

NORTH COR

ISLAND RIVER G-38

9211-N10-2-1

Apr 1984



Nova Scotia
Newfoundland
Gulf of St. Lawrence

☐ West Coast
☐ Northern
☐ Hudson Bay

☐ Exploratory
☒ Development
☐ Delineation
Service

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AUTHORITY TO DRILL A WELL

APPLICATION (REVISED)

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 et al. Island River G-38
Operator: Northcor Energy Ltd.
Contractor: Guthrie-McLaren
Drilling Rig or Unit: 5
Location-Unit: G Section: 38
Coordinates: Lat: 60° 07' 29.3896" N Long: 121° 06' 09.8860" W
Area: Island River Exploration Area Field/Pool: Wildcat (ASL)
Elevation: RMB: 675 m (est.) (ASL) Ground: 670 m (est.) (ASL)
Approx. Spud Date: February 10, 1984 Estimated Days on Location: 45
Anticipated Total Depth: 2,550 m Target Horizon(s): Slave Point & Keg. River

EVALUATION PROGRAM

Ten-metre sample intervals: Surface bedrock to Total Depth
Five-metre sample intervals: Every 10 metres, surface bedrock to Total Depth
Canned sample intervals: No cores planned at this time
Conventional cores at: see attached sheet
Logs and Tests: see attached sheet

CASING AND CEMENTING PROGRAM

O.D.	Weight:	Grade:	Setting Depth Below Seafloor:	Cementing Program (Volumes):
508 mm	Conductor Pipe		20 m KB	Grout to Surface
244 mm	53.57 kg/m	J-55	500 m KB	22 m ³
178 mm	29.76 & 34.22 kg/m	K-55	2,000 m KB	6.3 m ³
114 mm	17.26 kg/m	J-55	2,550 m KB	7.1 m ³

BOP Equipment: See attached specification sheets on Guthrie-McLaren Rig No. 5

Other Information:

Signed: Gary A. J. Bustin Title: Secretary-Treasurer
Date: 1984 January 31 Company: Northcor Energy Ltd.
(Operating Licence No. 452)

APPROVAL

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

Signed: Engineering Branch

Date:

File:



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

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 et al. Island River M. 35
Operator Northcor Energy Ltd. Drilling Program No. N.A.
Contractor Spartan Drilling Ltd. Permit or Lease No. 7-7-7
Drilling Rig or Unit 20E Estimated Well Cost: \$1,600,000
Location-Unit M. Section 35 Grid Area 60° 10' N. - 121° 00' W
Coordinates Lat: 60° 04' 57" N. (Tentative) Long: 121° 07' 28" W. (Tentative)
Area Island River E.A. (Trout Lake area) Field/Pool Wildcat
Elevation-RT/KB: 675 m (Est.) (ASL) Seafloor N.A. (BRT)
Approx. Spud Date February 5, 1984 Estimated Days on Location 45
Anticipated Total Depth 2,550 m Target Horizon(s) Slave Point and Keg River

EVALUATION PROGRAM

Ten-metre sample intervals - - -
Five-metre sample intervals Surface bedrock to Total Depth
Canned sample intervals Every 10 metres, surface bedrock to Total Depth
Conventional cores at No cores planned at this time
Logs and Tests see attached sheet

CASING AND CEMENTING PROGRAM

O.D.	Weight	Grade	Setting Depth	Cementing Program (Volumes)
340 mm	Conductor Pipe		20 m KB	Grout to Surface
244 mm	53.57 kg/m	J-55	500 m KB	22 m ³
178 mm	29.76 & 34.22 kg/m	K-55	2000 m KB	6.3 m ³
114 mm	15.62 kg/m	J-55	2550 m KB	7.1 m ³

B.O.P. Equipment: See attached Rig Information Sheet

Other Information

Signed:  (David V. Sells) Title: Vice-President
Date: 1983 December 21 Company: Northcor Energy Ltd.
(Operating Licence No. 452)

APPROVAL

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

Signed: _____
Engineering Branch

Date: _____

File: 9211-211-2-1

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



Administration du pétrole
et du gaz des terres du Canada

Canada Oil and Gas
Lands Administration

Nouvelle-Écosse	☐	Côte ouest	☐	Prospection	☐
Terre-Neuve	☐	Nord	☐	Développement	☐
Golfe du St. Laurent	☐	Baie de Hudson	☐	Délimitation	☐
				Service	☐

AUTORISATION DE FORER UN Puits

DEMANDE

Ces informations sont soumises en vertu de l'article 82 du Règlement concernant le forage des puits de pétrole et de gaz naturel au Canada. Lorsqu'approuvée en vertu de l'article 83 du Règlement sur les opérations sur le pétrole et le gaz du Canada, ceci est l'autorisation requise pour commencer des opérations de forage

Nom du puits au long:	Programme de forage no:
Exploitant:	Permis ou concession no:
Entrepreneur:	Coût projeté du puits:
Appareil ou unité de forage:	Étendue quadrillée:
Emplacement-Unité:	Section:
Coordonnées (Lat):	(Long):
Région:	Champ/gisement:
Altitude TR/GE:	(DNM) Fonds marins:
	(STR)
Date approximative du démarrage:	Durée estimée sur le lieu:
Profondeur totale anticipée:	Cible(s) prévue(s):

ÉVALUATION DU PROGRAMME

Prélèvement à dix mètres d'intervalle:

Prélèvement à cinq mètres d'intervalle:

Échantillon en conserve:

Carottes classiques à:

Diagraphies et essais:

PROGRAMME DE TUBAGE ET DE CIMENTATION

Diamètre extérieur de tubages	Masse	Qualité	Profondeur déterminée sous les fonds marins	Programme de Cimentation (Volume)
.....				
.....				
.....				
.....				
.....				

Équipement A.E.

Autres informations:

Signé:

Titre:

Date:

Compagnie:

APPROBATION

Une copie de l'autorisation approuvée doit être affichée à l'emplacement de chaque puits.

Signé par:

Direction de la technique

Date:

Dossier:

Ministère de l'Énergie,
des Mines et des Ressources

Ministère des Affaires indiennes
et du Nord canadien

Department of Energy,
Mines and Resources

Department of Indian Affairs
and Northern Development

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 194 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Northcor et al Island River G-38 Area: Island River
Grid Area: 60-10-121-00 Field/Pool: Island River Exploratory
Permit or Lease No.: E.A. 169 Final Coordinates: Lat.: 60°07'29.676" Long.: 121°06'09.650"
Drilling Unit: Guthrie McLaren Rig #5 Elevations-RT/KB: 676.80 SF/GL: 672.16
Spud Date: 84-02-14 Rig Released: 84-04-01 Total Depth: 2446

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
244.5	53.57	K-55	500.08m	40 tonnes Class "G"
178.8	34.22	K-55	669.66	1st Stage 55 tonnes Class "G" 4% Gel 75% CFR-2 + 2% HR-4
29.76		K-55	2049.44m	2nd Stage 17 tonnes Class "G" + 6% Gel
114.3	15.63	J-55	2446.4m	6.9 tonnes Class "G" 1.0% CFR-2 3% HR-4

Liner top 1983.3

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Terence G. Dexter from
(person) John Hamilton of the Canada Oil and Gas Lands Administration by means of
teletypewriter & telephone March 7 19 85

Type of Plug:	Interval:	Felt:	Cement and Additives:
Bridge Plug	1990m		
10m cmt	1980 - 1990m	No	Class "G"
Bridge Plug	1510m		
30m cmt	1480 - 1510m	No	Class "G"
10m cmt	10 - 0m	No	Class "G"

Roll'N Well Service Rig #53 commenced completion and testing operations
February 18, 1985 and was released March 13, 1985. Well head was removed
and a plate welded on surface casing.

Lost Circulation/Overpressure Zones:

Equipment left on Seafloor (Describe):

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

Cores: Type: Intervals:

Other Downhole Completion/Suspension Equipment: Permanent Packer @ 2052m, with perforating
gun hanging below perforations 2063-2069.5, 2077-2083.5 and 1517.5-1527.

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, Eng.

Name: Terence G. Dexter

Title: Operations Manager

Date: 85-06-19

Acknowledged by: Thomas

Engineering Branch

Date: 10 July 85

File: 9211-N-10-2-1

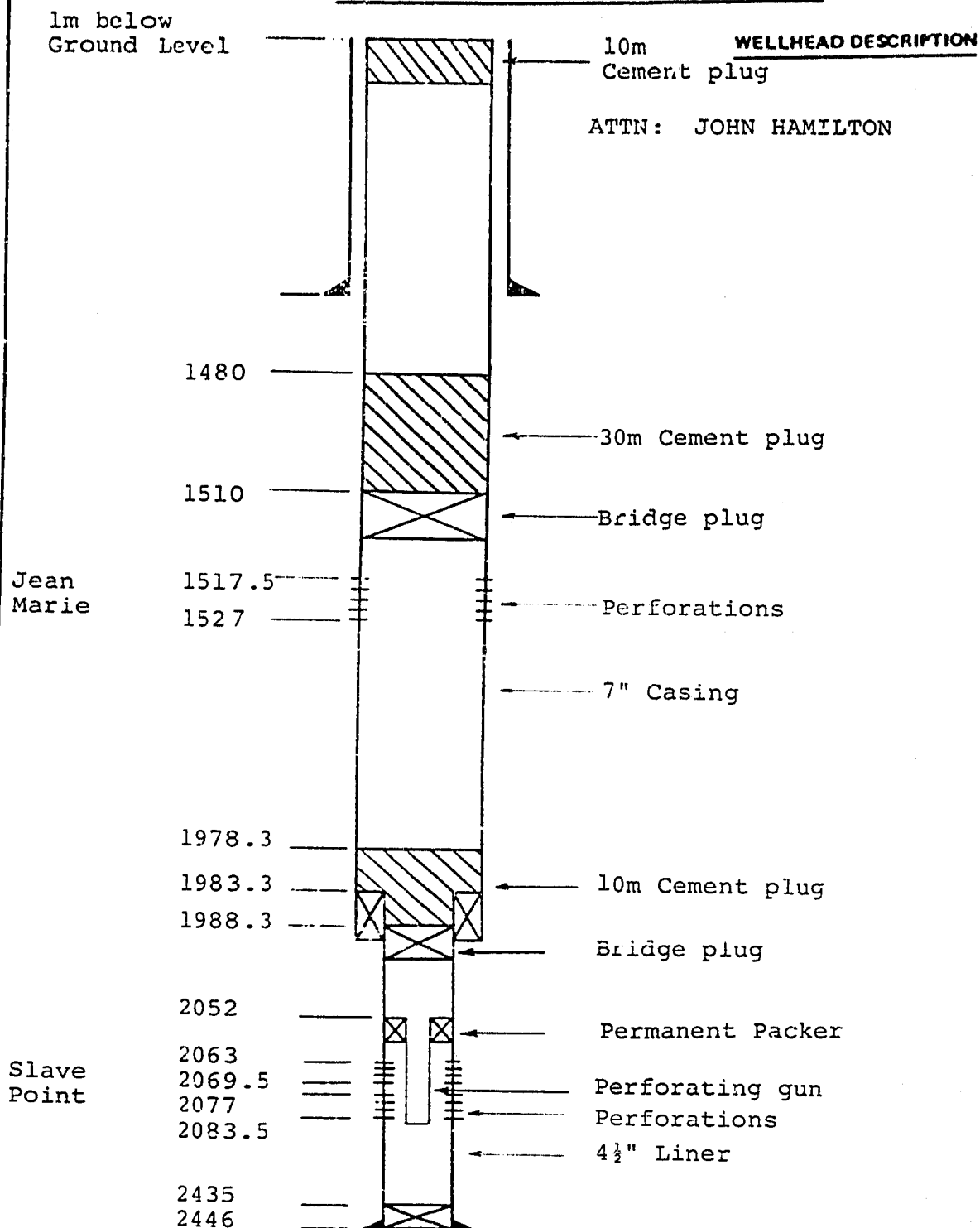
WELL NAME Northcor et al Island River G-38

March 7, 1985.

Abandonment of Jean Marie & Slave Point Zones

DRILLING AND PRODUCTION DIVISION

SCHEMATIC DIAGRAM OF DOWNHOLE EQUIPMENT



ALL DEPTHS MEASURED
FROM KB



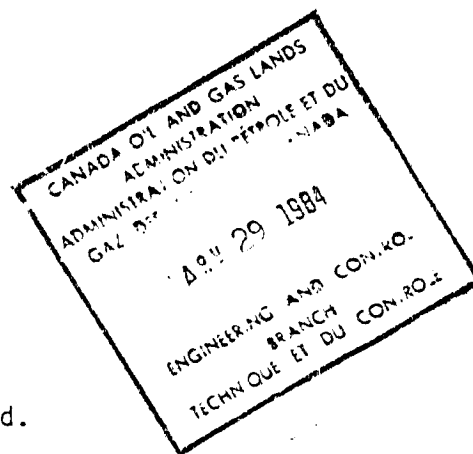
PAJAK LAND & OFFSHORE LTD.

OILFIELD SUPERVISION &
PROJECT MANAGEMENT

Final Well Report
Northcor et al Island River G-38
Unique Well Identifier
300 G386010121000

60° 07' 30" N
121° 06' 09" W

July, 1984



Prepared for
Northcor Energy Ltd.

&

Terqua Exploration Management Ltd.

By

Terry Dexter - Operations Manager
&
Richard Clements
Pajak Land & Offshore Ltd.
1660 Elveden House, Calgary

Contact
List

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 Land & Offshore Ltd.
1660 Elveden House
717 - Seventh Avenue S. W.
Calgary, Alberta, T2P 0Z3
264-1197

Contact

Terry Dexter
264-1197 (24 hours) or
266-4406

Syd Robertson
264-1197

Working through

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

Hugh Mogensen
281-0160

Ken Gummo
283-5968

Geological Representatives

Terqua Exploration Management Ltd.
#800, 555 - Fourth Avenue S. W.
Calgary, Alberta, T2P 3E7
264-8942

Contact

Hugh Mogensen
281-0160

John Stuart Smith
244-1560

Government

Canadian Oil & Gas Lands Administration
(COGLA)
Engineering Branch
Yellowknife, N. W. T.
(403) 920-8175

Contact

Moe Thomas

John Hamilton

Hal Flanders

Bud Nesser

Kem Singh

Contact List - Cont'd

Government - Cont'd

Indian & Northern Affairs
P. O. Box 1500
Yellowknife, N. W. T.
X1A 2R3
(403) 920-8171
Telex - 034-45505

Fort Simpson
(403) 695-2231

Drilling Contractor

Guthrie McLaren Drilling
1760 Elveden House
717 - Seventh Avenue S. W.
Calgary, Alberta
T2P 0Z3
269-7794

14630 - 119 Avenue
Edmonton, Alberta
T5L 2P2
455-3191

Contact

J. W. P. Dunlop

Jean Sproule

Scott Howard
(Administrator Inland Waters)

Jim Umpherson

Nick Galan

David Jessiman

Contact

Ken Armbruster
286-5399

Brian Briscoe
455-3191

Drilling Rig
Inventory

GUTHRIE McLAREN DRILLING - RIG NO. 5 INVENTORY
NATIONAL 50A - 8500 FEET (2590 m)
RKB to Ground 14'4" (4.36 m) - Rotary Beam to Ground 10'3" (3.12 m)

DERRICK: Lee C. Moore cantilever mast 131' high (39.9 m). Gross capacity of 440,000 lbs. (195,360 daN) with racking space for 8000 ft. (2438 m) of 4½" (114 mm) drill pipe.

DRAWWORKS: National type 50-A double drum with Kelco spinning cathead Model 16-L and Kelco breakout cathead Model 16-LB powered by twin Detroit Diesel 6-71 engines, 325 HP (242 kW), 1 - 1/8" (29 mm) drilling line. Parkersburg hydromatic brake.

SUBSTRUCTURE: Lee C. Moore 23'10" wide x 37' long x 11'5" high (7.25 x 11.28 x 3.50 m).

ROTARY TABLE: National Model B-175 table with split and solid bushings.

MAIN PUMP: Oilwell Model 214P duplex pump, 7¼" x 14" (184 x 356 mm) powered by twin Detroit Diesel 6-71 engines, 325 HP (242 kW).

AUXILIARY PUMP: National Ideal Model C250 duplex pump, 7¼" x 15" (184 x 381 mm) powered by twin Detroit Diesel 6-71 engines, 325 HP (242 kW).

MUD MIX PUMP: TRW Mission Magnum I modular powered by a Detroit Diesel 3-71 engine.

BOILER: Napanee 80 HP (60 kW).

FUEL & WATER STORAGE: Water Tank capacity: 339 Bbls. (54 m³)
Fuel Tank capacity: 175 Bbls. (28 m³)

LIGHTING: Newage Stamford type C30B, 30kW (93.75 kVA) powered by a Detroit Diesel 4-71 engine.

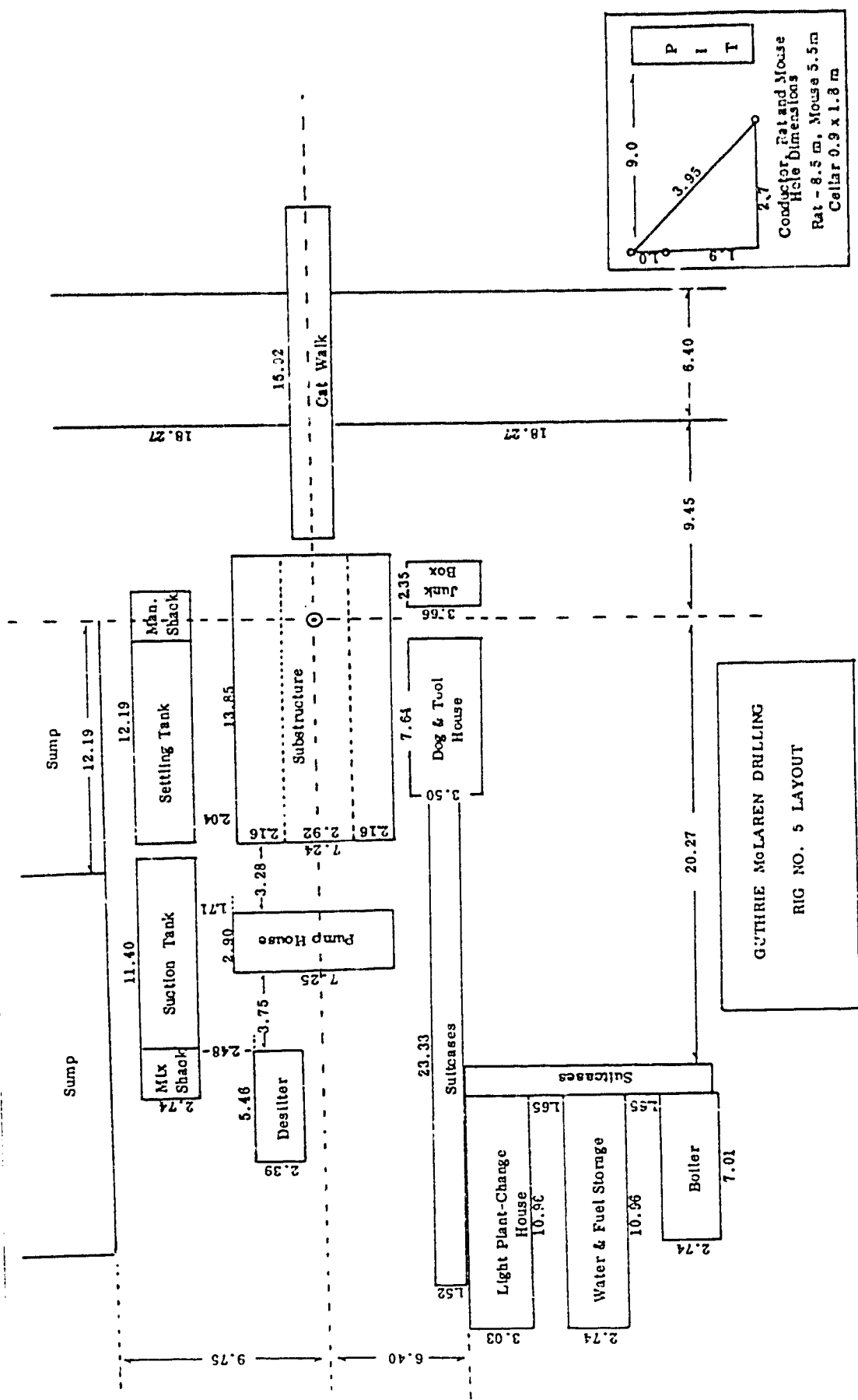
MUD TANKS: Suction tank capacity 201 Bbls. (32 m³) equipped with one Dreco agitator, two compartments, one standard mix hopper. Shaker tank capacity 264 Bbls (42 m³) equipped with one Mini Brute single screen shale shaker, four compartments, one Poor Boy degasser. Total capacity 465 Bbls. (74 m³).

DRILL PIPE: 281 joints, 8,500 ft. (2590.80 m) of 4½" (114 mm) #2 Grade "E" drill pipe with 4½" (114 mm) X.H. tool joints.

DRILL COLLARS: 21 - 6¼" (159 mm) O.D. x 2¼" (57 mm) I.D., zipped collars with 4½" (114 mm) H-90 connections.

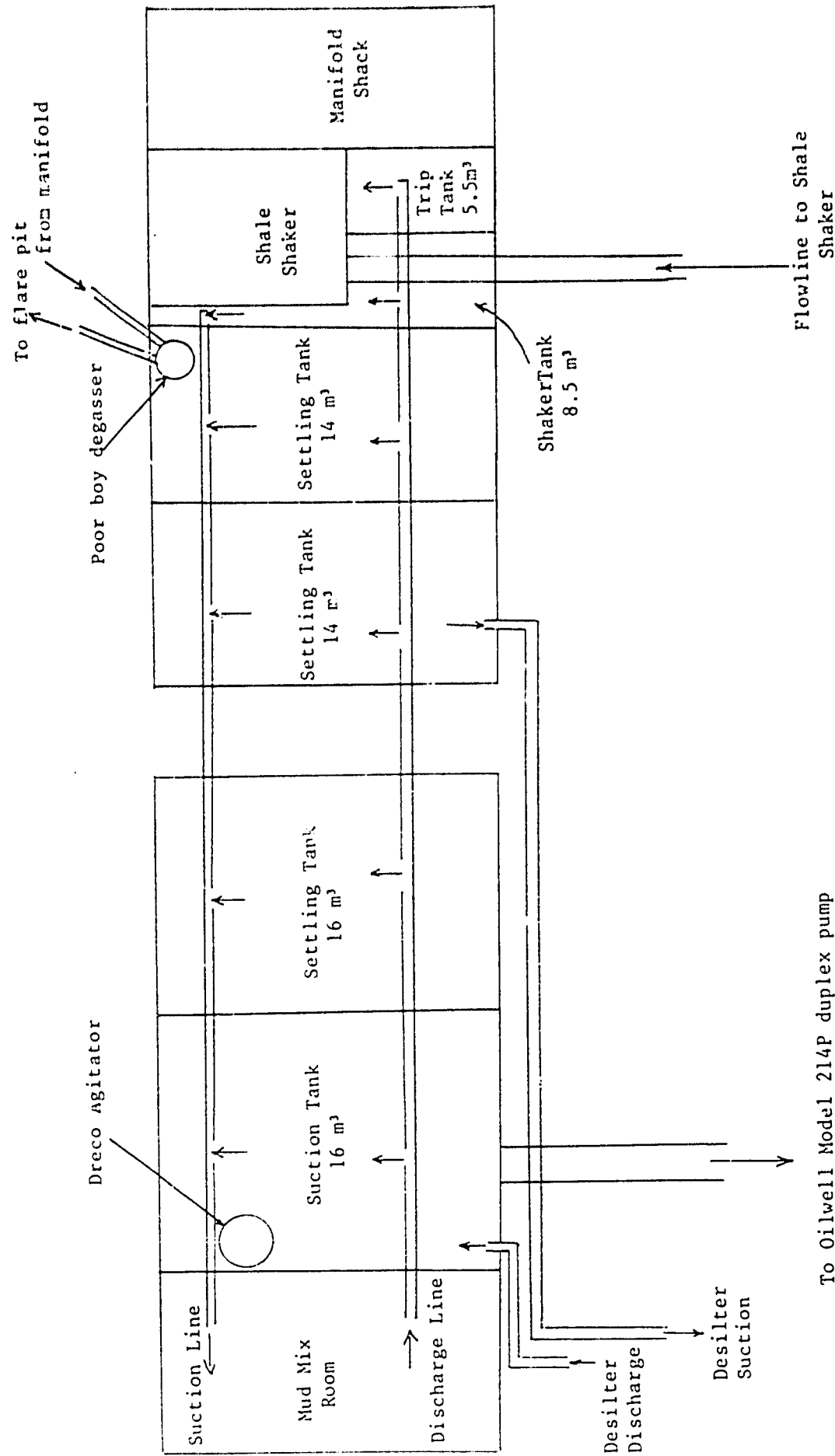
BLOWOUT PREVENTERS: 1 Hydril 10" (254 mm) type GK 10-900 annular, 2 Shafco 10" (254 mm) type NRS ram preventers, one 11" (279 mm) spool with one 2" (51 mm) and one 3" (76 mm) flanged outlets. Koomey accumulator by Stewart & Stevenson, Model No. DO 5050-35 with a 5 HP (4 kW) duplex hydraulic pump. Two Ansul bottle nitrogen back-up and 8 Greer 11 gallon (.05 m³) accumulator bottles. Five station electric control panel.

ADDITIONAL EQUIPMENT: Drilco 12 cone box type desilter, sectional rig matting, Bell automatic driller, one Lincoln ARC welder, safety equipment.



RIG No. 5 - MUD SYSTEM

TOTAL CAPACITY - 74 m³



Drilling
Summary



PAJAK LAND & OFFSHORE LTD.

OILFIELD SUPERVISION &
PROJECT MANAGEMENT

Northcor et al Island River G-38

On 84-02-14 - 0900, Northcor Energy Ltd., spudded its well, Northcor et al Island River G-38. This well was drilled in the Northwest Territories on Canada Lands for the purpose of searching for oil and gas. The location of the well was 60° 07' 29.3896" N, 121° 06' 09.8850" W and Guthrie McLaren Drilling contracted Rig #5 for this project. Guthrie McLaren #5 has a National Type 50-A drawworks and is rated to a depth of 2590 m.

Formation tops taken from the logging runs are as follows:

Flett	655
Banff	728.6
Exshaw	1024.5
Kotcho	1031
Tetcho	1236.2
Trout River	1313
Kakisa	1366.1
Redknife	1382.2
Jean Marie	1517.5
Fort Simpson	1533.2
Muskwa	2046
Slave Point	2063
Klua	2264
Keg River Platform	2346
Chinchago Detrital	2416
T.D.	2446

A 311mm hole was drilled to 500 m where 42 joints of 244mm, 53.57 kg/m casing were run to the same depth on 84-02-19. This was cemented and drilled out with a 222mm bit to 2050 m. The well was then logged with a DISFL-GR from 2029 to 500 m and a BHC-Sonic GR-C from 2027 to 500 m. Then 71 joints of 178mm, 34.22 kg/m and 92 joints of 178mm, 29.76 kg/m casing were run to 2049.44 m. After cementing a 155mm hole was drilled ahead. A drill stem test was performed on a 17 m interval of the Slave Point between 2070 and 2087. The well was then drilled to a total depth of 2446 meters. The second logging run consisted of a DISFL, CNL-LDT-GR-C, BHC Sonic-GR-C from 2447 to 2051.

cont'd

Northcor et al Island River G-38

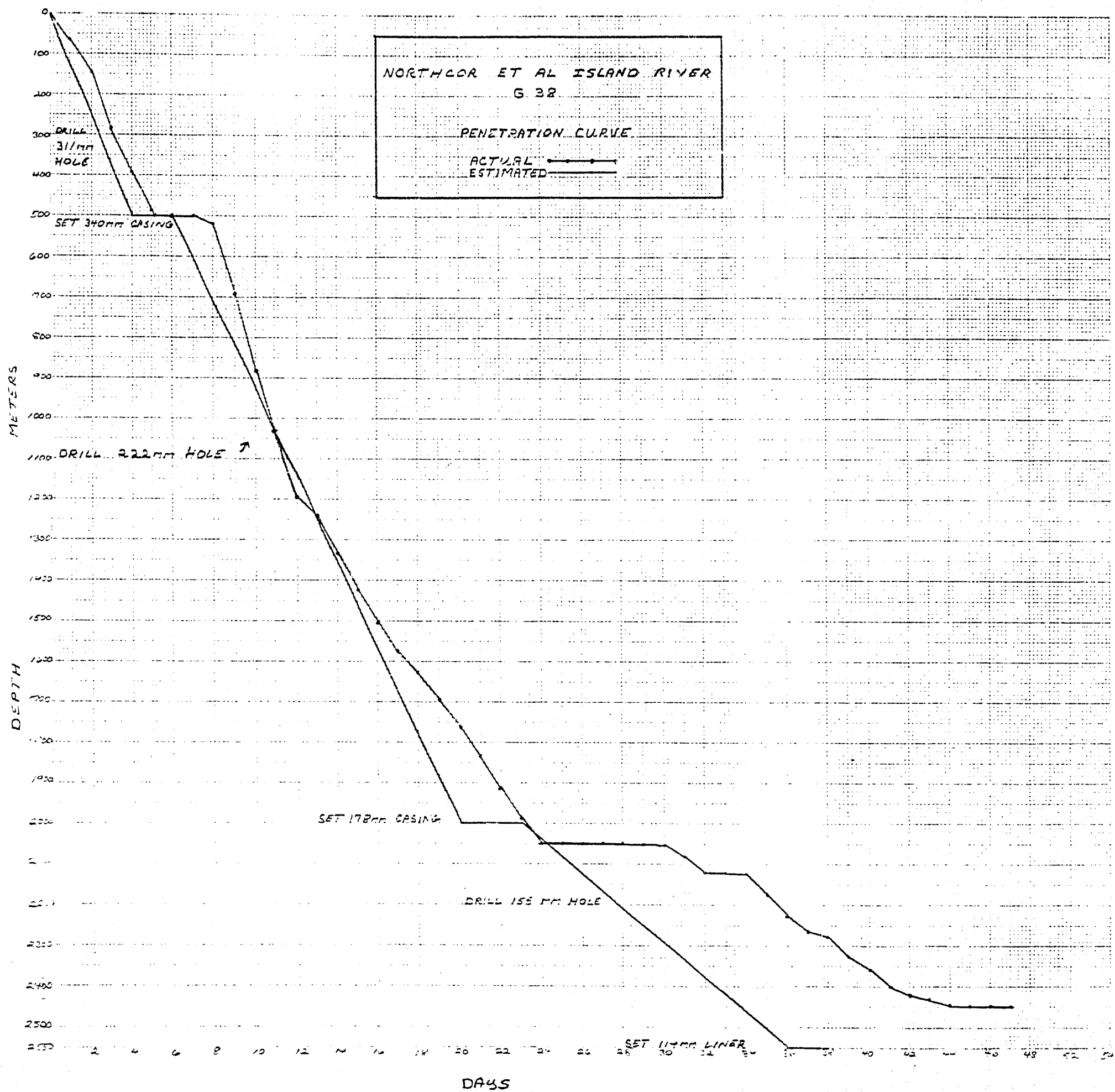
Page 2

The second drill stem test was then performed on a 48½ m interval of the Slave Point between 2061.5 and 2110 m. There was no success on trying to set a packer and after three attempts, pulled out of the well to run 37 joints of 114mm liner from 2435 to 1983.29.

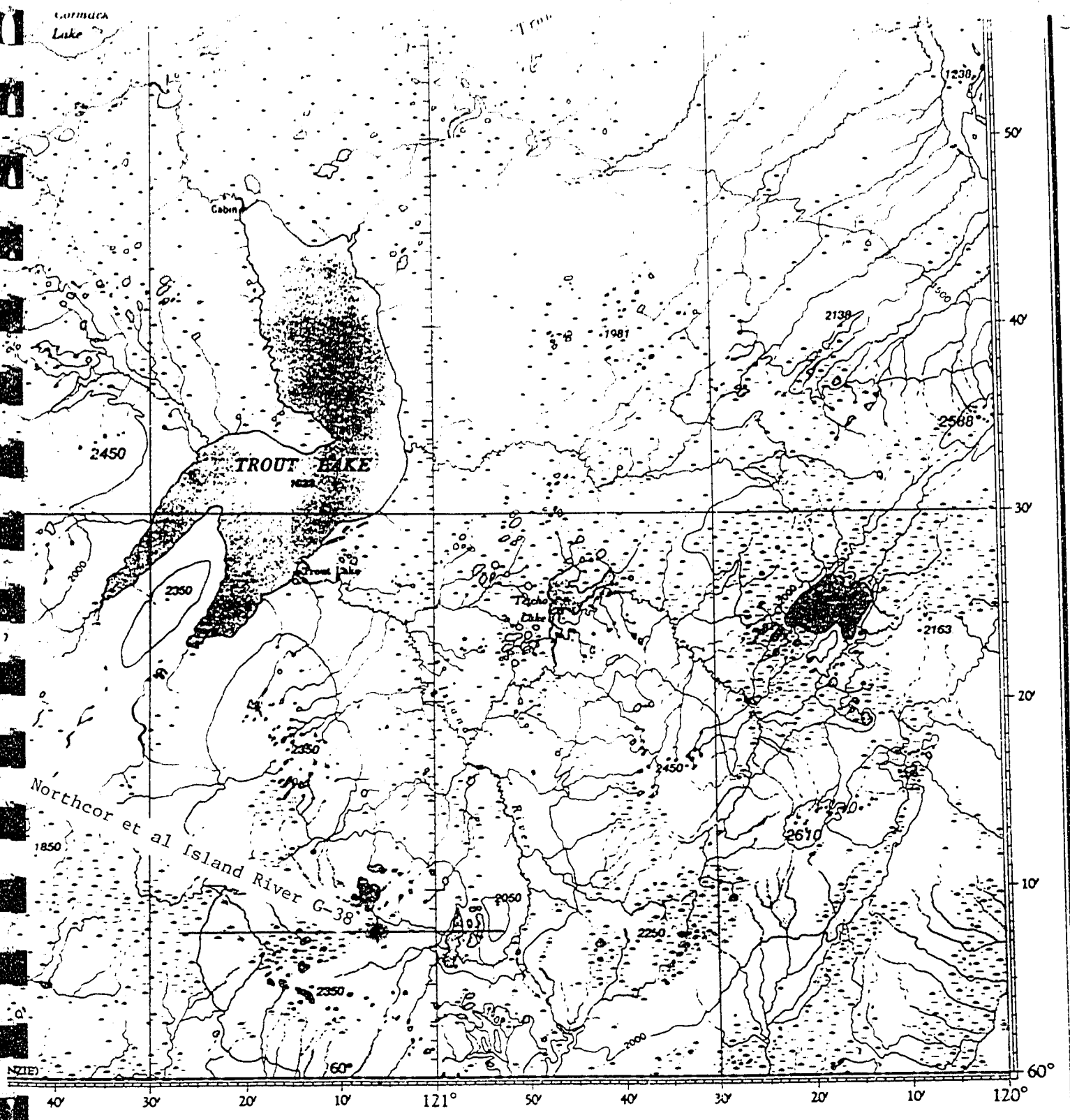
The well was suspended by leaving 10 meters of cement above the top of the liner and setting a drillable bridge plug at 100 m.

The rig was released at 84-04-01, 0900 hours.

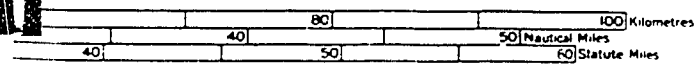
Penetration
Curve



Topographical
Location



ELEVATIONS IN FEET



Copies may be obtained from the Canada Map Office,
Department of Energy, Mines and Resources, Ottawa,
or your nearest map dealer.

ELEVATIONS IN FEET
SIMPSON - LIARD
N.T.S. No. 95 S.E.

Well Summary
(Drilling)

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date Feb. 14/84 Days

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs Hrs on Btm Progress Operation

Last Casing Depth: Size:

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres Strokes L/min. Ann Vel

Surveys ° at ° at ° at

 ° at ° at ° at

Last FLOT Depth: EMD

Mud Wt. 1040 Vis 55 PV YP

WL pH 10.5 Solids

Mud Added 2 Soda Ash, 2 Caustic 70 Gel

BOP Tests & Drills:

General

Time Break Down

Rig up and dig ditches, mixed mud, rig up floor. 1 Rig Up or Down 24

Spot equipment, pick up bottom hole assembly. 2 Drilling

 3 Reaming

 4 Coring

 5 Cond. Hole

 6 Trip

 7 Rig Ser & BOP

 8 Repairs

 9 Slip & Cut

 10 Surveys

 11 Logging

 12 Run Csg & Cement

 13 WOC

 14 Nipple Up

 15 Test BOP

 16 DST

 17 Plug Back

 18 Squeeze Cement

 19 Fishing

 20 Dir. Work

 21 Clean to Bottom

Bottom Hole Assembly

Persons in Camp: 27 Natives: 0

Weather Clear Temp -22

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date Feb. 15/84 Days 1

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 65 Hrs on Btm 124 Progress 65 Operation Trip

Last Casing Depth: _____ Size: _____

Bit No 1 Depth Out 65 Wt on Bit 1-2000 Condition 4-3-1

Size 311 Metres 65 RPM 80-130 Serial # 54311

Type X1G Hours 12 1/2 Nozzles Open

Bit No	Depth Out	Wt on Bit	Condition
--------	-----------	-----------	-----------

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

#1 - 60

Pump Pres 3700 Strokes #2 - 30 L/min 2313 Ann Vel DP 3500 1/

228 DC 66.0

Supervisors: 1/8 ° at 30 3/4 ° at 50 3/8 ° at 69

Surveys $\frac{170}{1}$ at $\frac{30}{40}$ $\frac{374}{5/8}$ at $\frac{30}{60}$ $\frac{376}{1}$ at $\frac{82}{83}$

1. Last FLOT Deaths

Last FLOT Depth: 1010 Min 53 EMD 24 YR

Mud Wt. 1070 Vis 52 PV YP
 WH pH 10.5 Solids

WL _____ pH 10.5 Solids _____

Mud Added Gel 15 say Caustic 1 say

BOP Tests & Drills:

General

Time Break Down

Spud at 09:00 84-02-14 _____ 1 Rig Up or Down 9

Drill 311mm hole to 64mm with 3 small gravel	2	Drilling	123
--	---	----------	-----

3	Reaming
4	Coring

5 Scr. Holes. POH _____

_____ 6 Trip _____ 11 _____

7	ing Ser & BOP	1
8	Repairs	

9 Slip & Cut _____

_____ 10 Surveys _____ 1

11	Logging	_____
12	Run Gas & Cement	_____

12. Run Csg & Cement: _____
13. WOC _____

14 Nipple Up _____

15 Test BOP_____

16 DST _____
 17 Blue Book _____

18. Squeeze Cement _____

DEPTH 06:00 - 81m OPERATION: Drill 19 Fishing

OPNS Forecast _____ 20 Dir. Work _____

21 Clean to Bottom 24

[illegible]

Bottom Hole Assembly Bit, LBS, DL, NRS, DL, NRS, SS, DL, XU 3 - 165 DL

Persons in Camp: 27 Natives: 0

Weather Clear Temp -4

BRITISH LAND & OFFSHORE LTD

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-16 Days 2

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 148 Hrs on Btm 18 1/2 Progress 83 Operation Drill

Last Casing Depth: _____ Size: _____

Bit No 2A Depth Out 110 Wt on Bit 2-3 Condition 2-3-I

Size 311 Metres 45 RPM 150 Serial # 34388

Type S21G Hours 13 1/2 Nozzles Open

Bit No 3A Depth Out in Wt on Bit 2-4 Condition Run

Size 311 Metres 38 RPM 150 Serial # EB 8084

Type TST Hours 5 1/2 Nozzles Open

Pump Pres 2300 Strokes 70 L/min 1869 Ann Vel 28.4 DP

53 DC

Surveys 3/8 ° at 69 3/4 ° at 88 1 1/16 ° at 107

1/4 ° at 79 1/2 ° at 98 3/4 ° at 117

Last FLOT Depth: _____ EMD _____ 1 1/16 126

Mud Wt. 1065 Vis 46 PV _____ 1 YP 136

WL 12 pH 10 Solids _____

Mud Added Gel 55 sax Caustic 2 sax Sawdust 15 sax

BOP Tests & Drills:

General

Drill 311 mm hole to 110 m Trip for Bit RIH. 1 Rig Up or Down _____

Drill 311 mm hole survey each single. 2 Drilling 18 1/2

Lost 29m³ mud to formation 97 m - 117 m LCM 3 Reaming _____

material added. 4 Coring _____

Drilling 18 m per hour 5 Cond. Hole _____

6 Trip 2 3/4

7 Rig Ser & BOP 3/4

8 Repairs _____

9 Slip & Cut _____

10 Surveys 2

11 Logging _____

12 Run Csg & Cement _____

13 WOC _____

14 Nipple Up _____

15 Test BOP _____

16 DST _____

17 Plug Back _____

18 Squeeze Cement _____

19 Fishing _____

20 Dir. Work _____

21 Clean to Bottom _____

DEPTH 06: 06:00 RATION: Drill

QPNS Forecas _____

Bottom Hole Assembly Bit NBIBS, DC, NRS, DC, NRS, SS, DC 2 X0 10 - 165 DC

Persons in Camp: 32 Natives: 2

Weather Clear Temp - 5

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-17 Days 3

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 286 Hrs on Btm 17 1/2 Progress 138 Operation Drill

Last Casing Depth: _____ Size: _____

Bit No 3A Depth Out _____ Wt on Bit 6 Condition in

Size 311 Metres 176 RPM 150 Serial # FB8084

Type DST Hours 22 3/4 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 5,000 Strokes 70 L/min 1,869 Ann Vel DC 28.4
DC 34.2
DC 53

Surveys 5/16 ° at 145 1 ° at 183 1/2 ° at 221

7/8 ° at 164 1/2 ° at 202 1 1/16 ° at 259

Last FLOT Depth: _____ EMD _____ 1/2 278

Mud Wt: 1135 Vis 46 PV _____ YP _____

WL 12 pH 10 Solids _____

Mud Added Gel 72 sax Caustic 4 sax Sawdust 10 sax

BOP Tests & Drills:

General

Drill 311 mm hole 148 - 236 mm.

Lost 7 m³ mud at 148 - 186

DEPTH 06:00 - 309 OPERATION: Trip

OPNS Forecast Drill, survey

Time Break Down

1 Rig Up or Down _____

2 Drilling 17 1/2

3 Reaming _____

4 Coring _____

5 Cond. Hole _____

6 Trip 2 1/2

7 Rig Ser & BOP 3/4

8 Repairs _____

9 Slip & Cut _____

10 Surveys 1 3/4

11 Logging _____

12 Run Csg & Cement _____

13 WOC _____

14 Nipple Up _____

15 Test BOP _____

16 DST _____

17 Plug Back _____

18 Squeeze Cement _____

19 Fishing _____

20 Dir. Work _____

21 Clean to Bottom _____

22 Unplug flowline I 1/2

Bottom Hole Assembly Bit NBIBS, DC, NRS, DC, NRS, SS, DC, XO, 10 - 165 DC, XO, DP.

Persons in Camp: 28 Natives: 2

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-18 Days 4

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs 391 Hrs on Btm 14 1/2 Progress 105 Operation RIH

Last Casing Depth: 22 m Size: 508

Bit No 3A Depth Out 309 Wt on Bit 6 Condition 3-3-I

Size 311 Metres 19 1/2 RPM 150 Serial # EB8084

Type DST Hours 25 3/4 Nozzles Open

Bit No 4A RR Depth Out 391 Wt on Bit 6-8 Condition 3-3-I

Size 311 Metres 82 RPM 120-150 Serial # NEM007

Type S11J Hours 11 1/2 Nozzles Open

Pump Pres 5000 Strokes 60 L/min 1470 Ann Vel DP 24
DC 27
DC 44.5

Surveys 1 1/2 ° at 297 1/16 ° at 325 1 1/2 ° at 365
1 ° at 307 1/4 ° at 345 1 ° at 391

Last FLOT Depth: EMD

Mud Wt. 1160 Vis 50 PV YP

WL 10 pH 10 Solids

Mud Added Gel 63 sax Caustic 3 sax

BOP Tests & Drills:

General

Drill 311 mm hole to 309 - Drop survey - could not
retrieve. POH retrieve survey barrel - change bit -
change NRS rubber Drill to 391 - POH.

Time Break Down

- 1 Rig Up or Down
- 2 Drilling 14 1/2
- 3 Reaming
- 4 Coring
- 5 Cond. Hole
- 6 Trip 7 1/2
- 7 Rig Ser & BOP 3/4
- 8 Repairs
- 9 Slip & Cut
- 10 Surveys 1 1/2
- 11 Logging
- 12 Run Csg & Cement
- 13 WOC
- 14 Nipple Up
- 15 Test BOP
- 16 DST
- 17 Plug Back
- 18 Squeeze Cement
- 19 Fishing
- 20 Dir. Work
- 21 Clean to Bottom

DEPTH 06:00 - 404 OPERATION: Drill

OPNS Forecast Drill - run casing.

Bottom Hole Assembly Bit, NBIBS, DC, NRS, DC, NRS, SS, DC XO 10-165 m DC, 1 XO DP

Persons in Camp: 30 Natives: 5

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-19 Days 5

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs 489 Hrs on Btm 12 3/4 Progress 98 Operation Drill

Last Casing Depth: 22 m Size: 508 mm

Bit No 5 A Depth Out 484 Wt on Bit 8-10 Condition 4-8-1

Size 311 Metres 93 RPM 150 Serial # 346338

Type S21G Hours 121 Nozzles Open

Bit No 6A RR Depth Out in Wt on Bit 8000 Condition Run

Size 311 Metres 5 RPM 150 Serial # NEM007

Type S11J Hours 3 Nozzles

DP 27.7

Pump Pres 4800 Strokes 68 L/min 1773 Ann Vel 165 33.8

228 51.8

Surveys 1° at 411 0° at 460 _____° at _____

1 ° at 430 1 ° at 484 ° at _____

Last FLOT Depth: _____ EMD _____

Mud Wt. 1140 Vis 45 PV YP

WL _____ pH 10 Solids _____

Mud Added Gel 57 sax Caustic 2 sax Sapp 1 sax

BOP Tests & Drills:

General

Time Break Down

RIH Bit #5. Drill stab. rubber. _____ 1 Rig Up or Down _____

Drill	Trin	Survey	SLM	RIH with Bit #6	2	Drilling	12 3/4
							21

Drill. Trip. Survey. SLM. Rth With Bit #8 3 Reaming 3 1/2

Hole bridged off 354 - 395. Drill 484 - 489.

6 Trip 54

7 Rig Ser & BOP 3/4

8 Repairs _____

9 Slip & Cut 3/4

10	Surveys	3/4
11	Lessing	

12 Buy Csg & Cement

13 WOC _____

14 Nipple Up _____

_____ 15 Test BOP_____

_____ 16 DST _____

17 Plug Back_____

18 Squeeze Cement_____

DEPTH 06:00 = 500 OPERATION: Dummy Trip

DEPT. 111 00:00	500	STATION: 000000	19 Fishing
0000 00:00	000	STATION: 000000	20 Dir. Work

OPNS Forecast Run casing - cement _____

Bottom Hole Assembly Bit, NBIBS, DC, NRS, DC, NRS, SS, DC, X0 10 x 165 mm DC X

Persons in Camp: 35 Natives: 5

Persons in camp:	32	Natives:	9
		Total:	6

Weather Clear Temp 40

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-20 Days 6

Supervisor Frenchie Duperron Contractor Guthrie McLaren

Depth @ 2400 hrs 500 Hrs on Btm 1 1/2 Progress 11 Operation WOC
 Last Casing Depth: 500 Size: 244
 Bit No 6A Depth Out 500 Wt on Bit 8 Condition 4-3-I
 Size 311 Metres 16 RPM 150 Serial # MEM007
 Type S11J Hours 1 3/4 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
 Size _____ Metres _____ RPM _____ Serial # _____
 Type _____ Hours _____ Nozzles _____

Pump Pres 4800 Strokes 68 L/min 1773 Ann Vel DP 27.7
DC 33.8
DC 51.8

Surveys 1/8 ° at 500 ° at _____ ° at _____
 ° at _____ ° at _____ ° at _____

Last FLOT Depth: _____ EMD _____
 Mud Wt. 1140 Vis 68 PV _____ YP _____
 WL _____ pH 10 Solids _____

Mud Added Gel 30 sax Caustic 1 sax

BOP Tests & Drills:

General

Drill 489 - 500 m. Circ. and cond. hole for casing.
Dummy trip - ream 439 - 449 m. Circ. and cond. POH
to run casing. Lay down 228 mm assembly. Run 42 jts.
244 mm 53.57 kg/m K-55 ST&C casing. Landed at 500 m
on bottom. Cement with 1.5 m³ H₂O P.F. 40 tonnes
(30.4m³) Class "G" neat cement slurry at 1895 kg/m
Displace with 19.4 m³ drilling mud. Plug down with
9500 kPa at 1745 hrs. 84-02-19 Good returns. 9.55 m³
Float held. WOC - Cut casing. Weld on bowl.

K.B. to Ground 4.72 m

DEPTH 06:00 - 500 OPERATION: Nipple Up

OPNS Forecast Nipple up. Test B.O.P. Drill out

Bottom Hole Assembly _____

Persons in Camp: 34 Natives: 5

Weather Clear Temp -10

Time Break Down

1 Rig Up or Down _____
 2 Drilling 1 1/2
 3 Reaming _____
 4 Coring _____
 5 Cond. Hole 2 1/2
 6 Trip 5 1/2
 7 Rig Ser & BOP 1/2
 8 Repairs _____
 9 Slip & Cut _____
 10 Surveys _____
 11 Logging _____
 12 Run Csg & Cement 6
 13 WOC 6
 14 Nipple Up _____
 15 Test BOP _____
 16 DST _____
 17 Plug Back _____
 18 Squeeze Cement _____
 19 Fishing _____
 20 Dir. Work _____
 21 Clean to Bottom 1 1/2
 22 LDDC 1
 23 Circ. Csg. 1 1/2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-21 Days 7

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs 500 Hrs on Btm _____ Progress _____ Operation Drill out

Last Casing Depth: 500 Size: 244

Bit No 1 Depth Out _____ Wt on Bit 2-3 Condition Run

Size 222 Metres _____ RPM 60 Serial # EB 8906

Type FDT Hours _____ Nozzles 3 - 8.7

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 7000 Strokes 60 L/min 1104 Ann Vel DP 36.9
DC 58.9

Surveys _____ ° at _____ ° at _____ ° at _____
_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: _____ EMD _____

Mud Wt. 1125 Vis 60 PV _____ YP _____

WL _____ pH _____ Solids _____

Mud Added _____

BCP Tests & Drills:

General

WOC Cut Cond. Barrel, cut casing weld on bowl.
Hook up hydraulic choke. Test blind rams, casing
choke manifold - 1500 and 18,000 kPa - Pickup Bit.
Bit sub - 12 - 165 mm DC RIH

Time Break Down

- 1 Rig Up or Down _____
- 2 Drilling _____
- 3 Reaming _____
- 4 Coring _____
- 5 Cond. Hole _____
- 6 Trip 1 1/2
- 7 Rig Ser & BOP _____
- 8 Repairs _____
- 9 Slip & Cut _____
- 10 Surveys _____
- 11 Logging _____
- 12 Run Csg & Cement _____
- 13 WOC 2
- 14 Nipple Up 9 1/2
- 15 Test BOP 3 3/4
- 16 DST _____
- 17 Plug Back _____
- 18 Squeeze Cement _____
- 19 Fishing _____
- 20 Dir. Work _____
- 21 Clean to Bottom _____
- 22 Cut Cond. _____
- 23 Drill out 3 1/4

DEPTH 06:00 - 500 OPERATION: Drill out

OPNS Forecast Drill out to 494. Test shoe jt. and

pipe rams - Drill - Trip for stabilization

Bottom Hole Assembly Bit. B.S., 12-165mm DC X0 DP

Persons in Camp: 30 Natives: 5

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-22 Days 8

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs 520 Hrs on Btm 3 3/4 Progress 20 Operation Drill

Last Casing Depth: 500 Size: _____

Bit No 1 Depth Out _____ Wt on Bit 2-3 Condition Run

Size 222 Metres 20 RPM 60 Serial # EB8906

Type FDT Hours 3 3/4 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 2800 Strokes 60 L/min 1104 Ann Vel DC 58.9 DP 36.9

Surveys _____ ° at _____ ° at _____ ° at _____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 505 EMD 1834

Mud Wt. H₂O Vis _____ PV _____ YP _____

WL _____ pH _____ Solids _____

Mud Added Bicarb 4 sax Sapp 2 sax

BOP Tests & Drills: 84-02-21

General

Time Break Down

<u>Drill out cement and float collar. POH to clean</u>	1 Rig Up or Down _____
<u>rubber out of jets. RIH drill out cement to 485.</u>	2 Drilling <u>3 3/4</u>
<u>POH unplug jets. RIH drill cement to 494.</u>	3 Reaming _____
<u>Pressure test hydril to 1500 and 10,500 kPa and</u>	4 Coring _____
<u>pipe rams, Kelly cocks to 1500 and 18,000 kPa.</u>	5 Cond. Hole _____
<u>Drill to 505. Run FLOT dump and clean tanks.</u>	6 Trip <u>5 3/4</u>
<u>Drill 222 mm hole to 520 m.</u>	7 Rig Ser & BOP _____
	8 Repairs _____
	9 Slip & Cut _____
	10 Surveys _____
	11 Logging _____
	12 Run Csg & Cement _____
	13 WOC _____
	14 Nipple Up _____
	15 Test BOP <u>1 1/2</u>
	16 DST _____
	17 Plug Back _____
	18 Squeeze Cement _____
DEPTH 06:00 - <u>535</u> OPERATION: <u>Clean to bottom</u>	19 Fishing _____
OPNS Forecast <u>Drill</u>	20 Dir. Work _____
	21 Clean to Bottom _____
	22 Drill out <u>9 1/2</u>

Bottom Hole Assembly Bit, NRB,DC,IBS,DC,IBS,SS,10-165DC. 23 Dump tanks,etc. 3 1/2

Persons in Camp: 30 Natives: 5 24 Leak-off Test 1/2

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-23 Days 9

Supervisor Frenchie Duperron Contractor Guthrie McLaren 5

Depth @ 2400 hrs 693 Hrs on Btm 12 1/2 Progress 173 Operation RIH

Last Casing Depth: 500 Size:

Bit No 1 Depth Out 693 Wt on Bit 5-12 Condition 8-2-I

Size 222 Metres 193 RPM 70-90 Serial # EB8906

Type FDT Hours 16 1/2 Nozzles 3-8.7 ave. 11.87m/hr.

Bit No 2 Depth Out Wt on Bit Condition

Size 222 Metres RPM Serial # 94476

Type J-11 Hours Nozzles 3-9.5

Pump Pres 8000 Strokes 60 L/min 1104 Ann Vel DC 58.9

Surveys 1/2 ° at 536 1/16 ° at 617 ° at
1/8 ° at 570 1/2 ° at 674 ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1050 Vis H₂O PV YP

WL pH Solids

Mud Added Sapp 1 sax

BOP Tests & Drills: 84-02-21

General

Time Break Down

Drill 222mm hole 520-536m drop survey. POH to p.u. BHA 1 Rig Up or Down
 Pick up BHA RIH Rm. 453-536m. Drill 693m circ. bottom 2 Drilling 12 1/2
 hole sample. Trip for Bit. P.U. 3 - 165mm DC RIH 3 Reaming
 4 Coring

5 Cond. Hole

6 Trip 5 1/2

7 Rig Ser & BOP 1/2

8 Repairs

9 Slip & Cut

10 Surveys 1 1/2

11 Logging

12 Run Csg & Cement

13 WOC

14 Nipple Up

15 Test BOP

16 DST

17 Plug Back

18 Squeeze Cement

19 Fishing

20 Dir. Work

21 Clean to Bottom 2 3/4

22 Circ. samples 1

23 P.U. BHA 1/2

DEPTH 06:00 - 721 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 13-165mm DC

Persons in Camp: 20 Natives: 5

Weather Clear Temp -12

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-24 Days 10

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 886 Hrs on Btm 20 Progress 193 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 2 Depth Out Wt on Bit 12 Condition in

Size 222 Metres 193 RPM 85 Serial # FB8906

Type J-11 Hours 20 Nozzles 3 - 9.5 Ave. 9.65m/hr.

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 800 Strokes 60 L/min 1104 Ann Vel DC 63.45 DP 38.63

Surveys 0 ° at 770 ° at ° at
0 ° at 873 ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. H₂O Vis PV YP

WL pH Solids

Mud Added Sapp 2 sax (Premix) Gel 70 sax Soda Ash 1 sax Caustic 2 sax

BOP Tests & Drills: 84-02-21

General

RIH with Bit #2 18 m Loose fill on bottom

Drill 693 - 886 m.

Time Break Down

1 Rig Up or Down

2 Drilling 20

3 Reaming

4 Coring

5 Cond. Hole 1/2

6 Trip 1

7 Rig Ser & BOP 3/4

8 Repairs

9 Slip & Cut

10 Surveys 1/2

11 Logging

12 Run Csg & Cement

13 WOC

14 Nipple Up

15 Test BOP

16 DST

17 Plug Back

18 Squeeze Cement

19 Fishing

20 Dir. Work

21 Clean to Bottom 3/4

22 Unplug flow line 1/2

DEPTH 06:00 - 977 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, XO 15 - 165 mm DC, X DP

Persons in Camp: 20 Natives: 5

Weather Clear Temp -14

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-25 Days 11

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1030 Hrs on Btm 9 3/4 Progress 144 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 2 Depth Out Wt on Bit 12 Condition Run

Size 222 Metres 337 RPM 85 Serial # 94476

Type J-11 Hours 29 3/4 Nozzles 3-9.5

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

DP 38

Pump Pres 8500 Strokes 60 L/min 1104 Ann Vel DC 63

Surveys 1/8 ° at 1005 ° at _____ ° at _____

_____ ° at _____ ° at _____ ° at _____

Last FL0T Depth: 505 EMD 1834

Mud Wt. Scale Broken Vis 46 PV YP

WL _____ pH 9.5 Solids _____

Mud Added Ge1 110 sax Sapp 1 sax

BOP Tests & Drills: 84-02-21

General

Time Break Down

Drill to 1030 m. Circ. BH sample. POH to shoe for mud 1 Rig Up or Down _____

up - Pump out to 912 - Clean tanks Displace hole to

up - Pump out to 912 - clean tanks. Displace note to	3	Reaming
down - Pump out to 912 - clean tanks. Displace note to	4	Coring

4 Coring _____

6 Trip _____

7 Rig Ser & BOP 3

8 Repairs _____

9 Slip & Cut _____

10 Surveys _____

11 Longing _____
12 Buy Gas & Cement _____

12. Run Csg & Cement
13. WOC

14 Nipple Up _____

15 Test BOP_____

Drill at 8.12 m/hr. 16 DST

17 Plug Back_____

DEPTH 06:00	1073	OPERATION: Drill	18 Squeeze Cement
			19 Fishing

DEPTH 08:00 = 1078 OPERATION: DPTT 19 Fishing _____
 20 Dir Work _____

OPNS Forecast Drill poss. trip

22 Circ. spl 374

Bottom Hole Assembly Bit.NBR.DC.IBR.DC.IBR.SS. 13-165DC

Bottom Hole Assembly

Persons in Camp: 20 Natives: 5 21 circ. build Vol 2

Weather Clear Temp -10

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DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-26 Days 12

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1195 Hrs on Btm 23 Progress 165 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 2 Depth Out Wt on Bit 12 Condition Run

Size 222 Metres 502 RPM 85 Serial # 94476

Type J-11 Hours 52 3/4 Nozzles 3-9.5

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 8200 Strokes 50 L/min 1104 Ann Vel DP 38
DC 63

Surveys 1 ° at 1110 ° at ° at
3/4 ° at 1157 ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1110 Vis 45 PV 22 YP 10

WL 12 pH 10 Solids .048

Mud Added Gel 9 sax Poly sec 1 sax Caustic 3 sax
Polyguard 200 liters Staflo 1 sax

BOP Tests & Drills: 84-02-25 -

General

Time Break Down

<u>Drill 1030 -1110 Survey Drill 1110 - 1157 Survey</u>	1 Rig Up or Down <u> </u>
<u>Drill</u>	2 Drilling <u>23</u>
<u> </u>	3 Reaming <u> </u>
<u> </u>	4 Coring <u> </u>
<u> </u>	5 Cond. Hole <u> </u>
<u> </u>	6 Trip <u> </u>
<u> </u>	7 Rig Ser & BOP <u>1</u>
<u> </u>	8 Repairs <u> </u>
<u> </u>	9 Slip & Cut <u> </u>
<u> </u>	10 Surveys <u>1</u>
<u> </u>	11 Logging <u> </u>
<u> </u>	12 Run Csg & Cement <u> </u>
<u> </u>	13 WOC <u> </u>
<u>Background gas - 10 units.</u>	14 Nipple Up <u> </u>
<u> </u>	15 Test BOP <u> </u>
<u> </u>	16 DST <u> </u>
<u>Drill at 7.17 m/hr.</u>	17 Plug Back <u> </u>
<u>DEPTH 06:00 - 1225 OPERATION: Drill</u>	18 Squeeze Cement <u> </u>
<u>OPNS Forecast Drill - 1240 - Trip</u>	19 Fishing <u> </u>
<u> </u>	20 Dir. Work <u> </u>
<u> </u>	21 Clean to Bottom <u> </u>

Bottom Hole Assembly Bit, NBR,DC,IBS,DC,IBS,SS, 13 - 165 mm DC, XO DP

Persons in Camp: 20 Natives: 5

Weather Clear Calm Temp -8

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-27 Days 13

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1245 Hrs on Btm 10 1/4 Progress 50 Operation Drill
 Last Casing Depth: 500 Size: 244
 Bit No 2 Depth Out 1240 Wt on Bit 12 Condition 2-3-1
 Size 222 Metres 547 RPM 85 Serial # 94476
 Type J-11 Hours 61 Nozzles 3-9.5

Bit No 3 Depth Out in Wt on Bit 8-10 Condition Run
 Size 222 Metres 5 RPM 60-65 Serial # FB 3831
 Type F-2 Hours 1 3/4 Nozzles 3 - 9.5

Pump Pres 8500 Strokes 60 L/min 1104 Ann Vel DP 38 DC 63

Surveys 3/4 ° at 1240 ° at ° at
 ° at ° at ° at

Last FLOT Depth: 505 EMD 1834
 Mud Wt. 1120 Vis 44 PV YP
 WL 9.0 pH 10 Solids

Mud Added Gel 22 sax Caustic 1 sax Poly sec 3 sax Staflo 1 sax
WL-100 1 sax

BOP Tests & Drills: 84-02-25

General

Drill to 1240. Circ. BH sample. drop survey. POH
Tite hole 1155 - 912 m. RIH P.U. 3 - 165 mm DC Rm
bridge 939 m Cln to 960 m - Rm 1212 - 1240 m
Drill at 4.3 m/hr.

Time Break Down

- 1 Rig Up or Down
- 2 Drilling 10
- 3 Reaming
- 4 Coring
- 5 Cond. Hole 1
- 6 Trip 5
- 7 Rig Ser & BOP
- 8 Repairs
- 9 Slip & Cut
- 10 Surveys 3
- 11 Logging
- 12 Run Csg & Cement
- 13 WOC
- 14 Nipple Up
- 15 Test BOP
- 16 DST
- 17 Plug Back
- 18 Squeeze Cement
- 19 Fishing
- 20 Dir. Work
- 21 Clean to Bottom 3
- 22 Work tite hole 4
- 23 Circ. 1

DEPTH 06:00 - 1270 OPERATION: Drill
 OPNS Forecast Drill

Bottom Hole Assembly Bit. NBR. DC. IBS. DC. IBS. SS. 16-

Persons in Camp: 20 Natives: 5 165 DC XO DP

Weather Clear Temp -20

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-28 Days 14

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1332 Hrs on Btm 18 3/4 Progress 87 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 3 Depth Out in Wt on Bit 17 Condition Run

Size 222 Metres 92 RPM 85 Serial # FB 3831

Type F-2 Hours 20 1/2 Nozzles 3-9.5

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 9200 Strokes 57 L/min 1048 Ann Vel DC 60 DP 36

Surveys ° at 1318 ° at ° at
° at ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1120 Vis 45 PV 14 YP 2.5

WL 8 pH 10.0 Solids .066

Mud Added Gel 60 sax Caustic 3 sax Polysec 9 sax Polyquard 200 L.

BOP Tests & Drills: 84-02-25

General

Drill 1245 - 1269 Work on pump. Work tite hole.

Pull up brk circ. Drill to 1330 - Survey. Drill

ahead.

Background gas - 3 units.

Drill at 4.3 m/hr

DEPTH 06:00 - 1360 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit NBR, DC, IBS, DC, IBS, SS, 16-165 DC, XO DP.

Persons in Camp: 20 Natives: 5

Weather Overcast Calm Temp -16

Time Break Down

1 Rig Up or Down

2 Drilling 18 3/4

3 Reaming

4 Coring

5 Cond. Hole 1

6 Trip

7 Rig Ser & BOP 3/4

8 Repairs 1

9 Slip & Cut

10 Surveys 1

11 Logging

12 Run Csg & Cement

13 WOC

14 Nipple Up

15 Test BOP

16 DST

17 Plug Back

18 Squeeze Cement

19 Fishing

20 Dir. Work

21 Clean to Bottom

22 Work tite hole 2 1/2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-02-29 Days 15

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1422 Hrs on Btm 23 Progress 90 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 3 Depth Out Wt on Bit 17 Condition Run

Size 222 Metres 182 RPM 85 Serial # EB 3831
F 3 421 3 - 9 5 4 25 m/hr

Type F-2 Hours 454 Nozzles 3 = 9.9 4.25 in./in

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____
 Type _____ Hours _____ Minutes _____

Type _____ Hours _____ Nozzles _____ 22 26

Pump Rate	7500	Stroke/s	57	L/min	1026	App. Vel	DP 36 DC 58
-----------	------	----------	----	-------	------	----------	----------------

Pump Pres 7500 Strokes 37 L/min 1028 Ann Vel 66.33

Surveys 1/16 ° at 1414 _____ ° at _____ _____ ° at _____

_____° at _____° at _____° at _____

Last FLOT Depth: 505 EMD 1834
 Mst. Wt. 1155 M 45 SV 20 YR 10

Mud Wt.	<u>11.55</u>	Vis	<u>45</u>	PV	<u> </u>	YP	<u> </u>
WI	<u>9.0</u>	pH	<u>10</u>	Solids	<u> </u>		

WE _____ PH: _____ CON: _____

Mud Added Gel 52 sax Polyquard 200 L Caustic 3 sax Polysec 10 sax

BOP Tests & Drills: 84-02-27 Crews in position - 25 sec.

Kelly picked up hydril closed 40 sec.

General

Time Break Down

Drill 222 mm hole 1332 - 1422 hole, condition good. 1 Rig Up or Down 23

2	Drilling	25
3	Reaming	

4 Coring _____

5 Cond. Hole _____

6 Trip _____
7 Rig Ser & BOP 3/4

8 Repairs 3

9 Slip & Cut _____

_____	10 Surveys _____
_____	11 Logging _____

12 Run Csg & Cement _____

13 WOC _____

14 Nipple Up _____
15 Test BOP _____

16 DST _____

Drill at 1.2 m/hr. 17 Plug Back.

DEPTH: 06:00	1441	OPERATION: Drill	18 Squeeze Cement
			10 Fishing

DEPTH 06:00 =	1441	OPERATION:	DEPTH	19 Fishing
DEPTH 07:00 =	2133	OPERATION:	DEPTH	20 Bir. Work

OPNS Forecast Drill ahead

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC X0 DP

Persons in Camp: 20 Natives: 5

Weather Overcast Light snow Temp -22

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DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-01 Days 16

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1506 Hrs on Btm 21 3/4 Progress 84 Operation Drill

Last Casing Depth: 502 Size: 244

Bit No 3 Depth Out Wt on Bit 17 Condition Run

Size 222 Metres 266 RPM 85 Serial # EB 3831

Type F-2 Hours 65 1/2 Nozzles 3-9.5

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7500 Strokes 54 L/min 993 Ann Vel DP 34
DC 57

Surveys 1/16 ° at 1414 ° at ° at
° at ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1200 Vis 47 PV 16 YP 5

WL 9.0 pH 10 Solids .096

Mud Added Gel 46 sax, Polysec 7 sax, Caustic 4 sax, Polyquard 70 pails,

BOP Tests & Drills: 84-02-29 Crews in position - 30 sec. Kelly up
hydril closed - 80 sec.

General Time Break Down

Circ. for survey, survey. Drill 1422 - 1506

hole good condition. Work on pump

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC XO DP

Persons in Camp: 20 Natives: 5

Weather Clear Temp -20

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-02 Days 17

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1577 Hrs on Btm 21 Progress 71 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 3 Depth Out Wt on Bit 15 Condition P n

Size 222 Metres 337 RPM 88 Serial # Eb 3831

Type F-2 Hours 86 1/2 Nozzles 3-9.5

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7500 Strokes 54 L/min 993 Ann Vel DP 34
DC 57

Surveys 7/8 ° at 1518 7/8 ° at 1575 ° at

1 ° at 1544 ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1200 Vis 44 PV 17 YP 3

WL 8.4 pH 10 Solids .10

Mud Added Gel 62 sax Polysec 7 sax Caustic 3 sax Staflo 1 sax

Polyquard 10 pails WL-100 1 sax

BOP Tests & Drills: 84-03-01 Check pipe rams hydriil & lower Kelly cock.

General

Time Break Down

Drill Survey Drill

1 Rig Up or Down

2 Drilling 21

3 Reaming

4 Coring

5 Cond. Hole 3/4

6 Trip

7 Rig Ser & BOP 3/4

8 Repairs

9 Slip & Cut

10 Surveys 1 1/2

11 Logging

12 Run Csg & Cement

13 WOC

14 Nipple Up

15 Test BOP

16 DST

17 Plug Back

18 Squeeze Cement

19 Fishing

20 Dir. Work

21 Clean to Bottom

Drill at 3.2 m/hr.

DEPTH 06:00 - 1595 OPERATION: Drill

OPNS Forecast Drill possible trip

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC XO DP

Persons in Camp: 22 Natives: 5

Weather Overcast Temp -26

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-03 Days 18

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1629 Hrs on Btm 16 1/2 Progress 52 Operation RIH

Last Casing Depth: 500 Size: 244

Bit No 3 Depth Out 1629 Wt on Bit 15-18 Condition 2-4-I

Size 222 Metres 389 RPM 88 Serial # EB 3831

Type F-2 Hours 102 1/2 Nozzles 3-9.5

Bit No 4 Depth Out _____ Wt on Bit _____ Condition _____

Size 222 Metres RPM Serial # 98094

Type J-11 Hours Nozzles 3.10.3

Pump Pres 7500 Strokes 54 L/min 993 Ann Vel DC

DP	34
DC	57

Surveys 7/8 ° at 1603 _____ ° at _____ ° at _____

_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1180 Vis 43 PV 17 YP 4

WL 8.5 pH 10 Solids .10

Mud Added Gel 24 sax, Polyguard 20 pails, Polysec 2 sax,

Caustic 2 sax, Staflo 1 sax, WL-100 1 sax.

BOP Tests & Drills: 84-03-02

General

Time Break Down

Drill 1577 - 1603m. Circ. & Survey. Drill 1603 - 1 Rig Up or Down _____

1629. Drop survey, POH - hole tite 1050-1047

Check BHA. Close blind rams, check manifold check 4 Coring _____

hydril and pipe rams.	5	Cond. Hole	<u>12</u>
	6	Trip	<u>1</u>

RIH 7 Rig Ser & BOP 3/4

8 Repairs _____

9 Slip & Cut _____

10 Surveys 3

11 Logging _____

12. Roll Csg & Cement —
13. WOC

14 Nipple Up _____

15 Test BOP _____

Drill at 3.8 m/hr

18 Squeeze Cement _____

DEPTH 00.00 - 1039 OPERATION: 3111 19 Fishing _____
 20 Dir. Work _____

OPNS Forecast 07111

21 Clean to Bottom

22 CFC. sample 1a

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC XO DP

Persons in Camp: 24 Natives: 2

Weather Clear Temp -18

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-04 Days 19

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1698 Hrs on Btm 20 1/2 Progress 69 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 4 Depth Out in Wt on Bit 14 Condition Run

Size 222 Metres 69 RPM 88 Serial # 98094

Type J-11 Hours 20 1/2 Nozzles 3-10.3

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 7400 Strokes 54 L/min 1993 Ann Vel DP 34
DC 57

Surveys 1/16 ° at 1668 ° at _____ ° at _____
° at _____ ° at _____ ° at _____

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1185 Vis 44 PV 16 YP 4

WL 8.1 pH 10.0 Solids .11

Mud Added Gel 72 sax, Polyguard 10 pails, Staflo 1 sax, Polysec 10 sax,
Caustic 5 sax, WL-100 1 sax.

BOP Tests & Drills: 84-03-03

General

Time Break Down

<u>RIH Bit #4. Clean 9m loose fill to bottom. Drill</u>	1 Rig Up or Down _____
<u>1629-1680. Circ. & Survey. Drill 1668 - 1670. hole</u>	2 Drilling <u>20 1/2</u>
<u>s'oughing - work pipe and circulate. Drill 1670 - 1698.</u>	3 Reaming _____
_____	4 Coring _____
_____	5 Cond. Hole <u>3/4</u>
_____	6 Trip <u>1 1/2</u>
_____	7 Rig Ser & BOP <u>3/4</u>
_____	8 Repairs _____
_____	9 Slip & Cut _____
_____	10 Surveys <u>1</u>
_____	11 Logging _____
_____	12 Run Csg & Cement _____
_____	13 WOC _____
_____	14 Nipple Up _____
_____	15 Test BOP _____
_____	16 DST _____
<u>Drill at 3.3 m/hr.</u>	17 Plug Back _____
_____	18 Squeeze Cement _____
DEPTH 06:00 - <u>1717</u> OPERATION: <u>Drill</u>	19 Fishing _____
OPNS Forecast <u>Drill</u>	20 Dir. Work _____
_____	21 Clean to Bottom <u>1</u>

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16 - 165 DC XO DP.

Persons in Camp: 22 Natives: 2

Weather Clear Temp -18

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-05 Days 20

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1763 Hrs on Btm 21 3/4 Progress 65 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 4 Depth Out Wt on Bit 14 Condition Run

Size 222 Metres 134 RPM 85 Serial # 98094

Type J-11 Hours 42 1/2 Nozzles 3-10.3

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7500 Strokes 55 L/min 1012 Ann Vel DP 35
DC 58

Surveys 5/8 ° at 1716 ° at ° at
1/2 ° at 1745 ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1175 Vis 43 PV YP

WL 8.0 pH 10 Solids

Mud Added Gel 80 sax Polysec 11 sax Caustic 4 sax Staflo 1 sax
WL-100 1 sax

BOP Tests & Drills: 84-03-04

General

Time Break Down

<u>Drill 1698-1728 Circ. survey. Drill 1728 - 1757.</u>	1 Rig Up or Down <u> </u>
<u>Survey, Drill 1757 - 1763.</u>	2 Drilling <u>21 3/4</u>
<u>Check B.O.P.s</u>	3 Reaming <u> </u>
<u> </u>	4 Coring <u> </u>
<u> </u>	5 Cond. Hole <u>1/2</u>
<u> </u>	6 Trip <u> </u>
<u> </u>	7 Rig Ser & BOP <u>3/4</u>
<u> </u>	8 Repairs Flo Show <u>1/2</u>
<u> </u>	9 Slip & Cut <u> </u>
<u> </u>	10 Surveys <u>1/2</u>
<u> </u>	11 Logging <u> </u>
<u> </u>	12 Run Csg & Cement <u> </u>
<u> </u>	13 WOC <u> </u>
<u> </u>	14 Nipple Up <u> </u>
<u> </u>	15 Test BOP <u> </u>
<u> </u>	16 DST <u> </u>
<u>Drill at 4.0m/hr.</u>	17 Plug Back <u> </u>
<u> </u>	18 Squeeze Cement <u> </u>
<u>DEPTH 06:00 - 1782 OPERATION: Drill</u>	19 Fishing <u> </u>
<u>OPNS Forecast Drill</u>	20 Dir. Work <u> </u>
<u> </u>	21 Clean to Bottom <u> </u>

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC XO DP

Persons in Camp: 22 Natives: 1

Weather Clear Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-06 Days 21

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1836 Hrs on Btm 21 1/2 Progress 73 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 4 Depth Out Wt on Bit 15 Condition Run

Size 222 Metres 207 RPM 88 Serial # 98094

Type J-11 Hours 63 3/4 Nozzles 3 - 10.3

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7500 Strokes 55 L/min 1012 Ann Vel DP 35
DC 58

Surveys 1/16 ° at 1790 ° at ° at
° at ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1170 Vis 44 PV 26 YP 7

WL 10 pH 10 Solids .10

Mud Added Gel 92 sax Polysec 11 sax Caustic 5 sax Staflo 1 sax
WL-100 1 sax

BOP Tests & Drills: 84-03-05 Check B.O.P.

General

Time Break Down

Drill 1763 - 1812 Circ. Survey, Repair flow sho -

Drill 1812 - 1836, hole condition - good.

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC, X0, DP.

Persons in Camp: 21 Natives: 1

Weather Life snow Temp -18

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DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-07 Days 22

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1913 Hrs on Btm 22 1/2 Progress 77 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 4 Depth Out Wt on Bit 15 Condition Run

Size 222 Metres 284 RPM 88 Serial # 98094

Type J-11 Hours 36 1/2 Nozzles 3- 10.3 3.3 m/hr.

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 7500 Strokes 55 L/min 1012 Ann Vel DC

DP	35
DC	58

Surveys 1° at 1888 ° at ° at

_____° at _____° at _____° at _____

Last FLOT Depth: 505 EMD 1834

Mud Wt.	1185	Vis	46	PV	19	YP	5
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WL 9.0 pH 10 Solids .10

Mud Added Gel 42 sax Polysec 6 sax Caustic 3 sax Staflo 2 sax

WL-100 2 sax

BOF Tests & Drills: 84-03-06 Check B.O.P. hydril and pipe rams

General

Time Break Down

Drill 1836 - 1897 Circ. survey. _____ 1 Rig Up or Down _____

Drill 1897 - 1913	2	Drilling <u>223</u>
	3	Beamings

4 Coring _____

5 Cond. Hole 3

6 Trip _____ 2/4

7 Rig Ser & BOP 3/4

8 Repairs _____

9 Slip & Cut _____

10 Surveys 2

11 Logging _____

12 Run Csg & Cement _____

13. WOC _____
14. N/A _____14 Nipple Up _____
15 Test PG:R _____15 Test BDP _____
16 BGT _____

16 DSI _____
 17 Blue Book _____

Drill at 3.3 m/hr. _____

DEPTH 06:00 - 1931 OPERATION: Drill

DEPT. 00.00 = 1951 OPERATION: DEPT. 19 Fishing

OPNS Forecast Drill - possible Trip

21 Clean to bottom _____

Bit NRD DC IRS DC IRS SS 16 16E DC Y0 D0

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC, AV, DP.

Persons in Camp: 22 Natives: 2

W. 1. Clean Temp. -28

Weather clear Temp 50

PAJAK LAND & OFFSHORE LTD.

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-08 Days 23

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 1990 Hrs on Btm 23 Progress 77 Operation Drill

Last Casing Depth: 500 Size: 244

Bit No 4 Depth Out Wt on Bit 15 Condition Run

Size 222 Metres 361 RPM 88 Serial # 98094

Type J-11 Hours 109.1 Nozzles 3-10.3

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7800 Strokes 55 L/min 1012 Ann Vel DP 35 DC 50

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: 505 EMD 1834

Mud Wt. 1185 Vis 44 PV 17 YP 3.5

WL 8.5 pH 9.5 Solids .109

Mud Added Gel 37 sax Polyguard 10 pails Polysec 5 sax Caustic 2 sax
Staflor 1 sax WL-100 1 sax

BOP Tests & Drills: 84-03-07 Check pipe rams, and hydril

General

Time Break Down

Drill 1913 - 1990

1 Rig Up or Down

2 Drilling 23

3 Reaming

4 Coring

5 Cond. Hole

6 Trip

7 Rig Ser & BOP 3/4

8 Repairs

9 Slip & Cut

10 Surveys

11 Logging

12 Run Csg & Cement

13 WOC

14 Nipple Up

15 Test BOP

16 DST

17 Plug Back

18 Squeeze Cement

19 Fishing

20 Dir. Work

21 Clean to Bottom

22 Chg Kelly Cock

Drill at 3.3 m/hr

DEPTH 06:00 - 2006 OPERATION: Drill

OPNS Forecast Drill Trip

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, IBS, SS, 16-165 DC XO DP

Persons in Camp: 25 Natives: 2

Weather Clear Temp -15

PAJAK LAND & OFFSHORE LTD.

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-09 Days 24

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm. 19 Progress 60 Operation Circ. Cond.
 Last Casing Depth: 500 Size: 244 to Log
 Bit No 4 Depth Out 2050 Wt on Bit 15 Condition 2-4-I
 Size 222 Metres 421 RPM 88 Serial # 98094
 Type J-11 Hours 128 1/2 Nozzles 3-10.3 3.3 m/hr.

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
 Size _____ Metres _____ RPM _____ Serial # _____
 Type _____ Hours _____ Nozzles _____

Pump Pres 7700 Strokes 55 L/min 1012 Ann Vel DC 35
DP 58

Surveys 1 ° at 1989 _____ ° at _____
 _____ ° at _____ _____ ° at _____

Last FLOT Depth: 505 EMD 1834
 Mud Wt. 1195 Vis 52 PV 14 YP 3
 WL 7.5 pH 10 Solids .10

Mud Added Gel 84 sax Polyguard 10 pails Polysec 9 sax Staflo 2 sax
WL-100 2 sax Caustic 2 sax Kelzan 1 sax

BOP Tests & Drills: 84-03-08 - Pit Drill. Call alert. Kelly up flow check 50 sec.
Crew in position Hydril closed 90 sec.

General Time Break Down

<u>Drill 1990-2001 Circ. Survey. 2001-2025 Circ. sample</u>	1	Rig Up or Down _____
<u>Drill 2025-2041 Circ. sample. Drill 2041-2045 Circ.</u>	2	Drilling <u>19</u>
<u>sample. Drill 2045 to 2050. Circ. & cond. hole. Lost</u>	3	Reaming _____
<u>3 m³ mud to formation at 2015-2025 m. Check hydril, pipe</u>	4	Coring _____
<u>rams, motor shut offs for COGLA.</u>	5	Cond. Hole <u>1</u>
	6	Trip _____
	7	Rig Ser & BOP <u>1</u>
	8	Repairs _____
	9	Slip & Cut _____
	10	Surveys <u>1</u>
<u>Background gas - 1990 - 2015, 2 to 10 units. 2015 -</u>	11	Logging _____
<u>2025, 10-60 units possible fractures 2025 - 2050 -</u>	12	Run Csg & Cement _____
<u>1-10 units.</u>	13	WOC _____
	14	Nipple Up _____
	15	Test BOP _____
	16	DST _____
	17	Plug Back _____
	18	Squeeze Cement _____
<u>DEPTH 06:00 - 2050 OPERATION: POH-SLM</u>	19	Fishing _____
<u>OPNS Forecast: Condition hole - Run logs</u>	20	Dir. Work _____
	21	Clean to Bottom _____
	22	Circ. sample <u>3 3/4</u>

Bottom Hole Assembly Bit, NBR, DC, IBS, DC, SS, IBS, 16-165 DC, 6HW

Persons in Camp: 26 Natives: 2

Weather Clear Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-10 Days 25

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm --- Progress --- Operation Circ. Cond.
 Last Casing Depth: 500 Size: 244 hole.
 Bit No (1 RR) Depth Out --- Wt on Bit --- Condition ---
 Size 222 Metres --- RPM --- Serial # EB8906
 Type FDT Hours --- Nozzles ---

Bit No --- Depth Out --- Wt on Bit --- Condition ---
 Size --- Metres --- RPM --- Serial # ---
 Type --- Hours --- Nozzles ---

Pump Pres 6000 Strokes 60 L/min 1104 Ann Vel DC DP 36.9
 58.9

Surveys 1 ° at 2049 ° at --- ° at ---
 ° at --- ° at --- ° at ---

Last FLOT Depth: 505 EMD 1834
 Mud Wt. 1190 Vis 66 PV --- 'P ---
 WL 7.2 pH 9 Solids ---

Mud Added Gel 36 sax, Polyguard 20 pails, Staflo 1 sax, WL-100 1 sax,
Kelzan 2 sax Caustic 2 sax

BOP Tests & Drills: 84-03-09 hydril and pipe rams.

General

Circ. bottom hole sample - Condition mud and hole.
Drop survey, flow check - POH SLM. RIH Break circ. at
1600m. RIH. 7m fill on bottom. Circ. & Cond. Attempt
wiper trip. Hole tite 2050-2025 work pipe - circ. 10
std. dummy trip. hole bridged off 2026 - 2050. Circ.
raise visv. SLM 2048.87 - Tally 2050.00 - 1.13m diff
(Windy no correction)
Schlumberger depth 2030.2

Time Break Down

- 1 Rig Up or Down ---
- 2 Drilling ---
- 3 Reaming ---
- 4 Coring ---
- 5 Cond. Hole 11½
- 6 Trip 9½
- 7 Rig Ser & BOP ---
- 8 Repairs ---
- 9 Slip & Cut ---
- 10 Surveys 2
- 11 Logging ---
- 12 Run Csg & Cement ---
- 13 WOC ---
- 14 Nipple Up ---
- 15 Test BOP ---
- 16 DST ---
- 17 Plug Back ---
- 18 Squeeze Cement ---
- 19 Fishing ---
- 20 Dir. Work ---
- 21 Clean to Bottom 1½
- 22 Flow check 1
- 23 Circ. samples 1½

DEPTH 06:00 - 2050 OPERATION: POH to log
 OPNS Forecast Log RIH Condition hole for casing.

Bottom Hole Assembly ---

Persons in Camp: 27 Natives: 3

Weather Overcast Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-11 Days 26

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm --- Progress --- Operation Circ. to lay
 Last Casing Depth: 500 Size: 244 down drill pipe.
 Bit No (1 RR) Depth Out --- Wt on Bit --- Condition ---
 Size 22' Metres --- RPM --- Serial # EB8906
 Type FDT Hours --- Nozzles ---

Bit No --- Depth Out --- Wt on Bit --- Condition ---
 Size --- Metres --- RPM --- Serial # ---
 Type --- Hours --- Nozzles ---

Pump Pres 6000 Strokes 60 L/min 1104 Ann Vel DP 36
DC 58

Surveys --- ° at --- ° at --- ° at ---
--- ° at --- ° at --- ° at ---

Last FLOT Depth: 505 EMD 1834
 Mud Wt. 1190 Vis 62 PV --- YP ---
 WL 7.2 pH 10 Solids ---

Mud Added Polyguard 10 pails.

BOP Tests & Drills: 84-03-10

General

Time Break Down

<u>Circ. condition mud and hole. POH to log. Rig up</u>	1	Rig Up or Down <u>---</u>
<u>Schlumberger. DILL GR SP 2030 - 500m CNL-FDC GRC 2028-500m</u>	2	Drilling <u>---</u>
<u>Teat out Schlumberger - Pull wear bushing lay down BHA</u>	3	Reaming <u>---</u>
<u>RiH. Clean 21m fill to bottom. Circ. and condition hole.</u>	4	Coring <u>---</u>
	5	Cond. Hole <u>2 1/2</u>
	6	Trip <u>9 1/2</u>
	7	Rig Ser & BOP <u>---</u>
	8	Repairs <u>---</u>
	9	Slip & Cut <u>---</u>
	10	Surveys <u>---</u>
	11	Logging <u>11 1/2</u>
	12	Run Csg & Cement <u>---</u>
	13	WOC <u>---</u>
	14	Nipple Up <u>---</u>
	15	Test BOP <u>---</u>
	16	DST <u>---</u>
	17	Plug Back <u>---</u>
	18	Squeeze Cement <u>---</u>
<u>DEPTH 06:00 - 2050 OPERATION: LDDP</u>	19	Fishing <u>---</u>
<u>CENS Forecast: Lay down drill pipe run 178mm casing.</u>	20	Dir. Work <u>---</u>
	21	Clean to Bottom <u>1</u>

Bottom Hole Assembly Bit, BS, 18-165mm DC XO DP

Persons in Camp: 26 Natives: 3

Weather Clear Temp -15

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-12 Days 27

Supervisor Franchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm --- Progress --- Operation Run Casing.

Last Casing Depth: 500 Size: 244

Bit No _____	Depth Out _____	Wt on Bit _____	Condition _____
Size _____	Metres _____	RPM _____	Serial # _____
Type _____	Hours _____	Nozzles _____	

Bit No _____	Depth Out _____	Wt on Bit _____	Condition _____
Size _____	Metres _____	RPM _____	Serial # _____
Type _____	Hours _____	Nozzles _____	

Pump Pres 2000 Strokes 45 L/min 810 Ann Vel _____

Surveys _____ ° at _____ ° at _____ ° at _____
 _____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 505 EMD 1834
 Mud Wt. _____ Vis _____ PV _____ YP _____
 WL _____ pH _____ Solids _____

Mud Added Peltex 5 sax.

BOP Tests & Drills: 84-03-11

General

Circ. & Cond. POH to 1600m. Lay down DP & DC break
kelly. Change rams. Rig up run casing. Hole bridged
off at 2025.

Circ. casing to bottom

DEPTH 06:00 - 2050 OPERATION: Prepare to cement

OPNS Forecast Cement casing - set slips.

Time Break Down

- 1 Rig Up or Down _____
- 2 Drilling _____
- 3 Reaming _____
- 4 Coring _____
- 5 Cond. Hole 2 3/4
- 6 Trip 1 1/2
- 7 Rig Ser & BOP _____
- 8 Repairs _____
- 9 Slip & Cut _____
- 10 Surveys _____
- 11 Logging _____
- 12 Run Csg & Cement 11 3/4
- 13 WOC _____
- 14 Nipple Up _____
- 15 Test BOP _____
- 16 DST _____
- 17 Plug Back _____
- 18 Squeeze Cement _____
- 19 Fishing _____
- 20 Dir. Work _____
- 21 Clean to Bottom _____
- 22 LDDP & DC 8 1/2

Bottom Hole Assembly _____

Persons in Camp: 25 Natives: 3

Weather Clear Calm Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-13 Days 28Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm --- Progress --- Operation Change heads & liners
 Last Casing Depth: 2050 Size: 178
 Bit No --- Depth Out --- Wt on Bit --- Condition ---
 Size --- Metres --- RPM --- Serial # ---
 Type --- Hours --- Nozzles ---

Bit No --- Depth Out --- Wt on Bit --- Condition ---
 Size --- Metres --- RPM --- Serial # ---
 Type --- Hours --- Nozzles ---

Pump Pres --- Strokes --- L/min --- Ann Vel ---

Surveys --- ° at --- ° at --- ° at ---
--- ° at --- ° at --- ° at ---

Last FLOT Depth: 505 EMD 1834
 Mud Wt. --- Vis --- PV --- YP ---
 WL --- pH --- Solids ---

Mud Added Gel 20 sax Sapp 1 sax Defoamer 1 pail

BOP Tests & Drills:

General

Time Break Down

Circ. 24m fill to bottom, 2026-2050. Ran 71 jts. 178mm 1 Rig Up or Down ---
 34.22 kg/m K-55 LT&C length 884.62 plus 92 jts. 178mm 2 Drilling ---
 29.76 kg/m K-55 ST&C length 1165.82 Total length 2050.44 3 Reaming ---
 Landed at 2049.44 K.B. 1st Stage-Cement with 1.6m³ 4 Coring ---
 Sapp wash, followed with 55 tonnes (57m³) 0-1-4 Class "G" 5 Cond. Hole ---
 plus .75% CFR-2 + .20% HR-4, Slurry wt 1665 kg/m³. 6 Trip ---
 Displace with 1.7m³. Drill mud. plug down at 0915 - 7 Rig Ser & BGP ---
 84-03-12 - 10.00 kPa bump press. Float held. Full 8 Repairs ---
 returns. (Drop bomb open DV Tool. Circ. prior to 9 Slip & Cut ---
 Stage #2. Depth DV Tool 699.66m Stage #2. cement 10 Surveys ---
 with 1.6m³ H₂O followed with 17 tonnes (17.85m³) 0-1-6 11 Logging ---
 Class "G" 1595 kg/m³ - (Continued on page 2) 12 Run Csg & Cement ---
 13 WOC ---
 14 Nipple Up ---
 15 Test BOP ---
 16 DST ---
 17 Plug Back ---
 18 Squeeze Cement ---
 19 Fishing ---
 20 Dir. Work ---
 21 Clean to Bottom ---

DEPTH 06:00 - OPERATION: ---
 OPNS Forecast ---

Bottom Hole Assembly ---Persons in Camp: --- Natives: ---Weather --- Temp ---

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-13 Days 28Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs _____ Hrs on Btm _____ Progress _____ Operation _____

Last Casing Depth: _____ Size: _____

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres _____ Strokes _____ L/min _____ Ann Vel _____

Surveys _____ ° at _____ ° at _____ ° at _____

_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: _____ EMD _____

Mud Wt. _____ Vis _____ PV _____ YP _____

WL _____ pH _____ Solids _____

Mud Added _____

BOP Tests & Drills:

General

displaced with 14.76m³ Drilling mud. Plug down at
 1500 hrs. - 84-03-12 with 14,000 kPa - set slips, pick
 up B.O.P. Cut casing. Install bit guide. Nipple
 up. Change rams to 89mm Change heads and liners in
 pump.

Time Break Down

- 1 Rig Up or Down _____
- 2 Drilling _____
- 3 Reaming _____
- 4 Coring _____
- 5 Cond. Hole 9½
- 6 Trip _____
- 7 Rig Ser & BOP ½
- 8 Repairs _____
- 9 Slip & Cut _____
- 10 Surveys _____
- 11 Logging _____
- 12 Run Csg & Cement 3
- 13 WOC _____
- 14 Nipple Up 7½
- 15 Test BOP _____
- 16 DST _____
- 17 Plug Back _____
- 18 Squeeze Cement _____
- 19 Fishing _____
- 20 Dir. Work _____
- 21 Clean to Bottom 2½
- 22 Chg. heads & liners _____

DEPTH 06:00 - 2050 OPERATION: Pick up 89mmDrill pipe.

OPNS Forecast: Pick up Drill string - drill out DV Tool &
 cement & Float - Press. test.

Bottom Hole Assembly Bit, Down hole B.O.P. 18-121mm DCPersons in Camp: 27 Natives: 3Weather Clear Calm Temp -20

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-14 Days 29

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2050 Hrs on Btm -- Progress -- Operation Pick up
Last Casing Depth: 2050 Size: 178 89mm D.P.

Bit No 5 Depth Out --- Wt on Bit 5-8 Condition inc.
Size 155 Metres --- RPM 48 Serial # C39094
Type Y21R Hours 8½ Nozzles DWC Drill cement &
DV collar.

Bit No --- Depth Out --- Wt on Bit --- Condition ---
Size --- Metres --- RPM --- Serial # ---
Type --- Hours --- Nozzles ---

Pump Pres 3900 Strokes 46 L/min 676 Ann Vel DP 50

Surveys --- ° at --- ° at --- ° at ---
--- ° at --- ° at --- ° at ---

Last FLOT Depth: 505 EMD 1834
Mud Wt. 1180 Vis 40 PV --- YP ---
WL 7.5 pH 9.0 Solids ---

Mud Added (Premix Gel 67 sax Caustic 2 sax)
Bicarb 3 sax

BOP Tests & Drills: 84-03-13 test blind rams, choke manifold 1500 kPa
& 10,500 kPa - OK.

General

Time Break Down

<u>Change liners 140 m to 127 m in both pumps. P.U. BHA</u>	1	Rig Up or Down <u>---</u>
<u>Change Kelly. Measure drill pipe, work on D.P.</u>	2	Drilling <u>Cmt & DV Tool 8½</u>
<u>elevators. P.U. 89mm D.P. Break circ. at 690. Drill</u>	3	Reaming <u>---</u>
<u>out cement & DV collar. P.U. 89mm DC.</u>	4	Coring <u>---</u>
<u>---</u>	5	Cond. Hole <u>---</u>
<u>---</u>	6	Trip <u>---</u>
<u>---</u>	7	Rig Ser & BOP <u>3/4</u>
<u>---</u>	8	Repairs <u>1 3/4</u>
<u>---</u>	9	Slip & Cut <u>---</u>
<u>---</u>	10	Surveys <u>---</u>
<u>---</u>	11	Logging <u>---</u>
<u>---</u>	12	Run Csg & Cement <u>---</u>
<u>---</u>	13	WOC <u>---</u>
<u>---</u>	14	Nipple Up <u>---</u>
<u>---</u>	15	Test BOP <u>½</u>
<u>---</u>	16	DST <u>---</u>
<u>---</u>	17	Plug Back <u>---</u>
<u>---</u>	18	Squeeze Cement <u>---</u>
<u>---</u>	19	Fishing <u>---</u>
<u>---</u>	20	Dir. Work <u>---</u>
<u>---</u>	21	Clean to Bottom <u>---</u>
<u>---</u>	22	Chg. Hds. & liners <u>1½</u>
<u>---</u>	23	Chg. to 3½" Equip. <u>7</u>
<u>---</u>	24	Measure D.P. <u>---</u>
<u>---</u>	25	P.U. D.P. <u>3½</u>

DEPTH 06:00 - 2050 OPERATION: Prepare to drill
out.

OPNS Forecast: Drill float cement & shoe. Run FLOT
Drill

Bottom Hole Assembly Bit. Down hole B.O.P. 18-12i DC

Persons in Camp: 26 Natives: 3

Weather Clear Temp -32

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-15 Days 30

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2051 Hrs on Btm 1 Progress 1 Operation Trip for Bit
 Last Casing Depth: 2050 Size: 178
 Bit No 5 Depth Out 2051 Wt on Bit 4-10 Condition 6-8-I
 Size 155 Metres 1 RPM 48 Serial # C3 9094
 Type Y21R Hours 1 Nozzles DWC Drill DV Float
 & shoe.

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
 Size _____ Metres _____ RPM _____ Serial # _____
 Type _____ Hours _____ Nozzles _____

Pump Pres 4000 Strokes 45 L/min 676 Ann Vel DP 50
DC 82

Surveys _____ ° at _____ ° at _____ ° at _____
 _____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600
 Mud Wt. 1180 Vis 40 PV _____ YP _____
 WL 7 pH 9 Solids _____

Mud Added Bicarb 3 sax Gel 22 sax Caustic 1 sax

BOP Tests & Drills: 84-03-15

General

Time Break Down

P.U. 89mm D.P. Tag float at 2036 m. Rig down pipe
lay down machine, displace casing to lite mud. Press
hydril, HCR, kill line to 1,500 kPa & 10,500 kPa. Drill
float & 5 m cement. Install valve on drilling spool.
Test pipe rams, lower Kelly cock & stabbing valve - and
shoe jt. Low 1,500 kPa & 10,000 kPa. Drill out cement,
shoe & 1 meter. Rig up & run leak off with Howco.
Blow Kelly, trip to change bit.

1 Rig Up or Down _____
 2 Drilling 1
 3 Reaming _____
 4 Coring _____
 5 Cond. Hole _____
 6 Trip 4 1/2
 7 Rig Ser & BOP 1
 8 Repairs _____
 9 Slip & Cut _____
 10 Surveys _____
 11 Logging _____
 12 Run Csg & Cement _____
 13 WOC _____
 14 Nipple Up _____
 15 Test BOP 3 1/2
 16 DST _____
 17 Plug Back _____
 18 Squeeze Cement _____
 19 Fishing _____
 20 Dir. Work _____
 21 Clean to Bottom _____
 22 Rig out pipe equip. 3/4
 23 Displace mud 2 1/2
 24 P.U. 89mm DP 5 1/2
 25 Drill out 5 1/2
 26 FLOT 1 1/2

DEPTH 06:00 - 2050 OPERATION: Circ. & displace
OPNS Forecast: Drill to new mud.

Bottom Hole Assembly Bit, Down hole B.O.P. 21-121mm DC. DP

Persons in Camp: 23 Natives: 3

Weather Clear Temp -30

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-16 Days 31

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2082 Hrs on Btm 13½ Progress 31 Operation Circ. sample

Last Casing Depth: 2050 Size: 178

Bit No 6 Depth Out Wt on Bit 8-10 Condition Run

Size 155 Metres 31 RPM 55 Serial # Y29864

Type HPSM Hours 13½ Nozzles 3-12.7

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 6100 Strokes 45 L/min 676 Ann Vel DC 52 DP 89

Surveys 1 ° at 2049 ° at ° at
° at ° at ° at

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1055 Vis 47 PV 16 YP 3.5

WL 12.4 pH 10 Solids .03

Mud Added Gel 21 sax Caustic 2 sax Polysec 3 sax

BOP Tests & Drills: 84-03-15 Check hydril and pipe rams.

General

Time Break Down

P.U. 3 D.C. dump and clean tanks, repair motor floor. 1 Rig Up or Down

RIH displace hole to premix mud. Drill 2051 - 2081 2 Drilling 13½

Circ. sample. Drill 2081 - 2082.5 Circ. sample. 3 Reaming

 4 Coring

 5 Cond. Hole

 6 Trip 3½

 7 Rig Ser & BOP 3/4

 8 Repairs 1½

 9 Slip & Cut

 10 Surveys

 11 Logging

 12 Run Csg & Cement

 13 WOC

 14 Nipple Up

 15 Test BOP

 16 DST

 17 Plug Back

 18 Squeeze Cement

 19 Fishing

 20 Dir. Work

 21 Clean to Bottom

 22 Clean tanks 1½

 23 Displ hole 1½

 24 Cut samples 2½

Bottom Hole Assembly Bit, down hole B.O.P. 21-121mm DC

Persons in Camp: 23 Natives: 3

Weather Clear Temp -25

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-17 Days 32

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2119 Hrs on Btm 16 Progress 37 Operation Circ. & monitor gas raise Md
Last Casing Depth: 2050 Size: 178 wt.

Bit No 6 Depth Out 2119 Wt on Bit 8-10 Condition Run
Size 155 Metres 68 RPM 58 Serial # Y29864
Type HPSM Hours 29 1/2 Nozzles 3-12.7

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
Size _____ Metres _____ RPM _____ Serial # _____
Type _____ Hours _____ Nozzles _____

Pump Pres 6400 Strokes 45 L/min 676 Ann Vel DC 89.89 DP 52.24

Surveys _____ ° at _____ ° at _____ ° at _____
_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600
Mud Wt. 1105 Vis 57 PV 25 YP 5
WL 7.8 pH 10.5 Solids .063

Mud Added Gel 50 sax Peltex 5 sax Kelzan 1 sax WL-100 2 sax
Staflor 2 sax Barite 130 sax Caustic 4 sax

BOP Tests & Drills: 84-03-16 - Check hydril & pipe rams on rig serv.

General

Time Break Down

Circ. & monitor gas at 2082.5. Drill 5 m flow check 1 Rig Up or Down _____
no flow, drill to 2103, flow check, flow 12 liters per 2 Drilling 16
minute, drill to 2111, flow check, well flowing 40-50 3 Reaming _____
liters per minute, drill 2119 with pump strokes & 4 Coring _____
pressure increases. Circ. to cond. Raise vis. 5 Cond. Hole 5 3/4
to 57 mud wt to 1110. Circ. bottoms up monitor gas. 6 Trip _____
7 Rig Ser & BOP 2
8 Repairs _____
9 Slip & Cut _____
10 Surveys _____
11 Logging _____
12 Run Csg & Cement _____
13 WOC _____
14 Nipple Up _____
15 Test BOP _____
16 DST _____
17 Plug Back _____
18 Squeeze Cement _____
19 Fishing _____
20 Dir. Work _____
21 Clean to Bottom _____
22 Circ. & Cond. 3/4 mud & monitor gas

DEPTH 06:00 - 2119 OPERATION: Circ.

OPNS Forecast Trip out, run DST #1

Bottom Hole Assembly Bit, down hole BOP 21-121mm DC

Persons in Camp: 24 Natives: 3

Weather Overcast

Temp -18

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-18 Days 33

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2110 Hrs on Btm -- Progress -- Operation Attempt to recover survey out of D.C.
 Last Casing Depth: 2050 Size: 178
 Bit No 6 Depth Out 2119 Wt on Bit 8-10 Condition 2-4-1
 Size 155.6 Metres 68 RPM 58 Serial # Y29864
 Type HPSM Hours 29 1/2 Nozzles 3-12.7

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
 Size _____ Metres _____ RPM _____ Serial # _____
 Type _____ Hours _____ Nozzles _____

Pump Pres 6400 Strokes 45 L/min 676 Ann Vel DP 52.24
DC 89.89

Surveys Misrun at 2119 ° at _____ ° at _____
 ° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600
 Mud Wt. 1140 Vis 52 PV 28 YP 6
 WL 10 pH 10.5 Solids .072

Mud Added Barite 50 sax

BOP Tests & Drills: 84-03-17 - check hydril on rig service.

General

Time Break Down

Circ., dummy trip 10 stds, wait 1 hr. & run in. Circ. 1 Rig Up or Down _____
check for gas. Nil. Circ. & mix barite, dummy trip 2 Drilling _____
10 stds, no gas. Circ. & drop survey, hoist for DST #1 3 Reaming _____
P.U. test tools & make up same. Recover survey barrel 4 Coring _____
from drill collars 57 m off bottom. 5 Cond. Mud 11 1/2
 6 Trip 4
 7 Rig Ser & BOP 1
 8 Repairs _____
 9 Slip & Cut _____
 10 Surveys 1
 11 Logging _____
 12 Run Csg & Cement _____
 13 WOC _____
 14 Nipple Up _____
 15 Test BOP _____
 16 DST _____
 17 Plug Back _____
 18 Squeeze Cement _____
 19 Fishing _____
 20 Dir. Work _____
 21 Clean to Bottom _____
 22 Flow check 1 1/2

DEPTH 06:00 - 2119 OPERATION: Testing

OPNS Forecast Complete DST #1

Bottom Hole Assembly Bit, down hole BOP 21-121mm DC

Persons in Camp: 28 Natives: 3

Weather Clear

23 Recover Survey 1
 24 Handle test tools 3
 25 Dummy Trip 2 1/2

Temp -15

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-19 Days 34

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2123 Hrs on Btm 3 Progress 4 Operation Drill

Last Casing Depth: 2050 Size: 178

Bit No 7 Depth Out _____ Wt on Bit 10 Condition Run

Size 155 Metres 4 RPM 60 Serial # CN3995

Type F-3 Hours 3 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 7500 Strokes 45 L/min 676 Ann Vel DC 90

Surveys Misrun ° at 2119 ° at ° at

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1120 Vis 50 PV YP

WL 8.5 pH 10.5 Solids

Mud Added _____

BOP Tests & Drills: 84-03-18 - Check pipe rams.

General

Time Break Down

Rec. survey barrel stuck in D.C. RIH with DST. Head 1 Rig Up or Down _____

up safety meeting Test with Quinn testers interval 2 Drilling 3

up safety meeting. Test with Quinn testers - Interval 3 Reaming _____

2070 - 2087 - 17m Slave Point POH DST #1 Break down 4 Coring _____

tools & load out	BIH with bit & Drill	SIM 2119-80	5	Cond. Hole	
			2	Time	9:

6	Trip	92
7	Big Saw	8000

7	Rig Ser & BOP	2119.78	no corrections.
8	Repairs		

8 Repairs _____

9 Slip & Cut _____

10 Surveys

11 Logging _____

12 Run Cr ent

Background gas - 6 units. Connection gas - 107 units. 13 WOC

14 Nip

15 Test

16 DST

Drill at 1 hr. 17 Plug B.

DEPTH 06:00 - 2134 OPERATION: Drill 18 Squeeze
19 Fishing

DEPT 17	00:00	213	OPERATION:	STAFF	19	Fishing
0000	5	0:33			20	Dir Work

OPNS Forecast Drill

22 Rec. Survey bbl.

Bottom Hole Assembly Bit DH BOP 21-121mm DC DP

Bottom Hole Assembly 516, 01 001 11 111111 00 01

Persons in Camp: 24 Natives: 3

Weather Overcast Temp -8

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-20 Days 35

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2172 Hrs on Btm 23 Progress 49 Operation Drill

Last Casing Depth: 2050 Size: 178

Bit No 7 Depth Out Wt on Bit 11 Condition Run

Size 155 Metres 53 RPM 65 Serial # CN3995

Type F-3 Hours 26 Nozzles Open

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 7500 Strokes 45 L/min 676 Ann Vel DP 52
DC 89

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1140 Vis 63 PV 21 YP 4

WL 8.5 pH 11 Solids .063

Mud Added Gel 11 sax Barite 70 sax Caustic 3 sax Staflo 1 sax
WL-100 1 sax

BOP Tests & Drills: 84-03-19 - Check hydril, pipe rams.

General

Time Break Down

Drill 2123-2172 - Well flowed on flow check - increase
m. wt to 1140. Some gas cutting.

- 1 Rig Up or Down
- 2 Drilling 23
- 3 Reaming
- 4 Coring
- 5 Cond. Hole
- 6 Trip
- 7 Rig Ser & BOP 3/4
- 8 Repairs
- 9 Slip & Cut
- 10 Surveys
- 11 Logging
- 12 Run Csg & Cement
- 13 WOC
- 14 Nipple Up
- 15 Test BOP
- 16 DST
- 17 Plug Back
- 18 Squeeze Cement
- 19 Fishing
- 20 Dir. Work
- 21 Clean to Bottom
- 22 Flow check

Background gas 90 units. Connection gas 370 units.

Drill at 2.5 m/hr.

DEPTH 06:00 - 2187 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit, DH BOP, 21-121 DC DP

Persons in Camp: 24 Natives: 4

Weather Clear Temp -15

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-21 Days 36

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2224 Hrs on Btm 224 Progress 52 Operation Drill

Last Casing Depth: 2050 Size: 178

Bit No 7 Depth Out _____ Wt on Bit 13 Condition Run

Size 155 Metres 105 RPM 65 Serial # CN3995

Type F-3 Hours 48 1/2 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

DP 46

Pump Pres: 6600 Strokes 40 L/min 584 Ann Vel DC 79

1000

Surveys 3/4 ° at 2200 ° at ° at

_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth:	2051	FMD	1600
------------------	------	-----	------

East Test Depth:	1150	Vis	60	PV	47	YP	6
------------------	------	-----	----	----	----	----	---

WL 8.2 pH 11.5 Solids .09

[illegible]

Mud Added Barite 35 sax Gel 20 sax Staflo 1 sax WL-100 1 sax

Caustic 4 sax Ironite sponge 10 sax (200 kg) Mica-Med. 5 sax

BOP Tests & Drills: 84-03-20 - Kelly up hvdril closed 1 min. 40 sec.

Time Break Down

General	Time Break Down
---------	-----------------

Drill 2172-2212 Survey. Drill 2212-2224 on survey 1 Rig Up or Down _____

mud dropped in annulus - loss .5 to 1m³

3	Rearning
4	Coring

5 Cond. Hole _____

6 Trip _____

7

Rig Ser & BOP 3/4

8 Repairs _____
9 Slip & Cut _____

9	Ship & Est	1
10	Surveys	1

10	Service	_____	_____
11	Logging	_____	_____

Background gas - 50 units. Connection gas - 320 units. 12 Run Csg & Cement

_____ 13 WOC _____

14 Nipple Up _____
15 Test 303 _____15 TEST BOP _____
16 DST _____

17 Plus Back _____

Drill at 2.4 m/hr. _____ 18 Squeeze Cement _____

DEPTH 06:00 - 2238 OPERATION: Drill 19 Fishing

OPNS Forecast Drill 20 Dir. Work _____

21	Clean to Bottom	
22	Flow check	2

Ref: BU BOD 21 131 DC DB

Bottom Hole Assembly Bit, BH BUP 21-121 DC SP

Persons in Camp: 24 Natives: 4

Weather Clear Temp -10

2.2.1.2. Sampling

PAJAK LAND & OFFSHORE LTD.

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-22 Days 37

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2263 Hrs on Btm 20 1/2 Progress 39 Operation Inc. mud w.
Last Casing Depth: 2050 Size: 178 for trip.

Bit No 7 Depth Out 2263 Wt on Bit 11 Condition Inc.
Size 155 Metres 144 RPM 65 Serial # CN3995
Type F-3 Hours 68 3/4 Nozzles Open

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____
Size _____ Metres _____ RPM _____ Serial # _____
Type _____ Hours _____ Nozzles _____

Pump Pres 6700 Strokes 40 L/min 584 Ann Vel DP 46
DC 79

Surveys 1 ° at 2263 ° at _____ ° at _____
° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600
Mud Wt. 1150 Vis 66 PV 37 YP 9.5
WL 8.5 pH 11 Solids .10

Mud Added Gel 36 sax Caustic 2 sax Earite 35 sax Med Mica 5 sax
Sawdust 5 sax.

BOP Tests & Drills: 84-03-21 - Check hydril and pipe rams on rig service.

General

Time Break Down

<u>Drill 2224-2263 m Flow Check. Circ. bottoms up</u>	1 Rig Up or Down _____
<u>360 units gas. Raise mud wt for trip - lost approx.</u>	2 Drilling <u>20 1/2</u>
<u>1m³ to formation. Raise mud wt from 1150 to 1165.</u>	3 Reaming _____
<u>add lost circ. material.</u>	4 Coring _____
_____	5 Cond. Hole <u>2</u>
_____	6 Trip _____
_____	7 Rig Ser & BOP <u>3/4</u>
_____	8 Repairs _____
_____	9 Slip & Cut _____
_____	10 Surveys _____
_____	11 Logging _____
<u>Background gas 32 units prior to trip.</u>	12 Run Csg & Cement _____
_____	13 WOC _____
_____	14 Nipple Up _____
_____	15 Test BOP _____
_____	16 DST _____
_____	17 Plug Back _____
_____	18 Squeeze Cement _____
DEPTH 06:00 - <u>2263</u> OPERATION: <u>RIH to Drill</u>	19 Fishing _____
OPNS Forecast: <u>Drill</u>	20 Dir. Work _____
_____	21 Clean to Bottom _____
_____	22 Circ. sample <u>1</u>

Bottom Hole Assembly Bit, DH BOP
Persons in Camp: 22 Natives: 1
Weather Clear Temp -5

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-23 Days 38

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2277 Hrs on Btm 13 Progress 14 Operation Drill

Last Casing Depth: 2050 Size: 178

Bit No 7 Depth Out 2263 Wt on Bit 11 Condition 2-7-1

Size 155 Metres 144 RPM 65 Serial # CN3995

Type F-3 Hours 68 3/4 Nozzles Open

Bit No 8 Depth Out Wt on Bit 10 Condition Run

Size 155 Metres 14 RPM 75 Serial # Y26500

Type HPSM Hours 13 Nozzles Open

Pump Pres 6700 Strokes 40 L/min 584 Ann Vel DP 46
DC 79

Surveys 1 ° at 2263 ° at ° at
° at ° at ° at

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1160 Vis 65 PV 30 YP 7

WL 8.5 pH 11.5 Solids .09

Mud Added Gel 12 sax Caustic 1 sax Mica 5 sax Barite 20 sax
Sawdust 5 sax

BOP Tests & Drills: 84-03-22 - Check hydril, pipe rams and blind rams.

General

Time Break Down

<u>POH - change bits, RIH. Slip and cut drilling line.</u>	1 Rig Up or Down <u> </u>
<u>clean 2265 - 2263. Drill 2263-2277.</u>	2 Drilling <u>13</u>
<u> </u>	3 Reaming <u> </u>
<u> </u>	4 Coring <u> </u>
<u> </u>	5 Cond. Hole <u>2 1/2</u>
<u> </u>	6 Trip <u>6 1/2</u>
<u> </u>	7 Rig Ser & BOP <u>3</u>
<u> </u>	8 Repairs <u> </u>
<u> </u>	9 Slip & Cut <u>1</u>
<u> </u>	10 Surveys <u> </u>
<u> </u>	11 Logging <u> </u>
<u>Background gas 10 units.</u>	12 Run Csg & Cement <u> </u>
<u> </u>	13 WOC <u> </u>
<u> </u>	14 Nipple Up <u> </u>
<u> </u>	15 Test BOP <u> </u>
<u> </u>	16 DST <u> </u>
<u>Drill at 1.5 m/hr.</u>	17 Plug Back <u> </u>
<u>DEPTH 06:00 - 2286 OPERATION: Drill</u>	18 Squeeze Cement <u> </u>
<u>OPNS Forecast Drill</u>	19 Fishing <u> </u>
<u> </u>	20 Dir. Work <u> </u>
<u> </u>	21 Clean to Bottom <u>3</u>
<u> </u>	22 Flow check <u>3</u>

Bottom Hole Assembly Bit, BH BOP 21-121 DC DP

Persons in Camp: 21 Natives: 1

Weather Overcast lite snow Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River N-25 Date 84-03-24 Days 39

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2332 Hrs on Btm 23 1/2 Progress 55 Operation Drill

Last Casing Depth: 1896 Size: 178

Bit No 8 Depth Out Wt on Bit 10 Condition Run

Size 155 Metres 69 RPM 75 Serial # Y26500

Type HPSM Hours 36 1/2 Nozzles Open

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 6800 Strokes 40 L/min 584 Ann Vel DP 46
DC 79

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: 205' EMD 1600

Mud Wt. 1150 Vis 65 PV 34 YP 9

WL 6.5 pH 11.5 Solids .09

Mud Added Gel 12 sax Caustic 2 sax Staflo 1 sax

BOP Tests & Drills: 84-03-23 - Check hydril and pipe rams.

General

Time Break Down

<u>Drill 2277 - 2332</u>	1 Rig Up or Down <u> </u>
<u> </u>	2 Drilling <u>23 1/2</u>
<u> </u>	3 Reaming <u> </u>
<u> </u>	4 Coring <u> </u>
<u> </u>	5 Cond. Hole <u> </u>
<u> </u>	6 Trip <u> </u>
<u> </u>	7 Rig Ser & BOP <u>3/4</u>
<u> </u>	8 Repairs <u> </u>
<u> </u>	9 Slip & Cut <u> </u>
<u>Background gas 10 - 20 units.</u>	10 Surveys <u> </u>
<u> </u>	11 Logging <u> </u>
<u> </u>	12 Run Csg & Cement <u> </u>
<u> </u>	13 WOC <u> </u>
<u> </u>	14 Nipple Up <u> </u>
<u> </u>	15 Test BOP <u> </u>
<u> </u>	16 DST <u> </u>
<u>Drill at 2 1/2 m/hr.</u>	17 Plug Back <u> </u>
<u> </u>	18 Squeeze Cement <u> </u>
<u>DEPTH 06:00 - 2347 OPERATION: Drill</u>	19 Fishing <u> </u>
<u>OPNS Forecast POH to chance bits.</u>	20 Dir. Work <u> </u>
<u> </u>	21 Clean to Bottom <u> </u>

Bottom Hole Assembly Bit, BH BOP 21-121 DC DP

Persons in Camp: 21 Natives: 1

Weather Overcast Temp -5

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-25 Days 40

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2358 Hrs on Btm 10 1/2 Progress 26 Operation Drilling

Last Casing Depth: 2050 Size: 177.8

Bit No 8 Depth Out 2353 Wt on Bit 10 Condition 2-7-2

Size 155.6 Metres 90 RPM 75 Serial # Y26500

Type HPSM Hours 44 3/4 Nozzles Open

Bit No 9 Depth Out Wt on Bit 10 Condition Incomplete

Size 155 Metres 5 RPM 75 Serial # 91846

Type J-33 Hours 2 Nozzles Open

Pump Pres 6000 Strokes 39 L/min 573 Ann Vel DP 48.48
DC 73.60

Surveys 1 ° at 2353 ° at _____ ° at _____

_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600

Mud Wt. _____ Vis _____ PV _____ YP _____

WL _____ pH _____ Solids _____

Mud Added Gel 12 sax Barite 40 sax Caustic 2 sax Mica 5 sax

BOP Tests & Drills: 83-03-24 - Check hydril and pipe rams
on rig service.

General

Time Break Down

Trip out with bit #8 RIH with Bit #9 Ream _____ 1 Rig Up or Down _____

hole 2325-2353	28m.	Drilling ahead	2332-2358	2	Drilling	102
				3	Beamings	4

Drilling at 2.5 m/hr. 4 Coring

6 Trip 6 3/4

7	Rig Ser & BOP	3/4
8	Repairs	

9 Slip & Cut _____

10	Surveys	2
11	Logging	

12 Run Csg & Cement

Background gas 5 units. Trip gas 360 units. 13 WOC

14 Nipple Up _____

15 Test BOP_____

16 DST

17 Plug Back_____

18 Squeeze Cement _____

DEPTH 06:00 - 2377.2 OPERATION: Drilling 19 Fishing

OPNS Forecast Drilling ahead. 20 Dir. Work _____

21 Clean to Bottom
22 Circ. sample

Bottom Hole Assembly Bit, BH BOP 21-121 DC DP

Persons in Camp: 21 Natives: 1

ELSONS in camp. --

Weather Overcast light snow Temp -15

PAJAK LAND & OFFSHORE LTD.

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-26 Days 41

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2402 Hrs on Btm 19½ Progress 44 Operation POH

Last Casing Depth: 2050 Size: 178

Bit No 9 Depth Out 2402 Wt on Bit 10 Condition 3-6-I

Size 155 Metres 49 RPM 75 Serial # 91846

Type J-33 Hours 21½ Nozzles Open

Rm 4

Bit No _____ Depth Out _____ Wt on Bit _____ Condition _____

Size _____ Metres _____ RPM _____ Serial # _____

Type _____ Hours _____ Nozzles _____

Pump Pres 8400 Strokes 40 L/min 584 Ann Vel DP 46
DC 72

Surveys 1 ° at 2402 ° at _____ ° at _____
° at _____ ° at _____ ° at _____

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1165 Vis 83 PV 40 YP 12

WL 9.2 pH 11.5 Solids 10

Mud Added Gel 4 sax Soda Ash 4 sax Caustic 2 sax Peltex 6 sax

BOP Tests & Drills: 84-03-25 - Hydril and pipe rams on rig service.

General

Time Break Down

Drill 2358-2401 Check for washout. Drill 2401-2402 1 Rig Up or Down _____

Drop survey POH and SLM 2 Drilling 19½

3 Reaming _____

4 Coring _____

5 Cond. Hole _____

6 Trip 1½

7 Rig Ser & BOP ¾

8 Repairs 1½

9 Slip & Cut _____

10 Surveys ½

11 Logging _____

12 Run Csg & Cement _____

13 WOC _____

14 Nipple Up _____

15 Test BOP _____

16 DST _____

17 Plug Back _____

18 Squeeze Cement _____

19 Fishing _____

20 Dir. Work _____

21 Clean to Bottom

22 Check for washout 1

Background gas 10 units. Trip gas 320 units.

Bkgrd gas 10 units Trip gas 320 units.

DEPTH 06:00 - 2403 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit BH BOP 21-121 DC DP

Persons in Camp: 22 Natives: 1

Weather overcast lite snow Temp -10

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-27 Days 42

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2421 Hrs on Btm 15 1/2 Progress 19 Operation 10H for wash out.

Last Casing Depth: 2050 Size: 178

Bit No 10 Depth Out Wt on Bit 11 Condition Run

Size 155 Metres 19 RPM 65 Serial # X2140

Type J-33 Hours 15 1/2 Nozzles Open

Bit No Depth Out Wt on Bit Condition

Size Metres RPM Serial #

Type Hours Nozzles

Pump Pres 6800 Strokes 40 L/min 584 Ann Vel DP 46 DC 72

Surveys 1 ° at 2402 ° at ° at
° at ° at ° at

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1160 Vis 58 PV 6 YP 12

WL 9.0 pH 10.5 Solids .09

Mud Added Peltex 16 sax Staflo 2 sax WL-100 1 sax
Caustic 1 sax

BOP Tests & Drills: 84-03-26 - Check blind rams on trip. Check hydril on Rig service.

General Time Break Down

POH - Recover survey. Flow check. RIH Bit #10 No fill. Drill 2402-2421. Work on pumps. Check for lost pressure at surface. Lost 2200 kPa. Trip out for wash out. SLM on Bit #9. 2199.40 tally 2199.83 diff .43 no correction.

Background gas - 5 units.

Drill at 1.25 m/hr.

DEPTH 06:00 - 2426 OPERATION: Drill

OPNS Forecast Drill

Bottom Hole Assembly Bit, BH BOP

Persons in Camp: 27 Natives: 1

Weather Clear Temp -5

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-28 Days 43

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2430 Hrs on Btm 7 Progress 9 Operation Recover Magnet.
 Last Casing Depth: 2050 Size: 178
 Bit No 10 Depth Out 2430 Wt on Bit 11 Condition 8-5-I
 Size 155 Metres 28 RPM 65 Serial # X2140
 Type J-33 Hours 22 1/2 Nozzles Open

Bit No 11 Depth Out Wt on Bit Condition Run
 Size 155 Metres RPM Serial # BH1521
 Type J-55 Hours Nozzles Open

Pump Pres 6800 Strokes 40 L/min 584 Ann Vel DC 72 DP 46

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: 2051 EMD 1600
 Mud Wt. 1160 Vis 60 PV 36 YP 9.5
 WL 8.8 pH 11.5 Solids .096

Mud Added Caustic 2 sax Barite 10 sax

BOP Tests & Drills: 84-03-27 Check blind rams on trip.
 Check hydril on rig service.

General Time Break Down

POH for wash out - found washed out took joint at 850m 1 Rig Up or Down
RIH Drill 2421-2430. Circ. sample POH for Bit. Bit 2 Drilling 7
damage & premature failure indicated iron in hole. RIH 3 Reaming
with magnet. Work magnet & POH - No recovery. Make up 4 Coring
Bit #11 with Junk sub. 5 Cond. Hole 1 1/2
 6 Trip 14
 7 Rig Ser & BOP 1
 8 Repairs
 9 Slip & Cut
 10 Surveys
 11 Logging
 12 Run Csg & Cement
 13 WOC
Background gas 5 units. Trip gas 290 units. 14 Nipple Up
 15 Test BOP
 16 DST
Drill at 1.7 m/hr. 17 Plug Back
DEPTH 06:00 - 2434 OPERATION: Drill 18 Squeeze Cement
OPNS Forecast Drill 19 Fishing
 20 Dir. Work
 21 Clean to Bottom
 22 Circ. sample 3/4

Bottom Hole Assembly Bit, BH BOP, 21-121 DC DP 23 Work magnet 1
 Persons in Camp: 23 Natives: 1 24 Flow check 1
 Weather Clear Temp

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-30 Days 45

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2446 Hrs on Btm --- Progress --- Operation DST #2

Last Casing Depth: 2050 Size: 178

Bit No 11 RR Depth Out --- Wt on Bit --- Condition 2-2-1

Size 155 Metres --- RPM --- Serial # BH142

Type J-55 Hours --- Nozzles Open Clean out trip.

Bit No --- Depth Out --- Wt on Bit --- Condition ---

Size --- Metres --- RPM --- Serial # ---

Type --- Hours --- Nozzles ---

Pump Pres 6800 Strokes 40 L/min 584 Ann Vel DP 46
DC 77

Surveys --- ° at --- ° at --- ° at ---
--- ° at --- ° at --- ° at ---

Last FLOT Depth: 2051 EMD 1600

Mud Wt. 1175 Vis 75 PV 41 YP 9.5

WL 9.6 pH 11.5 Solids .01

Mud Added Barite 10 sax

BOP Tests & Drills: 84-03-29 - Check blind rams on trip.

General

Time Break Down

Finish POH to log. Log with Schlumberger #1 DI SFL GR 1 Rig Up or Down ---

SP & BHC Sonic. 2 Drilling ---

Depth logged 2437.7 - 2051.7 #2 CNL 1DT GR & Cal - 3 Reaming ---

2447.7 - 2050.7. 4 Coring ---

RIH Wait on orders. POH for DST #2 RIH with DST #2 5 Cond. Hole 2 1/2

Test. 2061.5 to 2110. 113.75 liters Inhibitor. 6 Trip 12

SAB - GTS 1 1/2 min. Flare 5m probably increasing. Lost 7 Rig Ser & BOP 1

packer seat before 2 min. 8 Repairs ---

--- 9 Slip & Cut ---

--- 10 Surveys ---

--- 11 Logging 7

--- 12 Run Csg & Cement ---

--- 13 WOC ---

--- 14 Nipple Up ---

--- 15 Test BOP ---

--- 16 DST 3/4

--- 17 Plug Back ---

--- 18 Squeeze Cement ---

--- 19 Fishing ---

--- 20 Dir. Work ---

--- 21 Clean to Bottom ---

--- 22 Handle tools 1 1/2

--- 23 Flow check 1

DEPTH 06:00 - 2446 T.D. OPERATION: POH DST #2 misrun

OPNS Forecast RIH to cond. mud. POH to run liner -

Run liner.

Bottom Hole Assembly Bit, BH BOP, 21-165 DC

Persons in Camp: 27 Natives: 1

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-03-31 Days 46

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2446 Hrs on Btm --- Progress --- Operation RIH with
Last Casing Depth: 2050 Size: 178 liner.

Bit No <u>11 RR</u>	Depth Out <u> </u>	Wt on Bit <u> </u>	Condition <u> </u>
Size <u>155</u>	Metres <u> </u>	RPM <u> </u>	Serial # <u>BH142</u>
Type <u>J-55</u>	Hours <u> </u>	Nozzles <u>Open</u>	Clean out <u> </u>

Bit No <u> </u>	Depth Out <u> </u>	Wt on Bit <u> </u>	Condition <u> </u>
Size <u> </u>	Metres <u> </u>	RPM <u> </u>	Serial # <u> </u>
Type <u> </u>	Hours <u> </u>	Nozzles <u> </u>	<u> </u>

Pump Pres 5000 Strokes 40 L/min 5.84 Ann Vel

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: 2051 EMD 1600
Mud Wt. 1180 Vis 78 PV 42 YP 12
WL 10 pH 11.5 Solids .01

Mud Added

BOP Tests & Drills:

General

Time Break Down

Safety meeting prior to test. Attempt to set packer -	1 Rig Up or Down <u> </u>
lost packer seat on preflow. 3 attempts no success.	2 Drilling <u> </u>
Lost 2m³ from annulus. POH breakdown test tools -	3 Reaming <u> </u>
recover recorders. RIH. Load out test tools. Circ.	4 Coring <u> </u>
condition. POH. Pick up 114mm liner. RIH SLM	5 Cond. Hole <u>2 1/2</u>
Fill pipe every 10 stands. Ran 37 its. (451.71m)	6 Trip <u>13 1/2</u>
114 mm 15.62 kg/m J-55 ST&C. Landed at 2435.0	7 Rig Ser & BOP <u>1</u>
liner top at 1983.29	8 Repairs <u> </u>
<u> </u>	9 Slip & Cut <u> </u>
<u> </u>	10 Surveys <u> </u>
<u> </u>	11 Logging <u> </u>
<u> </u>	12 Run Csg & Cement <u>3 3/4</u>
<u> </u>	13 WOC <u> </u>
<u> </u>	14 Nipple Up <u> </u>
<u> </u>	15 Test BOP <u> </u>
<u> </u>	16 DST <u>3 1/2</u>
<u> </u>	17 Plug Back <u> </u>
<u> </u>	18 Squeeze Cement <u> </u>
<u> </u>	19 Fishing <u> </u>
<u> </u>	20 Dir. Work <u> </u>
<u> </u>	21 Clean to Bottom <u> </u>
<u> </u>	22 Safety mtg. <u>1</u>

DEPTH 06:00 - 2446 OPERATION: Rig up to cement liner.

OPNS Forecast Cement liner, POH Lay down drill pipe,

Set drillable bridge plug at 100m. Release rig.

Bottom Hole Assembly

Persons in Camp: 29 Natives: 1

Weather Clear Temp -2

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-04-01 Days 47

Supervisor Frankie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs 2446 Hrs on Btm _____ Progress _____ Operation Lay down
Last Casing Depth: _____ Size: _____ drill collars.

Bit No _____	Depth Out _____	Wt on Bit _____	Condition _____
Size _____	Metres _____	RPM _____	Serial # _____
Type _____	Hours _____	Nozzles _____	

Bit No _____	Depth Out _____	Wt on Bit _____	Condition _____
Size _____	Metres _____	RPM _____	Serial # _____
Type _____	Hours _____	Nozzles _____	

Pump Pres _____ Strokes _____ L/min _____ Ann Vel _____

Surveys _____ ° at _____ ° at _____ ° at _____
_____ ° at _____ ° at _____ ° at _____

Last FLOT Depth: _____ EMD _____
Mud Wt. _____ Vis _____ PV _____ YP _____
WL _____ pH _____ Solids _____

Mud Added _____

BOP Tests & Drills:

General

Run 114mm liner on drill pipe. Circ. tag bottom.
Lower vis from 78 to 55. Rig up to cement and hang
liner. Cement with .7 tonnes Scavenger cement.
followed with 6.2 tonnes (4.7m³) Class "G" +.1% CFR-2
.3% HR-4. Sl wt. 1895 Displace with 11.3m³ mud. Plug
down with 13,500 kPa 84-03-31 - 0644 hrs. Float held
Release from liner, POH 10m Reverse circ. Press
increased to 14,000 kPa Could not circ. to finish
displ cement to surface. POH 27 stds. with contami-
nated mud and cement. Pull & Laydown 70 sgles drain
cement and wash out. RIH circ. Laydown DP & set
drillable bridge plug at 100m. RKB Laydown DC.

DEPTH 06:00 - OPERATION:

OPNS Forecast Rig released 0900 hrs. 84-04-01

Bottom Hole Assembly _____

Persons in Camp: 35 Natives: 1

Weather Clear

Time Break Down

- 1 Rig Up or Down _____
- 2 Drilling _____
- 3 Reaming _____
- 4 Coring _____
- 5 Cond. Ho's 4 3/4
- 6 Trip 5 3/4
- 7 Rig Ser & BOP 2
- 8 Repairs _____
- 9 Slip & Cut _____
- 10 Surveys _____
- 11 Logging _____
- 12 Run Csg & Cement 1
- 13 WOC _____
- 14 Nipple Up _____
- 15 Test BOP _____
- 16 DST _____
- 17 Plug Back _____
- 18 Squeeze Cement _____
- 19 Fishing _____
- 20 Dir. Work _____
- 21 Clean to Bottom _____
- 22 Hang liner 1
- 23 Run bridge plug 1
- 24 L.D.D.P. 11

DAILY DRILLING REPORT

Well Name Northcor et al Island River G-38 Date 84-04-02 Days 48

Supervisor Frenchie Duperron Contractor Guthrie McLaren #5

Depth @ 2400 hrs --- Hrs on Btm --- Progress --- Operation Move out.

Last Casing Depth: Size:

Bit No <u> </u>	Depth Out <u> </u>	Wt on Bit <u> </u>	Condition <u> </u>
Size <u> </u>	Metres <u> </u>	RPM <u> </u>	Serial # <u> </u>
Type <u> </u>	Hours <u> </u>	Nozzles <u> </u>	

Bit No <u> </u>	Depth Out <u> </u>	Wt on Bit <u> </u>	Condition <u> </u>
Size <u> </u>	Metres <u> </u>	RPM <u> </u>	Serial # <u> </u>
Type <u> </u>	Hours <u> </u>	Nozzles <u> </u>	

Pump Pres Strokes L/min Ann Vel

Surveys ° at ° at ° at
 ° at ° at ° at

Last FLOT Depth: EMD

Mud Wt. Vis PV YP

WL pH Solids

Mud Added

BOP Tests & Drills:

General

Lay down drill collar. Tear out B.O.P.s. Clean tanks
chg. kelly.
Rig released 84-04-01 - 0900 hrs.
Tear out rig.
Load out trucks.

Time Break Down

- | | | |
|----|------------------|-----------------------------|
| 1 | Rig Up or Down | <u>15</u> |
| 2 | Drilling | <u> </u> |
| 3 | Reaming | <u> </u> |
| 4 | Coring | <u> </u> |
| 5 | Cond. Hole | <u> </u> |
| 6 | Trip | <u> </u> |
| 7 | Rig Ser & BOP | <u> </u> |
| 8 | Repairs | <u> </u> |
| 9 | Slip & Cut | <u> </u> |
| 10 | Surveys | <u> </u> |
| 11 | Logging | <u> </u> |
| 12 | Run Csg & Cement | <u> </u> |
| 13 | WOC | <u> </u> |
| 14 | Nipple Up | <u> </u> |
| 15 | Test BOP | <u> </u> |
| 16 | DST | <u> </u> |
| 17 | Plug Back | <u> </u> |
| 18 | Squeeze Cement | <u> </u> |
| 19 | Fishing | <u> </u> |
| 20 | Dir. Work | <u> </u> |
| 21 | Clean to Bottom | <u> </u> |
| 22 | LDDC | <u>3</u> |

OPERATION:

OPNS Forecast Finish move out and stack rig at Zama.

Bottom Hole Assembly 23 Rig down BOP 3

Persons in Camp: 25 Natives: 0 24 Cln. tank, etc. 3

Weather Clear Temp -2

SUMMARY OF WELL DATA

GENERAL

Well Name Northcor et al Island River Operator Northcor Energy Ltd.
 Location G-38 N. W. T. Contractor Guthrie McLaren #15
 Elevation: Grd. 672.16 K.B. 676.88 Spud Date 84-02-14 09:00 hrs.
 Total Depth 2446.4 Release Date _____

CASING RECORD

Make	New/Used	Depth	Size	Weight	Grade	Thread	Range
Algoma	New	500.87	244	53.57	K-55	8rd	3-4
Algoma	New	2050	1788	34.22 29.76	K-55	8rd	3-4
Ipsco	New		114.3	15.63	J-55	8rd	3-4

LOG RECORD

Company	Type	Interval
Schlumberger	DILL-GR-SP	500 - 2447.7 m
	CNL-FDL-GR-CAL	2028 - 500
	CNL-LDT-GR-CAL	2050 - 2447.7
	BHCS-GR-CAL	2050 - 2447.7

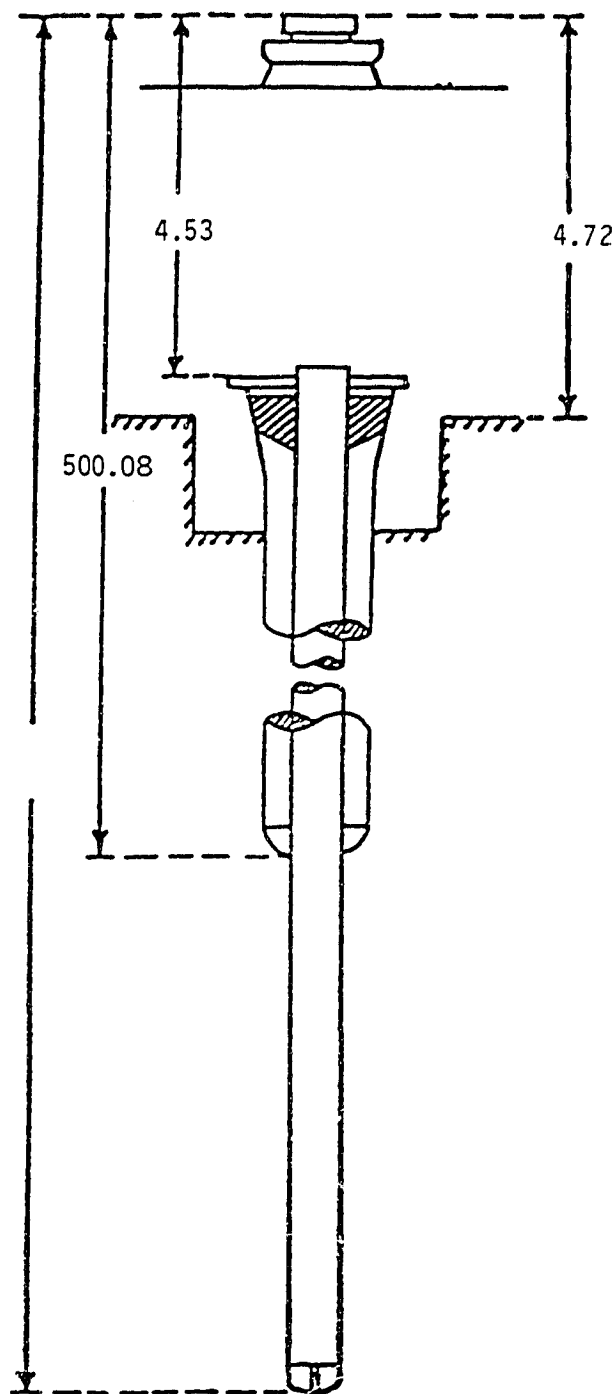
DEVIATION RECORD

Depth	Degree	Depth	Degree	Depth	Degree	Depth	Degree
30	1/8	202	1/2	536	1/2	1575	7/8
40	1/2	221	1/2	570	1/8	1603	3/8
50	3/4	259	1 1/16	617	1/16	1668	1/16
60	5/8	278	1/2	674	1/2	1716	5/8
69	3/8	297	1 1/2	770	0	1745	1/2
79	1/2	307	1	873	0	1790	1/16
88	3/4	325	1/16	1005	1/8	1888	1/2
98	1/2	345	1/2	1110	1	1989	1
107	1 1/16	365	1 1/2	1157	3/4	2049	1
117	3/4	391	1	1205	3/4	2119	Misrun
126	1 1/16	411	1/2	1240	3/4	2200	3/4
136	1	430	1/2	1318	1/2	2263	1
145	5/16	460	0	1414	1/16	2353	1
164	7/8	484	1/2	1518	7/8	2446	3/4
183	1	500	1/8	1544	1		

CASING REPORT

Type of string Surface

Well Name Northcor et al Island River Date 84-02-19
 Location G-38 N. W. T. Make of Casing Algoma
 Size 244 Wt 53.57 Grade J-55 Thread 8rd Cplg ST&C Rge 4

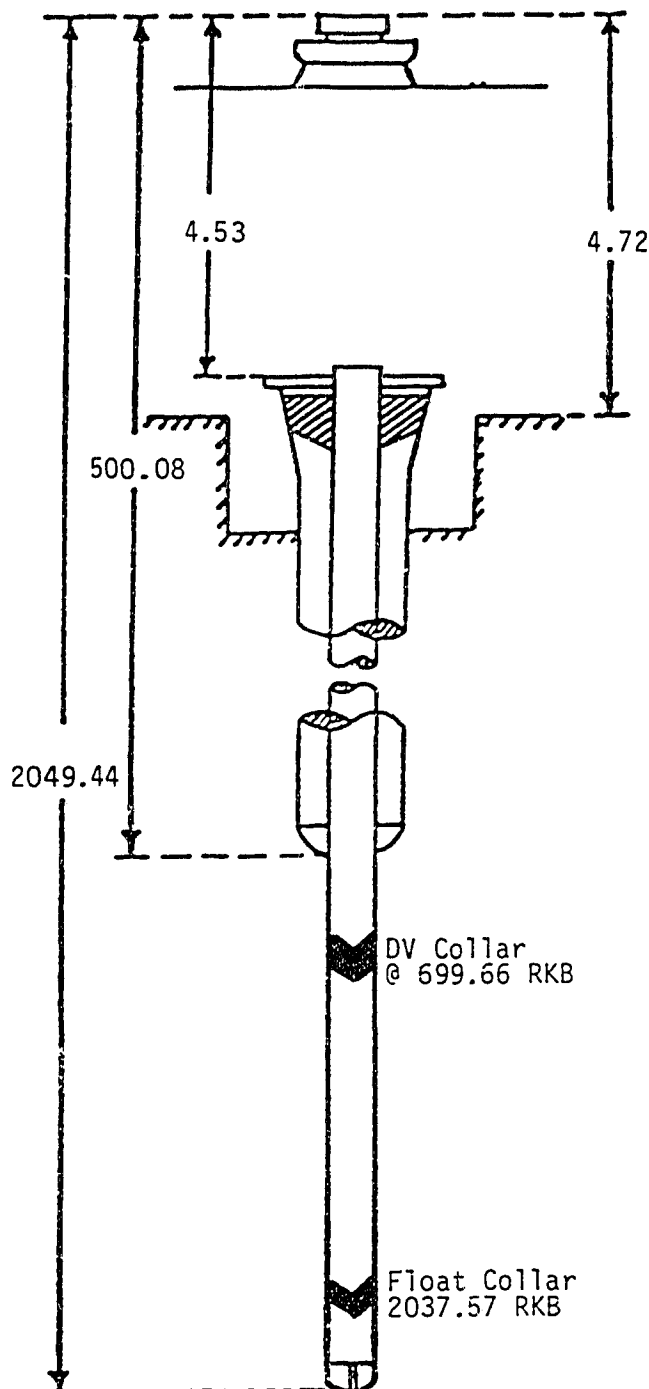


Kelly Bushing Elev. 674.72
 Ground Elev. 670
 Casing Bowl Type Crown Type
 Float Shoe Guide Shoe X
 Float Collar X Baffle Collar
 No. of Centralizers 5
 No. of Scratchers
 Top Plug-Wood Rubber X
 Bottom Plug-Wood Rubber X
 Joints Welded 2
 Joints Thread Locked Nil
 Time started cementing 16:14
 Time plug on bottom 17:45
 Bump Pressure 9,500
 Tonnes of cement used 40
 Type of cement Oil Well Class "G"
 Additives Nil
 Cementing Co. Howco
 Cementer Art Patterson
 Returns Yes X No
 Power Tong Co. Premier Ventures Ltd.
 Remarks Cement Displaced
at .78m³ per minute
Cement returns 9.55

CASING REPORT

Type of string Intermediate

Well Name Northcor et al Island River Date 84-03-12
 Location G-38 N. W. T. Make of Casing Algoma
 Size 178.8 Wt. 34.22 897.46 m K-55 Thread 8rd Cplg ST&C Rge 3-4
29.76 1165.82

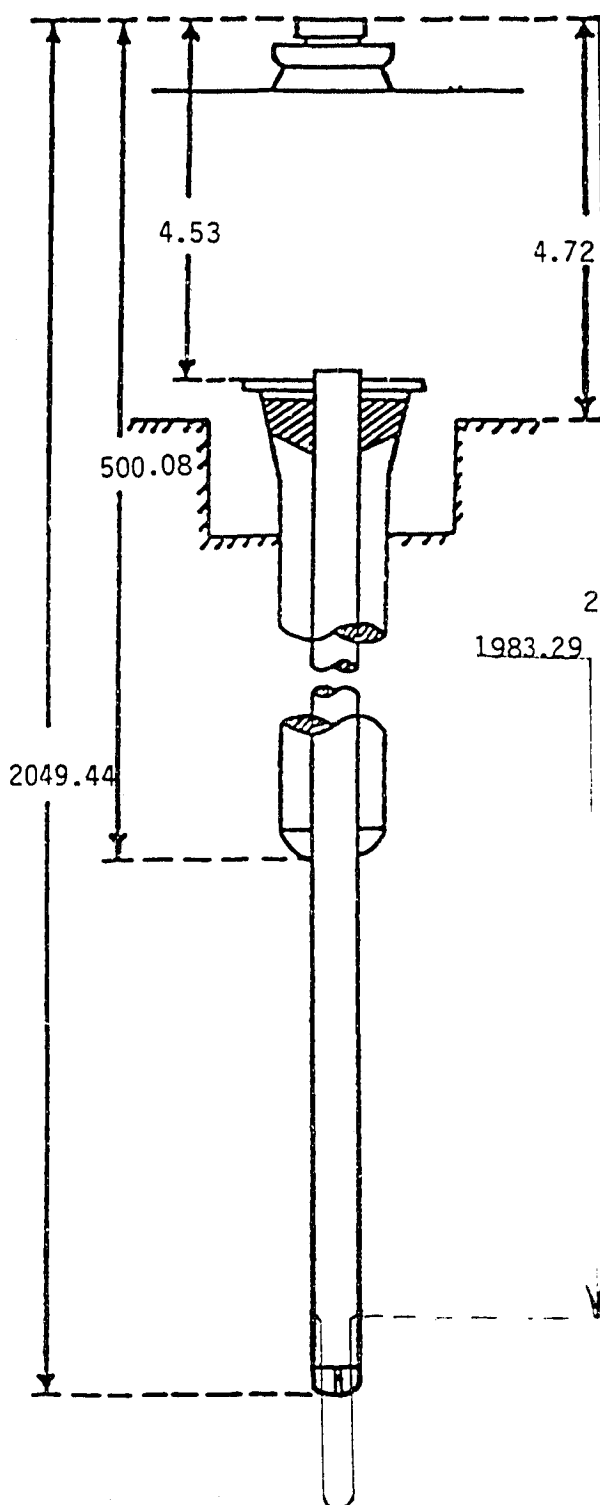


Kelly Bushing Elev. 674.72
 Ground Elev. 670
 Casing Bowl Type Crown Type
CC-22
 Float Shoe X Guide Shoe
 Float Collar X Baffle Collar
 No. of Centralizers 5
 No. of Scratchers
 Top Plug-Wood Rubber X
 Bottom Plug-Wood Rubber X
 Joints Welded
 Joints Thread Locked 4
 Time started cementing 1st Stage 07:51
2nd Stage 14:15
 Time plug on bottom 1st Stage 09:34
2nd Stage 14:58
 Bump Pressure 1st Stage 9.5 MPa
2nd Stage 14.0 MPa
 Tonnes of cement used #1 Stg. 55 0-1-4% Gel
#2 Stg. 17 0-1-4% Gel
 Type of cement Class "G" Oilwell
 Additives 1st Stg. 4% gel .75% CFR-2 .2% HR-4
2nd Stg. 4% Gel
 Cementing Co. Howco
 Cementer Allen Frost
 Returns Yes X No
 Power Tong Co. Premier Ventures Ltd.
 Remarks 2 stage cement job.
Good returns

CASING REPORT

Type of string Production

Well Name Northcor et al Island River Date 84-03-30
 Location G-38 N. W. T. Make of Casing Ipsco
 Size 114.3 Wt 15.63 Grade J-55 Thread 8rd Cplg ST&C Rge 3-4



Kelly Bushing Elev. 676.88

Ground Elev. 672.16

Casing Bowl Type Crown Type
CC 22

Float Shoe X Guide Shoe

Float Collar X Baffle Collar

No. of Centralizers 5 spring, 2 gist,

No. of Scratchers

Top Plug-Wood Rubber

Bottom Plug-Wood Rubber DART

Joints Welded

Joints Thread Locked Two

Time started cementing 06:16

Time plug on bottom 06:46

(11,000 kPa Pumping)
 Bump Pressure (13,500 Bump)

Tonnes of cement used 6.9

Type of cement Class "G" Oilwell

Additives 1.0% CFR-2 .3% HR-4

Cementing Co. Halliburton Services

Cementer Curt Sherback

Returns Yes X No

Power Tong Co. Premier Ventures

Remarks Job well done.

PIPE TALLY

Page 1 of 1

Type of String Surface Date 84-02-19

Well Name Northcor et al Island River Operator Northcor Energy Ltd.

Location G-38 N.W.T. Contractor Guthrie McLaren #5

Supervisor A. Duperron Make Of Casing Algoma

Size 244 Wt 53.57 Grade J-55 Thread 8rd Cplg ST&C Rge 3-4

No.	LENGTH	LENGTH	LENGTH	LENGTH	LENGTH	SUMMARY	TOTAL
1	13 09	12 40	12 30			1 - 20	237 83
2	12 48	12 17	11 79			21 - 40	239 31
3	10 53	12 05	12 71			41 - 60	97 06
4	10 45	11 60	11 89			61 - 80	
5	11 28	12 07	11 99			81 - 100	
6	11 50	12 52	12 34			101 - 200	
7	12 12	12 50	12 33			201 - 300	
8	11 17	10 92	11 71			301 - 400	
9	12 72	11 39				Misc.	
10	12 60	12 06				Total Csg on lease	574 20
11	11 96	12 61				Csg left out	71 82
12	11 71	12 31				Csg Run in hole	502 38
13	12 91	13 60				Csg Shoe	37
14	12 39	11 93				Float Collar	50
15	11 76	12 07				Stage Collar	
16	11 55	10 68					
17	12 04	11 35					
18	12 44	11 02					
19	11 27	10 77				Total String	503 25
20	11 86	12 75				Cal. Csg above K. B.	2 38
	237 83	239 31	97 06			Csg Landed K. B.	500 87

Centralizers on joint numbers 1, 2, 3, 4, 5.

Scratchers on joint numbers _____

Indicate joints with ruff cote etc. _____

Indicate joints with different wts., grade, threads or coupling _____

K. B. to Csg Bowl 4.53 Shoe Joint No. 1 Length 13.09

PAJAK LAND & OFFSHORE LTD.

PIPE TALLY

Page 1 of 2

Type of String Intermediate Date 84-03-11

Well Name Northcor et al Island River Operator Northcor Energy Ltd.

Location G-38 N.W.T. Contractor Guthrie McLaren #5

Supervisor A. Duperron Make Of Casing Algoma

Size 178.8 Wt 34.22 Grade K-55 Thread 8rd Cplg ST&C Rge 3-4

No.	LENGTH		LENGTH		LENGTH		LENGTH		LENGTH		SUMMARY	TOTAL	
1	12	84 *	13	11	12	77	12	89	12	67	1 - 20	253	36
2	12	97 *	13	25	13	08	11	80	11	47	21 - 40	254	17
3	13	01 *	11	82	12	38	11	75	12	52	41 - 60	254	24
4	12	83 *	12	65	12	42	10	35	11	87	61 - 80	246	51
5	13	29 *	13	03	12	82	12	76	12	17	81 - 100	245	23
6	12	78	12	99	12	69	12	53	12	22	101 - 200		
7	10	78	12	82	12	53	12	86	11	82	201 - 300		
8	12	55	12	92	12	66	12	50	11	91	301 - 400		
9	12	07	13	34	12	51	12	60	13	02	Misc.		
10	12	52	13	13	12	87	* 13	33	12	62	Total Csg on lease		
11	13	02	12	58	12	90	12	29	13	12	Csg left out		
12	12	78	13	07	13	04	12	51	12	38	Csg Run in hole		
13	13	03	13	32	11	98	12	06	11	52	Csg Shoe		
14	12	75	12	22	12	58	12	44	11	84	Float Collar		
15	13	09	12	01	13	29	12	36	11	88	Stage Collar		
16	11	98	12	45	12	75	12	14	12	50			
17	12	82	11	90	12	76	11	67	12	67			
18	12	46	12	52	13	14	12	75	12	43			
19	12	66	12	90	12	20	12	31	12	58	Total String		
20	13	13	12	04	12	87	12	61	12	02	Cal. Csg above K. B.		
	253	36	254	17	254	24	246	51	245	23	Csg Landed K. B.		

Centralizers on joint numbers 1, 2, 3, 4, 5.

Scratchers on joint numbers _____

Indicate joints with ruff cote etc. _____

Indicate joints with different wts., grade, threads or coupling 71 jts. 178mm 34.22 kg/m

K-55 8rd LT&C Total 897.46 & 92 jts. 29.76 kg/m K-55

ST&C 1165.82

K. B. to Csg Bowl 4.53 Shoe Joint No. 1 Length 12.84

PIPE TALLY

Page 2 of 2

Type of String Intermediate Date _____

Well Name Northcor et al Island River Operator Northcor Energy Ltd.
 Location G-38 N.W.T. Contractor Guthrie McLaren #5
 Supervisor A. Duperron Make Of Casing Algoma
 Size 178.8 Wt 29.76 Grade K-55 Thread 8rd Cplg ST&C Rge 3-4

No.	LENGTH		LENGTH		LENGTH		LEN	I	LENGTH		SUMMARY	TOTAL	
1	12	68	13	36	12	51	13	54			1 - 20	253	36
2	10	61	13	29	13	44	12	66			21 - 40	254	17
3	11	34	13	20	12	86	13	25			41 - 60	254	24
4	12	90	13	03	12	93	12	79			61 - 80	246	51
5	12	56	12	49	13	42	12	85			81 - 100	245	23
6	12	23	10	22	11	60	12	48			101 - 200	855	63
7	12	62	13	05	12	30	12	16			201 - 300		
8	12	30	12	35	12	24	10	74			301 - 400		
9	13	23	14	09	12	84					Misc.		
10	13	65	12	56	12	27					Total Csg on lease	2109	14
11	12	69	13	31	12	42					Csg left out	60	65
12	12	65	12	30	12	50					Csg Run in hole	2048	49
13	12	71	11	97	12	24					Csg Shoe		51
14	12	32	11	38	12	33					Float Collar		45
15	13	01	12	35	12	41					Stage Collar		96
16	12	65	12	86	12	69							
17	12	26	12	55	13	24							
18	12	98	13	00	12	13							
19	12	37	12	37	12	73					Total String	2050	41
20	12	88	12	56	13	11					Cal. Csg above K. B.		97
	250	64	252	29	252	23	100	47			Csg Landed K. B.	2049	44

Centralizers on joint numbers _____

Scratchers on joint numbers _____

Indicate joints with ruff cote etc. _____

Indicate joints with different wts., grade, threads or coupling _____

K. B. to Csg Bowl _____ Shoe Joint No. _____ Length _____

PIPE TALLY

Page 1 of 1

Type of String Production Date 84-03-30

Well Name Northcor et al Island River

Operator Northcor Energy Ltd.

Location G-38 N.W.T.

Contractor Guthrie McLaren #5

Supervisor A. Duperron

Make Of Casing Ipsco

Size 114.3 Wt 15.63 Grade J-55 Thread 8rd Cplg ST&C Rge 3 & 4

No.	LENGTH	LENGTH	LENGTH	LENGTH	LENGTH	SUMMARY	TOTAL
1	12 11	12 13	11 95			1 - 20	241 53
2	12 11	12 12	12 14			21 - 40	242 11
3	12 11	12 11	12 13			41 - 60	96 80
4	12 12	12 12	12 10			61 - 80	
5	11 98	12 12	12 13			81 - 100	
6	12 15	12 11	12 11			101 - 200	
7	12 12	12 14	12 12			201 - 300	
8	12 12	12 13	12 12			301 - 400	
9	12 11	12 12				Misc.	
10	11 96	12 13				Total Csg on lease	580 44
11	12 14	12 12				Csg left out	133 02
12	12 12	12 12				Csg Run in hole	447 42
13	11 90	12 13				Csg Shoe	54
14	11 95	12 15				Float Collar	36
15	12 12	11 91				Stage Collar	
16	12 13	12 11				XO Sub	23
17	12 13	12 12				Hanger	3 16
18	11 91	11 95					
19	12 11	12 12				Total String	451 71
20	12 13	12 15				Cal. Csg above K. B.	
	241 53	242 11	96 80			Csg Landed K. B.	2435 00

Centralizers on joint numbers Middle of Jt. 1, Top's of Jts. 29, 30, 31, 32. Rigid bars
#35, #37

Scratchers on joint numbers _____

Indicate joints with ruff cote etc. _____

Indicate joints with different wts., grade, threads or coupling _____

Ran total of 70 stds. 1 double for length of 1983.29 m

K. B. to Csg Bowl _____ Shoe Joint No. 1 Length 12.11 m

PAJAK LAND & OFFSHORE LTD.

BIT RECORD

Well Name Northcor et al Island River Location G-38 N.W.T.

[illegible]

DRILL STEM TEST

GENERAL WELL DATA

Well Name Northcor et al Island River Location G-38 N.W.T.
 Date 84-03-18 KB Elev 674.22 Test No. One
 Formation Slave Point Interval Tested From 2070 To 2087
 Depth Rathole top
 Full Hole Size 155.6 Rathole size

WEIGHT OF STRING

Before 55,000 daN After 55,000 daN Pull Loose 5,000 daN

DRILLING MUD

Weight 1120 Visc 52 Level Drop in Casing

TESTING EQUIPMENT

Testing Company Quinn Testers Ltd.
 Packers Four Type Conventional Size 140mm
 Btm Choke Size 12.7mm Perf Length 3.048m Jars Used Lee
 Pipe Size OD 89 Collar Length 167.83 Collar Size 121mm
 Surf Choke Size 6.35mm Water Cushion 110 l. Anchor Length 32.415
Inhibitor & water

TESTING DATA

Tester on Bottom	<u>03:30</u>	Pre-Flow Open	<u>10</u>	min
Pre-Flow Opened	<u>04:20</u>	Initial Shut In	<u>60</u>	min
Pre-Flow Closed	<u>04:30</u>	Valve Open	<u>90</u>	min
Tester Opened	<u>05:30</u>	Final Shut In	<u>180</u>	min
Tester Closed	<u>07:00</u>			
Pulled Loose	<u>10:00</u>			
Out of Hole	<u>15:00</u>			

RESULTS

GAS FLOW

Water Cushion to Surface	<u> </u>	min	Nature of Blow	<u>Fair inc. to strong</u>
Gas to Surface	<u>2 1/2</u>	min		<u>on P.F.</u>
Oil to Surface	<u> </u>	min		
Maximum Rate	<u>635 m³/d</u>		How Measured	<u>Floor manifold</u>
Gas Flare Lit	<u>Yes</u>		Estimated Height of Flare	<u>3m</u>

PIPE RECOVERY

Total Recovery	<u>130</u>	m	Sample (s)	<u>4</u>	Sent to	<u>C & G - High Level</u>
Oil Recovery	<u> </u>	m	Description	<u> </u>		
Mud Recovery	<u>130</u>	m	Description	<u>Slightly H₂S cut mud.</u>		
Water Recovery	<u> </u>	m	Description	<u> </u>		

PRESSURES

Flowing	Initial	<u>1,706</u>	kPa	Preflow Pressure	<u>1,706</u>	kPa
Pressure	Final	<u>1,664</u>	kPa	Shut in B.H. Pressure	Initial	<u>18,464</u>
Hydrostatic	Initial	<u>23,262</u>	kPa		Final	<u>12,843</u>
Pressure	Final	<u>23,155</u>	kPa	Maximum Surf Pressure	<u>525</u>	kPa

REMARKS Fair air blow increasing to strong in one minute.
G.T.S. in 2.5 mins. on P.F.
G.T.S. immediate on F.F. 900 PPM H₂S.

DRILL STEM TEST

GENERAL WELL DATA

Well Name Northcor et al Island Riv. Location G-38 N.W.T.
 Date 84-03-29 KB Elev 676.8 Test No. Two
 Formation Slave Point Interval Tested From 2061.5 To 2110
 Depth 2446.4 Rathole top
 Full Hole Size 155 Rathole size
 WEIGHT OF STRING
 Before 63,000 daN After 64,000 daN Pull Loose 65,000 daN
 DRILLING MUD
 Weight 1170 Visc 73 Level Drop in Casing

TESTING EQUIPMENT

Testing Company Quinn Testers Ltd.
 Packers 4 Type Bob tail Size 140
 Btm Choke Size 12.7 Perf Length 6.096 Jars Used Bowen
 Pipe Size OD 89 Collar Length 158.990 Collar Size
 Surf Choke Size Water Cushion Anchor Length 336.384

TESTING DATA

Tester on Bottom 2300 Pre-Flow Open min
 Pre-Flow Opened 2336 Initial Shut In min
 Pre-Flow Closed Valve Open min
 Tester Opened Final Shut In min
 Tester Closed
 Pulled Loose
 Out of Hole

RESULTS

GAS FLOW

Water Cushion to Surface min Nature of Blow Strong blow with gas
 Gas to Surface 1.5 min to surface in 1.5 min.
 Oil to Surface min
 Maximum Rate How Measured
 Gas Flare Lit Estimated Height of Flare 5 meters

PIPE RECOVERY

Total Recovery m Sample (s) Sent to
 Oil Recovery m Description
 Mud Recovery 430 m Description
 Water Recovery m Description

PRESSURES

Flowing initial kPa Preflow Pressure 8.171 kPa
 Pressure Final kPa Shut in B.H. Pressure Initial kPa
 Hydrostatic Initial 24.184 kPa Final kPa
 Pressure Final 23.829 kPa Maximum Surf Pressure kPa

REMARKS Misrun: Seat failure

GEOLOGICAL PROGNOSIS, TESTS, CORES

Well Name Northcor et al Island River Location C-38 N.W.T.

GEOLOGICAL PROGNOSIS

676.80

FORMATION MARKERS	DEPTH	ELEVATION
Flett	655	+ 21.80
Banff	728.6	- 51.80
Exshaw	1024.5	- 347.7
Kotcho	1031	- 354.20
Tetcho	1236.2	- 559.4
Trout River	1313	- 636.20
Kakisa	1366.1	- 689.30
Red Knife	1382.2	- 705.40
Jean Marie	1517.5	- 840.70
Fort Simpson	1533.2	- 856.40
Muskwa	2046	-1369.20
Slave Point	2063	-1386.20
Klua	2264	-1587.20
Keg River	2346	-1669.20
Chinchaga Detrital	2416	-1739.70
Total Depth	2447.7	-1770.90

TESTS

#	DATE	FORMATION	INTERVAL	V.O.	REMARKS

CORES

FORMATION	INTERVAL	REC.	CORING EQUIPMENT

Time
Distribution

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

	March 4	5	6	7	8	9	10	11	12	13
Unplug Flowline										
Clean to Bottom						1 1/4	1		2 1/4	
Circ. Casing										
Cut & Weld on Bowl										
DST										
Drill Out										8 1/4
Change Heads & Liners									1 3/4	1 1/4
Change to 3 1/2" Equipment										11 1/2
FLOT										
Displace to Mud										
Circ. Samples					3 3/4	1 1/4				
Dump Tanks, etc.										
Pick up BHA										
Circulate										
Circulate & Build Volume										
Work Tight Hole										
Change Kelly Cock				1/4						
Flow Check						1/4				

Northcor et al Island River G-38

	March 14	15	16	17	18	19	20	21	22	23
Unplug Flowline										
Clean to Bottom									1/2	
Circ. Casing										
Cut & Weld on Bowl										
DST					10 3/4					
Drill Out	5 1/4									
Change Heads & Liners										
Change to 3 1/2" Equipment	6 1/4									
FLOT	1 1/4									
Displace to Mud	2 1/4	1 1/4								
Circ. Samples		2 1/2						1		
Dump Tanks, etc.										
Pick up BHA										
Circulate										
Circulate & Build Volume										
Work Tight Hole										
Change Kelly Cock										
Flow Check			1	1 1/2		1/4	1/4		1/2	

Northcor et al Island River G-38

	March 24	25	26	27	28	29	30	31	April 1	
Unplug Flowline										
Clean to Bottom										
Circ. Casing										
Cut & Weld on Bowl										
DST						3/4	3 1/2			
Drill Out										
Change Heads & Liners										
Change to 3 1/2" Equipment										
FLOT										
Displace to Mud										
Circ. Samples	1 1/2			3/4						
Dump Tanks, etc.										
Pick up BHA										
Circulate										
Circulate & Build Volume										
Work Tight Hole										
Change Kelly Cock										
Flow Check			1/4	1/4	1/4	1/4				

Northcor et al Island River G-38

	March 14	15	16	17	18	19	20	21	22	23
Work Magnet & Junk Subs										
Handle Test Tools				3						
Check for Washouts										
Recover Survey Barrel				1	1/2					
Safety Meetings					1/4					
Clean Tanks, etc.		1 1/4								

Northcor et al Island River G-38

[illegible]

Northcor et al Island River G-38

Rig Up & Down	51
Drilling	584
Reaming	7 1/2
Condition Hole	74 3/4
Trip	164 1/4
Rig Service & BOP	23 3/4
Repairs	9 1/2
Slip & Cut Line	1
Surveys	16 1/4
Logging	18 1/4
Run Casing & Cement	25 1/2
W.O.C.	8
Nipple Up	16 3/4
Test BOP	9
LDDP & DC	23 1/4
Unplug Flowline	2
Clean to Bottom	14 3/4
Circulate Casing	1 1/4
Cut & Weld on Bowl	6 1/2
Drill Out	23 3/4
Change to 3 1/2" Equipment	20 3/4
FLOT	1 3/4
Displace to Mud	6 1/2
Circ. Samples	13
Dump Tanks, etc.	11 1/4
Flow Check	4 3/4
Work Magnet & Junk Subs	3/4
Handle Test Tools	4 1/2
DST	15
Check for Washouts	1
Recover Survey Barrel	1 1/2
Safety Meetings	3/4
Circ. to Build Volume	2
Work Tight Hole	9 1/2
Change Kelly Cock	1/4
Pick Up BHA	1/2
Circ.	1 1/4
Total	<u>1,176</u>

Well Data
Summary
(Geological)

NORTHCOR ENERGY LTD.

NORTHCOR ET AL ISLAND RIVER G-38

60° 07' 29.4" N
121° 06' 09.8" W

Geologist: Chuck Stringer

Merlin Petroleum Consulting Ltd.
#207, 239 - 12th Avenue S.W.
Calgary, Alberta T2R 0G9
(403) 261-8036

Reported to: Mr. John Stuart-Smith

NORTHCOR ET AL ISLAND RIVER G-38

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Drill Stem Test Report (DST NO. 1)	Page 4
Drill Stem Test Report (DST NO. 2)	Page 5
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NORTHCOR ET AL ISLAND RIVER G-38WELL DATA SUMMARY

Company: Northcor Energy Ltd.

Well Name: Northcor et al Island River G-38

Well Co-ordinates: 60° 07' 29.4" N
120° 06' 09.8" W

Elevations: Ground : 672.16m
Kelly Bushing: 676.88m

Contractor: Guthrie McLaren Drilling Ltd., Rig #5

Spud Date: (0900 hrs) February 14, 1984

Hole Size: Surface : 311mm for 244mm casing,
set at 500m K.B.
Intermediate: 222mm for 178mm casing,
set at 2050m K.B.
Main : 155.6mm

Total Depth: 2446.4m (driller); March 28, 1984
2447.7m (logger)

Cores: None

Drill Stem Tests: Quinn Testers Ltd.
DST NO. 1: 2070m - 2087m (Slave Point)
DST NO. 2: 2061.5m - 2110m (Slave Point)

Open Hole Logs: Schlumberger

✓DISFL - 1:240 & 1:600; total depth
to surface casing

✓CNL-FDC - 1:240 & 1:600; 2031m to
surface casing

✓CNL-LDT - 1:240 & 1:600; total depth
to intermediate casing

✓BHCS - 1:240 & 1:600; total depth
to intermediate casing

NORTHCOR ET AL ISLAND RIVER G-38

WELL DATA SUMMARY

Sampled Interval: 40m to 2446.4m (5 meter intervals)

COGLA: 40m - 2446.4m (2 sets of washed and
dried samples at 5m intervals)
(1 set of unwashed samples in bags
at 5m intervals) (1 set of unwashed
samples in jars at 10m intervals)

NORTHCOR ET AL ISLAND RIVER G-38GEOLOGICAL MARKERSK.B. ELEVATION: 676.88m

<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>
<u>Cretaceous</u>						
Fort Nelson	-	-	110	+567	-	-
Sully	-	-	166	+511	-	-
Sikanni	-	-	365	+312	-	-
Buckinghorse	-	-	394	+283	-	-
<u>Mississippian</u>						
Flett	629	+48	622	+55	655	+21.9
Banff	705	-28	727	-50	728.6	-51.7
Exshaw	-	-	1014	-337	1024.5	-347.6
<u>Devonian</u>						
Kotcho	1014	-337	1026	-349	1031	-354.1
Tetcho	1220	-543	1233	-556	1236.2	-559.3
Trout River	1296	-619	1312	-635	1313	-636.1
Kakisa	1352	-675	1367	-690	1366.1	-689.2
Redknife	1366	-639	1381	-704	1382.2	-705.3
Jean Marie	1500	-823	1513	-836	1517.5	-840.6
Fort Simpson	1517	-840	1528	-851	1533.2	-856.3
Muskwa	2037	-1360	2040	-1363	2046	-1369.1
Slave Point	2052	-1375	2061	-1384	2063	-1386.1
Klua	-	-	2255	-1578	2264	-1587.1
Keg River Platform	2309	-1632	2335	-1658	2346	-1669.1
Chinchaga Detrital	2387	-1710	2416	-1739	2416	-1739.1
<u>Precambrian</u>	2487	-1810	Not reached		-	-
TOTAL DEPTH	2492	-1815	2446.4	-1769.5	2447.7	-1770.8

MERLIN PETROLEUM CONSULTING LTD.

DRILL STEM TEST REPORT

Well Name Northcor et al Island River G-38 Date March 18, 1984
 DST No. 1 Interval 2070 - 2087 meters Formation Slave Point
 Type of DST Conventional Bottom Hole Straddle
 Testing Company Quinn Testers Ltd. Operator Robin Brooks
 Preflow 10 mins ISI 60 mins V.O. 90 mins FSI 180 mins
 Blow Description Preflow: Fair increasing to strong in one minute;
 gas to surface in 2.5 minutes.

Valve Open: Gas to surface immediately with 2 to 3
 meter flare, stabilized throughout flow
 period.

Flow Rates :

Pressures:

<u>15</u> mins	<u>450</u> kPa	<u>3258</u> m ³ /day	IHP/FHP	<u>23262</u> / <u>23155</u> kPa
<u>30</u> mins	<u>525</u> kPa	<u>3710</u> m ³ /day	PF	<u>2026</u> kPa
<u>45</u> mins	<u>525</u> kPa	<u>3710</u> m ³ /day	ISIP/FSIP	<u>18464</u> / <u>12843</u> kPa
<u>60</u> mins	<u>525</u> kPa	<u>3710</u> m ³ /day	IFP/FFP	<u>1706</u> / <u>1664</u> kPa
<u>90</u> mins	<u>525</u> kPa	<u>3710</u> m ³ /day		BHT <u>21</u> °C
<u> </u> mins	<u> </u> kPa	<u> </u> m ³ /day	Orifice Size	<u>1/4</u>

Fluid Recovery 150m of slightly H₂S cut mud.

Samples Gas and drilling fluid samples. Sent to C&G Labs, High Level.

Remarks ISIP/FSIP ratio indicates low volume of gas in formation.

MERLIN PETROLEUM CONSULTING LTD.DRILL STEM TEST REPORT

Well Name Northcor et al Island River G-38 Date March 29, 1984
 DST No. 2 Interval 2061.5-2110 meters Formation Slave Point
 Type of DST Conventional Bottom Hole Straddle
 Testing Company Quinn Testers Ltd. Operator Joe Hogl
 Preflow 2 mins ISI _____ mins V.O. _____ mins FSI _____ mins
 Blow Description Preflow: Very good air blow, gas to surface in 1.5 minutes (15 foot flare).

Valve Open:

Flow Rates :			Pressures:	
_____ mins	_____ kPa	_____ m ³ /day	IHP/FHP	<u>24184</u> / <u>23829</u> kPa
_____ mins	_____ kPa	_____ m ³ /day	PF	<u>8171</u> kPa
_____ mins	_____ kPa	_____ m ³ /day	ISIP/FSIP	_____ / _____ kPa
_____ mins	_____ kPa	_____ m ³ /day	IFP/FFP	_____ / _____ kPa
_____ mins	_____ kPa	_____ m ³ /day	BHT	_____ C°
_____ mins	_____ kPa	_____ m ³ /day	Orifice Size	_____

Fluid Recovery 430 meters of drilling mud.

Samples

Remarks Upper packer seat lost within two minutes of starting on Preflow. Test abandoned.

NORTHCOR ET AL ISLAND RIVER G-38SAMPLE DESCRIPTIONS

50 - 100

Glacial Till: red-brown, constituents range from mica garnet schist to limestone, iron stained, unsorted, round to angular, unconsolidated.

100 - 110

Lost circulation - no samples.

110 - 112

Interbedded sandstone and shales.

Sandstone: light grey to occasional red-brown, very fine to fine grained and occasionally medium grained, bimodal, frosted transparent quartz, subrounded, biotite and muscovite mica, glauconitic, dark chert, iron stain in part, calcareous cement, white kaolin matrix in part, poorly indurated, poor porosity, no shows.

Shale: medium grey, blocky, calcareous, slightly silty, carbonaceous specks, poorly indurated.

Shale: tan, blocky, slightly calcareous, silty, occasionally sandy, grading to siltstone in part, poorly indurated.

112 - 126

Interbedded sandstone, siltstone and shale.

Sandstone: light grey, salt and pepper, very fine to fine grained, bimodal, sub-angular, translucent to transparent frosted quartz grains, trace black chert, trace chlorite mica, trace pyrite, glauconitic, dark grey argillaceous grains, calcareous cement, trace kaolin matrix, poorly sorted, poorly indurated, poor porosity (5%), no shows, occasional mineral fluorescence.

Siltstone: light grey, frosted transparent quartz, grading to sandstone, dark grey argillite grains, dark grey chert, calcareous, glauconitic, poorly indurated.

Shale: tan, dark carbonaceous specks, blocky, silty to sandy, moderately calcareous, poorly indurated.

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SAMPLE DESCRIPTIONS

- 126 - 166 Interbedded sandstone, siltstone and shale.
Sandstone: light grey, salt and pepper, very fine to fine grained, bimodal, subangular, transparent and translucent frosted quartz, trace dark grey chert, trace disseminated pyrite, glauconitic, dark grey argillite grains, carbonaceous partings, calcareous cement, kaolin matrix in part, poorly sorted, poorly indurated, poor and occasionally fair porosity, no shows, occasional mineral fluorescence, no cut.
Siltstone: as above (112 to 126m).
Shale: as above (112 to 126m).
- 166 - 187 Shale interbedded with dolomite and siltstone.
Shale: medium grey-brown with red hue, blocky, dolomitic, silty, grading to dolomite, moderately indurated, trace fossil fragments.
Dolomite: medium grey-brown with a red hue, cryptocrystalline, silty, argillaceous, well indurated, no apparent porosity, no shows.
Siltstone: medium grey-brown, argillaceous, carbonaceous specks, dolomitic, micaceous, frosted transparent quartz, moderately indurated.
- 187 - 207 Interbedded shale and siltstone.
Shale: medium grey-brown, blocky to platy, trace massive pyrite, fossil fragments, silty, dolomitic, moderately indurated.
Siltstone: as above (166 - 187m).
- 207 - 225 Interbedded shale and siltstone with occasional laminated dolomite.
Shale: as above (187 - 207m).
Siltstone: as above (166 - 187m).
Dolomite: white to medium red-brown, cryptocrystalline to microcrystalline, slightly silty to silty, well indurated, no apparent porosity, no shows.

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- 225 - 236 Shale interbedded with siltstone and sandstone.
Shale: as above (187 - 207m) but occasionally fractured (filled with calcite).
Siltstone: as above (166 - 187m).
Sandstone: light grey, very fine grained, subrounded, frosted transparent quartz, dark grey and brown chert, trace siderite matrix, trace glauconite, trace mica, poorly cemented with dolomite, poorly sorted, poorly indurated, poor porosity (5%), no shows.
- 236 - 270 Shale occasionally interbedded with siltstone.
Shale: medium to dark grey, blocky to platy, slightly calcareous, silty, fish scales, bentonitic to slightly bentonitic, micromicaceous, poorly indurated.
Siltstone: light grey, frosted subrounded quartz, carbonaceous flakes, dark grey argillite grains, poorly cemented, poorly indurated, occasionally laminated, traces of massive pyrite.
- 270 - 276 Shale interbedded with siltstone.
Shale: dark grey-brown, medium brown wet, blocky, slightly to moderately silty, slightly bentonitic, abundant fish scales, silty laminae, poorly indurated.
Siltstone: as above (236 - 270m).
- 276 - 280 Shale: dark grey, medium grey-brown wet, blocky to platy, fish scales, micromicaceous in part, bright lustre, trace massive pyrite, poorly indurated.
- 280 - 294 Shale occasionally interbedded with siltstone.
Shale: black, platy to blocky, petroliferous odor, floats on water, fish fossils, slightly bentonitic, moderately indurated, bright lustre, carbonaceous specks.
Siltstone: light grey, frosted subrounded quartz, carbonaceous flakes, dark grey argillite grains, poorly cemented, poorly indurated, occasionally laminated.

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SAMPLE DESCRIPTIONS

294 - 305

Interbedded sandstone and shale.

Sandstone: light grey, very fine grained, subangular, frosted transparent quartz, trace mica and biotite, brown argillite grains, trace dark grey chert, trace glauconite, argillaceous in part, calcareous cement, trace fish fossils, poorly sorted, poorly indurated, laminated and bedded, poor porosity, no shows.

Shale: black to dark grey, blocky to platy, petroliferous, silty, slightly bentonitic, moderately indurated, bright lustre, carbonaceous specks.

305 - 318

Interbedded shale, sandstone, and siltstone.

Shale: dark grey to black, blocky to platy, silty, mottled, slightly bentonitic, moderately indurated, bright lustre, carbonaceous specks.

Sandstone: as above (294 - 305m).

Siltstone: as above (280 - 294m).

318 - 327

Shale: dark grey, blocky, micromicaceous, dull to bright lustre, slightly dolomitic, bentonitic, silty, mottled in part, poorly indurated; laminated with siltstone.

327 - 350

Interbedded sandstone, siltstone and shale.

Sandstone: medium brown, very fine grained, frosted transparent and translucent quartz, subrounded, argillite grains, well cemented with dolomite, poorly sorted, well indurated, poor porosity (5%), no shows.

Siltstone: light grey to medium brown, frosted quartz, dolomitic cement, carbonaceous specks, argillite grains, poorly to well indurated; grading to sandstone.

Shale: as above (318 - 327m), but occasional *Inoceramus*.

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SAMPLE DESCRIPTIONS

- 350 - 358 Interbedded sandstone, siltstone and shale.
Sandstone: light grey, very fine grained, subrounded, frosted transparent quartz, abundant glauconite, argillite grains, minor silica cement, poorly indurated, moderately sorted, poor porosity (8%), no shows.
Siltstone: as above (327 - 350m).
Shale: as above (318 - 327m).
- 358 - 365 Interbedded siltstone and shale.
Siltstone: light grey to medium brown, frosted transparent quartz, dolomite and calcite cement, carbonaceous specks, argillite grains, well to poorly indurated.
Shale: dark grey, blocky, micromicaceous, dull lustre to bright lustre, slightly dolomitic, bentonitic, silty, mottled in part, glauconitic, Inoceramus, poorly indurated.
- 365 - 378 Sandstone occasionally interbedded with shale.
Sandstone: light grey to occasional medium brown, very fine to fine grained, dark grey chert, trace to abundant glauconite, calcareous cement, well sorted, grading to shale in part, poorly indurated, poor to fair porosity, occasional brown dead stain, no fluorescence, no cut.
Shale: as above (358 - 365m).
- 378 - 396 Interbedded sandstone, siltstone and shale.
Sandstone: light grey, fine to very fine grained, subrounded, trace siliceous overgrowths, trace black chert in part, pyrite in part, glauconitic, very well to well sorted, poorly cemented with calcite and silica, poorly indurated, fair to occasional good porosity, no shows.
Siltstone: as above (358 - 365m).
Shale: dark grey, platy to blocky, slightly bentonitic, disseminated pyrite, noncalcareous, micromicaceous, muscovite, poorly indurated.

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SAMPLE DESCRIPTIONS

- 396 - 419 Interbedded shale, sandstone and siltstone.
Shale: as above (378 - 396m).
Sandstone: light grey, very fine to occasional fine grained, translucent and transparent quartz, trace kaolin matrix, trace black chert, trace glauconite, trace siliceous cement, poorly cemented, trace argillite grains, moderately sorted, poorly indurated, poor porosity (3%), no shows.
Siltstone: as above (358 - 365m).
- 419 - 449 Interbedded shale and siltstone with occasional sandstone as above.
Shale: dark grey, platy to blocky, bentonitic, silty, micromicaceous, disseminated pyrite, bright lustre, mottled with silt grains in part, poorly indurated.
Siltstone: light grey, frosted transparent quartz, trace black chert, argillaceous in part, argillite grains, trace glauconite, calcareous cement in part, poorly indurated.
- 449 - 464 Interbedded shale and siltstone.
Shale: dark grey, platy to blocky, bentonitic, mottled with silt grains, trace massive pyrite, fish fossils, poorly indurated; grading to argillaceous siltstone.
Siltstone: as above (419 - 449m).
- 464 - 472 Interbedded siltstone and shale.
Siltstone: as above (419 - 449m).
Shale: medium to occasional dark grey, blocky, noncalcareous, very silty, bentonitic, micromicaceous, muscovite, dull lustre, open fractures, poorly indurated.
- 472 - 490 Shale interbedded with siltstone.
Shale: dark grey, platy to blocky, very silty, bentonitic, mottled with silt grains, bright lustre, poorly indurated.
Siltstone: as above (419 - 449m).

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SAMPLE DESCRIPTIONS

490 - 500

Shale occasionally interbedded with siltstone.

Shale: dark grey, platy, micromicaceous, bright lustre, silty to occasionally slightly silty, bentonitic, poorly indurated.

Siltstone: as above (419 - 449m).

500 - 525

Interbedded siltstone and shale.

Siltstone: frosted transparent quartz, light grey, trace kaolin matrix, glauconitic, trace grey chert, dolomitic cement, poorly indurated.

Shale: dark grey, platy, silty, fish scales, micromicaceous, bright lustre, disseminated pyrite, carbonaceous specks, trace bentonite, noncalcareous, poorly indurated.

525 - 529

Siltstone occasionally interbedded with shale.

Siltstone: light brown to light grey, frosted transparent quartz, glauconitic, trace argillite grains, kaolin grains, fish scales, trace dark grey chert, trace pyrite, light brown is dolomitic, light grey is siliceous and dolomitic, moderately indurated.

Shale: as above (500 - 525m).

529 - 542

Shale occasionally interbedded with siltstone.

Shale: dark grey to black, platy to splintery, silty, micromicaceous, muscovite, fish remains, poorly indurated.

Siltstone: as above (525 - 529m).

542 - 551

Shale occasionally interbedded with siltstone.

Shale: as above (529 - 542m).

Siltstone: light grey, frosted transparent quartz, glauconitic, trace argillite grains, kaolin grains, slightly dolomitic cement, increasingly siliceous, slightly bentonitic, trace pyrite in part, trace dark grey chert, poorly indurated.

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SAMPLE DESCRIPTIONS

- 551 - 560 Shale with minor interbedded siltstone.
Shale: dark grey to black, platy to splintery, silty, micromicaceous, muscovite, occasionally fish scales and fossils, trace glauconite occasionally, occasionally poorly indurated, traces of pyrite.
Siltstone: as above (542 - 551m).
- 560 - 576.5 Interbedded siltstone and shale.
Siltstone: light grey to medium brown, frosted transparent quartz, argillaceous, glauconitic, dolomitic cement, slightly siliceous, kaolin grains, trace dark grey chert, trace pyrite, poorly indurated.
Shale: as above (551 - 560m).
- 576.5 - 585 Shale occasionally laminated with siltstone.
Shale: dark grey to black, platy to splintery, silty, micromicaceous, occasional fish fossils and scales, bentonitic, poorly indurated.
Siltstone: as above (560 - 576.5m).
- 585 - 589 Siltstone occasionally interbedded with shale.
Siltstone: light grey, frosted transparent quartz, glauconitic, argillite grains, trace dark chert, occasional pyrite, calcareous and siliceous cement, poorly indurated.
- 589 - 600 Shale: as above (576.5 - 585m).
- 600 - 606 Shale: as above (576.5 - 585m), but fractured (filled with calcite).
- 606 - 618.25 Shale occasionally with thin bedded bentonite.
Shale: dark grey to black, platy to splintery, bentonitic, slightly calcareous, bright lustre, poorly indurated.
Bentonite: white, sandy, blocky, poorly indurated.

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SAMPLE DESCRIPTIONS

618.25 - 622

Bentonite occasionally interbedded with shale.

Bentonite: white, sandy, blocky, poorly indurated.

Shale: as above (606 - 618.25m)

622 - 630

Limestone occasionally interbedded with sandstone and shale.

Limestone: light grey, very finely crystalline, dolomite rhombs, fossiliferous (Crinoids), bioclastic, moderately indurated, sandy and silty, poor intercrystalline porosity, no shows.

Sandstone: light grey, very fine grained, frosted quartz grains, trace glauconite, siliceous cement to calcareous cement, well sorted, poorly indurated, fair porosity, no shows.

Shale: light green, blocky, slightly bentonitic, disseminated pyrite, waxy lustre, noncalcareous, poorly indurated.

630 - 635

Sandstone occasionally interbedded with limestone.

Sandstone: as above (622 - 630m), but very faint stain, no fluorescence, no cut.

Limestone: as above (622 - 630m).

635 - 640

Interbedded sandstone and limestone.

Sandstone: light grey, very fine grained, frosted quartz, trace glauconite, siliceous and calcareous cement, well sorted, trace pyrobitumen, poorly indurated, spotted light brown stain, trace bright fluorescence, fair cut.

Limestone: as above (622 - 630m), but massive cut.

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SAMPLE DESCRIPTIONS

640 - 653

Interbedded limestone, sandstone and shale.

Limestone: light grey, very finely crystalline, sandy and grading to sandstone in part, massive pyrite, poorly indurated, poor porosity, very faint light brown stain, bright light yellow fluorescence, fair light yellow cut.

Sandstone: light grey, very fine grained, frosted transparent quartz, grading to limestone, trace siliceous and calcareous cement, well sorted, poorly indurated, poor to fair porosity, faint brown stain, bright light yellow fluorescence, fair light yellow cut.

Shale: as above (622 - 630m).

653 - 665

Interbedded limestone and shale, occasionally with sandstone.

Limestone: light grey to buff, very finely crystalline to cryptocrystalline, dolomitic in part, massive cubic pyrite, silty in part, trace pyrobitumen, poorly indurated, poor intercrystalline porosity, very faint spotted stain, light yellow fluorescence, weak light yellow cut, no shows.

Shale: as above (622 - 630m).

Sandstone: as above (640 - 653m), but no cut (still fluoresce).

665 - 675

Interbedded limestone and shale.

Limestone: light grey to buff, dolomitic, cryptocrystalline to very finely crystalline, silty, massive pyrite, poorly to moderately indurated, fossiliferous (Crinoids, Brachiopods, Ostracods), poor parent porosity, no shows.

Shale: light green-grey, blocky, slightly bentonitic, disseminated pyrite in part, poorly indurated, waxy lustre, slightly calcareous.

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SAMPLE DESCRIPTIONS

- 675 - 686 Interbedded limestone, siltstone and shale.
Limestone: as above (665 - 675m).
Siltstone: light to medium brown, sandy, transparent quartz, argillaceous, dolomitic and calcareous cement, trace massive pyrite, fecal pellets, poorly indurated.
Shale: as above (665 - 675m).
- 686 - 695 Interbedded shale and siltstone.
Shale: light green to green-grey to buff, platy, waxy lustre, silty in part, dolomitic to slightly calcareous, poorly indurated.
Siltstone: as above (675 - 686m).
- 695 - 704 Shale: light grey to green to green-grey, platy, silty, slightly calcareous, waxy lustre, fossil fragments, poorly indurated.
- 704 - 719 Interbedded shale, siltstone and limestone.
Shale: as above (686 - 695m).
Siltstone: light to medium grey, argillaceous, transparent quartz, calcareous, poorly indurated.
Limestone: buff, cryptocrystalline to very finely crystalline, fossiliferous (Ostracods, Crinoids), dolomitic, well indurated, poor intercrystalline porosity, no shows, trace of mineral stain.
- 719 - 726.5 Limestone occasionally interbedded with shale and siltstone.
Limestone: light grey to buff, cryptocrystalline to microcrystalline, silty, occasional fossils (Ostracods), moderately indurated, no apparent porosity, no shows.
Shale: as above (695 - 704m).
Siltstone: as above (704 - 719m).

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SAMPLE DESCRIPTIONS

726.5 - 740

Interbedded limestone, shale and siltstone.

Limestone: as above (719 - 726.5m), but with minor vugs (secondary calcite lined), poor vuggy porosity, no shows.

Shale: green, platy, slightly silty, waxy lustre, disseminated pyrite, poorly indurated.

Siltstone: light grey, frosted transparent quartz, calcareous, trace dark grey chert, moderately indurated.

740 - 755

Interbedded limestone, siltstone and shale.

Limestone: as above (719 - 726.5m).

Siltstone: as above (726.5 - 740m), but argillaceous.

Shale: light grey to green to green-grey, platy, slightly silty, trace micromicaceous, slightly calcareous, disseminated pyrite, poorly indurated.

755 - 775

Interbedded siltstone and shale.

Siltstone: light grey, frosted transparent quartz, calcareous (nearly a limestone), trace dark grey chert, fossiliferous (Crinoids, Ostracods), poorly indurated.

Shale: light grey to light green, platy, micromicaceous, occasionally disseminated pyrite, moderately calcareous, green is slightly calcareous, poorly indurated.

775 - 778

Shale: light grey, brown hue, platy to blocky, calcareous, silty, waxy lustre in part, poorly indurated.

778 - 790

Shale occasionally interbedded with siltstone.

Shale: light to occasionally medium green, platy, dull lustre, fossiliferous (Ostracods), slightly calcareous, poorly indurated.

Siltstone: light grey, transparent frosted quartz, trace pyrobitumen, occasional fossils (Crinoids and Ostracods), poorly indurated, no fluorescence, no cut.

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SAMPLE DESCRIPTIONS

790 - 801

Sandstone occasionally interbedded with limestone and shale.

Sandstone: light grey, very fine grained, frosted transparent quartz, trace kaolin matrix, grading to siltstone, trace black chert, siliceous and calcareous cement, very well sorted, well indurated, poor porosity, no shows.

Limestone: light grey, cryptocrystalline to microcrystalline, bioclastic, silty and sandy, argillaceous in part, grading to sandstone, abundant fossils (Brachiopods, fecal pellets, Ostracods, Crinoids), well indurated, no apparent porosity, no shows.

Shale: as above (778 - 790m).

801 - 809

Interbedded sandstone and shale.

Sandstone: light grey, very fine grained, frosted transparent quartz, calcareous, subrounded, trace kaolin matrix, trace black chert, siliceous, very well sorted, trace light brown stain, moderately indurated, poor to a trace fair porosity, dull yellow fluorescence, weak moderately streaming yellow cut.

Shale: as above (778 - 790m).

809 - 819

Interbedded sandstone, limestone and shale.

Sandstone: as above (801 - 809m), but dead oil stain, pyrobitumen, no fossils.

Limestone: light grey, cryptocrystalline to microcrystalline, sandy, argillaceous in part, fossiliferous (Crinoids, Ostracods), moderately indurated, no apparent porosity, no shows.

Shale: as above (778 - 790m).

819 - 827

Siltstone interbedded with shale and occasionally limestone.

Siltstone: light to medium grey, trace black chert, subrounded, frosted quartz, calcareous cement, very well sorted, argillaceous in part, well indurated.

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SAMPLE DESCRIPTIONS

819 - 827
(Cont'd)

Shale: light grey to green, platy, slightly fissile, trace glauconite in part, sandy to silty, micromicaceous, slightly calcareous, swells in water, poorly indurated.

Limestone: as above (809 - 819m).

827 - 845

Shale occasionally interbedded with siltstone and limestone.

Shale: light grey to green to tan, platy, slightly silty, swells in water, slightly fissile, poorly indurated.

Limestone light grey, cryptocrystalline, silty, fossiliferous (Crinoids, Ostracods, Brachiopods), well indurated, no apparent porosity, no shows.

Siltstone: as above (819 - 827m).

845 - 860

Interbedded siltstone and shale.

Siltstone: light grey to medium brown, frosted subrounded quartz, argillaceous, calcareous, moderately indurated.

Shale: dark grey to dark yellow-brown, platy, micromicaceous, dull to bright lustre, disseminated pyrite, slightly to moderately silty, poorly indurated.

860 - 875

Shale interbedded with siltstone.

Shale: dark grey to traces of dark yellow-brown, platy, micromicaceous, dull to bright lustre, massive pyrite occasionally, fossiliferous (micritic Ostracods, sparry Crinoids and Ostracods), slightly to moderately silty, poorly indurated.

Siltstone: as above (845 - 860m).

875 - 882

Shale: dark grey to brown-grey, platy, slightly calcareous, slightly silty, dull lustre, Ostracods, iron stained concretions, poorly indurated.

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SAMPLE DESCRIPTIONS

- 882 - 887 Shale: dark grey, occasionally with green laminae, platy, micromicaceous, bright lustre, dull lustre in green laminae, Crinoid fossils, slightly silty, calcareous, poorly indurated.
- 887 - 905 Shale occasionally laminated with siltstone.
Shale: as above (882 - 887m), but occasionally with light grey-brown, moderately calcareous in part, silty laminae, Ostracod fossils.
Siltstone: as above (845 - 860m), but laminated.
- 905 - 922 Shale occasionally interbedded with siltstone.
Shale: dark to light grey, occasionally grey-green laminae, platy, silty, occasional laminae of siltstone, slightly swelling in water, disseminated pyrite, iron stained concretions occasionally, trace glauconite in part, occasionally fossiliferous (Crinoids, Ostracods), calcareous, poorly indurated.
Siltstone: as above (845 - 860m).
- 922 - 935 Shale occasionally laminated with siltstone.
Shale: dark grey to light grey, occasionally grey-brown, platy to blocky, calcareous, silty, siltstone laminae, massive pyrite, occasional traces of glauconite, poorly indurated.
Siltstone: as above (845 - 860m), but laminated.
- 935 - 940 Shale: dark to light grey, platy, silty, calcareous except siltstone laminae which are dolomitic, massive pyrite, poorly indurated.
- 940 - 955 Shale occasionally interbedded with siltstone and laminated with dolomite.
Shale: dark grey, platy, micromicaceous, slightly dolomitic, silty laminae is dolomitic, disseminated pyrite, black carbonaceous specks, poorly indurated.

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SAMPLE DESCRIPTIONS

940 - 955
(Cont'd)

Siltstone: medium brown, trace dark grey, frosted subangular quartz, dolomite cement, well indurated.

Dolomite: laminated, light grey, crypto-crystalline, silty, argillaceous, poorly to well indurated, occasional Ostracod fossils.

955 - 967

Shale occasionally laminated with siltstone.

Shale: as above (935 - 940m), but with occasional iron stained concretions.

Siltstone: as above (940 - 955m).

967 - 998

Shale occasionally with thin bedded siltstone.

Shale: dark grey to occasional grey-brown, micromicaceous, slightly dolomitic, silty dolomitic laminae, disseminated to massive pyrite, carbonaceous specks in part, dull lustre, trace Ostracod fossils, platy to blocky. poorly indurated.

Siltstone: medium brown, frosted quartz, trace dark chert, dolomitic, well indurated.

998 - 1012

Shale occasionally laminated with dolomite and siltstone.

Shale: as above (967 - 998m).

Siltstone: light grey to medium brown, frosted quartz, calcareous to dolomitic, laminated to very thin bedded, well indurated.

Dolomite: laminated, medium brown, silty, massive pyrite, well indurated, no apparent porosity, no shows.

1012 - 1030

Shale occasionally laminated with limestone.

Shale: dark grey to grey-brown to black, slightly calcareous to calcareous, platy, silty in part to non silty, disseminated pyrite, dull lustre, poorly indurated.

Limestone: light grey, microcrystalline, slightly argillaceous, disseminated pyrite, silty, moderately indurated, no apparent porosity, no shows.

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SAMPLE DESCRIPTIONS

1030 - 1041

Interbedded siltstone and shale.

Siltstone: light grey, subrounded, frosted transparent quartz, disseminated pyrite, calcareous, trace kaolin grains, trace black chert, well indurated.

Shale: medium grey to dark grey, blocky, slightly calcareous, silty, poorly indurated.

1041 - 1053

Interbedded shale, limestone and siltstone.

Shale: medium grey, blocky, slightly calcareous, fossiliferous (Ostracods), poorly indurated.

Limestone: light grey, microcrystalline, trace silty, trace mica, fossiliferous (Crinoids, Oolids), moderately indurated, no apparent porosity, no shows.

Siltstone: as above (1030 - 1041m).

1053 - 1066

Interbedded limestone and shale.

Limestone: buff, cryptocrystalline, abundant Crinoid and Ostracod fossils, clean, moderately indurated, no apparent porosity, no shows.

Shale: light grey, green hue, blocky to splintery, slightly fissile in part, dull lustre, calcareous, Ostracod and Crinoid fossils, poorly indurated.

1066 - 1077

Limestone occasionally interbedded with shale and dolomite.

Limestone: buff, microcrystalline, trace silty, slightly argillaceous, dolomite inclusions, fossiliferous (Brachiopods, Ostracods, Crinoids), moderately indurated, no apparent porosity, no shows.

1077 - 1083

Interbedded limestone and shale.

Limestone: as above (1066 - 1077m).

Shale: light grey to medium grey, blocky, slightly silty, calcareous, thin bedded to partings, fossiliferous (Brachiopods, Crinoids), poorly indurated.

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SAMPLE DESCRIPTIONS

- 1083 - 1086 Interbedded limestone and shale.
Limestone: as above (1066 - 1077m).
Shale: as above (1077 - 1083m), but pyritized fossil fragments and not thin bedded.
- 1086 - 1095.5 Shale occasionally interbedded with limestone..
Shale: light grey to light grey-green, occasionally dark grey, platy to blocky, calcareous, moderately silty, poorly indurated.
Limestone: as above (1066 - 1077m).
- 1095.5 - 1102 Interbedded limestone, dolomite and shale.
Limestone: buff, microcrystalline, trace silty, slightly argillaceous, dolomitic in part, slightly silty, fossiliferous (Crinoids, Ostracod), bioclastic, moderately indurated, no apparent porosity, no shows.
Dolomite: light grey, microcrystalline, calcareous, moderately silty, moderately indurated, no apparent porosity, no shows.
Shale: medium to dark grey, occasionally light grey, platy, occasionally blocky, fissile, slightly calcareous, micromicaceous, slightly silty to silty, poorly indurated, trace glauconite, silty laminae, slightly calcareous.
- 1102 - 1115 Shale: as above 1095.5 - 1102m).
- 1115 - 1125.5 Shale occasionally interbedded with limestone.
Shale: medium to dark grey to light grey with green hue, blocky to platy, micromicaceous, muscovite, fissile in part, slightly to moderately calcareous, dark in silty, light grey is slightly silty, massive pyrite, poorly indurated.
Limestone: as above (1095.5 - 1102m).

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SAMPLE DESCRIPTIONS

- 1125.5 - 1138 Shale interbedded with limestone.
Shale: light grey, blocky, calcareous, micromicaceous, muscovite, disseminated pyrite, silty to slightly silty, bright lustre, poorly indurated.
Limestone: light grey, bioclastic, silty in part, massive pyrite, cryptocrystalline, fossiliferous (Ostracods, Crinoids), moderately indurated, no apparent porosity, no shows.
- 1138 - 1161 Shale with occasional thin beds of limestone.
Shale: dark grey to black, blocky to platy, fissile in part, disseminated pyrite, slightly calcareous, silty in part, dull to bright lustre, poorly indurated, Ostracod fossils.
Limestone: as above (1125.5 - 1138m).
- 1161 - 1165 Shale: light grey, green hue to dark grey, slightly calcareous, silty in part, disseminated pyrite, dull to bright lustre, fissile in part, poorly indurated, Crinoid and Ostracod fossils.
- 1165 - 1190 Shale with occasional laminae of limestone.
Shale: light grey, slightly silty, calcareous, fossiliferous (Crinoids, Ostracods), poorly indurated.
Limestone: as above (1125.5 - 1138m).
- 1190 - 1199 Shale with occasional laminated limestone.
Shale: as above (1161 - 1165m), but occasional partings of light green, platy, moderately calcareous, silty, dull lustre, poorly indurated.
Limestone: as above (1125.5 - 1138m).
- 1199 - 1207 Limestone occasionally bedded with shale.
Limestone: light brown (cream), microcrystalline, dense, slightly silty, slightly argillaceous, well indurated, thin bedded to laminated shale, no apparent porosity, no shows.

NORTHCOR ET AL ISLAND RIVER G-38SAMPLE DESCRIPTIONS

- 1199 - 1207
(Cont'd) Shale: as above (1190 - 1199m).
- 1207 - 1214.75 Limestone with minor shale.
Limestone: light brown, cryptocrystalline, massive, dense, spar, well indurated, trace fossils (Crinoids), no apparent porosity, no shows.
Shale: as above (1190 - 1199m).
- 1214.75 - 1223 Limestone with occasional shale partings and laminated dolomite.
Limestone: as above (1207 - 1214.75m), but massive pyrite.
Dolomite: medium brown, microcrystalline, thin bedded to laminated, slightly argillaceous, moderately indurated, no apparent porosity, no shows.
Shale: as above (1190 - 1199m).
- 1223 - 1234 Limestone with occasional shale beds and partings.
Limestone: light brown, cryptocrystalline, massive, slightly silty, trace massive pyrite, trace vugs (calcite lined), closed fractures, poor vuggy porosity (less than 3%), no shows.
Shale: green, platy, calcareous partings, dull lustre, poorly indurated.
- 1234 - 1251 Limestone with minor shale partings.
Limestone: light brown, microcrystalline to cryptocrystalline, trace fossil fragments (Crinoids), white argillaceous material, moderately silty, trace vugs (pyrobitumen lined), well indurated, trace vuggy porosity, dead oil stain, no fluorescence, no cut.
Shale: light grey, green hue, blocky to platy, calcareous, silty, poorly indurated.

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SAMPLE DESCRIPTIONS

1251 - 1258

Limestone with occasional shale partings.

Limestone: buff to light brown, crypto-crystalline to trace very finely crystalline, massive, slightly argillaceous, slightly silty, dolomite crystals in part, well indurated, no apparent porosity, no shows.

Shale: grey-green to green, platy, dull lustre, calcareous to very calcareous, poorly indurated.

1258 - 1261

Limestone with partings of shale.

Limestone: as above (1251 - 1258m).

Shale: as above (1251 - 1258m), but also dark grey, platy, disseminated pyrite in part, calcareous, silty to slightly silty, poorly indurated.

1261 - 1276

Limestone with minor shale partings.

Limestone: light brown, cryptocrystalline, dolomite crystals, silty in part, trace Ostracods, well indurated, poor vuggy porosity, medium brown questionable stain, no fluorescence, no cut.

Shale: as above (1258 - 1261m).

1276 - 1279

Limestone with minor siltstone.

Limestone: as above (1261 - 1276m).

Siltstone: light grey, frosted transparent quartz, calcareous, trace kaolin grains, very well sorted, disseminated pyrite, well indurated.

1279 - 1287

Limestone with occasional siltstone and shale.

Limestone: light brown, cryptocrystalline, dolomite crystals, silty in part, stylolites with pyrobitumen, well indurated, trace vuggy and stylolitic porosity, dull yellow fluorescence, weakly streaming cut.

Siltstone: as above (1276 - 1279m).

Shale: as above (1258 - 1261m).

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SAMPLE DESCRIPTIONS

1287 - 1296

Limestone with minor interbedded shale.

Limestone: light brown, tan, sucrosic dolomite inclusions, cryptocrystalline, silty, massive pyrite, vuggy, occasional stylolites, medium brown stain, poor vuggy and stylolitic porosity, questionable to medium yellow fluorescence, medium yellow cut to no cut to no shows.

Shale: as above (1258 - 1261m).

1296 - 1309

Interbedded limestone, shale and siltstone.

Limestone: light brown, cryptocrystalline, massive pyrite, silty, argillaceous, well indurated, no apparent porosity, no shows.

Shale: light to medium grey, green hue in part, blocky to platy, moderately calcareous, slightly silty, micromicaceous, poorly indurated.

Siltstone: light grey to light brown, transparent quartz, calcareous cement, well indurated.

1309 - 1317

Interbedded limestone, siltstone and shale.

Limestone: light brown (cream), cryptocrystalline, massive pyrite, silty, argillaceous, well indurated, trace vuggy porosity, questionable and medium to dark brown stain, no fluorescence, no cut.

Siltstone: as above (1296 - 1309m).

Shale: light to dark grey, occasional grey-brown, dark grey is slightly calcareous and slightly silty, light grey is calcareous, micromicaceous, poorly indurated.

1317 - 1340

Interbedded siltstone, limestone and shale.

Siltstone: light grey to light brown, frosted transparent quartz, calcite overgrowths, calcareous cement, trace dark chert, trace glauconite in part, moderately indurated.

Limestone: light brown, cryptocrystalline, silty, well indurated, grading to siltstone, vuggy in part (calcite crystal lined), no shows.

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SAMPLE DESCRIPTIONS

- 1317 - 1340
(Cont'd) Shale: light grey to occasional dark grey, blocky and occasionally splintery, calcareous, slightly to moderately silty, dull lustre to bright lustre, micromicaceous, poorly indurated, occasionally has Ostracod fossils.
- 1340 - 1346 Siltstone with occasional limestone.
Siltstone: as above (1317 - 1340m).
Limestone: light brown, cryptocrystalline, silty, massive, vuggy, well indurated, medium brown stain to questionable stain, no fluorescence, no cut.
- 1346 - 1356 Interbedded siltstone, shale and limestone.
Siltstone: as above (1317 - 1340m).
Shale: medium grey, occasional green hue, platy to splintery, calcareous, moderately silty, poorly indurated.
Limestone: as above (1340 - 1346m), but Crinoid and Ostracod fossils.
- 1356 - 1367 Interbedded limestone, siltstone and shale.
Limestone: as above (1340 - 1346m), but abundant pyrobitumen.
Siltstone: light grey, frosted transparent quartz, trace dark grey chert, trace glauconite, trace zircon, disseminated pyrite, calcareous and grading to limestone, argillaceous and grading to shale in part, Crinoid fossils, well indurated.
Shale: as above (1346 - 1356m).
- 1367 - 1376 Siltstone interbedded with limestone and shale.
Siltstone: light to medium grey, frosted transparent quartz, trace dark grey chert, trace glauconite, calcareous, disseminated pyrite, argillaceous in part and grading to shale.
Limestone: as above (1356 - 1367m).
Shale: as above (1346 - 1356m).

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SAMPLE DESCRIPTIONS

1376 - 1381

Interbedded limestone and shale.

Limestone: light brown to medium grey-brown, cryptocrystalline, fossil fragments (Ostracods, Crinoids), dolomitic in part, argillaceous, moderately silty, well indurated, no apparent porosity, no shows.

Shale: as above (1346 - 1356m).

1381 - 1389

Interbedded siltstone, limestone and shale.

Siltstone: as above (1367 - 1376m).

Limestone: as above (1376 - 1381m), but occasional vuggy porosity, questionable stain, and Brachiopod fossils.

Shale: light grey to medium grey-brown, platy to blocky, calcareous, silty, micromicaceous in part, dull to bright lustre, moderately indurated, occasional Crinoid fossils.

1389 - 1399

Interbedded siltstone, limestone and shale.

Siltstone: light grey, frosted transparent quartz, black chert, calcareous cement, argillaceous in part and grading to shale, trace glauconite, trace kaolin grains, well indurated.

Limestone: light brown, cryptocrystalline, moderately silty to silty, white argillaceous matrix, well indurated, trace vuggy porosity, questionable oil stain, no fluorescence, no cut.

Shale: as above (1381 - 1389m).

1399 - 1419

Interbedded siltstone and shale with occasional limestone.

Siltstone: light grey to medium brown, frosted transparent quartz, trace black chert, trace glauconite, massive pyrite, calcareous, moderately argillaceous, moderately indurated.

Shale: light grey to medium brown, platy to blocky, micromicaceous, disseminated pyrite, calcareous, moderately silty, fossils (Ostracods), moderately indurated.

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SAMPLE DESCRIPTIONS

1399 - 1419
(Cont'd)

Limestone: as above (1389 - 1399m), but massive pyrite occasionally, Ostracod and Brachiopod fossils occasionally.

1419 - 1440

Shale occasionally interbedded with siltstone or limestone.

Shale: medium grey-brown to medium grey with green hue to occasional dark grey, platy, micromicaceous, slightly to moderately calcareous, slightly silty, trace Crinoid fossils, moderately to well indurated.

Siltstone: as above (1399 - 1419m).

Limestone: as above (1399 - 1419m).

1440 - 1457

Shale occasionally interbedded with limestone and siltstone.

Shale: as above (1419 - 1440m).

Limestone: light brown (cream), crypto-crystalline, silty in part, well indurated, Crinoid fossils, no apparent porosity, no shows.

Siltstone: as above (1399 - 1419m).

1457 - 1465

Shale occasionally with minor siltstone and laminated limestone.

Shale: as above (1419 - 1440m), but with pyritized Ostracod fossils and massive pyrite occasionally.

Siltstone: as above (1399 - 1419m).

Limestone: as above (1389 - 1399m).

1465 - 1476

Shale occasionally interbedded with siltstone.

Shale: light to medium grey, green to red hue to trace maroon, platy to splintery, occasionally blocky, slightly silty to silty, micromicaceous, occasionally with disseminated pyrite, moderately to well indurated, swells slightly in water.

Siltstone: as above (1399 - 1440m).

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SAMPLE DESCRIPTIONS

- 1476 - 1498 Interbedded shlae and siltstone with occasional limestone.
Shale: as above (1465 - 1476m).
Siltstone: light grey, transparent quartz, trace black chert, argillaceous in part, trace glauconite, well indurated, grading to shale and occasionally limestone, occasionally contains Brachiopod and Ostracod fossils.
Limestone: as above (1389 - 1399m).
- 1498 - 1501 Shale with occasionally interbedded limestone.
Shale: as above (1465 - 1476m).
Limestone: light brown, cryptocrystalline, slightly silty in part, slightly argillaceous, well indurated, no apparent porosity, no shows.
- 1501 - 1513 Shale occasionally interbedded with limestone and siltstone.
Shale: light grey, green to red hue to maroon and yellow-grey, blocky to platy and splintery, micromicaceous, carbonaceous specks, noncalcareous, slightly silty, massive pyrite.
Limestone: light brown, cryptocrystalline, slightly silty, slightly argillaceous, abundant Ostracod fossils, well indurated.
Siltstone: as above (1476 - 1498m).
- 1513 - 1525 Limestone: light to medium brown, cryptocrystalline to very finely crystalline, slightly silty, dolomitic, trace pyrobitumen, massive pyrite, well indurated, medium brown stain, poor intercrystalline and vuggy porosity, dull yellow fluorescence, weakly streaming medium yellow cut to questionable oil stain.
- 1525 - 1528 Limestone: light to medium brown, cryptocrystalline to very finely crystalline, slightly silty, dolomitic, trace pyrobitumen, massive pyrite, well indurated, medium brown stain, poor intercrystalline and vuggy porosity, dull yellow fluorescence, very weak streaming cut to no shows.

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SAMPLE DESCRIPTIONS

1528 - 1549

Shale with minor siltstone.

Shale: light grey, green to red hue to maroon, blocky to platy, occasionally splintery, noncalcareous to calcareous, micromicaceous, carbonaceous specks, slightly silty, massive pyrite, Crinoid and Ostracod fossils, poorly indurated.

Siltstone: light grey, transparent quartz, trace dark grey chert, massive pyrite, argillaceous in part, calcareous, well indurated.

1549 - 1563

Shale: medium to dark grey to grey-brown, occasionally maroon, platy to blocky, micromicaceous, calcareous to slightly calcareous, slightly silty to silty, poorly indurated, occasional Crinoid fossils.

1563 - 1575

Shale interbedded with siltstone and limestone.

Shale: as above (1549 - 1563m).

Siltstone: as above (1528 - 1549m).

Limestone: buff, cryptocrystalline, silty, massive, well indurated, no apparent porosity, no shows.

1575 - 1581

Shale with minor interbedded siltstone.

Shale: as above (1549 - 1563m).

Siltstone: light grey, frosted transparent quartz, trace dark grey chert, trace glauconite, sandy disseminated pyrite, calcareous, well indurated.

1581 - 1592

Shale and interbedded siltstone.

Shale: medium grey, maroon hue, platy and occasionally blocky, nonsilty to trace silty, poorly indurated.

Siltstone: as above (1575 - 1581m).

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SAMPLE DESCRIPTIONS

1592 - 1605

Shale with minor siltstone.

Shale: as above (1581 - 1592m), but traces of glauconite and Crinoid fossils.

Siltstone: as above (1575 - 1581m), but occasionally with massive pyrite and Crinoid fossil.

1605 - 1623

Interbedded sandstone and shale.

Sandstone: light to medium grey, very fine grained, frosted transparent quartz, subrounded to occasionally subangular, trace dark grey chert, trace kaolin grains, calcareous cement, abundant pyrobitumen, dark grey dead oil stain, no fluorescence, no cut.

Shale: medium grey, blocky and occasionally splintery and platy, micromicaceous, slightly to moderately calcareous, nonsilty (slightly calcareous) to silty (calcareous), poorly indurated.

1623 - 1636

Interbedded sandstone and shale.

Sandstone: as above (1605 - 1623m), but massive pyrite, rounded to subangular, unconsolidated quartz grains, iron stained, medium grained, abundant to occasional pyrobitumen.

Shale: as above (1605 - 1623m).

1636 - 1641

Interbedded sandstone and shale.

Sandstone: light grey, subangular to subrounded, frosted transparent quartz grains, trace dark grey to red chert, trace kaolin grains, calcareous cement, argillaceous in part and grading to shale, very well to well sorted, abundant pyrobitumen in part, well indurated, dead oil stain to no shows, no fluorescence, no cut.

Shale: as above (1605 - 1623m).

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SAMPLE DESCRIPTIONS

1641 - 1649

Interbedded sandstone and shale.

Sandstone: as above (1636 - 1641m), but occasional massive pyrite.

Shale: as above (1605 - 1623m).

1649 - 1656

Interbedded sandstone and shale.

Sandstone: as above (1641 - 1649m).

Shale: medium grey to medium grey-brown, platy to splintery, micromicaceous in part, dull to bright lustre, sandy laminae, slightly calcareous, poorly indurated.

1656 - 1671

Interbedded sandstone and shale.

Sandstone: light grey, frosted transparent quartz, subrounded to subangular, trace black chert, calcareous cement, well sorted, abundant pyrobitumen in part, trace kaolin grains, brown stain in part, well indurated, dead oil stain to dull yellow fluorescence, non-streaming cut, poor porosity.

Shale: as above (1649 - 1656m).

1671 - 1681.5

Interbedded sandstone, laminated limestone and shale.

Sandstone: light grey, very fine grained, subangular, frosted transparent quartz, trace black and orange chert, trace glauconite, trace kaolin grains, trace mica, calcareous to siliceous cement, argillaceous in part, abundant pyrobitumen in part, well sorted, well indurated, poor porosity, dead oil stain, no fluorescence, no cut.

Limestone: light grey, micromicaceous, silty, well indurated, trace poor vuggy porosity, questionable stain in part, no fluorescence, no cut.

Shale: as above (1649 - 1656m).

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SAMPLE DESCRIPTIONS

1681.5 - 1704

Shale and sandstone interbedded.

Shale: light to medium grey, brown hue, blocky to splintery, slightly calcareous, slightly silty, trace carbonaceous specks, poorly indurated.

Sandstone: light grey, very fine grained, subangular, frosted transparent quartz, trace white kaolin grains, trace glauconite, trace dark grey chert, trace biotite mica, well sorted, calcareous to siliceous cement, well indurated, occasional pyrobitumen, poor porosity, dead oil stain to no shows, no fluorescence, no cut.

1704 - 1728

Interbedded sandstone, shale and occasionally siltstone.

Sandstone: as above (1681.5 - 1704m).

Shale: light to medium grey, brown hue, blocky to splintery, slightly calcareous, slightly silty, trace carbonaceous specks, poorly indurated, fossiliferous (Crinoids, Ostracods).

Siltstone: light grey, frosted transparent quartz, trace dark grey chert, trace glauconite, trace kaolin, calcareous to siliceous, well indurated.

1728 - 1732

Siltstone and sandstone interbedded.

Siltstone: light grey, frosted transparent quartz, trace kaolin grains, trace glauconite, trace dark chert, trace biotite mica, calcareous and siliceous cement, argillaceous in part, well indurated.

Sandstone: as above (1681.5 - 1704m).

1732 - 1739

Interbedded sandstone, siltstone and shale.

Sandstone: as above (1681.5 - 1704m).

Siltstone: as above (1728 - 1732m).

Shale: light to medium grey, green to brown hue, blocky to platy and occasionally splintery, slightly silty, slightly calcareous, trace carbonaceous specks, poorly indurated, occasionally sandy, occasionally fossiliferous (Crinoids, Ostracods).

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SAMPLE DESCRIPTIONS

1739 - 1757

Interbedded sandstone, siltstone and shale.

Sandstone: light grey, very fine grained, frosted transparent quartz, trace black chert, trace biotite mica, subrounded to subangular, calcareous to occasionally siliceous cement, silty, bimodal, grading to siltstone, well indurated, trace pyrobitumen, poor porosity, very faint non-streaming cut, faint yellow fluorescence in part to questionable oil stain.

Siltstone: light grey to medium grey-brown, frosted transparent quartz, trace black chert, trace mica, trace pyrobitumen, calcareous, sandy, argillaceous in part, grading to shale.

Shale: medium grey to medium grey-brown, platy to blocky and occasionally splintery, slightly calcareous, slightly silty to silty, micromicaceous, grading to siltstone, poorly indurated.

1757 - 1769

Interbedded siltstone and shale.

Siltstone: light grey, frosted transparent quartz, trace black chert, trace massive pyrite, calcareous and siliceous cement, grading to sandstone in part, well indurated.

Shale: light to medium grey, blocky to splintery, slightly calcareous to moderately calcareous, silty to slightly silty, grading to siltstone, poorly to moderately indurated.

1769 - 1784

Shale occasionally interbedded with sandstone.

Shale: light to medium grey-brown to light grey-green, platy to splintery, silty in part, dull waxy lustre, noncalcareous, poorly indurated.

Sandstone: light to medium grey-brown to light grey-green, very fine grained, frosted transparent quartz, subangular, bimodal, silty in part, calcareous and siliceous cement, trace dark chert, well to very well sorted, argillaceous in part, poor porosity, dull yellow fluorescence, very faint non-streaming cut to dead oil stain.

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SAMPLE DESCRIPTIONS

- 1784 - 1794 Interbedded sandstone, siltstone and shale.
Sandstone: as above (1769 - 1784m), but massive pyrite occasionally, no shows to minor dead oil stain.
Shale: as above (1769 - 1784m).
Siltstone: as above (1757 - 1769m).
- 1794 - 1812 Shale occasionally interbedded with sandstone.
Shale: light grey-green, occasionally grey-brown, platy to splintery, trace carbonaceous specks, dull lustre to occasional bright lustre, occasionally micromicaceous, slightly to moderately calcareous, moderately silty to nonsilty, poorly indurated.
Sandstone: as above (1769 - 1784m), but questionable medium brown stain to no shows.
- 1812 - 1822 Shale occasionally interbedded with sandstone.
Shale: as above (1794 - 1812m).
Sandstone: light to medium brown to light grey, very fine grained, frosted transparent quartz, subangular, trace black chert, trace mica, calcareous and siliceous cement, well sorted, well indurated, shale partings, poor porosity, questionable light to medium brown questionable stain to no shows, no fluorescence, no cut.
- 1822 - 1836 Shale with minor interbedded and laminated sandstone.
Shale: as above (1794 - 1812m).
Sandstone: as above (1812 - 1822m), but very faint nonstreaming cut in part.
- 1836 - 1848 Shale with minor laminated sandstone.
Shale: light to medium grey, green to brown hue, platy and occasionally splintery, micromicaceous in part, slightly calcareous, occasionally silty, poorly to moderately indurated.
Sandstone: as above (1812 - 1822m), but no shows.

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SAMPLE DESCRIPTIONS

1848 - 1860

Shale occasionally interbedded with sandstone.

Shale: as above (1836 - 1848m), but occasional Ostracod fossils.

Sandstone: light grey, very fine grained, frosted transparent quartz, subangular, trace dark grey chert, micaceous (phlogopite), calcareous and siliceous cement, argillaceous, moderately to well sorted, trace pyrobitumen, well indurated, poor porosity, trace dead oil stain to no shows.

1860 - 1870

Shale: medium grey-green to occasionally light to medium grey, splintery to platy, micromicaceous in part, dull lustre to occasional bright lustre, poorly indurated, slightly calcareous.

1870 - 1898

Shale with minor interbedded siltstone and laminated limestone.

Shale: medium grey-brown to medium grey to traces of black, platy to splintery with minor blocky (black), slightly calcareous, black shale is petroliferous with carbonaceous specks, micromicaceous in part, dull to occasional bright lustre, poorly indurated.

Siltstone: as above (1757 - 1769m).

Limestone: cream, laminated, cryptocrystalline, well indurated, no apparent porosity, no shows.

1898 - 1925

Shale with minor laminated siltstone.

Shale: medium grey-green, occasionally light to medium grey to black, platy to splintery, slightly calcareous, dull with occasionally bright lustre, micromicaceous (grey), black is petroliferous, mottled appearance, fossiliferous (Crinoids and Ostracods), poorly indurated, occasionally massive pyrite.

Siltstone: as above (1757 - 1769m).

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SAMPLE DESCRIPTIONS

- 1925 - 1963 Shale with minor laminated limestone and siltstone.
Shale: as above (1898 - 1925m).
Limestone: cream, cryptocrystalline, laminated, well indurated, no apparent porosity, no shows.
Siltstone: as above (1757 - 1769m).
- 1963 - 1982 Shale with minor thin bedded siltstone.
Shale: medium to occasional dark grey-green, minor black, platy to blocky and splintery, carbonaceous in part, poorly indurated, dull lustre.
Siltstone: as above (1757 - 1769m).
- 1982 - 2007 Shale: as above (1963 - 1982m), but black as laminae and inclusions in grey-green.
- 2007 - 2026 Shale with trace laminated sandstone.
Shale: medium to dark grey-green with occasional black, platy to blocky and splintery, fissile in part (black), carbonaceous partings and inclusions in black and occasionally in grey-green, slightly calcareous, trace disseminated pyrite, trace Crinoid fossils, black laminae increasing downwards in section, poorly indurated.
Sandstone: light grey, very fine grained, laminated, subangular frosted quartz, abundant mica (biotite), calcareous cement, well indurated, poor porosity, no shows.
- 2026 - 2040 Shale with laminated siltstone.
Shale: medium to dark grey-green to grey-brown to black, platy to blocky to splintery, dull lustre, fissile in part, thin bedded, slightly dolomitic, abundant disseminated pyrite and mica, slightly silty, black has mottled appearance in part, carbonaceous in part, poorly indurated.
Siltstone: light to medium grey, frosted transparent quartz, argillaceous, trace black chert, abundant glauconite in part, dolomite cement, well indurated.

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SAMPLE DESCRIPTIONS

- 2040 - 2041 Siltstone: light grey, frosted transparent quartz, calcareous, trace dark chert, well indurated.
- 2041 - 2050 Shale: medium to dark grey-brown to black, platy to blocky, fissile in part, carbonaceous, thin bedded, slightly silty, calcareous to slightly calcareous, moderately indurated.
- 2050 - 2061 Shale: black to dark grey-brown, blocky, mottled, slightly dolomitic, carbonaceous, moderately silty, moderately indurated.
- 2061 - 2063 Limestone: white to trace medium brown, finely crystalline, disseminated pyrite, well indurated, no apparent porosity, no shows.
- 2063 - 2066 Limestone: medium brown, moderately to fine crystalline, disseminated pyrite, abundant pyrobitumen in part, well indurated, vuggy, poor porosity, spotted medium brown to dead oil stain, no fluorescence, no cut.
- 2066 - 2070 Limestone: as above (2061 - 2063m).
- 2070 - 2077 Limestone: white to medium brown, micro-crystalline to occasionally coarsely crystalline, spar shows cleavage, trace stylolites (pyrobitumen lined), vuggy (pyrobitumen lined to medium brown stained), well indurated, no shows to occasional dead oil stain.
- 2077 - 2084 Limestone: medium brown, very finely to finely crystalline, slightly dolomitic, well indurated, trace pyrobitumen, abundant questionable medium brown stain, no fluorescence, no cut, poor vuggy and intercrystalline porosity.
- 2084 - 2094 Limestone: white to light brown, micro-crystalline to minor very finely crystalline, spar shows cleavage, trace microscopic mica, trace vugs (pyrobitumen lined), well indurated, no apparent porosity to occasional poor porosity (less than 3%), no shows to dead oil stain.

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- 2094 - 2106 Limestone: white to light brown, micro-crystalline, slightly dolomitic, disseminated pyrite, trace stylolites (pyrobitumen lined), well indurated, mica, trace vuggy porosity to no apparent porosity, no shows to trace dead oil stain.
- 2106 - 2120 Limestone: light brown to white, micro-crystalline to occasional finely crystalline, trace massive pyrite, slightly dolomitic, dolomite rhombs, trace vugs, trace pyrobitumen, microscopic mica, well indurated, no apparent to trace vuggy porosity, no shows to trace dead oil stain.
- 2120 - 2135 Limestone: light brown, microcrystalline to very finely crystalline, trace vugs (pyrobitumen lined), sparry calcite, trace micrite fossil fragments in part, occasional stylolites, well indurated, microscopic mica, no apparent to occasional poor vuggy porosity (less than 3%), no shows to dead oil stain.
- 2135 - 2142 Limestone: medium brown to dark grey-brown, microcrystalline to very finely crystalline, argillaceous partings, dense, massive pyrite, microscopic mica, well indurated, no apparent to poor vuggy porosity, no shows.
- 2142 - 2146 Limestone: light brown, microcrystalline to occasionally finely crystalline, trace vuggy, microscopic mica, well indurated, no apparent porosity to poor vuggy porosity with dead oil stain.
- 2146 - 2154 Limestone: white to light brown, micro-crystalline to finely crystalline, micro-crystalline is dense, trace vuggy (pyrobitumen lined), sparry calcite, nonargillaceous, moderate indurated, trace vuggy porosity, no shows to dead oil stain.
- 2154 - 2165 Limestone: white to light brown, micro-crystalline to very finely crystalline, microcrystalline is dense, trace vuggy (pyrobitumen lined) sparry calcite, nonargillaceous, trace clear chert, calcite crystal overgrowths, poor vuggy porosity, no shows to trace dead oil stain.

NORTHCOR ET AL ISLAND RIVER G-30SAMPLE DESCRIPTIONS

- 2165 - 2172 Limestone: white to light brown, chalky lustre, microcrystalline to very finely crystalline, slightly dolomitic in part, trace massive pyrite, spar shows cleavage, massive, well indurated, trace intercrystalline porosity (less than 3%) to no apparent porosity, no shows to trace dead oil stain.
- 2172 - 2186 Limestone with occasional laminated dolomite.
Limestone: as above (2165 - 2172m).
Dolomite: clear, cryptocrystalline, massive, well indurated, laminated, no apparent porosity, no shows.
- 2186 - 2193 Limestone with trace laminated dolomite.
Limestone: white to light brown, microcrystalline to very finely crystalline, chalky lustre, trace sandy (frosted clear to light grey quartz grains), trace dolomite rhombs, well indurated, no apparent to trace intercrystalline porosity, no shows.
Dolomite: as above (2172 - 2186m).
- 2193 - 2204 Limestone: as above (2186 - 2193m), but trace stylolites with dead oil on, trace fossil fragments, fractured (calcite filled), occasionally sandy.
- 2204 - 2214 Limestone: white to cream, microcrystalline to finely crystalline, trace clear chert, trace vugs (crystal lined), fractured (calcite filled), sparry, trace fossils (oolites), sandy (frosted quartz grains), trace dolomite crystal inclusions, well indurated, poor vuggy porosity (less than 3%), no shows.
- 2214 - 2224.2 Limestone with shale partings.
Limestone: as above (2204 - 2214m), but also medium grey-brown, massive, trace microscopic mica, well indurated, no apparent porosity, no shows.
Shale: dark grey to black, blocky, fissile, dolomitic, disseminated pyrite, moderately to well indurated.

NORTHCOR ET AL ISLAND RIVER G-38

SAMPLE DESCRIPTIONS

2224.2 - 2240

Limestone: light grey to cream, cryptocry-
stalline to finely crystalline, trace medium
crystalline, trace sandy (light grey quartz
grains), trace dolomite inclusions, trace
clear chert, microscopic mica, trace stylolite
(pyrobitumen lined), trace fossil fragments,
well indurated, no apparent to trace vuggy
and intercrystalline porosity, no shows to
trace dead oil stain.

2240 - 2259

Limestone: light grey to dark grey-brown,
cryptocrystalline to occasionally finely
crystalline, mottled appearance in part,
argillaceous in part, occasionally grading to
black shale partings, trace massive pyrite,
well indurated, no apparent porosity, no shows
to trace dead oil stain, no fluorescence, no
cut.

2259 - 2269

Interbedded limestone and shale.

Limestone: as above (2240 - 2259m), but
fractured (closed, calcite filled) and
abundant massive pyrite.

Shale: black, blocky, mottled, partings to
thin beds, carbonaceous, very calcareous
grading to limestone, slightly silty, moder-
ately indurated.

2269 - 2278.5

Interbedded limestone and marlstone and
shale.

Limestone: medium grey-brown to dark grey,
mottled, cryptocrystalline to microcrystal-
line, very argillaceous, Crinoid fossils,
well indurated, no apparent porosity, no shows.

Marlstone: medium grey-brown, calcareous,
argillaceous, inclusions of sparry calcite,
poorly indurated.

Shale: as above (2259 - 2269m).

NORTHCOR ET AL ISLAND RIVER G-38

SAMPLE DESCRIPTIONS

2278.5 - 2290

Limestone interbedded with marlstone.

Limestone: medium grey-brown, crypto-crystalline to microcrystalline, dolomite crystals, trace argillaceous, well indurated, no apparent porosity, no shows.

Marlstone: as above (2269 - 2278.5m).

2290 - 2298

Interbedded limestone and shale.

Limestone: medium to dark grey, brown hue, cryptocrystalline, argillaceous, dark grey chert, well indurated, no apparent porosity, no shows.

Shale: black, mottled, blocky, very calcareous, fossils (Crinoids, Brachiopods), well indurated.

2298 - 2316

Interbedded limestone and shale.

Limestone: light brown to dark grey-brown, argillaceous in part, cryptocrystalline to microcrystalline, minor very finely crystalline, fecal pellets, fractured (calcite filled), trace dark chert to clear chert, well indurated, no apparent to trace poor intercrystalline porosity, no shows to trace dead oil stain.

Shale: as above (2290 - 2298m).

2316 - 2326

Shale interbedded with limestone.

Shale: dark grey to black, blocky, mottled, micromicaceous, calcareous grading to limestone, moderately to well indurated.

Limestone: light grey to medium brown to dark grey-brown, cryptocrystalline to finely crystalline, dark grey chert, argillaceous in part, fossils, trace pyrobitumen, well indurated, no apparent to trace intercrystalline porosity, no shows to trace dead oil stain.

NORTHCOR ET AL ISLAND RIVER G-38

SAMPLE DESCRIPTIONS

2326 - 2335

Limestone with occasional partings of shale.

Limestone: medium to dark grey-brown, cryptocrystalline to microcrystalline, mottled, very argillaceous, disseminated pyrite, microscopic mica, fossiliferous (Crinoids), trace silty, well indurated, no apparent porosity, no shows.

Shale: as above (2316 - 2326m).

2335 - 2342

Limestone: as above (2326 - 2335m), but fractured (closed, calcite filled), trace black chert, occasionally not as argillaceous.

2342 - 2352

Limestone occasionally interbedded with shale.

Limestone: light grey to medium brown, cryptocrystalline to very finely crystalline, trace crystalline calcite, occasional dolomite rhombs, microscopic mica, slightly to nonargillaceous, fecal pellets and Crinoid fossils, fractured (calcite filled), well indurated, no apparent to trace vuggy porosity, no shows.

Shale: medium grey-green, platy, dull waxy lustre, slightly calcareous, disseminated pyrite, poorly indurated.

2352 - 2360

Limestone with occasional shale partings.

Limestone: medium brown, cryptocrystalline to finely crystalline, very slightly argillaceous, trace pyrobitumen, well indurated, no apparent porosity to poor intercrystalline porosity, no shows.

Shale: as above (2342 - 2352m).

2360 - 2373

Limestone occasionally interbedded with dolomite.

Limestone: light grey to medium brown, very finely to medium crystalline, dolomite rhombs, slightly silty, microscopic mica, slightly argillaceous, disseminated pyrite, abundant micrite pellets in spar, trace pyrobitumen, well indurated, no apparent porosity, no shows to trace dead oil stain.

NORTHCOR ET AL ISLAND RIVER G-38SAMPLE DESCRIPTIONS

2360 - 2373
(Cont'd)

Dolomite: light grey to light brown, moderately to very finely crystalline, micritic pellet ghosts, calcareous, disseminated pyrite, microscopic mica, trace pyrobitumen, moderately indurated, poor intercrystalline porosity, dead oil stain to no shows.

2373 - 2380

Interbedded limestone and dolomite.

Limestone: as above, but decrease in pellets.

Dolomite: as above (2360 - 2373m).

2380 - 2388

Dolomite: light brown to medium brown, microcrystalline to medium crystalline, rhombic crystals, calcareous in part, in part silty, pyrobitumen in part, microscopic mica, moderately to well indurated, poor intercrystalline porosity, dead oil stain to no shows.

2388 - 2393

Dolomite with occasional laminated anhydrite.

Dolomite: as above (2380 - 2388m), but occasionally siliceous, well formed crystals, slight anhydritic.

Anhydrite: white, cryptocrystalline, poorly indurated.

2393 - 2400

Dolomite with occasional shale partings.

Dolomite: light brown, microcrystalline to occasional very finely crystalline, white anhydrite inclusions, slightly argillaceous, slightly silty, microscopic mica, well indurated, no apparent porosity, no shows.

Shale: medium grey-green, platy, dolomitic, dull lustre, moderately indurated.

2400 - 2410

Interbedded dolomite and anhydrite.

Dolomite: as above (2393 - 2400m).

Anhydrite: as above (2388 - 2393m).

NORTHCOR ET AL ISLAND RIVER G-38

SAMPLE DESCRIPTIONS

2410 - 2415

Interbedded dolomite and anhydrite.

Dolomite: light brown to dark grey-brown, cryptocrystalline to microcrystalline, argillaceous in part (grading to shale), anhydritic, slightly silty, well indurated, no apparent porosity, no shows.

Anhydrite: as above (2388 - 2393m).

2415 - 2421

Shale interbedded with dolomite.

Shale: medium grey-green to black with brown hue, dolomitic, dull lustre, anhydritic, slightly silty, moderately indurated.

Dolomite: as above (2410 - 2415m).

2421 - 2435

Interbedded dolomite, sandstone, shale and anhydrite.

Dolomite: light to medium brown, microcrystalline to very finely crystalline, calcareous in part, sandy, slightly argillaceous, trace disseminated pyrite, well indurated, poor intercrystalline porosity to no apparent porosity, no shows to questionable oil stain.

Sandstone: light grey, very fine to occasionally medium grained, bimodal, subrounded to rounded grains, frosted transparent quartz, trace red chert, disseminated pyrite, siliceous to trace calcareous cement, occasionally grading to anhydrite, well to very well indurated, poor porosity (less than 5%), no shows.

Shale: as above (2415 - 2421m).

Anhydrite: white, cryptocrystalline, sandy, massive, poorly indurated.

2435 - 2438

Dolomite: light to medium brown, microcrystalline to minor finely crystalline, anhydritic, pyrite laminae, trace vuggy (crystal lined), well indurated, no apparent to poor intercrystalline and vuggy porosity, no shows.

NORTHCOR ET AL ISLAND RIVER G-38

SAMPLE DESCRIPTIONS

2438 - 2446.4

Anhydrite occasionally interbedded with dolomite and shale.

Anhydrite: light brown (cream) to light grey, blocky, cryptocrystalline, argillaceous and sandy in part, poorly indurated.

Dolomite: as above (2435 - 2438m).

Shale: as above (2415 - 2421m).

TOTAL DEPTH: 2446.4m (driller)

2447.7m (logger)

QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST DATA

PHONE 290-1704

PHONE 290-1704

CUSTOMER	NORTHCOR ENERGY LTD.	DATE	84-03-29	TEST NO.	2
LOCATION	NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W		FORMATION	SLAVE POINT	
TEST INTERVAL	2061.5	TO	2110	T.D.	2446.4
CUSTOMER REP. Mr. FRENCHIE DUPERRON			TESTER JOE HUGI		
IN Rec./No. 16522	TEMP Rec./No. 13898	OUT Rec./No. 17467	OUT Rec./No. 14012	OUT Rec./No. 4395	
12 Hr 34474	24 Hr 1 - 124°C	24 Hr 45845	24 Hr 46884	12 Hr 53082	
2054.081 Metres	2055.605 Metres	2068.083 Metres	2069.607 Metres	2113.178 Metres	
PERCENTAGE OF POROSITY _____ METRES OF NET PAY _____ No. of Reports Required 17					
D.P. Size, mm 89	Wght, kg/m 23.1	D.C.I.D. mm 55	D.C. Above Tool, m 158.99	P.O. Sub	.305
Main Hole, mm 155	Rat Hole, mm	Rat Hole Depth, m	Mud Wgt, kg/m ³ 1170	D.P./Blank	1.219
Viscosity, s/L 73	Water Loss cm ³ 9.50	Bottom Choke, mm 12.7	Rubber Size, mm 140	Recorder	
Anchor Size, mm 89 & 127	Amount and Type of Cushion .90 LITRES OF INHIBITOR			Shut-In	1.625
				Sampler	
				Sampler	
				Hydraulic	1.665
				Jars	1.420
				Recorder	1.524
				Recorder	
				Temp Rec.	1.829
				By-Pass	.305
				Safety Jt.	.601
				Packer	2.012
				Packer	1.355 2061.402
				Packer	.280
				Perfs	6.096
				By-Pass	.305
				Recorder	1.219
				Recorder	1.524
				X Over	.305
				X Over/D.C. ABOVE TOOL	37.790
				X Over	.305
				Packer	.790 2110.016
				Packer	.845
				Packer	2.012
				Recorder	1.524
				Perfs	3.353
				X Over	.305
				D.P./XXX	327.430
				X Over	.305
				Perfs	
				Bullnose	.610 2446.400
TOTAL FLUID RECOVERY: 430 Metres Sampler # : TOTAL MUD LOSS M					
Sampled @ 430 Metres of DRILLING MUD					
Metres of					
Metres of					
Metres of					
REMARKS: Mud Run X : Ok : Tool Opened @ 2336 Hrs.					
SKID TOOL TO BOTTOM FOR APPROXIMATELY 3 METRES. STRONG AIR BLOW ON PREFLOW, GAS TO SURFACE IN 1.5 MINUTES. MUD IN ANNULUS STARTED TO DROP AND WHEN UNSUCCESSFUL TO STOP IT FROM DROPPING, WE RESET PACKERS AGAIN WITH SAME RESULTS. PULLED TEST OUT OF HOLE.					

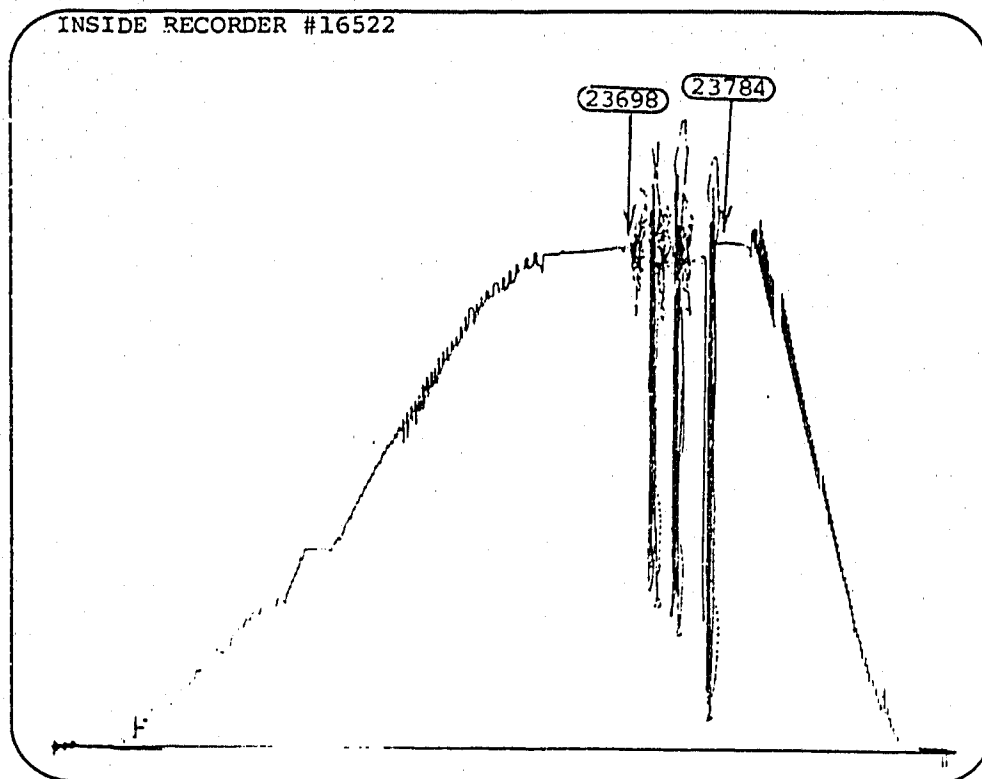
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

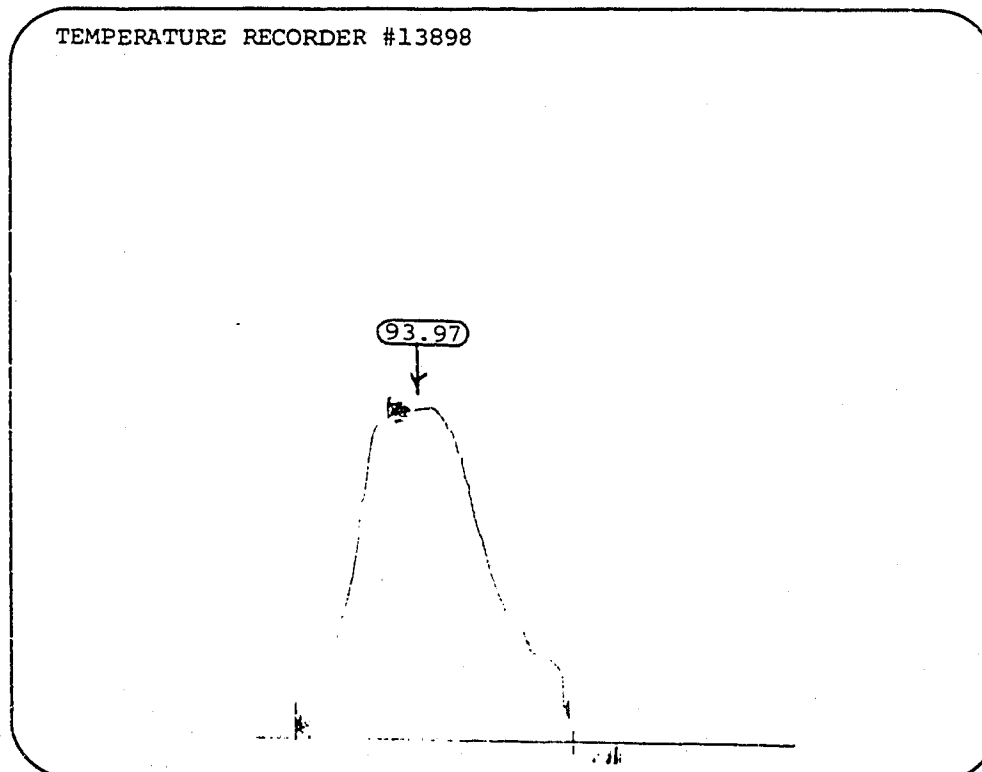
INSIDE RECORDER #16522



INITIAL HYDR. 23 784
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 698

NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2

TEMPERATURE RECORDER #13898



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

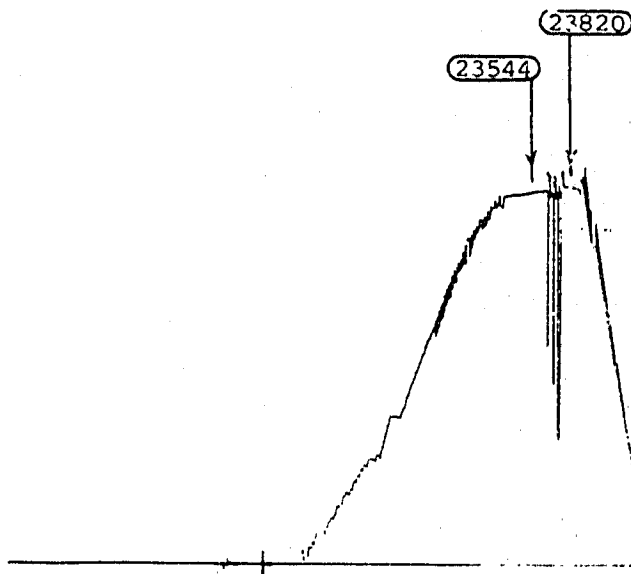
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

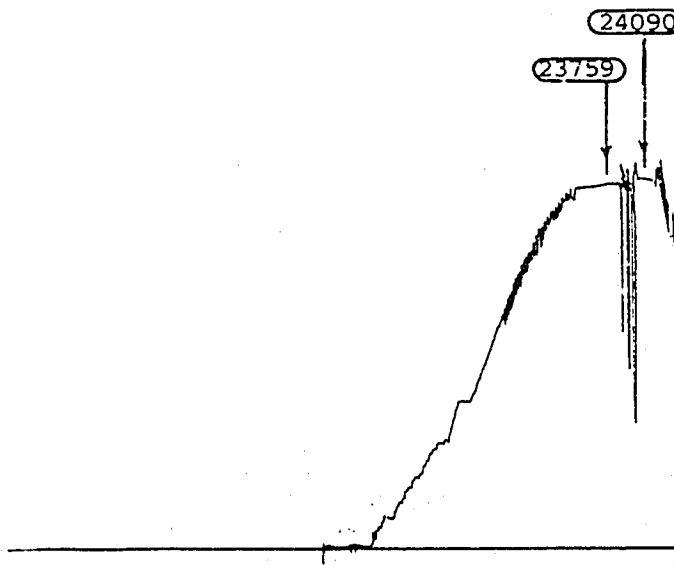
OUTSIDE RECORDER #17467



INITIAL HYDR. 23 820
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 544

NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2

OUTSIDE RECORDER #14012



INITIAL HYDR. 24 090
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 759

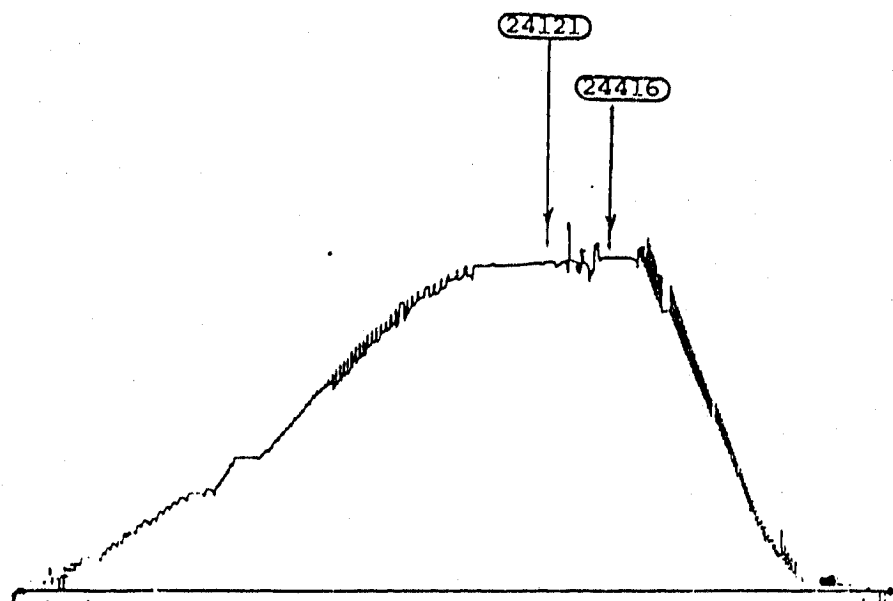
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

OUTSIDE RECORDER #4395



INITIAL HYDR. 24 416
IN. PREFLOW _____
F. PREFLOW _____
1st SHUT-IN _____
1st IN. FLOW _____
1st F. FLOW _____
2nd SHUT-IN _____
2nd IN. FLOW _____
2nd F. FLOW _____
3rd SHUT-IN _____
3rd IN. FLOW _____
3rd F. FLOW _____
4th SHUT-IN _____
FINAL HYDR. 24 121

NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2

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

QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST DATA

PHONE 290-1704

PHONE 290-170

CUSTOMER NORTHCOR ENERGY LTD. DATE 84-03-29 TEST NO. 2

LOCATION NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W FORMATION SLAVE POINT

TEST INTERVAL 2061.5 TO 2110 T.D. 2446.4 TEST TYPE DSBP

CUSTOMER REP. Mr. FRENCHIE DUPERRON TESTER JOE HUGI

IN Rec./No.	TEMP Rec./No.	OUT Rec./No.	OUT Rec./No.	OUT Rec./No.
<u>12</u> Hr. <u>34474</u>	<u>24</u> Hr. <u>1 - 124°C</u>	<u>24</u> Hr. <u>45845</u>	<u>24</u> Hr. <u>46884</u>	<u>12</u> Hr. <u>53082</u>
<u>2054.081</u> Metres	<u>2055.605</u> Metres	<u>2068.083</u> Metres	<u>2069.607</u> Metres	<u>2113.178</u> Metres

PERCENTAGE OF POROSITY _____ METRES OF NET PAY _____ N. of Reports Required 17

D.P. Size, mm 89 Wght. kg/m 23.1 D.C.I.D. mm 55 D.C. Above Tool, m 158.99
Main Hole, mm 155 Rat Hole, m n _____ Rat Hole Depth, m _____
Mud Wght. kg/m³ 1170 Viscosity, s/l. 73 Water Loss cm³ 9.50
Bottom Choke, mm 12.7 Rubber Size, mm 140 Anchor Size, mm 89 & 127
Amount and Type of Cushion 90 LITRES (OF INHIBITOR)

P.O. Sub	<u>1.305</u>
D.P./Blank	<u>1.219</u>
Recorder	
Shut-In	<u>1.625</u>
Sampler	
Sampler	
Hydraulic	<u>1.665</u>
Jars	<u>1.420</u>
Recorder	<u>1.524</u>
Recorder	
Temp Rec.	<u>1.829</u>
By-Pass	<u>.305</u>
Safety Jt.	<u>.601</u>
Packer	<u>2.012</u>
Packer	<u>1.355</u>

Pretlow _____ Mins.		1st Shut-In _____ Mins.		Recorder No. <u>14012</u>		Field Readings	
1st Flow _____ Mins.		2nd Shut-In _____ Mins.		I H <u>24184</u> kPa		F F _____ kPa	
2nd Flow _____ Mins.		3rd Shut-In _____ Mins.		I P F _____ kPa		2nd S I _____ kPa	
Bottom Hole Temperature °C <u>95</u>				P F F <u>8171</u> kPa		I F _____ kPa	
K B <u>676.8</u> Gr. <u>672.1</u>				1st S I _____ kPa		F F _____ kPa	
Started in @ <u>2030</u>		Out of Hole @ <u>0800</u>		I F _____ kPa		3rd S I _____ kPa	
						F H <u>23829</u> kPa	

GAS RECOVERY: Measured with:

Gas Samples: # 264 : # _____ To _____

[illegible]

Packer	_____	.280	
Perfs	_____	6.096	
By-Pass	_____	.305	
Recorder	_____	1.219	
Recorder	_____	1.524	
X Over	_____	.305	
X Over / D.C.	_____	37.790	
X Over	_____	.305	
Packer	_____	.790	2110.016
Packer	_____	.845	
Packer	_____	2.012	
Recorder	_____	1.524	
Perfs	_____	3.353	
X Over	_____	.305	
D.P. / X	_____	327.430	
X Over	_____	.305	
Perfs	_____		
Bullnose	_____	.610	2446.400

TOTAL FLUID RECOVERY: 430 Metres Sampler # : # TOTAL MUD LOSS M

Sampled @ _____ Above Tool _____

430 Metres of DRILLING MUD

Metres of

_____ Metres of

Metres of

REMARKS: Misrun — X : Ok _____ : Tool Opened @ 2336 Hrs

SKID TOOL TO BOTTOM FOR APPROXIMATELY 3 METRES. STRONG AIR BLOW ON PREFLOW, GAS TO SURFACE IN 1.5 MINUTES. MUD IN ANNULUS STARTED TO DROP AND WHEN UNSUCCESSFUL TO STOP IT FROM DROPPING, WE RESET PACKERS AGAIN WITH SAME RESULTS. PULLED TEST OUT OF HOLE.

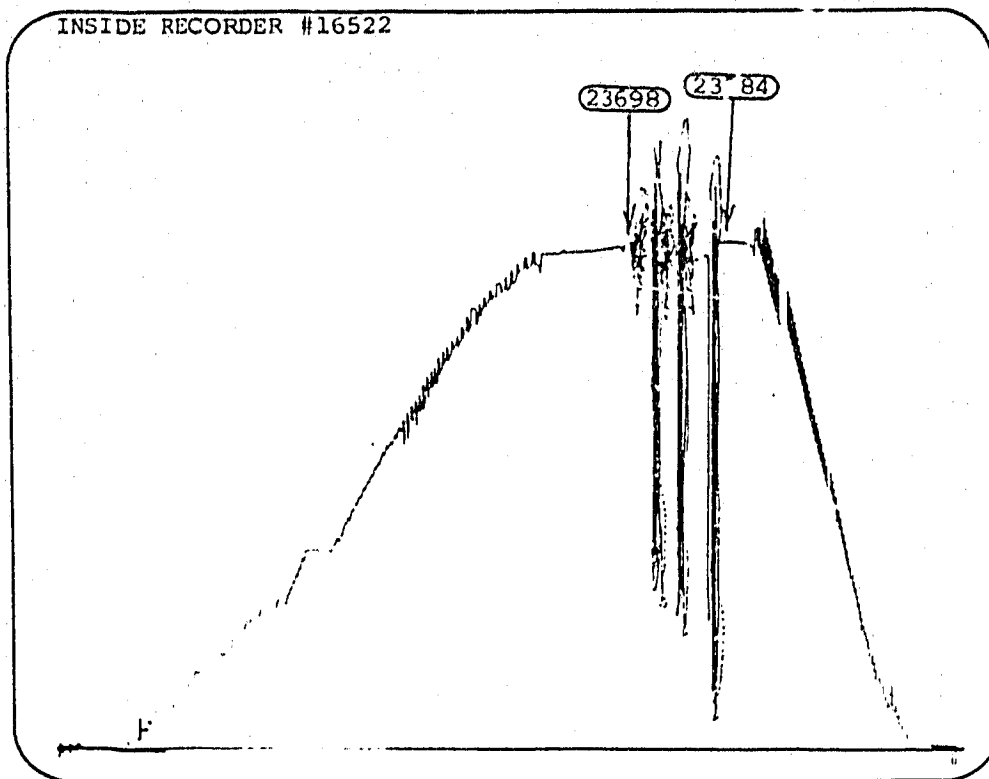
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

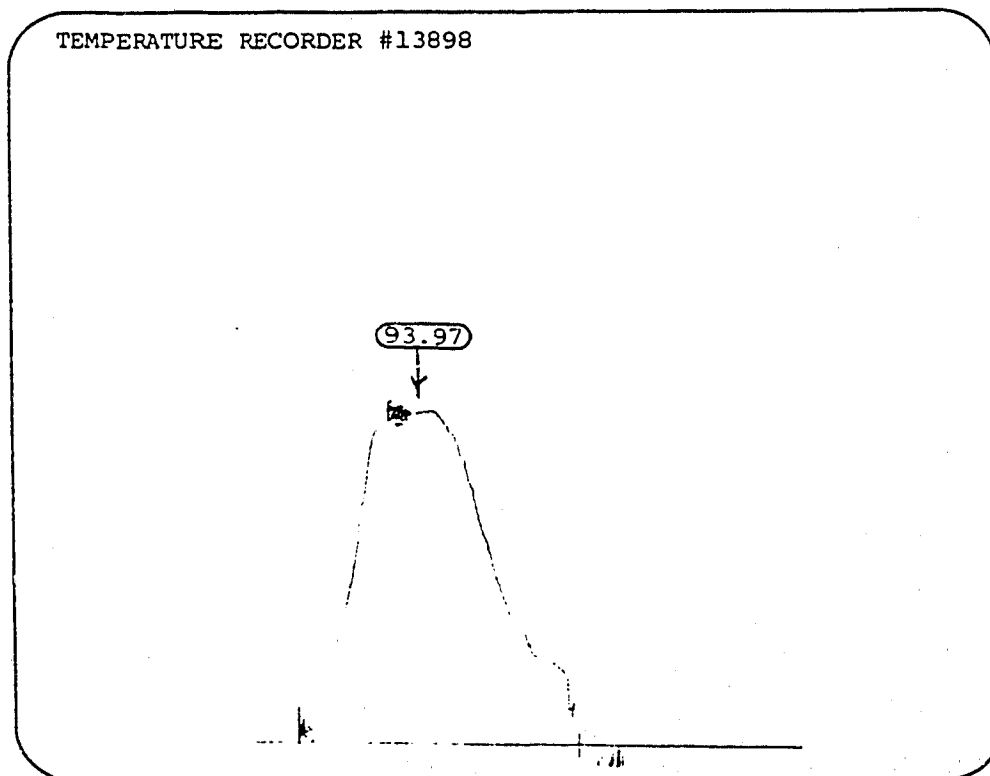
INSIDE RECORDER #16522



INITIAL HYDR. 23 784
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 698

NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2

TEMPERATURE RECORDER #13898



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

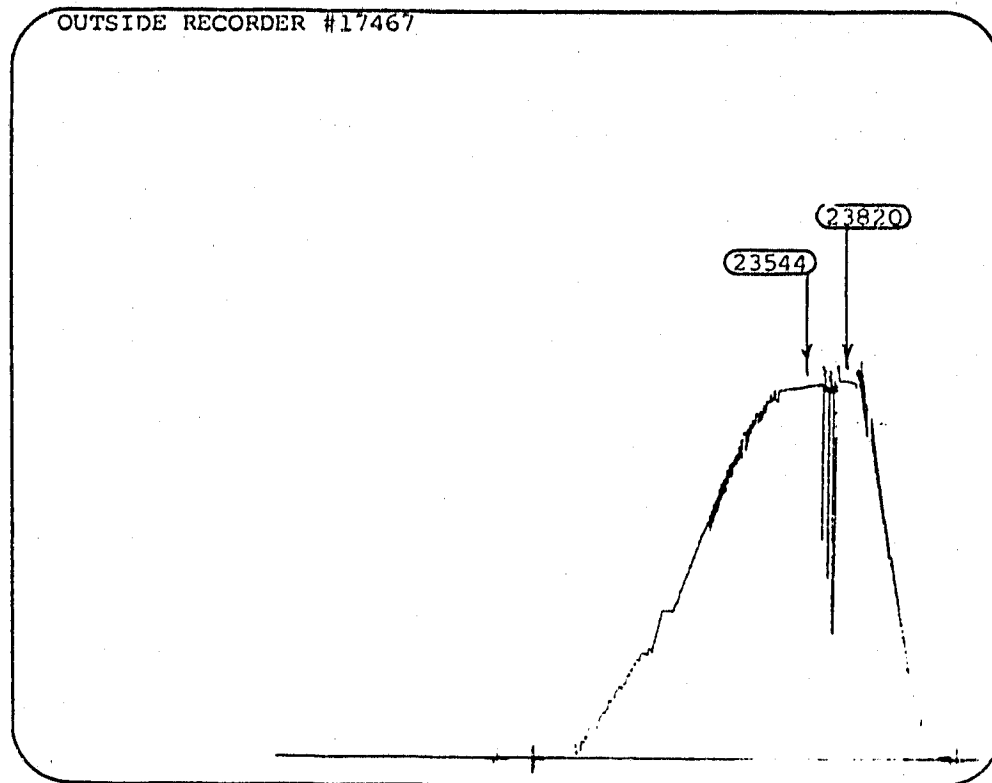
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

PHONE 290-1704

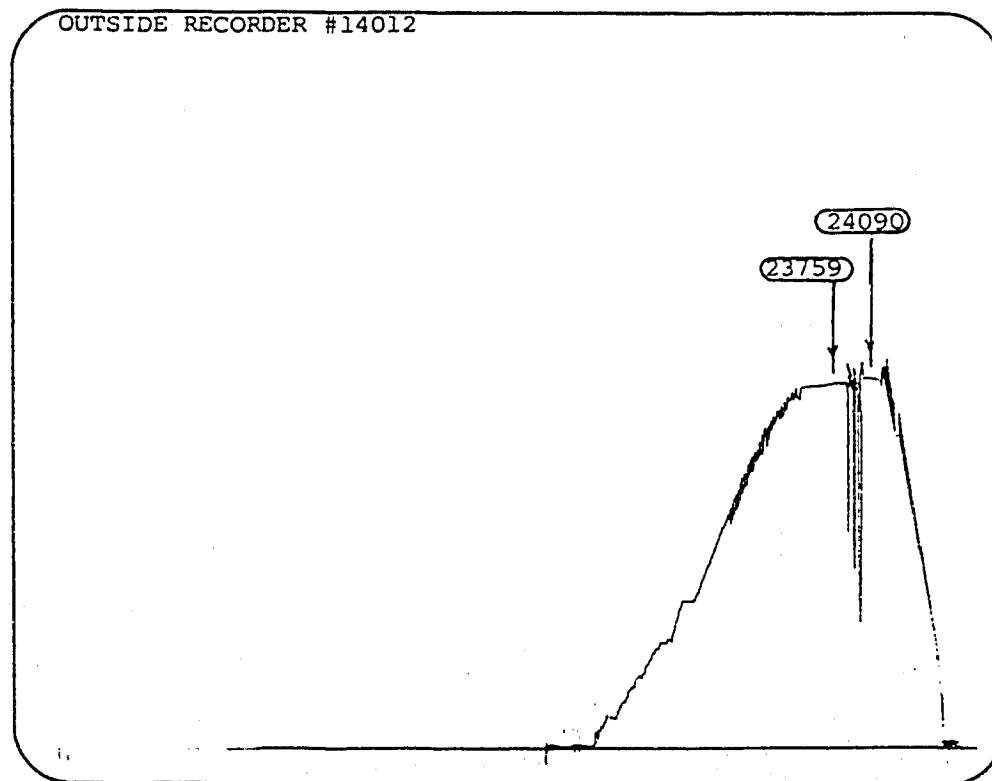
OUTSIDE RECORDER #17467



INITIAL HYDR. 23 820
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 544

NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2

OUTSIDE RECORDER #14012



INITIAL HYDR. 24 090
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 23 759

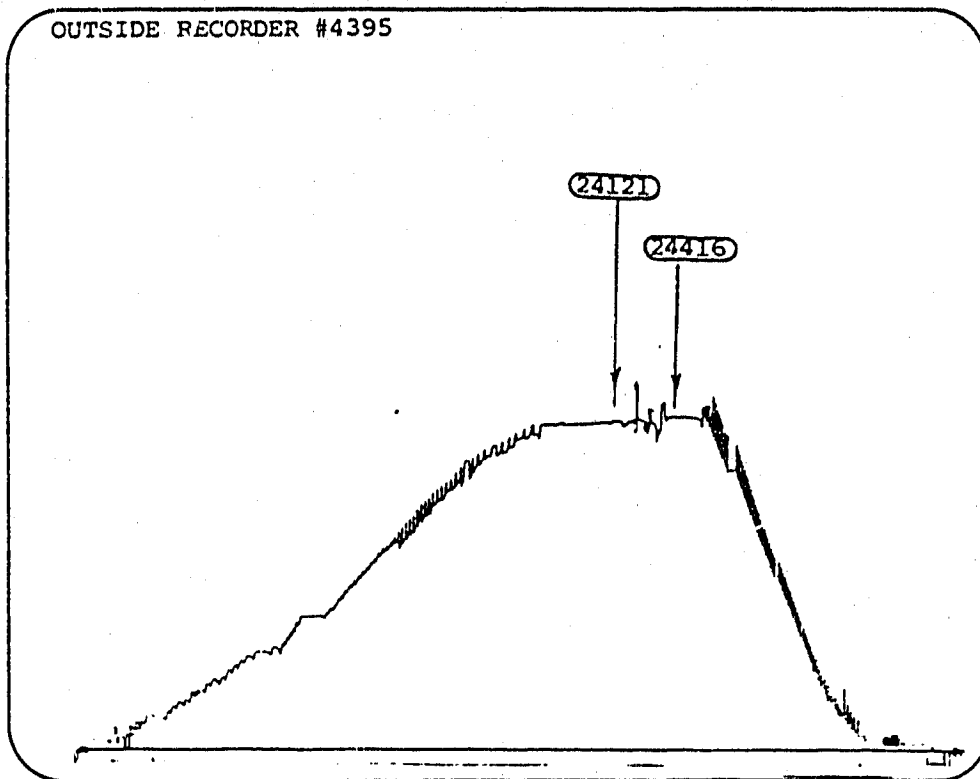
QUINN TESTERS LTD.

CALGARY, ALBERTA

TEST CHARTS

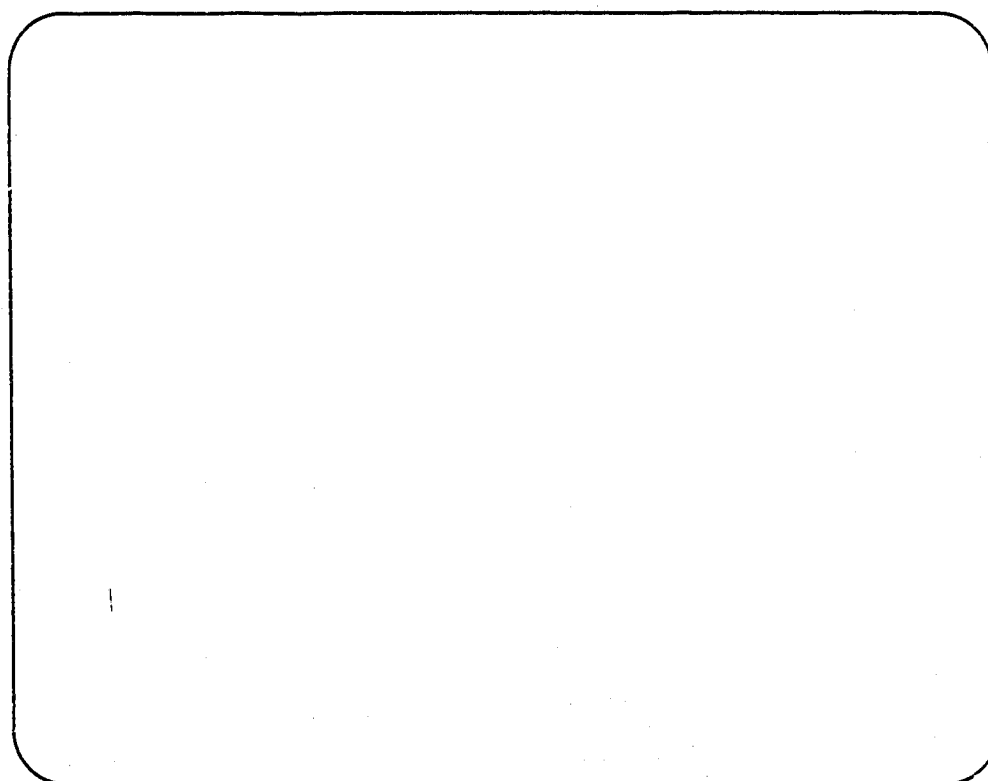
PHONE 290-1704

OUTSIDE RECORDER #4395



INITIAL HYDR. 24 416
 IN. PREFLOW _____
 F. PREFLOW _____
 1st SHUT-IN _____
 1st IN. FLOW _____
 1st F. FLOW _____
 2nd SHUT-IN _____
 2nd IN. FLOW _____
 2nd F. FLOW _____
 3rd SHUT-IN _____
 3rd IN. FLOW _____
 3rd F. FLOW _____
 4th SHUT-IN _____
 FINAL HYDR. 24 121

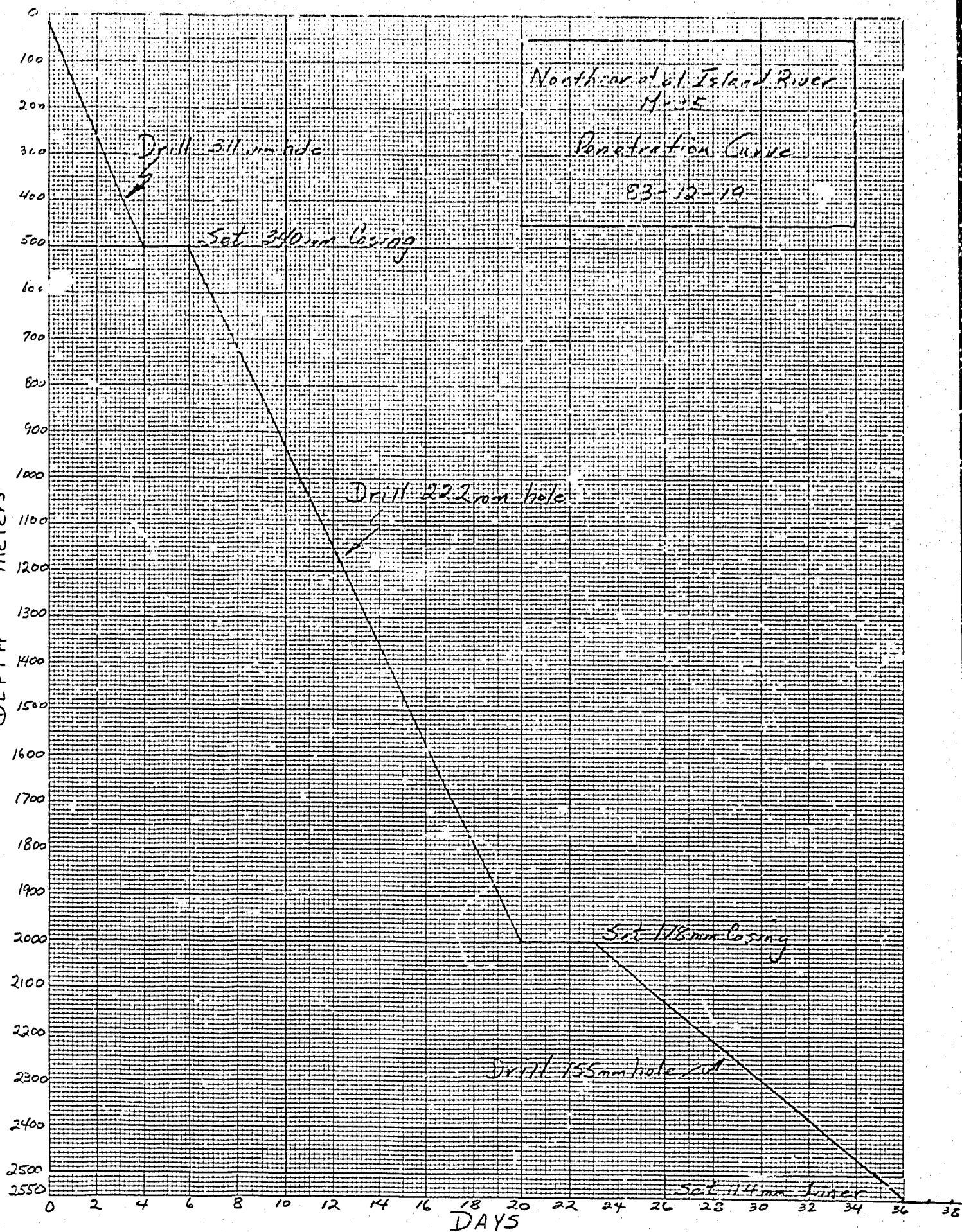
NORTHCOR ISLAND RIVER G-38 60°7'3" 121°6'19"W DST #2



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

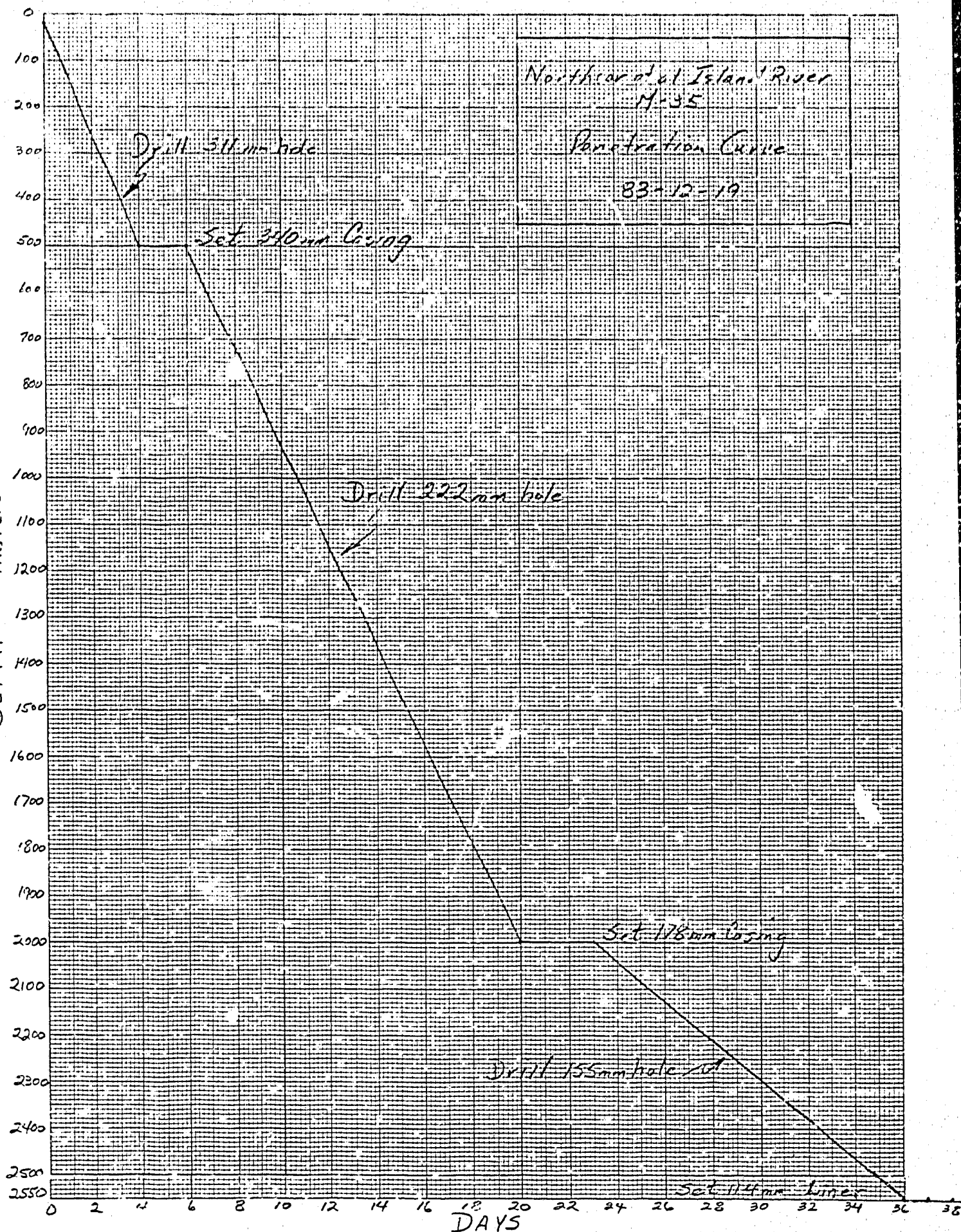
DEPTH
meters

DEPTH
MILLIMETER



DEPTH

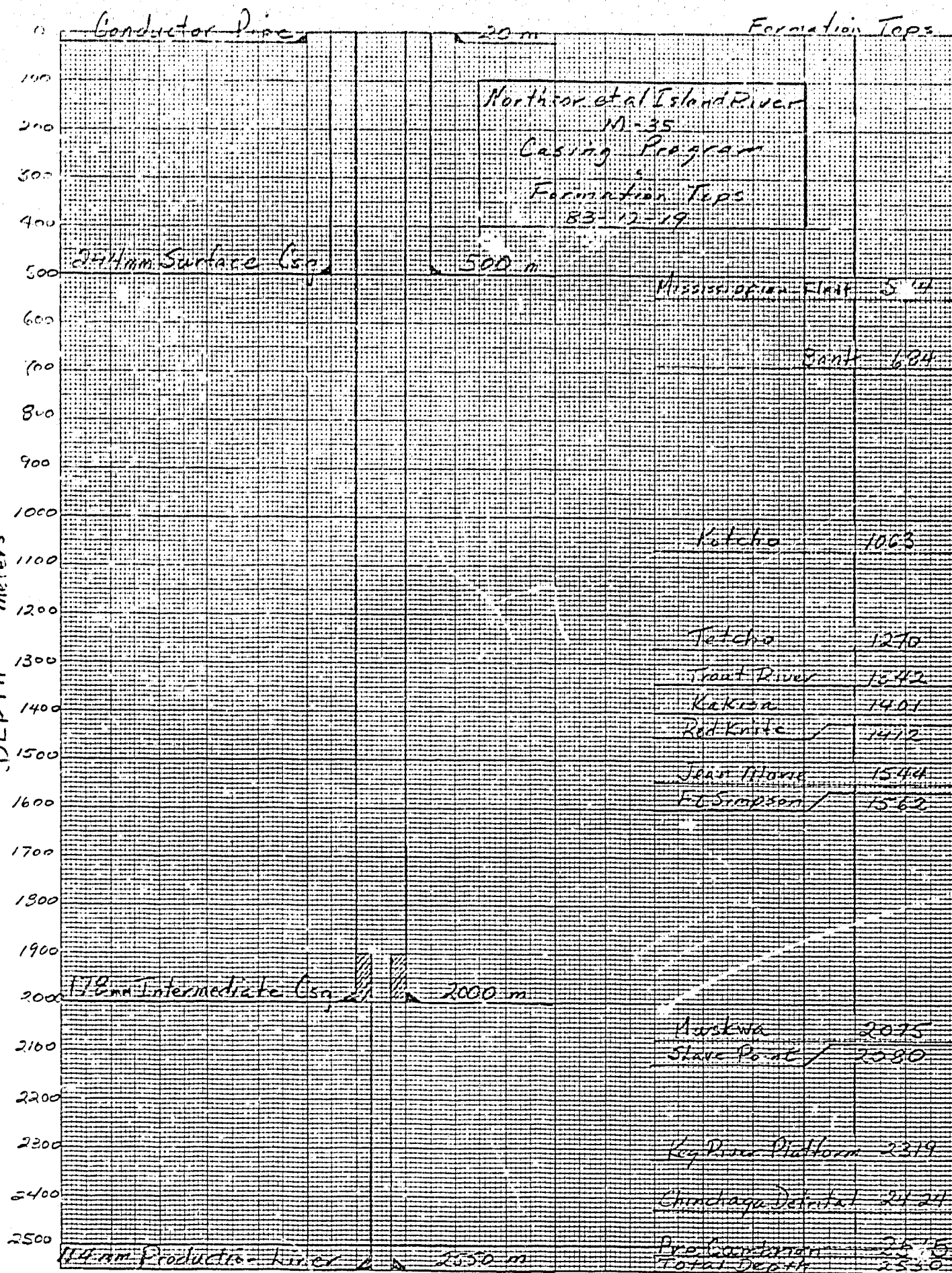
meters



DAYS

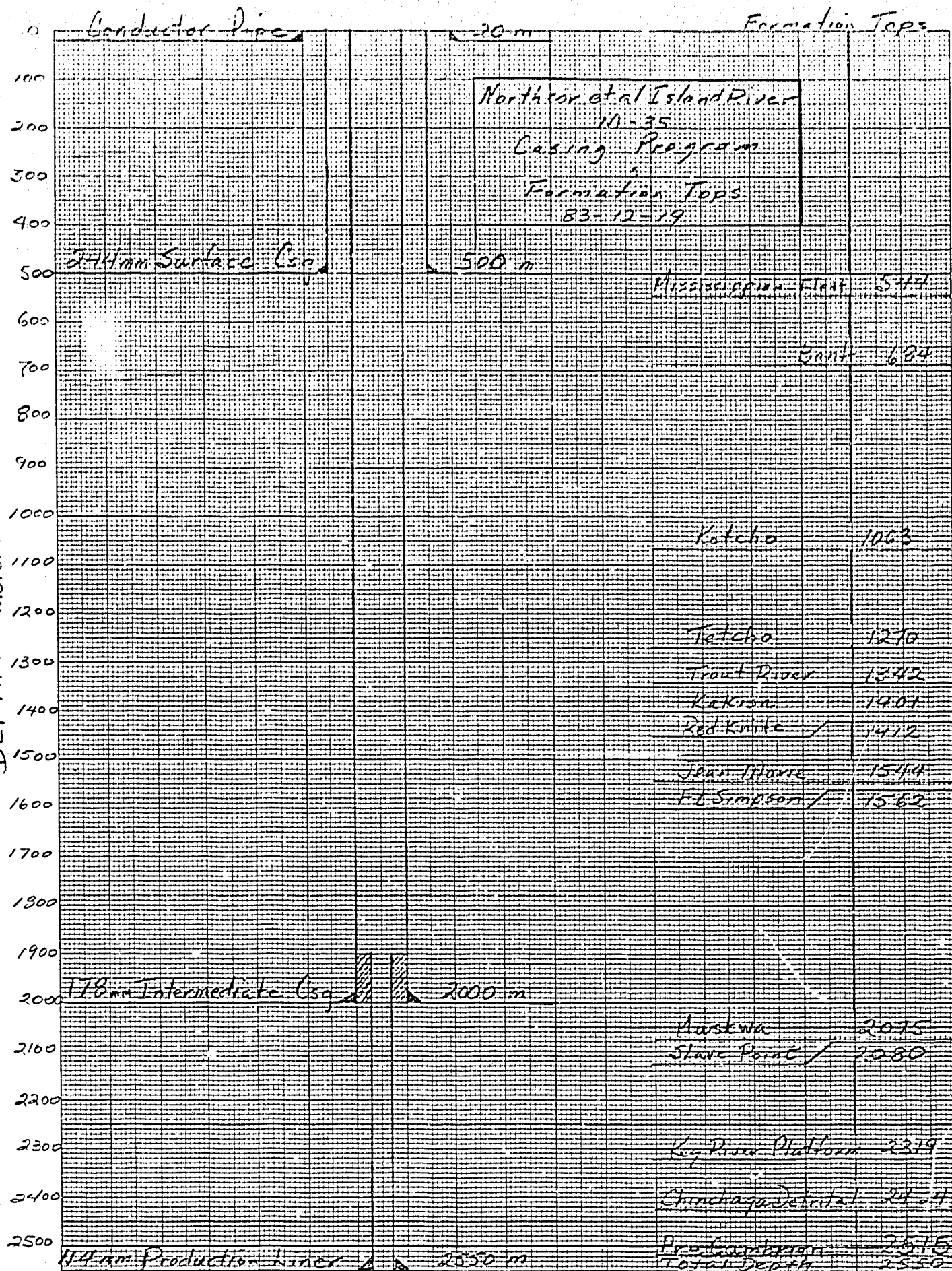
Meters

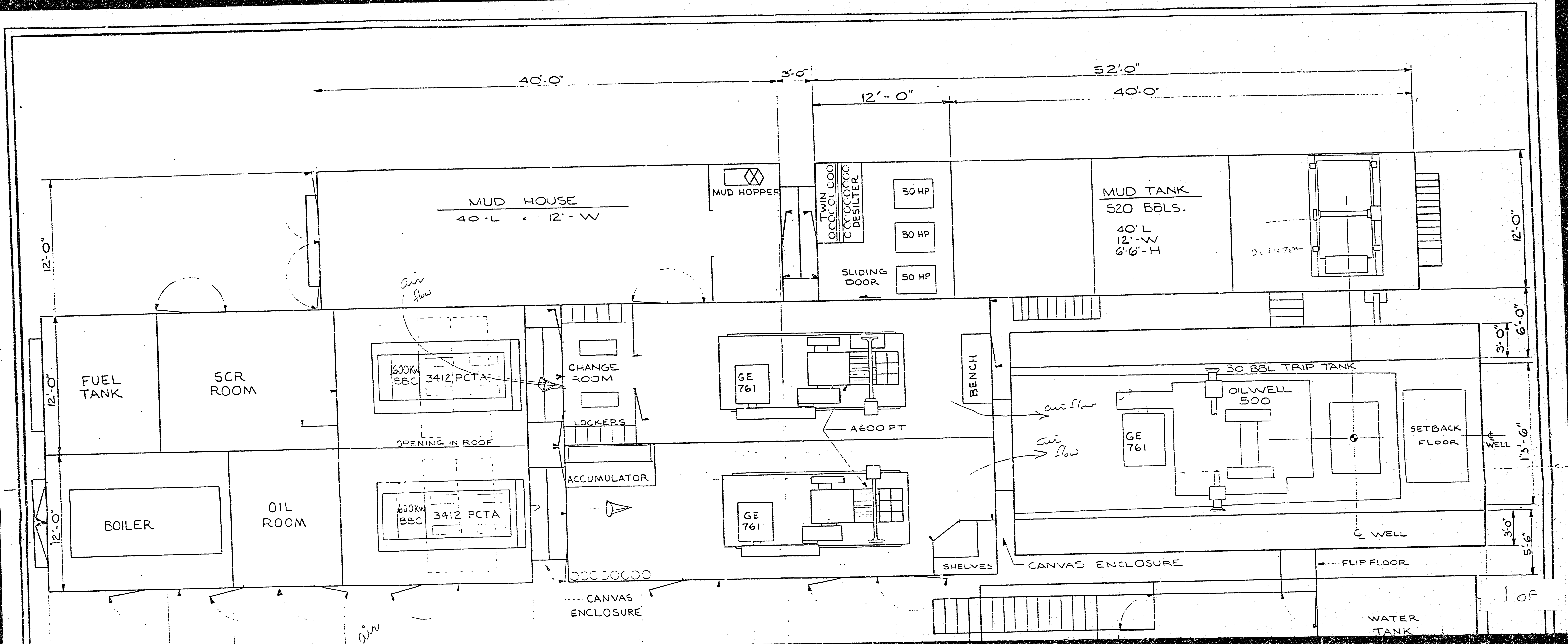
DEPTH

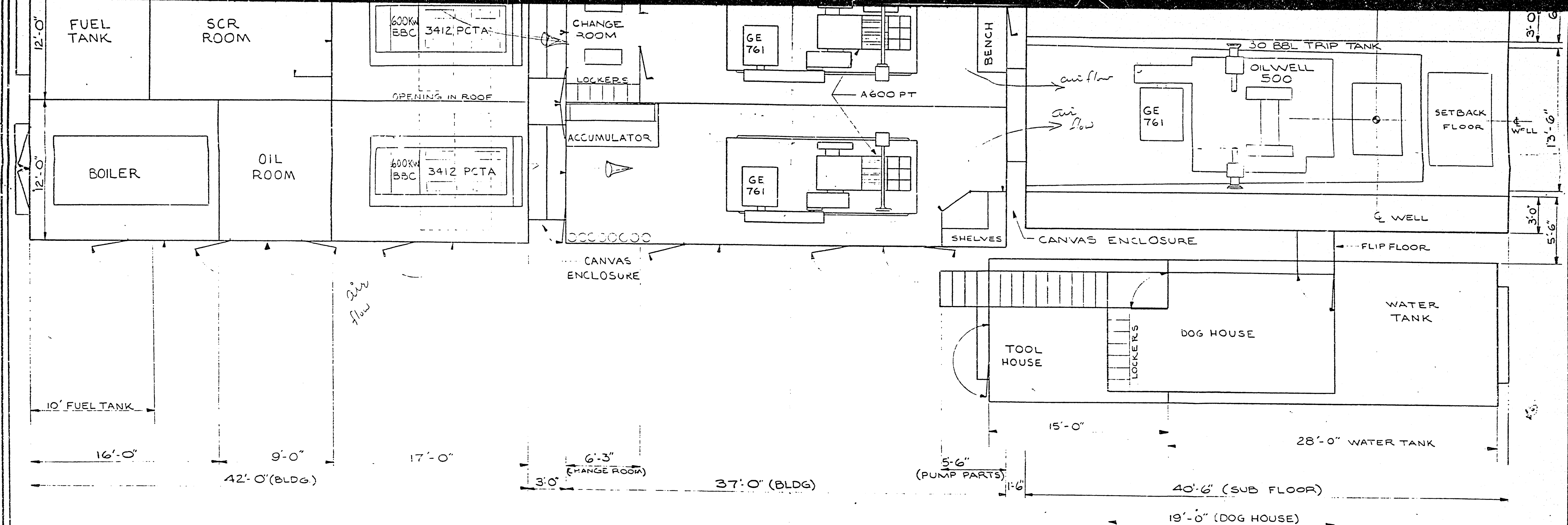


meters

DEPTH



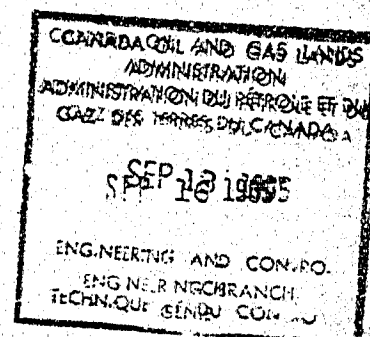




U.S.S. OILWELL SUPPLY CO. LTD.	
SPARTAN DRILLING RIG #20	
DRAWN: D. RODRIGUE	DATE: 80-07-29
CHECKED: J. JACOB	SCALE: 1/4" = 1'

NORTHCOR ENERGY LTD.
ISLAND RG-38
ISLAND RIVER / SLAVE POINT
85FEB28 - 85MAR07

Sequence
of Operations





SEQUENCE OF OPERATIONS

OFC-878-B

CUSTOMER

NORTHCOR ENERGY LTD.

CUSTOMER REPRESENTED BY

TERRY DEXTER

TEST NUMBER

1

WELL NAME OR NUMBER

ISLAND RG-38

RIG NAME

ROLLIN 53

FIELD

ISLAND RIVER

PAGE OF

1 4

AREA

NWT

OTIS TEST SUPERVISOR

ED SWETMAN

OPERATIONS

DATE	TIME	OPERATIONS	
05FEB26	0001	TESTING CREW TRAVEL TO LOCATION ARRIVE AT 1830 HOURS	1
	1830	CHECK LOCATION FOR RIG IN OF EQUIPMENT	2
05FEB27	1500	TESTING EQUIPMENT ARRIVED ON LOCATION	3
05FEB28	0300	COMPLETE RIGGING IN EQUIPMENT	4
	0800	RIG UP ESD VALVE / RIG SWABBING TO RIG TANK	5
		OPENING GAUGE FOR PRODUCTION TANK / 210 BARREL TANK	6
	1241	DROP BAR TO PERFORATE	7
	1243	WELL PERFORATED	8
	1256	0 PRESSURE	9
	1300	SHUT IN WELL FOR SAFETY MEETING	10
	1315	OPEN TO FLOW ON BYPASS TO FLARE / OPEN CHOKE TO 20/64	11
	1316	OPEN CHOKE TO 30/64	12
	1322	OPEN CHOKE TO 45/64	13
	1400	SHUT IN WELL FOR BUILD UPS	14
	1415	PRESSURE BY GAUGE	15
	1515	PRESSURE BY DEAD WEIGHT	16
	1630	INJECT METHANOL DOWN TUBING	17
85MAR01	0700	OPEN WELL TO FLOW / 1.5 INCH PLATE / 20/64 CHOKE	18
	0710	OPEN CHOKE TO 30/64	19



SEQUENCE OF OPERATIONS

OEC-879-B

CUSTOMER

NORTHCOR ENERGY LTD.

CUSTOMER REPRESENTED BY

TERRY DEXTER

TEST NUMBER

1

WELL NAME OR NUMBER

ISLAND RG-38

RIG NAME

ROLL'N 53

FIELD

ISLAND RIVER

PAGE OF

2 4

AREA

NWT

OTIS TEST SUPERVISOR

ED SWETMAN

OPERATIONS

DATE	TIME	OPERATIONS	
1			1
85MAR01	0712	OPEN CHOKE TO 45/64	2
2	0730	BLEED OFF CASING TO 50 PSI	3
3	0930	SHUT IN WELL TO RIG UP FOR SWABBING	4
4	1830	RIG OUT SWABBING EQUIPMENT	5
5	1840	RIG IN FLOW LINE / TO FLOW WELL ON BYPASS TO FLARE	6
6	1855	OPEN WELL TO FLOW ON BY PASS TO FLARE / DECREASE CHOKE TO 30/64	7
7	0730	SHUT IN WELL / RIG OUT FLOW LINE / RIG UP TO SWAB	8
8	1200	BUILD UP PRESSURE BY GAUGE	9
9	1900	PRESSURE BY DEAD WEIGHT	10
10	2000	OPEN WELL TO FLOW ON BY PASS TO FLARE	11
11	85MAR03	SHUT IN FOR RIG TO SWAB	12
12	1800	SALINITY = 7% / 70,000 PPM	13
13	1830	SALINITY = 4.6% / 46,000 PPM	14
14	1850	SALINITY = 3.0% / 30,000 PPM	15
15	1900	OPEN WELL TO FLOW ON BY PASS	16
16	85MAR04	RIG OUT FLOW LINE / RIG IN TO SWAB	17
17	0920	SALINITY = 3.0% / 30,000 PPM	18
18	1520	SWAB #4-8 DRY	19
19	1820	FINAL SWAB FOR DAY	



SEQUENCE OF OPERATIONS

OEC-879-R

CUSTOMER

NORTHCOR ENERGY LTD.

CUSTOMER REPRESENTED BY

TERRY DEXTER

TEST NUMBER

1

WELL NAME OR NUMBER

ISLAND RG-38

RIG NAME

ROLL'N 53

FIELD

ISLAND RIVER

PAGE OF

3

4

AREA

NWT

OTIS TEST SUPERVISOR

ED SWETMAN

OPERATIONS

DATE	TIME	OPERATIONS	
1			1
85MAR04	1830	RIG DOWN SWAB QUIPMENT / RIG UP FLOW LINE	2
2			3
	1900	OPEN WELL ON BY PASS UNTIL A.M.	4
3			5
85MAR05	0700	RIG UP SWAB EQUIPMENT TO SWAB WELL	6
4			7
	0845	PULL SWAB / DRY / PULL SWAB #2 / DRY	8
5			9
	0900	D. S. RIGGED UP TO DO ACID JOB	10
6			11
	0915	PRESSURE TEST CASING	12
7			13
	1000	D.S. PRESSURE TEST LINE / O.K.	14
8			15
	1220	D.S. COMPLETE ACID JOB	16
9			17
	1300	OPEN TO FLOW WELL ON CLEAN UP RATE TO PIT	18
10			19
	1505	SHUT IN WELL RIG UP TO FLOW TO OTIS EQUIPMENT	20
11			21
	1515	OPEN WELL THROUGH HEATER BY PASSING SEPARATOR TO FLARE	22
12			23
	1600	CONTINUE FLOWING ON BY PASS TO STACK	24
13			25
	1800	CONTINUE FLOWING	26
14			27
	2300	ROCK THE CHOKE	28
15			29
85MAR06	0600	INCREASE CHOKE TO 32/64	30
16			31
	0720	OPEN CHOKE / INCREASE CHOKE TO 50/64	32
17			33
	0830	SHUT IN THE WELL TO SWAB	34
18			35
	0950	RECOVERED 9 BARRELS	36
19			37
	1009	OPEN THE WELL TO FLOW ON THE BY PASS TO FLARE / 50/64	38



SEQUENCE OF OPERATIONS

OEC-872-R

CUSTOMER

NORTHCOR ENERGY LTD.

CUSTOMER REPRESENTED BY

TERRY DEXTER

TEST NUMBER

1

WELL NAME OR NUMBER

ISLAND RG-38

RIG NAME

ROLL'N 53

FIELD

ISLAND RIVER

PAGE OF

4

4

AREA

NWT

OTIS TEST SUPERVISOR

ED SWETMAN

OPERATIONS

DATE	TIME	OPERATIONS	
1			1
85MAR06	1012	CLOSE THE CHOKE/ 20/64	2
2			3
	1015	INCREASE CHOKE TO 35/64	4
3			5
	1023	CLOSE THE CHOKE / 30/64	6
4			7
	1100	SHUT IN THE WELL / RECORD BUILD UPS	8
5			9
	1200	OPEN THE WELL TO FLARE ON BY PASS / 50/64	10
6			11
	1205	CLOSE CHOKE / 30/64	12
7			13
	1236	OPEN THE CHOKE / 50/64	14
8			15
	1300	SHUT IN THE WELL TO SWAB / FLOW WELL TO PIT	16
9			17
	1600	SALINITY = 26% / 260,000 PPM	18
10			19
	1645	SHUT IN THE WELL / RECORD BUILD UPS	
11			
85MAR07	0515	OPEN THE WELL TO FLOW ON 64/64 CHOKE / .875 PLATE	
12			
	0530	NO FLUID RECOVERY	
13			
	0730	HIGH PRESSURE GAS SAMPLES TAKEN / #5624 / #21	
14			
	1000	END OF TEST / MOVE TO UPPER ZONE	
15			
16			
17			
18			
19			



FIELD READINGS

Single Stage Unit

OKC - 909-1

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)
6768-6836DATE (DAY MO. YR.) PAGE OF
28 FEB 85 1 11

CUSTOMER

FIELD

FORMATION

COND./OIL METER SIZE

METER/DIFF. RANGE

NORTHCOR ENERGY LTD.

ISLAND RIVER

SLAVE POINT

(INS)

(BBL) (INS. H₂O)

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

GAS PRODUCED TO

GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

P.T. #2

PIPELINE X FLARE

4"

2" CRITICAL FLOW PROVER

4.026 (INS)

0-200

UPSTREAM

X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL		GAS METERING				OIL OR CONDENSATE METERING				WATER METERING			
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (%API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _f	BSW (%)	#2 TANK OR METER READING (INS OR BBL)	(%)
1 28	DROP BAP TO PERFORATE																	
1241	0.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
2 28	WELL PERFORATED																	
1243	.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
3 28	OPEN WELL TO FLARE																	
1315	.6	0	0	0	0	20	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
4 28																		
1315	0.0	0	0	0	0	20	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
5 28	NO GAS TO SURFACE / CHOKE TO 45/64																	
1330	.3	0	0	0	0	45	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
6 28																		
1400	.8	0	0	0	0	45	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
7 28	SHUT-IN FOR BUILD-UPS																	
1400	0.0	0	0	0	0	45	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
8 28																		
1415	.3	10	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
9 28																		
1430	.5	15	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
10 28																		
1445	.8	32	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
11 28																		
1500	1.0	49	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
12 28	PRESSURE BY D/W																	
1515	1.3	57	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
13 28																		
1530	1.5	73	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
14 28																		
1545	1.8	83	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
15 28																		
1600	2.0	102	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
16 28	INJECT METHANOL DOWN TUBING																	
1630	2.5	125	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0
17 28																		
1700	3.0	170	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.0	0.00	0.0



FIELD READINGS

Single Stage Unit

ORC - 903-1

TEST NO. 1 WATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)

5768-6836

DATE (DAY MO. YR.) PAGE 2 OF 11
28 FEB 85

CUSTOMER

NORTHCOOR ENERGY LTD.

TEST UNIT DESCRIPTION (% SIZE, ETC.)

P.T. #2

FIELD

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE

METER/DIFF. RANGE
(INB) (INS H₂O)

GAS PRODUCED TO

GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

PIPELINE X FLARE 4"

2" CRITICAL FLOW PROVER

4.026 (INS) 0-200

UPSTREAM

X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL		GAS METERING				OIL OR CONDENSATE METERING				WATER METERING			
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR DBLS)	COND. METER DIFF. PRESS (INS H ₂ O)	#2 OIL TEMP.	W _t	BSW (%)	#2 TANK OR METER READING (INS OR DBLS)	(%)
1 28											0.000	0.00				0.00	0.00	0.0
1730	3.5	205	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
2 28											0.000	0.00				0.0	0.00	0.0
1800	4.0	232	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
3 28											0.000	0.00				0.0	0.00	0.0
1830	4.5	260	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
4 28											0.000	0.00				0.0	0.00	0.0
1900	5.0	285	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
5 28											0.000	0.00				0.0	0.00	0.0
2000	6.0	338	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
6 28											0.000	0.00				0.0	0.00	0.0
2100	7.0	376	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
7 28											0.000	0.00				0.0	0.00	0.0
2200	8.0	338	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
8 28											0.000	0.00				0.0	0.00	0.0
2300	9.0	398	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
9 28											0.000	0.00				0.0	0.00	0.0
2400	10.0	405	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
10 01											0.000	0.00				0.0	0.00	0.0
0100	11.0	410	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
11 01											0.000	0.00				0.0	0.00	0.0
0200	12.0	417	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
12 01											0.000	0.00				0.0	0.00	0.0
0300	13.0	420	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
13 01											0.000	0.00				0.0	0.00	0.0
0400	14.0	427	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
14 01											0.000	0.00				0.0	0.00	0.0
0500	15.0	432	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
15 01											0.000	0.00				0.0	0.00	0.0
0600	16.0	438	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
16 01											0.000	0.00				0.0	0.00	0.0
0700	17.0	440	0	0	0	0	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0
17 01	OPEN WELL TO FLOW																	
0700	0.0	440	0	300	0	20	0.000	0	0	0	0.000	0.00				0.0	0.00	0.0



FIELD READINGS

Single Stage Unit

OKC 903-1

TEST NO. RATE NO. WELL NAME OR NUMBER

1

1

ISLAND RG-38

INTERVAL TESTED (FT.)

6768-6836

DATE (DAY MO. YR.) PAGE OF

01MAR85 3 11

CUSTOMER

NORTHCOR ENERGY LTD.
TEST UNIT DESCRIPTION (*, SIZE, ETC.)

ISLAND RIVER

SLAVE POINT

GAS PRODUCED TO GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

P.T. #2
TIME

WELLHEAD DATA

FLOW CONTROL

GAS METERING

4.026 (INS) 0-200
OIL OR CONDENSATE METERINGUPSTREAM X DOWNSTREAM
WATER METERING

DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _i	BSW (%)	#2 TANK OR METER READING (INS OR BBL)	(%)
1 01											0.000	0.00			0.0000	0.00	0.00	0.0 ¹
0705	.1	300	0	300	0	25	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
2 01											0.000	0.00			0.0000	0.00	0.00	0.0 ²
0710	.2	200	0	100	0	30	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
3 01											0.000	0.00			0.0000	0.00	0.00	0.0 ³
0712	.2	100	0	75	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
4 01	BLEED OFF CASING TO 50 PSI										0.000	0.00			0.0000	0.00	0.00	0.0 ⁴
0730	.5	0	0	50	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
5 01											0.000	0.00			0.0000	0.00	0.00	0.0 ⁵
0800	1.0	0	0	50	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
6 01											0.000	0.00			0.0000	0.00	0.00	0.0 ⁶
0900	2.0	0	0	50	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
7 01											0.000	0.00			0.0000	0.00	0.00	0.0 ⁷
0930	2.5	0	0	50	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
8 01	SHUT-IN TO RIG UP FOR SWABBING										0.000	0.00			0.0000	0.00	0.00	0.0 ⁸
0930	0.0	0	0	50	0	40	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
9 01											0.000	0.00			0.0000	0.00	0.00	0.0 ⁹
1530	6.0	34	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
10 01											0.000	0.00			0.0000	0.00	0.00	0.0 ¹⁰
1830	9.0	34	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
11 01	RIG OUT SWAB EQUIP. / RIG IN FLOW LINE										0.000	0.00			0.0000	0.00	0.00	0.0 ¹¹
1840	9.2	34	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0 ¹²
12 01											0.000	0.00			0.0000	0.00	0.00	0.0
1855	9.4	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0 ¹³
13 01	OPEN WELL TO FLOW										0.000	0.00			0.0000	0.00	0.00	0.0
1655	0.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0 ¹⁴
14 01	BY-PASS TO FLARE										0.000	0.00			0.0000	0.00	0.00	0.0
2100	2.1	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
15 02	RIG OUT FLOW LINE										0.000	0.00			0.0000	0.00	0.00	0.0 ¹⁵
0730	12.6	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
16 02	PRESSURE TAKEN BY GAUGE										0.000	0.00			0.0000	0.00	0.00	0.0 ¹⁶
1200	17.1	65	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
17 02											0.000	0.00			0.0000	0.00	0.00	0.0 ¹⁷
1300	18.1	85	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0



FIELD READINGS

Single Stage Unit

OKC - 405-1

TEST NO. RATE NO. WELL NAME OR NUMBER

1

1

ISLAND RG-38

INTERVAL TESTED (FT.)

6768-6836

DATE (DAY MO. YR.) PAGE OF

02MAR85 4 11

CUSTOMER

NORTHCOR ENERGY LTD.

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE METER/DIFF. RANGE

(INCH) (INCH H₂O)

STATIC PRESSURE TAKEN

UPSTREAM X DOWNSTREAM

P.T. #2

TIME

WELLHEAD DATA

FLOW CONTROL

GAS METERING

OIL OR CONDENSATE METERING

WATER METERING

DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INCH)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64IN INCH)	(64IN INCH)	(INCH)	(PSIG)	(INCH H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INCH OR BOLD)	COND. METER DIFF. PRESS. (INCH H ₂ O)	#2 OIL TEMP.	W _t	BSW (%)	#2 TANK OR METER READING (INCH OR BOLD)	(%)
1	02										0.000	0.00			0.0000	0.00	0.00	0.0
1	1400	19.1	85	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
2	02										0.000	0.00			0.0000	0.00	0.00	0.0
2	1500	20.1	100	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
3	02										0.000	0.00			0.0000	0.00	0.00	0.0
3	1600	21.1	110	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
4	02										0.000	0.00			0.0000	0.0	0.00	0.0
4	1700	22.1	120	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
5	02										0.000	0.00			0.0000	0.00	0.00	0.0
5	1800	23.1	134	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
6	02										0.000	0.00			0.0000	0.00	0.00	0.0
6	1900	24.1	140	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
7	02										0.000	0.00			0.0000	0.00	0.00	0.0
7	2000	25.1	148	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
8	02	OPEN WELL TO FLOW ON BY-PASS TO FLARE										0.000	0.00			0.0000	0.00	0.0
8	2000	0.0	148	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
9	02										0.000	0.00			0.0000	0.00	0.00	0.0
9	2015	.3	0	0	0	0	30	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
10	02										0.000	0.00			0.0000	0.00	0.00	0.0
10	2400	4.0	0	0	0	0	30	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
11	03										0.000	0.00			0.0000	0.00	0.00	0.0
11	0400	8.0	0	0	0	0	30	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
12	03										0.000	0.00			0.0000	0.00	0.00	0.0
12	1400	18.0	0	0	0	0	30	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
13	03	SHUT-IN FOR SWABBING										0.000	0.00			0.0000	0.00	0.0
13	1400	0.0	0	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
14	03										0.000	0.00			0.0000	0.00	0.00	0.0
14	1800	4.0	0	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
15	03										0.000	0.00			0.0000	0.00	0.00	0.0
15	1900	5.0	0	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
16	03	OPEN WELL TO FLOW										0.000	0.00			0.0000	0.00	0.0
16	1900	0.0	0	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
17	04										0.000	0.00			0.0000	0.00	0.00	0.0
17	0700	12.0	0	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0



FIELD READINGS

Single Stage Unit

OKC - 403-1

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)

6768-6836

DATE (DAY MO. YR.) PAGE 04MAR85 5 11

CUSTOMER

NORTHCOOR ENERGY LTD.

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

P.T. #2

FIELD

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE

METER/DIFF. RANGE

(INS) (BBL) (INS H₂O)

GAS PRODUCED TO

GAS MEASURED WITH

PIPELINE X FLARE 4"

2" CRITICAL FLOW PROVER

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

4.026 (INS) 0-200

STATIC PRESSURE TAKEN

UPSTREAM

X DOWNSTREAM

TIME		WELLHEAD DATA				FLOW CONTROL			GAS METERING			OIL OR CONDENSATE METERING				WATER METERING			
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY	
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS. H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS. H ₂ O)	#2 OIL TEMP.	W _i	BSW (%)	#2 TANK OR METER READING (INS OR BBL)	(%)	
1	04	RIG OUT FLOW LINE / RIG INTO SWAB										0.000	0.00			0 0.000	0.00	0.00	0.0
	0715	12.3	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
2	04	SALINITY = 3%										0.000	0.00			0 0.000	0.00	0.00	0.0
	0920	14.3	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
3	04	SWAB #4 - #8 / DRY										0.000	0.00			0 0.000	0.00	0.00	0.0
	1520	20.3	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
4	04	LAST SWAB DRY										0.000	0.00			0 0.000	0.00	0.00	0.0
	1820	23.3	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
5	04											0.000	0.00		0 0.000	0.00	0.00	0.0	
	1900	24.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
6	04	OPEN WELL TO FLOW										0.000	0.00			0 0.000	0.00	0.00	0.0
	1900	0.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
7	04											0.000	0.00		0 0.000	0.00	0.00	0.0	
	2400	5.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
8	05											0.000	0.00		0 0.000	0.00	0.00	0.0	
	0400	9.0	0	0	0	0	30	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
9	05	RIG OUT FLOW LINE										0.000	0.00			0 0.000	0.00	0.00	0.0
	0700	12.0	0	0	0	0	30	0.000	0	0	0	0.000	0.00		0 0.000	0.0	0.00	0.0	
10	05											0.000	0.00		0 0.000	0.00	0.00	0.0	
	1515	20.3	0	0	0	0	30	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
11	05	OPEN WELL TO FLOW / CHOKE TO 18/64										0.000	0.00			0 0.000	0.00	0.00	0.0
	1515	0.0	1230	0	0	0	18	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
12	05	OPEN CHOKE TO 20/64										0.000	0.00			0 0.000	0.00	0.00	0.0
	1530	.3	990	50	420	0	20	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
13	05											0.000	0.00		0 0.000	0.00	0.00	0.0	
	1532	.3	1042	50	425	0	20	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
14	05	CHANGE CHOKE TO 23/64										0.000	0.00			0 0.000	0.00	0.00	0.0
	1540	.4	1020	48	410	0	23	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
15	05											0.000	0.00		0 0.000	0.00	0.00	0.0	
	1545	.5	950	48	410	0	23	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
16	05											0.000	0.00		0 0.000	0.00	0.00	0.0	
	1600	.7	850	48	425	0	23	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	
17	05	BLEED CASING TO 0 PSI / CHOKE TO 25/64										0.000	0.00			0 0.000	0.00	0.00	0.0
	1616	1.0	850	48	0	0	25	0.000	0	0	0	0.000	0.00		0 0.000	0.00	0.00	0.0	



FIELD READINGS

Single Stage Unit

ORC - 805-1

TEST NO. 1 DATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.) 6768-6836

DATE (DAY MO. YR.) PAGE 05MAR85 6 11

FIELD

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE (INS)

METER/DIFF. RANGE (BBL) (INS H₂O)

CUSTOMER

NORTHCOR ENERGY LTD.

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

P.T. #2

GAS PRODUCED TO GAS MEASURED WITH

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVER

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O) 4.026 (INS) 0-200

STATIC PRESSURE TAKEN

UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL			GAS METERING			OIL OR CONDENSATE METERING				WATER METERING			
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _i	°C	#2 TANK OR METER READING (INS OR BBL)	(%)
1 05											0.0000	0.00			0.0000	10	0.00	0.01
1630	1.2	650	48	20	0	25	0.000	0	0	0	0.0000	0.00			0.0000	0.0	0.00	0.0
2 05											0.0000	0.00			0.0000	0.00	0.00	0.02
1700	1.7	443	48	20	0	25	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.0
3 05	CHANGE CHOKE TO 30/64										0.0000	0.00			0.0000	0.00	0.00	0.03
1701	1.8	443	48	20	0	30	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.04
4 05											0.0000	0.00			0.0000	0.0	0.00	0.0
1730	2.2	265	46	20	0	30	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.05
5 05											0.0000	0.00			0.0000	0.0	0.00	0.0
1800	2.7	185	43	40	0	30	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.06
6 05											0.0000	0.00			0.0000	0.00	0.00	0.0
1830	3.2	140	43	10	0	30	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.07
7 05											0.0000	0.00			0.0000	0.0	0.00	0.0
1900	3.7	12	41	10	0	30	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.08
8 05	CHANGE CHOKE TO 20/64										0.0000	0.00			0.0000	0.0	0.00	0.0
1930	4.2	100	41	10	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.09
9 05											0.0000	0.00			0.0000	0.00	0.00	0.0
2000	4.7	135	39	10	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.010
10 05											0.0000	0.00			0.0000	0.0	0.00	0.0
2030	5.2	142	39	10	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.011
11 05											0.0000	0.00			0.0000	0.0	0.00	0.0
2100	5.7	130	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.012
12 05											0.0000	0.00			0.0000	0.0	0.00	0.0
2130	6.2	125	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.013
13 05											0.0000	0.00			0.0000	0.0	0.00	0.0
2200	6.7	113	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.014
14 05	STROKE CHOKE										0.0000	0.00			0.0000	0.0	0.00	0.0
2300	7.7	92	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.015
15 05											0.0000	0.00			0.0000	0.0	0.00	0.0
2400	8.7	80	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.016
16 06											0.0000	0.00			0.0000	0.0	0.00	0.0
0100	9.7	60	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.00	0.00	0.017
17 06											0.0000	0.00			0.0000	0.0	0.00	0.0
0200	10.7	44	32	15	0	20	0.000	0	0	0	0.0000	0.00			0.0000	0.0	0.00	0.0



FIELD READINGS

Single Stage Unit

ORC - 405-1

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RC-38

INTERVAL TESTED (FT.)

6768-6836

DATE (DAY MO. YR.) PAGE 7 OF 11

06MAR85

CUSTOMER

NORTHCOR ENERGY LTD.

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

P.T. #2

FIELD

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE

METER/DIFF. RANGE

(INS) (BBL) (INS H₂O)

GAS PRODUCED TO

GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

UPSTREAM

X DOWNSTREAM

PIPELINE X FLARE

4"

2" CRITICAL FLOW PROVER

4.026 (INS)

0-200

TIME		WELLHEAD DATA				FLOW CONTROL			GAS METERING			OIL OR CONDENSATE METERING							WATER METERING	
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY		
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _i	BSW (%)	#2 TANK OR METER READING (INS OR BBL)	(%)		
1 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0300	11.7	35	32	15	0	20	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0		
2 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0400	12.7	40	32	15	0	20	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
3 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0500	13.7	38	32	15	0	20	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
4 06	CHANGE CHOKE TO 32/64										0.000	0.00			0.0000	0.00	0.00	0.0		
0600	14.7	550	29	15	0	32	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
5 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0700	15.7	15	29	15	0	32	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
6 06	CHANGE CHOKE TO 50/64										0.000	0.00			0.0000	0.00	0.00	0.0		
0720	16.1	15	29	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
7 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0730	16.2	4	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
8 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0800	16.7	3	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
9 06											0.000	0.00			0.0000	0.00	0.00	0.0		
0830	17.3	3	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
10 06	SHUT-IN TO SWAB										0.000	0.00			0.0000	0.00	0.00	0.0		
0830	0.0	3	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
11 06	RECOVERED 9.0 BARRELS OF LIQUID																			
0950	1.3	3	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
12 06											0.000	0.00			0.0000	0.00	0.00	0.0		
1009	1.6	180	18	15	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
13 06	OPEN WELL										0.000	0.00			0.0000	0.00	0.00	0.0		
1009	0.0	180	0	0	0	50	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
14 06	CHANGE CHOKE TO 20/64										0.000	0.00			0.0000	0.00	0.00	0.0		
1012	.1	180	0	0	0	20	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
15 06	CHANGE CHOKE TO 35/64										0.000	0.00			0.0000	0.00	0.00	0.0		
1015	.1	50	0	0	0	35	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
16 06	CHANGE CHOKE TO 30/64										0.000	0.00			0.0000	0.00	0.00	0.0		
1023	.2	40	0	0	0	30	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		
17 06											0.000	0.00			0.0000	0.00	0.00	0.0		
1030	.3	35	0	0	0	30	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0		



FIELD READINGS

Single Stage Unit

OEC - 905-1

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (WT.) 6768-6836

DATE (DAY MO. YR.) 06 MAR 85 PAGE 8 OF 11

CUSTOMER

NORTHCOR ENERGY LTD.

FIELD

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE

METER/DIFF. RANGE (BBL) (INS H₂O)

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

P.T. #2

GAS PRODUCED TO GAS MEASURED WITH

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVER

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

4.026 (INS) 0-200

STATIC PRESSURE TAKEN

UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL			GAS METERING				OIL OR CONDENSATE METERING				WATER METERING				
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	% H ₂ S	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	COND. METER DIFF. PRESS. (INS H ₂ O)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)			(INS OR BBL)			TEMP.	W _t	BSW (%)	(INS OR BBL)	(%)
1 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1100	.8	25	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
2 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1100	.8	25	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
3 06	SHUT-IN FOR BUILD-UPS										0.000		0.00			0	0.000	0.00	0.00	0.0
1100	0.0	25	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
4 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1115	.3	120	0	0	0	0	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
5 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1130	.5	160	0	0	0	0	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
6 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1145	.8	210	0	0	0	0	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
7 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1200	1.0	270	0	0	0	0	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
8 06	OPEN WELL TO FLARE										0.000		0.00			0	0.000	0.00	0.00	0.0
1200	0.0	270	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
9 06	CHANGE CHOKE TO 30/64										0.000		0.00			0	0.000	0.00	0.00	0.0
1205	.1	20	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
10 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1215	.2	20	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
11 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1230	.5	20	0	0	0	30	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
12 06	CHANGE CHOKE TO 50/64										0.000		0.00			0	0.000	0.00	0.00	0.0
1236	.6	16	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
13 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1300	1.0	3	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
14 06	SHUT-IN TO SWAB / FLOW TO PIT										0.000		0.00			0	0.000	0.00	0.00	0.0
1300	0.0	3	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
15 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1645	3.8	3	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
16 06	SHUT-IN TO RECORD SURFACE BUILD-UPS										0.000		0.00			0	0.000	0.00	0.00	0.0
1645	0.0	3	0	0	0	50	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0
17 06											0.000		0.00			0	0.000	0.00	0.00	0.0
1730	.8	183	0	0	0	0	0.000	0	0	0	0.000		0.00			0	0.000	0.00	0.00	0.0



FIELD READINGS

Single Stage Unit

DEC 905-1

CUSTOMER

NORTHCOR ENERGY LTD.

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

P.T. #2

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

FIELD

ISLAND RIVER

INTERVAL TESTED (FT.)

6768-6836

DATE (DAY MO, YR.) PAGE 9 OF 11

06MAR85 9 11

FORMATION

SLAVE POINT

COND./OIL METER SIZE

----- (INS)

METER/DIFF. RANGE

(HOLS) (INS H₂O)

GAS PRODUCED TO GAS MEASURED WITH

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVER

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

4.026 (INS) 0-200

STATIC PRESSURE TAKEN

UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL			GAS METERING				OIL OR CONDENSATE METERING					WATER METERING		
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	# TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY	
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BOLS)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _i	BSW (%)	#2 TANK OR METER READING (INS OR BOLS)	SALINITY (%)	
1 06											0.000	0.00					0.00	0.00	0.0
1800	1.3	323	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
2 06											0.000	0.00					0.00	0.00	0.0
1800	1.3	297	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
3 06											0.000	0.00					0.00	0.00	0.0
1900	2.3	335	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
4 06											0.000	0.00					0.00	0.00	0.0
1930	2.8	362	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
5 06											0.000	0.00					0.00	0.00	0.0
2000	3.3	381	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
6 06											0.000	0.00					0.00	0.00	0.0
2030	3.8	413	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
7 06											0.000	0.00					0.00	0.00	0.0
2100	4.3	440	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
8 06											0.000	0.00					0.00	0.00	0.0
2130	4.8	460	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
9 06											0.000	0.00					0.00	0.00	0.0
2200	5.3	480	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
10 06											0.000	0.00					0.00	0.00	0.0
2230	5.8	497	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
11 06											0.000	0.00					0.00	0.00	0.0
2300	6.3	516	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
12 06											0.000	0.00					0.00	0.00	0.0
2330	6.8	497	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
13 06											0.000	0.00					0.00	0.00	0.0
2330	6.8	535	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
14 06											0.000	0.00					0.00	0.00	0.0
2400	7.3	551	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
15 07											0.000	0.00					0.00	0.00	0.0
0030	7.8	568	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
16 07											0.000	0.00					0.00	0.00	0.0
0100	8.3	583	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0
17 07											0.000	0.00					0.00	0.00	0.0
0130	8.8	598	0	0	0	0	0.000	0	0	0	0.000	0.00					0.00	0.00	0.0



FIELD READINGS

Single Stage Unit

OKC - 903-1

TEST NO. 1 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)
6768-6836DATE (DAY MO. YR.) PAGE OF
07MAR85 10 11

CUSTOMER

FIELD

NORTHCOOR ENERGY LTD.

ISLAND RIVER

FORMATION

SLAVE POINT

COND./OIL METER SIZE METER/DIFF. RANGE
(INS) (INS) (INS H₂O)

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

GAS PRODUCED TO GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)
4.026 (INS) 0-200

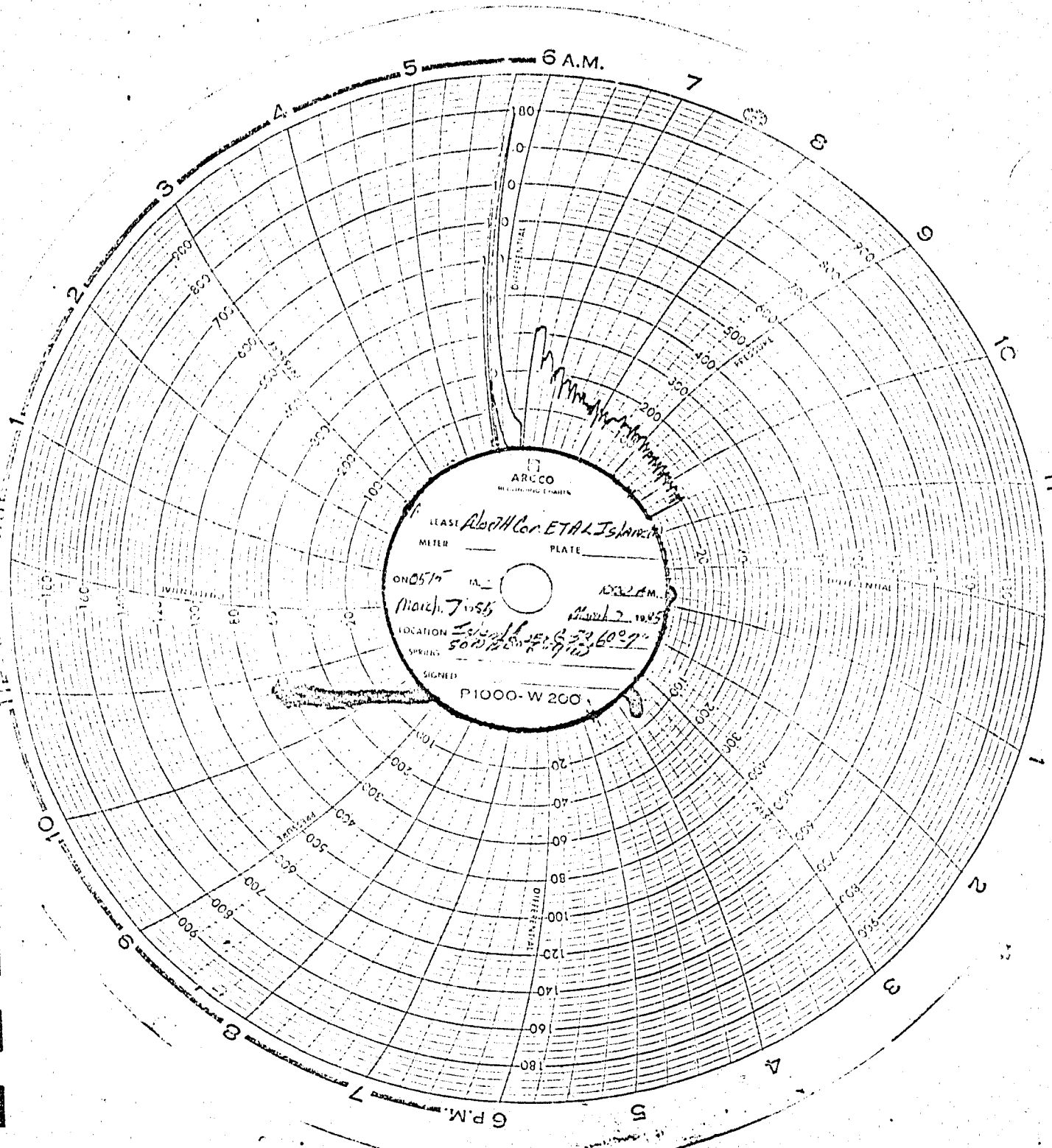
STATIC PRESSURE TAKEN

P.T. #2

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVEN

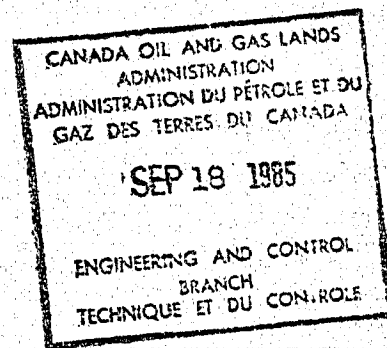
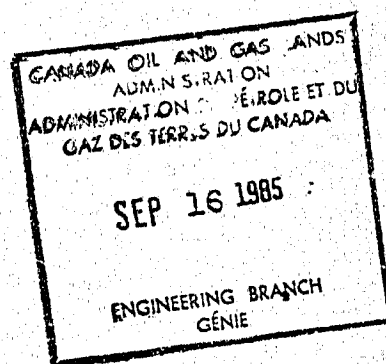
UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL		GAS METERING					OIL OR CONDENSATE METERING				WATER METERING		
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR. CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BOLS)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _t	BSW (%)	#2 TANK OR METER READING (INS OR BOLS)	(%)
1	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0200	9.3	613	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
2	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0230	9.8	626	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
3	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0300	10.3	640	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
4	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0330	10.8	655	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
5	07										0.000	0.00			0.0000	0.0	0.00	0.0
	0400	11.3	665	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
6	07										0.000	0.00			0.0000	0.0	0.00	0.0
	0430	11.8	678	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
7	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0500	12.3	693	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
8	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0515	12.5	693	0	0	0	0	0.000	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
9	07	OPEN WELL ON 64/64 CHOKE THROUGH TEST UNIT																
	0515	0.0	693	0	0	0	64	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
10	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0520	.1	105	0	0	0	64	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
11	07										0.000	0.00			0.0000	0.00	0.00	0.0
	0525	.2	55	0	0	0	64	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
12	07	NO FLUID RECOVERY																
	0530	.2	15	0	0	0	64	0.000	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
13	07										.600	0.00			0.0000	0.00	0.00	0.0
	0600	.7	0	34	0	0	64	.875	0	60	77	0.000	0.00		0.0000	0.0	0.00	0.0
14	07										.600	0.00			0.0000	0.00	0.00	0.0
	0700	1.7	0	33	0	0	64	.875	0	24	73	0.000	0.00		0.0000	0.0	0.00	0.0
15	07	H.P. GAS SAMPLES TAKEN #5624 #21																
	0730	2.2	0	33	0	0	64	.875	0	24	61	0.000	0.00		0.0000	0.0	0.00	0.0
16	07										.600	0.00			0.0000	0.00	0.00	0.0
	0830	3.2	0	33	0	0	64	.875	0	21	61	0.000	0.00		0.0000	0.00	0.00	0.0
17	07										.600	0.00			0.0000	0.00	0.00	0.0
	0930	4.2	0	33	0	0	64	.875	0	21	61	0.000	0.00		0.0000	0.0	0.00	0.0



NORTHCOR ENERGY LTD.
ISLAND RG-38
ISLAND RIVER / JEAN MARIE
85MAR10 - 85MAR12

Sequence
of Operations





SEQUENCE OF OPERATIONS

OEC--872-B

TEST NUMBER

2

RIG NAME

ROLL'N 53

PAGE 1 OF 2

CUSTOMER
NORTHCOOR ENERGY LTD.WELL NAME OR NUMBER
ISLAND RG-38FIELD
ISLAND RIVERAREA
NWTCUSTOMER REPRESENTED BY
TERRY DEXTEROTIS TEST SUPERVISOR
ED SWEETMAN

DATE	TIME	OPERATIONS	
85MAR09	1830	PULLED 18 SWABS / RECOVERED 23.5 BARRELS OF WATER	1
85MAR10	0700	D.S. ON LOCATION TO DO ACID WASH	2
	1000	D.S. COMPLETE ACID WASH	3
	1100	RIG SWABBING TO PIT	4
	1316	WELL SLUGGING LIQUID TO PIT	5
	1500	SWAB / FLOW WELL TO PIT	6
	1730	CONTINUE TO SWAB / FLOW WELL TO PIT	7
	1830	SALINITY = 22% / 220,000 PPM	8
	1845	STOP SWAB OPERATION / FINISH FLOW WELL OVERNIGHT	9
85MAR11	0800	RESUME SWABBING OPERATION	10
	0807	SALINITY = 21% / 210,000 PPM	11
	1005	SALINITY = 18.6% / 186,000 PPM	12
	1345	SALINITY = 19.0% / 190,000 PPM	13
	1445	SALINITY = 17.4% / 174,000 PPM	14
	1615	SALINITY = 17.2% / 172,000 PPM	15
	1800	PULL LAST SWAB / SHUT IN WELL / RECORD BUILD UPS BY GAUGE	16
	1845	RIGGED UP TO RECORD BUILD UPS	17
85MAR12	0700	TAKE GAS SAMPLES FROM SHUT IN PRESSURE / #1573 / #5395	18
	0715	RIG UP TO WELL HEAD TO BLEED DOWN	19



SEQUENCE OF OPERATIONS

OEC-872-B

CUSTOMER NORTHCOR ENERGY LTD.

CUSTOMER REPRESENTATIVE BY TERRY DEXTER

TEST NUMBER

2

WELL NAME OR NUMBER ISLAND RG-38

RIG NAME ROLL'N 53

FIELD ISLAND RIVER

AREA NWT

PAGE 2 OF 2

OTIS TEST SUPERVISOR ED SWETMAN

OPERATIONS

DATE	TIME	OPERATIONS
185MAR12	0745	STAND BY FOR INSTRUCTION
	0900	OPEN ON BY PASS TO STACK
	1100	END OF TEST / SHUT IN WELL / RIG OUT EQUIPMENT

1
2
3
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16
17
18
19



FIELD READINGS

Single Stage Unit

ORC - 905-1

TEST NO. 2 RATE NO. 1 WELL NAME OR NUMBER ISLAND RC-38

INTERVAL TESTED (FT.)
4978-5009DATE (DAY MO. YR.) PAGE 1 OF 3
10MAR85

CUSTOMER

NORTHCOR ENERGY LTD.

FIELD
ISLAND RIVERFORMATION
JEAN MARIECOND./OIL METER SIZE METER/DIFF. RANGE
(INS) (BBLs) (INS H₂O)TEST UNIT DESCRIPTION (#, SIZE, ETC.)
P.T. #2GAS PRODUCED TO GAS MEASURED WITH
PIPELINE ☒ FLARE 4" 2" CRITICAL FLOW PROVERGAS METER RUN SIZE DIFF. RANGE (INS. H₂O) STATIC PRESSURE TAKEN
0.000 (INS) 0-200 UPSTREAM ☒ DOWNSTREAM

TIME		WELLHEAD DATA				FLOW CONTROL			GAS METERING				OIL OR CONDENSATE METERING				WATER METERING		
DAY	24 HR. CLOCK	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP.	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY @60°F (°API)	#1 TANK OR METER READING	SALINITY
		(HOURS)	(PSIG)	(°F)	(PSIG)	(64th INCH)	(64th INCH)	(INS)	(PSIG)	(INS H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBLs)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _t	BSW (%)	#2 TANK OR METER READING (INS OR BBLs)	(%)
1	10											0.000	0.00			0.0000	0.00	0.00	0.0
	1830	0.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
2	10	CASING PRESSURE= 620 PSI																	
	1900	5	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
3	10	CASING PRESSURE= 530 PSI																	
	2000	1.5	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
4	10	CASING PRESSURE= 430 PSI																	
	2100	2.5	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
5	11	CASING PRESSURE= 0 PSI																	
	0700	12.5	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
6	11	PULL SWAB AND FLOW WELL TO PIT																	
	0745	13.3	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
7	11	SALINITY = 21%																	
	0807	13.6	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
8	11	PULLED SWAB NO RETURN																	
	0915	14.7	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
9	11	SALINITY = 18.6%																	
	1005	15.6	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
10	11	SALINITY = 19%																	
	1345	19.2	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
11	11	SALINITY = 17.4%																	
	1445	20.2	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
12	11	SALINITY = 17.2%																	
	1615	21.7	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.00	0.00	0.0
13	11	PULL LAST SWAB / SHUT-IN FOR BUILD-UPS																	
	1800	23.5	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
14	11																		
	1800	0.0	0	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
15	11																		
	1900	1.0	73	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
16	11																		
	2000	2.0	135	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0
17	11																		
	2100	3.0	180	0	0	0	0	0.000	0	0	0	0.000	0.00			0.0000	0.0	0.00	0.0



FIELD READINGS

Single Stage Unit

OEC 905-1

TEST NO. 2 RATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)
4978-5009DATE (DAY MO. YR.) PAGE 2 OF 3
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CUSTOMER

FIELD

FORMATION

COND./OIL METER SIZE

METER/DIFF. RANGE

NORTHCOOR ENERGY LTD.

ISLAND RIVER

JEAN MARIE

(INS)

(INS H₂O)

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

GAS PRODUCED TO GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

P.T. #2

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVEN

0.000 (INS) 7-200

UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA				FLOW CONTROL			GAS METERING			OIL OR CONDENSATE METERING				WATER METERING			
DAY	FLOW OR SHUT IN DURATION	TURNG PRESSURE	TEMP	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY	
24 HR CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(4 INCH)	(4 INCH)	(INS)	(PSIG)	(IN. H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR OILS)	COND. METER DIFF. PRESS. (INS H ₂ O)	#2 OIL TEMP.	W _i	BSW (%)	#2 TANK OR METER READING (INS OR OILS)	(%)	
1	11										0.000	0.00			0.0000	0.00	0.00	0.0	
	2200	4.0	223	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.0	0.00	0.0	
2	11										0.000	0.00			0.0000	0.00	0.00	0.0	
	2300	5.0	255	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
3	11										0.000	0.00			0.0000	0.00	0.00	0.0	
	2400	6.0	295	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
4	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0100	7.0	327	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
5	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0200	8.0	361	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
6	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0300	9.0	390	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
7	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0400	10.0	400	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
8	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0600	12.0	437	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
9	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0700	13.0	442	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
10	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0900	15.0	471	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
11	12	OPEN WELL ON BY-PASS TO FLARE										0.000	0.00		0	0.0000	0.00	0.00	0.0
	0900	0.0	471	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
12	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0905	.1	106	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
13	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0910	.2	90	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
14	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0915	.2	40	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
15	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0930	.5	25	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
16	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	0945	.7	18	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	
17	12										0.000	0.00			0.0000	0.00	0.00	0.0	
	1000	1.0	14	0	0	0	0	0.000	0	0	0	0.000	0.00		0.0000	0.00	0.00	0.0	



FIELD READINGS

Single Stage Unit

OFC - 904-1

TEST NO. 2 WATE NO. 1 WELL NAME OR NUMBER ISLAND RG-38

INTERVAL TESTED (FT.)
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CUSTOMER

FIELD

FORMATION

COND./OIL METER SIZE

METER/DIFF. RANGE

NORTHCOR ENERGY LTD.

ISLAND RIVER

JEAN MARIE

(INS) (BBL) (INS. H₂O)

TEST UNIT DESCRIPTION (#, SIZE, ETC.)

GAS PRODUCED TO GAS MEASURED WITH

GAS METER RUN SIZE DIFF. RANGE (INS. H₂O)

STATIC PRESSURE TAKEN

P.T. #2

PIPELINE X FLARE 4" 2" CRITICAL FLOW PROVER

0.000 (INS) 0-200

UPSTREAM X DOWNSTREAM

TIME		WELLHEAD DATA			FLOW CONTROL			GAS METERING			OIL OR CONDENSATE METERING					WATER METERING		
DAY	FLOW OR SHUT IN DURATION	TUBING PRESSURE	TEMP	CASING PRESSURE	MANIFOLD CHOKE SIZE	HEATER CHOKE SIZE	ORIFICE SIZE	STATIC PRESSURE	DIFF. PRESS.	TEMP.	GAS GRAVITY (AIR=1)	#1 TANK OR METER READING	COND. METER ORIFICE SIZE (INS)	#1 OIL TEMP.	WEATHERING FACTOR	OIL GRAVITY 60°F (°API)	#1 TANK OR METER READING	SALINITY
24 HR CLOCK	(HOURS)	(PSIG)	(°F)	(PSIG)	(0.415 INCH)	(0.415 INCH)	(INS)	(PSIG)	(INS. H ₂ O)	(°F)	% H ₂ S	#2 TANK OR METER READING (INS OR BBL)	COND. METER DIFF. PRESS. (INS. H ₂ O)	#2 OIL TEMP.	W _t	BSW (%)	#2 TANK OR METER READING (INS OR BBL)	(%)
1 12											0.000	0.00		0	0.000	0.00	0.00	0.00
1030	1.5	3	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.00	0.00	0.00
2 12	END OF TEST #2										0.000	0.00		0	0.000	0.00	0.00	0.00
1100	2.0	3	0	0	0	0	0.000	0	0	0	0.000	0.00		0	0.000	0.00	0.00	0.00