

NORTH COR.

CELIBETA B-25

9211-N10-7-1

Mar. 1986 - P+A



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

E.A.# 165

D.A.# 1339

Nova Scotia	☐ West Coast	☐ Exploratory	☒
Newfoundland	☐ Northern	☒ Development	☐
Gulf of St. Lawrence	☐ Hudson Bay	☐ 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 Northcor Celibeta B-25
Operator Northcor Energy Ltd. Drilling Program No:
Contractor Badger Drilling Ltd. Permit or Lease No. E.A. 165
Drilling Rig or Unit #1 Estimated Well Cost \$900,000
Location-Unit B Section 25 Grid Area 60-30-122-30
Coordinates Lat 60° 24' 13.1096" N Long 122° 34' 20.1442" W
Area Ft. Liard/Island River Field/Pool Celibeta Exploratory
Elevation-RT/KB 485 m (est.) (ASL) 481.83 m (BRT)
Approx. Spud Date March 8, 1986 Estimated Days on Location 20
Anticipated Total Depth 815m KB Target Horizon(s) Debolt

UWI: 300B256030122300

EVALUATION PROGRAM

Ten metre sample intervals Conductor to T. D.
Five metre sample intervals Conductor to T. D.
Canned sample intervals from Conductor to T. D.
Conventional cores at 475m (Debolt) 635m (Shunda) 710m (Pekisko)
Logs and Tests DIL, BHCS-GR, CNL-LDT tests Debolt, Shunda, Pekisko

CASING AND CEMENTING PROGRAM

OD	Weight	Grade	Setting Depth (m KB)	Cementing Program (Volumes):
244.5mm	53.57 kg/m	J-55	200m	9.12m³ 0-1-0 Class "G" + 3% CaCl ₂ (to surface)
178mm	29.76 kg/m	J-55	815m	11.78m³ 0-1-0 Class "G" + .75% Halad-322 T.D. to 150m

BOP Equipment 228mm x 21000 kPa 1 annular and two single gate.

Other Information

Signed *[Signature]*
Date February 28, 1986

Title: President
Company: NORTHCOR ENERGY LTD.

APPROVAL

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

Signed *[Signature]*
Engineering Branch
Date: 7 Mar 86
File: 9211-N10-7-1

Department of Energy
Mines and Resources

Ministère de l'Énergie
des Mines et des Ressources

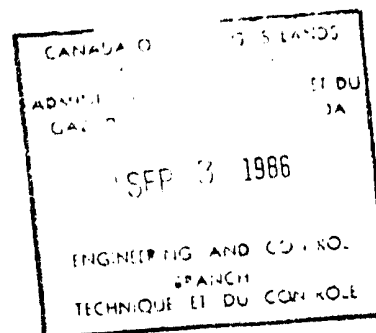
Department of Indian Affairs
and Northern Development

Ministère des Affaires indiennes
et du Nord Canadien

Canada



PAJAK ENGINEERING LTD.
OILFIELD SUPERVISION &
PROJECT MANAGEMENT



9211-N10-7-1

Final Report
OTTAWA COPY
NORTHCOR CELIBETA B-25

60° 24' 13.1096" N
112° 34' 20.1442" W

June, 1986

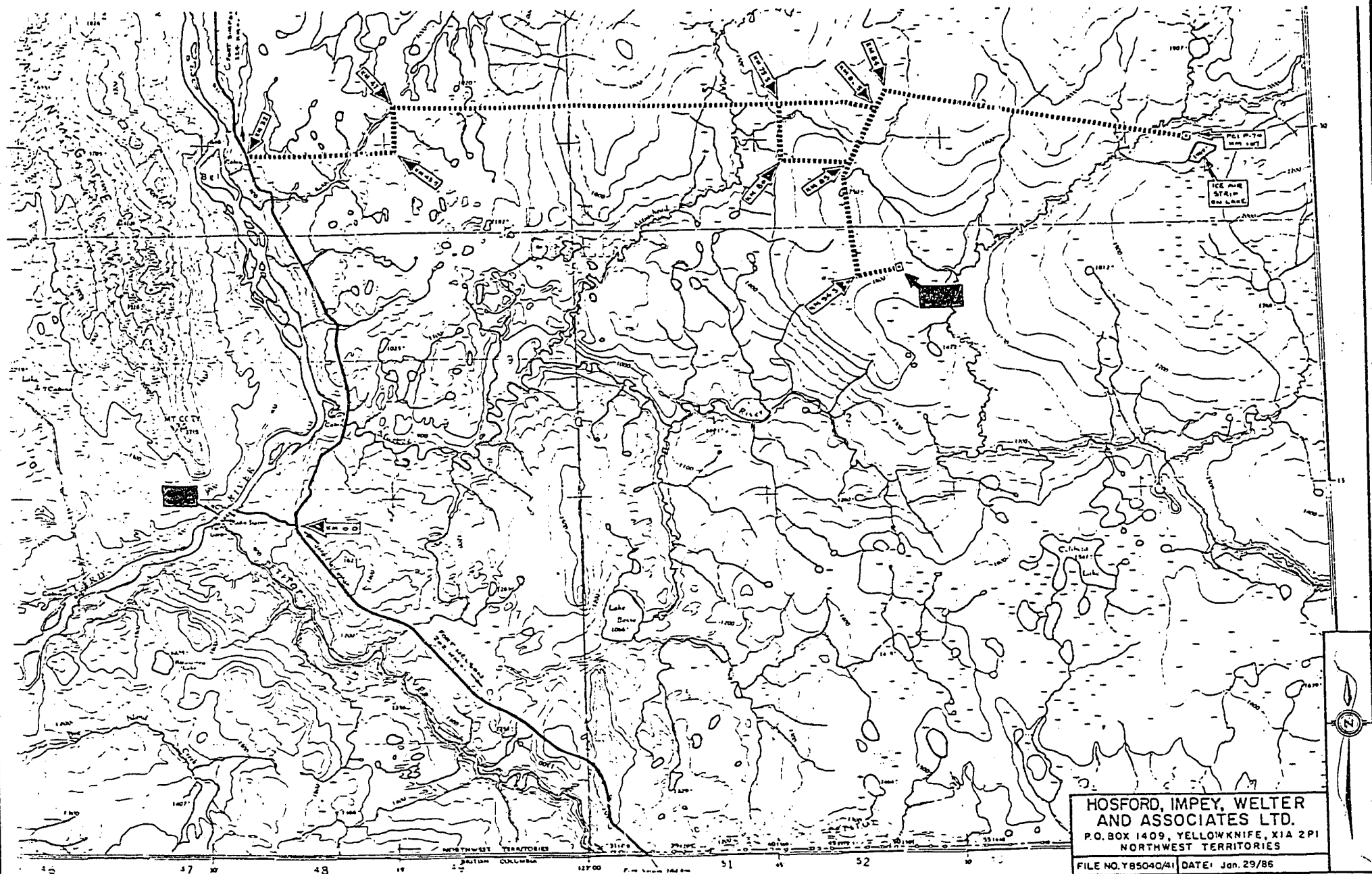
prepared for

Northcor Energy Ltd.

by

Terry Dexter - Operations Manager
&
Dan Dexter - Drilling Engineer

Pajak Engineering Ltd.
1660 Elveden House, Calgary, Alberta

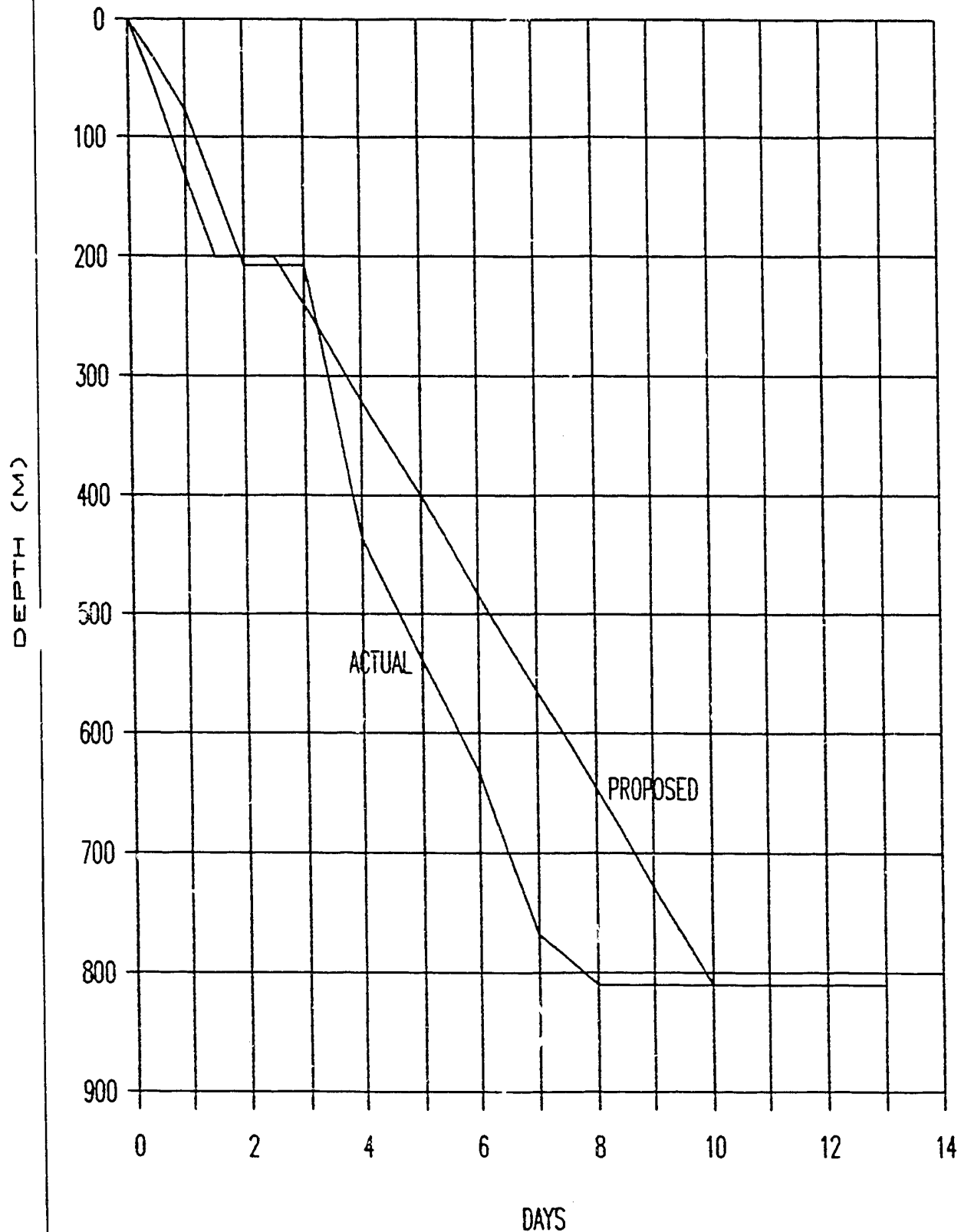


HOSFORD, IMPEY, WELTER
AND ASSOCIATES LTD.
P.O. BOX 1409, YELLOWKNIFE, X1A 2P1
NORTHWEST TERRITORIES

FILE NO. Y8504Q/41 DATE: Jan. 29/86

NORTHCOR CELIBETA B-25

PENETRATION CURVE 86-05-20



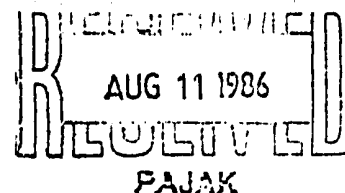


Canada Oil and Gas
Lands Administration

P.O. Box 1500
Yellowknife, N.W.T.
X1A 2R3

Administration du pétrole
et du gaz des terres du Canada

C.P. 1500
Yellowknife (T.N.-O.)
X1A 2R3



Your file Votre référence

Our file Notre référence

D.A. 1339

86-07-31

Mr. Terence G. Dexter
Vice President & Operations Manager
Pajak Engineering Ltd.
1660 Elveden House
717 - 7th Avenue S.W.
Calgary, Alberta
T2P 0Z3

Dear Mr. Dexter:

Enclosed please find an acknowledged copy of the Northcor Celibeta
B-25 Well Termination Record for your files.

Yours truly,

Maurice D. Thomas
Manager, Northern Region
Engineering Branch

SL/ks

c.c.: D. Dempster (COGLA - Ottawa)

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



Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	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: Northcor Celibeta B-25 Area: Ft. Liard/Island River
Grid Area: 60° 30' 122° 30' Field/Pool: Celibeta Exploratory
Permit or Lease No.: DA# 1339 Final Coordinates: Lat: 60°24'13.1096"N Long: 122°34'20.1442"W
Drilling Unit: Badger Drilling Rig #1 Elevations: KB: 485.90 SF/GL: 481.80
Spud Date: 86-03-09 Rig Released: 86-03-20 Total Depth: 810m

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
508mm		Conductor	15.5m	to surface
244mm	53.57 kg/m	J-55	207.5m	14 T 0-1-0 "G" + 3% CaCl ₂ to surface

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Daniel R. Dexter from
(person) Ken Singh of the Canada Oil and Gas Lands Administration by means of
telephone (verbal) on March 19 1986

Type of Plug:	Interval:	Fell:	Cement and Additives:
Cement	810-710m	No fell	6.71 T 0-1-0 "G" + .5% CFR-2
Cement	557-319m	320m	17.36 T 0-1-0 "G" + .5% CFR-2
Cement	232-182m	179m	2.89 T 0-1-0 "G" + .5% CFR-2
Cement	10-0m	0m	.5 T 0-1-0 "G"

Lost Circulation/Overpressure Zones: ---

Equipment left on Seafloor (Describe): ---

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

Cores Type: Sidewall Intervals: 2 attempts failed.

Other Downhole Completion/Suspension Equipment: ---

CERTIFICATION

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

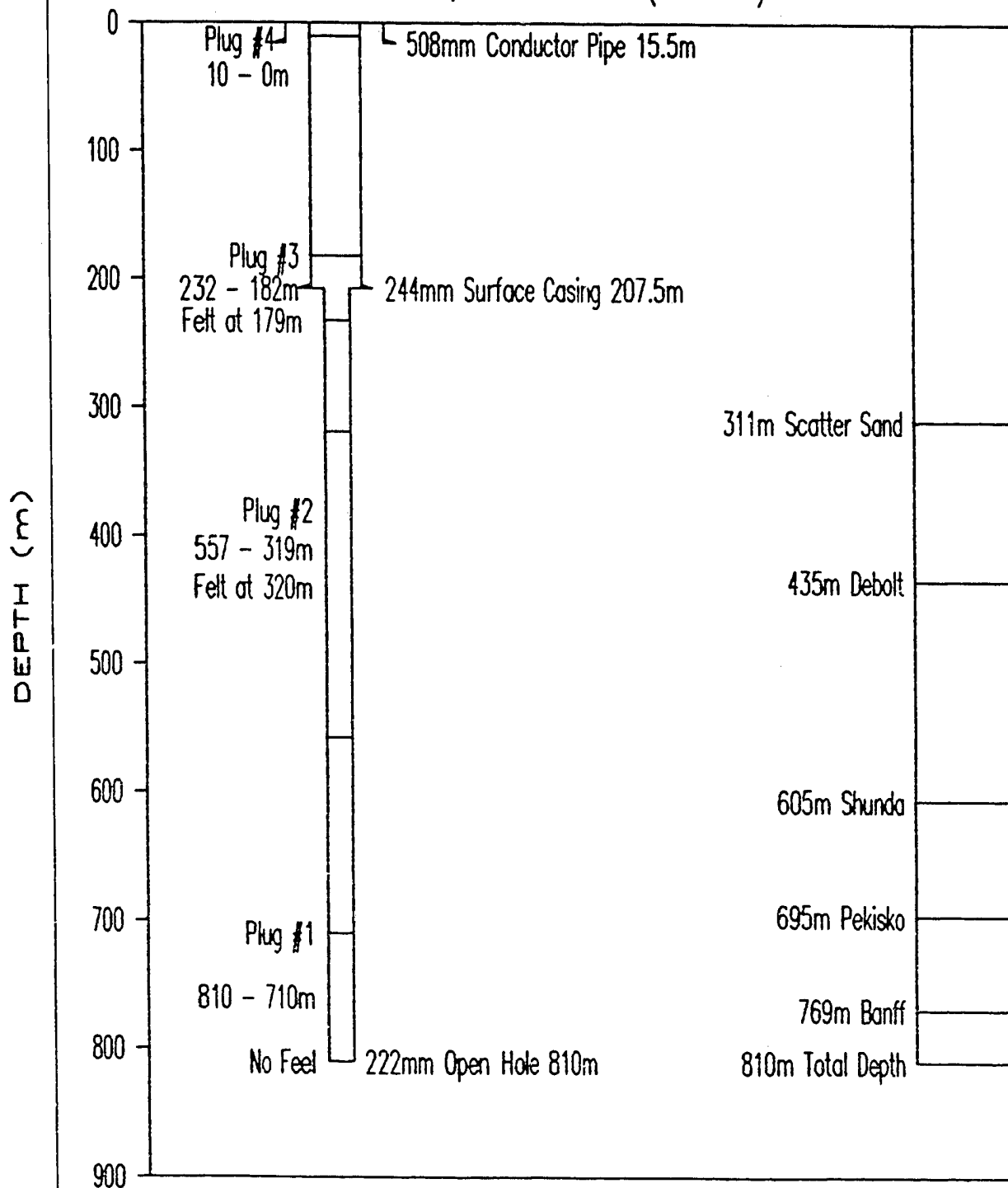
Signed: *Terence G. Dexter* P. Eng
Name: Terence G. Dexter

Title: Vice President & Operations Manager
Date: May 22, 1986

Acknowledged by: *W. Stephen*
Engineering Branch
Date: July 31, 1986
File: DA 1339

NORTHCOR CELIBETA B-25

CASING, PLUGS & FM TOPS (86-05-21)



NORTHCOR CELIBETA B-25

Introduction

Summary

Northcor Energy Ltd. engaged Badger Drilling Ltd.'s Rig #1 to drill the subject well known as Northcor Celibeta B-25, 60° 24' 13" N, 122° 34' 20" W. Approximately 55 km ENE of Fort Liard, N.W.T.

Northcor Celibeta B-25 was spudded 86-03-09 - 1600 hrs., surface hole of 311mm was drilled to 207.5m where 244mm casing was landed and cemented at 207.5m. Next a 222mm hole was drilled to a total depth of 810m. T.D. was reached 86-03-16 at 1800 hrs.

The objective was to obtain oil or gas production from the Debolt, Shunda or Pekisko formations. The top of the Debolt came in at (435m) the top of the Shunda at (605m) and the top of the Pekisko (695m). There was oil staining in the drill cuttings.

Sidewall coring was attempted, but due to faulty charges, both attempts failed. Three DST's were run, all were successful tests. DST #1 recovered water cut mud, DST #2 recovered mud and DST #3 recovered water cut mud and had gas to surface in 3 min. with a .5m flare.

This well was plugged and abandoned, and the rig released 86-03-20 at 1000 hrs.

The formations encountered were as follows:

Drift	20m
Scatter Sand	311m
Detrital	426m
Debolt	435m
Shunda	605m
Pekisko	695m
Banff	769m
T. D.	810m

General Data

Well Name: Northcor Celibeta B-25

Location: 60° 24' 13.1096" N
122° 34' 20.1442" W

Unique Well Identifier: 300 B25 6030 122300

Operator: Northcor Energy Ltd.
#880, 555 - Fourth Avenue S. W.
Calgary, Alberta
T2P 3E7

Project Management: Pajak Engineering Ltd.
1660 Elveden House
717 - Seventh Avenue S. W.
Calgary, Alberta
T2P 0Z3

Drilling Contractor: Badger Drilling Ltd.
1180, 700 - Fourth Avenue S. W.
Calgary, Alberta
T2P 3J4

Drilling Unit: Badger Drilling Ltd., Rig #1

Position Keeping: N/A

Support Craft: N/A

Drilling Unit Performance: Good

Difficulties & Delays: N/A

Summary of Drilling Operations

Elevation: GR 481.80m KB 485.90m

Total Depth: 810m

Logged Depth: 810m

Spud Date: 86-03-09 1600 hrs.

Drilling Completed: 86-03-16 1800 hrs.

Rig Released: 86-03-20 1000 hrs.

Well Status: Abandoned.

Hole Sizes: 311mm to 207.5m
222mm to 810m

Surface Casing: 244mm, 53.57 kg/m, J-55, 8rd, ST&C, 16 jts. Ipsco set 86-03-11, 207.5m K.B. 10.64m³ (14 T) 0-1-0 "G" + 3% CaCl₂, 1.7m³ cement returns at surface. Six centralizers, on shoe joint and jts. #2, 3, 4, 5, and 6, float collar 1 jt. off bottom. 280mm x 21000 kPa x 244mm Crown CC-22 weld on casing bowl.

Side Tracked Hole & Fishing Operations: N/A

Drilling Fluid: Normal Gel chemical system. No kicks were encountered.

Formation Leakoff Tests: FLOT #1, Depth 209m, fluid density 1000 kg/m, applied pressure 1650 kPa, equivalent mud density 1811 kg/m³. Last casing depth 207.5m.

NO FRESH WATER OR CHEMICAL
(UNWEIGHTED MUD SYSTEM)

Time Distribution	Hours
Rig Up	43.50
Drilling	97.00
Condition Hole	9.50
Trip	31.50
Rig Service & BOP	4.50
Repairs	6.75
Surveys	7.75
Logging	21.25
Run Casing & Cement	7.25
WOC	6.00
Nipple Up	7.25
Test BOP	5.50
Plugging	22.00
Drill Out Cement	3.00
Clean Mud Tanks	.75
COGLA Inspection	.25

Abandonment Plugs

Plug #1 810 - 710m 6.71 T, 5.07m³ 0-1-0 "G" + .5% CFR-2
No feel.

Plug #2 557 - 319m 17.36 T, 13.14m³ 0-1-0 "G" + .5% CFR-2
Felt at 320m.

Plug #3 232 - 182m 2.89 T, 2.18m³ 0-1-0 "G" + .5% CFR-2
Felt at 179m.

Plug #4 10 - 0m .5 T, .4m³ 0-1-0 "G" mixed by hand.

Fluid between plugs is drilling mud.

Well Evaluation

Downhole Logs

86-03-16 - Schlumberger

CNL-LDT-GR-CAL	810 - 207m casing shoe
BHCS-GR	810 - 207m casing shoe
DISFL-SP-GR	810 - 207m casing shoe
CVL	810 - 207m casing shoe

Other Logs

- mud gas detector - hot wire filament
- H₂S detector
- penetration rate

DRILL STEM TEST

GENERAL WELL DATA

Well Name Northcor Celibeta Location B-25
 Date 86-03-17 KB Elev. 485.90 Test No. 1
 Formation Shunda Interval Tested 13 From 512 To 525
 Depth 810 Rathole top _____
 Full Hole Size 222 Rathole size _____
 WEIGHT OF STRING
 Before 19000 After 19500 Pull Loose 20000
 DRILLING MUD
 Weight 1130 Visc 70 Level Drop in Casing None

TESTING EQUIPMENT

Testing Company Halliburton
 Packers Two Type Inflate Size 190
 Btm Choke Size 19.07 Perf Length 152.4 Jars Used Lee Mason
 Pipe Size OD 114 Collar Length 135.36 Collar Size 151
 Surf Choke Size 25.4 Water Cushion Nil Anchor Length 0

TESTING DATA

Tester on Bottom	<u>2330</u>	Pre-Flow Open	<u>5</u>	min
Pre-Flow Opened	<u>0020</u>	Initial Shut in	<u>60</u>	min
Pre-Flow Closed	<u>0025</u>	Valve Open	<u>90</u>	min
Tester Opened	<u>0125</u>	Final Shut In	<u>180</u>	min
Tester Closed	<u>0255</u>			
Pulled Loose	<u>0555</u>			
Out of Hole	<u>0800</u>			

RESULTS

GAS FLOW

Water Cushion to Surface --- min Nature of Blow Weak air blow
 Gas to Surface --- min throughout PF & FF
 Oil to Surface --- min
 Maximum Rate _____ How Measured _____
 Gas Flare Lit _____ Estimated Height of Flare _____

PIPE RECOVERY

Total Recovery	m	<u>115</u>	Sample (s) Sent to	_____
Oil Recovery	m	_____	Description	_____
Mud Recovery	m	<u>115</u>	Description	<u>Water cut drill mud</u>
Water Recovery	m	<u>1</u>	Description	_____

PRESSURES

Flowing	Initial	<u>77</u>	kPa	Preflow Pressure	<u>77</u>	kPa
Pressure	Final	<u>1088</u>	kPa	Shut in B.H. Pressure	Initial	<u>4018</u>
Hydrostatic	Initial	<u>5534</u>	kPa		Final	<u>4018</u>
Pressure	Final	<u>5534</u>	kPa	Maximum Surf Pressure	_____	kPa

REMARKS Salinity 26,600 PPM refrac.

Good test.

DRILL STEM TEST

GENERAL WELL DATA

Well Name Northcor Celibeta Location B-25
 Date 86-03-18 KB Elev 485.90 Test No. 2
 Formation Debolt Interval Tested 7 From 465 To 472
 Depth 810 Rathole top _____
 Full Hole Size 222 Rathole size _____

WEIGHT OF STRING

Before 19000 After 19000 Pull Loose 20000

DRILLING MUD

Weight 1130 Visc 70 Level Drop in Casing Nil

TESTING EQUIPMENT

Testing Company Halliburton
 Packers Two Type Inflate Size 190
 Btm Choke Size 19.07 Perf Length 152.4 Jars Used Lee Mason
 Pipe Size OD 114 Collar Length _____ Collar Size 151
 Surf Choke Size 25.4 Water Cushion Nil Anchor Length _____

TESTING DATA

Tester on Bottom	<u>1110</u>	Pre-Flow Open	<u>5</u>	min
Pre-Flow Opened	<u>1145</u>	Initial Shut In	<u>60</u>	min
Pre-Flow Closed	<u>1150</u>	Valve Open	<u>90</u>	min
Tester Opened	<u>1250</u>	Final Shut In	<u>180</u>	min
Tester Closed	<u>1420</u>			
Pulled Loose	<u>1720</u>			
Out of Hole	<u>1900</u>			

RESULTS

GAS FLOW

Water Cushion to Surface --- min Nature of Blow Weak air blow,
 Gas to Surface --- min dead in 45 min. on valve open.
 Oil to Surface --- min
 Maximum Rate _____ How Measured _____
 Gas Flare Lit _____ Estimated Height of Flare _____

PIPE RECOVERY

Total Recovery _____ m 27 Sample (s) _____ Sent to _____
 Oil Recovery _____ m Description _____
 Mud Recovery _____ m 27 Description Drilling mud
 Water Recovery _____ m Description _____

PRESSURES

Flowing Initial 547 kPa Preflow Pressure 366 kPa
 Pressure Final 457 kPa Shut in B.H. Pressure Initial 3802 kPa
 Hydrostatic Initial 5417 kPa Final 3442 kPa
 Pressure Final 5417 kPa Maximum Surf Pressure Nil kPa

REMARKS Good test.

DRILL STEM TEST

GENERAL WELL DATA

Well Name Northcor Celibeta Location B-25
 Date 86-03-19 KB Elev 485.90 Test No. 3
 Formation Debolt Interval Tested 7 From 427 To 434
 Depth 810 Rathole top _____
 Full Hole Size 222 Rathole size _____
 WEIGHT OF STRING
 Before 19000 After 19500 Pull Loose 20500
 DRILLING MUD
 Weight 1130 Visc 70 Level Drop in Casing Nil

TESTING EQUIPMENT

Testing Company Halliburton
 Packers Two Type Inflate Size 190
 Btm Choke Size 19.07 Perf Length 152.4 Jars Used Lee Mason
 Pipe Size OD 114 Collar Length _____ Collar Size 151
 Surf Choke Size 25.4 Water Cushion Nil Anchor Length _____

TESTING DATA

Tester on Bottom	<u>2110</u>	Pre-Flow Open	<u>5</u>	min
Pre-Flow Opened	<u>2135</u>	Initial Shut In	<u>60</u>	min
Pre-Flow Closed	<u>2140</u>	Valve Open	<u>90</u>	min
Tester Opened	<u>2240</u>	Final Shut In	<u>180</u>	min
Tester Closed	<u>0110</u>			
Pulled Loose	<u>0310</u>			
Out of Hole	<u>0500</u>			

RESULTS

GAS FLOW

Water Cushion to Surface	<u>Nil</u>	min	Nature of Blow	<u>Strong air blow,</u>
Gas to Surface	<u>3</u>	min	gas to surface in	<u>3 min. 3m</u>
Oil to Surface	_____	min	lazy flare - VO	<u>1.2m flare</u>
Maximum Rate	_____		How Measured	<u>decrease to .5m flare.</u>
Gas Flare Lit	_____		Estimated Height of Flare	_____

PIPE RECOVERY

Total Recovery	<u>240</u>	Sample (s)	Sent to _____
Oil Recovery	_____	Description	_____
Mud Recovery	_____	Description	_____
Water Recovery	<u>240</u>	Description	<u>Muddy salt water 26,700 PPM</u>

PRESSURES

Flowing	Initial	<u>511</u>	kPa	Pressure	<u>819</u>	kPa	
Pressure	Final	<u>47</u>	kPa	Shut in B.H. Pressure	Initial	<u>3622</u>	kPa
Hydrostatic	Initial	<u>4879</u>	kPa	Final	<u>3622</u>	kPa	
Pressure	Final	<u>4879</u>	kPa	Maximum Surf Pressure	_____	kPa	

REMARKS Good test. Surface press. too low to get reading.

CONTACT LIST

Operator

Northcor Energy Ltd.
#880, 555 - Fourth Avenue S.W.
Calgary, Alberta, T2P 3E7
269-5803

Contact

John Alston

David Sells
249-0219

Gary Bustin
286-5194

Drilling Consultants

Pajak Engineering Ltd.
#1660 Elveden House
717 - Seventh Avenue S.W.
Calgary, Alberta, T2P 0Z3
264-1197

Contact

Terry Dexter
266-4406 (residence)

Dan Dexter
230-8665 (residence)

Geological Representatives

Terqua Exploration Management Ltd.
#800, 555 - Fourth Avenue S.W.
Calgary, Alberta, T2P 3E7
264-8943

Contact

Hugh Mogensen
281-0160

John Stuart-Smith
244-1560

Ken Gummo
282-8004

Wellsite Geologists

Merlin Petroleum Services Ltd.
207, 239 - 12th Avenue S. W.
Calgary, Alberta
T2R 1H6
234-9555

Contact

Brian Hester
234-9555 (24 hrs.)

Contact List - Cont'd

<u>R. C. M. P.</u>	Fort Liard	(403) 770-4221
	Fort Simpson	(403) 695-3111
	Fort Nelson	(604) 774-2777

<u>Hospitals</u>	Fort Simpson	(403) 695-2291
	Fort Nelson	(604) 774-6916

Air Services

Liard Air Ltd.	Fort Liard	(403) 770-4251
Totem Air	Fort Liard	(403) 770-3331
Simpson Air (1981) Ltd.	Fort Simpson	(403) 695-2505
Wolverine Air Ltd.	Fort Simpson	(403) 695-2263
Buffalo Airways Ltd.	Fort Simpson	(403) 695-2404

<u>Safety Boss</u>	Calgary	(403) 261-5075
<u>Boots & Coots</u>	Houston	(713) 931-8884

COGLA - ENGINEERING - PERSONNEL
PHONE LIST

<u>Yellowknife Office</u>	<u>Office Phone</u>	<u>Residence Phone</u>
Switchboard	(403) 920-8175	
Regional Engineer M. D. Thomas	(403) 920-8178	(403) 873-4250
Secretary A. Hicks	(403) 920-8175	(403) 873-4977
Conservation Engineer Kem Singh	(403) 920-8176	(403) 920-2579
Drilling Inspector H. E. Flanders	(403) 920-8177	(403) 873-5675
Drilling Inspector W. F. Nesser	(403) 920-8183	(403) 873-5411
Senior Clerk I. Morris	(403) 920-8121	(403) 873-2547
Clerk P. Knutson	(403) 920-8121	(403) 873-6462
Clerk R. Pedersen	(403) 920-8179	(403) 873-2117

Inuvik Office

Drilling Inspector B. Marsh	(403) 979-3361
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Mobiles - Yellowknife Channel - DIAL 0

G.M.C. Suburban - YJ3-6827

Mobiles - Inuvik Channel - DIAL 0

G.M.C Jimmy - YJ3-6767

Telex Number -034-45570

Telecopier No. - 873-8707 - 6 minutes
(Automatic 485) - 920-8179 - 4 or 6 minutes

INDIAN & NORTHERN AFFAIRS - 24 HOUR SPILL LINES

Telephone - (403) 920-8130

Telex - 034-45623

Services List

1.	Mud	Dynamic	Calgary	403-261-6951
2.	Logging	Schlumberger	Grande Prairie	403-539-5060
3.	Cementing	Halliburton	Ft. Nelson	604-774-6436
4.	Casing	Franklin	Ft. St. John	604-785-5677
5.	Wellhead	Stream-flo	Edmonton	403-468-6789
6.	Testing	Halliburton Dan Manard	Ft. Nelson	604-774-6436
7.	Shock Sub			
8.	First Aid Service	Royal	Ft. St. John	604-785-5855
9.	Air Service - Crew Change			
10.	Air Service - Standby			
11.	Wellsite Units -	Royal	Ft. St. John	604-785-5855
12.	P.V.T.	Chimo	Edmonton	403-955-8701
13.	Fuel	Streeper	Ft. St. John	604-774-7249

Drilling Rig
Inventory

BADGER DRILLING LTD.
EQUIPMENT LIST - RIG 1

Drawworks - 1-DECO H-30 powered by an 8V71 (200 HP continuous)
Air Compressors - Hydraulic Winch - 8000' Survey
Line - right angle Drive to Table.

Table - 17 1/2" National Type FE Rotary Table with Varco ,
Bushings.

Substructure - 14' wide x 47' long x 12' high with Walkway
Wings extending floor width to 16'. Serial
Number 57.

Mast - 102' Telescoping Mast, 300,000 # Gross Nominal.
Serial Number 56T.

1 - Combination Catwalk Pipe Carrier, 9'6" x 40' x 3'6" high.

1 - Pipe Carrier 9'6" x 40' x 3'6" high.

1 - Ramp.

2 - Stairways.

Casing and Pipe Racks with adjustable Legs folding onto Carriers.

1 - Combination Building, 9'6" x 10.5' high x 45' to house:
Water Tank - 480 Barrels
Fuel Tank - 3,100 Gallons
Small Tool House
Telescoping Dog House into Water Tank, 8'8" x 17'.

1 - Combination Building 9'6" x 45' x 8' to house:
Lite Plant - 75 KW A.C. Generator driven by Cat D-330
Change House with 14 lockers
Accumulator House - 60 Gallon, 4 Station remote control
Northern Hydraulic

1 - Mud Tank - 294 Barrel capacity with Sand Trap and 3 compartments (9'6" x 48' x 5'6") with Link Belt NRM Shaker.
End of Tank has Manifold House housing a Master Globe Manifold with 2 Willis Chokes - 3" center Line and 2" Wings. Other end of Tank houses Mixing Hopper and Suction Lines.

1 - Mud Pump House (12' x 33' x 9'4") to house National C-250 (7 1/4" x 15") driven by 1 set GMC's 671's - 300 HP Continuous and 330 HP Intermittent.

5500' of 4 1/2" x H with 6 1/4" tool jts.

1 - 10" Wemcone Desander, Desilter in mixing house.

BADGER DRILLING LTD.
EQUIPMENT LIST - RIG 1

- 2 -

- 18 - 6 1/4" x 2 1/4" x 31' Collars (4 1/2 H90)
- 1 - TSM 150
- 2 sets - Woollwy Type B Torgs
- 1 set - Baash Ross DBM Block-Hook Combination.
- 1 - 4 1/4" x 41' Lone Star Kelly.
- 1 - 3,500' - 1" Drilling Line.
- 1 - 8" Shaffer - 900 Series - 3,000 PSI Spherical.
- 1 - 8" Shaffer LWP Blind Rams with 2 outlets on side.
- 1 - 8" Shaffer LWP Pipe Rams with no outlets.
- 1 - Spool with outlets to fit between Rams.
- 1 - Spool 8" x 6" to Fit 6" x 600 Series Casing Bowl.

Well Data
Summary
(Geological)

NORTHCOR CELIBETA B-25WELL DATA SUMMARY

Company: Northcor Energy Ltd.

Well Name: Northcor Celibeta B-25

Well Location: 60 24' 13.39" N
122 34' 16.82" W

Elevations: Ground : 481.83m
Kelly Busing: 485.93m
K.B. to Gd. : 4.1m

Well Type: Exploration

Licence Number: 1339

Contractor: Badger Drilling, Rig #1

Geologist: Chuck Stringer

Engineer: Bryan Curle

Spud Date: (1600 hrs) March 9, 1986

Total Depth: 810m; (1800 hrs) March 16, 1986

Hole Size: Surface: 311mm
Main : 222mm

Casing: Surface: Size: 244.5mm; Type: J-55
Cemented with 14 metric tons. Landed
at 207.5m. Plug down at 1241 hrs.

Sampled Interval: Operator: 30m to 810m (5 meter intervals)
COG/A : 30m to 810m (5 meter intervals)

Mud Program: Dynamic

Mud Type: Gel Chemical
Mud Up @: Surface

Cores: None

Drill Stem Tests: Haliburton

DST NO. 1: 512m - 525m (Debolt)

DST NO. 2: 465m - 472m (Debolt)

NORTHCOR CELIBETA B-25

WELL DATA SUMMARY

Open Hole Logs:

Schlumberger

BHCS-GR-CAL - 1-500 & 1-300; total
depth to surface casing

DIL-SP - 1-2000; total depth
to surface casing

CNL-LDT-GR - 60-0 & 45-15; total
depth to surface casing

C.S.T. - Total depth to
surface casing

*See drilling summary
for complete list of
logs.*

NORTHCOR CELIBETA B-25GEOLOGICAL MARKERSK.B. ELEVATION: 485.9m

<u>Formation</u>	<u>Prognosis Depth</u>	<u>Prognosis Subsea</u>	<u>Sample Depth</u>	<u>Sample Subsea</u>	<u>Log Depth</u>	<u>Log Subsea</u>
Drift	20.9	+465	20	+465.9	-	-
Scatter	305.9	+180	311	+174.9	311	+174.9
Detrital	-	-	426	+59.9	426.5	+59.4
Debolt	470.9	+15	435	+50.9	434	+51.9
Shunda	630.9	-145	605	-119.1	563.3	-77.4
Pekisko	705.9	-220	695	-209.1	695.2	-209.3
Banff	780.9	-295	769	-283.1	770	-284.1
TOTAL DEPTH	800.9	-315	810	-324.1	811	-325.1

NORTHCOR CELIBETA B-25BIT RECORD

<u>Bit No.</u>	<u>Type</u>	<u>Size</u>	<u>Jets</u>	<u>Depth In</u>	<u>Depth Out</u>	<u>Total Hours</u>	<u>FOB (daN)</u>	<u>RPM</u>	<u>PP (kPa)</u>	<u>SPM</u>	<u>Condition T : B : G</u>
1A	DSJ	311	18x3	Surface	128	14 1/4	4,000	180	1500	60	4 : 2 : I
2A	X1G	311	18x3	128	207	4 1/2	4,000- 8,000	180	1500	60	5 : 6 : I
1	SDGH	222	7.9x3	207	436	12	8,000- 10,000	80- 140	8000	60	4 : 2 : I
2	F2	222	7.9x3	436	617	34 1/2	8,000- 12,000	80- 120	8000	60	3 : 2 : I
3	F3	222	7.9x3	617	810	24 1/2	10,000- 14,000	80	8000	60	4 : 2 : I

NORTHCOR CELIBETA B-25DEVIATION RECORD

(Main Hole)

Surface Casing 207.5m

<u>Depth (m)</u>	<u>Deviation (degrees)</u>	<u>Interval (m)</u>
233	1	25.5
238	3/4	5
396	1/4	158
454	3/4	58
502	1/4	48
598	1 1/4	97
646	1	48
702	1 1/2	56
722	1	20
810	1 1/4	88

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

- 25 - 34 Shale: medium grey, blocky, micromicaceous, muscovite, slightly bentonitic, silty, noncalcareous, poorly indurated.
- 34 - 62 Interbedded siltstone and shale.
Siltstone: medium grey, frosted transparent quartz, abundant muscovite, slightly calcareous, argillaceous, moderately indurated.
Shale: dark to medium grey, blocky, sandy, silty, mottled appearance, fish scales, abundant micromicaceous muscovite, non-calcareous, poorly indurated.
- 62 - 71 Interbedded sandstone and shale.
Sandstone: light grey, very fine grained, frosted, transparent quartz, subangular to subrounded, dark chert, glauconite, muscovite mica, calcareous cement, kaolin matrix, moderately indurated, poor porosity, no shows.
Shale: as above, 34 - 62m.
- 71 - 77 Sandstone interbedded with shale.
Sandstone: as above, but abundant fish remains, also abundant Inoceramus.
Shale: dark to medium grey-brown, blocky, mottled, silty and sandy, noncalcareous, fish scales, micromicaceous, muscovite, poorly indurated.
- 77 - 86 Sandstone and occasional shale.
Sandstone: light grey, very fine grained, frosted, transparent quartz, subangular to subrounded, slightly argillaceous, occasional dark chert, trace argillite grains, disseminated pyrite, trace muscovite, calcareous cement, moderately sorted, moderately indurated, poor porosity, no shows.
Shale: as above, 71 - 77m.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

86 - 95 Shale: as above and occasional sandstone as above, but fine grained.

95 - 105 Sandstone and siderite.

Sandstone: light grey to medium brown, very fine grained to occasional fine grained, silty, bimodal, transparent quartz, sub-angular, trace black chert, trace to abundant glauconite, disseminated pyrite, calcareous to siderite cement, grading to siderite in part, moderately sorted, moderately to well indurated, no apparent to poor porosity, no shows.

Siderite: medium brown, red hue, cryptocrystalline, sandy in part, trace silty, argillaceous, abundant glauconite in part, well indurated.

105 - 123 Interbedded sandstone, siltstone and shale.

Sandstone: light grey, very fine to fine grained, frosted, transparent quartz, trace to occasional dark grey to medium brown chert, argillaceous in part, trace very finely disseminated pyrite, moderately sorted to occasional well sorted, moderately indurated, poor to fair porosity in well sorted, no shows.

Siltstone: as sandstone but silt grain size.

Shale: as above, 71 - 77m.

123 - 127 Sandstone occasionally interbedded with siltstone and shale.

Sandstone: light grey, very fine grained, frosted transparent quartz, subangular to subrounded, occasional glauconite, kaolin grains, calcareous cement, silica overgrowths, well sorted, poorly indurated, fair to good porosity, no shows.

Siltstone: as above, 105 - 123m.

Shale: as above, 71 - 77m.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

127 - 150

Sandstone laminated with siltstone.

Sandstone: light grey, very fine grained, frosted transparent quartz, dark grey to brown chert, subangular to subrounded, occasional glauconite and kaolin grains, calcareous cement, well sorted, moderately to poorly indurated, argillaceous in part, poor porosity, no shows.

Siltstone: as sandstone, except for grain size.

150 - 159

Sandstone, laminated with siltstone, shale and siderite.

Sandstone: as above, but with fish teeth and scales.

Siltstone: as above, 127 - 150m.

Shale: medium grey, blocky, sandy, mottled, noncalcareous, poorly indurated.

Siderite: medium brown, red hue, silty, glauconitic, well indurated.

159 - 189

Interbedded sandstone, siltstone, shale and laminated siderite.

Sandstone: light grey, very fine grained, frosted transparent quartz, dark chert, calcareous cement, trace kaolin grains, occasional glauconite, well sorted, disseminated pyrite, moderately indurated, poor porosity, no shows.

Siltstone: as above, 127 - 150m.

Shale: medium to dark grey, blocky, non-calcareous, glauconite, trace micromicaceous, silty, occasionally sandy, poorly indurated.

Siderite: as above, 150 - 159m.

189 - 211

Sandstone, shale and occasionally siltstone, interbedded.

Sandstone: light grey, very fine grained, frosted transparent quartz, subangular to subrounded, dark grey to dark brown chert, glauconite, trace kaolin grains, kaolin matrix in part, calcareous cement, moderately sorted, moderately indurated, poor porosity, no shows.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

189 - 211
(Cont'd)

Shale: medium grey, blocky, mottled, silty, sandy, noncalcareous, trace glauconite, dull lustre, trace micromicaceous, poor indurated.

Siltstone: as sandstone, but silt grain size.

211 - 239

Shale occasionally with thin sandstone beds.

Shale: medium grey, blocky, mottled, silty, sandy, micromicaceous, noncalcareous, poorly indurated.

Sandstone: as above, 189 - 211m.

239 - 256

Interbedded sandstone, siltstone and shale.

Sandstone: light grey, very fine to fine grained, frosted transparent quartz, calcareous, glauconite, disseminated pyrite, dark chert, trace kaolin, moderately sorted, poorly indurated, poor porosity, no shows.

Siltstone: medium grey, frosted transparent quartz, trace glauconite, sandy, noncalcareous, argillaceous cement, micromicaceous, poorly indurated.

Shale: medium to dark grey, blocky, micromicaceous, noncalcareous, silty in part, trace glauconite, poorly indurated.

256 - 264

Sandstone with minor interbedded shale.

Sandstone: light grey, very fine grained, frosted, transparent quartz, trace argillite grains, occasional to abundant glauconite, trace kaolin grains, very fine disseminated pyrite, trace kaolin matrix, moderately sorted, trace fish scales, poorly indurated, poor porosity, n. shows.

Shale: medium grey, blocky, mottled, silty, noncalcareous, dull lustre, poorly indurated.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

264 - 311

Shale with occasional laminated siltstone.

Shale: medium grey, blocky, slightly calcareous, micromicaceous, muscovite, silty, mottled, trace glauconite, poorly indurated.

Siltstone: medium grey, frosted transparent quartz, argillaceous cement, slightly calcareous, poorly indurated.

311 - 324

Interbedded sandstone and shale.

Sandstone: light brown, very fine grained, frosted, transparent quartz, subangular to subrounded, occasional glauconite, trace dark brown to black chert, argillite grains, argillaceous in part, siliceous cement, well sorted, well indurated, even brown stain, poor spotted medium yellow fluorescence, fair streaming cut.

Shale: dark grey, blocky, fissile, silty, mottled, occasionally sandy, trace disseminated pyrite, slightly calcareous, poorly indurated, occasional fossil fragments.

324 - 344

Sandstone interbedded with shale.

Sandstone: light brown, abundant light to dark green glauconite, very fine grained, shale laminae, argillaceous in part, siliceous cement, almost a silt, dark brown to black chert, well sorted, moderately indurated, even stain, spotted fluorescence, poor porosity, fair streaming cut.

Shale: as above, 311 - 324m.

344 - 352

Interbedded sandstone and minor shale.

Sandstone: as above but much of it is silt size grains, poor porosity, dull yellow spotted fluorescence, fair to good streaming cut.

Shale: as above, 311 - 324m.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

352 - 365

Shale with minor thin bedded and laminated siltstone.

Shale: dark grey, blocky to platy, dull lustre, slightly silty, noncalcareous, poorly indurated.

Siltstone: light grey, frosted transparent quartz, subangular to subrounded, argillaceous cement, slightly calcareous, laminated in part with shale.

365 - 410

Shale: medium grey occasional dark grey, platy to blocky, subfissile, dull lustre, slightly silty, noncalcareous, trace carbonaceous specks, micromicaceous in part, muscovite, poorly indurated.

410 - 426

Shale and laminated siltstone.

Shale: as above, 365 - 410m.

Siltstone: medium brown, frosted transparent quartz, dark chert, argillite grains, trace glauconite, siliceous cement, moderately indurated, no apparent porosity, dull yellow fluorescence, weakly streaming cut.

426 - 434

Chert: light to medium brown to white, occasional vugs of calcite, well indurated, poor vuggy porosity, spotted medium brown stain, light yellow fluorescence, fair streaming cut.

434 - 440

Limestone: light to occasional medium brown, microcrystalline, dolomite inclusions, argillaceous, slightly silty, cherty, trace disseminated pyrite, moderately indurated, no apparent to poor pinpoint porosity, no shows to spotted brown stain, medium yellow fluorescence, weakly streaming cut.

440 - 447

Limestone and shale.

Limestone: as above, plus dolomitic oolites, fecal pellets and siliceous rods in acid after dissolving in same.

Shale: medium grey, blocky, oolitic, calcareous, very fine disseminated pyrite, moderately indurated.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

447 - 451

Limestone and thin shales.

Limestone: medium grey, cryptocrystalline, argillaceous, grading to shale, well indurated, no apparent porosity, no shows.

Shale: as above, 440 - 447m.

451 - 460

Limestone and shale.

Limestone: light brown to light grey, microcrystalline, bioclastic, fossiliferous, crinoids, ostracods, oolite, brachiopods, disseminated pyrite, trace pyrobitumen, moderately indurated, occasionally cherty, trace dead stain, trace intercrystalline porosity, no fluorescence, no cut.

Shale: as above, 440 - 447m.

460 - 465

Limestone: light brown, microcrystalline, cherty, white to grey, occasional fossil fragments, dolomitic, poorly indurated, poor intercrystalline porosity, light brown, even stain, light yellow fluorescence, good cut.

465 - 474

Interbedded limestone and shale.

Limestone: as above, 451m - 460m.

Shale: light green, dull lustre, calcareous, dolomite fossils, poorly indurated.

474 - 484

Limestone and occasional shale.

Limestone: light brown to medium grey, microcrystalline to cryptocrystalline, very cherty, dark grey to white, argillaceous in part, fossil fragments, vuggy, pyrobitumen lined, trace silty, moderately to well indurated, poor vuggy porosity, no fluorescence, weakly streaming cut.

Shale: medium grey, blocky, oolitic, calcareous, very finely disseminated pyrite, moderately indurated.

NORTHCOR CELIBETA B-25SAMPLE DESCRIPTIONS

- 484 - 490 Dolomite: light grey to medium brown, very finely crystalline, abundant white to blue-grey chert, trace disseminated pyrite, calcareous, moderately argillaceous, well to moderately indurated, poor intercrystalline porosity, spotted medium brown stain, spotted light yellow fluorescence, weakly streaming cut.
- 490 - 498 Limestone: as above, 473m, but dolomitic, argillaceous, very fine disseminated pyrite, cherty, dark blue-grey to white, medium to well indurated, no apparent to poor vuggy porosity, no fluorescence, but weakly streaming cut.
- 498 - 505 Limestone: light to medium brown occasionally, microcrystalline, cherty, slightly argillaceous, moderately indurated, poor vuggy and intercrystalline porosity, spotted brown stain, spotted light yellow fluorescence, weakly streaming cut.
- 505 - 512 Limestone: light to medium brown, microcrystalline, slightly argillaceous, cherty, grey to white, moderately indurated, poor vuggy porosity, pyrobitumen lined, to poor intercrystalline porosity, even brown stain, light yellow fluorescence, weakly streaming cut.
- 512 - 522 Dolomite: medium brown, very to finely crystalline, calcareous, slightly silty, moderately indurated, poor intercrystalline porosity, light yellow fluorescence, good cut becoming weak cut downwards.
- 522 - 528 Interbedded limestone and dolomite.
Limestone: as above, 498 - 505m.
Dolomite: as above, 512 - 522m.
- 528 - 538 Limestone and minor dolomite.
Limestone: medium grey-brown, microcrystalline to very finely crystalline, cherty, white to grey, slightly argillaceous, moderately dolomitic, trace silt, moderately to well indurated, no apparent to trace vuggy porosity, pyrobitumen lined, spotted fluorescence, weak cut.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

528 - 538
(Cont'd)

Dolomite: as above, 512 - 522m.

538 - 550

Limestone: as above, 528 - 538m, but dead stain, no fluorescence, no cut, abundant chert.

550 - 558

Limestone: white to light brown, crypto-crystalline to finely crystalline, fossiliferous, ostracod, crinoids, fossil fragments, chalky lustre in part, trace vuggy, pyrobitumen lined, bioclastic, slightly argillaceous, very finely disseminated pyrite, moderately indurated, poor vuggy porosity, no fluorescence, no cut, dead stain.

558 - 591

Interbedded limestone and shale.

Limestone: light brown, fine to moderately crystalline, coquina, fossils as above in shale, grading to shale, argillaceous, moderately indurated, bioclastic, no apparent porosity, no shows.

Shale: medium grey, blocky, calcareous, abundant fossil fragments, crinoids, gastropods, ostracods, coral, disseminated pyrite, poorly indurated.

591 - 600

Interbedded limestone and shale.

Limestone: as above, 558 - 591m.

Shale: medium grey, blocky, disseminated pyrite, calcareous, dull lustre, abundant fossils, crinoids, corals, brachiopods, ostracods, poorly indurated.

600 - 609

Shale and limestone interbedded.

Shale: medium grey, green hue, platy to blocky, calcareous, fissile, dull waxy lustre, very fine disseminated pyrite, poorly indurated.

Limestone: medium brown, microcrystalline, dolomitic, very finely disseminated pyrite, argillaceous, well indurated, no apparent porosity, no fluorescence, nonstreaming cut.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

- 609 - 610 Limestone: as above, but spotted medium yellow fluorescence, weakly streaming cut.
- 610 - 624 Limestone interbedded with shale.
Limestone: light grey to medium brown, microcrystalline, abundant very finely disseminated pyrite, occasional fossil fragments, slightly silty, moderately indurated, no apparent porosity, spotted medium yellow fluorescence, very weakly streaming cut.
Shale: as above, 600 - 609m.
- 624 - 632 Limestone and minor bentonite.
Limestone: as above, but massive pyrite, cubic crystal form, no fluorescence, weak nonstreaming cut.
Bentonite: light green, silty, calcareous, poorly indurated.
- 632 - 644 Interbedded limestone and shale.
Limestone: medium grey, brown hue, blocky to platy, fissile in part, fossiliferous, very calcareous, very finely disseminated pyrite, carbonaceous specks, moderately indurated.
Shale: as above, 600 - 609m.
- 644 - 660 Shale and laminated limestone.
Shale: medium grey-brown, blocky, dull lustre, subfissile in part, very calcareous, disseminated pyrite, no fossils, moderately indurated.
Limestone: as above, 632 - 644m.
- 660 - 677 Shale interbedded and laminated with limestone.
Shale: medium grey-brown, platy to blocky, dull lustre, fissile, abundant fossils, ostracods, coral, crinoids included, very calcareous, moderately indurated.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

660 - 677
(Cont'd)

Limestone: medium grey-brown, crypto-crystalline to microcrystalline, crypto-crystalline texture in part, occasional fossil fragments, disseminated pyrite, moderately indurated, argillaceous matrix, no apparent porosity, no shows.

677 - 691

Shale and laminated limestone.

Shale: medium to dark grey, blocky to occasionally platy, subfissile, calcareous, very finely disseminated pyrite, trace silty, moderately indurated.

Limestone: as above, 660 - 677m.

691 - 695

Shale: medium to dark grey, platy, fissile, moderately to calcareous, occasional fossil fragments, including crinoids, ostracods, moderately indurated.

695 - 716.5

Interbedded limestone and shale.

Limestone: light brown, fine crystalline, disseminated pyrite, slightly argillaceous, abundant fossils including crinoids, oolites, fecal pellets, moderately indurated, no apparent to poor intercrystalline porosity, spotted medium brown stain, light yellow fluorescence, fair streaming cut, to weakly streaming cut downwards.

Shale: as above, 691 - 695m.

716.5 - 725

Interbedded limestone and shale.

Limestone: white to light brown, finely crystalline, occasional crinoid and ostracod fossils, trace milky chert, disseminated pyrite, dolomitic, trace silty, slightly argillaceous, moderately indurated, spotted light brown stain, no fluorescence, faint nonstreaming cut.

Shale: medium grey, platy to blocky, dull lustre, slightly to moderately calcareous, disseminated pyrite, mammillary structure, trace ostracod fossils, poorly indurated.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

725 - 741

Dolomite and shale.

Dolomite: medium brown, cryptocrystalline, calcareous to noncalcareous, argillaceous, well indurated, no apparent porosity, even brown stain, light yellow fluorescence, good streaming cut.

Shale: as above, 716.5 - 725m.

741 - 751

Interbedded limestone and shale.

Limestone: light to medium brown, finely crystalline, dolomitic, dolomite laminae, disseminated pyrite, trace chert, ostracod fossils, trace white claystone laminae, sandy laminae in part, moderately indurated, no apparent to poor intercrystalline porosity, spotted light yellow fluorescence, fair streaming cut.

Shale: as above, 716.5 - 725m.

751 - 758

Sandstone interbedded with siltstone and shale.

Sandstone: light grey, very fine grained, frosted, transparent quartz, disseminated pyrite, trace brown chert, calcareous cement, well sorted, grading to siltstone of same description, well indurated, poor intercrystalline porosity, no shows.

Siltstone: as sandstone but silt grain size.

Shale: light grey-green, blocky to platy, dull waxy lustre, calcareous, moderately silty, trace muscovite, poorly indurated.

758 - 781

Limestone with occasional interbedded shale.

Limestone: cream, cryptocrystalline to finely crystalline, chalky lustre in part, trace ostracod fossils, slightly anhydritic, slightly silty, occasionally vuggy, ineffective, trace white chert, trace very finely disseminated, well indurated, no apparent to trace vuggy and intercrystalline porosity, no shows to trace spotted fluorescence, weakly streaming cut.

Shale: as above, 758m.

NORTHCOR CELIBETA B-25

SAMPLE DESCRIPTIONS

781 - 792

Limestone and minor shale.

Limestone: as above, 758 - 781m.

Shale: black, blocky to platy, noncalcareous, dull lustre, moderately indurated.

792 - 810

Shale with occasional limestone beds.

Shale: medium grey, green hue, platy to blocky, trace ostracod fossils, dull waxy lustre, non to slightly calcareous, slightly silty, poorly indurated.

Limestone: as above, 758 - 781m.

TOTAL DEPTH: 810m

NORTHCOK CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
26	2	6	
27	2	6	
28	2	6	
29	2	4	
30	2	2	
31	2	3	
32	2	2	
33	2	2	Survey 1/2°
34	2	2	
35	2	7	
36	2	12	
37	2	5	
38	2	5	
39	2	4	
40	2	2	
41	2	2	
42	2	2	Survey 1/2°
43	2	2	
44	2	2	
45	2	2	
46	2	4	
47	2	3	
48	2	4	
49	2	6	
50	2	7	
51	2	11	Decrease wt to 2000 Survey 1°
52	2	7	
53	3	12	
54	3	13	
55	3	14	
56	3	9	
57	3	8	
58	3	18	
59	4	6	
60	4	10	Wt 3/4000 Survey 1/4
61	4	8	
62	3	9	
63	3	9	
64	3	9	
65	3	10	
66	3	12	
67	3	11	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
68	4	7	
69	3	8	
70	4	6	Survey 3/4
71	2	9	
72	3	15	
73	2	7	
74	2	10	
75	4	6	
76	3	7	
77	4	2	
78	4	2	Survey 3/4
79	4	1	
80	4	1	
81	4	1	
82	4	1	
83	4	14	
84	4	11	
85	4	16	
86	4	2	
87	4	3	
88	4	5	
89	4	6	
90	4	6	
91	4	6	
92	4	4	
93	3	8	
94	2	8	Power off 5 min.
95	2	8	
96	5	4	Conn. 96.16
97		5	
98		4	
99		3	
100		2	
101		2	
102		1 1/2	
103		1 1/2	
104		2	
105		2	
106		5	
107		6	
108		3	
109		2	
110		2	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
111		2	
112		3	
113		3	
114		4	
115		5	
116		5	
117		4	
118		3	
119		3	
120		4	
121		5	
122		5	
123		3	
124		2	
125		2	
126		4	
127		3	
128		2	
129	1	2	
130	1	1	
131	1	2	
132	2	4	1/2
133	2	1	
134	2	2	
135	2	1	
136	2	1	
137	2	1	
138	2	2	
139	2	1	
140	2	2	
141	2	1	
142	2	1	
143	2	1	
144	2	1	
145	2	1	
146	2	1	
147	2	1	
148	2	1	
149	2	2	
150	2	1	
151	2	1	
152	2	1	
153	2	1	
154	2	1	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
155	2	2	
156	2	2	
157	2	3	
158	4	2	
159	4	1	
160	4	1	
161	4	1	
162	4	1	
163	4	1	
164	4	2	
165	4	3 1/2	
166	4	1	
167	2	1	
168	4	2	
169	4	3	
170	4	3 1/2	
171	8	3	
172	8	2	
173	8	2 1/2	
174	8	2	
175	12	2 1/2	
176	4	2	
177	4	1	
178	4	1 1/2	
179	4	2	
180	4	2	
181	4	2	
182	8	2	
183	8	4	
184	4	4	
185	4	3	
186	8	2	
187	8	4	
188	8	4	
189	8	5	
190	8	4	
191	12	6	
192	12	5 1/2	
193	12	8	
194	12	5	
195	12	5	
196	12	3	
197	12	3 1/2	
198	16	3	
199	16	5	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
200	16	4	
201	16	4	
202	12	6	
203	12	4	
204	20	4	
205	24	3	
206	12	3	
207	12	4	Surface casing
208			
209			
210			
211			
212			
213			
214			
215			
216	16	3	
217	18	2	
218	20	2	
219	20	2	
220	20	2	
221	20	2 1/2	
222	20	2 1/2	
223	20	2	
224	16	2 1/2	
225	14	3	
226	22	2 1/2	
227	18	2 1/2	
228	18	2	
229	24	2	
230	32	2	
231	20	2	
232	28	2	
233	20	4	
234	26	2 1/2	
235	24	3	
236	30	2 1/2	
237	28	2	
238	24	2	
239	24	2	
240	20	2	
241	32	2	
242	40	2	
243	46	2	
244	24	2	
245	12	3 3/4	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
246	12	4	
247	18	3	
248	36	3	
249	40	2 1/2	
250	44	2 1/2	
251	38	3	
252	44	2 1/2	
253	40	3	
254	30	2 1/4	
255	48	3	
256	52	2 1/2	
257	56	2 1/2	
258	64	2	
259	66	2	
260	52	2	
261	34	2	
262	28	3	
263	52	2 1/2	
264	52	4	
265	80	2	
266	70	2 1/4	
267	80	2	
268	68	2	
269	68	2 1/2	
270	68	2	
271	72	2	
272	70	3	
273	40	2	
274	60	2	
275	80	2	
276	88	2	
277	110	1 1/2	
278	10	2	
279	20	2	
280	10	1 1/2	
281	18	2	
282	18	2	
283	20	2	
284	32	1 1/2	
285	48	1 1/2	
286	52	1 1/2	
287	64	1 1/2	
288	60	2	
289	60	1 1/2	
290	100	2	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
291	70	2	
292	90	3	
293	112	2	
294	125	2	
295	280	2	
296	105	2	
297	120	2	
298	80	2	
299	80	2	
300	100	2	
301	100	3	
302	100	2	
303	100	1 1/2	
304	100	2	
305	100	2	
306	100	1 1/2	
307	100	1 1/2	
308	80	1 1/2	
309	40	1 1/2	
310	55	1 1/2	
311	72	2 1/2	
312	80	2	
313	80	2	
314	110	2	
315	96	2 1/2	
316	140	2	
317	90	3	
318	72	2	
319	110	2	
320	48	3	
321	160	2	
322	200	2	
323	225	2	
324	150	3	
325	185	2 1/2	
326	105	3	
327	90	3	
328	120	3	
329	190	3	
330	125	4	
331	105	3	
332	105	3	
333	110	2	
334	120	2	
335	120	2	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
336	110	3	
337	90	4	
338	110	3	
339	50	3	
340	50	5	
341	80	4	
342	60	4	
343	60	5	
344	80	4	
345	80	4	
346	36	8	
347	80	4	
348	44	4	
349	40	2 1/2	
350	40	2	
351	44	3	
352	44	2	
353	44	3	
354	50	3	
355	50	3	
356	80	3	
357	75	3	
358	80	2	
359	60	2	
360	60	2	
361	52	2	
362	40	1 1/2	
363	44	2	
364	65	2	
365	65	2	
366	85	2	
367	85	2	
368	85	2	
369	185	2	
370	105	1 1/2	
371	105	2	
372	128	1 1/4	
373	80	1 1/2	
374	105	1 1/2	
375	90	2	
376	90	2	
377	88	2	
378	80	2	
379	70	2	
380	80	2	

NORTHCOR CELIBETA B-25WELL DATA SUMMARY

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
381	80	1	
382	90	2	
383	100	2	
384	100	2	
385	110	2	
386	110	2	
387	110	1	
388	110	1 1/2	
389	110	1 1/2	
390	110	1 1/2	
391	100	1 1/2	
392	85	2	
393	115	1 1/2	
394	105	2	
395	90	2	
396	138	2	
397	120	2	
398	120	1	
399	120	1	
400	128	1	
401	128	1	
402	128	2	
403	128	2	
404	100	2	
405	88	2	
406	88	2	
407	120	2	
408	135	1 1/2	
409	135	2	
410	135	2	
411	135	3	
412	135	2	
413	120	2	
414	120	2	
415	150	2	
416	122	3	
417	90	2	
418	128	2	
419	152	2	
420	148	2	
421	148	2	
422	152	3	
423	128	3	
424	160	3	
425	120	2 1/2	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
426	110	3	
427	190	2	
428	128	3	
429	128	4	
430	152	5	
431	105	3	
432	105	2 1/2	
433	148	4	
434	95	8	
435	72	24	
436	72	13	
437	80	10	
438	52	10	
439	72	11	
440	105	11	
441	120	12	
442	24	12	
443	16	14	
444	16	15	
445	24	14	
446	36	15	
447	32	7	
448	36	8	
449	44	8	
450	32	5	
451	32	6	
452	32	3	
453	32	5	
454	22	4 1/2	
455	20	5	
456	20	6	
457	16	8	
458	20	7	
459	24	5	
460	24	6	
461	24	3	
462	24	4	
463	24	4 1/2	
464	36	5	
465	45	6	
466	88	8	
467	88	7	
468	80	10	
469	16	10	
470	40	8	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
471	48	8	
472	32	10	
473	24	10	
474	24	8	
475	24	9	
476	24	5	
477	24	6	
478	24	8	
479	40	7	
480	40	9	
481	40	9	
482	46	7	
483	45	7	
484	45	10	
485	45	6	
486	60	7	
487	65	6	
488	65	7	
489	100	6	
490	120	7	
491	85	8	
492	77	7	
493	12	8	
494	85	10	
495	50	12	
496	45	12	
497	60	12	
498	65	14	
499	65	14	
500	65	16	
501	65	16	
502	55	17	
503	55	16	
504	60	16	
505	60	16	
506	50	13	
507	50	13	
508	60	12	
509	65	11	
510	40	11	
511	72	11	
512	70	12	
513	45	10	
514	56	10	
515	72	7	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
516	72	4,16,16,6	(11)
517	28	8	
518	44	8	
519	8	8	
520	8	8 1/2	
521	10	10	
522	8	10	
523	8	11	
524	8	15	
525	8	12	
526	8	16	
527	8	Top 1/2 = 6; 12	
528	8	16	
529	8	14	
530	8	14	
531	8	14	
532	8	13	
533	10	14	
534	12	15	
535	8	Top 1/2 = 6 Bottom = 14	
536	8	11 Last 4 = 2	
537	8	13	
538	6	13	
539	6	12	
540	12	12	
541	8	12	
542	10	11	
543	10	12	
544	10	11	
545	8	14	
546	6	12	
547	6	11	
548	8	14	
549	12	15	
550	14	14	
551	18	14	
552	16	13	
553	16	13	
554	14	16	
555	12	14	
556	12	15	
557	16	13	
558	14	13	
559	16	16	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
560	20	16	
561	32	17	
562	32	16	
563	32	14	
564	32	12	
565	32	8	
566	32	8	
567	36	8	
568	32	7	
569	32	6	
570	32	f 3/4 = 5 L 1/4 = 16	
571	36	9	
572	28	12	
573	40	10	
574	40	8	
575	36	12	
576	32	11	
577	32	11	
578	32	15	
579	32	18	
580	40	7	
581	40	16	
582	36	21	
583	36	12	
584	40	15	
585	60	22	
586	20	13	
587	20	10	
588	20	9	
589	16	7	
590	16	7	
591	16	7	
592	12	9	
593	12	9	
594	16	10	
595	12	8	
596	12	7	
597	12	10	
598	12	7	
599	12	10	
600	8	10	
601	16	7	
602	8	8	
603	8	6	
604	8	5	
605	8	5	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
606	10	14	
607	8	16	
608	20	16	
609	10	17	
610	24	1st 1/2 = 6 Last 1/2 = 17	
		11	
611	20	19	
612	24	16	
613	16	20	
614		22	Bit trip; trip gas 36 units.
615	20	20	
616	12	15	
617	24	15	
618	12	18	
619	20	12	
620	20	12	
621	16	14	
622	20	14	
623	24	12	
624	22	11	
625	30	6	
626	20	8	
627	26	9	
628	24	9	
629	24	10	
630	25	10	
631	28	12	
632	24	10	
633	20	9	
634	24	Correction	
635	16	Correction	
636	16	11	
637	16	10	
638	16	12	
639	16	12	
640	16	10	
641	16	8	
642	16	7	
643	16	7	
644	16	8	
645	16	9	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
646	16	9	
647	10	8	
648	12	8	
649	12	7	
650	15	4	
651	16	4	
652	18	4	
653	15	6	
654	10	8	
655	12	9	
656	16	7	
657	16	7	
658	20	10	
659	25	11	
660	36	10	
661	-	10	
662	-	9	
663	64	10	
664	60	9	
665	60	10	
666	72	11	
667	70	10	
668	65	10	
669	60	11	
670	60	9	
671	60	8	
672	65	7	
673	52	10	
674	60	9	
675	100	7	
676	88	4	
677	52	6	
678	40	6	
679	55	7	
680	50	7	
681	55	6	
682	55	6	
683	55	7	
684	-	4	
685	-	5 1/2	
686	28	3 1/2	
687	28	4	
688	28	4	
689	28	4	
690	28	5	

Recalibrated and zeroed
machine rig power back
to manual

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
691	32	5	
692	32	7	
693	32	6	
694	36	4	
695	80	6	
696	20	12	
697	20	10	
698	24	10	
699	30	10	
700	32	9	
701	20	9	
702	20	10	
703	32	10	
704	28	6	
705	16	4	
706	12	4	
707	10	8	
708	12	7	
709	12	10	
710	12	7	
711	12	10	
712	30	10	
713	16	10	
714	12	10	
715	12	10	
716	16	10	
717	20	9	
718	50	7	
719	20	7	
720	12	6	
721	12	4	
722	12	3	
723	16	3	
724	16	3	
725	25	3	
726	12	3	
727	-	3	Power surge
728	20	3	
729	40	3	
730	22	4	
731	22	6	
732	22	5	
733	24	5	
734	24	5	
735	24	5	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
736	45	5	
737	60	6	
738	28	6	
739	40	6	
740	65	5	
741	32	6	
742	24	7	
743	22	7	
744	16	6	
745	22	8	
746	22	6	
747	26	6	
748	22	10	
749	22	10	
750	22	12	
751	22	10	
752	22	8	
753	22	12	
754	22	12	
755	22	15	
756	22	17	
757	22	15	
758	22	15	
759	22	18	
760	22	18	
761	22	17	
762	22	16	
763	22	12	
764	22	9	
765	22	17	
766	22	16	
767	22	15	
768	22	17	
769	-	14	Lost in trip
770	-	10	
771	-	6	Gas trap down
772	-	5	
773	-	8	
774	12	8	
775	10	10	
776	22	13	
777	6	18	
778	6	10	
779	6	10	
780	6	11	

NORTHCOR CELIBETA B-25TOTAL GAS READINGS

<u>Depth (m)</u>	<u>Total Gas Units</u>	<u>Penetration Rate (min/m)</u>	<u>Comments</u>
781	6	9	
782	6	12	
783	6	5	
784	6	6	
785	6	6	
786	6	6	
787	6	7	
788	6	11	
789	6	10	
790	6	9	
791	6	7	
792	6	9	
793	6	9	
794	6	8	
795	6	8	
796	6	7	
797	6	8	
798	6	8	
799	6	7	
800	6	8	
801	6	8	
802	6	8	



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

DA# 1339
EA# 165

Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	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: Northcor Celibeta B-25 Area: Ft. Liard/Island River
Grid Area: 60° 30' 122° 30' Field/Pool: Celibeta Exploratory
Permit or Lease No.: DA# 1339 Final Coordinates: Lat: 60°24'13.1096"N Long: 122°34'20.1442"W
Drilling Unit: Badger Drilling Rig #1 Elevations: RT/KB: 485.90 SF/GL: 481.80
Spud Date: 86-03-09 Rig Released: 86-03-20 Total Depth: 810m

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
508mm		Conductor	15.5m	to surface
244mm	53.57 kg/m	J-55	207.5m	14 T 0-1-0 "G" + 3% CaCl ₂ to surface

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Daniel R. Dexter from
(person) Kem Singh of the Canada Oil and Gas Lands Administration by means of
telephone (verbal) on March 19 1986

Type of Plug:	Interval:	Felt:	Cement and Additives:
Cement	810-710m	No feel	6.71 T 0-1-0 "G" + .5% CFR-2
Cement	557-319m	320m	17.36 T 0-1-0 "G" + .5% CFR-2
Cement	232-182m	179m	2.89 T 0-1-0 "G" + .5% CFR-2
Cement	10-0m	0m	.5 T 0-1-0 "G"

Lost Circulation/Overpressure Zones: ---

Equipment left on Seafloor (Describe): ---

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

Cores: Type: Sidewall Intervals: 2 attempts failed

Other Downhole Completion/Suspension Equipment: ---

CERTIFICATION

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

Signed: Terence G. Dexter P. Eng.
Name: Terence G. Dexter

Title: Vice President & Operations Manager
Date: May 22, 1986

Acknowledged by: [Signature]
Engineering Branch

Date: July 31, 1986

File: DA 1339

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