60/100	310	3	8	0.5	0.75	10.67	8	1	1
2	215	FDT	ES8720		60/100	IN								

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
1	10.3	10.3	9.5	56	60	152	1.26	43	75			6000

DEVIATION SURVEYS

° at ° at
° at ° at
° at ° at
° at ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit sub	57	156	0.90	
Shock sub	57	156	3.41	
Jars	57	156	4.04	
18 D.C.s	57	156	170.70	
X/O	57	156	.50	
D.P.	50	101	124.55	
Kelly	50	89	6.00	
			310.10	

COSTS

DAILY N/A

CUM.

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		60.25
2. TRIPS	1.00	29.00
3. RIG SERVICE		3.75
4. DEVIATION SURVEY		2.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		1.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Other	23.00	55.25
TOTALS	24.00	288.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 03 2400 hours

Year - Month - Day - Time

Run in with drill packer. Run cement squeeze, WOC. Trip down and lay down setting tool, run in hole with bit. Drill out packer and cement. Drill 3 m of new hole. Run pressure test at 1700 kPa, 10 minutes. Pump 8.5 L, pressure held for 10 minutes. Trip out of hole.

Rig inspection - 100%

Remarks: First aid trailer and supplies in transit - arriving today. Valve on casing bowl must be checked for pressure rating. Rig is clean and in good shape. Personnel very co-operative. Bleed off line from pop valve must be tied down.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 04 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 13 DEPTH 522METRES LAST 24 HRS. 212ROTATING HRS. 19ACTIVITY AT REPORT TIME 579 m, trip for Bit #2

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1070 VIS 46 WL. 14 GELS _____ % SOLIDS .009 PV _____ YP _____ pH 10.5% OIL Nil % SAND Nil CAKE _____ PPMCL 410 PPMCa Traces

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
2	215	FDT	ES8720	8-10	80/90	Drill	212	212	19	19				

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m3/min	DP	DC			
2	11.1	11.1	11.1	356	60	152	1.26	44	76			6,000

DEVIATION SURVEYS

1/2 ° at 362 ° at _____
1/4 ° at 427 ° at _____
1/4 ° at 493 ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 46 sx _____
Bicarb 1 sk _____
Soda Ash 2 sx _____
Polysec 8 sx _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	57	156	.90	
1 DC	57	156	9.55	
1 SS	57	156	3.41	
9 DC's	57	156	85.31	
1 Jar	57	156	4.04	
8 DC's	57	156	75.84	
X/O	57	156	.50	
DP-17 std-1 sgl.	84	101	331.21	

COSTS

DAILY N/A

CUM. _____

SUPERVISOR: Mei Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	19.00	79.25
2. TRIPS	2.75	31.75
3. RIG SERVICE	.75	4.50
4. DEVIATION SURVEY	1.50	3.75
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		1.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		55.25
TOTALS	24.00	312.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 04 2400
Year - Month - Day - Time

Rig service. Finish hoisting for Bit #1, dump and clean suction tank, run in hole and mud up, drill ahead to 362 m and survey, drill to 427 and survey, drill to 493 m and survey. Drill ahead to 524 m.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 05 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 14 DEPTH 721 METRES LAST 24 HRS. 199ROTATING HRS. 16.75ACTIVITY AT REPORT TIME Drill 786 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1120 VIS 40 WL. 7.2 GELS 2/5 % SOLIDS .072 PV 9 YP 4 pH 10% OIL Nil % SAND .001 CAKE 1.5 PPMCL 520 PPMCa 0

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
2	215	FDT	ES8720	8/10	90/100	579	57	269	4.25	23.25	11.57	6	1	1
3	215	J3	084136	10	100	Drill	142	142	12.50	12.50	11.36	DRILL		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
2	11.1	11.1	11.1	356	60	152	1.26	43	75			6,000
3	9.5	11.1	11.1	356	60	152	1.26	43	75			6,000

DEVIATION SURVEYS

1/4 ° at 560 ° at _____
1/4 ° at 635 ° at _____
1/4 ° at 712 ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 31 sx Cypan 2 sx
Polysec 5 sx Staflo 1 sk
Caustic 2 sx
Polyguard 15 sx

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	57	156	.90	
1 DC	57	156	9.55	
1 SS	57	156	3.41	
9 DC's	57	156	85.31	
1 Jar	57	156	4.04	
8 DC's	57	156	75.84	
X/O	57	156	.50	
DP-17 std-1 sg1.	84	101	331.21	23,000

COSTS

DAILY N/A
CUM. _____SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	16.75	96.00
2. TRIPS	5.00	36.75
3. RIG SERVICE	.75	5.25
4. DEVIATION SURVEY	1.50	5.25
5. REAM & COND. HOLE		1.00
6. MIX & COND. MUD		
7. CIRCULATING		7.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		1.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		55.25
TOTALS	24.00	336.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 05 2400

Year - Month - Day - Time

Rig service and check BOP's. Drill to 560 m. Survey and drill to 579 m, trip for bit. Clean to bottom, drill to 635 m and survey. Drill to 721 m.

Testers alerted.

H₂S safety people alerted.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)

DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 06 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
 DAY 15 DEPTH 848 METRES LAST 24 HRS. 127 ROTATING HRS. 21.75
 ACTIVITY AT REPORT TIME Drill to 858 m, condition to test sulphur point

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1120 VIS 46 WL. 6.2 GELS 2/5 % SOLIDS .075 PV 9 YP 4 pH 11
 % OIL Nil %SAND .001 CAKE 1.5 PPMCL 550 PPMCa 0

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
3	215	J3	084136	8/10	100	IN	127	269	21.75	34.25	7.85	DRILL		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
3	9.5	11.1	11.1	356	60	152	1.26	43.9	75			6,000

DEVIATION SURVEYS

1/8 ° at 777 ° at _____
 ° at _____ ° at _____
 ° at _____ ° at _____
 ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 16 sx Peltex 6 sx
 Polysec 3 sx Soda Ash 9 sx
 Caustic 8 sx Sawdust 10 sx
 Staflo 1 sk

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	57	156	.90	
1 DC	57	156	9.55	
1 SS	57	156	3.41	
9 DC's	57	156	85.31	
1 Jar	57	156	4.04	
8 DC's	57	156	75.84	
X/O	57	156	.50	
DP-17 std-1 sngl	84	101	331.21	

COSTS

DAILY N/A
 CUM. _____

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	21.75	117.75
2. TRIPS		36.75
3. RIG SERVICE	.25	5.50
4. DEVIATION SURVEY	.50	5.75
5. REAM & COND. HOLE	1.00	2.00
6. MIX & COND. MUD		
7. CIRCULATING	.50	8.25
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		1.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		55.25
TOTALS	24.00	360.00

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 06 2400

Year - Month - Day - Time

Drilled to 777 m and survey. Drill ahead. Work some tight hole, worked out some sloughing shale. Drill ahead to 848 m at 2400 hours.

Note: Drilled with 1110 - 1120 kg/m³ mud, becoming gassified. Raise mud weight to 1140 kg/m³ (used 100 sx of weight material).

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 07 2400
Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 16 DEPTH 858 m METRES LAST 24 HRS. 10 ROTATING HRS. 2.50
ACTIVITY AT REPORT TIME Drill ahead

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1135 VIS 49 WL. 7.8 GELS 2.7 % SOLIDS _____ PV 16 YP 6.5 pH 9.5
% OIL nil % SAND .001 CAKE 1 slick PPMCL 550 PPMCa trace

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
3	215.9	J3	D84136	8/10	100	858	10	279	2.5	36.75	7.59	6	4	1

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
3	9.5	11.1	11.1	356	60	152	1.26	43.9	75	-	-	6000

DEVIATION SURVEYS

_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 29 sx Barite 79 sx
Polysec 5 sx Polyguard 5 pails
Staflor 2 sx
Cypan 2 sx

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Testing				

COSTS

DAILY N/A
CUM.

SUPERVISOR: Mei Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	2.50	120.25
2. TRIPS	11.00	47.75
3. RIG SERVICE	.50	6.00
4. DEVIATION SURVEY		5.75
5. REAM & COND. HOLE		2.00
6. MIX & COND. MUD		
7. CIRCULATING	2.50	10.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING	7.00	8.00
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Check for flow	.50	55.75
TOTALS	24.00	384.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 07 2400 hours

Year - Month - Day - Time

Rig service, drill to 858 m. Circulate sample and condition hole. Mix weight material. Check for flow, dummy trip 20 stands, circulate. POH to test, make up DST #1 - 840.5 m - 858.0 m. Run in hole with test and head up test. Test and trip out with test.

10 min. preflow, FAB increasing to strong, strong throughout, 60 min. shut in, 60 min. open, very strong blow of gas to surface immediately. Flare description 7 foot flare decreasing to 3-4'. Remaining constant with choke 6.35 mm - 231.8 m³/day (5 minutes) to 172.4 m³/day after 60 minutes. Recovery - 35 m of inhibitor and mud, 55 m of oil and gas cut mud, 20 m of salt water. FSI was 120 minutes.

Sulphur point

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 08 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____DAY 17 DEPTH 899 METRES LAST 24 HRS. 41 ROTATING HRS. 17.25ACTIVITY AT REPORT TIME Depth 923 m, Formation - Muskeg

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1110 VIS 49 WL. 6.5 GELS 4/14 % SOLIDS .61 PV 12 YP 5.5 pH 11% OIL Nil % SAND .001 CAKE 1 slick PPMCL 1780 PPMCa Trace

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
4	215	SmithF-2	ES8229	8/10	100	DRILL	41	41	17.25	17.25	2.4	DRILL		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
4	11.1	11.1	11.1	356	60	152	1.2	43.9	75			6.000

DEVIATION SURVEYS

_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 8 sx Peltex 5 sx
Polysec 1 sk Polyguard 15 sx
Soda Ash 18 sx
Caustic 9 sx

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Bit Sub	57	156	.90	
1 DC	57	156	9.55	
Shock Sub	57	156	3.41	
9 DC's	57	156	85.61	
1 Jar	57	156	4.04	
8 DC's	57	156	75.87	
1 X/O	57	156	.50	
DP Kelly	84 50	101 89	707.91 11.38	899.17

COSTS

DAILY N/A
CUM.

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	17.25	137.50
2. TRIPS	2.75	50.50
3. RIG SERVICE	.50	6.50
4. DEVIATION SURVEY		5.75
5. REAM & COND. HOLE	1.25	3.25
6. MIX & COND. MUD		
7. CIRCULATING		10.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING	2.25	10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		55.75
TOTALS	24.00	408.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING

85 01 08 2400

Year - Month - Day - Time

Rig service, trip out with DST #1. Recovered fluid and charts. Laid down tool, ran in with Bit #4. Reamed to bottom, drilled ahead to 862 m. Rig service and work tight hole. Drill to 899 m 2400 hours.

Muskeg Formation: Anhydrite with layers of fine and very fine crystalline dolomite.

85 01 04

302 - 522

Silty limestone to calcareous siltstone

385

Hay River

Shale

85 01 05

522 - 721

Hay River

Shale

85 01 06

Hay River

Shale

721 - 848

775

Slave Point

Limestone

805

Anhydrite

830

Watt Mountain

Various colored shale

840

Bistcho - Sulphur Pt.

Dolomitic limestone

845

Limestone

WANT LIST:

85 01 07

848- 858

Bistcho - Sulphur Pt.

840

Dolomitic limestone

845

Limestone

WEATHER

ROAD

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)

85 01 08

Bistcho - Sulphur Pt.

865

Muskeg

Limestone

4% gas readings



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 09 2400
Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 18 DEPTH 959 METRES LAST 24 HRS. 60 ROTATING HRS. 22.75
ACTIVITY AT REPORT TIME Drilling at 973 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1170 VIS 50 WL. 8.4 GELS 4/11 % SOLIDS .07 PV 13 YP 7.5 pH 11.7
% OIL Nil % SAND .001 CAKE .5 slick PPMCL 1770 PPMCa 296

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
4	215	F2	ES8229	10	70/80	IN	60	101	22.75	40	2.52	DRILL		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
4	11.1	11.1	11.1	356	60	152	1.26	43.9	75			6,000

DEVIATION SURVEYS

1-1/2 ° at 918 ° at _____
° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 17 sx Cypan 3 sx
Caustic 4 sx Sawdust 10 sx
Soda Ash 21 sx Barite 227 sx
Staflor 3 sx Peltex 1 sk

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

COSTS

DAILY N/A

CUM.

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	22.75	160.25
2. TRIPS		50.50
3. RIG SERVICE	.50	7.00
4. DEVIATION SURVEY	.50	6.25
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING		10.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.	.25	56.00
TOTALS	24.00	432.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 08 2400

Year - Month - Day - Time

Rig service, check BOP's and motor kills, drill to 918 m and survey, drill ahead,
rig service, held BOP drill, flow check and drill ahead.

Geology:

899 - 959 m Anhydrite with layers and stringers of micro-crystallizing to fine
crystallizing dolomite

Mud Logging:

899 - 959 m Background Gas C₁ C₂ C₃ 1C₄
(1 - 2%) (.01 - .03%) (TR - .01%) (TR)

Avg. 897 - 959 2 - 4% 918 m survey, gas climbed to 22%

WANT LIST: _____

WEATHER -15°C

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 10 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____

DAY 19 DEPTH 1011 METRES LAST 24 HRS. 52 ROTATING HRS. 23.00

ACTIVITY AT REPORT TIME Drilling at 1029 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1160 VIS 50 WL. 8.0 GELS 4/12 % SOLIDS .096 PV 17 YP 12 pH 11

% OIL Nil %SAND .001 CAKE 1 PPMCL 2900 PPMCa 112

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
4	215	F-2	ES8229	10	70/80	IN	52	153	23	63	2.43	DRILL		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
4	11.1	11.1	11.1	356	60	150	1.26	43.9	75			6,000

DEVIATION SURVEYS

1-7/8 ° at 973 ° at _____
° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Soda Ash 13 sx Cypan 1 sx
Caustic 2 sx Barite 30 sx
Gel 17 sx
Staflor 1 sk

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	23.00	183.25
2. TRIPS		50.50
3. RIG SERVICE	.50	7.50
4. DEVIATION SURVEY	.50	6.75
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING		10.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		56.00
TOTALS	24.00	456.00

COSTS

DAILY N/A
CUM.

SUPERVISOR: Me1 Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 10 2400

Year - Month - Day - Time

Rig service, drill to 973 m and survey, drill ahead, rig service, drill ahead to 1011m at 2400 hours.

Geology:

959 - 970 m Anhydrite with micro fine dolomite

970 - 1001 m Keg River, dolomite

Hot Wire Machine - Total Gas Reading

957 - 1011 m Background gas 2.5% - 3.5%

Methane C_1 - .65% - 1.0%

Ethane C_2 - .01% - .03%

Propane C_3 - .01% - .02%

Butane C_4 - Trace

WANT LIST:

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 11 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION

DAY 20 DEPTH 1047 m METRES LAST 24 HRS. 36 m

ROTATING HRS. 16.00

ACTIVITY AT REPORT TIME Drilling at 1052 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1170 VIS 48 WL. 6.5 GELS 3/11 % SOLIDS .10 PV 19 YP 5.5 pH 11.5

% OIL nil % SAND .0015 CAKE 1 PPMCL 3390 PPMCa 168

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
4	215.9	F2	ES8229	10	60/80	1047	36	189	16	79	2.39	6	1	1

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
4	11.1	11.1	11.1	356	60	150	1.26	43.9	75			6000

DEVIATION SURVEYS

1° at 1047 m ° at
° at ° at
° at ° at
° at ° at

MUD & CHEMICALS ADDED

StaFlo 1 sk Caustic 2 sx
Cypan 1 sk Polyquard 10 sx
Soda Ash 3 sx
Gel 14 sx

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

COSTS

DAILY N/A

CUM.

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	16.00	199.25
2. TRIPS	5.75	56.25
3. RIG SERVICE	.75	8.25
4. DEVIATION SURVEY	.25	7.00
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING	1.00	11.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. Flow check-BOP drill	.25	56.25
TOTALS	24.00	480.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 11 2400
Year - Month - Day - Time

Rig service - drill to 1047 m, survey, circulate sample, drop survey - trip for bit.
Hole in good condition. Hoist 10 stands. Have a flow check and BOP drill - POH.

Geology

1011 m - 1047 m Keg River - dolomite with traces of anhydrite (1045 m sample)

Depth 1045 m

Gas - Hot wire background gas 1011 - 1047 m 2% - 3%

Chromatograph C1 .4% - .7%

C2 .01% - .03%

C3 Trace - .01%

104 Trace

Injury on location - fell on road and twisted his back

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 12 2400
Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 21 DEPTH 1070 m METRES LAST 24 HRS. 23 m ROTATING HRS. 21.75
ACTIVITY AT REPORT TIME 0800 - 1080 m

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1190 VIS 44 WL. 8.6 GELS 2/4 % SOLIDS 13 PV 20 YP 70 pH 11.5
% OIL - % SAND .050 CAKE 1 stick PPMCL 3840 PPMCa 312

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
5	215	FP63	NJX690	10/12	60/70	IN	23	23	21.75	21.75	1.05	IN		

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5	11.1	11.1	11.1	356	62	140	1.11	38.7	66.1			6000

DEVIATION SURVEYS

_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____
_____ ° at _____ ° at _____

MUD & CHEMICALS ADDED

Caustic 4 Gel 8
Staflor 1
Cypan 1
Soda Ash 4

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

COSTS

DAILY N/A
CUM.

SUPERVISOR: Mei Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	21.75	221.00
2. TRIPS	1.5	57.75
3. RIG SERVICE	.75	9.00
4. DEVIATION SURVEY		7.00
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING		11.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		56.25
TOTALS	24.00	504.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 12 2400
Year - Month - Day - Time

Finish running in hole. Ream 9 m spotted fill. Rig service and drill ahead.

1045 Chinchauca - dolomite and anhydrite stringers

1065 - granite wash - sandstone with shale stringers

Gas - background 1048 - 1070 - 20% - 4%

C1 1.0% - 2.0%

C2 .03% - .05%

C3 .02% - .03%

104 Trace

Trip Top gas 48%

C1 32.7%

C2 2.6%

C3 1.6%

104 .16%

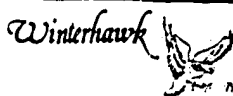
NCY .8%

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PER 100 ENDING

85 01 13 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 22 DEPTH 1098 METRES LAST 24 HRS. 28

ROTATING HRS. 23.5

ACTIVITY AT REPORT TIME 0800 TD 1105 m - Condition hole

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1185 VIS 49 WL. 7 GELS 2/4 % SOLIDS 13 PV 20 YP 70 pH 10

% OIL - % SAND .051 CAKE 1 PPMCL 3840 PPMCa 312

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
5	215	FP63	NJX690	10/12	60/70	IN	28	51	23.5	45.25	1.1		IN	

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5	11.1	11.1	11.1	356	62	140	1.1	38.7	66.1			6000

DEVIATION SURVEYS

° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 22 Soda Ash 5
Cypan 3 Barite 194
Staflco 3
Caustic 3

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

COSTS

DAILY N/A

CUM. _____

SUPERVISOR: Me1 Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	23.5	244.50
2. TRIPS		57.75
3. RIG SERVICE	.5	9.50
4. DEVIATION SURVEY		7.00
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING		11.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		
12. CORING		
13. FORMATION TESTING		10.25
14. WAITING ON:		22.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		56.25
TOTALS	24.00	528.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 13 2400 hours

Year - Month - Day - Time

Rig service and drill ahead to 1093 m.

Red Beds 1085 m

Precambrian 1090 m - quartzite

Back gas 1072 - 1099 2.0% - 3.0%

C1 1.0% - 1.0%

C2 .04% - .06%

C3 .02% - .03%

1C4 Trace

NC4 Trace

Loggers by 10 - 11.00

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 14 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____
DAY 23 DEPTH 1105.8 TD METRES LAST 24 HRS. 7 ROTATING HRS. 3.5
ACTIVITY AT REPORT TIME Testing

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1210 VIS. 53 WL. 7.0 GELS 2/4 % SOLIDS 13% PV 20 YP 70 pH 10
% OIL N11 % SAND .051 CAKE 1 PPMCL 3840 PPMCa 312

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G
5	215.9	FP63	NJX690	10/12	50/60	1105.8	7	58	3.5	48.75	1.19	4	1	1

CIRCULATION RECORD

BIT NO.	JETS — mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			
5	11.1	11.1	11.1	356	62	140	1.11	38.7	66.1			6,000

DEVIATION SURVEYS

1-1/8° at 1105 ° at _____
° at _____ ° at _____
° at _____ ° at _____
° at _____ ° at _____

MUD & CHEMICALS ADDED

Gel 11 sx Sawdust 10 sx
Barite 30 sx Polyguard 10 sx
Caustic 2 sx _____
Staflor 1 sk _____

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING	3.50	248.00
2. TRIPS	5.75	63.50
3. RIG SERVICE	.25	9.75
4. DEVIATION SURVEY	.25	7.25
5. REAM & COND. HOLE		3.25
6. MIX & COND. MUD		
7. CIRCULATING	2.00	13.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING	6.75	6.75
12. CORING		
13. FORMATION TESTING	1.50	11.75
14. WAITING ON: Orders	4.00	26.50
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP — TEAR OUT		3.00
21.		56.25
TOTALS	24.00	552.00

COSTS

DAILY

N/A

CUM.

SUPERVISOR: Mei Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 14 2400

Year - Month - Day - Time

Rig service and drill to total depth at 1105. Circulate sample, dummy trip 15 stands, circulate and condition hole. Drop survey and hoist to log, rig up loggers and log, phone in and wait on intervals. Made up DST #2, testing Keg River 961 - 985.8 m.

Tops from logs:

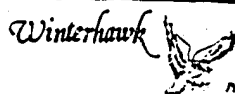
Hay River	380 m
Beaverhill Lake	694.3 m
Slave Point	774 m
Watt Mountain	827 m
Bistcho Sulphur Point	838.5 m
Muskey	859.7 m
Keg River	963.5 m
Chinchaga	1043 m
Granite Wash	1062 m
Red Beds	1077 m
Pre-Devonian	1089 m
TD	1105.8 m

WANT LIST: _____

WEATHER Light Snow -10°C

ROAD Slippery

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 15 2400

Year - Month - Day - Time

WELLNAME Forward et al Cameron River L-11 LOCATION _____

DAY 24 DEPTH 1105.8 TD METRES LAST 24 HRS. _____ ROTATING HRS. _____

ACTIVITY AT REPORT TIME 0800: Testing DST #3 783 - 805 m Slave Point

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1210 vis 56 WL. 7 GELS _____ % SOLIDS _____ PV _____ YP _____ pH 10

% OIL _____ %SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN
Same				

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		248.00
2. TRIPS	11.75	75.25
3. RIG SERVICE	.50	10.25
4. DEVIATION SURVEY		7.25
5. REAM & COND. HOLE	1.75	5.00
6. MIX & COND. MUD		
7. CIRCULATING		13.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		6.75
12. CORING		
13. FORMATION TESTING	8.75	20.50
14. WAITING ON:	1.25	27.75
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21. _____		56.25
TOTALS	24.00	576.00

COSTS

DAILY

N/A

CUM.

SUPERVISOR: Mal Nichols

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 15 2400

Year - Month - Day - Time

Rig service.

DST #2 - Lynes Inflate

10/60/60/120

Keg River

PF: Very weak to weak air blow

VO: Weak for 40 minutes to very weak

Rec: 38 m corban + water

37.5 m slightly gas cut drilling mud

IH 11887 ISI 9412 IF 839

FH 11716 FSI 9327 FF 1007

PF 587 50⁰

Ran in to clean out and condition mud. Samples Chemex in High Level.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 16 2400

Year - Month - Day - Time

WELL NAME Forward et al Cameron River L-11

LOCATION _____

DAY 25 DEPTH 1105.8 METRES LAST 24 HRS. _____

ROTATING HRS. _____

ACTIVITY AT REPORT TIME _____

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. 1140 VIS 56 WL. 7.2 GELS 3/10 % SOLIDS .109 PV 24 YP 8 pH 10% OIL _____ % SAND .05 CAKE .5 PPMCL 3880 PPMCa 272

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

COSTS

DAILY

N/A

CUM.

SUPERVISOR: Mei Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		248.00
2. TRIPS	11.25	86.50
3. RIG SERVICE	.75	11.00
4. DEVIATION SURVEY		7.25
5. REAM & COND. HOLE		5.00
6. MIX & COND. MUD		
7. CIRCULATING		13.75
8. RIG REPAIR		5.00
9. RUN CASING ELEMENT		22.75
10. FISHING		
11. LOGGING		6.75
12. CORING		
13. FORMATION TESTING	12.00	32.50
14. WAITING ON:		27.75
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS		
19. PLUG & ABANDON		
20. RIG UP - TEAR OUT		3.00
21.		56.25
TOTALS	24.00	600.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 16 2400

Year - Month - Day - Time

Rig service, trip out, make up DST #3.

DST #3 10/60/60/120

PF: Weak air blow - fair air blow, 14 minutes, holding fair throughout

VO: Fair air blow - weak air blow, 20 minutes, very weak in 60 minutes, NGTS

PF 587 42°C

IH 9412 ISI 7876 IF 839

FH 9412 FSI 7791 FF 1174

Rec: 95.5 m total, 19 m corban + H₂O + mud, 76.5 m drilling mud

3 mud samples to Calgary. Forwards to Chemex in High Level. Charts with tester for Calgary.

Run in with drill collar, lay down same.

Run in with drill pipe and pick up singles

#1 1000 - 775 m

#2 330 - 270 m

#3 25 - Surface

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)



DAILY DRILLING REPORT

FOR 24 HR. PERIOD ENDING

85 01 17 2400

Year · Month · Day · Time

WELL NAME Forward et al Cameron River L-11 LOCATION _____

DAY 26 DEPTH _____ METRES LAST 24 HRS. _____ ROTATING HRS. _____

ACTIVITY AT REPORT TIME Running Plug #3

DRILLING MUD PROPERTIES AT SHAKER/SUCTION/PIT:

WT. _____ VIS _____ WL. _____ GELS _____ % SOLIDS _____ PV _____ YP _____ pH _____

% OIL _____ % SAND _____ CAKE _____ PPMCL _____ PPMCa _____

BIT RECORD

BIT NO.	SIZE mm	MAKE & TYPE	SER. NO.	BIT		DEPTH OUT m	m DRLD TODAY	CUM. m DRLD	Rot. hrs. TODAY	CUM. Rot. hrs.	m/HR	DULL COND		
				WT.	RPM							T	B	G

CIRCULATION RECORD

BIT NO.	JETS - mm			PUMP				ANN. VEL.		JET VEL	H.H.P.	SURF PRESS kPa
	1	2	3	STROKE	SPM	LINER	m ³ /min	DP	DC			

DEVIATION SURVEYS

_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at
_____ ° at _____ ° at

MUD & CHEMICALS ADDED

BOTTOM ASSEMBLY

TOOL	ID mm	O.D. mm	LENGTH m	WEIGHT daN

COSTS

DAILY N/A

CUM. _____

SUPERVISOR: Mel Nichols

TIME ANALYSIS

OPERATION	TODAY	CUM
1. DRILLING		248.00
2. TRIPS	1.25	87.75
3. RIG SERVICE	.25	11.25
4. DEVIATION SURVEY		7.25
5. REAM & COND. HOLE		5.00
6. MIX & COND. MUD	2.00	2.00
7. CIRCULATING		13.75
8. RIG REPAIR		5.00
9. RUN CASING & CEMENT		22.75
10. FISHING		
11. LOGGING		6.75
12. CORING		
13. FORMATION TESTING		32.50
14. WAITING ON:	14.25	42.00
15. NIPPLE UP & TEST BOP		66.75
16. DRILLING OUT		7.75
17. LOSS CIRC.		
18. LAY DOWN DP & BOPS	1.25	1.25
19. PLUG & ABANDON	5.00	5.00
20. RIG UP - TEAR OUT		3.00
21. _____		56.25
TOTALS	24.00	624.00

PLEASE TURN OVER

OPERATIONS DETAILS: PERIOD ENDING _____

85 01 17 2400

Year - Month - Day - Time

Rig service. Finish running in hole. Circulate and condition mud. Circulate, wait on HOWCO to rig up skid unit.

Plug #1 1000 - 775 m 15.5 T "G" + 2% CaCl_2

Plug Down 1075 85 01 17.

Waited on cement and laid down drill pipe. Tagged at 762.5 m. Set 4 daN. Laid down drill pipe. Ran in hole to 330 m. Started pumper, blew mixing line, repair pump leaks. Order out pumper from High Level.

WANT LIST: _____

WEATHER _____

ROAD _____

IN DETAIL: MOVEMENT OF PURCHASE & RENTAL ITEMS (WHERE, WHEN, HOW)

SECTION VII

POCKET ENCLOSURE

- DIL/ BCS-GR-CL/ CDL-CNS-GR-CL4/ WEL
- MUD LOG
- LITHOLOGY

PERTINENT DATA

WELL NAME: FORWARD et al CAMERON RIVER L-11

LOCATION: 60°00' 38.49"N, 117°03' 28.00"W

ELEVATIONS: Ground: 314.03m K.B.: 318.58m

TOTAL DEPTH: Driller: 1105 m Logger: 1105.8m

WELL TYPE: Exploratory

STATUS: D & A

OPERATOR: EXCO ENERGY LTD.

CONTRACTOR: ARNCO, RIG # 1

SPUD DATE: December 24, 1984

RIG RELEASED: January 18, 1985

DITCH SAMPLES: Company: 305-1105m Government: 305-1105m

CORED INTERVALS: None

D.S.T.: 3

LOG RECORD: Computalog, DIL 302.4 - 1105.2m
CD-CN 302.4 - 1105.2m
Sonic 302.4 - 1102.2m

CASING RECORD: 339.7mm
Surface: 302.6m

D.S.T. SUMMARY

Test # 1:

840.5 - 858.0m, Bistcho / Sulphur Point
10/60/60/120

PF: Strong airflow throughout. Gas to surface during shut-in

VO: Gas to surface immediately

Rec.: 35m inhibitor & mud;
55m oil & gas cut mud
20 m saltwater

IHP:	9830 kPa	FHP:	9830 kPa
PFP:	559 kPa		
IFP:	559 kPa	FFP:	1118 kPa
ISIP:	9830 kPa	FSIP:	9830 kPa

For correct pressures see charts.

Test # 2:

961.0 - 985.5m, Keg River
10/60/60/120

PF: Weak airflow throughout

VO: Weak airflow decreasing to very weak after 40 minutes

Rec.: 38m corban & water
37.5m drilling mud

IHP:	11887 kPa	FHP:	11716 kPa
PFP:	587 kPa		
IFP:	839 kPa	FFP:	1007 kPa
ISIP:	9412 kPa	FSIP:	9327 kPa

Test # 3:

782.0 - 805.0m, Slave Point
10/60/60/120

PF: Weak airflow increasing to fair

VO: Weak airflow decreasing to very weak

Rec.: 19m corban
76.5m drilling mud; bottom sample gas cut,
and 5 ppm H₂S

IHP:	9412 kPa	FHP:	9412 kPa
PFP:	587 kPa		
IFP:	839 kPa	FFP:	1174 kPa
ISIP:	7876 kPa	FSIP:	7791 kPa

GEOLOGICAL REMARKS

Forward et al Cameron River L-11 was drilled on a Watt Mountain "Seismic High", at -479m below sea level at the drilling location. The well found the top of the Watt Mountain at -508.4m. Reference wells for the seismic interpretation are M-31, about 2 miles to the west, and J-12, about 1 mile to the northeast of L-11. Since the two control wells are inaccurately plotted on the 1:25000 seismic maps (centre of their sections, while the actual coordinates are different), the misplotting probably affected the seismic interpretation.

The SLAVE POINT showed some very poor and poor porosity and some very poor staining. The permeability is low. Part of the mud recovered during a test was gas cut. The Bistcho/Sulphur Point had a good porosity. A test yielded gas throughout the flow period. The permeability of the tested interval appears to be low. The lower part of the section is apparently below the water table and was not tested.

The upper part of the Keg River was tested. The recovery was mud and inhibitor. However the bottom hole sampler produced beside drilling mud approximately 5% of a very light gravity oil.

In view of this information a re-interpretation of the seismic data on the eastern part of the Cameron Hills land block is strongly recommended.