PAJAK ENGINEERING LTD.

OILFIELD SUPERVISION & PROJECT MANAGEMENT

FINAL WELL REPORT

CDN FOREST et al NORTH LIARD C-31A

60° 30' 01.499" N
123° 36' 38.428" W

Suite 400, IVEAGH HOUSE
707 - 7th Avenue S.W.
Calgary, Alberta T2P 3H6
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FINAL WELL REPORT

CDN FOREST et al NORTH LIARD C-31A

60° 30' 01.499" N
123° 36' 38.428" W

November, 2001

Prepared for

CANADIAN FOREST OIL LTD.

By

Mickey Sutherland, V.P., Manager of Projects

Pajak Engineering Ltd.
400 Iveagh House
707 - Seventh Avenue S. W.
Calgary, Alberta T2P 3H6

FINAL WELL REPORT
CDN FOREST et al NORTH LIARD C-31A

INDEX

(A) INTRODUCTION:

(i) SUMMARY:

The C-31A well was spudded utilizing Akita Rig #58E on January 6, 2001 to test the middle Devonian Nahanni formation for gas. A wireline set Whipstock was run with a Gyro to orient the window at 2375mKB. A window was milled in the 244.5mm casing and drilling began. A 215.9mm main hole was drilled to 2941.5mKB. Open hole logs were run. The Nahanni formation was not encountered and the open hole was plugged back to 2255.0mKB in preparation to suspend the well or for future side track operations.

(ii) LOCALITY MAP:

The Cdn Forest et al North Liard C-31A location is located approximately 32.4 kilometers north of the barge landing site on the Chevron K-29 access road.

See Attachment #1 and Attachment #2.

(B) GENERAL DATA:

(i) WELL NAME: CDN FOREST ET AL NORTH LIARD

WELL NUMBER: C-31A
SURFACE LOCATION: 60° 30' 00.3158" North
123° 36' 36.1336" West

BOTTOM HOLE LOCATION: 60° 30' 01.499" North
123° 36' 38.428" West

EXPLORATION AGREEMENT NUMBER: EL-363
WID: 1907

(ii) WELL LOCATION:

The Global Position System (GPS) was used as the survey system to determine the final well position. The well position was based on geological and seismic information.

(iii) UNIQUE WELL IDENTIFIER: 300C316040123300

(iv) OPERATOR AND DRILLING CONTRACTOR:

OPERATOR:
Canadian Forest Oil Ltd.
#600, 800 - Sixth Avenue S. W.
Calgary, Alberta
T2P 3G3

DRILLING CONTRACTOR:
Akita Drilling Ltd.
1110, 505 - Third Street S. W.
Calgary, Alberta
T2P 3E6

(v) DRILLING UNIT:

NAME: AKITA RIG #58E
TYPE: NATIONAL 8OUE
REGISTRY: Not Applicable
YEAR BUILT: 1978
SHIP YARD: Not Applicable

(vi) POSITION KEEPING:

Land based drilling unit using anchor and guy wire system.

(vii) SUPPORT CRAFT:

Not applicable.

(viii) DRILLING UNIT PERFORMANCE:

Not applicable. Land based drilling unit.

(ix) DIFFICULTIES AND DELAYS:

None

(x) TOTAL WELL COST:

Drilling:	$7,582,233.00
Completion:	$ 0.00
Clean-Up:	$ 674,495.00
Total:	$8,256,728.00

(C) SUMMARY OF DRILLING OPERATIONS:

(i) ELEVATIONS:

Kelly Bushing:	488.0m
Casing Flange:	487.8m
Ground:	481.3m

(ii) TOTAL DEPTH:

Drilled Depth:	2941.5mKB
Logged Depth:	2895.0mKB
Plugged-Back Depth:	2255.0mKB

(iii) SPUD DATE:

2001.01.06 @ 18:30 hours.

(iv) COMPLETED DRILLING DATE:

2001.03.30 @ 09:30 hours.

(v) RIG RELEASE DATE:

2001.04.04 @ 06:00 hours.

(vi) WELL STATUS:

Abandoned.

(vii) HOLES SIZES & DEPTHS:

	Hole Size (mm)	Hole Depth (mKB)
Conductor:	914.4	31.7
Conductor:	660.4	190.0
Surface:	444.5	710.3
Intermediate:	311.2	2630.0
Production:	215.9	2941.5

Note: Conductor holes, surface hole and intermediate holes utilized from original C-31 wellbore.

See Attachment #3, Bit Record.

(viii) CASING & CEMENT RECORD:

See Attachment #4, Casing & Cement Record.

(ix) SIDETRACKED HOLE:

215.9mm hole to 2450mKB. Cemented full length back into 244.5mm casing and polished off for setting Whipstock to mill new window.

Note: Original sidetrack was following old wellbore and had to be cemented back for new window.

(x) DRILLING FLUID:

See Attachment #5, Drilling Mud Properties Record.

(xi) FISHING OPERATIONS:

None.

(xii) WELL KICKS AND WELL CONTROL OPERATIONS:

LOSS CIRCULATION

Day	Depth	Progress	Remarks:
181	2370	0	2001.01.06 @ 00:00 Hours: Remilled the window area. Milling tool took weight at 2365.5mKB. Worked this area only once as this was the only area that needed remilling, weight on milling tool at 2365.5mKB was 3000 daN. Drilled 2.19m for a total depth of 2369.97mKB. Worked and cleaned the new hole until hole drag down was 8000 daN, hole drag up was 14000 daN with no pumps or rotary. The hole drag with pumps on up and down was the same with pumps off, the cuttings coming over the shaker were very fine and the amount was small. Hoisted with milling assembly, out of the hole at 08:15 hours. Inspected milling tool and the only area that showed wear was on the middle mill. Picked up mud motor BHA. Ran in hole to a depth of 2365mKB and circulated. Could not go through window, rotated bit with pump pressure, once bit turned, got through the window. Drilled 0.6m for a total depth of 2370.03mKB. Pulled up to 2362mKB and performed a leak off test. Finished pressure testing at 19:00 hours. Final leak off pressure was 8000 kPa, for a formation gradient of 14.41 kPa/m and a EMD of 1469 kg/m^3, total pressure was 34100 kPa (HP 26100 kPa + leak off pressure 8000 kPa). Circulated for 20 minutes to check for any volume losses, flow checked and well remained static. Rigged up Gyro and wireline to orientate mud motor tool face. Could not get a proper tool face, as the tool face approached 240 degrees, it would turn 180 degrees. The directional driller felt that the reason for this was that the hole direction was not away from window, but it ran along the casing. Will lay down Gyro tool and rotate 14m, as this should allow the MWD tool to provide surveys.

Once a survey has been taken the directional driller will know where tool face is and make adjustments to tool face. An inclination of 3.0 or greater is needed. Rotated assembly to 24:00 hours 2001.01.06.
Note 1: Safety Topic: Gyro tool rig up.
Note 2: Trip record: Calculated: 11.01m^3.
Measured: 12.50m^3. Difference: 1.49m^3.
Note 3: Hole Drag: Up 12000 daN, down 8000 daN.
Note 4. Drilled (rotated) 19.7m to a depth of 2389.70mKB, took 3 surveys to see what the inclination was in order to have proper MWD reading. The first was, Inc = 2.5 at a depth of 2370mKB. The second was, Inc = 2.1 at a depth of 2373mKB. The third was, Inc = 2.5 at a depth of 2375.7mKB. Could not get accurate MWD reading with these inclinations. Have lost 6.8m^3 of volume in 19.7m of drilling. At 05:30 hours, stopped drilling and circulating up a sample, at this point traces of shale are coming over the shaker, but before that only cement.

225	2539	21

2001.02.09 @ 00:00 Hours:
Surveyed and started to slide from 2518.9-2524mKB whild holding 1000 kPa differential pressure on cit with an average ROP of 1 metre per hour. Rotated from 2524-2526mKB with an average ROP of 1.2 metres per hour while holding 1000 kPa differential pressure on bit and a drilling torque between 8000-10000 ft/lb. Back reamed and worked hole prior to connection. Performed rig service and functioned bottom pipe rams, 8 seconds to close. Continued to rotate from 2526-2527.8mKB with an average ROP of 1.7 metres per hour. Picked up off bottom. Flow checked well for losses. Well static. While pumping had lost 3m^3 drilling mud. Continued to rotate from 2527.8-2528mKB with an average ROP of 2.2 metres per hour. Surveyed and started to circulate bottom hole sample. Sample up had shows of fractures and was mainly shale. Continued to slide from 2528-2533mKB with an average ROP of 1 metre per hour while holding 1000 kPa differential pressure on bit and an average mud loss to well 0.2m^3/hour to nil. Back reamed slide and cleaned pipe screen. Rotated from 2533-2538mKB with an average ROP of 1 metre per hour while holding all the same parameters as before. Worked and cleaned hole. Surveyed and started to slide from 2538-2539.6mKB with an average ROP of .8 metres per hour while holding 1000 kPa differential pressure on bit to 24:00 hours 2001.02.19.
Note 1: Checked crown saver, fastline clamp and deadman anchor.
Note 2: Safety topic with crews was fuel transfer.
Note 3: Maximum experienced hookload was 110000 daN.
Note 4: Hole drag up 12000 daN, down 12000 daN.
Note 5: Slivers and sliver dollar shale still being reported at shale shakers while working hole prior to connections.
Note 6: Losses had reduced to zero at 06:00 hours 2001.02.20.

247	2792	1	2001.03.13 @ 00:00 Hours: Tripped to window. Flow checked and rig serviced. Changed out a hydraulic ram on top drive. Tripped for bit. Changed motor and bit. Serviced MWD. Tripped in hole. Cleaned to bottom from 2782.0mKB. Rotated from 2791-2792mKB at 1.5m/hour and 13000 ft/lbs torque. Lost circulation while drilling. Flow checked and observed fluid dropping in annulus. Spotted a 5.0m^3 pill on bottom. Tripped to window to 23:59 hours 2001.03.13. Note 1: Drilled 1.0m and lost 20.0m^3 of mud. Pulled up to 2786mKB and pumped a 5.0m^3 LCM pill containing calcium carbonate and ultraseal. Losses ended while pumping pill into place. Tripped to window and built volume to enable a trip to surface to lay down motor and MWD. Will return to bottom with a rotary assembly to drill ahead. Note 2: Held safety meeting with crew(s) re loss of circulation issues. Note 3: When running bit #23, the bit did not easily enter the window, had to circulate and rotate our way into the open hole. A set of mills to dress the window have been ordered and will arrive tomorrow.

(xiii) FORMATION LEAK-OFF TESTS (FLOT):

One Formation Leak-off test was conducted on drill out of 244.5mm casing on 2001.01.06.

See Attachment #6 for test results and charts.

(xiv) TIME DISTRIBUTION:

See Attachment #7, #8 and #9.

(xv) DEVIATION SURVEY:

See Attachment #10, Subsurface Directional Survey Report.

(xvi) ABANDONMENT PLUGS:

Type of Plug	Interval (mKB)	Felt	Cement (m^3)
Cement Plug #1	2841.0-2941.5	No	4.73
Cement Plug #2	2257.0-2400.0	Yes (10000 daN)	7.5
Cast Iron Bridge Plug	2255.0	Pressure Tested to 7 MPa	NA

(xvii) COMPOSITE WELL RECORD:

See Attachment #11, Lithology Strip Log, and Final Geological Well Report. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31).

(D)

(D) GEOLOGY:

(i) DRILL CUTTINGS:

(a) Sample frequency and distribution:

Canadian Forest Oil Ltd. and partners:

Interval: 0.0-2570.0m at 5.0m intervals
2570.0-2730.75m at 2.5m intervals
2366.8-2450.0m at 2.5m intervals
2302.2-2330.0m at 2.5m intervals
2301.2-2895.4m at 2.5m intervals
2895.4-2941.5m at 2.5m intervals

Two (2) sets of washed sample vials and trays.

Government: National Energy Board/Geological Survey of Canada

Interval: 0.0-2570.0m at 5.0m intervals
2570.0-2730.75m at 2.5m intervals
2366.8-2450.0m at 2.5m intervals
2302.2-2330.0m at 2.5m intervals
2301.2-2895.4m at 2.5m intervals
2895.4-2941.5m at 2.5m intervals

Two (2) sets of washed sample vials and trays.
One (1) set of dried unwashed sample bags.

(b) Distribution of samples: 4 sets of 7 ml vials, 1 set of bagged unwashed cuttings.

(c) Location of stored suites of samples:

2 sets of 7 ml vials and 1 set of bagged unwashed samples were shipped to the Geological Survey of Canada, Core and Sample Depository, 3303 - 33rd Street N. W., Calgary, Alberta T2L 2A7. Telephone 403-284-0110.

1 set of 7 ml vials was retained by the operator, Canadian Forest Oil Ltd., and stored at Kestrel Data (Canada) Limited, 4221 - 23 B Street N. E., Calgary, Alberta T2E 7V9. Telephone 403-250-1119.

(ii) CORES:

No cores were cut.

(iii) LITHOLOGY:

See Attachment #11, Lithology Strip Log, and Final Geological Well Report (by DAX Consulting Ltd.). Scale of Strip Log: 1:240.

Previously submitted on September 17, 2001 with Final Well Report for Cdn Forest et al North Liard C-31.

(iv) STRATAGRAPHIC COLUMN:

Formation Name	Formation Age	General Lithology	KB Depth (Measured)	KB Depth (TVD)	Elevation (Subsea)	Thickness (TVD)
KB			0.0	0.0	488.0	
Ground			6.7	6.7	481.3	
Flett	Lower Miss.	Shale & Limestone	Samples caught from 0.0m	6.7	481.3	94.0
Yohin	Lower Miss.	Shale Limestone & Marlstone	94.0	94.0	394.0	140.0
Clausen	Lower Miss.	Sandstone Limestone & Marlstone	234.0	234.0	254.0	39.0
Yohin	Lower Miss.	Sandstone Limestone & Marlstone	273.0	273.0	215.0	28.0
Besa River Fault	Lower Miss.	Sandstone Limestone & Marlstone	301.0	301.0	187.0	51.1
Besa River	Lower Miss.	Shale	352.0	352.1	135.9	962.4
Banff	Lower Miss.	Shale	1318.8	1314.5	-826.5	222.9
Exshaw	Upper Devonian	Shale	1542.0	1537.4	-1049.5	55.6
Ft. Simpson	Middle Devonian	Shale	1598.0	1593.0	-1105.9	756.0
Horn River	Middle Devonian	Shale Sandstone Shale	2336.8	2330.4	-1842.4	534.9
Muskwa	Middle Devonian	----	Not	penetrated	----	
Nahanni	Middle Devonian	----	Not	penetrated	----	
T.D.	Middle Devonian		2941.5	2865.3	2377.3	

See Attachment #11 for detailed Lithology. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31)

(v) BIOSTRATAGRAPHIC DATA:

See Attachment #11. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31)

(E) WELL EVALUATION:

(i) OPEN HOLE LOGS:

A.

Date	Run #	Log Type	Interval (mKB)	Company
March 22, 2001	1	Slim Formation Micro Imager	2300-2895	Schlumberger
March 24, 2001	1	Cement Volume Log	2310-2875	Schlumberger
March 24, 2001	1	Gamma	2310-2875	Schlumberger

See Attachment #12 for Open Hole Logs and Attachment #15 Transmittal Letters.

(ii) OTHER LOGS:

CASED HOLE:

B. NONE

(iii) OTHER:

C.

Date	Run #	Log Type	Interval(mKB)	Company
March 22, 2001		Disc (ASCII Files)	2310-2875	HEF Petrophysical
March 22, 2001	1	Incline Computer Dipmeter	2310-2875	HEF Petrophysical
March 22, 2001	1	Borehole Ovality Plot	2310-2875	HEF Petrophysical
March 22, 2001	1	Dipmeter @ 1:1000 Scale (3 diff projections)	2310-2876	HEF Petrophysical
March 22, 2001	1	Dipmeter @ 1:5000 Scale (3 diff projections)	2310-2877	HEF Petrophysical
March 22, 2001	1	Measured Depth 1:240 Gamma Ray	2310-2878	HEF Petrophysical
March 22, 2001	1	Measured Depth 1:2000 Gamma Ray	2310-2879	HEF Petrophysical
March 22, 2001	1	TVD Depth 1:240 Gamma Ray	2310-2880	HEF Petrophysical
March 22, 2001	1	TVD Depth 1:1200 Gamma Ray	2310-2881	HEF Petrophysical

See Attachment #14 and Attachment #15 Transmittal Letters.

(iv) SYNTHETIC SEISMOGRAMS, VELOCITY SURVEYS, VERTICAL SEISMIC PROFILES:

See Attachment #16. (Same as for C-31 Final Well Report)

(v) FORMATION STIMULATION:

None.

(vi) FORMATION AND PRODUCTION TEST RESULTS:

None.

(vii) DETAILED TEST PRESSURE DATA READINGS:

None.

(F) ENVIRONMENTAL WELL REPORT:

Not Applicable. As the well is currently suspended, pending evaluation of possible testing of additional zones. It is important to note however, that no sumps for drilling were required as a closed mud system was used to drill the well. The wellsite and campsite have been cleaned up, including mix, cover and bury of campsite sumps.

(G) APPENDIXES TO WELL HISTORY REPORT:

(i) OIL, GAS AND WATER ANALYSIS:

Not applicable.

(ii) RESERVOIR ENGINEERING DATA ON CORES AND CUTTINGS, POROSITY, PERMEABILITY, FLUID SATURATION, DENSITY MEASUREMENTS, ETC.:

See Attachment #11 for cuttings analysis. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31)

(iii) PHOTOGRAPHIC RECORD OF CORE UNDER NATURAL AND ULTRA-VIOLET LIGHT:

No cores were cut.

(iv) DETAILS OF FORMATION & PRODUCTION TESTING:

None.

(v) PETROLOGICAL REPORTS:

Not Applicable.

(vi) PALEONTOLOGICAL REPORTS:

Not Applicable.

(vii) PALYNOLOGICAL REPORTS:

Not Applicable.

(viii) GEOCHEMICAL REPORTS:

Not Applicable.

(ix) AGE DETERMINATIONS (K/AR, ETC.):

Not Applicable.

(x) PROCESSED COMBINATION OF WELL LOGS:

Not Applicable.

(xi) DEVIATION AND DRIFT RECORDS:

See Section (C) (xv), Attachment #10.

(xii) GAS DETECTOR LOGS OR MUD LOGGING RECORDS.

See Section (C) (xvii), Attachment #11, Final Mud Logger's Report. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31)

(xiii) COMPLETION DATA SUCH AS PERFORATED INTERVALS, DOWNHOLE EQUIPMENT, TUBING & STIMULATION RECORDS:

See Attachment #17, Wellbore Schematic and Attachment #18 for Surface Equipment.

(xiv) COMPOSITE WELL RECORDS:

See Section (C) (xvii), Attachment #11, Lithology Strip Log. (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST ET AL NORTH LIARD C-31)

(xv) FINAL SURVEY PLAN:

See Attachment #19 for Final Survey plan. (To follow.)

(xvi) MUD DATA LOGGER'S REPORT:

See Section (C) (xvii), Attachment #11, Final Geological Well Report (Previously submitted on September 17, 2001 with Final Well Report for CDN FOREST et al NORTH LIARD C-31)

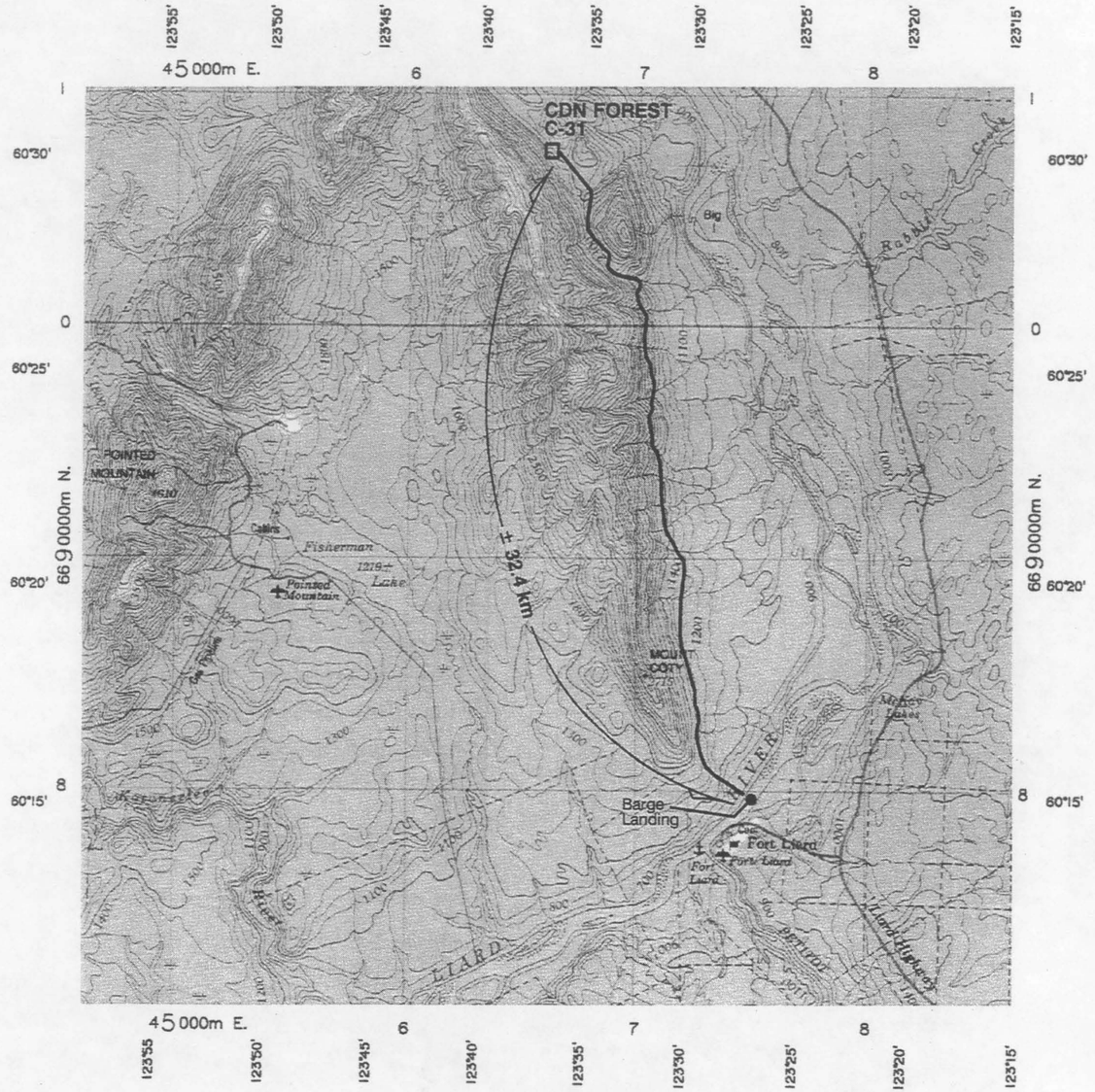

FIGURE 2: **Access Route**

for

CDN FOREST et al NORTH LIARD C-31
IN UNIT C, SECTION 31
GRID AREA : N.60°40', W.123°30'

NORTHWEST TERRITORIES

CANADIAN FOREST OIL LTD.

0 5,000 10,000 15,000 20,000 25,000 m

Scale 1: 250,000

April 28th, 2000

SESL GEOMATICS
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No.	Revision	Date
0	Original Issue	00/04/28

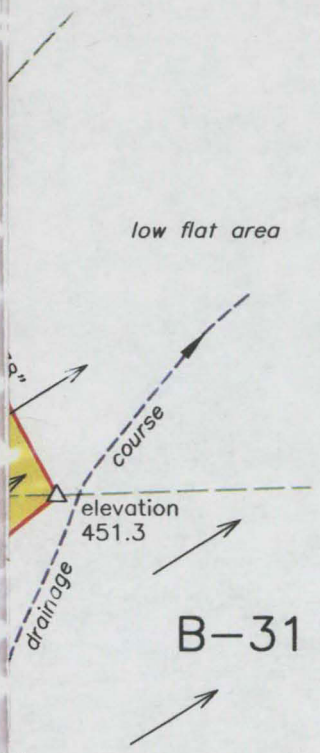
PROPOSED EXPLORATORY WELL
CDN FOREST et al NORTH LIARD C–31
IN UNIT C, SECTION 31
GRID AREA N.60°40' , W.123°30'

Directionally Drilled from a Surface Location in C–31
To a Bottom Hole Location in B–31

NORTHWEST TERRITORIES

SCALE: 1:250

50 0 50 100 150 200m



15m Ranger P/L R/W
(under construction at time of survey)

Proposed Ditchline
1–10" Gasline, 1–3" Waterline

Ranger Access Road
Good grade gravel road
(under construction at time of survey)

NOTE :
Elevations are derived from GPS observations taken from Geodetic bench Marks 83T391 (295.084m) and 83T390 (314.112m) using geoid model GSD 95

Well Centre Location	Latitude	Longitude	Northings	Eastings
C–31	60°30'00.3158"	123°36'36.1336"	6707056.795	466487.399
Bottom Hole Location	Latitude	Longitude	Northings	Eastings
B–31	60°30'02.77"	123°36'30.55"	6707132.06	466573.32

The co–ordinates shown in this table are NAD 1927 Datum.

CANADIAN FOREST OIL LTD.

Witness

Date

B I T R E C O R D

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:18 2001

RUN	BIT#	SIZE (mm)	TYPE	MAKE	SERIAL NUMBER	NOZZLE SIZE(mm) #1/4	#2/5	#3/6	--DEPTH-- IN	OUT	ON BIT DRILL+CORE (m)	(hr)	REAMING (m)	(hr)	I-O-G-L	B-G-O-R	ROP MIN (m/hr)	ROP MAX (m/hr)	ROP AVG (m/hr)	WOB MIN daN	WOB MAX daN	WOB AVG daN	RPM MIN	RPM MAX	RPM AVG	AVG MUD DEN
53	1M	215.9	SMITH		TM9503	0.0	0.0	0.0	2363		0	0.00	0	3.50	- - -	- - -	0.0	0.0	0.0	1000	2000	1500	0	0	0	
54	2m	215.9	EHP51A	REED	TC1957	11.1	11.1	11.1	2363	2363	0	0.00	0	0.00	1-1-NO-A	E-I -NO-BHA	0.0	0.0	0.0	0	0	0	0	0	0	
55	3M	215.9	Mill	Smith	54546	0.0	0.0	0.0	2367	2369	3	1.00	0	0.00	- - -	- - -	3.0	3.0	3.0	1000	2000	1500	110	120	115	
56	4MRR	215.9	EHP51A	REED	TC1057	11.1	11.1	11.1	2370		80	19.50	0	0.00	2-2-NO-A	E-I -NO-BHA	2.0	4.8	3.4	1000	4000	2500	14	60	37	1579
57	5MRR	215.9	JD8	Hughes	F11226	11.1	11.1	11.1	2450	2450	0	0.00	0	0.00	3-3-WT-A	E-I -NO-BHA	0.0	0.0	0.0	1000	2000	1500	0	0	0	
57	MRR	215.9	JD8	Hughes	F11226	11.1	11.1	11.1	2450		0	0.00	0	0.00	- - -	- - -	0.0	0.0	0.0	1000	2000	1500	0	0	0	
58	6M	215.9	Mill	Smith	TM9506	0.0	0.0	0.0	2304		0	0.00	0	0.00	- - -	- - -	0.0	0.0	0.0	1000	2000	1500	0	0	0	
59	7M	215.9	GT-S1	HUGHES	N34ZF	11.1	11.1	11.1	2302	2302	0	0.00	0	0.00	2-2-CT-H	E-I -WT-BHA	0.0	0.0	0.0	1000	2000	1500	0	0	0	
60		215.9	MILL	SMITH		0.0	0.0	0.0	2302		0	0.00	0	0.00	- - -	- - -	0.0	0.0	0.0	0	0	0	0	0	0	
60	8MRR	215.9	GT-S1	HUGHES	NZ34ZF	11.1	11.1	11.1	2302	2311	9	2.25	0	0.00	1-2-WT-A	E-I -WT-BHA	4.0	4.0	4.0	5000	14000	9500	80	90	85	1334
61	9MRR	215.9	JD8	HUGHES	TF11226	11.1	11.1	11.1	2311		0	0.00	0	0.00	2-2-wt-H	E-I -NO-BHA	0.0	0.0	0.0	0	0	0	0	0	0	
62	10MR	215.9	GTS1	HUGHES	NZ34ZF	0.0	0.0	0.0	2311	2330	19	3.00	16	3.00	4-6-WT-A	E-2 -RG-HP	6.3	6.3	6.3	1000	9000	5000	70	80	75	1343
63	11MR	215.9	JD8	HUGHES	TF11226	12.7	12.7	12.7	2330		0	0.00	0	0.00	2-3-BT-H	E-I -CT-BHA	0.0	0.0	0.0	0	0	0	0	0	0	
64	12	215.9	XV	HUGHES	133054	12.7	12.7	12.7	2302	2362	60	46.50	0	0.00	2-4-BT-H	F-2 -CT-HR	0.5	1.3	0.9	8000	13000	10500	90	100	95	1359
65	13	215.9	MF1P	SMITH	YE9528	14.3	14.3	14.3	2362		0	0.00	0	0.00	- - -	- - -	0.0	0.0	0.0	0	0	0	0	0	0	
65	13M	215.9	MF1P	SMITH	YE9528	14.3	14.3	14.3	2362		0	0.00	0	0.00	1-1-NO-A	E-I -NO-HP	0.0	0.0	0.0	0	0	0	0	0	0	
66	14M	215.9	GT-S18	HUGHES	R21DF	15.9	15.9	15.9	2362	2363	1	0.75	60	29.75	1-1-BT-H	E-I -NO-DTF	1.3	1.3	1.3	2000	12000	7000	80	90	85	1660
67	15M	215.9	ETD14M	VAREL	152189	15.9	15.9	15.9	2363	2400	37	30.00	0	0.00	2-3-CT-M2	E-I -WO-TQ	1.0	1.2	1.1	14000	15000	14500	90	120	105	1509
68	16M	215.9	GT-S18	HUGHES	R17DL	14.3	14.3	14.3	2400	2436	36	69.50	5	3.50	2-2-CT-H	E-I -WO-PR	0.4	0.8	0.6	15000	16000	15500	90	120	105	1647
69	17M	215.9	GT-S03	HUGHES	P55CF	12.7	12.7	12.7	2436	2505	69	84.50	0	12.00	3-3-BT-M2	E-I -CT-HR	0.8	0.8	0.8	15000	16000	15500	90	120	105	1622
70	18M	215.9	GT-03	HUGHES	P63DA	15.9	15.9	15.9	2505	2586	81	84.50	55	16.50	8-8-BT-A	E-3 -JD-TQ	1.0	1.0	1.0	2000	15000	8500	90	120	105	1661

B I T R E C O R D

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:18 2001

RUN	BIT#	SIZE (mm)	TYPE	MAKE	SERIAL NUMBER	NOZZLE SIZE(mm) #1/4	#2/5	#3/6	--DEPTH-- IN	OUT	ON BIT DRILL+CORE (m)	(hr)	REAMING (m)	(hr)	I-O-G-L	B-G-O-R	ROP MIN (m/hr)	ROP MAX (m/hr)	ROP AVG (m/hr)	WOB MIN daN	WOB MAX daN	WOB AVG daN	RPM MIN	RPM MAX	RPM AVG	AVG MUD DEN
71	19M	215.9	GT-03	HUGHES	P67DA	15.9	15.9	15.9	2586	2655	69	87.25	46	10.75	8-8-BT-A	E-4 -JD-PR	0.8	1.0	0.9	14000	16000	15000	90	120	105	1665
72	20M	215.9	GT-03	HUGHES	P65DA	15.9	15.9	15.9	2655		34	48.50	81	5.50	8-8-BT-A	E-I -JD-PR	0.7	0.8	0.8	14000	16000	15000	90	120	105	
73	21M	215.9	GT-09	HUGHES	D16DD	15.9	15.9	15.9	2689	2695	6	5.00	86	3.25	1-1-NO-A	E-I -NO-BHA	1.2	1.2	1.2	14000	15000	14500	90	120	105	1660
74	21MR	215.9	GT-09	HUGHES	R16DD	17.5	17.5	17.5	2695	2725	30	52.75	0	0.75	2-2-WT-A	E-I -NO-BHA	0.5	0.6	0.6	15000	16000	15500	65	70	67	1660
74	22MR	215.9	GT-09	HUGHES	D16DD	17.5	17.5	17.5	2695		24	40.75	0	0.75	- - -	- - -	0.6	0.6	0.6	15000	16000	15500	65	70	67	1659
75	22M	215.9	ETD14M	VAREL	152167	17.5	17.5	17.5	2725	2791	66	83.75	0	0.00	5-5-BT-A	F-2 -LT-HR	0.6	0.8	0.7	14000	15000	14500	30	110	70	1662
76	23M	215.9	EP4876	HUGHES	P31DP	17.5	17.5	17.5	2791		1	1.50	0	0.00	1-4-BT-H	E-I -CT-HP	0.7	0.7	0.7	14000	15000	14500	30	110	70	1650
77	24RR	215.9	EP4876	HUGHES	P31DP	0.0	0.0	0.0	2792	2811	19	31.75	0	0.00	4-5-BT-A	E-I -CT-BHA	0.6	0.6	0.6	14000	15000	14500	70	75	72	1656
78	25	215.9	MF1P	SMITH	YE9527	17.5	17.5	17.5	2811	2895	84	87.50	0	0.00	6-6-BT-A	F-4 -LC-PR	1.0	1.0	1.0	14000	15000	14500	30	110	70	1660
79	26	215.9	EP4876	HUGHES	P28DP	17.5	17.5	17.5	2895	2941	41	74.00	91	4.75	8-8-BT-A	F-5 -LC-PR	0.6	0.7	0.6	3000	15000	9000	90	120	105	1662
80	27MR	215.9	ETD14M	VAREL	152189	0.0	0.0	0.0	2257		0	0.00	0	0.00	- - -	- - -	0.0	0.0	0.0	0	0	0	0	0	0	

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:15 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	47	2367	1		Bit	TC1057	215.90	0.00	0.25	REG		4.5REG
4	47	2367	1		Motor @ 1.5	24-62188	160.00	70.00	6.13	H90	4.5REG	4.5H90
4	47	2367	1		Float sub	1016542	163.00	65.00	0.75	H90	4.5H90	4.5H90
4	47	2367	1		Restr Sub	1616549	166.00	72.00	0.75	H90	4.5H90	4.5H90
4	47	2367	1		Nonmag MWD	2116508	161.00	73.00	9.15	H90	4.5H90	4.5H90
4	47	2367	1		Nonmag Flex	2216535	163.00	72.00	9.35	H90	4.5H90	4.5H90
4	47	2367	1		Nonmag Flex	2216501R	161.00	71.00	9.13	H90	4.5H90	4.5H90
4	47	2367	1		Crossover	1316528	162.00	72.00	0.44	H90	4.5H90	4.5XH
4	47	2367	1		Orient Sub	Scientific	160.00	84.00	0.56	XH	4.5 XH	4.5 XH
4	47	2367	1		Crossover	X0003	156.00	73.00	0.36	IF	4.5 XH	4.5 IF
4	47	2367	7		HWDP	Rig	127.00	76.00	65.60	IF	4.5 IF	4.5 IF
4	47	2367	1		Jars	10137	160.00	52.00	5.36	IF	4.5 IF	4.5 IF
4	47	2367	23		HWDP	Rig	127.00	76.00	210.20	IF	4.5 IF	4.5 IF
									318.03			
4	48	2367	1		Mill	Simth	215.90	0.00	1.76			
4	48	2367	1		SS95 DP	Akita	127.00	76.00	9.70	IF	4.5IF	4.5IF
4	48	2367	13		HWDP	Akita	127.00	76.00	119.75	IF	4.5IF	4.5IF
4	48	2367	1		Jars	10137	170.00	65.00	5.36	IF	4.5IF	4.5IF
4	48	2367	17		HWDP	Akita	161.00	76.00	156.05	IF	4.5IF	4.5IF
									292.62			
4	49	2369	1		Bit	TC1057	215.90	0.00	0.25			4.5REG
4	49	2369	1		Motor @ 1.5	24-62188	160.00	70.00	6.13	H90	4.5REG	4.5H90
4	49	2369	1		Float Sub	1016542	163.00	65.00	0.75	H90	4.5H90	4.5H90
4	49	2369	1		Restr Sub	1616549	166.00	72.00	0.75	H90	4.5H90	4.5H90
4	49	2369	1		Nonmag MWD	2116508	161.00	73.00	9.15	H90	4.5H90	4.5H90
4	49	2369	1		Nonmag Flex	2216535	163.00	72.00	9.35	H90	4.5H90	4.5H90
4	49	2369	1		Nonmag Flex	2216501R	161.00	71.00	9.13	H90	4.5H90	4.5H90
4	49	2369	1		Crossover	1316528	162.00	72.00	0.44	XH	4.5XH	4.5H90
4	49	2369	1		Orient Sub	Scientific	160.00	84.00	0.56	XH	4.5XH	4.5XH
4	49	2369	1		Crossover	X0003	156.00	73.00	0.36	IF	4.5IF	4.5XH
4	49	2369	6		HWDP	Akita	127.00	76.00	65.55	IF	4.5IF	4.5IF
4	49	2369	1		Jars	10137	171.00	52.00	5.36	IF	4.5IF	4.5IF
4	49	2369	24		HWDP	Akita	127.00	76.00	210.25	IF	4.5IF	4.5IF
									318.03			
4	50	2450	1		Bit	F11226	215.90	0.00	0.25			4.5REG
4	50	2450	1		Csg scraper	1596	233.00	60.00	1.10	REG	4.5REG	4.5REG
4	50	2450	1		Bit Sub	554	170.00	67.00	1.07	IF	4.5IF	4.5REG
4	50	2450	30		HWDP	Akita	166.00	72.00	275.87	IF	4.5IF	4.5IF
4	50	2450	1		Crossover	10788	168.00	67.00	0.29	H90	4.5IF	5H90
4	50	2450	3		Drill collar	Akita	170.00	57.00	27.43	H90	5H90	5H90
4	50	2450	1		Crossover		170.00	60.00	1.31	IF	4.5H90	4.5IF
									307.32			
4	51	2304	1		Whipstock	95009C	203.00	0.00	5.52			
4	51	2304	1		Mill	TM9506	215.90	59.00	1.98	IF	4.5IF	
4	51	2304	1		Crossover	Smith	159.00	72.00	0.41	IF	4.5XH	4.5IF
4	51	2304	1		UBHO Sub	Scientific	160.00	84.00	0.56	XH	4.5XH	4.5XH
4	51	2304	1		Crossover	X003	156.00	73.00	0.36	IF	4.5IF	4.5XH
4	51	2304	1		SS95 DP	Akita	127.00	76.00	9.71	IF	5.4IF	4.5IF
									18.54			
4	51	2304	1		Bit GT-S1	NZ34ZF	215.90	0.00	0.25			4.5REG
4	51	2304	1		MOTOR 2.12	24-62188	160.00	0.00	6.13		4.5REG	4.5H90
4	51	2304	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	51	2304	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	51	2304	1		MWD	2116508	161.00	73.00	9.15		4.5H90	4.5H90
4	51	2304	1		FLEX COLLAR	2216535	163.00	72.00	9.35		4.5H90	4.5H90

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:15 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	51	2304	1		FLEX COLLAR	2216501R	161.00	71.00	9.13		4.5H90	4.5H90
4	51	2304	1		X/O	1316528	162.00	72.00	0.44		4.5 XH	4.5H90
4	51	2304	1		ORIENT SUB	SCIENTIFIC	160.00	84.00	0.56		4.5 XH	4.5 XH
4	51	2304	1		X/O	X0003	156.00	73.00	0.36		4.5 IF	4.5 XH
4	51	2304	7		HWDP	AKITA	127.00	0.00	65.60		4.5 IF	4.5 IF
4	51	2304	1		JARS	10137	171.00	52.00	5.36		4.5 IF	4.5 IF
4	51	2304	23		HWDP	AKITA	127.00	0.00	210.20		4.5 IF	4.5 IF
									318.03			
4	53	2304	1		DUAL MILL	SMITH	170.00	0.00	1.76		4.5 IF	4.5REG
4	53	2304	1		SS95 D.P.	AKITA	127.00	0.00	9.71		4.5 IF	4.5 IF
4	53	2304	13		HWDP	AKITA	127.00	0.00	119.63		4.5 IF	4.5 IF
4	53	2304	1		JARS	10137	171.00	52.00	5.36		4.5 IF	4.5 IF
4	53	2304	17		HWDP	AKITA	127.00	0.00	156.17		4.5 IF	4.5 IF
									292.63			
4	54	2304	1		GT-SI	N34ZF	215.90	0.00	0.25			4.5 REG
4	54	2304	1		MOTOR 1.83	62008	160.00	0.00	6.21		4.5REG	4.5H90
4	54	2304	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	54	2304	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	54	2304	1		NM FLEX	2216535	163.00	72.00	9.35		4.5H90	4.5H90
4	54	2304	1		NM FLEX	2216501R	161.00	71.00	9.13		4.5H90	4.5H90
4	54	2304	1		X/O	1316528	162.00	72.00	0.44		4.5 XH	4.5H90
4	54	2304	1		ORIENTING S	SCIENTIFIC	160.00	84.00	0.56		4.5 XH	4.5 XH
4	54	2304	1		X/O	SMITH X0003	156.00	73.00	0.36		4.5 IF	4.5 XH
4	54	2304	7		HWDP	AKITA	127.00	0.00	65.60		4.5 IF	4.5 IF
4	54	2304	1		JARS	10135	174.00	65.00	5.43		4.5 IF	4.5 IF
4	54	2304	23		HWDP	AKITA	127.00	0.00	210.20		4.5 IF	4.5 IF
									309.03			
4	55	2311	1		JD-8	TF11226	215.90	0.00	0.25			4.5 REG
4	55	2311	1		MOTOR 1.83	62008	160.00	0.00	6.21		4.5REG	4.5H90
4	55	2311	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	55	2311	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	55	2311	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5H90	4.5H90
4	55	2311	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5H90	4.5H90
4	55	2311	1		NM FLEX	2216535	163.00	72.00	9.35		4.5H90	4.5H90
4	55	2311	1		NM FLEX	2216501R	161.00	71.00	9.13		4.5H90	4.5H90
4	55	2311	1		X/O	1316528	162.00	72.00	0.44		4.5 XH	4.5H90
4	55	2311	1		ORIENTING S	SCIENTIFIC	160.00	84.00	0.56		4.5 XH	4.5 XH
4	55	2311	1		X/O	SMITH X0003	156.00	73.00	0.36		4.5 IF	4.5 XH
4	55	2311	7		HWDP	AKITA	127.00	0.00	65.60		4.5 IF	4.5 IF
4	55	2311	1		JARS	10698	172.00	65.00	5.67		4.5 IF	4.5 IF
4	55	2311	23		HWDP	AKITA	127.00	0.00	210.20		4.5 IF	4.5 IF
									320.51			
4	55	2311	1		RTTS PACKER		209.50	0.00	1.97		4.5 IF	4.5 IF
4	55	2311	30		HWDP	AKITA	127.00	0.00	275.80		4.5 IF	4.5 IF
									277.77			
4	57	2311	1		BIT GTSI	NZ34ZF	215.90	0.00	0.25			4.5REG
4	57	2311	1		BITSUB FLOAT	46727	127.00	66.00	1.19		4.5H90	4.5REG
4	57	2311	1		DRILL COLLAR	502340	158.00	59.00	9.47		4.5H90	4.5H90
4	57	2311	1		DRILL COLLAR	502343	161.00	59.00	9.44		4.5H90	4.5H90
4	57	2311	1		DRILL COLLAR	502344	159.00	59.00	9.47		4.5H90	4.5H90
4	57	2311	1		X/O	502497	159.00	71.00	0.65		4.5 IF	4.5H90
4	57	2311	7		HWDP	AKITA	127.00	77.00	65.60		4.5 IF	4.5 IF
4	57	2311	1		JARS	10698	172.00	65.00	5.67		4.5 IF	4.5 IF
4	57	2311	23		HWDP	AKITA	127.00	77.00	210.20		4.5 IF	4.5 IF
									311.94			

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:16 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	58	2330	20		Drill Pipe		88.90	66.06	189.27		3.5 IF	3.5 IF
4	58	2330	1		X/O		159.00	67.00	0.57		4.5 IF	3.5 IF
									191.70			
4	59	2330	1		BIT JD8	TF11226	215.90	0.00	0.25			4.5REG
4	59	2330	1		BITSUB FLOAT	46727	158.00	66.00	1.19		4.5H90	4.5REG
4	59	2330	3		DRILLCOLLARS	502344	159.00	59.00	28.38		4.5H90	4.5H90
4	59	2330	1		X/O	502497	159.00	71.00	0.65		4.5 IF	4.5H90
4	59	2330	7		HWDP	AKITA	127.00	77.00	65.60		4.5 IF	4.5 IF
4	59	2330	1		JARS	10698	172.00	65.00	5.67		4.5 IF	4.5 IF
4	59	2330	23		HWDP	AKITA	127.00	77.00	210.20		4.5 IF	4.5 IF
									311.94			
4	60	2302	1		BIT XV	133054	215.90	0.00	0.25			4.5REG
4	60	2302	1		MOTOR 1.83	4016535	160.00	0.00	6.29		4.5H90	4.5REG
4	60	2302	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	60	2302	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	60	2302	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5H90	4.5H90
4	60	2302	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5H90	4.5H90
4	60	2302	1		NM FLEX	2216523	163.00	72.00	9.25		4.5H90	4.5H90
4	60	2302	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5H90	4.5H90
4	60	2302	1		X/O	1316528	161.00	71.00	0.44		4.5 XH	4.5H90
4	60	2302	1		ORIENTING	SCIENTIFIC	160.00	84.00	0.56		4.5 XH	4.5 XH
4	60	2302	1		X/O	SMITH X003	156.00	73.00	0.36		4.5 IF	4.5 XH
4	60	2302	7		HWDP	AKITA	127.00	77.00	65.60		4.5 IF	4.5 IF
4	60	2302	1		JARS	10698	174.00	65.00	5.67		4.5 IF	4.5 IF
4	60	2302	23		HWDP	AKITA	127.00	77.00	210.20		4.5 IF	4.5 IF
									320.49			
4	61	2362	1		BIT MF1P	YE9528	215.90	0.00	0.25			4.5REG
4	61	2362	1		MOTOR 1.83	4016535	160.00	0.00	6.29		4.5H90	4.5REG
4	61	2362	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	61	2362	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	61	2362	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5H90	4.5H90
4	61	2362	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5H90	4.5H90
4	61	2362	1		NM FLEX	2216523	163.00	72.00	9.25		4.5H90	4.5H90
4	61	2362	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5H90	4.5H90
4	61	2362	1		X/O	1316528	161.00	71.00	0.48		4.5 IF	4.5H90
4	61	2362	7		HWDP	AKITA	127.00	77.00	65.60		4.5 IF	4.5 IF
4	61	2362	1		JARS	10698	174.00	65.00	5.67		4.5 IF	4.5 IF
4	61	2362	23		HWDP	AKITA	127.00	77.00	210.20		4.5 IF	4.5 IF
									319.61			
4	61	2362	1		SCREW IN SUB	CANFISH	159.00	70.00	1.10		4.5 IF	4.5 IF
4	61	2362	1		BUMPER SUB	CANFISH	160.00	58.00	2.52		4.5 IF	4.5 IF
4	61	2362	1		JARS	CANFISH	159.00	57.00	2.48		4.5 IF	4.5 IF
4	61	2362	1		X/O	CANFISH	160.00	70.00	0.51		4.5H90	4.5 IF
4	61	2362	6		DRILL COLLAR	WEATHERFORD	159.00	59.00	56.75		4.5H90	4.5H90
4	61	2362	1		INTENSIFYER	CANFISH	154.00	51.00	2.73		4.5H90	4.5H90
4	61	2362	1		X/O	CANFISH	160.00	66.00	0.49		4.5 IF	4.5H90
									66.58			
4	62	2362	1		Bit GT-S18	R21DF	215.90	0.00	0.25			4.5 REG
4	62	2362	1		ABH MOTOR	4016520	165.00	0.00	6.20		4.5 REG	4.5 H90
4	62	2362	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	62	2362	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	62	2362	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	62	2362	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	62	2362	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	62	2362	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:16 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	62	2362	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	62	2362	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	62	2362	1		JARS	10135	174.00	65.00	5.43		4.5 IF	4.5 IF
4	62	2362	21		HWDP	AKITA	127.00	77.00	192.48		4.5 IF	4.5 IF
									300.52			
4	63	2363	1		Bit ETD14MS	152189	215.90	0.00	0.25			4.5 REG
4	63	2363	1		ABH MOTOR	2416511	160.00	0.00	6.64		4.5 REG	4.5 H90
4	63	2363	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	63	2363	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	63	2363	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	63	2363	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	63	2363	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	63	2363	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	63	2363	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	63	2363	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	63	2363	1		JARS	10135	174.00	65.00	5.43		4.5 IF	4.5 IF
4	63	2363	21		HWDP	AKITA	127.00	77.00	192.48		4.5 IF	4.5 IF
									300.96			
4	64	2400	1		Bit GT-S18	R17DL	215.90	0.00	0.25			4.5 REG
4	64	2400	1		ABH MOTOR	2416511	160.00	0.00	6.64		4.5 REG	4.5 H90
4	64	2400	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	64	2400	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	64	2400	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	64	2400	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	64	2400	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	64	2400	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	64	2400	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	64	2400	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	64	2400	1		JARS	10135	174.00	65.00	5.43		4.5 IF	4.5 IF
4	64	2400	21		HWDP	AKITA	127.00	77.00	192.48		4.5 IF	4.5 IF
									300.96			
4	65	2436	1		Bit GT-S03	P55CF	215.90	0.00	0.25			4.5 REG
4	65	2436	1		ABH MOTOR	2416511	160.00	0.00	6.64		4.5 REG	4.5 H90
4	65	2436	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	65	2436	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	65	2436	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	65	2436	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	65	2436	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	65	2436	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	65	2436	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	65	2436	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	65	2436	1		JARS	10135	174.00	65.00	5.43		4.5 IF	4.5 IF
4	65	2436	21		HWDP	AKITA	127.00	77.00	192.48		4.5 IF	4.5 IF
									300.96			
4	66	2505	1		Bit GT-S03	P63DA	215.90	0.00	0.25			4.5 REG
4	66	2505	1		ABH MOTOR	4016535	159.00	0.00	6.29		4.5 REG	4.5 H90
4	66	2505	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	66	2505	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	66	2505	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	66	2505	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	66	2505	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	66	2505	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	66	2505	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	66	2505	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	66	2505	1		JARS	10137	174.00	65.00	5.36		4.5 IF	4.5 IF
4	66	2505	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.57			

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:16 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	67	2505	1		ABH MOTOR	4016501	161.00	0.00	6.49		4.5 REG	4.5 H90
4	67	2505	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	67	2505	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	67	2505	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	67	2505	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	67	2505	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	67	2505	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	67	2505	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	67	2505	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	67	2505	1		JARS	10137	174.00	65.00	5.36		4.5 IF	4.5 IF
4	67	2505	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.77			
4	68	2655	1		Bit GT-S03	P65DA	215.90	0.00	0.25			4.5 REG
4	68	2655	1		ABH MOTOR	4016510	161.00	0.00	6.49		4.5 REG	4.5 H90
4	68	2655	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	68	2655	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	68	2655	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	68	2655	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	68	2655	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	68	2655	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	68	2655	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	68	2655	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	68	2655	1		JARS	10137	174.00	65.00	5.36		4.5 IF	4.5 IF
4	68	2655	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.77			
4	69	2689	1		Bit GT-09	R16DD	215.90	0.00	0.25			4.5 REG
4	69	2689	1		ABH MOTOR	4016505	161.00	0.00	6.11		4.5 REG	4.5 H90
4	69	2689	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	69	2689	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	69	2689	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	69	2689	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	69	2689	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	69	2689	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	69	2689	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	69	2689	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	69	2689	1		JARS	10709	174.00	65.00	5.83		4.5 IF	4.5 IF
4	69	2689	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.86			
4	70	2695	1		Bit GT-09	R16DD	215.90	0.00	0.25			4.5 REG
4	70	2695	1		BIT SUB	46727	161.00	60.00	1.47		4.5 REG	4.5 H90
4	70	2695	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	70	2695	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	70	2695	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	70	2695	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	70	2695	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	70	2695	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	70	2695	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	70	2695	1		JARS	10709	174.00	65.00	5.83		4.5 IF	4.5 IF
4	70	2695	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									313.47			
4	70	2695	1		Bit ETD14MS	R16DD	215.90	0.00	0.25			4.5 REG
4	70	2695	1		MOTOR8/9,1.5	46727	161.00	60.00	1.47		4.5 REG	4.5 H90
4	70	2695	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	70	2695	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	70	2695	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	70	2695	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	70	2695	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	70	2695	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:16 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	70	2695	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	70	2695	1		JARS	10709	174.00	65.00	5.83		4.5 IF	4.5 IF
4	70	2695	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									313.47			
4	71	2725	1		BIT#22 ETD14	152067	215.90	75.00	0.25			4.5 REG
4	71	2725	1		MTR @ 1.5deg	4016505	161.00	0.00	6.11		4.5 H90	4.5 REG
4	71	2725	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	71	2725	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	71	2725	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	71	2725	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	71	2725	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	71	2725	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	71	2725	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	71	2725	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	71	2725	1		JARS	10709	174.00	65.00	5.83		4.5 IF	4.5 IF
4	71	2725	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.86			
4	72	2791	1		BIT#23 EP487	P31DP7	215.90	75.00	0.25			4.5 REG
4	72	2791	1		MTR @ 1.5deg	4016519A	165.00	0.00	6.20		4.5 H90	4.5 REG
4	72	2791	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5 H90	4.5 H90
4	72	2791	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5 H90	4.5 H90
4	72	2791	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5 H90	4.5 H90
4	72	2791	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5 H90	4.5 H90
4	72	2791	1		NM FLEX	2216523	163.00	72.00	9.25		4.5 H90	4.5 H90
4	72	2791	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5 H90	4.5 H90
4	72	2791	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	72	2791	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	72	2791	1		JARS	10930	174.00	70.00	5.82		4.5 IF	4.5 IF
4	72	2791	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.94			
4	73	2792	1		BIT#24RR 487	P31DP7	215.90	75.00	0.25			4.5 REG
4	73	2792	1		BIT SUB		160.00	60.00	1.47		4.5H90	4.5 REG
4	73	2792	1		DC		160.00	60.00	9.46		4.5H90	4.5H90
4	73	2792	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	73	2792	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	73	2792	1		JARS	10930	174.00	70.00	5.82		4.5 IF	4.5 IF
4	73	2792	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									292.55			
4	74	2811	1		BIT#25M MF1P	YE9527	215.90	75.00	0.25			4.5 REG
4	74	2811	1		MTR @ 1.5deg	4016519A	165.00	0.00	6.20		4.5H90	4.5 REG
4	74	2811	1		FS	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	74	2811	1		RS	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	74	2811	1		MWD NMDC	2116541	157.00	85.00	9.26		4.5H90	4.5H90
4	74	2811	1		ES	2416502	164.00	84.00	1.98		4.5H90	4.5H90
4	74	2811	1		NM HW	2216523	163.00	72.00	9.25		4.5H90	4.5H90
4	74	2811	1		NM HW	2216501	162.00	72.00	9.13		4.5H90	4.5H90
4	74	2811	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5 H90
4	74	2811	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	74	2811	1		JARS	10930	174.00	70.00	5.82		4.5 IF	4.5 IF
4	74	2811	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									318.94			
4	75	2895	1		LOGGING TOOL		0.00	0.00	13.94			
									13.94			
4	76	2895	1		DRILL PIPE	AKITA	127.00	101.00	9.69		4.5 IF	4.5 IF

PAJAK ENGINEERING LTD.

BOTTOM HOLE ASSEMBLY RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:16 2001

HOLE #	BHA #	DEPTH IN(m)	QTY	CODE	DESCRIPTION	SERIAL #	O.D. (mm)	I.D. (mm)	LENGTH (m)	THREAD TYPE	BOX	PIN
4	76	2895	1		RTTS PACKER	HALLIBURTON	0.00	0.00	1.96		4.5 IF	4.5 IF
4	76	2895	30		HWDP	AKITA	127.00	0.00	275.18		4.5 IF	4.5 IF
									286.83			
4	77	2895	1		BIT EP4876	P32DP	215.90	0.00	0.25			4.5REG
4	77	2895	1		MOTOR 1.5deg	4016530	166.00	0.00	6.62		4.5REG	4.5H90
4	77	2895	1		FLOAT SUB	1016542	163.00	65.00	0.75		4.5H90	4.5H90
4	77	2895	1		RESTRICTOR	1616549	166.00	72.00	0.75		4.5H90	4.5H90
4	77	2895	1		MWD COLLAR	2116541	157.00	85.00	9.26		4.5H90	4.5H90
4	77	2895	1		NM EXT SUB	2416502	164.00	84.00	1.98		4.5H90	4.5H90
4	77	2895	1		NM FLEX	2216523	163.00	72.00	9.25		4.5H90	4.5H90
4	77	2895	1		NM FLEX	2216501R	162.00	72.00	9.13		4.5H90	4.5H90
4	77	2895	1		X/O	CS650-01	164.00	64.00	0.48		4.5 IF	4.5H90
4	77	2895	7		HWDP	AKITA	127.00	77.00	64.56		4.5 IF	4.5 IF
4	77	2895	1		JARS	10930	174.00	70.00	5.82		4.5 IF	4.5 IF
4	77	2895	23		HWDP	AKITA	127.00	77.00	210.51		4.5 IF	4.5 IF
									319.36			
4	78	2941	1		CMT.STINGER		88.90	66.09	143.85		3.5 IF	3.5 IF
4	78	2941	1		X/O		88.90	66.09	0.58		4.5 IF	3.5 IF
									144.43			
4	79	2941	1		BIT FTD14MS	152189	215.90	0.00	0.25			4.5 REG
4	79	2941	1		SCRAPPER		0.00	0.00	1.11		4.5 REG	4.5 REG
4	79	2941	1		BIT SUB	554	0.00	0.00	1.07		4.5 IF	4.5 REG
4	79	2941	30		HWDP	AKITA	127.00	77.00	275.07		4.5 IF	4.5 IF
									277.50			
									0.00			

ATTACHMENT #4

End Well Report
Canadian Forest Oil Ltd.
CDN FOREST ET AL NORTH LIARD C-31A

Casing & Cement Record

Casing Size (mm)	Weight (kg/m)	Grade	Make	No. Joints	Thread	Date Set	Depth Set (m)		Cement Volume (tonnes)	Cement Volume (m^3)	Cement Blend
762.0	147.2	A252	Cam	2	PE	00.07.27	25.0		21.0	27.63	0:1:0 "G" + 3.0% CaCl2
508.0	195.0	K-55		15	CVE	00.08.10	190.0		80.0	60.12	0:1:0 "G" + 1.0% CaCl2
339.7	101.19	K-55	Tamsa	55	BT&C	00.08.21	710.3		105.0	80.4	0:1:0 "G" + 0.5% CFR + 0.3% LTR
									5.0	3.8	0:1:0 "G" + 3.0% CaCl2
244.5	80.0	HCL-80	Lonestar	189	BT&C	00.12.20	2630.0	Fill	30.0	22.5	Thermal 40 + 1.0% CFR + 0.35% CFL-2 + 0.35% CFL-H + 0.15% HTR-2, 6L FA-1/m^3
								Tail	53.0	37.51	Thermal 40 + 0.7% CFR + 0.7% CFL-2 + 0.2% LTR

PAJAK ENGINEERING LTD.

CEMENTING REPORT

WELL NAME:	CDN FOREST ET AL NORTH LIARD C-31-A	DATE:	01/04/01	RPT #:	5
LOCATION:	300-C31-6040-12330-0	AFE #:	004009	DFS:	
		CEMENT JOB ID (**):	P		
SUPERVISOR:	LEBEUF/AUBIN	STRING IDENTIFIER (*):			
PHONE #:	(600) 701-3227	CALLING CARD #:			

(*) STRING IDENTIFIERS
C = Conductor
S = Surface
I = Intermediate
P = Production
L = Liner

(**) JOB IDENTIFIERS
P = Primary S = Squeeze

Summary

	CEMENT INTERVAL			
1st STAGE	2941.0	m KB	2841.0	m KB
2nd STAGE		m KB		m KB
3rd STAGE		m KB		m KB

ANNULAR VOLUME (m3)
CALIPER
GAUGE
SLURRY (actual)

Job Details

HOLE SIZE: mm
CASING O.D.: mm
SHOE DEPTH: m KB
MAX. RECORDED BHT: 137 deg C

(***) JOB TYPES
1 = Conventional
2 = Foam

JOB TYPE (***): 1
PROPOSED CEMENT TOP: 2841.00 m KB
MAXIMUM DEVIATION: 35.00 deg @ 2941.00 m KB

Comments

Tripped in hole with 88.9mm cement stinger.Once in open hole circulated every 2 stands.Once on bottom circulated hole clean.Held safety meeting with crews and sanjel cementers prior to cementing.Cemented plug#1 on bottom from 2941mKB to 2841mKB.Pulled out of plug #1 and broke circulation just enough to see returns.Continued to trip out of hole to plug #2.

Mud Data (prior to cementing)

TYPE: K MINUS
DENSITY: 1660.00 kg/m3
VISCOSITY: 80.00 sec/l
YIELD POINT: 24.00 Pa
WATER LOSS: 8.50 ml/30 min
P. V. 21.00 mPa - sec
GELS 20.00 / 29.00 Pa

Plug Type

TOP:
BOTTOM:
OTHER:

Cement Head

TYPE:

Pipe Movement

WHILE:	CONDITIONING	CEMENTING
TYPE		
STROKE (m)		
RATE (stks/min)		

Stage Tools

TYPE	
DEPTH (m KB)	

Mix Water

FRESH

Services & Equipment

CEMENT COMPANY: Sanjel
REPRESENTATIVE: Richard Harasen
EQUIPMENT: Twin,pumper

STAGE ONE

A. Cement Blend Description

	CEMENT TYPE	ADDITIVES	PREFLUSH TYPE	PREFLUSH VOL (m3)
SCAVENGER			FRESH WATER	4.00
FILL				
TAIL	Thermal 40	1% CFR .4% LTR .9% CFL-2 1% FWCA-H		
OTHER				

B. Cement Data

	CEMENTED INTERVAL (m) to (m)	ANNULAR VOLUME (m3)	EXCESS USED (%)	SLURRY VOLUME (m3)	BULK WEIGHT (tonnes)	YIELD (m3/t)	SLURRY DENSITY (kg/m3)	THICK TIME (mins)	MIX WATER RATIO (m3/t)	MIX WATER TEMP (deg C)
SCAVENGER	-			0.00						
FILL	-									
TAIL	2841.0 - 2941.0	4.73	50	7.10	9.50	0.750	1885.00	427	0.410	8.00
OTHER	-									

PAJAK ENGINEERING LTD.

CEMENTING REPORT

WELL NAME:	CDN FOREST ET AL NORTH LIARD C-31-A	DATE:	01/04/01	RPT #:	5
LOCATION:	300-C31-6040-12330-0	AFE #:	004009	DFS:	
		CEMENT JOB ID (**):	P		
SUPERVISOR:	LEBEUF/AUBIN	STRING IDENTIFIER (*):			
PHONE #:	(600) 701-3227	CALLING CARD #:			

(*) STRING IDENTIFIERS
C = Conductor
S = Surface
I = Intermediate
P = Production
L = Liner

(**) JOB IDENTIFIERS
P = Primary S = Squeeze

C. Record of Operations

OPERATION DESCRIPTION	START TIME (day / hr:min)	FINISH TIME (day / hr:min)	ELAPSED TIME	VOLUME (m3)	RATE (m3/min)	PRESSURE (kPa) MAX.	PRESSURE (kPa) MIN.
MUD CONDITIONING	31 / 19 : 45	31 / 21 : 15	1.50	92.0	1.2	8100	8100
POOH W/ DRILL PIPE	/ :	/ :					
RIH W/ CASING	/ :	/ :					
CIRCULATION	/ :	/ :					
CEMENTING - PREFLUSH	31 / 21 : 16	31 / 21 : 23	0.12	4.0	0.8	10000	9000
- SCAVENGER	/ :	/ :					
- FILL	/ :	/ :					
- TAIL	31 / 21 : 27	31 / 21 : 34	0.12	7.1	1.0	11000	8000
- OTHER	/ :	/ :					
RLSE TOP PLUG & PO LINES	/ :	/ :					
DISPLACEMENT	31 / 21 : 34	31 / 21 : 58	0.40	25.2	1.0	11000	10000
BUMP PLUG & BLEED OFF	/ :	/ :					
CEMENT RETURNS	TYPE:		VOLUME:	m3			
FLOAT HELD	YES ☐	NO ☒					

STAGE TWO

A. Cement Blend Description

	CEMENT TYPE	ADDITIVES	PREFLUSH TYPE	PREFLUSH VOL (m3)
SCAVENGER				
FILL				
TAIL				
OTHER				

B. Cement Data

	CEMENTED INTERVAL (m) to (m)	ANNULAR VOLUME (m3)	EXCESS USED (%)	SLURRY VOLUME (m3)	BULK WEIGHT (tonnes)	YIELD (m3/t)	SLURRY DENSITY (kg/m3)	THICK TIME (mins)	MIX WATER RATIO (m3/t)	MIX WATER TEMP (deg C)
SCAVENGER	-									
FILL	-									
TAIL	-									
OTHER	-									

C. Record of Operations

OPERATION DESCRIPTION	START TIME (day / hr:min)	FINISH TIME (day / hr:min)	ELAPSED TIME	VOLUME (m3)	RATE (m3/min)	PRESSURE (kPa) MAX.	PRESSURE (kPa) MIN.
MUD CONDITIONING	/ :	/ :					
POOH W/ DRILL PIPE	/ :	/ :					
RIH W/ CASING	/ :	/ :					
CIRCULATION	/ :	/ :					
CEMENTING - PREFLUSH	/ :	/ :					
- SCAVENGER	/ :	/ :					
- FILL	/ :	/ :					
- TAIL	/ :	/ :					
- OTHER	/ :	/ :					
RLSE TOP PLUG & PO LINES	/ :	/ :					
DISPLACEMENT	/ :	/ :					
BUMP PLUG & BLEED OFF	/ :	/ :					
CEMENT RETURNS	TYPE:		VOLUME:	m3			
FLOAT HELD	YES ☐	NO ☐					

PAJAK ENGINEERING LTD.

CEMENTING REPORT

WELL NAME:	CDN FOREST ET AL NORTH LIARD C-31-A	DATE:	01/04/01	RPT #:	6
LOCATION:	300-C31-6040-12330-0	AFE #:	004009	DFS:	
		CEMENT JOB ID (**):	P		
SUPERVISOR:	LEBEUF/AUBIN	STRING IDENTIFIER (*):			
PHONE #:	(600) 701-3227	CALLING CARD #:			

(*) STRING IDENTIFIERS
C = Conductor
S = Surface
I = Intermediate
P = Production
L = Liner

(**) JOB IDENTIFIERS
P = Primary S = Squeeze

Summary

	CEMENT INTERVAL			
1st STAGE	2400.0	m KB	2280.0	m KB
2nd STAGE		m KB		m KB
3rd STAGE		m KB		m KB

ANNULAR VOLUME (m3)
CALIPER
GAUGE
SLURRY (actual)

Job Details

HOLE SIZE: mm
CASING O.D.: mm
SHOE DEPTH: m KB
MAX. RECORDED BHT: 137 deg C

(***) JOB TYPES
1 = Conventional
2 = Foam

JOB TYPE (***): 1
PROPOSED CEMENT TOP: 2280.00 m KB
MAXIMUM DEVIATION: 6.00 deg @ 2400.00 m KB

Comments

Circulated at 2400mKB a full bottoms up prior to cementing plug #2.Held safety meeting with all concerned prior to cementing plug #2.Mixed and cemented plug #2.Tripped out of hole to 2180mKB.Broke circulation and got back 4m3 vis sweep and 1m3 contaminated cement.Continued to circulate casing clean.

Mud Data (prior to cementing)

TYPE: K-MINUS
DENSITY: 1660.00 kg/m3
VISCOSITY: 80.00 sec/l
YIELD POINT: 24.00 Pa
WATER LOSS: 8.50 ml/30 min
P. V. 21.00 mPa - sec
GELS 20.00 / 29.00 Pa

Plug Type

TOP:
BOTTOM:
OTHER:

Cement Head

TYPE:

Pipe Movement

WHILE:	CONDITIONING	CEMENTING
TYPE	Up and Down	Up and Down
STROKE (m)	18.0	2.0
RATE (stks/min)	90.0	

Stage Tools

TYPE	
DEPTH (m KB)	

Mix Water

FRESH

Services & Equipment

CEMENT COMPANY: Sanjel
REPRESENTATIVE: Richard Harasen
EQUIPMENT: Twin,pumper

STAGE ONE

A. Cement Blend Description

	CEMENT TYPE	ADDITIVES	PREFLUSH TYPE	PREFLUSH VOL (m3)
SCAVENGER			VIS SWEEP	4.00
FILL				
TAIL	THERMAL 40	1% CFR .4%LTR .9%CFL-2 1%FWCA-H		
OTHER				

B. Cement Data

	CEMENTED INTERVAL (m) to (m)	ANNULAR VOLUME (m3)	EXCESS USED (%)	SLURRY VOLUME (m3)	BULK WEIGHT (tonnes)	YIELD (m3/t)	SLURRY DENSITY (kg/m3)	THICK TIME (mins)	MIX WATER RATIO (m3/t)	MIX WATER TEMP (deg C)
SCAVENGER	-									
FILL	-									
TAIL	2280.0 - 2400.0	7.50	100	15.00	20.00	0.750	1885.00	427	0.410	8.00
OTHER	-									

PAJAK ENGINEERING LTD.

CEMENTING REPORT

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A
LOCATION: 300-C31-6040-12330-0
SUPERVISOR: LEBEUF/AUBIN
PHONE #: (600) 701-3227 CALLING CARD #:

DATE: 01/04/01 RPT #: 6
AFE #: 004009 DFS:
CEMENT JOB ID (**): P
STRING IDENTIFIER (*):

(*) STRING IDENTIFIERS
C = Conductor
S = Surface
I = Intermediate
P = Production
L = Liner
(**) JOB IDENTIFIERS
P = Primary S = Squeeze

C. Record of Operations

OPERATION DESCRIPTION	START TIME (day / hr:min)	FINISH TIME (day / hr:min)	ELAPSED TIME	VOLUME (m3)	RATE (m3/min)	PRESSURE (kPa) MAX.	PRESSURE (kPa) MIN.
MUD CONDITIONING	1 / 00 : 15	1 / 1 : 45	1.50	58.4	1.2	6600	6600
POOH W/ DRILL PIPE	/ :	/ :					
RIH W/ CASING	/ :	/ :					
CIRCULATION	/ :	/ :					
CEMENTING - PREFLUSH	1 / 1 : 53	1 / 1 : 59	0.10	4.0	0.8	8000	6000
- SCAVENGER	/ :	/ :					
- FILL	/ :	/ :					
- TAIL	1 / 1 : 59	1 / 2 : 16	0.28	15.0	1.0	8000	7000
- OTHER	/ :	/ :					
RLSE TOP PLUG & PO LINES	/ :	/ :					
DISPLACEMENT	1 / 2 : 16	1 / 2 : 34	0.30	18.1	0.8	8000	7000
BUMP PLUG & BLEED OFF	/ :	/ :					
CEMENT RETURNS	TYPE: CANTAMINATED		VOLUME: 1.00 m3				
FLOAT HELD	YES ☐	NO ☐					

STAGE TWO

A. Cement Blend Description

	CEMENT TYPE	ADDITIVES	PREFLUSH TYPE	PREFLUSH VOL (m3)
SCAVENGER				
FILL				
TAIL				
OTHER				

B. Cement Data

	CEMENTED INTERVAL (m) to (m)	ANNULAR VOLUME (m3)	EXCESS USED (%)	SLURRY VOLUME (m3)	BULK WEIGHT (tonnes)	YIELD (m3/t)	SLURRY DENSITY (kg/m3)	THICK TIME (mins)	MIX WATER RATIO (m3/t)	MIX WATER TEMP (deg C)
SCAVENGER	-									
FILL	-									
TAIL	-									
OTHER	-									

C. Record of Operations

OPERATION DESCRIPTION	START TIME (day / hr:min)	FINISH TIME (day / hr:min)	ELAPSED TIME	VOLUME (m3)	RATE (m3/min)	PRESSURE (kPa) MAX.	PRESSURE (kPa) MIN.
MUD CONDITIONING	/ :	/ :					
POOH W/ DRILL PIPE	/ :	/ :					
RIH W/ CASING	/ :	/ :					
CIRCULATION	/ :	/ :					
CEMENTING - PREFLUSH	/ :	/ :					
- SCAVENGER	/ :	/ :					
- FILL	/ :	/ :					
- TAIL	/ :	/ :					
- OTHER	/ :	/ :					
RLSE TOP PLUG & PO LINES	/ :	/ :					
DISPLACEMENT	/ :	/ :					
BUMP PLUG & BLEED OFF	/ :	/ :					
CEMENT RETURNS	TYPE:		VOLUME:	m3			
FLOAT HELD	YES ☐	NO ☐					

D R I L L I N G M U D P R O P E R T I E S R E C O R D

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:22 2001

DAY	DEPTH (m)	MUD TYPE	DENSITY	VIS	GELS	pH	PF/MF	PV	YP	WATER LOSS	FC	TEMP C in/out	SAND kg/m3	SOLIDS kg/m3	TOTAL SOLIDS kg/m3	OIL %	MBT	POLY	BENT	LCM	CA++	CL-	ALKALYDE MFI	ALKALYDE MFO
154	2363	K-Minus	1115/ 0	56	3.0/ 4.0	10.4	0/ 0	18	14	4.8	1.0	0/ 56	0.000	0.00	0.21	0.000	0	0	4	0	420	1200	0.2	0.7
155	2363	K-Minus	1125/ 0	54	4.0/ 7.0	10.5	0/ 0	15	15	6.2	1.0	0/ 56	0.000	0.00	0.50	0.000	0	0	0	0	480	1200	0.2	0.7
156	2370	K-Minus	1125/ 0	57	4.0/10.0	10.8	0/ 0	17	15	5.3	1.5	0/ 32	0.002	0.00	0.05	0.000	0	0	0	0	440	1200	0.2	1.0
156	2370	K-Minus	1125/ 0	58	5.0/ 9.0	10.8	0/ 0	17	15	5.1	1.5	0/ 32	0.002	0.00	0.05	0.000	0	0	0	0	440	1200	0.1	1.0
157	2401	K-Minus	1125/ 0	58	5.0/10.0	10.3	0/ 0	18	16	8.4	1.5	0/ 36	0.002	0.00	0.05	0.000	0	0	0	0	400	1200	0.1	1.0
157	2389	K-Minus	1125/ 0	60	6.0/10.0	10.5	0/ 0	19	16	9.3	1.5	0/ 36	0.002	0.00	0.05	0.000	0	0	0	0	400	1200	0.1	1.0
158	2450	K-Minus	1135/ 0	64	9.0/17.0	10.5	0/ 0	22	17	7.3	1.5	0/ 36	0.002	0.00	0.05	0.000	0	0	0	0	400	1100	0.1	1.0
159	2450	K-Minus	1140/ 0	58	10.0/18.0	10.5	0/ 0	22	15	7.6	1.5	0/ 0	0.008	0.00	0.05	0.000	0	0	15	0	400	1100	0.1	0.8
160	2391	K-Minus	1140/ 0	54	8.0/15.0	10.3	0/ 0	20	15	7.8	1.5	0/ 0	0.010	0.00	0.05	0.000	0	0	15	0	400	1000	0.1	0.6
161	2398	K-Minus	1135/ 0	64	6.0/12.0	10.6	0/ 0	20	14	7.6	1.0	0/ 38	0.005	0.00	0.05	0.000	0	0	17	0	400	1100	0.1	0.7
162	2302	K-Minus	1130/ 0	58	6.0/11.0	10.3	0/ 0	20	14	7.6	1.0	0/ 34	0.005	0.00	0.22	0.000	0	0	16	0	420	1100	0.1	0.7
163	2302	K-Minus	1140/ 0	57	6.0/ 9.0	10.8	0/ 0	18	13	7.4	1.5	0/ 40	0.000	0.00	0.22	0.000	0	0	16	0	420	1100	0.1	0.6
164	2310	K-Minus	1195/ 0	72	10.0/17.0	10.8	0/ 0	16	17	8.8	1.5	0/ 40	0.010	0.00	0.22	0.000	0	0	24	0	460	1100	0.1	0.7
165	2310	K-Minus	1240/ 0	58	8.0/14.0	11.8	0/ 0	15	15	6.2	1.0	0/ 40	0.000	0.00	0.22	0.000	0	0	22	0	460	1100	0.4	0.9
166	2310	K-Minus	1240/ 0	58	8.0/14.0	11.8	0/ 0	15	15	6.2	1.0	0/ 40	0.000	0.00	0.22	0.000	0	0	22	0	460	1100	0.4	0.9
167	2310	K-Minus	1240/ 0	58	8.0/14.0	11.8	0/ 0	15	15	6.2	1.0	0/ 40	0.000	0.00	0.22	0.000	0	0	22	0	460	1100	0.4	0.9
168	2310	K-Minus	1240/ 0	58	8.0/14.0	11.8	0/ 0	15	15	6.2	1.0	0/ 40	0.000	0.00	0.22	0.000	0	0	22	0	460	1100	0.4	0.9
169	2311	K-Minus	1275/ 0	78	12.0/15.0	11.0	0/ 0	17	19	9.0	1.5	0/ 39	0.000	0.00	0.22	0.000	0	0	22	0	460	1100	0.2	0.7
170	2311	K-Minus	1285/ 0	72	11.0/16.0	11.0	0/ 0	16	17	9.6	1.5	0/ 38	0.000	0.00	0.02	0.000	0	0	22	0	420	1100	0.2	0.7
171	2311	K-Minus	1290/ 0	70	13.0/21.0	8.6	0/ 0	16	15	10.2	1.5	0/ 39	0.010	0.00	0.02	0.000	0	0	26	0	480	1100	0.1	0.8
172	2311	K-Minus	1310/ 0	70	17.0/16.0	10.0	0/ 0	16	17	8.4	1.5	0/ 0	0.000	0.00	0.02	0.000	0	0	26	0	480	1100	0.2	0.7
173	2311	K-Minus	1310/ 0	78	14.0/19.0	9.8	0/ 0	20	23	8.8	1.5	0/ 40	0.000	0.00	0.02	0.000	0	0	26	0	400	1100	0.2	0.7
174	2330	K-Minus	1330/ 0	68	10.0/14.0	10.4	0/ 0	20	18	9.6	1.5	0/ 49	0.000	0.00	0.02	0.000	0	0	22	0	340	1100	0.2	0.8
175	2330	K-Minus	1330/1330	68	10.0/14.0	10.4	0/ 0	20	18	9.6	1.5	0/ 49	0.000	0.00	0.02	0.000	0	0	22	0	340	1100	0.2	0.8
176	2301	K-Minus	1345/ 0	65	6.0/10.0	11.7	0/ 0	18	12	8.3	1.5	0/ 45	0.000	0.00	0.02	0.000	0	0	22	0	420	1200	0.6	1.4
177	2308	K-Minus	1370/ 0	60	6.0/10.0	12.2	0/ 0	26	14	10.2	1.5	0/ 49	0.000	0.00	0.02	0.000	0	0	24	0	420	1200	0.6	1.4
178	2327	K-Minus	1345/ 0	62	6.0/ 9.0	11.9	0/ 0	14	12	7.4	1.5	0/ 49	0.003	0.00	0.18	0.000	0	0	26	0	520	1200	0.8	1.6
178	2342	K-Minus	1355/ 0	68	6.0/13.0	11.7	0/ 0	26	14	7.4	1.5	0/ 54	0.003	0.00	0.18	0.000	0	0	26	0	420	1200	0.5	1.3
179	2360	K-Minus	1360/ 0	71	7.0/12.0	11.8	0/ 0	20	15	6.2	1.0	0/ 55	0.003	0.00	0.18	0.000	0	0	28	0	480	1200	0.5	1.2
180	2362	K-Minus	1380/ 0	79	7.0/12.0	11.8	0/ 0	24	14	6.4	1.0	0/ 55	0.003	0.00	0.18	0.000	0	0	28	0	420	1200	0.2	0.9
181	2362	K-Minus	1380/ 0	79	7.0/12.0	11.8	0/ 0	24	14	6.4	1.0	0/ 55	0.003	0.00	0.18	0.000	0	0	28	0	420	1200	0.2	0.9
182	2362	K-Minus	1370/ 0	75	9.0/15.0	11.7	0/ 0	32	16	6.6	1.0	0/ 48	0.003	0.00	0.02	0.000	0	0	26	0	420	1200	0.3	1.0
183	2362	K-Minus	1670/1670	86	11.0/19.0	11.7	0/ 0	42	17	7.6	1.5	0/ 49	0.005	0.00	0.02	0.000	0	0	29	0	560	1200	0.3	0.8
183	2362	K-Minus	1675/ 0	86	10.0/18.0	11.6	0/ 0	44	17	7.4	1.5	0/ 0	0.005	0.00	0.02	0.000	0	0	29	0	580	1200	0.3	0.8
184	2362	K-Minus	1670/1670	86	11.0/19.0	11.7	0/ 0	42	17	7.6	1.5	0/ 49	0.005	0.00	0.02	0.000	0	0	29	0	560	1200	0.3	0.8

184	2362	K-Minus	1675/	0	86	10.0/18.0	11.6	0/	0	44	17	7.4	1.5	0/	0	0.005	0.00	0.02	0.000	0	0	29	0	580	1200	0.3	0.8
185	2362	K-Minus	1655/	0	105	19.0/30.0	11.3	0/	0	46	21	7.4	1.5	0/	52	0.005	0.00	0.02	0.000	0	0	28	0	500	1200	0.3	0.9
185	2362	K-Minus	1680/	0	80	12.0/23.0	11.4	0/	0	48	18	7.4	1.5	0/	0	0.005	0.00	0.02	0.000	0	0	28	0	580	1200	0.3	0.8
186	2363	K-Minus	1665/	0	92	13.0/26.0	11.4	0/	0	46	19	6.6	1.5	0/	42	0.005	0.00	0.02	0.000	0	0	28	0	420	1200	0.3	0.8
186	2362	K-Minus	1650/	0	96	14.0/26.0	11.3	0/	0	49	20	6.6	1.5	0/	50	0.005	0.00	0.02	0.000	0	0	28	0	400	1200	0.3	0.9
187	2363	K-Minus	1660/	0	182	22.0/41.0	11.3	0/	0	42	37	6.4	1.0	0/	50	0.008	0.00	0.02	0.000	0	0	38	0	480	1200	0.2	0.9
187	2366	K-Minus	1650/	0	212	24.0/41.0	11.1	0/	0	48	30	6.6	1.5	0/	50	0.005	0.00	0.02	0.000	0	0	39	0	480	1200	0.3	0.8
188	2388	K-Minus	1650/	0	82	12.0/19.0	10.0	0/	0	34	20	6.2	1.0	0/	59	0.008	0.00	0.02	0.000	0	0	38	0	480	1100	0.2	0.8
188	2375	K-Minus	1650/	0	108	19.0/45.0	11.1	0/	0	42	24	8.4	1.0	0/	54	0.010	0.00	0.02	0.000	0	0	44	0	520	1100	0.2	0.9
189	2397	K-Minus	1650/	0	95	18.0/29.0	11.3	0/	0	46	21	6.0	1.0	0/	60	0.008	0.00	0.02	0.000	0	0	32	0	420	1100	0.2	0.9
190	2404	K-Minus	1670/	0	83	18.0/31.0	10.5	0/	0	36	20	8.4	1.0	0/	50	0.005	0.00	0.02	0.000	0	0	35	0	600	1100	0.2	0.9
191	2423	K-Minus	1660/	0	80	17.0/33.0	10.5	0/	0	34	19	6.5	2.0	0/	52	0.040	0.00	20.00	0.000	0	0	25	0	700	1000	0.1	0.8
191	2404	K-Minus	1670/	0	83	18.0/31.0	10.5	0/	0	36	20	8.4	1.0	0/	50	0.005	0.00	0.02	0.000	0	0	35	0	600	1100	0.2	0.9
192	2433	K-Minus	1665/	0	84	19.0/31.0	10.5	0/	0	36	23	6.7	2.0	0/	54	0.050	0.00	0.02	0.000	0	0	28	0	520	900	0.1	0.8
192	2428	K-Minus	1660/	0	82	18.0/31.0	10.5	0/	0	34	22	6.8	2.0	0/	54	0.065	0.00	0.02	0.000	0	0	26	0	800	800	0.1	0.8
193	2433	K-Minus	1665/	0	84	19.0/31.0	10.5	0/	0	36	23	6.7	2.0	0/	54	0.050	0.00	0.02	0.000	0	0	28	0	520	900	0.1	0.8
193	2428	K-Minus	1660/	0	82	18.0/31.0	10.5	0/	0	34	22	6.8	2.0	0/	54	0.065	0.00	0.02	0.000	0	0	26	0	800	800	0.1	0.8
194	2445	K-Minus	1660/	0	76	13.0/28.0	11.0	0/	0	32	20	6.0	2.0	0/	53	0.030	0.00	0.02	0.000	0	0	26	0	450	900	0.2	0.9
195	2465	K-Minus	1660/	0	84	20.0/35.0	10.5	0/	0	35	24	6.1	2.0	0/	54	0.040	0.00	0.02	0.000	0	0	28	0	450	900	0.2	0.9
195	2455	K-Minus	1665/	0	83	18.0/35.0	11.0	0/	0	34	21	6.1	2.0	0/	54	0.030	0.00	0.02	0.000	0	0	27	0	500	900	0.2	0.9
196	2483	K-Minus	1655/	0	92	19.0/36.0	10.5	0/	0	33	26	6.4	2.0	0/	54	0.040	0.00	0.02	0.000	0	0	35	0	500	900	0.3	1.1
197	2497	K-Minus	1655/	0	90	20.0/31.0	10.5	0/	0	32	25	6.8	2.0	0/	54	0.010	0.00	0.02	0.000	0	0	35	0	400	900	0.2	1.0
198	2505	K-Minus	1670/	0	92	21.0/33.0	10.5	0/	0	32	26	6.5	2.0	0/	54	0.015	0.00	0.22	0.000	0	0	38	0	440	900	0.2	1.2
199	2515	K-Minus	1660/	0	86	18.0/30.0	10.5	0/	0	28	24	6.8	2.0	0/	53	0.015	0.00	0.21	0.000	0	0	35	0	400	900	0.2	1.0

DRILLING MUD PROPERTIES RECORD

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009 SPUD DATE: 00/08/04

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD. RIG: 58E

Mon Nov 05 08:47:22 2001

DAY	DEPTH (m)	MUD TYPE	DENSITY	VIS	GELS	pH	PF/MF	PV	YP	WATER LOSS	FC	TEMP C in/out	SAND kg/m3	SOLIDS kg/m3	TOTAL SOLIDS kg/m3	OIL %	MBT	POLY	BENT	LCM	CA++	CL-	ALKALYDE MFI	ALKALYDE MFO
200	2536	K-Minus	1660/ 0	95	20.0/35.0	10.5	0/ 0	32	29	6.5	2.0	0/ 64	0.015	0.00	0.21	0.000	0	0	38	0	480	800	0.3	1.5
201	2555	K-Minus	1660/ 0	89	20.0/30.0	10.5	0/ 0	29	27	6.8	2.0	0/ 54	0.020	0.00	0.21	0.000	0	0	38	0	480	800	0.2	1.3
202	2575	K-Minus	1660/ 0	92	20.0/33.0	10.0	0/ 0	29	27	6.5	2.0	0/ 55	0.015	0.00	0.21	0.000	0	0	38	0	500	700	0.2	1.4
203	2586	K-Minus	1660/ 0	104	24.0/43.0	10.6	0/ 0	24	25	6.8	2.0	0/ 55	0.015	0.00	0.21	0.000	0	0	35	0	700	1100	0.2	1.3
204	2586	K-Minus	1665/ 0	97	26.0/44.0	10.4	0/ 0	26	22	6.8	2.0	0/ 57	0.003	0.00	0.21	0.000	0	0	35	0	600	1100	0.2	1.1
204	2592	K-Minus	1665/ 0	90	27.0/42.0	10.8	0/ 0	28	26	6.8	2.0	0/ 57	0.003	0.00	0.21	0.000	0	0	35	0	650	1100	0.2	0.9
205	2610	K-Minus	1665/ 0	87	28.0/37.0	10.5	0/ 0	22	25	7.0	2.0	0/ 61	0.002	0.00	0.02	0.000	0	0	30	0	420	1100	0.2	1.3
206	2610	K-Minus	1665/ 0	87	28.0/37.0	10.5	0/ 0	22	25	7.0	2.0	0/ 61	0.002	0.00	0.02	0.000	0	0	30	0	420	1100	0.2	1.3
207	2643	K-Minus	1665/ 0	87	26.0/34.0	10.6	0/ 0	28	26	6.5	2.0	0/ 64	0.005	0.00	0.02	0.000	0	0	28	0	400	1100	0.2	1.3
208	2654	K-Minus	1660/ 0	84	22.0/28.0	10.6	0/ 0	28	26	6.4	2.0	0/ 64	0.005	0.00	0.02	0.000	0	0	28	0	400	1100	0.2	1.2
209	2654	K-Minus	1665/ 0	96	26.0/31.0	10.7	0/ 0	26	29	6.8	2.0	0/ 60	0.003	0.00	0.02	0.000	0	0	28	0	400	1100	0.2	1.3
210	2654	K-Minus	1665/ 0	96	26.0/31.0	10.7	0/ 0	26	29	6.8	2.0	0/ 60	0.003	0.00	0.02	0.000	0	0	28	0	400	1100	0.2	1.3
211	2654	K-Minus	1665/ 0	96	26.0/31.0	10.7	0/ 0	26	29	6.8	2.0	0/ 60	0.003	0.00	0.02	0.000	0	0	28	0	400	1100	0.2	1.3
212	2689	K-Minus	1665/ 0	97	34.0/40.0	10.3	0/ 0	30	30	7.2	2.0	0/ 60	0.003	0.00	0.02	0.000	0	0	27	0	440	1100	0.2	0.9
213	2695	K-Minus	1660/ 0	97	18.0/26.0	10.1	0/ 0	30	30	7.2	2.0	0/ 62	0.002	0.00	0.02	0.000	0	0	27	0	580	1100	0.1	0.9
214	2701	K-Minus	1650/ 0	99	22.0/36.0	10.5	0/ 0	32	30	6.2	2.0	0/ 59	0.003	0.00	0.02	0.000	0	0	27	0	540	1100	0.1	0.9
215	2714	K-Minus	1660/ 0	88	24.0/33.0	10.8	0/ 0	32	29	6.4	2.0	0/ 64	0.003	0.00	0.02	0.000	0	0	27	0	420	1100	0.2	1.1
216	2725	K-Minus	1665/ 0	85	27.0/32.0	11.0	0/ 0	26	29	6.2	2.0	0/ 62	0.003	0.00	0.02	0.000	0	0	26	0	340	1100	0.2	1.3
217	2730	K-Minus	1665/ 0	82	21.0/27.0	10.8	0/ 0	26	25	6.2	2.0	0/ 62	0.003	0.00	0.02	0.000	0	0	26	0	240	1100	0.2	1.2
218	2737	K-Minus	1665/ 0	72	18.0/24.0	11.0	0/ 0	26	24	6.2	2.0	0/ 63	0.003	0.00	0.02	0.000	0	0	26	0	440	1100	0.3	1.3
219	2755	K-Minus	1660/1660	84	25.0/34.0	10.8	0/ 0	28	28	6.0	2.0	0/ 63	0.003	0.00	0.02	0.000	0	0	27	0	420	1100	0.3	1.4
220	2771	K-Minus	1665/1665	83	22.0/29.0	10.5	0/ 0	28	26	6.2	2.0	0/ 63	0.005	0.00	0.02	0.000	0	0	26	0	420	1100	0.3	1.3
221	2790	K-Minus	1660/1660	90	26.0/33.0	11.0	0/ 0	26	30	5.8	2.0	0/ 62	0.002	0.00	0.02	0.000	0	0	26	0	400	1100	0.4	1.7
222	2791	K-Minus	1665/1665	98	26.0/44.0	11.0	0/ 0	32	30	5.8	2.0	0/ 60	0.003	0.00	0.02	0.000	0	0	28	0	320	1100	0.4	1.8
223	2792	K-Minus	1650/1650	82	16.0/24.0	10.5	0/ 0	20	25	6.5	2.0	0/ 60	0.002	0.00	0.02	0.000	0	0	31	0	360	1100	0.2	1.3
224	2801	K-Minus	1660/1660	100	35.0/50.0	10.5	0/ 0	30	35	7.5	2.0	0/ 58	0.002	0.00	0.21	0.000	0	0	31	0	360	1000	0.2	1.1
225	2808	K-Minus	1650/1650	100	30.0/42.0	10.5	0/ 0	30	32	7.2	2.0	0/ 62	0.005	0.00	0.19	0.000	0	0	40	0	400	1100	0.2	1.2
226	2812	K-Minus	1660/1660	80	25.0/32.0	11.0	0/ 0	23	30	7.4	2.0	0/ 62	0.005	0.00	0.22	0.000	0	0	35	0	400	1000	0.2	1.2
227	2835	K-Minus	1660/1660	78	26.0/36.0	11.0	0/ 0	26	31	6.7	2.0	0/ 62	0.005	0.00	0.22	0.000	0	0	35	0	380	1000	0.2	1.2
228	2857	K-Minus	1660/1660	76	25.0/34.0	11.0	0/ 0	23	30	6.1	2.0	0/ 62	0.005	0.00	0.21	0.000	0	0	39	0	400	1000	0.2	1.2
229	2875	K-Minus	1660/1660	76	25.0/34.0	10.5	0/ 0	23	28	6.4	2.0	0/ 62	0.005	0.00	0.21	0.000	0	0	30	0	380	1000	0.2	1.2
230	2894	K-Minus	1660/1660	74	23.0/31.0	10.5	0/ 0	21	28	7.2	2.0	0/ 62	0.005	0.00	0.21	0.000	0	0	31	0	400	1000	0.2	1.1
231	2895	K-Minus	1660/1660	75	22.0/30.0	10.5	0/ 0	21	28	7.1	2.0	0/ 41	0.005	0.00	0.21	0.000	0	0	32	0	400	1000	0.2	1.2
232	2895	K-Minus	1660/1660	75	22.0/30.0	10.5	0/ 0	21	28	7.1	2.0	0/ 41	0.005	0.00	0.21	0.000	0	0	32	0	400	1000	0.2	1.2
233	2895	K-Minus	1660/1660	82	22.0/33.0	10.0	0/ 0	23	29	8.0	2.0	0/ 42	0.005	0.00	0.21	0.000	0	0	32	0	400	1000	0.1	0.8

234	2895	K-Minus	1660/1660	82	22.0/33.0	10.0	0/	0	23	29	8.0	2.0	0/ 42	0.005	0.00	0.21	0.000	0	0	32	0	400	1000	0.1	0.8
235	2895	K-Minus	1670/1670	69	22.0/31.0	9.8	0/	0	24	26	10.1	2.5	0/ 42	0.008	0.00	0.22	0.000	0	0	30	0	360	1000	0.0	0.2
236	2905	K-Minus	1655/1655	81	21.0/32.0	10.5	0/	0	23	27	10.3	2.5	0/ 51	0.005	0.00	0.21	0.000	0	0	35	0	240	1000	0.3	1.1
237	2919	K-Minus	1670/1670	88	22.0/32.0	10.5	0/	0	23	30	8.5	2.0	0/ 50	0.005	0.00	0.22	0.000	0	0	35	0	400	1000	0.1	1.4
238	2933	K-Minus	1660/1660	79	20.0/28.0	10.5	0/	0	22	26	7.8	2.0	0/ 51	0.005	0.00	0.21	0.000	0	0	35	0	400	1000	0.1	1.0
239	2941	K-Minus	1660/1660	81	21.0/29.0	10.5	0/	0	22	25	7.4	2.0	0/ 46	0.005	0.00	0.21	0.000	0	0	35	0	600	900	0.1	1.1
240	2941	K-Minus	1660/1660	80	20.0/29.0	10.5	0/	0	21	24	8.5	2.0	0/ 46	0.005	0.00	0.21	0.000	0	0	35	0	400	900	0.0	0.9
242	0	INHIBITED	1005/ 0	32	0.0/ 0.0	10.5	0/	0	0	0	0.0	0.0	0/ 0	0.000	0.00	0.00	0.000	0	0	0	0	280	700	0.0	0.0

PAJAK ENGINEERING LTD.

MUD ADDITIVES BY HOLE SECTION

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A — AFE: 004009
RIG: 58E

LOCATION: 300-C31-6040-12330-0 — CONTRACTOR: AKITA DRILLING LTD.

Mon Nov 05 08:47:21 2001

MUD ADDITIVE	NO. OF SACKS	INVENT ADJUST	KG/ SACK	KG TOT. WEIGHT	$COST/ SACK	% DISCOUNT	$TOTAL COST
Hole Section: MAIN							
Alcomer	2	0	0.0	0	185.16	0.00	370.32
Alcomer	1	0	0.0	0	35.12	0.00	35.12
Alcomer	2	0	0.0	0	185.16	0.00	370.32
Alcomer	2	0	0.0	0	297.04	0.00	594.08
Alcomer	4	0	0.0	0	185.16	0.00	740.64
Alcomer	4	0	0.0	0	297.04	0.00	1188.16
Alcomer	8	0	0.0	0	185.16	0.00	1481.28
Alcomer	3	0	0.0	0	297.04	0.00	891.12
Alcomer110	68	0	0.0	0	297.04	0.00	20198.72
Barite	11198	0	0.0	0	21.88	0.00	245012.24
Biocide	110	0	0.0	0	320.92	0.00	35301.20
Cal Carb	150	0	0.0	0	16.28	0.00	2442.00
Cal Carb	27	0	0.0	0	18.56	0.00	501.12
Caustic	53	0	0.0	0	55.68	0.00	2951.04
Corinox	87	0	0.0	0	179.80	0.00	15642.60
Desco	42	0	0.0	0	91.20	0.00	3830.40
Drispac	95	0	0.0	0	308.36	0.00	29294.20
Gel	291	0	0.0	0	20.00	0.00	5820.00
Gypsum	11	0	0.0	0	18.60	0.00	204.60
Kelzan	12	0	0.0	0	668.80	0.00	8025.60
Lignite	192	0	0.0	0	18.56	0.00	3563.52
Lime	5	0	0.0	0	13.92	0.00	69.60
Lime	6	0	0.0	0	20.56	0.00	123.36
Lime	23	0	0.0	0	13.92	0.00	320.16
Lime	1	0	0.0	0	20.56	0.00	20.56
Percol 728	16	0	0.0	0	462.64	0.00	7402.24
Pot Sulf	1874	0	0.0	0	30.16	0.00	56519.84
Saf-Kote	15	0	0.0	0	244.20	0.00	3663.00
Sawdust	30	0	0.0	0	7.60	0.00	228.00
Sil Defoam	2	0	0.0	0	191.60	0.00	383.20
Sod Sulf	150	0	0.0	0	68.52	0.00	10278.00
Soda Ash	30	0	0.0	0	25.00	0.00	750.00
Starpak	92	0	0.0	0	158.96	0.00	14624.32
Sulf-Acid	13	0	0.0	0	72.40	0.00	941.20
Sulf-Acid	2	0	0.0	0	91.20	0.00	182.40
Torq 2000	11	0	0.0	0	183.40	0.00	2017.40
Ultra Seal	35	0	0.0	0	106.20	0.00	3717.00
Walnut	15	0	0.0	0	38.60	0.00	579.00
	14682	0					480277.56

PAJAK ENGINEERING LTD.

M U D A D D I T I V E S S U M M A R Y

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E
LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Nov 05 08:47:21 2001

MUD ADDITIVE	NO. OF SACKS	INVENT ADJUST	KG/ SACK	KG TOT. WEIGHT	$COST/ SACK	% DISCOUNT	$TOTAL COST
Alcomer	2	0	0.0	0	185.16	0.00	370.32
Alcomer	1	0	0.0	0	35.12	0.00	35.12
Alcomer	2	0	0.0	0	185.16	0.00	370.32
Alcomer	2	0	0.0	0	297.04	0.00	594.08
Alcomer	4	0	0.0	0	185.16	0.00	740.64
Alcomer	4	0	0.0	0	297.04	0.00	1188.16
Alcomer	8	0	0.0	0	185.16	0.00	1481.28
Alcomer	3	0	0.0	0	297.04	0.00	891.12
Alcomer110	68	0	0.0	0	297.04	0.00	20198.72
Barite	11198	0	0.0	0	21.88	0.00	245012.24
Biocide	110	0	0.0	0	320.92	0.00	35301.20
Cal Carb	150	0	0.0	0	16.28	0.00	2442.00
Cal Carb	27	0	0.0	0	18.56	0.00	501.12
Caustic	53	0	0.0	0	55.68	0.00	2951.04
Corinox	87	0	0.0	0	179.80	0.00	15642.60
Desco	42	0	0.0	0	91.20	0.00	3830.40
Drispac	95	0	0.0	0	308.36	0.00	29294.20
Gel	291	0	0.0	0	20.00	0.00	5820.00
Gypsum	11	0	0.0	0	18.60	0.00	204.60
Kelzan	12	0	0.0	0	668.80	0.00	8025.60
Lignite	192	0	0.0	0	18.56	0.00	3563.52
Lime	5	0	0.0	0	13.92	0.00	69.60
Lime	6	0	0.0	0	20.56	0.00	123.36
Lime	23	0	0.0	0	13.92	0.00	320.16
Lime	1	0	0.0	0	20.56	0.00	20.56
Percol 728	16	0	0.0	0	462.64	0.00	7402.24
Pot Sulf	1874	0	0.0	0	30.16	0.00	56519.84
Saf-Kote	15	0	0.0	0	244.20	0.00	3663.00
Sawdust	30	0	0.0	0	7.60	0.00	228.00
Sil Defoam	2	0	0.0	0	191.60	0.00	383.20
Sod Sulf	150	0	0.0	0	68.52	0.00	10278.00
Soda Ash	30	0	0.0	0	25.00	0.00	750.00
Starpak	92	0	0.0	0	158.96	0.00	14624.32
Sulf-Acid	13	0	0.0	0	72.40	0.00	941.20
Sulf-Acid	2	0	0.0	0	91.20	0.00	182.40
Torq 2000	11	0	0.0	0	183.40	0.00	2017.40
Ultra Seal	35	0	0.0	0	106.20	0.00	3717.00
Walnut	15	0	0.0	0	38.60	0.00	579.00
	14682	0					480277.56

ATTACHMENT #6

END WELL REPORT
Canadian Forest Oil Ltd.
CDN FOREST ET AL NORTH LIARD C-31A

Formation Leak-Off Test (FLOT):

Test No.	Depth (mKB)	Fluid Density (kg/m^3)	Applied Pressure (kPa)	Leak-Off Gradient (kPa/m)	Mud Weight Equivalent (kg/m^3)	Last Casing Depth (mKB)
1	2365	1125	8000	14.4	1469	710

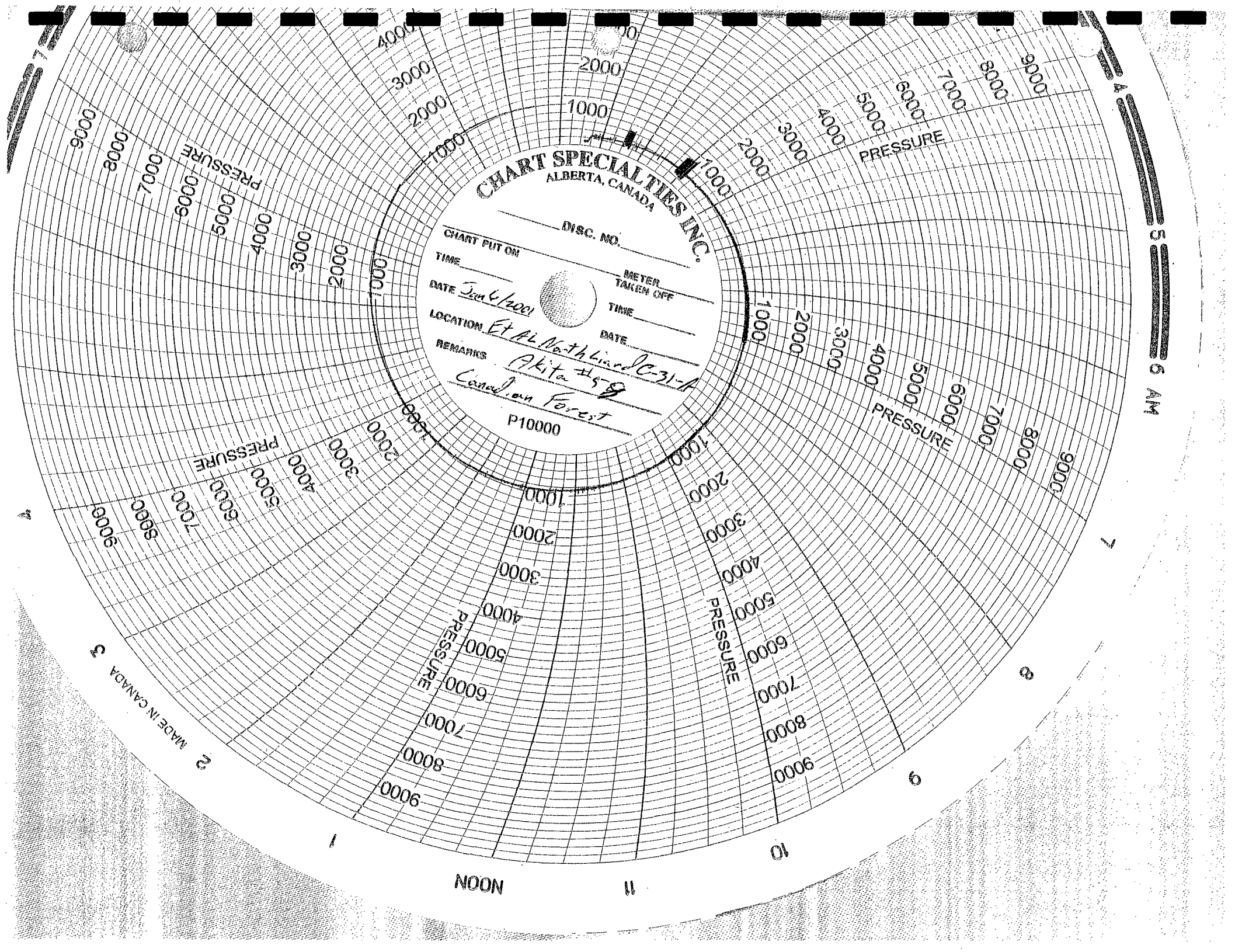


CHART SPECIALTIES INC.
ALBERTA, CANADA
DISC. NO.
CHART PUT ON
TIME
METER TAKEN OFF
DATE Jan 6/2001
TIME
DATE
LOCATION Et Al North Lindbergh C-31-A
REMARKS Akita #98
Canadian Forest
P10000
MADE IN CANADA
PRESSURE
NOON
AM

FORMATION PRESSURE TEST

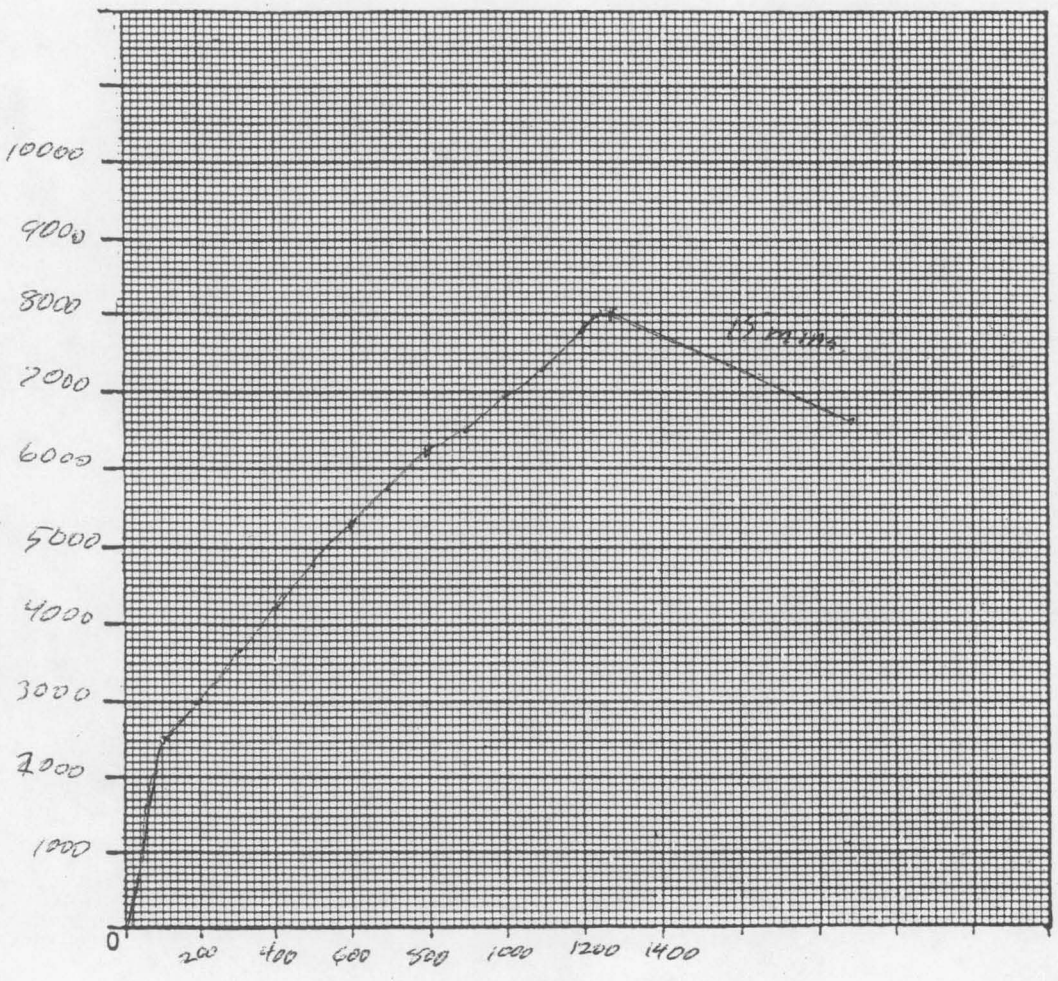
WELL: CDN Forest Et Al North Liard C-31-A DATE: (y-m-d) 2001 - 01 - 06

MAXIMUM TEST PRESSURE – LESSER OF

(1) B.O.P. Rating ---------- 35000 kPa (1)

(2) Weakest Casing: 244.5 mm 80 kg/m HCL Grade

Burst Rating (kPa) 55000 x 0.75 = 41250 kPa (2)



VOL PUMPED Litres	PRESSURE kPa
100	2500
200	3000
300	3650
400	4200
500	4800
600	5250
700	5750
800	6200
900	6500
1000	6950
1100	7300
1200	7800
1340	8000
1270	8000

Depth of casing	a)		2365	m	
Mud gradient	b)	(1125 kg/m³ mud density x 0.00981)	11.04	kPa/m	
Hydrostatic pressure	c)	(a x b)	26100	kPa	
Leak-off pressure	d)	(see note below)	8000	kPa	
Total pressure (at shoe)	e)	(c + d)	34100	kPa	
Formation gradient	f)	(e÷a)	14.41	kPa/m	
Maximum allowable mud density with no annulus pressure	g)	(f÷ 0.00981)	1469	kg/m³	

Note: The last point ON the straight line plotted above is the leak-off pressure that you enter in line (d)

Attachment #7

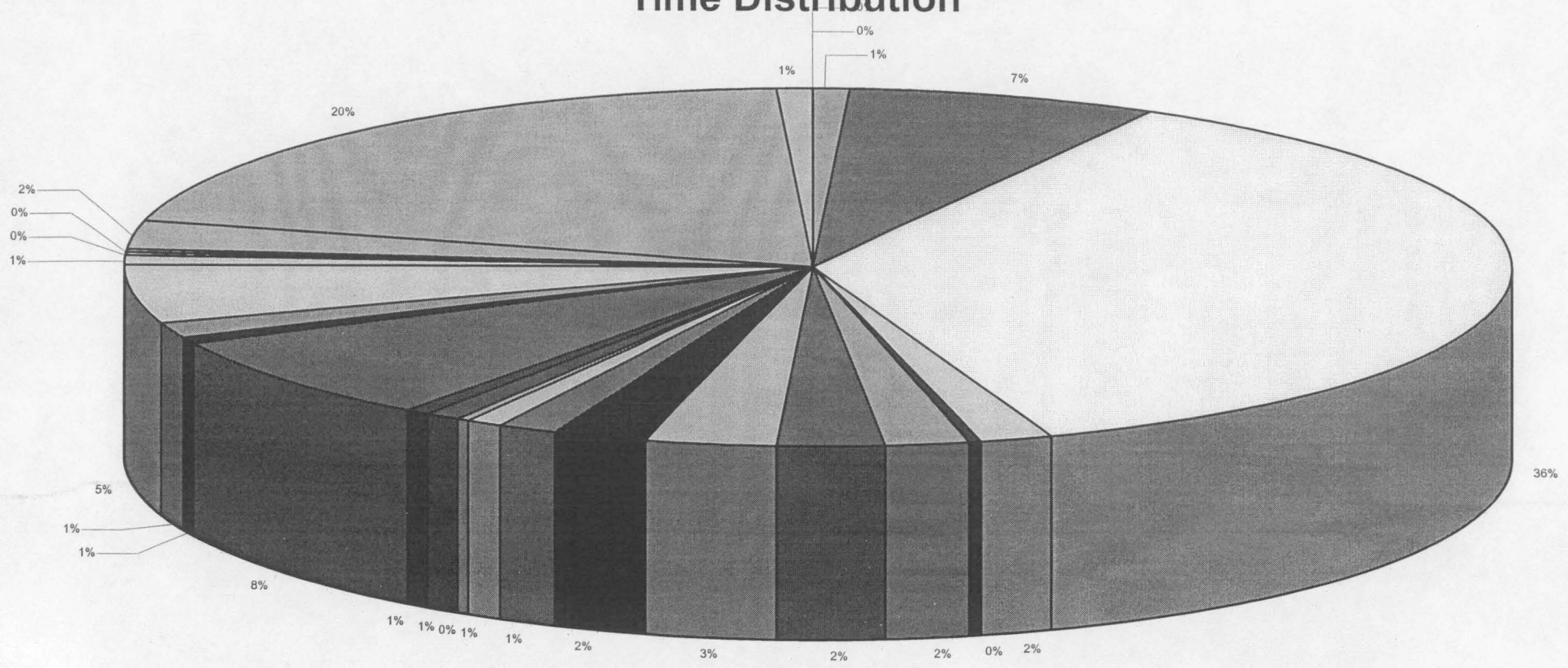
End Well Report
Canadian Forest Oil Ltd.
CDN Forest et al North Liard C-31-A

Time Distribution

Operation Type	Hours	Percentage
BOPs	21.50	0.95%
Circulate	161.50	7.16%
Drilling	819.25	36.31%
Cementing	36.25	1.61%
Clean to bottom	7.25	0.32%
Condition Mud	46.25	2.05%
Fishing	53.00	2.35%
Handling tools	73.25	3.25%
Gyro	45.50	2.02%
Logging	33.50	1.48%
Milling	17.75	0.79%
Plugs	8.25	0.37%
Pressure test	17.00	0.75%
repairs	14.50	0.64%
Reaming	173.50	7.69%
Rig inspection	14.25	0.63%
Rig service	33.00	1.46%
Rig up and down	114.00	5.05%
Stuck Pipe	23.25	1.03%
Safety Meetings	3.50	0.16%
Slip & cut	8.75	0.39%
Surveying	52.25	2.32%
Tripping	460.00	20.39%
Wait on Tools	17.00	0.75%
Wait on Orders	1.75	0.08%
Total Hours	2256.00	100.00%

Attachment #8

Time Distribution



PAJAK ENGINEERING LTD.

R I G A C T I V I T Y S U M M A R Y

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E
LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Jul 16 14:39:13 2001

HOLE SECTION	ACTIVITY	HOURS	PERCENTAGE
MAIN	BLOW T.D.	0.25	0.0
	BOP CHECK	0.50	0.0
	BOP DRILL	1.50	0.1
	BOP TEST	5.00	0.2
	CEMENTING	1.25	0.1
	CIRCULATE	153.00	6.8
	CLEAN TANK	3.75	0.2
	CLN TO BTM	3.25	0.1
	COND MUD	46.25	2.1
	DIR WORK	11.00	0.5
	DIR.WORK	1.25	0.1
	DRILLING	807.00	35.8
	FIND PLUG	2.00	0.1
	FISHING	53.00	2.3
	FLOW CHECK	3.25	0.1
	GAMMA	4.25	0.2
	GAMMA LOG	1.75	0.1
	GYRO	45.50	2.0
	H2S DRILL	0.50	0.0
	HNDL TOOLS	69.50	3.1
	INSPECTION	14.25	0.6
	JARING	47.25	2.1
	JARRING	3.75	0.2
	L/D TOOLS	1.75	0.1
	LOGGING	26.75	1.2
	LOST CIRC	2.00	0.1
	MILLING	17.75	0.8
	MWD	0.25	0.0
	MWD SCREEN	1.00	0.0
	N/D BOPS	11.75	0.5
	ORIENTATE	0.25	0.0
	PIPESCREEN	0.25	0.0
	PLUGGEDMWD	4.75	0.2
	PRESS TEST	17.00	0.8
	PU/LD PIPE	25.00	1.1
	RE-LOG	0.75	0.0
	REAMING	120.25	5.3
	REPAIRS	14.50	0.6
	RIG SERV	33.00	1.5
	RIG UP/DN	114.00	5.1
	SAFETY MTG	2.75	0.1
	SAFTEY MTG	0.25	0.0
	SCREEN	0.25	0.0
	SET B PLUG	0.25	0.0
	SLIP & CUT	8.75	0.4
	STUCK PIPE	22.00	1.0
	STUCKPIPE	1.25	0.1
	SURVEYING	30.50	1.4
	TAG CEMENT	2.50	0.1

TRIPPING	435.00	19.3

PAJAK ENGINEERING LTD.

R I G A C T I V I T Y S U M M A R Y

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E
LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Jul 16 14:39:13 2001

HOLE SECTION	ACTIVITY	HOURS	PERCENTAGE	
	Try circ.	3.00	0.1	
	W.O.C.	32.50	1.4	
	W.O.O.	1.75	0.1	
	W.O.T.	17.00	0.8	
	WASH	0.25	0.0	
	WELL HEAD	2.75	0.1	
	WIRE LINE	12.75	0.6	
	WIRELINE	9.00	0.4	
	WORKPACKER	1.25	0.1	
		2256.00	100.0	100.0%
TOTAL	BLOW T.D.	0.25	0.0	
	BOP CHECK	0.50	0.0	
	BOP DRILL	1.50	0.1	
	BOP TEST	5.00	0.2	
	CEMENTING	1.25	0.1	
	CIRCULATE	153.00	6.8	
	CLEAN TANK	3.75	0.2	
	CLN TO BTM	3.25	0.1	
	COND MUD	46.25	2.1	
	DIR WORK	11.00	0.5	
	DIR.WORK	1.25	0.1	
	DRILLING	807.00	35.8	
	FIND PLUG	2.00	0.1	
	FISHING	53.00	2.3	
	FLOW CHECK	3.25	0.1	
	GAMMA	4.25	0.2	
	GAMMA LOG	1.75	0.1	
	GYRO	45.50	2.0	
	H2S DRILL	0.50	0.0	
	HNDL TOOLS	69.50	3.1	
	INSPECTION	14.25	0.6	
	JARING	47.25	2.1	
	JARRING	3.75	0.2	
	L/D TOOLS	1.75	0.1	
	LOGGING	26.75	1.2	
	LOST CIRC	2.00	0.1	
	MILLING	17.75	0.8	
	MWD	0.25	0.0	
	MWD SCREEN	1.00	0.0	
	N/D BOPS	11.75	0.5	
	ORIENTATE	0.25	0.0	
	PIPESCREEN	0.25	0.0	
	PLUGGEDMWD	4.75	0.2	
	PRESS TEST	17.00	0.8	
	PU/LD PIPE	25.00	1.1	
	RE-LOG	0.75	0.0	

PAJAK ENGINEERING LTD.

R I G A C T I V I T Y S U M M A R Y

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E
LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Jul 16 14:39:13 2001

HOLE SECTION	ACTIVITY	HOURS	PERCENTAGE	
	REAMING	120.25	5.3	
	REPAIRS	14.50	0.6	
	RIG SERV	33.00	1.5	
	RIG UP/DN	114.00	5.1	
	SAFETY MTG	2.75	0.1	
	SAFTEY MTG	0.25	0.0	
	SCREEN	0.25	0.0	
	SET B PLUG	0.25	0.0	
	SLIP & CUT	8.75	0.4	
	STUCK PIPE	22.00	1.0	
	STUCKPIPE	1.25	0.1	
	SURVEYING	30.50	1.4	
	TAG CEMENT	2.50	0.1	
	TIGHT HOLE	2.25	0.1	
	TRIPPING	435.00	19.3	
	Try circ.	3.00	0.1	
	W.O.C.	32.50	1.4	
	W.O.O.	1.75	0.1	
	W.O.T.	17.00	0.8	
	WASH	0.25	0.0	
	WELL HEAD	2.75	0.1	
	WIRE LINE	12.75	0.6	
	WIRELINE	9.00	0.4	
	WORKPACKER	1.25	0.4	
		2256.00	100.0	100.0%

TOTAL ESTIMATED: 2640.00 Hours

VARIANCE: 384.00 Hours

PAJAK ENGINEERING LTD.

S U R V E Y R E C O R D (Minimum curvature method)

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E

LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Nov 05 08:47:23 2001

Target not specified.

#	DEPTH (m)	DRIFT(m)	TRUE BEARING (deg)	V.SECT. (m)	--DEFLECTION (m)- N+ S-	E+ W-	TRUE DEPTH (m)	DLS (d/30m)
271	2561.70	28.80	264.00	253.69	-35.69	-251.17	2539.30	0.876
272	2571.60	29.50	264.90	258.51	-36.16	-255.97	2547.95	2.503
273	2581.40	29.50	265.00	263.33	-36.58	-260.77	2556.48	0.151
274	2591.00	29.60	264.70	268.06	-37.01	-265.49	2564.83	0.558
275	2601.50	29.40	266.60	273.22	-37.40	-270.64	2573.97	2.733
276	2610.00	29.00	268.20	277.35	-37.59	-274.79	2581.39	3.096
277	2619.70	28.90	268.60	282.01	-37.72	-279.48	2589.87	0.674
278	2629.16	29.00	269.10	286.56	-37.81	-284.06	2598.15	0.830
279	2638.70	29.10	269.10	291.16	-37.88	-288.69	2606.49	0.314
281	2648.28	29.20	268.20	295.80	-37.99	-293.35	2614.86	1.408
281	2654.00	29.50	267.50	298.60	-38.10	-296.16	2619.84	2.390
282	2657.50	29.60	267.20	300.32	-38.18	-297.88	2622.89	1.531
283	2666.90	30.10	267.00	304.98	-38.42	-302.55	2631.04	1.627
285	2676.68	30.00	266.60	309.87	-38.69	-307.44	2639.51	0.687
286	2689.00	30.80	270.10	316.07	-38.87	-313.67	2650.13	4.732
286	2696.30	30.00	270.10	319.74	-38.86	-317.37	2656.43	3.288
287	2705.77	29.70	272.30	324.40	-38.76	-322.08	2664.64	3.597
288	2717.10	28.70	271.40	329.87	-38.58	-327.60	2674.53	2.892
290	2723.90	28.30	276.30	333.05	-38.37	-330.84	2680.51	10.462
291	2733.50	28.80	277.90	337.51	-37.80	-335.39	2688.94	2.855
291	2743.10	29.70	277.50	342.06	-37.17	-340.04	2697.32	2.878
292	2752.80	30.90						
293	2762.40	32.40						
294	2772.10	33.00	273.00	356.86	-35.82	-355.05	2722.09	4.184
299	2781.20	33.80	271.90	361.81	-35.61	-360.06	2729.68	3.308
296	2790.90	33.90	271.70	367.17	-35.44	-365.46	2737.74	0.463
297	2800.60	33.10	272.30	372.48	-35.25	-370.81	2745.83	2.678
298	2810.30	32.50	271.40	377.69	-35.08	-376.06	2753.98	2.391
299	2820.00	32.50	270.90	382.87	-34.97	-381.27	2762.16	0.831
300	2829.70	33.20	270.30	388.11	-34.92	-386.53	2770.31	2.387
301	2839.40	34.00	270.00	393.45	-34.91	-391.90	2778.39	2.527
302	2849.10	34.70	267.90	398.91	-35.01	-397.37	2786.40	4.256
303	2858.80	35.30	269.30	404.46	-35.14	-402.93	2794.34	3.100
304	2868.50	36.00	269.30	410.10	-35.21	-408.59	2802.23	2.165
305	2878.20	36.20	269.40	415.80	-35.28	-414.30	2810.06	0.645
311	2888.29	36.00	270.50	421.72	-35.28	-420.25	2818.22	2.017
312	2898.00	36.00	272.40	427.40	-35.14	-425.95	2826.07	3.450
308	2907.75	36.00	271.50	433.09	-34.94	-431.68	2833.96	1.628
309	2917.40	35.20	273.30	438.67	-34.71	-437.29	2841.81	4.098
310	2927.13	35.10	272.80	444.22	-34.41	-442.88	2849.76	0.940

PAJAK ENGINEERING LTD.

F O R M A T I O N T O P S R E C O R D

WELL NAME: CDN FOREST ET AL NORTH LIARD C-31-A AFE: 004009
RIG: 58E

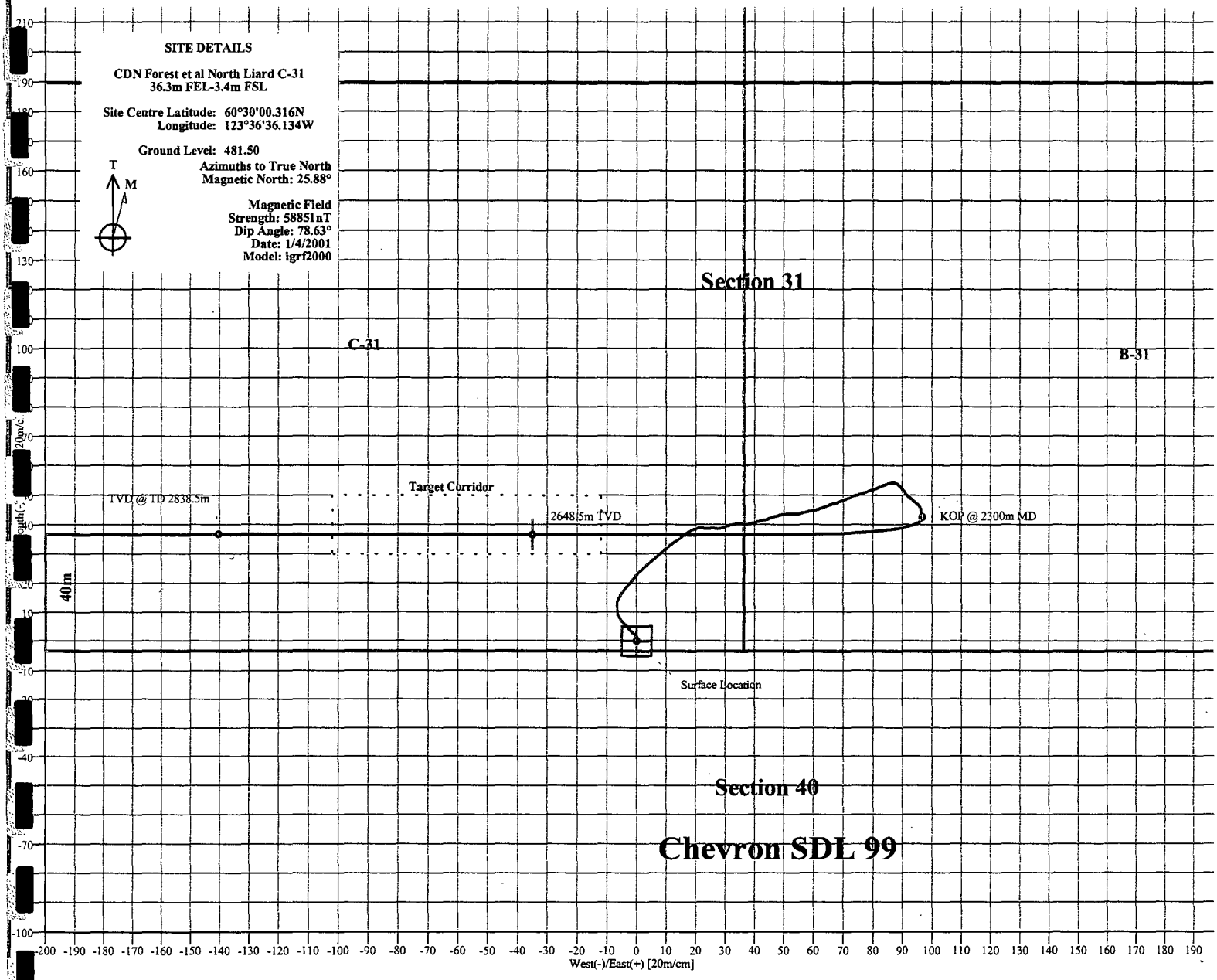
LOCATION: 300-C31-6040-12330-0 CONTRACTOR: AKITA DRILLING LTD.

Mon Nov 05 08:47:23 2001

DAY	FORMATION	TOP (MD M)	TOP (TVD M)
154	Horn River	2367.8	0.0

Canadian Forest Oil Ltd.

Field: North Liard
Site: CDN Forest et al North Liard C-31
Well: Grid Area N60/40 W123/30
Wellpath: 3134 ST
Plan: Plan #3



Plan: Plan #3 (Grid Area N60/40 W123/30/3134 ST)

Created By: Jason Sullivan **Date: 2/6/2001**

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site Centre CDN Forest et al North Liard C-31, True North
Vertical (TVD) Reference: RKB 485.00
Section (VS) Reference: Site Centre (0.00N,0.00E)
Measured Depth Reference: RKB 485.00
Calculation Method: Minimum Curvature

Ryan The leader in UNDERGROUND INTELLIGENCE™
Ryan Energy Technologies Inc.
Suite 700, 505 – 2nd Street SW

Ryan Energy Technologies Inc
Planning Report

Company:	Canadian Forest Oil Ltd.	**Date:** 2/6/2001	**Time:** 08:46:06	**Page:**	1
Field:	North Liard	**Co-ordinate(NE) Reference:**	Site: CDN Forest et al North Liard C-31		
Site:	CDN Forest et al North Liard C-31	**Vertical (TVD) Reference:**	RKB 485.0		
Well:	Grid Area N60/40 W123/30	**Section (VS) Reference:**	Site (0.00N,0.00E,316.28Azi)		
Wellpath:	3134 ST	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey:		**Start Date:**	
Company:		**Engineer:**	
Tool:		**Tied-to:**	

Site:	CDN Forest et al North Liard C-31				
	36.3m FEL-3.4m FSL				
Site Position:		**Northing:**	6707262.22 m	**Latitude:**	60 30 0.316 N
From:	Geographic	**Easting:**	466488.71 m	**Longitude:**	123 36 36.134 W
Position Uncertainty:	0.00 m			**North Reference:**	True
Ground Level:	481.50 m			**Grid Convergence:**	-0.53 deg

Wellpath:	3134 ST			**Drilled From:**	3134 OH
				Tie-on Depth:	2300.00 m
Current Datum:	RKB	**Height**	485.00 m	**Above System Datum:**	Mean Sea Level
Magnetic Data:	1/4/2001			**Declination:**	25.88 deg
Field Strength:	58851 nT			**Mag Dip Angle:**	78.63 deg

Vertical Section:	**Depth From (TVD)** m	**+N/-S** m	**+E/-W** m	**Direction** deg
	2648.50	0.00	0.00	316.28

Plan:	Plan #3	**Date Composed:**	1/4/2001
		Version:	1
Principal:	Yes	**Tied-to:**	From: Definitive Path

Plan Section Information

MD m	Incl deg	Azim deg	TVD m	+N/-S m	+E/-W m	DLS deg/30m	Build deg/30m	Turn deg/30m	TFO deg	Target
2300.00	3.19	167.63	2294.32	42.62	96.65	0.000	0.000	0.000	0.00	
2523.90	29.02	270.09	2508.87	36.48	42.45	4.000	3.460	13.728	107.92	
2683.57	29.02	270.09	2648.50	36.60	-35.00	0.000	0.000	0.000	0.00	2648.5m TVD
2900.84	29.02	270.09	2838.50	36.76	-140.39	0.000	0.000	0.000	0.00	

Survey

MD m	Incl deg	Azim deg	TVD m	VS m	N/S m	E/W m	DLS deg/30m	Build deg/30m	Turn deg/30m	Sys TVD m	Comment
2300.00	3.19	167.63	2294.32	-36.00	42.62	96.65	0.000	0.000	0.000	1809.32	KOP @ 2300m MD
2320.00	3.47	214.62	2314.29	-36.59	41.58	96.43	4.000	0.421	70.485	1829.29	
2350.00	6.44	247.56	2344.18	-36.17	40.19	94.35	4.000	2.971	32.943	1859.18	
2380.00	10.14	258.34	2373.86	-34.15	39.01	90.21	4.000	3.703	10.773	1888.86	
2410.00	14.01	263.31	2403.19	-30.56	38.05	84.01	4.000	3.866	4.969	1918.19	
2440.00	17.93	266.15	2432.03	-25.41	37.32	75.79	4.000	3.924	2.840	1947.03	
2470.00	21.89	267.99	2460.23	-18.73	36.81	65.59	4.000	3.951	1.844	1975.23	
2500.00	25.85	269.29	2487.66	-10.54	36.54	53.46	4.000	3.965	1.302	2002.66	
2523.90	29.02	270.09	2508.87	-2.97	36.48	42.45	4.005	3.978	1.002	2023.87	
2530.00	29.02	270.09	2514.20	-0.93	36.48	39.49	0.017	-0.017	-0.005	2029.20	
2560.00	29.02	270.09	2540.44	9.15	36.51	24.94	0.000	0.000	0.000	2055.44	
2590.00	29.02	270.09	2566.67	19.22	36.53	10.39	0.000	0.000	0.000	2081.67	
2620.00	29.02	270.09	2592.91	29.30	36.55	-4.16	0.000	0.000	0.000	2107.91	
2650.00	29.02	270.09	2619.14	39.37	36.57	-18.72	0.000	0.000	0.000	2134.14	
2680.00	29.02	270.09	2645.38	49.44	36.60	-33.27	0.000	0.000	0.000	2160.38	
2683.57	29.02	270.09	2648.50	50.64	36.60	-35.00	0.029	0.029	0.008	2163.50	2648.5m TVD
2710.00	29.02	270.09	2671.61	59.52	36.62	-47.82	0.004	-0.004	-0.001	2186.61	
2740.00	29.02	270.09	2697.85	69.59	36.64	-62.37	0.000	0.000	0.000	2212.85	
2770.00	29.02	270.09	2724.08	79.66	36.67	-76.92	0.000	0.000	0.000	2239.08	
2800.00	29.02	270.09	2750.31	89.74	36.69	-91.48	0.000	0.000	0.000	2265.31	
2830.00	29.02	270.09	2776.55	99.81	36.71	-106.03	0.000	0.000	0.000	2291.55	
2860.00	29.02	270.09	2802.78	109.88	36.73	-120.58	0.000	0.000	0.000	2317.78	
2890.00	29.02	270.09	2829.02	119.96	36.76	-135.13	0.000	0.000	0.000	2344.02	
2900.84	29.02	270.09	2838.50	123.60	36.76	-140.39	0.010	0.010	0.003	2353.50	

Ryan Energy Technologies Inc
Planning Report

Company:	Canadian Forest Oil Ltd.	**Date:** 2/6/2001	**Time:** 08:46:06	**Page:**	2
Field:	North Liard	**Co-ordinate(NE) Reference:**	Site: CDN Forest et al North Liard C-31		
Site:	CDN Forest et al North Liard C-31	**Vertical (TVD) Reference:**	RKB 485.0		
Well:	Grid Area N60/40 W123/30	**Section (VS) Reference:**	Site (0.00N,0.00E,316.28Azi)		
Wellpath:	3134 ST	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Targets

Name	Description	TVD m	+N/-S m	+E/-W m	Map Northing m	Map Easting m	<— Latitude —> Deg Min Sec	<— Longitude —> Deg Min Sec
2648.5m TVD -Plan hit target		2648.50	36.60	-35.00	6707299.14	466454.05	60 30 1.499 N	123 36 38.428 W

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

ATTACHMENT #11

(Previously submitted on September 17, 2001 with Final Well Report for

CDN FOREST et al NORTH LIARD C-31).

ATTACHMENT #12

OPEN HOLE LOGS

COPIES OF THE LOGS ARE IN ONLY ONE COPY OF THE FINAL WELL REPORT
SHOULD YOU REQUIRE ADDITIONAL COPIES, PLEASE CONTACT
CANADIAN FOREST OIL LTD.

ATTACHMENT #13

NONE

ATTACHMENT #14

VSP & SURVEYS/OTHER LOGS

SUBMITTED UNDER SEPARATE COVER

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**January 12, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 159 thru 165

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**CNRL** 2500, 855 – 2nd Street SW Calgary, Alberta T2P 4J8
Attn:	**Tony Sabelli**
Date:	

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 166 thru 172

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**January 22, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 173 thru 179

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**January 30, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 180 thru 186

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**February 5, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 185 thru 193

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM
Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**February 16, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31
Geological Reports 194 thru' 200

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**February 21, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 201 thru 207

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**February 27, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 208 thru' 214

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**March 5, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 215 thru 221

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**March 12, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 222 thru 228

A copy of this transmittal is on file at our office.

Please call Susan Jones at 292-8151 if you have any problems.

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**March 23, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 229 thru 235

Please sign and return fax to 292-8145 attention Susan Jones.

Signature:_____ **Date:**_____

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**March 29, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 236 thru 241

Please sign and return fax to 292-8145 attention Susan Jones.

Signature:_____ **Date:**_____

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**April 4, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

Geological Reports 242

Please sign and return fax to 292-8145 attention Susan Jones.

Signature:_____ **Date:**_____

DATA TRANSMITTAL FORM

Canadian Forest Oil Ltd.
600, 800 – 6th Avenue SW
Calgary, Alberta
T2P 3G3
(403) 292-8000

To:	**N.E.B.** 444 – Seventh Avenue SW Calgary, Alberta T2P 0X8
Attn:	**Andy Graw**
Date:	**April 11, 2001**

Enclosed please find the following information pertaining to the captioned well(s):

Cdn Forest et al North Liard C-31

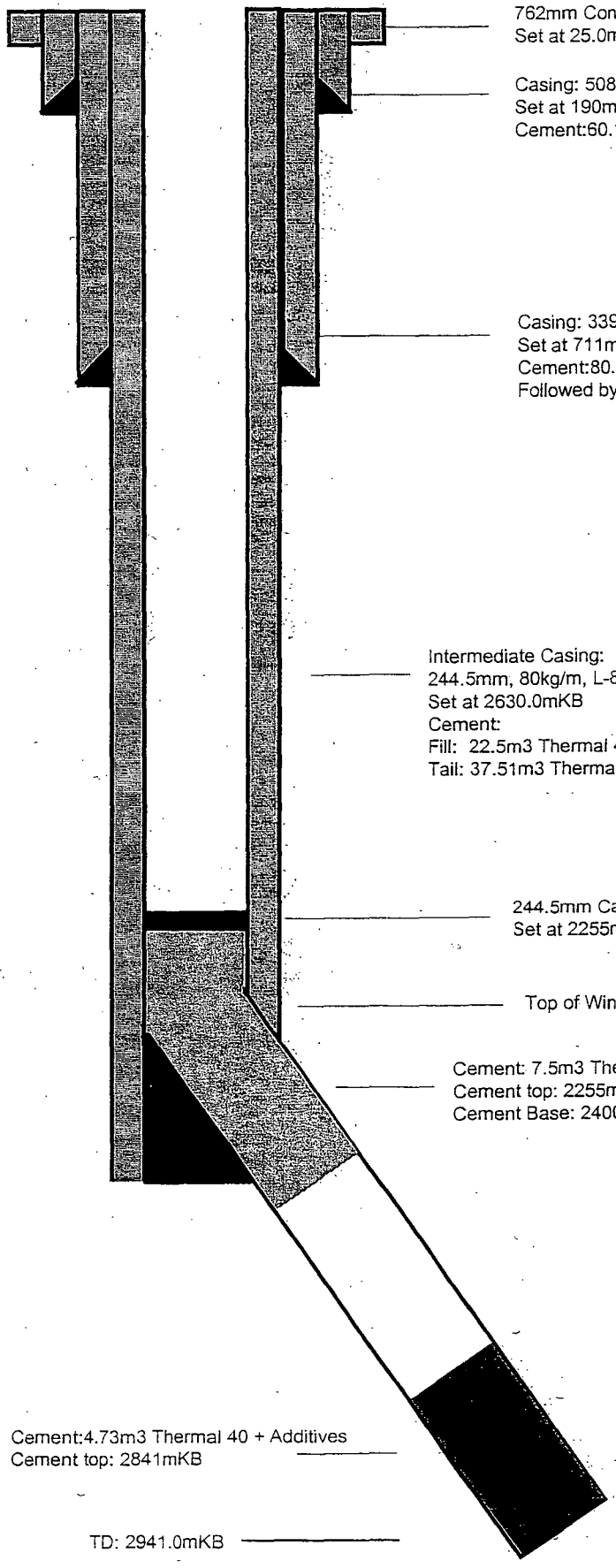
Geological Well Report x 2

Please sign and return fax to 292-8145 attention Susan Jones.

Signature:_____ **Date:**_____

ATTACHMENT #17

WELLBORE SCHEMATIC
CDN Forest et al North Liard C-31-A



762mm Conductor Pipe
Set at 25.0m. 0:1:0 'G' + 3% CaCl2

Casing: 508mm, 196.0kg/m, K-55, BT&C
Set at 190mKB
Cement:60.12m3 0:1:0 Class "G" + 1% CaCl2

Casing: 339.7mm, 101.2kg/m, K-55, BT&C
Set at 711mKB
Cement:80.4m3 0:1:0 Class "G" + additives
Followed by 6.6m3 0:1:0 "G" + additives

Intermediate Casing:
244.5mm, 80kg/m, L-80HC
Set at 2630.0mKB
Cement:
Fill: 22.5m3 Thermal 40 + additives
Tail: 37.51m3 Thermal 40 + additives

244.5mm Cast Iron Bridge Plug
Set at 2255mKB

Top of Window at 2300mKB

Cement: 7.5m3 Thermal 40 + Additives
Cement top: 2255mKB
Cement Base: 2400mKB

Cement:4.73m3 Thermal 40 + Additives
Cement top: 2841mKB

TD: 2941.0mKB

ABB Vetco Gray Canada Inc.

Quotation 00-8410

2000, 520 - 5th Avenue S.W. • Calgary, Alberta • T2P 3R7
Phone: (403) 264-4146 • Fax: (403) 269-4224
1-800-925-6024

Date: May 4, 2000

To: Canadian Forest Oil Ltd. c/o Pajak Engineering

Attention: Mr. Gerard Geib

Reference: North Liard "C-31"

F.O.B.Point: Edmonton, Alberta.

Delivery: Casing Head Assembly – 1 week

Well Head Assembly – 10 weeks

Payment Terms: Net 30 Days

Quotation Validity: 90 Days

Account Representative: Mr. Bill Rathgeber

Per Standard ABB Vetco Gray Canada Terms And Conditions Attached

Item	Qty	Description	Unit	Total
1.	1	ABB VG-100 casing bowl: 13 5/8" 5000# x 13 3/8" ODSO c/w 2- 2 1/16" 5000# SSO & 2 lockdown screws L, DD, PR-1, PSL-2	4613.40	4613.40
2.	1	ABB VG-100A automatic slips: 13 5/8" x 9 5/8" L, DD, PR-1, PSL-2	2459.16	2459.16
3.	2	ABB VGC gate valve: 2 1/16" 5000# flanged full opening, L, DD, PR-1, PSL-2	2380.28	4760.56
4.	2	Companion flange: 2 1/16" 5000# x 2" LP L, DD, PR-1, PSL-2	131.67	263.34
5.	2	Bull plug: 2" LP XXH solid	22.50	45.00

Item	Qty.	Description	Unit	Total
6.	2	L7 studs c/w 2- 2H nuts: 7/8" x 6" long, set of 8	38.70	77.40
7.	4	R-24 stainless steel ring gaskets	44.10	176.40
8.	1	BX-160 stainless steel ring gasket	349.20	349.20
9.	1	ABB VG-100 wear bushing: 13 5/8" Nom.	1166.40	1166.40
		Casing Subtotal:		**$13,910.86**
10.	1	ABB VG-OF tubing head: 13 5/8" 5000# x 11" 5000# c/w 2- 2 1/16" 5000# SSO L, DD, PR-1, PSL-3	6630.00	6630.00
11.	1	ABB GRF secondary seal: 13 5/8" x 9 5/8" c/w snap ring, L, DD, PR-1, PSL-2 c/w HSN rubber	845.00	845.00
12.	1	ABB XP-1 tubing hanger: 11" x 3 ½" NSCT extended neck up c/w 3 ½" NSCT suspension threads & 3" B.P.V threads L, DD, PR-1, PSL-3	2356.00	2356.00
13.	1	ABB XP-1 adapter flange: 11" 5000# x 3 1/8" 5000# SSU c/w seal pocket & test ports L, DD, PR-1, PSL-3	2537.35	2537.35
14.	1	ABB VG-230 gate valve: 3 1/8" 5000# flanged, full opening, P-U, EE1, PR-2, PSL-3 c/w S.S gate & seats, carbide coated, 718 Inconell stem, Eligioly seat springs, CT stem packing	8082.00	8082.00
15.	4	ABB VG-230 gate valve: 3 1/8" 5000# flanged, full opening, L, EE1, PR-2, PSL-2 c/w S.S gate & seats, carbide coated, 718 Inconell stem, Eligioly seat springs, CT stem packing	4856.00	19424.00

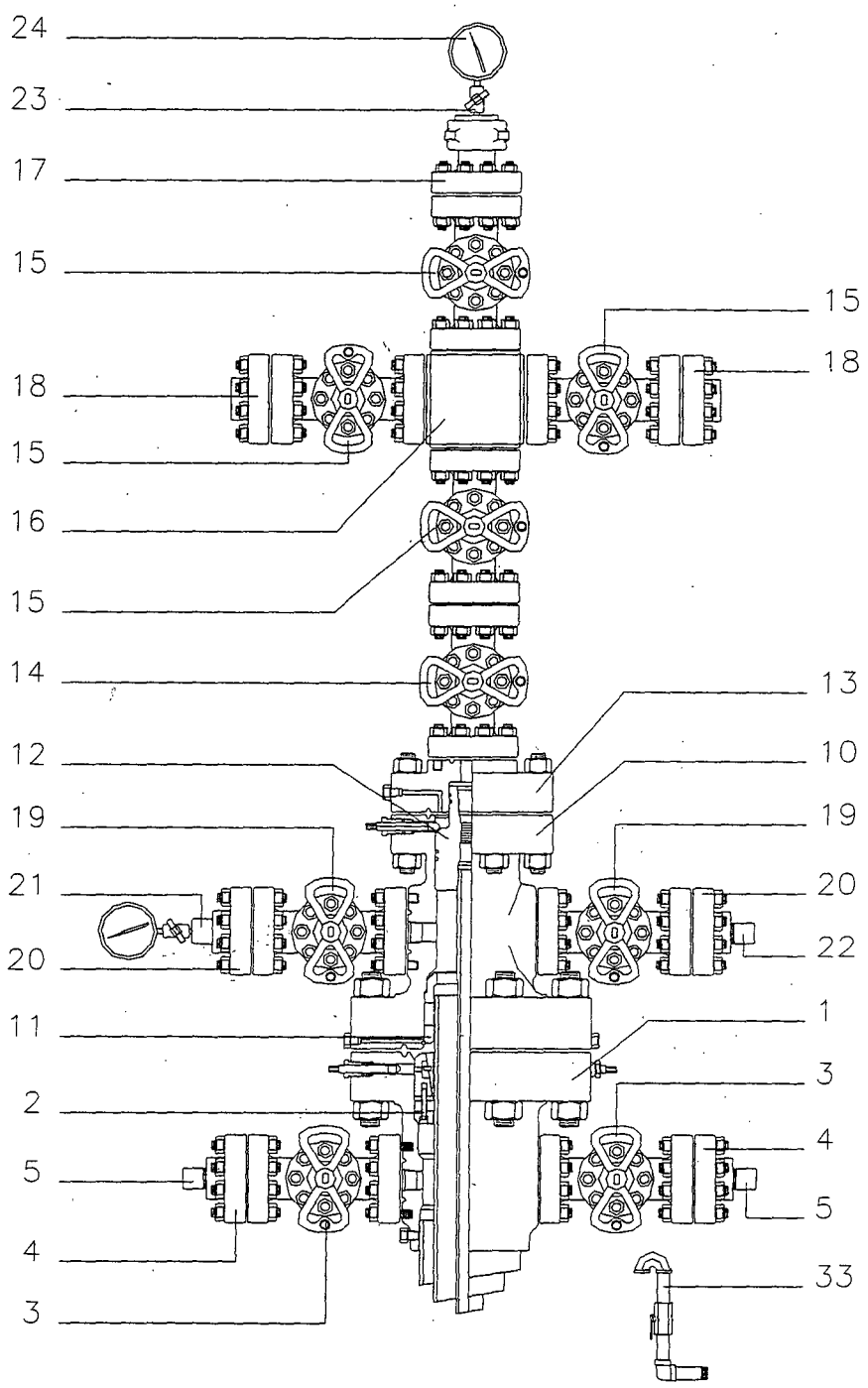
Item	Qty.	Description	Unit	Total
16.	1	ABB SC studded cross: 3 1/8" 5000# x 3 1/8" 5000# x 3 1/8" 5000# x 3 1/8" 5000# L, DD, PR-1, PSL-2, 4130 material	1851.88	1851.88
17.	1	ABB B.H.T.A bottom hole test adapter: 3 1/8" 5000# flanged c/w top cap ½" NPT tap & 3 ½" EUE internal lift threads L, DD, PR-1, PSL-2	777.48	777.48
18.	2	Companion flange: 3 1/8" 5000# x 3" LP L, DD, PR-1, PSL-2	474.30	948.60
19.	2	ABB VGC gate valve: 2 1/16" 5000# flanged, full opening L, DD, PR-1, PSL-2	2380.28	4760.56
20.	2	Companion flange: 2 1/16" 5000# x 2" LP PSL-2, L, DD, PR-1, PSL-2	131.67	263.34
21.	1	Bull plug: 2" LP XXH c/w ½" NPT tap	29.70	29.70
22.	1	Bull plug: 2" LP XXH solid	22.50	22.50
23.	2	Needle valve: ½" NPT straight , sour trim	121.50	243.00
24.	2	Pressure gauge: 0-5000# PSI sour trim	96.30	192.60
25.	4	R-24 stainless steel ring gasket	44.10	176.40
26.	9	R-35 stainless steel ring gasket	64.80	583.20
27.	1	R-54 stainless steel ring gasket	222.30	222.30
28.	1	BX-160 stainless steel ring gasket	349.20	349.20
29.	2	L7 studs c/w 2- 2H nuts: 7/8" x 6" long, set of 8	38.70	77.40
30.	4	L7 studs c/w 2- 2H nuts: 1 1/8" x 8" long, set of 8	80.10	320.40
31.	1	L7 studs c/w 2- 2H nuts: 1 7/8" x 13 ¾" long, set of 12	610.20	610.20
32.	1	L7 studs c/w 2- 2H nuts: 1 5/8" x 12 ½" long, set of 16	551.70	551.70
33.	1	Casing vent assembly, complete	214.20	214.20
		Wellhead Subtotal:		**$52,069.01**
		Assembly Total:		**$65,979.87**

Item	Qty.	Description	Unit	Total
		Optional Gate Valve:		
34.	1	ABB VG-231 gate valve: 3 1/8" 5000# flanged, full opening, P-U, EE1, PR-2, PSL-3 PR-2, c/w S.S gate & seat, carbide coated, 718 Inconell stem, Eligioly seat springs, CT stem packing fitted with hydraulic actuator, fail - closed, remote station, enclosed system		

Add GST

Additional Information: Kelly Hryniw 264-4146

Authorization:

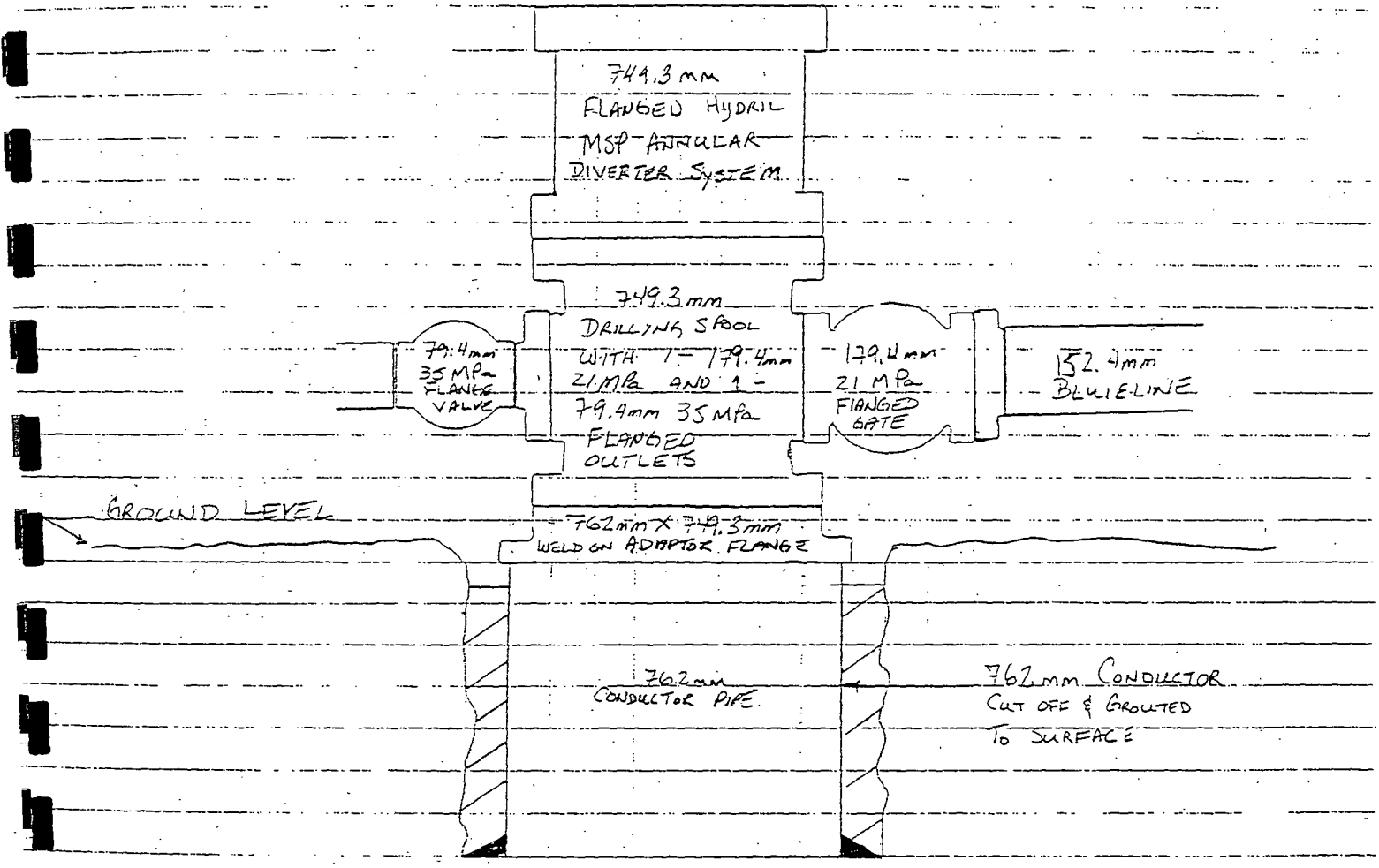


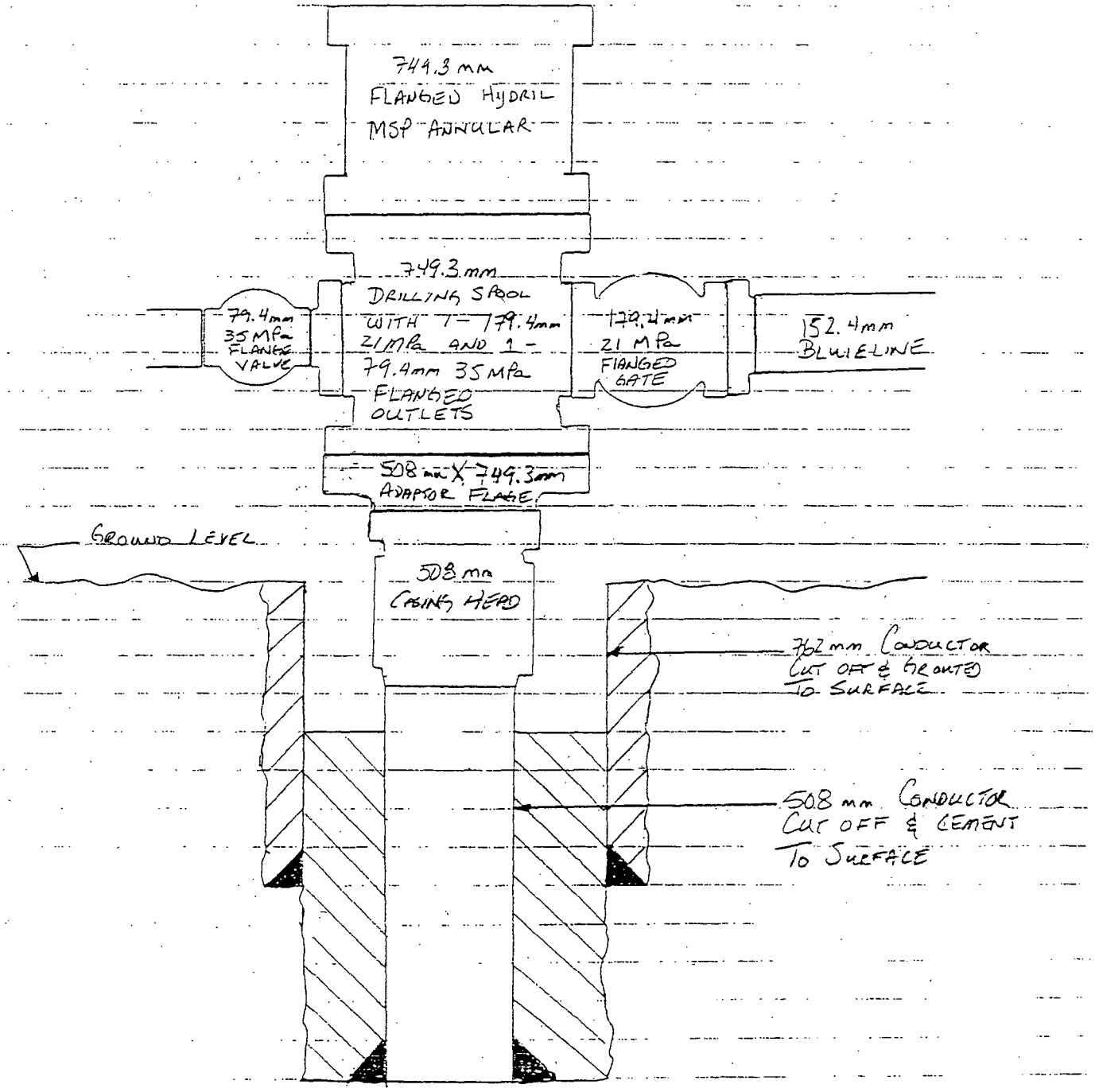
Quotation 00-8410
For: Canadian Forest Oil c/o Pajak Eng.
Attn: Mr. Gerard Geib
Re: North Liard "C-31"

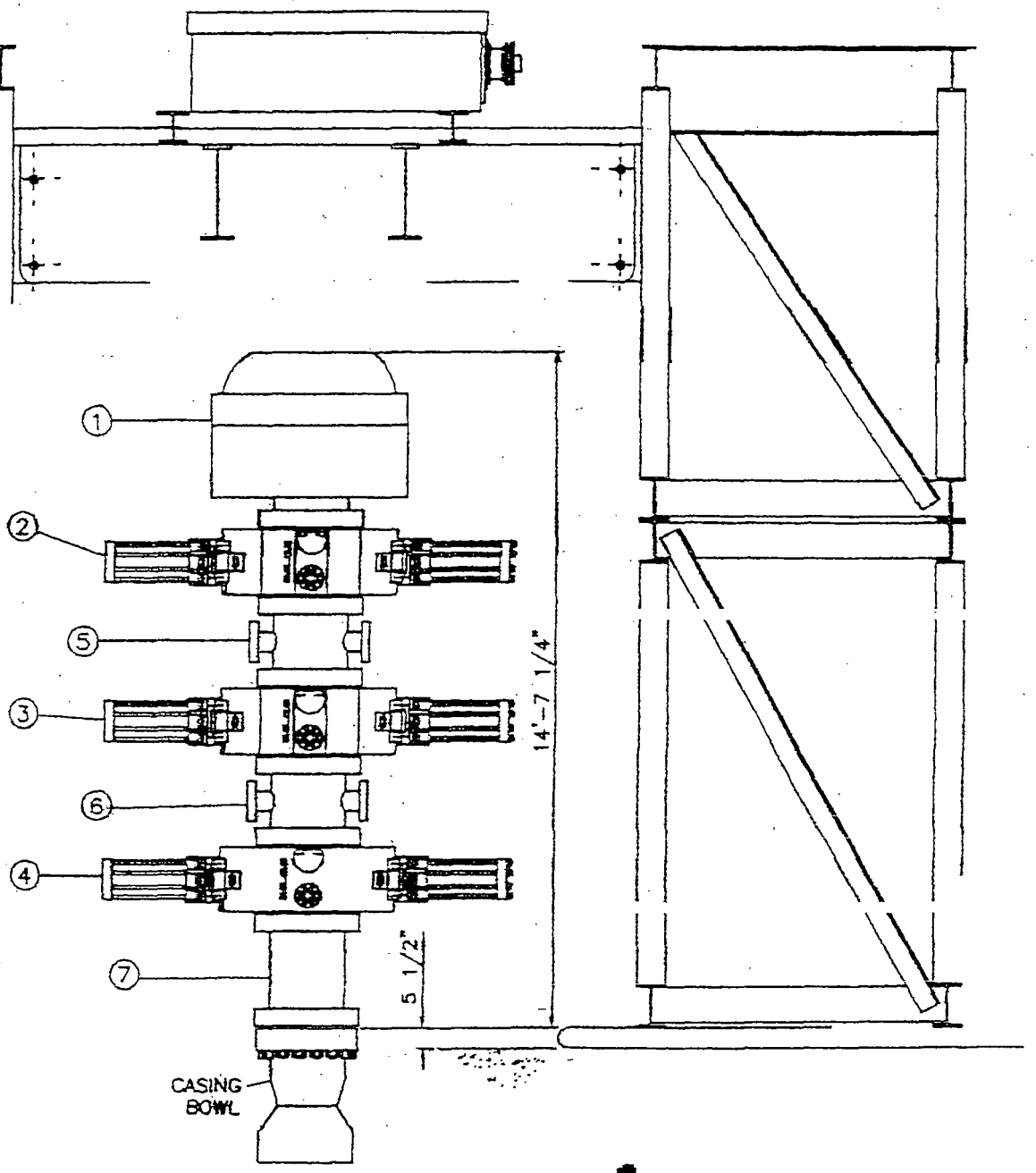
Vetco Gray Canada Inc.

VGC-155 Rev. A

USULBERG


749.3 mm
FLANGED HYDRIL
MSP ANNULAR
DIVERTER SYSTEM
749.3 mm
DRILLING SPOOL
WITH 1 - 179.4mm
21 MPa AND 1 -
79.4mm 35 MPa
FLANGED
OUTLETS
79.4mm
35 MPa
FLANGE
VALVE
179.4mm
21 MPa
FLANGED
GATE
152.4mm
BLUIE-LINE
GROUND LEVEL
762mm X 749.3mm
WELD ON ADAPTOR FLANGE
762mm
CONDUCTOR PIPE
762mm CONDUCTOR
CUT OFF & GROUTED
TO SURFACE


749.3 mm
FLANGED HYDRIL
MSP ANNULAR
749.3 mm
DRILLING SPOOL
WITH 1 - 179.4mm
21MPa AND 1 -
179.4mm 35 MPa
FLANGED
OUTLETS
179.4mm
35 MPa
FLANGE
VALVE
179.4mm
21 MPa
FLANGED
GATE
152.4mm
BLUELINE
508 mm X 749.3mm
ADAPTOR FLANGE
GROUND LEVEL
508 mm
CASING HEAD
762 mm CONDUCTOR
CUT OFF & GROUTED
TO SURFACE
508 mm CONDUCTOR
CUT OFF & CEMENT
TO SURFACE



ITEM	DESCRIPTION
1	13-5/8" 5000# SHAFFER ANNULAR
2	13 5/8" 5000# SHAFFER SL PIPE RAM
3	13 5/8" 5000# SHAFFER SL BLIND RAM
4	13 5/8" 5000# SHAFFER SL PIPE RAM
5	13 5/8" 5000# DRILLING SPOOL x 23" HIGH
6	13 5/8" 5000# DRILLING SPOOL x 23" HIGH
7	13 5/8" x 11" 5000# X-OVER SPOOL x 29" HIGH

AKITA DRILLING LTD.

RIG 58

SUB SECTION AT WELL

OCTOBER, 1998

FINAL SURVEY PLAN TO FOLLOW